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شکل شماره ۱-۱: موقعیت جغرافیایی محدوده مورد مطالعه

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### شکل شماره ۱-۲: نقشه استان گیلان



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(Basement)

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Stocklin 1966, 1968, 1973, 1977,-Berberian 1980- Majidi, 1968- Ruttner, 1983 –Alavi, 1991

(Early Kimmerlan)

(Rifting)

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Indosinian ( )

(Early Kimmerian)

(Upre Mantle)

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$$( \quad ) \mathrm{O}^{\text{ms}}$$

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$$\mathrm{M}^{\text{d.t}}$$

$$\mathrm{M}^{\text{pt}}$$

$$\mathrm{Ng}^{\text{ms}}$$

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(Opaque)

 $\mathbf{JK}^{\text{ms}}, \mathbf{JK}^1, \mathbf{JK}^v$  - (  $\mathbf{JK}^{\text{ms}}$  )

(Neocomian)

(Malm)

JK<sup>1</sup>

(Thithonian)

JK<sup>ms</sup>, RJ<sup>sh</sup>

(Berriasian)

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 $Q_1^b \quad Q_2^b$ 

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$$K_2^{V1}$$

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(System)

(back thrust)

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Sio2

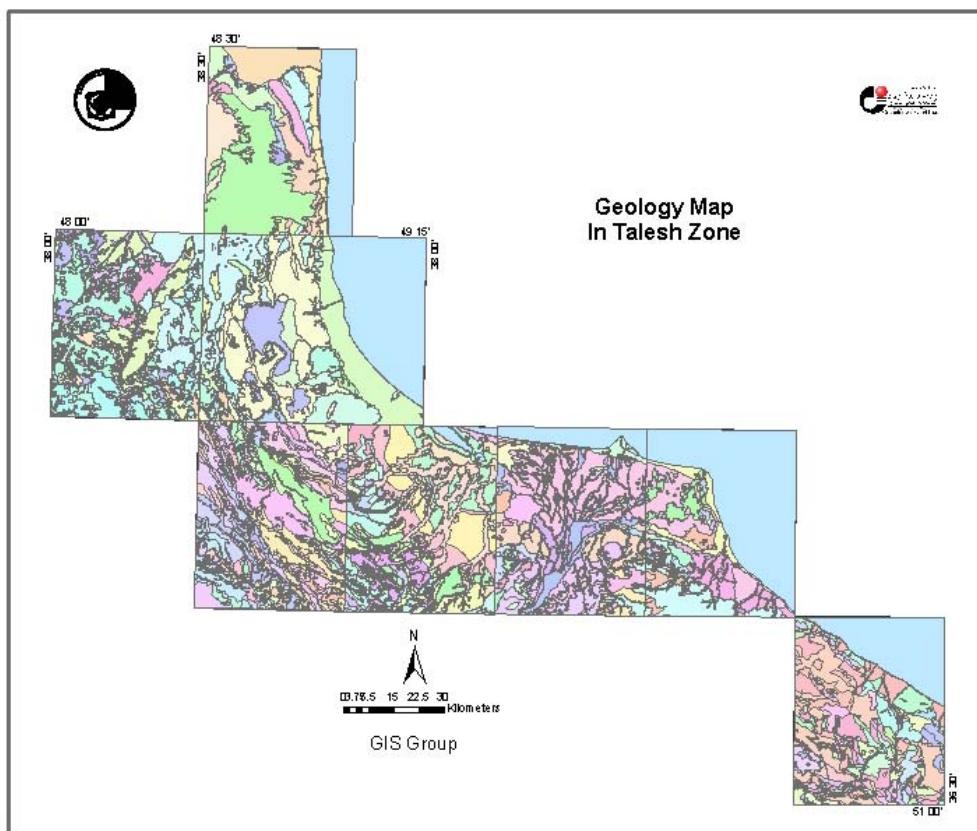
Sio2

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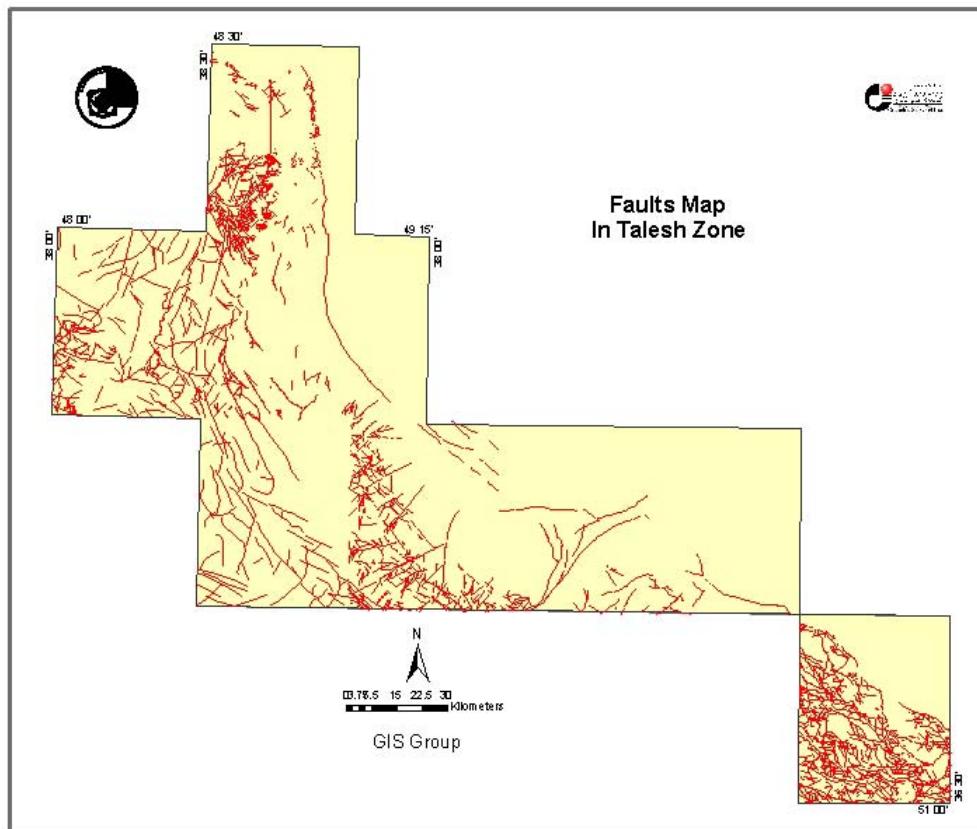
Sio2

(Conglomerate)

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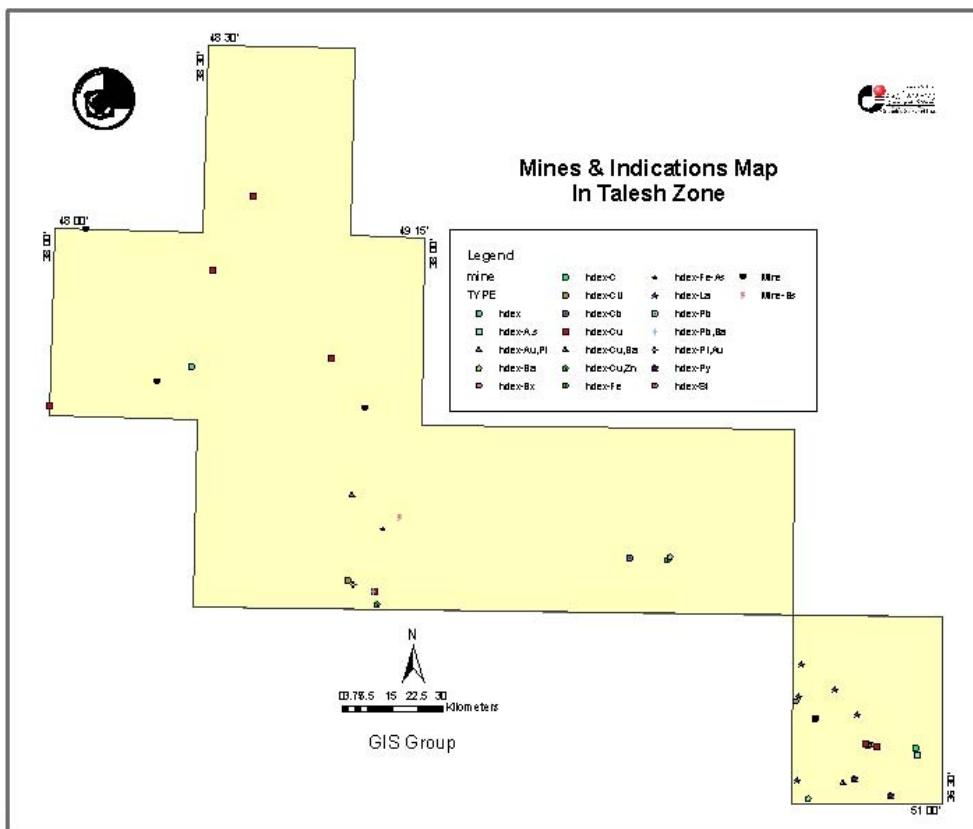


نقشه شماره ۱-۳: نقشه رقومی زمین‌شناسی زون تالش



نقشه شماره ۲ - ۳: نقشه رقومی گسلهای زمین‌شناسی زون تالش

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نقشه ۳-۳: نقشه معادن و اندیسهاي معدنی زون تالش

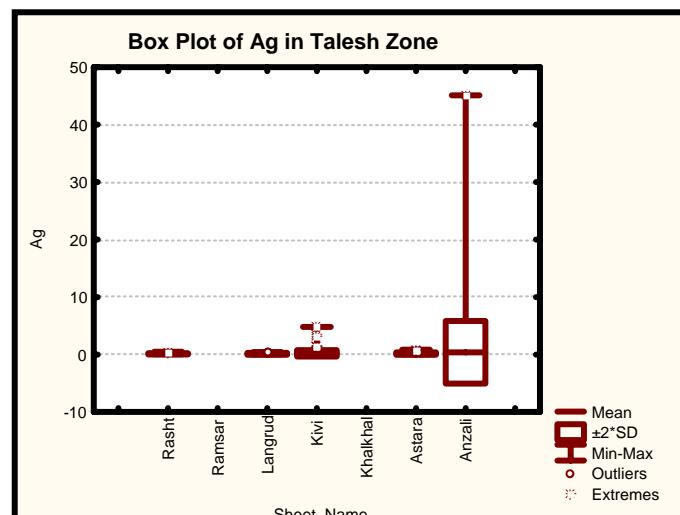
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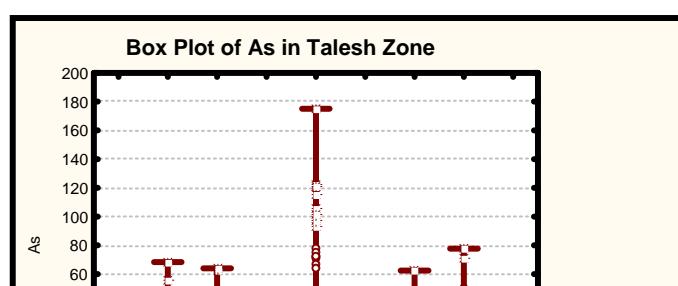
(XRF)

(X+2S)

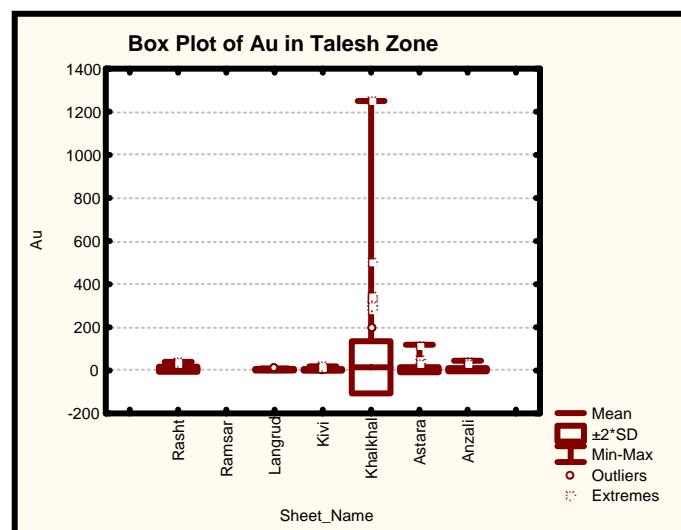
(X-2S)

**Ag -**

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**As-**

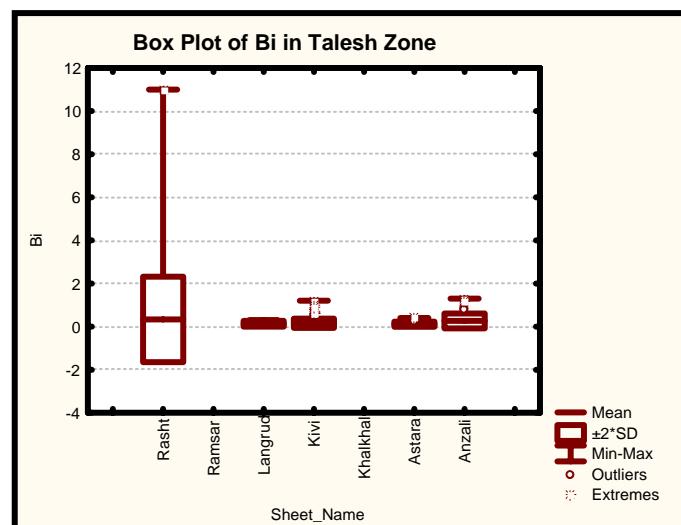
( )

**Au-**

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**Bi-**

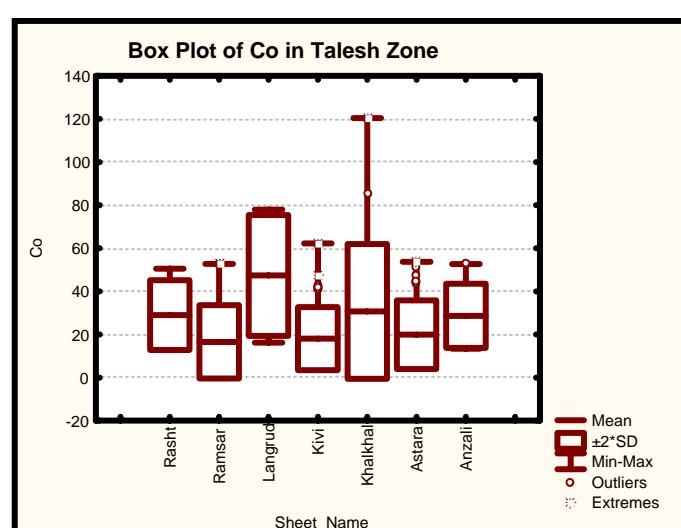
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**Co-**

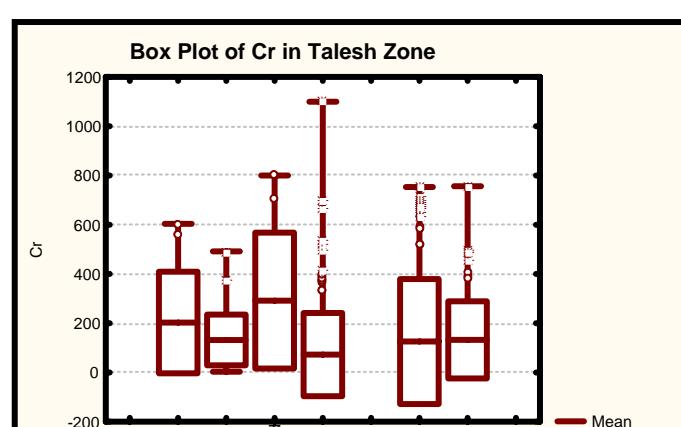
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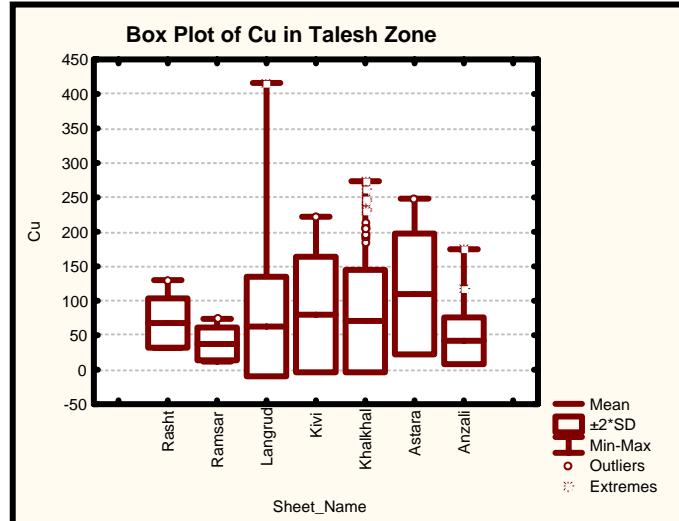
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**Cr-**

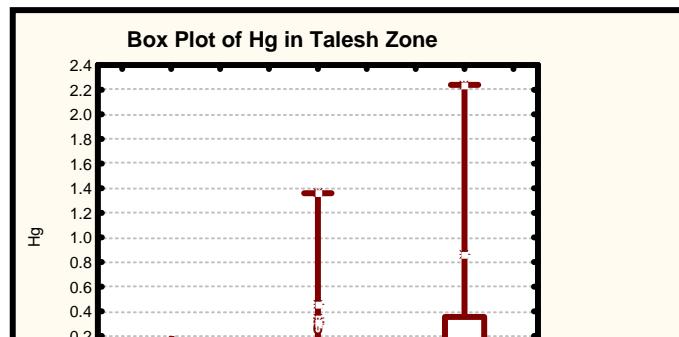
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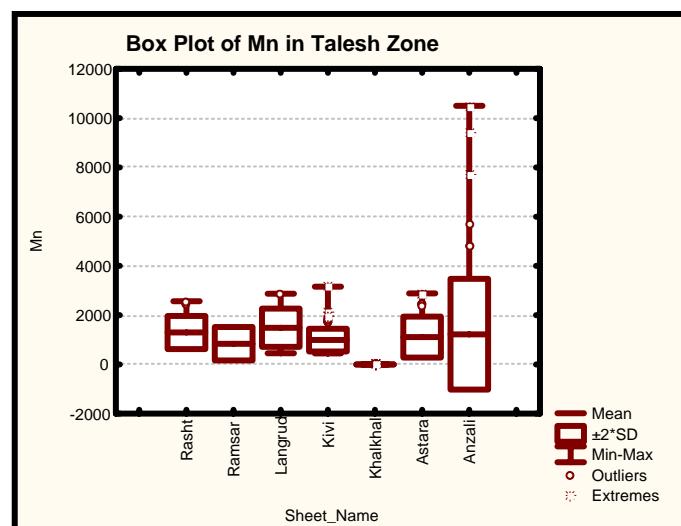
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**Cu-**

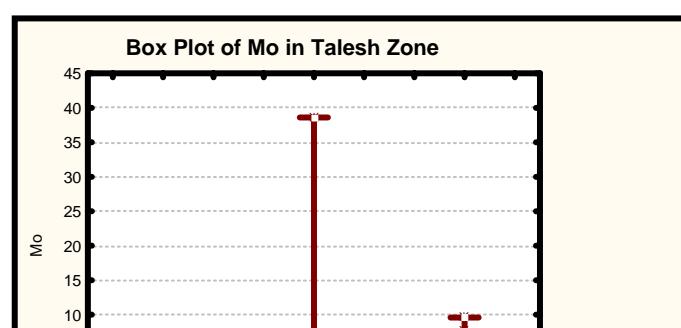
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**Hg-**

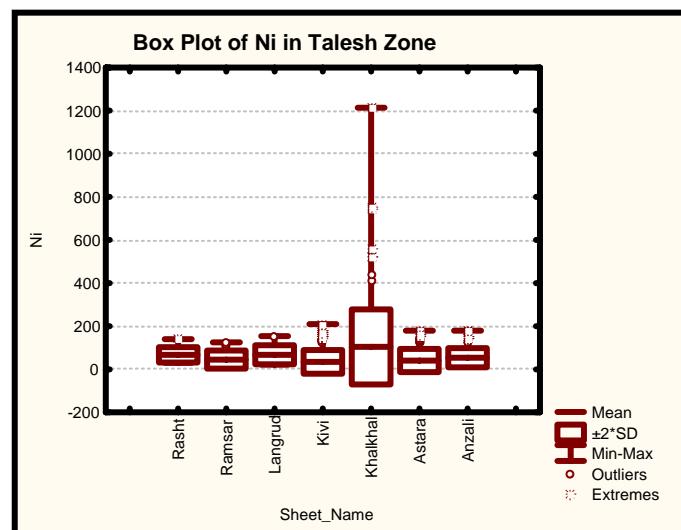
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**Mn-**

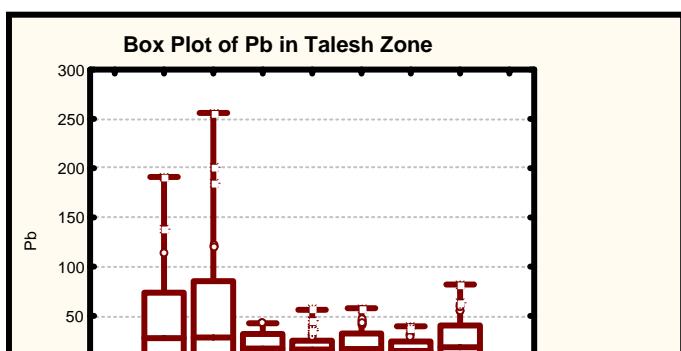
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**Mo-**

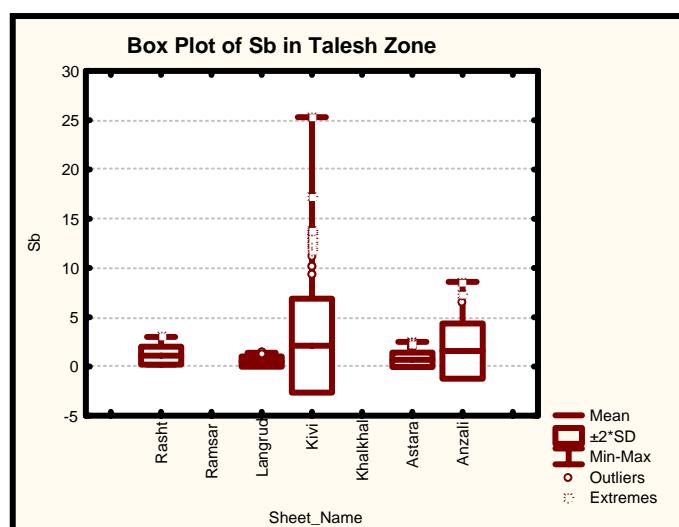
( )

**Ni-**

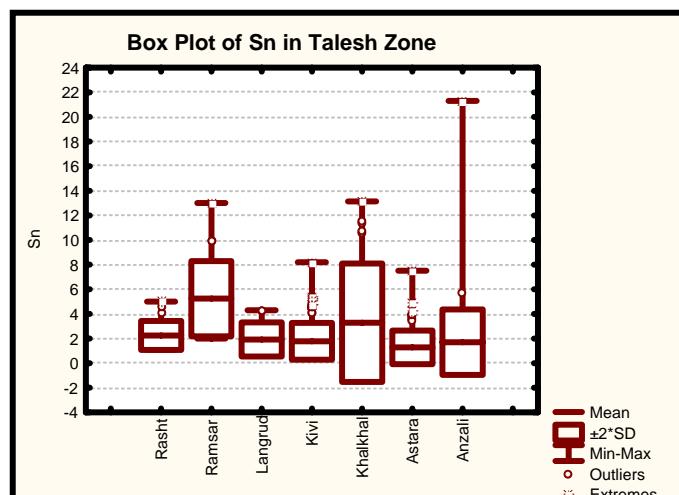
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**Pb-**

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**Sb-**

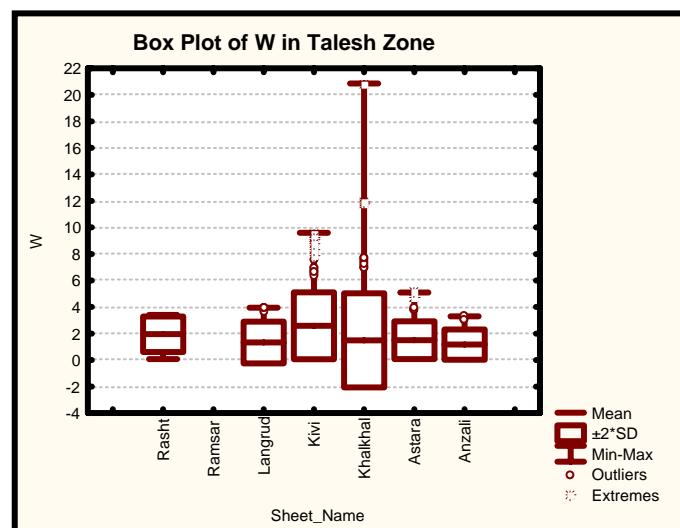
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**Sn-**

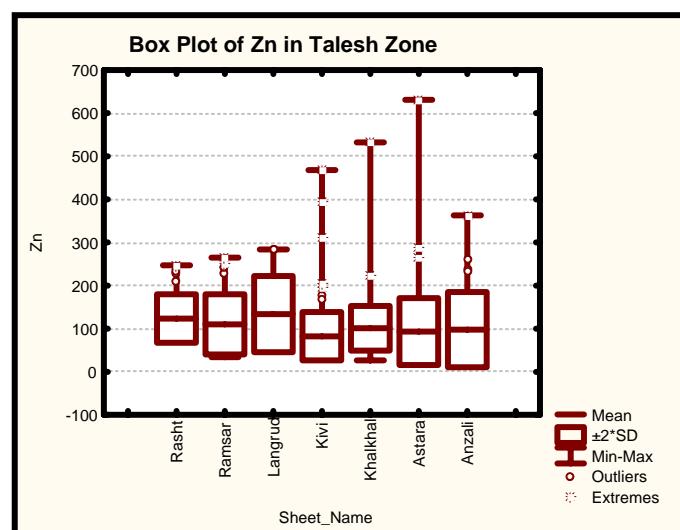
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**Zn-**

