

APPENDIX

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APPENDIX 1

Table A-1 List of published geological, economical, and political paper or reports about the central north area

TITLE	DATE	AUTHOR	SOURCE
A molybdenum-copper porphyry of the deposit Erdenetyn Ovoo(Mongolia)	1989	S.P. GAVRILOVA, I.E. MAKSIMUK, D. OROLMAA	Geological Ministry of USSR
Central Asian fold belt: Geodynamic evolution and formation history	1994	A. A. MOSSAKOVSKY, S. V. RUZHENTSEV, S. G. SAMYGIN, and T. N. KHERASKOVA	Geotectonics, English translation, vol.27, no.6
Endogenous rare metal ore formations and rare metal metallogeny of Mongolia	1995	V. I. KOVALENKO and V. V. YARMOLYUK	Economic Geology vol.90, pp.520-529
Erdenet-world's newest porphyry copper-moly mine	1982	George O. ARGALL, Jr.	World Mining (October), p.58-59
Extraction of clay mineral alteration zone in eastern Mongolia using JERS-1 data	1998	Takashi OOKA, Hideya METSUGI, Manabu KAKU, and Kazuhiro ADACHI	Bulletin of the Geological Survey of Japan, vol.49(6), p.275-290
Fluorite deposits in Mongolia: an outline	1998	Jargalyn LKHAMSUREN and Satoshi HAMASAKI	Bulletin of the Geological Survey of Japan, vol.49(6), p.309-318
Geology of northern Eurasia			
Gigantic paleolandslide associated with active faulting along the Boad fault (Gobi-Altay, Mongolia)	1999	Herve PHILIP and Jean-Francois RITZ	Geology, vol.27, No.3, p.211-214
Guide to the geology and mineral resources of Mongolia	1996	D.JARGALSAIHAN, M.KAZMER, Z.BARAS, D.SANJAADORJ (Editor)	Geological Exploration, Consulting and Services Co. Ltd
Heat flow, structure and evolution of the lithosphere of Mongolia	1989	M. D.KHUTORSKOY and V.V. YARMOLUK	Tectonophysics, 164, p.315-322, Elsevier Science Publishers B.V., Amsterdam-Printed in The Netherlands
K-Ar dating of granitoids and hydrothermal micas from the northern part of Kherlen depression, Mongolia	1998	S. MURAO, D. DORJGOTOV and T. TSEDEN	Bulletin of the Geological Survey of Japan, vol.49(6), pp.249-255
Lake's island arc terrane	1996	G. BAT-ERDENE, YA. BAT-IREEDUI, O. TOMURTOGОО, A.S. GIBSHER, and Y.C. SOVETOV	Guidebook for
Magnetism and metallogenic systematics of the southern Ergun Mo, Cu, Pb, Zn and Ag belt, Inner Mongolia, China	1995	Ke-Zhang QIN, Zhi-Tian WANG and Long-Ju PAN	Resource Geology Special Issue, No.18, p.159-169
Metallogeny of the Mongolian People's Republic(copper, molybdenum)	1985	V.I. SOTNICOV, M. JAMSRAN, A.P. BERZINA, A.E. SHABOLOVSKII, D. GARAMJAV, D. BOLD	The Academy of science of the USSR, The Academy of science of the MPR
Mineral deposits of the world -ores, industrial minerals and rocks-	1994	M. VANECEK	Developments in Economic Geology 28
Mineral resources of the western part of the Mongol-Okhotsk foldbelt	1995	Ochir GEREL	Resource Geology Special Issue No.18
Mongolia -Getting into steppe with natural resources-	1997		Advertisement Supplement to Mining Journal, vol.328, No.8418

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TITLE	DATE	AUTHOR	SOURCE
Mongolia investor's conference on oil/gas and mining	1997		The World Bank/ The Government of Mongolia
Mongolian geoscientist No.3	1997	Japan International Cooperation Agency	
Mongolia's gold potential	1996	R. H. SILLITOE	Mining Magazine -July, p.12-15
On prospecting for porphyry copper mineralization in intracontinental mobile zones (Mongol-Okhotsk belt, Mongolian People's Republic)	1989	P.V. KOVAL, A. GOTOVSUREN, S. ARUNBILEG and Yu.I. LIBATOROV	Journal of Geochemical Exploration, 32, p.369-380, Elsevier Science Publishers B.V., Amsterdam- Printed in the Netherlands
Organic geochemistry and palynology of lower Cretaceous Zuurbayan oil shales, Mongolia	1998	Masanobu YAMAMOTO, Delegin BAT-ERDENE, Pureyii ULZIKHISHIG, Yoshio WATANABE, Moberu IMAI, Yoshiteru KAJIWARA, Nobuyori TAKEDA and Terumasa NAKAJIMA	Bulletin of Geological Survey of Japan, vol.49(6), p.257-274
Paleozoic sedimentary basins and volcanic-arc systems of southern Mongolia: New stratigraphic and sedimentologic constraints	1997	Melissa A. LAMB and Gombosuren BADARCH	International Geology Review, vol.39, pp.542-576
Phanerozoic felsic magmatism and related mineralization in Mongolia	1998	Ochir GEREL	Bulletin of the Geological Survey of Japan, vol.49(6), pp.239-248
Preliminary study on the characteristics of Tsagaan tsakhir uul gold deposit, Bayankhongor, southern Mongolia	1998	Sereenen JARGALAN and Satoshi MURAO	Bulletin of the Geological Survey of Japan, vol.49(6), p.291-298
Previous studies on the Erdenetuin ovoo porphyry copper-molybdenum deposit, Mongolia	1998	G. DEJIDMAA and K. NAITO	Bulletin of the Geological Survey of Japan, vol.49(6), pp.299-308
Scientific communications. New 40Ar/39Ar age data and implications for porphyry copper deposits of Mongolia	1998	Melissa A. LAMB and Dennis COX	Economic Geology vol.93, pp.524-529
South China in Rodinia: Part of the missing link between Australia-east Antarctica and Laurentia?	1995	Zheng-Xiang LI, Linghua ZHANG, and Christopher McA. POWELL	Geology, vol.23, No.5, p.407-410
Tectonic framework of the Bayankhongor area, west Mongolia	1996	Yoji TERAOKA, Morihisa SUZUKI, Floragin TUNGALAG, Niidengin ICHINOROV and Yukio SAKAMAKI	Bulletin of the Geological Survey of Japan, vol.47(9)
The central Siberia-Mongolia transect	1993	YU. Z. ZORIN, V. G. BELICHENKO, YE. KH. Turutanov, V. M. KOZHEVNIKOV, S.V. RUZHENTSEV, A.B. DERGUNOV, I.B. FILIPPOVA, O. TOMURTOGOO, N. ARVISBAATOR, TS. BAYASGALJAN, CH. BYAMBA, and P. KHOSBAYAR	Geotectonics, vol.27, no.2, p.103-117
The discovery of late Devonian (Framennian) conodonts in the Bayanhongor area, west Mongolia	1997	Chikao KURIMOTO, Niidengin ICHINOROV, Toshio KOIKE, Floragin TUNGALAG and Lkhamsuren BAYARMANDAL	Bulletin of the Geological Survey of Japan, vol.48(9), p.487-491
The peralkaline granite-related Khaldzan-Buregtey rare metal (Zr, Nb, REE) deposit, western Mongolia	1995	V. I. KOVALENKO, G.M. TSARYEVA, A.V. GOREGLYAD, V.V. YARMOLYUK, V.A. TROITSKY, R.L. HERVIG, and G.L. FARMER	Economic Geology, vol.90, p.530-547

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TITLE	DATE	AUTHOR	SOURCE
The role of regional lithochemoistry in mineral exploration	1984	Pavel V. KOVAL	Journal of Geochemical Exploration, 21, pp.201-208. Elsevier Science Publishers B.V., Amsterdam- Printed in the Netherlands
The structure and development of the Baikal rift depression	1993	Victor D. MATS	Earth Science Reviews, 34, p.81-118. Elsevier Science Publishers B.V., Amsterdam
The tectonic evolution of Asia	1996	An YIN, T. Mark HARRISON (Editor)	Cambridge University Press
The use of tourmaline in geochemical prospecting for gold and copper mineralization	1991	P.V. KOVAL, L.D. ZORINA, N.A. KITAJEV, A.M. SPIRIDONOV, and S. ARIUNBILEG	Journal of Geochemical Exploration, vol.40, p.349-360. Elsevier Science Publishers B.V., Amsterdam
Timing of formation of forebergs in the northeastern Gobi Altai, Mongolia: implications for estimation mountain uplift rates and earthquake recurrence intervals	1999	Lewis A. OWEN, Dickson CUNNINGHAM, Benedict W. M. RICHARDES, Edward RHODES, Brian F. WINDLEY, Dorj DORJNAMJAA, and Jalbuugin BADAMGARAY	Journal of the Geological Society, London., vol.156, p.457-464, Printed in Great Britain
Lonely planet -Mongolia- 2nd Edition	1997	P. GREENWAY, R. STOREY, G. LAFITTE	Lonely Planet Publications, pp. 282
Geological ore deposits in Mongolia People's Republic	1991	Mineral Resources Information Center, Metal Mining Agency of Japan	NO.105, pp. 47, 1991
In the earth of Gobi	1984	Fumio Kishimoto	Chishitsu News, Vol.357, p.47-51
Chapter 8 Tectonics outline of the Asiatic Continent Chapter 9 Geological outline of the northeast Asia area	1979	Akiho Miyashiro (Chapter 8) Н.Д.Орцов, Б.М.Чиков (Chapter 9)	Iwanami geoscience course 16, Geology of the world, p.237-299
Project finding report, Mongolia	1999	Japan Mining Engineering Center for International Cooperation	MMAJ-JMEC internal report
Evaluation report of the mine development project, Mongolia	1998	Japan Mining Engineering Center for International Cooperation	MMAJ-JMEC internal report
Visiting Erdenet mine, Mongolia	1999	Kazuki Naito, Sadahisa Sudo	Chishitsu News, Vol.534, p.19-30
Volcanism of Mongolia	1999	Satoshi Kanisawa	Chishitsu News, Vol.534, p.31-40
Mineral resources of Mongolia	1990	Terumasa Nakajima	The new metal industry, summer No., 1990, Vol.35, p.66-69
The recent mining situation, Mongolia -investment environment and development of gold deposit-	1997	Mineral Resources Information Center, Metal Mining Agency of Japan	Mining information of foreign countries, July, p.105-120
Geology and survey research activities of Mongolia	1999	Yuhei Takahashi	Bulltan of geological survey of Japan, Vol.50, No.4, p.279-289
Development of the porphyry copper deposit, Mongolia	1979	Fumio Kishimoto	Chishitsu News, Vol.299, p.49-55

Table A-1 List of published geological, economical, and political paper or reports about the central north area

TITLE	DATE	AUTHOR	SOURCE
Journey to Mongolia	1991	Takeo, Sato	Chishitsu News, Vol.438, p.39-51
Development of mineral resources, Mongolia -present conditions and problems-	1999	Yukio, Sakamaki	Shigen-to-Sozai, Vol.115, No.12, p.865-870
Economic cooperation series in terms of developing countries, No.18 Asia -Mongolia-	1999	Association for Promotion of International Cooperation	pp.85
Молибден-Медно-Порфирирове Месторождени е Эрдэнэтийн-Овоо (МНР) A Molybdenum-Copper Porphyry Deposit : Erdenetyn Ovoо (Mongolia)	1989	С.П. Гаврилова, И.Е. Максимиук, Д. Ор олева S.P. Gavrilova, I.E. Maksimuk, D. Oroloina	The Academy of science of the USSR Institute of Mineralogy, Geochemistry and Crystallochemistry of Rare Elements pp.39
Металлогения Монгольской Народной Респу ьлики (Медь, Молибден) Metallogeny of the Mongolian People's Republic (Copper, Molybdenum)	1985	В.И. Сотников, М.Жамсран, А.П. Берзи на, А.Е. Шабаловский, Д. Гарамжав, Д. Болд Shticov, M. Jamsran, A.P. Berzina, A.E. Shabolovskii, D. Garanjav, D. Bold.	The Academy of science of the USSR and MPR Soviet-Mongolian joint research geological expedition pp.39
Металлогения Монгольской Народной Респу ьлики (Золото) Metallogeny of the Mongolian People's Republic (Gold)	1986	Ю.Г. Щербачков, Г.Дэжидмаа, Ю.А.Кали нин, С.Р.Осинцев, Н.А.Росляков Yu.G. Sherbakov, G. Dajidmaa, Yu.A. Kalinin, S.R. Osintsev, N.A. Roslyakov	The Academy of science of the USSR and MPR Soviet-Mongolian joint research geological expedition pp.49
Меднородные Формации МНР Copper-bearing Formation of the MPR	1985	Ответственный Редактор Акаде мик В.А. Кузнецов Responsible Editor: Academician V.A. Kuznetsov	Nobosibirsk. Edited by "Nauka" Siberian branch p.1-76
СП"Эрдэнэт": 20 Лет Эффективной Деятельнос ти И Постоянного Развития "Erdenet" 20 years of effective activity and stable development	1988	И.Ш.Сатаева, А.Базара I.Sh.Sataev, A.Bazar (Ed.)	Г.Эрдэнэт, Монголия Erdenet, Mongolia pp.108
Отличительные Черты Средне-И Позднепале озойских Гранитоидных Комплексов Северн ой Монголии Distinguishing feature of the middle and late Paleozoic granitoid complexes of North Mongolia	1991	Д. Гарам D. Garam	Soviet-Mongolian science investigation joint expedition, Moscow, Geological Institute of Academy of Science of MPR, Ulaanbaatar, Series of Geology, no. 11, p.77-86
Определяющие Элементы Генетической Моде ли Медно-Молибден-Порфировой Рудно-Магма тической Системы Defining elements of genetic model for a copper-molybdenum porphyry ore-magmatic system	1991	В.И. Сотников, А.П. Берзина, А.Л. Пав лов, В.А. Пonomарчук, А.Н. Берзина, В.О. Гимон, А.В. Травин V.I. Sotnikov, A.P. Berzina, A.L. Pavlov, V.A. Ponomarchuk, A.A. Berzina, V.O. Gimon, A.V. Travin	Institute of geology and geophysics, Siberian section of Academy Science of USSR, Novosibirsk, Geology of ore deposits, May-June, no. 3, p.61-66

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TITLE	DATE	AUTHOR	SOURCE
Рудно-Магматические Системы Разных Геодинамических Обстановок Ore-magmatic systems of various geo-dynamic situations (in an example of copper-molybdenum deposits of Mongolia)	1991	А.П.Берзина, В.И.Сотников A.P.Berzina, V.I.Sotnikov	Reports of Academy of Science of URRS, vol. 316, no. 4, p.957-961
Этапы Формирования Эрдэнэтского Молибдена-Медно-Порфирирового Месторождения (Монголия) Stages of forming of the Erdenet molybdenum-copper porphyry deposit (Mongolia)	1991	С.П.Гаврилова, И.Е.Максимюк S.P.Gavrilova, I.E.Maksimyuk	Soviet-Mongolian joint geological expedition of AS of USSR and AS of MPR, Geology of ore deposits, Nov.-Dec., no. 6, p.3-17
Эволюция Изотопного Составы Водорода В Магматическом Процессе На Месторождении Эрденэтин-Ово The evolution of isotope content of hydrogen in magmatic process at the Erdenetyu Ovoo deposit	1990	А.П.Берзина, Й.Куроода, В.И.Сотников A.I.Berzina, Y.Kuroda, V.I.Sotnikov	Institute geology and geophysics of 60 yr. USSR Siberian section of Academy Science, Novosibirsk, The lectures of Academy Science of USSR, vol. 310, no.4, p.952-954
Этапы Развития Позднепалеозойского Магматизма Северной Монголии И Священные С Ним Интрузивные Комплексы Development stages of the late Paleozoic magmatism in the Northern Mongolia and intrusive complexes	1985	В.А.Павлов, Р.М.Яшина, Д.Гарам V.A.Pavlov, R.M.Yashina, D.Garam	Soviet-Mongolian geological joint expedition, IGEM of Academy Science of USSR, Moscow, Series of Geology, no. 4, p.49-56
Одоорогеной Металлогении Монголии Pre-oregenic metallogeny of Mongolia	1980	Е.С.Контарь, Л.Е.Либарова, Т.Ганбаатар E.S.Kontari, L.E.Libarova, T.Ganbaatar	Ministry of geology and mining industry of MRP, Ulaanbaatar Geology of ore deposits, Nov.-Dec., no. 6, p.72-78

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No	Deposit name	Deposit type	Location			Geology						Deposit (I)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metalogenic province	Country rock	Alteration
22	Tanir gol	Metamorphogenic	Arkhangai	47 35 54	102 07 06	Mongol-Ubur ba ykal	Khangai	Uplift		meta-shale, shale, quartzite	Paleozoic(PZ)	East Khangai	meta-shale, shale, quartzite		
23	lkh zagzag uul	Contact metamorphism	Bulgan	48 16 00	104 12 45	North mongolia	Tariat-Selenge	Fault	granite	metamorphic rocks	Devonian	North Mongolia	metamorphic rocks		
24	Erdeneiin ovoo (Central part)	Hydrothermal	Orkhon	49 01 00	104 08 00	North Mongolia	Tariat-Selenge	Dipression	granodiorite, diorite			North Mongolia	granodiorite, diorite	Oxidation zone	
33	Erdeneiin ovoo (SE) and Oyut	Stockwork	Orkhon	48 58 00	104 12 00	North Mongolia	Orkhon-selenge	Uplift	intrusion?			North Mongolia	intrusion?		
34	Erdeneiin ovoo	Stockwork	Orkhon	49 01 02	104 07 08	North Mongolia	Orkhon-selenge	Uplift	intrusion?			North Mongolia	intrusion?		
81	Khusheet gol	Metasomatic	Bulgan	48 14 00	103 10 00	North Mongolia	Tariat-selenge	Dipression		tuff breccia, porphyrite	Carboniferous(C3)	North Mongolia	tuff breccia, porphyrite?		
82	Zuukhin gol	Metasomatic	Bulgan	49 14 00	104 14 00	North Mongolia	Orkhon-selenge	Uplift	granite, granodiorite	volcanogenic sedimentary rocks	Permian-Triassic(P2-T1)	North Mongolia	granite, granodiorite		Permian-Triassic(P2-T3)
85	Aguin davaa	Hydrothermal	Bulgan	48 38 00	103 59 00	North Mongolia	Tariat-selenge	Dipression	granite			North Mongolia	granite		
89	Mogoin gol? Megein gol?	Hydrothermal	Bulgan	49 10 00	103 45 00	North mongolia	Orkhon-selenge	Dipression		volcanogenic sedimentary rocks	Permian(P)	North Mongolia	volcanogenic sedimentary rocks		
108	Bulagi	Metasomatic	Bulgan	49 43 00	103 00 00	North Mongolia	Tariat-selenge	Dipression		trachyandesite, andesite porphyry, tufticious sandstone	Triassic-Lower Jurassic	North Mongolia	trachyandesite, andesite porphyry, tufticious sandstone	Silicification, Limonitization	
109	Bayanzhurkh	Contact metamorphism	Bulgan	49 45 00	103 06 00	North Mongolia	Tariat-selenge	Dipression	leucocratic granite	volcanic rocks	Upper Permian-Lower Triassic	North Mongolia	leucocratic granite		
113	Khyasa bulag	Hydrothermal	Arkhangai	48 20 00	101 06 00	Mongol-Ubur ba ykal	Khangai	Dipression	granite			North Mongolia	granite		
114	Ider uul	Hydrothermal-metasomatic	Arkhangai	48 13 00	101 37 00	Mongol-Ubur ba ykal	Khangai	Uplift	granite			North Mongolia	granite		
115	Khuiten nuur	Hydrothermal-metasomatic	Arkhangai	48 06 00	101 56 00	Mongol-Ubur ba ykal	Khangai	Uplift	granite			North Mongolia	granite		
149	Dund galt	Sedimentary	Tub	48 12 00	104 26 00	Mongol-Ubur ba ykal	North Khenty	Uplift		sediment	Quaternary(QIV)	North Khenty	sediment		

Eastern part of the survey area
Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

No.	Deposit name	Deposit (2)					Previous survey					Reference Report number
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling	
22	Tamir gol	Lenticular body: 200-400m	magnetite	hematite	Fe-42%	Fe-57million ton	Prospecting work					2374, 2626, 3003
23	Ikht zagzag uul	Lenticular body: 65m x 11,8m	magnetite	hematite, limonite	Fe-62%	Fe-1million ton	Prospecting work					1438, 2083, 1814
24	Erdeneiin ovoo (Central part)	Stockwork: 1350m x300m	chalcocite, chalcopyrite	malachite, azurite, covellite	Cu-0,41%, Mo- 0,016%	Cu-598790t; Mo- 21864t	Prospecting work(1988)					
33	Erdeneiin ovoo and SE(Oyut)	Stockwork: 4km x0,6km	chalcopyrite, pyrite, molybdenite	covellite, chalcocite	Cu-0,33-0,4%	Cu-1086800t	Prospecting work					1961, 3283, 1820, 1813, 3865, 4383
34	Erdeneiin ovoo	Stockwork: 2,8km x1,3km	chalcopyrite, pyrite, covellite, bornite, etc.		Cu-0,9%	Cu-2825000t	Prospecting work					961, 1820, 1813, 1947, 1993, 4069, 4565, 2083, 3283
81	Khusheet gol	Fracture zone: 300m x50m	chalcopyrite	Pyrite	Cu-		Geological mapping(1960)**	41 samples				1500
82	Zuukhin gol	Stock, Dykes: 1,2km x3,5km	chalcopyrite, pyrite, molybdenite	galena, sphalerite	Cu-0,006-0,2%, Mo-0,003%		Prospecting work(1965)					1965, 3665
85	Aguin davaa	Quartz vein:	malachite	hematite	Cu-		Geological mapping(1959)**					1438
89	Mogoin gol	Altered zone 1500m x1000m			Cu-0,03-0,07%		Prospecting work(1986)					3665
108	Bulagt	Altered zone: 900m x400m			Cu-0,001-0,006%		Geological mapping(1979)**	434 samples	114m cub			3156
109	Bayanzhurkh	Altered zone: 3- 5sq m			Cu-0,003-0,005%		Geological mapping(1979)**		465,4m cub			3156
113	Khyasaa bulag	Altered zone: 50m x0,5m	malachite	lazurite, pyrite	Cu-0,1%		Geological mapping(1980)**					3228
114	Ider uul	Fracture zone: 750m x500m	malachite	scheelite, cassiterite	Cu-0,002-0,02%		Geological mapping(1980)**	47 samples	4digs			3228
115	Khaiten nuur	Quartz vein: 100m x1,5m			Cu-0,001-0,005%, Ag-0,7g/t; Au- 0,3g/t		Geological mapping(1980)**		6digs			3228
149	Dund gait	Bed:	gold		Au-sign		Prospecting work(1984)			2lines		3719

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Eastern part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metalogenic province	Country rock	Alteration	Age of mineralization
150	Tsagaan gait	sedimentary	Tub	48 14 00	104 28 00	Mongol-Ubur ba ykal	Khenty	Uplift		sediment	Quaternary		North Khenty	sediment		
151	Dund naimgan	Sedimentary	Tub	48 15 30	104 30 00	Mongol-Ubur ba ykal	Khenty	Uplift		sediment	Quaternary		North Khenty	sediment		
152	Baga naimgan	Sedimentary	Tub	48 15 00	104 30 00	Mongol-Ubur ba ykal	Khenty	Uplift		sediment	Quaternary		North Khenty	sediment		
153	Baga khailaast	Sedimentary	Tub	48 17 00	104 31 00	Mongol-Ubur ba ykal	Khenty	Uplift		sediment	Quaternary		North Khenty	sediment		
156	Zuun khavchuu	Sedimentary	Tub	48 32 07	104 38 25	Mongol-Ubur ba ykal	North Khenty	Dipression		clay, pebble	Quaternary(QIV)		North Khenty	clay, pebble		
165	Jastin buuts	Metasomatic	Bulgan	48 47 00	103 26 00	North Mongolia	Tariat-selenge	Dipression		acidic volcanic rocks	Permian(P1)		North Mongolia	acidic volcanic rocks		
166	Khukh chuluun uul	Hydrothermal	Bulgan	48 45 00	103 25 00	North Mongolia	Tariat-selenge	Dipression	diorite				North Mongolia	diorite		
167	Zuun turuuni gol	Hydrothermal	Bulgan	48 53 00	103 36 00	North Mongolia	Tariat-selenge	Dipression		andesite-basalt, tuff	Lower Permian		North Mongolia	andesite-basalt, tuff		
171	No5	Hydrothermal Au	Tub	48 21 00	104 32 00	North Mongolia	Khenty	Anticlinal	granite	sandstone	Vendian-Lower Cambrian		North Khenty	sandstone, granite		
172	No24	Hydrothermal	Tub	48 13 00	104 24 00	North Mongolia	North Khenty	Anticlinal		meta-sandstone	Vendian-Cambrian(V-E1)		North Khenty	meta-sandstone		
173	No22	Hydrothermal Au	Tub	48 14 00	104 27 00	North Mongolia	Khenty	Anticlinal		sandstone	Vendian-Lower Cambrian		North Khenty	sandstone		
174	No19	Hydrothermal Au	Tub	48 16 00	104 38 00	North Mongolia	Khenty	Anticlinal	granite	sandstone	Vendian-Cambrian(V-E1)		North Khenty	granite, sandstone		
188	Shar khundee	Dynamic metamorphism	Bulgan	49 48 00	103 21 00	North Mongolia	Tariat-selenge	Sinclinal	granite	andesite, andesite porphyrite, tuff	Lower Permian		North Mongolia	andesite, andesite porphyrite, tuff		
195	Delger uul	Hydrothermal	Khubs gul	50 02 00	100 21 00	North Mongolia	Near Khubs gul	Sinclinal	granite					granite		
232	Occurrence-65	Hydrothermal	Bulgan	50 06 00	102 27 00	North Mongolia	Tariat-selenge	Dipression	diorite					diorite		

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit (2)					Previous survey					Reference Report number
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling	
150	Tsagaan gait	Gold bearing bed: 0.2-1.4m	gold		Au-10-916.0mg/m cub		Prospecting work(1984)			2lines	3719	
151	Dund namgan	Gold bearing beds: 4.5km long	gold		Lower bed Au-400-700mg/m cub, upper bed Au-316mg/m cub		Prospecting work(1984)			2lines	3719	
152	Baga namgan	Gold bearing bed: 0.2-1.4m wide	gold		Lower bed Au-2655mg/m cub, Upper bed Au-647mg/m cub		Prospecting work(1984)			3lines	3719	
153	Baga khailaast	Gold bearing beds: Lower bed-1200m x100m, Upper bed-1370m x40m	gold		Au-1500-5000mg/m cub	Au-1270 kg	Prospecting work(1984)			2lines	3719	
156	Zuun khavchuu	Bed: 0.8m	gold		Au-1172mg/m cub		Prospecting work(1991)			123m	4676	
165	Jasin buuts	Altered zone: 2000m x500m			Cu-0.002-0.007%		Prospecting work(1981)*	320 samples	1028.9m cub	334m	3538	
166	Khukh chuluun uul	Quartz vein: 13m x0.15m			Cu-0.003-0.009%		Geological mapping(1971)***, prospecting work(1981)*		131.8m cub	70.8m	3538	
167	Zuun turuunii gol	Quartz vein: 1.5m x0.2m			Cu-		Geological mapping(1971)**				3538	
171	No5	Quartz vein:	gold		Au-0.2g/t		Geological mapping(1981)*				3600	
172	No24	Quartz vein: 0.6m			Au-0.6g/t, Ag-1.7g/t		Geological mapping(1981)*				3600	
173	No22	Quartz vein: 1-2m wide	gold		Au-0.2g/t		Geological mapping(1981)*				3600	
174	No19	Quartz vein: 50m x1m			Au-0.2g/t		geological mapping(1981)*				3600	
188	Shar khundee	Altered zone			Cu-0.3%		Geological mapping(1979)**				3832	
195	Delger uul	Quartz vein: 3m x0.1m			Au-3*10(-7)g/t		Geological mapping(1985)*		182.9m cub		3976	
232	Occurrence-65	Quartz vein: 300m x0.8m	gold	malachite, turquoise, lazurite	Au-0.3-4.0g/t, Cu-0.5-1.1%		Prospecting work(1984)				4041	

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit type	Location			Geology						Deposit (1)				
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metalogenic province	Country rock	Alteration	Age of mineralization
223	Sukhait	Contact metamorphism	Bulgan	50 15 00	104 23 00	North Mongolia	Tariat-selenge	Dipression	granite	carbonite, terrigenous sediments	Lower-Middle Cambrian	Jurassic	North Mongolia	granite		
225	Tarbaganai-76	Hydrothermal	Selenge	50 14 00	104 23 00	North Mongolia	Tariat-selenge	Dipression	granite, granodiorite			Lower Paleozoic, Jurassic		granite, granodiorite		
229	Teshig-I	Contact metamorphism	Bulgan	49 59 00	102 29 00	North Mongolia	Tariat-selenge	Dipression	granite	volcanic rocks, sandstone, limestone	Vendian	Upper Permian-Lower Triassic		granite		
240	Ar shivert	Hydrothermal	Bulgan	49 29 00	103 05 00	North Mongolia	Tariat-selenge	Dipression		andesite porphyrite, plagiophyre, trachyte porphyrytuff	Permian		North Mongolia	andesite porphyrite, plagiophyre, tuff, trachyte porphyry		
257	Bulagi	Hydrothermal	Bulgan	50 16 00	104 22 00	North Mongolia	Tariat-selenge	Dipression	granite			Jurassic	North Mongolia	granite		
301	Ar khundee	Sedimentary	Tub	48 30 50	104 38 10	Mongol-Ubur ba ykal	North Khenty	Dipression		clay, pebble	Quaternary(QIV)		North Khenty	clay, pebble		
302	The mouth of Tol river	Sedimentary	Tub	48 31 00	104 32 00	Mongol-Ubur ba ykal	North Khenty	Dipression		sandstone, clay, pebble	Quaternary(QI-IV)		North Khenty	sand, clay, pebble		
306	Jalga-40	Sedimentary	Tub	48 15 00	104 19 50	Mongol-Ubur ba ykal	North Khenty	Dipression		clay, pebble	Quaternary(QIV)		North Khenty	clay, pebble		
307	Ubur nanin	Sedimentary	Tub	48 07 00	104 21 00	Mongol-Ubur ba ykal	North Khenty	Uplift		clay, pebble	Quaternary(QIV)		North Khenty	clay, pebble		
309	Nogoon usni khalaast	Sedimentary	Tub	48 16 00	104 21 00	Mongol-Ubur ba ykal	North Khenty	Dipression		clay, pebble	Quaternary(QIV)		North Khenty	clay, pebble		
310	Jalga-48	Sedimentary	Tub	48 06 20	104 21 00	Mongol-Ubur ba ykal	North Khenty	Uplift		sandstone, clay, pebble	Quaternary(QIV)		North Khenty	sand, clay, pebble		
311	Uliin am	Sedimentary	Tub	48 11 00	104 21 30	Mongol-Ubur ba ykal	North Khenty	Uplift		sand, clay, pebble	Quaternary(QIII)		North Khenty	sand, clay, pebble		
313	Tagaan chuluut	Sedimentary	Tub	48 10 20	104 36 10	Mongol-Ubur ba ykal	North Khenty	Uplift		sandstone, clay, pebble	Quaternary(QI-III)		North Khenty	sand, clay, pebble		
314	Ongotso	Sedimentary	Tub	48 03 00	104 37 30	Mongol-Ubur ba ykal	North Khenty	Dipression		sandstone, clay, pebble	Neocene, Quaternary(N1-2, QI-III)		North Khenty	sand, clay, pebble		
315	Oortsog	Sedimentary	Tub	48 03 20	104 36 30	Mongol-Ubur ba ykal	North Khenty	Uplift		sandstone, clay, pebble	Neocene, Quaternary(N1-2, QI-II)		North Khenty	sand, clay, pebble		
316	Jalga-46	Sedimentary	Tub	48 05 00	104 22 20	Mongol-Ubur ba ykal	North Khenty	Dipression		clay, pebble	Neocene, Quaternary(N2, QIV)		North Khenty	clay, pebble		

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit (2)					Previous survey					Reference Report number
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling	
233	Sukhait	Greenized zone: 300m x80m			Mo-0.09-1.28%		Prospecting work(1941, 1985)		7digs(1941)		4041	
235	Tarbagatai-76	Quartz vein: 700m x2.1m	gold		Au-0.02-10g/t; Ag-2800g/t		Prospecting work(1985)		8digs		4041	
235	Teshig-1	Skarn: 1500m x30m			Cu-0.3%, Au- 3.35g/t		Prospecting work(1985)				4041	
240	Ar shivert	Fracture zone: 3000m x1000m			Mo-0.0003- 0.0006%		Prospecting work(1985)				4041	
257	Bulagt	Stockwork: 350m	scheelite	pyrite, molybdenite, hubnerite	W-, Mo-		Prospecting work(1985)				4041	
301	Ar khundee	Bed	gold		Au-85- 225mg/m.cub		Prospecting work(1991)		70m		4676	
302	The mouth of Tol river	Bed: 4610m x0.67m	gold		Au-445- 500mg/m.cub	Au-1679,1kg	Prospecting work(1986)		4588,4m		4676	
306	Jalga-40	Bed: 1.8m	gold		Au-173mg/m.cub		Prospecting work(1988)		108,8m		4707	
307	Ubur narin	Bed: 0.4m wide	gold		Au-187- 9099mg/m.cub		Prospecting work(1988)		183,6m		4707	
309	Nogoon usni khallaast	Bed: 0.4-1.2m	gold		Au-124- 1326mg/m.cub		Prospecting work(1987)		766,6m		4707	
310	Jalga-48	Bed: 0.4-1.6m	gold		Au-21- 871mg/m.cub		Prospecting work(1989)		304,2m		4707	
311	Utiin am	Bed: 0.4-2.0m	gold		Au-134- 706mg/m.cub		Prospecting work(1989)		709,6m		4707	
313	Tsagaan chuluut	Bed: 0.4-2.0m	gold		Au-202- 933mg/m.cub		Prospecting work(1990)		923,6m		4707	
314	Ongotsot	Bed: 0.8-1.6m	gold		Au-411- 562mg/m.cub		Prospecting work(1990)		467,6m		4707	
315	Oortsog	Bed: 0.4-2.0m	gold		Au-8-58mg/m.cub		Prospecting work(1990)		450,8m		4707	
316	Jalga-46	Bed: 0.4-1.2m	gold		Au-70- 604mg/m.cub		Prospecting work(1989)		388m		4707	

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Metagenic province	Country rock	Alteration	Age of mineralization	
317	Jalga-47	Sedimentary	Tub	48 05 00	104 20 50	Mongol-Ubur baykal	North Khenty	Dipression		sandstone, clay, pebble	Quaternary(QIV)		North Khenty	sand, clay, pebble		
342	Sairin khundee	Hydrothermal	Arkhangai	48 41 00	102 08 00	North Mongolia	Tariat-selenge	Dipression	granite, syenite porphyry	volcanic rocks	Permian(P1)	Permian-Triassic(P2-T1); Jurassic(J2-3)	North Mongolia	granitoid, syenite porphyry		
343	Annit bulag	Hydrothermal-metasomatic	Khubsgai	49 15 00	101 34 00	North Mongolia	Tariat-selenge	Dipression	granite	green shale	Lower Riphean	Lower-Middle Devonian	North Mongolia	granite		
344	Zaidangin davaa	Contact metamorphism	Bulgan	48 42 00	102 26 00	North Mongolia	Orkhon-selenge	Dipression	granite	carbonatized rocks	Lower Proterozoic	Lower Paleozoic	North Mongolia	granite		
358	Baga mich uul	Magmatic, hydrothermal	Bulgan	48 44 00	103 48 00	North Mongolia	Tariat-selenge	Dipression		andesite porphyry	Lower Permian		North Mongolia	andesite porphyry	Epidotization, Chloritization	
359	Mej uul	Hydrothermal	Bulgan	48 49 00	103 41 00	North Mongolia	Tariat-selenge	Dipression		andesite porphyry	Lower Permian		North Mongolia	andesite porphyry		
360	Davaa	Hydrothermal	Bulgan	49 16 00	103 56 00	North Mongolia	Tariat-selenge	Dipression	granite	volcanic rocks	Permian	Upper Permian-Lower Triassic	North Mongolia	granite		
363	Bayan gol	Metasomatic	Arkhangai	48 45 30	100 40 20	North Mongolia	Tariat-selenge	Dipression		volcanic rocks	Middle Devonian		North Mongolia	volcanic rocks		
369	Baruun khujirt	Hydrothermal	Bulgan	50 18 00	104 25 00	North Mongolia	Tariat-selenge	Dipression	granite			Lower paleozoic	North Mongolia	granite		
370	Ereen	Contact metamorphism	Bulgan	50 06 00	102 26 00	North Mongolia	Tariat-selenge	Dipression	granite			Lower Paleozoic, Permian-Triassic(P2-T1)	North Mongolia	granite		
402	Urgen khajuu	Hydrothermal-metasomatic	Bulgan	48 03 00	102 56 00	North Mongolia	Tariat-selenge	Dipression		trachyandesite-basalt	Upper Jurassic-Lower Triassic				trachyandesite-basalt	
404	Occurrence-9	Hydrothermal	Arkhangai	48 07 00	102 38 00	North Mongolia	Tariat-selenge	Dipression	granite	sandstone	Carboniferous (C1-2)	Mesozoic(MZ1)		Granite		
405	Mogod	Hydrothermal-metasomatic	Bulgan	48 17 00	103 03 00	North Mongolia	Tariat-selenge	Dipression		andesite-basalt, trachyandesite-basalt	Permian(P2), Triassic-Jurassic(T1-J1)			andesite-basalt, trachyandesite-basalt		

Eastern part of the survey area
Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

No.	Deposit name		Deposit (2)										Previous survey			Reference Report number
	Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling	Geochemistry	Geology	Geochemistry	Geophysics	Drilling	
317	Jaiga-47	Bed: 0.8m	gold		Au-310mg/m cub		Prospecting work(1989)							188.8m	4707	
342	Sairin khundee	Fracture zone:	chalcopyrite	malachite, lazurite	Cu-0.001-0.002%		Geological mapping(1972)**								2043	
343	Annai bulag	Skam: 500m x100m			Cu-0.02-0.04%; Mo-0.15%; Ag- 0.02g/t; W-5.0g/t		Geological mapping(1972)**	1674 samples		484m cub					2043	
344	Zaidangin davaa	Skamization zone: 500m x 100m			Cu-0.01-0.02%		Geological mapping(1972)**			173m cub					2043	
358	Baya mich uul				Cu-		prospecting work(1973)*								2221	
359	Mej uul				Cu-0.008%		Prospecting work(1973)*								2221	
360	Davasa	Fracture zone:			Cu-0.003-0.01%		prospecting work(1973)*								2221, 3832	
363	Bayan gol	Altered zone: 1800m x400m			Cu-0.05-0.09%		Geological mapping(1974)**			222.7m cub					2283	
369	Barun khujirt	Quartz vein: 14m x0.5m; Alteration zone: 1700m x2m			W-0.02-1.0%		Aero-geophysical mapping(1983)**								2432	
370	Ereen	Fracture zone: 700m x20m	malachite, lazurite	chalcocite, covellite, molybdenite	Cu-3.0%; Au-1g/t; Ag-100-200g/t		Aero-geophysical mapping(1983)**								2432	
402	Urgen khajuu	Altered zone: 34000m x500m			Sr-0.03-0.7%; La- 0.0007-0.01%; Cu-0.002-0.03%; Ag-0.03-0.22g/t		Aero-geophysical mapping(1988)*	1937 samples	Magnetics, Electrics, Radiometrics						4396	
404	Occurrence-9	Quartz vein: 100m x3m			Ag-30g/t		Aero-geophysical mapping(1988)*								4396	
405	Mogod	Altered zone: 3- 10m			Cu-0.007%; Zr- 0.03%; Sr-0.2%		Aero-geophysical mapping(1988)*	1296 samples	Magnetics, Radiometrics						4396	

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metallogenic province	Country rock	Alteration	Age of mineralization
406	Kholboo ovoo	Contact metamorphism	Arkhangai	48 38 00	102 07 00	North Mongolia	Tariat-selenge	Dipression	granite, diorite	andesite, dacite	Permian(P2)	Devonian(D1-2)	North Mongolia	granite, diorite		
407	Tsagaan gozgor	Hydrothermal-metasomatic	Arkhangai	48 39 00	102 12 00	North Mongolia	Tariat-selenge	Dipression	granite, granodiorite			Permian-Triassic(P2-T1)	North Mongolia	granite, granodiorite		
408	Shar khad	Hydrothermal	Bulgan	48 49 00	102 34 00	North Mongolia	Tariat-selenge	Dipression		rhyolite, volcanic sedimentary rocks	Devonian		North Mongolia	rhyolite, volcanic sedimentary rock		
410	North Oortsog	Hydrothermal-Metasomatic	Arkhangai	48 48 00	102 04 00	North Mongolia	Tariat-Selenge	Dipression		tuff-chonglomerat, tuff-sandstone, tuff-aleurolite	Permian		North Mongolia	tuffaceous conglomerate, tuffaceous sandstone, tuffaceous aleurolite	Silicification?	
411	Barchigar	Hydrothermal-metasomatic	Bulgan	48 36 00	102 39 00	North Mongolia	Tariat-selenge	Dipression	granite, granodiorite			Lower-Middle Devonian	North Mongolia	granite, granodiorite		
416	Tsookhor morit	Hydrothermal-metasomatic	Bulgan	48 45 00	103 16 00	North Mongolia	Tariat-selenge	Dipression	granite, syenite porphyry			Permian-Triassic(P2-T1)		granite, syenite porphyry		
417	Khar uul	Hydrothermal	Bulgan	48 42 00	103 19 00	North Mongolia	Tariat-selenge	Dipression		volcanogenic sedimentary rocks	Triassic-Jurassic(T1-J1)		North Mongolia	volcanogenic sedimentary rocks		
418	Nomgon	Dynamic metamorphism	Bulgan	48 49 00	102 27 00	North Mongolia	Tariat-selenge	Dipression	syenite-diorite			Permian-Triassic(P2-T1)	North Mongolia	syenite-diorite		
419	Ereen ikher	Dynamic metamorphism	Bulgan	48 49 00	102 35 00	North Mongolia	Tariat-selenge	Dipression		acidic volcanic rocks	Devonian(D2)		North Mongolia	acidic volcanic rocks		
420	Undrakh	Hydrothermal-metasomatic	Bulgan	48 42 00	102 46 00	North Mongolia	Tariat-selenge	Dipression	diorite	subvolcanic rocks		Paleozoic, Permian-Triassic(P2-T1, P2-T1)	North Mongolia	diorite, subvolcanic rocks		
421	Aguit	Hydrothermal-metasomatic	Bulgan	48 47 00	102 57 00	North Mongolia	Tariat-selenge	Dipression	granite	acidic volcanic rocks	Devonian(D2)		North Mongolia	acidic volcanic rocks		
422	Geseg	Metasomatic	Bulgan	48 51 00	102 44 00	North Mongolia	Tariat-selenge	Dipression	granite	volcanogenic sedimentary rocks	Lower Permian	Middle Jurassic	North Mongolia	granite		
423	Zairan	Hydrothermal-metasomatic	Bulgan	48 49 00	102 42 00	North Mongolia	Tariat-selenge	Dipression	granite, diorite	conglomerate, andesite porphyry, subvolcanic rocks	Permian, Jurassic(P1, J2)	Permian-Triassic(P2-T1)	North Mongolia	granite, diorite, subvolcanic rocks		

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area
Eastern part of the survey area

No.	Deposit name	Deposit (2)				Previous survey					Reference Report number	
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit		Drilling
406	Kholboo ovoo	Skarn:			Cu-0.03-0.05%		Aero-geophysical mapping(1988)*	1554 samples	Magnetics, Electrics, Radiometrics			4396
407	Tsagaan gozgor	Dykes: 1-5m wide			Cu-0.01-1%; Ag-0.1-50g/t		Aero-geophysical mapping(1988)*	461 samples	Magnetics, Electrics, Radiometrics	176m cub		4396
408	Shar khad	Altered zone			Mo-0.0007-0.07%; Cu-0.001-0.002%		Aero-geophysical mapping(1988)*	732 samples	Magnetics, Electrics, Radiometrics			4396
410	North Oortsog	Altered zone: 900m x250m	molybdenite		Cu-0.003%; Mo-0.001%; Ag-1.0 g/t		Aero-geophysical mapping(1988)*	449 samples	Magnetics, electrics			4396
411	Barbghar	Altered zone: 1500m x100m			Cu-		Geophysical mapping(1988)*	771 samples	Magnetics, Spectrometrics			4396
416	Tsookhor mont	Quartz vein: 700m x2m			Au-3-10g/t, Ag-20-500g/t; Cu-0.02-0.3%	Au-4.1t; Ag-18.4t	Geological mapping(1986)*	3160 samples	Magnetics, Electrics	278.9m cub		4403
417	Khar uul	Dionite dykes: 200-300m	chalcopyrite	bornite, gold	Cu-0.2-0.5%; Au-21.5-300mg/t		Geological mapping(1986)*	1000 samples	Magnetics, Electrics			4403
418	Nomgon	Altered zone			Cu-0.001%		Geological mapping(1986)*					4403
419	Ereen ikher	Altered zone: 200m	molybdenite		Cu-0.007%; Ag-0.5g/t		Geological mapping(1986)*					4403
420	Undrakh	Vein(phenocrystal ?): 300m x150m			Cu-0.5-0.7%; Ag-1-5g/t		Geological mapping(1986)*		Magnetics, Electrics	176.6m cub	100m	4403
421	Aguit	Altered zone: 1000m x15m	chalcopyrite	malachite, lazurite	Cu-0.001-0.005%; Au-0.1g/t		Geological mapping(1986)*	650 samples	Magnetics, Electrics			4403
422	Geseg	Fracture zone:			Mo-0.0001-0.0003%; Cu-0.003-0.01%		Geological mapping(1986)*		Electrics	230.9m cub	206.6m	4403
423	Zairan	Vein:	chalcopyrite	turquoise, lazurite, malachite, bornite	Cu-0.1-3%		Geological mapping(1986)*		Electrics	495.8m cub	253.7m	4403

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metallogenic province	Country rock	Alteration	Age of mineralization
424	Burged khyar	Hydrothermal-metasomatic	Bulgan	48 52 00	102 49 00	North Mongolia	Tariat-selenge	Dipression	granite, diorite	conglomerate, basalt, andesite porphyry	Permian, Jurassic, Quaternary(P1, J2, QII)	Permian-Triassic(P2-T1)	North Mongolia	granite, diorite		
427	Nergui (III-4-29)	Hydrothermal Au	Tub	48 24 00	104 44 00	Mongol-Ubur ba ykal	North Khenty	Anticlinal	granite		Middle Paleozoic		North Khenty	granite		
428	Nergui (III-4-27)	Hydrothermal Au	Tub	48 25 00	104 44 00	Mongol-Ubur ba ykal	North Khenty	Anticlinal	granite		Middle Paleozoic		North Khenty	granite		
430	Berth	Hydrothermal Au	Tub	48 33 00	104 37 00	North Mongolia	Tariat-selenge	Dipression	diorite, granodiorite		Middle-Upper Ordovician		North Khenty	diorite, granodiorite		
461	Khujin gol	Hydrothermal-metasomatic	Bulgan	48 41 00	102 12 00	North Mongolia	Tariat-Selenge	Dipression	granitoid			Permian-Triassic(P2-T1)	North Mongolia	granitoid		
462	Oshgin uul	Metasomatic	Arkhangai	48 44 00	102 04 00	North Mongolia	Tariat-selenge	Dipression	granite			Upper Permian-Lower Triassic		granite		
463	Mogoin gol	Magmatic	Arkhangai	48 45 00	102 04 00	North Mongolia	Tariat-selenge	Dipression	granitoid			Permian-Triassic(P2-T1)	North Mongolia	granitoid		
612	Naran	Metasomatic	Selenge	49 15 00	104 43 00	North Mongolia	Tariat-selenge	Dipression	diorite, granodiorite, gabbro-diorite, microdiorite			Upper Permian-Lower Triassic	North Mongolia	diorite, granodiorite, gabbro-diorite, microdiorite		
613	Myangan Iant	Metasomatic	Selenge	49 14 00	104 48 00	North Mongolia	Tariat-selenge	Dipression	diorite, granite			Upper Permian-Lower Triassic	North Mongolia	diorite, granite		
679	Uzair ovoo	Skarn-metasomatic	Bulgan	48 16 00	104 10 00	Mongol-Ubur ba ykal	North Khenty	Uplift	granite	metamorphic rocks	Proterozoic-Cambrian(PR-E1)		North Khenty	Granite		
680	Oyuuit Khonkhor	Hydrothermal	Bulgan	48 10 00	102 57 00	North Mongolia	Tariat-selenge	Dipression	granite	andesite, dacite, rhyolite, tuff	Triassic-Juassic(T2-J)		Orkhon-Selenge ore zone	andesite, dacite, rhyolite, tuff		
858	Vein-422 (Ule ore zone)	Hydrothermal	Tub	48 06 21	104 22 20	Mongol-Ubur ba ykal	North Khenty	Fault	green shale		Cambrian-Ordovician(E2-O1)		North Khenty	green shale		Mesozoic(MZ1)
859	Vein No41	Hydrothermal Au	Tub	48 05 55	104 30 10	Mongol-Ubur ba ykal	North Khenty	Fault		green schist, sandstone, siltstone	Middle Cambrian-Lower Ordovician		North Khenty	green schist, sandstone, siltstone		Lower Mesozoic
860	Vein-177 (Ule ore zone)	Hydrothermal	Tub	48 06 15	104 22 24	Mongol-Ubur ba ykal	North Khenty	Fault		green shale, sandstone, aleurolite	Cambrian-Ordovician(E2-O1)		North Khenty	green shale, sandstone, aleurolite		Mesozoic(MZ1)
874	Vein-146 (Bichigt zone)	Hydrothermal	Tub	48 06 30	104 19 25	Mongol-Ubur ba ykal	North Khenty	Fault	granite			Ordovician(O2-3)	North Khenty	Granite		Mesozoic(MZ1)
881	Vein-148 (Ulaanenger zone)	Hydrothermal	Tub	48 06 20	104 20 15	Mongol-Ubur ba ykal	North Khenty	Fault	granite	shale, sandstone	Cambrian-Ordovician(E2-O1)		North Khenty	granite		Mesozoic(MZ1)

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name		Deposit (2)				Previous survey				Reference Report number
	Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling	
424	Stock: 20m x600m			Cu-0.36%, Mo-0.02%	Cu-163000, Mo-1500t	Geological mapping(1986)*	4440 samples	Magnetics, Electrics	530m.cub	319,6m	4403
427	Quartz vein: 1100m x1m			Au-0.03-4g/t	Au-1,0t	Geological mapping(1986)*					4408
428	Quartz vein: 1100m x1m			Au-0.7-4g/t	Au-1,0t	Geological mapping(1986)*			14m(1986)		4408
430	Quartz vein: 240m x2.5m			Au-7.5g/t		Geological mapping(1986)*	1600 samples(1986)		252m cub(1986)		4408
461	Greisenized zone: 350m x100m	tin stone		Sn-0.03%, Mo-0.0006%		Prospecting work(1977)	213 samples		56m.cub		2924
462	Greisenized zone: 250m x50m			Pb-0.03%, Zn-0.06%, Mo-0.02%		Prospecting work(1977)	419 samples	Geophysical complex work	90m.cub		2924
463	Diorite dyke: 700m x50m			Cu-0.003-0.01%		Prospecting work(1977)	213 samples		21m.cub	45m	2924
612	Altered zone			Cu-0.01-0.05%		Geological mapping(1988)*	276 samples		828,2m.cub	525,6m	4420
613	Altered zone	chalcopryrite	molybdenite, arsenopyrite, galena	Cu-		Geological mapping(1988)*					4420
679	Lenticular skarn	sphalerite	chalcopryrite, magnetite, gold	Au-0.2g/t; Cu-0.07%	Cu-45000t	Prospecting work(1987)*	566 samples	Electrics	104m.cub	2100m	4084
680	Metasomatic?	pyrite, chalcopryrite, malachite		Cu-0.01%, Ag-0.2g/t; Au-4.4g/t		Geological mapping(1977, 1987)*, **	4993 samples(1987)	Magnetics, Electrics(1977, 1987)	457,8m(1977), 265,3m(1977)	525m(1977), 516,3(1987)	2765, 4084
858	Vein-422 (Ule ore zone)	Quartz vein: 400m x1,4m		Au-9,25g/t	Au-3,8t	Prospecting work(1993)		Magnetics, Electrics	5digs	214,9m	4785
859	Vein No41	Quartz vein: 800m x1,2m		Au-11,06g/t	Au-2,0t	Geological mapping(1991)		Electrics, Magnetics (1992)	6digs(1991)	174m(1992)	4785
860	Vein-177 (Ule ore zone)	Quartz vein: 100m x0,29m		Au-0,2g/t		Prospecting work(1993)		Magnetics, Electrics	4digs	216,3m	4785
874	Vein-146 (Bichigt zone)	Quartz vein: 300m x1m		Au-0,1-14,61g/t		Prospecting work(1993)			7digs	110m	4785
881	Vein-148 (Ulaanenger zone)	Quartz vein: 1000m x11,46m		Au-0,5-6,0g/t		Geological mapping(1991)			4digs(1991, 1992)	291m(1993)	4785

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)				
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metagenic province	Country rock	Alteration	Age of mineralization	
886	Vein-163 (Ulaan enger zone)	Hydrothermal	Tub	48 06 12	104 19 55	Mongol-Ubur ba ykal	North Khenty	Fault	granite				Ordovician(O2-3)	North Khenty	granite		Mesozoic(MZ1)
897	Vein-164 (Ulaan enger zone)	Hydrothermal	Tub	48 06 14	104 20 08	Mongol-Ubur ba ykal	North Khenty	Fault	leucocratic granite				Ordovician(O2-3)	North Khenty	leucocratic granite		Mesozoic(MZ1)
911	Ore bearing dyke series zone	Hydrothermal	Tub	48 06 45	104 24 00	Mongol-Ubur ba ykal	North Khenty	Fault	meta-shale, metasomatic rocks?	meta-shale, metasomatic rocks?	Cambrian-Ordovician(E2-O1)			North Khenty	meta-shale, metasomatic rocks?		Mesozoic(MZ1)
935	Tsagaan chuluut zone	Hydrothermal	Tub	48 05 00	104 26 00	Mongol-Ubur ba ykal	North Khenty	Fault	meta-shale, meta-sandstone	meta-shale, meta-sandstone	Cambrian-Ordovician(E2-O1)			North Khenty	meta-shale, sandstone		Mesozoic(MZ1)
1435	Nergui-2	Hydrothermal	Khubsugul	50 33 00	100 13 00	North Mongolia	Near Khubsugul	Dipression		acidic volcanic rocks	Middle Cambrian				acidic volcanic rocks		
1436	Usr gol	Hydrothermal	Khubsugul	50 28 00	100 05 00	North Mongolia	Near Khubsugul	Dipression	microsyenite porphyry	limestone	Lower Cambrian		Jurassic		microsyenite porphyry		
1437	Egjin gol	Metasomatic	Khubsugul	50 23 00	100 12 00	North Mongolia	Near Khubsugul	Dipression	granodiorite	limestone	Lower Cambrian		Lower-Middle Devonian		granodiorite, limestone		
1439	Aduun gol	Hydrothermal	Khubsugul	50 19 00	100 13 00	North Mongolia	Near khubsugul	Dipression	syenite porphyry	sandstone	Middle Cambrian		Jurassic	Khubsugul	sandstone		Middle Cambrian
1440	Yarkhis gol	Hydrothermal	Khubsugul	50 17 00	100 23 00	North Mongolia	Near Khubsugul	Dipression	syenite porphyry				Jurassic	Khubsugul	syenite porphyry		Jurassic
1442	Quartz	Hydrothermal	Khubsugul	50 14 00	100 17 00	North Mongolia	Near Khubsugul	Dipression		aleurolite, shale, sandstone	RJ				aleurolite, shale, sandstone		Riphean(R3)
1449	Tsagaan burgas	Magmatic	Khubsugul	49 56 00	100 21 00	North Mongolia	Near Khubsugul	Dipression		serpentinite, carbonite	Paleozoic(PZ2)				serpentinite, carbonite		Paleozoic(PZ2)
1488	Egjin gol	Hydrothermal	Khubsugul	49 56 00	100 23 00	North Mongolia	Near Khubsugul	Dipression		serpentinite	Paleozoic(PZ1)			North Mongolia	serpentinite	Carbonitization	Paleozoic(PZ1)

