

# **AEX PROJECT**

## **Alanya Exploration**

**June 2016 / 2017**



**AEX A.Ş**

**THE ORIGIN OF THE ALANYA MASSIF**

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**AEX ALANYA EXPLORATION**

## **SUMMARY**

- **The largest Reserves of Precious Stones and Metals such as Diamond, Gold, PGM (Platinum Group Metals), Nickel, Copper are found in the oldest regions of the world.**
- **These regions are Stable, Large, Fixed Land Parts called Craton and are in geological ages between 500 Million and 4 Billion years.  
(Precambrian-Cambrian Period)**
- **It is one of these regions in the Alanya Massif and has great potential for accommodating Economic Mineral Deposit Formations.**
- **In the Alanya Massif, as in all the Cratons, there was little internal deformation. However, the highly deformed crystalline and metamorphic rocks, which are the last products of intense magmatic, tectonic and metamorphic reprocessing on the surface, are widespread.**

- **If the probability of encountering any economic mine finding on the surface is low for this reason, priority is given to the start of Exploration Program Trace Elements and Indicator Minerals.**
- **6 Months in the 1st Period of Exploration, 88 different points in the Alanya Massif, Heavy Minerals of the 20-30 Kg of Samples were separated and 2000 pieces Potential Mineral / Metal is chosen.**
- **442 of these minerals are very important as a result of EPMA (Electron Probe Micro-Analysis) analysis made at the Geology Department of Hacettepe University Findings have been reached.**
- **The obtained findings were evaluated in Macro Level in the geological studies which were previously done in the region and it was decided that the Economic Polymetallic Mining in the Alanya Massif has a high potential and 2nd Stage studies were started.**

**ALANYA MASSİF**  
**HP (HIGH PRESSURE) / HT (HIGH TEMPERATURE)**  
**NATIVE METALS / MINERALS**

- **Metallic NICKEL**
- **Metallic COPPER**
- **Metallic GOLD**
- **Metallic IRON**
- **Metallic ZINC**
- **Metallic NICKEL+CHROME**
- **Metallic COPPER+ZINC**
- **Metallic IRON+CHROME**
- **Metallic IRON+COPPER**
- **Metallic CHROME+COBALT**
- **Metallic CHROME+NICKEL**
- **Metallic TIN+IRON**
- **CPX - CHROME DIOPSIDE**
- **CPX - OMPHACITE**
- **LEAD GLASS**

\* **Native Nickel and Lead Glass this project was discovered for the first time in the World.**

\* **Other Native Alloy Metals have been found very rarely in the World and are usually found in Meteorite rocks.**

