



ALS Laboratuvar Hizmetleri Ltd. Sti.
Fatih Mah. Ege Cad. No:7/B
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To: HAKKI M. NOGAY

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Finalized Date: 25-JUN-2013
This copy reported on
26-JUN-2013
Account: HAKKIM

CERTIFICATE IZ13112982

Project:
P.O. No.: T113-3719
This report is for 4 Rock samples submitted to our lab in Izmir, IZMIR, Turkey on
20-JUN-2013.
The following have access to data associated with this certificate:
HAKKI M. NOGAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-32	Pulverize 1000g to 85% < 75 um

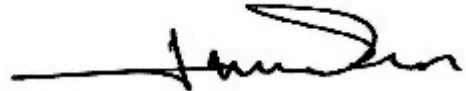
ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA24	Au 50g FA AA finish	AAS
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: HAKKI M. NOGAY
ATTN: HAKKI M. NOGAY

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature: 
Huseyin Galan, Izmir Laboratory Manager



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CERTIFICATE OF ANALYSIS IZ13112982

Method Analyte Units LOR	WEI-21 Recvd Wt. kg	Au-AA24 Au ppm	ME-ICP41 Ag ppm	ME-ICP41 Al %	ME-ICP41 As ppm	ME-ICP41 B ppm	ME-ICP41 Ba ppm	ME-ICP41 Be ppm	ME-ICP41 Bi ppm	ME-ICP41 Ca %	ME-ICP41 Cd ppm	ME-ICP41 Co ppm	ME-ICP41 Cr ppm	ME-ICP41 Cu ppm	ME-ICP41 Fe %
Sample Description	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
HMN-10	0.17	<0.005	<0.2	1.27	4	<10	300	<0.5	<2	0.65	<0.5	4	11	4	1.75
HMN-11	0.92	<0.005	<0.2	0.12	22	<10	10	<0.5	<2	18.6	2.7	3	4	19	0.54
HMN-12	2.43	<0.005	3.6	0.51	48	810	3180	1.1	14	1.31	<0.5	58	<1	67	0.82
HMN-13	3.79		0.2	0.70	27	30	1380	0.7	<2	0.23	<0.5	153	19	314	1.07

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Sample Description	Method Analyte Units LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
HMN - 10		<10	<1	0.52	10	0.30	275	1	0.25	5	370	7	<0.01	<2	3	48
HMN - 11		<10	1	0.04	10	6.44	6600	8	0.02	17	120	6	0.26	<2	2	195
HMN - 12		<10	7	0.82	20	<0.01	>50000	3	0.16	66	570	90	<0.01	<2	2	575
HMN - 13		<10	2	0.30	20	0.01	>50000	2	0.04	71	140	79	<0.01	<2	3	460



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Sample Description	Method Analyte Units LOR	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
		Th	Ti	Ti	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		20	0.01	10	10	1	10	2
HMN-10		<20	0.12	<10	<10	27	<10	26
HMN-11		<20	<0.01	<10	<10	25	<10	61
HMN-12		<20	0.02	<10	10	44	20	49
HMN-13		<20	0.04	<10	<10	37	20	44

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CERTIFICATE COMMENTS

Applies to Method: