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جدول (۲-۱): شماره و مختصات محل نمونه های ژئوشیمیایی برداشت شده

Row	Serial Number	Coordinate(UTM WGS84)		Row	Serial Number	Coordinate(UTM WGS84)		Row	Serial Number	Coordinate(UTM WGS84)	
		X	Y			X	Y			X	Y
1	A2-1-G	370918.7444	3771122.398	39	A2-39-G	375163.3211	3766535.319	77	A2-77-G	376217.3214	3768132.95
2	A2-2-G	371018.113	3771187.191	40	A2-40-G	375182.8438	3766606.361	78	A2-78-G	376362.603	3768423.156
3	A2-3-G	370936.2653	3771981.389	41	A2-41-G	375059.2642	3767020.986	79	A2-79-G	376467.9383	3768382.263
4	A2-4-G	370884.0826	3772330.04	42	A2-42-G	375481.3329	3767255.391	80	A2-80-G	376610.702	3768370.596
5	A2-5-G	371664.7253	3772984.385	43	A2-43-G	375474.1406	3767338.937	81	A2-81-G	376402.8388	3767667.071
6	A2-6-G	370975.544	3770323.471	44	A2-44-G	376108.1757	3774330.69	82	A2-82-G	376959.3324	3768565.308
7	A2-7-G	371118.4599	3770205.054	45	A2-45-G	375858.0739	3774371.561	83	A2-83-G	377053.0603	3768530.777
8	A2-8-G	371556.764	3771889.278	46	A2-46-G	375734.8077	3774916.144	84	A2-84-G	377661.7158	3768221.077
9	A2-9-G	371377.515	3772053.685	47	A2-47-G	375872.6739	3775000.363	85	A2-85-G	378065.2761	3768072.463
10	A2-10-G	370925.1463	3772059.044	48	A2-48-G	375725.2623	3775284.478	86	A2-86-G	377718.3351	3768322.38
11	A2-11-G	370705.019	3772939.591	49	A2-49-G	374346.6943	3774782.054	87	A2-87-G	376885.5603	3769019.919
12	A2-12-G	371850.7154	3773571.525	50	A2-50-G	374254.007	3774721.192	88	A2-88-G	377087.0382	3769053.954
13	A2-13-G	384261.1034	3770110.546	51	A2-51-G	374260.4342	3774773.277	89	A2-89-G	376070.9585	3769141.967
14	A2-14-G	384363.6329	3770548.15	52	A2-52-G	373989.975	3774546.59	90	A2-90-G	376079.7065	3769227.846
15	A2-15-G	384183.0962	3769828.715	53	A2-53-G	373802.7899	3774834.734	91	A2-91-G	375300.4864	3769707.752
16	A2-16-G	384238.7105	3770042.597	54	A2-54-G	373759.8747	3774911.391	92	A2-92-G	376335.6438	3773427.602
17	A2-17-G	384241.6731	3770550.048	55	A2-55-G	373501.4118	3775018.709	93	A2-93-G	376371.7151	3773320.488
18	A2-18-G	383667.6845	3770491.635	56	A2-56-G	372805.5394	3774890.44	94	A2-94-G	375084.9364	3771602.582
19	A2-19-G	383522.8294	3769733.318	57	A2-57-G	373257.4316	3774745.915	95	A2-95-G	374931.3884	3772054.891
20	A2-20-G	383463.662	3770430.215	58	A2-58-G	374644.964	3772823.868	96	A2-96-G	375075.5771	3772372.505
21	A2-21-G	383509.6724	3770110.294	59	A2-59-G	374396.4241	3772790.961	97	A2-97-G	375092.4414	3772577.245
22	A2-22-G	383022.6761	3769681.33	60	A2-60-G	374284.6168	3772335.027	98	A2-98-G	375005.2441	3772915.139
23	A2-23-G	382929.4852	3770214.054	61	A2-61-G	373725.1852	3773145.402	99	A2-99-G	375081.6615	3772920.776
24	A2-24-G	382709.4824	3769989.932	62	A2-62-G	373755.9208	3773166.131	100	A2-100-G	376163.3531	3772109.135
25	A2-25-G	382784.7215	3769951.07	63	A2-63-G	373981.2865	3773505.994	101	A2-101-G	374574.1939	3774454.043
26	A2-26-G	372922.1172	3765549.716	64	A2-64-G	374163.806	3773265.608	102	A2-102-G	374619.72	3774388.556
27	A2-27-G	373311.3161	3765961.164	65	A2-65-G	374206.7238	3773348.518	103	A2-103-G	374826.6083	3774365.929
28	A2-28-G	373574.4035	3766108.378	66	A2-66-G	374838.7741	3773420.237	104	A2-104-G	375049.4285	3774250.652
29	A2-29-G	373528.6058	3766124.266	67	A2-67-G	374583.7637	3773081.183	105	A2-105-G	375111.5823	3774155.385
30	A2-30-G	373655.3039	3766281.86	68	A2-68-G	375287.842	3773186.876	106	A2-106-G	375338.9927	3774066.759
31	A2-31-G	373840.1571	3766309.715	69	A2-69-G	375129.668	3769152.341	107	A2-107-G	375412.1901	3774020.433
32	A2-32-G	373978.8279	3766579.435	70	A2-70-G	375224.68	3769238.904	108	A2-108-G	376376.6243	3772744.892
33	A2-33-G	374408.6115	3766431.253	71	A2-71-G	375760.9419	3768703.184	109	A2-109-G	376170.2083	3772432.054
34	A2-34-G	374369.4158	3766558.079	72	A2-72-G	375812.0372	3768906.783	110	A2-110-G	377427.0869	3764478.493
35	A2-35-G	374377.8335	3766619.264	73	A2-73-G	375838.734	3768943.777	111	A2-111-G	377148.5827	3764592.478
36	A2-36-G	374769.4587	3766601.892	74	A2-74-G	376143.0342	3768848.915	112	A2-112-G	377137.4105	3764643.772
37	A2-37-G	374729.3174	3766667.122	75	A2-75-G	376092.7349	3768036.357	113	A2-113-G	376948.9573	3764606.19
38	A2-38-G	374543.31	3766750.773	76	A2-76-G	376148.502	3768142.956	114	A2-114-G	376700.1314	3764752.053



جدول (۲-۱): شماره و مختصات محل نمونه های ژئوشیمیایی برداشت شده (۱۵۱مه)

Row	Serial Number	Coordinate(UTM WGS84)		Row	Serial Number	Coordinate(UTM WGS84)		Row	Serial Number	Coordinate(UTM WGS84)	
		X	Y			X	Y			X	Y
115	A2-115-G	376306.2279	3764996.808	153	A2-153-G	384289.1779	3763903.095	191	A2-191-G	379239.4302	3766480.515
116	A2-116-G	376651.0903	3764570.288	154	A2-154-G	384430.4377	3763833.617	192	A2-192-G	378428.7168	3766567.16
117	A2-117-G	376606.5578	3764582.146	155	A2-155-G	372848.4591	3773475.011	193	A2-193-G	378470.8221	3766422.877
118	A2-118-G	378945.2474	3765516.664	156	A2-156-G	372233.0638	3773642.322	194	A2-194-G	378049.2372	3766163.795
119	A2-119-G	378340.3626	3765090.126	157	A2-157-G	372317.1136	3773577.005	195	A2-195-G	376521.5845	3765345.089
120	A2-120-G	378992.9057	3765436.278	158	A2-158-G	370746.9341	3773294.549	196	A2-196-G	376843.629	3765773.52
121	A2-121-G	379322.7896	3765598.44	159	A2-159-G	371056.33	3773656.989	197	A2-197-G	377033.0247	3765674.778
122	A2-122-G	378392.573	3765445.67	160	A2-160-G	371038.8573	3774110.671	198	A2-198-G	377742.8082	3766879.115
123	A2-123-G	378258.5102	3765120.571	161	A2-161-G	371324.5883	3774494.71	199	A2-199-G	377717.808	3766915.943
124	A2-124-G	378045.4665	3765058.635	162	A2-162-G	371302.9125	3774609.872	200	A2-200-G	377650.5158	3766612.685
125	A2-125-G	377671.1818	3764628.14	163	A2-163-G	371295.6486	3774762.349	201	A2-201-G	377420.3554	3766541.289
126	A2-126-G	377614.3489	3764511.634	164	A2-164-G	371885.0565	3774921.484	202	A2-202-G	377179.0728	3766253.608
127	A2-127-G	377487.6337	3764200.617	165	A2-165-G	371476.3496	3774641.761	203	A2-203-G	377067.7935	3766090.923
128	A2-128-G	377609.3656	3765163.216	166	A2-166-G	372811.3327	3773573.947	204	A2-204-G	375892.334	3766145.551
129	A2-129-G	377667.6687	3764570.157	167	A2-167-G	372586.0468	3773647.332	205	A2-205-G	376115.126	3766202.798
130	A2-130-G	375737.7144	3765080.131	168	A2-168-G	372204.0277	3773895.415	206	A2-206-G	376328.3561	3766748.227
131	A2-131-G	375409.3422	3765162.486	169	A2-169-G	372288.7086	3773942.842	207	A2-207-G	381605.1826	3766561.744
132	A2-132-G	376246.9061	3764970.908	170	A2-170-G	372395.2462	3774198.203	208	A2-208-G	381717.5327	3766513.728
133	A2-133-G	375791.7152	3765111.663	171	A2-171-G	371260.2992	3773788.747	209	A2-209-G	382005.7003	3766117.496
134	A2-134-G	375445.34	3765130.538	172	A2-172-G	371017.5059	3773713.971	210	A2-210-G	382096.0119	3766201.362
135	A2-135-G	375222.6074	3765263.468	173	A2-173-G	371006.2239	3773550.559	211	A2-211-G	382229.908	3766245.933
136	A2-136-G	375160.858	3765241.669	174	A2-174-G	372241.454	3771264.211	212	A2-212-G	382684.5274	3765999.481
137	A2-137-G	384588.731	3766385.872	175	A2-175-G	371859.1736	3771144.238	213	A2-213-G	383217.0295	3766045.638
138	A2-138-G	384574.2007	3766139.365	176	A2-176-G	377132	3765535	214	A2-214-G	382296.7785	3765646.31
139	A2-139-G	384289.0277	3766067.834	177	A2-177-G	376145	3766637	215	A2-215-G	382301.1357	3765432.732
140	A2-140-G	383921.8502	3766118.781	178	A2-178-G	378645.79	3766508.907	216	A2-216-G	382464.8793	3765297.237
141	A2-141-G	384160.2054	3765824.675	179	A2-179-G	378071.4376	3766422.478	217	A2-217-G	382718.8564	3765287.873
142	A2-142-G	384554.7881	3765542.363	180	A2-180-G	378059.9749	3766339.443	218	A2-218-G	382751.7494	3764979.894
143	A2-143-G	384182.616	3765331.889	181	A2-181-G	377594.6775	3766683.656	219	A2-219-G	382831.1817	3765015.706
144	A2-144-G	384575.0144	3765258.071	182	A2-182-G	376133.7387	3766468.303	220	A2-220-G	383047.8449	3764765.825
145	A2-145-G	384472.0644	3765022.867	183	A2-183-G	377122.0011	3766121.885	221	A2-221-G	383112.856	3764818.904
146	A2-146-G	384542.6904	3764994.066	184	A2-184-G	376907.7722	3765762.17	222	A2-222-G	373780.8466	3765530.315
147	A2-147-G	383347.463	3764222.538	185	A2-185-G	377032.5123	3765595.84	223	A2-223-G	373693.1433	3765594.399
148	A2-148-G	383435	3764109	186	A2-186-G	375866.3806	3765264.457	224	A2-224-G	374153.558	3765609.991
149	A2-149-G	383712.3706	3764198.03	187	A2-187-G	375918.657	3766177.633	225	A2-225-G	374361.8157	3765392.358
150	A2-150-G	383772.5843	3764046.26	188	A2-188-G	375628.8381	3765958.76	226	A2-226-G	372386.6804	3766118.745
151	A2-151-G	383689.7641	3764014.433	189	A2-189-G	375566.9028	3765914.823	227	A2-227-G	372662.9937	3766532.031
152	A2-152-G	384115.8706	3764012.876	190	A2-190-G	375827.2897	3765306.102	228	A2-228-G	372805.8777	3767086.827



جدول (۲-۱): شماره و مختصات محل نمونه های ژئوشیمیایی برداشت شده (ادامه)

Row	Serial Number	Coordinate(UTM WGS84)		Row	Serial Number	Coordinate(UTM WGS84)		Row	Serial Number	Coordinate(UTM WGS84)	
		X	Y			X	Y			X	Y
229	A2-229-G	373458.3841	3767162.516	267	A2-267-G	373118.5183	3770041.607	305	A2-305-G	381424.9586	3767286.313
230	A2-230-G	374223.8971	3764613.694	268	A2-268-G	372896.557	3770060.91	306	A2-306-G	381603.4739	3767045.085
231	A2-231-G	373829.7915	3765148.73	269	A2-269-G	372833.8362	3770031.576	307	A2-307-G	380146.9786	3766201.244
232	A2-232-G	373856.6026	3764909.513	270	A2-270-G	372877.4378	3769748.97	308	A2-308-G	381526	3766849
233	A2-233-G	373613.4083	3767247.149	271	A2-271-G	372666.2606	3769453.518	309	A2-309-G	381181	3767286
234	A2-234-G	373118.3924	3767412.525	272	A2-272-G	372514.9755	3769400.837	310	A2-310-G	381225.7912	3770242.166
235	A2-235-G	373908.3081	3767914.916	273	A2-273-G	372273.9093	3769375.058	311	A2-311-G	381268.1788	3770161.784
236	A2-236-G	374262.6009	3767862.104	274	A2-274-G	371961.5661	3769739.076	312	A2-312-G	381594.8296	3769880.493
237	A2-237-G	374124.3168	3768170.177	275	A2-275-G	371718.0509	3769563.787	313	A2-313-G	381436.0131	3769880.493
238	A2-238-G	374978.6851	3768154.422	276	A2-276-G	371731.9329	3769517.553	314	A2-314-G	381503.3558	3769817.132
239	A2-239-G	374944.1032	3768579.917	277	A2-277-G	371536.9528	3769289.141	315	A2-315-G	381032.6789	3769706.899
240	A2-240-G	374411.781	3768157.315	278	A2-278-G	371178.3076	3769592.883	316	A2-316-G	381960.8762	3769226.15
241	A2-241-G	374304.5231	3768284.884	279	A2-279-G	371650.3156	3770191.49	317	A2-317-G	382027.8561	3769179.511
242	A2-242-G	374388.5975	3768800.662	280	A2-280-G	372329.5831	3768881.271	318	A2-318-G	381867.4367	3769044.003
243	A2-243-G	374763.4786	3769107.844	281	A2-281-G	371961.5991	3768206.764	319	A2-319-G	381732.9785	3769124.098
244	A2-244-G	379355.6822	3763998.475	282	A2-282-G	371687.1207	3768428.08	320	A2-320-G	381180.3475	3769029.579
245	A2-245-G	379515.1484	3763962.21	283	A2-283-G	370773.2754	3768679.887	321	A2-321-G	381131.0132	3769092.347
246	A2-246-G	380074.7718	3765084.914	284	A2-284-G	371068.112	3767721.026	322	A2-322-G	380976.2994	3769165.05
247	A2-247-G	380132.9141	3765026.525	285	A2-285-G	371636.7118	3768328.684	323	A2-323-G	380887.5734	3769238.552
248	A2-248-G	379915.0062	3764966.933	286	A2-286-G	371123.7413	3768018.505	324	A2-324-G	380908.822	3769097.573
249	A2-249-G	379926.3784	3764532.095	287	A2-287-G	371135.3383	3766785.63	325	A2-325-G	381392.6347	3768794.234
250	A2-250-G	379722.3309	3764308.63	288	A2-288-G	381498.95	3766102.249	326	A2-326-G	381258.8705	3768437.919
251	A2-251-G	379796	3764253	289	A2-289-G	381585.0764	3765752.241	327	A2-327-G	381263.3823	3768343.124
252	A2-252-G	380507.7643	3764430.899	290	A2-290-G	381304.6087	3767184.798	328	A2-328-G	381595.0295	3768501.516
253	A2-253-G	380593.6766	3764409.521	291	A2-291-G	380503.0489	3767652.793	329	A2-329-G	382335.5873	3769347.923
254	A2-254-G	380473.7924	3764018.89	292	A2-292-G	380346.618	3767629.409	330	A2-330-G	382456.9303	3769392.42
255	A2-255-G	381657	3764338	293	A2-293-G	380757.4812	3767282.234	331	A2-331-G	382373.0866	3769429.281
256	A2-256-G	381971	3764178	294	A2-294-G	380181.9605	3766803.654	332	A2-332-G	383089.2336	3768158.886
257	A2-257-G	381655.3328	3764006.403	295	A2-295-G	381571.4434	3765321.162	333	A2-333-G	383384.9598	3768181.724
258	A2-258-G	381461.9474	3764368.474	296	A2-296-G	381554.4314	3765340.25	334	A2-334-G	383352.7561	3768088.72
259	A2-259-G	381410.9465	3764394.164	297	A2-297-G	381719.7648	3765427.669	335	A2-335-G	383358.4524	3767953.255
260	A2-260-G	380973.17	3764040.445	298	A2-298-G	381539.5401	3765828.874	336	A2-336-G	383272.3541	3767882.729
261	A2-261-G	381127.7448	3764407.929	299	A2-299-G	381095.2858	3766023.003	337	A2-337-G	383213.972	3767616.828
262	A2-262-G	381171.761	3764372.979	300	A2-300-G	381118.3548	3765943.846	338	A2-338-G	383918.7845	3767907.982
263	A2-263-G	372991.3974	3770755.773	301	A2-301-G	380711.9855	3766832.178	339	A2-339-G	383836.7132	3767596.056
264	A2-264-G	372667.7369	3770704.865	302	A2-302-G	380750.3294	3766803.105	340	A2-340-G	383842.8053	3767440.912
265	A2-265-G	372278.726	3770648.664	303	A2-303-G	380781.342	3767427.284	341	A2-341-G	383760.2098	3767420.839
266	A2-266-G	372267.9644	3770596.943	304	A2-304-G	380842.4432	3767294.826	342	A2-342-G	383369.1402	3767186.587



جدول (۲-۱): شماره و مختصات محل نمونه های ژئوشیمیایی برداشت شده (ادامه)

Row	Serial Number	Coordinate(UTM WGS84)		Row	Serial Number	Coordinate(UTM WGS84)		Row	Serial Number	Coordinate(UTM WGS84)	
		X	Y			X	Y			X	Y
343	A2-343-G	383400.6733	3767157.237	381	A2-381-G	379076.8754	3768056.975	419	A2-419-G	376742.8657	3769600.671
344	A2-344-G	383423.984	3767010.205	382	A2-382-G	379307.1104	3768184.223	420	A2-420-G	378407.9488	3769535.473
345	A2-345-G	383411.6735	3766754.354	383	A2-383-G	379580.0666	3768392.41	421	A2-421-G	378033.1275	3769433.106
346	A2-346-G	382792.0972	3767865.621	384	A2-384-G	384633.299	3768963.585	422	A2-422-G	378327.6634	3769580.05
347	A2-347-G	382822.598	3767842.941	385	A2-385-G	384625.571	3768787.117	423	A2-423-G	379553.4586	3770387.286
348	A2-348-G	382891.4366	3767365.192	386	A2-386-G	384482.5701	3768849.081	424	A2-424-G	379821.5091	3769935.055
349	A2-349-G	382528.1067	3767289.991	387	A2-387-G	384403.5394	3768570.338	425	A2-425-G	379023.1243	3769845.105
350	A2-350-G	371657.323	3767789.295	388	A2-388-G	382811.7003	3769053.378	426	A2-426-G	378814.875	3769128.193
351	A2-351-G	371525.2147	3766940.807	389	A2-389-G	382745.63	3769034.576	427	A2-427-G	378629.7456	3769130.774
352	A2-352-G	372486	3765986	390	A2-390-G	383042.9905	3768833.87	428	A2-428-G	378796.2964	3768826.569
353	A2-353-G	378506.1599	3764305.977	391	A2-391-G	383304.3383	3768689.213	429	A2-429-G	378934.7419	3768653.625
354	A2-354-G	378094.5287	3764192.202	392	A2-392-G	383080.6336	3768380.486	430	A2-430-G	379038.6765	3768363.326
355	A2-355-G	378298.4567	3763922.111	393	A2-393-G	382784.112	3768401.545	431	A2-431-G	378928.9328	3768453.936
356	A2-356-G	377933.8505	3763949.026	394	A2-394-G	382568.647	3768406.543	432	A2-432-G	378854.534	3768726.213
357	A2-357-G	371056.747	3767101.804	395	A2-395-G	382441.6934	3768504.723	433	A2-433-G	378965.2099	3768832.458
358	A2-358-G	374841.7113	3764513.652	396	A2-396-G	382395.3683	3768575.91	434	A2-434-G	379419.4017	3769054.802
359	A2-359-G	374987.0932	3764005.094	397	A2-397-G	382496.4135	3768804.268	435	A2-435-G	378850.0755	3769043.375
360	A2-360-G	375281.9291	3764736.258	398	A2-398-G	382504.2033	3768151.409	436	A2-436-G	379990.1003	3769533.073
361	A2-361-G	374754.8843	3764668.583	399	A2-399-G	382290.57	3768049.699	437	A2-437-G	380038.2901	3769513.729
362	A2-362-G	378027.7592	3764174.083	400	A2-400-G	382205	3768242	438	A2-438-G	380063.5886	3769635.258
363	A2-363-G	378777.0219	3764508.17	401	A2-401-G	381957.9255	3767833.785	439	A2-439-G	379959.8781	3769874.15
364	A2-364-G	372122.0807	3767470.886	402	A2-402-G	381985.8029	3767782.65	440	A2-440-G	380183.9356	3770372.606
365	A2-365-G	371425.791	3767256.109	403	A2-403-G	381968	3767689	441	A2-441-G	379541.6966	3770037.032
366	A2-366-G	378541.6381	3763923.146	404	A2-404-G	377932.2064	3769353.71	442	A2-442-G	380506	3770317
367	A2-367-G	374783	3763816	405	A2-405-G	377943.3078	3769443.094				
368	A2-368-G	375205	3763562	406	A2-406-G	377733.9872	3770080.133				
369	A2-369-G	379755.3624	3766615.043	407	A2-407-G	377886.8047	3769368.577				
370	A2-370-G	379696.6111	3766994.014	408	A2-408-G	377327.321	3767702.835				
371	A2-371-G	379621.5525	3767120.04	409	A2-409-G	377386.5326	3767724.078				
372	A2-372-G	379479.1763	3767518.747	410	A2-410-G	377125.1111	3767583.126				
373	A2-373-G	379241.3192	3767538.267	411	A2-411-G	377157.2071	3767681.846				
374	A2-374-G	379574.6224	3767886.108	412	A2-412-G	376662.6695	3770389.967				
375	A2-375-G	379811.6403	3767904.731	413	A2-413-G	377427.2643	3770209.715				
376	A2-376-G	380012.1255	3768034.008	414	A2-414-G	375771.3378	3769915.347				
377	A2-377-G	380429.8169	3767929.398	415	A2-415-G	376247.2355	3770287.406				
378	A2-378-G	380389.6445	3767969.447	416	A2-416-G	376377.528	3769580.738				
379	A2-379-G	380042.0601	3768441.112	417	A2-417-G	376404.5904	3769598.191				
380	A2-380-G	379174.7645	3768091.942	418	A2-418-G	377077.9012	3769585.32				



جدول (۲-۲): نتایج آنالیز نمونه های ژئوشیمیایی برداشت شده

Sample No.	Ag	Al	As	Au	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Hg	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb	S	Sb	Se	Sr	Te	Th	Ti	Tl	U	V	W	Y	Zn	Zr	
A2.1.G	0.11	85300	14.1	2	< 413	2.3	0.4	92400	0.2	423	20.9	98	6	41	50500	0.08	18100	208	54.3	18200	1080	1.2	9940	9.4	93	898	32.9	102	880	1	18	2.2	272	<	16.2	5500	0.5	1.82	138	1.4	21.2	103	89
A2.2.G	0.1	97200	16.9	1	< 449	2.9	0.6	84300	0.3	508	25.8	109	7.7	43.9	17500	0.07	19200	224	60.8	18800	1150	1	8040	11.8	100	802	35.3	127	580	1	2.0	2.8	239	<	19.4	6100	0.2	1.8	156	1.2	26.9	138	92
A2.3.G	0.11	79900	17.4	1	< 435	2.2	0.3	63200	0.3	462	26.6	100	6.7	33.9	52600	0.09	16900	189	52.0	17400	1240	1.2	7040	11.3	93	809	31	105	580	1	15	2.6	192	0.3	17.5	5590	0.6	1.88	144	1.3	24	137	82
A2.4.G	0.06	81100	10.7	2	< 433	2.2	0.3	71200	0.2	69	16.6	105	5.8	29.5	47500	0.08	17000	39	52.3	18200	1100	0.8	7890	9.6	90	726	24.4	88.7	650	0.8	15	2.2	225	<	8.53	5420	0.5	1.51	135	1.1	16.9	104	87
A2.5.G	0.04	91300	11.9	2	< 402	2.4	0.4	37300	0.2	135	23.3	90	7.7	29.2	51000	0.06	18800	78	60.7	16300	1130	1	9770	10.2	71	737	31.7	107	590	1	17	2.4	231	<	16.3	5510	0.5	1.87	142	1.1	20.8	112	93
A2.6.G	0.04	83600	15.3	2	< 389	2.3	0.4	70900	0.2	401	23.3	98	6.4	42.9	52800	0.08	17200	188	53.6	17800	1020	1.2	8270	10.6	101	731	31.7	107	590	1	17	2.4	231	<	16.3	5510	0.5	1.87	142	1.1	20.8	112	93
A2.7.G	0.07	94300	12.1	2	< 469	2.6	0.3	38600	0.3	87.7	20.9	114	6.7	33.7	52700	0.06	18900	47	58.6	18500	1210	0.9	9660	11.7	100	714	33.9	121	410	0.9	19	2.6	173	<	10.6	6330	0.6	1.78	153	1.1	21	127	88
A2.8.G	0.09	79300	10.6	2	< 375	1.9	0.3	49100	0.2	99.7	17.1	87	5.7	26	44200	0.06	15500	76	1	18200	761	0.8	927	11.2	82	795	26.2	104	590	0.7	16	2.3	238	<	9.49	5500	0.5	1.67	119	0.9	18.3	110	85
A2.9.G	0.03	77300	18	<	404	2.4	0.6	27200	0.2	378	35.3	91	6.9	43.2	58300	0.06	17800	151	47.3	15600	961	0.9	5670	10.7	99	618	39.2	134	240	1.1	18	3.3	100	<	15.6	5730	0.6	1.96	159	1.1	23.3	159	84
A2.10.G	0.05	67700	13.6	2	< 355	1.8	0.4	64900	0.2	162	20.4	83	6.1	25.9	43400	0.08	14300	96	45.7	14400	878	1.1	5960	9.2	71	623	28.5	85.6	540	0.9	13	2.2	180	<	15.3	5670	0.6	1.95	138	1.5	21.9	133	74
A2.11.G	0.04	73000	12.1	1	< 377	1.9	0.4	64000	0.3	145	20.1	101	6.1	24.4	44400	0.07	15000	68	49.7	15700	1010	1.1	8120	10.4	84	684	23.8	102	530	0.9	14	2.5	229	<	11.3	4960	0.5	1.82	123	1.1	18.8	108	81
A2.12.G	0.08	85600	8.9	<	366	1.9	0.3	31500	0.2	87.2	16.6	80	6.3	28.7	43700	<	16500	44	52.5	16600	816	0.9	10700	10.2	73	783	21.9	114	390	0.7	16	2.3	180	<	9.62	5150	0.5	1.58	120	1	19.5	132	81
A2.13.G	0.01	83700	6.4	2	< 288	1.5	0.3	104000	0.2	88.5	12.1	54	5	24.9	34100	0.05	12800	44	52.6	13100	572	1	9850	6.3	53	684	21.4	89.5	1070	0.5	12	1.9	337	<	8.37	3410	0.4	1.41	102	0.8	15.3	100	65
A2.14.G	0.04	90000	8.3	2	< 399	2.1	0.3	43000	0.2	86.3	17.9	87	6.6	30.7	45900	0.06	17400	45	60.4	17200	969	0.9	11100	9.5	68	1010	26.1	114	550	0.6	16	2.5	169	<	9.58	5200	0.5	1.52	130	1.1	18.8	134	86
A2.15.G	0.01	87400	5	1	< 286	1.5	0.2	111000	0.2	63.7	10.7	53	5.4	16.6	35600	0.07	13900	31	52.8	13200	505	0.5	9840	6.8	42	677	17.5	99.6	880	0.3	13	1.8	399	<	7.85	3800	0.4	1.31	97	0.7	16.3	87.3	66
A2.16.G	0.04	74200	6.2	1	< 290	1.4	0.2	87500	0.2	68.8	12.5	56	5.2	19.8	33600	0.06	12100	32	46.3	13100	554	0.7	8930	6.9	49	602	20.4	93.6	1000	0.5	12	2	265	<	7.81	3580	0.4	1.38	96	0.8	16.1	97.8	64
A2.17.G	0.15	83500	8.6	<	343	1.7	0.3	66000	0.2	76.4	15.2	80	6	26.4	40900	0.07	15000	38	48	16200	795	0.9	11100	8.9	67	831	24.8	107	980	0.7	15	2.3	242	<	8.79	4800	0.5	1.55	112	0.9	18.3	122	82
A2.18.G	0.03	69300	7.6	<	328	1.8	0.3	72600	0.2	80.2	15.4	67	5.2	18.7	36300	0.06	12600	35	44	13200	795	0.8	9500	8	49	826	23.7	86.3	600	0.5	11	2.1	167	<	9.05	3870	0.4	1.45	94	0.9	17.4	114	67
A2.19.G	0.1	91100	8.3	1	< 334	1.7	0.3	96000	0.2	94.8	15.2	74	5.1	35.3	41700	0.07	14800	54	52.1	16800	830	1	11200	7.9	66	785	25.2	95.4	710	0.7	14	2	280	<	8.73	4800	0.4	1.44	110	0.9	16.5	120	73
A2.20.G	0.32	94400	7.8	<	376	2.1	0.3	46300	0.3	82.9	16.8	71	6.1	31.3	45600	0.06	16600	45	58.5	17400	1010	0.9	11800	9.6	72	878	24.9	112	450	0.6	16	2.4	185	<	9.12	5470	0.5	1.52	127	1.1	18.3	131	82
A2.21.G	0.01	113000	10.6	<	528	2.8	0.3	28700	0.3	105	20.7	107	6.9	48.7	58300	0.06	20300	66	68.3	21600	1370	1	13900	10.3	101	838	32.9	121	320	0.2	22	2.6	176	<	10.9	6900	0.6	1.76	162	1	21	147	84
A2.22.G	0.01	113000	10.6	<	528	2.8	0.3	28700	0.3	105	20.7	107	6.9	48.7	58300	0.06	20300	66	68.3	21600	1370	1	13900	10.3	101	838	32.9	121	320	0.2	22	2.6	176	<	10.9	6900	0.6	1.76	162	1	21	147	84
A2.23.G	0.51	96800	9.9	2	< 415	2.1	0.3	35900	0.4	126	19	106	5.2	51.8	47500	0.06	14900	79	52.6	17400	1020	1.4	12300	9.9	98	1400	41	86.4	580	0.9	14	2.6	173	<	10.6	5630	0.5	1.63	140	1.1	18.4	194	90
A2.24.G	0.04	78200	8.5	6	< 332	1.6	0.3	84900	0.2	107	16.4	83	5	26.1	41600	0.06	13300	60	49.2	15000	827	0.8	11200	8.7	64	847	35.4	86.5	740	0.4	14	7.7	247	<	9.3	5130	0.4	1.49	109	1	16.5	115	78
A2.25.G	0.08	95500	7.6	2	< 401	2	0.3	68200	0.2	78.9	16.7	83	6.4	28.6	46400	0.07	16600	42	60.5	17500	912	0.7	11600	9.1	72	847	25.2	112	650	0.5	17	2.4	233	<	9.29	5110	0.5	1.61	133	1	18.7	123	87
A2.26.G	0.02	64700	7.1	2	< 318	1.7	0.3	131000	0.2	71.7	13.1	64	4.6	23.5	35500	0.06	12500	38	38.8	11900	735	0.7	8960	6.1	61	706	27.5	86.8	1020	0.6	13	1.7	392	<	7.69	3520	0.4	1.46	99	0.6	15.1	80.7	68
A2.27.G	0.04	68100	8.3	1	< 365	1.6	0.2	148000	0.2	67.6	13.7	69	4.6	23.7	38300	0.07	13300	37	40.3	13300	753	0.6	8600	6.3	68	631	25	82.9	990	0.6	13	1.7	422	<	7.22	3740	0.4	1.53	101	0.6	14.9	81.3	73
A2.28.G	0.04	67200	8.3	1	< 310	1.6	0.3	128000	0.2	80.4	13.1	62	4.4	23.7	36500	0.06	12600	46	40.3	13300	753	0.6	8700	6	61	617	28.9	99.6	970	0.6	13	1.6	399	<	7.59	3690	0.4	1.35	100	0.7	15	81.4	66
A2.29.G	0.04	88700																																									



جدول (۲-۳): نتایج آنالیز نمونه های ژئوشیمیایی بر دشت شده (ادامه)