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit (2)					Previous survey					Reference Report number
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling	
886	Vein-163 (Ulaan enger zone)	Quartz vein: 60m x0,3m			Au-2,43g/t		Geological mapping(1991)					4785
897	Vein-164 (Ulaan enger zone)	Quartz vein: 20m x0,5m			Au-20g/t; Ag-30g/t		Geological mapping(1991)					4785
911	Ore bearing dyke series zone	Quartz vein: 1000m x2m			Au-0,02-0,5g/t		Geological mapping(1991)		13digs			4785
935	Tsagaan chuluut zone	Quartz vein: 500m x0,57m			Au-0,5g/t		Geological mapping(1991)		12digs			4785
1435	Nergui-2	Quartz vein: 60m x0,5m	galena	limonite, sphalerite, sericite	Pb-0,08-0,1%		Geological mapping(1966)**					1725
1436	Ust gol	Syenite porphyry dyke: 600m x3,0m	columbite, apatite	cerussite, galena, monazite, fluorite, zircon, pyrite, titanite	Yb-0,01%; Ba-0,02%; Be-0,01%; Sr-0,04%; Ga-0,01%; Y-0,05%; Ce-0,3%; La-0,2%; Nb-0,006%		Geological mapping(1966)**		8m cub			1725
1437	Egin gol	Altered zone: 6m x1,5m	cyrtolite	fluorite, limonite, marlite, magnetite, ilmenite	REE, Zn-0,003%; La-0,01%; Sr-0,09%; Y-0,003%; Ba-0,08%; Pb-0,008%		Geological mapping(1966)**		19,43m cub			1725
1439	Aduun gol	Syenite porphyry dyke: 80m x2,5m	cyrtolite	apatite, titanite, zircon, ilmenite	La-0,1%; Nb-0,006%; Sr-0,02%; Y-0,02%; Ga-0,008%		Geological mapping(1966)**					1725
1440	Yarkhis gol	Stock: 150m x150m			Nb-0,01%; La-0,002%; Ce-0,55%; Y-0,05%; Ga-0,002%		Geological mapping(1966)**					1725
1442	Quartz	Quartz vein: 50m x1,5m	gold	silver	Au-7,6g/t; Ag-0,4-3,2g/t		Geological mapping(1982)*		105m cub			3649
1449	Tsagaan burgas	Metasomatic vein: 1200m x500m	(torite)	fluorite	Ni-0,3-0,6%; Cr-0,4-1%		Prospecting work(1989)	500 samples				4379
1488	Egin gol	Altered serpentinite	chalcopyrite, malachite, azurite	magnetic pyrite	Cu-0,01-0,1%		Prospecting work(1965)					1812

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metallogenic province	Country rock	Alteration	Age of mineralization
1491	Aligana gol	Hydrothermal	Khubsghul	49 51 00	100 25 00	North Mongolia	Near Khubsghul	Dipression	leucocratic granite	basalt	Upper Paleogene-Lower Quaternary	Permian, Jurassic(P1, J3)	North Mongolia	leucocratic granite, granite	Silicification	Jurassic(J3)
1492	Khan jargalan laul	Metasomatic	Khubsghul	49 02 00	100 00 00	North Mongolia	Near Khubsghul	Dipression	granite, granosyenite, syenite	limestone, sandstone, conglomerate	Lower-Upper Cambrian	Lower Triassic	North Mongolia	granite, granosyenite, syenite		
1493	Alag tolgoi	Metasomatic	Khubsghul	49 40 00	100 45 00	North Mongolia	Zed	Dipression	Granite		Middle Devonian, Jurassic		North Mongolia	Granite		
1494	Donkhor bulag	Metasomatic	Khubsghul	49 22 00	100 10 00	North Mongolia	Ider	Dipression		trachyhyolite porphyry, acidic tuff	Permian(P1)		North Mongolia	acid tuff, trachyhyolite porphyry	Silicification, Kaolinization, Pyritization	
1495	Nergui	Hydrothermal	Khubsghul	49 22 00	100 03 00	North Mongolia	Near Khubsghul	Dipression		acidic volcanic rocks, tuff	Upper Permian			acidic volcanic rocks, tuff		
1500	Nergui	Metasomatic	Khubsghul	49 47 00	101 52 00	North Mongolia	Zed	Dipression	granite	limestone	Lower-Middle Cambrian	Lower-Middle Cambrian	North Mongolia	granite, limestone		
1525	Khornoni gol	Hydrothermal	Khubsghul	51 15 00	100 12 00	North Mongolia	Near Khubsghul	Dipression		meta-sandstone, schist	Upper Proterozoic		North Mongolia	meta-sandstone, schist		
1529	Nergui (No74)	Metamorphogenic	Khubsghul	51 03 00	100 08 00	North Mongolia	Tuba-mongol	Uplift		crystalline shale	Upper Proterozoic			crystalline shale		
1530	Saikhan gol	Sedimentary	Khubsghul	50 52 00	100 08 00	North Mongolia	Near Khubsghul	Dipression		limestone	Lower Cambrian		North Mongolia	limestone		
1531	Baga tsagaan gol	Sedimentary	Khubsghul	50 51 00	100 04 00	North Mongolia	Near Khubsghul	Dipression		limestone, dolomite	Lower Cambrian		North Mongolia	limestone, dolomite		
1567	Khurilt gol	Hydrothermal	Khubsghul	50 39 00	100 46 00	North Mongolia	Near Khubsghul	Dipression	diorite	crystalline shale		Paleozoic(PZ1)		diorite, crystalline shale		
1568	Ult gol	Hydrothermal	Khubsghul	50 36 00	100 02 00	North Mongolia	Near Khubsghul	Dipression		limestone	Vendian		North Mongolia	limestone		
1581	Ubur teeliin gol	Hydrothermal	Khubsghul	49 18 00	100 41 00	North Mongolia	Zed	Dipression	granite			Lower-Middle Devonian		granite		
1583	Ich khujirtin khuree	Hydrothermal	Khubsghul	48 43 00	100 18 00	North Mongolia	Ider	Uplift	granodiorite, syenite, diorite			Lower-Middle Devonian	North Mongolia	granodiorite, syenite, diorite		
1585	Gua ulaan uul	Metasomatic	Bulgan	48 55 00	101 53 00	North Mongolia	Ider	Dipression	syenite porphyry, granosyenite	volcanogenic sedimentary rocks	Triassic(T1-2)	Triassic(T1-2)	North Mongolia	volcanogenic sedimentary rocks		
1586	Zost tolgoi	Metasomatic	Arkhangai	48 43 00	101 25 00	North Mongolia	Ider	Dipression	leucocratic granite, granite porphyry	andesite, andesite porphyry, tuff	Permian(P1)	Permian-Triassic(P2-T1)	North Mongolia	andesite, andesite porphyry, tuff		

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit (2)					Previous survey						Reference Report number
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling		
1491	Altgana gol	Stockwork: 850m x550m	molybdenite		Mo-0.006-0.035%; Ag-1.5g/t	Mo-14700t	Geological mapping(1965*; 1985*)	920 samples(1985)		1269m.cub(1985)	40.8m(1985)	1812, 3976, 5000	
1492	Khan Jargalant uul	Skarnization zone: 90m x10m	malachite, azurite, chrysocolla	magnetite	Cu-0.01-1.0%		Geological mapping(1975)**	475 samples	507.6m.cub			2660	
1493	Alag tolgoi	Stock: 0.78sq.km	scheelite		Mo-0.01%; Cu-0.01%; Sr-0.005%		Geological mapping(1975)**		400m.cub			2660, 3832	
1494	Donkhor bulag	Altered zone	magnetite	Pyrite	Cu-0.003%		Geological mapping(1975)**	62 samples	295.6m.cub			2660	
1495	Nergui	Quartz vein: 0.7-2.0m	gold	marite, galena, magnetite	Au-0.2g/t; Ag-6.8g/t		Prospecting work(1963)	1300 samples	16digs			1812	
1500	Nergui	Skarn: 50m	chalcopyrite, malachite, azurite		Cu-		Geological mapping(1964)**					1828	
1525	Khornomi gol	Quartz vein: 0.05-0.1m			Mo-0.05-1.5%		Geological mapping(1968)**					1827	
1529	Nergui (No74)	Thin vein:	andalusite, cyanite		Al-30-40%		Geological mapping(1967)**					1756	
1530	Saikhan gol	Lenticular body: 9000m x16m	pyrolusite	hematite	Fe-12.11%, Mn-19.6%	Fe-42.9million ton; Mn-65.5million ton	Geological mapping(1958)**; (1987)*		344m.cub(1987)			486, 938, 4286	
1531	Baga tsagaan gol	Lenticular body: 7000m x23.2m	pyrolusite, hematite		Mn-23.63%; Fe-15.75%	Mn-48million ton; Fe-32million ton	Geological mapping(1987)*; (1958)**		102.3m.cub			938, 4286	
1567	Khunit gol	Quartz-carbonate vein: 80m x0.35m	galena	chalcopyrite, pyrite, chalcocite	Cu-0.16-0.72%		Prospecting work(1941)		150m.cub			370	
1568	Uit gol	Quartz vein: 70m x0.5m	galena	chalcopyrite, malachite, azurite	Pb-0.001-0.01%		Geological mapping(1958)**					938	
1581	Ubar teelin gol	Altered zone: 4000m x300m			Pb-0.09%		Geological mapping(1974)**	287 samples	150m.cub			2256	
1583	Ikh khujirtin khuree	Fracture zone: 200m x50m	chalcopyrite, malachite, cuprite	pyrite, covellite, tenorite	Cu-2.1%		Prospecting work(1966)	709 samples	177m.cub			1812, 1814	
1585	Gua ulaan uul	Altered zone: 4500m x200m			Cu-0.12-0.25%; Au-0.1g/t		Geological mapping(1973)**; prospecting work(1976)*	724 samples(1973)	255.7m.cub(1973)			2043, 2676	
1586	Zost tolgoi	Altered zone: 2.5km x1km	malachite, chalcopyrite	galena, sphalerite	Cu-0.01-0.02%; Ag-0.1g/t		Prospecting work(1981, 1983)*, *	6 sq.km field		408.6m		2283, 3703, 2924	

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit type	Location			Geology						Deposit (I)				
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metallogenic province	Country rock	Alteration	Age of mineralization
1587	Yargai	Hydrothermal	Arkhangai	48 47 00	101 19 00	North Mongolia	Ider	Uplift	leucocratic granite porphyry			Permian(P2)	North Mongolia	leucocratic granite porphyry		
1608	Usniil gasar	Hydrothermal	Arkhangai	48 19 30	101 02 30	North Mongolia	Tariat-selenge	Dipression	granite			Lower Triassic		granite		
1609	Bungin gorkhi	Hydrothermal	Arkhangai	48 37 15	101 07 10	North Mongolia	Ider	Uplift	granite, granosyenite, syenite	dacite, andesite-dacite, porphyrite, rhyolite porphyrite	Lower Devonian	Upper Permian-Lower Triassic		granite, granosyenite, syenite		
1611	Khavgai mod	Hydrothermal	Arkhangai	48 09 00	101 55 00	North Mongolia	Tariat-selenge	Dipression	granite			Lower paleozoic		granite		
1612	Khuiten nuur		Arkhangai	48 05 00	101 56 00				granite	acidic volcanic rocks	Lower-Upper Permian	Lower Paleozoic		acidic volcanic rocks		
1802	Eren gol	Sedimentary	Bulgan	50 05 00	102 28 00	North Mongolia	Zed	Dipression		sediment	Quaternary(QII-IV)		Zed	sediment		
1803	Isagaan chaluutin bulag	Sedimentary	Bulgan	50 07 00	103 44 00	North Mongolia	Zed	Dipression		sand, pebble	Quaternary(QIV)		North Mongolia	sand, pebble		
1865	Zaamar nuuru	Hydrothermal Au	Tub	48 32 00	104 36 00	Mongol-Ubur ba ykal	North Khenty	Uplift	gabbro-diorite		Upper Triassic-Jurassic		North Khenty	gabbro-diorite		Upper Triassic-Jurassic
1918	Urmen isagaan nuur	Hydrothermal	Bulgan	48 48 00	102 55 00	North Mongolia	Tariat-selenge	Dipression		trachyte porphyry, trachyandesite porphyry	Triassic(T)			trachyte porphyry, trachyandesite porphyry		
1922	Khudag	Sedimentary	Tub	48 25 00	104 42 00	Mongol-Ubur ba ykal	North Khenty	Uplift		sand, pebble, clay	Quaternary(QII-III)		North Khenty	sand, pebble, clay		
1923	Uguumerin am	Sedimentary	Tub	48 26 00	104 34 00	Mongol-Ubur ba ykal	North Khenty	Uplift		sediment	Quaternary		North Khenty	sediment		
1924	Ailt khundee	Sedimentary	Tub	48 23 00	104 33 00	Mongol-Ubur ba ykal	North Khenty	Uplift		clay, pebble, sediment	Quaternary		North Khenty	clay, pebble, sediment		
1926	Ar tamsag	Sedimentary	Tub	48 20 00	104 31 00	Mongol-Ubur ba ykal	North Khenty	Dipression		clay, sand, pebble	Quaternary		North Khenty	clay, sand, pebble		
1928	Ubur urt	Sedimentary	Tub	48 17 00	104 46 00	Mongol-Ubur ba ykal	North Khenty	Dipression		sandstone, conglomerate, clay, sand, pebble	K1, N2		North Khenty	clay, sand, pebble		

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area
Eastern part of the survey area

No	Deposit name	Deposit (2)						Previous survey					Reference Report number
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling		
1587	Yargait	Lenticular? stockwork: 200m x40m	cuprite, molybdenite		Cu-0.007-0.3%		Prospecting work(1984)	270 samples	Electrics	2m cub		3703	
1608	Usnii gasar	Altered zone: 2,3sq km	pyrite		Cu-0.001-0.03%; Au-0.1-0.2g/t		Geological mapping(1980)**			31digs	4holes	3228	
1609	Burigin gorkhi	Fracture zone:	malachite		Cu-0.005-0.01%		Geological mapping(1975)**			122.3m cub		2283	
1611	Khavtgai mod	Fracture zone:	malachite		Cu-0.04%		Geological mapping(1980)**					3228	
1612	Khuiten naar	Quartz vein: 100m x1.5m	gold		Au-0.1-0.3g/t; Ag- 0.2-0.7g/t		Geological mapping(1980)**					3228	
1802	Eren gol	Bed: 0.6m	gold		Au-5g/t		Prospecting work(1942), geological mapping(1994)**			36.7m pits(1942), 30 pits (1994)		372, 4862	
1803	Tsagaan chuluutiin bulag	Valley: 2500m x50m	gold		Au-sign		Prospecting work(1942)			30.4m pits		372	
1865	Zaamar nuruu	Quartz vein: 80m x1.5m	gold	malachite, limonite	Au-45g/t		Geological mapping(1972)**					2097, 1960	
1918	Umen tsagaan naur	Altered zone: 5km x2km	chalcopryrite	malachite	Cu-0.008-0.01%; Au-0.1g/t; Ag- 2.3-6.6g/t		Geological mapping(1973)**	1007 samples		283.4m cub		2043	
1922	Khudag	Gold bearing bed: 0.4m wide	gold		Au-14154 mg/m.cub		Prospecting work(1981)				1798m	4304	
1923	Uguunerim am	Gold bearing bed: 2000m x6m	gold		Au-100- 367mg/m.cub		Geological mapping(1971)**, prospecting work(1981)			6pits		1960	
1924	Ailt khundee	Gold bearing bed: 1m wide	gold		Au-0.282 mg/m.cub		Geological mapping(1979)*			28m pits		3660	
1926	Ar tamsag	Gold bearing bed: 100-340m	gold		Au-668- 1702mg/m.cub	Au-424, kg	Prospecting work(1981)			7018m pits	1528m	4304	
1928	Ubur urt	Gold bearing flow: 400m	gold		Au(II, III)-16-69- 8, 0mg/m.cub; Au(I)-8-276, 0mg/m.cub		Prospecting work(1981)				369.6m	4304	

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metallogenic province	Country rock	Alteration	Age of mineralization
1929	Baruun chingelt	Sedimentary	Tub	48 14 00	104 41 00	Mongol-Ubur ba ykal	North Khenty	Dipression	granite	sandstone, clay, pebble	Carboniferous(C1, N2)	Paleozoic(PZ2)	North Khenty	clay, pebble		
1930	Shar borjin uul	Hydrothermal Au	Tub	48 03 00	104 41 00	Mongol-Ubur ba ykal	North Khenty	Dipression	granite		Middle Paleozoic		North Khenty	granite	Benzitization, Limonitization	Upper Paleozoic
1931	Dulaan	Sedimentary	Tub	48 12 00	104 40 00	Mongol-Ubur ba ykal	North Khenty	Dipression	granite	sandstone, shale, clay, pebble	Lower Carboniferous, N2	Middle Paleozoic	North Khenty	clay, pebble		
1933	Boodog	Sedimentary	Tub	48 09 00	104 55 00	Mongol-Ubur ba ykal	North Khenty	Dipression		Sand, pebble, clay	Quaternary		North Khenty	Sand, pebble, clay		
1934	Badarkh	Hydrothermal Au	Tub	48 08 00	104 56 00	Mongol-Ubur ba ykal	North Khenty	Dipression	granite	sandstone, siltstone	Lower-Middle Paleozoic		North Khenty	sandstone, siltstone	Benzitization, Silification	Middle Paleozoic
1935	Tsogt	Hydrothermal	Tub	48 06 00	104 20 00	Mongol-Ubur ba ykal	North Khenty	Dipression		meta-sandstone	Paleozoic(PZ1)		North Khenty	meta-sandstone		Permian
1936	Tsagaan chuluut	Hydrothermal, placer	Tub	48 04 00	104 55 00	Mongol-Ubur ba ykal	North Khenty	Uplift	granite	sandstone	Lower Paleozoic		North Khenty	granite, sandstone		
2756	Yashih-II (N4)	Magmatic	Selenge	48 56 00	104 50 00	North Mongolia	Tariat-selenge	Dipression		siltstone	Lower Carboniferous		North Mongolia	siltstone		
2757	Zuslan toigoi-18	Magmatic, metasomatic	Selenge	48 54 00	104 48 00	North Mongolia	Tariat-selenge	Graben	diorite	siltstone	Lower Carboniferous	Upper Permian-Lower Triassic	North Mongolia	diorite		
2760	Shar us gol	Sedimentary	Selenge	48 51 00	104 58 00	North Mongolia	Tariat-selenge	Horst		sand, pebble	Quaternary(QIII)		North Khenty	sand, pebble		
2761	Bayantsogt	Metamorph	Selenge	48 51 00	104 48 00	North Mongolia	Tariat-selenge	Graben		aleurolite, claystone	Lower Carboniferous			aleurolite, claystone	Silification(aleurolite-ornamental rock)	
2763	Khoshuu toigoi	Hydrothermal-metasomatic	Selenge	48 49 00	104 47 00	North Mongolia	Tariat-selenge	Graben	granite	sandstone, siltstone, conglomerate	Lower Carboniferous	Upper Permian-Lower Triassic	North Mongolia	granite		
2767	Tol river's bank	Sedimentary	Selenge	48 44 00	104 44 00	North Mongolia	Tariat-selenge	Horst		sandstone, clay, pebble	Quaternary(QII-III)		North Khenty	sand, clay, pebble		
2770	Tol river	Sedimentary	Selenge	48 42 00	104 45 00	North Mongolia	Tariat-selenge	Horst		sandstone, clay, pebble	Quaternary(QIV)		North Khenty	sand, clay, pebble		

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area
Eastern part of the survey area

No.	Deposit name	Deposit (2)				Previous survey					Reference Report number	
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit		Drilling
1929	Banun chingelt	Gold bearing bed: 0.4-1m wide	gold		Au-177-1169 mg/m cub			Prospecting work(1981)			1027.4m	4304
1930	Shar borjin uul	Altered zone: 900m x100m	gold	galena, chalcopyrite, sphalerite, malachite	Au-0.006-88.64g/t			Geophysical mapping(1984)	3725 samples(1984)	Magnetics (1984)		3801
1931	Dulaan	Gold bearing flow	gold		Au-43- 160mg/m cub			Prospecting work(1981)			419.2m	4304
1933	Boodog	Gold bearing bed: 0.4m wide	gold		Au-100- 420mg/m.cub			Prospecting work(1988)			784.4m	4304
1934	Badarkh	Sulfid zone: 3500m x220m	gold	chalcopyrite, pyrite, galena, sphalerite	Au-1-3g/t			Geological mapping(1984)*			713m cub	3979
1935	Tsogt	Quartz vein:	gold		Au-0.1-0.2g/t			Geological mapping(1985)*	1600 samples			3979
1936	Taagan chuluut	Gold bearing bed: 3.5m; Quartz vein: 70m x2.0m; Alteration zone: 150m x20m	gold		Au(quartz vein) - 0.01-3.0g/t; Au(alt zone)- 0.3g/t; Au- 0.02 mg/m cub			Geological mapping(1985)*		Magnetics	610.4m	3988, 3979
2756	Yashilt-II (N4)	Diorite stock: 100m x50m			Mo-0.02%			Geological mapping(1991)*				4548
2757	Zuslan tolgoi-18	Altered zone: 500m x500m			Cu-0.01%			Geological mapping(1991)*				4548
2760	Shar us gol	Bed(1): 440m x1.2m; Bed(2): 220m	gold		Au-20mg/m cub			Geological mapping(1991)*			50m	4548
2761	Bayantsogt	Aleurolite bed: 100m x100m			P2=8000m cub			Geological mapping(1991)*				4548
2763	Khoshuu tolgoi	Quartz vein: 100m x0.2m	chalcopyrite	malachite, pyrite	Cu-0.05-1.0%			Geological mapping(1991)*		Electrics		4548
2767	Tol river's bank	Bed(1): 25000m x180m; Bed(2): 5000m x60m	gold		Au(I)- 580mg/m cub; Au(II)- 1660mg/m cub			Geological mapping(1991)*			208m pits	4548
2770	Tol river	Bed: 5000m x150m	gold		Au-1080mg/m.cub Au-648kg			Geological mapping(1991)*			1500m	4548

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit type	Location			Geology						Deposit (1)				
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Metalogenic province	Country rock	Alteration	Age of mineralization	
2772	Bulgin sar	Sedimentary	Selenge	48 42 00	104 44 00	North Mongolia	Tariat-selenge	Horst		aleurolite, clay	Quaternary			aleurolitized clay		
2774	Anand (No109)	Metasomatic Au occurrence	Selenge	48 41 00	104 59 00	North Mongolia	Tariat-selenge	Graben	granodiorite, granite		Middle-Upper Ordovician	Lower Jurassic	North Khenty	granodiorite, granite	Silicification, Berezitization	Lower Jurassic
3356	Jargalant	Hydrothermal-metasomatic	Bulgan	50 15 00	102 45 00	North Mongolia	Zed	Dipression	leucocratic granite	schist	Vendian-Lower Cambrian	Middle-Upper Devonian		leucocratic granite		
3511	Ar zorlogo	Sedimentary	Bulgan	50 02 00	102 10 00	North Mongolia	Zed	Dipression		sediment	Quaternary(QIII-IV)		Zed	sediment		
3743	118 vein	Hydrothermal Au	Tub	48 16 40	104 33 45	North Mongolia	Tariat-selenge	Dipression		clay schist, sandstone	Middle Cambrian-Lower Ordovician	Ordovician		clay schist, sandstone		
3744	117 vein	Hydrothermal Au	Tub	48 16 35	104 33 20	North Mongolia	Tariat-selenge	Dipression		schist, sandstone	Middle Cambrian-Lower Ordovician	Ordovician		schist, sandstone		
3745	194c vein	Hydrothermal Au	Tub	48 15 25	104 33 05	North Mongolia	Tariat-selenge	Dipression		clay schist, sandstone	Middle Cambrian-Lower Ordovician	Ordovician		clay schist, sandstone		
3746	188 vein	Hydrothermal Au	Tub	48 16 35	104 31 35	North Mongolia	Tariat-selenge	Dipression		schist, sandstone				schist, sandstone		
3747	188-1 vein	Hydrothermal Au	Tub	48 16 35	104 31 40	Central Mongolia	Tariat-selenge	Dipression		clay schist, sandstone	Middle Cambrian-Lower Ordovician	Ordovician		clay schist, sandstone		
3748	191 vein	Hydrothermal-metasomatic	Tub	48 16 35	104 31 27	North Mongolia	Tariat-selenge	Dipression		schist, sandstone	Middle Cambrian-Lower Ordovician	Ordovician		schist, sandstone		
3749	260, 194, 194a, 194b veins	Hydrothermal Au	Tub	48 15 44	104 35 05	North Mongolia	Tariat-selenge	Dipression		schist, sandstone	Middle Cambrian-Lower Ordovician	Ordovician		schist, sandstone		
3750	197 vein	Hydrothermal Au	Tub	48 18 03	104 35 07	North Mongolia	Tariat-selenge	Dipression		schist, sandstone	Middle Cambrian-Lower Ordovician	Ordovician		schist, sandstone		
3751	56 vein	Hydrothermal Au	Tub	48 16 36	104 34 50	North Mongolia	Tariat-selenge	Dipression		schist, sandstone	Middle Cambrian-Lower Ordovician	Ordovician		schist, sandstone		
3752	56a vein	Hydrothermal Au	Tub	48 16 54	104 34 49	North Mongolia	Tariat-selenge	Dipression		sandstone, schist	Middle Cambrian-Lower Ordovician	Ordovician		sandstone, schist		
3753	55 vein	Hydrothermal Au	Tub	48 16 45	104 35 03	North Mongolia	Tariat-selenge	Dipression		sandstone, schist	Middle Cambrian-Lower Ordovician	Ordovician		sandstone, schist		
3754	115 vein	Hydrothermal-metasomatic	Tub	48 16 11	104 31 38	North Mongolia	Tariat-selenge	Dipression		sandstone, schist	Middle Cambrian-Lower Ordovician	Ordovician		sandstone, schist		

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No	Deposit name	Deposit (2)					Previous survey					Reference Report number
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling	
2772	Bulgim sair	Clay bed: 2.0m (wide)				Clay- P2=500000m.cub	Geological mapping(1991)*		40m pits		4548	
2774	Aaad (No.109)	Altered zone: 600m x5.0m			Au-0.1-1.0g/t	Au-0.54t	Geological mapping(1991)*	Magnetics Electrics(1991)	254.7m long		4548	
3356	Jargalant	Fracture zone: 80m x2m			Cu-0.72%		Prospecting work(1988)				4552	
3511	Ar zorlogo	Bed: 1350m x216m	gold		Au-3.77mg/m.cub	Au-2.03kg	Geological mapping(1997)*		18pits		5170	
3743	118 vein	Altered zone: 30m	pyrite, chalcopyrite	malachite, azurite	Au-0.1-192g/t	Au-6.6t	Prospecting work(1989)		Mining work 157m (1989)		4706	
3744	117 vein	Quartz vein: 300mx 1.6m			Au-0.1-50.9g/t	Au-1.7t	Prospecting work(1989)		2digs(1989)	1hole(1989)	4706	
3745	194c vein	Quartz vein:	pyrite, chalcopyrite		Au-0.5-60.2g/t	Au-2.1t	Prospecting work(1989)		13287m.cub (1989)	3holes(1989)	4706	
3746	188 vein	Quartz vein:	pyrite, magnetic pyrite		Au-		Prospecting work(1989)				4706	
3747	188-1 vein	Hydro-metasomatic: 40m	pyrite, chalcopyrite		Au-0.1-66.0g/t	Au-1.6t	Prospecting work(1989)		2digs(1989)		4706	
3748	191 vein	Hydro-metasomatic? (Hydro-meta alteration): 10m wide	pyrite, chalcopyrite, galena		Au-0.1-72.4g/t	Au-1.1t	Prospecting work(1989)			2holes(1989)	4706	
3749	260, 194, 194a, 194b veins	Quartz vein: 600m	pyrite, chalcopyrite				Prospecting work(1989)			2holes(1989)	4706	
3750	197 vein	Hydro-metasomatic: 15-30m	pyrite, chalcopyrite, magnetic pyrite		Au-0.1-21.01g/t	Au-0.68t	Prospecting work(1989)			909.6m(1989)	4706	
3751	56 vein	Quartz vein: 1000m x7.8m	pyrite, chalcopyrite		Au-0.1-89.5g/t	Au-2.3t	Prospecting work(1989)			909.6m(1989)	4706	
3752	56a vein	Quartz vein: 500m x1.7m	chalcopyrite, pyrite		Au-6.35g/t	Au-0.24t	Prospecting work(1989)				4706	
3753	55 vein	Quartz vein: 1300m x 7m	pyrite, magnetic pyrite		Au-1.8g/t	Au-1.1t	Prospecting work(1989)			1716.1m(1989)	4706	
3754	115 vein	Quartz vein: 300m x3m	pyrite, galena		Au-0.1-130g/t	Au-3.2t	Prospecting work(1989)			1225m(1989)	4706	

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metallogenic province	Country rock	Alteration	Age of mineralization
3755	188-2 vein	Hydrothermal Au	Tub	48 16 32	104 31 20	North Mongolia	Tariat-selenge	Dipression		schist, sandstone	Middle Cambrian-Lower Ordovician	Ordovician		schist, sandstone		
3756	188-3 vein	Hydrothermal Au	Tub	48 16 35	104 31 25	North Mongolia	Tariat-selenge	Dipression		schist, sandstone	Middle Cambrian-Lower Ordovician	Ordovician		schist, sandstone		
3757	189 vein	Hydrothermal Au	Tub	48 16 14	104 32 20	North Mongolia	Tariat-selenge	Dipression		schist, sandstone	Middle Cambrian-Lower Ordovician	Ordovician		schist, sandstone		
3758	Vein-107	Hydrothermal	Tub	48 17 04	104 29 32	North Mongolia	Tariat-selenge	Dipression		sandstone, shale	Cambrian-Ordovician(E2-O1)			sandstone, shale		Mesozoic(MZ1)
3759	198, 181, 182, 183 veins	Hydrothermal Au	Tub	48 14 15	104 30 45	North Mongolia	Tariat-selenge	Dipression		schist, sandstone	Middle Cambrian-Lower Ordovician	Ordovician		schist, sandstone		
4023	Occurrence-16	Hydrothermal Au occurrence	Bulgan	50 15 15	104 28 30	North Mongolia	Zelter	Dome/cupola	granite				Zelter	granite	Silicification, Sulphidization	
4024	Occurrence-14	Hydrothermal Au	Bulgan	50 15 40	104 27 35	North Mongolia	Zelter	Dome/cupola	granite				Zelter	granite	Sulfidization	
4025	Occurrence-7	Hydrothermal Au	Bulgan	50 17 05	104 31 03	North Mongolia	Zelter	Dome/cupola	granite				Zelter	granite		
4026	Occurrence-15	Hydrothermal Au	Bulgan	50 15 30	104 27 48	North Mongolia	Zelter	Dome/cupola	granite				Zelter	granite	Pyritization, Limonitization	
4027	Occurrence-8	Hydrothermal Au	Bulgan	50 16 27	104 29 46	North Mongolia	Zelter	Dome/cupola		sandstone	Lower-Middle Cambrian		Zelter	sandstone		
4028	Occurrence-4	Hydrothermal Au	Bulgan	50 17 45	104 30 40	North Mongolia	Zelter	Dome/cupola	granite				Zelter	granite	Pyritization, Silicification	
4029	Occurrence-5	Hydrothermal Au	Bulgan	50 17 50	104 31 30	North Mongolia	Zelter	Dome/cupola	granite				Zelter	granite	Pyritization, Limonitization	
4030	Occurrence-6	Skarn	Bulgan	50 17 20	104 34 10	North Mongolia	Zelter	Dome/cupola		meta-sandstone	Lower-Middle Cambrian		Zelter	Meta-sandstone		
4031	Occurrence-24	Hydrothermal	Bulgan	50 13 10	104 28 08	North Mongolia	Zelter	Dome/cupola	granosyenite	sandstone	Lower-Middle Cambrian	Middle Jurassic	Zelter	granosyenite		
4032	Gatsuirkhan	Hydrothermal Au	Bulgan	50 10 02	104 25 00	North Mongolia	Zelter	Dome/cupola	granite	limestone, sandstone	Lower-Middle Cambrian	Middle Jurassic	Zelter	granite	Pyritization	
4033	Occurrence-30	Hydrothermal Au	Bulgan	50 17 23	104 33 28	North Mongolia	Zelter		leucocratic granite	sandstone	Lower-Middle Cambrian	Middle Jurassic	Zelter	leucocratic granite		
4034	Baiv-44	Hydrothermal	Selenge	50 22 58	104 56 00	North Mongolia	Zelter	Deep fault	amazonite granite	andesite	Lower Permian		Zelter	amazonite granite		

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No	Deposit name	Deposit (2)					Previous survey					Reference Report number.
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling	
3755	188-2 vein	Quartz vein: 300m x 2.5m	pyrite, magnetite, pyrite		Au-0.5-16.3g/t		Prospecting work(1989)			2holes	4706	
3756	188-3 vein	Hydrothermal alteration			Au-0.5-10.0g/t	Au-0.35t	Prospecting work(1989)			2holes	4706	
3757	189 vein	Hydrothermal metasomatic	pyrite, chalcopyrite		Au-0.1-50g/t	Au-0.84t	Prospecting work(1989)			1882.5m(1989)	4706	
3758	Vein-107	Quartz vein: 200m x2m	pyrite, chalcopyrite		Au-30g/t	Au-0.7t	Prospecting work(1989)				4706	
3759	198, 181, 182, 183 veins	Hydrothermal metasomatic	Pyrite, magnetite, pyrite		Au-6.8g/t	Au-2.4t	Prospecting work(1989)				4706	
4023	Occurrence-16	Stockwork: 500m x 10m	gold	molybdenite, galena	Au-0.03g/t, Ag-70g/t	Au-40.5kg, Ag-67.5kg	Geological mapping(1995)*		3digs		5031	
4024	Occurrence-14	Stockwork	gold		Au-0.2g/t	Au-1.6kg	geological mapping(1995)*		3digs		5031	
4025	Occurrence-7	Stockwork: 50m x50m	gold	pyrite	Au-0.2g/t	Au-67.5kg	Geological mapping(1996)*				5031	
4026	Occurrence-15	Stockwork: 700m x0.2m			Au-0.2g/t, Ag-30.0g/t	Au-3.7kg, Ag-567kg	Geological mapping(1995)*		2digs		5031	
4027	Occurrence-8	Stockwork	gold		Au-0.2g/t	Au-34kg	Geological mapping(1994)*				5031	
4028	Occurrence-4	Altered zone: 50m x50m	gold		Au-0.01g/t	Au-3.3kg	Geological mapping(1996)*				5031	
4029	Occurrence-5	Altered zone: 100m x50m	gold		Au-0.02g/t	Au-21.6kg	Geological mapping(1996)*				5031	
4030	Occurrence-6	Lenticular body: 60m x20m	gold		Au-0.01g/t	Au-3.2kg	Geological mapping(1996)*				5031	
4031	Occurrence-24	Quartz vein: 200m x200m	gold		Au-0.01g/t	Au-108kg	Geological mapping(1996)*				5031	
4032	Gaisurkhan	Altered zone: 400m x150m	gold		Au-0.02g/t	Au-324kg	Geological mapping(1994)*	44m ² fields			5031	
4033	Occurrence-30	Stockwork: 200m x150m	gold		Au-0.02g/t	Au-81kg	Geological mapping(1996)*				5031	
4034	Bairv-44	Quartz vein: 250m x100m	gold	limonite, hydrogencite, pyrite	Au-0.02-0.2g/t	Au-540kg	Geological mapping(1996)*		3digs		5031	

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Eastern part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metallogenic province	Country rock	Alteration	Age of mineralization
4035	Baiv-45	Hydrothermal	Selenge	50 23 20	104 56 25	North Mongolia	Zelter	Deep fault	granite	andesite	Lower Permian		Zelter	granite		
4041	Nomt uul	Skarn	Bulgan	50 12 37	104 36 20	North Mongolia	Zelter, Buteeliin nuruu	Deep fault	leucocratic granite	meta-andesite, meta-aleurolite	Lower Permian	Middle Jurassic	Zelter	leicogranite		
4042	Khuut	Skarn	Bulgan	50 13 35	104 37 02	North Mongolia	Zelter, Buteeliin nuruu	Deep fault	leucocratic granite	meta-andesite, meta-aleurolite	Lower Permian	Middle Jurassic	Zelter	Leicogranite		
4043	Baiv-152	Sedimentary	Selenge	50 22 00	104 54 00	North Mongolia	Zelter, Buteeliin nuruu	Dipression		sand, pebble	Quaternary(QIV)		Zelter	sand, pebble		
4044	Baiv-153	Sedimentary	Selenge	50 22 30	104 56 00	North Mongolia	Zelter, Buteeliin nuruu	Dipression		sand, pebble	Quaternary		Zelter	sand, pebble		
4045	Mukhar baiv-155	Sedimentary	Selenge	50 22 30	104 58 45	North Mongolia	Zelter, Buteeliin nuruu	Dipression		sand, pebble, clay	Quaternary		Zelter	sand, pebble, clay		
4046	Monastei-154	Sedimentary	Selenge	50 24 58	104 14 15	North Mongolia	Zelter-Buteeliin nuruu	Dipression		sand and clay	Quaternary(QIV)		North Mongolia	sand and clay		
4049	Baruun khujir-151	Sedimentary	Bulgan	50 13 00	104 34 00	North Mongolia	Zelter, Buteeliin nuruu	Dipression		sandstone, clay, pebble	Quaternary(QIV)		Zelter	sand, clay, pebble		
4287	Bismuth occur-99		Selenge	50 14 40	104 53 20	North Mongolia	Zelter, Zed	Fault	alkaline granite			Middle Proterozoic	Buteeliin nuruu, Egin gol	alkaline granite		
4288	Bismuth occur-100		Selenge	50 14 40	104 53 20	North Mongolia	Zelter, Zed	Fault	granite-gneiss			Middle Proterozoic	Buteeliin nuruu, Egin gol	granite-gneiss		
4290	Maikhan uul		Selenge	50 15 57	104 54 37	North Mongolia	Zelter, Zed	Fault	granite-gneiss			Middle Proterozoic	Buteeliin nuruu, Egin gol	granite-gneiss		
4291	Kheregch		Selenge	50 15 57	104 54 37	North Mongolia	Zelter, Zed	Fault	gneissose granite			Middle Proterozoic	Buteeliin nuruu, Egin gol	gneissose granite		
4302	Ulent		Selenge	50 14 50	104 52 55	North Mongolia	Zelter, Zed	Fault	granite			Middle Proterozoic	Buteeliin nuruu, Egin gol	granite		
4372	Khirbee uul	Hydrothermal	Khubsqul	50 26 10	102 00 30	North Mongolia	Tariat-selenge	Dipression		oligomict-flisohoid sediments	Cambrian(E1)			oligomict-flisohoid sediments		
4379	Subarga uul	Hydrothermal	Khubsqul	50 23 00	102 04 40	North Mongolia	Tariat-selenge	Dipression		limestone, aleurolite, sandstone, shale	Cambrian(E1)			limestone, aleurolite, sandstone, shale		
4380	Lusin ovoo Tolgoi	Contact metamorphism	Bulgan	50 09 15	102 44 30	North Mongolia	Tariat-selenge	Dipression	granite			Upper Permian-Lower Triassic		granite		

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area
Eastern part of the survey area

No.	Deposit name	Deposit (2)				Previous survey					Reference Report number
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	
4035	Baiv-45	Quartz vein: 250m x80m gold	limonite, goethite?, pyrite	Au-0.02-0.2g/t	Au-540kg	Geological mapping(1996)*			3digs		5031
4041	Nomt uul	Lenticular body: 200m x80m gold		Au-0.03g/t, Mo-0.001%	Au-43kg	Geological mapping(1994)*					5031
4042	Khaat	Lenticular body: 400m x300m gold		Au-0.01g/t, Cu-0.01%	Au-162kg	Geological mapping(1994)*					5031
4043	Baiv-152	Bed: 2km x0.4km gold		Au-580mg/m.cub	Au-18kg	Geological mapping(1996)*			2line pits		5031
4044	Baiv-153	Placer: gold		Au-		Geological mapping(1996)*			1line pits		5031
4045	Mukhar baiv-155	Placer: gold		Au-		Geological mapping(1996)*			1line pits		5031
4046	Monosrei-154	Placer: 0.4m deep gold		Au-30.0mg/m.cub		Geological mapping(1995)*			1line pits		5031
4048	Baruan khujir-151	Bed: gold		Au-sign		geological mapping(1995)*			2pits		5031
4287	Bismuth occur-99	Quartz vein: 20m x0.5m Bismuth		Bi-0.01%; W-0.002%	Bi-0.054t; W-0.01t	Geological mapping(1996)*					5031
4288	Bismuth occur-100	Quartz veins: 600m x7m Bismuth		Bi-0.01%; W-0.001%	Bi-2.26t; W-0.22t	Geological mapping(1996)*					5031
4290	Maikhan uul	Quartz vein: 10m x0.4m Bismuth		Bi-0.07%; Au-0.01g/t	Bi-0.15t	Geological mapping(1996)*					5031
4291	Khergech	Quartz vein: 25m x1.5m Bismuth		Bi-0.03%; W-0.005; Ag-1g/t	Bi-0.6t	Geological mapping(1996)*					5031
4302	Ulent	Quartz vein: 50m x1.2m Bismuth	tungstenite	Bi-0.05-0.1%; W-0.01%; Ag-1.20g/t; Au-0.1g/t	Bi-10.0t; W-5.0t; Ag-0.1t	Geological mapping(1996)*					5031
4372	Khirbes uul	Altered zone: 120m x850m malachite	azurite	Cu-0.002-0.03%		Geological mapping(1992)**					4862
4379	Subarga uul	Altered zone: 100m x800m malachite	azurite	Cu-0.002-0.03%; Mo-0.00015-0.0002%		Geological mapping(1992)**					4862
4380	Lustin ovoo tolgoi	Skarn: 180m x20m Bismuth		Cu-0.07-1%; Ag-0.00005%		Geological mapping(1992)*	45 samples		35.53m cub		4862, 5170

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit type	Location			Geology						Deposit (1)					
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metallogenic province	Country rock	Alteration	Age of mineralization	
438	Ovoomi bulan	Contact metamorphism	Bulgan	50 10 00	102 41 30	North Mongolia		Dipression		andesite-rhyolite	Vendian-Lower Cambrian				andesite-rhyolite		
4407	Baroun khujir		Bulgan	50 16 38	104 26 00	North Mongolia	Zelter	Fault		Sandstone				Buteilin nuruu	Sandstone		
4625	Serkh tsakhir nul	Hydrothermal-metasomatic	Khubs gul	50 11 15	102 16 10	North Mongolia	zed			andesite, tuff, limestone	Vendian-Cambrian(V-E1, E1)		Zed		andesite, tuff, limestone	Epidotization, Brecciation	Cambrian(E)
4626	Salkhitin ekh	Hydrothermal	Bulgan	50 10 40	102 20 50	North Mongolia	Zed		syenite	meta-volcanic rocks	Vendian-Cambrian(V-E1)	Triassic-Jurassic(T3-J1)	Zed		meta-volcanic rocks	Epidotization, Limonitization, Brecciation	
4627	Khust	Contact metamorphism	Bulgan	50 11 30	102 28 50	North Mongolia	Zed		granite	acidic and alkaline metaeffusive rocks	Vendian-Cambrian	Cambrian, Jurassic(E2-3, J2-3)	Zed		granite	Hornfelsization, Silicification	Lower Cambrian
4628	Jargaant	Hydrothermal	Bulgan	50 14 44	102 42 54	North Mongolia	Zed		granite, granodiorite, leucocratic granite	meta-andesite,	Vendian-Cambrian(V-E1)	Cambrian, Permian-Triassic(E2-3, P2-T1)	Zed		granite, granodiorite, leucocratic granite	Silicification, Epidotization, Carbonitization, Chloritization	Cambrian
4629	Salkhitin gol	Contact metamorphism	Khubs gul	50 07 30	102 11 50	North Mongolia	Zed		granite, syenite, quartz-syenite	andesite-basalt, limestone, andesite, tuffaceous aleurolite	Cambrian(E1-2, E1, V-O1)	Devonian, Permian-Triassic(D2, P2-T1)	Zed		andesite-basalt, limestone, andesite, tuff-aleurolite	Skarnization, Epidotization, Sulphidation, Silicification, Marlization, limonitization	Cambrian(E)
4630	Ar zorlogo	Hydrothermal	Bulgan	50 05 30	102 10 00	North Mongolia	Zed		alkaline syenite, leucocratic granite	andesite, limestone, siltstone, conglomerate	Lower Cambrian	Devonian, Permian-Triassic(D2, P2-T1)	Zed		alkaline syenite, leucocratic granite	Silicification?, Limonitization, Epidotization, Feldspartization	Middle Devonian
4631	Khets uul	Epithermal	Bulgan	50 05 30	102 43 00	North Mongolia	Zed			limestone, andesite, rhyolite	Cambrian(E1-V, P1)		Zed		limestone, andesite, rhyolite		Lower Permian
4632	Bulagi an	Hydrothermal Au	Bulgan	50 01 20	102 37 40	North Mongolia	Zed	Deep fault	syenite, quartz-syenite, diorite	meta-andesite	Vendian-Lower Cambrian	Cambrian, Permian-Triassic(E2-3, P2-T1)	Zed		syenite, quartz-syenite, diorite	Silicification?, Skarnization, Sericitization	
4633	Khonit uul		Khubs gul	50 14 38	102 03 30	North Mongolia	Zed			basalt, crystalline limestone, andesite, tuff, limestone	Riphean, Vendian(R1, V-E1)		Zed		basalt, crystalline limestone, andesite, tuff, limestone		

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area
Eastern part of the survey area

No.	Deposit name	Deposit (2)		Previous survey							Reference Report number
		Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling	
438	Ovooni bulan	malachite, azurite		Cu-0,001-0,007%		Geological mapping (1992)*		4digs		4862, 5170	
4407	Baruun khujir			Nb-0,01%, Ag-1g/t, Be-0,001%	Nb-135t	Geological mapping (1996)*				5031	
4625	Serkh tsakhir uul	gold		Au-278,0g/t; Cu-0,01%	Au-1036,9kg	Geological mapping (1997)*	10 samples	9,4m.cub		5170	
4628	Salkhiin ekh	gold		Au-0,00002g/t	Au-6,6kg	Geological mapping (1997)*	13 samples			5170	
4629	Khurst	gold	malachite	Au-0,01-20,0g/t; Cu-0,001-0,002%		Geological mapping (1997)*	574 samples	218,8m.cub		5170	
4630	Jargalan	gold	malachite, azurite	Au-0,05g/t; Cu-0,02%	Cu-10,6t	Geological mapping (1997)*	17 samples	370m.cub		5170	
4629	Salkhiin gol	gold	malachite, magnetite, hematite	Au-53,52g/t; Cu-0,01%; Ag-0,5g/t	Au-24325,0kg	Geological mapping (1997)*	103 samples			5170	
4630	Ar zorlogo	gold		Au-0,03g/t	Au-6747,06kg	Geological mapping (1997)*		104m.cub		5170	
4631	Khets uul	gold	malachite, magnetite	Au-0,2g/t	Au-146kg	Geological mapping (1997)*	19 samples	344m.cub		5170	
4632	Bulagi an	gold	malachite	Au-1,5g/t		Geological mapping (1997)*	74 samples	227m.cub		5170	
4633	Khoniit uul	Serpentine body: 20-40m wide	serpentine	(Facing rock-)		Geological mapping (1997)*		1dig		5170	

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit type	Location			Geology						Deposit (1)				
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metallogenic province	Country rock	Alteration	Age of mineralization
4636	Bayan ovoo uul	Contact metamorphism	Khubs gul	51 20 30	100 55 00	North Mongolia	Zed	Outcrop	granite, diorite, gabbro-diorite	metamorphic rocks	Middle Riphean	Middle-Upper Cambrian	North Mongolia	granite, diorite, gabbro-diorite	Homfelsization, Marbleization, Skarnization	
4637	Uran zhuurkh uul	Contact metamorphism	Khubs gul	51 34 30	100 50 40	North Mongolia	Zed	Outcrop	granite, plagiogranite	limestone, marble, crystalline shale, quartzite	Lower-Middle Riphean	Middle-Upper Cambrian	North Mongolia	limestone, marble, crystalline shale, quartzite	Epidiorization, Feldsparization	
4638	Arvan gurvan ovoo uul	Hydrothermal	Khubs gul	51 27 30	100 43 00	North Mongolia	Zed		syenite	carbonite, basalt	Vendian-Cambrian(V-E1); Neocene(N1)	Devonian(D2)	North Mongolia	syenite	Silicification?, Greisenization, Limonitization	Middle Devonian
4639	Shignaul gol	Hydrothermal-metasomatic	Khubs gul	51 16 30	100 52 58	North Mongolia	Zed	Outcrop	syenite, quartz-syenite	basalt	Lower Neogene	Middle-Upper Devonian	North Mongolia	syenite, quartz-syenite	Silicification?, Feldsparization	Middle Devonian
4641	Tsaagaangol	Hydrothermal	Khubs gul	50 55 20	101 43 50	North Mongolia	Zed	Outcrop	plagiogranite	gneiss, basalt	Riphean(R2); Neocene(N2)	Cambrian(E1-2)	North Mongolia	plagiogranite	Homfelsization, Ironization	
4690	Darkhit uul	Plutogenic-hydrothermal	Arkhangai	48 58 30	101 11 30	North Mongolia		Dipression	alkaline granite	andesite, rhyolite	Lower-Middle Jurassic	Lower-Middle Jurassic	Central Mongolia	alkaline granite	Limonitization, Silicification?, Feldsparization, Epidiorization	
4692	Tosongin kholoi	Sedimentary	Arkhangai	48 13 00	102 25 00	North Mongolia		Dipression		sediment	Quaternary(QIV)		Central Mongolia	sediment		
4693	Ikh elgediin gol	Sedimentary	Arkhangai	48 54 50	100 34 40	North Mongolia		Dipression		sandstone, clay, pebble	Quaternary(QIV)		Central Mongolia	sand, clay, pebble		
5141	Khavchuugin gun jalga	Sedimentary	Selenge	49 15 00	100 40 00	Mongol-Ubur ba ykal		Dipression		sandstone, clay, pebble	Quaternary(QIII-IV)		North Khenty	sand, clay, pebble		
5323	Dalkh ovoo-12	Metasomatic	Selenge	49 28 00	104 56 00	North Mongolia		Dipression		andesite, dacite, rhyolite	Upper Permian			andesite, dacite, rhyolite		
5343	Alingyr	Hydrothermal	Arkhangai	48 25 27	100 24 00	North Mongolia		Uplift	granite			Middle Paleozoic		granite		
5344	Khumuin	Metamorph	Arkhangai	48 01 00	101 25 00	North Mongolia		Dipression	granite	rhyolite and felsite porphyry	Lower Permian	Permian-Triassic		rhyolite, rhyolite and felsite porphyry		
5354	Ar khahant	Hydrothermal	Ibulgan	49 30 00	103 39 00	North Mongolia	Zed	Uplift		gneiss	Riphean			gneiss		

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area
Eastern part of the survey area

No.	Deposit name	Deposit (2)					Previous survey					Reference Report number
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling	
4636	Bayan ovoo uul	Skarn: 60m x5.0m			Mo-0.0005%; Cu-0.003%		Geological mapping (1997)**		162.1m cub		5171	
4637	Uran zhurkh uul	Altered zone: 1600m x450m			Mo-0.003%; Cu-0.01%		Geological mapping (1997)**	392m cub			5171	
4638	Arvan gurvan ovoot uul	Skarn: 2-5.0m	magnetic pyrite, hematite? (heotite)	chalcopyrite, galena	Cu-0.002%, Pb-0.001%, Zn-0.003%, Sn-0.0002%		Geological mapping (1997)**	18 samples	69.8m cub		5171	
4639	Shignuul gol	Altered zone: 250m x1.0m			Mo-0.002%, Cu-0.005%		Geological mapping (1997)**		141.2m cub		5171	
4641	Tsagaangol	Skarn: 850m x110m	gold	malachite	Au-0.003g/t, Cu-0.02%		Geological mapping (1997)**	536 samples	309.8m cub		5171	
4690	Darkhit uul	Quartz-tourmaline vein: 200m x1m		limonite, arsenopyrite, covellite, bornite	W-0.001-0.01%; Cu-0.005%, Ag-0.5-20g/t		Geological mapping (1991)*					
4692	Tosongin khooloi	Gold field: 6000m x500m	gold		Au-79.4mg/m cub	Au-21.6kg	Prospecting work (1994)		11 pits		4874	
4693	Ikch elgediin gol	Gold field: 14000m x150m	gold		Au-100mg/m cub	Au-67kg	Prospecting work (1993)		15m pits		4874	
5141	Khavchuugin gun jalga	Lenticular bed: 300m x50m	gold		Au-293mg/m cub	Au-7.5kg	Prospecting work (1991)		284.4m pits		4634	
5123	Dalkh ovoo-12	Dyke: 300m x10m	pyrite, chalcopyrite		Cu-		Geological mapping (1988)*		3digs		4553	
5343	Alingyr	Quartz vein: 1000m x500m			Cu-0.1%		Geological mapping (1980)**		116.1m cub		3228	
5344	Khurunin	Altered zone: 1500m x800m			Cu-0.008-0.01%, Mo-0.0003-0.001%		Geological mapping (1980)**		366m cub		3228	
5354	Ar khahant	Pegmatite: 300m x2.0m	titanomagnetite, zircon		Ta-0.064%, Nb-0.072%		Geological mapping (1976)				2593	