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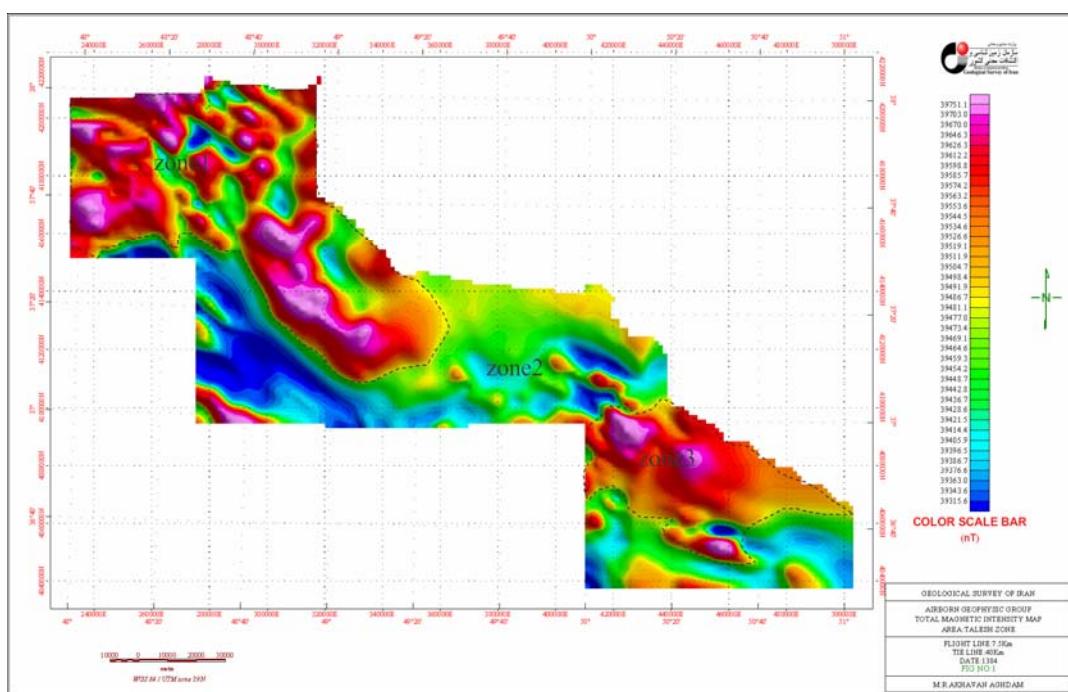
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PCA

$$pc_k = \sum_{i=1}^n w_{i,k} D_{ni}$$

PCA

PCA

PC1

PCA

PC1

PCA

 $\text{ETM}^+$



$$D = \frac{\text{BandI}}{\text{BandJ}} (\text{If } i > j)$$

$$D = \frac{b_i - b_j}{b_i + b_j} (\text{If } i > j)$$

( )

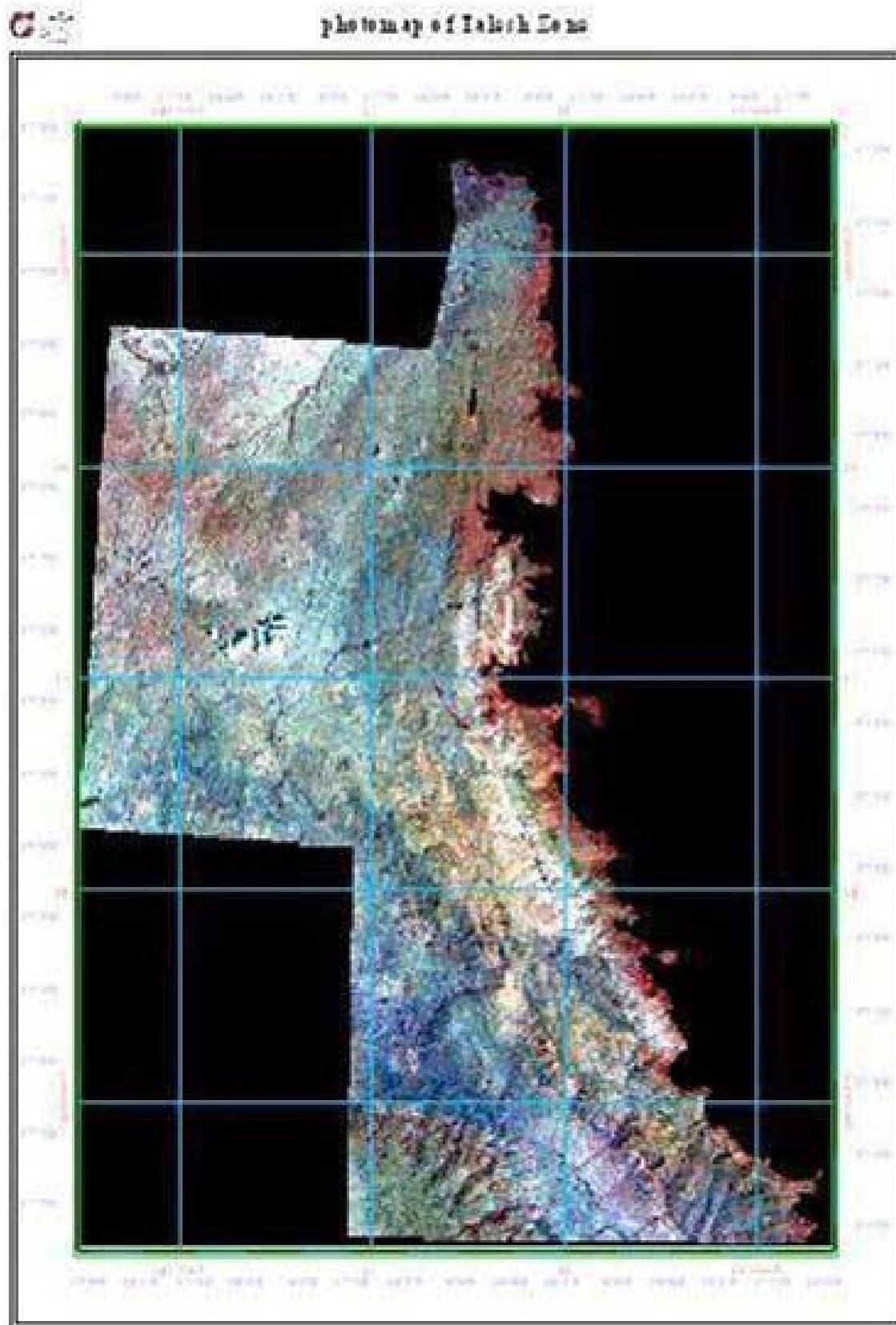
: (PCA)

PC	PC1	PCA
	PC	
		PCA
		PC
		PCA
PC		

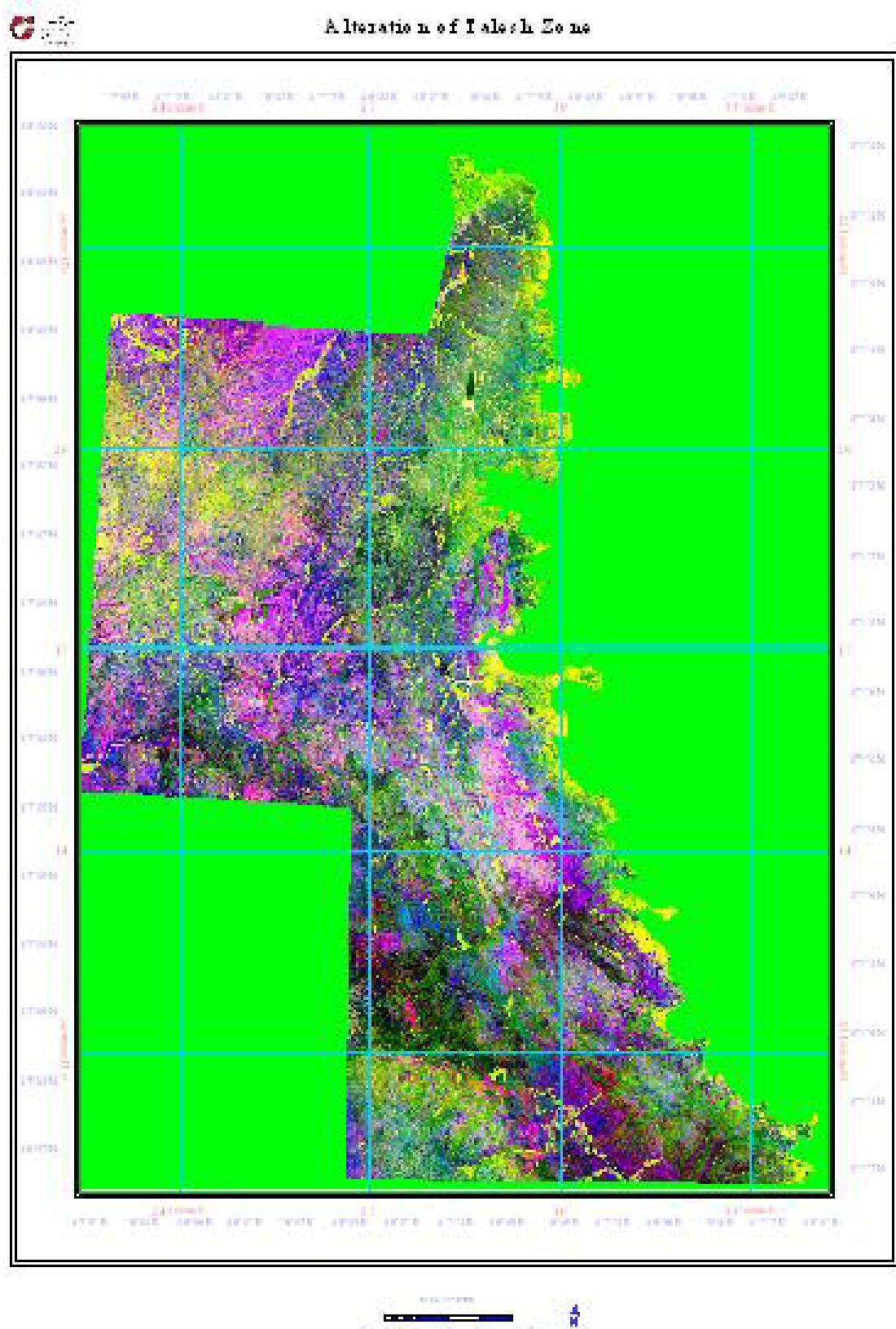
RGB

(Edge Sharpening Filter)

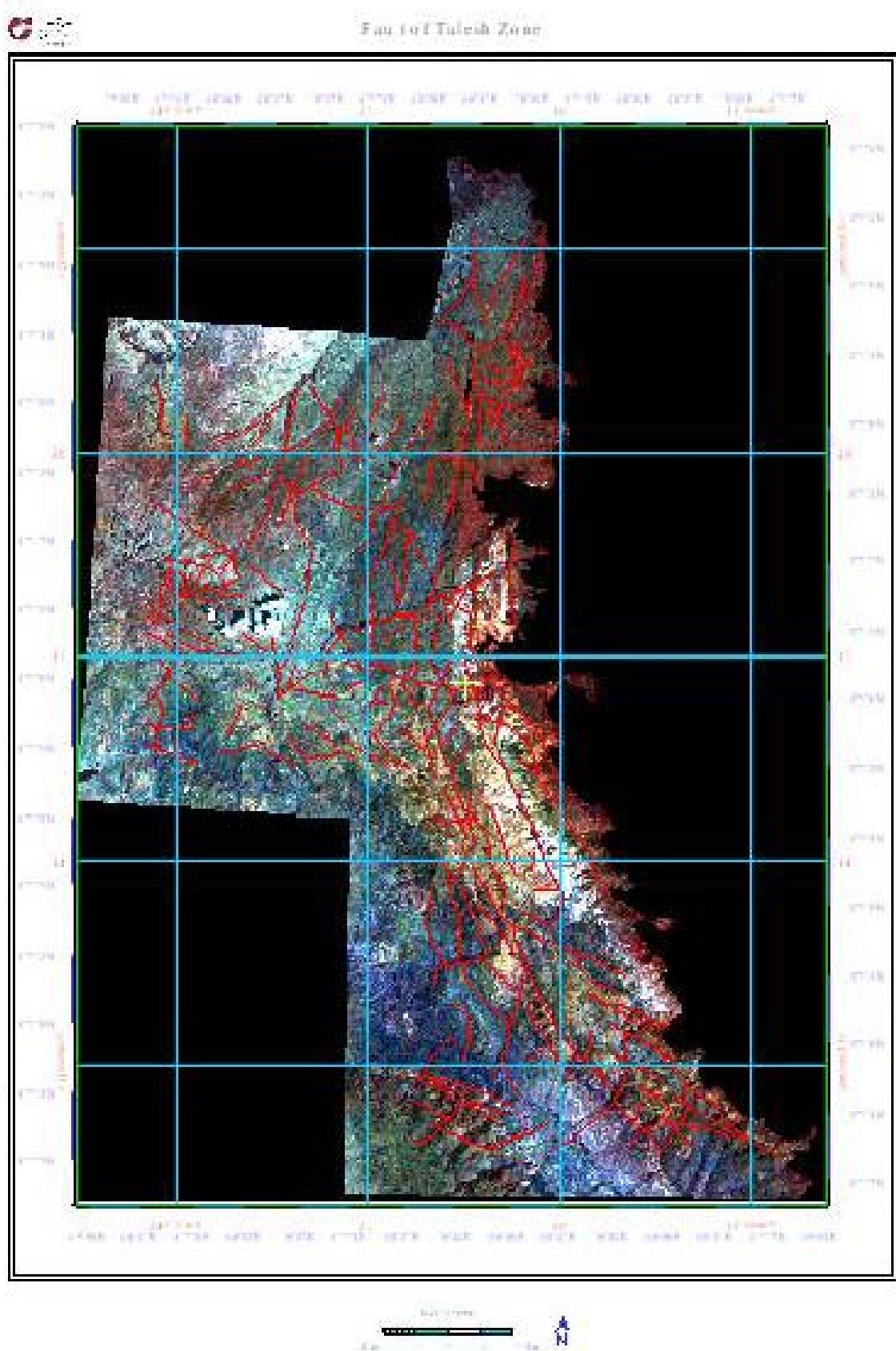
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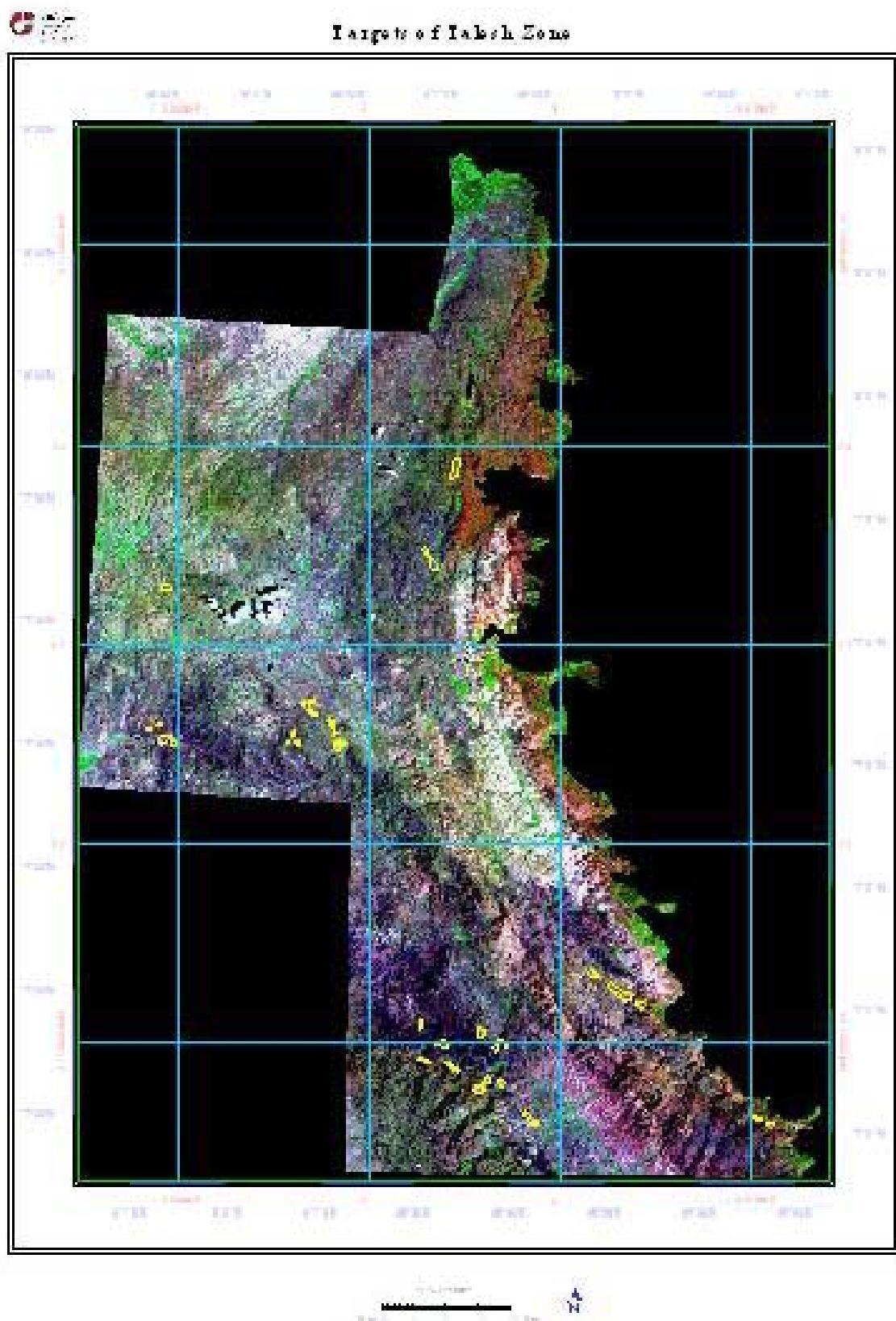
نقشه شماره ۱-۴: واحدهای سنگی موجود در زون تالش



نقشه شماره ۴-۲: دگرسانیهای موجود در زون تالش

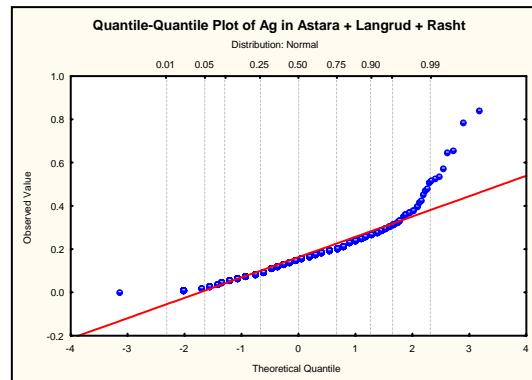
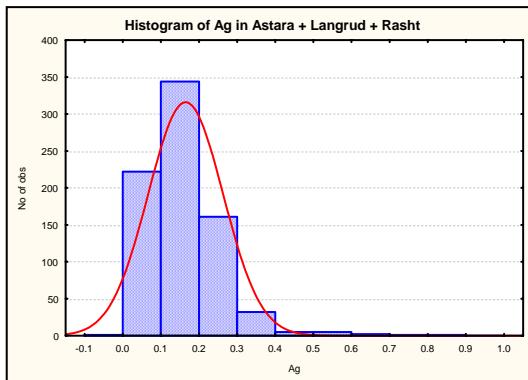


نقشه شماره ۴-۳: شکستگی‌های موجود در زون تالش

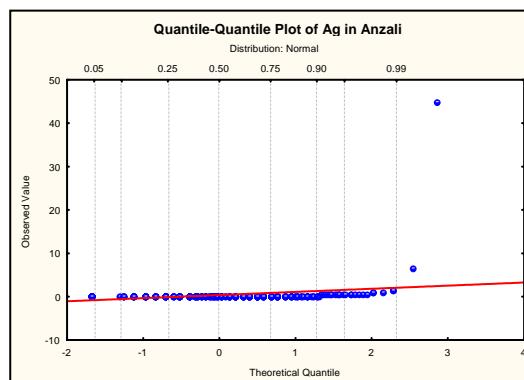
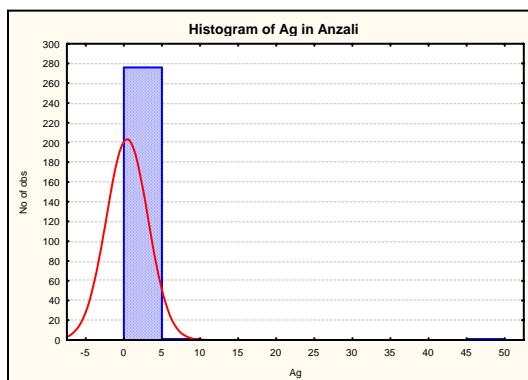


نقشه شماره ۴-۴: نقشه تارگتهاي موجود در زون تالش

Ag-

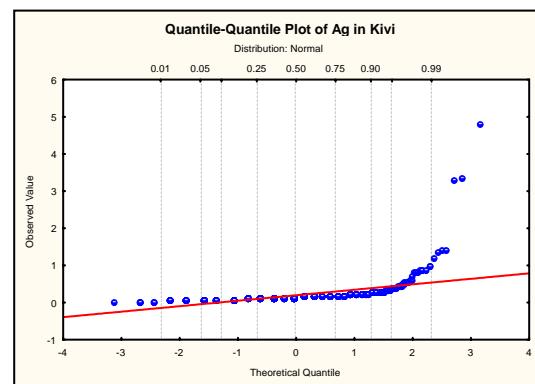
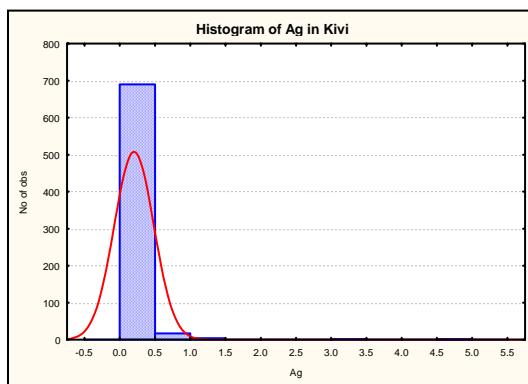


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Ag	773	0.164	0.160	0.2	0.010	0.840	0.098	1.678	7.082	0.359



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Ag	278	0.386	0.185	0.0075	0.007	45.100	2.725	16.098	264.329	5.837

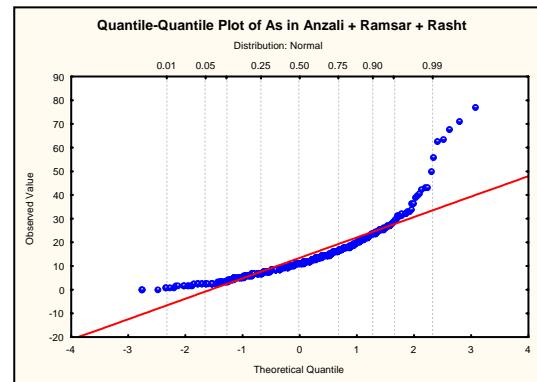
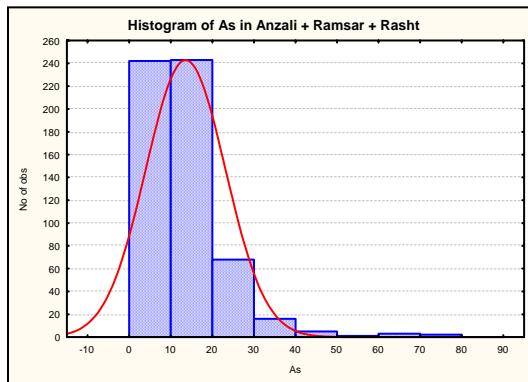
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Ag	276	0.202	0.180	0.0075	0.007	1.530	0.202	3.030	14.812	0.607



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Ag	714	0.198	0.150	0.13	0.030	4.800	0.280	10.844	147.199	0.759

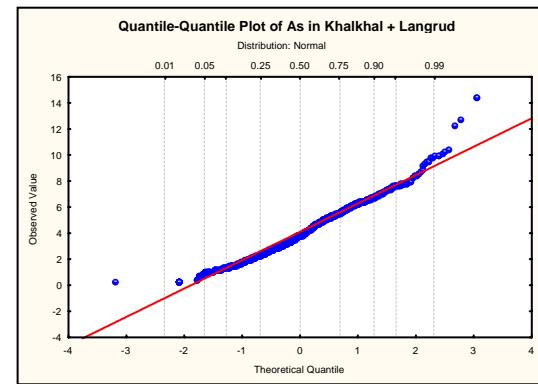
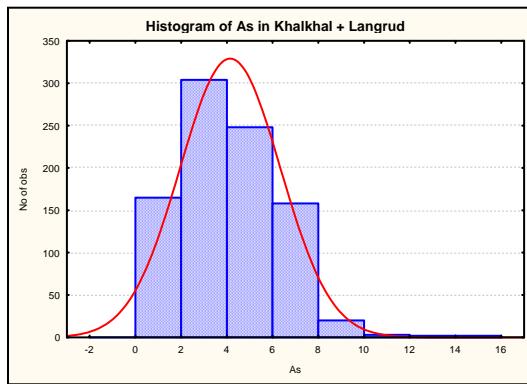
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Ag	711	0.183	0.150	0.13	0.030	1.450	0.144	4.882	30.913	0.471

As-



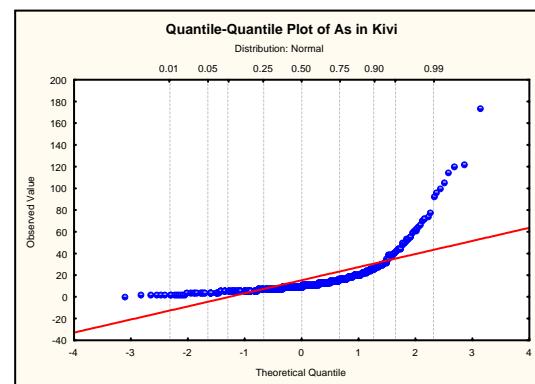
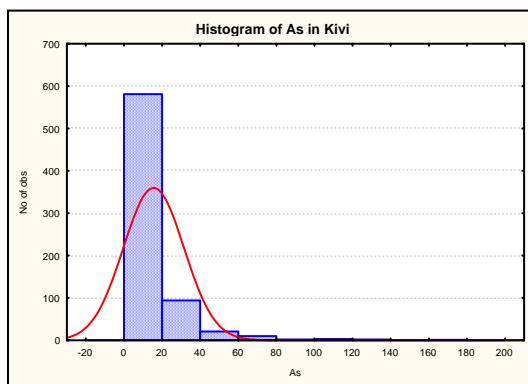
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
As	580	13.435	11.450	9.00	0.375	77.700	9.530	2.467	10.476	32.496

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
As	573	12.813	11.400	9.00	0.375	43.600	7.670	1.121	1.613	28.153



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
As	902	4.112	3.895	0.375	0.329	14.420	2.187	0.582	0.713	8.486

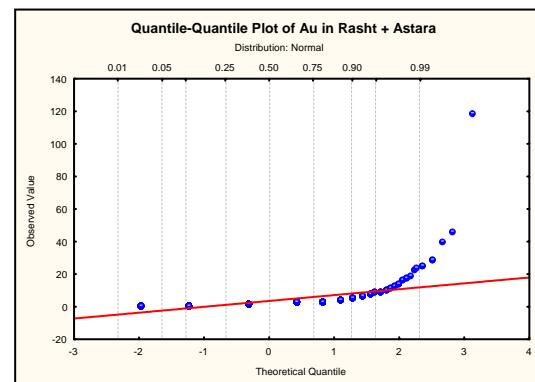
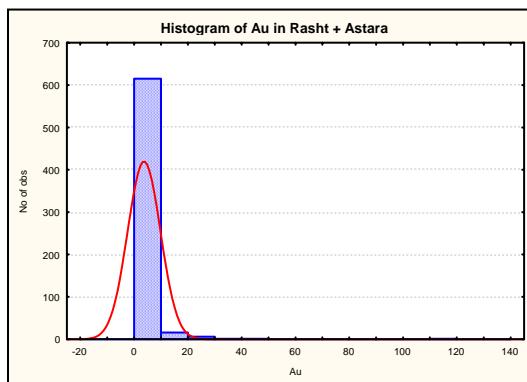
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
As	898	4.070	3.882	.3750000	0.329	10.400	2.099	0.310	-0.481	8.268