Sample No.	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Hg	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb	S	Sb	Se	Sr	Te	Th	Ti	Tl	U	V	W	Y	Zn	Zr
A2.51.G	0.18	91000	8.5	2	< 401	2.3	0.4	33700	0.2	127	21.2	101	6.8	34.1	51200	0.07	25600	75	62.5	17800	1520	0.8	10900	10.3	84	870	26.9	126	460	0.8	18	2.6	203	< 11.8	5470	0.5	1.75	133	2.5	19.4	142	94	
A2.52.G	0.18	77000	11.7	3	< 346	2.1	0.4	12400	0.3	143	27.2	83	7.1	35.1	45800	0.05	21000	67	53.3	14500	1550	0.9	9520	11.2	74	696	26.8	126	310	1	15	2.9	133	< 12.5	4620	0.6	1.96	114	2.5	20.7	154	75	
A2.53.G	0.16	77200	11.2	2	< 373	2.2	0.4	10700	0.2	78.4	25.3	80	8.5	31.5	45800	0.06	22700	34	55.3	14500	1620	0.8	9440	10.6	70	805	25.9	125	250	1	15	2.5	126	< 10.1	4620	0.6	1.79	119	2.3	17.8	164	78	
A2.54.G	0.11	79100	11.5	2	< 362	2.2	0.4	30700	0.2	143	26.9	83	8.2	34.5	46300	0.06	21800	72	57.8	14100	1440	1	9330	9.2	67	700	31.7	126	770	1	15	2.4	171	< 12.6	4300	0.5	1.68	118	2.5	17.6	155	73	
A2.55.G	0.15	83800	10.6	1	< 398	2.1	0.4	18700	0.3	102	22.5	101	7.6	30.6	46300	<	23400	49	56	16100	1450	1	9290	11.6	78	565	22.8	128	270	1	17	2.5	131	< 13.5	5100	0.5	1.9	128	2.4	19.5	141	84	
A2.56.G	0.11	69900	10.5	1	< 317	1.6	0.4	48300	0.2	77	6.4	30.1	41200	0.07	18800	0.07	18800	82	49.1	12500	1040	0.8	8380	9.8	64	570	22.7	112	450	0.9	12	2.4	175	< 12.9	4000	0.5	1.72	107	2.5	18.4	115	73	
A2.58.G	0.12	68200	7.5	1	< 291	1.3	0.3	75500	0.2	83	14.8	58	6.1	18.7	37900	0.07	18400	36	51.1	13500	726	0.6	8280	8.5	52	630	16.8	106	600	0.7	12	2.1	281	< 9.6	3580	0.4	1.73	103	2	14.9	103	64	
A2.59.G	0.08	74000	8.3	2	< 326	1.5	0.3	83000	0.2	75	14.6	69	6.4	23.8	40400	0.08	19800	53	53.8	14500	702	0.7	7670	8.5	61	520	18.2	111	680	0.6	14	2.4	181	< 9.5	3840	0.5	1.61	115	2.1	15.1	97.1	73	
A2.60.G	0.12	70900	11.4	2	< 326	1.5	0.3	61500	0.2	83.6	18.6	78	6.6	25	40400	0.07	20100	35	44.1	15400	797	0.9	7100	10.3	73	594	17.7	112	460	0.9	13	2.3	206	< 9.42	4150	0.5	1.68	110	2.2	16.6	112	72	
A2.61.G	0.11	69500	11	1	< 370	1.7	0.4	25000	0.2	141	22.2	81	6.6	28.3	42800	0.1	20300	65	50.8	13400	1060	0.9	9400	10.6	68	641	22.5	112	230	0.9	12	2.5	134	< 11.9	4550	0.5	1.67	116	2.2	17	137	70	
A2.62.G	0.14	66600	8.5	1	< 283	1.4	0.3	86200	0.2	104	16.7	68	6.5	23.2	37100	0.08	18000	44	47.4	12900	875	2	7790	9.2	60	526	20	113	660	0.8	13	2.1	249	< 10.2	3610	0.6	1.74	106	2.8	16.3	109	71	
A2.63.G	0.1	67200	8	<	< 279	1.4	0.3	87500	0.2	110	16.3	61	6.7	17.9	37200	0.09	17700	48	47.7	12600	790	1.2	7600	9	55	479	20.8	118	610	0.8	13	2.9	232	< 11.7	3920	0.5	1.78	108	2.2	17.5	110	77	
A2.64.G	0.13	71300	9.1	<	< 316	1.5	0.3	77300	0.2	135	19.2	72	6.4	26.4	39600	0.09	19000	61	50	13600	950	1	7730	9	65	497	20.8	118	610	0.8	13	2.9	232	< 11.7	3920	0.5	1.78	108	2.2	17.5	110	77	
A2.65.G	0.12	84000	10.6	1	< 389	2.1	0.4	77100	0.2	188	22.9	86	7.3	37.5	49800	0.09	16800	117	67.3	15800	1390	1	10800	10.1	75	789	31	117	450	1	17	2.8	234	< 14.3	5300	0.5	1.75	134	2.4	18.9	132	95	
A2.66.G	0.17	65300	7.4	1	< 277	1.3	0.3	116000	0.2	100	14.6	66	5.2	20.1	37700	0.09	17100	47	47.6	13600	754	0.9	8640	8.6	55	476	18.4	93.1	940	0.7	12	2	354	< 9.63	3770	0.4	1.65	101	1.8	15.9	91	72	
A2.67.G	0.13	86500	10.3	2	< 397	2.3	0.4	31500	0.2	184	20.6	90	6.7	34.5	51700	0.06	17200	86	56.4	16200	1050	0.9	10900	11.6	69	1160	20.5	121	560	1	16	2.7	107	< 14.3	3720	0.5	1.81	126	2.4	19.3	144	63	
A2.68.G	0.07	71300	10.9	2	< 309	1.5	0.4	75900	0.2	198	19.2	69	6.2	25.1	40800	0.07	18000	104	50.1	15300	874	0.9	6190	8.7	62	520	21.4	106	600	0.8	13	2.4	241	< 13.8	3830	0.4	1.84	111	1.8	17.2	110	69	
A2.69.G	0.13	59700	13	4	< 269	1.2	0.2	109000	0.2	64.3	14.2	59	5.5	41.7	32300	0.07	17600	26	40.4	14600	619	0.6	7330	7.7	51	953	19.7	106	1080	0.7	11	2.9	444	< 8.13	3220	0.4	1.59	84	1.5	16.1	96.4	61	
A2.70.G	0.09	66100	7.7	2	< 305	1.3	0.2	90100	0.2	63.6	14.4	63	5.9	22.3	34700	<	19700	27	43.4	14700	648	0.7	8720	8.4	53	883	18.1	111	770	0.6	12	2.8	351	< 8.28	3590	0.5	1.55	99	1.9	19.1	118	71	
A2.71.G	0.08	72200	7.2	1	< 308	1.4	0.3	71100	0.2	134	17.8	65	6.1	25.3	38800	0.09	19800	61	48.8	14300	830	0.9	9420	8.5	53	694	19.5	118	550	0.6	13	2.2	234	< 11	3830	0.5	1.52	99	1.9	19.1	118	71	
A2.72.G	0.08	54900	14.3	2	< 297	1.4	0.7	127000	0.2	914	28.4	59	4.8	43.2	51400	0.12	15900	432	42.4	11900	820	1.1	7210	6.2	76	838	32.3	91	940	1.9	11	1.7	374	0.2	30.9	3120	0.3	2.08	99	1.5	28.7	11	55
A2.73.G	0.12	56900	5.4	<	< 246	1	0.2	129000	0.2	142	15.5	45	5.2	17.4	28900	0.06	15600	41	36.6	11700	523	0.7	8030	6.8	41	554	16.2	97.6	1090	0.6	10	1.9	414	< 9.02	2890	0.4	1.43	79	1.4	16.3	90.6	56	
A2.74.G	0.11	60000	6.8	<	< 293	1.1	0.3	120000	0.2	127	14.3	49	5.4	22.7	31700	0.07	16900	54	36.6	11700	640	0.7	8210	7.3	45	584	19.5	104	900	0.7	11	1.9	404	< 9.98	3200	0.4	1.5	84	1.8	18.1	96.5	62	
A2.75.G	0.1	83600	9.1	2	< 410	1.9	0.3	11000	0.3	89.5	19.3	102	6.2	34.1	46900	0.06	22800	42	56.2	17600	1150	1	11200	10.8	80	914	26.5	116	440	0.8	15	2.6	127	< 9.99	5220	0.5	1.65	131	2.2	21.4	164	85	
A2.76.G	0.1	85200	7.6	<	< 398	1.9	0.3	47600	0.2	182	18.7	80	6.4	28.9	46700	0.1	23300	50	59.9	17700	1000	1.7	11700	10.2	66	800	22.7	124	340	0.6	16	2.5	199	< 8.17	5070	0.5	1.6	126	1.9	19.2	134	84	
A2.77.G	0.09	73800	5.4	<	< 309	1.4	0.2	90500	0.2	64	12.3	60	5.7	23.8	36900	0.1	19600	30	50.5	14900	729	1.6	9990	7.8	43	708	15.9	116	800	0.5	13	2	312	< 10.6	5070	0.4	1.37	100	1.8	18.3	98.4	71	
A2.78.G	0.08	75700	6.7	1	< 326	1.4	0.2	119000	0.2	134	15.9	64	5.6	26.6	39700	0.1	14900	72	57.6	14800	857	1	11800	8	57	727	21.2	109	590	0.6	15	2	360	< 10.8	4440	0.4	1.5	106	1.7	17.5	104	79	
A2.79.G	0.06	58600	4.8	<	< 237	1.1	0.2	137000	0.2	84.2	12.7	47	5.1	19.1	31000	0.1	17000	39	39.7	12000	563	0.7	8450	6.3	46	583	17.1	94.6	1150	0.5	11	1.8	485	< 7.93	3070	0.4	1.34	84	1.6	15.3	76.7	60	
A2.80.G	0.09	75500	9.6	<	< 370	1.6	0.3	97900	0.2	77.9	16.1	79	6.2																														



جدول (۲-۳): نتایج آنالیز نمونه های ژئوشیمیایی بر دانت شده (دامه)

Sample No.	Ag	Al	As	Au	Ba	Be	Bi	Bj	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Hg	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb	S	Se	Sr	Te	Th	Ti	U	V	W	Y	Zn	Zr			
A2.101.G	0.15	96000	19.2	<	<	331	2.2	0.4	28800	0.2	79.6	22.1	94	9.7	33	50200	<	17000	51	68.5	18600	1410	0.4	11100	10.3	71	1050	38.9	74.6	530	0.8	18	2.6	153	<	10.1	5110	0.6	1.8	130	1.1	18	141	83
A2.102.G	0.13	90200	18.8	<	<	331	2	0.4	64200	0.2	98.2	19.9	96	8.7	31.8	46400	<	14900	0.08	14900	1290	0.3	10300	9.8	71	815	39.9	70.5	410	0.8	17	2.5	168	<	10.6	4790	0.5	1.79	133	0.7	17.7	138	82	
A2.103.G	0.15	101000	23.1	<	<	335	2.5	0.5	47800	0.2	112	28.6	93	12	40.8	53200	0.05	16300	74	60.9	17900	1790	0.6	9470	10.4	83	667	50.9	79.3	290	0.9	19	2.7	157	<	11.9	5200	0.6	1.88	146	1	17.9	148	90
A2.104.G	0.12	89900	16.1	<	<	298	1.7	0.3	111000	0.2	107	18	76	6.2	26.3	41500	0.07	13700	67	59.7	14100	1070	0.2	9040	8.2	62	642	34.2	68.5	640	0.5	15	2.2	218	<	10.2	3960	0.5	1.61	122	0.6	16.2	104	84
A2.105.G	0.11	87300	18.3	<	<	334	1.8	0.4	86400	0.2	110	19	93	6.3	28.8	46100	0.06	14500	73	59.2	17000	1150	0.4	9720	9.7	78	693	36.6	66.1	530	0.8	17	2.3	236	<	10.7	4720	0.5	1.8	132	0.7	17.4	106	82
A2.106.G	0.13	83600	16.2	<	<	321	1.8	0.4	90900	0.2	74.2	17.6	89	6.4	27.4	42000	0.07	14200	48	60	14900	1260	0.3	9770	8.5	63	651	36.6	69.6	660	0.7	15	2.2	221	<	8.9	4340	0.5	1.6	129	0.9	15.7	108	85
A2.107.G	0.1	88800	27.4	3	<	348	1.8	0.5	97800	0.2	354	27.2	100	5.9	39.8	53100	<	13600	316	61	17400	1250	0.5	10000	8.8	85	911	48	61.1	590	1.1	17	2.1	280	<	20.4	4890	0.5	1.96	149	1.7	20.9	110	79
A2.108.G	0.13	76500	17.6	17	<	279	1.3	0.3	77800	0.2	71.7	13.7	73	5.5	25	39000	0.08	16700	39	40	15100	630	0.4	8290	7.7	58	627	33.4	56.3	1000	0.7	13	2.6	250	<	8.41	3460	0.5	1.58	109	0.4	14.5	110	77
A2.109.G	0.3	71800	29.2	16	<	290	1.3	0.3	96300	0.3	73.4	14.9	81	5.3	49.5	37000	<	16200	42	43	14900	667	0.4	7710	7.7	58	1190	52.6	52	1090	1.2	3.4	400	<	8.14	3400	0.4	1.63	105	0.5	14.1	130	76	
A2.110.G	0.11	62800	22.5	<	<	297	1.2	0.2	130000	0.3	58.8	14.8	81	4.5	25.8	35900	0.08	15200	33	31.4	14600	840	0.7	6260	8	73	658	33.8	49.1	1080	0.9	11	1.7	314	<	7.11	3340	0.4	1.61	94	0.2	15.3	81.3	71
A2.111.G	0.06	72700	18.6	<	<	270	1.4	0.4	124000	0.2	186	16.4	66	4.8	31.6	41000	<	16800	121	44.9	13500	762	0.3	9080	6.3	62	747	45.2	54.6	1120	0.6	13	1.8	368	<	11.7	3230	0.4	1.49	103	<	17.1	85.8	74
A2.112.G	0.11	77900	24.4	<	<	333	1.5	0.3	108000	0.3	65.3	14.6	90	5.2	27	42200	0.06	19900	40	35.7	15800	954	0.5	8120	8.4	75	898	53.5	56.8	940	1.4	14	2.1	311	<	7.92	3940	0.5	1.62	112	0.4	15.6	89.8	86
A2.113.G	0.04	76800	21.2	<	<	357	1.4	0.2	122000	0.3	62.8	15.3	110	4.5	31.8	42200	0.09	17300	41	39.1	20300	907	0.7	8570	9.2	98	790	36.1	48	1020	0.8	14	1.8	320	<	7.4	4280	0.4	1.64	117	0.3	15.5	83.7	89
A2.114.G	0.18	81300	26.1	2	<	402	1.5	0.3	82100	0.3	65.5	16.5	127	5.5	32.9	46800	0.08	19900	43	41.2	19200	1050	0.8	9770	9.8	100	810	41.5	50.3	820	1.1	14	2.1	235	<	8.17	4660	0.5	1.7	130	0.5	16.2	101	79
A2.115.G	0.07	76100	20.3	<	<	305	1.4	0.3	148000	0.2	150	15.9	71	4.6	32.1	43400	0.05	18000	102	46.2	15800	887	0.3	9970	7	68	739	39.4	51.3	1170	0.7	13	1.8	393	<	9.97	4040	0.5	1.62	119	0.2	17.2	98.4	87
A2.116.G	0.14	78600	22.8	<	<	373	1.4	0.2	146000	0.3	55.8	14.5	113	4.6	32.9	43400	<	18800	38	40.1	21100	914	0.7	7830	8.7	96	721	35.9	51	1110	0.9	14	1.7	346	<	7.02	4240	0.4	1.52	122	0.4	14.5	80.4	90
A2.117.G	0.28	91800	24.4	<	<	437	1.7	0.3	102000	0.3	59.3	16.3	132	5.3	39	51700	0.08	22400	43	48.7	23700	1060	0.7	8220	9.7	121	776	37.1	49.9	1070	0.9	17	2.1	308	<	8.03	5070	0.5	1.64	142	0.4	16.2	98.8	76
A2.118.G	0.09	92800	16.3	6	<	328	1.7	0.3	62700	0.2	80.5	15.9	86	6.2	30.8	45700	0.08	20600	50	59.6	16200	827	0.3	10800	8.6	63	809	30.3	65.7	830	0.4	17	2.3	221	<	9.56	4310	0.5	1.56	125	0.4	16.8	104	80
A2.119.G	0.09	76300	13.1	<	<	240	1.3	0.2	106000	0.2	96.1	15.7	81	6.1	26.5	44700	<	18200	48	48.3	14200	703	0.1	9380	6.9	48	761	28.9	61.4	950	0.3	13	2	300	<	8.85	3310	0.5	1.44	101	0.1	17.2	90.9	77
A2.120.G	0.15	88500	16.7	<	<	313	1.5	0.3	68400	0.2	91.7	18	79	5.9	27.1	47600	0.07	18900	50	59.6	14900	846	0.4	12800	9.2	62	911	28	57.3	740	0.5	14	2.3	138	<	9.87	4360	0.5	1.57	124	0.5	15.1	122	86
A2.121.G	0.1	87800	15.2	<	<	333	1.6	0.3	14500	0.2	91.7	18	79	5.9	27.1	47600	0.07	18900	50	59.6	14900	846	0.4	12800	9.2	62	911	28	57.3	740	0.5	14	2.3	138	<	9.87	4360	0.5	1.57	124	0.5	15.1	122	86
A2.122.G	0.05	83000	11.2	<	<	297	1.5	0.2	104000	0.2	76.2	12.9	73	5.3	20	42900	<	16400	49	59.1	14900	701	0.1	10000	6.9	47	637	24.6	53.5	1020	0.2	13	1.9	360	<	8.38	3780	0.4	1.36	119	0.2	15.7	86.5	89
A2.123.G	0.08	59800	11	<	<	211	1	0.3	82000	0.2	89.1	13.6	48	5.2	15.8	32000	0.11	14200	42	42.5	10900	535	<	8850	6.8	36	629	20.5	58.1	840	0.3	19	1.9	273	<	8.87	2740	0.4	1.36	82	0.1	15.8	92.6	62
A2.124.G	<	62600	10.6	<	<	207	1	0.2	94700	0.2	81.3	12.5	45	5.1	16.1	31600	<	15100	39	40.8	12000	526	<	8680	6.3	33	725	22.5	58.1	840	0.3	19	1.9	325	<	8.39	2670	0.4	1.33	80	0.2	16	83.3	63
A2.125.G	0.08	62000	13.4	<	<	233	1.1	0.3	82600	0.2	105	14	54	5	19.8	33600	<	15000	52	42.9	11200	585	0.2	8740	6.8	41	619	25.3	50.1	710	0.4	10	1.9	267	<	8.69	2790	0.4	1.29	91	0.2	15.2	88.3	54
A2.126.G	0.05	57000	17.8	<	<	201	1	0.3	112400	0.2	72.8	14.8	47	4.2	21.4	31900	0.08	13500	49	34.2	11400	630	0.7	5460	8.5	63	526	28.9	53.4	910	0.7	10	1.9	290	<	9.5	2640	0.4	1.43	78	0.2	16.1	73.8	56
A2.127.G	0.1	59500	23.4	<	<	256	1	0.2	104000	0.3	55.7	15.2	80	4.8	21.5	34700	0.09	14400	29	31.2	15300	710	0.7	5460	8.5	63	526	28.9	53.4	910	0.7	10	1.9	290	<	9.5	2640	0.4	1.43	78	0.2	16.1	73.8	56
A2.128.G	0.07	63100	9.8	<	<	204	1.1	0.3	112000	0.1	101	12.6	47	5.1	14.8	32000	<	15100	52	39.1	10900	575	0.1	8040	5.7	37	524	20.7	57.7	900	0.3	11												



جدول (۲-۲): نتایج آنالیز نمونه های ژئوشیمیایی برداشت شده (دامه)

Sample No.	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Hg	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb	S	Sb	Se	Sr	Te	Th	Ti	Tl	U	V	W	Y	Zn	Zr	
A2.151.G	0.02	70500	18.1	1	< 361	2	0.3	45000	0.4	86.1	18.6	144	5.6	27.8	43200	<	187000	41	46.2	14900	104.0	1.3	7750	9	86	675	21.9	92.9	620	1.6	2.5	164	<	9.15	4790	0.4	1.55	123	1.5	19.3	97.4	73		
A2.152.G	0.08	69000	15.8	<	316	2.1	0.3	52000	0.3	62.5	17	116.6	6.1	29.8	44000	<	187000	31	52.2	13500	86.7	0.8	6740	8.4	66	451.0	0.4	1.42	119	1.3	18	97.8	62											
A2.153.G	0.06	73000	17.2	<	434	2.4	0.3	106000	0.3	105.9	20.9	153	5.7	34.5	47800	0.09	21000	52	51.6	15100	1270	1.8	8450	9.6	93	659	23.4	95.1	270	0.7	15	2.9	111	<	9.79	4510	0.4	1.42	119	1.3	18	97.8		
A2.154.G	0.11	82100	22.8	2	< 404	2.9	0.4	12000	0.4	82.3	28.3	141	6.7	49.3	52500	0.08	21600	35	54.3	15700	1490	1.6	7320	10.8	102	585	28.7	109	280	1.0	1.8	3.7	113	<	10.1	5450	0.6	1.82	142	1.6	18.7	146	85	
A2.155.G	0.03	81000	16.9	1	< 380	2.7	0.5	22900	0.2	180	23.5	111	7.4	35.1	48800	0.08	21000	90	63.9	12900	1430	0.9	8340	8.4	68	721	23.7	111	580	0.8	1.8	3	133	<	12.6	4890	0.5	1.69	138	1.4	18.8	128	84	
A2.156.G	0.26	78500	24.9	1	< 367	2.3	0.5	23500	0.4	131	27.2	17.6	9.3	29.1	45400	<	214000	98	64.4	12900	1450	0.9	8490	8.1	68	724	24.7	108	560	0.7	1.8	3.1	135	<	14.1	5070	0.7	2.41	125	2.7	27	112	83	
A2.157.G	0.23	81000	17.8	2	< 379	2.9	0.5	22900	0.2	195	23.7	110	7.5	37.8	49200	<	216000	98	64.4	12900	1450	0.9	8490	8.1	68	724	24.7	108	560	0.7	1.8	3.1	135	<	14.2	4890	0.5	1.67	139	1.3	19.1	127	81	
A2.158.G	0.06	79800	17.9	1	< 393	2.3	0.4	38100	0.2	238	20	98	6.1	28.2	47700	0.06	21100	125	57.2	13400	1060	0.8	6530	8.2	68	711	21	110	400	0.8	1.8	2.9	134	<	15.7	4800	0.5	1.76	139	1.2	19.5	106	80	
A2.159.G	0.14	72900	21.2	1	< 389	2.3	0.5	38300	0.3	283	24	108	6.3	29.7	47100	<	206000	130	56.2	12900	1050	0.9	8300	9.2	70	706	21	107	420	1	15	3.2	131	<	15.7	4800	0.5	1.76	139	1.2	19.5	106	80	
A2.160.G	0.07	70900	16.4	1	< 350	2	0.3	32600	0.3	138	17	129	5.7	26.1	42900	0.08	19800	63	49.4	13500	772	0.9	7830	9.5	68	917	17	101	520	0.8	1.6	3.2	174	<	11.3	4870	0.5	1.68	125	1.5	18.7	110	67	
A2.161.G	0.09	70100	20.3	1	< 438	2.8	0.3	11200	0.4	95.3	22	160	6.8	33.4	47600	0.09	13400	40	53	15200	1180	1.3	7920	11.7	94	843	23.9	103	230	1	15	3.6	114	<	10.1	5850	0.6	1.81	145	1.8	20.3	143	81	
A2.162.G	0.1	70600	18.4	<	374	2.2	0.3	78100	0.3	108	17.1	144	5.5	28.7	42300	0.07	15600	965	1.1	7510	9.1	81	720	19.5	91.3	560	0.8	1.7	2.6	243	<	9.82	5170	0.5	1.73	128	1.4	18.6	93	84				
A2.163.G	0.03	69400	16.8	3	< 399	1.9	0.3	46700	0.3	89.5	16.9	157	5.8	32	45400	<	149000	49	51.6	16200	1060	0.9	7030	9.2	86	739	20.6	96.4	380	0.8	1.9	2.7	173	<	9.23	5630	0.5	1.55	136	1.3	17.7	97.9	88	
A2.164.G	0.03	69400	16.2	1	< 370	2.2	0.3	78000	0.3	99.5	16.6	149	5.2	30.1	41100	<	132000	53	45.6	15400	947	1.1	7200	8.5	82	704	19.7	90.4	580	0.7	1.7	2.5	240	<	9.1	5010	0.4	1.6	127	1.2	17.9	85.2	82	
A2.165.G	0.1	81000	17.1	1	< 459	2.9	0.3	11400	0.3	92.2	18.8	164	6.2	37.3	48500	0.07	16100	47	53.6	15800	1250	1.1	8210	9.9	98	843	23.4	103	230	1	15	3.2	118	<	9.58	6050	0.5	1.63	149	1.4	18.8	115	94	
A2.166.G	0.06	61100	10.6	1	< 289	1.9	0.2	73300	0.2	69.1	12.7	91	5.9	22.5	33000	<	130000	32	45.8	12000	763	0.6	6570	6.5	51	923	16.8	94.1	740	0.5	1.4	2.4	206	<	7.99	3650	0.4	1.36	104	0.9	14.2	88.6	67	
A2.167.G	0.07	62400	12.5	<	299	1.9	0.3	75900	0.3	70.6	14.5	96	6.4	24.9	34700	<	135000	29	48.1	12100	800	0.7	6970	7.7	54	905	18.4	102	750	0.6	1.4	2.9	216	<	8.55	3830	0.4	1.55	110	1.2	16.4	106	72	
A2.168.G	0.09	69400	15.9	2	< 376	2.5	0.3	25100	0.3	90.2	18.3	119	6.5	31.6	42800	<	151000	40	51.5	13900	1130	1.1	7720	9.5	72	1010	23.9	97.3	400	0.8	1.5	3.4	121	<	9.31	5080	0.5	1.57	130	1.5	17.7	125	75	
A2.169.G	0.01	69700	14.8	1	< 346	2.1	0.3	21700	0.3	84.5	16.5	129	6.2	25.6	43200	0.07	21000	38	51.9	13900	1010	1	7490	8.6	68	909	19.1	101	610	0.8	1.6	2.8	114	<	8.97	4670	0.5	1.45	122	1.5	16.8	113	65	
A2.170.G	0.09	67500	16	1	< 355	2.2	0.3	22200	0.3	87.6	17.8	124	6.2	27	44400	0.06	21000	38	52.6	14000	1040	1	7690	9	68	934	21.3	92.3	620	0.8	1.4	3	116	<	9.2	4770	0.5	1.54	123	1.5	17.4	125	68	
A2.171.G	0.2	76600	19.8	1	< 386	2.3	0.4	37700	0.2	259	21.6	103	6.2	30.8	46900	<	205000	124	55.9	13000	1040	0.9	6260	8.8	72	700	21.5	107	430	0.8	1.7	3	130	<	14.9	4780	0.5	1.72	140	1.7	21	111	81	
A2.172.G	0.23	75500	21	1	< 396	2.6	0.5	41700	0.3	303	23.9	104	6.8	34.3	45300	<	146000	144	53.7	12900	1130	1.8	5970	9.4	75	745	24.4	119	260	1.1	1.8	3.3	128	0.5	16.2	4870	0.6	1.78	140	2.9	22.7	119	78	
A2.173.G	0.07	89000	22	1	< 425	2.7	0.5	43600	0.3	323	24.3	109	6.5	35.9	47800	<	157000	167	57.1	13400	1230	1.5	6830	9.4	72	804	26.2	118	290	1.2	1.9	3.4	139	0.4	17.4	5230	0.5	1.81	148	2.8	22.6	119	86	
A2.174.G	0.09	82900	19.5	1	< 448	3.6	0.2	14500	0.6	103	26.9	129	10	55	49500	0.05	16500	51	44.8	13300	1300	1.4	1040	11.4	82	776	24.3	103	140	0.9	1.6	15.3	2.4	28.2	<	9.71	6580	0.5	1.82	145	2.1	21.5	169	86
A2.175.G	0.1	79900	19.5	1	< 628	2.4	0.3	10500	0.4	82.6	24.3	152	5.4	48.7	52000	0.08	22100	37	43.7	16500	1270	1.9	13200	14	85	853	33.3	97.6	220	0.8	2.0	3.3	151	<	9.71	6580	0.5	1.82	145	2.1	21.5	169	86	
A2.176.G	0.19	86500	8.2	<	255	2.1	0.2	122000	0.1	43.7	10.8	60	5.4	20.2	33200	0.04	19400	23	39.3	11400	664	0.4	8290	5.1	47	734	21.3	103	770	0.3	1.5	2.3	318	<	6.59	3460	0.4	1.18	104	0.9	15.2	67.6	58	
A2.177.G	0.13	80500	7.9	<	333	1	0.2	86800	0.2	62.7	11.9	58	5.5	34.1	40700	<	149000	30	54.8	13700	754	0.6	11000	6.4	48	734	21.8	96.6	600	0.5	1.4	1.6	295	<	7.5	3930	0.5	1.24	109	0.7	15.3	85.3	80	
A2.178.G	0.11	79500	11.2	1	< 347	1.1	0.2	75900	0.2	135	15.7	75	5.4	39.9	43700	<	187000	65	55.3	15100	857	0.8	10900	7.4	68	693	27.3	89.4	630	0.7	1.4	1.6	286	<	9.5	4170	0.4	1.43	115	0.7	17	95.4	79	
A2.179.G	0.15	69000	10	1	< 287	0.9	0.2	8																																				



جدول (۲-۳): نتایج آنالیز نمونه های ژئوشیمیایی برداشت شده (دامه)

Sample No.	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Hg	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb	S	Sb	Se	Sr	Te	Th	Ti	U	V	W	Y	Zn	Zr		
A2.201.G	0.12	77100	10.6	<	<	326	1.8	0.2	96100	0.2	155	17.3	70	6.1	28.6	41300	<	15900	66	49.8	12100	803	0.7	10000	7.1	52	655	20.2	82	2410	0.7	14	1.9	148	<	10.6	2520	0.5	1.49	100	0.9	18.8	113	61
A2.202.G	0.14	78000	10.7	<	<	321	1.8	0.2	70800	0.2	133	16.7	68	6.2	28.5	41900	<	15200	47	49.8	13100	810	0.7	9160	7.1	51	674	20.5	91	1710	0.7	14	2	135	<	10.4	2870	0.5	1.61	100	0.9	18.4	123	67
A2.203.G	0.17	79800	11.3	<	<	326	1.8	0.2	82600	0.3	101	15.3	60	6.4	27.3	41500	<	14100	39	52.6	13300	670	0.7	9650	7.5	47	636	20.7	93.1	2010	0.6	14	2	127	<	9.36	2890	0.5	1.47	106	0.9	18	102	67
A2.204.G	0.1	55000	19.4	2	<	315	1.2	0.2	126000	0.4	80.3	16.1	73	4.6	21.9	33800	<	13100	30	28.8	13300	821	1.3	6020	7.3	66	514	26.8	70.6	3100	1.5	11	1.6	150	<	7.72	3180	0.4	1.7	82	0.8	16.1	147.7	67
A2.205.G	0.32	74300	10.5	3	<	334	1.8	0.2	90000	0.2	72.3	14.8	88	6.9	31.9	36100	<	18600	29	32.8	9630	765	0.7	6160	7.7	48	698	15.9	116	2200	0.9	13	2.2	122	<	9.03	2520	0.5	1.62	98	0.9	16.7	69.1	59
A2.206.G	0.17	88600	13.2	1	<	374	2.1	0.3	45300	0.2	139	19.3	84	6.6	32.6	48300	<	16200	52	58.5	15000	902	0.9	10700	9.4	61	679	24.3	106	1140	0.6	16	2.3	108	<	11.1	3040	0.5	1.59	118	1.1	18.7	126	66
A2.207.G	0.16	61200	12.8	1	<	310	1.3	0.2	120000	0.3	156	16.6	70	4.7	26.1	35600	<	14400	58	37.1	14600	758	1	7970	7.4	60	578	17	76.6	3160	0.9	11	1.6	229	<	10.2	2760	0.4	1.67	88	0.8	18.1	76.5	58
A2.208.G	0.12	82800	13.8	1	<	353	1.9	0.3	61100	0.2	168	19.5	79	6.1	33	44900	<	17300	76	51.3	13600	823	0.7	10200	8.7	59	693	21.1	90	1770	0.9	15	2.2	103	<	10.8	3220	0.4	1.55	110	1.2	17.7	112	68
A2.209.G	0.18	80200	10.9	1	<	369	2.1	0.3	29400	0.2	144	22.9	93	6.5	38	49800	<	19100	48	50.5	15900	981	0.8	11200	10.1	55	73	19.6	90.6	2070	0.7	14	1.9	109	<	10.1	3360	0.4	1.59	106	0.9	17.3	110	82
A2.210.G	0.41	80200	14.4	<	<	369	2.1	0.3	29400	0.2	144	22.9	93	6.5	38	49800	<	19500	39	51.2	16000	1070	0.9	10400	10	74	823	24.7	94.2	980	0.7	16	2.2	97	<	9.07	3930	0.5	1.64	123	1.1	20.3	137	68
A2.211.G	0.17	84800	16.4	1	<	387	2.4	0.3	12300	0.2	103	23.4	95	6.3	40	49900	<	19200	53	51.4	16200	1030	1.1	11200	10.1	75	700	24.2	94	980	0.7	17	2.2	112	<	10.1	4140	0.5	1.61	124	1.1	19	116	65
A2.212.G	0.15	87300	14.7	1	<	384	2.2	0.3	24300	0.2	134	23.4	97	5.9	38.1	50500	<	18900	38	51.5	15500	1130	0.9	8740	9.8	78	862	25.8	109	1010	0.8	16	2.4	99	<	9.79	3710	0.5	1.62	120	1.1	18.9	124	69
A2.213.G	0.13	84500	15.9	1	<	397	2.2	0.3	21500	0.3	110	23.5	95	6.7	38.6	48600	<	18900	38	51.5	15500	1130	0.9	8740	9.8	78	862	25.8	109	1010	0.8	16	2.4	99	<	9.79	3710	0.5	1.62	120	1.1	18.9	124	69
A2.214.G	0.21	83000	23.7	2	<	355	1.9	0.3	47900	0.3	166	26.6	88	7.6	32.4	46400	<	17300	46	51	16500	833	1.4	9150	13.7	68	687	19.7	120	1440	1.2	16	3	113	<	15.2	3760	0.7	2.23	115	1.7	27.9	162	75
A2.215.G	0.16	87000	14.8	2	<	428	2.5	0.3	16500	0.3	136	29	103	7	41.7	53500	<	16200	55	53.3	15700	1420	1.1	8610	9.2	75	792	25.4	106	1190	0.9	16	2.3	104	<	10.5	3680	0.5	1.68	114	1.2	18.9	121	67
A2.216.G	0.11	79000	16.6	1	<	385	2	0.2	28400	0.4	105	20.9	92	6.3	34.3	46200	<	18000	47	59.2	15900	1320	1.1	9820	10.3	81	641	29.9	114	650	1	17	2.5	101	<	11.2	3380	0.5	1.76	131	1.3	20.3	154	66
A2.217.G	0.13	90300	19.1	1	<	399	2.2	0.4	9570	0.3	142	27.8	96	7.8	46	54900	<	19700	47	59.2	15900	1320	1.1	9820	10.3	81	641	29.9	114	650	1	17	2.5	101	<	11.2	3380	0.5	1.76	131	1.3	20.3	154	66
A2.218.G	0.13	84500	15.9	1	<	397	2.2	0.3	21500	0.3	110	23.5	95	6.7	38.6	48600	<	18900	38	51.5	15500	1130	0.9	8740	9.8	78	862	25.8	109	1010	0.8	16	2.4	99	<	9.79	3710	0.5	1.62	120	1.1	18.9	124	69
A2.219.G	0.19	81600	14.2	<	<	368	2.2	0.3	20500	0.3	119	21.5	92	6.7	37.2	45600	<	16700	45	49	14400	1100	1.1	8610	9.2	75	792	25.4	106	1190	0.9	16	2.3	104	<	10.5	3680	0.5	1.68	114	1.2	18.9	121	67
A2.220.G	0.22	86100	20.8	2	<	428	2.5	0.3	16500	0.3	136	29	103	7	41.7	53500	<	16200	55	53.3	15700	1420	1.1	8610	9.2	75	792	25.4	106	1190	0.9	16	2.3	104	<	11.1	4080	0.5	1.78	128	1.3	20.3	134	71
A2.221.G	0.2	86100	20.8	2	<	428	2.5	0.3	16500	0.3	136	29	103	7	41.7	53500	<	16200	55	53.3	15700	1420	1.1	8610	9.2	75	792	25.4	106	1190	0.9	16	2.3	104	<	11.1	4080	0.5	1.78	128	1.3	20.3	134	71
A2.222.G	0.15	56500	11.3	1	<	271	1	0.2	191000	0.3	56.4	13.7	72	5	17.6	32400	<	11200	31	32.8	15200	786	0.7	6790	10.6	52	500	26.7	62.9	1280	0.8	10	1.6	438	<	7.39	2900	0.4	1.46	76	1.6	15.3	70.4	61
A2.223.G	0.22	54700	14.6	<	<	325	1.1	0.3	165000	0.3	93.1	16.4	82	4.8	24.7	35300	<	10100	11	29.2	13900	943	0.9	6920	11.3	64	573	31.6	65.7	1120	1	11	1.9	400	<	8.49	3020	0.3	1.51	87	1.4	15.9	74.4	68
A2.224.G	0.1	53400	10.1	1	<	266	1	0.2	144000	0.3	60.4	13.8	72	5.4	18.1	30300	<	10100	28	30.1	13600	696	0.9	6920	11.3	64	573	31.6	65.7	1120	1	11	1.9	400	<	8.49	3020	0.3	1.51	87	1.4	15.9	74.4	68
A2.225.G	0.14	62500	13.2	1	<	337	1.2	0.2	118000	0.3	71.3	16.2	105	6.2	23.2	36200	<	13700	35	32.8	15700	834	1.1	7340	13.9	71	631	28.3	82.2	860	0.9	12	2	281	<	8.75	3360	0.4	1.75	95	1.7	16.4	91.2	78
A2.226.G	0.19	58200	14.7	2	<	359	1.2	0.3	123000	0.3	57.4	14.5	75	6.9	22	31900	<	13200	27	31.8	13100	739	0.9	6200	11.5	81	868	36.1	85.9	950	0.9	11	2	303	<	8.48	2810	0.4	1.67	84	1.5	16.4	88.1	70
A2.227.G	0.14	51000	13.3	2	<	392	1	0.3	147000	0.3	64.5	14.8	70	5.3	21.9	31800	<	11700	30	33.1	11900	792	0.8	5960	9.6	55	744	53.1	72.3	1120	1.1	9	2	341	<	7.9	2470	0.4	1.6	74	1.5	15.8	92	60
A2.228.G	0.11	60000	10.3	1	<	282	1.1	0.2	135000	0.3	63.6	14.9	68	6.3	21.7	32600	<	12800	31	34.1	13500	779	0.8	7960	11.3	50	697	26.3	83	1050	0.9	11	1.9	354	<	8.45	2800	0.4						



جدول (۲-۲): نتایج آنالیز نمونه های ژئوشیمیایی بر دشت شده (دامه)