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)				
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metalogenic province	Country rock	Alteration	Age of mineralization	
5362	Nergui	Hydrothermal	Selenge	49 57 00	104 41 00	North Mongolia	Tariat-selenge	Depression	granite, pegmatite			Cambrian			granite, pegmatite	Gneissization?	
5366	Khoshuu ovoo	Hydrothermal	Selenge	50 16 00	104 52 00	North Mongolia	Orkhon-selenge	Depression		green shale		Cambrian			green shale		
5385	Nergui	Hydrothermal	Bulgan	50 07 00	102 28 00	North Mongolia	Zed	Depression	granite					North Mongolia	granite		
5386	Nergui	Hydrothermal	Bulgan	49 59 00	102 25 00	North Mongolia	Tariat-selenge	Depression		quartzite, andesite porphyry?		Upper Permian	North Mongolia		andesite porphyry?, quartzite		
5387	Bayasgalan-6	Metasomatic	Bulgan	49 58 00	102 30 00	North Mongolia	Tariat-selenge	Depression	granite	rhyolite, rhyolite porphyry		Upper Permian			rhyolite, rhyolite porphyry		
5388	Tashir uul	Skarn	Bulgan	49 58 00	102 39 00	North Mongolia	Tariat-selenge	Depression	granitoid	limestone, andesite		Vendian-Lower Cambrian			granitoid		
5389	Khuruut	Skarn	Khubsbul	49 50 00	102 03 00	North Mongolia	Zed	Depression		serpentinite		Middle Cambrian			serpentinite		
5390	Khushuut	hydrothermal-metasomatic	Khubsbul	49 37 00	102 14 00	North Mongolia	Zed	Depression			brecciated porphyry?	Upper Carboniferous			brecciated porphyry?		
5391	Khavchirga	Skarn	Bulgan	49 50 00	103 29 00	North Mongolia	orkhon-selenge		leucocratic granite	trachyandesite-basalt, trachybasalt		Permian			trachyandesite-basalt, trachybasalt		
5392	Ugen sant uul	Skarn	Selenge	49 42 00	104 56 00	North Mongolia	orkhon-selenge	Uplift		andesite, andesite-basalt, andesite porphyry		Permian			andesite, andesite porphyry, andesite-basalt		
5394	Zaun chingelt-21	hydrothermal-metasomatic	Tub	48 15 00	104 41 00	North Mongolia	Tariat-selenge	Depression	granite				Middle Paleozoic		granite		
5398	Tsagaan jalgin bulag	Metasomatic	Bulgan	50 08 00	103 43 00	North Mongolia	Zed	Uplift		limestone, shale		Lower Cambrian			limestone, shale		
5400	Khujinin gol	Hydrothermal	Bulgan	49 08 00	103 39 00	North Mongolia	Tariat-selenge	Depression	granodiorite, granosyenite						granodiorite, granosyenite		
5403	Urmin tsagaan nuur	Metasomatic	Bulgan	48 48 00	102 55 00	North Mongolia	Orkhon-Selenge	Depression		rhyolite-dacite, rhyolite porphyry		Lower Permian	North Mongolia		rhyolite-dacite, rhyolite porphyry		
5404	Mogoin gol	Metasomatic	Bulgan	49 15 00	103 45 00	North Mongolia	Orkhon-selenge	Depression		andesite-basalt porphyry?		Permian(P2)			andesite-basalt porphyry?		
5405	Gangat	Hydrothermal-metasomatic	Bulgan	48 50 00	103 18 00	North Mongolia	Orkhon-selenge	Depression		rhyolite, felsite, andesite porphyrite		Permian			andesite porphyrite, rhyolite, felsite		
5410	Dashlung(56)	Metasomatic	Bulgan	49 46 00	104 41 00	North Mongolia	Orkhon-selenge	Depression		andesite, andesite porphyry		Lower Permian			andesite, andesite porphyry		

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Eastern part of the survey area

No.	Deposit name	Deposit (2)			Previous survey						Reference Report number	
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit		Drilling
5362	Nergui	Fracture zone:			W-		Geological mapping(1946)**					473
5366	Khoshuu ovoo	Quartz vein: 70m x0.6m			Bi-0.19-5.75%		Geological mapping(1943)					402
5385	Nergui	Quartz vein: 45m x0.3m	pyrite, chalcopyrite		Cu-		Prospecting work(1941)					400
5386	Nergui	Silicified zone: 200m x50m	malachite		Cu-0.17-0.41		Prospecting work(1971)*					1965
5387	Bayasgalan-6	Altered zone: 300m x100m	chalcopyrite, bornite		Cu-0.2-0.4%		Prospecting work(1978)		425m cub	55.8m		2982
5388	Tashir uul	Skarn: 800m x130m			Cu-2.3%, Ag-3g/t		Prospecting work(1977)		32.2m cub			2982
5389	Kihurut	Altered zone: 70m x30m			Cu-3.10%, Ag-0.001g/t		Geological mapping(1960)**					1500
5390	Khushuut	Altered zone: 300-350m	malachite, azurite		Cu-3-10.0%		Geological mapping(1960)**					1500
5391	Khavchirga	Ore body: 70sq km	chalcopyrite				Geological mapping(1977)**					3832
5392	Uügen sant uul	Quartz vein: 2m x0.2m	chalcosine, malachite, azurite		Cu-0.05-0.5%, Ag-0.0005%		Geological mapping(1982)**		64m cub			3624
5394	Zuun chingelt-21	Quartz-tourmaline vein: 15 x1.5m	malachite, azurite		Cu-0.003-0.5%		Geological mapping(1979)*					3600
5398	Tsagaan jaljijn bulag	Dispersed frame: 1200m x5000m			Cu-0.5-2.0g/m.cub		Geological mapping(1977)**					3156
5400	Khujirtin gol	Quartz vein: 6000m x2000m	chalcopyrite, malachite		Cu-0.28-0.74%		Geological mapping(1967)**		24digs			1965
5403	Urmin tsagaan nuur	Quartz vien: 11m x0.4m	malachite, azurite		Cu-		Geological mapping(1972)**	1122 samples	283.4m cub			3538
5404	Mogoin gol	Altered zone: 5000m x3500m	malachite		Cu-0.11%		Prospecting work(1971)*		2digs	2holes		3209
5405	Gangat	Quartz-epidote vein: 0.1-0.2m	malachite		Cu-0.001-0.009%		Prospecting work(1979)*		3318m cub	199m		3538
5410	Dashilungi(56)	Altered zone: 60m x30m			Mo-0.03%, Cu-0.01%		Geological mapping(1982)**		1208m cub			3624

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area

Eastern part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metalogenic province	Country rock	Alteration	Age of mineralization
5411	Zuun tarbagatai	Hydrothermal	Bulgan	50 14 00	104 25 00	North Mongolia	Orkhon-selenge	Dipression	granite, granodiorite	sandstone	Cambrian	Lower Paleozoic		granite, granodiorite		
5418	Asgat uul	Hydrothermal	Selenge	49 06 00	104 42 00	North Mongolia	Tariat-selenge	Dipression	granite			Upper Permian		granite		
5437	Narini am	Hydrothermal	Bulgan	50 12 05	102 11 20	North Mongolia	Zed			conglomerate, siltstone, limestone	Lower Cambrian		Zed	conglomerate, siltstone, limestone	Marbilization, Silicification?	Lower Cambrian
3-2	Saikhan gol		Khubsгал	50 52 00	100 08 00	North Mongolia	Near Khubsгал	Graben						silicified rocks	Silicification zone	

Table A-2 List of ore deposits, mineral occurrences, and geochemical anomalies in the central north area (17b/17)

No.	Deposit name	Deposit (2)						Previous survey					Reference Report number
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling		
5411	Zuun tarbagatai	Quartz vein: 30m x0.7m	galena		Pb-0.05%, Au-1.0g/t, Ag-45g/t			Geological mapping(1982)**		123m cub			3624
5418	Asgat uul	Quartz vein:	pyrite, chalcopyrite		Cu-			Geological mapping(1979)					3558
5437	Nanini am	Ore body: 1-50m x7.6m; Ore body: 150m x 1.5m	gold	malachite, azurite	Au-ore body 1-128g/t; ore body 2-38.5g/t; Cu-0.2%	orebody1- Au-366.8kg; ore body2- Au-45.3kg	Geological mapping(1997)*	12 samples	35.6m.cub				5170
3-2	Saikhan gol	Lenticular body: 1.5-2m, 20m	manganite?		MnO-16.68%	MnO-157000m.cub	Geological mapping(1946)** (1958)**		344m.cub (1958)				938

Previous survey (geology)

*-1:10 000 scale prospecting work; *-1:50 000 scale geological mapping; **-1:200 000 scale geological mapping.

-1:500 000 scale geological mapping; *-1:1 000 000 scale geological mapping

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metalogenic province	Country rock	Alteration	Age of mineralization
1543	Berkhmesh	Contact metamorphism	Khubsugul	50 26 00	99 49 00	North Mongolia	Near khubsugul	Dipression		Limestone	E1 -khordel series		North Mongolia	Limestone		Lower Cambrian
1594	Zagastai	Contact metasomatic	Zavkhan	48 16 00	97 15 00	North Mongolia	Ider	Uplift		Dolomite	Lower Cambrian		North Mongolia	Dolomite		Lower Cambrian
143	Occur-124-B-4,5	Hydrothermal	Zavkhan	48 24 00	97 38 00	North Mongolia	Ider	Uplift	Gabbroids			P2 -Uliastai series	North Mongolia	Gabbroids		
583	Deed ulaan tolgoi	Hydrothermal-metasomatic	Khubsugul	49 32 00	98 41 00	North Mongolia	Tuva-Mongol	Uplift	Granite, leucocratic granite			D1-2 -Tes complex, C3	North Mongolia	Granite, leucocratic granite		
1572	Zost uul	Hydrothermal	Zavkhan	48 42 00	98 20 00	North Mongolia	Ider	Uplift	Granite porphyry, syenite porphyry	Crystallin shale, gneiss, limestone	P3 -Khangai series	P2 -Selenge complex	North Mongolia	Granite porphyry, syenite porphyry		Upper Permian-Lower Triassic
107	Quartzite	Secondary alteration	Zavkhan	48 57 00	97 50 00	North Mongolia	Ider	Dipression		Rhyolite porphyry, tuff	Permian		North Mongolia	Rhyolite porphyry, tuff		
103	Under ulaan	Secondary alteration	Zavkhan	48 53 00	97 08 00	North Mongolia	Ider	Dipression		Rhyolite porphyry, tuff	Permian		North Mongolia	Rhyolite porphyry, tuff		
3808	Ulaanuur	Greisen	Khubsugul	49 38 50	99 19 40	North Mongolia	Khubsugul	Dipression	Granite			D2 -Telmen complex	North Mongolia	Granite		
93	Bugsein gol	Hydrothermal-metasomatic	Khubsugul	49 11 00	99 42 00	North Mongolia	Near Khubsugul	Dipression	Granite	Volcanogenic sedimentary rocks	Permian	P2-T1 -Selenge complex, delin nuur massive	North Mongolia	Volcanogenic sedimentary rocks		
399	Jimbe tolgoi	Hydrothermal-metasomatic	Khubsugul	49 20 50	99 30 05	North Mongolia	Ider	Dipression	Granite	Acid volcanic rocks, rhyolite	P2 -Khanui series upper suite	P2 -Selenge complex	North Mongolia	Acid volcanic rocks, rhyolite		Silicification, albitization
5004	Jinsein tolgoi	Metasomatic	Zavkhan	49 16 00	96 48 00	North Mongolia	Ider	Uplift	Granite, granosyenite porphyry	Rhyolite porphyry, tuff	D1 -Bor nuur series	Lower- Middle Devonian	North Mongolia	Rhyolite porphyry, tuff		

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit (2)			Ore reserve	Geology	Previous survey			Reference Report number
		Morphology	Ore mineral	Gangue mineral			Grade	Geochemistry	Geophysics	
1543	Berkehmesh	Skarn: 1600m x400m	Chalcopyrite, copper	Pyrite, magnetite	Cu-0.2%; Zn-0.005%	Geological mapping(1984)*	332 samples	31.2m cub		3977
1594	Zagastai	Skarn: 150m x15m	Magnetite		Cu-1.0%; Ag-50-60g/t	Geological mapping(1965)****				1755, 3576
143	Occur-124-B-4,5	Alteration zone: 700m x700m	Chalcopyrite, malachite	Pyrite, lazurite	Cu-1.0%; Au-0.02g/t; Ag-8.0g/t	Geological mapping(1981)**				3576
583	Deed ulaan tolgoi	Quartz-greisen veins: 90m x10m			Cu-0.01%; Ag-39g/t; Au-0.1g/t	Geological mapping(1987)*	385 samples	1192.4m cub		4428
1572	Zost uul	Stockwork: 1400m x380m	Molybdenite	Pyrite, chalcopyrite	Mo-0.01-0.25%	Prospecting work(1979)*; geological mapping(1977)**	5148 samples(1979)	2270.5m cub trenches; 132m pits(1979)	1268m (1979)	3122, 2982, 2981
107	Quartzite	Alteration zone: 800m x57m	Pyrite		Cu-0.008-0.01%; Mo-0.006%	Prospecting work(1979)		452.2m cub	65m	3122
103	Under ulaan	Alteration zone: 800m x30m	Molybdenite	Chalcopyrite, pyrite, hematite, magnetite, malachite?, covellite	Cu-0.001-0.004%; Mo-0.001%	Prospecting work(1979)	766 samples			3122
3808	Ulaannuur	Greisen zone: 250x150m			Cu-0.15%; Mo-0.02%	Prospecting work(1972)				4715
93	Bugsein gol	Alteration zone: 3km			Cu-0.07%; Mo-0.01%	Geological mapping(1965)****				1828, 1814
3991	Jimbe tolgoi	Alteration zone: 120m x2,3 m	Copper		Cu-0.03%; Mo-0.0002%	Geological mapping(1993)*		87.7m cub		4839
5004	Jinsen tolgoi	Alteration zone: 0.7 sq km		Pyrite, limonite	Cu	Geological mapping(1977)**				2723

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit type	Location			Geology										Deposit (1)		
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metagenic province	Country rock	Alteration	Age of mineralization		
481	Tagiin nuur	Hydrothermal	Zavkhan	48 58 00	97 15 00	North Mongolia	Ider	Dipression		Rhyolite, dacite porphyry, tuff	Lower Devonian		North Mongolia	Rhyolite, dacite porphyry, tuff				
1484	South Chuluut	Hydrothermal	Khubsugul	49 26 00	99 51 00	North Mongolia	Near khubsugul	Dipression	Granite	Rhyolite porphyry, tuff, andesite porphyry	E2 - Bugsein gol suite	J1-2 - Bugsein gol complex	North Mongolia	Rhyolite porphyry, tuff, andesite porphyry		Lower-Middle Jurassic		
1596	Khurai sair	Hydrothermal	Zavkhan	48 39 00	98 13 00	North Mongolia	Ider	Uplift	Granite	Andesite porphyrite, tuff	Lower-Middle Devonian	Lower-Middle Devonian	North Mongolia	Andesite porphyrite, tuff		Middle Devonian		
1472	Erkhil nuur	Metasomatic	Khubsugul	49 51 00	99 48 00	North Mongolia	Near Khubsugul	Dipression	Granodiorite			Middle Paleozoic	North Mongolia	Granodiorite		Middle Paleozoic		
573	Khunkh tsakhir	Hydrothermal	Khubsugul	49 36 00	98 23 00	North Mongolia	Tuva-Mongol	Uplift	Granite	Acid volcanic rocks, shale, limestone	Lower-Middle Paleozoic	Upper Carboniferous	North Mongolia	Acid volcanic rocks, shale, limestone				
581	Govvan buudal uul	Hydrothermal	Khubsugul	49 45 00	98 33 00	North Mongolia	Tuva-Mongol	Uplift	Leucocratic granite	shale with sandstone beds	Upper Riphean	Upper Carboniferous	North Mongolia	Leucocratic granite				
3474	Narin azarga	Hydrothermal	Khubsugul	50 01 40	98 29 00	North Mongolia	Khubsugul	Uplift		Crystallin shale	R1-2 - Khug series		North Mongolia	Crystallin shale				
3475	Khaisiin belchir	Hydrothermal	Khubsugul	50 10 35	98 44 58	North Mongolia	Khubsugul	Uplift		Crystallin shale	R1-2 - khug series		North Mongolia	Crystallin shale				
1481	Nazanbulag	Hydrothermal	Zavkhan	48 34 00	97 47 00	North Mongolia	Ider	Dipression	Granite porphyry, leucocratic granite			Upper Permian	North Mongolia	Granite porphyry, leucocratic granite		Upper Permian		
2399	Solongot	Hydrothermal-metasomatic	Arkhangai	48 09 51	99 00 50	North Mongolia	Tariat-selenge	Uplift	Granite	Limestone, gneiss	Lower Proterozoic	Middle Riphean	North Mongolia	Limestone, gneiss	Skarnization, hornfiszation, silicification			
4617	Tavan tolgoi	Hydrothermal	Khubsugul	50 09 00	98 37 00	North Mongolia	Near Khubsugul	Uplift		Limestone, clay, shale	R1 -Muren suite, MZ2		North Mongolia	Limestone, clay, shale				

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit (2)				Previous survey						Reference Report number
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling	
481	Tagin nuur	Stockwork: 6000m x 1000m			Cu-0.006%, Mo-0.003%		Geological mapping (1976)**	1203 samples		277.9m cub		2986
1484	South Chulbut	Alteration zone: 750m x 100m	Chalcopyrite, malachite	Galena, molybdenite, anglesite, sphalerite	Cu-0.06%, Ag-0.02g/t		Geological mapping (1972)**					2256
1596	Khurai sair	Alteration zone: 500m x 5m	Chalcopyrite, malachite		Cu-0.09%, Mo-0.02%		Prospecting work (1979)*	56 samples		364m cub		3569
1472	Erkhal nuur	Skarn: 17m x 7m	Malachite, azurite	Sphalerite, molybdenite	Cu-0.38-1.85%, Zn-0.06-1.48%		Geological mapping (1969)**			11 digs		1279, 1914
573	Khunkh tsakhir	Mineralization zone: 800m x 150m			Cu-0.02%, Ag-2.0g/t	Ag-20t	Geological mapping (1987)*	1560 samples		222.2 m cub	140m	4428
581	Gurvan buudal uul	Alteration zone: 5200m x 1000m			Au-0.1-1.2g/t, Ag-1.2g/t		Geological mapping (1987)*			80m pits		4428
3474	Narin azarga	Alteration zone: 2000m x 400m	Pyrite	Hematite	Au-0.05-0.2g/t		Geological mapping (1992)*					4863
3475	Khasiin belchir	Alteration zone: 3400m x 1200m	pyrite	Magnetite	Au-0.07g/t, Cu-0.003%		Geological mapping (1992)*					4863
1481	Naranbulag	Stockwork: 900m x 400m	Malachite, azurite, chalcopyrite	Molybdenite, pyrite, limonite	Cu-0.015-0.08%, Ag-10.2g/t		Geological mapping (1965)****, (1976)**	0.8 sq km field (1976)	Electric (1976)	1 pits (1976)		2581, 3576
2398	Sologot	Alteration zone: 1700m x 170m	Lazurite, malachite	Chalcopyrite, pyrite, magnetite, hematite	Cu-0.1%, Au-0.1g/t, Ag-4.0g/t		Geological mapping (1982)**	165 samples		295.7 m cub		3684
4617	Tavan tolgoi	Dykes: 150m x 1.7m	Pyrite	Chalcopyrite, galena	Cu-0.01%		Geological mapping (1992)*					4863

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metallogenic province	Country rock	Alteration	Age of mineralization
1456	Sharain khudag	Contact metasomatic	Zavkhan	49 27 00	96 48 00	North Mongolia	Ider	Uplift	Granite	Rhyolite, trachyryholite	Upper Permian	PZ1 - Teimen complex	North Mongolia	Granite		Upper Permian
1457	Askhat uul	Hydrothermal	Zavkhan	49 22 00	96 36 00	North Mongolia	Ider	Uplift	Granite			PZ3 - Selenge complex	North Mongolia	Granite		Upper Paleozoic
106	Davaa	Hydrothermal-metasomatic	Zavkhan	48 56 00	97 44 00	North Mongolia	Ider	Dipression	Granite	Alkaline volcanic rocks	Permian	P2-T1 - Selenge complex	North Mongolia	Alkaline volcanic rocks		
1471	Arshaan	Metasomatic	Khubsugul	49 53 00	99 49 00	North Mongolia	Khubsugul	Dipression	Syenite, granosyenite	Carbonate rocks	V-E1 -Khesen suite	PZ3 - Selenge complex	North Mongolia	Carbonate rocks		PZ3-T1
1453	Menget uul	Skarn	Zavkhan	49 33 00	96 56 00	North Mongolia	Ider	Uplift		Limestone	Proterozoic		North Mongolia	Limestone		
574	Ulaan zavsar	Hydrothermal	Khubsugul	49 30 00	98 40 00	North Mongolia	Tuva-Mongol	Uplift	Dykes?	Terrane?	R3 -Darhad series	D1-2 -Tes complex	North Mongolia	Terrane?		
2236	Tanatiin gol	Hydrothermal	Arkhangai	48 12 50	99 26 35	North Mongolia	Ider	Uplift	Granite, gabbroic diorite			PZ2 -Tarbagatai complex	North Mongolia	Granite, gabbroic diorite		Middle Paleozoic
4699	Solongot gol	Hydrothermal	Arkhangai	48 09 15	99 00 32	North Mongolia	Khangai	Outcrop	Granite	Limestone	lower Proterozoic	Upper Riphean	North Mongolia	Granite		Upper Riphean
3892	Altargana	Placer	Khubsugul	50 10 06	98 58 10	North Mongolia	Khubsugul	Dipression		Sediment	Quaternary		North Mongolia	Sediment		
3996	Buyantiin bulag	Placer	Khubsugul	49 46 50	99 24 10	North Mongolia	Khubsugul	Dipression		Sediment	QIII		North Mongolia	Sediment		
4156	Dood tseisuukh	Placer	Khubsugul	48 31 00	99 10 10	North Mongolia	Tarbagatai outcrop	Anticlinal		Sediment	QIV		North Mongolia	Sediment		

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit (2)				Previous survey					Reference Report number
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	
1456	Sharam khudag	Skarn: 220m x22m	Sphalerite	Malachite, chalcopyrite, pyrite	Cu-4, 18%; Ag-0, 1g/t		Geological mapping(1980)**	124 samples		268m	3593
1457	Askhat uul	Alteration zone: 530m x6m	Sphalerite	Hematite	Cu-0,02%		Geological mapping(1979)**	45 samples	175,7m cub		3592
106	Davaa	Alteration zone: 500m x100m			Cu-0,05%		Prospecting work(1979)	32 samples	313,2m cub	142,8m	3122
1471	Arshaan	Skarn:	Tungstenite	Chalcopyrite, malachite,	Au-0,25g/t; Ag-30g/t; Cu-0,12%		Prospecting work(1990)	50x25m field	8600m cub	1309m	4379
1453	Menget uul	Skarn: 250m x350m	Magnetite	Malachite, azurite	Cu-1,05%		Geological mapping(1976)**	12 samples			822, 2218
574	Ulaan zavsar	Quartz veins: 250m x0,15m			Au-0,1g/t; Ag-2,0g/t		Geological mapping(1987)*	350 samples	215,3m cub		4428
2236	Taratnii gol	Quartz vein: 50m x5m			Au-0,1g/t; Ag-10g/t		Geological mapping(1982)**		213m cub		3684
4699	Solongot gol	Quartz vein: 50m x5m	Gold	Silver	Au-0,1g/t; Ag-4,0g/t		Geological mapping(1981)**				3684
3892	Altargana	Gold bearing bed: 1200m x52m	Gold		Au-549mg/m cub	Au-26kg	Prospecting work(1991)				4746
3996	Buyaniin bulag	Gold bearing bed: 1000m x160m	Gold	Pyrite	Au-400mg/m cub	Au-128kg	Geological mapping(1992)*		8 pits		4839
4156	Dood tsentsuukh	Gold bearing bed: 36sq km	Gold		Au-16-80mg/m cub		Geological mapping(1995)*	20 samples	213,7m pits	65,5m	5035

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit type	Location			Geology										Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metallogenic province	Country rock	Alteration	Age of mineralization			
3942	Jigni gol's field (18-B-V(1-1))	Placer	Khubs gul	50 45 30	99 31 00	North Mongolia	Khubs gul	Dipression		Sediment	QIV			North Mongolia	Sediment				
4155	Ikhs baits	Placer	Arkhangai	48 27 20	99 50 20	North Mongolia	Tarbagatai outcrop	Horst-anticlinal		Sediment	QIV			North Mongolia	Sediment				
3477	Oglogiin gol	Placer	Khubs gul	50 00 00	98 39 00	North Mongolia	Khubs gul	Uplift		Sediment	QIII-IV			North Mongolia	Sediment				
3879	Suurtiin bulan	placer	Khubs gul	50 09 00	98 51 20	North Mongolia	Khubs gul	Uplift		Sediment	QIV			North Mongolia	Sediment				
3934	Ukhaa khem Burgaltai field	Placer	Khubs gul	51 46 00	99 36 00	North Mongolia	Khubs gul	Dipression		Sediment	QIV			North Mongolia	Sediment				
3476	Khaisiin gol	Placer	Khubs gul	50 10 00	98 40 00	North Mongolia	Khubs gul	Uplift		Sediment	QIV			North Mongolia	Sediment				
3893	Khaisiin gol (24-1-4)	Placer	Khubs gul	50 11 00	98 43 00	North Mongolia	Khubs gul	Dipression		Sediment	Q			North Mongolia	Sediment				
1518	Khoton gol	Placer	Khubs gul	51 14 00	99 56 00	North Mongolia	Near Khubs gul	Dipression		Sediment	N-QIV			North Mongolia	Sediment				
3880	Tsagaan bulan (27-1-5)	Placer	Khubs gul	50 08 00	98 52 40	North Mongolia	Khubs gul	Uplift		Sediment	QIV			North Mongolia	Sediment				
3933	Shar belchir	Placer	Khubs gul	51 30 00	99 31 20	North Mongolia	Khubs gul	Dipression	Granite	Sediment	QIV	D2		North Mongolia	Sediment				
1512	Shergis	Placer	Khubs gul	51 51 00	99 47 00	North Mongolia	Tuva-Mongol	Uplift		Sediment	QIV			North Mongolia	Sediment				

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit (2)					Previous survey					Reference Report number
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling	
3942	Jigiti gol's field (18-B-VII-1)	Gold bearing bed: 1.5x0.3km	Gold		Au-gold signs		Prospecting work(1993)		4m pits		4770	
4155	Ikh baits	River's valley: 140m	Gold		Au-3.3-450mg/m.cub	Au-160.4kg	Geological mapping(1996)*		57m pits	210.8m	5035	
3477	Oglogiin gol	Gold bearing bed: 1-2m wide	Gold		Au-0.01g/t		Geological mapping(1992)*				4863	
3879	Suurtiin bulan	Gold bearing bed: 0.5-1.0m wide	Gold		Au-0.03-0.07g/t		Prospecting work(1990)				4746	
3934	Ukhaa khem Burgaltai field	River's valley: 30-50m wide	Gold		Au-gold signs		Prospecting work(1993)				4770	
3476	Khaisiin gol	Gold bearing bed:	Scheelite	Chalcopyrite	Au-gold signs		Geological mapping(1992)*		82m pits		4863	
3893	Khaisiin gol (24- 1-4)	Gold bearing bed:			Au-signs		Geological mapping(1990)*		13,95m pits		4746	
1518	Khoron gol	Quartz vein: 60m x20m	Gold	Chalcopyrite, malachite, pyrite, arsenopyrite	Au(ore)-1.2g/t, Au(placer)- 1.0g/m cub		Prospecting work(1965)		32 pits		486, 1812	
3880	Tsagaan bulan (27-1-5)	Gold bearing bed:			Au-signs		Prospecting work(1988)				4746	
3933	Shar belchir	Gold bearing bed: 2-3.5m wide	Gold		Au-10-100mg/m cub	Au-40.5kg	Prospecting work(1993)				4770	
1512	Shergis	Bed:	Gold		Au-signs		Geological mapping(1941)				346	

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit type	Location			Geology						Deposit (1)				
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metallogenic province	Country rock	Alteration	Age of mineralization
455	Ikhs bulag (No37)	Hydrothermal	Zavkhan	48 47 00	96 37 00	North Mongolia	Khan khukhii	Uplift	Granite			Upper Proterozoic	North Mongolia	Granite		
1492	Khan jargalant uul	Metasomatic	Khubsgul	49 02 00	100 00 00	North Mongolia	Near Khubsgul	Dipression	Granite, granosyenite, syenite	Limestone, sandstone, conglomerate	E1 -khordul suite; E3 -Arsai suite	T1 -Selenge complex	North Mongolia	Granite, granosyenite, syenite		
3903	(71-1-5)	Hydrothermal	Khubsgul	50 09 00	98 51 00	North Mongolia	Khubsgul	Uplift		Dolomite, quartzite, limestone, shale	R -Darkhad series		North Mongolia	Dolomite, quartzite, limestone, shale		
181	Scarn	Metasomatic	Khubsgul	50 11 00	100 00 00	North Mongolia	Near Khubsgul	Sinclinal	Granodiorite	Limestone	V-E1	Devonian	North Mongolia	Granodiorite		
168	Chargat	Magmatic	Zavkhan	48 35 00	98 08 00	North Mongolia	Ider	Uplift	Granodiorite, gabbro, gabbroic diorite			Lower Paleozoic	North Mongolia	Granodiorite, gabbro, gabbroic diorite		
1598	Tsetsuukh	Hydrothermal	Zavkhan	48 36 00	98 57 00	North Mongolia	Ider	Uplift	Granodiorite			PZ1 -Teimen complex	North Mongolia	Granodiorite		
1597	Tsart	Hydrothermal	Zavkhan	48 39 00	98 45 00	North Mongolia	Ider	Uplift	Granite			Middle Paleozoic	North Mongolia	Granite		
1590	Khindin davaa	Hydrothermal	Zavkhan	48 07 00	96 00 00	North Mongolia	Ider	Uplift		Porphyrite	Lower Devonian		North Mongolia	Porphyrite		
104	Khurai nuur	Hydrothermal	Zavkhan	48 55 00	97 43 00	North Mongolia	Ider	Dipression	Granosyenite porphyry, granite porphyry			P2-T1 -Selenge complex	North Mongolia	Granosyenite porphyry, granite porphyry		
1553	Kharaat uul	Contact metasomatic	Zavkhan	49 14 00	96 42 00	North Mongolia	Ider	Uplift	Granite	Marble	Proterozoic	Upper Proterozoic	North Mongolia	Marble		
1556	Takhilt nuur	Hydrothermal	Zavkhan	48 46 00	96 45 00	North Mongolia	Ider	Uplift	Gabbroic diorite, diorite			PR3 -Tes complex	North Mongolia	Gabbroic diorite, diorite		

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit (2)			Ore reserve	Geology	Previous survey			Reference
		Morphology	Ore mineral	Gangue mineral			Grade	Geochemistry	Trench and pit	
455	Ikch bulag (No37)	Quartz vein: 650m x180m			Ag-0.2-0.5g/t	Geological mapping(1976)**				2723
1492	Khan jargalant uul	Skarn: 90m x10m	Malachite, azurite	Magnetite	Cu-1.0%	Geological mapping(1975)**	475 samples	507.6m.cub		2660
3903	(71-1-5)	Shale bed:60-120m wide			Cu-	Geological mapping(1989)*			147.8m	4746
181	Scarn	Skarn: 1.5-8m wide			Cu-0.015-1.0%, Ag-5-10g/t	Geological mapping(1982)*		59.6m.cub		3649
168	Chargat	Alteration zone:			Cu-0.02%	Geological mapping(1979)*	159 samples	1247m.cub		3569
1598	Tsetsuukh	Quartz vein: 40m x0.1m	Malachite, chalcopyrite	pyrite	Cu-0.3-1%, Ag-0.03g/t	Geological mapping(1966)****				3711, 1760
1597	Tsart	Quartz vein: 50m x5m	Chalcopyrite, malachite, azurite		Cu-0.42%	Geological mapping(1966)****, (1981)**		42m.cub(1981)		3711, 1760
1590	Khindin davaa	Magnetite vein: 40m x0.5m	Magnetite, malachite	Chalcopyrite, pyrite	Cu-	Geological mapping(1959)****				1420
104	Khuurai nuur	Alteration zone: 150m x3.5m; quartz vien: 90m x0.35m			Cu-0.03-0.08%	Prospecting work(1978)		2 digs		3122
1553	Kharaat uul	Skarn: 1500m	Malachite, chalcopyrite	Magnetite	Cu-0.001-0.006%	Geological mapping(1977)**	30 samples	1 dig		2723
1556	Takhit nuur	Mineralization zone: 150m x80m	Malachite, azurite, chalcopyrite	Pyrite, magnetite, hematite	Cu-0.24%	Geological mapping(1977)**	280 samples	209.1m.cub		2723

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metagenic province	Country rock	Alteration	Age of mineralization
4697	Solongoiin got	Contact metasomatic	Arkhangai	48 07 32	99 05 26	North Mongolia	Khangai	Outcrop	Granite	Limestone	lower Proterozoic	Middle Riphian	North Mongolia	Limestone		
1559	Scarn	Contact metasomatic	Khubsagul	49 12 00	97 41 00	North Mongolia	Ider	Dipression	Granite	Limestone	Lower Cambrian	Middle Paleozoic	North Mongolia	Limestone		
454	Sanguin dalai No2	Hydrothermal-metasomatic	Khubsagul	49 12 00	99 15 00	North Mongolia	Ider	Uplift	Granite	Volcanic rocks	P-Zuun nuur series	P2-T1-Seienge complex II phase	North Mongolia	Granite		
460	South part	Magmatic	Zavkhan	49 13 00	96 01 00	North Mongolia	Khan khukhii	Uplift	Granite, gabbro			PZ, MZ	North Mongolia	Granite, gabbro		
1554	Onts uul	Hydrothermal	Zavkhan	49 10 00	96 18 00	North Mongolia	Ider	Uplift	Leucocratic granite			Upper Proterozoic	North Mongolia	Leucocratic granite		Upper Proterozoic
1580	No23	Hydrothermal	Khubsagul	48 42 00	99 13 00	North Mongolia	Ider	Uplift		Metamorphic rocks	Proterozoic		North Mongolia	Metamorphic rocks		
1578	No14	Hydrothermal	Khubsagul	48 53 00	99 31 00	North Mongolia	Ider	Uplift		Crystallin shale, marble	Upper Proterozoic		North Mongolia	Crystallin shale, marble		Upper Proterozoic
3993	Minjuur tolgoi	Skarn	Khubsagul	49 32 00	99 32 00	North Mongolia	Ider	Uplift	Granite	Limestone, metamorphic rocks	R3-Darkhad series lower bed	D2-Tes complex	North Mongolia	Limestone, metamorphic rocks		
5332	Minjuurt	Skarn	Khubsagul	49 32 00	99 00 00	North Mongolia	Ider	Uplift	Granite	Shale, limestone	PR3-Khar sair series	D1-2-Numreg complex	North Mongolia	Shale, limestone		
5228	lkh uul	Hydrothermal	Zavkhan	48 32 00	98 42 00	North Mongolia	Ider	Uplift	Granite			PZ1-Telmen complex	North Mongolia	Granite		
3931	Occur-9	Hydrothermal	Khubsagul	51 44 50	99 46 50	North Mongolia	Khubsagul	Dipression		Green shale	Lower-Middle Riphian		North Mongolia	Green shale		

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit (2)					Previous survey					Reference Report number
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling	
4697	Solongoitiin gol	Skarn: 10m x3.5m	Chalcopyrite	Magnetite	Cu-0.02%		Geological mapping(1981)**					3684
1559	Scarn	Skarn: 1000m x150m	Malachite	Epidote, garnet	Cu-0.001-0.02%		Geological mapping(1977)**			315m.cub		1719, 2986
454	Sangin dalai No2	Quartz vein: 1-25cm			Cu-0.008-0.04%		Geological mapping(1977)**	1521 samples		421.8m.cub	303.8m	2651
460	South part				Cu-0.003-0.01%		Prospecting work(1976)			1109m.cub	287m	2975
1554	Onts uul	Mineralization zone 220m x1.5m	Malachite	Pyrite	Cu-0.04-0.1%		Geological mapping(1977)**	127 samples		303.6m.cub	16m	2723
1580	No23	Quartz vein: 15m x0.2m	Malachite		Cu-0.03%		Geological mapping(1977)**					2651
1578	No14	Quartz vein: 40m x0.5m	Malachite, azurite	Galena	Cu-0.003-0.05%		Geological mapping(1977)**					2651
3993	Minjuur tolgoi	Skarn: 160m x13m	Copper	malachite, azurite	Cu-0.07%		Geological mapping(1993)*					4839
5332	Minjuurt	Skarn: 650m x20m	Malachite, azurite		Cu-0.05-1.61%		Geological mapping(1972)**			65m.cub		2256
5228	Ikh uul	Quartz vein: 10m x0.3m	Chalcopyrite	pyrite	Cu-0.05-0.3%		Geological mapping(1966)***, (1981)**					3711, 1760
3931	Occur-9	Quartz vein: 20m x0.8m	Malachite, azurite, chalcopyrite		Cu-0.3%		Prospecting work(1993)					4770

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metalogenic province	Country rock	Alteration	Age of mineralization
486	Oocur-3	Hydrothermal	Khubsagul	49 53 00	98 16 00	North Mongolia	Tuva-Mongol	Outcrop		Limestone	Lower Cambrian		North Mongolia	Limestone		
1475	Burenkhaan	Metasomatic	Khubsagul	49 49 00	99 55 00	North Mongolia	Near Khubsagul	Dipression	Granoyenite	Marblized limestone	Lower Cambrian	Middle Devonian	North Mongolia	Marblized limestone		
1589	khuren asga uul	Hydrothermal	Zavkhan	48 08 00	96 23 00	North Mongolia	Ider	Dipression	Granite			Lower Permian	North Mongolia	Granite		
1569	khujuiiin gol	Hydrothermal	Zavkhan	48 43 00	98 16 00	North Mongolia	Ider	Uplift	Gneissose granite			Upper Proterozoic	North Mongolia	Gneissose granite		
452	Oocur-7	Hydrothermal	Khubsagul	48 57 00	99 07 00	North Mongolia	Ider	Uplift	Granite	Tufficious sediments	P-Zuun nuur series	P2-T1 -Selenge complex	North Mongolia	Granite		
453	Oocur-1	Hydrothermal	Khubsagul	49 16 00	99 15 00	North Mongolia	Ider	Uplift	Granite			Lower Paleozoic	North Mongolia	Granite		
1568	Burgast	Contact metasomatic	Zavkhan	48 18 00	95 05 00	North Mongolia	Tsagaan olom	Dipression	Granosyenite	Dolomite	PR3 -Tsagaan olom suite	Lower Permian	North Mongolia	Dolomite		
1462	Agar	Hydrothermal	Khubsagul	49 42 00	98 07 00	North Mongolia	Near Khubsagul	Uplift	Granite			Middle Paleozoic	North Mongolia	Granite		
1545	Bulagin uber	Metasomatic	Khubsagul	50 16 00	99 32 00	North Mongolia	Near Khubsagul	Dipression	Granite	Limestone with aleuroilite bed	V3-E1 -Bayanzurkh suite	D2 -Tes complex	North Mongolia	Granite		
571	Dargia uul	Metasomatic	Khubsagul	49 33 00	98 41 00	North Mongolia	Tuva-Mongol	Uplift	Granite	Shale	R3 -Darkhad series lower and upper beds	Upper Carboniferous	North Mongolia	Granite		
1516	Uringimin	Magmatic	Khubsagul	50 56 00	98 21 00	North Mongolia	Tuva-Mongol	Anticlinorium	Granite, granite porphyry	Limestone, green shale, marble	PR3 -Muren and Okin suites	Lower-Middle Devonian	North Mongolia	Granite, granite porphyry		

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit (2)			Ore reserve	Geology	Previous survey			Reference
		Morphology	Ore mineral	Gangue mineral			Grade	Geochemistry	Geophysics	
486	Occur-3	Quartz-carbonate vein: 2m x0,15m	Bornite	Chalcopyrite, malachite, lazurite	Cu-0,6%, Ag-60g/t	Geological mapping(1977)**				3045
1475	Burenkhaan	Skarn:	Chalcopyrite	Magnetite, hematite, malachite	Cu-0,3-0,64%	Regional survey(1979)				3146
1589	khuren asga uul	Quartz vein:	Galena	pyrite	Ag-100g/t; Au-0,2g/t	Geological mapping(1981)**		219m cub	103m	3576
1569	khujulin gol	Quartz vein: 60m x5m	Galena	Fluorite	Cu-0,006%, Ag-5g/t	Geological mapping(1979)*		95m cub		2989
452	Occur-7	Quartz vein: 120m x0,3m			Cu-0,002%, Ag-0,0001%	Geological mapping(1977)**				2651
453	Occur-1	Quartz vein: 60m x0,5m	Galena		Cu-0,01%, Pb-0,04%	Geological mapping(1977)**				2651
1588	Burgast	Skarn: 6000m x0,2m	Galena	Arsenopyrite, pyrite	Pb-0,5%, Zn-0,04%	Geological mapping(1979)**				3576
1462	Agar	Greisen zone:	Galena	Sphalerite, hematite, pyrite, chalcopyrite	Cu-0,002%, Pb-0,002-1,0%	Geological mapping(1978)**				3045
1545	Bulagin uber	Quartz vein: 70m x5m		Hematite, malachite, Magnetite, Pyrite	Zn-0,02%, Mo-0,0003%	Geological mapping(1984)*		492,3m cub	435,5m	3977
571	Dargia uul	Greisen zone: 800m x350m			Nb-0,0375; Zn-0,035%; Pb-0,03%, Ag-0,025%	Geological mapping(1987)*		1449,6m cub		4428
1516	Urtingiin	Pegmatite: 19m x19m	Fergusonite, monazite, pyrochlore	Fluorite, galena, sphalerite, chalcopyrite	Tb-0,1-0,2%; Nb-18,4%	Geological mapping(1964)****				1750

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metallogenic province	Country rock	Alteration	Age of mineralization
3890	Khokh davaa	Skarn	Khubsugul	50 07 30	98 52 20	North Mongolia	Khubsugul	Dipression	Diorite	Limestone	V -Bayan zurkh series	Devonian	North Mongolia	Limestone		
3992	Occur-91	Greisen	Khubsugul	49 21 30	99 20 25	North Mongolia	Ider	Dipression	Granite			P2 -Selenge complex	North Mongolia	Granite		
465	Occur-35	Hydrothermal-metasomatic	Zavkhan	48 45 00	98 26 00	North Mongolia	Ider	Uplift	Shale, dacite-rhyolite porphyry	Shale, dacite-rhyolite porphyry	PR3, P2		North Mongolia	Shale, dacite-rhyolite porphyry		
4618	Ubur khujiri gol	Hydrothermal	Khubsugul	50 13 10	98 39 50	North Mongolia	Near Khubsugul	Uplift	Meta-aleurolite	Meta-aleurolite	R3 -Darkhad series		North Mongolia	Meta-aleurolite		
99	Occur-8	Hydrothermal	Khubsugul	51 42 00	99 48 00	North Mongolia	Near Khubsugul	Dipression	Sandstone, limestone, shale	Sandstone, limestone, shale	Vendian-Lower Cambrian		North Mongolia	Sandstone, limestone, shale		
1454	North Agalant	Contact metamorphism	Zavkhan	49 32 00	96 47 00	North Mongolia	Ider	Uplift	Granite	Marble	Upper Proterozoic	P2 -Selenge complex	North Mongolia	Granite		
1557	Shatain ovoo	Contact metasomatic	Zavkhan	48 43 00	96 11 00	North Mongolia	Ider	Uplift	Gneiss, granite-gneiss			Upper Proterozoic	North Mongolia	Gneiss, granite-gneiss		
130	Ugedes uul	Contact metamorphism	Zavkhan	48 40 00	97 34 00	North Mongolia	Ider	Uplift	Granite	Sandstone, limestone, conglomerate	Lower Cambrian	Lower Permian	North Mongolia	Sandstone, limestone, conglomerate		
105	Ikh uul	Hydrothermal-metasomatic	Zavkhan	48 59 00	97 51 00	North Mongolia	Ider	Dipression	Granodiorite, diorite, granite, granite porphyry			PR3, P2-T1 -Selenge complex	North Mongolia	Granodiorite, diorite, granite, granite porphyry		
1464	Jinsi-22	Metasomatic	Khubsugul	49 35 00	98 20 00	North Mongolia	Near Khubsugul	Uplift	Granite	Limestone, aleurolite	Lower Cambrian	Middle Paleozoic	North Mongolia	Granite		
3994	Tsagaan tolgoi	Hydrothermal	Khubsugul	49 40 25	99 39 30	North Mongolia	Khubsugul	Uplift	Granite			D2 -Tes complex	North Mongolia	Granite		

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit (2)				Previous survey					Reference Report number	
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit		Drilling
3890	Khokh davaa	Skarn: 2-6,2m			Au-0,005g/t		Prospecting work(1991)					4746
3992	Occur-91	Quartz vein: 12m x0,8m			Cu-0,15%; Ag-0,00002%		Geological mapping(1993)*					4839
465	Occur-35	Quartz vein: 15m x0,3m			Cu-0,02%; Pb-0,003%		Geological mapping(1976)**		38,3m cub			2981
4618	Ubur khujirt gol	Quartz vein (zone): 100m x0,5m	Chalcopyrite		Cu-0,01%; Pb-0,002%		Geological mapping(1992)*					4863
99	Occur-8	Quartz vein:			Sn-0,02-0,1%		Geological mapping(1968)**					1827
1454	North Argalant	Mineralization zone: 400m x26m	Sphalerite, galena	Magnetite, malachite, azurite, hematite	Cu-0,15%, Zn-7%		Geological mapping(1981)**	219 samples	235,5m cub			3592
1557	Shatain ovoo	Skarn: 150m x6m	Sphalerite,	Galena	Pb-0,085; Zn-0,18%		Geological mapping(1977)**		183,1m cub	30,4m		2723
130	Ugeidei uul	Skarn: 100m x30m			Cu-0,8-1%; Ag-20g/t		Geological mapping(1981)**		5 digs			3576
105	Ikht uul	Alteration zone: 250m x18,3m			Cu-0,02%; Ag-30g/t		Prospecting work(1979)		118m cub			3122
1464	Jinst-22	Quartz vein: 40m x2,3m	Cassiterite	Tungstenite	Sn-0,5%; WO3-0,08%		Geological mapping(1978)**	331 samples	507,1m cub			3045
3994	Tsagaan tolgoi	Quartz body: 170m x80m			Cu-0,0048%; Mo-0,025%		Geological mapping(1992)*					4839

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)					
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metabogenic province	Country rock	Alteration	Age of mineralization:		
1479	Tsagaan tolgoi	Metasomatic	Khubs gul	49 39 00	99 40 00	North Mongolia	Near Khubs gul	Dipression	Granite					D1-2 -Nuren complex	North Mongolia	Granite		
3878	Khargana gol (47-4-II)	Hydrothermal	Khubs gul	50 12 23	98 53 00	North Mongolia	Khubs gul	Dipression	Granite	Limestone	V -Bayan zurkh series lower subsuite			Lower-Middle Jurassic	North Mongolia	Granite		
1478	Ulaan nuur	Hydrothermal	Khubs gul	49 39 00	99 20 00	North Mongolia	Near Khubs gul	Dipression	Granites					D1-2 -Numreg complex, J	North Mongolia	Granites		
3995	Songinot uul	Greisen	Khubs gul	49 49 30	99 28 15	North Mongolia	Khubs gul		Granite	Shale, limestone	R3 -Darkhad series			Jurassic	North Mongolia	Granite		
1536	Altan ovoo	Hydrothermal	Khubs gul	50 17 00	98 55 00	North Mongolia	Tuva-Mongol	Anticlinorium	Granite	Shale	PR1 -Okin suite			Middle Devonian	North Mongolia	Granite		
1592	Tsagduult uul	Hydrothermal-Metasomatic	Zavkhan	48 04 00	96 14 00	North Mongolia	Ider	Uplift	Granite, gneiss					Lower-Middle Devonian	North Mongolia	Granite, gneiss		
1461	Tsagaan uul	Metasomatic	Khubs gul	49 53 00	98 43 00	North Mongolia	Near khubs gul	Uplift		Meta-shale, limestone	Vendian-Lower Cambrian				North Mongolia	Meta-shale, limestone		
4698	Tsagaan nuur	Hydrothermal	Arkhangai	48 07 45	99 50 50	North Mongolia	Khangai	Outcrop	Granite	Tuffaceous conglomerate	R3 -Zavkhan series			Upper Riphean	North Mongolia	Granite		
1468	Khuderin	Metasomatic	Khubs gul	49 58 00	99 41 00	North Mongolia	Near Khubs gul	Dipression	Granite	Carbonate terrane	R3 -Ukhaa tolgoi and Ar-sai suite			PZ3 -Selenge complex	North Mongolia	Granite		
1603	Terkhin tsagaan nuur	Hydrothermal	Arkhangai	48 07 45	99 50 50	North Mongolia	Ider	Uplift	Granite	Tuffaceous conglomerate	R3 -Zavkhan series			Upper Riphean	North Mongolia	Granite		
1513	Ikhi beichirin gozgor	Hydrothermal	Khubs gul	51 42 00	99 49 00	North Mongolia	Near khubs gul	Dipression		Sandstone, shale	PR3 -Okin suite				North Mongolia	Sandstone, shale		

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No	Deposit name	Deposit (2)		Previous survey						Reference Report number		
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics		Trench and pit	Drilling
1479	Tsagaan Tolgoi	Greisen zone: 100m x 80m	Molybdenite	Chalcopyrite, sphalerite, galena, pyrite	Cu-0.02%, Mo-0.03%		Geological mapping(1973)**	75 samples		170.5m cub	254m	2256
3878	Khargana gol (47-411)	Greisen zone: 2.4x1.1km			Mo-0.2%, Pb-0.01%, Zn-0.1%		Prospecting work(1988)					4746
1478	Ulaan nuur	Alteration zone: 0.2 sq.km	Molybdenite	Sphalerite, galena, hematite, pyrite, magnetite	Pb-0.01%, Zn-0.02%, Mo-0.006%		Geological mapping(1973)**			475m. cub	140m	2256
3995	Songinot uul	Greisen zone: 300m			Cu-0.01%, Mo-0.005%		Geological mapping(1992)*			137.7m cub		4839
1536	Allan ovoo	Granite stock: 350m x 290m	Molybdenite	Cassiterite, tantalum	Mo-0.016%, Ta-0.09%, Nb-0.009%	Mo-4158; Ta-23388; Nb-23381	Geological mapping(1982)**			169.6m cub		3781
1592	Tsagduult uul	Greisen zone: 500m x 100m			Ag-4g/t; Y-0.015; La-0.01%, Mo-0.03%		Geological mapping(1981)**					3576
1461	Tsagaan uul	Alteration zone: 1500m x 1000m	Scheelite		W-0.06%, Mo-0.009%		Geological mapping(1978)**	1698 samples		418.9m cub	107m	1966, 3045
4698	Tsagaan nuur	Quartz vein: 80m x 0.4m			W-0.94%, Cu-0.07%		Geological mapping(1981)**			1 dig		3684
1468	Khuderin	Alteration zone: 3km	Tungstenite	Pyrite	Mo-0.3%, W-0.35, Ag-3.8g/t		Prospecting work(1989)	654 samples		4 digs		4379
1603	Terkhiin tsagaan nuur	Quartz vein: 80m x 40m	Tungstenite		Zn-0.14%, Au-0.1g/t; Ag-4g/t		Geological mapping(1982)**			26.5m.cub		3684
1513	Ikhi belchirin goigor	Quartz vein: 10m x 0.1m	Limonite, malachite, galena		Zn-0.28%, Ca-1%, W-0.06%		Geological mapping(1968)**	400 samples				1827

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metalogenic province	Country rock	Alteration	Age of mineralization
100	Occur-25	Hydrothermal	Khubsгал	51 26 00	99 54 00	North Mongolia	Near Khubsгал	Dipression	Granite	Metamorphic rocks	Vendian-Lower Cambrian	Lower Paleozoic	North Mongolia	Granite		
451	Occur-21	Hydrothermal	Khubsгал	48 44 00	99 12 00	North Mongolia	Ider	Uplift	Granite			Lower Paleozoic	North Mongolia	Granite		
466	Bugai гол	Metasomatic	Khubsгал	49 16 00	98 45 00	North Mongolia	Ider	Dipression	Granite porphyry	Marbized limestone	Vendian-Lower Cambrian	Lower-Upper Permian	North Mongolia	Granite porphyry		
1452	Tsakhir tolgoi	Metamorphic	Zavkhan	49 36 00	96 09 00	North Mongolia	Ider	Uplift		Shale, sandstone	PR3 -Burgas гол suite		North Mongolia	Shale, sandstone		
1482	Tsgaan nuruu	Contact metasomatic	Khubsгал	49 31 00	99 44 00	North Mongolia	Near Khubsгал	Dipression	Granite	Limestone	E1 -Khug series	DI-2 -Numreg complex	North Mongolia	Granite		
1473	Khuren chuluut	Metamorphic	Khubsгал	49 50 00	99 31 00	North Mongolia	Near Khubsгал	Dipression		Tuff, shale, sandstone	E1 -Sarkhai suite		North Mongolia	Tuff, shale, sandstone		
1469	Ore No107	Metamorphic	Khubsгал	49 56 00	99 31 00	North Mongolia	Near Khubsгал	Dipression		Shale, sandstone with thin dolomite beds	R3-V -Darkhad series		North Mongolia	Shale, sandstone with thin dolomite beds		
5346	Khundiin davaa	Hydrothermal	Zavkhan	48 07 00	96 00 00	North Mongolia	Ider	Uplift		Porphyrite	DI -Bor naur series		North Mongolia	Porphyrite		
1514	Khoron гол	Hydrothermal	Khubsгал	51 25 00	99 56 00	North Mongolia	Near Khubsгал	Dipression		Quartzite, limestone	PR3 -Khordul series		North Mongolia	Quartzite, limestone		
146	khaluun usni гол	Contact metamorphism	Khubsгал	48 33 37	99 55 15	North Mongolia	Ider	Uplift		Marbized limestone, gneiss	Lower Proterozoic		North Mongolia	Marbized limestone, gneiss		
1593	Urtim under	Hydrothermal	Zavkhan	48 20 00	97 11 00	North Mongolia	Ider	Uplift	Granodiorite			Lower Paleozoic	North Mongolia	Granodiorite		