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
As	714	15.352	10.850	4.90	0.400	175.000	15.836	4.354	26.922	47.024

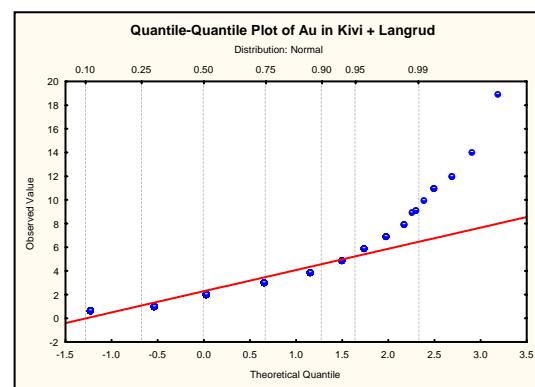
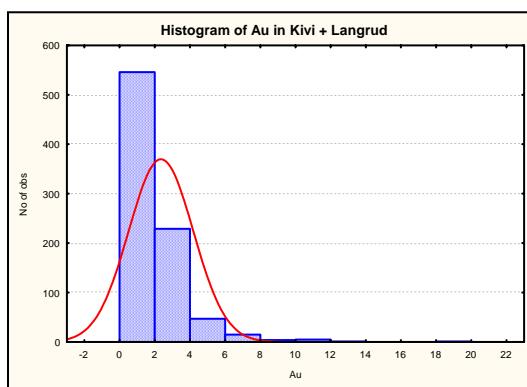
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
As	706	14.208	10.800	4.900	0.400	78.600	11.394	2.645	8.513	36.995

Au-

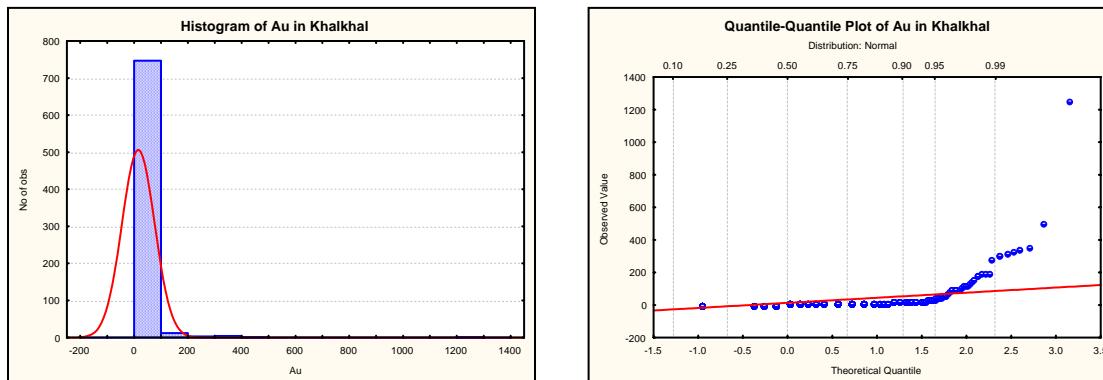


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Au	640	3.571	2.000	2.0	0.750	119.000	6.084	12.232	209.603	15.740

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Au	637	3.266	2.000	2.000000	0.750	29.000	3.351	4.132	22.185	9.969

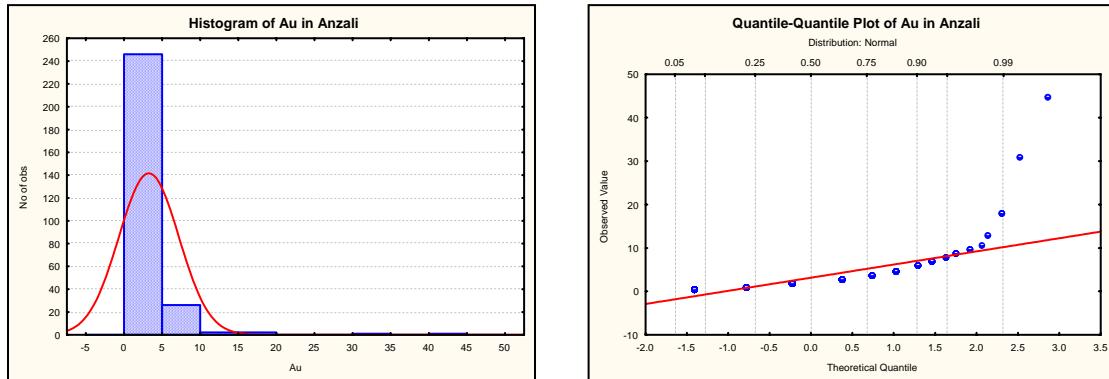


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Au	848	2.327	2.0	2.0	0.750	19.0	1.829	2.716	13.623	5.986



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Au	768	14.459	4.000	.296656	0.297	1250	60.447	13.256	238.456	135.353

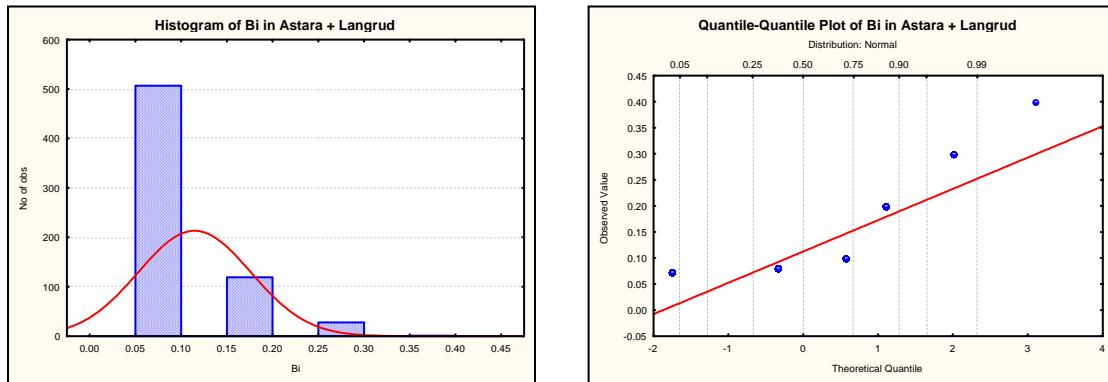
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Au	759	9.400	4.000	.2966560	0.297	200.000	22.263	5.696	37.343	53.925



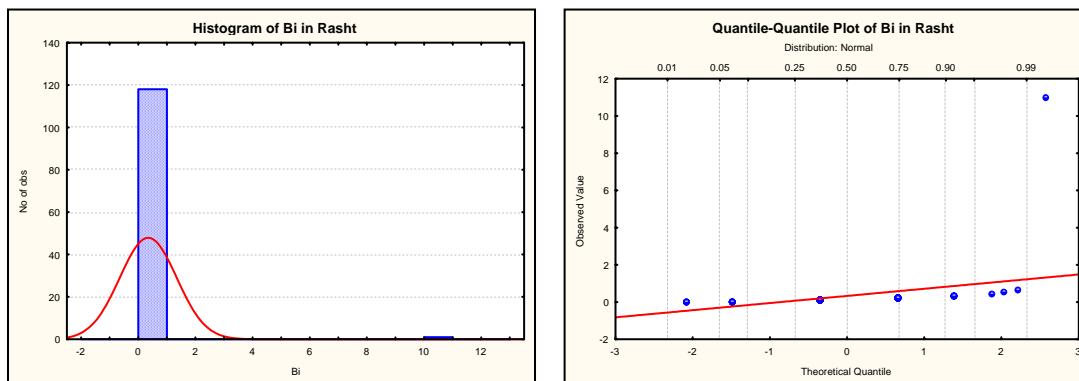
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Au	278	3.212	2.000	2	0.750	45	3.915	6.299	56.174	11.043

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Au	274	2.850	2.000	2	0.750	13	2.144	1.666	3.279	7.138

Bi -

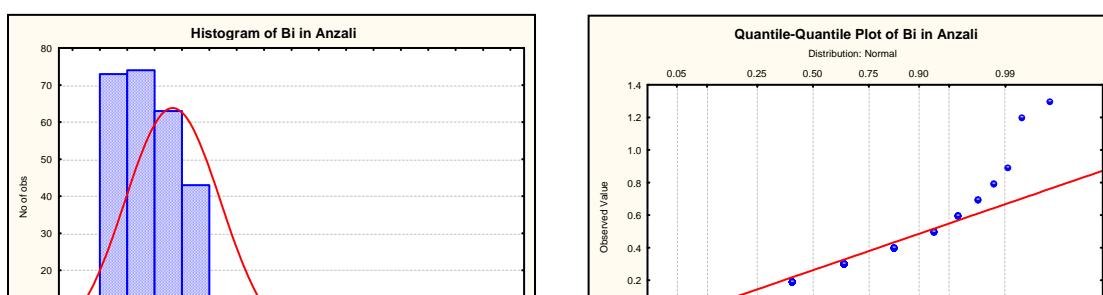


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
<b>Bi</b>	655	0.114	0.080	0.08	0.075	0.400	0.061	1.749	2.186	0.236



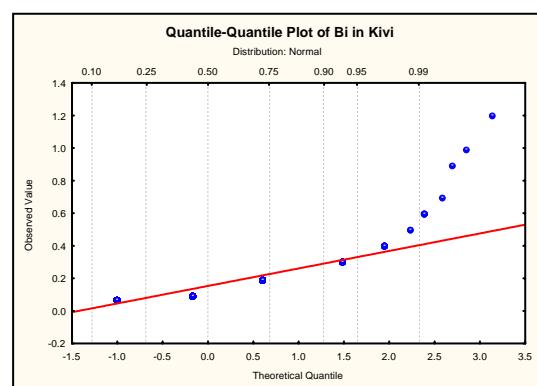
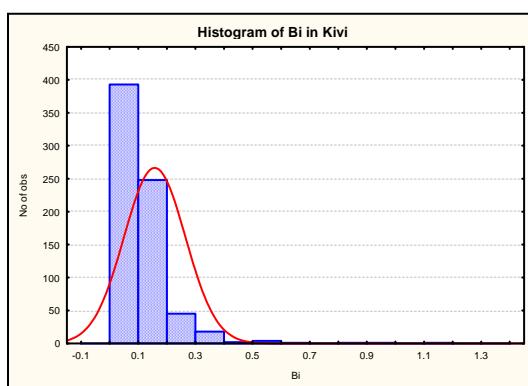
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Bi	119	0.334	0.200	0.20	0.075	11.000	0.991	10.741	116.521	2.317

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Bi	118	0.244	0.200	0.20	0.075	0.700	0.101	1.356	3.771	0.445



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Bi	278	0.264	0.200	0.20	0.075	1.300	0.174	1.945	7.346	0.612

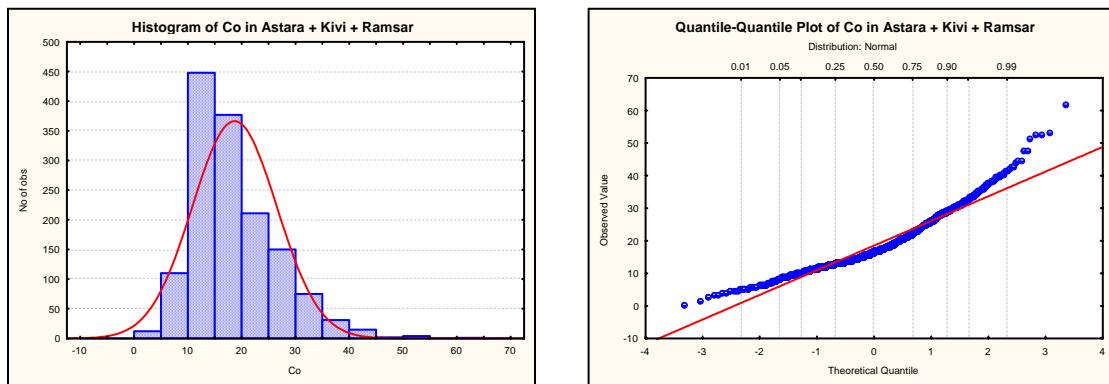
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Bi	276	0.257	0.200	0.20	0.075	0.900	0.153	1.046	1.601	0.562



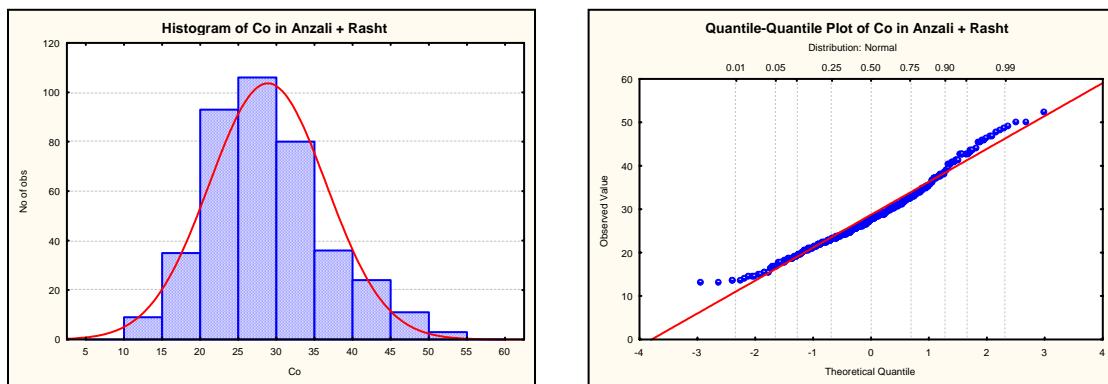
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Bi	714	0.156	0.100	0.200	0.075	1.200	0.107	3.476	22.684	0.370

Co -

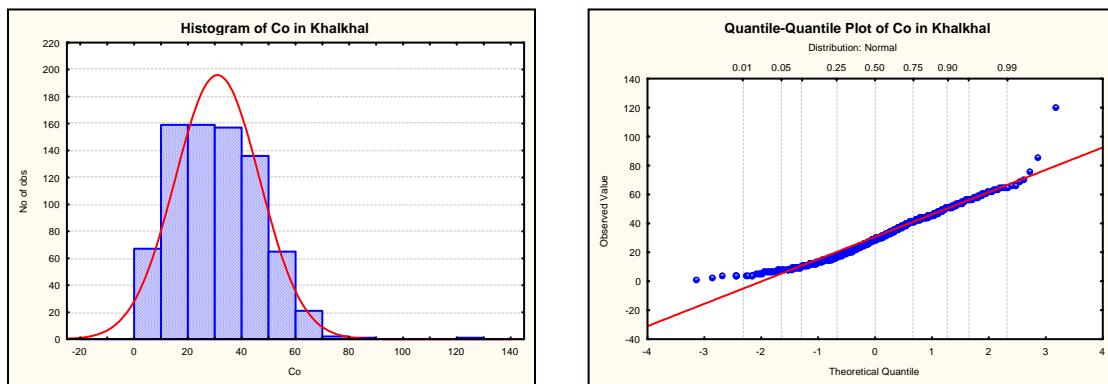
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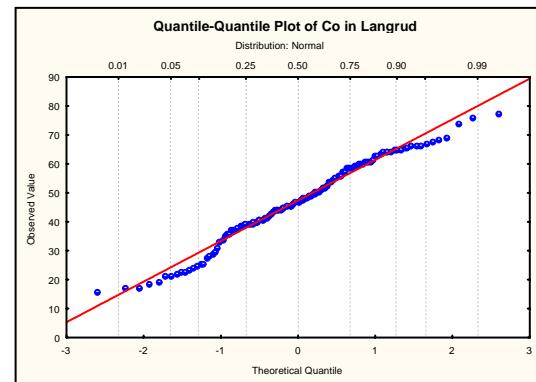
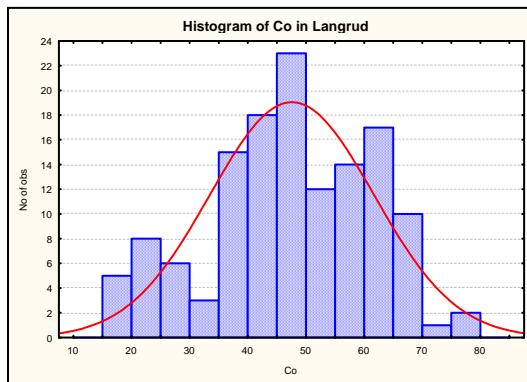
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Co	1436	18.527	16.900	12.50	0.700	62.200	7.815	1.086	1.791	34.158



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Co	397	28.739	28.0	29.0	13.400	52.700	7.640	0.558	0.157	44.018

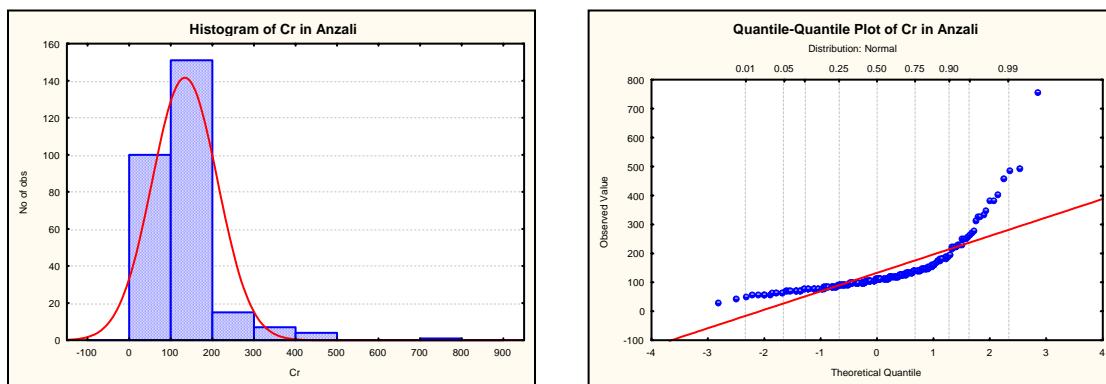


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Co	768	30.716	29.961	Multiple	1.788	120.411	15.637	0.523	0.629	61.991



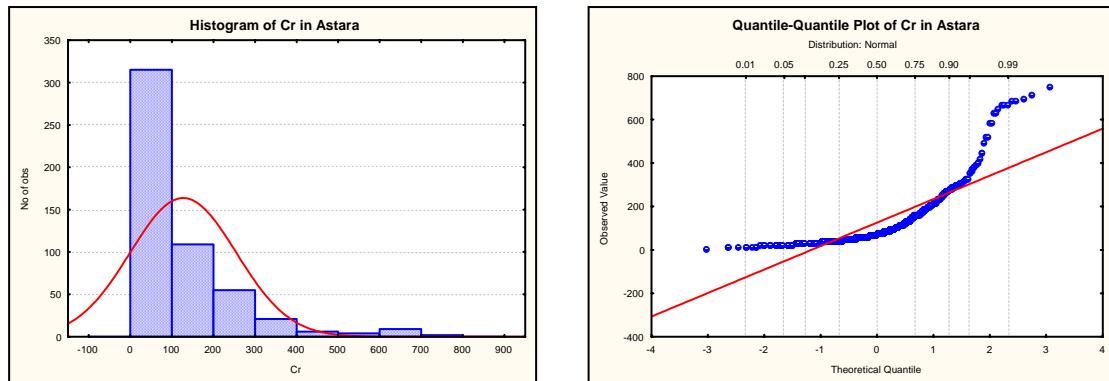
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Co	134	47.382	47.400	Multiple	16.200	77.900	14.031	-0.263	-0.476	75.445

Cr -

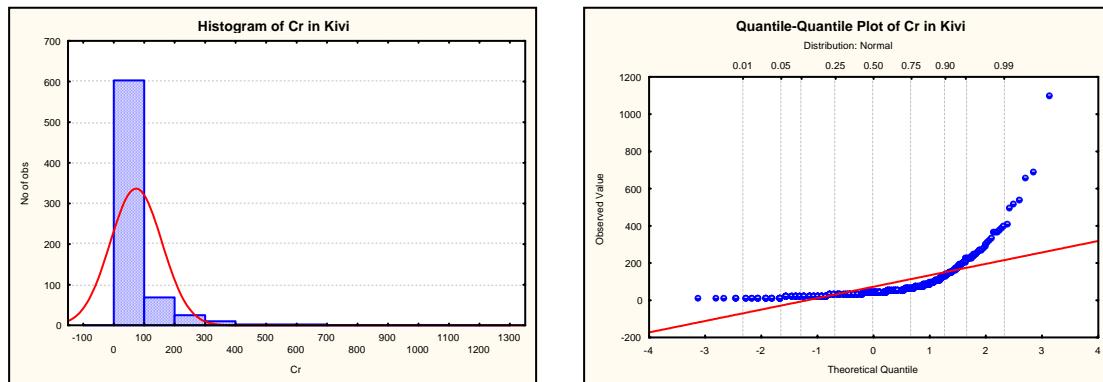


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Cr	278	132.644	113.500	99.0	31.0	756.000	78.313	3.591	18.757	289.271

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Cr	277	130.394	113.000	99.0	31.0	499.0	68.864	2.693	9.036	268.121

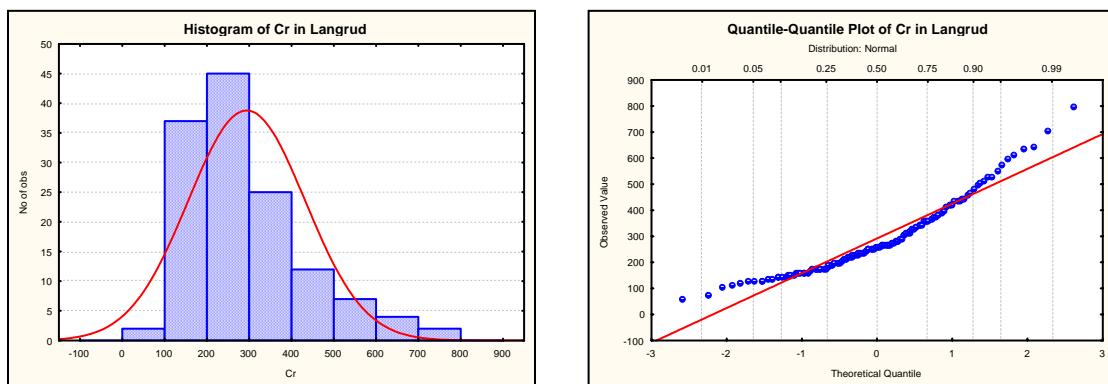


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Cr	521	125.843	76.0	Multiple	11.000	753.0	126.955	2.427	6.916	379.752



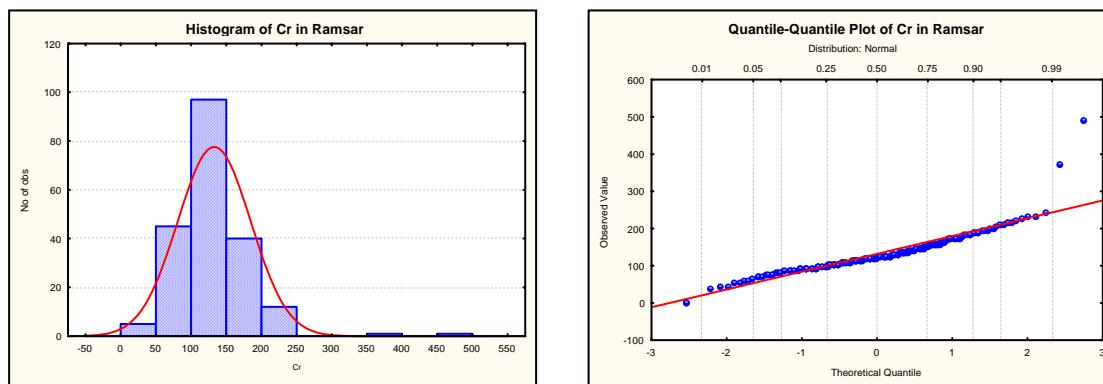
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Cr	714	72.598	48.0	40.0	11.0	1100.0	84.591	5.182	41.827	241.781

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Cr	708	67.541	48.0	40.0	11.0	414.0	61.697	2.832	9.141	190.935



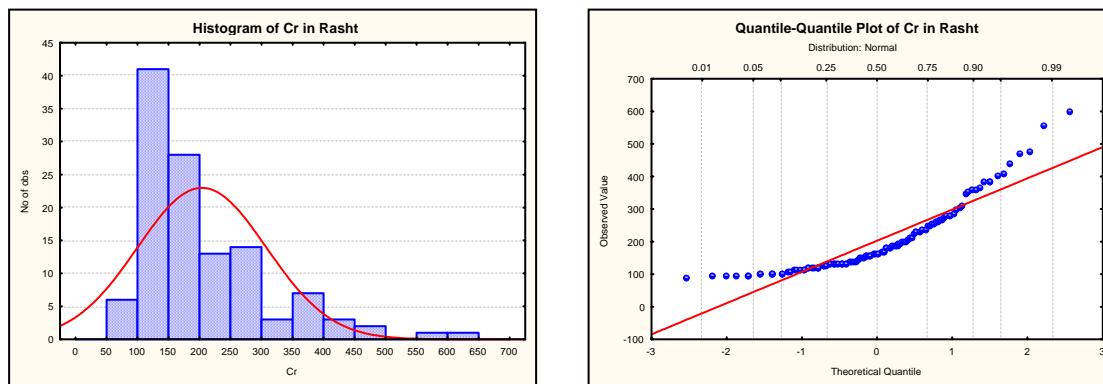
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Cr	134	291.940	263.0	252.0	65.0	800.0	137.823	1.114	1.242	567.587

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Cr	131	282.160	261.0	252.0	65.0	641.0	122.639	0.809	0.183	527.438



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Cr	201	131.895	124.0	Multiple	2.80	492.0	51.637	2.253	13.134	235.169

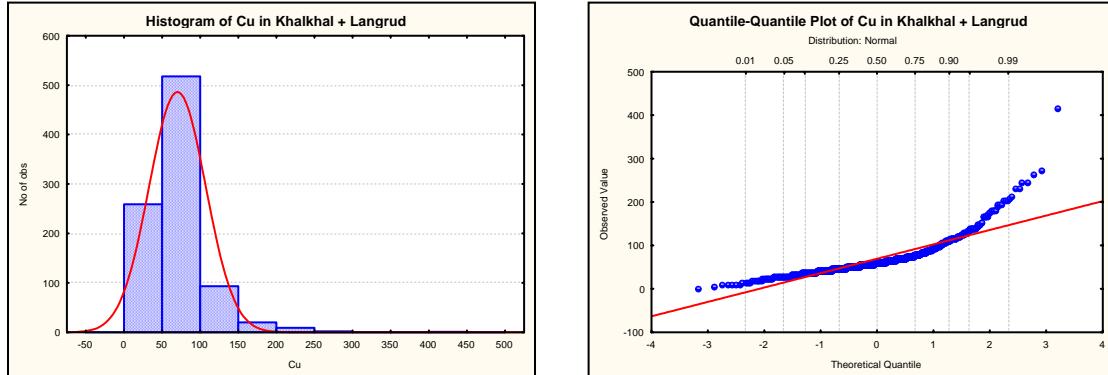
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Cr	199	128.863	124.0	Multiple	2.80	244.0	41.602	0.247	0.502	212.066



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Cr	119	202.748	167.0	Multiple	92.0	604.0	103.269	1.536	2.355	409.286

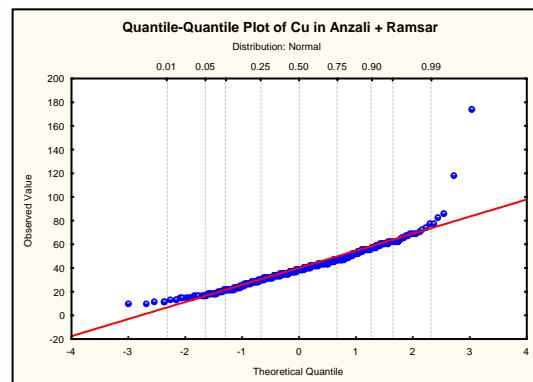
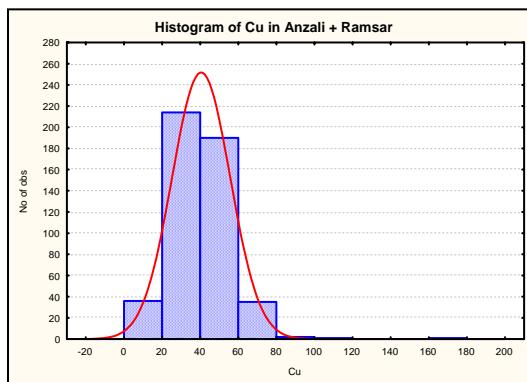
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Cr	117	196.282	163.0	Multiple	92.0	479.0	91.270	1.218	0.837	378.823

Cu -



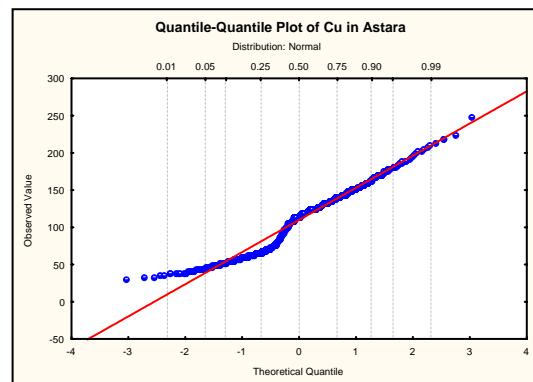
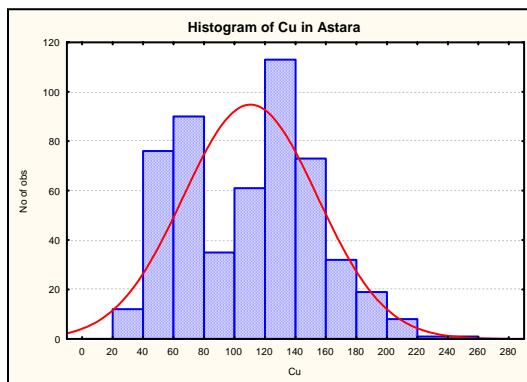
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Cu	902	69.456	60.882	43.50	2.063	416.0	36.995	2.617	12.902	143.445

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Cu	901	69.071	60.822	43.50	2.063	273.477	35.164	2.018	6.041	139.400

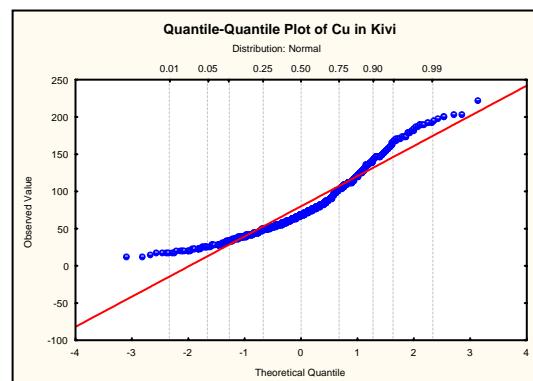
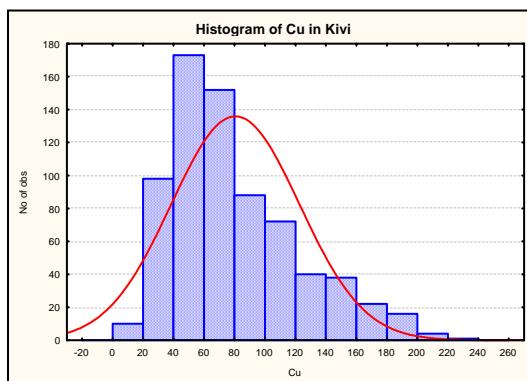


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Cu	479	40.154	39.20	42.30	10.80	175.0	15.179	1.913	13.511	70.512

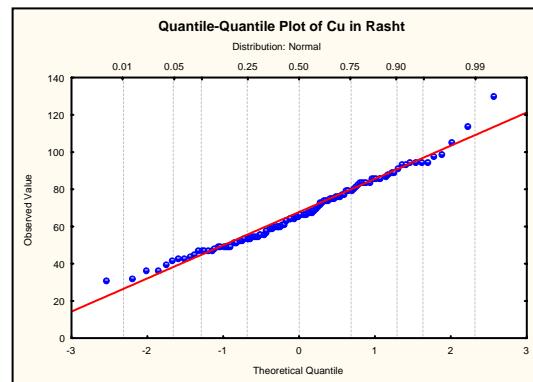
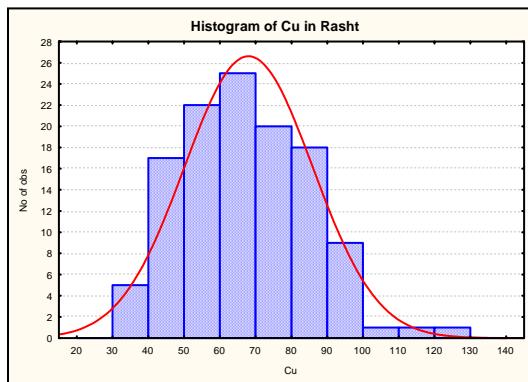
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Cu	477	39.708	39.20	42.30	10.80	86.300	13.425	0.328	0.087	66.559



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Cu	521	109.863	115.0	125.0	30.90	248.0	43.840	0.181	-0.761	197.543



	<b>Valid N</b>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Std.Dev.</b>	<b>Skewness</b>	<b>Kurtosis</b>	<b>X+2S</b>
<b>Cu</b>	714	80.024	70.0	112.0	13.0	222.0	41.915	0.939	0.323	163.854

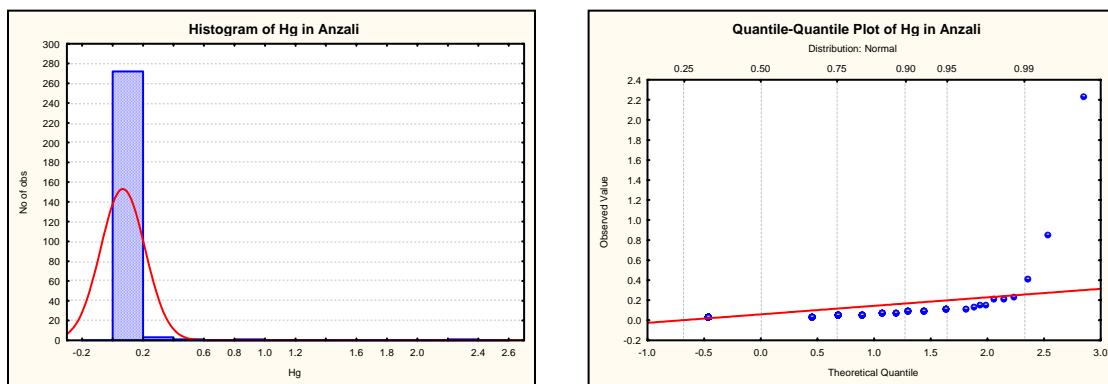


	<b>Valid N</b>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Std.Dev.</b>	<b>Skewness</b>	<b>Kurtosis</b>	<b>X+2S</b>
<b>Cu</b>	119	67.752	66.800	64.80000	31.600	130.000	17.838	0.471	0.330	103.427

	<b>Valid N</b>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Std.Dev.</b>	<b>Skewness</b>	<b>Kurtosis</b>	<b>X+2S</b>
<b>Cu</b>	116	66.487	65.800	64.80000	31.600	99.500	16.120	0.059	-0.798	98.727

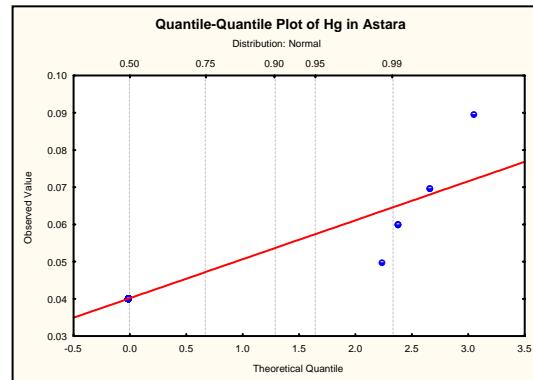
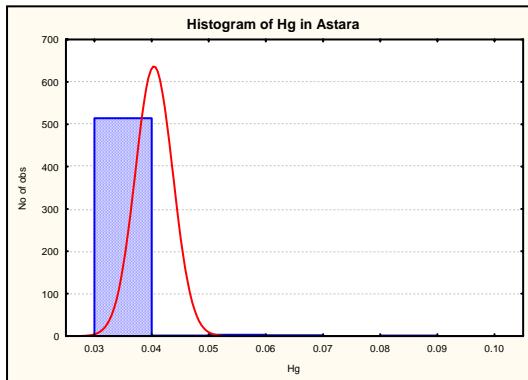
Hg -

/

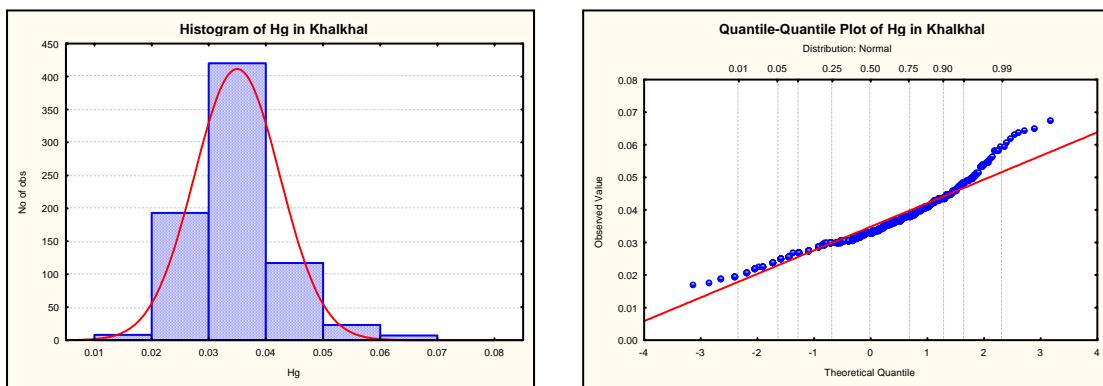


	<b>Valid N</b>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Std.Dev.</b>	<b>Skewness</b>	<b>Kurtosis</b>	<b>X+2S</b>
<b>Hg</b>	278	0.066	0.037	.0375000	0.037	2.240	0.145	13.006	188.396	0.355

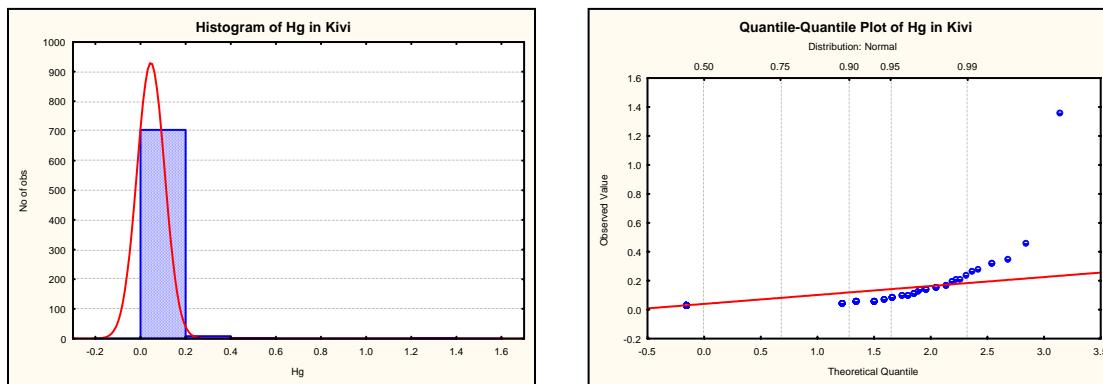
	<b>Valid N</b>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Std.Dev.</b>	<b>Skewness</b>	<b>Kurtosis</b>	<b>X+2S</b>
<b>Hg</b>	275	0.054	0.037	0.0375	0.037	0.250	0.031	3.053	12.059	0.116



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
<b>Hg</b>	521	0.040	0.040	0.040	0.040	0.090	0.003	11.012	135.614	0.047

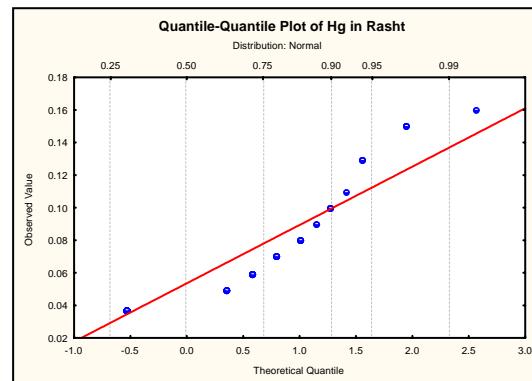
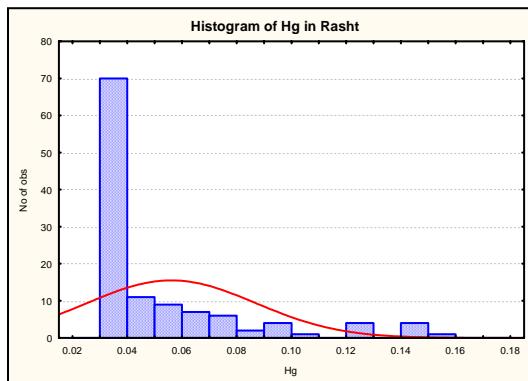


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Hg	768	0.035	0.033	0.030	0.017	0.068	0.007	1.059	2.066	0.050



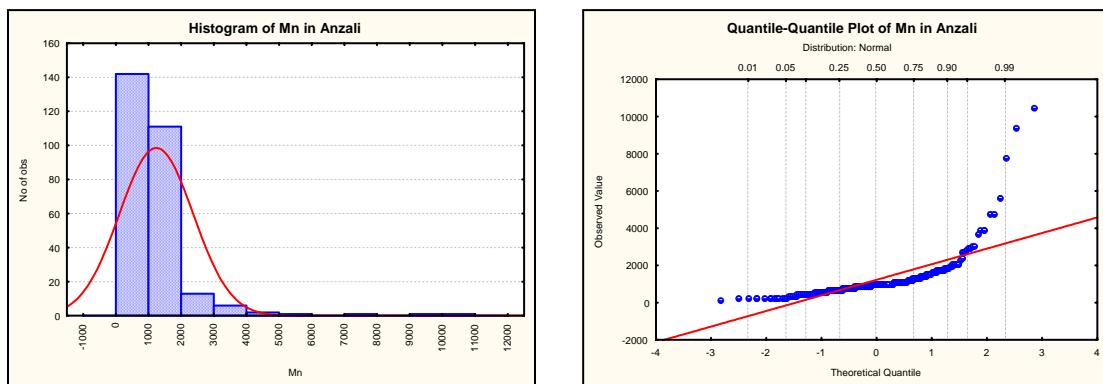
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Hg	714	0.044	0.033	0.033	0.033	1.360	0.061	15.275	305.866	0.166

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Hg	713	0.042	0.033	0.0330	0.033	0.460	0.036	6.342	49.524	0.115



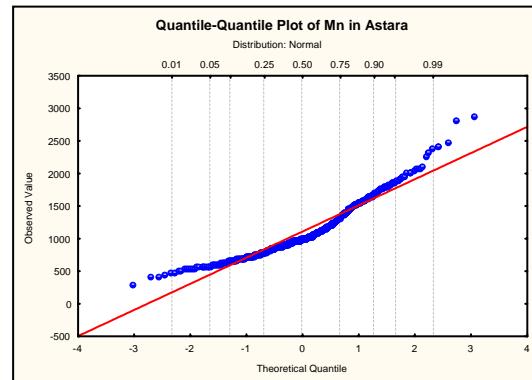
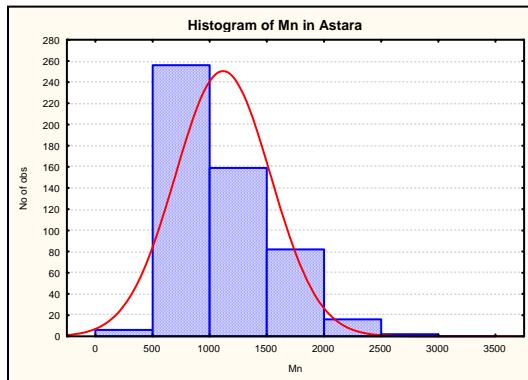
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Hg	119	0.056	0.037	0.03750	0.037	0.160	0.031	1.907	2.914	0.117

Mn -



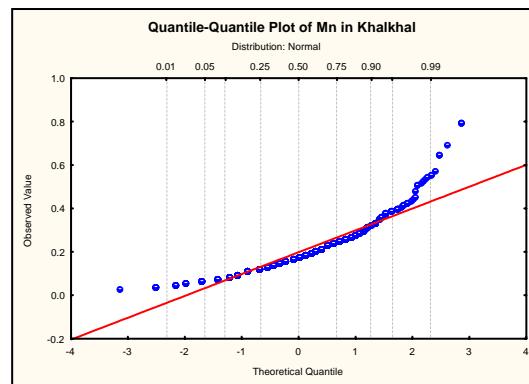
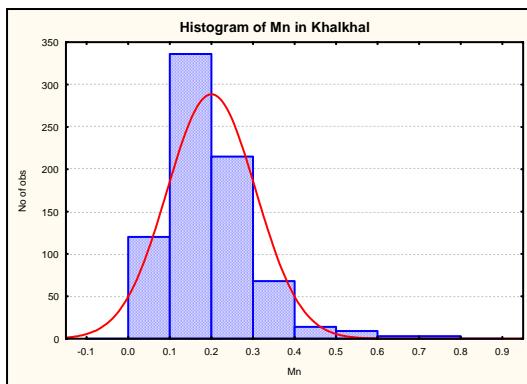
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mn	278	1225.45	996.50	1070	172	10500	1125.38	4.83	30.90	3476

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mn	268	1052.96	983	1070	172	3080	523.91	1.33	2.64	2100.8



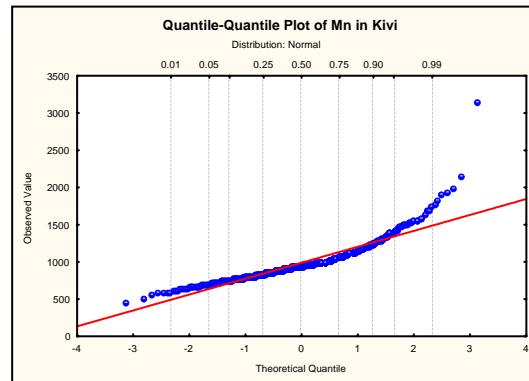
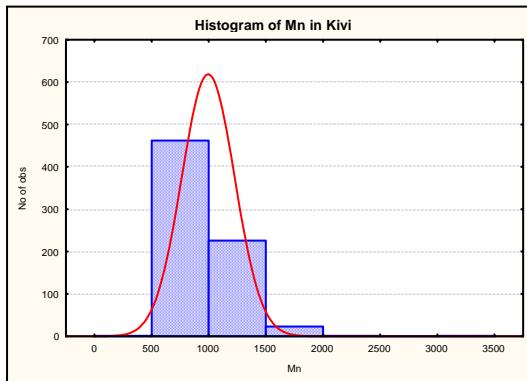
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mn	521	1109.36	1000	970	315.00	2890	414.98	1.02	1.06	1939.32

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mn	519	1102.61	1000	970	315	2480	401.24	0.87	0.30	1905.09



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mn	768	0.20	0.18	0.16	0.03	0.80	0.11	1.67	5.11	0.41

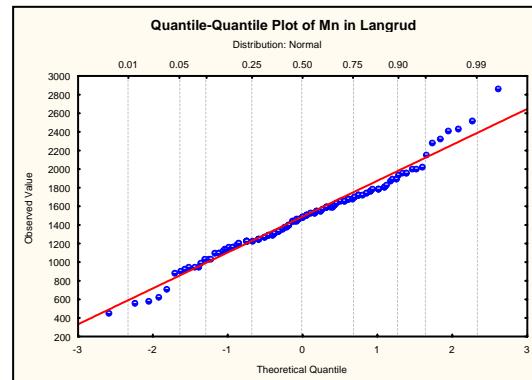
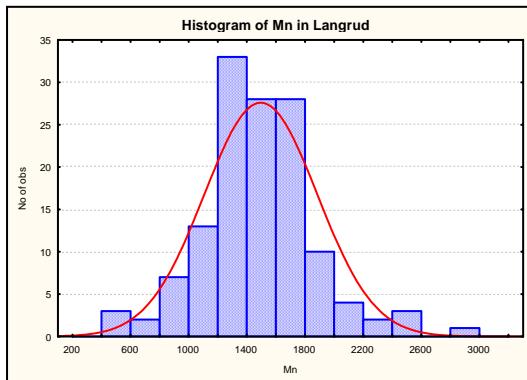
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mn	762	0.19	0.18	0.160	0.03	0.58	0.10	1.02	1.27	0.38



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mn	714	988.95	956	Multiple	449	3160	230.21	2.27	13.03	1449.37

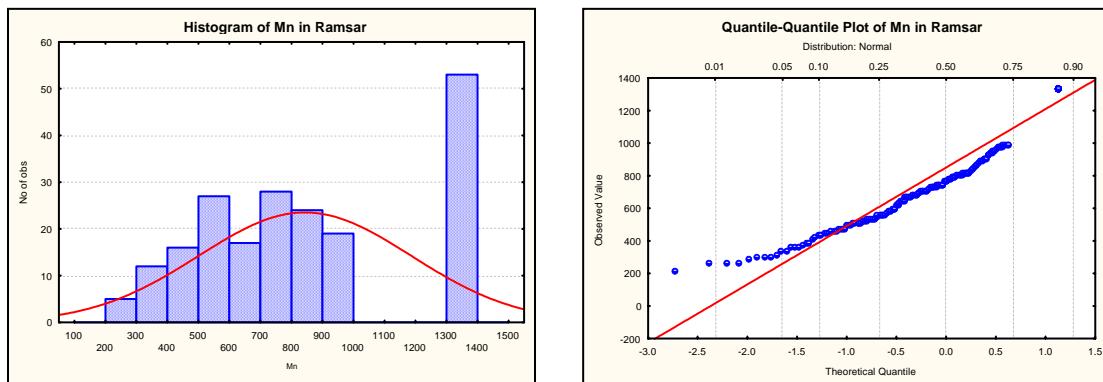
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Mn	713	985.91	956	Multiple	449	2150	215.51	1.37	3.39	1416.92

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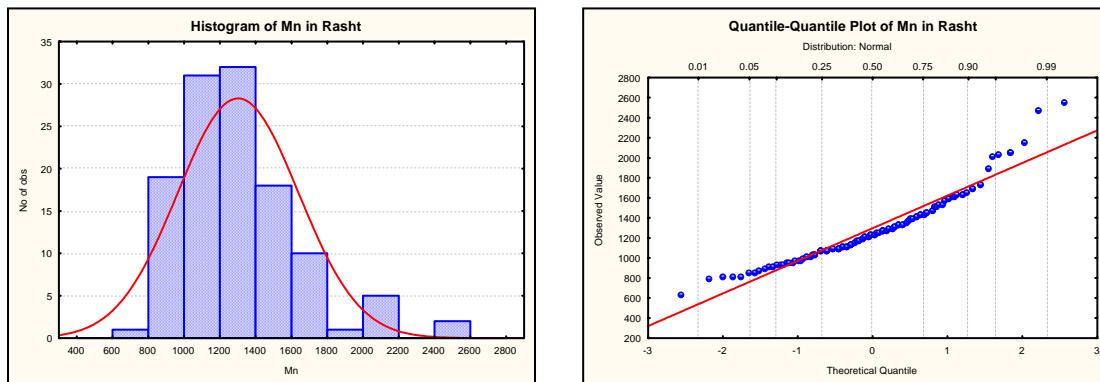
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mn	134	1488.92	1500	1230	456	2870	387.38	0.35	1.32	2263.67

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mn	133	1478.53	1500	1230	456	2520	369.65	0.08	0.72	2217.83



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mn	201	839.58	778	1333	225	1333	340.73	0.30	-1.15	1521.04

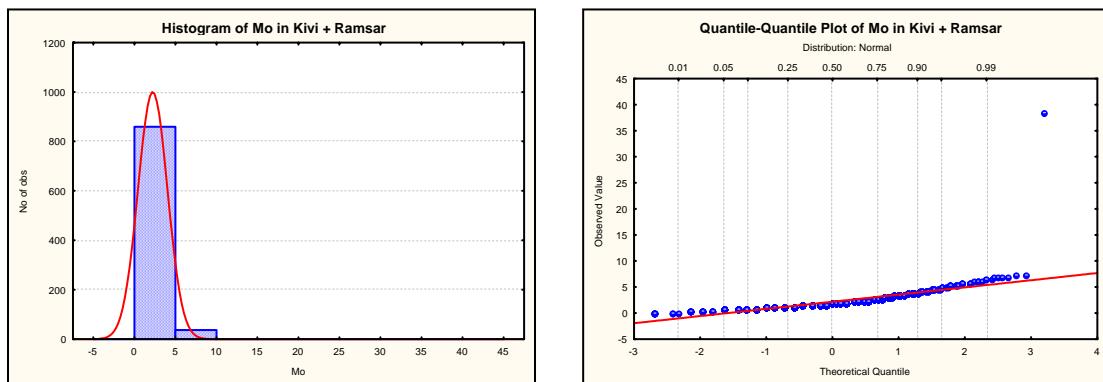
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mn	146	658.27	683	736	225	997	194.13	-0.18	-0.81	1046.53