# Alanya Massif EPMA Electron Probe Micro-Analysis

Sample	Grain	MgO	Al2O3	SiO2	PO4	SO3	Cl	CaO	TiO2	Cr2O3	MnO	FeO	Co	Ni	Cu	Zn	Mo	Ba	Pb	Explanation	
SS-H- 1		-	-	-	-	-	-	-	-	26,35	-	-	-	73,65	-	-	-	-	-	-	NICKEL METAL+Cr
SS-H- 2		-	-	-	-	-	-	-	-	24,68	-	-	-	75,32	-	-	-	-	-	-	NICKEL METAL+Cr
SS-H- 3		-	-	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	NICKEL METALLIC
SS-H- 4		-	-	-	-	-	-	-	-	9,04	-	-	-	90,96	-	-	-	-	-	-	NICKEL METAL+Cr
SS-H- 5		-	-	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	NICKEL METALLIC
SS-H- 6		-	-	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	NICKEL METALLIC
SS-H- 7		-	3,16	-	-	-	-	-	-	-	-	-	-	95,69	-	-	0,79	-	0,37	-	NICKEL METALLIC
SS-H- 8		-	-	1,13	-	-	-	-	-	21,03	2,56	75,28	-	-	-	-	-	-	-	-	CHROMFERIDE
SS-H- 9		-	4,44	-	-	-	-	-	-	-	-	-	-	71,07	14,61	9,88	-	-	-	-	NICKEL METALLIC
SS-H- 10		-	-	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	NICKEL METALLIC
SS-H- 11		-	-	-	-	1,22	-	-	-	-	-	-	-	98,78	-	-	-	-	-	-	NICKEL METALLIC
SS-H- 12		-	4,4	3,6	-	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-	NICKEL METALLIC
SS-H- 13		1,03	3,02	4,94	-	-	-	-	4,89	-	-	86,12	-	-	-	-	-	-	-	-	Fe METALLIC
SS-H- 14		-	-	1,79	-	-	-	-	-	-	-	98,21	-	-	-	-	-	-	-	-	Fe METALLIC
SS-H- 15		-	-	1,85	-	-	-	-	-	-	-	98,15	-	-	-	-	-	-	-	-	Fe METALLIC
SS-H- 16		-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	Fe-METALLIC *****
SS-H- 17		14,4	-	31,28	-	10,75	-	1,06	3,08	-	-	5,83	-	-	14,14	-	-	19,46	-	-	Cu+Ba+Si+S
SS-H- 18		-	0,89	0,47	-	-	-	-	-	-	-	1,53	-	-	60,18	36,94	-	-	-	-	TONGIXINITE
SS-H- 19		-	-	0,79	-	-	-	-	-	-	-	1,48	-	-	97,74	-	-	-	-	-	COPPER METALLIC
SS-H- 20		1,38	0,6	-	-	-	-	-	-	-	-	-	-	-	98,02	-	-	-	-	-	COPPER METALLIC
SS-H- 21		-	-	-	-	-	0,46	-	-	-	-	0,99	-	-	98,55	-	-	-	-	-	COPPER METALLIC
SS-H- 22		3,32	7,73	9,19	-	-	3,07	2,49	-	-	-	-	-	-	74,19	-	-	-	-	-	COPPER METALLIC
SS-H- 23		-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	Ca 100%
SS-H- 24		-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	Ca 100%
SS-H- 25		-	2,44	1,81	-	-	1,28	-	-	-	-	-	-	-	94,47	-	-	-	-	-	COPPER METALLIC
SS-H- 26		-	12,71	1,84	-	-	0,62	-	-	-	-	52,18	-	-	32,65	-	-	-	-	-	Cu+Fe
SS-H- 27		-	-	3,08	-	2,57	-	-	-	-	-	94,35	-	-	-	-	-	-	-	-	Fe METALLIC
SS-H- 28		-	6,84	1,72	-	1,17	-	-	-	-	-	80,18	-	-	10,09	-	-	-	-	-	Cu+Fe
SS-H- 29		-	9,67	-	-	-	-	-	-	-	-	77,82	-	-	12,51	-	-	-	-	-	Cu+Fe
SS-H- 30		-	3,92	1,63	-	0,95	-	-	-	-	-	87,89	-	-	5,16	-	-	-	0,45	-	Cu+Fe