Sample No.	Al	As	Au	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Hg	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb	S	Sb	Sc	Sn	Sr	Te	Th	Ti	Tl	U	V	W	Y	Zn	Zr		
A.2.251.G	0.15	81000	9.5	1	< 364	1.5	0.2	85600	0.2	66.3	14.8	71	7.8	24.2	42100	0.08	15800	36	52.6	15800	850	0.8	10500	12.5	55	895	26.2	107	470	0.7	18	2.5	162	<	9.17	3710	0.5	1.53	116	1.8	17	108	80	
A.2.252.G	0.2	81800	11.4	<	434	1.9	0.3	45700	0.2	154	21.1	94	7.8	33.8	50700	0.05	16000	86	62.7	16300	1200	0.9	11500	14.2	76	750	29.3	107	710	0.7	18	2.5	162	<	12.7	4440	0.5	1.66	139	1.9	19.6	129	94	
A.2.253.G	0.1	77500	8.5	<	339	1.5	0.3	72100	0.2	71.2	15.8	84	7.6	25.6	40500	0.1	14000	36	49.7	16300	879	0.7	10500	13.2	58	892	26.8	104	860	0.7	15	2.1	239	<	9.16	3670	0.6	1.68	110	1.9	19.1	119	78	
A.2.254.G	0.16	84000	11.6	<	384	1.7	0.4	74400	0.3	210	21.8	76	7.7	29.8	47700	0.09	14900	114	58.7	14700	1100	0.7	11000	12.8	65	772	38.5	104	600	0.8	16	2.2	202	<	13.7	3910	0.4	1.6	121	1.7	18.3	121	79	
A.2.255.G	0.16	86500	13.5	<	538	1.6	0.3	38000	0.5	156	21.4	120	7.6	35.8	48800	0.09	15500	85	53	16900	1190	1.2	11200	16.2	84	889	46.5	106	430	1.2	17	2.7	185	<	13.2	4540	0.5	1.81	132	2.3	20.3	181	92	
A.2.256.G	0.03	90300	12.7	8	< 446	1.7	0.3	22100	0.5	121	21	128	7.8	35.4	49300	0.18	15100	65	58.6	15300	1080	1	11100	15.3	81	834	41.7	107	360	1	18	2.4	142	<	11.8	4380	0.5	1.77	138	1.8	19.5	136	87	
A.2.257.G	0.16	82200	13	<	711	1.7	0.4	49500	0.4	164	23.4	94	7.7	28.9	48400	0.13	14400	86	56.8	12900	1050	0.8	10600	14.1	74	830	62.7	106	620	1.6	17	2.1	186	<	13.1	4060	0.5	1.63	125	1.8	19.3	188	84	
A.2.258.G	0.21	86400	13.2	<	557	1.7	0.3	60800	0.4	122	20.5	120	7.2	31.9	48300	<	15000	69	56.5	17600	1170	1	10900	15.5	84	850	43.1	98.6	600	1.3	17	2.4	217	<	11.6	4440	0.4	1.77	134	2.2	19.8	151	85	
A.2.259.G	0.14	88400	10.3	<	493	1.7	0.3	58100	0.4	172	17.2	90	7.8	29.3	47200	0.13	15700	53	60.3	15800	1000	0.8	12200	14.5	65	915	37.4	108	570	1.1	17	2.5	225	<	10.5	4330	0.5	1.65	132	2.1	18.6	152	88	
A.2.260.G	0.19	95100	12	<	536	1.8	0.4	66300	0.3	234	23.6	90	7.5	38.2	54200	0.11	16000	135	67.3	16300	1270	0.6	12700	13.6	79	855	45.2	110	570	1.2	18	2.4	232	<	15	4510	0.5	1.66	142	1.8	19.2	158	95	
A.2.261.G	0.13	89100	10.9	<	422	1.7	0.3	24100	0.2	117	19	93	7.8	30.9	47700	0.07	14900	59	62.1	17000	963	0.7	12600	15.4	67	1040	34.1	112	350	0.9	16	2.6	150	<	11.6	4270	0.4	1.73	131	2.2	18.8	149	86	
A.2.262.G	0.13	88600	13.9	<	574	1.7	0.4	55400	0.4	261	25.5	87	7.9	34.9	51300	0.08	14600	138	59.9	14900	1230	1	11600	14.5	80	842	51.7	111	590	1.3	16	2.4	212	<	16.2	4280	0.5	1.85	130	1.9	20.1	167	86	
A.2.263.G	0.05	81700	10.8	<	415	1.4	0.2	110000	0.3	55.7	17.2	76	5.9	23.8	45600	0.14	13000	31	41.4	17000	796	1.1	14400	20	65	761	49.3	79.1	940	0.8	16	2.3	342	<	7.28	6120	0.4	1.72	129	1.6	15.7	107	91	
A.2.264.G	0.13	87900	14.2	<	588	1.6	0.2	60900	0.4	64.5	17.3	91	5	32	56200	0.07	17800	39	40.8	18400	1110	1.6	26100	29	71	1760	34.2	80.8	510	0.6	17	2.7	318	<	6.88	7390	0.4	1.46	135	1.7	18	153	95	
A.2.265.G	0.36	79200	14.4	<	270	1.7	0.2	114000	0.2	76.9	15.3	85	5.5	19.7	40500	0.11	16900	32	49.5	16600	575	1.3	6220	7.9	51	707	24.6	87.5	960	0.8	16	2.2	207	<	8.67	3070	0.4	2.22	117	0.8	17.2	128	62	
A.2.266.G	0.38	81100	15.1	<	305	2	0.4	81300	0.3	90	19.9	76	5.6	27.1	43800	0.09	18600	38	48.1	14800	839	1	7390	10.9	60	744	37.5	91.8	860	0.8	16	2.5	156	<	8.73	3790	0.5	1.6	134	0.9	18.9	147	62	
A.2.267.G	0.48	90100	23.1	<	397	2.2	0.2	51800	0.3	86.5	19.2	108	5.7	28.1	48400	0.06	20500	38	47.2	19400	701	1.3	8990	17.7	78	851	35.2	92.5	110	0.8	18	2.4	167	<	10.9	4590	0.5	1.56	148	0.9	21.4	132	70	
A.2.268.G	0.41	85200	17	3	< 365	2.1	0.1	82300	0.3	96.4	17.8	93	5.3	30.4	45500	0.07	19500	43	47.100	752	1.2	8790	14.6	69	1160	79	82.3	830	0.9	16	2.6	200	<	8.91	4130	0.5	1.53	149	0.8	19.6	150	61		
A.2.269.G	0.39	95000	22.3	<	355	2.3	0.4	92200	0.2	189	24.3	88	6.1	32.4	50800	0.08	21000	89	54.3	18000	897	1.1	7610	11.7	66	747	38.8	107	660	0.9	19	2.4	194	<	11.9	4510	0.5	1.68	150	0.8	22.3	124	68	
A.2.270.G	0.43	85000	16.5	<	348	2	0.2	84200	0.3	68.4	16.8	98	5.6	23.7	44200	0.06	19200	30	51	17400	746	1	7770	10.1	65	922	35	84.9	830	0.7	16	2.3	229	<	8.37	3710	0.5	1.52	133	0.8	18.6	136	62	
A.2.271.G	0.3	84800	16.2	<	265	2	0.2	119000	0.2	92.4	16.3	85	5.9	22	42300	0.06	17200	40	53.9	16300	626	0.8	5600	7.4	57	677	28.9	88.7	920	0.6	16	2.1	198	<	9.38	3120	0.4	1.65	124	0.7	17.8	107	60	
A.2.272.G	0.38	73300	16.1	4	< 289	1.8	0.3	158000	0.4	170	16.5	64	5.3	23.1	37500	0.11	15400	73	47.5	14000	661	1	5580	6.8	47	768	36.7	87.1	1570	0.7	14	2.4	280	<	11	2770	0.4	1.76	112	0.6	18.7	165	52	
A.2.273.G	0.35	74700	17.4	2	< 270	1.7	0.1	111000	0.2	172	18.6	68	5.8	20.9	39300	0.06	15100	71	49.3	15300	609	1.1	5390	7.3	43	559	21.5	90.3	790	0.7	15	1.8	246	<	11.5	2820	0.4	1.88	114	0.7	19.1	93	94	
A.2.274.G	0.36	73400	12.3	1	< 233	1.6	0.1	107000	0.2	53.3	13.2	63	6.2	13.2	35900	0.11	15300	41	50.4	13600	615	1.4	5770	8	52	529	29.2	92.6	830	0.8	14	1.9	235	<	11.47	2780	0.5	1.83	104	1.7	17.7	88	58	
A.2.275.G	0.49	77400	14.2	<	285	2.2	0.2	74500	0.2	115	18	79	6.5	21.1	42700	0.15	17900	48	59.2	13900	844	1.2	6580	8.6	54	603	27.2	80.1	800	0.7	14	2.2	152	0.5	9.72	3200	0.5	1.59	126	1.4	18.7	112	60	
A.2.276.G	0.71	94500	15.1	<	341	2.6	0.2	42300	0.2	175	21.3	93	7.1	28.1	48200	<	19500	34	61.6	16400	1091	1	7240	9.9	73	582	27.3	103	250	0.7	19	2.5	143	0.3	10.3	4160	0.6	1.85	137	1	20.8	121	79	
A.2.277.G	0.45	94300	16.3	<	368	3	0.3	34100	0.2	80.2	17.2	71	84	6.9	28.1	51500	<	21300	83	68	16400	1090	1	8470	8.6	69	878	37.3	103	250	0.7	20	2.5	134	0.3	12.7	4200	0.6	1.71	163	1.2	20	130	77
A.2.278.G	0.47	97700	16.8	4	< 377	3.2	0.3	49000	0.2	176	22.9	98	7.4	29.5	51900	0.05	21300	87	71.4	16500	1260	1.2	8160	8.6	75	830	40.7	105	390	0.7	20	2.5	134	0.3	12.7	4200	0.6	1.71	163	1.2	20	130	77	



جدول (۲-۱): نتایج آنالیز نمونه های ژئوشیمیایی بر داشت شده (دامه)

Sample No.	Ag	Al	As	Au	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Hg	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb	S	Sb	Se	Sr	Te	Th	Ti	Tl	U	V	W	Y	Zn	Zr	
A2.301.G	0.13	79500	8.1	1	< 317	1	0.3	106000	0.2	136	16.8	79	6.3	3.3	39400	<	17400	81	49	16100	826	0.4	9610	7.3	51	650	18.7	86.6	680	0.6	14	2.1	316	<	12.7	3560	0.5	1.5	100	0.9	19.1	85.4	74
A2.302.G	0.14	75100	8.1	2	< 305	1	0.3	102000	0.2	134	16.2	74	6.1	7.7	47300	<	16400	79	46.2	15200	791	0.6	9010	7.2	51	622	17.1	83	700	0.6	13	2.1	299	<	12.4	3440	0.4	1.45	97	0.8	18.6	90.1	67
A2.303.G	0.16	84000	9.1	1	< 362	1.3	0.3	54000	0.2	104	19.5	97	7.6	15.7	44400	0.05	18500	61	54.5	18000	881	0.5	10300	8.4	60	766	20.5	89.7	780	0.6	15	2.3	190	<	11.4	3950	0.5	1.44	115	0.9	19.3	117	72
A2.304.G	0.1	73800	8.3	1	< 343	1	0.2	88300	0.2	82.4	17	83	5.8	8	37500	<	16800	46	44.1	14900	913	0.6	10500	7.7	60	688	11.9	70.2	600	0.7	12	2	263	<	9.88	3630	0.4	1.48	99	0.8	16.7	91.3	67
A2.305.G	0.17	84800	9.7	2	< 373	1.5	0.3	36300	0.3	90.9	21.8	94	8.2	19.8	45000	<	20200	52	56.3	18400	1110	0.5	9800	9.1	65	819	17.4	99.9	630	0.6	16	2.6	171	<	11	4310	0.5	1.65	123	0.9	21.2	127	84
A2.306.G	0.14	86100	12.8	1	< 383	1.4	0.3	52200	0.2	101	21.1	106	7.2	24.8	46300	0.05	18500	59	53	18000	897	0.8	10700	9	71	760	16.5	88.1	520	0.7	15	2.4	202	<	11.4	4220	0.5	1.55	120	0.9	18.9	128	76
A2.308.G	0.17	81300	9.7	2	< 420	1.6	0.3	13200	0.3	94	21.3	106	7.5	26	46000	<	20400	53	58.1	16900	1063	0.7	9990	10	69	805	12.7	98.4	530	0.6	16	2.6	130	<	10.9	4620	0.5	1.59	127	0.9	21.4	143	81
A2.310.G	0.07	86500	7.4	1	< 339	1.2	0.3	73800	0.2	111	18	97	7.3	12.2	39300	0.05	18100	65	53.4	16100	868	0.6	9490	8	57	694	12.6	96.3	410	0.6	15	2.4	213	<	11.7	3870	0.5	1.48	111	0.8	18.7	112	86
A2.311.G	0.14	83700	9.5	2	< 335	1.1	0.2	85400	0.2	132	16	101	6.5	20.6	39700	<	17700	81	51.6	16800	781	0.9	10300	7.1	60	699	7.6	86.7	530	0.6	14	2.1	289	<	12.3	3510	0.4	1.44	103	0.7	17.5	99.9	68
A2.313.G	0.18	74900	6.3	3	< 344	1	0.3	88600	0.5	85	13.3	84	5.6	45.0	35000	0.05	15500	46	44.6	16500	631	0.7	9690	7.3	47	731	914	76.1	680	0.6	12	2.1	266	<	9.53	3470	0.4	1.5	96	0.7	15.6	119	65
A2.314.G	0.15	73000	8.3	2	< 396	1.1	0.2	86400	0.3	81.5	16.2	85	6	24.4	37900	<	17000	44	46.1	16700	831	0.6	8810	8.2	56	670	19.3	68.9	500	0.7	12	2.3	229	<	9.3	3770	0.4	1.42	103	0.8	17.8	107	69
A2.315.G	0.09	78700	7.3	2	< 382	1.2	0.3	73400	0.1	137	20.7	73	6.7	19.3	41900	<	17800	79	54.7	14800	964	0.5	10100	7.3	49	684	22.1	72.1	460	0.6	12	2.2	209	<	11.9	3620	0.5	1.35	105	0.8	18.3	112	64
A2.319.G	0.09	78900	6.7	1	< 312	1	0.2	88000	0.2	122	15.8	71	6	7.3	37800	0.05	16200	71	49.2	15900	759	0.4	10200	6.7	43	714	20.5	85.1	690	0.5	13	2	388	<	11.4	3280	0.4	1.37	96	0.6	16.6	97.3	66
A2.320.G	0.43	89600	9.2	2	< 361	1.3	0.2	61100	0.2	98	19.8	121	7.5	22.7	45200	0.05	17800	54	55.1	16700	810	0.8	10100	8.1	66	67	17.9	101	420	0.8	16	2.3	216	<	11.1	3870	0.5	1.5	116	0.8	18.3	116	78
A2.321.G	0.09	86300	7.3	2	< 366	1.3	0.2	56100	0.2	78.6	18	81	7.3	15.2	41700	<	18700	43	51.7	15900	841	0.3	9780	7.4	51	608	19	92.8	400	0.7	15	2.3	189	<	9.52	3570	0.5	1.24	115	0.7	16.2	117	65
A2.322.G	0.08	80500	7.5	1	< 357	1.2	0.3	63700	0.2	138	19.4	103	6.5	17.2	42400	0.08	17900	83	55.3	15700	946	0.6	10200	7.3	58	681	21.6	69.6	410	0.5	12	2.3	216	<	11.7	3610	0.5	1.25	110	0.8	17.2	115	61
A2.323.G	0.14	79100	7.4	1	< 364	1.3	0.3	62500	0.2	140	19.9	75	6.7	19.1	42700	0.06	18600	84	56.9	15500	985	0.5	9910	7.4	53	668	14.2	62.9	390	0.5	12	2.1	245	<	11.7	3710	0.5	1.29	113	0.7	17.6	117	67
A2.324.G	0.09	81600	6.2	1	< 339	1.1	0.2	72800	0.1	106	16.8	70	6.6	10.1	40000	0.06	17400	61	56.9	14600	740	0.2	10300	7.1	43	658	15.9	82	390	0.3	13	2.1	245	<	11.1	3570	0.4	1.27	106	0.7	16.1	101	64
A2.325.G	0.06	70900	4.9	2	< 274	0.9	0.2	107000	0.1	78.4	11.3	58	5.9	4.6	33500	0.1	15800	41	47.9	13600	504	0.2	9380	6.6	33	516	<	73.3	710	0.4	1	2.6	404	<	8.91	3220	0.4	1.27	91	0.7	14.5	81.1	58
A2.326.G	0.08	80500	7.2	1	< 383	1.4	0.2	25700	0.2	75.5	17.9	91	19.6	41.8	45800	0.08	20200	40	55.4	16700	1020	0.6	11000	9.1	67	712	12.6	96.4	300	0.6	15	2.5	139	<	9.54	4470	0.5	1.41	119	0.9	17.8	125	79
A2.327.G	0.07	85500	8.2	1	< 404	1.5	0.3	19600	0.2	73.4	20.3	101	7.3	31.6	45800	0.06	19000	40	55.4	16700	1020	0.6	11000	9.1	67	712	12.6	96.4	300	0.6	15	2.5	139	<	9.54	4470	0.5	1.41	119	0.9	17.8	125	79
A2.328.G	0.1	88100	8.2	1	< 379	1.3	0.3	62000	0.2	97.4	18.5	86	6.7	15.3	42500	<	18600	56	55.4	17400	909	0.5	10800	8.5	57	720	12.6	98.1	430	0.6	16	2.3	250	<	10.8	4040	0.5	1.4	116	0.8	19.5	116	80
A2.329.G	0.08	80500	7.6	6	< 319	1	0.2	84100	0.2	72.1	16.1	227	6	29.8	38600	<	16400	40	47.2	16700	674	1.4	9610	7.2	95	714	10.5	83.8	640	0.9	14	2.9	310	<	9.15	3590	0.4	1.34	101	0.8	15.6	105	73
A2.330.G	0.07	81900	7.8	1	< 337	1.1	0.2	63500	0.2	113	15.2	87	5.7	14.5	38900	0.07	16600	68	47.8	15900	755	0.4	11900	8.4	50	839	8.8	78	420	0.6	14	2.1	237	<	11	4060	0.4	1.34	105	0.9	17.8	101	70
A2.331.G	0.08	81600	9	1	< 363	1.2	0.3	59900	0.2	126	18.8	95	6.2	19.7	41100	0.05	17000	78	52.4	15400	890	0.5	9770	8	55	698	11.8	73	430	0.5	13	2.3	199	<	11.4	3880	0.4	1.29	111	0.8	18.1	111	65
A2.332.G	0.05	76000	7.5	2	< 339	1.1	0.2	72800	0.2	91.4	18.7	90	5.9	14.3	39500	<	16300	52	47.6	16300	754	0.3	9740	8.3	57	616	8.1	65.2	460	0.5	13	2.1	235	<	9.13	4040	0.4	1.34	107	0.7	16.4	95.7	67
A2.333.G	0.1	81500	7.1	2	< 340	1.2	0.2	71200	0.2	88	16.6	80	6.7	16	39700	0.07	17200	50	50.4	15300	802	0.4	9250	8.2	53	577	12.8	77.9	470	0.5	14	2.3	211	<	9.71	3860	0.4	1.32	109	0.8	17.8	100	71
A2.334.G	0.1	90400	9.6	2	< 380	1.4	0.2	47100	0.2	93	18	96	7.1	23.6	42100	0.1	17800	54	54.3	15600	844	0.6	10100	8.7	58	691	9.9	91	370	0.6	16	2.6	156	<	10.7	4300	0.5	1.41	119	0.9	19.4	118	81
A2.335.G	0.1	83200	10.6	2	<																																						



جدول (۲-۲): نتایج آنالیز نمونه های ژئوشیمیایی برداشت شده (ادامه)

Sample No.	Ag	Al	As	Au	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Hg	K	La	Li	Mg	Mn	Mo	Nb	Ni	P	Pb	Rb	S	Sb	Se	Sr	Te	Th	Ti	Tl	U	V	W	Y	Zn	Zr			
A2.351.G	0.68	63900	9.6	11	<	294	1.3	0.3	100000	0.2	57.1	14.9	89	5.4	18.5	33000	0.07	17700	25	39.8	16200	664	0.8	7320	7.3	57	384	24.6	97.9	770	0.5	12	2.2	347	<	8.24	3400	0.5	1.69	92	1.3	14.4	78.4	78
A2.352.G	0.48	61900	14.1	3	<	309	0.9	0.3	129000	0.2	57.5	12.3	86	4.4	15.1	28500	<	18300	25	45.7	12100	623	1.4	5870	6.8	54	674	34.3	82.8	770	0.7	10	1.8	232	<	7.79	2980	0.4	1.73	77	1.1	13.5	83.7	67
A2.353.G	0.42	70300	8	<	287	1.3	0.4	107000	0.1	137	16	79	5	23	36600	0.06	16600	65	48.4	11800	702	0.6	10600	5	45	623	16.5	104	660	0.5	13	1.9	364	<	12.1	2900	0.5	1.48	95	1.2	17.5	88.6	76	
A2.354.G	0.42	67000	7.9	<	278	1.3	0.4	107000	0.1	112	14.9	60	5	14.4	35100	0.07	17900	51	45	12400	671	0.6	10200	5.9	44	612	13.3	105	680	0.5	12	1.9	363	<	11	3140	0.4	1.5	92	1.4	17.1	81.4	80	
A2.355.G	0.42	58500	8.9	<	255	1.1	0.3	127000	0.2	77.9	14.9	85	4.7	22.3	37100	0.06	18100	35	26.6	11500	723	0.9	6140	6.1	50	519	4.1	98.9	760	0.6	11	1.6	397	<	8.77	3060	0.4	1.66	83	1.1	14.5	79.2	73	
A2.356.G	0.48	60600	14.5	2	<	312	1.2	0.4	95400	0.3	63.8	16.4	112	4.9	35.9	33500	<	17400	27	29.1	12700	859	1.2	6140	5.3	70	624	35.1	95.6	710	0.9	12	1.9	277	<	8.46	3550	0.5	1.61	90	1.5	15.5	79.2	80
A2.357.G	0.47	66300	9	<	270	1.2	0.4	122000	0.2	82.1	15.4	83	5.4	28.8	34300	<	18000	35	41.9	12900	662	0.7	9140	5.3	47	602	31.6	109	790	0.6	12	2.1	384	<	9.63	3010	0.5	1.5	92	1.1	16.6	92.5	77	
A2.358.G	0.41	67500	14.1	1	<	353	1.3	0.3	99000	0.2	69	17.1	113	5.1	24.4	38000	0.07	18700	30	35.4	17800	722	1	6840	9.1	77	622	14.2	93.9	600	0.8	12	2	304	<	8.89	3880	0.5	1.49	91	1.5	16.3	79	79
A2.359.G	0.38	52600	13.3	1	<	288	1	0.3	112000	0.2	64.9	15.9	93	4.1	26.5	32700	<	14000	28	35.8	17900	799	0.9	4250	7.5	67	421	28.1	79	630	0.8	10	1.6	273	<	7.92	3190	0.4	1.49	81	1.2	14.7	65.2	67
A2.360.G	0.47	70800	15	1	<	377	1.5	0.4	68200	0.3	78.6	18.4	122	5.4	35.6	40800	0.05	19500	31	35.4	17600	945	1.2	6890	10.1	85	627	20.8	105	440	0.9	14	2.1	232	<	9.82	4320	0.5	1.8	105	1.6	16.9	92.7	85
A2.361.G	0.42	61000	9.7	1	<	277	1	0.3	120000	0.2	87.8	14.5	84	4.5	18.6	33300	0.05	16100	39	36.6	13200	669	0.9	7750	5.4	52	535	18.9	91.8	990	0.6	11	1.6	337	<	9.11	2720	0.4	1.4	87	1.1	14.4	74.1	63
A2.362.G	0.46	62600	28.5	<	318	1.2	0.6	103000	0.3	79.4	18	98	4.8	84.2	37300	0.05	17600	34	29.5	13100	953	1.1	6570	7.8	64	612	36.4	95.6	670	1.1	12	2.1	300	<	9.06	3600	0.5	1.57	93	1.4	15.8	84.6	74	
A2.363.G	0.39	62400	6.8	6	<	246	1.2	0.4	116000	0.1	113	14.4	74	4.9	23.6	32100	0.06	16100	47	41.6	11800	595	0.5	8750	4.4	36	554	9.7	104	820	0.4	11	1.8	394	<	11	2490	0.5	1.35	83	1	16	87.3	64
A2.364.G	0.22	40200	6.6	6	<	184	0.7	0.2	77500	0.1	45.7	8.5	57	2	15.1	22000	<	7220	21	25.2	9730	379	0.5	5000	3.7	31	453	12.4	42	1860	0.4	7	2	294	<	5.29	1950	0.2	1.02	58	0.8	9	73.2	47
A2.365.G	0.43	73400	9.3	2	<	306	1.4	0.4	93500	0.2	96.8	16.7	92	5.3	23.3	38400	0.05	18600	44	46.5	14600	681	0.7	8730	6.2	53	609	21.9	109	630	0.5	13	2	218	<	10	3510	0.5	1.52	102	1.3	15.2	92.9	83
A2.366.G	0.39	65500	8.2	1	<	281	1.2	0.3	111000	0.2	77	14.4	81	5	20.9	33100	0.06	17600	35	34.8	11800	744	0.7	8780	5.2	46	560	15.3	102	680	0.5	12	1.7	342	<	8.98	2990	0.4	1.35	88	1.1	16	75.6	74
A2.367.G	0.41	57600	13.7	<	318	1.2	0.4	93900	0.3	75.9	16.8	105	4.4	34.6	34600	0.07	15500	29	29.7	14800	772	1.4	5300	8.6	72	547	37.8	85.3	570	0.8	11	1.8	244	<	8.21	3690	0.7	1.62	91	1.5	15.2	85.7	81	
A2.368.G	0.39	64800	12.8	1	<	322	1.3	0.3	80000	0.2	60	15.9	111	4.8	27.1	35800	0.07	18100	27	30.6	16400	893	1.2	6410	9.2	73	676	27.1	93.5	590	0.9	12	2	219	<	8.21	4040	0.5	1.71	95	1.5	18	83.3	85
A2.369.G	0.43	78000	12.2	1	<	405	2.1	0.5	10100	0.2	93.7	21.7	125	5.8	44.8	44300	<	20400	42	51	15900	1020	1.1	9750	8.9	81	702	25.3	112	230	0.7	16	2.4	132	<	9.87	3860	0.6	1.58	123	1.5	19.5	137	72
A2.370.G	0.35	80900	8.8	1	<	315	1.6	0.5	53800	0.2	93.4	17.6	97	5	28.1	41800	<	19900	43	50.3	14700	768	0.7	12000	5.6	56	734	20.5	115	460	0.5	14	2	195	<	9.74	3560	0.4	1.32	103	1.2	17	108	85
A2.371.G	0.41	82300	9.8	<	342	1.8	0.4	51200	0.1	72.3	17.1	107	7	35.4	42000	0.07	20900	33	54.6	15500	782	0.8	9340	7.9	61	665	26.3	115	420	0.6	16	2.2	181	<	9.87	4260	0.5	1.5	113	1.5	18.2	111	95	
A2.372.G	0.42	80000	8.2	<	339	1.7	0.4	49100	0.2	88.7	17.2	99	6.2	27	41400	0.09	20500	41	52.3	14300	786	0.6	10400	7	53	783	23.4	118	390	0.5	15	2.1	186	<	10.2	3890	0.5	1.4	112	1.5	16.4	108	83	
A2.373.G	0.38	84900	9.2	<	377	1.8	0.4	27500	0.2	78.4	16.9	107	5.4	39	43700	<	21100	37	52.1	16700	900	0.6	10400	6	48	1090	27	121	490	0.6	16	2.2	153	<	9.75	4050	0.5	1.41	119	1.5	17.4	129	79	
A2.374.G	0.44	69200	8.2	<	301	1.4	0.4	80200	0.2	122	15.7	69	4.7	26.7	37000	0.06	17300	60	45	13000	700	0.6	10400	6	63	1090	27	142	98.8	630	0.5	12	1.8	241	<	10.5	3330	0.4	1.29	95	1.1	16	101	70
A2.375.G	0.35	3800	6.7	1	<	308	1.5	0.3	77400	0.1	73.2	13.7	94	5.5	22.3	37100	0.08	19800	34	48.4	15100	647	0.6	9370	5.5	44	615	22.3	114	560	0.4	14	2	245	<	9.11	3040	0.5	1.29	104	1.2	15.8	93.8	71
A2.376.G	0.34	81200	7.2	<	319	1.6	0.4	70500	0.1	125	16	88	5.8	29.8	39000	0.06	19500	60	51.3	14500	732	0.7	11000	5.5	46	740	16.8	103	750	0.4	12	1.8	364	<	8.94	2870	0.4	1.22	96	1	14.6	91.3	72	
A2.377.G	0.38	72600	7	1	<	289	1.3	0.3	103000	0.1	66	13.4	84	4.8	16.6	36100	0.07	16700	30	52.5	14400	613	0.7	11300	4.3	46	600	16.8	103	750	0.4	12	1.8	364	<	8.94	2870	0.4	1.22	96	1	14.6	91.3	72
A2.378.G	0.35	78600	8.2	<	341	1.5	0.4	62300	0.2	137	17.8	92	5.6	26	40400	0.08	19400	65	53.2	14400	781	0.7	10900	5.8	49	729	16.7	114	520	0.6	14	2.1	224	<	12	3620	0.5	1.4	107	1.2	17.3	147	86	
A2.379.G	0.37	828																																										



جدول (۲-۲): نتایج آنالیز نمونه های ژئوشیمیایی بر داشت شده (ادامه)

Sample No.	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Hg	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb	S	Sb	Se	Sn	Sr	Te	Th	Ti	Tl	U	V	W	Y	Zn	Zr	
A2.401.G	0.31	87400	8.6	1	<	451	1.6	0.2	47300	0.3	105	17.1	114	6.6	29.6	39800	0.09	20700	0.59	15700	823	0.6	11200	6	55	645	37.9	76.6	400	0.6	16	2.1	188	<	10.6	3870	0.5	1.34	124	0.7	20.7	114	83		
A2.402.G	0.31	87500	10.4	1	<	415	1.8	0.2	45100	0.3	83.5	17.1	114	6.4	34.6	41600	<	23000	39	59	87	17600	87.1	0.7	12100	7	66	781	31.9	77.8	250	0.7	17	2.4	122	<	9.31	3780	0.6	1.34	123	0.8	19.8	129	67
A2.403.G	0.07	85400	9.2	<	407	1.6	0.2	33700	0.2	65	17.5	100	6.5	28.5	37600	0.06	21300	29	57	37	16200	766	0.6	10800	6.6	57	777	25.7	76.6	340	0.7	16	2.3	126	<	9.12	3830	0.5	1.39	114	0.8	19	123	83	
A2.404.G	0.36	70800	9.6	1	<	309	1.1	0.2	103000	0.2	76.8	14.5	80	5.7	27.4	31000	0.18	17800	34	44	13800	628	0.6	9420	4.6	48	746	26.4	68.2	820	0.7	13	3.34	<	8.54	2870	0.5	1.29	88	0.6	18.8	102	70		
A2.405.G	0.26	71600	8.1	1	<	326	1.1	0.2	95700	0.2	74.1	14.1	88	5.8	17	32200	0.05	18500	34	44	13800	558	0.6	9810	5	50	674	8.3	68.6	600	0.5	13	1.8	234	<	8.53	3120	0.5	1.27	94	0.6	18.6	87	69	
A2.406.G	0.99	67600	8.1	<	362	1.2	0.2	89900	0.3	99.7	16.1	94	5.6	25.3	34100	0.16	18600	45	46.4	14600	715	0.9	8750	6	58	661	6.6	68.2	610	0.6	14	1.9	226	<	9.36	3320	0.5	1.47	100	0.7	19.1	96.3	69		
A2.408.G	0.33	80100	10.1	3	<	362	1.3	0.3	57500	0.2	85.7	17.3	92	5.8	24.7	37200	<	19300	39	49	61500	703	0.7	11900	5.9	57	877	21.5	72.2	490	0.8	14	2.2	205	<	9.21	3660	0.5	1.31	104	0.7	19.2	117	73	
A2.409.G	0.38	81800	9.5	<	370	1.4	0.2	61700	0.2	94.8	18.3	96	6.4	24.5	37700	<	20300	43	53	15200	782	0.6	11100	5.6	56	772	23.7	74.5	560	0.7	15	2.1	207	<	10.2	3480	0.5	1.36	106	0.7	20	123	74		
A2.410.G	0.43	74200	9.7	<	341	1.2	0.2	77400	0.2	103	17.6	91	6	30.2	34600	0.08	19300	47	46.3	14000	767	0.7	9670	5.4	56	848	25.1	71	720	0.7	14	1.2	255	<	9.78	3250	0.5	1.3	99	0.6	19.6	113	71		
A2.412.G	0.31	64600	7	<	286	0.9	0.2	129000	0.2	53.9	10.7	75	5.2	14.3	27700	0.05	17700	24	45.5	13400	473	0.4	9280	3	32	555	8.7	70.3	750	0.3	12	1.8	453	<	7.12	1920	0.4	1.14	86	0.4	16.2	168	48		
A2.413.G	0.32	80500	9.6	1	<	388	1.3	0.2	78100	0.2	94.7	16.3	99	5.9	26.2	38500	<	21300	43	52.8	13800	824	0.6	10300	5.7	59	818	29.6	77.3	510	0.6	15	2.1	228	<	9.96	3090	0.5	1.27	112	0.7	20.4	138	63	
A2.414.G	0.33	65600	9.9	<	318	1	0.2	132000	0.3	90.9	15.2	84	5.3	26.1	31900	0.14	18100	41	40.9	14100	641	0.7	8320	4.5	53	600	30.5	66.6	820	0.8	12	1.9	460	<	8.73	2510	0.5	1.34	87	0.6	17.3	87	33		
A2.415.G	0.7	62300	7.3	5	<	338	0.9	0.5	125000	1.3	78	14.2	81	4.6	45.2	30700	<	17000	38	38.3	12900	655	0.8	9170	6.8	53	976	28.2	60.9	970	3.1	11	9.2	381	<	8.77	2590	0.4	1.42	84	1.4	18.4	373	53	
A2.416.G	0.27	61900	8	<	267	0.9	0.4	144000	0.3	138	17.5	64	4.4	28.8	32500	0.16	16900	65	34.8	10300	698	0.6	8420	3.2	55	590	41	58.7	960	1.2	11	1.6	475	<	10.9	2080	0.4	1.16	74	0.4	19.5	96	51		
A2.417.G	0.3	66500	10.1	1	<	323	1	0.3	118000	0.3	144	18.2	79	5.1	27.3	33100	0.19	17600	67	43.2	13300	744	0.7	9190	4.6	56	676	27.3	66.9	830	0.7	12	1.9	363	<	10.5	2760	0.4	1.27	89	0.6	20.2	101	65	
A2.418.G	0.31	84200	10	2	<	378	1.3	0.2	69800	0.2	82.8	16	97	6	29.4	36900	0.09	21300	37	53.5	16500	696	0.6	11400	6	53	754	18.7	75.8	630	0.6	15	2.1	227	<	9.36	3720	0.5	1.41	107	0.7	19.7	117	83	
A2.419.G	0.24	69600	9.6	2	<	319	1.1	0.2	95300	0.2	127	17.3	79	5.2	24.9	33200	0.09	17100	58	45.3	13300	707	0.6	9700	5.3	51	705	28	65.2	660	0.6	13	2	298	<	10.3	3240	0.4	1.33	91	0.7	19.5	100	71	
A2.420.G	0.29	59300	8.4	<	286	0.9	0.2	77000	0.2	98.2	14.2	74	4.2	17.8	27800	<	14800	46	36.9	12100	607	0.5	8770	4.2	48	526	21.6	54.7	510	0.5	11	1.4	209	<	8.07	2560	0.3	1.06	71	0.5	15.4	77	57		
A2.421.G	0.59	65200	8.8	<	294	1	0.2	117000	0.2	88.9	14.8	76	5.2	20.4	30700	0.11	17900	40	36.9	11600	653	0.5	8880	4.4	47	608	30	66.3	750	0.6	12	1.8	322	<	8.64	2590	0.4	1.16	82	0.6	18.6	83.5	59		
A2.422.G	0.36	69200	10.2	<	343	1.1	0.2	84500	0.2	99	16.8	87	5.1	28.4	32300	0.11	17100	45	43.9	13800	696	0.7	10100	5.7	58	662	23.9	64.4	950	0.7	13	1.8	251	<	9.29	3240	0.4	1.33	91	0.6	18.4	92.4	71		
A2.423.G	0.29	71800	5.7	<	318	1.1	0.4	105000	0.2	109	15	80	5.4	28.3	32000	<	18200	53	48.3	14300	715	0.5	10100	6.4	47	628	23.9	69.6	610	0.5	13	1.8	277	<	10.2	2760	0.4	1.38	90	1.4	19.2	79	9		
A2.424.G	0.38	73800	7.6	<	343	1.2	0.2	79600	0.1	115	15.5	80	5.4	24.7	32400	0.12	18300	53	51.4	13700	640	0.5	10200	4.1	42	646	12.3	69.8	570	0.5	13	1.8	243	<	9.98	2810	0.5	1.22	93	0.5	20.9	91	69		
A2.425.G	0.3	81000	10.8	2	<	406	1.3	0.2	72400	0.5	112	19.6	94	6.5	37.1	35900	0.14	18500	52	53.7	15700	737	1.2	10100	5.3	61	823	37.9	69.6	1020	1	14	2.7	233	<	10.2	3220	0.5	1.38	108	0.9	22.3	187	70	
A2.426.G	0.21	70100	7.4	2	<	304	1.1	0.2	107000	0.2	135	17.3	66	5.3	23	33000	<	17900	62	49.1	13000	714	0.5	10400	3.5	41	651	16.1	67.1	660	0.4	12	1.6	270	<	10.1	2450	0.4	1.06	88	0.5	18.6	98	2	
A2.427.G	0.24	71900	10.3	<	350	1.2	0.2	90500	0.2	97.6	17	90	5.1	27.5	34600	0.17	18500	45	45.4	14300	755	0.7	10400	5.2	61	662	28.6	66.5	940	0.7	13	1.8	256	<	8.98	2940	0.5	1.21	94	0.6	18.1	92	60		
A2.428.G	0.27	70800	9.9	<	342	1.2	0.2	81900	0.2	120	16.6	85	5	25.9	33600	0.15	17700	57	45.3	14000	716	0.6	9990	4.8	53	619	22.6	65.2	650	0.6	13	1.7	226	<	9.45	2840	0.4	1.16	92	0.6	17.1	87	58		
A2.429.G	0.36	69600	9.3	<	326	1.1	0.2	87800	0.2	89.5	15.3	84	4.9	24.8	31800	0.08	17200	40	45.7	13700	618	0.6	10400	5.1	49	644	11.6	65.3	570	0.6	13	1.8	244	<	8.67	3140	0.4	1.25	90	0.6	17.4	90	71		
A2.430.G	0.68	70700	9.9	1	<	348	1.2	0.2	72800	0.2	55.3	15.9	93	5	25.7	32200	0.06	17700	26	44.4	14600	690	0.6	10500	6	58	721	24	65.2	680	0.6	13	1.8	236	<	7.78	3540	0.4	1.38	92	0.7	18.2	89	57	
A2.431.G	0.24	72																																											