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mn	119	1296.97	1250	Multiple	649	2570	335.59	1.21	2.26	1968.15

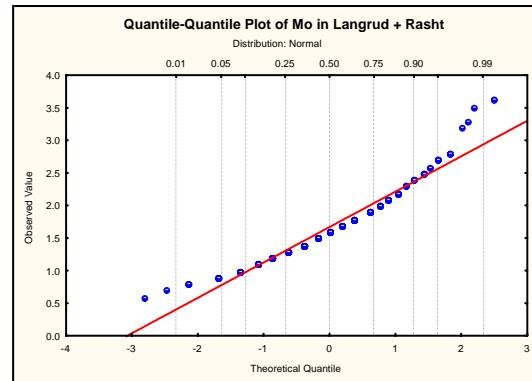
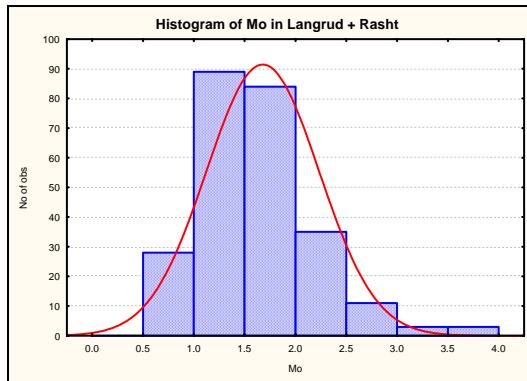
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mn	117	1275.89	1240	Multiple	649	2160	296.44	0.74	0.57	1868.76

Mo -



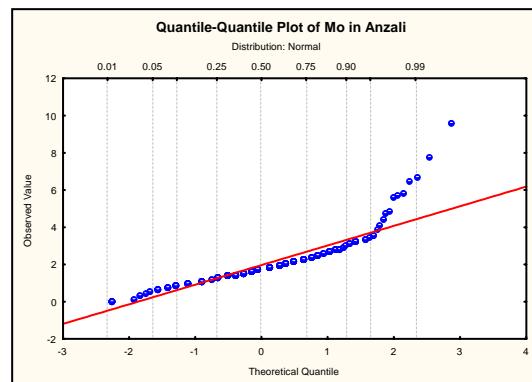
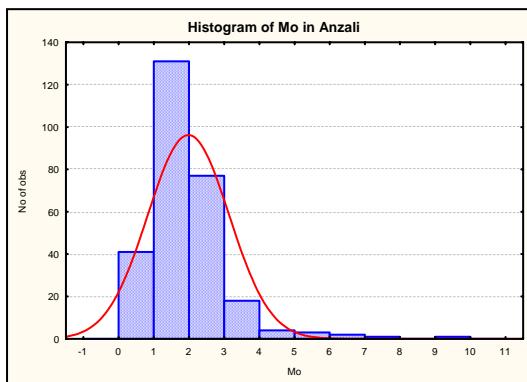
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
<b>Mo</b>	897	2.19	1.80	1.50	0.07	38.60	1.79	9.91	191.65	5.76

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
<b>Mo</b>	896	2.15	1.80	1.50	0.07	7.40	1.31	1.25	1.58	4.77



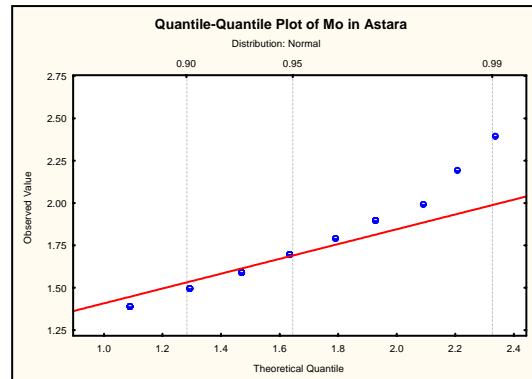
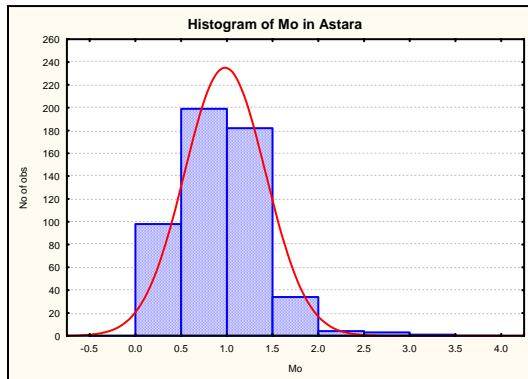
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mo	253	1.67	1.60	1.60	0.60	3.63	0.55	0.98	1.42	2.77

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mo	247	1.62	1.60	1.60	0.60	2.80	0.48	0.44	-0.27	2.58

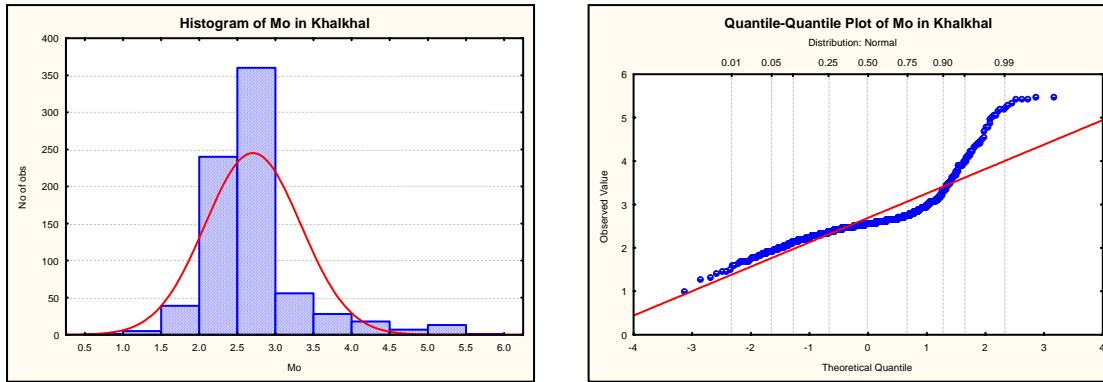


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mo	278	1.968	1.850	1.90	0.075	9.60	1.152	2.434	10.760	4.272

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mo	276	1.919	1.80	1.90	0.075	6.700	1.000	1.544	4.850	3.918

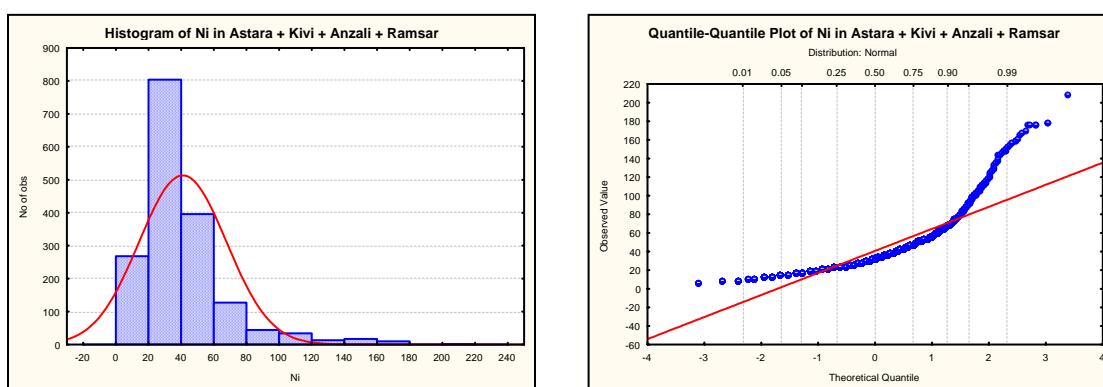


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mo	521	0.972	0.90	1.20	0.080	3.40	0.442	0.898	2.354	1.856



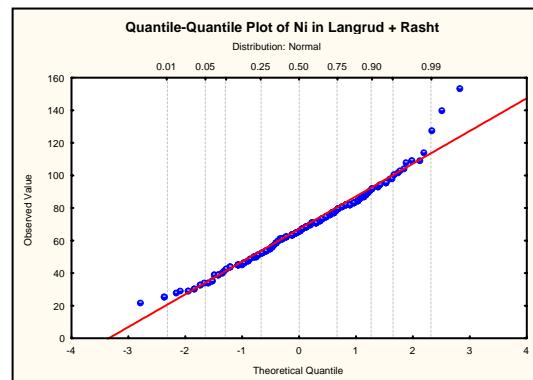
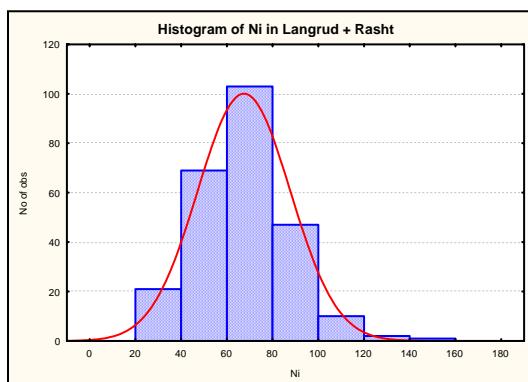
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Mo	768	2.693	2.587	2.587	1.000	5.505	0.625	1.979	5.600	3.943

Ni -



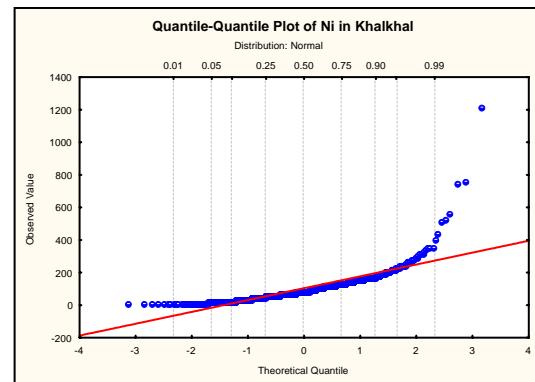
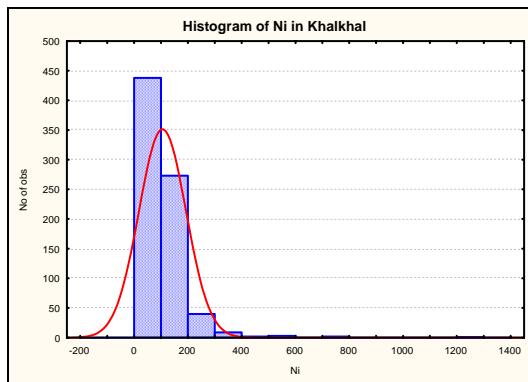
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Ni	1714	40.655	33.0	25.0	7	210	26.639	2.301	7.025	93.934

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Ni	1713	40.557	33	25.0	7	179	26.331	2.239	6.541	93.218



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Ni	253	67.099	66.0	64	22	154	20.175	0.549	1.308	107.449

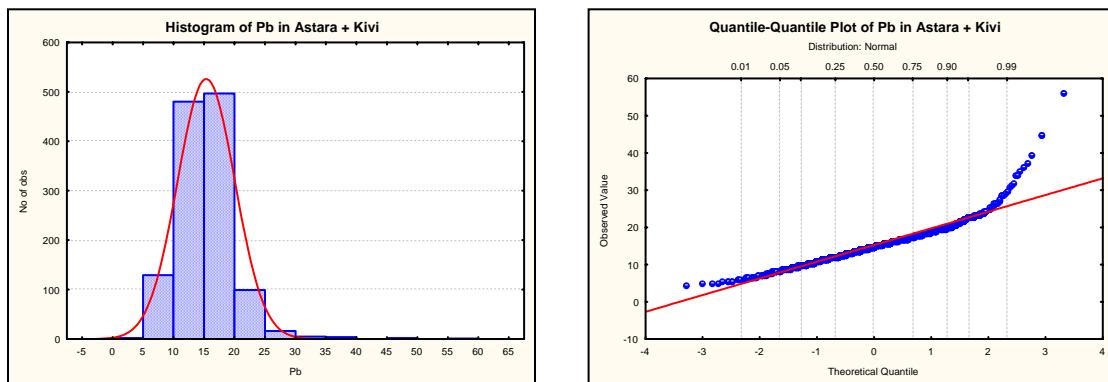
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Ni	250	66.216	65.500	64	22	114	18.563	0.054	-0.336	103.343



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Ni	768	103.865	86.184	86.184	8.893	1213.513	87.141	4.684	43.506	278.147

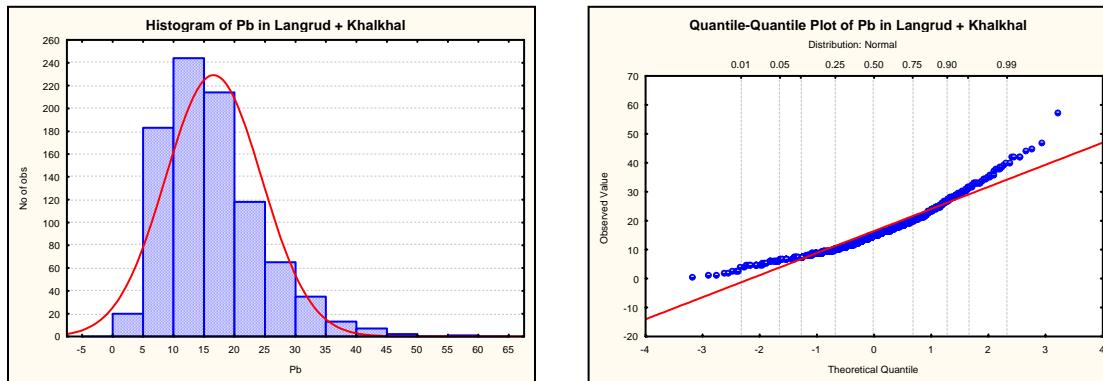
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Ni	762	99.019	85.952	86.1842	8.893	442.340	64.683	1.321	2.834	228.384

Pb –



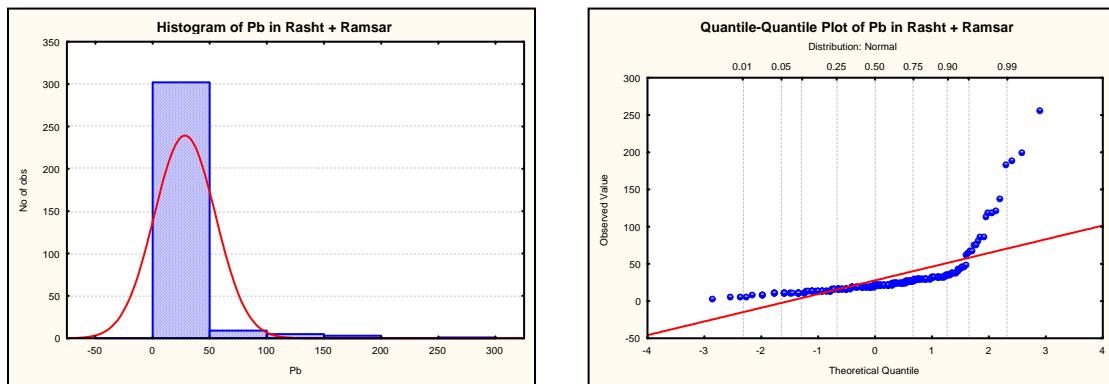
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Pb	1235	15.250	15.10	Multiple	4.300	56.20	4.681	1.590	8.699	24.612

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Pb	1232	15.169	15.10	Multiple	4.30	39.50	4.376	0.824	2.623	23.920



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Pb	902	16.452	15.130	8.000000	1.137	57.709	7.850	1.035	1.452	32.153

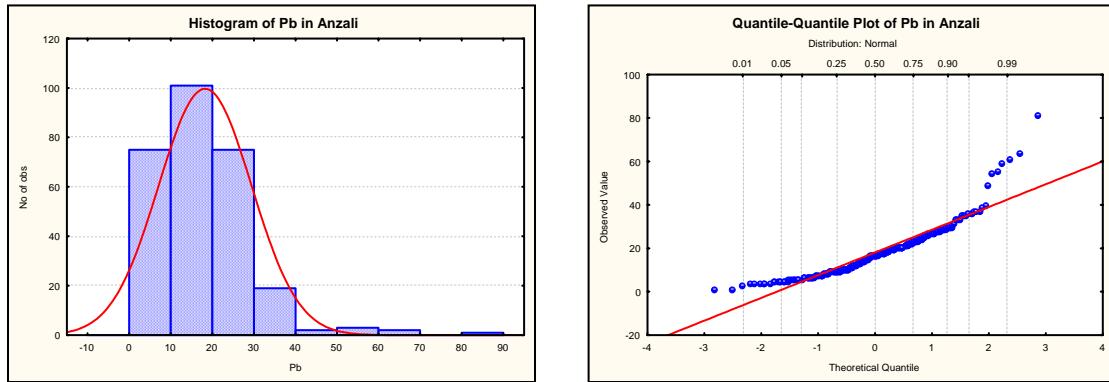
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Pb	901	16.407	15.116	8	1.137	46.874	7.733	0.933	0.849	31.873



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Pb	320	27.794	22.0	20.0	4	256	26.674	5.051	30.992	81.142

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Pb	311	23.946	21.60	20.0	4.0	88.0	11.875	2.537	9.512	47.696

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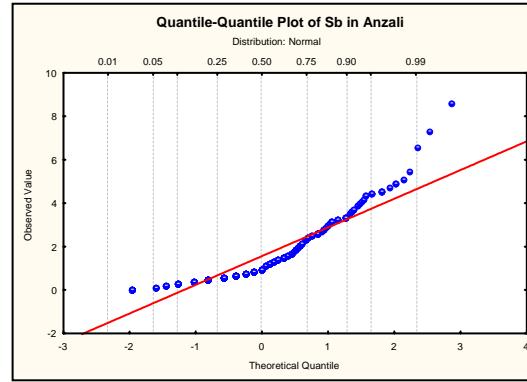
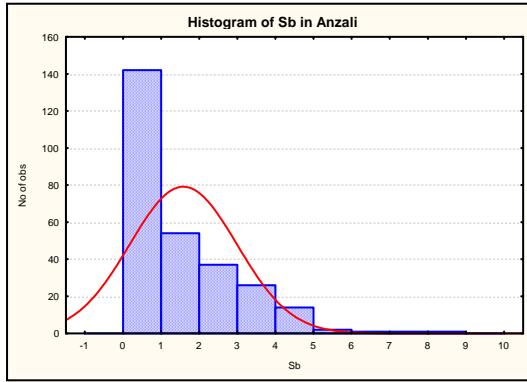


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Pb	278	18.096	17.250	21.0	1.20	81.90	11.124	1.722	5.592	40.344

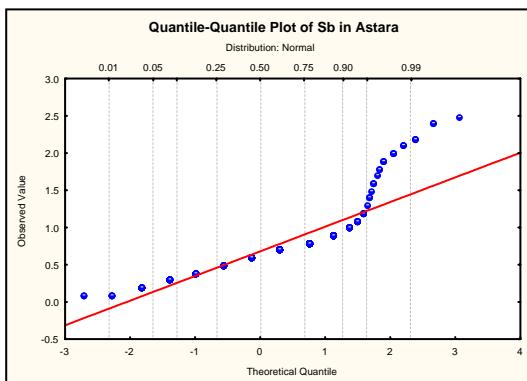
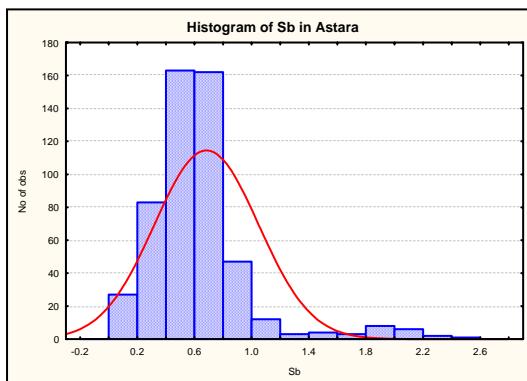
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Pb	271	16.990	17.0	21.0	1.20	40.30	8.704	0.451	-0.500	34.398

Sb –

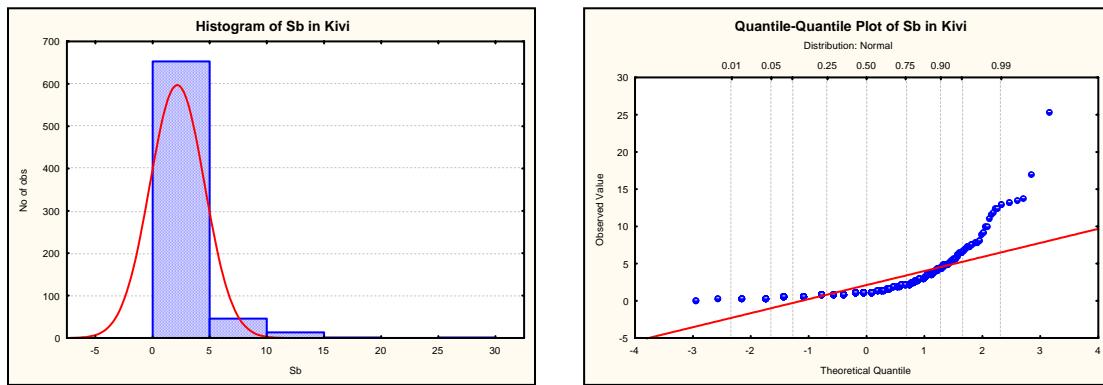
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Sb	278	1.567	1.0	0.60	0.075	8.60	1.401	1.546	2.983	4.369



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Sb	275	1.502	1.000	0.60	0.075	5.500	1.260	1.085	0.307	4.022

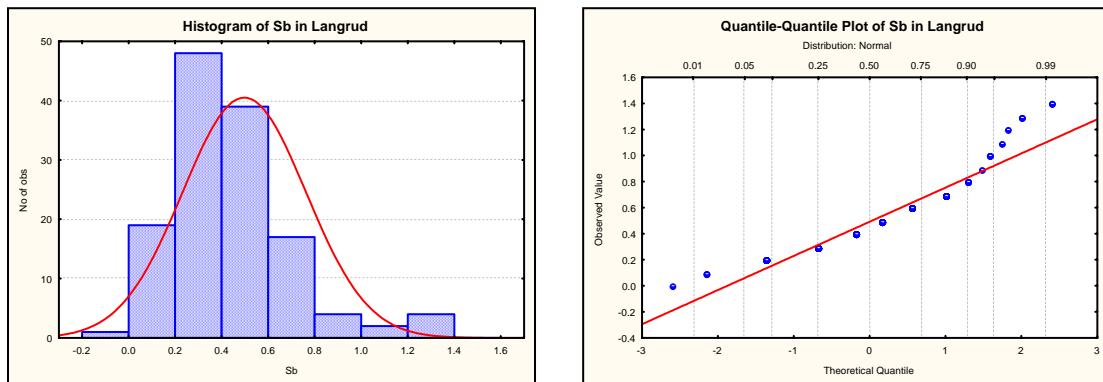


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Sb	521	0.679	0.600	0.70	0.080	2.500	0.363	2.210	6.969	1.405

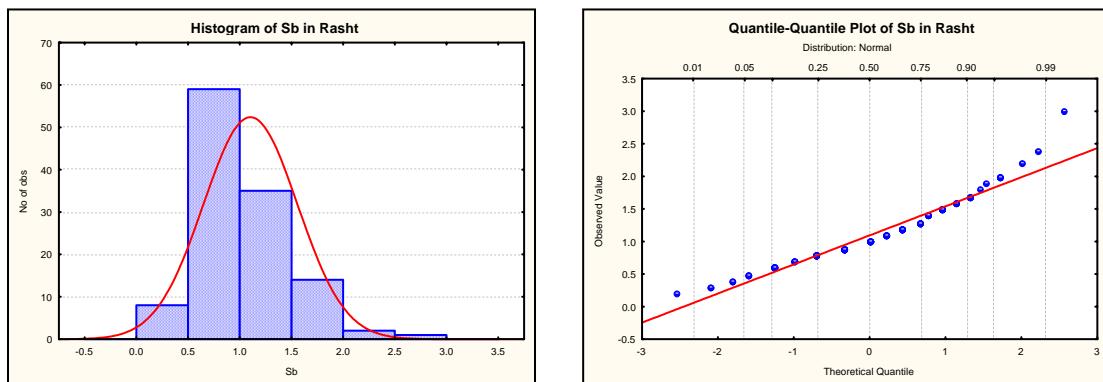


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Sb	714	2.114	1.300	0.800	0.200	25.300	2.384	3.666	19.992	6.882

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Sb	712	2.060	1.300	0.80	0.200	13.800	2.150	2.833	9.537	6.360

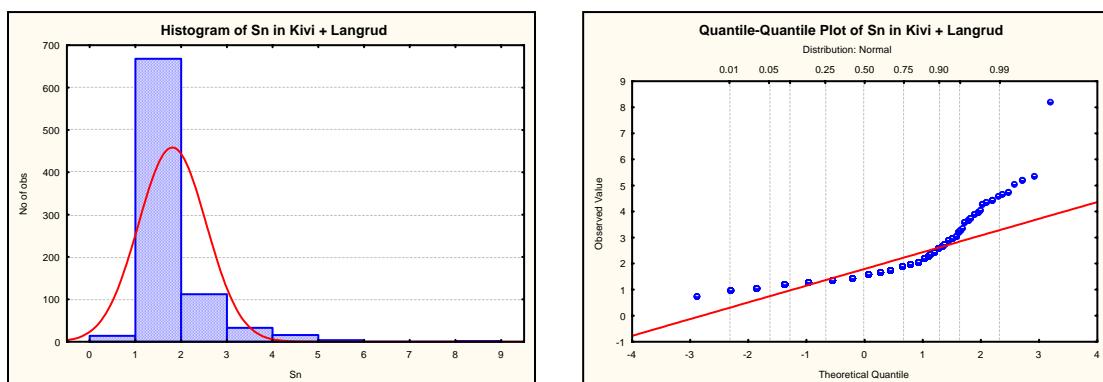


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
<b>Sb</b>	133	0.497	0.400	0.300	0.100	1.400	0.261	1.297	2.115	1.020



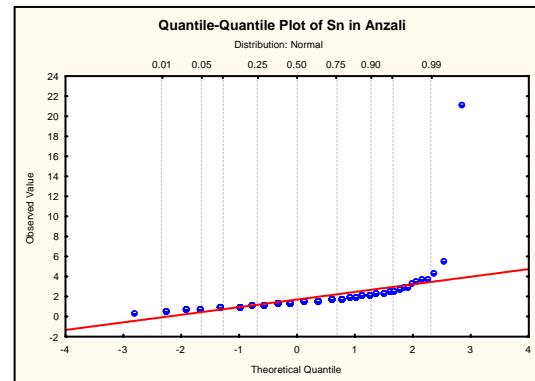
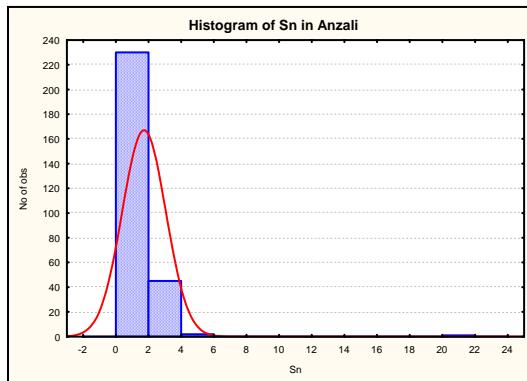
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Sb	119	1.094	1.0	0.90	0.20	3.0	0.453	1.078	2.220	2.0