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metalogenic province	Country rock	Alteration	Age of mineralization
147	Terkhin gol	Hydrothermal	Arkhangai	48 05 00	99 18 00	North Mongolia	Ider	Uplift	Anorthosite		Lower Paleozoic		North Mongolia	Anorthosite		
1562	Telmen	Hydrothermal	Zavkhan	48 41 00	97 40 00	North Mongolia	Ider	Uplift		Limestone	Lower Cambrian		North Mongolia	Limestone		
1564	Tosomsengel	Hydrothermal	Zavkhan	48 48 00	98 04 00	North Mongolia	Ider	Uplift		Limestone	Lower Cambrian		North Mongolia	Limestone		
1566	Soriant uul	Hydrothermal	Zavkhan	48 41 00	97 32 00	North Mongolia	Ider	Uplift		Limestone	Lower Cambrian		North Mongolia	Limestone		
144	Salbart	Sedimentary-metamorphogenic	Arkhangai	48 18 06	99 49 15	North Mongolia	Ider	Uplift	Amphibolite		Lower Paleozoic		North Mongolia	Amphibolite		
1605	Ultin gol	Hydrothermal	Arkhangai	48 00 00	99 50 20	Mongol-Ubur baykal	Khangai	Dipression		Schistized sandstone	R2 - Zagim series		North Mongolia	Schistized sandstone		
1537	No57	Hydrothermal	Khubsugul	50 17 00	98 57 00	North Mongolia	Tuva-Mongol	Uplift	Granite	Shale	PR3 -Okin suite	Lower-Middle Devonian	Tuva-Mongol	Granite		
1463	No33	Metasomatic	Khubsugul	49 38 00	98 45 00	North Mongolia	Near Khubsugul	Uplift	Granite	Meta-sedimentary rocks	Vandian-Lower Cambrian	Middle Paleozoic	North Mongolia	Meta-sedimentary rocks		
1515	No25	Hydrothermal	Khubsugul	51 01 00	98 53 00	North Mongolia	Tuva-Mongol	Uplift		Shale	PR3 -Okin suite		North Mongolia	Shale		
1563	No22	Hydrothermal	Zavkhan	48 55 00	98 50 00	North Mongolia	Ider	Uplift	Intrusion?	Effusive rocks	Lower Permian	Lower Paleozoic	North Mongolia	Intrusion?		
1460	No11	Hydrothermal	Khubsugul	49 25 00	97 24 00	North Mongolia	Near Khubsugul	Uplift	Granite			P2-T1 - Selenge complex	North Mongolia	Granite		

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No	Deposit name	Deposit (2)			Previous survey					Reference Report number	
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics		Trench and pit
147	Terkhiin gol	Magnetite vein: 100m x1.5m	Magnetite		Cu-0.06%, Zn-0.05%, Fe-29.64%		Geological mapping(1982)**				3684
1562	Telmen	Sydenite vien, 100m x3m	Sydenite		Cu-0.02%, Zn-0.01%, Fe-10%		Geological mapping(1977)**				2218, 1751
1564	Tosontsengel	Sydenite lenticular body: 10m x3.0m	Sydenite		Sydenite-3-10%		Geological mapping(1977)**				1751, 2981
1568	Soriant uul	Skarn: 1000sq.m	Sydenite		Mn-0.1%, Zn-0.01%, Cu-0.02%		Geological mapping(1976)**	10 samples			2218, 1751
144	Salbart	Shale lenticular body:70m x7m	Magnetite		Cu-0.003%, Fe-0.6%		Geological mapping(1982)**				3684
1605	Ultiin gol	Magnetite lenticular body: 50m x1.5m	Magnetite		Cu-0.01%, FeO-8.1%		Geological mapping(1982)**				3684
1537	No57	Shale bed: 10-15m	Magnetite		Fe-14.2%		Geological mapping(1964)****				1756
1463	No33	Quartzite bed: 50m x 1m	Magnetite, hematite	Chalcopyrite	FeO-40%		Geological mapping(1978)**				3045
1515	No25	Shale bed: 100m	Magnetite		Magnetite-20%		Geological mapping(1964)****				1756
1563	No22	Magnetite lenticular body: 20m x5m	Magnetite		Magnetite-4-8%		Geological mapping(1974)**				2981, 1751
1460	No11	Quartz vein:	Magnetite				Geological mapping(1978)**				3041

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit type	Location		Geology							Deposit (1)				
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metallogenic province	Country rock	Alteration	Age of mineralization
1459	No7	Contact metasomatic	Khubsagul	49 41 00	97 39 00	North Mongolia	Near Khubsagul	Uplift	Granosyenite	Limestone	Upper Proterozoic	P2-T1 -Selenge complex	North Mongolia	Granosyenite		
1579	Nergui	Magmatic	Khubsagul	48 47 00	99 58 00	North Mongolia	Ider	Uplift	Gabbro, diorite			Middle Paleozoic	Tuva-Mongol	Gabbro, diorite		
4696	Must uul	Hydrothermal	Arkhangai	48 07 15	99 21 00	North Mongolia	Khangai	Outcrop	Anorthosite		Upper Proterozoic		Tarbagatai	Anorthosite		Proterozoic
1455	Magnetite ovoo No30	Metasomatic	Zavkhan	49 31 00	96 43 00	North Mongolia	Ider	Uplift	Granite	Marble	Upper Proterozoic	P2 -Numreg complex	North Mongolia	Granite		Upper Permian
3920	Occur-5	Hydrothermal-metasomatic	Khubsagul	51 52 00	99 43 00	North Mongolia	Khubsagul	Dipression	Green shale, serpentinite		R1-2, V-E1		North Mongolia	Green shale, serpentinite		
1595	Ider	Contact metasomatic	Zavkhan	48 15 00	97 20 00	North Mongolia	Ider	Uplift	Granite	Limestone	Upper Proterozoic	Lower-Middle Devonian	North Mongolia	Granite		Lower-Middle Devonian
1552	Jinsen gol	Magmatic	Zavkhan	49 15 00	96 50 00	North Mongolia	Ider	Uplift	Granite	Gneiss, serpentinite	Upper Proterozoic	Lower Cambrian	North Mongolia	Granite		Upper Proterozoic
148	Jargalant	Hydrothermal	Arkhangai	48 34 40	99 14 45	North Mongolia	Ider	Uplift	Anorthosite, gneiss			Lower Paleozoic	North Mongolia	Anorthosite, gneiss		
2212	Upper Salbarai	Hydrothermal	Arkhangai	48 21 22	99 49 15	North Mongolia	Ider	Uplift	Granite gneiss			Lower Proterozoic	North Mongolia	Granite gneiss		
1601	Darkhan ulaan davaa	Hydrothermal	Arkhangai	48 09 18	99 20 40	North Mongolia	Ider	Uplift	Gabbro-anorthosite, gabbro-diorite			Lower Proterozoic	North Mongolia	Gabbro-anorthosite, gabbro-diorite		
1542	Beiteiin gol	Hydrothermal	Khubsagul	50 26 00	99 20 00	North Mongolia	Near Khubsagul	Dipression	Diorite			Middle Carboniferous	North Mongolia	Diorite		

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit (2)				Previous survey						Reference Report number
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling	
1459	No7	Skarn: 30m x 5m	Magnetite, hematite	Garnet	Zn-0.03%, Mn-0.3%, Mo-0.05%		Geological mapping(1979)**					3041
1579	Nergui	Pegmatite: 10m wide	Magnetite		Cu-0.1%, Fe-1.0%		Prospecting work(1965)					1812
4696	Must uul	Magnetite zone: 50m x 20m	Magnetite	Iron oxid, magnetic pyrites	Fe-21.36%, Cu-0.002%, Mn-0.02%		Geological mapping(1982)**					3684, 1831
1455	Magnetite ovoid No30	Magnetite lenticular body: 60m x 12m	Magnetite	Fluorite	Ca-F2-4.37%, Fe-60%		Geological mapping(1981)**			51.6m cub		3592
3930	Occur-5	Quartz vein: 100m x 10m	Siderite, hematite	Malachite, azurite, covellite	Cu-0.03%, Zn-0.01%, Cr-0.15%		Prospecting work(1993)*			3 digs		4770
1595	Ider	Skarn: 10m x 10m	Magnetite	Azurite, cuprite	Zn-0.2%, Cu-0.02%		Geological mapping(1964)****					1755
1552	Jinsen gol	Magnetite lenticular body: 40m x 2.7m	Magnetite, hematite	Chromite, malachite, chalcocopyrite	Fe-49.0%		Geological mapping(1977)**			326.7m cub	40.7m	2723
148	Jargalant	Quartz vein: 10m x 3m	Hematite		Fe-24.24%, Cu-0.003%		Geological mapping(1982)**					3684
2212	Upper Saibartai	Hematite lenticular body: 20m x 3m	hematite		Fe2O3-10.91%		Geological mapping(1981)**					3684
160	Darkhan ulaan davaa	Magnetite vein: 2m x 60m	Magnetite		Fe-19.23%, Cu-0.003%		Geological mapping(1982)**			3 digs		3684
1542	Beltesin gol	Magnetite vein: 20m x 0.8m	Magnetite				Geological mapping(1953)**					609

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)						
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metallogenic province	Country rock	Alteration	Age of mineralization			
145	Bayasgalan uul	Hydrothermal	Arkhangai	48 00 48	99 25 55	North Mongolia	Ider	Uplift	Anorthosite					Lower Proterozoic	North Mongolia	Anorthosite			
4695	Bayan uul	Hydrothermal	Arkhangai	48 09 18	99 20 40	North Mongolia	Khangai	Outcrop	Gabbro-anorthosite					Lower Proterozoic	North Mongolia	Gabbro-anorthosite			Lower Proterozoic
1480	West Mandal uul	Hydrothermal	Khubs gul	49 37 00	99 21 00	North Mongolia	Near Khubs gul	Dipression		Acid volcanic rocks	P1-2 -Bugsein gol suite				North Mongolia	Acid volcanic rocks			Upper Permian
3905	Altargana gol	Hydrothermal	Khubs gul	50 18 45	98 55 00	North Mongolia	Khubs gul	Dipression	Granite	Green shale	Riphean			Middle Devonian	North Mongolia	Green shale			
1729	Tsagaan khonkh	Metasomatic	Arkhangai	48 22 00	99 50 00	North Mongolia	Ider	Uplift	Granite, quartz porphyry					Middle Riphian	North Mongolia	Granite, quartz porphyry			
175	Khuukh chuluut	Magmatic	Khubs gul	50 00 00	99 58 00	North Mongolia	Near Khubs gul	Dipression		Carbonate and metamorphic rocks	V-E1 -Khesen and Khordul suite; R1 -Darkhad series				North Mongolia	Carbonate and metamorphic rocks			
1549	Khagin nuur	Magmatic	Khubs gul	50 14 00	99 35 00	North Mongolia	Near khubs gul	Dipression	Nepheline syenite					Lower-Middle Devonian	North Mongolia	Nepheline syenite			
1544	Serkh uul	Magmatic	Khubs gul	50 23 00	99 35 00	North Mongolia	Near Khubs gul	Dipression	Syenite	Limestone	V-E1 -Bayanzurkh suite			Lower Permian-Lower Triassic	North Mongolia	Syenite			
1550	West Mankhan	Magmatic	Khubs gul	50 06 00	99 55 00	North Mongolia	Near Khubs gul	Dipression	Nepheline syenite					D1-2 -Ujig gol massive	North Mongolia	Nepheline syenite			
1522	Dund khem gol	Magmatic	Khubs gul	50 43 00	99 49 00	North Mongolia	Near Khubs gul	Dipression	Alkaline granite					Middle Carboniferous	North Mongolia	Alkaline granite			
178	Burenkhaan	Magmatic	Khubs gul	49 50 00	99 58 00	North Mongolia	Near Khubs gul	Dipression		Limestone	V-E1 -Khesen and Khordul suite				North Mongolia	Limestone			

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit (2)				Previous survey					Reference Report number	
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit		Drilling
145	Bayasgahan uul	Magnetite lenticular body: 10m x1m	magnetite	Hematite, iron hydro-oxide	Fe-14.08%, Cu-0.005%		Geological mapping(1982)**					3684
469	Bayan uul	Magnetite vein: 100m x15m	Magnetite	Hematite, iron oxide	Fe-19.23%, Cu-0.005%		Geological mapping(1982)**					3684
1480	West Mandal uul	Magnetite vein: 5m x0.2m	Magnetite		Fe		Geological mapping(1973)**					2256
3905	Altargans gol	Quartzite body: 1600m x40m			W-0.05%		Prospecting work(1991)					4746
1729	Tsagan khonkh	Silicification zone:2000m x250m	Bismuthine		Cu-0.03%, Ag-18.0g/t; Au-0.2g/t		Geological mapping(1982)**		573.2m cub			3684
175	Khukh chuluut	Stock: 1.6 sq km	Nepheline		Nepheline-20%		Geological mapping(1982)*					3642
1549	Khagin nuur	Stock: 0.9 sq km	Foysite		Pb-0.002%, Fe1.21%		Geological mapping(1984)*		563.48m.cub	315.4m		3977
1544	Serkh uul	Stock: 2.75 sq km	Foysite, Juvite		Al-22.3%		Geological mapping(1985)*					3977
1550	West Mankhan	Stock: 25 sq km	Nepheline	Topaz	Al		Geological mapping(1968)**					1914
1522	Dund khem gol	Foysite zone: 3000m x200m	Foysite		Al-20.9%, Nb-0.02%	Al-33.7 Million ton	Geological mapping(1965)****, (1987)*	514 samples(1987)	71.8b cub(1987)			1756, 4286
178	Burenkhgaan	Syenite stock: 6.2 sq km	Nepheline		Al-20.9%		Geological mapping(1982)*					3642

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit type	Location			Geology							Deposit (1)			
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metabogenic province	Country rock	Alteration	Age of mineralization
1477	Marganese No26	Sedimentary	Khubs gul	49 42 00	99 58 00	North Mongolia	Near Khubs gul	Dipression		Clay schist, aleurolite	E1 -Khordul suite		North Mongolia	Clay schist, aleurolite		
1591	Khag nuur	Sedimentary	Zavkhan	48 04 00	96 30 00	North Mongolia	Ider	Dipression		Sandstone, aleurolite	Lower Cambrian		North Mongolia	Sandstone, aleurolite		
1566	Ihteteni	Hydrothermal-metasomatic	Khubs gul	50 04 00	99 25 00	North Mongolia	Near Khubs gul	Dipression	Granite	Limestone	E1 -Minjit suite	Lower-Middle Devonian	North Mongolia	Granite		
1458	Baga Ikh jamaat	Hydrothermal	Zavkhan	49 46 00	97 06 00	North Mongolia	Near khubs gul	Uplift		Limestone	Vendian-Lower Cambrian		North Mongolia	Limestone		
3932	Occur-3 (8-A-IV-4)	Hydrothermal	Khubs gul	51 52 35	99 41 40	North Mongolia	Khubs gul	Dipression		Serpentinite, carbonate rocks	Vendian		North Mongolia	Serpentinite, carbonate rocks		
1467	No38a	Alluvial	Khubs gul	49 24 00	98 03 00	North Mongolia	Near Khubs gul			Clay sand	QIV		North Mongolia	Clay sand		
1466	No 25a	Alluvial	Khubs gul	49 29 00	98 22 00	North Mongolia	Near Khubs gul			Sand, clay	QIV		North Mongolia	Sand, clay		
1465	No18a	Alluvial-proluvial	Khubs gul	49 33 00	98 24 00	North Mongolia	Near Khubs gul	Uplift		Clay sand	QIII-IV		North Mongolia	Clay sand		
1485	Shine-ider	Magmatic	Khubs gul	48 55 00	99 40 00	North Mongolia	Ider	Uplift	Gneiss, migmatite, amphibolite			Proterozoic	North Mongolia	Gneiss, migmatite, amphibolite		
1539	Tsokhio	Hydrothermal	Khubs gul	50 36 00	99 19 00	North Mongolia	Near Khubs gul	Dipression		Limestone	Lower Cambrian		North Mongolia	Limestone		
1476	No21	Sedimentary	Khubs gul	49 46 00	99 53 00	North Mongolia	Near khubs gul	Dipression		Limestone with shale beds	E1 -Khordul suite		North Mongolia	Limestone with shale beds		

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit (2)					Previous survey					Reference Report number
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling	
1477	Manganese No26	Alteration zone: 2600m x98m	Psilomelane		Mn-8.8%, Ni-0.003%		Geological mapping(1980)* (1981)*		2 digs(1980); 393m.cub(1981)	284m (1981)	3642, 4040	
1591	Khag nuur	Manganese bed: 2000m x1000m			Mn-36.98%	Mn-3.4 Million ton	Geological mapping(1981)**		120m.cub	37m	3576	
1566	kheteni	Mineralization zone: 25m x10m	(Cyrtoilite)?		Li-0.01%, Nb-0.02%,La-0.03%		Geological mapping(1969)**				1914	
1458	Bagga Ikh jamaat	Pegmatite: 5m	Spodumene		Li-1%, Be-0.3%, Nb-0.05%		Geological mapping(1979)**				3041	
3932 4)	Occur-3 (8-A-IV- Serpentinite bed.				Ni-1%, Cr-0.2%, Co-0.007%, Cu-0.005%		Geological mapping(1993)*				4770	
1467	No38a	Ilmenite bed: 9000m x3000m	Ilmenite		Ilmenite-2800g/m.cub		Geological mapping(1977)**			262,3m	3045	
1466	No 25a	Ilmenite bed: 520m	Ilmenite		Ilmenite-7500g/m.cub		Geological mapping(1977)**			313,5m	3045	
1465	No18a	Ilmenite bed: 450m	Ilmenite		Ilmenite-2200g/m.cub		Geological mapping(1977)**			336,8m	3045	
1485	Shine-ider	Pegmatite dyke: 90m x4m	Beryl		Be-		Prospecting work(1966)				1814, 2283	
1535	Tsokhio	Quartz-calcite vein: 25m x0.08m			V-3.4%, Cu-2.5%, As-6.9%		Geological mapping(1933)**** (1953)*		130m.cub(1953)		609, 44	
1476	No21	Silicification zone: 1500m x200m			V-0.6%, Mo-0.02%, Cu-0.01%		Geological mapping(1982)*		390m.cub		3642	

Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

Western part of the survey area

No.	Deposit name	Deposit type	Location		Geology							Deposit (1)				
			Province	Latitude	Longitude	Tectonic zone	Formation	Structure	Igneous (plutonic) rocks	Sedimentary and volcanic rocks	Age of sedimentary rocks	Age of igneous rocks	Metalogenic province	Country rock	Alteration	Age of mineralization
1474	Vanadium (No 18)	Sedimentary	Khubsugul	49 49 50	99 50 00	North Mongolia	Near Khubsgul	Dipression	Granite, granodiorite	Limestone, carbonate rocks	V-E1 -Khesen suite; E1 -Khordul suite	PZZ	North Mongolia	Limestone, carbonite rocks		
1483	Buyant (No83)	Sedimentary	Khubsugul	49 44 00	99 47 00	North Mongolia	Near khubsgul	Dipression	Granite	Dolomite, limestone, aleurolite, shale	V-E1 -Khesen suite	Upper Paleozoic	North Mongolia	Dolomite, limestone, aleurolite, shale		
48	Mungesh	Hydrothermal-metasomatic	Khubsugul	50 37 00	99 24 00	North Mongolia	Near Khubsgul	Graben		Limestone	Upper Cambrian		North Mongolia	Limestone		
5003	Tsagaan chuluut	Contact metasomatic	Khubsugul	50 21 00	99 46 00	North Mongolia	Near Khubsgul	Dipression	Granite	Limestone, marble	E1 -Khordul suite	Middle Devonian	North Mongolia	Limestone, marble		Middle Devonian
3891	Altan boom	Hydrothermal	Khubsugul	50 17 32	98 56 00	North Mongolia	Khubsgul	Uplift	Leucocratic granitic	Shale	Middle Riphean	Lower-Middle Jurassic	North Mongolia	Leucocratic granite		

Western part of the survey area
Table A-3 List of mineral occurrences, and geochemical anomalies in the central north area

No.	Deposit name	Deposit (2)					Previous survey					Reference
		Morphology	Ore mineral	Gangue mineral	Grade	Ore reserve	Geology	Geochemistry	Geophysics	Trench and pit	Drilling	
1474	Vanadium (No 18)	Silicification bed: 1800m x 81m			V-0.17%	V-14260.4t	Geological mapping(1982)*	783 samples		1677m.cub		3642, 4040
1483	Buyant (No83)	Vanadium bearing shale bed: 800m x 70m	Vanadium	Phosphorite	V-0.23%, Ba-1%, Mo-0.002%		Geological mapping(1982)*	814 samples		787.5m.cub		3642
48	Mungesh	Quartz-calcite vein: 30m			V-		Geological mapping(1933)					44
5003	Tsagaan chuluut	Sham: 0.3m wide	Scheelite		W-0.1%		Geological mapping(1986)*				100m	3977
3891	Altan boom	Ore body: 300m x 200m			Ta-	Ta-1700t; Nb-1610t	Geological mapping(1991)*					4746

Previous survey (geology)

"-: 1:10 000 scale prospecting work, *: 1:50 000 scale geological mapping, **: 1:200 000 scale geological mapping; ***: 1:500 000 scale geological mapping; ****: 1:1 000 000 scale geological mapping

Table A-3 List of topographic maps of the central north area

Index No.	Map No.	Original title of the map (in Mongolian or Russian)	Scale	Published Year
1-1	M-47-A	Баянзүрх	1:500,000	unknown
1-2	M-47-B	Тосонцэнгэл	1:500,000	unknown
1-3	M-47-Б	Хөвсгөлдэлай	1:500,000	unknown
1-4	M-47-Г	Мөрөн	1:500,000	unknown
1-5	M-48-A	Слюдянка	1:500,000	unknown
1-6	M-48-B	Булган	1:500,000	unknown
1-7	M-47-69	Г. Хуху Дэбсэг Обо	1:100,000	1948
1-8	M-47-81	Нарани Обо	1:100,000	1948
1-9	M-47-93	Мурэн	1:100,000	1948
1-10	M-47-119	Цэцэрлиг Сомон	1:100,000	1949
1-11	M-47-120	Ошарга-Нур	1:100,000	1949
1-12	M-48-61	Аригыйи Дуганг	1:100,000	1948
1-13	M-48-62	Цулун	1:100,000	1949
1-14	M-48-74	Тэшиг Сомон	1:100,000	1948
1-15	M-48-100	Цонхлон Сомон	1:100,000	1947
1-16	M-48-101	Хангал Сонон	1:100,000	1948
1-17	M-48-109	Нарингин Хурэ	1:100,000	1949
1-18	M-48-110	Г. Аршантуин Обо	1:100,000	1949
1-19	M-48-111	Булганы Нуруу	1:100,000	unknown
1-20	M-48-112	Булган	1:100,000	1942
1-21	M-48-113	Г. Ундур-Ула	1:100,000	1948
1-22	M-48-121	Оз. Ихэ Цаган-Нур	1:100,000	1949
1-23	M-48-134	Улцзэйтү Сомон	1:100,000	1949
1-24	M-48-135	Абзог Сомон	1:100,000	1947
1-25	M-48-137	Зуунтуруу Бригад	1:100,000	unknown

Table A-4 List of geological maps (with the reports) of the central north area

(1/3)

Index No.	Report No.	Original title of the map (in Mongolian or Russian)	Name of the area (in English)	Scale	Published Year	Remarks*
2-1	non.	Geological Map of Mongolia scale 1:1,000,000	Geological Map of Mongolia	1:1,000,000	unknown	2 pieces (M-47, M-48)
2-2	non.	Геологическая Карта Северной Монголии	Geological Map of Northern Mongolia	1:500,000	1987	1 piece
2-3	non.	Карта Полезных Ископаемых Центральной И Восточной Монглии	Mineral Map of Mongolia	1:500,000	1986	6 pieces (M-47-A·B, -B, -Г, M-48-A, -B)
2-4	402	Геологическая Карта: Района Реки Желтуры/Ацаргайн-гол/Селенгинский Аймак М.Н.Р.	Z(h)elter river	1:200,000	1943	1 piece
2-5	1725	Геологическая Карта, Карта Полезных Ископаемых	South Khubsgul	1:200,000	1967	2 pieces (M-47-XVII)
2-6	1811	Геологическая Карта, Карта Полезных Ископаемых	Selenge river	1:200,000	1968	2 pieces
2-7	1820	Геологическая Карта И Карта Полезных Ископаемых	Khangal and Orkhontuul	1:200,000	unknown	2 pieces (M-48-XXVII)
2-8	1821	Геологическая Карта	Southeast part of Khubsgul	1:200,000	1967	1 piece (M-47-58, -59, -70, -71)
2-9	1960	Карта Полезных Ископаемых: Бассейна Нижнего Течения Р. Толы	Tuul river	1:200,000	1972	2 pieces (M-48-XXVII, -XXXIII, -XXXIV)
2-10	2035	Геологическая Карта И Карта Полезных Ископаемых	Bulgan	1:200,000	1972	1 piece (M-48-XX, -XXVI, -XXVII, -XXXII, -XXXIII)
2-11	2043	Геологическая Карта	Orkhon-Selenge river	1:200,000	1974	2 pieces (M-47-XXX, M-48-XXV, -XXVI)
2-12	2256	Карта Полезных Ископаемых	Muren and Tsetserleg	1:200,000	1975	4 pieces (M-47-XXII, -XXVII, -XXXI, -XXXII)
2-13	2283	Геологическая Карта И Карта Полезных Ископаемых	North Khangai	1:200,000	1974	1 piece (M-47-XXVIII, -XXIX, XXXV, -XXXVI, M-48-XXXI)
2-14	2575	Геологическая Карта Совмещенная С Картой Полезных Ископаемых	Dashinchilen	1:200,000	1976	6 pieces (L-48-III, M-48-XXXII, -XXXIII, Section)
2-15	2660	Геологическая Карта И Карта Полезных Ископаемых	Muren	1:200,000	1976	5 pieces (M-47-XVII, -XXIII, -XXIV)
2-16	2765	Геологическая Карта И Карта Полезных Ископаемых	Uizeit	1:200,000	1978	4 pieces (M-48-XXXI, -XXXII)
2-17	2982	Геологическая Карта И Карта Полезных Ископаемых	Tarvagatai	1:200,000	1979	3 pieces (M-48-XIX)

Table A-4 List of geological maps (with the reports) of the central north area

(2/3)

2-18	3156	Геологическая Карта И Карта Полезных Ископаемых	Тешиг	1:200,000	unknown	1 piece (M-48-XX, -XIV)
2-19	3228	Геологическая Карта	Under-ulaan	1:200,000	1981	1 piece (M-47-XXXV, -XXXVI)
2-20	3624	Геологическая Карта И Карта Полезных Ископаемых	Zhelter	1:200,000	1982	5 pieces (M-48-XV, -XVI, -XXI, -XXII)
2-21	4838	Геологическая Карта, Ашигт Малтмал, Тууний Тархалтын Зүй Тогтлын Зураг	Erdenebulgan	1:200,000	unknown	9 pieces (M-47-XVII, -XVIII, -XXIV) in Mongolian
2-22	4862	Геологическая Карта, Ашигт Малтмал, Тууний Тархалтын Зүй Тогтлын Зураг	Tavt	1:200,000	unknown	8 pieces (M-48-VII, -XIII) in Mongolian
2-23	5171	Геологическая Карта, Ашигт Малтмал, Тууний Тархалтын Зүй Тогтлын Зураг	Tsagaan uur	1:200,000	1998	7 pieces (M-47-V, XI, -VI, X, II) in Mongolian
2-24	63	(1) Схематическая Геологическая Карта (2) Вторичные Ореолы Рассеяния (Cu, Ba, Zr, Mo) (3) Вторичные Ореолы Рассеяния (Zn, Pb, Y, W, U)	Mogoin gol	1:50,000	unknown	3 pieces (M-48-109-B)
2-25	1507	Схематическая Геологическая Карта: Водораздела Рек Бургэлту-голи Бадарий-гол etc.	Egiingol	1:50,000	1961	6 pieces
2-26	1612	Геологическая Карта: Дзалаатунского Ультрасосновного Массива	Dzalaat	1:50,000/1:2,000	1960/1964	3 pieces
2-27	2924	Схематическая Геологическая Карта		1:50,000	unknown	1 piece (M-48-109-B)
2-28	3538	Схематическая Геологическая Карта И Полезных Ископаемых: Района Работ Эрдэнэтинской Поисковой Партии № 11	Erdenet	1:50,000	1982	1 piece
2-29	3642	(1) Геологическая Карта (2) Карта Полезных Ископаемых И Закономерностей Их Размещения	Burenkhan	1:50,000	1983	10 pieces (M-47-68-B, -Г; -80-A, -Б; -81-A; -80-B & -81-B)
2-30	3649	(1) Геологическая Карта (2) Карта Полезных Ископаемых И Закономерностей Их Размещения	Khatgal	1:50,000	1982	10 pieces (M-47-57-B; -69-A, -Б, -B)
2-31	3976	МГ и ГРП МНР Мурунская Геологическая Экспедиция, Эгийн-гольская № 10: Геологическая Карта, Карта Полезных Ископаемых И Закономерностей Их Размещения	Egiingol	1:50,000	1986	10 pieces (M-47-69-Г; -70-A, -Б; -81-B)

Table A-4 List of geological maps (with the reports) of the central north area

(3/3)

2-32	4403	Совместная Монголо-Советская, Геологическая Экспедиция "Дархан", Сайханская Партия-5: Геологическая Карта, Карта Закономерностей Размещения Полезных Ископаемых	Saikhan	1:50,000	1990	20 pieces (M-48-109-Г; -110-A, -Б, -В, -Г; -111-A, -Б, -Г)
2-33	4597	Улсын Геологийн ТӨВ Геологи Шинжилгээний "Дархан" Нэгдэл Туулын Анги: Геологийн Карт, Ашигт Малтмалын Карт	Tuul	1:50,000	1991	23 pieces (M-48-125-Г; -137-A, -Б, -В, -Г; -138-A, -Б, -В, -Г; L-48-5-A, -Б, -Г)
2-34	4633	Министерство Тяжелой Промышленности МНР, Муренская Геологосъёмочная Экспедиция, Муленская ГЭС Партия №7: Геологическая Карта, Карта Закономерностей Размещения Полезных Ископаемых	Muren	1:50,000	unknown	36 pieces (M-47-81-В, -Г; -82-A, -Б, -Г; -92-Б, -Г; -93-A, -Б, -В, -Г; -94-A, -Б, -В, -Г; -95-A, -В)
2-35	3283	Геологическая Карта: Района Эрденинтуин-обо (Булган-аймак)	Erdenetiin ovoo	1:100,000	1968	2 pieces
2-36	3283	Геологическая Карта Рудной Зоны: Эрденинтуин-обо (Булган-аймак)	Erdenetiin ovoo	1:10,000	1966	1 piece
2-37	4552	Ташигсий Рудный Узел: Геологическая Карта	Teshing ore node	1:100,000	1989	1 piece

* Descriptions of all the maps are written in Russian, except for denoted ones.

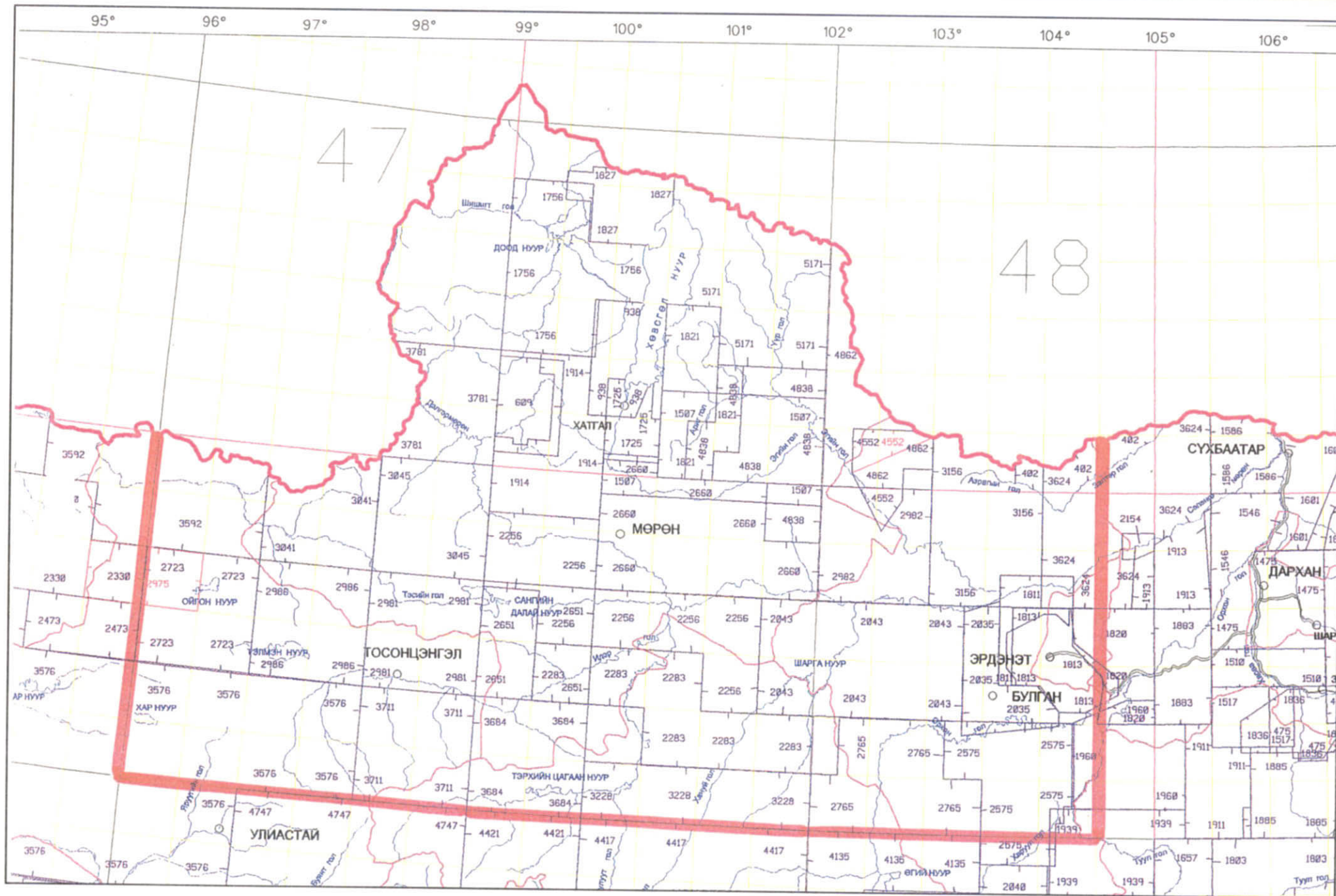


Fig. A-1 Index map of geological maps (1:200,000) in the central north area

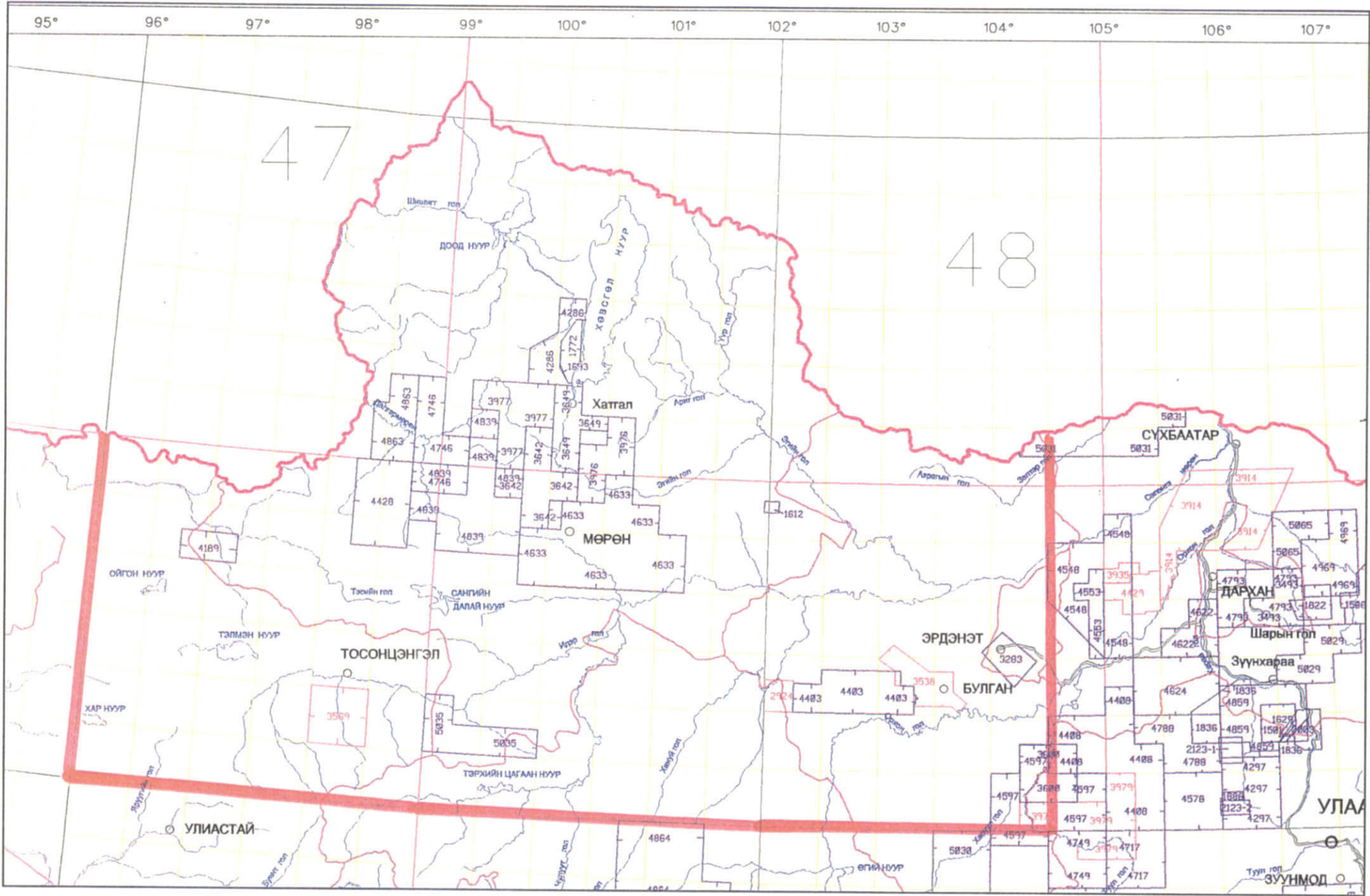


Fig. A-2 Index map of geological maps (1:50,000) in the central north area

Table A-5 List of geological data around mineral occurrences of the central north area (Phase I survey)

(1/3)

Index No.	No. of Mineral Occurrences	Original title of the map (in Mongolian or Russian)	Name of the area (in English)	Scale	Published Year	Remarks
3-1	1	Геолгйи-Ашигт Малтмалын Зураг: Заамарын Худрийн Зангилаа(М)	Zaamar ore knot (Sundal N177)	1:50,000	1994	in Mongolian
3-2	1	Хүдэр Агуулагч Бицигтийн Баулаан Энгэрийн Бvс	Bichigt and Ulaan enger	1:50,000	1994	in Mongolian
3-3	1	Геолгийн Зураг: Заамарын Дvврэг	Zaamar	1:50,000	unknown	
3-4	1	Геолгийн Зураг: Хүдэр Агуулагч Цагаан Чулуутын Бvс	Tsagaan chuluut	1:5,000	1994	in Mongolian
3-5	1	Геолгийн Зураг: Нарийн Голын Алтны Худрийн, Талбаи	Nariingol	1:10,000	1994	in Mongolian
3-6	1	Геолгийн Зураг: Хүдэр Агуулагч Дэл Судлын Бvс	Ore bearing dyke zone	1:10,000	1994	in Mongolian
3-7	1	Геолгийн Зураг: Нарийн Голын Алтны Худрийн, Талбаи	Nariingol gold field	1:10,000	unknown	in Mongolian
3-8	1	Нарийн Голын Алтны Худрийн, Талбайд 1992-1993 Онуудад Явуулсан Зрлийн Ажлын ур Дvнгийн Тайлан	Nariingol gold ore field's result	1:10,000	1994	in Mongolian
3-9	2	Участок Улцзэйтv-обо: Схематическая Геологическая Карта	Ulziit ovoo	1:10,000	1987	in Russian
3-10	4	Участок Оюут-Хонхор: Схематическая Геологическая Карта	Ouyt-Khonkhor	1:10,000	1987	in Russian
3-11	8	Участка Могойи-гол: МГ и ГРПМНР Мурэнская ГСЭ, Схематическая Геологическая Карта	Mogoin gol	1:5,000	unknown	in Russian
3-12	8	Эрдэнтуинского Рудный Район, Участка Могойи-гол: Схематическая Геологическая Карта	Mogoin gol	1:25,000	1981	in Russian
3-13	9	Результаты Наземных Геолого-Геофизических Работ На Участке Холбо-Обо	Kholboo ovoo	1:10,000	1990	in Russian
3-14	10	Схематическая Геологическая Карта: Участка Г. Хо-Улан-Ула	Kho-ulaan	1:10,000	1974	in Russian
3-15	11	Схематическая Геологическая Карта/Геолого-Геофизические Разрезы: Участки Цзосот У-Тологой	Zost tolgoi	1:10,000	1984	in Russian

Table A-5 List of geological data around mineral occurrences of the central north area (Phase I survey)

(2/3)

Index No.	No. of Mineral Occurrences	Original title of the map (in Mongolian or Russian)	Name of the area (in English)	Scale	Published Year	Remarks
3-16	12	Схематическая Геологическая Карта Рудопроявления Меди Яргайт	Yargait	1:10,000	1984	in Russian
3-17	13	Схематическая Геологическая Карта: Участка Донхор-булак	Donkhor bulag	1:10,000	1974	in Russian
3-18	14	Схематическая Геологическая Карта: Молибденового Рудопроявления "Алтган-гол"	Altagana gol	1:5,000	1986	in Russian
3-19	17	Схематический Геологический План: Участка "Дэлгэр-уул"	Delger uul	不明	1986	in Russian
3-20	18	МГИ ГРП МНР: Муренская Геологосъемочная Экспедиция Геологический План: Участка "Кварцевый"	Quartz	1:10,000	1982	in Russian
3-21	19	МГИ ГРП МНР: Муренская Геологосъемочная Экспедиция Схематический Геологический План: Участка "Скарновый"	Skarn	1:500	unknown	in Russian
3-22	20	Геологическая Карта, Свинцоворудного Месторождения, Хурилтугол	Khurity gol	1:200,000	1942	in Russian
3-23	24	Салхитын Голын Алт-Сульфидын Илрэлийн Геологийн Тойм Зураг	Salkhitiin gol	1:250,000	unknown	in Russian
3-24	27	Монголо-Советская Геологическая Экспедиция "Дархан" Сайхайская Карта	Zairan	1:10,000	1987	in Russian
3-25	29	Схематическая Геологическая Карта: Участка "Бургэд Кяр"	Burged khyar	1:10,000	1990	in Russian
3-26	30	unknown	Urmiin tsagaan nuur	1:10,000	unknown	in Russian
3-27	32	Схематическая Геологическая Карта: Участка "Унбрах"	Undrakh	1:10,000	1990	in Russian
3-28	33	Схематический Карта: Кварцевой Жилы Врайоне	Tsookhor morit	1:500/1:1,000	unknown	in Russian
3-29	34	Схематическая Геологическая Карта: Участка "Джасаны Буц"	Zhassin buuts	1:10,000	1982	in Russian

Table A-5 List of geological data around mineral occurrences of the central north area (Phase I survey)

(3/3)

Index No.	No. of Mineral Occurrences	Original title of the map (in Mongolian or Russian)	Name of the area (in English)	Scale	Published Year	Remarks
3-30	35	Схематическая Геологическая Карта с Резултатамц Пойскбых Работ: Участка Харуул	Khar uul	1:10,000	1990	in Russian
3-31	38	Схематическая Геологическая Карта: Участок Хучжирьин	Khujirin gol	1:25,000	1985	in Russian
3-32	39	Участок Цзоухын	Zhuukhin gol	1:10,000	1985	in Russian
3-33	42	unknown	Tourmaline	1:10,000	unknown	in Russian
3-34	43	unknown	Under	1:10,000	unknown	in Russian
3-35	43	Эрдэнэтский Рудный Район Участок Болотный: Схематическая Геологическая Карта с Результатами Поисковых Работ	Under/bolotni	1:25,000	1981	in Russian
3-36	44	unknown	Shand	1:10,000	1981	in Russian
3-37	45	Месторождение Эрдэнтуин-Обо Участок Оюут: Схематическая Геологическая Карта	Ouyt	1:2,000	1985	in Russian

Table A-6 List of geological data around mineral occurrences of the central north area (Phase II survey)

Index No.	Map No.	Appendix No.	District	Occurrence	Contents	Reported year (Investigated year)	Scale	Map name
1	2221 (12)	10 (70067)	Erdenet West	Erdenet NW, Tsagaan chuluut, Talbulag	Location of investigated route and area	1973 (1969-1970)	1:25,000	Map of factual materials (Ore zone of Erdenetyn Ovoo)
2	2221 (2)	2 (70067)	Erdenet West	Tsagaan chuluut, Talbulag, Mogoin gol	Location of investigated route and area	1973	1:50,000	Map of factual materials for prospecting tour
3	2221 (23)	21 (70067)	Erdenet West	Tsagaan Chuluut	No.202 drill holl data (geology)	1973		Well No. 202, area "Tsagaan Chuluut"
4	4403 (27)	13, Sheet 8	Erdenet West	Tsookher mert ?	Geological map including the distribution of mineralization	1989	1:50,000	Map of mineral resource location regulation
5	2221 (3?)	29 (70067)	Erdenet West	Tsagaan Chuluut	No.213 drill holl data (geology)	1973		Well No. 213, area "Tsagaan Chuluut"
6	4403 (100)	42, Sheet 1	Erdenet West	Burged khyr	No.3 and 4 drill holl data (geology and analysis results)	1990 ?	1:200	Geological column of the Well no. 3, 4
7	4403 (44)		Erdenet West	Tsookher mert	Location of investigated route and area	19.. ?	1:50,000	Map of factual materials, area "Tsookhor morit"
8	4403 ()	1/4	Tsagaan uul	Nariin azarga	Location of investigated route and area	?	1:50,000	Map of factual materials, area "Nariin Azarga"
9	4403 ()	1/3	Tsagaan uul	Uvur khujirt (Khaisin belchir ?)	Location map (investigated route, E98°30'-45' N50°10'-20')	?	1:50,000	Map of factual materials, area "Uvur Khujirt"
10	2221 (32)	30 (70067)		Predgorny ?	No.214 drill holl data (geology and analysis results (Cu, Mo, Pb, Zn, Au, Ag))	1974 (1973)		Well No. 214, area "Predgorny"
11	4084(81)	41, Sheet 1	Bulgan SW	Oyuut khonkhor, Ulzait ovoo, Shuvuut	Geological and geophysical section	(1984-1987)	1:50,000	Vertical section ..., Areas "Ulzait ovoo", "Oyut Khonkhor"
12	4084 ()	64, Sheet 1	Bulgan SW	Oyuut khonkhor	No.15 drill holl data (geology and analysis results (Cu, Mo, Pb, Zn, Sn))	1987	1:200	Geological column of the Well No. 15, "Oyut Khonkhor"
13	4084 ()	50, Sheet 1	Bulgan SW	Oyuut khonkhor	No.14 drill holl data (geology and analysis results (Cu, Mo, Pb, Zn, Sn))			Geological column of the Well No. 14, "Oyut Khonkhor"
14	4084 (90)	46, Sheet 1	Bulgan SW	Oyuut khonkhor	Geological map (location of trenches and drill holls)	1987 (1984-1987)	1:10,000	Map of outcrop and factual materials, "Oyut Khonkhor"

Table A-6 List of geological data around mineral occurrences of the central north area (Phase II survey)

Index No.	Map No.	Appendix No.	District	Occurrence	Contents	Reported year (Investigated year)	Scale	Map name
15	8865 (12)	60	Erdenet West	Danbatseren	Geophysical map	1985 (1981-1983)	1:25,000	Result of Geophysical works by the method of...
16	8865 (80)	99, Sheet 1	Erdenet West	Shand	Geological and geophysical section		1:10,000	Result of Electrical prospecting by the method of...
17	3684	20	Tariat	Tsagaan khonkh	Geological map including the distribution of mineralization		1:5,000	Schematic geological map and scheme of location of mines.
18	3084	4	Tariat	Solngot, Solongotin gol, Tariatiin gol, Terkhiiin tsagaan nuur, Tsagaan khonkh	Location of investigated area around Tariat district		1:200,000	Map of factual materials
19	3865 (89)	49	Erdenet West	Zaukhiin gol	Location of investigated area		1:10,000	Map of factual materials. Area Zaukhiin Gol
20	(92)	52	Erdenet West	Zaukhiin gol	Geological section by drill hole data	1985	1:2,000	Geological section for the profiles 12, 9.5, Zaukhiin Gol
21		1, Sheet 6	Tsagaan uul	Tsagaan uul	Location of investigated area			Map of factual materials, Tsagaan Uul
22	3865 (3)	34	Erdenet West	Khujiriin gol	Geological section		1:2,000	Geological section for the profiles II-1, I-1, Khujiriin Gol
23	4428/5	1, Sheet 5	Tsagaan uul	Tsagaan uul	Location of investigated route and sampling points		1:5,000	Map of factual materials, Undur Tsagaan Uul
24	4428 (46)	8, Sheet 1		Khunikh tsakhir, Tsagaan uul	Geological map		1:5,000 (Khunikh tsakhir), 1:10,000 (Tsagaan uul)	Geological map of Khunikh Tsakhiriiin prospecting area, ...
25	3209	24(55-036/14003)	Erdenet West	Under?	Geology and geophysical map (investigated route)	?	1:10,000	Results of prospecting works. Area "Undur"
26	3122 (2)	2 (10)	Tosontsengel	Quartzite, Ikh uul, Davaa	Location of investigated route, sampling points, drill holes, trench and pits	1980 (1978-1979)	1:10,000	Map of factual materials
27	3865 (62)	33	Erdenet West	Khujiriin gol, Ingetyn	Geological section by the results of geophysical survey	1985	1:10,000	Results of electrical prospecting works by the method...