جدول (۲-۳): محاسبه پارامترهای لازم جهت فرسایش دیاگرام خطای آنالیز

Ag						Al					
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین ۱۰۰×	اختلاف ۱۰۰×	شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین ۱۰۰/	اختلاف ۱۰۰/
A2.310.G	BB53FD	0.07	0.17	12	10	A2.420.G	EA34GH	59300	58500	589	8
A2.440.G	BC48EF	0.04	0.13	8.5	9	A2.430.G	DB45TH	70700	65100	679	56
A2.400.G	BG67FJ	0.34	0.37	35.5	3	A2.118.G	FE46JL	92800	77500	851.5	153
A2.130.G	BM12LM	0.06	0.17	11.5	11	A2.280.G	EI23BG	81500	75700	786	58
A2.360.G	BM89MG	0.47	0.86	66.5	39	A2.360.G	BM89MG	70800	62800	668	80
A2.14.G	CB42YG	0.01	0.16	8.5	15	A2.140.G	KK45ER	84900	76900	809	80
A2.290.G	CC44BR	0.33	0.46	39.5	13	A2.390.G	FF43PM	84200	77100	806.5	71
A2.430.G	DB45TH	0.68	0.36	52	32	A2.300.G	DR32FS	86300	63900	751	224
A2.106.G	DK29JG	0.13	0.38	25.5	25	A2.210.G	SF98HT	80200	79300	797.5	9
A2.300.G	DR32FS	0.32	0.46	39	14	A2.410.G	WW54BI	86300	85300	858	10
A2.112.G	DV38GJ	0.11	0.3	20.5	19	A2.380.G	ZN57BB	70300	71700	710	14
A2.420.G	EA34GH	0.29	0.41	35	12	A2.130.G	BM12LM	62800	60000	614	28
A2.29.G	ED41JT	0.04	0.13	8.5	9	A2.440.G	BC48EF	50900	80000	654.5	291
A2.280.G	EI23BG	0.39	0.73	56	34	A2.136.G	FR23TS	67900	61000	644.5	69
A2.94.G	FD42NV	0.52	0.39	45.5	13	A2.310.G	BB53FD	86500	76000	812.5	105
A2.118.G	FE46JL	0.09	2.96	152.5	287	A2.290.G	CC44BR	93500	70400	819.5	231
A2.390.G	FF43PM	0.38	0.55	46.5	17	A2.106.G	DK29JG	83600	64900	742.5	187
A2.136.G	FR23TS	0.07	0.39	23	32	A2.250.G	ST66EH	85400	68800	771	166
A2.220.G	HH43PJ	0.16	0.41	28.5	25	A2.35.G	ZW52MF	74700	48500	616	262
A2.140.G	KK45ER	0.28	0.61	44.5	33	A2.148.G	RS84TF	72200	71900	720.5	3
A2.260.G	MN47RI	0.19	0.31	25	12	A2.260.G	MN47RI	95100	74100	846	210
A2.148.G	RS84TF	0.06	0.2	13	14	A2.112.G	DV38GJ	77900	59800	688.5	181
A2.370.G	RZ73BN	0.35	0.34	34.5	1	A2.94.G	FD42NV	58600	62600	606	40
A2.210.G	SF98HT	0.41	0.5	45.5	9	A2.370.G	RZ73BN	80900	75100	780	58
A2.250.G	ST66EH	0.08	0.22	15	14	A2.14.G	CB42YG	83700	73000	783.5	107
A2.70.G	TT35DF	0.09	0.15	12	6	A2.29.G	ED41JT	88700	58100	734	306
A2.74.G	VF73KK	0.11	0.2	15.5	9	A2.70.G	TT35DF	66100	41100	536	250
A2.410.G	WW54BI	0.1	0.23	16.5	13	A2.220.G	HH43PJ	87000	79200	831	78
A2.380.G	ZN57BB	0.29	0.44	36.5	15	A2.400.G	BG67FJ	82800	63800	733	190
A2.35.G	ZW52MF	0.02	0.13	7.5	11	A2.74.G	VF73KK	60000	55500	577.5	45



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

AS						AU					
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین ۱۰۰	اختلاف ۱۰۰	شماره نمونه تکراری	شماره نمونه اولیه	مقدار اولیه	مقدار تکراری	میانگین ۱۰۰	اختلاف ۱۰۰
A2.420.G	EA34GH	8.4	11.9	101.5	35	EA34GH	A2.420.G	0.9	2	145	110
A2.430.G	DB45TH	9.9	11.6	107.5	17	DB45TH	A2.430.G	1	0.9	95	10
A2.118.G	FE46JL	16.3	16.2	162.5	1	FE46JL	A2.118.G	6	0.9	345	510
A2.280.G	EI23BG	14.5	15.9	152	14	EI23BG	A2.280.G	2	3	250	100
A2.360.G	BM89MG	15	21.9	184.5	69	BM89MG	A2.360.G	1	2	150	100
A2.140.G	KK45ER	18.2	18.2	182	0	KK45ER	A2.140.G	3	1	200	200
A2.390.G	FF43PM	10.8	12.7	117.5	19	FF43PM	A2.390.G	0.9	0.9	90	0
A2.300.G	DR32FS	13.7	12.9	133	8	DR32FS	A2.300.G	0.9	0.9	90	0
A2.210.G	SF98HT	14.4	16	152	16	SF98HT	A2.210.G	0.9	0.9	90	0
A2.410.G	WW54BI	11.9	15.8	138.5	39	WW54BI	A2.410.G	1	0.9	95	10
A2.380.G	ZN57BB	9.4	14.5	119.5	51	ZN57BB	A2.380.G	0.9	0.9	90	0
A2.130.G	BM12LM	23.2	18.5	208.5	47	BM12LM	A2.130.G	0.9	0.9	90	0
A2.440.G	BC48EF	7.3	8.4	78.5	11	BC48EF	A2.440.G	15	0.9	795	1410
A2.136.G	FR23TS	13.6	11.6	126	20	FR23TS	A2.136.G	1	0.9	95	10
A2.310.G	BB53FD	7.4	12.3	98.5	49	BB53FD	A2.310.G	1	0.9	95	10
A2.290.G	CC44BR	14.5	13.6	140.5	9	CC44BR	A2.290.G	1	2	150	100
A2.106.G	DK29JG	16.2	15.4	158	8	DK29JG	A2.106.G	0.9	0.9	90	0
A2.250.G	ST66EH	8.5	11.1	98	26	ST66EH	A2.250.G	1	0.9	95	10
A2.35.G	ZW52MF	6.4	7.7	70.5	13	ZW52MF	A2.35.G	1	0.9	95	10
A2.148.G	RS84TF	18.7	20.8	197.5	21	RS84TF	A2.148.G	1	1	100	0
A2.260.G	MN47RI	12	16.3	141.5	43	MN47RI	A2.260.G	1	0.9	95	10
A2.112.G	DV38GJ	24.4	20	222	44	DV38GJ	A2.112.G	0.9	0.9	90	0
A2.94.G	FD42NV	18.2	15.2	167	30	FD42NV	A2.94.G	7	11	900	400
A2.370.G	RZ73BN	8	12	100	40	RZ73BN	A2.370.G	1	1	100	0
A2.14.G	CB42YG	6.4	10.1	82.5	37	CB42YG	A2.14.G	2	0.9	145	110
A2.29.G	ED41JT	7.2	10.4	88	32	ED41JT	A2.29.G	1	1	100	0
A2.70.G	TT35DF	7.7	12.2	99.5	45	TT35DF	A2.70.G	2	2	200	0
A2.220.G	HH43PJ	20	21.8	209	18	HH43PJ	A2.220.G	2	0.9	145	110
A2.400.G	BG67FJ	9.2	11.7	104.5	25	BG67FJ	A2.400.G	1	0.9	95	10
A2.74.G	VF73KK	6.8	10.8	88	40	VF73KK	A2.74.G	0.9	0.9	90	0



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

Ba						Be					
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین	اختلاف	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین	اختلاف	
A2.420.G	EA34GH	286	276	281	10	EA34GH	0.9	1.5	12	6	
A2.430.G	DB45TH	348	280	314	68	DB45TH	1.2	1.5	13.5	3	
A2.118.G	FE46JL	328	314	321	14	FE46JL	1.7	1.9	18	2	
A2.280.G	EI23BG	347	329	338	18	EI23BG	2.3	1.8	20.5	5	
A2.360.G	BM89MG	377	344	360.5	33	BM89MG	1.5	1.7	16	2	
A2.140.G	KK45ER	422	351	386.5	71	KK45ER	2.7	2	23.5	7	
A2.390.G	FF43PM	409	325	367	84	FF43PM	1.4	1.8	16	4	
A2.300.G	DR32FS	327	288	307.5	39	DR32FS	2.4	1.6	20	8	
A2.210.G	SF98HT	369	341	355	28	SF98HT	2.1	2	20.5	1	
A2.410.G	WW54BI	408	342	375	66	WW54BI	1.6	2.1	18.5	5	
A2.380.G	ZN57BB	325	314	319.5	11	ZN57BB	1.5	1.7	16	2	
A2.130.G	BM12LM	288	323	305.5	35	BM12LM	1.2	1.5	13.5	3	
A2.440.G	BC48EF	292	318	305	26	BC48EF	1.6	1.7	16.5	1	
A2.136.G	FR23TS	344	285	314.5	59	FR23TS	1.9	1.4	16.5	5	
A2.310.G	BB53FD	364	318	341	46	BB53FD	1.2	1.7	14.5	5	
A2.290.G	CC44BR	360	300	330	60	CC44BR	2.8	1.8	23	10	
A2.106.G	DK29JG	321	305	313	16	DK29JG	1.8	1.9	18.5	1	
A2.250.G	ST66EH	380	320	350	60	ST66EH	1.6	1.9	17.5	3	
A2.35.G	ZW52MF	362	216	289	146	ZW52MF	1.9	1.1	15	8	
A2.148.G	RS84TF	464	415	439.5	49	RS84TF	2.5	2.1	23	4	
A2.260.G	MN47RI	536	419	477.5	117	MN47RI	1.8	2	19	2	
A2.112.G	DV38GJ	333	291	312	42	DV38GJ	1.5	1.5	15	0	
A2.94.G	FD42NV	219	284	251.5	65	FD42NV	0.9	1.4	11.5	5	
A2.370.G	RZ73BN	315	297	306	18	RZ73BN	1.6	1.8	17	2	
A2.14.G	CB42YG	288	249	268.5	39	CB42YG	1.5	1.4	14.5	1	
A2.29.G	ED41JT	406	251	328.5	155	ED41JT	2.3	1.4	18.5	9	
A2.70.G	TT35DF	305	260	282.5	45	TT35DF	1.3	1.3	13	0	
A2.220.G	HH43PJ	428	398	413	30	HH43PJ	2.5	2.3	24	2	
A2.400.G	BG67FJ	381	296	338.5	85	BG67FJ	1.3	1.7	15	4	
A2.74.G	VF73KK	293	256	274.5	37	VF73KK	1.1	1.3	12	2	



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

Bi						Ca					
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین ۱۰۰×	اختلاف ۱۰۰×	شماره نمونه تکراری	شماره نمونه اولیه	مقدار اولیه	مقدار تکراری	میانگین ۱۰۰×	اختلاف ۱۰۰×
A2.420.G	EA34GH	0.2	0.3	25	10	EA34GH	A2.420.G	77000	92600	848	156
A2.430.G	DB45TH	0.2	0.2	20	0	DB45TH	A2.430.G	72800	76200	745	34
A2.118.G	FE46JL	0.3	0.3	30	0	FE46JL	A2.118.G	62700	58100	604	46
A2.280.G	EI23BG	0.2	0.3	25	10	EI23BG	A2.280.G	64300	49900	571	144
A2.360.G	BM89MG	0.4	0.2	30	20	BM89MG	A2.360.G	68200	67500	678.5	7
A2.140.G	KK45ER	0.4	0.3	35	10	KK45ER	A2.140.G	41900	41500	417	4
A2.390.G	FF43PM	0.2	0.2	20	0	FF43PM	A2.390.G	43700	43700	437	0
A2.300.G	DR32FS	0.3	0.3	30	0	DR32FS	A2.300.G	121000	88000	1045	330
A2.210.G	SF98HT	0.3	0.3	30	0	SF98HT	A2.210.G	29400	32500	309.5	31
A2.410.G	WW54BI	0.2	0.3	25	10	WW54BI	A2.410.G	38700	40700	397	20
A2.380.G	ZN57BB	0.5	0.4	45	10	ZN57BB	A2.380.G	83700	95800	897.5	121
A2.130.G	BM12LM	0.2	0.2	20	0	BM12LM	A2.130.G	76700	83000	798.5	63
A2.440.G	BC48EF	0.2	0.2	20	0	BC48EF	A2.440.G	74300	78900	766	46
A2.136.G	FR23TS	0.3	0.2	25	10	FR23TS	A2.136.G	122000	124000	1230	20
A2.310.G	BB53FD	0.3	0.3	30	0	BB53FD	A2.310.G	73800	77000	754	32
A2.290.G	CC44BR	0.4	0.3	35	10	CC44BR	A2.290.G	72800	47600	602	252
A2.106.G	DK29JG	0.4	0.3	35	10	DK29JG	A2.106.G	90900	74300	826	166
A2.250.G	ST66EH	0.3	0.2	25	10	ST66EH	A2.250.G	61700	55200	584.5	65
A2.35.G	ZW52MF	0.3	0.2	25	10	ZW52MF	A2.35.G	137000	95500	1162.5	415
A2.148.G	RS84TF	0.3	0.3	30	0	RS84TF	A2.148.G	99400	10300	101.2	3.6
A2.260.G	MN47RI	0.4	0.4	40	0	MN47RI	A2.260.G	68300	55700	620	126
A2.112.G	DV38GJ	0.3	0.2	25	10	DV38GJ	A2.112.G	108000	93100	1005.5	149
A2.94.G	FD42NV	0.3	0.2	25	10	FD42NV	A2.94.G	89300	114000	1016.5	247
A2.370.G	RZ73BN	0.5	0.3	40	20	RZ73BN	A2.370.G	53800	55700	547.5	19
A2.14.G	CB42YG	0.3	0.2	25	10	CB42YG	A2.14.G	104000	97400	1007	66
A2.29.G	ED41JT	0.3	0.3	30	0	ED41JT	A2.29.G	171000	126000	1485	450
A2.70.G	TT35DF	0.2	0.2	20	0	TT35DF	A2.70.G	90100	92100	911	20
A2.220.G	HH43PJ	0.3	0.4	35	10	HH43PJ	A2.220.G	16500	18100	173	16
A2.400.G	BG67FJ	0.2	0.2	20	0	BG67FJ	A2.400.G	63700	59800	617.5	39
A2.74.G	VF73KK	0.3	0.2	25	10	VF73KK	A2.74.G	120000	123000	1215	30



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

Cd										Ce									
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین ۱۰۰×	اختلاف ۱۰۰×	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	مقدار اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	مقدار تکراری	میانگین	اختلاف				
A2.420.G	EA34GH	0.2	0.3	25	10	EA34GH	98.2	93.9	98.2	EA34GH	93.9	96.05	96.05	4.3					
A2.430.G	DB45TH	0.2	0.3	25	10	DB45TH	55.3	47.3	55.3	DB45TH	47.3	51.3	51.3	8					
A2.118.G	FE46JL	0.2	0.3	25	10	FE46JL	80.5	85.5	80.5	FE46JL	85.5	83	83	5					
A2.280.G	EI23BG	0.2	0.2	20	0	EI23BG	61	58.7	61	EI23BG	58.7	59.85	59.85	2.3					
A2.360.G	BM89MG	0.3	0.3	30	0	BM89MG	78.6	61.8	78.6	BM89MG	61.8	70.2	70.2	16.8					
A2.140.G	KK45ER	0.4	0.4	40	0	KK45ER	99.6	84.3	99.6	KK45ER	84.3	91.95	91.95	15.3					
A2.390.G	FF43PM	0.2	0.2	20	0	FF43PM	81.3	62.8	81.3	FF43PM	62.8	72.05	72.05	18.5					
A2.300.G	DR32FS	0.2	0.3	25	10	DR32FS	120	104	120	DR32FS	104	112	112	16					
A2.210.G	SF98HT	0.2	0.2	20	0	SF98HT	144	93.4	144	SF98HT	93.4	118.7	118.7	50.6					
A2.410.G	WW54BI	0.3	0.3	30	0	WW54BI	68	80.8	68	WW54BI	80.8	74.4	74.4	12.8					
A2.380.G	ZN57BB	0.2	0.2	20	0	ZN57BB	195	207	195	ZN57BB	207	201	201	12					
A2.130.G	BM12LM	0.3	0.3	30	0	BM12LM	64.4	62.9	64.4	BM12LM	62.9	63.65	63.65	1.5					
A2.440.G	BC48EF	0.2	0.1	15	10	BC48EF	52.3	65.3	52.3	BC48EF	65.3	58.8	58.8	13					
A2.136.G	FR23TS	0.3	0.2	25	10	FR23TS	78.9	59.1	78.9	FR23TS	59.1	69	69	19.8					
A2.310.G	BB53FD	0.2	0.5	35	30	BB53FD	111	115	111	BB53FD	115	113	113	4					
A2.290.G	CC44BR	0.2	0.2	20	0	CC44BR	138	109	138	CC44BR	109	123.5	123.5	29					
A2.106.G	DK29JG	0.2	0.2	20	0	DK29JG	74.2	75.3	74.2	DK29JG	75.3	74.75	74.75	1.1					
A2.250.G	ST66EH	0.2	0.2	20	0	ST66EH	68.7	59.2	68.7	ST66EH	59.2	63.95	63.95	9.5					
A2.35.G	ZW52MF	0.2	0.2	20	0	ZW52MF	76.6	54.6	76.6	ZW52MF	54.6	65.6	65.6	22					
A2.148.G	RS84TF	0.4	0.4	40	0	RS84TF	92.6	96	92.6	RS84TF	96	94.3	94.3	3.4					
A2.260.G	MN47RI	0.3	0.4	35	10	MN47RI	234	201	234	MN47RI	201	217.5	217.5	33					
A2.112.G	DV38GJ	0.3	0.3	30	0	DV38GJ	65.3	59.3	65.3	DV38GJ	59.3	62.3	62.3	6					
A2.94.G	FD42NV	0.3	0.3	30	0	FD42NV	63.9	62.4	63.9	FD42NV	62.4	63.15	63.15	1.5					
A2.370.G	RZ73BN	0.2	0.2	20	0	RZ73BN	93.4	98.1	93.4	RZ73BN	98.1	95.75	95.75	4.7					
A2.14.G	CB42YG	0.2	0.2	20	0	CB42YG	88.5	76.2	88.5	CB42YG	76.2	82.35	82.35	12.3					
A2.29.G	ED41JT	0.2	0.2	20	0	ED41JT	112	94.2	112	ED41JT	94.2	103.1	103.1	17.8					
A2.70.G	TT35DF	0.2	0.2	20	0	TT35DF	63.6	47.7	63.6	TT35DF	47.7	55.65	55.65	15.9					
A2.220.G	HH43PJ	0.3	0.3	30	0	HH43PJ	136	106	136	HH43PJ	106	121	121	30					
A2.400.G	BG67FJ	0.2	0.2	20	0	BG67FJ	141	114	141	BG67FJ	114	127.5	127.5	27					
A2.74.G	VF73KK	0.2	0.7	45	50	VF73KK	127	107	127	VF73KK	107	117	117	20					



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

Co						Cr					
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین ۱۰×	اختلاف ۱۰×	شماره نمونه تکراری	شماره نمونه اولیه	مقدار اولیه	مقدار تکراری	میانگین	اختلاف
A2.420.G	EA34GH	14.2	16.3	152.5	21	EA34GH	A2.420.G	74	82	78	8
A2.430.G	DB45TH	15.9	15	154.5	9	DB45TH	A2.430.G	93	94	93.5	1
A2.118.G	FE46JL	15.9	19.1	175	32	FE46JL	A2.118.G	86	94	90	8
A2.280.G	EI23BG	15.9	17.5	167	16	EI23BG	A2.280.G	99	109	104	10
A2.360.G	BM89MG	18.4	18.1	182.5	3	BM89MG	A2.360.G	122	126	124	4
A2.140.G	KK45ER	21.6	19.7	206.5	19	KK45ER	A2.140.G	156	120	138	36
A2.390.G	FF43PM	16	15.1	155.5	9	FF43PM	A2.390.G	102	86	94	16
A2.300.G	DR32FS	17.2	17.4	173	2	DR32FS	A2.300.G	87	83	85	4
A2.210.G	SF98HT	22.9	21.2	220.5	17	SF98HT	A2.210.G	93	120	106.5	27
A2.410.G	WW54BI	19.3	18.4	188.5	9	WW54BI	A2.410.G	111	101	106	10
A2.380.G	ZN57BB	20.2	21.8	210	16	ZN57BB	A2.380.G	85	81	83	4
A2.130.G	BM12LM	15.9	17.1	165	12	BM12LM	A2.130.G	85	112	98.5	27
A2.440.G	BC48EF	12.5	13.8	131.5	13	BC48EF	A2.440.G	85	88	86.5	3
A2.136.G	FR23TS	14	11.6	128	24	FR23TS	A2.136.G	106	85	95.5	21
A2.310.G	BB53FD	18	17.8	179	2	BB53FD	A2.310.G	97	88	92.5	9
A2.290.G	CC44BR	19.8	18.7	192.5	11	CC44BR	A2.290.G	96	101	98.5	5
A2.106.G	DK29JG	17.6	19.5	185.5	19	DK29JG	A2.106.G	89	100	94.5	11
A2.250.G	ST66EH	15.5	15.4	154.5	1	ST66EH	A2.250.G	76	89	82.5	13
A2.35.G	ZW52MF	14.1	10.5	123	36	ZW52MF	A2.35.G	71	59	65	12
A2.148.G	RS84TF	20.8	22.3	215.5	15	RS84TF	A2.148.G	180	143	161.5	37
A2.260.G	MN47RI	23.6	23.5	235.5	1	MN47RI	A2.260.G	90	100	95	10
A2.112.G	DV38GJ	14.6	14.8	147	2	DV38GJ	A2.112.G	90	104	97	14
A2.94.G	FD42NV	13.6	14.6	141	10	FD42NV	A2.94.G	50	72	61	22
A2.370.G	RZ73BN	17.6	17.8	177	2	RZ73BN	A2.370.G	97	84	90.5	13
A2.14.G	CB42YG	12.1	11.5	118	6	CB42YG	A2.14.G	54	66	60	12
A2.29.G	ED41JT	15.7	13.6	146.5	21	ED41JT	A2.29.G	71	62	66.5	9
A2.70.G	TT35DF	14.4	13	137	14	TT35DF	A2.70.G	63	114	88.5	51
A2.220.G	HH43PJ	29	28.5	287.5	5	HH43PJ	A2.220.G	103	136	119.5	33
A2.400.G	BG67FJ	16.5	15.2	158.5	13	BG67FJ	A2.400.G	92	86	89	6
A2.74.G	VF73KK	14.3	13	136.5	13	VF73KK	A2.74.G	49	65	57	16



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

Cs						Cu					
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین ۱۰×	اختلاف ۱۰×	شماره نمونه تکراری	شماره نمونه اولیه	مقدار اولیه	مقدار تکراری	میانگین	اختلاف
A2.420.G	EA34GH	4.2	6.2	52	20	EA34GH	A2.420.G	17.8	12.8	15.3	5
A2.430.G	DB45TH	5	6.3	56.5	13	DB45TH	A2.430.G	25.7	15.8	20.75	9.9
A2.118.G	FE46JL	6.2	9.1	76.5	29	FE46JL	A2.118.G	30.8	26.2	28.5	4.6
A2.280.G	EI23BG	5.6	7.4	65	18	EI23BG	A2.280.G	21.6	20.4	21	1.2
A2.360.G	BM89MG	5.4	7	62	16	BM89MG	A2.360.G	35.6	21.7	28.65	13.9
A2.140.G	KK45ER	6.3	7.6	69.5	13	KK45ER	A2.140.G	44.5	32.1	38.3	12.4
A2.390.G	FF43PM	5.8	7	64	12	FF43PM	A2.390.G	29.5	22.8	26.15	6.7
A2.300.G	DR32FS	5.6	6.7	61.5	11	DR32FS	A2.300.G	26.1	19.2	22.65	6.9
A2.210.G	SF98HT	6.5	6.9	67	4	SF98HT	A2.210.G	38	28.2	33.1	9.8
A2.410.G	WW54BI	7.1	9.6	83.5	25	WW54BI	A2.410.G	30	23	26.5	7
A2.380.G	ZN57BB	5.1	7.3	62	22	ZN57BB	A2.380.G	31.2	19.3	25.25	11.9
A2.130.G	BM12LM	5.1	6.7	59	16	BM12LM	A2.130.G	21.6	26.2	23.9	4.6
A2.440.G	BC48EF	6.7	8.6	76.5	19	BC48EF	A2.440.G	9.1	13.4	11.25	4.3
A2.136.G	FR23TS	5.3	5.1	52	2	FR23TS	A2.136.G	30.8	7.6	19.2	23.2
A2.310.G	BB53FD	7.3	7.7	75	4	BB53FD	A2.310.G	12.2	21.3	16.75	9.1
A2.290.G	CC44BR	6.5	7.5	70	10	CC44BR	A2.290.G	29.3	19.3	24.3	10
A2.106.G	DK29JG	6.4	8.3	73.5	19	DK29JG	A2.106.G	27.7	17.3	22.5	10.4
A2.250.G	ST66EH	7.6	7.3	74.5	3	ST66EH	A2.250.G	26	20.8	23.4	5.2
A2.35.G	ZW52MF	4.8	4.7	47.5	1	ZW52MF	A2.35.G	26.1	6.6	16.35	19.5
A2.148.G	RS84TF	5.3	7.2	62.5	19	RS84TF	A2.148.G	38.1	29	33.55	9.1
A2.260.G	MN47RI	7.5	7.6	75.5	1	MN47RI	A2.260.G	38.2	25.7	31.95	12.5
A2.112.G	DV38GJ	5.2	6.5	58.5	13	DV38GJ	A2.112.G	27	14.7	20.85	12.3
A2.94.G	FD42NV	5.3	6.6	59.5	13	FD42NV	A2.94.G	22	20.6	21.3	1.4
A2.370.G	RZ73BN	5	6.8	59	18	RZ73BN	A2.370.G	28.1	19.7	23.9	8.4
A2.14.G	CB42YG	5	5.9	54.5	9	CB42YG	A2.14.G	24.9	20.5	22.7	4.4
A2.29.G	ED41JT	5.6	6.1	58.5	5	ED41JT	A2.29.G	28.7	10.3	19.5	18.4
A2.70.G	TT35DF	5.9	5.1	55	8	TT35DF	A2.70.G	22.3	19.8	21.05	2.5
A2.220.G	HH43PJ	7	8.4	77	14	HH43PJ	A2.220.G	41.7	34.3	38	7.4
A2.400.G	BG67FJ	5.6	6.5	60.5	9	BG67FJ	A2.400.G	26.4	20.7	23.55	5.7
A2.74.G	VF73KK	5.4	6.2	58	8	VF73KK	A2.74.G	22.7	13.2	17.95	9.5



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

Fe						Hg					
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین /۱۰۰	اختلاف /۱۰۰	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین /۱۰۰	اختلاف /۱۰۰	
A2.420.G	EA34GH	27800	37300	325.5	95	EA34GH	0.05	0.07	6	2	
A2.430.G	DB45TH	32200	36800	345	46	DB45TH	0.06	0.41	23.5	35	
A2.118.G	FE46JL	45700	42800	442.5	29	FE46JL	0.08	0.36	22	28	
A2.280.G	EI23BG	45500	43200	443.5	23	EI23BG	0.05	0.14	9.5	9	
A2.360.G	BM89MG	40800	40400	406	4	BM89MG	0.05	0.11	8	6	
A2.140.G	KK45ER	51500	44600	480.5	69	KK45ER	0.2	0.14	17	6	
A2.390.G	FF43PM	37000	40600	388	36	FF43PM	0.08	0.18	13	10	
A2.300.G	DR32FS	44100	39200	416.5	49	DR32FS	0.06	0.14	10	8	
A2.210.G	SF98HT	49800	49300	495.5	5	SF98HT	0.05	0.17	11	12	
A2.410.G	WW54BI	40700	47400	440.5	67	WW54BI	0.11	0.13	12	2	
A2.380.G	ZN57BB	39000	41300	401.5	23	ZN57BB	0.06	0.13	9.5	7	
A2.130.G	BM12LM	36700	37800	372.5	11	BM12LM	0.05	0.13	9	8	
A2.440.G	BC48EF	38800	40100	394.5	13	BC48EF	0.33	0.1	21.5	23	
A2.136.G	FR23TS	39400	35400	374	40	FR23TS	0.07	0.08	7.5	1	
A2.310.G	BB53FD	39300	41000	401.5	17	BB53FD	0.05	0.23	14	18	
A2.290.G	CC44BR	47700	39500	436	82	CC44BR	0.06	0.17	11.5	11	
A2.106.G	DK29JG	44200	44300	442.5	1	DK29JG	0.07	0.22	14.5	15	
A2.250.G	ST66EH	43700	39200	414.5	45	ST66EH	0.13	0.14	13.5	1	
A2.35.G	ZW52MF	38900	28400	336.5	105	ZW52MF	0.07	0.05	6	2	
A2.148.G	RS84TF	48600	45200	469	34	RS84TF	0.09	0.28	18.5	19	
A2.260.G	MN47RI	54200	41400	478	128	MN47RI	0.11	0.28	19.5	17	
A2.112.G	DV38GJ	42200	37500	398.5	47	DV38GJ	0.06	0.14	10	8	
A2.94.G	FD42NV	31100	37500	343	64	FD42NV	0.08	0.1	9	2	
A2.370.G	RZ73BN	41800	42800	423	10	RZ73BN	0.05	0.13	9	8	
A2.14.G	CB42YG	34100	34200	341.5	1	CB42YG	0.05	0.39	22	34	
A2.29.G	ED41JT	47700	35800	417.5	119	ED41JT	0.06	0.05	5.5	1	
A2.70.G	TT35DF	34700	35200	349.5	5	TT35DF	0.05	0.13	9	8	
A2.220.G	HH43PJ	53500	51700	526	18	HH43PJ	0.05	0.14	9.5	9	
A2.400.G	BG67FJ	37200	38600	379	14	BG67FJ	0.13	0.13	13	0	
A2.74.G	VF73KK	31700	33000	323.5	13	VF73KK	0.07	0.16	11.5	9	



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آنالیز (ادامه)

La										K									
شماره نمونه اولیه	شماره نمونه تکراری	شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین ۱۰۰/	میانگین ۱۰۰/	اختلاف ۱۰۰/	اختلاف	شماره نمونه اولیه	شماره نمونه تکراری	شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین ۱۰۰/	میانگین ۱۰۰/	اختلاف ۱۰۰/	اختلاف
A2.420.G	EA34GH	A2.420.G	EA34GH	14800	17300	160.5	17300	25	3	A2.420.G	EA34GH	A2.420.G	EA34GH	46	43	44.5	44.5		
A2.430.G	DB45TH	A2.430.G	DB45TH	17700	17800	177.5	17800	1	5	A2.430.G	DB45TH	A2.430.G	DB45TH	26	21	23.5	23.5		
A2.118.G	FE46JL	A2.118.G	FE46JL	20600	21400	210	21400	8	16	A2.118.G	FE46JL	A2.118.G	FE46JL	50	34	42	42		
A2.280.G	EI23BG	A2.280.G	EI23BG	18600	20400	195	20400	18	2	A2.280.G	EI23BG	A2.280.G	EI23BG	28	26	27	27		
A2.360.G	BM89MG	A2.360.G	BM89MG	19500	19000	192.5	19000	5	3	A2.360.G	BM89MG	A2.360.G	BM89MG	31	28	29.5	29.5		
A2.140.G	KK45ER	A2.140.G	KK45ER	19300	20600	199.5	20600	13	9	A2.140.G	KK45ER	A2.140.G	KK45ER	47	38	42.5	42.5		
A2.390.G	FF43PM	A2.390.G	FF43PM	18900	19800	193.5	19800	9	8	A2.390.G	FF43PM	A2.390.G	FF43PM	37	29	33	33		
A2.300.G	DR32FS	A2.300.G	DR32FS	17800	18000	179	18000	2	16	A2.300.G	DR32FS	A2.300.G	DR32FS	62	46	54	54		
A2.210.G	SF98HT	A2.210.G	SF98HT	19100	21600	203.5	21600	25	4	A2.210.G	SF98HT	A2.210.G	SF98HT	48	44	46	46		
A2.410.G	VW54BI	A2.410.G	VW54BI	23200	24500	238.5	24500	13	7	A2.410.G	VW54BI	A2.410.G	VW54BI	30	37	33.5	33.5		
A2.380.G	ZN57BB	A2.380.G	ZN57BB	18000	19600	188	19600	16	5	A2.380.G	ZN57BB	A2.380.G	ZN57BB	100	95	97.5	97.5		
A2.130.G	BM12LM	A2.130.G	BM12LM	15900	18600	172.5	18600	27	5	A2.130.G	BM12LM	A2.130.G	BM12LM	33	28	30.5	30.5		
A2.440.G	BC48EF	A2.440.G	BC48EF	18300	21800	200.5	21800	35	6	A2.440.G	BC48EF	A2.440.G	BC48EF	23	29	26	26		
A2.136.G	FR23TS	A2.136.G	FR23TS	19500	19500	195	19500	0	6	A2.136.G	FR23TS	A2.136.G	FR23TS	42	36	39	39		
A2.310.G	BB53FD	A2.310.G	BB53FD	18100	20500	193	20500	24	13	A2.310.G	BB53FD	A2.310.G	BB53FD	65	52	58.5	58.5		
A2.290.G	CC44BR	A2.290.G	CC44BR	20100	19400	197.5	19400	7	21	A2.290.G	CC44BR	A2.290.G	CC44BR	71	50	60.5	60.5		
A2.106.G	DK29JG	A2.106.G	DK29JG	14200	19500	168.5	19500	53	15	A2.106.G	DK29JG	A2.106.G	DK29JG	48	33	40.5	40.5		
A2.250.G	ST66EH	A2.250.G	ST66EH	15200	21100	181.5	21100	59	10	A2.250.G	ST66EH	A2.250.G	ST66EH	37	27	32	32		
A2.35.G	ZW52MF	A2.35.G	ZW52MF	13400	13300	133.5	13300	1	18	A2.35.G	ZW52MF	A2.35.G	ZW52MF	44	26	35	35		
A2.148.G	RS84TF	A2.148.G	RS84TF	20600	20300	204.5	20300	3	2	A2.148.G	RS84TF	A2.148.G	RS84TF	45	43	44	44		
A2.260.G	MN47RI	A2.260.G	MN47RI	16000	20700	183.5	20700	47	44	A2.260.G	MN47RI	A2.260.G	MN47RI	135	91	113	113		
A2.112.G	DV38GJ	A2.112.G	DV38GJ	19900	18400	191.5	18400	15	13	A2.112.G	DV38GJ	A2.112.G	DV38GJ	40	27	33.5	33.5		
A2.94.G	FD42NV	A2.94.G	FD42NV	14200	18700	164.5	18700	45	1	A2.94.G	FD42NV	A2.94.G	FD42NV	28	29	28.5	28.5		
A2.370.G	RZ73BN	A2.370.G	RZ73BN	19900	19700	198	19700	2	2	A2.370.G	RZ73BN	A2.370.G	RZ73BN	43	45	44	44		
A2.14.G	CB42YG	A2.14.G	CB42YG	12800	15200	140	15200	24	10	A2.14.G	CB42YG	A2.14.G	CB42YG	44	34	39	39		
A2.29.G	ED41JT	A2.29.G	ED41JT	17000	17100	170.5	17100	1	30	A2.29.G	ED41JT	A2.29.G	ED41JT	73	43	58	58		
A2.70.G	TT35DF	A2.70.G	TT35DF	19800	17000	184	17000	28	6	A2.70.G	TT35DF	A2.70.G	TT35DF	27	21	24	24		
A2.220.G	HH43PJ	A2.220.G	HH43PJ	16200	21000	186	21000	48	8	A2.220.G	HH43PJ	A2.220.G	HH43PJ	55	47	51	51		
A2.400.G	BG67FJ	A2.400.G	BG67FJ	19200	17100	181.5	17100	21	17	A2.400.G	BG67FJ	A2.400.G	BG67FJ	68	51	59.5	59.5		
A2.74.G	VF73KK	A2.74.G	VF73KK	16900	15900	164	15900	10	7	A2.74.G	VF73KK	A2.74.G	VF73KK	54	47	50.5	50.5		