Sn –



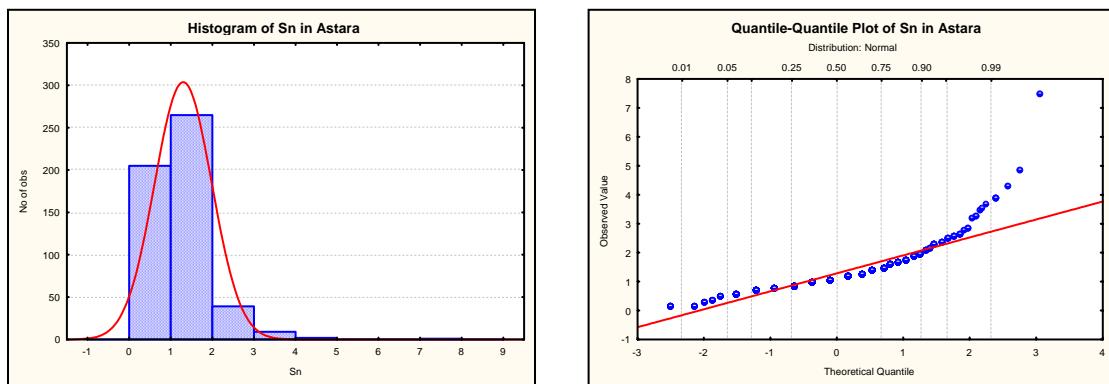
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Sn	848	1.798	1.600	1.400	0.800	8.200	0.738	2.725	11.121	3.273

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Sn	847	1.790	1.600	1.400000	0.800	5.400	0.704	2.275	5.976	3.199



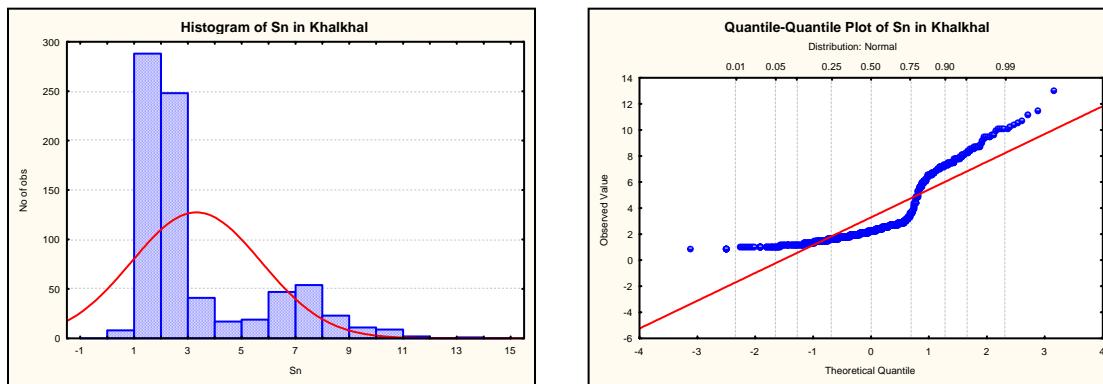
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Sn	278	1.705	1.600	1.50	0.500	21.300	1.326	11.893	173.140	4.358

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Sn	277	1.634	1.60	1.50	0.500	5.700	0.608	2.139	9.126	2.850

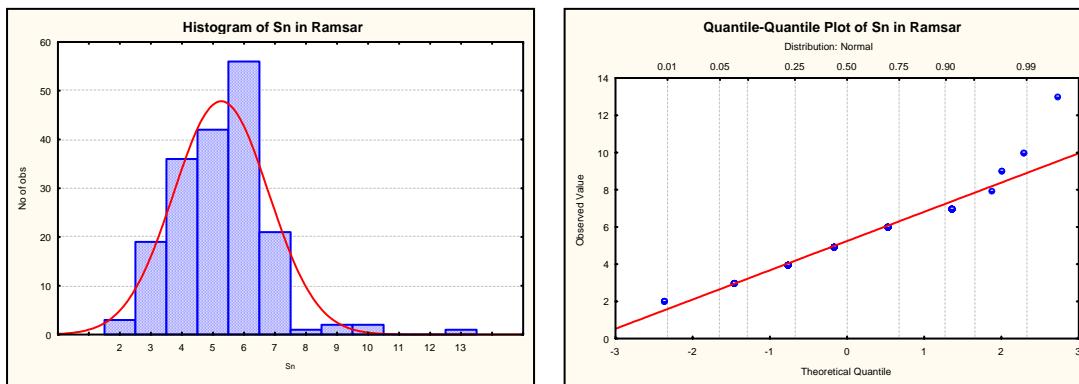


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
<b>Sn</b>	521	1.286	1.100	1.100	0.150	7.500	0.684	2.767	15.975	2.654

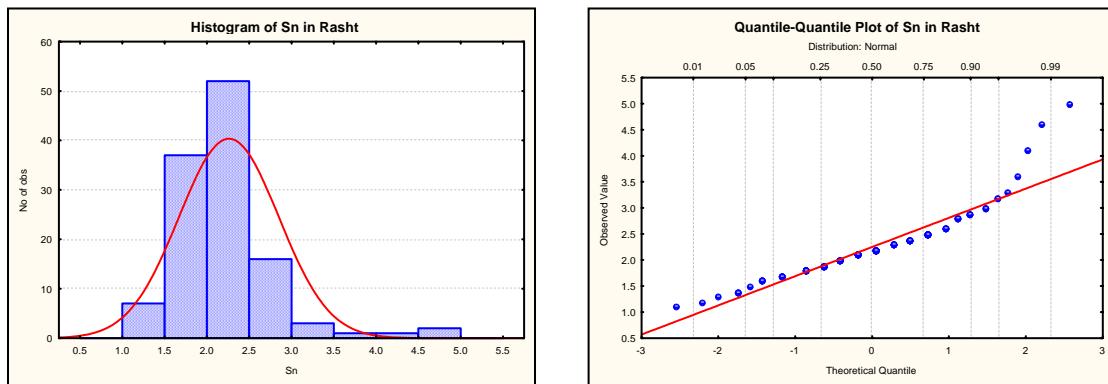
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
<b>Sn</b>	520	1.274	1.100	1.100	0.150	4.900	0.628	1.767	5.217	2.530



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Sn	768	3.291	2.309	1.100	0.997	13.136	2.404	1.419	0.942	8.099

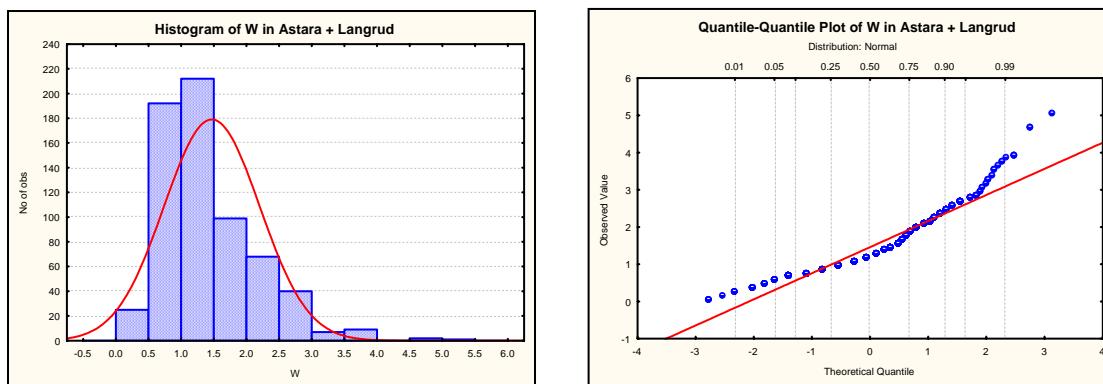


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Sn	183	5.240	5.0	6.0	2.0	13.0	1.525	0.883	3.480	8.291

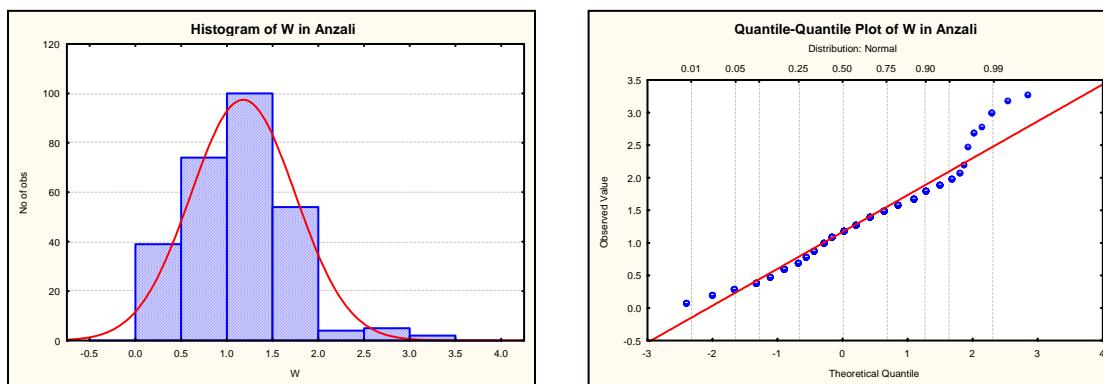


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Sn	119	2.250	2.200	Multiple	1.100	5.0	0.588	1.671	5.505	3.427

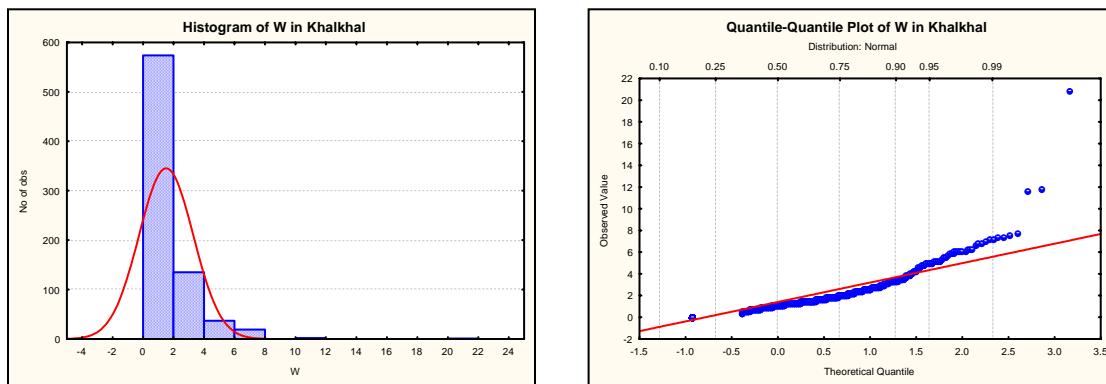
W –



	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
W	655	1.459	1.200	1.100	0.075	5.100	0.730	1.268	2.257	2.919

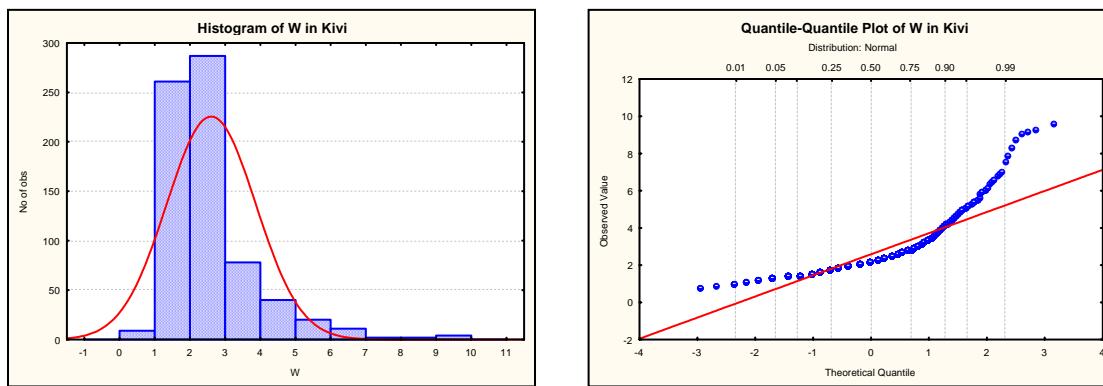


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
W	278	1.168	1.200	0.60	0.075	3.300	0.569	0.575	1.058	2.306

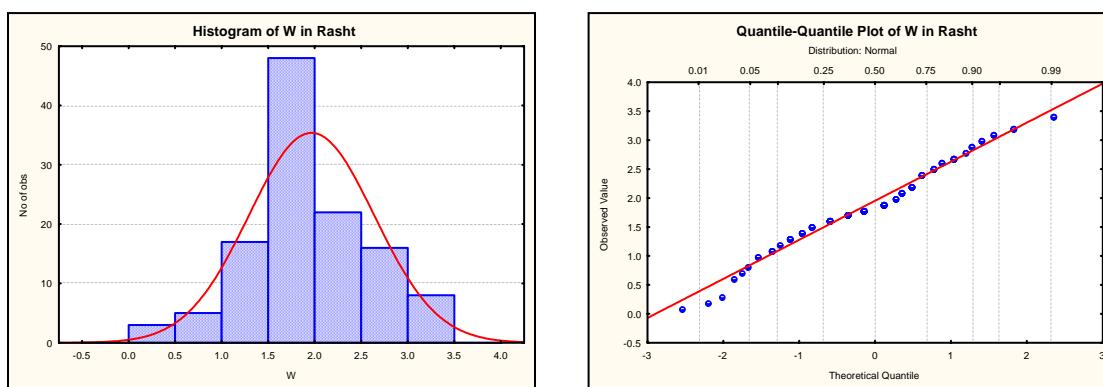


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
W	768	1.485	1.183	.0727	0.073	20.859	1.774	3.188	21.832	5.032

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
W	758	1.377	1.157	.0727	0.073	6.932	1.440	1.409	1.936	4.257

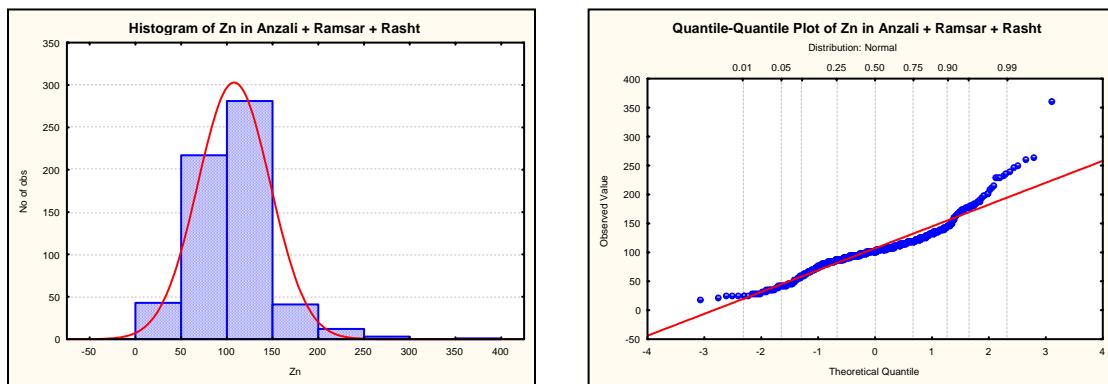


	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
W	714	2.585	2.200	2.100	0.800	9.600	1.262	2.204	6.586	5.110



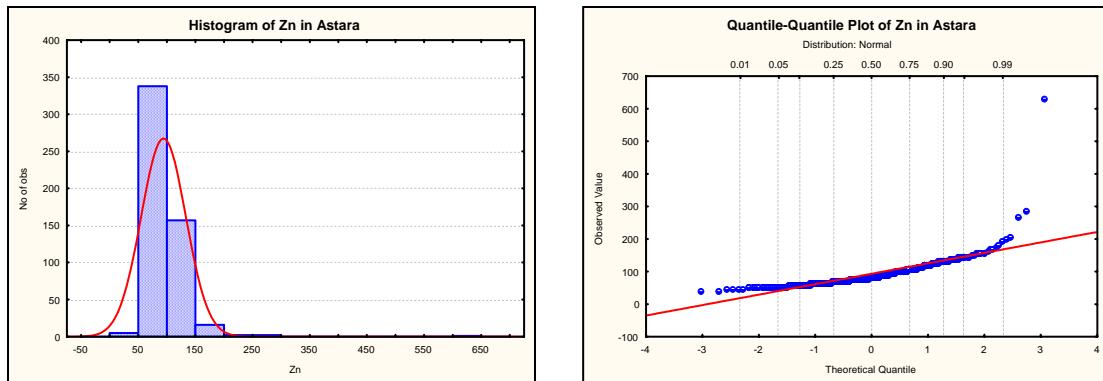
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
W	119	1.953	1.900	1.600	0.075	3.400	0.671	-0.062	0.177	3.294

Zn –



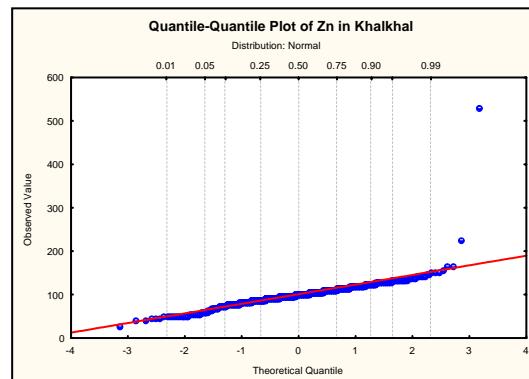
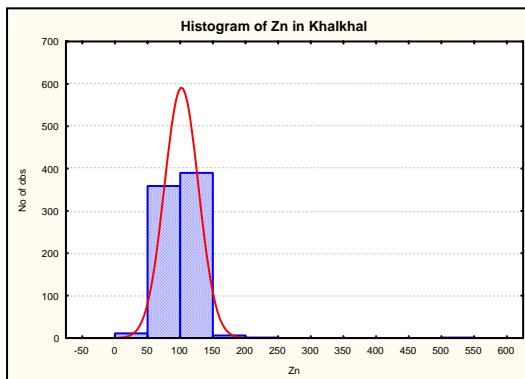
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Zn	598	107.012	104.0	107.0	21.0	363.0	39.358	1.213	4.652	185.728

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Zn	597	106.584	104.0	107.0	21.0	264.900	37.967	0.871	2.390	182.518



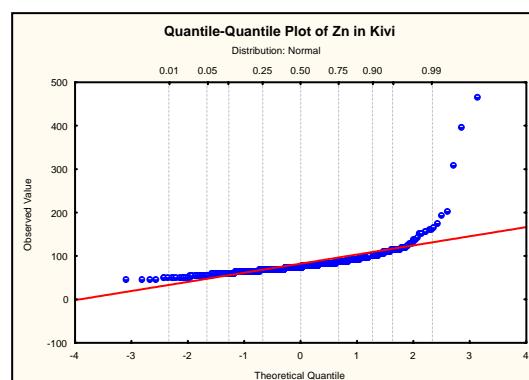
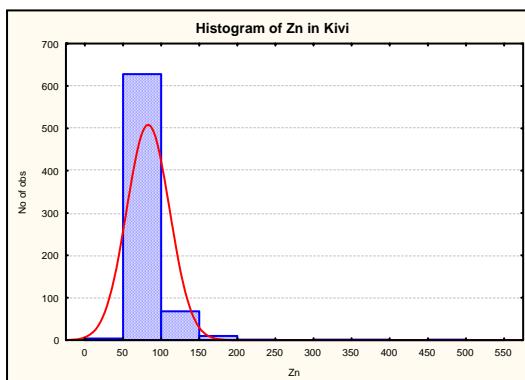
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Zn	521	93.290	83.800	101.0	40.20	631.0	38.848	5.840	71.427	170.986

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Zn	518	91.542	83.450	101.0	40.20	208.0	28.717	0.953	0.766	148.977



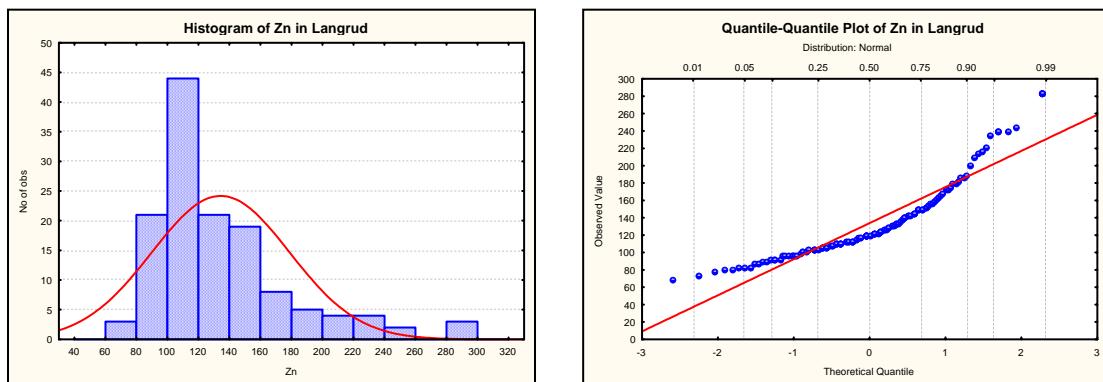
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Zn	768	101.049	100.732	100.731	26.538	532.064	25.905	5.989	99.709	152.860

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Zn	766	100.324	100.676	100.731	26.538	167.409	20.229	-0.265	0.509	140.781



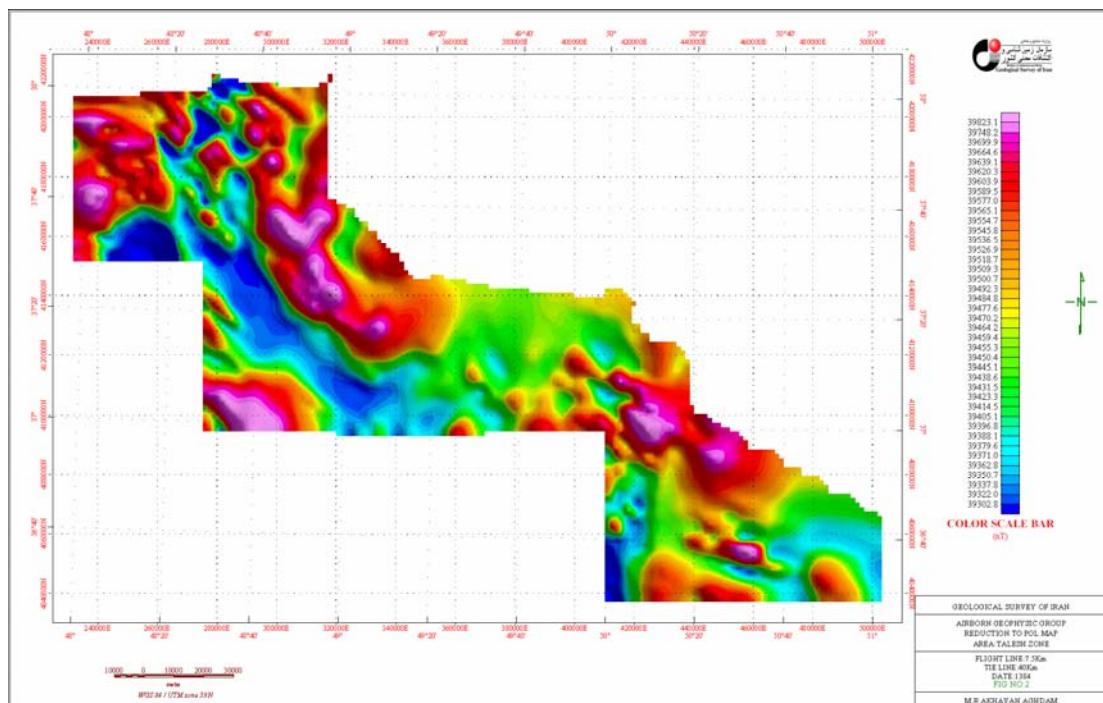
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Zn	714	82.420	77.400	71.0	47.300	468.0	28.008	6.994	78.664	138.436

	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Zn	711	81.114	77.300	71.0	47.300	205.0	19.070	2.009	7.264	119.254



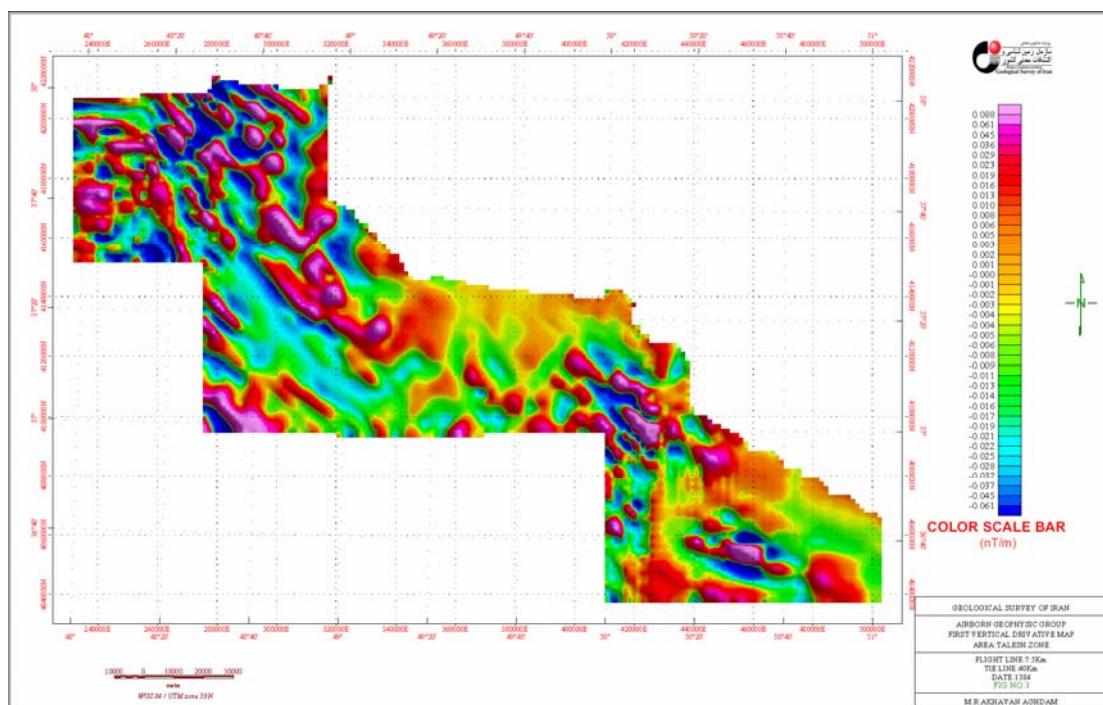
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Zn	134	133.849	119.500	119.0	69.60	283.90	44.205	1.489	2.187	222.260