# Alanya Massif EPMA Electron Probe Micro-Analysis

Sample	Grain	Na2O	Al2O3	SiO2	Cl	CaO	TiO2	Cr2O3	FeO	Ni	Cu	Zn	Mo	Pb	Explanation
SS-J-	1	-	-	2,38	-	-	-	-	-	-	97,62	-	-	-	COPPER METALLIC
SS-J-	2	-	7,55	2,38	1,01	-	-	-	0,91	-	88,15	-	-	-	COPPER METALLIC
SS-J-	3	-	1,92	2,61	0,8	-	-	-	-	-	94,67	-	-	-	COPPER METALLIC
SS-J-	4	-	-	-	-	-	-	24,5	-	75,5	-	-	-	-	NICKEL METAL+Cr
SS-J-	5	-	-	-	-	-	-	10,98	-	89,02	-	-	-	-	NICKEL METAL+Cr
SS-J-	6	-	-	-	-	-	-	73,9	-	26,1	-	-	-	-	NICKEL METAL+Cr
SS-J-	7	-	-	-	-	-	-	-	-	100	-	-	-	-	NICKEL METALLIC
SS-J-	8	-	-	-	-	-	-	-	-	100	-	-	-	-	NICKEL METALLIC
SS-J-	9	-	-	0,92	-	1,06	-	-	-	98,02	-	-	-	-	NICKEL METALLIC
SS-J-	10	-	-	-	-	5,53	-	-	-	86,2	-	-	3,64	4,63	NICKEL METALLIC
SS-J-	11	-	-	-	-	-	0,52	-	-	-	99,48	-	-	-	COPPER METALLIC
SS-J-	12	-	1,61	2,18	-	-	2,85	-	-	-	93,37	-	-	-	COPPER METALLIC
SS-J-	13	-	-	1,99	-	-	-	-	3,64	-	55,5	38,87	-	-	TONGIXINITE
SS-J-	14	-	-	-	-	1,1	-	-	-	-	59,15	39,08	-	0,66	TONGIXINITE
SS-J-	15	-	1,14	-	-	-	-	-	1,89	-	55,41	41,56	-	-	TONGIXINITE
SS-J-	16	-	2,49	-	-	-	-	-	1,37	-	56,92	39,22	-	-	TONGIXINITE
SS-J-	17	-	-	-	-	-	-	-	-	-	58,19	41,81	-	-	TONGIXINITE
SS-J-	18	-	-	-	-	-	-	-	-	-	59,71	40,29	-	-	TONGIXINITE
SS-J-	19	-	-	-	-	-	-	-	-	-	57,93	42,07	-	-	TONGIXINITE
SS-J-	20	-	1,98	1,57	-	-	-	-	-	-	54,79	38,13	-	3,51	TONGIXINITE
SS-J-	21	-	-	-	-	-	-	-	0,86	-	61,28	37,86	-	-	TONGIXINITE
SS-J-	22	-	-	-	-	-	-	-	2,81	-	57,63	39,56	-	-	TONGIXINITE
SS-J-	23	-	-	-	-	-	-	-	-	-	62,06	37,94	-	-	TONGIXINITE
SS-J-	24	-	-	2,12	-	-	0,52	16,86	80,49	-	-	-	-	-	CHROMFERIDE
SS-J-	25	4,83	4,94	1,41	-	-	-	-	-	-	-	88,83	-	-	ZINC METALLIC
SS-J-	26	-	5,46	-	-	0,97	-	-	77,5	-	-	16,07	-	-	Fe+Zn
SS-J-	27	4,76	1,76	2,77	-	-	-	-	9,33	-	-	81,38	-	-	ZINC METALLIC
SS-J-	28	-	4,32	8,29	-	-	-	-	87,39	-	-	-	-	-	Fe METALLIC
SS-J-	29	-	-	-	-	-	-	-	100	-	-	-	-	-	Fe-METALLIC *****
SS-J-	30	-	-	-	-	-	-	-	100	-	-	-	-	-	Fe-METALLIC *****

Sample	Grain	F	Na2O	MgO	Al2O3	SiO2	PO4	SO3	Cl	K2O	CaO	Cr2O3	Pb	Explanation
SS-G-	28	-	-	-	-	53,64	-	-	-	12,14	2,76	-	31,46	LEAD GLASS
SS-G-	29	-	1,25	-	-	54,68	-	-	-	11,7	2,5	-	29,86	LEAD GLASS
SS-G-	30	-	2,23	-	0,87	54,55	-	-	-	12,81	-	-	29,53	LEAD GLASS