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

Li						Mg					
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین	اختلاف	شماره نمونه تکراری	شماره نمونه اولیه	مقدار اولیه	مقدار تکراری	میانگین	اختلاف
A2.420.G	EA34GH	36.9	36.7	36.8	0.2	EA34GH	A2.420.G	12100	14000	130.5	19
A2.430.G	DB45TH	44.4	36.2	40.3	8.2	DB45TH	A2.430.G	14600	14700	146.5	1
A2.118.G	FE46JL	59.6	45.5	52.55	14.1	FE46JL	A2.118.G	16200	15000	156	12
A2.280.G	EI23BG	60.9	44.8	52.85	16.1	EI23BG	A2.280.G	15700	15300	155	4
A2.360.G	BM89MG	35.4	29.5	32.45	5.9	BM89MG	A2.360.G	17600	17300	174.5	3
A2.140.G	KK45ER	60.7	42.2	51.45	18.5	KK45ER	A2.140.G	16600	16900	167.5	3
A2.390.G	FF43PM	53	42.4	47.7	10.6	FF43PM	A2.390.G	16400	16200	163	2
A2.300.G	DR32FS	60.4	37.9	49.15	22.5	DR32FS	A2.300.G	14600	13500	140.5	11
A2.210.G	SF98HT	50.5	43.7	47.1	6.8	SF98HT	A2.210.G	15900	17200	165.5	13
A2.410.G	WW54BI	54.2	46.7	50.45	7.5	WW54BI	A2.410.G	16600	17500	170.5	9
A2.380.G	ZN57BB	49	45.3	47.15	3.7	ZN57BB	A2.380.G	13200	14500	138.5	13
A2.130.G	BM12LM	30.6	26.1	28.35	4.5	BM12LM	A2.130.G	14100	15200	146.5	11
A2.440.G	BC48EF	44.9	49.4	47.15	4.5	BC48EF	A2.440.G	13600	17000	153	34
A2.136.G	FR23TS	37.7	27	32.35	10.7	FR23TS	A2.136.G	12000	12900	124.5	9
A2.310.G	BB53FD	53.4	45.5	49.45	7.9	BB53FD	A2.310.G	16100	15700	159	4
A2.290.G	CC44BR	65.8	42.4	54.1	23.4	CC44BR	A2.290.G	17700	15900	168	18
A2.106.G	DK29JG	60	48	54	12	DK29JG	A2.106.G	14900	14300	146	6
A2.250.G	ST66EH	58.5	45.6	52.05	12.9	ST66EH	A2.250.G	16200	15900	160.5	3
A2.35.G	ZW52MF	41.2	25.3	33.25	15.9	ZW52MF	A2.35.G	11900	10900	114	10
A2.148.G	RS84TF	48.6	38	43.3	10.6	RS84TF	A2.148.G	15300	15800	155.5	5
A2.260.G	MN47RI	67.3	48.6	57.95	18.7	MN47RI	A2.260.G	16300	14700	155	16
A2.112.G	DV38GJ	35.7	25.3	30.5	10.4	DV38GJ	A2.112.G	15800	14400	151	14
A2.94.G	FD42NV	37.1	37	37.05	0.1	FD42NV	A2.94.G	12700	15700	142	30
A2.370.G	RZ73BN	50.3	44.3	47.3	6	RZ73BN	A2.370.G	14100	15200	146.5	11
A2.14.G	CB42YG	52.6	42.5	47.55	10.1	CB42YG	A2.14.G	13100	14200	136.5	11
A2.29.G	ED41JT	53.9	32.7	43.3	21.2	ED41JT	A2.29.G	18500	14100	163	44
A2.70.G	TT35DF	43.4	34.2	38.8	9.2	TT35DF	A2.70.G	14700	13200	139.5	15
A2.220.G	HH43PJ	53.3	46.4	49.85	6.9	HH43PJ	A2.220.G	15700	16400	160.5	7
A2.400.G	BG67FJ	53.8	41.6	47.7	12.2	BG67FJ	A2.400.G	15300	14800	150.5	5
A2.74.G	VF73KK	36.6	29.9	33.25	6.7	VF73KK	A2.74.G	11700	12800	122.5	11



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

Min						MO					
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین ۱۰/	اختلاف ۱۰/	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین ۱۰×	اختلاف ۱۰×	
A2.420.G	EA34GH	607	817	71.2	21	EA34GH	0.5	0.9	7	4	
A2.430.G	DB45TH	690	787	73.85	9.7	DB45TH	0.6	1	8	4	
A2.118.G	FE46JL	827	842	83.45	1.5	FE46JL	0.3	1.3	8	10	
A2.280.G	EI23BG	765	788	77.65	2.3	EI23BG	0.9	1	9.5	1	
A2.360.G	BM89MG	945	964	95.45	1.9	BM89MG	1.2	1.6	14	4	
A2.140.G	KK45ER	1220	1050	113.5	17	KK45ER	2.4	1.5	19.5	9	
A2.390.G	FF43PM	739	822	78.05	8.3	FF43PM	0.7	1.1	9	4	
A2.300.G	DR32FS	906	862	88.4	4.4	DR32FS	1	1.1	10.5	1	
A2.210.G	SF98HT	981	1040	101.05	5.9	SF98HT	0.8	1.1	9.5	3	
A2.410.G	WW54BI	775	890	83.25	11.5	WW54BI	0.7	1.1	9	4	
A2.380.G	ZN57BB	872	1000	93.6	12.8	ZN57BB	0.6	0.9	7.5	3	
A2.130.G	BM12LM	869	1020	94.45	15.1	BM12LM	0.8	1.5	11.5	7	
A2.440.G	BC48EF	636	669	65.25	3.3	BC48EF	0.8	0.8	8	0	
A2.136.G	FR23TS	916	829	87.25	8.7	FR23TS	0.8	0.7	7.5	1	
A2.310.G	BB53FD	868	890	87.9	2.2	BB53FD	0.6	1.1	8.5	5	
A2.290.G	CC44BR	1020	917	96.85	10.3	CC44BR	0.8	0.9	8.5	1	
A2.106.G	DK29JG	1240	1170	120.5	7	DK29JG	0.3	0.9	6	6	
A2.250.G	ST66EH	872	820	84.6	5.2	ST66EH	0.7	1.1	9	4	
A2.35.G	ZW52MF	878	593	73.55	28.5	ZW52MF	0.7	0.7	7	0	
A2.148.G	RS84TF	1350	1220	128.5	13	RS84TF	1.4	1.7	15.5	3	
A2.260.G	MN47RI	1270	1080	117.5	19	MN47RI	0.6	1	8	4	
A2.112.G	DV38GJ	954	892	92.3	6.2	DV38GJ	0.5	1.4	9.5	9	
A2.94.G	FD42NV	519	700	60.95	18.1	FD42NV	0.4	1.1	7.5	7	
A2.370.G	RZ73BN	768	803	78.55	3.5	RZ73BN	0.7	1	8.5	3	
A2.14.G	CB42YG	572	520	54.6	5.2	CB42YG	1	1.1	10.5	1	
A2.29.G	ED41JT	988	652	82	33.6	ED41JT	0.7	0.9	8	2	
A2.70.G	TT35DF	648	661	65.45	1.3	TT35DF	0.7	0.8	7.5	1	
A2.220.G	HH43PJ	1420	1460	144	4	HH43PJ	1.3	1.7	15	4	
A2.400.G	BG67FJ	761	785	77.3	2.4	BG67FJ	0.7	1.1	9	4	
A2.74.G	VF73KK	604	593	59.85	1.1	VF73KK	0.7	0.9	8	2	



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

Na						Nb					
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین / ۱۰۰	اختلاف / ۱۰۰	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین / ۱۰۰	اختلاف / ۱۰۰	
A2.420.G	EA34GH	8770	9450	91.1	6.8	EA34GH	4.2	7.9	60.5	37	
A2.430.G	DB45TH	10500	9510	100.05	9.9	DB45TH	6	7.9	69.5	19	
A2.118.G	FE46JL	10800	9460	101.3	13.4	FE46JL	8.6	10.1	93.5	15	
A2.280.G	EI23BG	8220	9060	86.4	8.4	EI23BG	8.3	9.4	88.5	11	
A2.360.G	BM89MG	6890	6070	64.8	8.2	BM89MG	10.1	10.4	102.5	3	
A2.140.G	KK45ER	9640	8700	91.7	9.4	KK45ER	10.4	10.2	103	2	
A2.390.G	FF43PM	12400	11100	117.5	13	FF43PM	6.6	9.2	79	26	
A2.300.G	DR32FS	8900	8800	88.5	1	DR32FS	7.7	8.3	80	6	
A2.210.G	SF98HT	11200	11000	111	2	SF98HT	10.1	10.1	101	0	
A2.410.G	WW54BI	10100	9630	98.65	4.7	WW54BI	7.1	9.5	83	24	
A2.380.G	ZN57BB	9740	9890	98.15	1.5	ZN57BB	5.2	7.9	65.5	27	
A2.130.G	BM12LM	6020	5900	59.6	1.2	BM12LM	9.4	9.4	94	0	
A2.440.G	BC48EF	9410	10200	98.05	7.9	BC48EF	8	8.1	80.5	1	
A2.136.G	FR23TS	7440	7030	72.35	4.1	FR23TS	6.6	5.7	61.5	9	
A2.310.G	BB53FD	9490	9610	95.5	1.2	BB53FD	8	8.2	81	2	
A2.290.G	CC44BR	8940	8630	87.85	3.1	CC44BR	8	8.1	80.5	1	
A2.106.G	DK29JG	9770	8620	91.95	11.5	DK29JG	8.5	8.5	85	0	
A2.250.G	ST66EH	11800	10000	109	18	ST66EH	13.9	9	114.5	49	
A2.35.G	ZW52MF	11200	7740	94.7	34.6	ZW52MF	6.3	5.4	58.5	9	
A2.148.G	RS84TF	10500	10100	103	4	RS84TF	9.9	11.5	107	16	
A2.260.G	MN47RI	12700	9860	112.8	28.4	MN47RI	13.6	9.1	113.5	45	
A2.112.G	DV38GJ	8120	6320	72.2	18	DV38GJ	8.4	8.1	82.5	3	
A2.94.G	FD42NV	6450	7700	70.75	12.5	FD42NV	8	7.7	78.5	3	
A2.370.G	RZ73BN	12000	10500	112.5	15	RZ73BN	5.6	7.5	65.5	19	
A2.14.G	CB42YG	9850	8640	92.45	12.1	CB42YG	6.3	6.1	62	2	
A2.29.G	ED41JT	12200	8070	101.35	41.3	ED41JT	7.1	6.5	68	6	
A2.70.G	TT35DF	8720	7830	82.75	8.9	TT35DF	8.4	7.2	78	12	
A2.220.G	HH43PJ	8990	8760	88.75	2.3	HH43PJ	10.6	11	108	4	
A2.400.G	BG67FJ	10800	8890	98.45	19.1	BG67FJ	5.3	8.1	67	28	
A2.74.G	VF73KK	8210	7530	78.7	6.8	VF73KK	7.3	6.4	68.5	9	



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آنالیز (ادامه)

Ni						P					
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین	اختلاف	شماره نمونه تکراری	شماره نمونه اولیه	مقدار اولیه	مقدار تکراری	میانگین	اختلاف
A2.420.G	EA34GH	48	52	50	4	EA34GH	A2.420.G	526	579	552.5	53
A2.430.G	DB45TH	58	57	57.5	1	DB45TH	A2.430.G	721	670	695.5	51
A2.118.G	FE46JL	63	55	59	8	FE46JL	A2.118.G	809	657	733	152
A2.280.G	EI23BG	60	57	58.5	3	EI23BG	A2.280.G	929	664	796.5	265
A2.360.G	BM89MG	85	87	86	2	BM89MG	A2.360.G	627	597	612	30
A2.140.G	KK45ER	90	76	83	14	KK45ER	A2.140.G	779	722	750.5	57
A2.390.G	FF43PM	61	57	59	4	FF43PM	A2.390.G	964	886	925	78
A2.300.G	DR32FS	59	55	57	4	DR32FS	A2.300.G	913	640	776.5	273
A2.210.G	SF98HT	69	69	69	0	SF98HT	A2.210.G	674	672	673	2
A2.410.G	WW54BI	65	67	66	2	WW54BI	A2.410.G	785	737	761	48
A2.380.G	ZN57BB	51	56	53.5	5	ZN57BB	A2.380.G	632	658	645	26
A2.130.G	BM12LM	71	75	73	4	BM12LM	A2.130.G	631	581	606	50
A2.440.G	BC48EF	39	43	41	4	BC48EF	A2.440.G	567	618	592.5	51
A2.136.G	FR23TS	61	54	57.5	7	FR23TS	A2.136.G	714	597	655.5	117
A2.310.G	BB53FD	57	53	55	4	BB53FD	A2.310.G	694	668	681	26
A2.290.G	CC44BR	66	54	60	12	CC44BR	A2.290.G	1060	698	879	362
A2.106.G	DK29JG	63	57	60	6	DK29JG	A2.106.G	753	569	661	184
A2.250.G	ST66EH	57	52	54.5	5	ST66EH	A2.250.G	958	790	874	168
A2.35.G	ZW52MF	64	37	50.5	27	ZW52MF	A2.35.G	879	502	690.5	377
A2.148.G	RS84TF	97	91	94	6	RS84TF	A2.148.G	787	773	780	14
A2.260.G	MN47RI	79	68	73.5	11	MN47RI	A2.260.G	855	702	778.5	153
A2.112.G	DV38GJ	75	60	67.5	15	DV38GJ	A2.112.G	898	663	780.5	235
A2.94.G	FD42NV	44	54	49	10	FD42NV	A2.94.G	833	804	818.5	29
A2.370.G	RZ73BN	56	53	54.5	3	RZ73BN	A2.370.G	734	770	752	36
A2.14.G	CB42YG	53	46	49.5	7	CB42YG	A2.14.G	684	525	604.5	159
A2.29.G	ED41JT	77	45	61	32	ED41JT	A2.29.G	835	500	667.5	335
A2.70.G	TT35DF	53	49	51	4	TT35DF	A2.70.G	883	783	833	100
A2.220.G	HH43PJ	93	91	92	2	HH43PJ	A2.220.G	615	638	626.5	23
A2.400.G	BG67FJ	56	52	54	4	BG67FJ	A2.400.G	608	564	586	44
A2.74.G	VF73KK	45	43	44	2	VF73KK	A2.74.G	583	510	546.5	73



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

Pb						Rb					
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین	اختلاف	شماره نمونه تکراری	شماره اولیه	مقدار اولیه	مقدار تکراری	میانگین	اختلاف
A2.420.G	EA34GH	21.6	29.9	25.75	8.3	EA34GH	A2.420.G	54.7	72.6	63.65	17.9
A2.430.G	DB45TH	24	22.2	23.1	1.8	DB45TH	A2.430.G	65.2	89.5	77.35	24.3
A2.118.G	FE46JL	30.3	28.4	29.35	1.9	FE46JL	A2.118.G	65.7	124	94.85	58.3
A2.280.G	EI23BG	36	22.8	29.4	13.2	EI23BG	A2.280.G	65.3	104	84.65	38.7
A2.360.G	BM89MG	20.8	15.3	18.05	5.5	BM89MG	A2.360.G	105	95	100	10
A2.140.G	KK45ER	24.7	34.3	29.5	9.6	KK45ER	A2.140.G	99.3	110	104.65	10.7
A2.390.G	FF43PM	22	25.6	23.8	3.6	FF43PM	A2.390.G	65.7	98.8	82.25	33.1
A2.300.G	DR32FS	35.7	27.6	31.65	8.1	DR32FS	A2.300.G	88.9	90.1	89.5	1.2
A2.210.G	SF98HT	22.8	30.6	26.7	7.8	SF98HT	A2.210.G	108	101	104.5	7
A2.410.G	WW54BI	23	31.1	27.05	8.1	WW54BI	A2.410.G	80.3	125	102.65	44.7
A2.380.G	ZN57BB	21.4	37.8	29.6	16.4	ZN57BB	A2.380.G	105	103	104	2
A2.130.G	BM12LM	28.7	30.2	29.45	1.5	BM12LM	A2.130.G	51.5	90.8	71.15	39.3
A2.440.G	BC48EF	22.3	26.3	24.3	4	BC48EF	A2.440.G	70.3	121	95.65	50.7
A2.136.G	FR23TS	23.6	31.1	27.35	7.5	FR23TS	A2.136.G	90.4	70.9	80.65	19.5
A2.310.G	BB53FD	12.6	23.8	18.2	11.2	BB53FD	A2.310.G	96.3	105	100.65	8.7
A2.290.G	CC44BR	38	21.6	29.8	16.4	CC44BR	A2.290.G	93.1	102	97.55	8.9
A2.106.G	DK29JG	36.6	33.7	35.15	2.9	DK29JG	A2.106.G	59.6	83.7	71.65	24.1
A2.250.G	ST66EH	26.8	24.7	25.75	2.1	ST66EH	A2.250.G	101	98.9	99.95	2.1
A2.35.G	ZW52MF	28.7	35	31.85	6.3	ZW52MF	A2.35.G	90.1	64.4	77.25	25.7
A2.148.G	RS84TF	24.1	39.1	31.6	15	RS84TF	A2.148.G	80.4	101	90.7	20.6
A2.260.G	MN47RI	45.2	35.6	40.4	9.6	MN47RI	A2.260.G	110	102	106	8
A2.112.G	DV38GJ	53.5	36.8	45.15	16.7	DV38GJ	A2.112.G	56.8	91.7	74.25	34.9
A2.94.G	FD42NV	35.1	33.2	34.15	1.9	FD42NV	A2.94.G	59	89.5	74.25	30.5
A2.370.G	RZ73BN	20.5	31.9	26.2	11.4	RZ73BN	A2.370.G	110	105	107.5	5
A2.14.G	CB42YG	21.4	18.2	19.8	3.2	CB42YG	A2.14.G	89.5	85.4	87.45	4.1
A2.29.G	ED41JT	29.8	27.9	28.85	1.9	ED41JT	A2.29.G	106	93.2	99.6	12.8
A2.70.G	TT35DF	18.1	25.6	21.85	7.5	TT35DF	A2.70.G	111	35.9	73.45	75.1
A2.220.G	HH43PJ	30.7	36.3	33.5	5.6	HH43PJ	A2.220.G	109	106	107.5	3
A2.400.G	BG67FJ	19.2	20.8	20	1.6	BG67FJ	A2.400.G	69.5	84.7	77.1	15.2
A2.74.G	VF73KK	19.5	21.4	20.45	1.9	VF73KK	A2.74.G	104	89.8	96.9	14.2



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

Sb										
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین ۱۰	اختلاف ۱۰	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین ۱۰	اختلاف ۱۰
A2.420.G	EA34GH	510	580	54.5	7	A2.420.G	EA34GH	1.1	8	6
A2.430.G	DB45TH	680	650	66.5	3	A2.430.G	DB45TH	0.6	6	0
A2.118.G	FE46JL	830	570	70	26	A2.118.G	FE46JL	0.4	5.5	3
A2.280.G	EI23BG	480	330	40.5	15	A2.280.G	EI23BG	0.7	7	0
A2.360.G	BM89MG	440	450	44.5	1	A2.360.G	BM89MG	0.9	9.5	1
A2.140.G	KK45ER	600	390	49.5	21	A2.140.G	KK45ER	0.8	8	0
A2.390.G	FF43PM	360	310	33.5	5	A2.390.G	FF43PM	0.7	6.5	1
A2.300.G	DR32FS	830	580	70.5	25	A2.300.G	DR32FS	0.7	7	0
A2.210.G	SF98HT	900	340	62	56	A2.210.G	SF98HT	0.7	7	0
A2.410.G	WW54BI	450	400	42.5	5	A2.410.G	WW54BI	0.8	7.5	1
A2.380.G	ZN57BB	520	580	55	6	A2.380.G	ZN57BB	0.6	6.5	1
A2.130.G	BM12LM	650	510	58	14	A2.130.G	BM12LM	1.1	10	2
A2.440.G	BC48EF	410	490	45	8	A2.440.G	BC48EF	0.5	4.5	1
A2.136.G	FR23TS	1190	690	94	50	A2.136.G	FR23TS	0.9	8	2
A2.310.G	BB53FD	410	490	45	8	A2.310.G	BB53FD	0.6	6	0
A2.290.G	CC44BR	800	590	69.5	21	A2.290.G	CC44BR	0.6	6	0
A2.106.G	DK29JG	660	580	62	8	A2.106.G	DK29JG	0.7	6.5	1
A2.250.G	ST66EH	540	410	47.5	13	A2.250.G	ST66EH	0.5	5.5	1
A2.35.G	ZW52MF	880	510	69.5	37	A2.35.G	ZW52MF	0.5	5	0
A2.148.G	RS84TF	290	220	25.5	7	A2.148.G	RS84TF	1.1	10	2
A2.260.G	MN47RI	570	450	51	12	A2.260.G	MN47RI	1.2	12	0
A2.112.G	DV38GJ	940	560	75	38	A2.112.G	DV38GJ	1.4	13	2
A2.94.G	FD42NV	6010	4360	518.5	165	A2.94.G	FD42NV	0.9	9	0
A2.370.G	RZ73BN	460	510	48.5	5	A2.370.G	RZ73BN	0.5	6	2
A2.14.G	CB42YG	1070	810	94	26	A2.14.G	CB42YG	0.5	4.5	1
A2.29.G	ED41JT	1190	730	96	46	A2.29.G	ED41JT	0.7	6.5	1
A2.70.G	TT35DF	770	560	66.5	21	A2.70.G	TT35DF	0.6	6	0
A2.220.G	HH43PJ	780	280	53	50	A2.220.G	HH43PJ	1	9.5	1
A2.400.G	BG67FJ	520	430	47.5	9	A2.400.G	BG67FJ	0.7	6.5	1
A2.74.G	VF73KK	900	740	82	16	A2.74.G	VF73KK	0.7	6	2



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

Sc						Sn					
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین ۱۰×	اختلاف ۱۰×	شماره نمونه تکراری	شماره نمونه اولیه	مقدار اولیه	مقدار تکراری	میانگین ۱۰×	اختلاف ۱۰×
A2.420.G	EA34GH	11	10	105	10	EA34GH	A2.420.G	1.4	2.5	19.5	11
A2.430.G	DB45TH	13	11	120	20	DB45TH	A2.430.G	1.8	2.6	22	8
A2.118.G	FE46JL	17	14	155	30	FE46JL	A2.118.G	2.3	3.7	30	14
A2.280.G	EI23BG	15	14	145	10	EI23BG	A2.280.G	2.4	3.5	29.5	11
A2.360.G	BM89MG	14	12	130	20	BM89MG	A2.360.G	2.1	3	25.5	9
A2.140.G	KK45ER	19	15	170	40	KK45ER	A2.140.G	3.7	3.4	35.5	3
A2.390.G	FF43PM	15	13	140	20	FF43PM	A2.390.G	2.1	3	25.5	9
A2.300.G	DR32FS	18	11	145	70	DR32FS	A2.300.G	1.9	2.6	22.5	7
A2.210.G	SF98HT	16	15	155	10	SF98HT	A2.210.G	2.3	2.9	26	6
A2.410.G	WW54BI	17	16	165	10	WW54BI	A2.410.G	2.5	3.4	29.5	9
A2.380.G	ZN57BB	13	13	130	0	ZN57BB	A2.380.G	1.8	2.7	22.5	9
A2.130.G	BM12LM	11	11	110	0	BM12LM	A2.130.G	1.9	2.6	22.5	7
A2.440.G	BC48EF	8	14	110	60	BC48EF	A2.440.G	2.6	3	28	4
A2.136.G	FR23TS	14	11	125	30	FR23TS	A2.136.G	2.5	2.1	23	4
A2.310.G	BB53FD	15	13	140	20	BB53FD	A2.310.G	2.4	3	27	6
A2.290.G	CC44BR	19	13	160	60	CC44BR	A2.290.G	2.3	2.9	26	6
A2.106.G	DK29JG	15	10	125	50	DK29JG	A2.106.G	2.2	3	26	8
A2.250.G	ST66EH	16	12	140	40	ST66EH	A2.250.G	2.5	3.1	28	6
A2.35.G	ZW52MF	14	8	110	60	ZW52MF	A2.35.G	1.8	1.8	18	0
A2.148.G	RS84TF	15	14	145	10	RS84TF	A2.148.G	2.8	3.3	30.5	5
A2.260.G	MN47RI	18	13	155	50	MN47RI	A2.260.G	2.4	3	27	6
A2.112.G	DV38GJ	14	11	125	30	DV38GJ	A2.112.G	2.1	2.6	23.5	5
A2.94.G	FD42NV	10	11	105	10	FD42NV	A2.94.G	4.4	5.8	51	14
A2.370.G	RZ73BN	14	13	135	10	RZ73BN	A2.370.G	2	2.9	24.5	9
A2.14.G	CB42YG	12	10	110	20	CB42YG	A2.14.G	1.9	2.6	22.5	7
A2.29.G	ED41JT	17	10	135	70	ED41JT	A2.29.G	2	2.3	21.5	3
A2.70.G	TT35DF	12	6	90	60	TT35DF	A2.70.G	2.8	3.3	30.5	5
A2.220.G	HH43PJ	17	14	155	30	HH43PJ	A2.220.G	2.2	3.5	28.5	13
A2.400.G	BG67FJ	14	10	120	40	BG67FJ	A2.400.G	1.9	2.8	23.5	9
A2.74.G	VF73KK	11	10	105	10	VF73KK	A2.74.G	1.9	2.5	22	6



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

Sr						Te					
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین	اختلاف	شماره نمونه تکراری	شماره نمونه اولیه	مقدار اولیه	مقدار تکراری	میانگین ۱۰۰×	اختلاف ۱۰۰×
A2.420.G	EA34GH	209	223	216	14	EA34GH	A2.420.G	0	0	0	0
A2.430.G	DB45TH	236	207	221.5	29	DB45TH	A2.430.G	0	0	0	0
A2.118.G	FE46JL	221	182	201.5	39	FE46JL	A2.118.G	0	0	0	0
A2.280.G	EI23BG	144	150	147	6	EI23BG	A2.280.G	0	0	0	0
A2.360.G	BM89MG	232	199	215.5	33	BM89MG	A2.360.G	0	0	0	0
A2.140.G	KK45ER	179	158	168.5	21	KK45ER	A2.140.G	0	0	0	0
A2.390.G	FF43PM	176	152	164	24	FF43PM	A2.390.G	0	0	0	0
A2.300.G	DR32FS	205	182	193.5	23	DR32FS	A2.300.G	0	0	0	0
A2.210.G	SF98HT	104	150	127	46	SF98HT	A2.210.G	0	0	0	0
A2.410.G	WW54BI	170	155	162.5	15	WW54BI	A2.410.G	0	0	0	0
A2.380.G	ZN57BB	221	207	214	14	ZN57BB	A2.380.G	0	0	0	0
A2.130.G	BM12LM	217	205	211	12	BM12LM	A2.130.G	0.2	0	10	20
A2.440.G	BC48EF	242	258	250	16	BC48EF	A2.440.G	0	0	0	0
A2.136.G	FR23TS	335	291	313	44	FR23TS	A2.136.G	0	0	0	0
A2.310.G	BB53FD	213	191	202	22	BB53FD	A2.310.G	0	0	0	0
A2.290.G	CC44BR	175	158	166.5	17	CC44BR	A2.290.G	0	0	0	0
A2.106.G	DK29JG	221	187	204	34	DK29JG	A2.106.G	0	0	0	0
A2.250.G	ST66EH	212	183	197.5	29	ST66EH	A2.250.G	0	0	0	0
A2.35.G	ZW52MF	403	266	334.5	137	ZW52MF	A2.35.G	0	0	0	0
A2.148.G	RS84TF	130	129	129.5	1	RS84TF	A2.148.G	0	0	0	0
A2.260.G	MN47RI	232	189	210.5	43	MN47RI	A2.260.G	0	0	0	0
A2.112.G	DV38GJ	311	237	274	74	DV38GJ	A2.112.G	0	0	0	0
A2.94.G	FD42NV	361	383	372	22	FD42NV	A2.94.G	0	0	0	0
A2.370.G	RZ73BN	195	173	184	22	RZ73BN	A2.370.G	0	0	0	0
A2.14.G	CB42YG	337	300	318.5	37	CB42YG	A2.14.G	0	0	0	0
A2.29.G	ED41JT	515	346	430.5	169	ED41JT	A2.29.G	0	0	0	0
A2.70.G	TT35DF	351	297	324	54	TT35DF	A2.70.G	0	0	0	0
A2.220.G	HH43PJ	110	135	122.5	25	HH43PJ	A2.220.G	0	0	0	0
A2.400.G	BG67FJ	230	191	210.5	39	BG67FJ	A2.400.G	0	0	0	0
A2.74.G	VF73KK	404	344	374	60	VF73KK	A2.74.G	0	0	0	0



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

Ti						Th					
اختلاف / ۱۰	میانگین / ۱۰	مقدار تکراری	مقدار اولیه	شماره نمونه تکراری	شماره نمونه اولیه	اختلاف / ۱۰ ×	میانگین / ۱۰ ×	مقدار تکراری	مقدار اولیه	شماره نمونه تکراری	شماره نمونه اولیه
59	285.5	3150	2560	EA34GH	A2.420.G	15.5	88.45	9.62	8.07	EA34GH	A2.420.G
30	339	3240	3540	DB45TH	A2.430.G	1.8	78.7	7.96	7.78	DB45TH	A2.430.G
49	406.5	3820	4310	FE46JL	A2.118.G	18.4	104.8	11.4	9.56	FE46JL	A2.118.G
10	386	3910	3810	EI23BG	A2.280.G	14.5	87.15	9.44	7.99	EI23BG	A2.280.G
57	403.5	3750	4320	BM89MG	A2.360.G	7.6	94.4	9.06	9.82	BM89MG	A2.360.G
158	492	4130	5710	KK45ER	A2.140.G	7	106.5	10.3	11	KK45ER	A2.140.G
10	382	3870	3770	FF43PM	A2.390.G	3.1	91.25	8.97	9.28	FF43PM	A2.390.G
29	350.5	3360	3650	DR32FS	A2.300.G	3.9	101.05	9.91	10.3	DR32FS	A2.300.G
56	446	4740	4180	SF98HT	A2.210.G	5.1	102.45	9.99	10.5	SF98HT	A2.210.G
37	393.5	4120	3750	WW54BI	A2.410.G	14	101	10.8	9.4	WW54BI	A2.410.G
23	351.5	3630	3400	ZN57BB	A2.380.G	9	142.5	14.7	13.8	ZN57BB	A2.380.G
1	346.5	3460	3470	BM12LM	A2.130.G	6.8	82	8.54	7.86	BM12LM	A2.130.G
21	351.5	3620	3410	BC48EF	A2.440.G	26.9	84.25	9.77	7.08	BC48EF	A2.440.G
92	359	3130	4050	FR23TS	A2.136.G	13	73.7	6.72	8.02	FR23TS	A2.136.G
35	369.5	3520	3870	BB53FD	A2.310.G	8	113	10.9	11.7	BB53FD	A2.310.G
37	369.5	3510	3880	CC44BR	A2.290.G	4	107	10.5	10.9	CC44BR	A2.290.G
78	395	3560	4340	DK29JG	A2.106.G	7.7	92.85	9.67	8.9	DK29JG	A2.106.G
29	390.5	3760	4050	ST66EH	A2.250.G	5.2	91.7	8.91	9.43	ST66EH	A2.250.G
172	329	2430	4150	ZW52MF	A2.35.G	7.1	71.85	6.83	7.54	ZW52MF	A2.35.G
153	520.5	4440	5970	RS84TF	A2.148.G	19	98.5	10.8	8.9	RS84TF	A2.148.G
62	420	3890	4510	MN47RI	A2.260.G	0	150	15	15	MN47RI	A2.260.G
71	358.5	3230	3940	DV38GJ	A2.112.G	2.5	80.45	8.17	7.92	DV38GJ	A2.112.G
34	296	3130	2790	FD42NV	A2.94.G	0	80.6	8.06	8.06	FD42NV	A2.94.G
14	349	3420	3560	RZ73BN	A2.370.G	7.6	101.2	10.5	9.74	RZ73BN	A2.370.G
84	299	2570	3410	CB42YG	A2.14.G	1.9	84.65	8.56	8.37	CB42YG	A2.14.G
229	383.5	2690	4980	ED41JT	A2.29.G	0.6	92.8	9.25	9.31	ED41JT	A2.29.G
75	321.5	2840	3590	TT35DF	A2.70.G	26.5	69.55	5.63	8.28	TT35DF	A2.70.G
46	431	4540	4080	HH43PJ	A2.220.G	5	113.5	11.6	11.1	HH43PJ	A2.220.G
19	326.5	3360	3170	BG67FJ	A2.400.G	10	108	10.3	11.3	BG67FJ	A2.400.G
55	292.5	2650	3200	VF73KK	A2.74.G	6.1	96.75	9.37	9.98	VF73KK	A2.74.G



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

TI						U					
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین ۱۰×	اختلاف ۱۰×	شماره نمونه تکراری	شماره نمونه اولیه	مقدار اولیه	مقدار تکراری	میانگین ۱۰۰×	اختلاف ۱۰۰×
A2.420.G	EA34GH	0.3	0.4	3.5	1	EA34GH	A2.420.G	1.06	1.41	123.5	35
A2.430.G	DB45TH	0.4	0.4	4	0	DB45TH	A2.430.G	1.38	1.43	140.5	5
A2.118.G	FE46JL	0.5	0.6	5.5	1	FE46JL	A2.118.G	1.56	1.69	162.5	13
A2.280.G	EI23BG	0.5	0.5	5	0	EI23BG	A2.280.G	1.4	1.56	148	16
A2.360.G	BM89MG	0.5	0.5	5	0	BM89MG	A2.360.G	1.8	1.66	173	14
A2.140.G	KK45ER	0.6	0.5	5.5	1	KK45ER	A2.140.G	1.73	1.6	166.5	13
A2.390.G	FF43PM	0.5	0.4	4.5	1	FF43PM	A2.390.G	1.33	1.38	135.5	5
A2.300.G	DR32FS	0.4	0.4	4	0	DR32FS	A2.300.G	1.47	1.43	145	4
A2.210.G	SF98HT	0.5	0.5	5	0	SF98HT	A2.210.G	1.59	1.5	154.5	9
A2.410.G	WW54BI	0.6	0.6	6	0	WW54BI	A2.410.G	1.59	1.66	162.5	7
A2.380.G	ZN57BB	0.4	0.4	4	0	ZN57BB	A2.380.G	1.35	1.49	142	14
A2.130.G	BM12LM	0.5	0.4	4.5	1	BM12LM	A2.130.G	1.55	1.63	159	8
A2.440.G	BC48EF	0.5	0.5	5	0	BC48EF	A2.440.G	1.33	1.56	144.5	23
A2.136.G	FR23TS	0.4	0.3	3.5	1	FR23TS	A2.136.G	1.36	1.11	123.5	25
A2.310.G	BB53FD	0.5	0.5	5	0	BB53FD	A2.310.G	1.48	1.45	146.5	3
A2.290.G	CC44BR	0.5	0.5	5	0	CC44BR	A2.290.G	1.55	1.47	151	8
A2.106.G	DK29JG	0.5	0.5	5	0	DK29JG	A2.106.G	1.6	1.54	157	6
A2.250.G	ST66EH	0.5	0.5	5	0	ST66EH	A2.250.G	1.56	1.42	149	14
A2.35.G	ZW52MF	0.4	0.3	3.5	1	ZW52MF	A2.35.G	1.46	1.04	125	42
A2.148.G	RS84TF	0.5	0.5	5	0	RS84TF	A2.148.G	1.64	1.74	169	10
A2.260.G	MN47RI	0.5	0.5	5	0	MN47RI	A2.260.G	1.66	1.5	158	16
A2.112.G	DV38GJ	0.5	0.4	4.5	1	DV38GJ	A2.112.G	1.62	1.47	154.5	15
A2.94.G	FD42NV	0.4	0.4	4	0	FD42NV	A2.94.G	1.73	1.48	160.5	25
A2.370.G	RZ73BN	0.4	0.4	4	0	RZ73BN	A2.370.G	1.32	1.42	137	10
A2.14.G	CB42YG	0.4	0.4	4	0	CB42YG	A2.14.G	1.41	1.32	136.5	9
A2.29.G	ED41JT	0.5	0.4	4.5	1	ED41JT	A2.29.G	1.7	1.41	155.5	29
A2.70.G	TT35DF	0.5	0.4	4.5	1	TT35DF	A2.70.G	1.52	1.16	134	36
A2.220.G	HH43PJ	0.5	0.5	5	0	HH43PJ	A2.220.G	1.78	1.81	179.5	3
A2.400.G	BG67FJ	0.5	0.4	4.5	1	BG67FJ	A2.400.G	1.26	1.29	127.5	3
A2.74.G	VF73KK	0.4	0.4	4	0	VF73KK	A2.74.G	1.5	1.3	140	20