Table A-6 List of geological data around mineral occurrences of the central north area (Phase II survey)

Index No.	Map No.	Appendix No.	District	Occurrence	Contents	Reported year (Investigated year)	Scale	Map name
28	3865 (82)	41	Erdenet West	Mogoin gol	Geological map including the location of investigated route, sampling points, trench and drill holls		1:25,000	Schematic geological map and map of factual materials
29	4428 (?)		Tsagaan uul	Khunxh tsakhir	Description of trench (geology and analysis results)		1:50	Mineralization index of Khunxh Tsakhir occurrence
30	3209 (4)	2, Sheet3 (55-036/14003)	Erdenet West	Shand	Location of investigated area and route			Area "Shand"
31	1909 (46)	16	Erdenet West	Mogoin gol	Location of trench		1:2,000	Geological- prospecting plan with results of sampling
32	(67)	93	Erdenet West	Shand	Location of investigated route and sampling points		1:25,000	Map of factual materials. Area "Shand"
33	3865 (?)	98	Erdenet West	Shand	Geological and geophysical section		1:10,000	Result of Electrical prospecting by the method of...
34		1, Sheet3	Tsagaan uul	Jivleg uul?	Geological map including the location of investigated area		1:50,000	Map of factual materials, Jivleg Uul
35	442? ()	9, Sheet 1	Tsagaan uul	Khunxh tsakhir	Location of trench		1:5,000	Map of factual material
36	4428 (55)	8, Sheet 10	Tsagaan uul	Tsagaan uul	Description of trenches (geology and analysis results)		1:100	Mineralization index of Tsagaan Uul
37	3865 (46)	22	Erdenet West	Khujiriin gol	Geological map including the location of investigated area		1:50,000	Map of factual materials. Area "Khujiriin"
38	3865 (64)	35(55-010/07200)	Erdenet West	Khujiriin gol	No.331 drill holl data (depth: 0-90m)	(1981-1985)	1:200	Geological column of the Well No. 331, "Khujiriin"
39	3865 (65)	35(55-010/07200)	Erdenet West	Khujiriin gol	No.331 drill holl data (depth: 90-200m)	(1981-1985)	1:200	Geological column of the Well No. 331, "Khujiriin"
40	3865 (66)	35 (55-010/07200)	Erdenet West	Khujiriin gol	No.331 drill holl data (depth: 200-318.30m)	(1981-1985)	1:200	Geological column of the Well No. 331, "Khujiriin"
41	3865 (67)	36(55-010/07200)	Erdenet West	Khujiriin gol	No.332 drill holl data (depth: 0-90m)	(1981-1985)	1:200	Geological column of the Well No. 332, "Khujiriin"

Table A-6 List of geological data around mineral occurrences of the central north area (Phase II survey)

Index No.	Map No.	Appendix No.	District	Occurrence	Contents	Reported year (Investigated year)	Scale	Map name
42	3865 (68)	36(55-010/07200)	Erdenet West	Khujiriin gol	No.332 drill holl data (depth: 90-200m)	(1981-1985)	1:200	Geological column of the Well No. 332, "Khujiriin"
43	3865 (69)	36(55-010/07200)	Erdenet West	Khujiriin gol	No.332 drill holl data (depth: 200-337.40m)	(1981-1985)	1:200	Geological column of the Well No. 332, "Khujiriin"
44	3865 (70)	37(55-010/07200)	Erdenet West	Khujiriin gol	No.334 drill holl data (depth: 0-90m)	(1981-1985)	1:200	Geological column of the Well No. 334, "Khujiriin"
45	3865 (71)	37(55-010/07200)	Erdenet West	Khujiriin gol	No.334 drill holl data (depth: 90-200m)	(1981-1985)	1:200	Geological column of the Well No. 334, "Khujiriin"
46	3865 (72)	37(55-010/07200)	Erdenet West	Khujiriin gol	No.334 drill holl data (depth: 200-290.20m)	(1981-1985)	1:200	Geological column of the Well No. 334, "Khujiriin"
47	3865 (73)	38(55-010/07200)	Erdenet West	Khujiriin gol	No.335 drill holl data (depth: 0-90m)	(1981-1985)	1:200	Geological column of the Well No. 335, "Khujiriin"
48	3865 (74)	38(55-010/07200)	Erdenet West	Khujiriin gol	No.335 drill holl data (depth: 0-200m)	(1981-1985)	1:200	Geological column of the Well No. 335, "Khujiriin"
49	3865 (75)	38(55-010/07200)	Erdenet West	Khujiriin gol	No.335 drill holl data (depth: 200-330m)	(1981-1985)	1:200	Geological column of the Well No. 335, "Khujiriin"
50	3865 (76)	39(55-010/07200)	Erdenet West	Khujiriin gol	No.336 drill holl data (depth: 0-90m)	(1981-1985)	1:200	Geological column of the Well No. 336, "Khujiriin"
51	3865 (77)	39(55-010/07200)	Erdenet West	Khujiriin gol	No.336 drill holl data (depth: 90-200m)	(1981-1985)	1:200	Geological column of the Well No. 336, "Khujiriin"
52	3865 (78)	39(55-010/07200)	Erdenet West	Khujiriin gol	No.336 drill holl data (depth: 200-317 m)	(1981-1985)	1:200	Geological column of the Well No. 336, "Khujiriin"
53	3865 (79)	40(55-010/07200)	Erdenet West	Khujiriin gol	No.337 drill holl data (depth: 0-90 m)	(1981-1985)	1:200	Geological column of the Well No. 337, "Khujiriin"
54	3865 (80)	40(55-010/07200)	Erdenet West	Khujiriin gol	No.337 drill holl data (depth: 90-200 m)	(1981-1985)	1:200	Geological column of the Well No. 337, "Khujiriin"
55	3865 (81)	40(55-010/07200)	Erdenet West	Khujiriin gol	No.337 drill holl data (depth: 200-342 m)	(1981-1985)	1:200	Geological column of the Well No. 337, "Khujiriin"

Table A-6 List of geological data around mineral occurrences of the central north area (Phase II survey)

Index No.	Map No.	Appendix No.	District	Occurrence	Contents	Reported year (Investigated year)	Scale	Map name
56	1909 (22)	22	Erdenet West	Khutul nuur (Mogoin gol?)	No.1 drill holl data (geology and analysis results (Cu, Mo))	1970	1:200	Geological column of the Well No. 1, "Khutul Nuur"
57	1909 (23)	23	Erdenet West	Khutul nuur (Mogoin gol?)	No.2 drill holl data (geology)	1970	1:200	Geological column of the Well No. 2, "Khutul Nuur"
58	(5)	5	Murun West	Ujaannuur	No.1 drilling log (geology)	1991	1:250	Well No. 1, Ujaan Nuur-1 occurrence
59	(6)	6	Murun West	Ujaannuur	No.2 drilling log (geology)	?	1:250	Well No.2, Ujaan Nuur-1 occurrence
60	(7)	7	Murun West	Ujaannuur	No.4 drilling log (geology)	1991	1:250	Well No.4, Ujaan Nuur-1 occurrence
61	(8)	8	Murun West	Ujaannuur	No.3 drilling log (geology)	?	1:250	Well No. 5, Ujaan Nuur-1 occurrence
62			Tosontsengel		No.11-16 drill holl data (geology, analysis data (Mo, W, Cu, Pb, Zn, Sn))	?	1:600	Drilling well column of prospecting area and its section
63	3122 (28)	26	Tosontsengel	Quartzite	No.3 drill holl data (geology, analysis results (Mo, Cu, Zn, Pb))	(1978-19..)	1:200	Geological column, well No.3, Area "Quartzite"
64		1	Tosontsengel	Naranbulag	Geological map and section	(1978-1979)	1:200,000	Location map. Area "Naran Bulag"
65	3212	2	Tosontsengel	Naranbulag	Geological map including the location of trenches, sampling points and drill holls	1980 (1977-1979)	1:5,000	Geological map of Copper ore occurrence Naranbulag
66	3684 (1)	1	Tariat	Solongoiin gol	Geological map, section and column	1983	1:200,000	Geological map, Solongot and Solongyn Gol
67	2256(35)		Murun West	Tsagaan tolgoi	No.1 drill holl data (geology)	1974	1:200	
68	2256(36)	21	Murun West	Tsagaan tolgoi	No.2 drill holl data (geology and analysis results (Pb, Mo, W, Sn, Cu, Zn))	1974	1:200	
69	2256(37)		Murun West	Tsagaan tolgoi	No.3 drill holl data (geology and analysis results (Cu, Mo, W, Pb, Zn))	1974	1:200	

Table A-6 List of geological data around mineral occurrences of the central north area (Phase II survey)

Index No.	Map No.	Appendix No.	District	Occurrence	Contents	Reported year (Investigated year)	Scale	Map name
70	2256(38)	23	Murun West	Tsagaan tolgoi	No.4 drill holl data (geology and analysis results (Cu, Mo, Zn))	1974	1:200	
71	2256(39)	24	Murun West	Tsagaan tolgoi	No.5 drill holl data (geology and analysis results (Cu, Mo, W, Pb, Zn))	1974	1:200	
72	2256(40)	26	Murun West	Tsagaan tolgoi	No.6 drill holl data (geology and analysis results (Pb, Mo, W, Sn, Ag, Cu, Zn))	1974	1:200	
73	2256(41)	26	Murun West	Tsagaan tolgoi	No.7 drill holl data (geology and analysis results (Pb, Mo, Sn, Ag, Cu, Zn))	1974	1:200	
74	2256(42)	27	Murun West	Tsagaan tolgoi	No.8 drill holl data (geology and analysis results (Pb, Mo, W, Su, Ag, Cu, Zn))	1974	1:200	
75	2256()	28	Murun West	Tsagaan tolgoi	No.9 drill holl data (geology and analysis results (Pb, Mo, W, Sn, Ag, Cu, Zn))	1974	1:200	
76	2256()	18	Murun West	Tsagaan tolgoi	Geological section by the data of No. 1, 3, 4, 5, 8 drill hole	1974	1:500	
77	2256()	19	Murun West	Tsagaan tolgoi	Geological section by the data of No. 6, 4, 7, 9 drill hole	1974	1:500	

Table A-7 List of geological, geochemical, and geophysical maps around the Erdenet mine (1/3)

Index No.	Original title of the map (in Russian)	Name of the area (in English)	Kind of the map	Scale	Published Year
4-1	Геологическая Карта: Участка Хучжирин-Центральный	Hujirjin Gol	Geology (central)	1:5,000	1990
4-2	Участок Хучжирин: Схематическая Геологическая Карта	Hujirjin Gol	Geology	1:10,000	1985
4-3	Участок Хучжирин: Схематическая Геологическая Карта	Hujirjin Gol	Geology	1:25,000	1985
4-4	Участок Хучжирин: Карта Аномалий Свинца, Цинка и Серебра	Hujirjin Gol	Geochemical anomaly (Pb, Zn, Ag)	1:25,000	1985
4-5	Участок Хучжирин: Карта Полей Величин Мультипликати вного Показателя и Коэффициента Зональности	Hujirjin Gol	Geochemical association and coefficient zonation	1:25,000	1985
4-6	Участок Хучжирин: Карта Аномалий Меди и Молибдена	Hujirjin Gol	Geochemical anomaly (Cu, Mo)	1:25,000	1985
4-7	Участок Хучжирин: Карта Аномалий Меди и Молибдена	Hujirjin Gol	Geochemical anomaly (Cu, Mo)	1:10,000	1985
4-8	Участок Хучжирин: Карта Аномалий Свинца, Цинка и Серебра	Hujirjin Gol	Geochemical anomaly (Pb, Zn, Ag)	1:10,000	1985
4-9	Участок Хучжирин: Карта Полей Величин Мультипликати вного Показателя и Коэффициента Зональности	Hujirjin Gol	Geochemical association and coefficient zonation	1:10,000	1985
4-10	Участок Хучжирин: Геологические (unknown) Профилям II-I, I-I	Hujirjin Gol	Geological section (I-I line, II - II line)	1:2,000	1985
4-11	Участок Шанд: Схематическая Геологическая Карта	Shand	Geology	1:25,000	1985
4-12	Участок Шанд: Карта Фактического Материала	Shand	Actual material	1:25,000	1985
4-13	Участок Шанд: Результаты Геофизических Работ Методом ВП-СГ, Магниторазведки	Shand	IP (B П-С Г method) & magnetics	1:10,000	1985
4-14	Участок Шанд: Результаты Электроразведочных Работ Методом ВЭЗ-ВП	Shand	IP (B ЭЗ-В П method), η K isoline & ρ K isoline	1:10,000	1985
4-15	Рудопроявление Шанд: Схематическая Геологическая Карта та, Разрезы по Линиям I-I, II-III, III-IV	Shand	Geology & Geological section (I-I line, II - II line, III - III line, IV - IV line)	1:5,000/1:2,000	1985
4-16	Участок Цзалугийн: I. Карта Фактического Материала II.С хематическая Геологическая Карта	Zaluu	Geology	1:25,000	1985
4-17	Участок Цзалугийн: Карта Полей Величин Мультипликати вного Показателя и Коэффициента Зональности	Zaluu	Geochemical association and coefficient zonation	1:25,000	1985
4-18	Участок Цзалугийн: Результаты Геофизических Работ Методом Домбацэрин: I. Карта Фактического Материала II. Схематическая Геологическая Карта	Zaluu	IP (B П-С Г method) & magnetics	1:25,000	1985
4-19	Участок Халиун: Схематическая Геологическая Карта и Карта Фактического Материала	Dambasteren	Geology	1:25,000	1985
4-20	Участок Халиун: Результаты Геофизических Работ Методом ВП-СГ, Магниторазведки	Haliun	Geology	1:25,000	1985
4-21	Участок Ингэтуин: I. Карта Литохимического Опробования II. Карта Аномалий Меди и Молибдена	Haliun	IP (B П-С Г method) & magnetics	1:25,000	1985
4-22	Участок Ингэтуин: Результаты Геофизических Работ Методом ВП-СГ, Магниторазведки	Inget	Litho-geochemical sampling and anomaly (Cu, Mo)	1:25,000	1985
4-23	Участок Ингэтуин: I. Карта Аномалий Свинца, Цинка и Серебра II. Карта Полей Величин Мультипликативного Показателя и Коэффициента Зональности	Inget	Geochemical anomaly (Pb, Zn, Ag) & geochemical association and coefficient zonation	1:25,000	1985
4-24	Участок Ингэтуин: Результаты Геофизических Работ Методом ВП-СГ, Магниторазведки	Inget	IP (B П-С Г method) & magnetics	1:25,000	1985
4-25	Участок Турмалиновый: I. Карта Фактического Материала II. Схематическая Геологическая Карта	Tourmaline	Geology	1:25,000	1985
4-26	Участок Турмалиновый: Схематическая Геологическая Карта Аномалий лкВП И разрезы по Профилям Буровых Работ	Tourmaline	Geology, η K-В η anomaly & section by drillings	1:2,000	1985

Table A-7 List of geological, geochemical, and geophysical maps around the Erdenet mine

Index No.	Original title of the map (in Russian)	Name of the area (in English)	Kind of the map	Scale	Published Year
4-27	Участок Турмалиновый: Результаты Геофизических Работ Методом ВП-СГ, Магниторазведки	Tourmaline	IP (B П-С Г method) & magnetics	1:25,000	1985
4-28	Участок Могой: Схема Геологического Строения, План Изощения Кажущейся Полярности (ЛК), План Изощения Кажущейся Удельной Сопротивления (РК), План Графиков (ЛК и РК)	Mogoin	Geological structure & IP (ЛК, РК)	1:10,000	1985
4-29	Участок Турмалиновый и Могоин: Результаты Электроразведочных Работ Методом ВЭЗ-ВП	Tourmaline & Mogoi	IP (B ЭЗ-В П method)	1:10,000	1985
4-30	Участок Могой: Карта Аномалий: I. Cu, Mo; II. Pb, Zn, Ag, III. Карта Полей Величин Мультипликативного Показателя и Коэффициента Зональности	Mogoin	Geochemical anomaly (I. Cu, Mo; II. Pb, Zn, Ag) & geochemical association and coefficient zonation	unknown	1985
4-31	Участок Цзоухуйн: Геологические Разрезы По Профилям 12	Zohiin	Geological section (Section 12; 9, 5)	1: 2,000	1985
4-32	Участок Цзоухуйн: I. Карта Аномалий Меди и Молибдена, II. Карта Аномалий Свинца, Цинка и Серебра, III. Карта Полей Величин Мультипликативного Показателя и Коэффициента Зональности	Zohiin	Geochemical anomaly (I. Cu, Mo; II. Pb, Zn, Ag) & geochemical association and coefficient zonation	1:25,000	1985
4-33	Участок Цзоухуйн: Результаты Электроразведочных Работ Методом ВЭЗ-ВП	Zohiin	IP (B ЭЗ-В П method)	1:10,000	1985
4-34	Участок Цаган-Чулуту: Результаты Геофизических Работ Методом ВП-СГ, Магниторазведки	Tsugaan Chuluut	IP (B П-С Г method) & magnetics	1:25,000	1985
4-35	Участок Цаган-Чулуту: Карта Полей Величин Мультипликативного Показателя и Коэффициента Зональности	Tsugaan Chuluut	Geochemical association and coefficient zonation	1:25,000	1985
4-36	Северной Части, Эрдэнтуинского Рудного Района ВМНР: Геохимическая Карта	North of Erdenet Ovoo NW deposit	Geology	1:50,000	1973
4-37	Северной Части, Эрдэнтуинского Рудного Района ВМНР: Карта Результатов Литогеохимического Опробования	North of Erdenet Ovoo NW deposit	Litho-geochemical sampling	1:50,000	1973
4-38	Карта Фактического Материала По Поисковым Маршрутам	North of Erdenet Ovoo NW deposit	Actual data for geological prospecting	1:50,000	1973
4-39	Участок Цаган-Чулуту: Карта Фактического Материала, Схематическая Геологическая Карта	Tsugaan Chuluut	Actual data & geology	1:25,000	1985
4-40	Рудной Зоны Эрдэнтуин-обо ВМНР: Геологическая Карта	Erdenet Ovoo NW deposit	Geology	1:25,000	1973
4-41	Рудной Зоны Эрдэнтуин-обо ВМНР: Карта Изодинам Магнитного Поля (ΔZ _g)	Erdenet Ovoo NW deposit	Magnetics	1:25,000	1973
4-42	Северо-Западного Участка Месторождения Эрдэнэтийн-Овоо: Геологическая Карта	Erdenet Ovoo NW deposit	Geology (6 sets)	1:2,000	1988
4-43	Схематическая Геологическая Карта Района Работ	Erdenet Ovoo NW deposit	Geology	1:50,000	1988
4-44	Карта Изощений ΔZ Эрдэнэтийн-Овоо рудной Зоны	Erdenet Ovoo NW deposit	Magnetics (3 sets)	1:10,000	1988
4-45	Карта Изощений Кажущейся Полярности Эрдэнэтийн-Овоо рудной Зоны	Erdenet Ovoo NW deposit	IP (3sets)	1:10,000	1988
4-46	Карта Изощения Кажущегося Сопротивления Эрдэнэтийн-Овоо рудной Зоны	Erdenet Ovoo NW deposit	Resistivity (2sets)	1:10,000	1988
4-47	Карта Результатов Литохимического Опробования: Моноэлементные Аномалии Меди и Молибдена	Erdenet Ovoo NW deposit	Geochemical anomaly (Cu, Mo) (6 sets)	1:50,000	1985

Table A-7 List of geological, geochemical, and geophysical maps around the Erdenet mine

Index No.	Original title of the map (in Russian)	Name of the area (in English)	Kind of the map	Scale	Published Year
4-48	Карта Результатов Литохимического Опробования: Моноэлементные Аномалии Свинца, Цинка, Серебра	Erdenet Ovoo NW deposit	Geochemical anomaly (Pb, Zn, Ag) (6 sets)	1:50,000	1985
4-49	Карта Результатов Литохимического Опробования: Мультииндикативные Аномалии Коэффициент Зональности	Erdenet Ovoo NW deposit	Geochemical association and coefficient zonation (6 sets)	1:50,000	1985

* Descriptions of all the maps are written in Russian.

Table A-8 List of geophysical surveys of the central north area

1		2		3	
1	Number	5031	4788	4622	
2	Report number				
3	Area	M-48-67AB,-66AB,-65B,-56C,-55CD,-54CD;	M-48-127B,-128;	M-48-104-B,C,D.	
4	Coordinate				
5	Year of the survey	1994-1996	1992-1993	1990-1992	
6	Method	Vertical electrical sounding (80 point's).	Magnetic survey at scale 1:10,000.	Magnetic survey, Induced polarization, Vertical electrical sounding.	
7	specification	Geological mapping (at scale 1:50,000).	Geological mapping (at scale 1:50,000).	Geological mapping (at scale 1:50,000).	
8	Objective	Determine the depth of the Quaternary sediments.	Select prospective fields.	Select prospective fields.	
9	Results	Made the 10 geological section of the Quaternary sediments.	Selected Saihit field.	Selected following fields Tsont toigoi, Tsagaan chuluut, Tumur toigoi, Saihan, Tsats toigoi.	
10	Follow-up drillings	Non	Drilling.	Rotary percussion drilling.	
11	Total length of drill hole		954m	1466.2m.	
1		5		6	
1	Number	4597	4403	4633	
2	Report number				
3	Area	M-48-125-D,-137,138, L-48-5-A,B.	M-48-125-D,-137,138, L-48-5-A,B.	M-47-82ACD;M-47-81CD;M-47-92BD;M-47-93;M-47-94;M-47-95AC;	
4	Coordinate				
5	Year of the survey	1987-1991	1987-1992	1986-1991	
6	Method	Vertical electrical sounding, route-magnetic and induced polarization,	Vertical electrical sounding, route-magnetic and induced polarization,	Vertical electrical sounding, route-magnetic and induced polarization,	
7	specification	gamma-spectrometer, logging (magnetic, induced polarization, gamma).	gamma-spectrometer, logging (magnetic, induced polarization, gamma).	gamma-spectrometer, logging (magnetic, induced polarization, gamma).	
8	Objective	Geological mapping (at scale 1:50,000).	Geological mapping (at scale 1:50,000).	Geological mapping (at scale 1:50,000).	
9	Results	Determine the deep of the Quaternary sediments. Made the geological section of the Quaternary sediments.	Determine the depth of the Quaternary sediments. Made the geological section of the Quaternary sediments.	Determine the depth of the Quaternary sediments. Made the geological section of the Quaternary sediments.	
10	Follow-up drillings	Core drilling.	Core drilling.	Core drilling.	
11	Total length of drill hole	2,563m.	2,563m.	2,563m.	
1		8		9	
1	Number	4428	3979	3283	
2	Report number				
3	Area	M-47-77-B,D, M-47-78-A,B, M-47-98-B, M-47-90-A.	M-48-137-D,-138-CD,-139-AC,L-48-6-AB,-7-A;	(103.00'-105.30')-(48.00'-49.40')	
4	Coordinate			1964-1966	
5	Year of the survey	1987-1989	1982-1985		
6	Method	Magnetic, Vertical electrical sounding, Induced polarization survey (at scale 1:10,000).	Electric-magnetic survey, gamma, gamma-gamma logging	Vertical electrical sounding, Self-potential, Electric-magnetic, Radiometric, Logging.	
7	specification	Geological mapping (at scale 1:50,000).	Geological mapping (at scale 1:50,000).	Geological mapping (at scale 1:50,000).	
8	Objective	Select prospective fields.	Select prospective fields.	Select prospective fields.	
9	Results	Selected following fields: Jinst, Tsagaan uul.	Selected following fields: Badarah, Tsagaan chuluut.	Selected Erdene(1.north-west, 2.central, 3.south-east), Tsagaan chuluut, Aguin dasva fields.	
10	Follow-up drillings	Jinst(98.17 10"-98.27 30")x(49.33 20"-49.36 45"); Tsagaan uul(98.40 40"-98.44 30")x(49.52 15"-54 20");			
11	Follow-up drillings	Core drilling.	Core drilling.	Drilling.	
12	Total length of drill hole	Total 2,987m Tsagaan uul (11-16 holes, deep 90-210m), Jinst (1-10 holes, deep 45-150m).	6,96.9m, 10/146.7m, 14/89.3m, 15/143.5m: (number is hole/deep meters).	2069.6m	

Table A-8 List of geophysical surveys of the central north area

1	Number	10	11	12
2	Report number	2924	4552	605
3	Area	M-48-109-C		
4	Coordinate		(101.30'00"-106.00'00")X(49.15'00"-50.30'00")	(94.00'00"-98.00'00")X(48.30'00"-frontier)
5	Year of the survey	1977-1978	1986-1990	1952
6	Method	Magnetic, Vertical electrical sounding, electrical profiling, radiometer, natural electric field.	Magnetic (at scale 1:10,000-1:5,000), Electric profiling (at scale 1:5,000), Vertical electrical sounding, Gamma spectrometer by the foot.	Aeroradiometer-Aeromagnetic survey at scale 1:50,000.
7	specification	Geological mapping (at scale 1:50,000).	Geological mapping (scale at 1:200,000).	Aerogeophysical survey at scale 1:50,000.
8	Objective	Select prospective fields.	Select prospective fields.	Select prospective fields.
9	Results	Selected following fields: Sarain bundii, Zan Ortsog uul, Hustain ovoo, Mogoin gol, Oshig uul, Huijiin gol.	Selected following fields: 1. Ereen, 2. Duut gol, 3. Tsagaan shar, 4. Uvur bayasgalan.	Selected following fields: 1. Bayan uul, 2. Ust nuur, 3. Oigon nuur, and not name's fields in the M-47-75-85-86-88.
10	Follow-up drillings	Drilling.	Drilling	No
11	Total length of drill hole	525m	7,121m.	
1	Number	13	14	15
2	Report number	2429	2432	2433
3	Area			
4	Coordinate	(45.20'00"-50.00'00")X(103.30'00"-109.00'00")	(102.00'-106.00')X(46.20'-50.20')	(92.00'-102.00')X(47.30'-formier)
5	Year of the survey	1982	1983	1984
6	Method	Aerogeophysical survey (magnetic, gamma-ray spectrometer) at scale 1:200,000; auto gamma spectrometer, foot gamma spectrometer, electric profiling, magnetic survey (at scale 1:10,000), gamma logging.	Aero gamma-spectrometer at scale 1:200,000, Autogamma and foot gamma-spectrometer, electric profiling (at scale 1:10,000), gamma logging.	Aero gamma-spectrometer at scale 1:200,000, Autogamma and foot gamma-spectrometer, electric profiling (at scale 1:10,000).
7	specification	Aerogeophysical survey at scale 1:200,000.	Aerogeophysical survey at scale 1:200,000 (for Uranium).	Aerogeophysical survey at scale 1:200,000 (for Uranium).
8	Objective	Select prospective fields.	Select prospective fields.	Select prospective fields.
9	Results	did not select prospective fields.	Selected 18 aeromagnetic anomalies and 25 aeroradiometric anomalies.	Selected 8 ray anomalies and Dagin gol, Bayar, Sul, Songin, Chuluut, Ushig gol, Balbar, Yariths gol, Ay gol, Alag-erden, Ih uul fields.
10	Follow-up drillings	Drilling	No	Drilling (deep is to 50m).
11	Total length of drill hole	593m.		3,615m.
1	Number	16	17	
2	Report number	3199	3492	
3	Area			
4	Coordinate	Erdenet (103.30'-48.40'; 104.50'-48.40'; 103.30'-49.02'; 104.50'-49.10'); Murun (99.45'-49.38'; 100.07'-49.38'; 99.45'-49.55'; 100.18'-49.49'; 100.00'-50.02'; 100.18'-50.00').	1. Huvsgul (99.21'-49.30'; 99.45'-49.38'; 99.45'-49.55'; 100.18'-50.00'; 100.18'-50.00'; 100.18'-50.00'). 2. Bulgan (103.05'-48.32'; 103.30'-48.40'; 103.30'-49.02'; 103.05'-48.58').	Erdenet (103.46'-49.02'; 104.16'-49.05'; 104.16'-49.28'; 103.46'-49.27').
5	Year of the survey	1980	1981-1982	
6	Method	Aeromagnetic gamma-spectrometer survey at scale 1:50,000 and magnetic, gamma-spectrometer survey at scale 1:25,000-1:10,000.	Aeromagnetic gamma-spectrometer survey at scale 1:50,000.	
7	specification	Aerogeophysical survey at scale 1:50,000.	Aerogeophysical survey at scale 1:50,000.	
8	Objective	Select prospective fields.	Select prospective fields.	
9	Results	Selected following fields: 1. Ehnii, 2. Undur, 3. Murun, 4. 5 fields of the around Erdenet (Dugan, Shand, Zubiin gol).	Selected 34 anomalies in the Huvsgul area and 20 anomalies in the Bulgan-Erdenet area.	
11	Follow-up drillings	No	No	No

Table A-8 List of geophysical surveys of the central north area

1	Number	18	19	20
2	Report number	3988	4240	4396
3	Area			M-48-109,110,111,121,122,123,134,135, L-48-3,4,5,6,7,15,16,17,18,19,29.
4	Coordinate	(103.10' -106.50')X(47.50' -48.40')	(102.40' -103.10')X(48.35' -48.55') and (104.20' -106.00')X(48.30' -50.10')	(102.00' -103.15')X(48.00' -49.00') and (103.15' -105.30')X(47.20' -48.00')
5	Year of the survey	1984-1985	1986-1987	1988-1990
6	Method	Aeromagnetic electric gamma-spectrometer survey at scale 1:50,000, and Magnetic, gamma spectrometer, induced polarization-average gradient at scale 1:25,000-1:5,000.	Aeromagnetic electric gamma-spectrometer survey at scale 1:50,000. Magnetic, Gamma spectrometric, induced polarization at scale 1:25,000-1:5,000.	Aerogeophysical survey at scale 1:50,000 (follow-up geophysical survey at scale 1:10,000).
7	specification	Aerogeophysical survey at scale 1:50,000.	Aerogeophysical survey at scale 1:50,000.	Aerogeophysical survey at scale 1:50,000.
8	Objective	Select prospective fields.	Select prospective fields.	Select prospective fields.
9	Results	Selected following fields: 1.Argal, 2.Baraan hudag, 3.Burgallai, 4.Oyut ovoo, 5.Tsabchir bulag, 6.Ulziit ovoo, 7.Tengge us, 8.Tsagaan hooloi, 9.Bulag gol.	Selected following fields: Ar bulag, Tsalmun uul, Uvur teeliin gol, Sant toigoi, Barun teel, Nuhun, Huh hadat, Bulag gol, Burgaltai, Lun, Huh belt uul, Ulaan uul, Chuluun horoot toigoi, Hairthan, Jargalan, Narst toigoi, Barun ded.	Selected following fields: 1. Lamzah toigoi, 2. Shubunt, 3. Huh chuluut, 4. Hotel, 5. Barcigar, 6. Ar bulag, 7. Uushig, 8. Hoid cootsog, 9. Ugalz, 10. Uran hoshuu, 11. Shar had, 12. Tsagaan gozgor, 13. Holboo ovoo, 14. Ih hush, 15. Mogod.
10	Follow-up drillings	No	No	No
11	Total length of drill hole			
1	Number	21	22	23
2	Report number	3865	3172	3940
3	Area	M-48--XX,XXI,XXVI,XXVIII.		M-46-47, L-47,-48,-49.
4	Coordinate		(48.00' :99.00')-(50.00' :99.00')-(50.00' :102.00')-(50.35' :102.00')-(48.00' :102.00')	
5	Year of the survey	1981-1985	1979-1980.	1985-1990.
6	Method	Magnetic(1:5,000-1:10,000), Electric (induced polarization-average gradient; vertical electrical sounding-induced polarization), ray radiometric.	Aeromagnetic and magnetic survey.	Aeromagnetic, aerogamma spectrometric survey at scale 1:500,000, 1:200,000 and 1:50,000.
7	specification	Copper and moludinium.	Aerogeophysical survey at scale 1:200,000.	Aerogeophysical survey at scale 1:500,000.
8	Objective	Select prospective fields.	Select prospective fields.	Select prospective fields.
9	Results	Selected following fields: 1. Nurain, 2. Tarimalin, 3. Iitiin, 4. Havchuu, 5. Buhain, 6. Hujirin, 7. Mogoin, 8. Inget, 9. Zubhin, 10. Tsagaan chuluut, 11. Zaluugin, 12. Dambatseren, 13. Haljun, 14. Chuluut, 15. Oyut, 16. Turmalin, 17. Shand.	Selected 28 fields.Following: Egin gol, Saihan, Het, Murun, Burenogtoh, Tamirin gol, Ih bumbut, Ulziit, Arc hargan, Dejidiin, Ar bulag, Bulgan, Erin gol, Jargalan, Tsagaan toigoi, Bayan zurh, Tsaidam nur, Hadagin gol, Burehhaan, Holfigsatiin, Ulaan duruij, Tsagaan burgas, Zalaat, Chuluut, Tshair, Gurvan bulag, Burd, Har horin.	Not reports but maps have been stored in GIC.
10	Follow-up drillings	Drilling.	No.	No information.
11	Total length of drill hole	41,020m.		

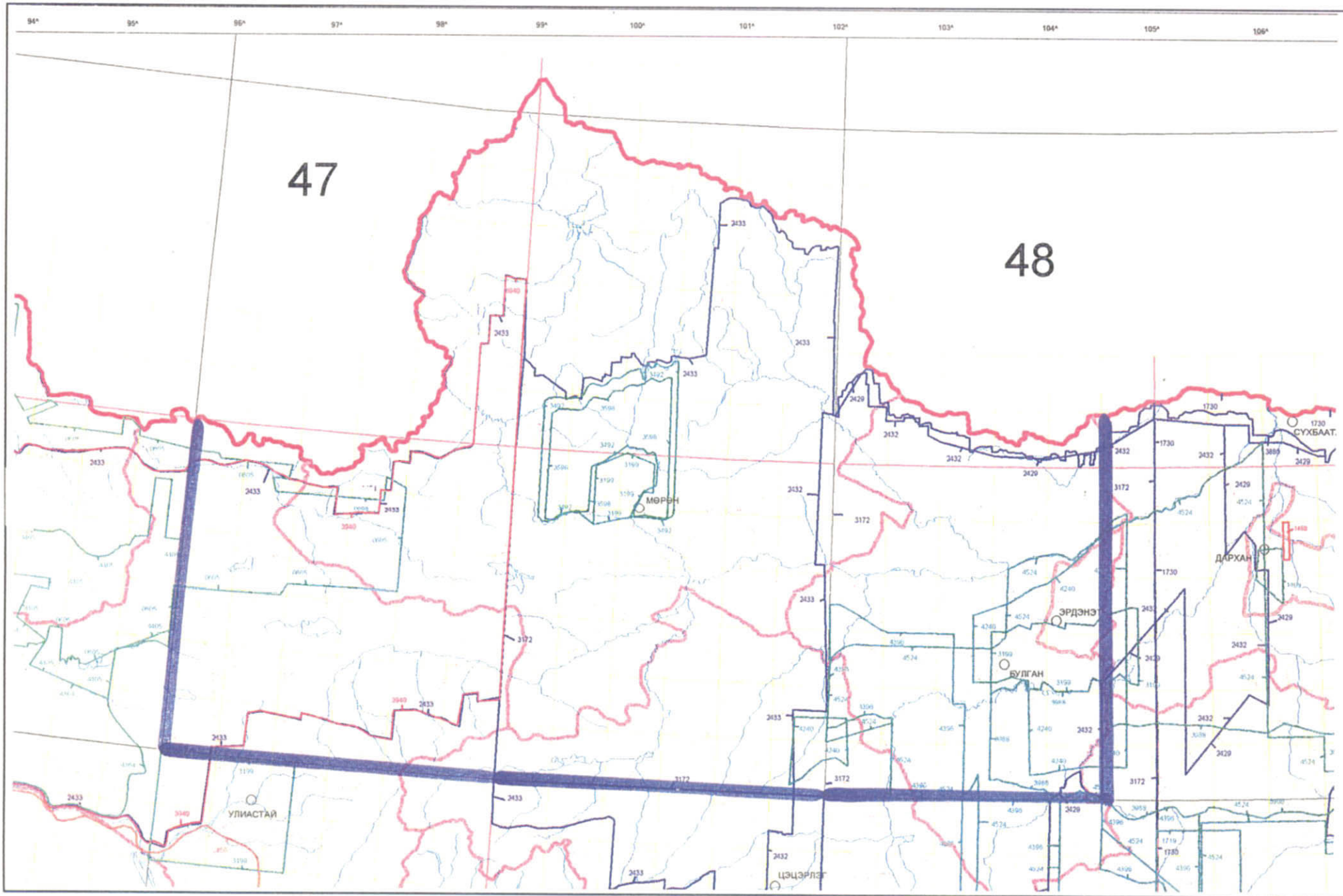


Fig. A-3 Index map of geophysical surveys of the central north area

APPENDIX 2

Table A-9 List of survey sites

No	Reference No	Name of occurrence	Survey district	Location		Mineralization Type/Factor/Form	Size	Geology	Country rock	Age of Mineralization	Alteration	Mineralization	Main/Sub commodity	Ore reserve	Preceding survey	Grade. Geochemical anomaly (maximum)						Remarks				
				latitude	longitude											Au(g/t)	Ag(g/t)	Cu(%)	Mo(%)	Pb(%)	Zn(%)		Cr(%)			
1	4031	Occurrence 24	Zelter	N50°13'02.5"	E104°27'56.6"	hydrothermal//vein	alteration zone: 200m x 200m(quartz veinlets W.0.1-3cm)	Lower middle Cambrian sandstone; Cambrian-Ordovician sandstone, shale, limestone; granosyenite, granodiorite	sandstone, shale, limestone	---	---	---	Au	Au: 108kg	Geo-mapping	0.01	---	---	---	---	---	---	---	---	Repot No.: 3624, 5031	
2	4032	Gatsuurkhan	Zelter	N50°09'51.9"	E104°25'37.9"	//alteration zone	400m x 150m	Cambrian-Ordovician sandstone, shale, limestone, granitoids	granitoids	---	---	---	Au	Au: 324kg	Geo-mapping(1994)	0.02	---	---	---	---	---	---	---	---	Repot No.: 3624	
3	---	SAR139	Erdenet West	N49°13'07.7"	E104°36'40.1"	---	40m x 0.5m	---	---	---	---	Cu	---	---	---	---	---	1.100	---	---	---	---	---	---		
4	---	SAR138	Erdenet West	N49°13'01.4"	E104°29'00.9"	---	1500m x 50-70m	---	---	---	---	---	---	---	---	---	---	---	0.600	---	---	---	---	---	---	
5	---	SAR127	Erdenet West	N49°20'07.1"	E104°09'57.3"	---	500m x 400m	---	---	---	---	---	---	---	---	---	---	---	0.120	0.003	---	---	---	---	---	
6	82	Zuukhiin gol	Erdenet West	N49°13'02.4"	E104°13'40.5"	metasomatic//stockwork, dyke	stockwork, dyke 1.2km x 3.5km	Permian-Triassic volcanogenic sedimentary rocks, Jurassic granite, granodiorite	granite, granodiorite	Permian-Triassic	---	chalcopyrite, molybdenite, galena, sphalerite, pyrite	Cu/Mo	---	Geo-mapping(1985), Geophysics(IP, Magnetic), Drill(20holes)	---	---	---	0.200	0.003	---	---	---	---	---	Repot No.: 1965, 3665
7	---	SAR136	Erdenet West	N49°13'32.6"	E104°01'23.1"	---	4000m x 500-1000m	---	---	---	---	---	---	---	---	---	---	---	0.200	0.020	---	0.010	---	---	---	
8	---	SAR144	Erdenet West	N49°11'16.8"	E104°02'14.4"	---	---	---	---	---	---	---	---	---	---	---	---	---	1.179	---	---	---	---	---	---	
9	360	SAR25	Erdenet West	N49°15'46.8"	E103°55'23.9"	---	---	---	---	---	---	---	---	---	---	---	---	---	0.010	0.003	0.100	0.010	---	---	---	
10	89	Mogoin gol 2	Erdenet West	N49°10'03.7"	E103°45'13.5"	//alteration zone	5000m x 3500m	basalt-andesite porphyry	basalt-andesite porphyry	---	secondary quartzite	malachite, azurite	Cu	---	Geo-mapping(1971), Trench(26.5m ³); Channel sample(8); Lump sample(7)	---	---	---	0.110	---	---	---	---	---	---	Mogoin gol Repot No.: 3209
11	5400	Khujirin gol	Erdenet West	N49°08'18.9"	E103°38'39.3"	hydrothermal//vein	quartz vein zone: 6km x 2km	Jurassic granodiorite, granosyenite	granodiorite, granosyenite	---	---	quartz vein, chalcopyrite, malachite	Cu	---	Geo-mapping(1987), Trench, Drill(6holes)	---	---	---	0.740	---	---	---	---	---	---	Repot No.: 1965
12	---	Tsagaan chuluut	Erdenet West	N49°02'45.5"	E104°00'38.5"	//alteration zone	2km x 0.5km	Permian acidic volcanic rocks	acidic volcanic rocks	---	silicification, acid alteration(kaolin, alunite), secondary quartzite	---	Cu	---	Geo-work, Geophysics(IP, Magnetic), Drill	---	---	---	---	---	---	---	---	---	---	
13	34	Erdenet NW	Erdenet West	N49°01'18.1"	E104°07'44.1"	//stockwork	stockwork: 2.8km x 1.3km	Triassic-Jurassic intrusive rocks(granitoids), Lower Permian rhyolite-dacite, rhyolite porphyry	intrusive rocks(granitoids)	---	silicification, greisen, potassic alteration	chalcopyrite, covellite, bornite, pyrite	Cu	Cu 2,825,000	---	---	---	---	0.900	---	---	---	---	---	---	Repot No.: 961, 1820, 1813, 1993, 1947, 4069, 4565, 2083, 3283
14	24	Erdenet Central	Erdenet West	N48°59'51.5"	E104°09'27.5"	hydrothermal//stockwork	stockwork: 1.35km x 0.3km	Permian-Triassic granodiorite, diorite	granodiorite, diorite	---	stockwork, oxidation zone	chalcopyrite, chalcocite, malachite, azurite, covellite	Cu/Mo	Cu: 598,790; Mo: 21,864	Prospecting(1988), Trench, Drill	---	---	---	0.410	0.018	---	---	---	---	---	Repot No.: 24
15	---	SAR169	Erdenet West	N48°59'45.0"	E104°23'20.0"	---	---	---	---	---	---	---	---	---	---	---	---	---	0.100	---	---	---	---	---	---	
16	33	Oyut (Erdenet SE)	Erdenet West	N48°57'43.2"	E104°11'52.3"	//stockwork	stockwork: 4km x 0.6km	Triassic-Jurassic intrusive rocks(granitoids)	intrusive rocks(granitoids)	---	stockwork	chalcopyrite, molybdenite, covellite, chalcocite, pyrite	Cu	Cu: 1,086,800; Mo: 15,000t	Geo-mapping(1984-85), Geophysics(IP, Magnetic), Trench, Drill(9holes)	---	---	---	0.400	---	---	---	---	---	---	Repot No.: 1813, 1820, 1961, 3283, 3665, 4383
17	---	Tourmaline	Erdenet West	N48°56'33.5"	E104°17'49.5"	---	---	syenite; andesite(dyke)	syenite	---	alteration minerals: tourmaline	quartz vein	Cu	---	Geo-mapping(1985), Geophysics(IP, Magnetic), Trench, Drill(6holes)	---	---	---	---	---	---	---	---	---	---	
18	---	SAR188	Erdenet West	N48°53'02.3"	E104°22'54.7"	---	Depth: 0.5m & 3-5m	---	---	---	---	---	---	---	---	---	---	---	0.060	0.002	---	---	---	---	---	
19	---	SAR200	Erdenet West	N48°51'16.0"	E104°26'56.1"	---	---	---	---	---	---	---	---	---	---	---	---	---	0.050	---	---	---	---	---	---	

Table A-9 List of survey sites

No.	Reference No.	Name of occurrence	Survey district	Location		Mineralization Type/Factor/Form	Size	Geology	Country rock	Age of Mineralization	Alteration	Mineralization	Main/Sub commodity	Ore reserve	Preceding survey	Grade, Geochemical anomaly (maximum)							Remarks		
				latitude	longitude											Au(g/t)	Ag(g/t)	Cu(%)	Mo(%)	Pb(%)	Zn(%)	Cr(%)			
20	---	Under	Erdenet West	N48°49'57.2"	E104°13'19.6"	//stockwork	stockwork:20m × 600m	Permian-Jurassic conglomerate, basalt, andesite porphyry, Permian-Triassic granite, diorite	granite, diorite	---	---	---	Cu/Mo	Cu:163,000t, Mo:1,500t	Geo-mapping, Geophysics(IP, Magnetic)	---	---	0.360	0.020	---	---	---	---	Report No.: 1813, 3199, 3283	
21	---	Shand	Erdenet West	N48°45'39.5"	E104°11'45.8"	---	---	---	---	---	---	---	Cu/Mo	Cu:500,000t, Mo:5,000t	Geo-mapping(1985), Geochemi., Drill(3holes)	---	---	0.200 (core)	0.001 (core)	---	---	---	---		
22	---	SAR239	Erdenet West	N48°44'57.3"	E104°12'29.9"	---	---	---	---	---	---	---	---	---	---	---	---	1.000	0.007	---	---	---	---		
23	---	SAR238	Erdenet West	N48°44'30.0"	E104°11'00.0"	---	---	---	---	---	---	---	---	---	---	---	---	---	1.000	---	---	---	---	---	
24	---	SAR235	Erdenet West	N48°46'17.1"	E104°04'34.6"	---	---	---	---	---	---	---	---	---	---	---	---	---	0.050	---	---	---	---	---	
25	---	Zaluu	Erdenet West	N48°54'50.0"	E103°55'50.3"	//vein	quartz vein: 1.5m × 0.2m	Triassic-Jurassic andesite-basaltic tuff, granitoids(intrusion)	andesite-basaltic tuff	---	quartz vein	---	---	---	Geo-mapping, Geochemi., Geophysics(IP, MT)	---	---	1.000	0.01	---	---	---	---	---	
26	---	SAR233	Erdenet West	N48°43'40.2"	E103°56'33.7"	---	20m × 30m	---	---	---	---	---	---	---	---	---	---	---	0.750	---	---	---	---	---	
27	---	Darbatsuren	Erdenet West	N48°51'39.3"	E103°47'30.2"	//alteration zone	alteration zone: 500m × 300m	Permian-Triassic granodiorite, diorite, Jurassic rhyolite	granodiorite, diorite, rhyolite	---	---	---	---	---	Geo-mapping, Geochemi., Geophysics(IP, MT), Trench	---	---	---	---	---	---	---	---	---	
28	---	Mt. Zayn davaa	Erdenet West	N48°53'39.8"	E103°37'44.6"	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
29	---	SAR183	Erdenet West	N48°52'47.1"	E103°38'34.4"	---	---	---	---	---	---	---	---	---	---	---	---	---	0.460	---	---	---	---	---	
30	---	SAR182	Erdenet West	N48°52'47.1"	E103°38'34.4"	---	---	---	---	---	---	---	---	---	---	---	---	---	0.460	---	---	---	---	---	
31	---	SAR181	Erdenet West	N48°52'39.0"	E103°34'45.5"	---	---	---	---	---	---	---	---	---	---	---	---	---	0.200	---	---	---	---	---	
32	---	SAR194	Erdenet West	N48°52'00.0"	E103°34'10.0"	---	---	---	---	---	---	---	---	---	---	---	---	---	0.680	---	---	---	---	---	
33	---	SAR197	Erdenet West	N48°49'40.5"	E103°39'01.9"	---	2m × 0.8m	---	---	---	---	---	---	---	---	---	---	---	0.090	---	---	---	---	---	
34	---	SAR205	Erdenet West	N48°47'05.0"	E103°39'45.8"	---	---	---	---	---	---	---	---	---	---	---	---	---	0.006	---	---	---	---	---	
35	---	SAR202	Erdenet West	N48°47'56.1"	E103°35'54.2"	---	---	---	---	---	---	---	---	---	---	---	---	---	0.360	---	---	---	---	---	
36	---	SAR204	Erdenet West	N48°46'59.6"	E103°35'18.4"	---	---	---	---	---	---	---	---	---	---	---	---	---	0.560	---	---	---	---	---	
37	---	SAR222	Erdenet West	N48°43'33.3"	E103°31'43.8"	---	small	---	---	---	---	---	---	---	---	---	---	---	0.600	---	---	0.020	---	---	
38	---	SAR221	Erdenet West	N48°42'48.5"	E103°31'39.2"	---	0.5-2m × 0.2-0.4m	---	---	---	---	---	---	---	---	---	---	---	0.500	---	---	---	---	---	

Table A-9 List of survey sites

Data of preceding survey

No	Reference No.	Name of occurrence	Survey district	Location		Mineralization Type/Factor/Form	Size	Geology	Country rock	Age of Mineralization	Alteration	Mineralization	Main/Sub commodity	Ore reserve	Preceding survey	Grade, Geochemical anomaly (maximum)							Remarks		
				latitude	longitude											Au(g/t)	Ag(g/t)	Cu(%)	Mo(%)	Pb(%)	Zn(%)	Cr(%)			
39	---	SAR219	Erdenet West	N48 43 57.0'	E103 31 03.1'	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
40	165	Jasiin buuts	Erdenet West	N48 47 06.5'	E103 26 64.2'	//alteration zone	200-2000m x 40-500km	Permian acidic volcanic rocks	acidic volcanic rocks	---	silicification	pyrite(limonite)	Cu	---	Geo-mapping(1971, 1981); Trench, pits; Drill(3holes)	---	---	0.007	---	0.0002	---	---	---	---	Report No. 3538
41	417	Khar uul	Erdenet West	N48 42 06.7'	E103 16 21.3'	hydrothermal//dyke	diorite dyke:200-300m	Triassic-Jurassic volcanogenic sedimentary rocks	volcanogenic sedimentary rocks	---	---	chalcopryite, bornite, gold	Cu/Au	---	Geo-mapping(1986); Geochemi(1000samples); Geophysics(magnetic, electric)	3.00	10.00	0.500	---	---	---	---	---	---	
42	416	Tsookher mert	Erdenet West	N48 45 27.8'	E103 16 00.3'	//vein	vein zone: 100-700m x 2m	Permian-Triassic granite, syenite porphyry	granite, syenite porphyry	---	quartz vein	chalcopryite, malachite, azurite	Au,Ag/Cu	Au:4.1t, Ag:18.4t	Geo-mapping(1986); Trench; Geophysics(electric)	10.00	500.00	0.300	---	---	---	---	---	Report No.:4403	
43	421	Agüt	Erdenet West	N48 47 00.0'	E102 57 00.0'	//alteration zone	1000m x 15m	Devonian acidic volcanic rocks, Permian-Triassic granite	acidic volcanic rocks	---	---	chalcopryite, malachite, azurite	Cu/Au	---	Geo-mapping(1986); Geochemi; Geophysics(MT)	0.10	---	0.005	0.001	---	---	---	---	Report No. 3538	
44	5403	Urmiin tsgaan nuur	Erdenet West	N48 48 11.2'	E102 55 51.7'	//vein	vein:11m x 0.4m	Lower Permian rhyolite-dacite, rhyolite porphyry	rhyolite-dacite, rhyolite porphyry	Jurassic	quartz vein	malachite, azurite	Cu	---	Geo-mapping(1972); Geochemi(1121samples); Trench(283.4m3)	0.10	6.60	0.010	---	---	---	---	---	---	
45	424	Burged khyr	Erdenet West	N48 52 04.2'	E102 49 41.4'	hydrothermal//stockwork	stockwork 20m x 600m	Permian-Jurassic conglomerate, basalt, andesite porphyry, Permian-Triassic granite, diorite	granite, diorite	---	K-silicate alteration, alteration mineral: kaolin	---	Cu/Mo	Cu 163,000t, Mo:1,500t	Geo-mapping(1986); Trench; Geophysics (electric, magnetic); Drill(2holes)	---	---	0.360	0.020	---	---	---	---	---	
46	418	Nomgon	Erdenet West	N48 48 59.0'	E102 46 59.7'	//alteration zone	---	Permian-Jurassic syenite-diorite	syenite-diorite	---	---	---	Cu	---	Geo-mapping; Geophysics	---	---	0.001	---	---	---	---	---	Report No. 2043, 4396, 4403	
47	423	Zaiian	Erdenet West	N48 49 17.5'	E102 42 08.7'	//vein	---	Permian-Jurassic conglomerate, andesite porphyry, subvolcanic rocks, granite, diorite	subvolcanic rocks, granite, diorite	---	silicification, greisen, potassic alteration, alteration mineral: tourmaline	chalcopryite, turquoise, lazurite, malachite, bornite	Cu	---	Geo-mapping(1986)	---	5.00	3.000	---	0.03	0.05	---	---	Report No. 4403	
48	419	Ereen ikher	Erdenet West	N48 49 10.5'	E102 34 49.0'	metasomatic/fracture/alteration zone	W 200m	Devonian acidic volcanic rocks	acidic volcanic rocks	---	silicification, alteration minerals: sericite, kaolin, fluorite	molybdenite	Cu	---	Geo-mapping(1987)	---	0.50	0.007	0.03	0.005	0.002	---	---	---	
49	420	Undrakh	Erdenet West	N48 42 03.8'	E102 45 44.4'	metasomatic//alteration zone	300m x 150m	subvolcanic rocks, Permian-Triassic diorite, granitoids	diorite, granite, subvolcanic rocks	---	quartz vein; alteration minerals: tourmaline, K-feldspar	bornite, malachite, azurite, turquoise	Cu/Ag	---	Geo-mapping(1987); Trench(176.6m3); Geophysics(magnetic, IP); Drill(5holes)	5.00	10.00	0.700	0.700	---	---	---	---	Report No. 4403	
50		Bulgan NW	Erdenet West	N49 14 42.0'	E103 04 59.1'	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
51		Sudal N177	Zaamar	N48 06 11.0'	E104 20 10.0'	epithermal//vein	L200m x W0.5m-0.9m	---	---	---	pyritization	---	Au	---	Geo-mapping(1987); Trench; Geophysics(electric, IP); Drill	---	---	---	---	---	---	---	---	---	
52	679	Ulzit ovoo	Zaamar	N48 15 50.7'	E104 09 57.3'	skarn//small skarn body	---	Proterozoic-Cambrian metamorphic rock, Triassic granite	granite?	---	skarnization	sphalerite, chalcopryite	Cu/Au, Zn	Cu 45,000t	---	---	0.20	---	0.070	---	---	0.5	---	high magnetic anomaly; Report No. 2575, 4054, 4064, 4597	
53		Eagle Mt. North	Zaamar West	N48 17 46.6'	E104 13 54.1'	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
54		M-1	Zaamar West	N48 25 21.0'	E103 56 34.0'	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
55		M-2	Zaamar West	N48 42 3.8'	E102 45 44.4'	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
56		M-3	Zaamar West	N48 21 22.0'	E104 01 38.0'	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
57	5390	Khushkhuut gol	Bulgan SW	N48 14 15.4'	E103 10 01.4'	metasomatic/fracture control/	fracture zone: 300m x 50m	Carboniferous tuff breccia, porphyrite	tuff breccia	---	pyritization	chalcopryite, malachite, azurite	Cu	---	Geo-mapping(1980); Geochemi(41)	---	---	10.000	---	---	---	---	---	---	Khushsheet gol Report No. 1500

Data of preceding survey																										
No	Reference No.	Name of occurrence	Survey district	Location		Mineralization Type/Factor/Form	Size	Geology	Country rock	Age of Mineralization	Alteration	Mineralization	Main/Sub commodity	Ore reserve	Preceding survey	Grade. Geochemical anomaly (maximum)						Remarks				
				latitude	longitude											Au(g/t)	Ag(g/t)	Cu(%)	Mo(%)	Pb(%)	Zn(%)		Cr(%)			
77	---	20b	Khokhoo	N50°31'6.3"	E101°05'23.2"	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
78	---	20c	Khokhoo	N50°34'25.4"	E101°06'18.6"	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
79	---	20d	Khokhoo	N50°39'17.1"	E100°45'37.1"	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
80	1491	Altgana gol	Altgana gol	N49°50'58.5"	E100°24'12.9"	//fault control/stockwork	mineralization zone: L850m x W550m(stockwork)	upper Paleozoic dolomite, basalt; Permian-Jurassic granite	leucocratic granite porphyry	Jurassic	silicification, stockwork	molybdenite	Mo/Ag	Mo: 14,700t	Geo-mapping(1985); Trench(1269m3); Geochemi(920samples); Drill(1hole)	---	1.50	---	0.035	---	---	---	---	---	---	Report No:1812, 3976, 5000
81	1449	Tsgaan bulgas	Altgana gol	N49°56'02.6"	E100°20'59.9"	metasomatic/deep fault control/vein?	L1,200m x W500m	Paleozoic sedimentary rocks, serpentinite, carbonite	serpentinite, carbonite	Paleozoic	quartz vein?	fluorite	Ni/Cr	---	Geo-mapping; Geochemi(500samples); Geophysics	---	---	---	---	---	---	---	---	---	1.0	Report No.:3598, 4379
82	1442	Quartz	Altgana gol NW	N50°14'09.7"	E100°16'53.7"	hydrothermal/fracture control/vein	vein L50m x W1.5m	Riphean sandstone, shale, sandstone, microdiorite; Cambrian limestone	sandstone, shale	Riphean	silicification, sericitization	---	Au	---	Geo-mapping; Geochemi; Trench(106m3)	7.60	3.20	---	---	---	---	---	---	---	---	Report No.:3649
83	181	Skarn	Altgana gol NW	N50°09'20.3"	E100°00'58.9"	metasomatic//skarn	Skarn: L1.5-8m x W8m	Vendian-Cambrian limestone; Devonian granodiorite	Devonian granodiorite	---	skarnization	---	Cu/Zn, Pb	---	Geo-mapping; Trench	---	10.00	1.000	---	0.700	0.300	---	---	---	---	Report No.:3649
84	1494	Donkhor bulag	Murun South	N49°22'17.6"	E100°09'55.0"	metasomatic/fracture/alteration zone	alteration zone: W300m x L1km	Permian-Triassic sedimentary rocks; Permian acidic tuff, trachyrhyolite porphyry	acidic tuff, trachyrhyolite porphyry	---	silicification(hydrothermal breccia); alteration minerals: kaolin, sericite	magnetite, pyrite	Cu	---	Geo-mapping(1975); Trench(295.6m3); Geochemi	---	---	0.003	0.003	0.002	0.003	---	---	---	---	Report No.:2260
85	1803	Terkhiin tsagaan nuur	Tariat	N48°07'51.1"	E99°50'44.6"	Hydrothermal/fault zone/vein	Quartz vein zone: 80m x 40m	Riphean sedimentary rocks, granite	Sedimentary rocks	---	Skarnization, silicification, hornfelsization, quartz vein (L10m x W0.5m)	---	Au	---	Geo-mapping (1982); Trench(25.5m3); Channel sampling 8; Lump sampling 7	0.10	4.0	0.01	---	---	0.005	0.002	---	---	Report No.:3684	
86	2236	Tariatn gol	Tariat	N48°12'50.0"	E99°26'35.0"	//quartz vein	vein zone: 50m x 5m	Riphean granitoids	gabro, diorite	middle Paleozoic	silicification, greisen, quartz vein	---	Au, Ag, Cu	Cu:45,000t	Geo-mapping(1982); Trench(213m3)	0.10	7	---	---	---	---	---	---	---	---	Report No.:3684
87	2399	Solongot	Tariat	N48°09'51.0"	E99°00'50.0"	hydrothermal//alteration zone?	1700m x 170m	lower Proterozoic limestone, gneiss; middle Riphean granitoids	limestone, gneiss	---	silicification and skarnization, leaching and oxidized zone (<55m depth); alteration minerals: kaolin, rarely intensive limonitized pyrite	oxidized zone(20m); malachite, azurite; hypogene zone; pyrite, chalcocopyrite	Cu/(Au)	---	Geo-mapping(1981); Trench(295.7m3)	0.10	4.00	0.002	0.020 (core)	0.010	0.010	---	---	---	---	Report No.:3684
88	4697	Solongotin gol	Tariat	N48°09'23.5"	E99°01'00.7"	metasomatic/fracture control//	quartz vein zone: 80m x 1.5m, 10m x 5m	Proterozoic gneiss, limestone; Riphean granitoids	---	---	---	chalcocopyrite, malachite, azurite	Cu, Mo	---	Geo-mapping(1981)	0.10	4.00	0.020	---	---	---	---	---	---	---	Report No.:3684
89	1479	Tsagaan tolgoi	Murun West	N49°40'19.9"	E99°39'55.1"	metasomatic//alteration zone	greisen zone: 100m x 80m	Riphean sedimentary rocks; late-middle Devonian granitoids	---	---	silicification(secondary quartzite), greisen, limonitization	chalcocopyrite, sphalerite, galena, pyrite	Cu, Mo	---	Geo-mapping(1973); Trench(170.5m3), pit; Drill(1021m)po	---	---	0.048	---	0.06	0.006	0.006	---	---	---	Report No.:2256
90	1478	Ulaannuur	Murun West	N49°38'45.3"	E99°19'50.5"	hydrothermal//alteration zone	800m x 350m	Devonian granitoids, Jurassic granitoids	granitoids	---	greisen, silicification	sphalerite, galena, molybdenite	Pb, Zn, Mo	Mo: 5,400t	Geo-mapping(1972); Trench(4515m3); Geochemi(209samples); Drill(7holes)	---	---	0.150	0.2	0.200	0.200	---	---	---	---	Report No.:4715, 2256
91	3475	Khaisiin belchir	Tsagaan uul	N50°10'35.0"	E98°44'58.0"	hydrothermal//alteration zone	alteration zone: 2400m x 1200m, 1500m x 100m	Riphean metamorphic rocks, Cambrian crystalline shale, porphyrite, diorite, andesite	---	---	---	pyrite, magnetite	Cu/Au	---	Geo-mapping(1992); Trench(235m3); Geochemi(40samples)	0.07	10.00	0.003	---	0.700	0.008	---	---	---	---	Report No.:4863
92	1461	Tsagaan uul	Tsagaan uul	N49°50'00.0"	E98°43'00.0"	metasomatic//alteration zone	oxidized zone: 0.5km2	Vendian-Cambrian meta-sediments; Cambrian limestone, middle Paleozoic granitoids	---	---	---	---	W/Cu	---	Geo-mapping(1978); Trench(418.9m3); Drill(107m)	---	---	0.003	0.009	0.002	0.003	---	---	---	---	Report No.:1966, 3045, 4428
93	3474	Nariin azarga	Tsagaan uul	N50°02'24.7"	E98°27'51.6"	hydrothermal//	alteration zone: 2000m x 400m	Riphean sandstone, shale, limestone, Cambrian gabbro	shale	Riphean	---	pyrite, hematite	Au	---	Geo-mapping(1992); Trench(525.5m3), pit; Geochemi(664samples)	0.20	---	---	---	---	---	---	---	---	---	Report No.:4863
94	583	Deed ulaan tolgoi	Tsagaan uul	N49°31'28.2"	E98°41'25.1"	hydrothermal/deep fault control/vein?	quartz-greisen vein zone: 90m x 10m	Paleozoic sedimentary rocks, Devonian granitoids, Carboniferous granitoids, Permian rhyolite	Devonian granitoids	Paleozoic	quartz vein, greisen	---	Cu/Au, Ag	Cu: 57,000t; Ag: 800t	Geo-mapping(1987); Trench(1192.4m3); Geochemi(385samples)	0.10	39.00	0.010	---	---	---	---	---	0.600	---	Report No.:4428
95	574	Ulaan zavsar	Tsagaan uul	N49°28'15.5"	E98°40'41.0"	hydrothermal//vein	quartz vein: 250m x 0.15m	Riphean meta-sediments; Riphean granitoids, Paleozoic limestone	meta-sediments	Jurassic	quartz vein	---	Au, Ag	---	Geo-mapping(1987); Trench(215m3); Geochemi(350samples)	0.10	2.00	---	0.035	---	---	---	---	---	---	Report No.:4428