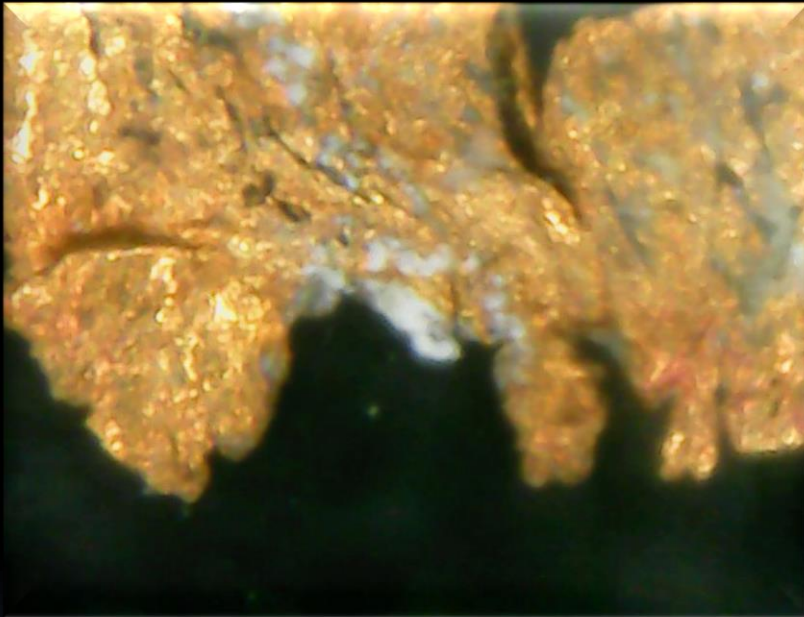
# 1st Stage Conglomerate Sample

Sample	Grain	Na2O	MgO	Al2O3	SiO2	K2O	CaO	Cr2O3	FeO	Ni	Cu	Zn	Rb	Tc	Pd	Os	Au	Pb	Bi	Açıklama
A2-	12	-	16,89	3,56	52,49	-	21,3	1,19	4,56	-	-	-	-	-	-	-	-	-	-	CPX Cr.Diopside
A2-	13	0,9	16,25	2,94	51,55	-	21,42	1,11	5,83	-	-	-	-	-	-	-	-	-	-	CPX Cr.Diopside
A2-	14	5,57	10,92	6,65	40,35	2,51	20,79	-	6,2	-	-	-	-	-	-	-	-	-	-	CPX Omphacite
A2-	16	-	-	9,83	-	-	2,25	-	-	-	-	-	-	1,79	-	-	86,13	-	-	Native Gold
A2-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-	-	Native Gold
A2-	18	1,19	-	-	-	-	-	-	-	-	-	-	3,31	-	0,38	-	95,12	-	-	Native Gold
A2-	19	-	-	-	-	-	-	-	-	-	-	-	-	1,89	-	-	95,42	-	2,69	Native Gold
A2-	20	-	-	-	1,04	-	-	18,6	73,15	6,2	-	-	-	-	-	-	-	-	-	Yarlongite
A2-	21	1,72	-	1,91	-	-	0,48	-	-	-	57,04	37,14	-	-	-	-	-	-	-	Tongxinite
A2-	22	-	-	4,73	1,8	0,45	2	-	-	-	88,48	-	-	-	-	1,41	-	-	-	Native Copper
A2-	23	-	-	6,71	2,15	-	-	-	1,71	-	87,78	-	-	-	-	0,82	-	-	-	Native Copper
A2-	24	2,67	3,18	9,8	3,99	-	4,73	-	8,02	-	33,41	28,69	-	-	-	-	-	-	1,36	Tongxinite