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

V						W					
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین	اختلاف	شماره نمونه تکراری	شماره نمونه اولیه	مقدار اولیه	مقدار تکراری	میانگین	اختلاف
A2.420.G	EA34GH	77	96	86.5	19	EA34GH	A2.420.G	0.5	1.2	85	70
A2.430.G	DB45TH	92	94	93	2	DB45TH	A2.430.G	0.7	1.2	95	50
A2.118.G	FE46JL	125	114	119.5	11	FE46JL	A2.118.G	0.4	1.6	100	120
A2.280.G	EI23BG	143	120	131.5	23	EI23BG	A2.280.G	1	1.5	125	50
A2.360.G	BM89MG	105	107	106	2	BM89MG	A2.360.G	1.6	1.5	155	10
A2.140.G	KK45ER	148	122	135	26	KK45ER	A2.140.G	1.6	1.5	155	10
A2.390.G	FF43PM	107	109	108	2	FF43PM	A2.390.G	0.8	1.4	110	60
A2.300.G	DR32FS	127	99	113	28	DR32FS	A2.300.G	0.7	1.3	100	60
A2.210.G	SF98HT	122	127	124.5	5	SF98HT	A2.210.G	1	1.4	120	40
A2.410.G	WW54BI	122	130	126	8	WW54BI	A2.410.G	0.9	1.6	125	70
A2.380.G	ZN57BB	100	110	105	10	ZN57BB	A2.380.G	1.2	1.3	125	10
A2.130.G	BM12LM	94	100	97	6	BM12LM	A2.130.G	1.2	1.3	125	10
A2.440.G	BC48EF	111	119	115	8	BC48EF	A2.440.G	1.5	1.3	140	20
A2.136.G	FR23TS	113	93	103	20	FR23TS	A2.136.G	1	0.9	95	10
A2.310.G	BB53FD	111	111	111	0	BB53FD	A2.310.G	0.8	1.3	105	50
A2.290.G	CC44BR	147	111	129	36	CC44BR	A2.290.G	0.8	1.3	105	50
A2.106.G	DK29JG	129	117	123	12	DK29JG	A2.106.G	0.9	1.4	115	50
A2.250.G	ST66EH	121	113	117	8	ST66EH	A2.250.G	2	1.5	175	50
A2.35.G	ZW52MF	107	72	89.5	35	ZW52MF	A2.35.G	0.6	0.9	75	30
A2.148.G	RS84TF	145	130	137.5	15	RS84TF	A2.148.G	1.5	1.6	155	10
A2.260.G	MN47RI	142	124	133	18	MN47RI	A2.260.G	1.8	1.5	165	30
A2.112.G	DV38GJ	112	94	103	18	DV38GJ	A2.112.G	0.4	1.1	75	70
A2.94.G	FD42NV	82	98	90	16	FD42NV	A2.94.G	1	1.4	120	40
A2.370.G	RZ73BN	103	110	106.5	7	RZ73BN	A2.370.G	1.2	1.3	125	10
A2.14.G	CB42YG	102	96	99	6	CB42YG	A2.14.G	0.8	1	90	20
A2.29.G	ED41JT	127	88	107.5	39	ED41JT	A2.29.G	0.7	1.1	90	40
A2.70.G	TT35DF	94	88	91	6	TT35DF	A2.70.G	1.8	1.3	155	50
A2.220.G	HH43PJ	128	133	130.5	5	HH43PJ	A2.220.G	1.3	1.6	145	30
A2.400.G	BG67FJ	104	105	104.5	1	BG67FJ	A2.400.G	0.6	1.2	90	60
A2.74.G	VF73KK	84	82	83	2	VF73KK	A2.74.G	1.8	1.1	145	70



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آتالیز (ادامه)

Zn											
شماره نمونه اولیه	شماره نمونه تکراری	شماره نمونه اولیه	مقدار اوليه	مقدار تکراری	میانگین	اختلاف ۱۰×	شماره نمونه تکراری	مقدار اوليه	مقدار تکراری	میانگین	اختلاف
A2.420.G	EA34GH	A2.420.G	15.4	19.8	176	44	EA34GH	77.5	95.2	86.35	17.7
A2.430.G	DB45TH	A2.430.G	18.2	20.4	193	22	DB45TH	89.5	95.4	92.45	5.9
A2.118.G	FE46JL	A2.118.G	16.8	23.5	201.5	67	FE46JL	104	120	112	16
A2.280.G	EI23BG	A2.280.G	16.5	18.6	175.5	21	EI23BG	121	127	124	6
A2.360.G	BM89MG	A2.360.G	16.9	20.4	186.5	35	BM89MG	92.7	92.5	92.6	0.2
A2.140.G	KK45ER	A2.140.G	23.3	23.7	235	4	KK45ER	130	122	126	8
A2.390.G	FF43PM	A2.390.G	20.2	21	206	8	FF43PM	104	111	107.5	7
A2.300.G	DR32FS	A2.300.G	20.9	21	209.5	1	DR32FS	111	106	108.5	5
A2.210.G	SF98HT	A2.210.G	20.1	21.9	210	18	SF98HT	120	118	119	2
A2.410.G	WW54BI	A2.410.G	21.6	24.1	228.5	25	WW54BI	120	128	124	8
A2.380.G	ZN57BB	A2.380.G	17.8	23.1	204.5	53	ZN57BB	108	115	111.5	7
A2.130.G	BM12LM	A2.130.G	15.7	20.4	180.5	47	BM12LM	79.2	82.8	81	3.6
A2.440.G	BC48EF	A2.440.G	16.6	20.9	187.5	43	BC48EF	99.5	105	102.25	5.5
A2.136.G	FR23TS	A2.136.G	16.6	14.4	155	22	FR23TS	76.7	56.4	66.55	20.3
A2.310.G	BB53FD	A2.310.G	18.7	21.8	202.5	31	BB53FD	112	118	115	6
A2.290.G	CC44BR	A2.290.G	23	21.7	223.5	13	CC44BR	126	109	117.5	17
A2.106.G	DK29JG	A2.106.G	15.7	19.3	175	36	DK29JG	108	113	110.5	5
A2.250.G	ST66EH	A2.250.G	17.3	20.4	188.5	31	ST66EH	119	114	116.5	5
A2.35.G	ZW52MF	A2.35.G	15.8	15.5	156.5	3	ZW52MF	89.1	67	78.05	22.1
A2.148.G	RS84TF	A2.148.G	17.9	26	219.5	81	RS84TF	112	122	117	10
A2.260.G	MN47RI	A2.260.G	19.2	23.4	213	42	MN47RI	158	146	152	12
A2.112.G	DV38GJ	A2.112.G	15.6	18.5	170.5	29	DV38GJ	89.8	89.9	89.85	0.1
A2.94.G	FD42NV	A2.94.G	15.3	17.3	163	20	FD42NV	122	118	120	4
A2.370.G	RZ73BN	A2.370.G	17	21	190	40	RZ73BN	108	116	112	8
A2.14.G	CB42YG	A2.14.G	15.3	18	166.5	27	CB42YG	100	97	98.5	3
A2.29.G	ED41JT	A2.29.G	17.8	19.5	186.5	17	ED41JT	92.4	80.2	86.3	12.2
A2.70.G	TT35DF	A2.70.G	16.6	14.6	156	20	TT35DF	102	90.9	96.45	11.1
A2.220.G	HH43PJ	A2.220.G	20.3	23.2	217.5	29	HH43PJ	134	133	133.5	1
A2.400.G	BG67FJ	A2.400.G	18.9	20	194.5	11	BG67FJ	109	104	106.5	5
A2.74.G	VF73KK	A2.74.G	18.1	20	190.5	19	VF73KK	96.5	77.9	87.2	18.6



جدول (۲-۳): محاسبه پارامترهای لازم جهت ترسیم دیاگرام خطای آنالیز (ادامه)

Zr						
شماره نمونه اولیه	شماره نمونه تکراری	مقدار اولیه	مقدار تکراری	میانگین	اختلاف	
A2.420.G	EA34GH	57	61	59	4	
A2.430.G	DB45TH	77	73	75	4	
A2.118.G	FE46JL	80	87	83.5	7	
A2.280.G	EI23BG	65	87	76	22	
A2.360.G	BM89MG	85	85	85	0	
A2.140.G	KK45ER	74	89	81.5	15	
A2.390.G	FF43PM	75	81	78	6	
A2.300.G	DR32FS	67	67	67	0	
A2.210.G	SF98HT	62	87	74.5	25	
A2.410.G	WW54BI	86	93	89.5	7	
A2.380.G	ZN57BB	81	79	80	2	
A2.130.G	BM12LM	74	78	76	4	
A2.440.G	BC48EF	75	86	80.5	11	
A2.136.G	FR23TS	65	70	67.5	5	
A2.310.G	BB53FD	86	81	83.5	5	
A2.290.G	CC44BR	69	79	74	10	
A2.106.G	DK29JG	85	77	81	8	
A2.250.G	ST66EH	83	70	76.5	13	
A2.35.G	ZW52MF	74	56	65	18	
A2.148.G	RS84TF	81	89	85	8	
A2.260.G	MN47RI	95	88	91.5	7	
A2.112.G	DV38GJ	86	72	79	14	
A2.94.G	FD42NV	60	71	65.5	11	
A2.370.G	RZ73BN	85	82	83.5	3	
A2.14.G	CB42YG	65	66	65.5	1	
A2.29.G	ED41JT	83	60	71.5	23	
A2.70.G	TT35DF	66	55	60.5	11	
A2.220.G	HH43PJ	71	90	80.5	19	
A2.400.G	BG67FJ	62	64	63	2	
A2.74.G	VF73KK	62	65	63.5	3	



جدول (۳-۱): شماره و مختصات محل نمونه های گانی سنگین برداشت شده

Row	Serial Number	Coordinate(UTM WGS84)		Row	Serial Number	Coordinate(UTM WGS84)		Row	Serial Number	Coordinate(UTM WGS84)	
		X	Y			X	Y			X	Y
1	A2-1-H	370918.74	3771122.4	31	A2-78-H	376362.6	3768423.2	61	A2-142-H	384554.79	3765542.4
2	A2-2-H	371018.11	3771187.2	32	A2-80-H	376610.7	3768370.6	62	A2-144-H	384575.01	3765258.1
3	A2-3-H	370936.27	3771981.4	33	A2-82-H	376959.33	3768565.3	63	A2-150-H	383772.58	3764046.3
4	A2-4-H	370884.08	3772330	34	A2-86-H	377718.34	3768322.4	64	A2-151-H	383689.76	3764014.4
5	A2-5-H	371664.73	3772984.4	35	A2-87-H	376885.56	3769019.9	65	A2-155-H	372848.46	3773475
6	A2-16-H	384238.71	3770042.6	36	A2-91-H	375300.49	3769707.8	66	A2-156-H	372233.06	3773642.3
7	A2-17-H	384241.67	3770550	37	A2-92-H	376335.64	3773427.6	67	A2-157-H	372317.11	3773577
8	A2-20-H	383463.66	3770430.2	38	A2-94-H	375084.94	3771602.6	68	A2-158-H	370746.93	3773294.5
9	A2-23-H	382929.49	3770214.1	39	A2-95-H	374931.39	3772054.9	69	A2-159-H	371056.33	3773657
10	A2-25-H	382784.72	3769951.1	40	A2-98-H	375005.24	3772915.1	70	A2-160-H	371038.86	3774110.7
11	A2-26-H	372922.12	3765549.7	41	A2-99-H	375081.66	3772920.8	71	A2-161-H	371324.59	3774494.7
12	A2-28-H	373574.4	3766108.4	42	A2-100-H	376163.35	3772109.1	72	A2-162-H	371302.91	3774609.9
13	A2-29-H	373528.61	3766124.3	43	A2-104-H	375049.43	3774250.7	73	A2-163-H	371295.65	3774762.3
14	A2-33-H	374408.61	3766431.3	44	A2-107-H	375412.19	3774020.4	74	A2-178-H	378645.79	3766508.9
15	A2-35-H	374377.83	3766619.3	45	A2-110-H	377427.09	3764478.5	75	A2-179-H	378071.44	3766422.5
16	A2-36-H	374769.46	3766601.9	46	A2-111-H	377148.58	3764592.5	76	A2-180-H	378059.97	3766339.4
17	A2-37-H	374729.32	3766667.1	47	A2-112-H	377137.41	3764643.8	77	A2-181-H	377594.68	3766683.7
18	A2-45-H	375858.07	3774371.6	48	A2-114-H	376700.13	3764752.1	78	A2-182-H	376133.74	3766468.3
19	A2-47-H	375872.67	3775000.4	49	A2-115-H	376306.23	3764996.8	79	A2-183-H	377122	3766121.9
20	A2-50-H	374254.01	3774721.2	50	A2-119-H	378340.36	3765090.1	80	A2-184-H	376907.77	3765762.2
21	A2-51-H	374260.43	3774773.3	51	A2-120-H	378992.91	3765436.3	81	A2-185-H	377032.51	3765595.8
22	A2-54-H	373759.87	3774911.4	52	A2-123-H	378258.51	3765120.6	82	A2-186-H	375866.38	3765264.5
23	A2-57-H	373257.43	3774745.9	53	A2-125-H	377671.18	3764628.1	83	A2-187-H	375918.66	3766177.6
24	A2-58-H	374644.96	3772823.9	54	A2-126-H	377614.35	3764511.6	84	A2-188-H	375628.84	3765958.8
25	A2-59-H	374396.42	3772791	55	A2-129-H	377667.67	3764570.2	85	A2-207-H	381605.18	3766561.7
26	A2-60-H	374284.62	3772535	56	A2-130-H	375737.71	3765080.1	86	A2-208-H	381717.53	3766513.7
27	A2-69-H	375129.67	3769152.3	57	A2-133-H	375791.72	3765111.7	87	A2-209-H	382005.7	3766117.5
28	A2-70-H	375224.68	3769238.9	58	A2-134-H	375445.34	3765130.5	88	A2-210-H	382096.01	3766201.4
29	A2-76-H	376148.5	3768143	59	A2-138-H	384574.2	3766139.4	89	A2-212-H	382684.53	3765999.5
30	A2-77-H	376217.32	3768133	60	A2-139-H	384289.03	3766067.8	90	A2-215-H	382301.14	3765432.7



جدول (۳-۱): شماره و مختصات محل نمونه های گانی سنگین بر داشت شده (ادامه)

Row	Serial Number	Coordinate(UTMWGS84)		Row	Serial Number	Coordinate(UTMWGS84)		Row	Serial Number	Coordinate(UTMWGS84)	
		X	Y			X	Y			X	Y
91	A2-219-H	382831.18	3765015.7	121	A2-289-H	381585.08	3765752.2	151	A2-367-H	374783	3763816
92	A2-222-H	373780.85	3765530.3	122	A2-290-H	381304.61	3767184.8	152	A2-370-H	379696.61	3766994
93	A2-226-H	372386.68	3766118.7	123	A2-291-H	380503.05	3767652.8	153	A2-374-H	379574.62	3767886.1
94	A2-228-H	372805.88	3767086.8	124	A2-292-H	380346.62	3767629.4	154	A2-376-H	380012.13	3768034
95	A2-232-H	373856.6	3764909.5	125	A2-293-H	380757.48	3767282.2	155	A2-378-H	380389.64	3767969.4
96	A2-234-H	373118.39	3767412.5	126	A2-294-H	380181.96	3766803.7	156	A2-382-H	379307.11	3768184.2
97	A2-237-H	374124.32	3768170.2	127	A2-298-H	381539.54	3765828.9	157	A2-384-H	384633.3	3768963.6
98	A2-241-H	374304.52	3768284.9	128	A2-310-H	381225.79	3770242.2	158	A2-385-H	384625.57	3768787.1
99	A2-242-H	374388.6	3768800.7	129	A2-311-H	381268.18	3770161.8	159	A2-389-H	382745.63	3769034.6
100	A2-245-H	379515.15	3763962.2	130	A2-317-H	382027.86	3769179.5	160	A2-393-H	382784.11	3768401.5
101	A2-246-H	380074.77	3765084.9	131	A2-318-H	381867.44	3769044	161	A2-394-H	382568.65	3768406.5
102	A2-247-H	380132.91	3765026.5	132	A2-319-H	381732.98	3769124.1	162	A2-399-H	382290.57	3768049.7
103	A2-249-H	379926.38	3764532.1	133	A2-321-H	381131.01	3769092.3	163	A2-400-H	382205	3768242
104	A2-252-H	380507.76	3764430.9	134	A2-322-H	380976.3	3769165	164	A2-412-H	376662.67	3770390
105	A2-254-H	380473.79	3764018.9	135	A2-325-H	381392.63	3768794.2	165	A2-414-H	375771.34	3769915.3
106	A2-257-H	381655.33	3764006.4	136	A2-328-H	381595.03	3768501.5	166	A2-419-H	376742.87	3769600.7
107	A2-260-H	380973.17	3764040.4	137	A2-329-H	382335.59	3769347.9	167	A2-420-H	378407.95	3769535.5
108	A2-262-H	381171.76	3764373	138	A2-330-H	382456.93	3769392.4	168	A2-422-H	378327.66	3769580
109	A2-263-H	372991.4	3770755.8	139	A2-332-H	383089.23	3768158.9	169	A2-423-H	379553.46	3770387.3
110	A2-264-H	372667.74	3770704.9	140	A2-334-H	383352.76	3768088.7	170	A2-424-H	379821.51	3769935.1
111	A2-268-H	372896.56	3770060.9	141	A2-335-H	383358.45	3767953.3	171	A2-425-H	379023.12	3769845.1
112	A2-269-H	372833.84	3770031.6	142	A2-342-H	383369.14	3767186.6	172	A2-426-H	378814.88	3769128.2
113	A2-272-H	372514.98	3769400.8	143	A2-343-H	383400.67	3767157.2	173	A2-427-H	378629.75	3769130.8
114	A2-274-H	371961.57	3769739.1	144	A2-346-H	382792.1	3767865.6	174	A2-428-H	378796.3	3768826.6
115	A2-275-H	371718.05	3769563.8	145	A2-347-H	382822.6	3767842.9	175	A2-429-H	378934.74	3768653.6
116	A2-276-H	371731.93	3769517.6	146	A2-351-H	371525.21	3766940.8	176	A2-430-H1	379038.68	3768363.3
117	A2-280-H	372329.58	3768881.3	147	A2-353-H	378506.16	3764306				
118	A2-281-H	371961.6	3768206.8	148	A2-354-H	378094.53	3764192.2				
119	A2-286-H	371123.74	3768018.5	149	A2-361-H	374754.88	3764668.6				
120	A2-288-H	381498.95	3766102.2	150	A2-364-H	372122.08	3767470.9				



جدول (۲-۳): نتایج آنالیز نمونه های کانی سنگین برداشت شده

SAM.NO.	A2-1-H	A2-2-H	A2-3-H	A2-4-H	A2-5-H	A2-16-H	A2-17-H	A2-20-H	A2-23-H	A2-25-H	A2-26-H	A2-28-H	A2-29-H	A2-33-H	A2-35-H
T.V. (cc) (A)	3000	3500	3500	3500	2500	3000	3000	2500	2500	3000	3000	3500	3000	3000	2500
P.V. (cc) (B)	15	15	16	15	10	12	14	22	10	10	17	15	23	20	19
S.V. (cc) (C)	15	15	16	15	10	12	14	12	10	10	17	15	23	20	19
H.V. (cc) (Y)	2	2.4	3	1.4	0.5	1.2	2	5.3	1	0.5	5	7	6.2	9	7.4
ALT.SIL.	144.00	148.11	236.06	172.80	64.80	108.00	180.00	629.64	108.00	36.00	270.00	432.00	446.40	631.80	959.04
AMPHIBOL	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANATASE	PTS	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANDALUSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AZORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APATITE	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00
BARITE	PTS	PTS	PTS	PTS	0.00	0.00	0.00	PTS	PTS	0.00	PTS	PTS	PTS	1.35	PTS
BORNITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BIOTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AMETYSTE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALCITE	0.18	PTS	PTS	0.11	PTS	PTS	PTS	1.05	0.11	PTS	0.45	0.54	0.56	81.00	0.80
CELESTINE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHAMOSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHALCOPYRITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHROMITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHLORITE	0.00	0.00	PTS	PTS	PTS	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CINNABAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CERUSSITE	PTS	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELECTROM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EPIDOTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FELDSPAR	0.18	0.19	0.23	PTS	PTS	0.00	PTS	1.05	0.11	0.00	0.45	0.54	0.56	40.50	0.80
FLOURITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GAHENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GALENA	PTS	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GARNET	PTS	PTS	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00
GOETHITE	PTS	6.03	7.54	PTS	PTS	PTS	PTS	2052.16	PTS	PTS	0.00	PTS	PTS	PTS	PTS
HEMATITE	424.00	290.74	181.71	42.40	21.20	296.80	494.67	2471.92	254.40	106.00	353.33	1696.00	1533.47	604.20	627.52
HEMIMORPHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HORNBLEND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ILMENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KIANITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00
LEUCOXENE	0.00	0.00	PTS	0.00	0.00	0.00	0.00	1.36	PTS	0.00	PTS	PTS	0.00	PTS	0.00
LIMONITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAGNETITE	0.35	0.36	80.23	0.21	PTS	PTS	PTS	282.95	0.21	PTS	0.87	1.04	1.07	1.56	1.54
MALACHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MASSICOT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MONAZITE	0.00	0.00	0.00	0.00	0.00	280.00	400.00	38.87	40.00	PTS	1000.00	400.00	413.33	1140.00	1480.00
MOSCOVITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE LEAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PHOSPHORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYROLUSITE	0.00	0.00	164.57	3.84	0.00	0.00	PTS	1119.36	7.68	PTS	PTS	PTS	PTS	27.07	28.42
PYRITE	PTS	PTS	0.00	PTS	0.00	0.00	PTS	PTS	PTS	PTS	0.00	0.00	PTS	0.00	PTS
PYRITE LIMONITE	PTS	PTS	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYRITE(OXIDE)	533.33	685.71	942.86	360.00	240.00	80.00	133.33	3109.33	320.00	133.33	1500.00	1200.00	1446.67	2280.00	2072.00
PYROXENES	PTS	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RUTILE	0.00	0.00	PTS	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00	PTS	PTS	0.00	0.00
SAPPHIRE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55	PTS	0.00	0.00	0.00	0.00	0.00	0.00
SCHEELITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SERICITE	74.67	76.80	4.80	44.80	22.40	0.00	0.00	0.00	0.00	18.67	0.00	0.00	0.00	0.00	0.00
SMITHSONITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPHENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPINEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ZIRCON	PTS	0.00	PTS	PTS	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	PTS	PTS	0.00



جدول (۳-۲): نتایج آنالیز نمونه های کانی سنگین برداشت شده (ادامه)

SAM.NO.	A2-36-H	A2-37-H	A2-45-H	A2-47-H	A2-50-H	A2-51-H	A2-54-H	A2-57-H	A2-58-H	A2-59-H	A2-60-H	A2-69-H	A2-70-H	A2-76-H	A2-77-H
T.V. (cc) (A)	3000	3500	3500	3000	3000	2500	3500	3500	2500	3000	3000	3000	2500	2500	2500
P.V. (cc) (B)	22	20	18	15	15	14	10	15	12	12	14	14	14	17	12
S.V. (cc) (C)	22	20	18	15	15	14	10	15	12	12	14	14	14	17	12
H.V. (cc) (Y)	7	10	11	10.5	2.2	1	2	3	1.2	1	1.4	5.4	1.4	2	1
ALT.SIL.	504.00	462.86	186.69	774.90	201.96	6.48	185.14	324.00	311.04	198.00	252.00	563.76	241.92	388.80	302.40
AMPHIBOL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANATASE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANDALUSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AZORITE	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APATITE	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BARITE	PTS	0.00	1.41	PTS	PTS	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BORNITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BIOTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AMETYSTE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALCITE	0.63	0.77	8.49	0.95	0.20	PTS	PTS	PTS	PTS	PTS	0.13	19.44	0.15	0.22	PTS
CELESTINE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHAMOSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHALCOPYRITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHROMITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHLORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CINNABAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CERUSSITE	0.00	0.00	81.71	0.00	0.48	PTS	PTS	0.00	PTS	0.00	0.00	0.00	PTS	0.00	0.00
COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELECTROM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EPIDOTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FELDSPAR	0.63	0.77	PTS	0.95	PTS	PTS	PTS	PTS	PTS	PTS	PTS	29.16	PTS	PTS	PTS
FLOURITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GAHENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GALENA	0.00	0.00	70.71	0.00	0.55	PTS	PTS	0.00	PTS	0.00	0.00	0.00	PTS	0.00	0.00
GARNET	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOETHITE	0.00	0.00	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	150.48	98.56	140.80	PTS
HEMATITE	1484.00	1817.14	666.29	37.10	7.77	4.24	6.06	9.09	5.09	3.53	98.93	362.52	356.16	254.40	169.60
HEMIMORPHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HORNBLEND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ILMENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KIANITE	0.00	0.00	PTS	0.00	0.00	0.00	PTS	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00
LEUCOXENE	PTS	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00
LIMONITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAGNETITE	1.21	1.49	294.17	327.60	68.64	PTS	PTS	PTS	0.25	PTS	0.24	93.60	0.29	0.42	PTS
MALACHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MASSICOT	0.00	0.00	PTS	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MONAZITE	466.67	1142.86	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MOSCOVITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE COPPER	0.00	0.00	328.11	0.00	PTS	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE LEAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PHOSPHORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYROLUSITE	PTS	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYRITE	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	PTS	PTS
PYRITE LIMONITE	0.00	0.00	55.31	PTS	64.53	1.76	100.57	PTS	PTS	PTS	PTS	30.10	PTS	PTS	0.00
PYRITE(OXIDE)	1400.00	2000.00	4714.29	5600.00	1026.67	24.00	685.71	1114.29	384.00	300.00	373.33	1368.00	224.00	480.00	80.00
PYROXENES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00
RUTILE	PTS	PTS	0.00	PTS	0.00	0.00	PTS	PTS	0.00	0.00	0.00	0.00	PTS	0.00	0.00
SAPPHIRE	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCHEELITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SERICITE	261.33	16.00	352.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	383.04	PTS	PTS	PTS
SMITHSONITE	0.00	0.00	1.38	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPHENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPINEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ZIRCON	PTS	PTS	PTS	PTS	PTS	PTS	PTS	0.00	PTS	0.00	PTS	0.00	0.00	0.00	0.00



جدول (۳-۲): نتایج آنالیز نمونه های کانی سنگین برداشت شده (ادامه)

SAM.NO.	A2-78-H	A2-80-H	A2-82-H	A2-86-H	A2-87-H	A2-91-H	A2-92-H	A2-94-H	A2-95-H	A2-98-H	A2-99-H	A2-100-H	A2-104-H	A2-107-H	A2-110-H
T.V. (cc) (A)	3000	3000	3000	2500	2500	3500	3500	3500	3000	3000	2500	2500	2000	3000	3000
P.V. (cc) (B)	10	10	12	18	14	25	15	20	8	12	14	15	15	18	12
S.V. (cc) (C)	10	10	12	18	14	25	15	20	8	12	14	15	15	18	12
H.V. (cc) (Y)	1.2	1.2	2	2	1.2	6	4.2	4	1.4	1.2	1.4	3	3.2	7	2
ALT.SIL.	43.20	151.20	108.00	259.20	129.60	462.86	440.64	308.57	103.32	172.80	181.44	518.40	691.20	655.20	144.00
AMPHIBOL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANATASE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00
ANDALUSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00	PTS	0.00	0.00	0.00
AZORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APATITE	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BARITE	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.51	PTS	0.00	0.00	0.00	PTS	PTS	0.00
BORNITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BIOTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AMETYSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALCITE	PTS	PTS	PTS	0.22	0.13	0.46	0.32	0.31	PTS	0.00	0.15	0.32	0.43	0.63	0.18
CELESTINE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHAMOSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHALCOPYRITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHROMITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHLORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CINNABAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CERUSSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	PTS	PTS	0.00	0.00
COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELECTROM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EPIDOTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00
FELDSPAR	PTS	PTS	PTS	PTS	0.13	0.46	0.32	0.31	0.13	0.11	0.15	0.32	0.43	0.63	0.18
FLOURITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GAHENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GALENA	0.00	0.00	PTS	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	PTS	PTS	0.00	0.50
GARNET	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOETHITE	211.20	70.40	352.00	70.40	42.24	150.86	9.93	90.51	4.11	0.00	4.93	PTS	PTS	20.53	5.87
HEMATITE	339.20	296.80	424.00	508.80	305.28	636.00	483.36	654.17	98.93	PTS	356.16	483.36	16.96	24.73	141.33
HEMIMORPHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HORNBLEND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ILMENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KIANITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00
LEUCOXENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00
LIMONITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00
MAGNETITE	0.21	PTS	PTS	PTS	PTS	89.14	99.84	178.29	43.68	PTS	PTS	74.88	0.83	194.13	PTS
MALACHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MASSICOT	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00
MONAZITE	0.00	0.00	0.00	0.00	192.00	685.71	11.28	10.29	0.00	0.00	0.00	114.00	0.00	0.00	0.00
MOSCOVITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE LEAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PHOSPHORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYROLUSITE	0.00	0.00	0.00	PTS	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYRITE	PTS	0.00	PTS	0.40	0.24	0.86	PTS	PTS	0.23	0.00	0.00	PTS	0.00	0.00	PTS
PYRITE LIMONITE	0.00	0.00	0.00	0.00	0.00	PTS	PTS	PTS	287.47	0.00	0.00	PTS	140.80	0.00	0.00
PYRITE(OXIDE)	80.00	PTS	266.67	480.00	192.00	1200.00	1026.00	822.86	326.67	400.00	448.00	798.00	1760.00	3033.33	800.00
PYROXENES	0.00	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00
RUTILE	PTS	0.00	0.00	0.00	0.00	0.00	PTS	PTS	PTS	0.00	0.00	PTS	0.00	0.00	0.00
SAPPHIRE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	PTS	0.00	0.00	0.00
SCHEELITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SERICITE	0.00	89.60	37.33	44.80	2.69	9.60	PTS	PTS	2.61	44.80	PTS	PTS	PTS	261.33	74.67
SMITHSONITE	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	PTS	PTS	0.00	0.00
SPHENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPINEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ZIRCON	PTS	PTS	0.00	0.00	0.00	0.00	PTS	PTS	PTS	0.00	PTS	PTS	PTS	PTS	0.00



جدول (۳-۲): نتایج آنالیز نمونه های گانی سنگین برداشت شده (ادامه)

SAM.NO.	A2-111	A2-112-H	A2-114-H	A2-115	A2-119-H	A2-120-H	A2-123-H	A2-125-H	A2-126-H	A2-129-H	A2-130-H	A2-133-H	A2-134-H	A2-138-H	A2-139-H
T.V. (cc) (A)	2500	2500	3000	3000	3500	3500	2500	2500	3000	3000	2500	3000	3000	3000	3000
P.V. (cc) (B)	18	10	15	22	15	15	10	15	15	22	10	12	10	8	12
S.V. (cc) (C)	18	10	15	22	15	15	10	15	15	22	10	12	10	8	12
H.V. (cc) (Y)	8	2	2	7	2.2	3	2.4	4	3.2	3.4	2	1.4	2.4	1	1.2
ALT.SIL.	345.60	388.80	288.00	882.00	339.43	370.29	103.68	345.60	230.40	856.80	4.32	25.20	4.32	36.00	129.60
AMPHIBOL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00
ANATASE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANDALUSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AZORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APATITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BARITE	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BORNITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BIOTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AMETYSTE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALCITE	0.86	0.22	0.18	0.63	PTS	PTS	PTS	0.43	PTS	PTS	0.22	0.13	0.22	PTS	PTS
CELESTINE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHAMOSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHALCOPYRITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHROMITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHLORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CINNABAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CERUSSITE	0.00	PTS	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELECTROM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EPIDOTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FELDSPAR	0.86	0.22	0.18	0.63	PTS	PTS	PTS	0.43	PTS	PTS	0.22	0.13	0.22	PTS	PTS
FLOURITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GAHENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GALENA	0.00	PTS	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GARNET	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOETHITE	28.16	70.40	5.87	20.53	5.53	7.54	PTS	14.08	9.39	9.97	422.40	82.13	140.80	205.33	246.40
HEMATITE	339.20	8.48	7.07	24.73	6.66	9.09	PTS	PTS	PTS	120.13	508.80	148.40	169.60	70.67	84.80
HEMIMORPHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HORNBLEND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ILMENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KIANITE	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LEUCOXENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LIMONITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAGNETITE	1.66	PTS	PTS	1.21	PTS	PTS	PTS	0.83	PTS	PTS	PTS	PTS	0.42	PTS	PTS
MALACHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MASSICOT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MONAZITE	1280.00	0.00	PTS	PTS	PTS	0.00	19.20	320.00	320.00	0.00	0.00	0.00	240.00	3.33	0.00
MOSCOVITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE LEAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PHOSPHORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYROLUSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	326.40	0.00	0.00	0.00	0.00	0.00
PYRITE	PTS	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	PTS	PTS	0.00
PYRITE LIMONITE	PTS	PTS	PTS	PTS	PTS	PTS	0.00	PTS	PTS	PTS	0.00	0.00	PTS	0.00	0.00
PYRITE(OXIDE)	3200.00	800.00	800.00	3033.33	628.57	771.43	48.00	1920.00	1173.33	226.67	640.00	373.33	640.00	200.00	200.00
PYROXENES	0.00	PTS	0.00	0.00	0.00	0.00	0.00	PTS	0.00	PTS	0.00	0.00	0.00	0.00	0.00
RUTILE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00
SAPPHIRE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCHEELITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SERICITE	537.60	PTS	3.73	13.07	3.52	144.00	10.75	179.20	119.47	PTS	0.00	156.80	224.00	56.00	2.24
SMITHSONITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPHENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPINEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ZIRCON	PTS	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	0.00	PTS	0.00	PTS	0.00	0.00



جدول (۳-۲): نتایج آنالیز نمونه های کانی سنگین برداشت شده (ادامه)

SAM.NO.	A2-142-H	A2-144-H	A2-150-H	A2-151-H	A2-155-H	A2-156-H	A2-157-H	A2-158-H	A2-159-H	A2-160-H	A2-161-H	A2-163-H	A2-162-H	A2-178-H	A2-179-H
T.V. (cc) (A)	2500	2500	2500	3500	2500	2000	3000	3000	3000	3500	3500	2500	2500	3000	3000
P.V. (cc) (B)	10	14	18	10	10	8	10	18	12	10	15	10	14	28	18
S.V. (cc) (C)	10	14	18	10	10	8	10	18	12	10	15	10	14	28	18
H.V. (cc) (Y)	1	1.3	7	2	0.5	0.5	0.5	3.4	2	1	1	0.5	1	4.4	7
ALT.SIL.	43.20	196.56	302.40	123.43	43.20	27.00	0.90	446.76	72.00	1.54	15.43	64.80	43.20	7.92	100.80
AMPHIBOL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANATASE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANDALUSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AZORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APATITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BARITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	PTS	1.05
BORNITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BIOTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AMETYSTE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALCITE	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	0.18	PTS	PTS	PTS	PTS	PTS	0.63
CELESTINE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHAMOSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHALCOPYRITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHROMITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHLORITE	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CINNABAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CERUSSITE	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	91.00
COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELECTROM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EPIDOTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00
FELDSPAR	PTS	PTS	PTS	PTS	0.00	0.00	PTS	0.31	0.18	PTS	PTS	PTS	PTS	PTS	PTS
FLOURITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GAHENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GALENA	0.00	0.00	0.00	PTS	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	105.00
GARNET	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOETHITE	70.40	4.58	PTS	5.03	1.76	PTS	29.33	99.73	234.67	50.29	50.29	1.76	3.52	12.91	20.53
HEMATITE	84.80	5.51	PTS	6.06	2.12	2.65	35.33	120.13	282.67	121.14	212.00	127.20	84.80	621.87	24.73
HEMIMORPHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HORNBLEND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ILMENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KIANITE	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LEUCOXENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	PTS	0.00	0.00	PTS	PTS	0.00	PTS
LIMONITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	PTS
MAGNETITE	PTS	PTS	PTS	PTS	PTS	PTS	0.09	82.51	0.35	0.15	PTS	PTS	0.21	0.76	60.67
MALACHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MASSICOT	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00
MONAZITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	586.67	233.33
MOSCOVITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE COPPER	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE LEAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PHOSPHORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYROLUSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYRITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	93.33
PYRITE LIMONITE	PTS	4.58	739.20	5.03	0.00	0.00	58.67	0.00	0.00	150.86	PTS	0.00	140.80	12.91	1026.67
PYRITE(OXIDE)	320.00	676.00	4200.00	914.29	260.00	250.00	166.67	113.33	666.67	228.57	285.71	160.00	480.00	1466.67	2800.00
PYROXENES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	PTS	PTS	0.00	0.00	0.00	0.00
RUTILE	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	PTS	PTS
SAPHIRE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCHEELITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SERICITE	134.40	PTS	0.00	3.20	33.60	112.00	18.67	634.67	3.73	PTS	0.00	PTS	2.24	164.27	261.33
SMITHSONITE	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	1.03
SPHENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPINEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ZIRCON	0.00	0.00	0.00	PTS	0.00	0.00	PTS	PTS	PTS	0.00	PTS	0.00	PTS	PTS	PTS