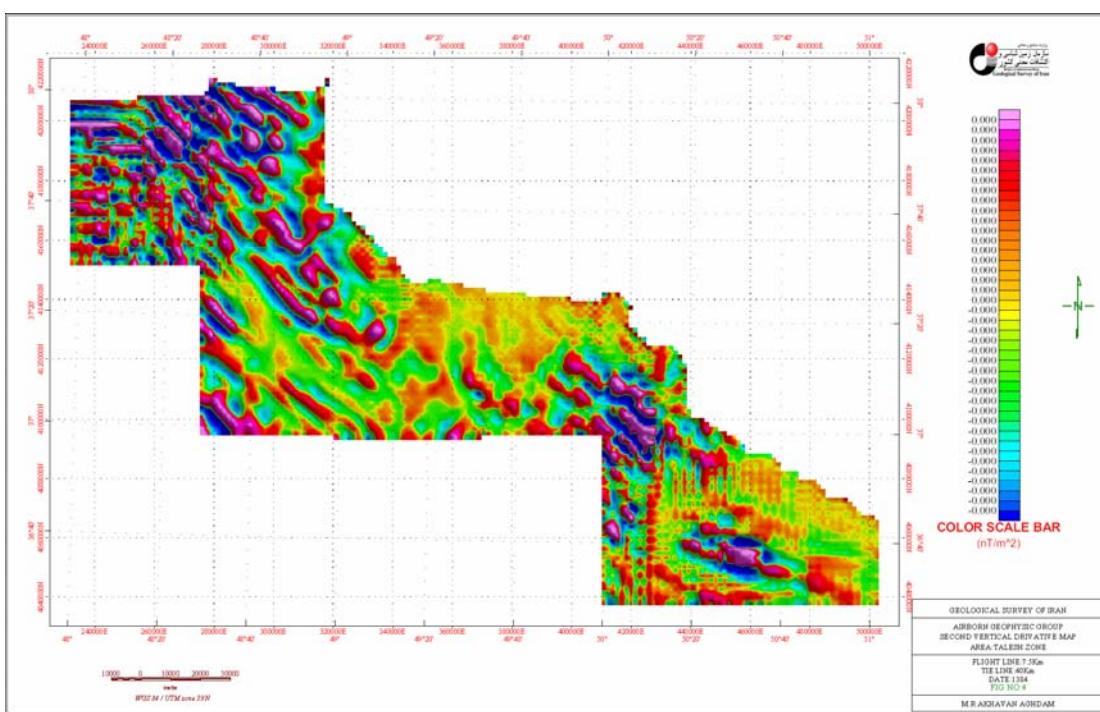
	Valid N	Mean	Median	Mode	Minimum	Maximum	Std.Dev.	Skewness	Kurtosis	X+2S
Zn	131	130.413	119.0	119.0	69.60	244.0	38.311	1.207	1.179	207.035



نقشه شماره ۴-۵

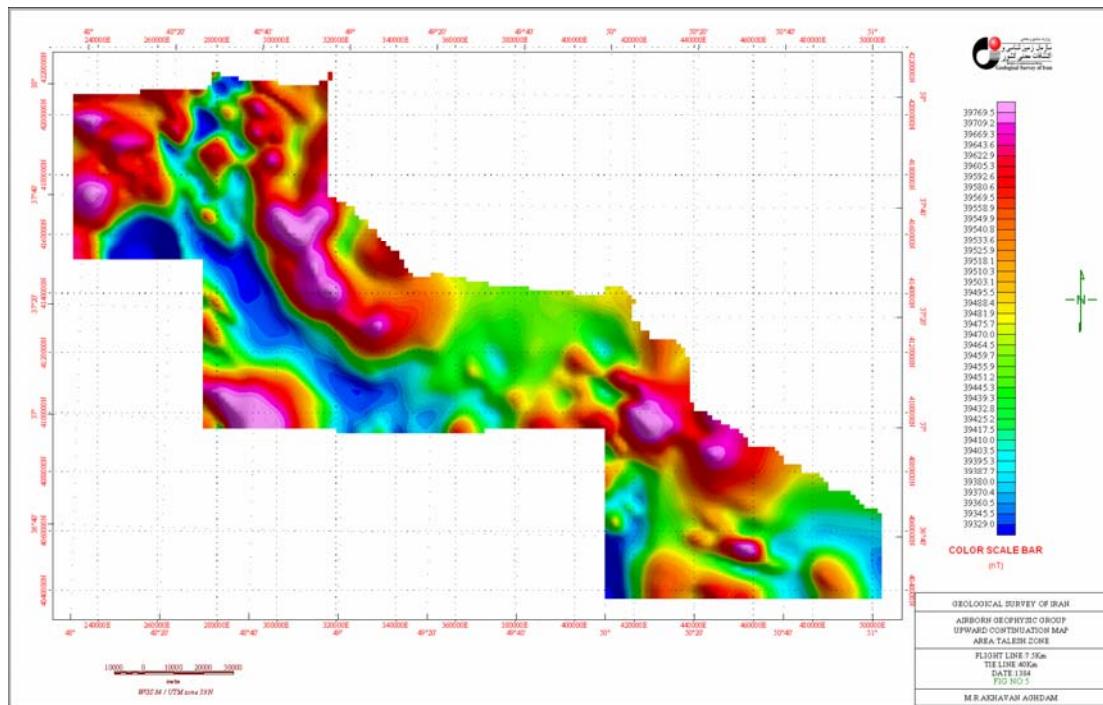
(Noise)



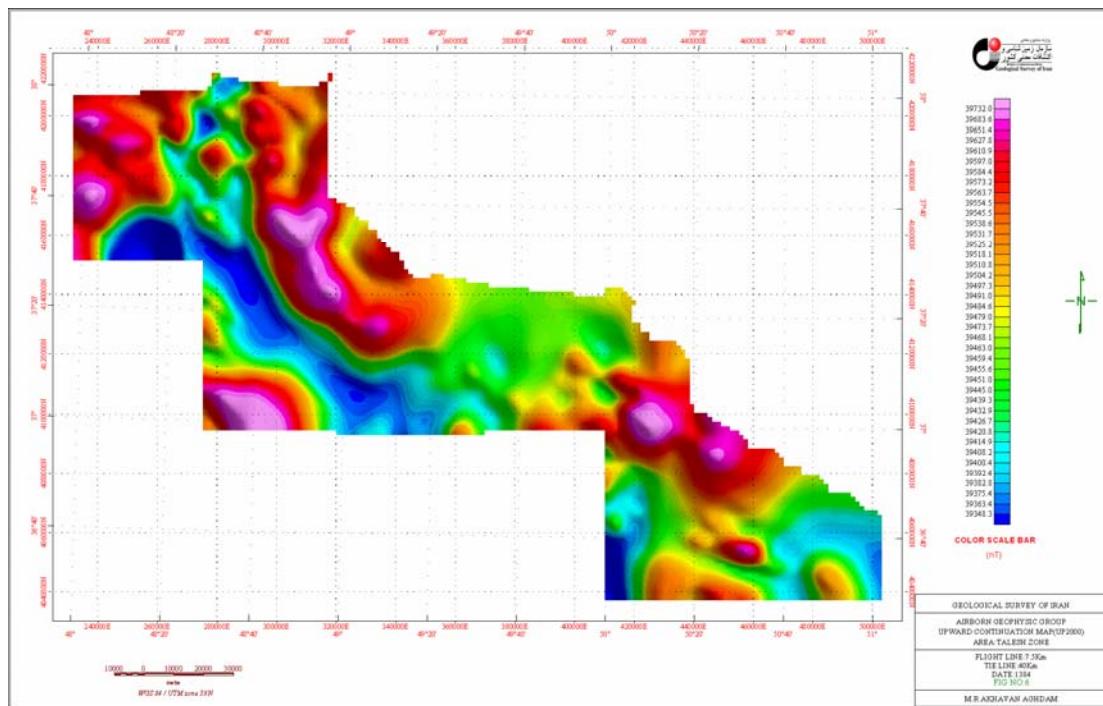


نقشه شماره ۴-۷

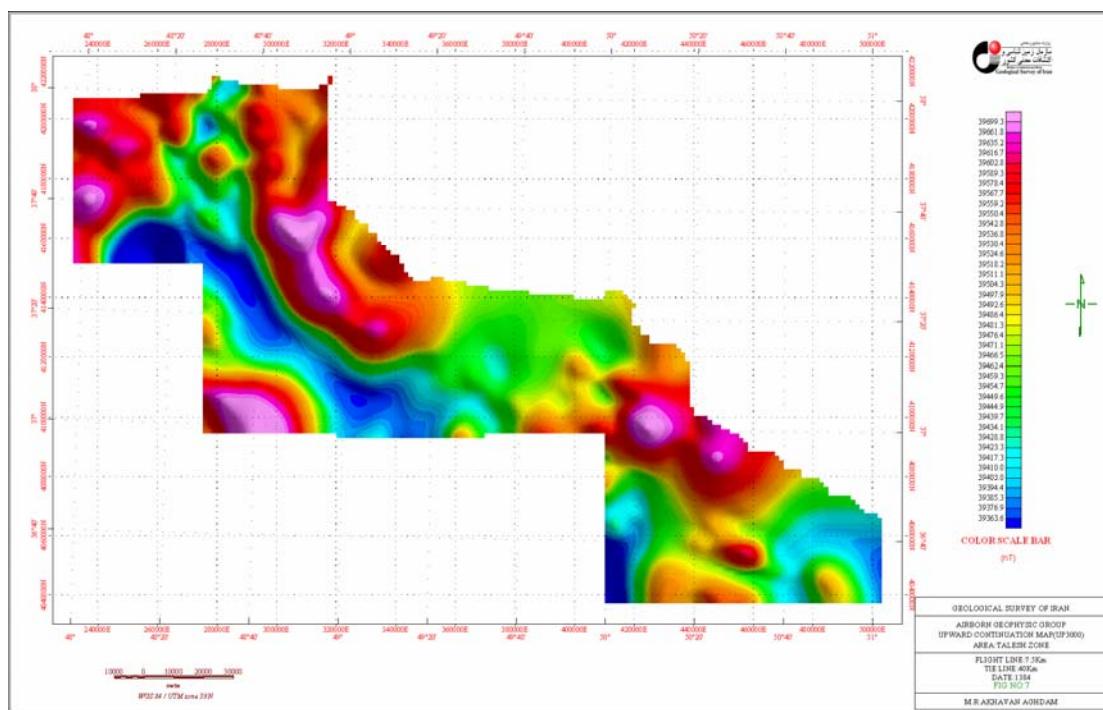
## (Up Ward Continuation)



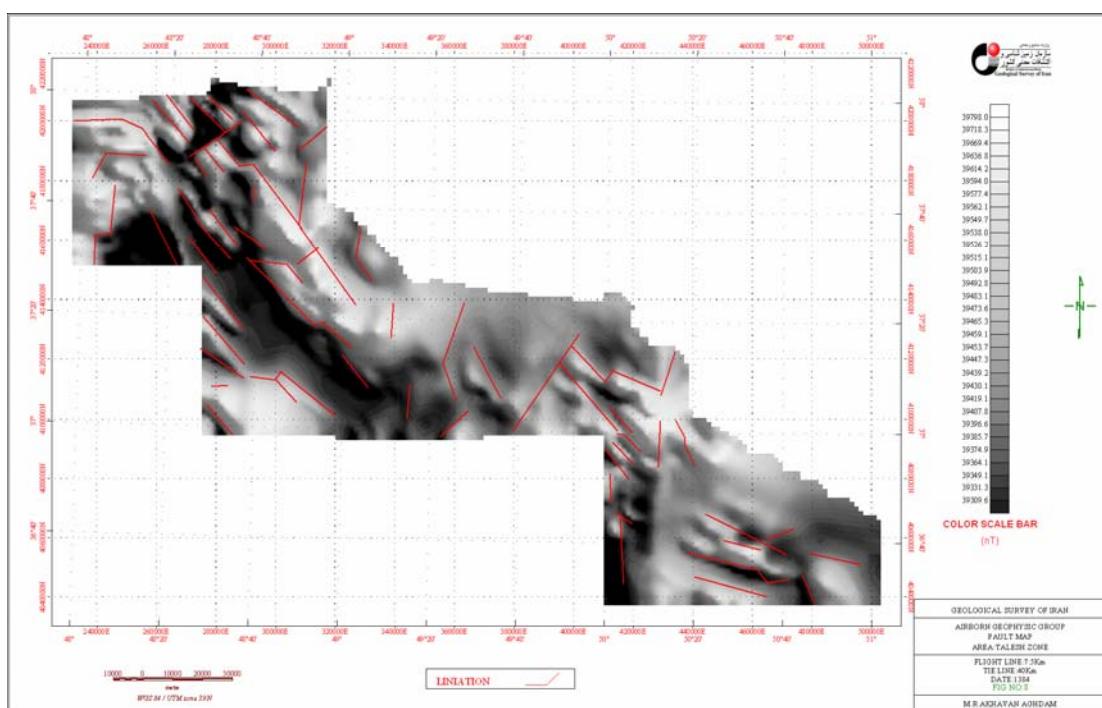
نقشه شماره ۴-۸



نقشه شماره ۴-۹

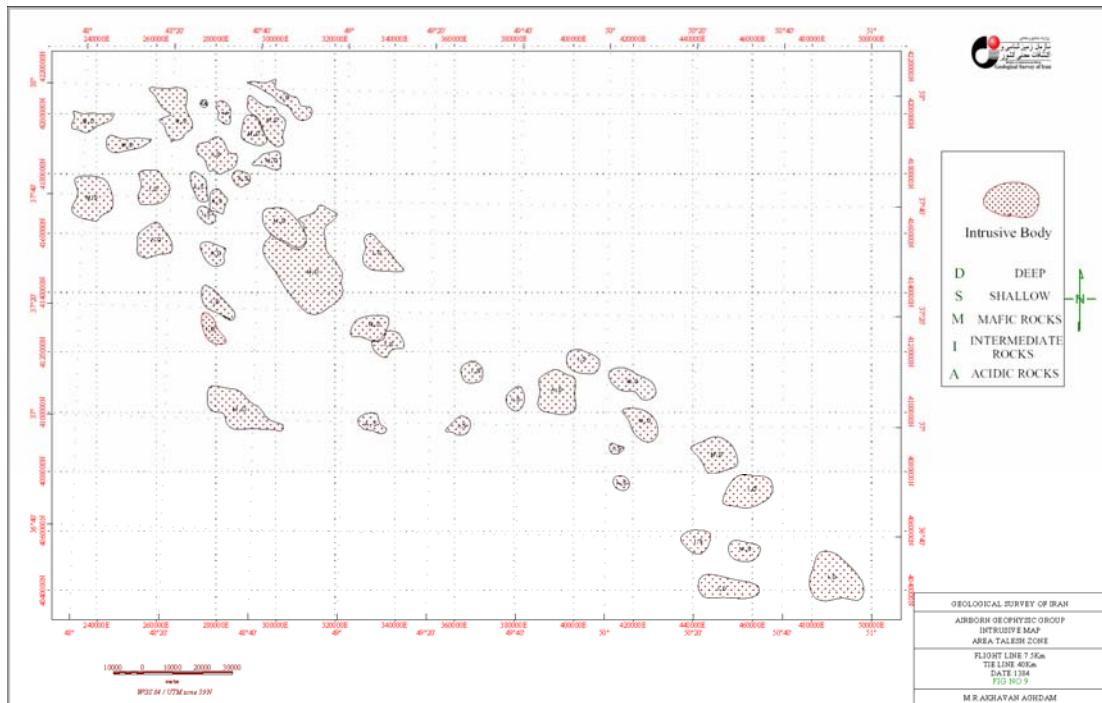


نقشه شماره ۴-۱۰



نقشه شماره ۴-۱۱

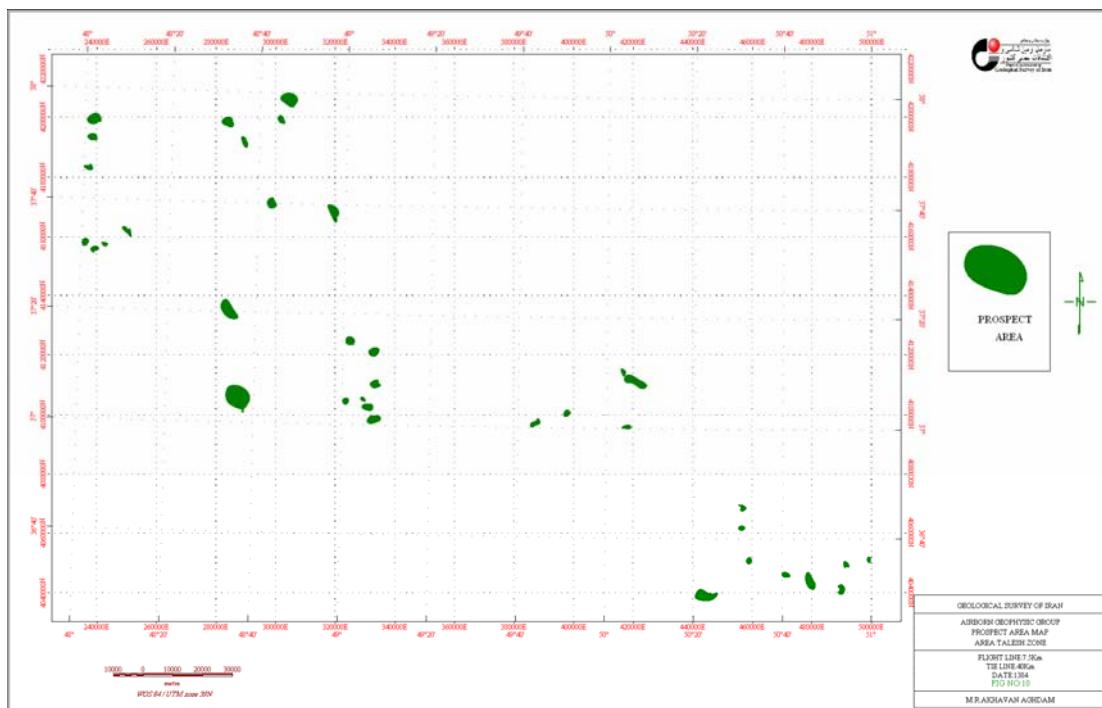
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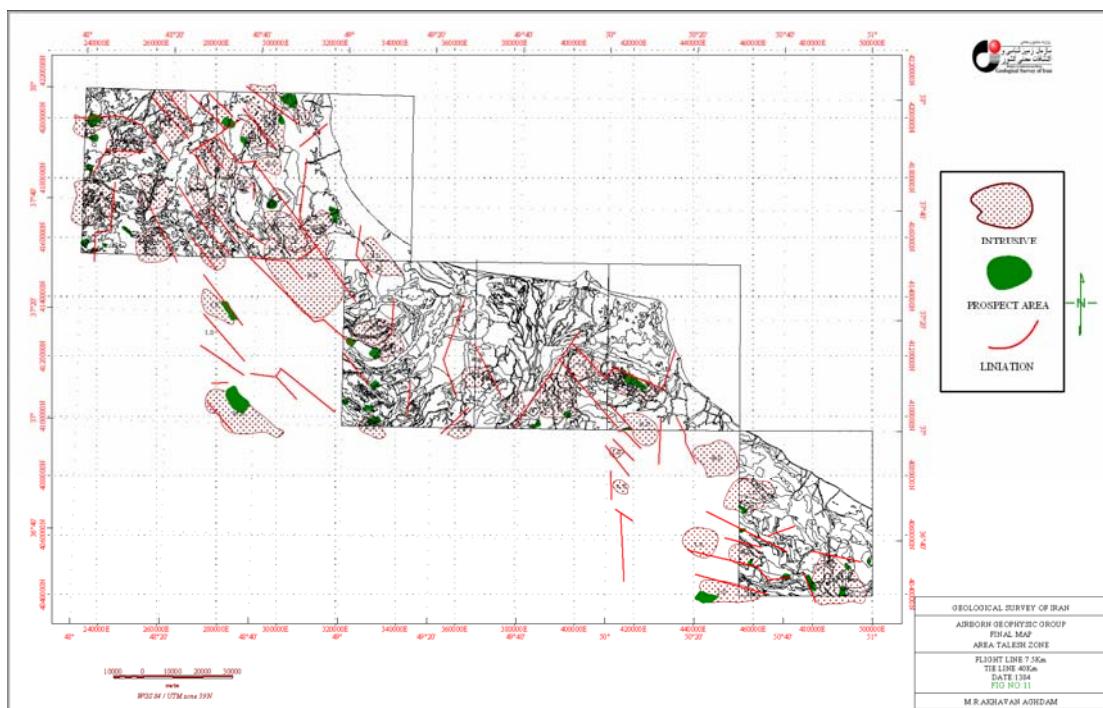
نقشه شماره ۴-۱۲

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نقشه شماره ۴-۱۳



نقشه شماره ۴-۱۴



GIS

Index Overlay

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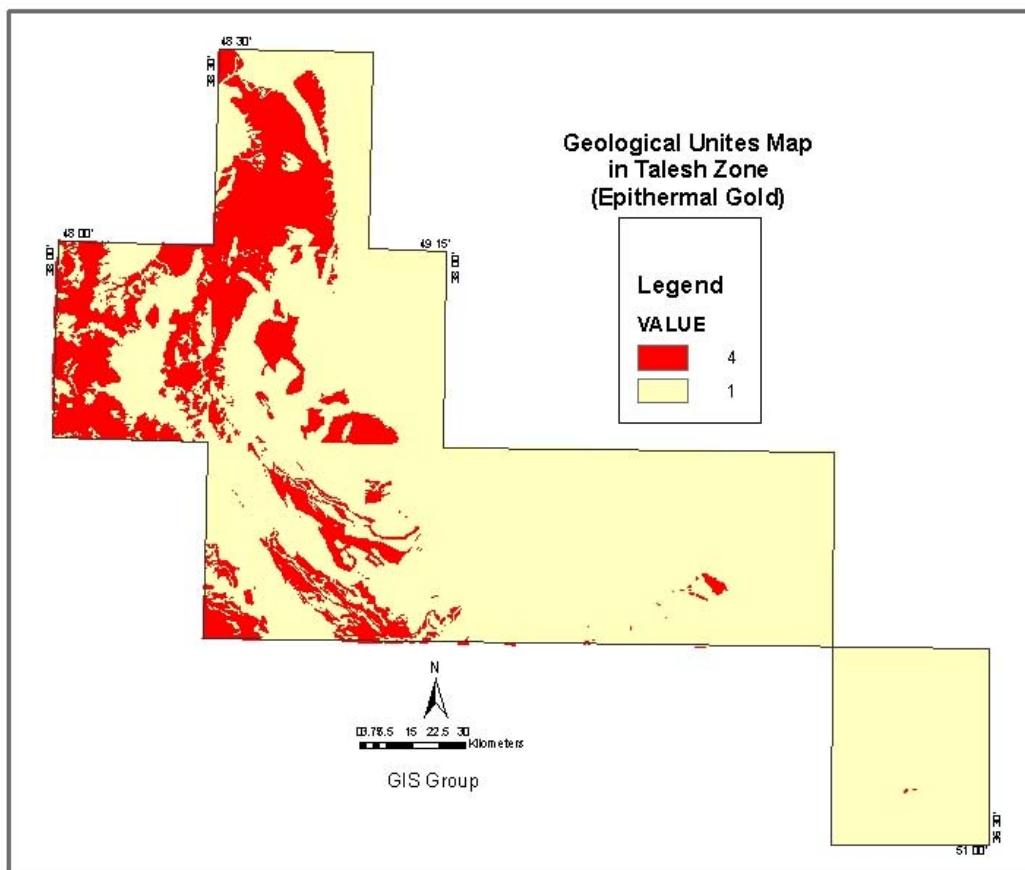
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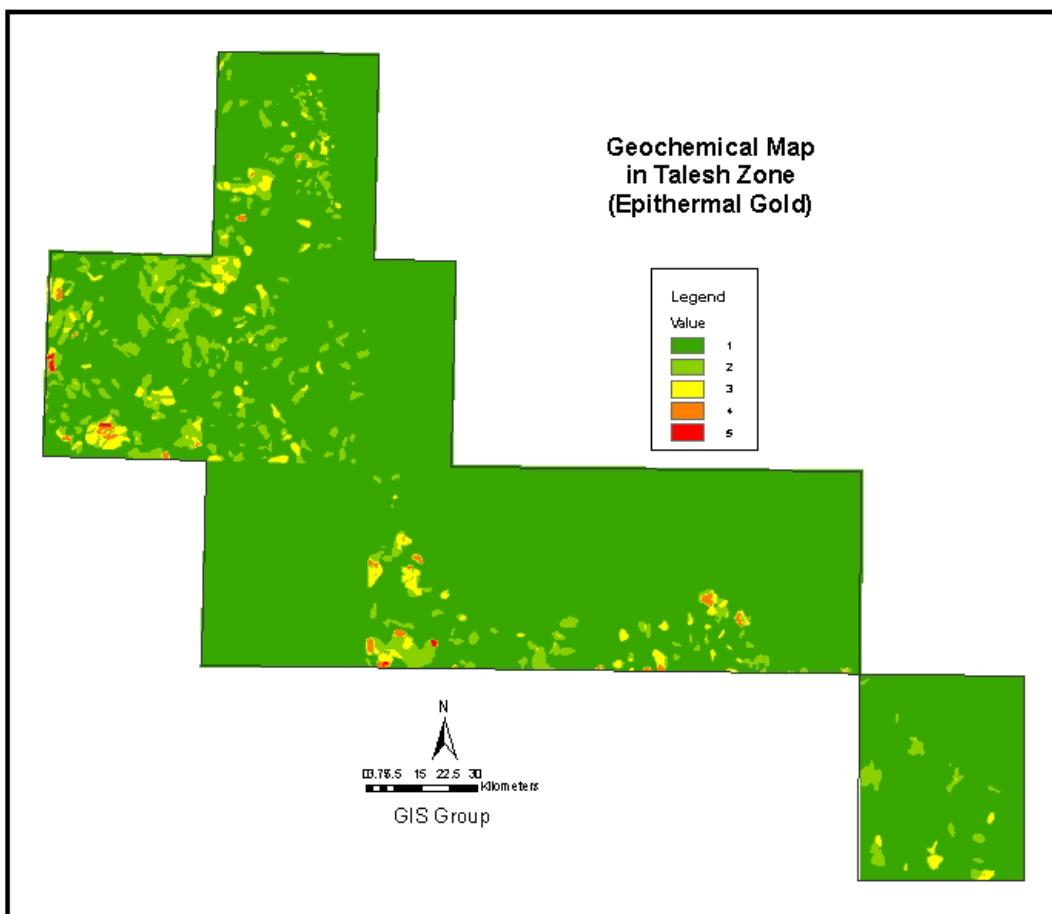
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	Au, Ag, As, Sb
	Hg
	Zn, Pb, Cu
	Sn, Mo, Bi