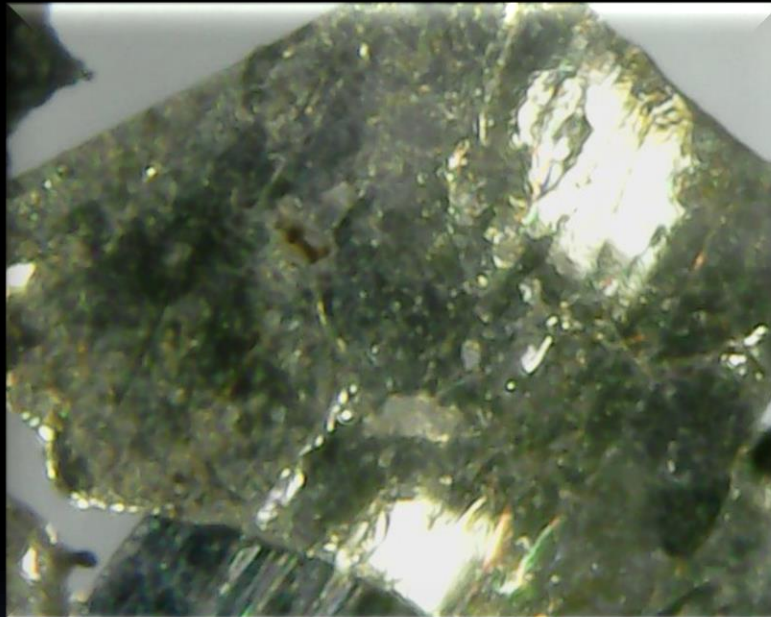
Sample	Grain	Na2O	MgO	Al2O3	SiO2	PO4	SO3	K2O	CaO	MnO	FeO	Ni	Cu	Zn	Sr	Mo	Os	Pb	Explonation
AEX-D-	1	-	-	-	-	-	33,72	-	1,22	-	37,17	-	24,66	-	-	-	-	3,24	Chalcopyrite
AEX-D-	2	-	-	-	-	-	48,09	-	-	-	28,95	-	22,96	-	-	-	-	-	Chalcopyrite
AEX-D-	3	-	-	-	-	-	62,75	-	-	-	37,25	-	-	-	-	-	-	-	Chalcopyrite
AEX-D-	4	4,43	-	-	-	-	-	-	1,19	-	-	-	55,91	38,46	-	-	-	-	Tongxinite
AEX-D-	5	-	-	-	-	-	43,84	-	-	-	31,37	-	24,79	-	-	-	-	-	Chalcopyrite
AEX-D-	6	-	-	-	-	-	41,45	-	0,59	-	28,16	-	21,7	-	-	2,97	-	5,12	Chalcopyrite
AEX-D-	7	-	-	-	0,87	-	-	-	-	-	-	96,07	-	-	1,76	0,47	-	0,84	Nabite Nickel
AEX-D-	8	-	-	2,43	2,71	-	-	-	-	-	57,39	19,91	15,56	-	2,01	-	-	-	NiCuZn XXX
AEX-D-	9	-	2,27	1,66	2,95	-	-	-	1,1	-	1,18	-	90,48	-	-	-	0,36	-	Nabite Cupper
AEX-D-	10	-	-	1,43	1,41	-	36,4	-	1,03	-	29,02	-	21,08	-	-	6,43	-	3,19	Chalcopyrite
AEX-D-	11	-	-	-	0,61	-	39,22	-	-	-	26,53	-	28,23	-	-	5,17	-	0,24	Chalcopyrite
AEX-D-	12	-	-	-	4,82	1,29	6,4	-	-	-	77,33	-	9,19	-	-	0,97	-	-	Chalcopyrite



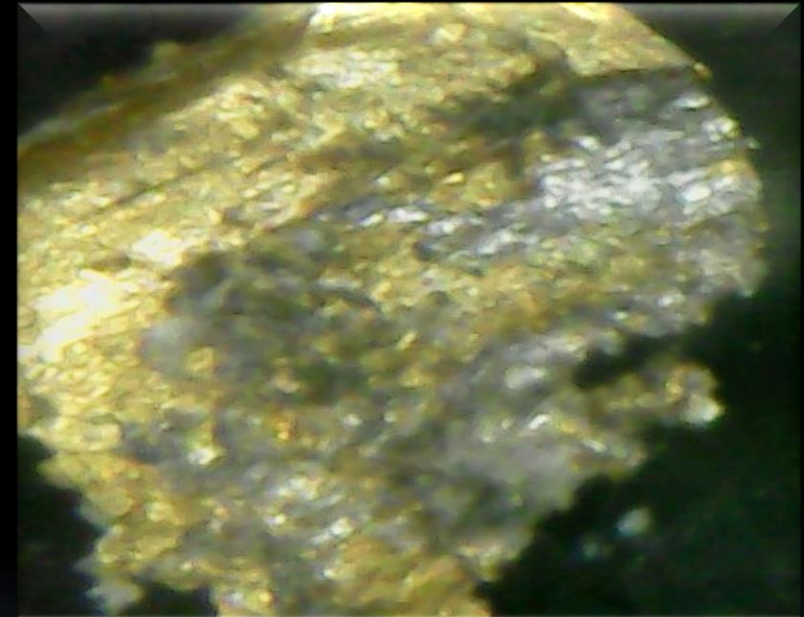
# AEX PROJECT



**Cu Metallic**



**Ni Metallic**



**Au Metallic**