جدول (۳-۲): نتایج آنالیز نمونه های کانی سنگین برداشت شده (ادامه)

SAM.NO.	A2-180-H	A2-181-H	A2-182-H	A2-183-H	A2-184-H	A2-185-H	A2-186-H	A2-187-H	A2-188-H	A2-207-H	A2-208-H	A2-209-H	A2-210-H	A2-212-H	A2-215-H
T.V. (cc) (A)	3500	3000	3000	2500	3500	2000	3000	3000	3500	3000	3000	3500	3500	2500	3000
P.V. (cc) (B)	10	12	15	22	25	10	18	12	15	16	13	13	18	10	20
S.V. (cc) (C)	10	12	15	22	25	10	18	12	15	16	13	13	18	10	20
H.V. (cc) (Y)	1.2	1.4	3.2	8	6	1.2	5	1.4	2.2	2.4	3	2.3	2.4	2	1.4
ALT.SIL.	74.06	2.52	57.60	172.80	9.26	97.20	9.00	2.52	33.94	43.20	54.00	106.46	74.06	129.60	75.60
AMPHIBOL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANATASE	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANDALUSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AZORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APATITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BARITE	PTS	0.00	0.00	PTS	0.00	0.00	PTS	0.21	PTS	PTS	0.45	PTS	PTS	PTS	PTS
BORNITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BIOTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AMETYSTE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALCITE	PTS	PTS	PTS	0.86	0.46	0.16	0.45	0.13	0.17	0.22	PTS	PTS	PTS	PTS	PTS
CELESTINE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHAMOSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHALCOPYRITE	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHROMITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHLORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CINNABAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CERUSSITE	0.00	PTS	PTS	PTS	PTS	0.00	PTS	0.30	PTS	PTS	PTS	PTS	0.00	PTS	0.00
COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELECTROM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EPIDOTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FELDSPAR	PTS	PTS	PTS	0.86	PTS	PTS	PTS	PTS	0.17	PTS	PTS	PTS	PTS	PTS	PTS
FLOURITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GAHENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GALENA	0.00	PTS	PTS	PTS	PTS	0.00	PTS	0.35	PTS	PTS	PTS	PTS	0.00	PTS	0.00
GARNET	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOETHITE	PTS	4.11	9.39	28.16	15.09	5.28	58.67	4.11	5.53	7.04	88.00	115.66	60.34	70.40	82.13
HEMATITE	72.69	197.87	226.13	678.40	363.43	63.60	106.00	49.47	66.63	84.80	212.00	6.97	218.06	508.80	98.93
HEMIMORPHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HORNBLEND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ILMENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KIANITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LEUCOXENE	0.00	0.00	0.00	0.00	0.00	PTS	PTS	0.00	PTS	PTS	0.00	PTS	0.00	0.00	PTS
LIMONITE	0.00	PTS	PTS	PTS	PTS	0.00	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS
MAGNETITE	0.18	PTS	PTS	1.66	0.89	0.31	0.87	0.24	0.33	0.42	0.52	0.34	0.36	0.42	PTS
MALACHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MASSICOT	0.00	0.00	0.00	0.00	PTS	0.00	0.00	PTS	0.00	PTS	0.00	0.00	PTS	0.00	PTS
MONAZITE	171.43	280.00	533.33	1600.00	685.71	120.00	500.00	186.67	314.29	400.00	200.00	131.43	274.29	240.00	93.33
MOSCOVITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE LEAD	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PHOSPHORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYROLUSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.20	6.31	PTS	0.00	0.00
PYRITE	PTS	PTS	0.00	1.60	0.86	0.00	PTS	0.23	PTS	0.40	0.50	0.00	0.34	PTS	PTS
PYRITE LIMONITE	0.00	PTS	187.73	563.20	301.71	PTS	293.33	82.13	5.53	7.04	616.00	289.14	241.37	211.20	82.13
PYRITE(OXIDE)	205.71	373.33	1066.67	3200.00	2057.14	360.00	2166.67	513.33	628.57	800.00	700.00	460.00	411.43	160.00	326.67
PYROXENES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	PTS	PTS	0.00
RUTILE	PTS	0.00	0.00	PTS	0.00	PTS	0.00	0.00	0.00	PTS	0.00	PTS	PTS	PTS	0.00
SAPHIRE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCHEELITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SERICITE	57.60	52.27	5.97	17.92	9.60	268.80	93.33	52.27	105.60	134.40	5.60	36.80	3.84	89.60	52.27
SMITHSONITE	0.00	0.00	0.00	PTS	PTS	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPHENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00
SPINEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ZIRCON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	PTS	PTS	0.00	PTS



جدول (۳-۲): نتایج آنالیز نمونه های کانی سنگین برداشت شده (ادامه)

SAM.NO.	A2-219-H	A2-222-H	A2-226-H	A2-228-H	A2-234-H	A2-237-H	A2-241-H	A2-242-H	A2-245-H	A2-246-H	A2-232-H	A2-247-H	A2-249-H	A2-252-H	A2-254-H
T.V. (cc) (A)	3000	2500	3000	3000	3500	3500	3000	4000	3000	3000	3000	2500	2500	3000	3000
P.V. (cc) (B)	13	10	11	14	16	18	12	22	12	12	12	15	17	10	18
S.V. (cc) (C)	13	10	11	14	16	18	12	22	12	12	12	15	17	10	18
H.V. (cc) (Y)	2	2.2	1.4	2.2	6	0.5	1.2	6	2.5	2.4	2	2	3	1.2	1.2
ALT.SIL.	36.00	95.04	2.52	118.80	398.06	92.57	129.60	324.00	90.00	172.80	3.60	86.40	194.40	108.00	2.16
AMPHIBOL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANATASE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANDALUSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AZORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APATITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BARITE	PTS	PTS	PTS	PTS	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00
BORNITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BIOTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AMETYSTE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALCITE	PTS	PTS	PTS	PTS	37.03	PTS	PTS	0.41	PTS	0.00	PTS	PTS	PTS	PTS	PTS
CELESTINE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHAMOSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHALCOPYRITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHROMITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHLORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CINNABAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CERUSSITE	0.00	0.00	PTS	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00
COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELECTROM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00
EPIDOTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FELDSPAR	PTS	PTS	PTS	PTS	27.77	PTS	PTS	0.41	PTS	0.00	PTS	PTS	PTS	PTS	PTS
FLOURITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GAHENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GALENA	0.00	0.00	PTS	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GARNET	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOETHITE	58.67	77.44	246.40	258.13	PTS	0.00	3.52	13.20	7.33	PTS	352.00	PTS	10.56	3.52	70.40
HEMATITE	282.67	279.84	98.93	7.77	726.86	30.29	254.40	318.00	176.67	169.60	424.00	339.20	508.80	212.00	254.40
HEMIMORPHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HORNBLEND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ILMENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KIANITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LEUCOXENE	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00
LIMONITE	PTS	PTS	PTS	0.00	PTS	0.00	PTS	PTS	253.33	PTS	0.00	0.00	PTS	PTS	PTS
MAGNETITE	PTS	PTS	PTS	PTS	0.89	PTS	PTS	0.78	0.43	PTS	PTS	PTS	PTS	PTS	PTS
MALACHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MASSICOT	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00
MONAZITE	133.33	176.00	0.00	0.00	685.71	0.00	80.00	750.00	333.33	240.00	0.00	400.00	12.00	120.00	160.00
MOSCOVITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE LEAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PHOSPHORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYROLUSITE	6.40	8.45	PTS	PTS	PTS	0.00	0.00	0.00	0.00	0.00	6.40	0.00	0.00	0.00	0.00
PYRITE	PTS	PTS	PTS	PTS	PTS	0.00	PTS	PTS	PTS	0.00	0.00	PTS	0.00	0.00	0.00
PYRITE LIMONITE	234.67	232.32	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.04	633.60	PTS	PTS
PYRITE(OXIDE)	400.00	616.00	420.00	880.00	1371.43	85.71	240.00	1350.00	666.67	880.00	533.33	720.00	840.00	280.00	320.00
PYROXENES	PTS	PTS	PTS	0.00	PTS	0.00	PTS	PTS	PTS	PTS	0.00	PTS	0.00	PTS	0.00
RUTILE	PTS	PTS	0.00	0.00	0.00	0.00	PTS	PTS	PTS	0.00	PTS	0.00	0.00	0.00	0.00
SAPHIRE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCHEELITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SERICITE	74.67	98.56	78.40	41.07	9.60	0.00	0.00	8.40	4.67	4.48	0.00	4.48	PTS	2.24	2.24
SMITHSONITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPHENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPINEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ZIRCON	PTS	PTS	PTS	PTS	0.00	0.00	PTS	PTS	PTS	0.00	PTS	PTS	0.00	PTS	0.00



جدول (۳-۲): نتایج آنالیز نمونه های کانی سنگین برداشت شده (ادامه)

SAM.NO.	A2-257-H	A2-260-H	A2-262-H	A2-263-H	A2-264	A2-268-H	A2-269-H	A2-272-H	A2-274-H	A2-275-H	A2-276-H	A2-280-H	A2-281-H	A2-286-H	A2-288-H
T.V. (cc) (A)	3000	2000	2000	3000	3000	3000	3500	2500	3000	3000	3000	3000	3500	2500	2500
P.V. (cc) (B)	20	10	15	8	12	15	18	10	10	17	14	10	17	12	8
S.V. (cc) (C)	20	10	15	8	12	15	18	10	10	17	14	10	17	12	8
H.V. (cc) (Y)	6	2	3.2	1.3	4	3.2	5	1	2.3	1.2	3	1	2.4	1.2	1.4
ALT.SIL.	10.80	108.00	345.60	93.60	813.60	230.40	462.86	172.80	289.80	172.80	378.00	126.00	188.85	155.52	181.44
AMPHIBOL	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00
ANATASE	0.00	0.00	0.00	0.00	PTS	PTS	PTS	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00
ANDALUSITE	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	PTS	0.00	0.00	PTS	PTS	0.00	0.00
AZORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APATITE	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BARITE	180.00	PTS	14.40	PTS	PTS	PTS	PTS	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00
BORNITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BIOTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AMETYSTE	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALCITE	PTS	PTS	PTS	PTS	36.00	PTS	PTS	PTS	12.42	PTS	PTS	PTS	PTS	PTS	PTS
CELESTINE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHAMOSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHALCOPYRITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHROMITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHLORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00
CINNABAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CERUSSITE	0.00	0.00	PTS	0.00	PTS	PTS	PTS	0.00	PTS	PTS	0.00	0.00	PTS	0.00	0.00
COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELECTROM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EPIDOTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00
FELDSPAR	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS
FLOURITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GAHENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GALENA	0.00	0.00	PTS	0.00	0.00	PTS	PTS	0.00	PTS	PTS	0.00	0.00	0.51	0.00	0.00
GARNET	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	6.13	0.00	PTS	0.00	PTS	0.00	0.00
GOLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOETHITE	16.54	8.80	PTS	3.81	234.67	8.82	125.71	PTS	PTS	PTS	PTS	PTS	PTS	PTS	98.56
HEMATITE	402.80	530.00	339.20	183.73	282.67	644.48	605.71	4.24	243.80	4.24	10.60	35.33	130.83	5.09	237.44
HEMIMORPHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HORNBLEND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ILMENITE	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KIANITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.60	0.00	0.00	PTS	PTS	0.00	0.00
LEUCOXENE	0.00	0.00	0.00	PTS	18.67	0.37	0.50	PTS	PTS	PTS	0.00	0.00	PTS	0.00	0.00
LIMONITE	PTS	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	PTS	PTS	0.00	PTS
MAGNETITE	1.04	PTS	PTS	0.23	0.69	83.20	0.74	0.21	0.40	PTS	0.52	0.17	99.84	PTS	PTS
MALACHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MASSICOT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MONAZITE	0.00	200.00	320.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MOSCOVITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00
NATIVE LEAD	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PHOSPHORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYROLUSITE	0.00	0.00	0.00	0.00	640.00	389.12	274.29	0.00	0.00	0.00	PTS	0.00	PTS	0.00	0.00
PYRITE	1.00	PTS	PTS	0.00	PTS	PTS	0.00	PTS	PTS	0.00	0.00	PTS	0.34	PTS	PTS
PYRITE LIMONITE	668.80	PTS	PTS	0.00	0.00	PTS	PTS	PTS	PTS	0.00	0.00	PTS	5.43	PTS	4.93
PYRITE(OXIDE)	2700.00	700.00	1600.00	433.33	13.33	608.00	1000.00	400.00	766.67	400.00	1300.00	400.00	802.29	672.00	448.00
PYROXENES	0.00	0.00	0.00	0.00	PTS	PTS	PTS	PTS	PTS	0.00	PTS	PTS	0.00	0.00	0.00
RUTILE	0.00	PTS	0.00	0.00	0.00	PTS	PTS	0.00	PTS	PTS	PTS	PTS	PTS	0.00	0.00
SAPPHIRE	0.00	0.00	0.00	0.00	0.00	0.43	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCHEELITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SERICITE	0.00	224.00	179.20	48.53	0.00	0.00	0.00	44.80	0.00	44.80	0.00	0.00	0.00	PTS	3.14
SMITHSONITE	0.00	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPHENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPINEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ZIRCON	0.00	PTS	0.00	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	0.00	0.00



جدول (۳-۲): نتایج آنالیز نمونه های کانی سنگین برداشت شده (ادامه)

SAM.NO.	A2-289-H	A2-290-H	A2-292-H	A2-291-H	A2-294-H	A2-293-H	A2-298-H	A2-310-H	A2-311-H	A2-317-H	A2-318-H	A2-319-H	A2-321-H	A2-322-H	A2-325-H
T.V. (cc) (A)	2500	3000	3000	3000	3500	2500	3000	3000	3000	2500	2500	3500	3500	3000	3000
P.V. (cc) (B)	15	11	10	12	15	8	12	20	15	10	18	12	10	15	12
S.V. (cc) (C)	15	11	10	12	15	8	12	20	15	10	18	12	10	15	12
H.V. (cc) (Y)	3	2	1.2	0.5	1.4	1.2	2.2	4	1	1	1.3	2.4	1.2	1	1.2
ALT.SIL.	64.80	3.60	64.80	36.00	108.00	77.76	3.96	7.20	108.00	86.40	168.48	148.11	74.06	90.00	64.80
AMPHIBOL	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANATASE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANDALUSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AZORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APATITE	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00
BARITE	0.54	0.30	0.00	0.00	PTS	0.00	PTS	PTS	0.00	0.00	0.00	0.31	0.00	0.00	0.00
BORNITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BIOTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AMETYSTE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALCITE	PTS	PTS	PTS	PTS	PTS	PTS	PTS	0.36	PTS	PTS	PTS	PTS	PTS	PTS	PTS
CELESTINE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHAMOSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHALCOPYRITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHROMITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHLORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CINNABAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CERUSSITE	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00
COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELECTROM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EPIDOTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FELDSPAR	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS
FLOURITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GAHENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GALENA	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00
GARNET	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00
GOLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOETHITE	PTS	PTS	3.52	1.47	PTS	42.24	6.45	234.67	29.33	140.80	4.58	6.03	30.17	2.93	3.52
HEMATITE	254.40	70.67	254.40	106.00	254.40	254.40	466.40	989.33	247.33	254.40	440.96	581.49	290.74	212.00	296.80
HEMIMORPHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HORNBLEND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ILMENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KIANITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LEUCOXENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00
LIMONITE	PTS	PTS	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	0.00	PTS	PTS	PTS	PTS
MAGNETITE	0.62	0.35	PTS	PTS	PTS	PTS	PTS	0.69	PTS	PTS	PTS	0.36	PTS	PTS	PTS
MALACHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARTITE	0.00	0.00	0.00	100.00	280.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MASSICOT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MONAZITE	240.00	333.33	240.00	33.33	PTS	480.00	293.33	533.33	66.67	160.00	104.00	411.43	137.14	166.67	320.00
MOSCOVITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE COPPER	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00
NATIVE LEAD	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PHOSPHORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYROLUSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00
PYRITE	PTS	0.33	PTS	PTS	0.00	PTS	PTS	0.00	0.00	0.00	0.00	PTS	PTS	PTS	0.00
PYRITE LIMONITE	739.20	352.00	PTS	PTS	0.00	PTS	258.13	117.33	PTS	3.52	PTS	PTS	PTS	PTS	PTS
PYRITE(OXIDE)	960.00	533.33	160.00	33.33	80.00	48.00	440.00	800.00	66.67	80.00	208.00	137.14	102.86	100.00	80.00
PYROXENES	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00
RUTILE	PTS	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	PTS	0.00	PTS	PTS	PTS	0.00
SAPPHIRE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCHEELITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SERICITE	6.72	3.73	22.40	0.00	0.00	0.00	0.00	7.47	37.33	2.24	2.91	3.84	PTS	18.67	PTS
SMITHSONITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPHENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPINEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ZIRCON	PTS	PTS	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	PTS	0.00



جدول (۳-۲): نتایج آنالیز نمونه های کانی سنگین برداشت شده (ادامه)

SAM.NO.	A2-328-H	A2-329-H	A2-330-H	A2-332-H	A2-334	A2-335-H	A2-342-H	A2-343-H	A2-346-H	A2-347	A2-351-H	A2-353-H	A2-354-H	A2-361-H	A2-364-H
T.V. (cc) (A)	2500	2500	3000	3000	2500	2500	3000	2500	2500	2500	2500	3500	3500	3000	3000
P.V. (cc) (B)	10	10	8	14	10	8	10	12	10	12	8	15	14	14	15
S.V. (cc) (C)	10	10	8	14	10	8	10	12	10	12	8	15	14	14	15
H.V. (cc) (Y)	1	2	0.5	3.2	0.5	0.5	2	0.5	1	4.2	1.4	3.2	3	2.2	4
ALT.SIL.	86.40	380.16	126.00	748.80	97.20	1.08	216.00	54.00	172.80	907.20	181.44	197.49	92.57	79.20	691.20
AMPHIBOL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00
ANATASE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00
ANDALUSITE	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS
AZORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APATITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BARITE	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.41	0.00	0.00	78.00
BORNITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BIOTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AMETYSTE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALCITE	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	0.45	PTS	0.25	0.23	0.20	PTS
CELESTINE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHAMOSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHALCOPYRITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHROMITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHLORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	10.08	0.00	0.00	0.00	0.00	0.00
CINNABAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CERUSSITE	0.00	0.52	0.00	PTS	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	PTS	0.87
COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELECTROM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EPIDOTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00
FELDSPAR	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	0.25	0.23	0.20	0.36
FLOURITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.33
GAHENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GALENA	0.00	0.60	0.00	PTS	0.00	0.00	0.00	0.00	PTS	PTS	0.00	0.00	0.00	PTS	1.00
GARNET	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS
GOETHITE	3.52	6.62	PTS	PTS	52.80	105.60	5.87	1.76	3.52	PTS	4.93	8.05	7.54	129.07	117.33
HEMATITE	296.80	322.24	35.33	339.20	127.20	169.60	141.33	42.40	169.60	PTS	237.44	290.74	181.71	310.93	706.67
HEMIMORPHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HORNBLEND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ILMENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	250.67
KIANITE	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	PTS
LEUCOXENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.59	0.00	0.00	0.00	0.00	0.00
LIMONITE	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	PTS	PTS	0.00
MAGNETITE	PTS	62.40	PTS	PTS	PTS	PTS	PTS	PTS	0.21	0.87	PTS	PTS	PTS	0.38	69.33
MALACHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MASSICOT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MONAZITE	280.00	PTS	1.67	10.67	PTS	0.00	6.67	2.00	0.00	0.00	5.60	365.71	257.14	0.00	0.00
MOSCOVITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE COPPER	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE LEAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PHOSPHORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYROLUSITE	0.00	72.96	32.00	10.24	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.80
PYRITE	0.00	PTS	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67
PYRITE LIMONITE	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	4.93	PTS	PTS	PTS	0.00
PYRITE(OXIDE)	80.00	152.00	1.67	10.67	0.00	80.00	666.67	180.00	80.00	PTS	392.00	640.00	685.71	880.00	400.00
PYROXENES	0.00	PTS	21.33	136.53	1.28	1.28	PTS	PTS	76.80	1075.20	PTS	PTS	PTS	0.00	8.53
RUTILE	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	PTS
SAPPHIRE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00
SCHEELITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SERICITE	2.24	170.24	0.93	119.47	22.40	22.40	74.67	44.80	67.20	0.00	94.08	102.40	240.00	PTS	0.00
SMITHSONITE	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS
SPHENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPINEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ZIRCON	0.00	0.00	PTS	0.00	0.00	PTS	0.00	0.00	0.00	PTS	0.00	0.00	PTS	0.00	PTS



جدول (۳-۲): نتایج آنالیز نمونه های کانی سنگین برداشت شده (ادامه)

SAM.NO.	A2-367-H	A2-370-H	A2-374-H	A2-376-H	A2-378-H	A2-382-H	A2-384-H	A2-385-H	A2-389-H	A2-393-H	A2-394-H	A2-399-H	A2-400-H	A2-412-H	A2-414-H
T.V. (cc) (A)	2500	3000	3000	2500	2500	3000	3500	2500	2500	3000	3500	2500	3000	3000	3500
P.V. (cc) (B)	16	10	15	17	10	15	16	15	12	16	20	12	16	10	20
S.V. (cc) (C)	16	10	15	17	10	15	16	15	12	16	20	12	16	10	20
H.V. (cc) (Y)	3.4	1.3	6	2.2	1.2	2.2	1.4	1.2	2	2	6	2.4	1.4	1.4	7
ALT.SIL.	176.26	170.82	216.00	285.12	181.44	198.00	129.60	77.76	172.80	108.00	37.03	207.36	100.80	226.80	162.00
AMPHIBOL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANATASE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANDALUSITE	0	0	0	0	0	0	0	0	0	0	PTS	0	0	0	0
AZORITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APATITE	0	0	PTS	0	0	0	0	0	0	0	PTS	0	0	0	0
BARITE	PTS	PTS	PTS	PTS	0	PTS	0	0	0	0	PTS	0	0	0	0
BORNITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BIOTITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AMETYSTE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CALCITE	25.70	4.68	0.54	PTS	0.13	PTS	PTS	PTS	PTS	0.18	0.46	PTS	PTS	PTS	PTS
CELESTINE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CHAMOSITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CHALCOPYRITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CHROMITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CHLORITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CINNABAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PTS
CERUSSITE	PTS	PTS	0.00	PTS	0.00	0.00	0.00	PTS	0.00	0.00	1.11	PTS	0.00	0.00	13.00
COPPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELECTROM	0	0	0	0	0	0	0	0	0	0	PTS	0	0	0	PTS
EPIDOTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FELDSPAR	22.03	0.12	PTS	PTS	PTS	PTS	PTS	PTS	PTS	0.18	PTS	PTS	PTS	PTS	16.20
FLOURITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GAHENITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GALENA	PTS	PTS	0	PTS	0	0	0	0	0	0	1.29	PTS	0	0	2
GARNET	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GOLD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PTS
GOETHITE	718.08	76.27	17.60	PTS	PTS	6.45	3.52	42.24	140.80	352.00	PTS	84.48	205.33	4.11	176.00
HEMATITE	288.32	459.33	848.00	186.56	203.52	155.47	424.00	661.44	1017.60	494.67	1817.14	508.80	346.27	148.40	1272.00
HEMIMORPHITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HORNBLEND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ILMENITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KIANITE	0	0	0	0	0	0	0	0	0	0	PTS	0	0	0	0
LEUCOXENE	PTS	PTS	0	0	0	0	0	0	0	0	PTS	0	0	0	0
LIMONITE	PTS	PTS	PTS	0.00	PTS	PTS	PTS	PTS	6.08	PTS	PTS	PTS	PTS	PTS	PTS
MAGNETITE	0.71	PTS	1.04	PTS	PTS	PTS	PTS	PTS	PTS	PTS	115.89	0.50	PTS	PTS	104.00
MALACHITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MARTITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MASSICOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MONAZITE	0	4.33	800	176.00	96.00	293.33	80.00	96.00	80.00	133.33	514.29	192.00	4.67	280.00	1200.00
MOSCOVITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NATIVE COPPER	0	0	0	0	0	0	0	0	0	0	PTS	0	0	0	0
NATIVE LEAD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHOSPHORITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PYROLUSITE	0	0	19.20	0	0	0	0	0	0	0	0	0	0	0	0
PYRITE	0	21.67	1	PTS	0.24	PTS	0	0	0	0	PTS	PTS	0	0	150
PYRITE LIMONITE	PTS	0.00	528.00	PTS	0	PTS	0	0	0	0	15.09	PTS	PTS	PTS	PTS
PYRITE(OXIDE)	1360	43.33	1400.00	616	336	513	PTS	48	8	133.33	1028.57	576.00	140.00	46.67	1200.00
PYROXENES	0	0	0	PTS	PTS	0	0	PTS	0	0	PTS	0	PTS	0	PTS
RUTILE	PTS	0	PTS	0	0	0	0	0	PTS	0	0	0	0	0	0
SAPHIRE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SCHEELITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SERICITE	0	0	0	147.84	0	82.13	44.80	2.69	44.80	3.73	96.00	107.52	26.13	26.13	11.20
SMITHSONITE	0	0	0	0	0	0	0	0	0	0	PTS	0	0	0	PTS
SPHENE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SPINEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ZIRCON	PTS	0	0	PTS	0	0	0	0	0	0	0	PTS	PTS	0	PTS



جدول (۳-۲): نتایج آنالیز نمونه های کانی سنگین برداشت شده (ادامه)

SAM.NO.	A2-419-H	A2-420-H	A2-422-H	A2-423-H	A2-424-H	A2-425-H	A2-426-H	A2-427-H	A2-428-H	A2-429-H	A2-430-H1
T.V. (cc) (A)	3000	3000	2500	2500	3000	2500	3000	3000	3500	3500	3000
P.V. (cc) (B)	16	18	16	10	14	12	14	15	20	22	18
S.V. (cc) (C)	16	18	16	10	14	12	14	15	20	22	18
H.V. (cc) (Y)	1.2	5	7	1	1.4	1.4	1.3	3	8	7	1
ALT.SIL.	8.64	27.00	151.20	64.80	75.60	151.20	46.80	162.00	370.29	324.00	90.00
AMPHIBOL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANATASE	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANDALUSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00
AZORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APATITE	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BARITE	PTS	0.75	1.26	0.00	PTS	0.00	0.00	PTS	PTS	0.00	0.00
BORNITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BIOTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AMETYSTE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALCITE	0.11	PTS	PTS	PTS	PTS	PTS	PTS	0.27	0.62	0.54	PTS
CELESTINE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHAMOSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHALCOPYRITE	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHROMITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHLORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CINNABAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CERUSSITE	0.00	PTS	PTS	0.00	PTS	0.00	0.00	PTS	0.00	0.00	0.00
COPPER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELECTROM	PTS	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00
EPIDOTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FELDSPAR	PTS	PTS	PTS	0.00	PTS	PTS	PTS	PTS	PTS	0.54	PTS
FLOURITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GAHENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GALENA	0.00	PTS	PTS	0.00	PTS	0.00	0.00	PTS	0.00	0.00	0.00
GARNET	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOETHITE	70.40	586.67	24.64	35.20	4.11	4.93	152.53	352.00	20.11	352.00	2.93
HEMATITE	424.00	1060.00	1484.00	169.60	98.93	237.44	275.60	424.00	969.14	848.00	106.00
HEMIMORPHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HORNBLEND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ILMENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KIANITE	0.00	0.60	1.01	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00
LEUCOXENE	0.00	PTS	PTS	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00
LIMONITE	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS
MAGNETITE	PTS	138.67	1.46	PTS	PTS	PTS	PTS	0.52	1.19	1.04	PTS
MALACHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MASSICOT	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MONAZITE	240.00	1000.00	1400.00	360.00	373.33	224.00	173.33	10.00	685.71	600.00	200.00
MOSCOVITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE COPPER	0.00	PTS	PTS	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00
NATIVE LEAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PHOSPHORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYROLUSITE	0.00	16.00	26.88	0.00	0.00	PTS	PTS	PTS	21.94	19.20	0.00
PYRITE	PTS	PTS	PTS	0.00	PTS	0.00	0.00	0.00	PTS	PTS	0.00
PYRITE LIMONITE	PTS	14.67	24.64	0.00	PTS	PTS	PTS	PTS	PTS	17.60	PTS
PYRITE(OXIDE)	40.00	666.67	2520.00	4.00	326.67	392.00	86.67	800.00	1828.57	1600.00	133.33
PYROXENES	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00
RUTILE	0.00	PTS	PTS	0.00	0.00	0.00	0.00	PTS	PTS	0.00	PTS
SAPPHIRE	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCHEELITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SERICITE	PTS	9.33	PTS	67.20	2.61	3.14	48.53	56.00	256.00	11.20	37.33
SMITHSONITE	0.00	PTS	1.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPHENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPINEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ZIRCON	0.00	PTS	PTS	0.00	0.00	PTS	0.00	PTS	0.00	0.00	0.00



جدول (۴-۲): نتایج آنالیز نمونه های کانی سنگین برداشت شده در فاز کنترل صحرایی

SAM.NO.	A2-24-H	A2-32-H	A2-41-H	A2-44-H	A2-90-H	A2-108-H	A2-109-H	A2-116-H	A2-117-H	A2-132-H	A2-174-H	A2-190-H	A2-191-H	A2-195-H	A2-198-H	A2-200-H	A2-202-H	A2-205-H	A2-206-H	A2-255-H
T.V. (cc) (A)	4500	4000	4000	5500	5000	5500	4500	4500	4000	4500	4500	4000	4000	5000	5500	5000	5500	4500	4000	4000
P.V. (cc) (B)	30	28	30	27	30	22	27	15	14	28	20	25	20	19	27	28	20	14	26	17
S.V. (cc) (C)	30	28	30	27	30	22	27	15	14	28	20	25	20	19	27	28	20	14	26	17
H.V. (cc) (V)	5	12	13	2	8	0.5	1.5	1	1	2	1	2	5	10	3.2	9	1.5	2.5	5	1.8
ALT.SIL.	432.00	648.00	1228.50	47.13	172.80	39.27	131.40	84.00	81.00	192.00	96.00	162.00	405.00	432.00	157.09	486.00	73.64	60.00	472.50	194.40
AMPHIBOL	0.00	0.00	0.00	PTS	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANATASE	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APATITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00
BARITE	0.50	1.35	1.46	0.16	0.72	PTS	0.15	PTS	PTS	PTS	PTS	PTS	0.00	0.00	0.00	PTS	PTS	PTS	PTS	0.20
BROCHANTITE	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALCITE	0.30	0.81	PTS	0.10	0.43	PTS	PTS	0.06	0.07	0.12	PTS	0.14	PTS	0.54	PTS	PTS	PTS	0.15	PTS	PTS
CHLORITE	PTS	PTS	PTS	0.00	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CINNABAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CERUSSITE	PTS	0.00	0.00	0.24	PTS	0.06	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELECTROME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EPIDOTS	PTS	PTS	0.00	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FELDSPAR	PTS	0.81	0.88	PTS	PTS	0.00	PTS	PTS	PTS	PTS	PTS	PTS	PTS	0.54	0.00	0.00	0.00	0.00	0.00	0.00
FLOURITE	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GALENA	PTS	0.00	0.00	0.27	1.20	0.07	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GARNET	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOETHITE	215.11	26.40	PTS	57.60	281.60	PTS	2.64	39.11	44.00	78.22	78.22	4.40	PTS	PTS	PTS	PTS	2.40	PTS	PTS	PTS
HEMATITE	259.11	1272.00	344.50	138.76	339.20	0.96	31.80	23.56	53.00	4.71	47.11	212.00	265.00	21.20	306.36	381.60	115.64	235.56	530.00	190.80
ILMENITE	PTS	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KIANITE	7.20	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LEUCOXENE	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LIMONITE	PTS	PTS	0.00	0.00	0.00	PTS	PTS	PTS	PTS	PTS	PTS	0.00	PTS	PTS	0.00	PTS	PTS	PTS	PTS	PTS
MAGNETITE	138.67	1.96	1.69	52.95	0.83	0.05	34.67	0.12	0.13	0.23	0.12	0.26	0.65	1.04	0.30	0.94	PTS	0.29	0.65	PTS
MALACHITE	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MASSICOT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MONAZITE	PTS	1200.00	1950.00	0.00	1280.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00	12.50	800.00	290.91	720.00	54.55	111.11	250.00	90.00
NATIVE COPPER	PTS	0.00	0.00	PTS	0.00	0.08	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE LEAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NATIVE ZINC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OLIGISTE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYROLUSITE	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYRITE	PTS	PTS	PTS	PTS	PTS	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYRITE LIMONITE	PTS	PTS	0.00	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PYROTEOXIDE	600.00	1800.00	1300.00	327.27	640.00	90.91	300.00	222.22	250.00	444.44	88.89	500.00	1250.00	2400.00	290.91	1260.00	190.91	555.56	875.00	270.00
PYROXENES	PTS	PTS	PTS	PTS	PTS	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RUTILE	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SAPPHIRE	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SERICITE	112.00	336.00	364.00	36.65	179.20	10.18	33.60	1.24	1.40	PTS	24.89	PTS	140.00	PTS	201.60	30.55	62.22	7.00	2.52	0.00
SMITHSONITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPHALERITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ZIRCON	PTS	PTS	0.00	PTS	0.00	0.00	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	0.00	0.00	0.00	0.00	0.00	0.00



جدول (۴-۷): نتایج آنالیز نمونه های کانی سنگین بر داشت شده در فاز کنترل صحرایی (ادامه)

SAM.NO.	H2-256-H	H2-258-H	A2-301-H	A2-302-H	A2-306-H	A2-308-H	A2-313-H	A2-348-H	A2-357-H	A2-362-H	A2-363-H	A2-372-H	A2-373-H	A2-383-H	A2-397-H	A2-404-H	A2-415-H	A2-416-H	A2-430-H2	A2-440-H
T.V. (cc) (A)	4500	5000	5500	4500	5500	5000	5500	4500	4500	5500	5000	5500	5000	5500	4500	4000	4500	5000	4500	4500
P.V. (cc) (B)	12	14	15	17	14	25	22	20	23	28	24	8	15	26	10	20	8	28	28	25
S.V. (cc) (C)	12	14	15	17	14	25	22	20	23	28	24	8	15	26	10	20	8	28	28	25
H.V. (cc) (Y)	2.2	4.5	2.5	1.5	1.8	3	3.3	0.5	4.2	3.2	6	1.5	2.5	1	1.8	2	2.2	3.5	2	1
ALT.SIL.	105.60	243.00	98.18	180.00	88.36	356.40	291.60	36.00	201.60	188.51	194.40	132.55	135.00	78.55	21.60	135.00	241.92	168.00	24.00	
AMPHIBOL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANATASE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APATITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BARITE	PTS	0.41	PTS	PTS	PTS	0.00	27.00	0.00	PTS	PTS	0.54	PTS	PTS	PTS	PTS	PTS	37.80	PTS	PTS	
BROCHANTITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALCITE	PTS	PTS	0.12	PTS	PTS	PTS	8.10	PTS	0.25	0.16	PTS	PTS	PTS	PTS	0.14	PTS	15.12	PTS	PTS	
CHLORITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CINNABAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CERUSSITE	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELECTROME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EPIDOTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FELDSPAR	PTS	PTS	PTS	PTS	PTS	PTS	0.00	PTS	0.25	0.16	PTS	PTS	PTS	PTS	PTS	0.14	0.00	PTS	PTS	
FLOURITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GALENA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GARNET	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GOETHITE	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	PTS	48.00	4.40	1.60	PTS	PTS	PTS	PTS	PTS	
HEMATITE	207.29	9.54	289.09	70.67	69.38	381.60	95.40	117.78	197.87	431.71	12.72	202.36	318.00	192.73	424.00	530.00	601.02	376.89	141.33	
ILMENITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
KIANITE	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
LEUCOXENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
LIMONITE	PTS	PTS	PTS	PTS	2.49	PTS	0.00	0.00	PTS	0.00	PTS	PTS	PTS	PTS	PTS	0.00	0.00	0.00	0.00	
MAGNETITE	PTS	0.47	PTS	PTS	PTS	PTS	PTS	PTS	0.49	PTS	PTS	PTS	PTS	PTS	0.21	PTS	0.25	0.36	PTS	
MALACHITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
MASSICOT	PTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
MONAZITE	9.78	450.00	272.73	133.33	65.45	0.00	90.00	0.00	186.67	5.82	720.00	0.00	200.00	PTS	40.00	200.00	58.67	252.00	177.78	
NATIVE COPPER	PTS	0.78	PTS	0.00	PTS	0.00	443.70	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.44	PTS	1293.01	0.00	0.00	
NATIVE LEAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
NATIVE ZINC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
OLIGISITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PYROLUSITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PYRITE	PTS	0.00	0.23	PTS	PTS	PTS	PTS	0.00	0.00	0.00	0.14	PTS	PTS	PTS	PTS	PTS	0.00	0.00	0.00	
PYRITE LIMONITE	PTS	PTS	PTS	0.00	57.60	0.00	0.00	0.00	0.00	0.00	PTS	PTS	PTS	PTS	PTS	PTS	0.00	0.00	0.00	
PYRITE OXIDE	586.67	900.00	181.82	133.33	229.09	180.00	8460.00	22.22	1026.67	349.09	1200.00	54.55	250.00	36.36	240.00	50.00	63.00	44.44	266.67	
PYROXENES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	PTS	PTS	PTS	0.00	PTS	PTS	0.00	0.00	0.00	0.00	0.00	
RUTILE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SAPHIRE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SERICITE	PTS	PTS	2.55	PTS	36.65	0.00	50.40	12.44	52.27	32.58	67.20	1.53	PTS	1.02	44.80	PTS	PTS	PTS	1.24	
SMITHSONITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPHALERITE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ZIRCON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	