No	Reference No.	Name of occurrence	Survey district	Location		Mineralization Type/Factor/Form	Size	Geology	Country rock	Age of Mineralization	Alteration	Mineralization	Main/Sub commodity	Ore reserve	Preceding survey	Grade: Geochemical anomaly (maximum)						Remarks	
				latitude	longitude											Au(g/t)	Ag(g/t)	Cu(%)	Mo(%)	Pb(%)	Zn(%)		Cr(%)
96	581	Gurvan buudal uul	Tsagaan uul	N49°35'00.0"	E98°33'00.0"	hydrothermal/fault control/alteration zone	alteration zone: 5200m × 1000m	Rephean meta-shale, Carboniferous granitoids	Carboniferous granitoids	---	silicification	pyrite(limonite), hematite	Au, Ag	---	Geo-mapping(1987); pit(80m)	1.20	1.20	---	---	---	---	---	Report No.4428
97	573	Khunkh tsakhir	Tsagaan uul	N49°36'00.0"	E98°23'00.0"	hydrothermal/fault control/alteration zone	mineralization zone: 800m × 150m(stockwork); oxidized zone: 0.8km × 0.15km, 0.25 × 0.5km	Paleozoic acidic volcanic rocks, shale, marble, Devonian granitoids	acidic volcanic rocks	---	silicification, greisen, skarn	malachite, hematite, magnetite, fluorite	Cu, Ag	Cu:7.3t, Zn:7.0t, Pb:1.8t, Ag:2.0t, Mo:367kg	Geo-mapping; Trench(222.2m ³); pit(180m); Drill(140m)	---	2.00	30.000	5.000	---	30.000	---	Report No.4428
98	1572	Zost uul	Tosontse ngel	N48°42'25.1"	E98°18'56.3"	hydrothermal/fault control/	1400m × 380m	Proterozoic shale, gneiss, gabbro, Permian-Triassic granitoids	Permian-Triassic granitoids	---	quartz veinlets, greisen, pyritization	pyrite, chalcopryrite, malachite, azurite, molybdenite	Mo	Mo 101.961t	Geo-mapping(1978); Trench, pit; Geochemi.(5348samples); Drill(12holes)	---	50.00	0.180	0.250	0.200	---	---	Report No.3122, 2982, 2981
99	1596	Khuurai sair	Tosontse ngel	N48°36'00.0"	E98°23'00.0"	hydrothermal/fracture/vein	alteration zone: 500m × 5m	Paleozoic acidic volcanic rocks, shale, Cambrian volcanic rocks, Devonian granitoids, andesite porphyry	andesite porphyry	---	---	pyrite, chalcopryrite, malachite	Cu, Mo	---	Geo-mapping(1979); Trench(222.2m ³); pit; Geochemi.(725samples); Drill(140m)	30.00	---	0.090	0.020	---	---	---	Report No.3569
100	1481	Naranbulag	Tosontse ngel	N48°34'40.2"	E97°46'27.8"	hydrothermal/contact zone/	stockwork: 900m × 400m	Permian trachyte, dacite, basalt; Permian granitoids	Permian granitoids	---	---	molybdenite, pyrite	Cu/Ag	Cu:22,000.000t	Geo-mapping(1966); Trench; Geochemi.; Geophysics; Drill(2holes)	---	10.20	0.800	0.015	0.003	---	---	Report No.3576, 2581
101	143	Occurrence 124-B-4.5	Tosontse ngel	N48°24'01.9"	E97°38'41.4"	hydrothermal//alteration zone	alteration zone: 700m × 700m, 150m × 150m	Permian granite, gabbro; Permian dacite, rhyolite	gabbro	---	---	malachite, azurite, pyrite	Cu/Au,Ag	---	Geo-mapping(1978-1981)	0.02	8.00	1.000	---	0.060	0.400	---	Occur-124-B-4.5 Report No.3576
102	107	Quartzite	Tosontse ngel	N48°55'51.6"	E97°49'42.4"	metasomatic//alteration zone	L4,500m × W200m	Permian volcanic rocks(rhyolite porphyry, tuff), granitoids	rhyolite porphyry, tuff	---	silicification	Cu dissemination, pyrite	Cu/Mo	---	Geo-mapping(1976-1977); Trench(452.3m ³); Drill(65m)	---	0.100	0.010	0.006	0.001 (core)	0.001 (core)	---	Report No.3122
103	106	Davaa	Tosontse ngel	N48°55'57.1"	E97°44'03.4"	metasomatic//contact accretion zone	veinlets zone: 1.5m × 100m; alteration zone: 500m × 100m	Permian quartz-diorite, andesite porphyry; Paleozoic diorite; Permian alkali volcanic rocks, granitoids	---	---	quartz veinlets, silicification	---	Cu	---	Geo-mapping; Trench(313.15m ³); Drill(142.8m)	---	0.50	0.050	0.0015 (core)	0.001 (core)	0.008 (core)	---	Report No.3122

Table A-9 List of survey sites

No.	Name of occurrence	Survey district	Topography/Vegetation	Mineralization Type/Factor/Form	Geology	Country rock	Intrusive rock	Alteration	Mineralization	SAR data analysis	Rock samples	Remarks	Geochemical analysis (maximum)							Alteration mineral (X-ray diffraction)	K-Ar dating of volcanic and plutonic rocks
													Au(ppm)	Ag(ppm)	Cu(ppm)	Mo(ppm)	Pb(ppm)	Zn(ppm)	Cr(ppm)		
1	Occurrence 24	Zelter	mountain/grass-forest	hydrothermal?/	Permian volcanics, lower Carboniferous sediments	andesite	granitoids	---	malachite	lineament trending NW-SE	IH140, HH178	no remarkable alteration and mineralization	0.010	0.600	255.0	2.0	22.0	184.0	8.0	Qtz, albite, sericite	
2	Gatsuurkhan	Zelter	mountain/grass-forest	hydrothermal?/	Permian volcanics, lower Carboniferous sediments, granitoids	basalt, sandstone	granitoids	silicification	limonite	lineament trending NW-SE	MZ160-161, TM133-135, MZ604P	no remarkable alteration and mineralization	Trace	1.600	45.0	14.0	152.0	118.0	105.0	---	
3	SAR139	Erdenet West	hill/thin-grass-forest	porphyry?//alteration zone	quartz diorite, granodiorite, basalt dyke	quartz diorite, granodiorite	basalt	quartz and epidote vein, silicification, hydrothermal breccia, limonitization, potassic alteration	limonite, malachite	lineament trending NW-SE, conjunction of lineaments	NK051-058, HH014-018, NK166, HH210, TM168-170	mineralization and alteration zone are narrow	0.110	13.200	20700.0	4.0	22.0	64.0	35.0	Qtz, albite, kaolin	basalt: 282±6Ma
4	SAR138	Erdenet West	hill/thin-grass	porphyry?//alteration zone	granite	granite	---	weak alteration?	malachite	conjunction of lineaments	NK047-050, HH013		Trace	1.200	1560.0	Trace	66.0	170.0	22.0	---	
5	SAR127	Erdenet West	hill/forest	//	granodiorite	---	---	---	---	high density lineaments	RK044		---	Trace	60.0	---	Trace	70.0	---	---	
6	Zuukhin gol	Erdenet West	mountain/grass-forest	hydrothermal?porphyry?//alteration zone	granodiorite, andesite-dacite lava, dacite porphyry	granodiorite, andesite-dacite, dacite porphyry	andesite, dacite porphyry	silicification, limonitization, potassic alteration	malachite, weak geochemical anomaly (Au, Ag), limonite	---	MZ028-029, RK028, NK163-165, IH145-150, HH204-205, HH207-209, HH211-212, MZ181-182, TM163, TM165-167	oxide copper mineralization in potassium alteration	0.010	14.800	8750.0	4.0	506.0	138.0	13.0	Qtz, sericite, montmorillonite	andesite 229±11Ma
7	SAR136	Erdenet West	mountain/grass-forest	//	granite, aplite	---	aplite	---	---	conjunction of lineaments and high density lineaments	RK027		Trace	Trace	108.0	Trace	4.0	4.0	3.0	---	
8	SAR144	Erdenet West	mountain/grass-forest	hydrothermal?//vein	granite, granodiorite	granite, granodiorite	---	quartz vein, silicification, epidotization	malachite	conjunction of lineaments and high density lineaments	RK024-026		0.005	2.000	20200.0	15.0	10.0	180.0	19.0	---	
9	SAR25	Erdenet West	hill/grass	hydrothermal?//alteration zone	Triassic granite	Triassic granite	---	pyritization	---	conjunction of lineaments and high density lineaments	MZ024-025		Trace	Trace	42.0	1.0	34.0	102.0	113.0	---	
10	Mogoin gol 2	Erdenet West	mountain/grass-forest	porphyry?//alteration zone	granite, andesite, dacite	granite, andesite, dacite	---	silicification, argillization	azurite	lineament trending NW-SE	NK033-038, MZ049, NK155-160, HH197-198, HH200-201, MZ171-173, TM160	porphyry lithocap?	Trace	Trace	14.0	5.0	168.0	8.0	30.0	Qtz, kaolin, alunite, sericite, andalusite	
11	Khujirin gol	Erdenet West	mountain/grass-forest	porphyry?//alteration zone, vein	granodiorite, syenite, andesite, dacite	granodiorite, syenite, andesite, dacite	---	K-silicate alteration, silicification, quartz vein	quartz vein with malachite and limonite	lineament trending NE-SW	MZ018-021, RK021-023, HH202, MZ174-180, TM161-162	oxide copper mineralization in quartz vein hosted by potassium alteration	Trace	Trace	2240.0	Trace	11700.0	680.0	49.0	Qtz, sericite, andalusite	
12	Tsagaan chuluut	Erdenet West	mountain/grass-forest	porphyry?//alteration zone	lower Mesozoic volcanics (andesite, dacite, rhyolite)	andesite, dacite, rhyolite	---	silicification, silica sinter, quartz veinlet, argillization (secondary alunite)	quartz veinlet, pyrite	lineament trending NNW-SSE	NK135-142, NK144-154, NK162, IH141-143, HH181-187, HH190, HH193-196, MZ164-167, TM143-146, TM148-154, TM172, NK040-046, MZ022-023, MZ026-027, IH144, IH151-157, MZ168-170, MZ183-186, TM155-159	porphyry lithocap? High sulfidation type alteration?	0.100	0.400	156.0	25.0	114.0	134.0	105.0	Qtz, K-feldsp, kaolin, alunite, andalusite	andesite: 210±4Ma
13	Erdenet NW	Erdenet West	hill/grass	porphyry//alteration zone	granite, granodiorite, diorite, andesite dyke	granite, granodiorite	diorite, granodiorite, andesite	silicification, argillization, potassic alteration, oxidization, limonitization, quartz+pyrite vein	chalcopryrite, chalcocite, malachite, azurite (along crack), quartz-pyrite vein, limonite	lineament trending NW-SE	HH008-012, MZ015-017, MZ050-051, RK020-021, MZ162-163		Trace	5.000	5670.0	110.0	0.0	600.0	10.0	Qtz, albite, K-feldsp, sericite, chlorite, pyrite	altered granite: 202±4Ma, 223±6Ma
14	Erdenet Central	Erdenet West	hill/grass	porphyry//alteration zone	granite, diorite	granite	diorite	silicification, argillization (sericite), tourmalinization, potassic alteration	malachite	conjunction of lineaments (NW-SE and N-S)	RK029-032		0.010	0.800	5510.0	21.0	12.0	94.0	9.0	---	
15	SAR169	Erdenet West	mountain/forest	//	granite (float rock), volcanic rock (float rock)	---	---	---	---	lineament trending NW	---		---	---	---	---	---	---	---	---	
16	Oyut (Erdenet SE)	Erdenet West	hill/grass	porphyry//alteration zone	granodiorite, granodiorite porphyry, andesite, syenite, diorite	granodiorite, granodiorite porphyry	andesite, syenite, diorite	argillization (sericite), limonitization, acid leaching zone	dissemination of chalcopryrite (drilling core)	---	MZ041-044		---	Trace	500.0	---	10.0	115.0	---	---	
17	Tourmaline	Erdenet West	hill/grass	porphyry//alteration zone	granodiorite, syenite, andesite dyke	granodiorite, syenite	andesite dyke	silicification, tourmalinization	---	---	NK059-061, MZ030-033		Trace	0.200	47.0	8.0	120.0	82.0	13.0	Qtz, albite, K-fel, sericite, andalusite	
18	SAR188	Erdenet West	mountain/forest	hydrothermal?//alteration zone	granite, basalt, andesite	granite	basalt	epidotization	---	lineament trending NW	NK062-064, MZ034-035		Trace	0.200	7.0	Trace	96.0	66.0	23.0	Qtz, albite, K-fel, sericite, kaolin	
19	SAR200	Erdenet West	mountain/grass	hydrothermal?//vein	granite, aplite	granite	aplite	quartz vein	---	lineament trending NW	RK033		Trace	Trace	34.0	Trace	8.0	Trace	20.0	---	

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Table A-9 List of survey sites

No.	Name of occurrence	Survey district	Topography/Vegetation	Mineralization Type/Factor/Form	Geology	Country rock	Intrusive rock	Alteration	Mineralization	SAR data analysis	Rock samples	Remarks	Geochemical analysis (maximum)							Alteration mineral (X-ray diffraction)	K-Ar dating of volcanic and plutonic rocks
													Au(ppm)	Ag(ppm)	Cu(ppm)	Mo(ppm)	Pb(ppm)	Zn(ppm)	Cr(ppm)		
20	Under	Erdenet West	mountain/grass-forest	porphyry//alteration zone	granitic rocks, quartz porphyry, andesite	granitic rocks, andesite	quartz porphyry	silicification, argillization(sericite), tourmalinization, limonitization	---	lineament trending N-S	MZ036-040, HH180, TM136-171		Trace	Trace	50.0	Trace	16.0	54.0	18.0	---	
21	Shand	Erdenet West	hill-mountain/grass-forest	porphyry//alteration zone	granite, granodiorite, micro diorite, andesite porphyry dyke	granite, granodiorite	micro diorite, andesite porphyry	potassic alteration	malachite, azurite	conjunction of lineaments (NW-SE and N-S)	RK039-040		0.050	2.200	9490.0	17.0	198.0	130.0	10.0	---	
22	SAR239	Erdenet West	hill/grass	///	granite, aplite	---	---	---	---	conjunction of lineaments	NK065		---	---	---	---	---	---	---	---	
23	SAR238	Erdenet West	hill/grass	hydrothermal//vein?	granite, granodiorite	granite, granodiorite	---	quartz and epidote vein	---	conjunction of lineaments	RK034-038		Trace	Trace	16.0	Trace	12.0	34.0	12.0	---	
24	SAR235	Erdenet West	hill/grass	hydrothermal//alteration zone	Paleozoic granite-granodiorite, andesite	granite-granodiorite	andesite	argillization (sericite), dissemination of pyrite (limonite)	---	relatively smooth tone	MZ047-048, RK042-043		Trace	Trace	37.0	Trace	26.0	14.0	5.0	---	
25	Zaluu	Erdenet West	hill/grass-forest	hydrothermal//vein	granite, monzonite, Triassic-Jurassic andesite	granite	monzonite, andesite	quartz and epidote vein	---	---	NK066-67, HH020		---	Trace	55.0	---	25.0	125.0	---	sericite	basalt: 195±4Ma
26	SAR233	Erdenet West	hill/grass	hydrothermal//alteration zone	Paleozoic granite, dacite	granite, dacite	---	hydrothermal breccia	---	irregular feature and relatively smooth tone	MZ045-046, RK041		Trace	Trace	113.0	1.0	40.0	10.0	14.0	---	
27	Danbatseren	Erdenet West	hill/thin	hydrothermal//alteration zone	granite, Jurassic dacite	granite, Jurassic dacite	---	silicification, quartz veinlets, tourmalinization, limonitization	limonite	lineament trending NNE-SSW	NK068-073, HH021, NK111-112, HH148-160	porphyry lithocap?	0.050	0.200	93.0	21.0	58.0	14.0	32.0	Qtz, K-feldspar, sericite, pyrophyllite, kaolin, andalusite	
28	Mt. Zayn devaa	Erdenet West	hill/grass	hydrothermal//alteration zone	andesite	andesite	---	weak silicification, argillization, dissemination of pyrite (limonite), propylitic alteration	malachite	---	RK069-078		Trace	4.800	3100.0	Trace	100.0	54.0	118.0	Qtz, K-feldspar, sericite, pyrophyllite, kaolin	
29	SAR183	Erdenet West	hill/grass	hydrothermal//alteration zone	andesite porphyry	andesite porphyry	---	silicification, epidotization, quartz and epidote vein	malachite	conjunction of lineaments and relatively smooth tone	RK066-067		Trace	8.400	19100.0	Trace	62.0	20.0	95.0	---	
30	SAR182	Erdenet West	mountain/forest	hydrothermal//alteration zone	andesite, trachyandesite	andesite, trachyandesite	---	quartz and epidote vein	malachite	conjunction of lineaments and relatively smooth tone	RK068		0.010	3.400	7430.0	Trace	24.0	8.0	21.0	---	
31	SAR181	Erdenet West	hill/grass	hydrothermal//alteration zone	andesite porphyry	andesite porphyry	---	weak silicification, epidotization, limonitization	malachite	conjunction of lineaments	RK075		Trace	7.800	13300.0	0.5	14.0	28.0	141.0	---	
32	SAR194	Erdenet West	hill/grass	hydrothermal//vein	andesite lava, tuff	andesite lava, tuff	---	quartz and epidote vein	malachite	conjunction of lineaments	NK082, RK076		Trace	19.800	25700.0	Trace	44.0	46.0	128.0	---	
33	SAR197	Erdenet West	hill/grass	hydrothermal//vein	Triassic andesite	andesite	---	quartz and epidote veinlet	---	conjunction of lineaments	MZ068-069		Trace	Trace	110.0	Trace	42.0	64.0	81.0	---	
34	SAR205	Erdenet West	mountain/grass-forest	hydrothermal//vein-alteration zone	Triassic andesite	andesite	---	weak silicification and epidotization, quartz and epidote veinlets	---	conjunction of lineaments	MZ070-071		Trace	Trace	12.0	Trace	108.0	52.0	52.0	---	
35	SAR202	Erdenet West	hill/grass	hydrothermal//vein	Triassic andesite lava	andesite	---	epidotization, quartz veinlets	---	conjunction of lineaments	MZ072		Trace	Trace	36.0	Trace	30.0	34.0	14.0	---	
36	SAR204	Erdenet West	hill/grass	hydrothermal//vein-alteration zone	Triassic andesite	andesite	---	epidotization, quartz and epidote veinlets	malachite	conjunction of lineaments and relatively smooth tone	MZ073-074		0.005	4.800	20600.0	0.5	30.0	56.0	61.0	---	
37	SAR222	Erdenet West	mountain/grass-forest	hydrothermal//alteration zone	andesite porphyry	andesite porphyry	---	silicification, quartz veinlets	---	relatively smooth tone	RK064		Trace	0.200	33.0	Trace	10.0	28.0	8.0	---	
38	SAR221	Erdenet West	mountain/grass-forest	hydrothermal//alteration zone	Mesozoic andesite	andesite	---	silicification, quartz and epidote vein	---	relatively smooth tone	HH036, RK063		Trace	0.200	79.0	Trace	32.0	44.0	76.0	Qtz, albite	

Table A-9 List of survey sites

No.	Name of occurrence	Survey district	Topography/Vegetation	Mineralization Type/Factor/Form	Geology	Country rock	Intrusive rock	Alteration	Mineralization	SAR data analysis	Rock samples	Remarks	Geochemical analysis (maximum)							Alteration mineral (X-ray diffraction)	K-Ar dating of volcanic and plutonic rocks
													Au(ppm)	Ag(ppm)	Cu(ppm)	Mo(ppm)	Pb(ppm)	Zn(ppm)	Cr(ppm)		
39	SAR219	Erdenet West	mountain/grass-forest	hydrothermal//alteration zone	Mesozoic andesite	andesite	---	silicification, argillization (sericite)	---	relatively smooth tone	RK065		Trace	Trace	6.0	Trace	1.6	26.0	8.0	Qtz, albite, sericite	
40	Jasiin buuts	Erdenet West	mountain/forest	hydrothermal//vein-alteration zone	andesite, dacite, granite, micro diorite	andesite, desite	granite, micro diorite	silicification, argillization (sericite), quartz vein, dissemination of pyrite	---	---	HH032-035, RK058-062		Trace	0.200	17.0	7.0	30.0	70.0	15.0	Qtz, albite, sericite	
41	Khar uul	Erdenet West	hill/grass	hydrothermal//vein	andesite, basalt, diorite dyke	andesite, basalt	diorite	quartz and chlorite vein	malachite	---	NK083, MZ066-067		0.010	6.600	13000.0	Trace	720.0	28.0	93.0	---	
42	Tsookher mert	Erdenet West	mountain/grass	hydrothermal//vein	granitoids	granitoids	---	quartz vein (width: 1-10cm), argillization (sericite)	Au mineralized quartz vein (width: 1-10cm) with malachite, azurite, galena	---	MZ061-065, IH131-133, MZ143-145, TM114-117	distribution of quartz vein is restricted	285.400	950.000	221.0	5.0	89900.0	1010.0	19.0	Qtz, albite, K-feldspar, sericite	
43	Aguit	Erdenet West	hill/grass-forest	hydrothermal//alteration zone	Devonian acidic volcanic rocks, Permian-Triassic granite	acidic volcanic rocks, granite	---	silicification	---	---	NK074-81, HH024-026		0.015	9.000	37.0	45.0	488.0	172.0	15.0	Qtz, albite, K-feldspar	
44	Urmiin tsgaan nuur	Erdenet West	mountain/forest	hydrothermal//alteration zone	Triassic trachytic tuff, syenite, aplite	Triassic trachytic tuff	syenite, aplite	silicification	---	---	MZ052-53, RK045-47		Trace	Trace	36.0	Trace	28.0	80.0	24.0	---	
45	Burged khyr	Erdenet West	hill/grass	hydrothermal//alteration zone	Permian-Triassic granitoids, Jurassic conglomerate	granitoids, conglomerate	---	silicification, argillization, limonitization	limonite (gossan)	---	MZ054-056, HH143-144, HH146, MZ135-142		0.010	1.200	52.0	---	64.0	220.0	23.0	Qtz, albite, K-feldspar, sericite, kaolin	
46	Nomgon	Erdenet West	hill/grass	porphyry//alteration zone	syenite, granodiorite	syenite, granodiorite	---	K-fel and magnetite alteration, epidotization, silicification, sericitization	---	---	MZ057-059		---	---	---	---	---	---	---	---	
47	Zaiian	Erdenet West	hill/grass	porphyry//alteration zone	granite, Triassic andesite, porphyrite, Jurassic conglomerate	granite, andesite, porphyrite, conglomerate	---	quartz and tourmaline vein, K-fel alteration	malachite, azurite, turquoise	---	NK080, RK052-053		0.535	82.800	49100.0	341.0	36.0	24.0	5.0	---	
48	Ereen ikher	Erdenet West	hill/grass	hydrothermal//alteration zone	syenite, trachytic tuff	syenite, syenitic tuff	---	silicification, argillization	---	---	NK078-079, RK048-51		0.003	0.100	3.0	7.0	30.0	46.0	8.0	Qtz, albite, K-feldspar	
49	Undrakh	Erdenet West	hill/grass	porphyry//alteration zone	granite, aplitic granite, Quaternary sediments	granitoids	---	potassic alteration, quartz vein, limonitization	chalcopryrite, malachite	---	MZ060, RK054-057, NK103-110, TM113	aplitic granite stock with copper mineralization in granite	0.215	33.800	18300.0	208.0	50.0	30.0	7.0	Qtz, albite, calcite	
50	Bulgan NW	Erdenet West	mountain-hill/grass-forest	?	Permian-Jurassic volcanics, Selengecomplex	basalt, granite	---	silicification	pyrite in basalt	---	NK100-102, IH130, HH141-142, MZ132-134, TM112, NK600P-605P, TM600P-603P		0.140	0.200	20.0	4.0	26.0	60.0	33.0	Qtz, K-feldspar, sericite	trachy andesite, 182±9Ma
51	Sudal N177	Zaamar	mountain/thin	epithermal//vein	Cambrian-Ordovician sandstone, shale, granitic rocks	granite, shale	granite	silicification, quartz & calcite vein, pyritization, greisenization	geochemical anomaly (Au)	---	NK001-006		2.650	20.400	344.0	12.0	344.0	18.0	44.0	---	
52	Ulit ovoo	Zaamar	hill/grass	skarn//small skarn body	Cambrian-Ordovician meta-sedimentary rocks, Permian granite, andesite	meta-sedimentary rocks	Permian granite	skarnization (drill core), dissemination of magnetite & pyrrhotite	geochemical anomaly (Zn)	lineament of trending ENE-WSW and NNW-SSE	NK007-008		0.003	0.200	498.0	0.5	26.0	1305.0	197.0	---	
53	Eagle Mt North	Zaamar West	mountain/grass	hydrothermal//alteration zone	Paleozoic granite, Riphean limestone, tuff, basalt dyke	tuff	basalt	silicification, epidotization, calcite vein	---	---	MZ076		Trace	Trace	25.0	Trace	4.0	18.0	74.0	---	
54	M-1	Zaamar West	hill/grass	hydrothermal//alteration zone	andesite lava	andesite lava	---	chloritization, quartz vein	---	circular embossable feature	HH038		---	---	---	---	---	---	---	---	
55	M-2	Zaamar West	hill/grass	//	andesite	---	---	---	---	circular embossable feature	MZ075		Trace	Trace	133.0	Trace	14.0	108.0	193.0	---	
56	M-3	Zaamar West	hill/grass	//	trachytic andesite, granite(float rock)	---	---	---	---	circular embossable feature	---		---	---	---	---	---	---	---	---	
57	Khushhuut gol	Bulgan SW	hill/grass	//veinlets	Carboniferous andesitic tuff breccia	andesitic tuff breccia	---	epidotization, quartz veinlets	---	---	---		---	---	---	---	---	---	---	---	

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Table A-9 List of survey sites

No.	Name of occurrence	Survey district	Topography/Vegetation	Mineralization Type/Factor/Form	Geology	Country rock	Intrusive rock	Alteration	Mineralization	SAR data analysis	Rock samples	Remarks	Geochemical analysis (maximum)							Alteration mineral (X-ray diffraction)	K-Ar dating of volcanic and plutonic rocks
													Au(ppm)	Ag(ppm)	Cu(ppm)	Mo(ppm)	Pb(ppm)	Zn(ppm)	Cr(ppm)		
58	Oyuut khonkhor	Bulgan SW	hill/grass	porphyry?(epithermal?) //alteration zone	Triassic-Jurassic volcanics, granitoids	andesite	granosyenite	silicification, hydrothermal breccia, argillization (sericite, kaolin)	weak geochemical anomaly (Au), azurite, malachite	---	NK009-013, NK113-121, IH135-138, HH162-168, MZ146-148, TM119-125	high sulfidation type alteration under exploration by Erel Co. Ltd.	0.015	1.600	459.0	6.0	166.0	416.0	25.0	Qtz, kaolin, alunite, sericite	
59	Ilrel No.9	Bulgan SW	hill/grass	hydrothermal/fracture/vein	Triassic sandstone, Triassic-Jurassic granite	sandstone	Triassic-Jurassic granite	limonitization, quartz vein	---	---	---		---	---	---	---	---	---	---		
60	Teshig	Tavt	mountain/grass-forest	contact metasomatic/	Vendian-Carboniferous volcanics	andesite	---	epidotization	magnetite, malachite	---	HH177, MZ159, TM132	Au: 4t under exploration by M & diamond Co. Ltd.	0.125	1.400	5590.0	Trace	68.0	206.0	11.0	---	
61	Ereen	Tavt	mountain/grass-forest	pluton related/vein	Cambrian-Devonian granitoids	granite, granodiorite, gabbro	granitoids	---	quartz vein with chalcopyrite, malachite, azurite	lineaments trending NNE-SSW, E-W and NW-SE	NK122-126, NK130, NK132, HH170-172, HH174, MZ149-156, MZ158, TM127-130	Au: 8t, Ag: 13t, Cu:6t under exploration by M & diamond Co. Ltd.	54.140	76.000	131500.0	122.0	1005.0	214.0	89.0	Qtz, K-fel, sericite, chlorite, calcite, pyrite	diorite: 247±12Ma, granodiorite: 330±16Ma, muscovite: 276±14Ma
62	Tsagaan gongor	Uubulan	hill/grass	hydrothermal?//	Permian-Triassic granite, granite porphyry, diorite porphyry, pegmatite	pegmatite	Permian-Triassic granitic rocks	epidotization	---	lineament trending E-W	---		---	---	---	---	---	---	---		
63	Holboo ovoo	Uubulan	hill/grass	skarn/contact accretion zone/	Permian andesite, desite, sedimentary rocks, Permian granite	andesite, desite, sedimentary rocks	Permian granite	skarnization	---	---	NK014		0.003	0.100	7.0	0.5	48.0	168.0	10.0	---	
64	Sainin hundii	Uubulan	hill/grass	hydrothermal/contact zone/	Permian basic rocks, Permian-Triassic granite, Jurassic trachyte porphyry, andesite porphyry, dacite porphyry	trachyte, andesite, dacite porphyry	---	silicification, limonitization	---	lineament trending NNE-SSW	MZ001		0.003	Trace	4.0	0.5	26.0	58.0	3.0	---	
65	Mogoin gol	Uubulan	hill/grass	//	Permian-Triassic granite, granodiorite, tonalite, granite, andesite	granite, andesite	granite, andesite	quartz vein	oxidized Cu, weak Au geochemical anomaly	---	NK015		0.085	16.200	952.0	6.0	1475.0	1055.0	20.0	Qtz, kaolin, andalusite	
66	Gua ulaan uul	Uubulan	mountain/thin-grass	metasomatic/NW-oriented tectonic weak zone	Triassic dacitic andesite, dacite, pyroclastic rocks, syenogranite	dacitic andesite, dacite, pyroclastic rocks	syenogranite	silicification, argillization	weak geochemical anomaly (Au)	lineament trending WNW-ESE	NK016, MZ002-003, RK001		0.010	2.200	13.0	109.0	64.0	252.0	13.0	Qtz, K-feldsp, albite, sericite	
67	25f	South Camp	hill/grass	//	Cretaceous lake deposits, Alluvial gravel	Alluvial gravel	---	---	---	---	HH501P		0.011	5.000	39.0	2.5	8.0	59.0	490.0	---	
68	25e	South Camp	mountain/forest	hydrothermal//vein	Cambrian psammitic shist	psammitic shist	---	quartz vein, calcite vein	---	---	RK018-019		0.003	0.100	14.0	0.5	4.0	4.0	11.0	---	
69	25d	South Camp	hill/grass	hydrothermal?//	Vendian-Cambrian pelitic and psammitic shist, ultra mafic rock	pelitic and samitic shist	---	weak listvenitization	---	---	NK030-031		0.003	0.200	6.0	0.5	Trace	18.0	1420.0	---	
70	25c	South Camp	hill/grass	//	Riphean-Cambrian ultra mafic rocks	ultra mafic rocks	---	---	---	---	MZ014		0.003	0.100	4.0	0.5	26.0	30.0	1675.0	---	
71	25b	South Camp	hill/grass	hydrothermal/fault control/vein	Cambrian sedimentary rock (phylite, tuff), granite	phylite, tuff	granite	quartz veinlet	---	---	NK029		---	---	---	---	---	---	---	Qtz, albite, sericite	
72	25a	South Camp	mountain/forest	hydrothermal//veinlets	granite, limestone	granite	---	quartz veinlets	weak geochemical anomaly (Au)	lineament trending NEE-SWW	NK028, RK017		0.035	1.000	0.5	0.5	28.0	4.0	7.0	---	
73	Zost tolgoi	Khujirt	hill/grass	hydrothermal//	granodiorite, granite, andesite	granodiorite, granite, andesite	---	silicification, argillization (sericite), dissemination of pyrite	weak geochemical anomaly (Pb)	---	HK017-019, MZ004-005, RK002		0.003	1.600	34.0	1.0	6.0	28.0	30.0	Qtz, albite, sericite	
74	Yargit	Khujirt	hill/grass	hydrothermal?/fracture control/veinlets and stockwork	granodiorite, dacite	granodiorite, dacite	---	quartz veinlets	malachite, azurite (along crack)	---	NK020		0.003	6.200	4360.0	50.0	14.0	40.0	3.0	---	
75	20 (Hunt gol)	Khokhoo	mountain/forest	hydrothermal? Metasomatic/fault control/vein?	granite	granite	---	quartz vein (float rock)	---	lineament trending NW-SE	MZ010		0.003	0.100	0.5	0.5	28.0	14.0	9.0	---	
76	20a	Khokhoo	hill/grass-forest	hydrothermal//vein	Devonian granodiorite	granodiorite	---	quartz vein (L:200m x W:40cm), hematite, limonitization	galena, malachite	lineament trending NE-SW	MZ012		0.010	23.200	1135.0	0.5	5210.0	272.0	7.0	---	

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No	Name of occurrence	Survey district	Topography/Vegetation	Mineralization Type/Factor/Form	Geology	Country rock	Intrusive rock	Alteration	Mineralization	SAR data analysis	Rock samples	Remarks	Geochemical analysis (maximum)							Alteration mineral (X-ray diffraction)	K-Ar dating of volcanic and plutonic rocks
													Au(ppm)	Ag(ppm)	Cu(ppm)	Mo(ppm)	Pb(ppm)	Zn(ppm)	Cr(ppm)		
77	20b	Khokhoo	mountain/grass-forest	hydrothermal/fracture control?/vein	meta-sedimentary rocks (silimanite shist), granite, apite	meta-sedimentary rocks	granite, apite	quartz vein (L>150m)	---	conjunction of lineaments (NW-SE and E-W)	MZ013, RK008-010		0.003	0.200	8.0	0.5	86.0	32.0	17.0	---	
78	20c	Khokhoo	mountain/forest	//	gneiss, granodiorite, granite, pegmatite, andesite	gneiss, granodiorite, granite	pegmatite	greisen (sericite)	---	circular embossable feature	RK011		0.003	0.100	0.5	0.5	14.0	46.0	33.0	---	
79	20d	Khokhoo	mountain/forest	hydrothermal?//vein	granodiorite, andesite dyke	granodiorite	andesite	greisen (sericite), quartz vein	malachite, Pb and Ag geochemical anomaly	---	NK027, MZ011		0.605	44.200	7950.0	2.0	111000.0	130.0	90.0	---	
80	Altgana gol	Altgana gol	mountain/grass-forest	hydrothermal/fault control/stockwork	Permian granite, apite	granite	apite	quartz vein	molybdenite	---	NK024-025, HH003, MZ008, RK005		0.003	0.100	26.0	431.0	16.0	4.0	18.0	---	
81	Tsgean bulgas	Altgana gol	mountain/grass-forest	//	Riphean-Cambrian basalt, serpentinite, carbonate rock	basalt, serpentinite, carbonate rock	---	chloritization, calcite vein	Cr geochemical anomaly	---	---		---	---	---	---	---	---	---	---	
82	Quartz	Altgana gol NW	mountain/forest	hydrothermal/fracture control/vein-veinlet	limestone, shale, green tuff, conglomerate	limestone, shale, green tuff, conglomerate	micro diorite	silicification, limonitization, quartz vein-veinlets	molybdenite	---	RK007-016		0.003	0.200	6.0	1.0	70.0	40.0	7.0	---	
83	Skarn	Altgana gol NW	hill/grass	//	Vendian crystalline limestone, marble	crystalline limestone, marble	---	---	---	---	---		---	---	---	---	---	---	---	---	
84	Donkhor bulag	Murun South	mountain/thin-grass	hydrothermal/fault control/	conglomerate, sandstone, shale, dacite, dacitic tuff	conglomerate, sandstone, shale, dacite, dacitic tuff	---	silicification, argillization (sericite), dissemination of pyrite, quartz vein	---	lineament trending E-W	NK021-023, MZ006-007, RK003-004		0.003	1.000	20.0	20.0	702.0	148.0	12.0	Qtz, K-feldsp, albite	
85	Terkhiin tsagaan nuur	Tariat	hill/grass	hydrothermal/vein	upper Riphean sediments	sediments	---	---	5 quartz veins (max. L 32m, W 40cm), wolframite	lineament trending WNW-ESE	IH100, MZ100-101, TM100		0.240	0.200	5.0	5.0	Trace	66.0	12.0	---	
86	Tariat in gol	Tariat	hill/grass	?	Riphean anorthosite, diorite, gabbro, granitoids	anorthosite, gabbro, diorite, granitoids	---	---	white material	lineament trending WNW-ESE	TM101-103, MZ600P		0.005	Trace	2.0	3.0	6.0	6.0	15.0	Qtz, sericite	
87	Solongot	Tariat	hill/grass	?	Proterozoic limestone, Riphean granitoids	limestone, granitoids	---	---	---	lineament trending NW-SE and NNW-SSE	IH101-102, HH101		Trace	Trace	26.0	3.0	28.0	212.0	19.0	sericite, chlorite	
88	Solongotin gol	Tariat	hill/grass	?	Proterozoic limestone, Riphean granitoids	limestone, granitoids	---	skarn	pyrite and magnetite dissemination	lineament trending NNW-SSE	MZ102-103		Trace	0.200	114.0	3.0	18.0	58.0	30.0	---	
89	Tsagaan tolgoi	Murun West	hill/grass	greisen/	granitoids, quartz porphyry	granite, quartz porphyry	---	greisenization, silicification (silica cap)	pyrite, limonite, molybdenite	lineament trending E-W and NE-SE	IH126, IH128-129, TM104-108, TM110-111		0.005	0.800	101.0	1325.0	692.0	1275.0	14.0	Qtz, sericite	muscovite, 518 ± 26Ma
90	Ulaannuur	Murun West	hill/grass	greisen/	Devonian and Jurassic granitoids	granitoids	---	silicification, greisenization	pyrite	---	HH136-137, MZ129-131		Trace	0.600	5.0	42.0	10.0	14.0	14.0	Qtz, sericite	
91	Kheisiin belchir	Tsagaan uul	Mountains/tree s-no vegetation	---	Riphean meta-sediments	---	---	---	pyrite dissemination (float rock)	lineament trending NNE-SSW	MZ128, MZ602P-603P	not accessible	0.020	0.400	54.0	12.0	20.0	32.0	71.0	---	
92	Tsagaan uul	Tsagaan uul	hills/grass-trees	hydrothermal/vein	Vendian-Cambrian limestone, upper Paleozoic volcanics-sediments	pelitic-psammitic schist, crystalline limestone	---	---	quartz vein with wolframite	lineament trending NW-SE and E-W	IH118-119, MZ123-124, HH122-125		0.015	2.000	67.0	80.0	10.0	80.0	126.0	Qtz, kaolin, sericite	
93	Nariin azarga	Tsagaan uul	---	---	limestone, sandstone, gabbro	limestone, sandstone, gabbro	---	---	quartz vein	---	IH125, HH601P		Trace	0.200	11.0	5.0	18.0	44.0	5.0	---	
94	Deed ulaan tolgoi	Tsagaan uul	hill/grass	hydrothermal/vein	Devonian-Carboniferous granitoids	granitoids	felsite	---	quartz vein and breccia	---	IH120-124, HH127, HH129		Trace	0.200	2.0	131.0	14.0	28.0	11.0	---	
95	Ulaan zavsar	Tsagaan uul	hills/grass-few trees	metamorphosed, hydrothermal/	Riphean meta-sediments, limestone	meta-sediments	---	---	segregation quartz vein with limonitization, quartz vein with sericite and fluorite	---	MZ125-127		0.005	0.200	11.0	1.0	8.0	68.0	0.2	Qtz, kaolin, sericite	

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Table A-9 List of survey sites

No	Name of occurrence	Survey district	Topography/Vegetation	Mineralization Type/Factor/Form	Geology	Country rock	Intrusive rock	Alteration	Mineralization	SAR data analysis	Rock samples	Remarks	Geochemical analysis (maximum)						Alteration mineral (X-ray diffraction)	K-Ar dating of volcanic and plutonic rocks	
													Au(ppm)	Ag(ppm)	Cu(ppm)	Mo(ppm)	Pb(ppm)	Zn(ppm)			Cr(ppm)
96	Gurvan buudal uul	Tsagaan uul	hill/grass	metasomatic/	Riphean meta-sediments (shale); Carboniferous granite	meta-sediments	---	hornfels, skarn	quartz-muscovite vein, pyrrhotite, wollastonite	lineament trending E-W	IH111-112, HH118, MZ118-120		Trace	0.200	10.0	Trace	36.0	60.0	8.0	---	
97	Khunkh tsakhir	Tsagaan uul	hills/grass	?	Paleozoic granitoids, quartz syenite, sediments	granitoids	---	leached silicification	quartz-muscovite alteration with malachite	lineament trending NW-SE and E-W	IH113-117, HH119-120, MZ121-122	porphyry lithocap?	Trace	21.000	115.0	1780.0	868.0	398.0	115.0	Qtz, sericite	
98	Zost uul	Tosont sengel	hill/grass-rare trees	hydrothermal/vein	Proterozoic metamorphic rocks; Permian-Triassic granite	granite	---	silicification, sericitization	quartz veinlets with molybdenite, pyrite and chalcopyrite dissemination	---	HH103-105, MZ106-108		Trace	0.200	175.0	431.0	66.0	58.0	35.0	Qtz, albite, K-feldspar, sericite	
99	Khurai sair	Tosont sengel	Steep hills/grass-rare trees	/dissemination	Cambrian felsite, andesite; Devonian granite	felsite	felsite	---	quartz veinlets, chalcopyrite, malachite, pyrite	lineament trending ENE-WSW, NNW-SSE and WNW-ESE	HH102, MZ104-105, MZ601P	small scale mineralization	0.030	20.800	8090.0	118.0	11700.0	376.0	17.0	---	
100	Naranbulag	Tosont sengel	hills/grass-few trees	porphyry/dissemination	Permian volcanics and intrusive	siliceous leucocratic granite	---	potassic alteration?	malachite, azurite, pyrite	---	IH103, HH106, HH108-109, MZ109-113		0.010	0.600	24800.0	162.0	62.0	48.0	7.0	Qtz, albite, sericite, mont, kaolin	granodiorite: 110±6Ma
101	Occurrence 124-B-4.5	Tosont sengel	Steep hills/grass-trees	metasomatic/	Permian Uliastai complex (granite, gabbro)	gabbro	---	---	malachite	lineament trending NE-SW	IH104-105, HH110, MZ114		Trace	Trace	295.0	1.0	8.0	44.0	0.0	Qtz, albite, sericite, chlorite	
102	Quartzite	Tosont sengel	hills/grass	hydrothermal/vein	Permian-Triassic volcanics	aphanitic rhyolite	---	silicification	pyrite dissemination, specularite	---	IH108-110, HH114-116, MZ116-117		Trace	0.200	58.0	17.0	58.0	16.0	18.0	Qtz, albite, K-feldspar, sericite	
103	Davaa	Tosont sengel	hills/grass	hydrothermal/vein	Selenge complex, Permian-Triassic volcanics	andesite	---	silicification, epidotization	quartz veinlets	---	IH106-107, HH112-113, MZ115		Trace	Trace	102.0	2.0	14.0	28.0	16.0	Qtz	

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APPENDIX 3

Table A-10 Description of rock and ore samples

Phase I survey

Sample No.	Latitude(N)	Longitude(E)	District	Occurrence	Rock Name	Geological Unit	General Description	Alteration	Mineralization	Analysys type
M99NK001M	48°06'13.6'	104°20'15.2'	Zaamar	Sudal N177	quartz vein		white, hosted in granite	---	limonite	G
M99NK002R	48°06'13.6'	104°20'15.2'	Zaamar	Sudal N177	granite		coarse grain	---	---	G, X
M99NK003M	48°06'13.6'	104°20'15.2'	Zaamar	Sudal N177	quartz vein		white, hosted in granite	---	---	G, 180, F
M99NK004M	48°06'28.4'	104°19'19.3'	Zaamar	Sudal N177	quartz vein		milky, hosted in granite	---	---	G
M99NK005M	48°04'58.3'	104°25'53.9'	Zaamar	Sudal N177	quartz vein		white, hosted in granite	---	---	G, 180, F
M99NK006R	48°04'58.3'	104°25'53.9'	Zaamar	Sudal N177	slate		---	pyrite dissemination	pyrite	G
M99NK007R	48°16'15.0'	104°09'54.3'	Zaamar	Ulziit ovoo	andesite		---	pyroxene skarn	---	G, T
M99NK008M	48°16'15.0'	104°09'54.3'	Zaamar	Ulziit ovoo	slate		black	skarnization	magnetite, Po, chalcopyrite	G, PT
M99NK009R	48°10'24.3'	102°56'10.8'	Bulgan SW	Oyuut khonkhor	silicified rock		white	silicification	---	G, X
M99NK010R	48°10'24.4'	102°56'10.8'	Bulgan SW	Oyuut khonkhor	silicified rock		white	silicification	limonite	G, X
M99NK011R	48°10'24.4'	102°56'10.8'	Bulgan SW	Oyuut khonkhor	silicified rock		gray	silicification	fine pyrite	G, X
M99NK012R	48°10'24.4'	102°56'10.8'	Bulgan SW	Oyuut khonkhor	silicified rock		---	silicification	Cu oxides	G
M99NK013M	48°10'41.3'	102°55'17.8'	Bulgan SW	Oyuut khonkhor	hydrothermal breccia		---	silicification	fine pyrite	G
M99NK014R	48°37'59.9'	102°07'06.4'	Uubulan	Holboo ovoo	andesite		---	pyroxene skarn	---	G, T
M99NK015R	48°44'58.0'	102°03'58.0'	Uubulan	Mogoin gol	diorite		---	---	Cu, Mn oxides	G
M99NK016R	48°54'53.4'	101°53'49.0'	Uubulan	Gua ulaan uul	breccia		---	silicification	---	G, X
M99NK017R	48°43'37.5'	101°25'56.7'	Khujirt	Zost tolgoi	granite		---	silicification	quartz, sericite, limonite	G, X

Table A-10 Description of rock and ore samples

Phase I survey

Sample No.	Latitude(N)	Longitude(E)	District	Occurrence	Rock Name	Geological Unit	General Description	Alteration	Mineralization	Analysys type
M99NK018R	48°43'08.3'	101°25'12.2'	Khujirt	Zost tolgoi	andesite		---	argillization	---	G
M99NK019R	48°43'03.6'	101°25'03.0'	Khujirt	Zost tolgoi	granite		drill core	silicification	---	G
M99NK020M	48°47'37.9'	101°18'53.2'	Khujirt	Yargit	granite		---	oxide copper	malachite, azurite	G
M99NK021M	49°22'25.5'	100°10'31.2'	Murun South	Donhor bulag	quartz vein		hosted in rhyolite	---	---	G
M99NK022M	49°22'26.2'	100°10'29.2'	Murun South	Donhor bulag	quartz vein		hosted in rhyolite	---	---	G
M99NK023R	49°22'18.0'	100°10'45.0'	Murun South	Donhor bulag	hydrothermal breccia		---	silicification	---	G
M99NK024M	49°50'58.5'	100°24'12.9'	Altgana gol	Altgana gol	quartz vein		---	---	molybdenite?	G
M99NK025R	49°51'00.0'	100°24'11.0'	Altgana gol	Altgana gol	aplite		fresh	---	---	T, M
M99NK026R	49°56'13.5'	100°20'55.4'	Altgana gol NW	Delger uul	harzbergite		---	serpentinized	---	T
M99NK027R	50°39'17.1'	100°45'37.1'	Khokhoo	20	andesite		---	---	sulfide(not identified)	G, P
M99NK028R	50°06'24.3'	101°36'02.9'	South Camp	25a	aplite		fresh	---	---	T, M
M99NK029R	50°12'45.9'	101°31'26.6'	South Camp	25b	acidic tuff		white	---	---	T, X
M99NK030R	50°14'13.8'	101°36'45.6'	South Camp	25d	listwaenite		altered gabbro?	---	---	G, T
M99NK031R	50°14'13.8'	101°36'46.4'	South Camp	25d	listwaenite		altered gabbro?	---	---	G, T
M99NK032R	50°13'31.6'	101°39'22.3'	Erdenet	Mogoin gol	quartzite gravel		pebble size	---	---	G
M99NK033R	49°10'37.1'	103°44'24.7'	Erdenet	Mogoin gol	granodiorite		---	---	---	T, M
M99NK034R	49°10'03.7'	103°45'13.5'	Erdenet	Mogoin gol	granite		polus	quartz, sericite, limonite	---	G, X

Table A-10 Description of rock and ore samples

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Phase I survey

Sample No.	Latitude(N)	Longitude(E)	District	Occurrence	Rock Name	Geological Unit	General Description	Alteration	Mineralization	Analysys type
M99NK035R	49°10'03.7"	103°45'13.5"	Erdenet	Mogoin gol	granite		equigranular quartz	quartz, limonite	---	G
M99NK036R	49°10'03.7"	103°45'13.5"	Erdenet	Mogoin gol	granite		---	quartz, limonite	---	G
M99NK037R	49°10'03.7"	103°45'13.5"	Erdenet	Mogoin gol	granite		---	quartz, limonite	---	G, F
M99NK038R	49°10'08.3"	103°44'43.0"	Erdenet	Mogoin gol	granite		fresh, coarse grained	---	---	T, M
M99NK040R	49°04'46.0"	103°58'41.0"	Erdenet	Talbulag	tuff breccia		andesite	---	---	T
M99NK041R	49°04'59.0"	103°59'14.9"	Erdenet	Talbulag	andesite		fresh	---	---	W, T, KA
M99NK042R	49°05'17.2"	104°00'34.5"	Erdenet	Talbulag	andesite		porphyritic	---	---	T
M99NK043R	49°05'17.2"	104°00'34.5"	Erdenet	Talbulag	tuff breccia		andesite	silicification	---	G, T
M99NK044R	49°05'17.2"	104°00'34.5"	Erdenet	Talbulag	rhyolite		---	silicification	---	G
M99NK045R	49°05'17.2"	104°00'34.5"	Erdenet	Talbulag	silicified rock		original rock ?	silicification	---	G
M99NK046R	49°05'17.2"	104°00'34.5"	Erdenet	Talbulag	silicified rock		original rock ?	silicification	---	G
M99NK047R	49°13'01.4"	104°29'00.9"	Erdenet	SAR138	granite		coarse	---	---	T, M
M99NK048R	49°13'12.2"	104°28'22.1"	Erdenet	SAR138	granite		---	---	malachite	G, T
M99NK049R	49°13'12.2"	104°28'22.1"	Erdenet	SAR138	syenite		---	---	malachite	T
M99NK050R	49°13'12.2"	104°28'22.1"	Erdenet	SAR138	granite		fine grained	---	---	T, M
M99NK051R	49°12'56.8"	104°37'19.6"	Erdenet	SAR139	granite		fresh	---	---	W, T
M99NK052R	49°12'56.8"	104°37'19.6"	Erdenet	SAR139	basalt		dyke, fresh	---	---	W, T, KA