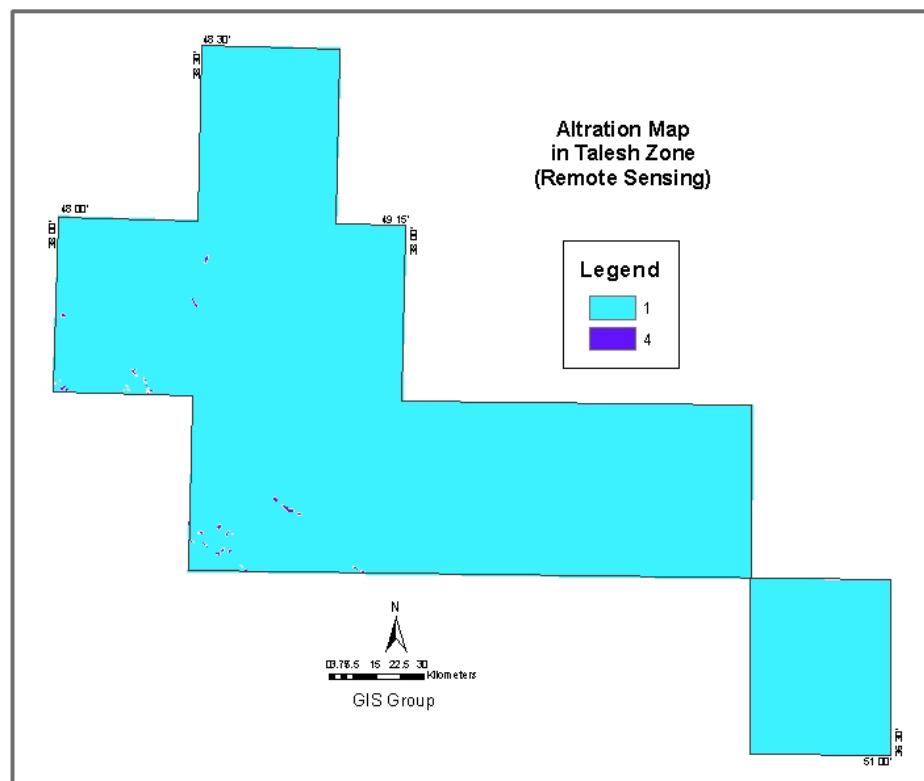
نقشه شماره ۱-۵ : نقشه زمین‌شناسی مربوط به تیپ اپیترمال



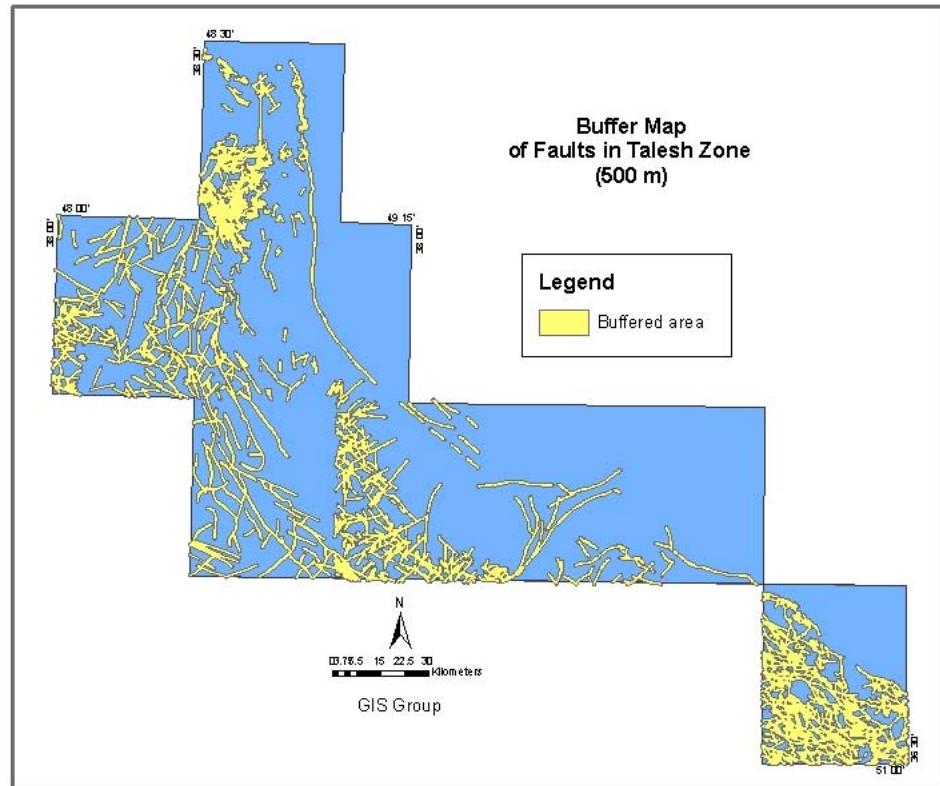
نقشه شماره ۵-۲ : نقشه ژئوشیمی مربوط به تیپ اپیترمال

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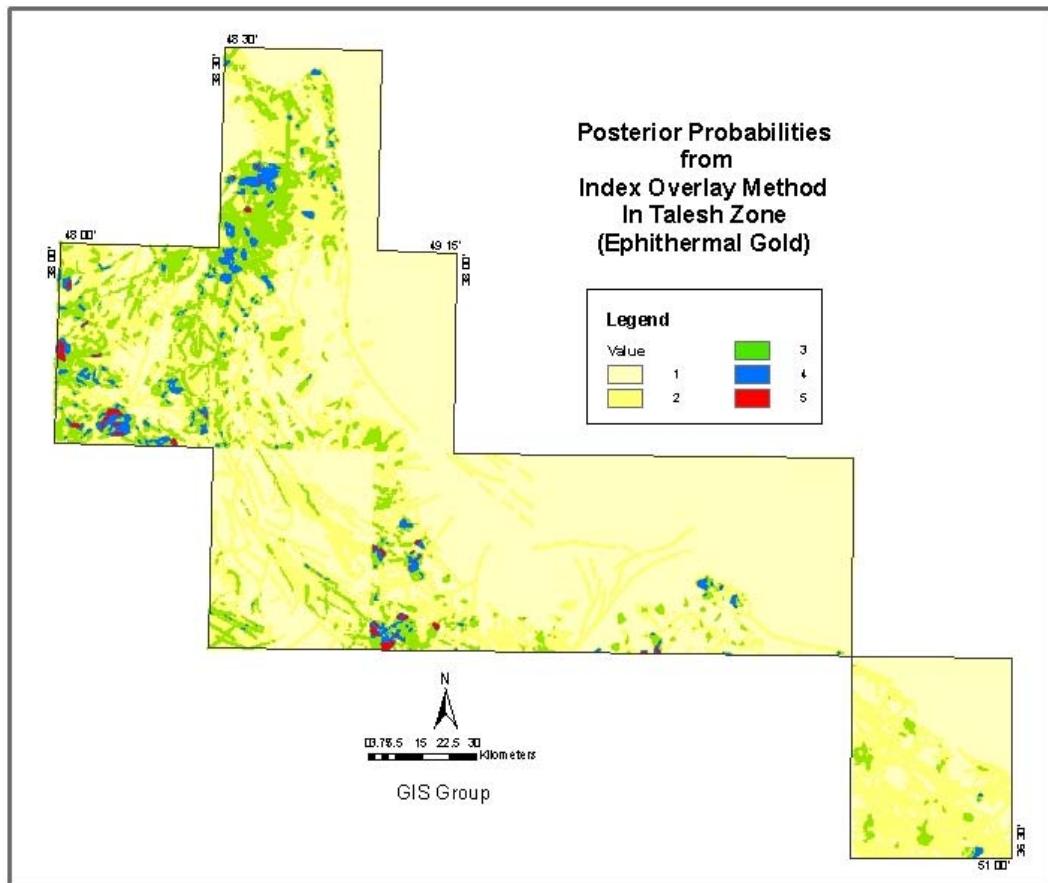
نقشه شماره ۳-۵: نقشه آلترازیون مربوط به تیپ اپیترمال



نقشه شماره ۴-۵: نقشه ساختاری مربوط به تیپ اپیترمال

## Index Overlay

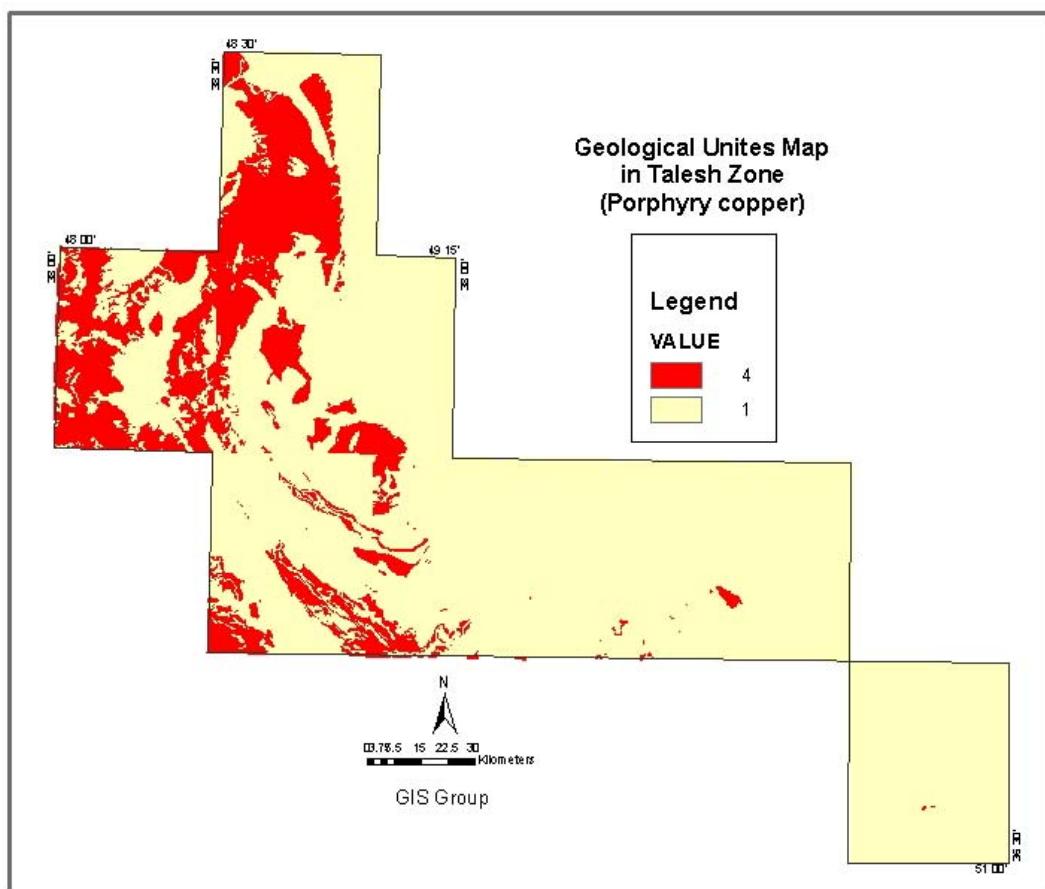
( )



نقشه شماره ۵-۵ : نقشه نواحی امیدبخش در تیپ اپیترمال

( )

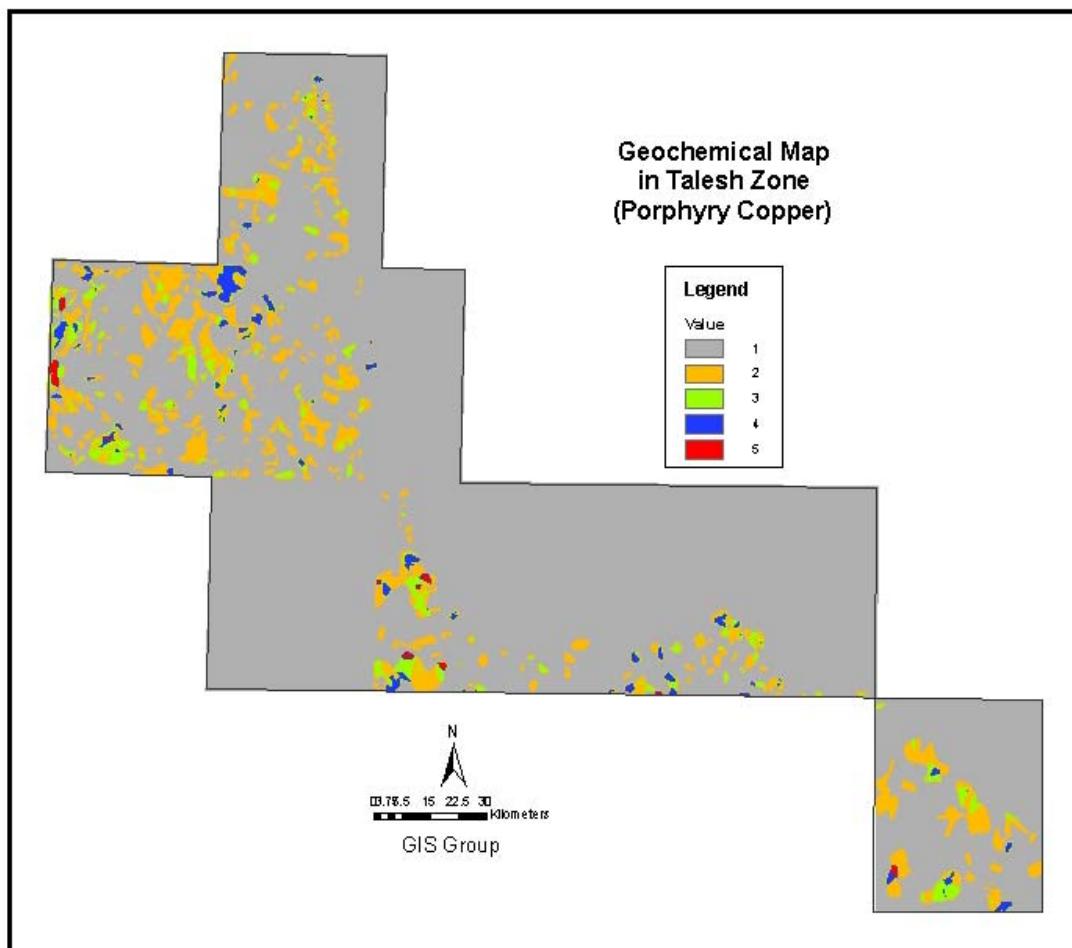
( )



نقشه شماره ۶-۵: نقشه زمین شناسی مربوط به مس-طلای پورفیری

.( )

	Mo,Cu
	Sb,W,Zn,Pb,Mn,
	Au,As,Ag
	Sn,Bi



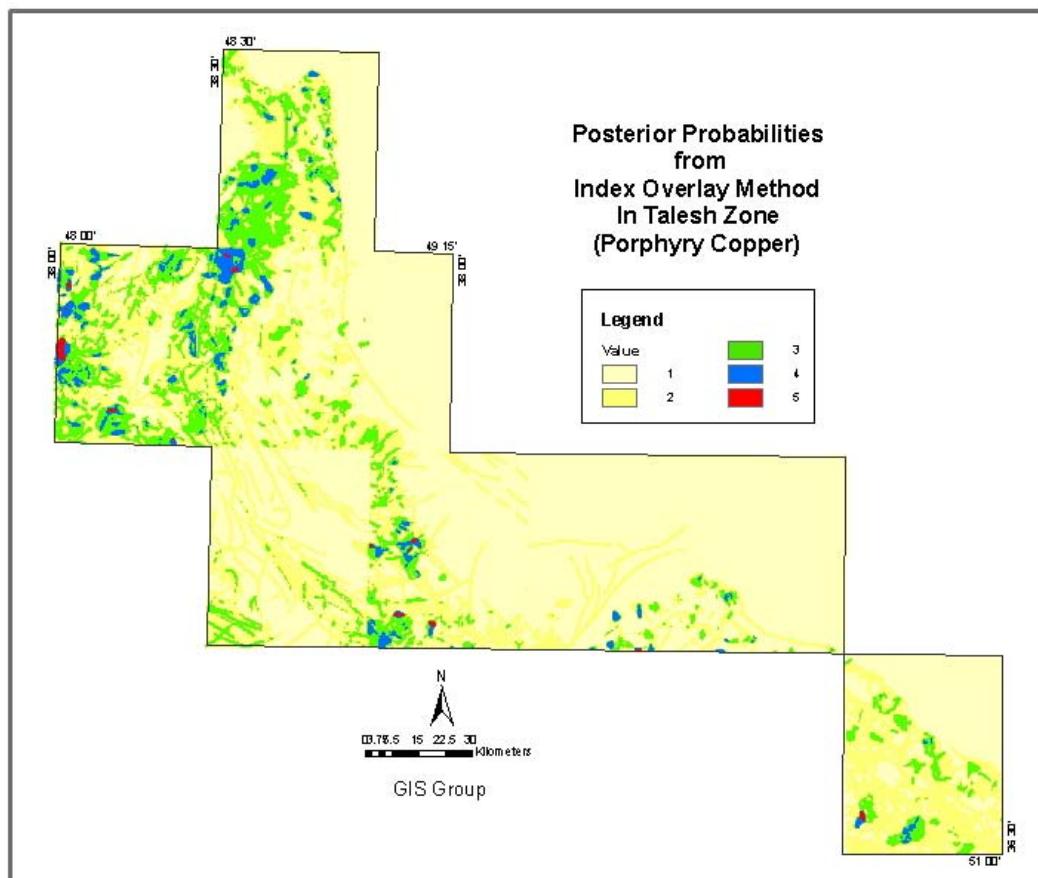
نقشه شماره ۷-۵ : نقشه ژئوشیمی مربوط به مس- طلاي پورفيري

( )

( )

### Index overlay

( )

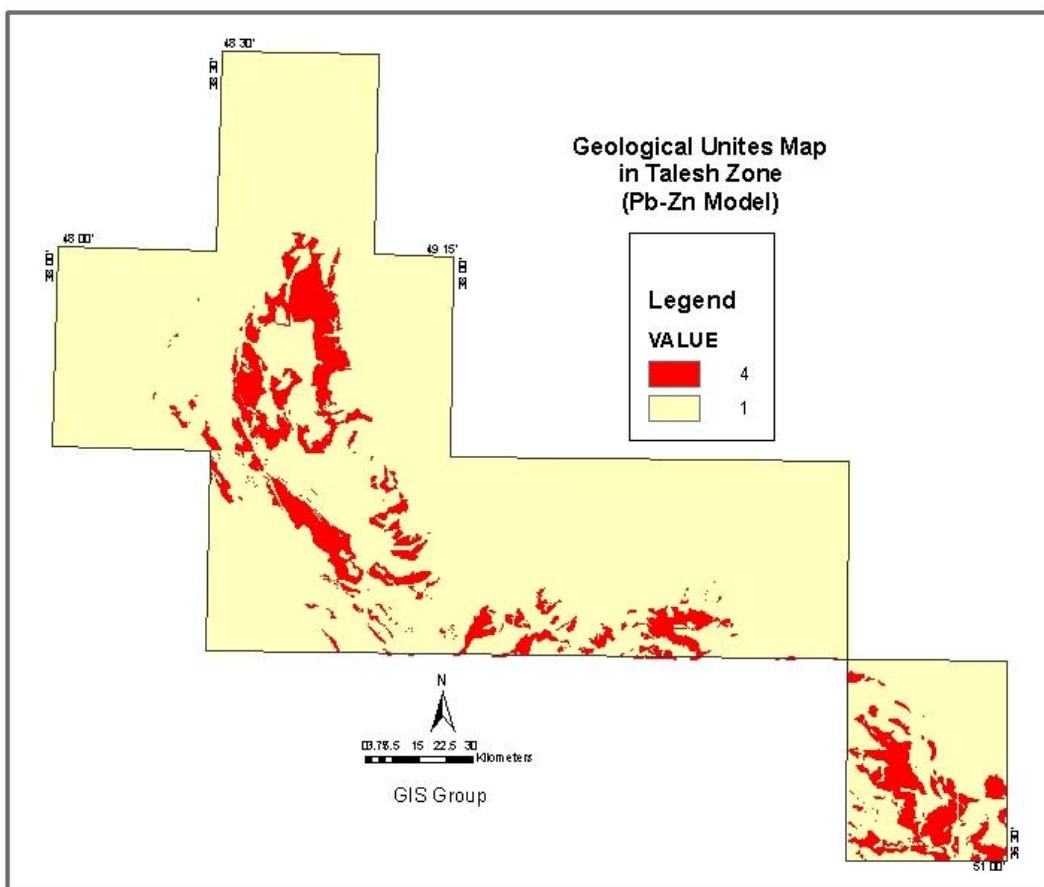


نقشه شماره ۸-۵ : نقشه نواحی آمیدبخش مربوط به مس-طلای پورفیری

( )

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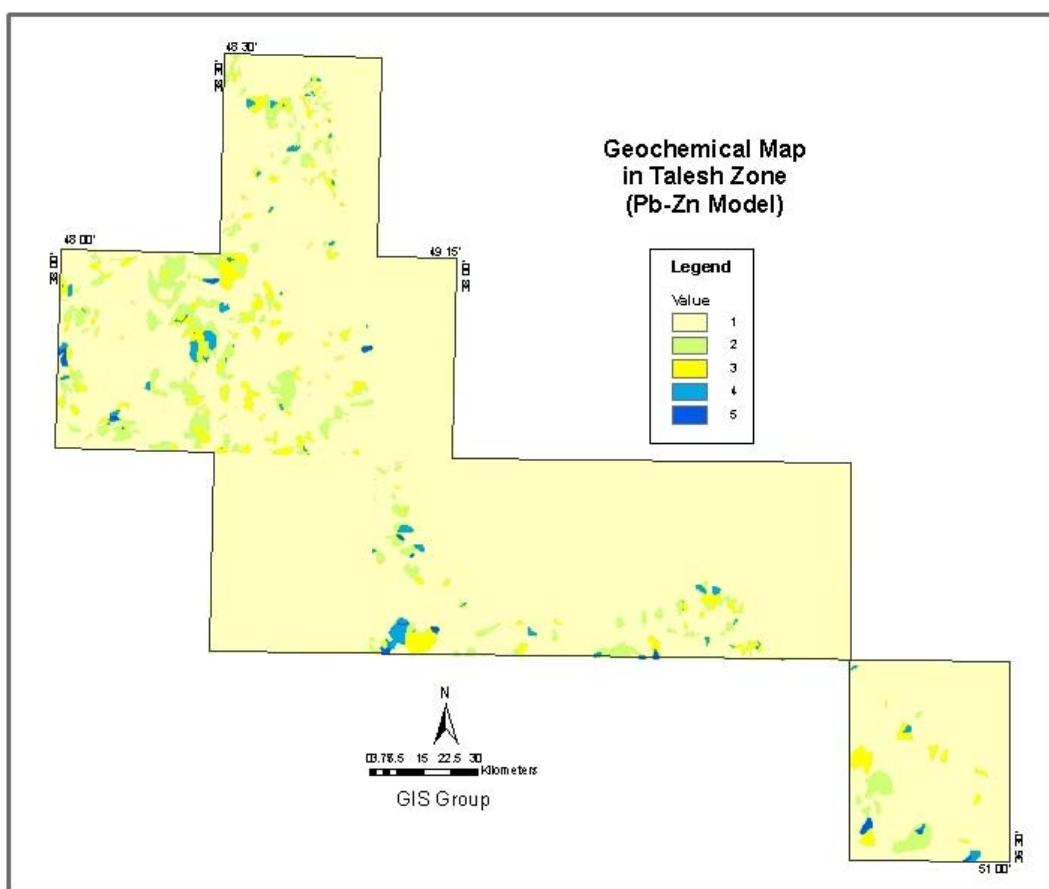
( .



نقشه شماره ۹ - ۵ : نقشه زمین‌شناسی مربوط به مدل سرب و روی مرتبط با سنگ کربناته

.( )

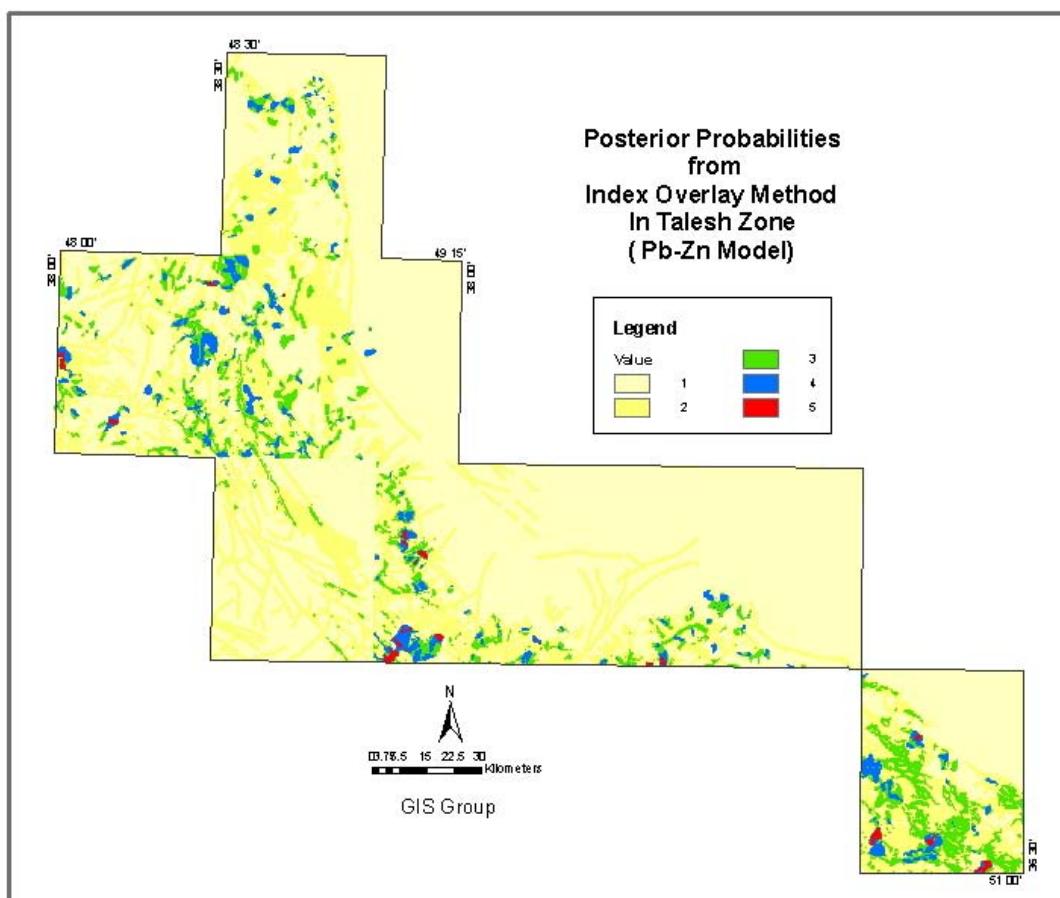
	Zn,Pb
	Cu
	Ni,Mo,Co,Ag
	As,Sb



نقشه شماره ۱۰ - ۵ : نقشه ژئوشیمی مربوط به مدل سرب و روی مرتبط با سنگ کربناته

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.( ) Index Overlay



نقشه شماره ۱۱-۵ : نقشه نواحی آمیدبخش برای مدل سرب و روی مرتبط با سنگ کربناته