Table A-10 Description of rock and ore samples

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Phase I survey

Sample No.	Latitude(N)	Longitude(E)	District	Occurrence	Rock Name	Geological Unit	General Description	Alteration	Mineralization	Analysis type
M99NK053R	49°12'56.8"	104°37'19.6"	Erdenet	SAR139	quartz+epidote vein		hosted in granite	epidote	---	G
M99NK054R	49°12'56.8"	104°37'19.6"	Erdenet	SAR139	granite		---	epidote	---	T
M99NK055M	49°13'07.7"	104°36'40.1"	Erdenet	SAR139	basalt		---	epidote, silicification	chalcopyrite	PT
M99NK056M	49°13'07.7"	104°36'40.1"	Erdenet	SAR139	ore		---	epidote, silicification	malachite, chalcopyrite, pyrite	G
M99NK057M	49°13'07.7"	104°36'40.1"	Erdenet	SAR139	ore		---	epidote, silicification	malachite, chalcopyrite, pyrite, limonite	G, P
M99NK058R	49°13'07.7"	104°36'40.1"	Erdenet	SAR139	basalt		fresh	---	---	T
M99NK059R	48°56'33.0"	104°17'49.5"	Erdenet	Tourmaline	granite		fresh	---	---	W, T
M99NK060R	48°56'33.0"	104°17'49.5"	Erdenet	Tourmaline	quartz+tourmaline vein		---	---	---	G
M99NK061R	48°56'33.2"	104°17'32.4"	Erdenet	Tourmaline	granite		fresh	---	---	W, T
M99NK062R	48°56'33.0"	104°17'49.5"	Erdenet	SAR188	granite		altered	tourmaline, sericite, quartz, muscovite	---	X, M
M99NK063R	48°53'16.5"	104°22'36.4"	Erdenet	SAR188	granite		---	---	---	T, M
M99NK064R	48°53'16.5"	104°22'36.4"	Erdenet	SAR188	basalt		altered	epidote, quartz	---	G
M99NK065R	48°44'57.3"	104°12'29.9"	Erdenet	SAR239	aplite		fresh	---	---	T, M
M99NK066R	48°54'50.0"	103°56'08.0"	Erdenet	Zaluu	syenite		---	---	---	T, M
M99NK067R	48°54'39.4"	103°56'08.4"	Erdenet	Zaluu	basaltic andesite		fresh	---	---	W, T, KA
M99NK068R	48°54'39.4"	103°56'08.4"	Erdenet	Dambatseren	quartz+epidote vein		hosted in granite	--	--	G
M99NK069R	48°54'38.4"	103°57'04.8"	Erdenet	Dambatseren	quartz porphyry		--	--	--	T, M

Table A-10 Description of rock and ore samples

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Phase I survey

Sample No.	Latitude(N)	Longitude(E)	District	Occurrence	Rock Name	Geological Unit	General Description	Alteration	Mineralization	Analysys type
M99NK070R	48°51'39.9"	103°47'16.5"	Erdenet	Dambatseren	dacite		lipalite by Mongolian	silicified	--	G, T
M99NK071R	48°51'39.9"	103°47'16.5"	Erdenet	Dambatseren	quartz vein		--	quartz, tourmaline, limonite	--	G
M99NK072R	48°51'39.9"	103°47'16.5"	Erdenet	Dambatseren	dacite		--	quartz, sericite	--	X
M99NK073R	48°51'39.9"	103°47'16.5"	Erdenet	Dambatseren	quartz porphyry ?		--	--	ore mineral ?	P
M99NK074R	49°10'08.2"	103°44'41.3"	Bulgan West	Aguit	andesite		lipalite by Mongolian	silicified	--	T
M99NK075R	48°47'49"	102°57'06.7"	Bulgan West	Aguit	breccia		--	intense silicification	--	G, T
M99NK076R	48°47'49"	102°57'06.7"	Bulgan West	Aguit	granite		secondary quartz by Mong.	--	--	T
M99NK077R	48°47'42.5"	102°56'51.8"	Bulgan West	Aguit	trachyandesite		--	--	--	X
M99NK078R	48°49'10.5"	102°34'49.0"	Bulgan West	Ereen Ikher	dacite		lipalite by Mongolian	--	--	T
M99NK079R	48°49'31.4"	102°34'44.2"	Bulgan West	Ereen Ikher	breccia		--	silicification	--	G, T
M99NK080R	48°49'18.4"	102°42'15.7"	Bulgan West	Zaiian	granite		drill core	purple mineral ?	--	T, M
M99NK081R	48°47'31.2"	102°56'37.9"	Bulgan West	Aguit	quartz vein		comb texture	--	pyrite	G
M99NK082R	48°52'00.0"	103°34'10"	Bulgan	SAR194	andesite		--	epidote, silicification	malachite	G
M99NK083R	48°45'28.1"	103°16'00.8"	Bulgan	Khar uul	andesite		fresh	--	--	W, T, KA
M99NK084R	50°13'25.0"	101°45'20.0"	---	---	listwaenite		altered gabbro?	silicification, carbonatized	--	G, T
M99HH003M	49°50'59.3"	100°24'06.3"	Altgana gol	Altgana gol	quartz		--	--	molybdenite	G
M99HH008R	49°01'21.2"	104°08'18.5"	Erdenet	Northwest	granite ~ granodiorite	Selenge Comp.	holocrystalline/int. ~ coarse	--	--	W, 34S, T, X, E

Table A-10 Description of rock and ore samples

Phase I survey

Sample No.	Latitude(N)	Longitude(E)	District	Occurrence	Rock Name	Geological Unit	General Description	Alteration	Mineralization	Analysis type
M99HH009R	49°01'08.6"	104°08'00.2"	Erdenet	Northwest	ore	Erdenet Comp.	whitish gray	(not identified)	pyrite, chalcopyrite, molybdenite	O, T, X
M99HH010R	49°01'08.6"	104°08'00.2"	Erdenet	Northwest	andesite dyke	dyke	gray, aphanitic	--	--	W, T
M99HH011R	49°01'20.8"	104°07'02.3"	Erdenet	Northwest	ore-granodiorite	Erdenet Comp.	quartz, plagioclase, biotite, K-feldspar, pyroxene	(not identified)	pyrite, malachite	W, T, X
M99HH012R	49°01'20.8"	104°07'02.3"	Erdenet	Northwest	andesite dyke	dyke	dark green	(not identified)	pyrite	W, T, X
M99HH013R	49°13'17.4"	104°29'15.3"	Erdenet	SAR138	granite		coarse	--	--	W, T
M99HH014R	49°13'16.3"	104°36'46.1"	Erdenet	SAR139	basalt		gray	silicified, quartz+epidote vein	--	W, T
M99HH015R	49°13'19.3"	104°36'45.3"	Erdenet	SAR139	granodiorite		intermediate	--	--	W, T
M99HH017R	49°13'03.6"	104°36'34.4"	Erdenet	SAR139	granodiorite		intermediate	epidote	--	W, T
M99HH018R	49°13'03.6"	104°36'34.4"	Erdenet	SAR139	granodiorite		--	epidote, chlorite	--	T, X
M99HH020R	48°54'14.6"	103°57'15.8"	Erdenet	Zалуу	diorite		intermediate/plagioclase, biotite, hornblende	--	--	T, X
M99HH021R	48°49'49.4"	103°48'06.5"	Erdenet	Dambatseren	dacite~andesite		pink	partly silicification	--	G, T
M99HH024R	48°47'46.6"	102°56'52.3"	Bulgan	Aguit	silicified breccia		reddish brown	---	--	T
M99HH025R	48°47'34.9"	102°56'45.9"	Bulgan	Aguit	altered rock		whitish gray	quartz+sericite	--	G, X
M99HH026R	48°47'34.9"	102°56'45.9"	Bulgan	Aguit	silicified rock		--	quartz, hematite, limonite	--	G
M99HH032R	48°47'06.5"	103°26'64.2"	Bulgan	Jasiin buuts	andesite		magnetite remains	weakly silicified	--	G, X
M99HH033R	48°47'02.5"	103°26'39.6"	Bulgan	Jasiin buuts	quartz vein		brecciation	quartz (black streak)	--	G, T, X
M99HH034R	48°46'50.0"	103°26'16.0"	Bulgan	Jasiin buuts	dacite or dacitic tuff		whitish	quartz+sericite	--	G, X

Table A-10 Description of rock and ore samples

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Phase I survey

Sample No.	Latitude(N)	Longitude(E)	District	Occurrence	Rock Name	Geological Unit	General Description	Alteration	Mineralization	Analysys type
M99HH035R	48°46'50.4'	103°26'10.2'	Bulgan	Jasiin buuts	altered rock (andesite?)		whitish	quartz+sericite	--	G, X
M99HH036R	48°42'45.2'	103°31'50.3'	Bulgan	SAR221	quartz vein		--	quartz+hematite along fracture	--	G, X
M99HH038R	48°25'26.8'	103°56'39.8'	Zaamar West	SAR M-1	andesite		gray	chlorite along fracture	--	X
M99MZ001R	48°40'53.3'	102°08'08.6'	Uubulan	Sairiin hundii	dacite		---	silicification	limonite	G
M99MZ002R	48°55'00.3'	101°53'19.6'	Uubulan	Gua ulaan uul	silicified rock		---	silicification	limonite	G, X
M99MZ003R	48°55'17.5'	101°52'54.4'	Uubulan	Gua ulaan uul	dacite		---	silicification	Fe-Mn oxides	G
M99MZ004R	48°43'41.0'	101°25'46.0'	Khujirt	Zost tolgoi	silicified, breccia		---	silicification	limonite	G
M99MZ005R	48°43'41.0'	101°25'19.6'	Khujirt	Zost tolgoi	granite		medium grain	---	---	G
M99MZ006R	49°22'11.3'	100°09'33.4'	Murun South	Donhor bulag	silicified rock		light gray	silicification	pyrite dissemination	G, X
M99MZ007R	49°22'17.0'	100°09'36.6'	Murun South	Donhor bulag	silicified rock		platey	silicification	---	G
M99MZ008M	49°50'58.6'	100°24'02.9'	Altgana gol	Altgana gol	quartz veins		white	---	molybdenite	18O, F
M99MZ009R	49°55'59.8'	100°21'06.4'	Altgana gol NW	Delger uul	ultra mafic rock		dark green	---	---	G, PT, E
M99MZ010R	50°39'12.3'	100°46'18.2'	Khokhoo	Hurilt gol	granite		pink	---	---	G
M99MZ011M	50°38'16.4'	100°46'47.8'	Khokhoo	20d	Cu ore		quartz vein	---	malachite, chalcopyrite	G
M99MZ012M	50°26'13.9'	100°52'50.3'	Khokhoo	20a	Pb-Cu ore		quartz vein	---	galena, malachite	G
M99MZ013R	50°12'45.5'	101°31'29.3'	Khokhoo	20b	silicified rock		quartz veinlet	hydrothermal?	---	G
M99MZ014R	50°12'16.0'	101°37'18.2'	South Camp	25c	dunite		serpentinized	---	---	G, PT, E

Table A-10 Description of rock and ore samples

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Phase I survey

Sample No.	Latitude(N)	Longitude(E)	District	Occurrence	Rock Name	Geological Unit	General Description	Alteration	Mineralization	Analysys type
M99MZ015R	49°01'18.1"	104°07'44.1"	Erdenet	20b	granitic rock	Erdenet complex	---	phylic alteration	pyrite and chalcopyrite dissemination	W, T
M99MZ016M	49°01'18.1"	104°07'44.1"	Erdenet	20b	quartz vein		---	B-vein	pyrite, chalcopyrite, coveline	34S, 180, F
M99MZ017R	49°01'21.8"	104°07'01.4"	Erdenet	Northwest	granitic rock	Erdenet complex	---	potassic alteration	pyrite dissemination	W, 34S, T
M99MZ018R	49°07'52.1"	103°38'52.4"	Erdenet	Khujiriin gol	granodiorite		---	potassic alteration?	---	G
M99MZ019R	49°07'41.0"	103°38'41.0"	Erdenet	Khujiriin gol	andesite		dark gray	---	magnetite	G
M99MZ020R	49°07'58.8"	103°38'13.9"	Erdenet	Khujiriin gol	monzonite		coarse	---	---	G
M99MZ021R	49°05'51.6"	103°35'49.3"	Erdenet	Khujiriin gol	diorite		medium grain	---	red hematite	G, PT
M99MZ022R	49°05'05.4"	103°59'00.0"	Erdenet	Talbulag	dacite		gray	---	---	G
M99MZ023R	49°06'53.0"	103°58'34.0"	Erdenet	Talbulag	volcanic rock		reddish gray	silicification	quartz veinlet	G
M99MZ024R	49°15'45.5"	103°55'23.8"	Erdenet	SAR25 (Davaa)	granite		coarse	---	---	G
M99MZ025R	49°14'54.4"	103°56'28.5"	Erdenet	SAR25 (Davaa)	granodiorite		micro grain	---	pyrite, limonite	G
M99MZ026R	49°02'48.6"	103°59'58.5"	Erdenet	Tsagaan chuluut	silicified rock		white	---	limonite along cracks	G, X
M99MZ027R	49°02'48.6"	103°59'58.5"	Erdenet	Tsagaan chuluut	silica sinter?		white	---	---	G
M99MZ028R	49°13'51.1"	104°14'05.0"	Erdenet	Zuuchiin gol	andesite		---	silicification	malachite	G
M99MZ029R	49°13'17.3"	104°14'22.8"	Erdenet	Zuuchiin gol	silicified rock		volcanic rock	silicification	---	G
M99MZ030R	48°56'34.0"	104°17'46.0"	Erdenet	Tourmaline	granitic rock		black colored	tourmaline-biotite	---	G
M99MZ031R	48°56'35.2"	104°17'44.6"	Erdenet	Tourmaline	syenite		medium grain	---	---	G, T

Table A-10 Description of rock and ore samples

Phase I survey

Sample No.	Latitude(N)	Longitude(E)	District	Occurrence	Rock Name	Geological Unit	General Description	Alteration	Mineralization	Analysys type
M99MZ032R	48°56'38.8"	104°17'41.4"	Erdenet	Tourmaline	breccia		syenite	tourmaline network	---	G, X
M99MZ033R	48°56'27.5"	104°18'06.8"	Erdenet	Tourmaline	granitic rock		drill core	---	pyrite diss	G
M99MZ034R	48°53'29.0"	104°22'40.5"	Erdenet	SAR188	granodiorite		altered	epidote	---	G
M99MZ035R	48°53'29.0"	104°22'40.5"	Erdenet	SAR188	granitic rock		float	tourmaline	---	G
M99MZ036R	48°49'54.9"	104°13'37.0"	Erdenet	Under	granodiorite		---	k-feldsper, epidote	---	W, 34S
M99MZ037R	48°49'50.6"	104°13'37.0"	Erdenet	Under	granodiorite		sericite	limonite	---	G
M99MZ038R	48°49'38.7"	104°13'35.3"	Erdenet	Under	granodiorite		albite-epidote veinlet	---	---	G
M99MZ039R	48°49'34.2"	104°13'25.3"	Erdenet	Under	quartz porphyry		fresh?	---	---	W, 34S
M99MZ040R	48°49'33.5"	104°13'17.2"	Erdenet	Under	quartz porphyry		white to red	oxidization	---	G
M99MZ041R	48°57'52.0"	104°11'45.8"	Erdenet	Oyut	granitic rock	Erdenet complex	drill core	potassium	primary chalcopyrite	34S
M99MZ042R	48°57'43.2"	104°11'52.3"	Erdenet	Oyut	granodiorite porphyry	Erdenet complex	altered	sericitic	---	W
M99MZ043R	48°57'45.5"	104°11'52.3"	Erdenet	Oyut	granodiorite porphyry	Erdenet complex	relatively fresh	---	---	W, T
M99MZ044R	48°57'52.0"	104°11'45.8"	Erdenet	Oyut	granodiorite	Selenge complex	relatively fresh	---	---	W, 34S, T
M99MZ045R	48°43'37.4"	103°56'45.4"	Erdenet	SAR233	volcanic rock		---	silicification	---	W
M99MZ046R	48°43'40.2"	103°56'33.7"	Erdenet	SAR233	hydrothermal breccia		volcanic rocks	---	---	W
M99MZ047R	48°46'00.7"	104°04'31.3"	Erdenet	SAR235	aplitic rock		biotite	silicification	---	W
M99MZ048R	48°46'17.1"	104°04'34.6"	Erdenet	SAR235	granitic rock		---	silicification, sericite	limonite	W

Sample No.	Latitude(N)	Longitude(E)	District	Occurrence	Rock Name	Geological Unit	General Description	Alteration	Mineralization	Analysys type
M99MZ049R	49°09'51.8"	103°44'54.3"	Erdenet	Mogoin gol 2	silicified rock		---	tourmaline?	---	G
M99MZ050X	49°01'16.0"	104°07'57.4"	Erdenet	Northwest	sericite	Erdenet complex	open pit	phyllitic alteration	sulfides	KA
M99MZ051R	49°01'14.2"	104°07'12.9"	Erdenet	Northwest	granitic rock	Erdenet complex	open pit	potassic alteration	sulfides	KA
M99MZ052R	48°48'11.2"	102°55'51.7"	Bulgan West	Urmiin tsgaan nuur	tuff breccia		---	---	---	G
M99MZ053R	48°48'05.0"	102°56'11.2"	Bulgan West	Urmiin tsgaan nuur	syenite		dyke	---	---	G
M99MZ054R	48°52'03.5"	102°49'43.8"	Bulgan West	Burged khyr	granitic rock		---	---	limonite	W
M99MZ055R	48°52'03.5"	102°49'43.8"	Bulgan West	Burged khyr	silicified rock		white	hypogene alunite	---	W, X
M99MZ056R	48°52'24.2"	102°49'51.4"	Bulgan West	Burged khyr	silicified rock		white	hypogene alunite	---	W
M99MZ057R	48°48'58.6"	102°47'00.0"	Bulgan West	Nomgon	magnetic rock		granite origin	k-feldsper	magnetite	W, PT
M99MZ059R	48°49'11.5"	102°47'03.1"	Bulgan West	Nomgon	granite		magnetite after mafic	replacement	magnetite	W
M99MZ060R	48°42'00.6"	102°45'47.9"	Bulgan West	Undrakh	quartz veinlet		granitic host	potassic alteration	malachite, chalcocite	G
M99MZ061M	48°45'27.9"	103°16'04.9"	Bulgan	Tsookher mert	quartz vein		granitic host	sericitic	limonite	G
M99MZ062M	48°45'28.1"	103°16'00.9"	Bulgan	Tsookher mert	quartz vein		granitic host	sericitic	azurite	G
M99MZ063R	48°45'28.1"	103°16'00.9"	Bulgan	Tsookher mert	granitic rock		host of qz vein	sericitic	---	G, X
M99MZ064M	48°45'27.3"	103°16'00.8"	Bulgan	Tsookher mert	quartz vein		granitic host	sericitic	malachite, azurite, chalcopyrite?	G, P
M99MZ065M	48°45'27.3"	103°16'00.8"	Bulgan	Tsookher mert	quartz vein		granitic host	sericitic	---	18O, F
M99MZ066M	48°42'06.7"	103°16'21.3"	Bulgan	Khar uul	quartz veinlet		andesite host	epidote	Cu oxide	G

Table A-10 Description of rock and ore samples

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Phase I survey

Sample No.	Latitude(N)	Longitude(E)	District	Occurrence	Rock Name	Geological Unit	General Description	Alteration	Mineralization	Analysys type
M99MZ067M	48'42'05.9'	103'16'20.8'	Bulgan	Khar uul	quartz veinlet		andesite host	epidote	Cu oxide	G
M99MZ068R	48'49'38.3'	103'39'11.0'	Bulgan	SAR197	quartz veinlet		andesite host	---	---	G
M99MZ069R	48'49'27.2'	103'39'21.4'	Bulgan	SAR197	brecciated rock		andesite	---	limonite	G
M99MZ070R	48'47'13.9'	103'39'44.0'	Bulgan	SAR205	quartz veinlet		andesite host	silicification + epidote	---	G
M99MZ071R	48'47'05.0'	103'39'45.8'	Bulgan	SAR205	andesite		altered	silicification + epidote	---	G
M99MZ072R	48'47'56.1'	103'35'54.2'	Bulgan	SAR202	quartz veinlet		andesite host	silicification + epidote	---	G
M99MZ073M	48'46'59.6'	103'35'18.4'	Bulgan	SAR204	quartz veinlet		andesite host	silicification + epidote	malachite	G
M99MZ074M	48'46'55.5'	103'35'28.0'	Bulgan	SAR204	quartz veinlet		andesite host	silicification + epidote	malachite	G
M99MZ075R	48'24'33.0'	103'56'49.9'	Zaamar West	SAR M-2	andesite		degassing	zeolite, silica	---	G
M99MZ076R	48'17'46.6'	104'13'54.1'	Zaamar West	Mt. Eagle North	tuff		pale green	silicification	---	G
M99RK001R	48'54'59.1'	101'52'53.7'	Uubulan	Gua ulaan uul	float, tuff breccia	Hostai series	trachy andesitic	white-reddish, acidic alteration, kaolin, limonite(hematite), weak silicification	--	G
M99RK002R	48'43'29.7'	101'25'46.1'	Khujiirt	Zost tolgoi	dacitic tuff breccia		dacitic	reddish(white), moderate silicification, limonite(pyrite relict), sericite	--	G
M99RK003R	49'22'17.6'	100'09'55.0'	Murun South	Donhor bulag	float, quartz vein		white-clear	limonite stain	--	G
M99RK004R	49'22'17.6'	100'09'55.0'	Murun South	Donhor bulag	dacitic tuff breccia		white, fine-coarse grain	silicification, sericite	--	G
M99RK005M	49'51'03.3'	100'24'04.9'	Altgana gol	Altgana gol	quartz vein		(in trench), W:>4cm, black band	limonite	molybdenite	G
M99RK006R	49'56'05.5'	100'20'57.8'	Altgana gol NW	Delger uul	basic tuff	North Mongolia fault zone	dark green, epidote+chlorite	calcite stain(W:10cm(Max))	--	G
M99RK007R	50'17'05.9'	100'18'12.7'	Khokhoo	Quartz	float, quartz vein		white-clear, coarse grain, W:>10cm	limonite	--	G

Table A-10 Description of rock and ore samples

Phase I survey

Sample No.	Latitude(N)	Longitude(E)	District	Occurrence	Rock Name	Geological Unit	General Description	Alteration	Mineralization	Analysis type
M99RK008R	50°31'06.3"	101°05'23.0"	Khokhoo	20b	quartz vein		white-clear, coarse grain, W:10cm(Max1m), L:3m, N70°W60°N, host:pelitic shist	weak limonite	--	G
M99RK009R	50°31'09.4"	101°05'06.5"	Khokhoo	20b	quartz vein		white, medium grain, W:<30cm, L:20m, N85°W60°N, host:pelitic shist	weak limonite(hematite)	--	G
M99RK010R	50°31'06.3"	101°05'23.0"	Khokhoo	20b	float, granite?		quartz vein?	silicification, weak limonite, greisen?(biotite+mica)	--	G
M99RK011R	50°34'25.4"	101°06'18.6"	Khokhoo	20c	quartz vein?		clear, coarse grain, W:5-10cm, host:gneiss	greisen? (biotite+muscovite)	--	G, T
M99RK012R	50°15'03.6"	100°17'00.6"	Khokhoo	Quartz	float, quartz vein		white-reddish, fresh grain, W:>25cm	hematite	--	G
M99RK013R	50°14'03.3"	100°17'00.6"	Khokhoo	Quartz	quartz vein		clear, coarse grain, W:>5cm, segregation vein?	limonite	molybdenite?	G, F
M99RK014R	50°14'03.3"	100°17'00.6"	Khokhoo	Quartz	limestone		white	strong silicification	--	G
M99RK015R	50°14'03.3"	100°17'00.6"	Khokhoo	Quartz	basalt? basic tuff?		green, metamorphosed	weak silicification	--	G
M99RK016R	50°14'15.0"	100°16'27.7"	Khokhoo	Quartz	limestone		white-milky, brecciated	weak silicification	--	G
M99RK017R	50°06'21.7"	101°36'05.7"	South Camp	25a	quartz vein		white, coarse grain, W:<10cm, host:aplitic granite	weak limonite	--	G
M99RK018R	50°16'35.8"	101°43'52.7"	South Camp	25e	float, quartz vein		white-clear, coarse grain, W:<5cm, host:tuffaceous ss	weak limonite	--	G
M99RK019R	50°16'24.5"	101°44'01.5"	South Camp	25e	quartz vein		veinlet, NS80°E, host:samitic shist	fluorite	--	G
M99RK020M	49°01'29.1"	104°07'42.4"	Erdenet	Northwest	silicified rock	Erdenet complex?	light gray	strong silicification, quartz+sericite, quartz vein(B-type vein), hypogene zone	chalcopyrite vein and dissemination, covelin along fracture	O, PT, E
M99RK021M	49°01'23.5"	104°07'00.8"	Erdenet	Northwest	granite	Erdenet complex?	quartz+biotite+k-feldsper+feldsper	silicification, limonite along crack, partly oxidized, potassic(biotite+k-feldsper)	quartz+chalcopyrite and pyrite vein, dissemination, malachite along crack	O, PT, E
M99RK022R	49°07'41.5"	103°38'41.5"	Erdenet	Khujiriin gol	float, granite		k-feldsper rich	quartz veinlet in(W:3mm), limonite	--	G
M99RK023R	49°07'57.3"	103°38'13.8"	Erdenet	Khujiriin gol	quartz vein		white-clear, coarse grain, W:<30cm, host:syenite	quartz network, fluorite	--	G
M99RK024R	49°11'16.8"	104°02'14.4"	Erdenet	SAR144	silicified rock(granite)		---	silicification(W:20cm), epidote, quartz vein in, biotite rich	--	G

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Table A-10 Description of rock and ore samples

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Phase I survey

Sample No.	Latitude(N)	Longitude(E)	District	Occurrence	Rock Name	Geological Unit	General Description	Alteration	Mineralization	Analysys type
M99RK025M	49°11'16.8"	104°02'14.4"	Erdenet	SAR144	granite		plagioclase+biotite+quartz+k-feldsper	potassic(k-feldsper+biotite), limonite	malachite along fracture (2*3m)	G
M99RK025R	49°11'16.8"	104°02'14.4"	Erdenet	SAR144	granite		plagioclase+biotite+quartz+k-feldsper(minor)	potasic alteration? (biotite rich)	--	W, T
M99RK026M	49°11'16.8"	104°02'14.4"	Erdenet	SAR144	granite		plagioclase+biotite+quartz+k-feldsper	potassic(k-feldsper+biotite), limonite	malachite, chalcopyrite	PT
M99RK027R	49°13'32.6"	104°01'23.1"	Erdenet	SAR136	aplite		reddish, quartz+k-feldsper	quartz vein	--	G
M99RK028R	49°13'29.7"	104°13'58.9"	Erdenet	Zuuchiin gol	granite	Selenge complex	biotite+plagioclase+quartz, equigranule	--	--	G
M99RK029R	48°59'53.2"	104°09'20.9"	Erdenet	Central	granite		quartz+biotite+plagioclase+k-feldsper	moderate silicification, quartz+sericite+mica+tourmaline, limonite	--	G
M99RK030R	48°59'51.5"	104°09'27.5"	Erdenet	Central	granite	Selenge complex?	biotite+plagioclase+quartz(minor)+k-feldsper(minor)	quartz vein in	--	W, T
M99RK031M	48°59'46.3"	104°09'26.4"	Erdenet	Central	granite	Selenge complex?	plagioclase+biotite+k-feldsper+quartz	potassic, weak limonite	malachite along crucks	G, T
M99RK032M	48°59'55.5"	104°09'26.1"	Erdenet	Central	diorite	Erdenet complex?	phenocryst:biotite+plagioclase, fine grain	epidote, limonite	malachite along crucks	G
M99RK032R	48°59'55.5"	104°09'26.1"	Erdenet	Central	diorite	Erdenet complex?	phenocryst:biotite+plagioclase, fine grain	epidote	--	W, T
M99RK033R	48°51'22.7"	104°26'49.6"	Erdenet	SAR200	aplite		dyke	quartz vein, quartz+magnetite	--	G
M99RK034R	48°44'33.5"	104°11'03.5"	Erdenet	SAR238	granite		iquigranule, coarse grain, biotite+plagioclase+quartz+k-feldsper	quartz+tourmalin vein in	--	G
M99RK035R	48°44'33.5"	104°11'03.5"	Erdenet	SAR238	granite		medium grain, quartz(rich)+biotite+plagioclase+k-feldsper	--	--	T, M
M99RK036R	48°44'33.0"	104°10'59.9"	Erdenet	SAR238	granite		iquigranule, coarse grain, biotite+plagioclase+quartz+k-feldsper	epidote	--	T, M
M99RK037R	48°45'01.9"	104°12'37.2"	Erdenet	SAR238	quartz vein		clear, W:3cm. N25°E65°E, host:granite	--	--	G
M99RK038R	48°45'01.9"	104°12'37.2"	Erdenet	SAR238	granite		quartz+plagioclase+k-feldsper+biotite	quartz vein in	--	W, T
M99RK039M	48°45'39.5"	104°12'16.5"	Erdenet	Shand	granite	Selenge complex	biotite+k-feldsper+plagioclase+quartz	k-feldsper rich, weak limonite	malachite along crucks	G

Table A-10 Description of rock and ore samples

Phase I survey

Sample No.	Latitude(N)	Longitude(E)	District	Occurrence	Rock Name	Geological Unit	General Description	Alteration	Mineralization	Analysis type
M99RK040R	48°45'39.5"	104°12'16.5"	Erdenet	Shand	andesite porphyry		dark gray, phenocryst:plagioclase	--	--	T
M99RK041R	48°42'20.0"	103°56'11.7"	Erdenet	SAR233	float, silicified rock		granite?	silicification, hematite, chlorite?	--	G
M99RK042R	48°46'22.4"	104°04'30.4"	Erdenet	SAR235	granite		quartz+k-feldsper+biotite	weak silicification(W:10m)	--	G
M99RK043R	48°46'33.3"	104°04'26.0"	Erdenet	SAR235	aplite		reddish	silicification, chlorite?	--	G
M99RK044R	49°20'07.1"	104°09'57.3"	Erdenet	SAR127	granodiorite		liquigranule, coarse grain, biotite+plagioclase+k-feldsper	--	--	W, T
M99RK045R	48°48'24.5"	102°56'00.5"	Bulgan West	Urmiin tsgaan nuur	lapilli tuff		fragment:plagioclase+k-feldsper	--	--	G
M99RK046R	48°48'06.9"	102°55'40.9"	Bulgan West	Urmiin tsgaan nuur	lapilli tuff		fragment:plagioclase+k-feldsper	silicification	--	G
M99RK047R	48°48'03.8"	102°55'35.7"	Bulgan West	Urmiin tsgaan nuur	lapilli tuff		fragment:plagioclase+k-feldsper	silicification, quartz vein in (W:2mm, coarse grain, white)	--	G
M99RK048R	48°49'08.7"	102°34'86.9"	Bulgan West	Ereen ikher	silicified rock		lapilli tuff? trachite?	moderate silicification, sericite?, limonite	---	G, X
M99RK049R	48°49'08.7"	102°34'86.9"	Bulgan West	Ereen ikher	lapilli tuff		fragment:k-feldsper+biotite	moderate silicification, limonite	--	G
M99RK050R	48°49'08.7"	102°34'86.9"	Bulgan West	Ereen ikher	lapilli tuff		fragment:k-feldsper+biotite	moderate silicification, limonite, calcite stain	--	G, X
M99RK051R	48°49'08.7"	102°34'86.9"	Bulgan West	Ereen ikher	lapilli tuff		fragment:k-feldsper+biotite	silicification, white, sericite?, limonite	--	G, X
M99RK052M	48°48'09.8"	102°42'12.5"	Bulgan West	Zaiian	granite		quartz+biotite+plagioclase+k-feldsper, fine grain	limonite stain, potassic alteration	malachite	G
M99RK053M	48°49'04.7"	102°41'57.2"	Bulgan West	Zaiian	granite		quartz+biotite+plagioclase+k-feldsper	strong limonite, silicification	malachite, azurite	G
M99RK054R	48°42'03.7"	102°45'43.9"	Bulgan West	Undrakh	quartz vein		aplite?	limonite	malachite, chalcopryrite, bornite	G
M99RK055M	48°42'03.7"	102°45'43.9"	Bulgan West	Undrakh	granite		quartz+(biotite)+(k-feldsper)	limonite	malachite along fracture	G
M99RK056M	48°42'04.7"	102°45'47.7"	Bulgan West	Undrakh	granite		quartz+(biotite)+(k-feldsper)	potassic alteration, weak silicification, mica	malachite	T

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Table A-10 Description of rock and ore samples

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Phase I survey

Sample No.	Latitude(N)	Longitude(E)	District	Occurrence	Rock Name	Geological Unit	General Description	Alteration	Mineralization	Analysis type
M99RK057M	48°42'04.7"	102°45'47.7"	Bulgan West	Undrakh	granite		quartz+(biotite)+(k-feldsper)	limonite, potassic alteration, weak silicification, mica, quartz vein	malachite	G, T
M99RK058R	48°47'01.9"	103°26'38.5"	Bulgan	Jasiin buuts	dacite?		quartz+biotite	white, strong silicification, pyrite rich (limonite), mica	--	G
M99RK059R	48°47'01.9"	103°26'38.5"	Bulgan	Jasiin buuts	dacite?		quartz+biotite	white, moderate silicification, pyrite rich(limonite)	--	G, X
M99RK060R	48°47'39.2"	103°25'45.2"	Bulgan	Jasiin buuts	dacite?		quartz+biotite	white, silicification, pyrite(limonite)	--	G, X
M99RK061R	48°47'39.2"	103°25'45.2"	Bulgan	Jasiin buuts	dacitic tuff		lapilli tuff, fragments:quartz+biotite	moderate silicification, pyrite rich, limonite along crack, sericite?, mica	--	G, X
M99RK062R	48°47'39.2"	103°25'45.2"	Bulgan	Jasiin buuts	silicified rock		dacitic tuff? dacite?	strong silicification, limonite along crack, sericite?, mica	--	G
M99RK063R	48°42'46.5"	103°31'39.2"	Bulgan	SAR221	silicified rock		w:10cm, N70°E90°, host:andesite	silicification, epidote, quartz veinlet	--	G
M99RK064R	48°43'33.3"	103°31'43.8"	Bulgan	SAR222	andesite		porphyritic, phenocryst:plagioclase	silicification, quartz veinlet in	--	G
M99RK065R	48°43'57.0"	103°31'03.1"	Bulgan	SAR219	silicified rock		andesite?, phenocryst:plagioclase	white, silicified, sericite?	--	G, X
M99RK066R	48°52'47.1"	103°38'34.4"	Bulgan	SAR183	float, epidote vein		host:andesite	silicified, epidote, quartz veinlet in	--	G
M99RK067M	48°52'41.5"	103°38'23.4"	Bulgan	SAR183	epidote+quartz vein		host:andesite	silicification, epidote	malachite	G
M99RK068M	48°52'46.8"	103°35'13.2"	Bulgan	SAR182	epidote vein		W:3-5cm, L:5m, N55°E, host:trachitic andesite	silicified, epidote	malachite	G
M99RK069R	48°53'39.8"	103°37'44.6"	Bulgan	Mt. Zayn davaa	white altered rock		andesite?	weak silicification, weak pyrite dissemination, limonite, kaoline	--	G, X
M99RK070R	48°53'39.8"	103°37'44.6"	Bulgan	Mt. Zayn davaa	white altered rock		andesite?	weak silicification, pyrite dissemination, limonite	--	G, X
M99RK071R	48°53'39.8"	103°37'44.6"	Bulgan	Mt. Zayn davaa	altered rock		andesite?	brown, strong limonitization, montmorillonite?	--	G, X
M99RK072R	48°53'39.8"	103°37'44.6"	Bulgan	Mt. Zayn davaa	altered rock		andesite?	brown, strong limonitization	--	G
M99RK073R	48°53'39.8"	103°37'44.6"	Bulgan	Mt. Zayn davaa	altered rock		andesite?	yellow-brown, limonite, weak acid leached	--	G, X

Table A-10 Description of rock and ore samples

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Phase I survey

Sample No.	Latitude(N)	Longitude(E)	District	Occurrence	Rock Name	Geological Unit	General Description	Alteration	Mineralization	Analysis type
M99RK074R	48°53'39.8"	103°37'44.6"	Bulgan	Mt. Zayn davaa	white altered rock		andesite?	moderate silicification, pyrite dissemination, limonite	--	G
M99RK075M	48°52'39.0"	103°34'45.5"	Bulgan	SAR181	andesite		phenocryst:hornblende+plagioclase	moderate silicification, epidote, hematite, 1*0.6cm	malachite	G
M99RK076M	48°51'53.7"	103°34'02.0"	Bulgan	SAR194	andesite		phenocryst:hornblende+plagioclase	epidote, silicification, quartz vein(W:3-5cm)	malachite	G
M99RK077R	48°53'47.1"	103°37'45.0"	Bulgan	Mt. Zayn davaa	float, white altered rock		andesite?	white, kaoline?, weak silicification	--	G
M99RK078R	48°53'39.2"	103°37'46.7"	Bulgan	Mt. Zayn davaa	andesite		phenocryst:pyroxene+hornblende+plagioclase	weak silicification, epidote, hematite	malachite	G

Analysis type

G: Geochemical analysis (ICP; Au+27elements)

W: Petrochemical analysis (XRF; major and rare earth elements)

O: Ore grade assay

34S: Sulfur isotope composition

18O: Oxygen isotope composition

KA: K-Ar radiometric age

T: Observation of thin sections

P: Observation of polish sections

PT: Observation of polish and thin sections

X: Powdery X-ray diffraction

F: Temperature and chlorine consistency of fluid inclusions

E: EPMA

M: Modal composition of granitic rock

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Table A-10 Description of rock and ore samples

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Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00NK100	49	9	11	102	34	13.9	Erdenet West	Bulgan NW	Trachy andesite		unaltered, massive	---	---	W, KA, PT
M00NK101	49	9	35.7	102	34	43.6	Erdenet West	Bulgan NW	Basalt		unaltered, aphanitic	---	---	W, KA, PT
M00NK102	49	14	4.1	102	37	30.5	Erdenet West	Bulgan NW	Granitoid		equigranular	---	---	W, PT
M00NK103	48	42	2.9	102	45	43.8	Erdenet West	Undrakh	Quartz vein		---	---	malachite	G
M00NK104	48	42	3.9	102	45	44.4	Erdenet West	Undrakh	Granitoid		leucoclastic, fine grain	---	malachite stained	G
M00NK105	48	42	3.9	102	45	44.4	Erdenet West	Undrakh	Quartz vein		---	---	---	G
M00NK106	48	42	3	102	45	44.7	Erdenet West	Undrakh	Granitoid		unaltered	---	---	G, W, PT
M00NK107	48	42	5.5	102	45	47.4	Erdenet West	Undrakh	Granitoid		fine grain, biotite free	---	---	PT
M00NK108	48	42	5.5	102	45	47.4	Erdenet West	Undrakh	Granitoid		medium grained, biotite bearing	---	malachite stained	PT
M00NK109	48	42	7.2	102	45	48.7	Erdenet West	Undrakh	Quartz vein		---	---	---	G
M00NK110	48	41	43.6	102	45	59.1	Erdenet West	Undrakh	Aplite		fine grain, biotite free	---	---	G
M00NK111	48	51	39.3	103	47	30.2	Erdenet West	Danbatseren	Silicified rock		sugar like	---	---	G
M00NK112	48	51	32.3	103	47	5.9	Erdenet West	Danbatseren	Granite		coarse grain	---	---	PT
M00NK113	48	10	48	102	56	7.5	Bulgan SW	Oyuut khonkhor	Syenite		fine grain, porous	silicification	---	PT, X
M00NK114	48	10	48.6	102	56	8.4	Bulgan SW	Oyuut khonkhor	Silicified rock		network silicification	white alteration (white mineral)	limonite	G, PT, X
M00NK115	48	10	47.4	102	56	13.7	Bulgan SW	Oyuut khonkhor	Network silicified rock		hydrothermal breccia	---	limonite	G, PT, X

Table A-10 Description of rock and ore samples

(2/25)

Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
MOONK116	48	10	48.6	102	56	19.2	Bulgan SW	Oyuut khonkhor	Trachy andesite	Mogot formation	phenocryst: pinkish plagioclase+biotite	---	---	PT, X
MOONK117	48	10	56.9	102	56	34.7	Bulgan SW	Oyuut khonkhor	Trachy andesite	Mogot formation	phenocryst: pinkish, plagioclase, porphyritic	---	---	PT, X
MOONK118	48	10	57.4	102	56	25.5	Bulgan SW	Oyuut khonkhor	Syenite		fine grain	silicification	---	PT, X
MOONK119	48	10	50.4	102	55	49.5	Bulgan SW	Oyuut khonkhor	Syenite		pinkish, fine grain	---	---	PT, X
MOONK120	48	10	50.4	102	55	49.5	Bulgan SW	Oyuut khonkhor	Silicified rock		greyish, porous	silicification	limonite	G
MOONK121	48	10	38.7	102	55	32.9	Bulgan SW	Oyuut khonkhor	Silicified rock		greyish	silicification	limonite	G
MOONK122	50	6	31.6	102	24	46.4	Tavt	Ereen No.1 ore body	Diorite?		varicolored	silicification	malachite, limonite	G, PT, X
MOONK123	50	6	31.6	102	24	46.4	Tavt	Ereen No.1 ore body	Altered rock		blueish green	---	---	G, X
MOONK124	50	6	31.6	102	24	46.4	Tavt	Ereen No.1 ore body	Quartz vein		---	---	malachite, limonite	G, PT
MOONK125	50	6	31.6	102	24	46.4	Tavt	Ereen No.1 ore body	Diorite		weathered	---	---	X
MOONK126	50	6	50.3	102	25	27.3	Tavt	Ereen No.2 ore body	Quartz vein		---	---	---	PT
MOONK127	50	6	50.3	102	25	27.3	Tavt	Ereen No.2 ore body	Gossan		---	---	limonite	
MOONK128	50	7	49	102	27	2.2	Tavt	Ereen No.42 ore body	Quartz vein		---	---	malachite, azurite	
MOONK129	50	7	27.3	102	25	43.2	Tavt	Ereen No.3 ore body, column2	Gossan		1st grade ore	---	limonite	
MOONK130	50	7	27.3	102	25	43.2	Tavt	Ereen No.3 ore body, column2	Quartz vein		2nd grade ore	---	malachite, chalcopyrite, pyrite, limonite	
MOONK131	50	7	27.3	102	25	43.2	Tavt	Ereen No.3 ore body, column2	Metasomatized rock		3rd grade ore	silicification, quartz veinlets	malachite, limonite	

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Table A-10 Description of rock and ore samples

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Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00NK132	50	7	26	102	25	47.8	Tavt	Ereen No.3 ore body, column2	Diorite		coarse grain	---	---	PT
M00NK133	50	7	39.2	102	25	22.8	Tavt	Ereen No.3 ore body, column4	Oxide copper		---	---	---	
M00NK134	49	58	41.4	102	28	57.8	Tavt	Teshig	Skarn		---	---	magnetite	
M00NK135	49	3	11.5	104	4	35.8	Erdenet West	Tsagaan chuluut	Andesite?		---	intensive silicification	limonite	G, X
M00NK136	49	3	10.7	104	4	39.4	Erdenet West	Tsagaan chuluut	Cral vein		---	kaolin	---	X
M00NK137	49	3	10.7	104	4	39.4	Erdenet West	Tsagaan chuluut	Silicified rock		oolitic quartz	silicification	---	G, PT, X
M00NK138	49	3	2.4	104	4	47.8	Erdenet West	Tsagaan chuluut	Andesite?		---	argillization	limonite	G, X
M00NK139	49	2	58.8	104	4	52.3	Erdenet West	Tsagaan chuluut	Trachy andesite		dark greyish, phenocryst: k-feldsper+hornblende	epidote	---	G, PT, X
M00NK140	49	2	54.5	104	0	38.5	Erdenet West	Tsagaan chuluut	Andesite?		white, patially leached	silicification, argillization	---	G, X
M00NK141	49	2	54.6	104	0	47.4	Erdenet West	Tsagaan chuluut	Rhyolite		white, banded	silicification, argillization	---	G, X, PT
M00NK142	49	2	54.2	104	0	24.5	Erdenet West	Tsagaan chuluut	Rhyolite		white, banded	silicification, argillization (alunite?)	---	G, X
M00NK143	49	2	44	104	0	31.2	Erdenet West	Tsagaan chuluut	Pitch limonite		---	---	---	
M00NK144	49	3	13	104	1	5.1	Erdenet West	Tsagaan chuluut	Trachy andesite		phenocryst: plagioclase, k-feldsper	---	---	G, X
M00NK145	49	3	27.3	104	1	109.1	Erdenet West	Tsagaan chuluut	Porphyritic andesite		phenocryst: plagioclase	---	---	X
M00NK146	49	3	32.1	104	1	36.7	Erdenet West	Tsagaan chuluut	Altered rock		dark greyish	silicification	limonite	G, X
M00NK147	49	3	40.2	104	1	37.1	Erdenet West	Tsagaan chuluut	Altered rock		greyish, fine grain	silicification	---	G

Table A-10 Description of rock and ore samples

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Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00NK148	49	3	37.7	104	2	16.8	Erdenet West	Tsagaan chuluut	Tuff breccia		pale pinkish	silicification, argillization	---	G, X
M00NK149	49	3	32.2	104	2	20.9	Erdenet West	Tsagaan chuluut	Tuff breccia		pale pinkish	silicification, argillization	---	G, X
M00NK150	49	3	36.1	104	2	35.3	Erdenet West	Tsagaan chuluut	Tuff breccia		pale pinkish	silicification, argillization, white vein (kaolin?)	---	G, X
M00NK151	49	3	48.2	104	2	19.4	Erdenet West	Tsagaan chuluut	Tuff breccia		pale pinkish	silicification, argillization	---	G, X
M00NK152	49	4	14.5	104	2	24.8	Erdenet West	Tsagaan chuluut	Tuff breccia		pale pinkish	silicification, argillization	---	G, X
M00NK153	49	4	16.2	104	2	36.6	Erdenet West	Tsagaan chuluut	Tuff breccia		pale pinkish	silicification, argillization	---	G, X
M00NK154	49	3	19.7	104	2	46.7	Erdenet West	Tsagaan chuluut	Tuff breccia		greyish	weak alteration	---	X
M00NK155	49	10	7.1	103	45	12.7	Erdenet West	Mogoin gol	Altered rock		sugar like	silicification, argillization	limonite	G, X
M00NK156	49	10	14.9	103	44	59.9	Erdenet West	Mogoin gol	Andesite		massive	tourmaline, K-feldspar, muscovite	---	G, PT, X
M00NK157	49	10	18.8	103	44	52.6	Erdenet West	Mogoin gol	Andesite		dark greyish	tourmaline, epidote	---	G, PT, X
M00NK158	49	10	25.6	103	44	37.3	Erdenet West	Mogoin gol	Andesite		paralell	quartz veinlets	---	F
M00NK159	49	10	29.5	103	44	23.9	Erdenet West	Mogoin gol	Microdiorite		dark greyish, equigranular	---	---	G, PT
M00NK160	49	9	35.1	103	45	23.4	Erdenet West	Mogoin gol	Tuff		pale pinkish	weak silicification, argillization	---	G, X
M00NK161	49	10	3.6	103	45	43.2	Erdenet West	Mogoin gol	Altered rock		sugar like	silicification	---	
M00NK162	49	3	19.7	104	2	46.9	Erdenet West	Tsagaan chuluut	Tuff		---	intensive limonitization	limonite	G
M00NK163	49	14	30.5	104	12	25.9	Erdenet West	Zhuukhiin gol	Andesite		greyish	silicification	---	G, PT, X

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Table A-10 Description of rock and ore samples

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Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00NK164	49	14	30.5	104	12	25.9	Erdenet West	Zhuukhiin gol	Hydrothermal breccia		brecciated angular	silicification	limonite	G, PT, X
M00NK165	49	15	12.9	104	9	21.4	Erdenet West	Zhuukhiin gol	Andesite		dark greyish, unaltered	---	---	KA, PT
M00NK166	49	12	53.5	104	36	20.9	Erdenet West	SAR139	Tuff breccia		varicolored	epidote, chlorite, hematite, silicification	---	T
M00IH100	48	7	50.3	98	50	44.5	Tariat	Terkhiin tsagaan nuur	Quartz vein		W.0.30m, channel sample	---	---	G
M00IH101	48	9	55	99	0	45.6	Tariat	Solongotiin gol	Granite		coarse grain	---	---	T
M00IH102	48	9	55	99	0	45.6	Tariat	Solongotiin gol	Skarn		skarn zone: W.4.0m, quartz, light green calc-silicate minerals	skarn	---	T
M00IH103	48	34	43.5	97	46	45.7	Tosontsengel	Naranbulag	Granite		silicified, medium grain, with secondary biotite	silicification, secondary biotite	rare pyrite dissemination, malachite stained	T
M00IH104	48	23	52.7	97	38	13.5	Tosontsengel	Occurrence 124-B-4,5	Ultrabasic rock (pyroxinite?)		coarse grain	---	---	T
M00IH105	48	23	47.3	97	38	22.7	Tosontsengel	Occurrence 124-B-4,5	Gabbro		medium-fine grain	---	---	T
M00IH106	48	55	50.8	97	44	0.2	Tosontsengel	Davaa	Andesite		purplish grey, phenocryst: plagioclase	---	---	T
M00IH107	48	55	54.1	97	44	0.8	Tosontsengel	Davaa	Quartz veinlet network		quartz veinlet network in highly silicified andesite, channel sample 1.5m in width	drusy quartz veinlet, silicification	---	G
M00IH108	48	55	51.7	97	49	24.6	Tosontsengel	Quartzite	Syenite		pink colored syenite with breccia (intrusive breccia?), black mineral diss. 10-20m in width, strike:N70W	---	unknown black minerals	G, X, T
M00IH109	48	55	50.9	97	49	42.2	Tosontsengel	Quartzite	Silicified rock		grey colored, highly silicified and argillized rock with quartz veinlet	silicification, argillization, quartz veinlet	---	G, X
M00IH110	48	55	50.9	97	49	42.2	Tosontsengel	Quartzite	Silicified rock		drill core	intensive silicification	pyrite dissemination	G, X
M00IH111	49	34	26.5	98	32	34.5	Tsagaan uul	Gurvan buudal uul	Hornfels		brownish grey, quartz+biotite	---	---	T
M00IH112	49	34	30.8	98	32	45.7	Tsagaan uul	Gurvan buudal uul	Siliceous rock		light greenish grey, compact siliceous rock (calc-silicate skarn?)	---	---	T

Table A-10 Description of rock and ore samples

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Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00IH113	49	34	4.2	98	20	19.7	Tsagaan uul	Khunkh tsakhir	Silicified rock		dark grey, highly silicified rock, with drusy quartz	silicification	---	G
M00IH114	49	34	13.5	98	20	23.8	Tsagaan uul	Khunkh tsakhir	Quartz syenite		coarse grain	---	---	T
M00IH115	49	34	15.1	98	20	15.4	Tsagaan uul	Khunkh tsakhir	Quartz vein		float, drusy quartz (piramidal cristas)	---	---	G
M00IH116	49	34	25.9	98	20	0.2	Tsagaan uul	Khunkh tsakhir	Quartz syenite		drill core chip, chalcopyrite in medium grained quartz syenite	---	chalcopyrite	PT
M00IH117	49	34	27.2	98	20	3.6	Tsagaan uul	Khunkh tsakhir	Granite		muscovite alteration zone with drusy quartz veinlet in medium grained leucocratic granite, float	muscovite	---	X
M00IH118	49	53	27.9	98	43	24.5	Tsagaan uul	Tsagaan uul	Wolframite		wolframite in quartz-muscovite vein	muscovite	wolframite	PT
M00IH119	49	53	28	98	43	23.2	Tsagaan uul	Tsagaan uul	Dolomite		drill core, dolomite with pyrrhotite?	---	pyrrhotite?	G, PT
M00IH120	49	31	28.3	98	41	25.2	Tsagaan uul	Deed ulaan tolgoi	Granite		red colored, medium grain	---	---	T
M00IH121	49	31	15.1	98	41	44.9	Tsagaan uul	Deed ulaan tolgoi	Granite		pink colored, coarse grain, quartz and potassic feldspar mega-crystals	---	---	T
M00IH122	49	31	15.5	98	41	44.4	Tsagaan uul	Deed ulaan tolgoi	Quartz vein		quartz breccia vein with chlorite and drusy quartz	---	---	G
M00IH123	49	31	17.4	98	41	41.3	Tsagaan uul	Deed ulaan tolgoi	Quartz vein		limonitized quartz breccia vein with drusy quartz, float	quartz vein	limonite	G
M00IH124	49	31	32.3	98	41	34.2	Tsagaan uul	Deed ulaan tolgoi	Felsite dyke		felsite dyke with quartz vein	quartz vein	---	G
M00IH125	50	2	23.3	98	27	52.2	Tsagaan uul	Nariin azarga	Sandstone		limonitized siliceous sandstone concordant with folded limestone	---	limonite	G
M00IH126	49	40	21.1	99	39	55.1	Murun West	Tsagaan tolgoi	Mineralized rocks		drill core, various mineralized rocks	---	molybdenite, pyrite	
M00IH128	49	40	21.1	99	39	55.1	Murun West	Tsagaan tolgoi	Granite		non-mineralized, drill core	---	---	G
M00IH129	49	40	21.1	99	39	55.1	Murun West	Tsagaan tolgoi	Granite		mineralized, drilling core	---	---	G

Table A-10 Description of rock and ore samples

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Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00IH130	49	9	35.7	102	34	43.7	Erdenet West	Bulgan NW	Andesite		dark greenish grey, aphanitic andesite located on the diorite body	---	---	T
M00IH131	48	45	28.6	103	16	0.6	Erdenet West	Tsookher mert	Quartz mass		malachite and dark grey minerals in quartz mass	---	malachite, unknown grey minerals	G, PT
M00IH132	48	45	28.8	103	16	0.3	Erdenet West	Tsookher mert	Quartz vein		quartz vein in granite, channel sample (W:30cm)	quartz vein	---	G
M00IH133	48	45	47	103	15	15.2	Erdenet West	Tsookher mert	Quartz vein		float, quartz veinlet network in granite	---	---	G
M00IH135	48	10	56.9	102	56	37.1	Erdenet West	Oyuut khonkhor	Rhyolite		light greenish grey, altered rhyolite	unknown alteration	limonite	X
M00IH136	48	10	56.2	102	56	28.4	Erdenet West	Oyuut khonkhor	Rhyolite		jointed, light grey to pink rhyolite showing flow structure	unknown alteration	---	T, X
M00IH137	48	10	54.8	102	55	56.3	Erdenet West	Oyuut khonkhor	Gossan		float	---	---	G
M00IH138	48	10	54.8	102	55	56.3	Erdenet West	Oyuut khonkhor	Quartz vein		float, grey quartz vein	---	---	G
M00IH140	50	13	5.5	104	27	55.4	Zelter	Occurrence 24	Quartz vein		andesite	quartz-epidote veinlet	malachite, dark grey metallic minerals	T, PT
M00IH141	49	3	8.1	104	4	42.5	Erdenet West	Tsagaan chuluut	Altered rock		highly silicified altered rock, limonitized along fracture	silicification, unknown alteration	limonite along crack	G, X
M00IH142	49	3	4.6	104	4	51.1	Erdenet West	Tsagaan chuluut	Silicified rock		float, limonitized, highly silicified rock, partly grain quartz and sugary quartz developed	silicification, unknown alteration	limonite	G, X
M00IH143	49	3	0.8	104	5	2.5	Erdenet West	Tsagaan chuluut	Granodiorite porphyry		dark greenish grey granodiorite porphyry, partly epidotized	epidote	---	T
M00IH144	49	3	6	103	59	48.8	Erdenet West	Tsagaan chuluut (Talbulag)	Rhyolite		altered rhyolite showing flow structure	unknown alteration	---	X
M00IH145	49	12	46.4	104	13	54.1	Erdenet West	Zhuukhiin gol	Altered andesite		light grey, silicified and altered andesite	silicification, unknown alteration	---	T, X
M00IH146	49	12	46.4	104	13	55.6	Erdenet West	Zhuukhiin gol	Altered diorite porphyry		dark grey silicified and altered diorite porphyry	silicification, unknown alteration	---	T, X
M00IH147	49	12	46.1	104	13	55.6	Erdenet West	Zhuukhiin gol	Granodiorite		medium grain, partly elongated quartz contains	silicification	---	T, X

Table A-10 Description of rock and ore samples

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Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00IH148	49	14	34.2	104	12	25.2	Erdenet West	Zhuukhiin gol	Silicified rock		cream colored silicified rock, plagioclase distinct	silicification, unknown alteration	---	X
M00IH149	49	14	35.9	104	12	13.7	Erdenet West	Zhuukhiin gol	Silicified rock		grey, highly silicified rock, dark brown tiny dots	intensive silicification	---	T, X
M00IH150	49	15	16.9	104	9	17.7	Erdenet West	Zhuukhiin gol	Silicified rock (secondary quartzite?)		float, secondary quartzite? based on the observation of Erdenet mine's chief geologist	silicification	---	T
M00IH151	49	7	7	103	57	26.3	Erdenet West	Tsagaan chuluut (Talbulag)	Silicified rock		cream colored silicified rock	silicification, unknown alteration	---	X
M00IH153	49	5	27.3	103	57	38.6	Erdenet West	Tsagaan chuluut (Talbulag)	Altered porphyritic rock		float, cream colored, altered porphyritic rock	unknown alteration	---	X
M00IH154	49	6	5.1	104	1	39.8	Erdenet West	Tsagaan chuluut (Talbulag)	Altered rock		light brown altered rock, highly limonitized along fracture	---	limonite along crack	X
M00IH155	49	6	5.1	104	1	40.6	Erdenet West	Tsagaan chuluut (Talbulag)	Altered porphyritic rock		light brown altered porphyritic rock, feldspar phenocrysts distinct and highly limonitized along fracture	---	---	X
M00IH156	49	6	4.8	104	1	42.3	Erdenet West	Tsagaan chuluut (Talbulag)	Altered porphyritic rock		grey altered porphyritic rock, pyrite-disseminated much	---	pyrite dissemination	G, T, X
M00IH157	49	6	18.4	104	2	5.3	Erdenet West	Tsagaan chuluut (Talbulag)	Silicified rock		grey, highly silicified rock, limonitized (gossanized) much	intensive silicification	limonite	G, X
M00HH101	48	9	54.9	99	0	45.6	Tariat	Solongot	Skarn		outcrop	skarnization (pyroxine, hedenbergite)	---	G, X
M00HH102	48	39	33.1	98	12	54.3	Tosontsengel	Khuurai sair	Andesite porphyry		outcrop in trench	---	---	T
M00HH103	48	42	25.1	98	18	56.3	Tosontsengel	Zost uul	Quartz porphyry		float in trench	white, sericite?	---	G, X
M00HH104	48	42	14.3	98	18	51.4	Tosontsengel	Zost uul	Felsite		float in trench	white alteration	---	T, X
M00HH105	48	41	47.2	98	19	18.4	Tosontsengel	Zost uul	Quartz vein		float in trench	---	pyrite (black crystal)	G
M00HH106	48	34	54.1	97	46	30.5	Tosontsengel	Naranbulag	Granite, syenite		float in trench	---	malachite along fracture (granite), qz vein (syenite)	G
M00HH107	48	34	43.9	97	46	45.1	Tosontsengel	Naranbulag	Granite		weatherd, float in trench	---	malachite, azurite on the surface	---

Table A-10 Description of rock and ore samples

Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00HH108	48	34	40.3	97	46	36.5	Tosontsengel	Naranbulag	Granitoid		float in trench	whitish alteration	malachite, azurite	G, X
M00HH109	48	33	47	97	46	17.3	Tosontsengel	Naranbulag	Granite		float in trench, unaltered, fine grain	---	---	W, T
M00HH110	48	24	1.9	97	38	41.4	Tosontsengel	Occurrence 124-B-4,5	Diorite		Outcrop	---	---	T, X
M00HH111	48	24	1.9	97	38	41.4	Tosontsengel	Occurrence 124-B-4,5	Diorite, gabbro		outcrop?	---	malachite	---
M00HH112	48	55	57.1	97	44	3.4	Tosontsengel	Davaa	Syenite		float in trench, pinkish feldsper+biotite	quartz vein, epidote	---	G
M00HH113	48	55	57.1	97	44	3.4	Tosontsengel	Davaa	Silicified rock		outcrop in trench, original: andesite	silicification	---	G, X
M00HH114	48	55	57.2	97	49	26.4	Tosontsengel	Quartzite	Altered rock with quartz		float in trench	white alteration with black quartz?	---	G, X
M00HH115	48	55	51.8	97	49	27.9	Tosontsengel	Quartzite	Silicified rock		outcrop, surface: reddish	silicification	---	G, X
M00HH116	48	55	50.6	97	49	50.2	Tosontsengel	Quartzite	Silicified rock		float in trench	silicification	---	G, X
M00HH117	49	34	26.8	98	32	37.5	Tsagaan uul	Gurvan buudal uul	Schist/hornfels		float in trench	---	---	---
M00HH118	49	34	29.1	98	32	42.6	Tsagaan uul	Gurvan buudal uul	Quartz vein?		float around Tarabagan holl	muscovite	---	G
M00HH119	49	33	58.7	98	20	6.2	Tsagaan uul	Khunkh tsakhir	Granite		drill core, phenocryst: quartz+feldsper+biotite	---	---	W, T
M00HH120	49	34	16.9	98	19	54.7	Tsagaan uul	Khunkh tsakhir	Chert		outcrop, light gray quartz	---	---	T
M00HH121	49	34	25.8	98	20	1	Tsagaan uul	Khunkh tsakhir	Granite		float (drill core), with mica	---	pyrite	---
M00HH122	49	53	23.5	98	43	34.5	Tsagaan uul	Tsagaan uul	Schist		float in pit	blue mineral?	pyrrhotite?	PT
M00HH123	49	53	27.7	98	43	24.3	Tsagaan uul	Tsagaan uul	Quartz vein?		float in trench	---	wolframite, pyrite	PT

Table A-10 Description of rock and ore samples

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Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00HH124	49	53	28.1	98	43	23.3	Tsagaan uul	Tsagaan uul	Schist		drill core	silicification	pyrite	G, X
M00HH125	49	53	28.3	98	43	22.3	Tsagaan uul	Tsagaan uul	Altered rock		float in trench	alteration	---	X
M00HH126	49	31	33.9	98	41	6.9	Tsagaan uul	Deed ulaan tolgoi	Granite		outcrop, medium grained, quartz+feldsper+biotite	---	---	---
M00HH127	49	31	32.6	98	41	15.6	Tsagaan uul	Deed ulaan tolgoi	Quartz vein		outcrop, host rock: granite	---	---	G
M00HH128	49	31	28.2	98	41	25.1	Tsagaan uul	Deed ulaan tolgoi	Syenite (aplite)		float in trench	---	---	---
M00HH129	49	31	28.2	98	41	25.1	Tsagaan uul	Deed ulaan tolgoi	Breccia		float in trench, breccia: quartz and felsite	---	pyrite	G
M00HH130	50	2	24.7	98	27	51.6	Tsagaan uul	Nariin azarga	Quartz vein		Outcrop	---	limonite	---
M00HH131	50	2	33.8	98	27	53.9	Tsagaan uul	Nariin azarga	Quartz vein?		float (in-situ)	mica	malachite, azurite	---
M00HH132	50	2	33.8	98	27	53.9	Tsagaan uul	Nariin azarga	Gabbro		float	---	---	---
M00HH133	49	38	55.9	99	19	47.6	Murun West	Ulaannuur	Granite		drill core, phenocryst: quartz+feldsper+biotite	---	pyrite	---
M00HH134	49	38	55.9	99	19	47.6	Murun West	Ulaannuur	Andesite		drill core, phenocryst: plagioclase	---	pyrite	---
M00HH135	49	38	56.2	99	19	41.1	Murun West	Ulaannuur	Aplite? (silicified rock?)		float in trench, pinkish, quartz	silicification	---	---
M00HH136	49	38	58.5	99	19	39.3	Murun West	Ulaannuur	Granosyenite with pyrite		drill core	---	pyrite	G
M00HH137	49	38	57.7	99	19	31.2	Murun West	Ulaannuur	Silicified rock		float in trench, gray, surface: reddish	silicification	---	G
M00HH138	49	8	21	103	10	52.3	Erdenet West	Bulgan NW	Andesite (or basalt)		gravel in the river, dark green, unaltered, phenocryst: plagioclase+pyroxne	---	---	---
M00HH139	49	8	21	103	10	52.3	Erdenet West	Bulgan NW	Basalt with calcite veinlet		gravel in the river, black	---	---	---

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Table A-10 Description of rock and ore samples

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Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00HH140	49	14	39.7	103	5	12.6	Erdenet West	Bulgan NW	Sandstone/shale		Outcrop	---	---	---
M00HH141	49	14	39.7	103	5	12.6	Erdenet West	Bulgan NW	Andesite (or diorite)		gravel along the river	silicification	---	G
M00HH142	49	19	30	103	4	50.9	Erdenet West	Bulgan NW	Silicified rock		gravel along the river	silicification	pyrite	G
M00HH143	48	52	21.4	102	50	17.2	Erdenet West	Burged Khyr	Granite		float around Tarvagan hole, pinkish, quartz+feldsper+biotite	---	---	G, T, X
M00HH144	48	52	47.1	102	49	16.9	Erdenet West	Burged Khyr	Silicified rock		float	silicification	---	G
M00HH145	48	52	47.1	102	49	16.9	Erdenet West	Burged Khyr	Breccia		float, breccia: quartz and granitick rock	---	---	---
M00HH146	48	52	38.9	102	49	6.4	Erdenet West	Burged Khyr	Altered rock		float	weak argillization	---	X
M00HH147	48	52	30.5	102	48	50.5	Erdenet West	Burged Khyr	Altered rock		float	weak argillization	---	---
M00HH148	48	51	41.8	103	47	18.6	Erdenet West	Danbatseren	Silicified rock		---	silicification	---	G, X
M00HH149	48	51	39.4	103	47	16.8	Erdenet West	Danbatseren	Silicified rock		---	silicification	---	G, X
M00HH150	48	51	39.8	103	47	13.7	Erdenet West	Danbatseren	Silicified rock		---	silicification	---	G, X
M00HH151	48	51	41.7	103	47	12.3	Erdenet West	Danbatseren	Silicified rock		---	silicification	---	G
M00HH152	48	51	42.4	103	47	11.7	Erdenet West	Danbatseren	Silicified rock		---	silicification	---	G, X
M00HH153	48	51	43.3	103	47	11.4	Erdenet West	Danbatseren	Silicified rock		---	silicification, limonite (surface: reddish)	limonite	G, X
M00HH154	48	51	44.9	103	47	13.3	Erdenet West	Danbatseren	Silicified rock		---	silicification	---	G
M00HH155	48	51	46.6	103	47	10.2	Erdenet West	Danbatseren	Silicified rock		---	weak silicification	---	G

Table A-10 Description of rock and ore samples

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Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00HH156	48	51	44.4	103	47	5.9	Erdenet West	Danbatseren	Silicified rock		---	weak silicification	---	G, X
M00HH157	48	51	42.9	103	47	0.5	Erdenet West	Danbatseren	Silicified rock		---	silicification	---	G, X
M00HH158	48	51	43	103	46	58.8	Erdenet West	Danbatseren	Silicified rock		---	silicification	---	G
M00HH159	48	51	44.6	103	47	13.8	Erdenet West	Danbatseren	Altered rock		---	whitish argilization	---	G, X
M00HH160	48	51	43.5	103	47	16.6	Erdenet West	Danbatseren	Silicified rock		---	silicification	---	G, X
M00HH161	48	51	42.7	103	47	15.1	Erdenet West	Danbatseren	Silicified rock		---	silicification	---	G
M00HH162	48	10	42.3	102	55	31.6	Bulgan SW	Oyuut khonkhor	Silicified rock		---	silicification	---	G
M00HH163	48	10	42.3	102	55	31.6	Bulgan SW	Oyuut khonkhor	Tuff breccia		---	whitish argilization	---	G, X
M00HH164	48	10	42.1	102	55	25.7	Bulgan SW	Oyuut khonkhor	Silicified rock		---	silicification	---	G
M00HH165	48	10	42.1	102	55	25.7	Bulgan SW	Oyuut khonkhor	Silicified rock with limonite		float, reddish	silicification with limonite	limonite	G
M00HH166	48	10	44.5	102	55	43.3	Bulgan SW	Oyuut khonkhor	Andesite		---	vein of pink minerals	---	G
M00HH167	48	10	45.7	102	55	41.7	Bulgan SW	Oyuut khonkhor	Silicified rock		---	weak silicification	---	G, X
M00HH168	48	10	51.7	102	55	33.1	Bulgan SW	Oyuut khonkhor	Granite		float around Talavagan holl, quartz+feldsper+biotite	weak alteration	---	T, X
M00HH169	50	6	29.5	102	24	50.7	Tavt	Ereen No.1 ore body	Quartz vein		quartz with Cu oxide	---	azurite, malachite	---
M00HH170	50	6	21.9	102	25	28.8	Tavt	Ereen No.1b ore body	Granite		float in trench, quartz+feldsper+biotite	weak alteration	---	T, X
M00HH171	50	7	45.2	102	27	3	Tavt	Ereen No.42 ore body	Quartz		outcrop or foat	---	---	G

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Table A-10 Description of rock and ore samples

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Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00HH172	50	7	50.3	102	27	9.3	Tavt	Ereen No.42 ore body	Altered rock		outcrop in trench, greenish & whitish	weak alteration	malachite	G, T, X
M00HH173	50	7	27.1	102	25	45.3	Tavt	Ereen No.2 ore body	Ore (type: 3)		float in trench	---	malachite, limonite	---
M00HH174	50	7	26.2	102	25	47.6	Tavt	Ereen No.3 ore body	Ore		Float in trench	---	malachite, sulfides	G
M00HH175	50	7	26.2	102	25	47.6	Tavt	Ereen No.3 ore body	Gabbro		host rock of trench, quartz+pyroxene	---	---	---
M00HH176	49	58	41.2	102	29	1.4	Tavt	Teshig	Magnetite skarn		---	---	magnetite	---
M00HH177	49	58	42.4	102	28	57.7	Tavt	Teshig	Magnetite skarn		---	---	magnetite	G
M00HH178	50	13	2.5	104	27	56.6	Zelter	Occurrence 24	Lapilli tuff (or granitic rock)		outcrop, pinkish K-feldsper	weak silicification?	---	G, T, X
M00HH179	50	13	1.3	104	28	3.6	Zelter	Occurrence 24	Lapilli tuff (or granitic rock)		outcrop, pinkish K-feldsper	---	---	---
M00HH180	48	51	23.9	104	13	11.4	Erdenet West	Under	Altered rock		float, whitish	silicification, sericite?, tourmaline	---	T, X
M00HH181	49	3	11	104	4	36.4	Erdenet West	Tsagaan chuluut	Silicified rock		outcrop, brown-gray	silicification	---	G, X
M00HH182	49	3	9.5	104	4	38.7	Erdenet West	Tsagaan chuluut	Silicified rock		float, whitish gray	silicification	---	G
M00HH183	49	3	8.3	104	4	39.7	Erdenet West	Tsagaan chuluut	Silicified rock		float, brown-whitish gray	silicification	---	G
M00HH184	49	3	8	104	4	41.2	Erdenet West	Tsagaan chuluut	Silicified rock		float, whitish gray (partly reddish)	silicification	---	G
M00HH185	49	3	3.9	104	4	47.6	Erdenet West	Tsagaan chuluut	Silicified rock		float, light gray-brownish, band	silicification	---	G
M00HH186	49	2	49.1	104	0	55.1	Erdenet West	Tsagaan chuluut	Altered rock		talus, brown-white	silicification, argillization	---	X
M00HH187	49	2	45.4	104	1	6.1	Erdenet West	Tsagaan chuluut	Andesite		outcrop, phenocryst: plagioclase, matrix: dark green	?	---	X

Table A-10 Description of rock and ore samples

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Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00HH188	49	2	45.4	104	1	6.1	Erdenet West	Tsagaan chuluut	Andesite		weathered, outcrop, phenocryst: plagioclase, matrix: brown	---	---	---
M00HH189	49	2	45.4	104	1	6.1	Erdenet West	Tsagaan chuluut	Porphyritic andesite		outcrop, phenocryst: plagioclase, porphyritic	---	---	---
M00HH190	49	3	26.3	104	1	4.4	Erdenet West	Tsagaan chuluut	Breccia		float, brown-light gray, breccia: silicified rock	silicification	---	G
M00HH191	49	3	31.1	104	1	9.8	Erdenet West	Tsagaan chuluut	Silicified rock		float, brown-gray	silicification	---	---
M00HH192	49	3	32.2	104	1	10	Erdenet West	Tsagaan chuluut	Altered rock		float, reddish brown-light brown	weak silicification and argilisation?	---	---
M00HH193	49	3	38.8	104	1	12.8	Erdenet West	Tsagaan chuluut	Altered rock		float, light brownish yellow	weak silicification and argilisation?	---	X
M00HH194	49	4	4.6	104	1	40.2	Erdenet West	Tsagaan chuluut	Dacitic tuff (rhyolite)		outcrop, pinkish brown	silicification (partly) with hematite.	hematite	T
M00HH195	49	4	4.6	104	1	40.2	Erdenet West	Tsagaan chuluut	Silicified rock		outcrop, brown-gray, source rock: dacitic tuff?	silicification	---	G
M00HH196	49	3	32.4	104	3	1.1	Erdenet West	Tsagaan chuluut	Silicified (altered) rock		outcrop, light brown-gray-reddish	silicification, weak argillization	---	G, X
M00HH197	49	10	3.1	103	45	24.9	Erdenet West	Mogoin gol	Silicified rock		float, reddish brown-light gray	silicification with limonite and muscovite	limonite	G
M00HH198	49	10	3.1	103	45	25.6	Erdenet West	Mogoin gol	Altered rock		float, whitish gray	silicification and argilisation with azurite and muscovite	azurite	G, X
M00HH199	49	10	0	103	45	29	Erdenet West	Mogoin gol	Altered rock		float, brown-gray	silicification and argillization	---	---
M00HH200	49	9	58.7	103	45	29.7	Erdenet West	Mogoin gol	Altered rock		float in trench, whitish gray	silicification and whitish clay mineral	rare azurite	G, X
M00HH201	49	9	49	103	45	29.9	Erdenet West	Mogoin gol	Silicified rock		float, gray, porous	quartz, muscovite	---	T
M00HH202	49	8	19.7	103	38	40.9	Erdenet West	Khujiriin gol	Quartz vein		float, white, partly druse	---	malachite	G, 180, F
M00HH203	49	7	57.8	103	38	4	Erdenet West	Khujiriin gol	Granitic rock with quartz vein		float, pinkish, K-feldspar, hornblende	quartz vein, epidote	---	---

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Table A-10 Description of rock and ore samples

(15/25)

Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysis type
M00HH204	49	12	47.5	104	13	55	Erdenet West	Zhuukhiin gol	Silicified rock		outcrop, pink-gray, banded structure, brecciation	silicification	---	G
M00HH205	49	12	47.3	104	14	12.8	Erdenet West	Zhuukhiin gol	Altered granodiorite		float, light gray	epidote	---	T
M00HH206	49	12	47.3	104	14	12.8	Erdenet West	Zhuukhiin gol	Andesite		outcrop, dark green	partly silicification, epidote, K-feldsper?	---	---
M00HH207	49	12	46.4	104	14	13.6	Erdenet West	Zhuukhiin gol	Granodiorite		float, brownish light gray	secondary biotite	---	T
M00HH208	49	14	34.7	104	12	27.7	Erdenet West	Zhuukhiin gol	Clay? & fagments of silicified rock		outcrop inside trench, whitish-cream gray	weak argillization	---	X
M00HH209	49	15	18.7	104	9	22.6	Erdenet West	Zhuukhiin gol	Andesite		outcrop, dark gray	weak silicification	---	T
M00HH210	49	13	6.3	104	36	37.5	Erdenet West	SAR139	Andesite porphyry		outcrop in trench, gray, phenocryst: plagioclase	---	---	T
M00HH211	48	52	28.4	104	15	56	Erdenet West	Under North	Andesite		outcrop, dark gray	K-feldsper (K-silicate alteration)	---	T
M00HH212	48	52	17.1	104	16	11.3	Erdenet West	Under North	Andesite		outcrop, brownish gray	?	---	T, X
M00MZ100	48	7	51.1	99	50	44.6	Tariat	Terkhiin tsagaan nuur	Quartz vein	Riphean	white quartz	---	---	G
M00MZ101	48	7	51.1	99	50	44.6	Tariat	Terkhiin tsagaan nuur	Quartz vein	Riphean	white quartz with black mineral	---	wolframite?	G, X
M00MZ102	48	9	23.5	99	1	0.7	Tariat	Solongotin gol	Skarn	Riphean	biotite-epidote skarn	---	Pyrite	G
M00MZ103	48	9	19.9	99	0	50	Tariat	Solongotin gol	Skarn	Riphean	biotite skarn	---	Magnetite	PT
M00MZ104	48	39	38.8	98	13	3.9	Tosontsengel	Khurai sair	Felsite	Devonian	leucocratic	---	quartz veinlets, malachite	G
M00MZ105	48	39	37.5	98	12	59.1	Tosontsengel	Khurai sair	Felsite	Devonian	brecciation	---	Malachite	G
M00MZ106	48	42	24	98	18	50.9	Tosontsengel	Zost uul	Altered rock	Permian-Triassic	white colored	silicification, argillization, quartz venlets	---	G, X

Table A-10 Description of rock and ore samples

(16/25)

Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00MZ107	48	42	12.3	98	18	53.1	Tosontsengel	Zost uul	Altered rock	Permian-Triassic	white colored	silicification, argillization	limonite, jarosite	G, X
M00MZ108	48	41	45	98	19	13.7	Tosontsengel	Zost uul	Altered rock	Permian-Triassic	white colored	silicification	pyrite, limonite	G
M00MZ109	48	34	54.1	97	46	30.8	Tosontsengel	Naranbulag	Granite	Permian-Triassic	unaltered	---	Malachite	G, T, X
M00MZ110	48	34	43.1	97	46	44.4	Tosontsengel	Naranbulag	Aplite	Permian-Triassic	unaltered	---	Limonite	G, T, X
M00MZ111	48	34	40.2	97	46	27.8	Tosontsengel	Naranbulag	Ore		oxide Cu	---	malachite, azurite	O
M00MZ112	48	34	40.2	97	46	27.8	Tosontsengel	Naranbulag	Black mineral		with quartz-muscovite	---	---	X
M00MZ113	48	33	47.1	97	46	17.5	Tosontsengel	Naranbulag	Granodiorite	Permian-Triassic	unaltered	---	---	W, KA, T
M00MZ114	48	24	3.6	97	38	37.1	Tosontsengel	Occurrence 124-B-4,5	Gabbro	Permian-Triassic	unaltered	---	---	G
M00MZ115	48	55	54.1	97	44	0.8	Tosontsengel	Davaa	Altered rock	Permian-Triassic	light gray	silicification	quartz veinlets	G
M00MZ116	48	55	53.5	97	49	24.6	Tosontsengel	Quartzite	Rhyolite	Permian-Triassic	light gray	---	limonite, jarosite	G, X
M00MZ117	48	55	51.9	97	49	29.1	Tosontsengel	Quartzite	Rhyolite	Permian-Triassic	light gray	---	---	T
M00MZ118	49	34	19.5	98	32	45.7	Tsagaan uul	Gurvan buudal uul	Quartz vein		white quartz	---	limonite	G
M00MZ119	49	34	19.5	98	32	45.7	Tsagaan uul	Gurvan buudal uul	Metasedimnts	Riphean	siliceous	---	---	T
M00MZ120	49	34	23.9	98	32	53.4	Tsagaan uul	Gurvan buudal uul	Quartz vein		white quartz	---	Fe hydroxide	G, 180, F
M00MZ121	49	34	14	98	19	55.6	Tsagaan uul	Khunkh tsakhir	Altered rock		crystalline	quartz (silicification)-muscovite	---	G, X
M00MZ122	49	34	26.1	98	19	57.3	Tsagaan uul	Khunkh tsakhir	Altered rock		crystalline	quartz (silicification)-muscovite	malachite	G, T

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Table A-10 Description of rock and ore samples

(17/25)

Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00MZ123	49	53	20.4	98	43	49.7	Tsagaan uul	Tsagaan uul	Mudstone	Riphean	dark grey, hard	---	limonite	G
M00MZ124	49	53	56.8	98	43	11.7	Tsagaan uul	Tsagaan uul	Quartz vein		hosted in black mudstone	---	limonite (cavities after sulfides)	G
M00MZ125	49	28	15.5	98	40	41	Tsagaan uul	Ulaan zavsar	Quartz vein		hosted in black schist	---	slight limonitic	G
M00MZ126	49	28	15.5	98	40	41	Tsagaan uul	Ulaan zavsar	Siliceous rock	Riphean	Light gray	altered schist?	limonite (dots)	G, X
M00MZ127	49	28	56.4	98	40	16.6	Tsagaan uul	Ulaan zavsar	Gneissose rock	Riphean	white and dark grey	---	limonite (dots)	G, T
M00MZ128	50	10	7.2	98	44	22.3	Tsagaan uul	Khaisiin belchir	Pelitic schist	Riphean	float, black	---	pyrite dissemination	G
M00MZ129	49	38	52	99	19	53.5	Murun west	Ulaannuur	Greisen		crystalline	quartz (silicification)- muscovite	limonite (cavities)	G, X
M00MZ130	49	38	55.9	99	19	47.7	Murun west	Ulaannuur	Granite	Devonian-Jurassic	unaltered, light grey	---	pyrite dissemination	W, PT
M00MZ131	49	39	1	99	19	33.1	Murun west	Ulaannuur	Tonalite	Devonian-Jurassic	coarse grain, unaltered	---	limonite after pyrite	W, T
M00MZ132	49	12	3.9	103	8	56.9	Erdenet West	Bulgan NW	Diorite	Permian-Jurassic	unaltered	---	---	W, T
M00MZ133	49	14	42.9	103	4	59.3	Erdenet West	Bulgan NW	Silicified rock	Permian-Jurassic	hard	silicification	---	G, X
M00MZ134	49	19	29.5	103	4	50.7	Erdenet West	Bulgan NW	Silicified rock	Permian-Jurassic	hard	silicification	pyrite dissemination	G, X
M00MZ135	48	52	10.3	102	50	1.7	Erdenet West	Burged khyr	Aplite	Permian	light grey	alteration	limonite	G, X
M00MZ136	48	52	14	102	50	8.8	Erdenet West	Burged khyr	Granitoid	Permian	reddish	intensive silicification	reddish limonite	G, PT, X
M00MZ137	48	52	18.6	102	50	11.5	Erdenet West	Burged khyr	Granitoid	Permian	light grey	argillization	---	X
M00MZ138	48	52	25.3	102	49	52.8	Erdenet West	Burged khyr	Conglomerate	Jurassic	light grey	silicification, argillization	---	X

Table A-10 Description of rock and ore samples

(18/25)

Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00MZ139	48	52	48.7	102	49	18.5	Erdenet West	Burged khyr	Syenite	Permian	with silicification like vein	partly silicification, argillization	---	G
M00MZ140	48	52	39.8	102	49	5.7	Erdenet West	Burged khyr	Granitoid	Permian	light grey	argillization	---	X
M00MZ141	48	52	33.1	102	49	2.7	Erdenet West	Burged khyr	Granitoid	Permian	composit sample	silicification, argillization	---	G
M00MZ142	48	52	29.1	102	48	52	Erdenet West	Burged khyr	Granite	Permian	gossan zone	---	limonite	G, X
M00MZ143	48	45	51.7	103	15	22.6	Erdenet West	Tsookher mert	Quartz vein		massive, amethyst	---	---	G
M00MZ144	48	45	59.4	103	15	31.7	Erdenet West	Tsookher mert	Quartz veinlets		host rock: granitic rock	----	---	G
M00MZ145	48	45	25.1	103	21	31.6	Erdenet West	Tsookher mert	Granitoid	Permian	altered	silicification	---	T, X
M00MZ146	48	10	23.1	102	55	42	Bulgan SW	Oyuut khonkhor	Volcanic rock	Jurassic	altered	silicification	limonite	G, X
M00MZ147	48	10	24.8	102	55	52.5	Bulgan SW	Oyuut khonkhor	Volcanic rock	Jurassic	altered	silicification	limonite	G, X
M00MZ148	48	10	28.1	102	56	2	Bulgan SW	Oyuut khonkhor	Volcanic rock	Jurassic	altered	silicification	limonite	G, X
M00MZ149	50	6	29.3	102	24	51.9	Tavt	Ereen No.1 ore body	Quartz vein		semi-clear	---	limonite, malachite	O, 180, F
M00MZ150	50	6	29.3	102	24	51.9	Tavt	Ereen No.1 ore body	Granodiorite	Cambrian-Ordovician	sheared	---	---	T
M00MZ151	50	6	22.3	102	25	29.1	Tavt	Ereen No.1b ore body	Quartz vein		semi-clear	---	limonite	O, 180, F
M00MZ152	50	7	44.6	102	27	2	Tavt	Ereen No.42 ore body	Quartz vein		semi-clear	---	limonite, malachite, pyrite	O
M00MZ153	50	7	49	102	27	6.9	Tavt	Ereen No.42 ore body	Granodiorite	Cambrian-Ordovician	altered	chlorite	---	T
M00MZ154	50	6	33.4	102	24	45.7	Tavt	Ereen No.1 ore body	Granodiorite	Cambrian-Ordovician	unaltered	---	---	W, 34S, T

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Table A-10 Description of rock and ore samples

(19/25)

Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysis type
M00MZ155	50	7	27.1	102	25	45.1	Tavt	Ereen No.3 ore body	Quartz vein		whitish	---	limonite	O, 180, F
M00MZ156	50	7	27.8	102	25	47.1	Tavt	Ereen No.3 ore body	Diorite	Cambrian-Ordovician	unaltered	---	---	W, 34S, T
M00MZ157	50	7	27.1	102	25	45.1	Tavt	Ereen No.3 ore body	Quartz vein		ore	---	malachite, chalcopyrite	
M00MZ158	50	7	41.2	102	25	23.2	Tavt	Ereen No.3 ore body	Granodiorite	Cambrian-Ordovician	altered	chlorite	---	T
M00MZ159	49	58	42	102	28	59.3	Tavt	Teshig	Skarn		ore	---	malachite, limonite	O
M00MZ160	50	9	51.2	104	25	29.8	Zelter	Gatsuunkhan	Granite	Unknown	grey	---	---	G, T
M00MZ161	50	9	51.9	104	25	37.9	Zelter	Gatsuunkhan	Porphyritic dacite	Unknown	reddish	silicification	limonite	G, T
M00MZ162	49	1	23.3	104	7	58.7	Erdenet West	Erdenet NW	Quartz vein		mineralized	---	molybdenite	180, F
M00MZ163	49	1	31.1	104	7	35.7	Erdenet West	Erdenet NW	Quartz vein		mineralized	---	Pyrite	180, F
M00MZ164	49	3	12.5	104	4	34.1	Erdenet West	Tsagaan chuluut	Altered rock		light grey	silicification	---	G, X
M00MZ165	49	3	6.1	104	4	40.5	Erdenet West	Tsagaan chuluut	Altered rock		light grey	silicification	---	G, X
M00MZ166	49	2	25	104	1	5.7	Erdenet West	Tsagaan chuluut	Unknown rock		mafic minerals rich	---	---	T
M00MZ167	49	2	43.9	104	0	31.4	Erdenet West	Tsagaan chuluut	Altered rock		light grey	silicification	---	G, X
M00MZ168	49	3	43.4	103	59	8.4	Erdenet West	Tsagaan chuluut (Talbulag)	Altered rock		yellowish light grey	silicification	---	G, X
M00MZ169	49	3	54.5	103	59	39.1	Erdenet West	Tsagaan chuluut (Talbulag)	Altered rock		yellowish light grey	silicification	---	G, X
M00MZ170	49	3	52.6	103	59	44.6	Erdenet West	Tsagaan chuluut (Talbulag)	Altered rock		with white material	secondary alunite	---	X

Table A-10 Description of rock and ore samples

(20/25)

Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00MZ171	49	12	13.1	103	44	52.5	Erdenet West	Mogoin gol	Altered rock		light brown	silicification	---	G, X
M00MZ172	49	11	46.1	103	45	2.8	Erdenet West	Mogoin gol	Altered rock		whitish	silicification	---	G, X
M00MZ173	49	11	34.3	103	45	32.8	Erdenet West	Mogoin gol	Altered rock		Light gray	silicification	---	G, X
M00MZ174	49	8	18.8	103	38	43.9	Erdenet West	Khujiriin gol	Quartz veinlets		network in granitoid	---	malachite	O
M00MZ175	49	8	18.8	103	38	43.9	Erdenet West	Khujiriin gol	Diorite?	Triassic	abundant K-feldsper	potassium alteration?	---	T
M00MZ176	49	8	18.9	103	38	39.3	Erdenet West	Khujiriin gol	Syenite?	Triassic	abundant K-feldsper	potassium alteration?	---	T
M00MZ177	49	7	57.9	103	38	4.1	Erdenet West	Khujiriin gol	Quartz veinlets		network in granitoid	---	malachite	O, 180, F
M00MZ178	49	12	32.6	103	39	3.8	Erdenet West	Khujiriin gol	Altered rock		whitish	silicification, argillization	---	G, X
M00MZ179	49	12	32.6	103	39	3.8	Erdenet West	Khujiriin gol	Altered rock		black	silicification	Azurite	G, X
M00MZ180	49	12	35.7	103	39	8.4	Erdenet West	Khujiriin gol	Altered rock		black	silicification	fine grained pyrite dissemination	G, PT
M00MZ181	49	12	52	104	13	39.5	Erdenet West	Zhuukhiin gol	Granodiorite	Triassic	pink K-feldsper rich	potassium alteration?	---	W, T
M00MZ182	49	13	2.4	104	13	40.5	Erdenet West	Zhuukhiin gol	Granodiorite	Triassic	mineralized	potassium alteration?	malachite	O
M00MZ183	49	7	23.7	103	57	17.3	Erdenet West	Tsagaan chuluut (Talbulag)	Altered rock		light brown	silicification	---	G, X
M00MZ184	49	5	37.8	103	57	37	Erdenet West	Tsagaan chuluut (Talbulag)	Altered rock		light grey	silicification	---	G, X
M00MZ185	49	6	4.2	104	1	41.6	Erdenet West	Tsagaan chuluut (Talbulag)	Altered rock		light grey	silicification	---	G, X
M00MZ186	49	6	12	104	1	44.5	Erdenet West	Tsagaan chuluut (Talbulag)	Altered rock		light grey	silicification	---	G, X

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Table A-10 Description of rock and ore samples

(21/25)

Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00TM100	48	7	51.3	99	50	44.7	Tariat	Terkhiin tsagaan nuur	Quartz vein		host rock: sedimentary rocks (shale, sandstone), W:30cm, L:32m	---	wolframite?	G
M00TM101	48	9	26.1	99	23	18.2	Tariat	Tariatiin gol	Anorthosite		coarse grain, white, hornblende? or CPX?+feldsper	---	---	T
M00TM102	48	9	40.5	99	27	47.3	Tariat	Tariatiin gol	Anorthosite		rarely mafic minerals, feldsper, coarse grain, white	---	---	G, X
M00TM103	48	11	56.4	99	34	2.9	Tariat	Tariatiin gol	Quartz vein or mass?		coarse grain, white-clear, host: syenitic granite	---	---	G
M00TM104	49	40	20.9	99	39	54.7	Murun West	Tsagaan tolgoi	Quartz mass		coarse grain, white-clear, partly brecciation	---	hematite (original: rutile?), limonite	G
M00TM105	49	40	22.2	99	39	57.6	Murun West	Tsagaan tolgoi	Granite	Numrug complex	coarse grain, biotite+ k-feldsper+quartz+plagioclase	greisen (muscovite)	limonite	G, X
M00TM106	49	40	22.2	99	39	57.6	Murun West	Tsagaan tolgoi	Granite	Numrug complex	coarse grain, biotite+ k-feldsper+quartz+plagioclase	---	---	G, T
M00TM107	49	40	21.1	99	39	56.4	Murun West	Tsagaan tolgoi	Quartz porphyry?	Numrug complex	phenocryst: quartz, rare mafic mineral, medium grain, pale greenish	intensive greisenization (muscovite), silicification	limonite	G, X
M00TM108	49	40	20.9	99	39	54.7	Murun West	Tsagaan tolgoi	Quartz mass	Numrug complex	coarse grain, white-clear, partly brecciation	---	hematite (original: rutile?), limonite	PT, X
M00TM110	49	40	19.9	99	39	55.1	Murun West	Tsagaan tolgoi	Granitoid	Numrug complex	medium grain, pale greenish, rare mafic minerals, phenocryst: quartz+feldsper	intensive greisenization (muscovite), silicification, quartz vein	limonite	KA
M00TM111	49	40	17.3	99	39	51.9	Murun West	Tsagaan tolgoi	Quartz vein		coarse grain, white-clear	---	hematite (original: rutile?), limonite	X
M00TM112	49	12	3	103	8	55.3	Erdenet West	Bulgan NW	Quartz vein		medium grain, white	---	---	G
M00TM113	48	42	3.3	102	45	44.5	Erdenet West	Undrakh	Aplitic granite	Selenge complex?	leucocratic, fine-medium grain, rare biotite, abundant K-feldsper	white argillization, weak silicification	limonite	G, X
M00TM114	48	45	51.7	103	15	22.3	Erdenet West	Tsookher mert	Quartz vein		network, coarse grain, clear, amethyst, zone W:2m, L:3m	---	---	G
M00TM115	48	45	25.1	103	21	31.6	Erdenet West	Tsookher mert	Granitoid	Selenge complex?	float, medium grain, phenocryst: quartz+ K-feldsper+feldsper+biotite	silicification	---	T, X
M00TM116	48	45	27.1	103	21	26.4	Erdenet West	Tsookher mert	Granitoid	Selenge complex?	phenocryst: quartz, K-feldsper, feldsper, biotite, fine-medium grain	silicification (fine grained quartz)	---	G, T, X

Table A-10 Description of rock and ore samples

(22/25)

Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00TM117	48	45	27	103	21	26.2	Erdenet West	Tsookher mert	Granitoid	Selenge complex?	phenocryst: quartz, K-feldsper, feldsper, biotite, fine-medium grain	silicification (fine graind quartz), white argillization	---	G, X
M00TM119	48	10	42.5	102	55	31.8	Bulgan SW	Oyuut khonkhor	Tuff breccia	Mogot formation	breccia: andesitic-dacitic, 3cm (max)	moderate silicification, partly brecciated, white argillization	limonite	G, X
M00TM120	48	10	42.5	102	55	31.8	Bulgan SW	Oyuut khonkhor	Tuff breccia	Mogot formation	breccia: andesitic-dacitic	moderate silicification, partly brecciated, white argillization	limonite (abundance)	G, X
M00TM121	48	10	42.4	102	55	29.3	Bulgan SW	Oyuut khonkhor	Tuff breccia	Mogot formation	breccia: andesitic	moderate silicification	pyrite, limonite	G
M00TM122	48	10	42.1	102	55	22.2	Bulgan SW	Oyuut khonkhor	Andesite	Mogot formation	fine grain, mulsive, lava?	moderate silicification (network)	---	G
M00TM123	48	10	42.5	102	55	39.1	Bulgan SW	Oyuut khonkhor	Andesite	Mogot formation	fine grain, massive, granosyenite dyke? in	---	---	T
M00TM124	48	10	49.2	102	55	38.4	Bulgan SW	Oyuut khonkhor	Andesite	Mogot formation	float, fine grain, dark green	network silicification, fine grained sugery quartz	limonite	G
M00TM125	48	10	37.8	102	55	13.5	Bulgan SW	Oyuut khonkhor	Tuff breccia	Mogot formation	float, andesitic, dark green	silicification (network)	limonite	G
M00TM127	50	6	50.2	102	25	27.2	Tavt	Ereen No.2 ore body	Quartz vein		coarse grain, clear, N50W50SW, host: granodiorite	---	malachite (chalcopyrite), pyrite (limonite)	G
M00TM128	50	7	44.4	102	27	2.3	Tavt	Ereen No.42 ore body	Granodiorite		coarse grain, biotite+plagioclase+quartz+ k-feldsper	epidote	malachite (chalcopyrite)	KA, T
M00TM129	50	6	33.4	102	24	44.5	Tavt	Ereen No.1 ore body	Diorite		fine grain, microdiorite	---	---	KA, T
M00TM130	50	6	33.4	102	24	44.5	Tavt	Ereen No.1 ore body	Quartz vein		coarse grain, clear	muscovite, host: K-silicate alteration	---	G, KA
M00TM132	49	58	42.1	102	28	59	Tavt	Teshig	Skarn		---	silicification, magnetite, epidote	azurite, chalcopyrite, malachite, limonite	G
M00TM133	50	9	40.8	104	25	9.9	Zelter	Gatsuunkhan	Granitoid		float, K-feldsper, pale green	silicification, epidote	---	G
M00TM134	50	9	51.4	104	25	18.3	Zelter	Gatsuunkhan	Granitoid		float, K-feldsper, pale green	silicification, calcite, epidote	---	G
M00TM135	50	9	52.5	104	25	55.4	Zelter	Gatsuunkhan	Basalt?		float, grey, in calcite nodule	calcite, weak silicification	limonite	G, T

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Table A-10 Description of rock and ore samples

(23/25)

Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00TM136	48	50	8.2	104	12	38.2	Erdenet West	Under	Tuff breccia		grey, andesitic tuff	weak silicification, limonitization along crack	limonite	G, T
M00TM137	48	50	17.6	104	12	44.4	Erdenet West	Under	Tuff breccia		float, grey-brown, tracy dacitic?, in K-feldsper and quartz	in quartz vein, W:2cm	limonite	G
M00TM138	48	50	30.7	104	12	47.2	Erdenet West	Under	Quartz vein		white, medium grain, W:1-5 cm, network, host: porphyritic andesite	host rock: propylitic alteration	---	G, F
M00TM139	48	51	17.4	104	13	40.8	Erdenet West	Under	Tuff breccia		grey-brown, trachy dacitic?, in K-feldsper and quartz	quartz veinlets, epidote	---	G, T
M00TM140	48	51	24	104	13	11.5	Erdenet West	Under	White altered rock		float, whitish	silicification, argillization	---	G, X
M00TM141	48	51	23.5	104	13	6.8	Erdenet West	Under	Granitoid?		float, porphyritic syenogranite, K-feldsper (abundance), plagioclase, hornblende, quartz	---	---	T
M00TM142	48	51	13.8	104	13	15.7	Erdenet West	Under	Altered rock		white-brown	silicification, white argillization	pyrite dissemination	G, X
M00TM143	49	3	9.6	104	4	41.2	Erdenet West	Tsagaan chuluut	Altered rock		whitish	intensive silicification	limonite	G, X
M00TM145	49	3	8.2	104	4	50.2	Erdenet West	Tsagaan chuluut	Altered rock		brown	silicification, intensive limonitization (gossan)	limonite	G
M00TM146	49	3	6.7	104	5	2.1	Erdenet West	Tsagaan chuluut	Altered rock		white-brown	intensive silicification	pyrite (limonite)	G, X
M00TM148	49	3	11.6	104	5	19.7	Erdenet West	Tsagaan chuluut	Syenite? Trachite?		porphyritic, K-feldsper (abundance)+hornblende+plagioclase	epidote	---	T
M00TM149	49	2	55.9	104	1	12.3	Erdenet West	Tsagaan chuluut	Altered rock		whitish	intensive silicification, weak argillization	limonite	G, X
M00TM150	49	2	53.6	104	1	15.6	Erdenet West	Tsagaan chuluut	Altered rock		whitish	silicification, white argillization	limonite	G, X
M00TM151	49	2	51.2	104	1	17.1	Erdenet West	Tsagaan chuluut	Altered rock		brown	argillization	limonite	X
M00TM152	49	2	51	104	1	18.2	Erdenet West	Tsagaan chuluut	Trachite porphyry?		K-feldsper (abundance)	weak silicification, argillization, limonitization	limonite	G, X
M00TM153	49	2	55.8	104	1	1.6	Erdenet West	Tsagaan chuluut	Altered rock		whitish	silicification, argillization, limonite along crack	limonite	G, X

Table A-10 Description of rock and ore samples

(24/25)

Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00TM154	49	2	44.1	104	0	30.6	Erdenet West	Tsagaan chuluut	Tuff breccia		white-grey	moderate silicification, white argillization	---	G, X
M00TM155	49	3	49.2	103	59	19.7	Erdenet West	Tsagaan chuluut (Talbulag)	Tuff breccia		grey-brown, andesitic?	silicification, limonitization, translucent-white colored mineral (kaolin) stain along crack	limonite	G, X
M00TM156	49	3	50.9	103	59	30.7	Erdenet West	Tsagaan chuluut (Talbulag)	Tuff breccia		float, grey-brown, andesitic	clear-white colored minerals stain along crack	---	X
M00TM157	49	3	32.9	103	59	28.7	Erdenet West	Tsagaan chuluut (Talbulag)	Tuff breccia		andesitic tuff breccia?	silicification	pyrite (limonite)	G, X
M00TM158	49	3	7.5	103	59	54.2	Erdenet West	Tsagaan chuluut (Talbulag)	Rhyolite		grey-white	weak silicification, white argillization, limonitization along crack	limonite	G, X
M00TM159	49	3	5	103	59	50	Erdenet West	Tsagaan chuluut (Talbulag)	Altered rock		whitish	intensive silicification, whitish argillization, crystalline quartz in cavity	---	X
M00TM160	49	10	13.8	103	45	15.6	Erdenet West	Mogoin gol	Altered rock		white-brown	weak silicification, white argillization, fine grained muscovite	limonite	G, X
M00TM161	49	8	18.3	103	38	41.7	Erdenet West	Khujiriin gol	Quartz vein		white-clear, coarse grain, W:40 cm, host: trachy andesite porphyry	---	pyrite, chalcopyrite, malachite	---
M00TM162	49	8	12.1	103	38	30.5	Erdenet West	Khujiriin gol	Quartz vein		white-clear, coarse grain, network, brecciate, druzy, host: syenite porphyry?	---	---	G
M00TM163	49	12	50.4	104	13	41.9	Erdenet West	Zhuukhiin gol	Granodiorite		coarse grain, equigranular	potassium silicate alteration	fine grained pyrite dissemination, malachite (dot)	O
M00TM164	49	12	51.7	104	13	39.6	Erdenet West	Zhuukhiin gol	Granodiorite		coarse grain, equigranular	potassium silicate alteration	fine grained pyrite dissemination, malachite (dot)	---
M00TM165	49	12	52.7	104	13	33.9	Erdenet West	Zhuukhiin gol	Granodiorite		coarse grain, equigranular	---	---	T
M00TM166	49	14	13.2	104	3	44.7	Erdenet West	Zhuukhiin gol	Quartz vein		white-clear, network, brecciate, host: andesitic tuff?	---	---	G, F
M00TM167	49	14	13.2	104	3	44.7	Erdenet West	Zhuukhiin gol	Volcanic rock		andesitic tuff?	silicification along quartz vein	---	T, X
M00TM168	49	13	6.2	104	36	38	Erdenet West	SAR139	Andesite?		dark green, andesitic tuff?	silicification, epidote, host: propylitic alteration	chalcopyrite dissemination, malachite, azurite (along crack)	PT
M00TM169	49	12	56.8	104	36	18.1	Erdenet West	SAR139	Andesite porphyry		phenocryst: plagioclase+biotite+biotite (abundance)	silicification and epidotization, potassium-silicate alteration (biotite)	pyrite dissemination and malachite (dot and along crack)	G, T

Table A-10 Description of rock and ore samples

Phase II survey

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Rock Name	Geol. Unit	General Description	Alteration	Mineralization	Analysys type
M00TM170	49	12	53.7	104	36	20.1	Erdenet West	SAR139	Silicified rock		whitish	intensive silicification, epidote, potassium-silicate alteration	pyrite dissemination, malachite (dot and along crack)	G, PT, X
M00TM171	48	52	49.8	104	15	35.6	Erdenet West	Under	Tuff breccia		trachy andesitic, brown, phenocryst: K-feldsper+plagioclase	weak silicification	weak pyrite dissemination	G, X
M00TM172	48	59	59.6	104	1	50.9	Erdenet West	Chuluut	Granite		coarse grain, plagioclase+quartz+biotite	potassium silicate alteration	---	G, T

Analysis type

G: Geochemical analysis (ICP; Au+27elements)

W: Petrochemical analysis (XRF; major and rare earth elements)

O: Ore grade assay

34S: Sulfur isotope composition

18O: Oxygen isotope composition

KA: K-Ar radiometric age

T: Observation of thin section

PT: Observation of polish and thin section

X: Powdery X-ray diffraction

F: Temperature and salinity of fluid inclusions

E: EPMA

Phase I survey

Table A-11 Description of pan concentrated samples

Sample	N	E	District	Occurrence	Geology	Geol. Unit	Width(m)	Flow	Size	Color	Comments
M99HH501P	50°13'27.1'	101°39'32.0'	Southern Camp	25f	gravel	---	---	---	3	brown	trench
M99HH502P	50°13'12.6'	101°38'51.3'	Southern Camp	---	---	---	3	2	2	dk brown-black	Erdenbulgan Camp site
M99MZ501P	49°51'05.4'	100°23'58.2'		---	aplite	---	5	3	1	reddish brown	
M99MZ502P	49°55'59.8'	100°21'06.4'	Altgana gol	---	serpentinite	---	30	4	1	reddish gray	
M99MZ503P	50°17'07.8'	100°18'11.7'	Altgana gol NW	---	limestone	---	10	0	1	gray	
M99MZ504P	50°38'24.3'	100°46'56.9'	Khokhoo	20	granite	---	3	4	1	reddish brown	
M99MZ505P	50°25'29.2'	100°55'55.7'	Khokhoo	20a	granodiorite	---	5	3	1	reddish brown	
M99MZ506P	50°30'40.8'	101°12'33.7'	Khokhoo	20c	granitoid	---	25	4	1	reddish brown	
M99MZ507P	49°08'22.7'	103°40'13.8'	Erdenet	---	granodiorite	---	5	3	1	reddish brown	
M99MZ508P	48°56'27.5'	104°18'06.8'	Erdenet	---	granitic rock	---	5	3	1	d-brown	
M99MZ509P	48°50'00.8'	102°45'21.8'	Bulgan West	---	volcanics	---	2	3	1	reddish brown	
M99MZ510P	48°43'54.7'	103°23'31.4'	Bulgan	---	volcanics	---	2	3	1	reddish brown	
M99MZ511P	48°47'25.1'	103°39'39.8'	Bulgan	SAR205	andesite	---	5	4	1	dark grey	
M99RK500P	49°06'04.1'	103°23'50.2'	Erdenet	---	basalt, basic tuff	---	6	3	2	brown	rock fragments rich
M99RK501P	49°05'25.6'	104°00'39.9'	Erdenet	---	dacitic andesite	---	0.6	1	2	reddish brown	rock fragments rich
M99RK502P	49°06'55.2'	104°01'63.1'	Erdenet	SAR136	granite	Selenge complex?	1	1	2	reddish brown	rock fragments, Magnetite
M99RK503P	48°51'17.7'	104°25'18.5'	Erdenet	SAR200	granite	Selenge complex?	2	3	2	brown	rock fragments rich
M99RK504P	49°20'42.7'	104°07'34.0'	Erdenet	SAR127	granodiorite	Selenge complex?	1	2	3	dark grey	magnetite rich

Flow : none = 0, puddle = 1, slow = 2, moderate = 3, fast = 4

Size : coarse grained = 1, medium grained = 2, fine grained = 3, clayey = 4

Phase II survey

Table A-11 Description of Pan concentrated samples

Sample No.	Lat(D)	Lat(M)	Lat(S)	Lon(D)	Lon(M)	Lon(S)	District	Occurrence	Geology	Geol. Unit	Width(m)	Flow	Size	Color	Comments
M00NK600P	49	13	41	102	36	31.7	Erdenet West	Bulgan NW	gravel		3	2	4	brown	rock fragments rich
M00NK601P	49	15	13.8	102	41	51.1	Erdenet West	Bulgan NW			0.3	2	4	brown	clayey
M00NK602P	49	15	17.2	102	41	50.6	Erdenet West	Bulgan NW			3.5	2	4	brown	clayey
M00NK603P	49	15	29.8	102	42	53.4	Erdenet West	Bulgan NW			1	1	4	brown	clayey
M00NK604P	49	17	17.6	102	58	6.9	Erdenet West	Bulgan NW			5	2	4	brown	clayey
M00NK605P	49	12	55.6	102	55	33.6	Erdenet West	Bulgan NW			2	1	4	brown	clayey
M00HH601P	50	1	39.9	98	28	44.7	Tsagaan uul	Nariin azarga			15	3	2	black	rock fragments rich
M00MZ600P	48	9	39.7	99	27	47.1	Tariat	Tariatiin gol	plutonics	Riphean	5	3	2	light brown	
M00MZ601P	48	43	39.2	98	15	39.9	Tosontsengel	Khuurai sair	granitoid	Devonian?	50	3	2	light brown	
M00MZ602P	50	9	3.3	98	44	42.8	Tsagaan uul	Khaisiin belchir	pelitic schist	Riphean	30	4	2	light brown	
M00MZ603P	50	9	3.6	98	44	40.3	Tsagaan uul	Khaisiin belchir	pelitic schist	Riphean	3	2	1	light brown	
M00MZ604P	50	9	51.1	104	26	33.9	Zelter	Gatsuunkhan	sediments	Cambrian	1	4	1	light brown	
M00TM600P	49	8	21.3	103	10	52.4	Erdenet West	Bulgan NW	basalt		4	3	1	brown	rock fragments rich
M00TM601P	49	14	42.4	103	5	0.6	Erdenet West	Bulgan NW	sandstone, shale		6	3	1	brown	rock fragments rich
M00TM602P	49	14	41.3	103	4	48.8	Erdenet West	Bulgan NW	sandstone, shale		4	3	1	brown	rock fragments rich
M00TM603P	49	19	29.6	103	4	50.9	Erdenet West	Bulgan NW	sandstone, shale		10	3	1	brown	rock fragments, magnetite

Flow : none = 0, puddle = 1, slow = 2, moderate = 3, fast = 4

Size : coarse grained = 1, medium grained = 2, fine grained = 3, clayey = 4