جدول (۴-۳): نتایج آنالیز نمونه های میسر الیزه برداشت شده

Sample No	UNITS	A2-23-M	A2-32-M	A2-108-M1	A2-108-M2	A2-109-M1	A2-109-M2	A2-113-M	A2-116-M	A2-117-M	A2-127-M1	A2-127-M2	A2-127-M3	A2-174-M	A2-184-M	A2-186-M1	A2-186-M2	A2-186-M3
Au	ppb	1.3	<1	4.17	2.95	3.62	<1	3.52	7.43	2.41	107	7.99	15.7	1.8	2.02	2.64	9.1	2.18
Ag	ppm	<0.01	<0.01	<0.01	0.16	<0.01	<0.01	0.07	<0.01	<0.01	0.42	0.72	<0.01	0.02	0.05	<0.01	<0.01	<0.01
Al	ppm	38100	11200	26200	29800	31400	4950	2110	4880	2810	9310	1060	2810	95600	67100	1670	2500	3300
As	ppm	0.8	1.1	2.7	5.1	3.9	2.7	25.5	2.3	5.7	59.9	11.6	206	7.5	2.2	8.5	1050	13.3
B	ppm	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ba	ppm	184	123	145	222	174	28.6	125	172	436	76.6	59.9	64.5	343	214	382	64.5	537
Be	ppm	1	0.4	0.6	1.2	0.7	<0.2	0.5	0.2	<0.2	0.7	<0.2	0.3	1.5	1.6	<0.2	<0.2	0.2
Bi	ppm	0.2	<0.1	<0.1	0.2	0.2	<0.1	0.8	0.2	<0.1	0.3	<0.1	<0.1	<0.1	0.4	<0.1	1.3	<0.1
Ca	ppm	215000	189000	275000	246000	220000	1140	13100	271000	237000	19400	2510	75700	16000	113000	272000	20200	289000
Cd	ppm	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	<0.1	<0.1	0.2	0.3	0.2	<0.1
Ce	ppm	32.4	20.8	23.2	31.4	30.7	2.2	9.4	8.8	5.5	7.4	18	7.1	53.2	38.1	3.7	2.1	3.9
Co	ppm	7.8	2.5	6.4	8.9	6.4	2.5	61	11.4	<0.2	62.3	92.7	145	15.2	11.4	<0.2	62.3	<0.2
Cr	ppm	30	4	22	20	20	34	<2	<2	<2	<2	34	<2	84	62	<2	<2	<2
Cs	ppm	3.4	1.1	3.2	1.9	2.5	0.4	0.3	0.7	0.5	1.1	<0.1	0.3	2.5	6.4	0.4	0.2	0.6
Cu	ppm	14.5	8.4	12.4	27.2	12.9	13.1	992	26.3	10.7	636	205	135	14.4	24.4	11.8	472	<0.2
Fe	ppm	23600	68300	15400	23200	21700	15300	455000	102000	102000	450000	556000	433000	49500	36200	121000	529000	115000
Hg	ppm	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07
K	ppm	10600	3450	7640	6760	8110	592	505	1870	790	2320	102	484	24400	22400	581	597	1170
La	ppm	19	<10	12	19	16	<10	<10	<10	<10	<10	<10	<10	31	23	<10	<10	<10
Li	ppm	47.5	6.2	19.7	19.3	22.5	8.3	2.9	2.5	2.9	12	0.5	14.4	32.8	19.1	11.1	11.1	1.3
Mg	ppm	5690	27800	5010	3960	5270	1800	1390	1970	8980	2140	1180	2130	12400	4200	2990	1600	1870
Mn	ppm	1320	2460	331	3890	2510	552	187	8570	10600	55	230	1700	548	604	13700	2680	11400
Mo	ppm	0.6	0.6	0.3	1.3	0.3	1.9	5.2	5.4	2.8	3.4	15.1	3.7	<0.1	0.3	6	9	6.2
Na	ppm	4850	1440	2570	4980	3040	<10	23	<10	<10	25	53	<10	27800	7070	<10	12	<10
Nb	ppm	6.2	2	3.8	3.7	3.4	0.6	1	1.2	0.6	1.6	0.6	0.8	7.6	6.8	0.6	0.6	0.7
Ni	ppm	21.3	15.3	17.6	20.5	15.7	19	633	17.6	13.6	299	154	150	43.2	33.6	12.6	276	10.5
P	ppm	359	140	290	866	260	155	65	166	126	227	422	313	577	576	91	274	96
Pb	ppm	5.4	3.4	4.1	34.9	6.3	3.9	481	25.3	7.9	68.3	32.7	51.3	8.8	4.5	13.3	307	6.5
Rb	ppm	60.8	25.1	53.9	48	56.6	4.4	3.9	11.3	7	16.3	1.1	3.1	101	128	4.2	4.4	8.9
Re	ppm	0.007	0.006	0.007	0.008	0.007	0.008	0.008	0.008	0.009	0.008	0.008	0.007	0.009	0.008	0.007	0.009	0.007
S	ppm	2640	140	280	120	130	<50	300	<50	120	11000	870	3140	220	210	<50	320	<50
Sb	ppm	0.6	0.4	0.4	2	0.8	0.2	6	1	0.6	5	1.6	3.2	0.2	1	2.4	28.6	0.6
Sc	ppm	8	3	5	6	6	<1	<1	<1	<1	<1	<1	<1	16	12	<1	<1	<1
Sn	ppm	2.6	0.5	1.4	1.2	1	0.7	0.8	0.6	0.2	3	<0.2	1.8	3.4	3.3	0.7	2	0.7
Sr	ppm	578	418	190	227	911	9.8	29.8	84.9	159	28.9	18.7	55.5	107	250	105	42.7	99
Te	ppm	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Th	ppm	3.61	1.7	2.76	2.69	3.12	0.35	0.39	0.7	0.38	1.7	0.36	0.41	8.72	6.95	0.36	0.24	0.39
Ti	ppm	1960	484	1440	1510	1500	103	15	275	103	424	<10	59	5640	3380	99	16	148
Tl	ppm	0.2	<0.1	0.2	0.2	0.2	<0.1	<0.1	0.2	<0.1	0.5	0.2	<0.1	0.3	0.5	<0.1	<0.1	<0.1
U	ppm	1.02	0.71	0.9	1.16	0.91	0.08	5.81	3.31	2.32	1.96	6.52	1.71	1.86	1.61	5.21	3.75	2.7
V	ppm	55	17	39	32	41	7	48	17	33	54	73	46	105	65	18	57	13
W	ppm	0.8	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	0.7	<0.1	<0.1	<0.1
Y	ppm	15.5	12.2	6.32	22.7	13.8	1.13	6.3	10.6	3.2	3.74	9.45	6.01	11	16.1	2.28	0.56	3.22
Zn	ppm	63.1	36.7	41.6	75.3	40.5	15.1	75	49.3	56.9	62.6	68.1	48.7	61.9	162	61.9	38.3	24.8
Zr	ppm	34	12	30	30	34	6	7	9	6	21	<5	6	96	80	<5	<5	<5



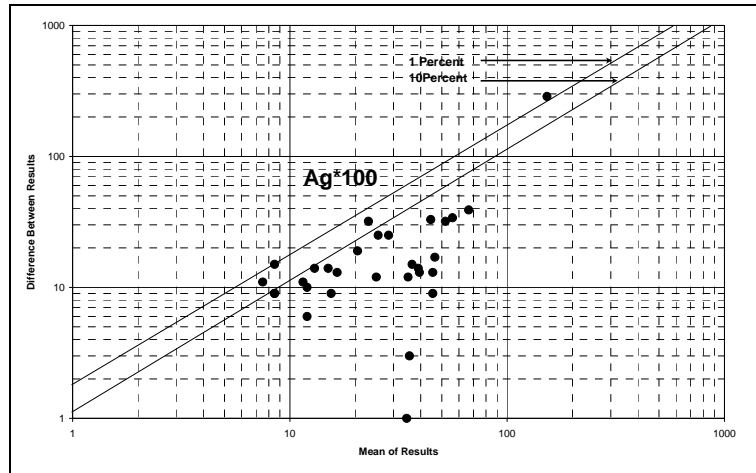
جدول (۴-۳): نتایج آنالیز نمونه های میسر آلبره برداشت شده (ادامه)

Sample No	UNITS	A2-186-M4	A2-191-M	A2-198-M	A2-200-M	A2-202-M	A2-205-M	A2-206-M	A2-255-M1	A2-255-M2	A2-258-M	A2-264-M	A2-293-M	A2-301-M	A2-308-M	A2-310-M	A2-311-M	A2-313-M
Au	ppb	4.59	2.55	3.14	1.24	2.74	<1	4	<1	2.94	1.32	<1	3.05	1.63	1.71	1.79	1.3	2.46
Ag	ppm	0.43	0.25	<0.01	<0.01	<0.01	<0.01	0.02	2.76	7.79	0.1	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Al	ppm	2510	84800	71700	41000	58900	1970	81700	862	1470	346	81500	8350	24800	39200	3450	14600	13300
As	ppm	196	5.9	4.8	1.9	3.4	<0.5	2.1	0.6	1.1	0.7	2.4	5.4	5.5	2.3	25	3	11
B	ppm	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ba	ppm	7630	389	331	180	253	68.8	402	9540	9110	12400	321	877	200	197	81.8	216	167
Be	ppm	0.6	1.8	1.7	1	1.6	0.3	1.9	<0.2	<0.2	<0.2	2.9	1.7	0.9	1.4	0.2	0.7	0.6
Bi	ppm	0.9	0.3	0.3	0.2	0.4	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	0.2
Ca	ppm	179000	71700	125000	224000	133000	199000	70300	459	454	228000	74200	260000	242000	193000	303000	265000	277000
Cd	ppm	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	2.3	14.7	0.3	<0.1	4.2	0.2	<0.1	<0.1	<0.1	<0.1
Ce	ppm	5.3	56.1	41.1	31.1	41.3	13.2	56.2	<0.5	0.6	4	47.8	30.1	24.8	31.5	12.8	13.3	16.6
Co	ppm	17.7	17.7	12.7	7.8	16.5	2.5	16.5	<0.2	5	<0.2	16.5	19	7.8	8.9	7.8	3.8	5
Cr	ppm	<2	84	62	38	54	<2	78	<2	<2	<2	60	<2	38	<2	<2	8	6
Cs	ppm	0.6	6.7	6.6	4	4.6	0.2	6.6	0.3	0.5	<0.1	4.6	0.9	2.5	3.2	0.4	1.4	1.6
Cu	ppm	133	27.4	24.1	13.9	31.9	4	28.7	9.9	31.5	4.5	48.5	9.2	22.4	12.4	76.1	21.1	66.3
Fe	ppm	159000	47300	35700	21600	45400	74700	43500	2190	5240	6670	40300	82900	50900	48600	42200	62600	46700
Hg	ppm	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.13	0.47	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
K	ppm	842	23000	21400	12400	14800	489	21600	88	190	50	17600	2230	7570	9750	586	3860	4040
La	ppm	<10	26	25	16	24	<10	32	<10	<10	<10	29	18	12	16	<10	<10	<10
Li	ppm	2	55.1	38.9	21.5	35.5	1.3	58.6	0.9	1.7	1.1	34.1	4.9	29.1	26.1	1.3	8.6	6.5
Mg	ppm	2110	11400	10000	5600	7520	1750	12200	95	156	1180	6600	3250	3990	9570	1350	5130	2840
Mn	ppm	47000	820	646	418	1560	3260	686	90	200	699	778	6860	2030	2020	1870	2320	2810
Mo	ppm	6.5	0.5	0.3	1.3	0.4	4.5	0.3	<0.1	<0.1	0.2	0.5	3.1	1.1	0.3	2.1	0.8	0.4
Na	ppm	<10	11300	9740	5540	9020	<10	11400	<10	12	<10	287	481	1550	4790	574	1690	1020
Nb	ppm	<0.5	8.7	7.3	4.3	6.1	<0.5	8.2	<0.5	<0.5	<0.5	7.7	1	2.5	3.8	<0.5	1.4	1.4
Ni	ppm	38	41.3	30.3	21.1	29.7	10.6	41.8	3.3	5.1	4.6	36	52.3	19.1	19.7	20.5	15.4	14.5
P	ppm	78	694	580	342	541	350	671	<5	31	17	493	185	278	<5	29	132	157
Pb	ppm	39.5	11.6	10.6	5.1	34.1	1.5	14.1	2350	6630	195	8.4	526	14.8	<0.2	53	8.4	20.2
Rb	ppm	4.7	123	124	67.8	85	3.9	120	1.2	1.8	0.7	99.9	17.1	52.3	64.8	5	28.2	29.1
Re	ppm	0.013	0.008	0.009	0.008	0.008	0.008	0.01	0.014	0.013	0.019	0.009	0.009	0.007	0.008	0.006	0.007	0.008
S	ppm	110	1780	1630	1330	1070	<50	500	1610	1600	1490	3780	220	190	<50	<50	280	140
Sb	ppm	4.8	1	1	0.6	1	0.4	0.8	9	27	1.6	0.6	9.6	1	0.4	0.8	0.2	0.4
Sc	ppm	<1	14	12	7	10	8	14	<1	<1	<1	13	3	5	7	<1	2	2
Sn	ppm	<0.2	2.7	3.4	1.2	2.6	0.5	3.2	<0.2	<0.2	<0.2	3.7	0.2	1.8	2.2	<0.2	1.3	1.3
Sr	ppm	221	211	352	526	209	79	273	<0.1	<0.1	2640	155	170	356	419	524	590	619
Te	ppm	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Th	ppm	0.36	8.24	7.16	4.05	6.04	0.61	9.04	0.06	0.03	0.06	7.44	1.08	2.43	3.85	0.54	1.34	1.16
Ti	ppm	65	4550	3630	2100	2920	63	4310	52	74	29	3890	412	1150	1980	152	658	585
Tl	ppm	0.3	0.5	0.4	0.3	0.4	<0.1	0.5	<0.1	<0.1	<0.1	0.3	0.3	<0.1	0.2	0.5	<0.1	<0.1
U	ppm	3.86	1.84	1.6	1.82	1.44	2.81	1.95	0.02	0.06	0.04	1.69	2.87	1.14	1.15	1.18	1.31	0.99
V	ppm	13	108	95	53	68	8	117	<2	3	2	118	13	37	57	11	21	20
W	ppm	<0.1	0.7	0.6	<0.1	0.3	<0.1	0.7	<0.1	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Y	ppm	1.53	14.2	16.5	12.1	20	32.8	17.6	<0.05	0.23	1.91	19	29.5	14.9	13.3	12.7	10.3	12.2
Zn	ppm	98	138	86.8	54.7	102	26.3	102	2390	8730	171	93.1	1990	240	5.4	32.8	41.8	43
Zr	ppm	8	95	78	42	65	7	96	<5	<5	<5	67	11	24	39	7	18	14

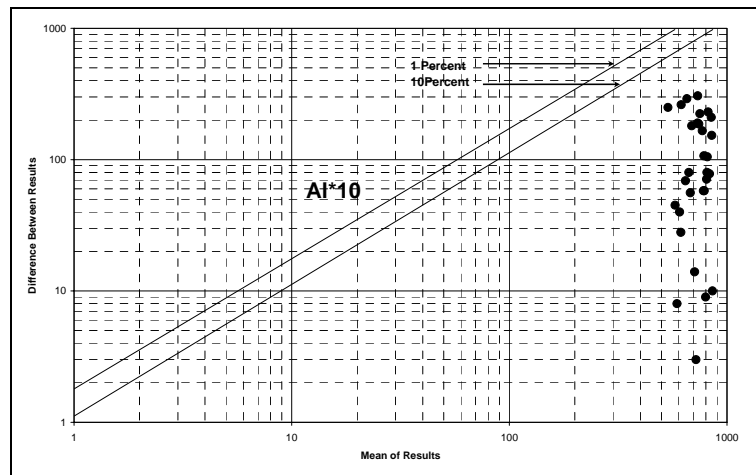


جدول (۴-۴): نتایج آنالیز نمونه های مینرالیزه برداشت شده (ادامه)

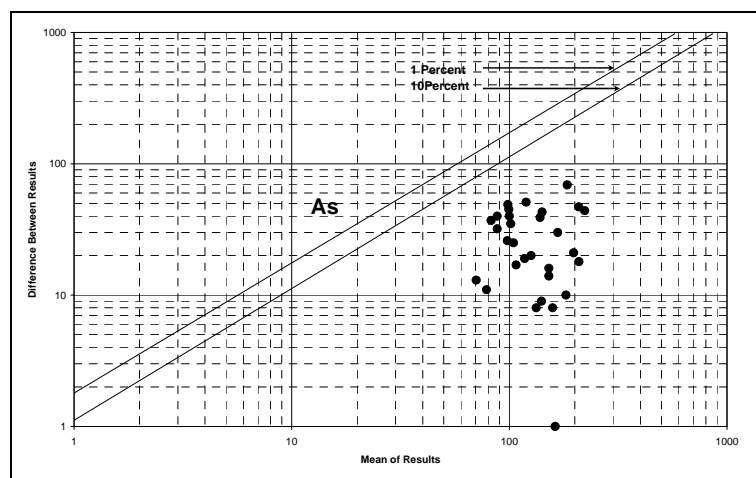
Sample No	UNITS	A2-348-M1	A2-348-M2	A2-348-M3	A2-348-M4	A2-356-M	A2-357-M1	A2-357-M2	A2-362-M1	A2-362-M2	A2-362-M3	A2-362-M4	A2-371-M	A2-372-M	A2-383-M	A2-397-M	A2-398-M	A2-440-M
Au	ppb	1.77	1.73	<1	3.47	13.4	<1	2.12	18.6	17.7	10.5	8.57	1.77	1.97	1.72	1.62	1.91	1.55
Ag	ppm	<0.01	<0.01	0.5	0.1	8.94	0.02	<0.01	0.57	1.66	13.3	4.61	<0.01	0.41	0.04	0.06	<0.01	<0.01
Al	ppm	3150	84900	91100	92200	1350	15100	7390	8270	2170	607	573	3190	1960	11800	15800	72500	5060
As	ppm	5.5	6.7	1.4	0.9	35.5	2.5	7.1	4.1	194	4.2	3	2	13.7	9.8	8.3	7	1.2
B	ppm	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ba	ppm	242	296	299	405	45.7	43.9	330	47.3	58.6	75.4	336	281	22	42.8	83.5	334	31.5
Be	ppm	<0.2	1.8	1	1.8	0.3	0.3	0.3	0.9	<0.2	0.3	1.3	0.4	0.6	0.5	0.9	1.6	0.3
Bi	ppm	<0.1	0.3	<0.1	<0.1	9.6	<0.1	<0.1	5.6	5.4	2.8	0.4	0.1	0.4	0.3	0.5	0.3	0.1
Ca	ppm	308000	65500	70300	45500	53300	109000	355000	27500	48500	2530	5170	93100	944	4040	239000	62800	19400
Cd	ppm	<0.1	<0.1	<0.1	<0.1	12.3	<0.1	<0.1	3	1.3	0.2	0.7	<0.1	<0.1	<0.1	0.1	<0.1	0.1
Ce	ppm	32.9	50.6	24.3	47.6	8.5	11.2	28.9	10.2	7.4	1	9.8	5.2	6.3	5.3	18.9	38.3	4.6
Co	ppm	<0.2	12.7	31.8	24.1	113	6.4	3.8	154	58.5	41	137	3.1	163	17.6	6.5	3.3	4
Cr	ppm	<2	68	168	100	<2	14	<2	<2	8	<2	<2	3	<2	10	8	43	5
Cs	ppm	<0.1	5.5	1.2	1.4	0.2	0.9	0.9	0.8	0.2	<0.1	<0.1	0.8	0.2	0.7	1.1	5.4	0.3
Cu	ppm	1.4	30.5	88.7	28.5	3440	34	3.6	1720	5900	462	1300	12.6	571	1370	24.6	26	15.5
Fe	ppm	15900	46000	68700	57100	399000	24300	16400	483000	85200	210000	359000	12700	322000	317000	15400	36900	10900
Hg	ppm	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	0.06	<0.05	0.08	<0.05	0.16	<0.05	0.16
K	ppm	134	20100	15300	22800	333	2600	1670	2810	441	126	138	704	361	1510	3880	17800	601
La	ppm	17	30	12	28	<10	<10	14	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Li	ppm	7.1	56.4	45.7	28.6	1.5	19.6	8.5	1.2	1.7	0.6	0.8	4.1	1.5	1.8	6.9	43.8	9
Mg	ppm	3580	13800	35900	24100	2190	5850	2910	1800	707	970	1550	936	745	1770	3840	13300	992
Mn	ppm	2530	807	964	739	1280	642	2170	90	1730	182	501	551	<2	<2	2340	612	323
Mo	ppm	0.2	<0.1	0.4	0.3	1	0.8	0.6	3.7	1.4	1.9	1.7	1	6	16.9	0.9	0.4	1.4
Na	ppm	<10	12100	19500	30400	<10	637	<10	<10	<10	49	50	<10	58	53	3290	9890	448
Nb	ppm	<0.5	7.9	11.7	10.5	<0.5	1	1	1	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	2.5	9.8	<0.5
Ni	ppm	5.1	34.2	77.7	54.8	224	15.7	8.1	220	65.4	45.4	196	10.5	756	58.3	13.1	33.3	15.5
P	ppm	80	703	1050	857	<5	482	338	<5	<5	<5	<5	93	<5	<5	176	367	79
Pb	ppm	13.6	11.2	<0.2	<0.2	3980	11.1	12.4	2210	212	591	144	4.4	20.1	12.1	27.3	6.4	3.7
Rb	ppm	1.2	106	46	63.7	2.2	21.3	12.8	17.5	3.2	0.7	0.7	4.6	2.3	8.9	23.7	83.5	4
Re	ppm	0.008	0.007	0.007	0.008	0.007	0.007	0.008	0.008	0.007	0.012	0.011	0.011	0.009	0.006	0.008	0.008	0.007
S	ppm	<50	1460	190	210	1430	80	50	580	140	430	870	<50	1170	940	<50	680	<50
Sb	ppm	0.2	0.8	1.2	0.2	6	0.4	0.2	3.6	2.4	3.8	6	0.2	1.2	0.8	1.6	0.6	0.2
Sc	ppm	2	15	19	19	<1	2	7	<1	<1	<1	<1	<1	<1	1	3	11	<1
Sh	ppm	<0.2	3	2.3	2.2	7.5	1.5	0.4	5.2	7.5	1.6	1.9	1.5	1.5	1.4	1.7	2.5	1.4
Sr	ppm	1580	279	418	231	64.4	557	357	34.3	37.4	18.3	26.4	202	22.9	32.8	862	194	41.3
Te	ppm	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.4	0.5	<0.2	<0.2	<0.2
Th	ppm	0.23	7.86	1.21	7.09	0.31	0.82	1.3	1.2	0.33	0.08	0.22	0.39	0.48	0.94	2.02	7.34	0.4
Ti	ppm	44	4360	7770	5440	<10	471	356	277	94	<10	<10	139	28	261	816	3510	117
Tl	ppm	<0.1	0.4	<0.1	0.2	<0.2	<0.1	<0.1	<0.1	0.8	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
U	ppm	0.22	1.64	0.33	1.69	1.3	0.21	0.57	2.5	0.85	0.84	2.05	0.24	1.58	5.17	1.13	1.55	0.13
V	ppm	11	90	108	117	34	19	18	54	9	30	52	4	42	42	30	134	9
W	ppm	<0.1	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.3	0.2	0.2	0.2	0.5	1.4	0.3
Y	ppm	16	13.6	14.2	21	3.65	7.55	22.7	5.75	3.38	1.74	6.9	8.68	8.04	4.78	19.1	18.3	2.97
Zn	ppm	18.3	100	92.3	93.6	3010	58.5	20.1	461	564	32.6	104	16.2	46.8	33.7	37.9	93.7	76.9
Zr	ppm	<5	87	58	68	<5	8	11	12	<5	<5	<5	<5	<5	6	16	74	<5



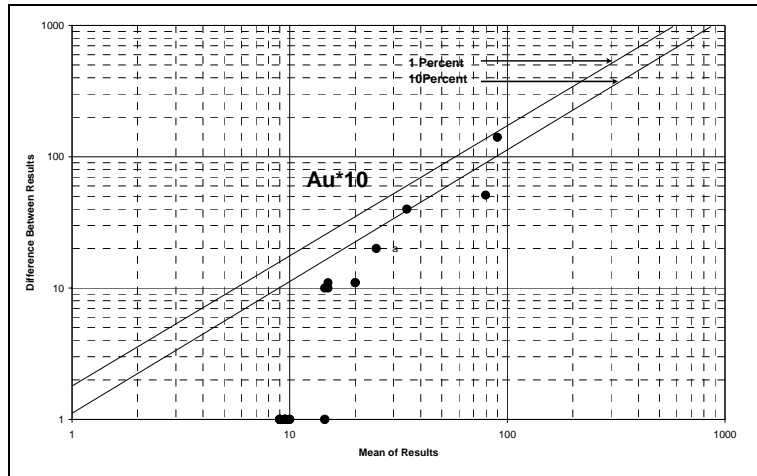
شکل (۲-۲): نمودار خطای آنالیز برای متغیر Ag



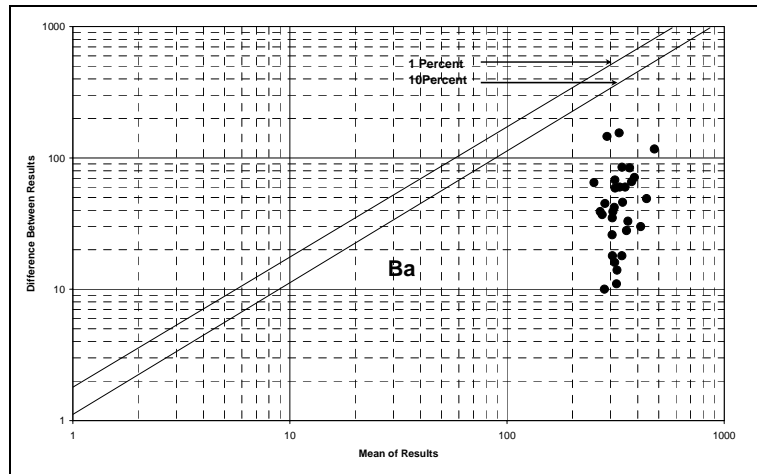
شکل (۳-۲): نمودار خطای آنالیز برای متغیر Al



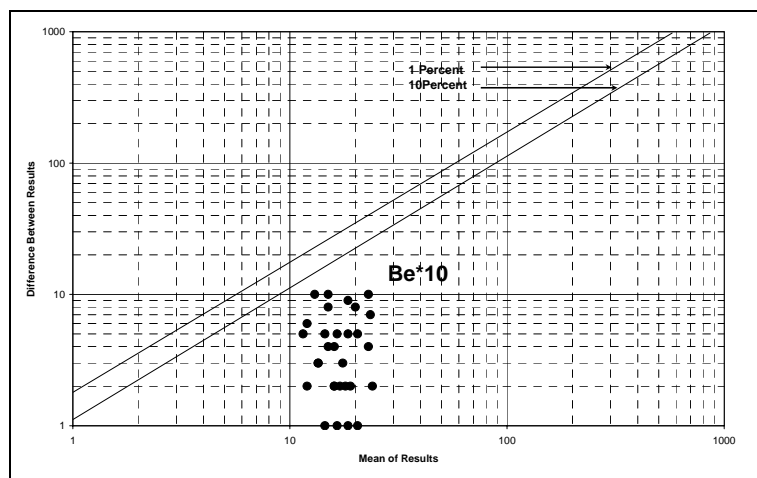
شکل (۴-۲): نمودار خطای آنالیز برای متغیر As



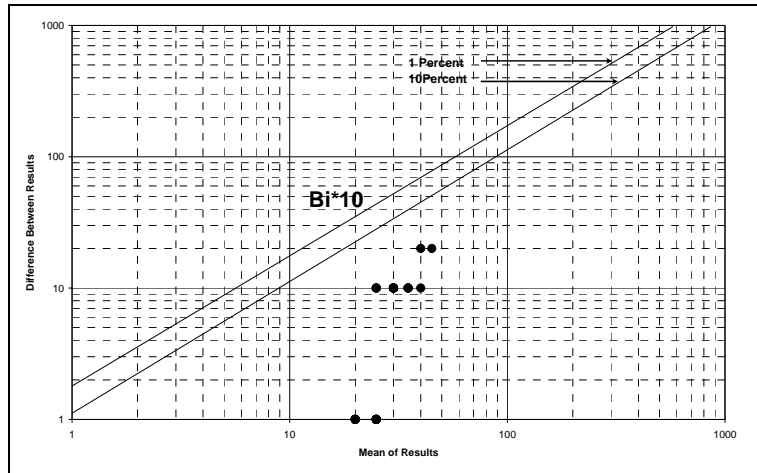
شکل (۲-۵): نمودار خطای آنالیز برای متغیر Au



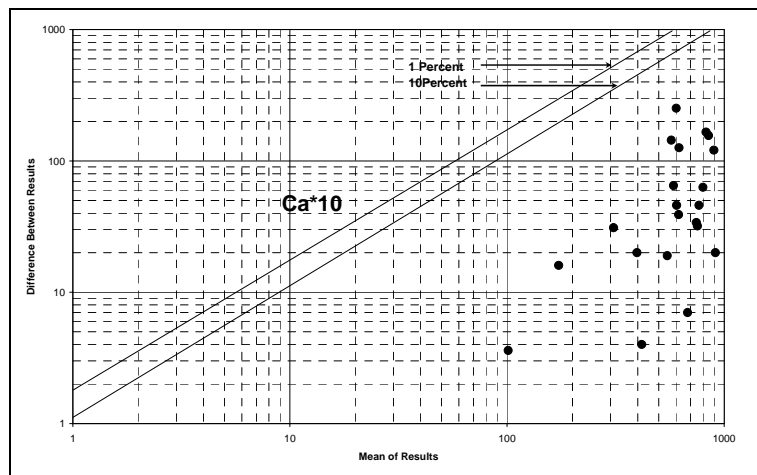
شکل (۲-۶): نمودار خطای آنالیز برای متغیر Ba



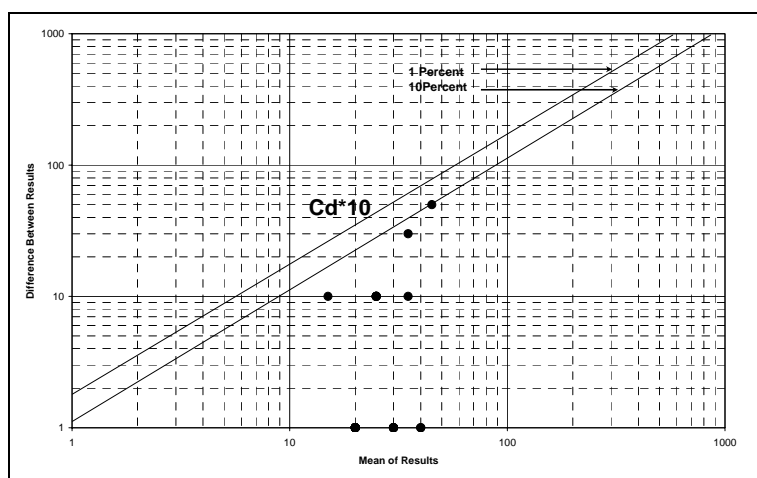
شکل (۲-۷): نمودار خطای آنالیز برای متغیر Be



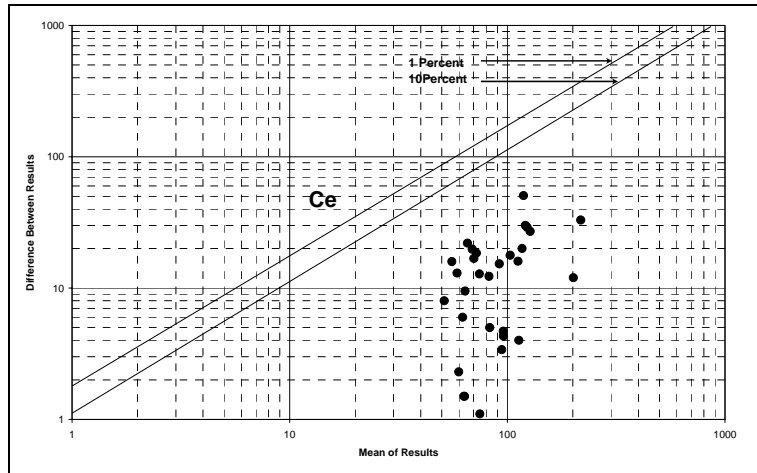
شکل (۲-۸): نمودار خطای آنالیز برای متغیر Bi



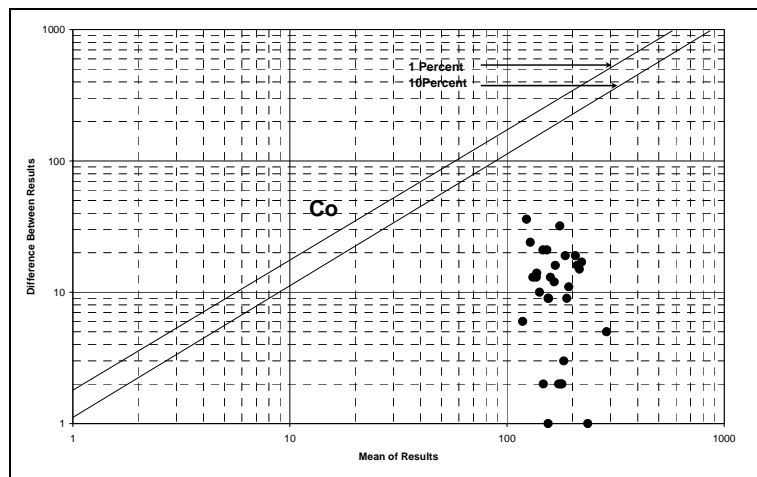
شکل (۲-۹): نمودار خطای آنالیز برای متغیر Ca



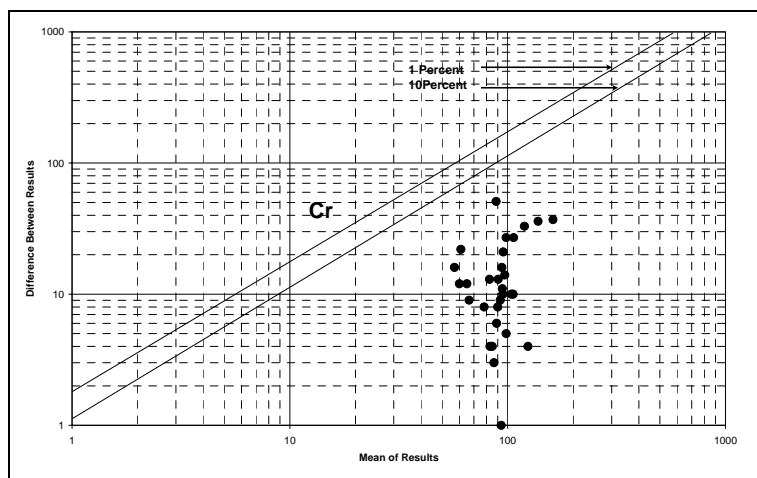
شکل (۲-۱۰): نمودار خطای آنالیز برای متغیر Cd



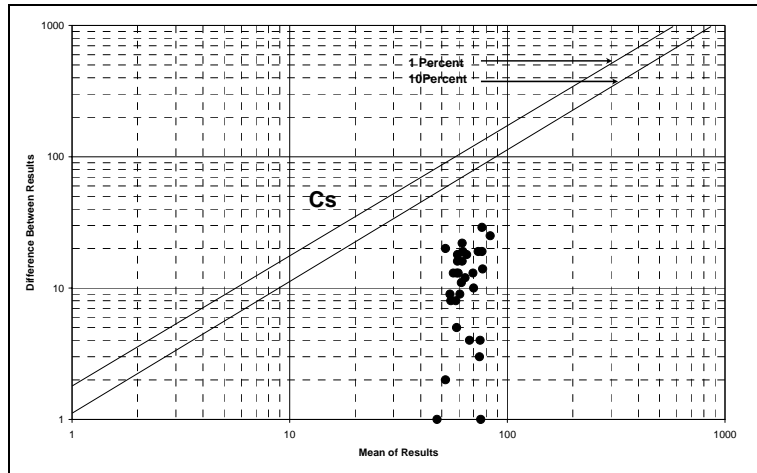
شکل (۲-۱۱): نمودار خطای آنالیز برای متغیر Ce



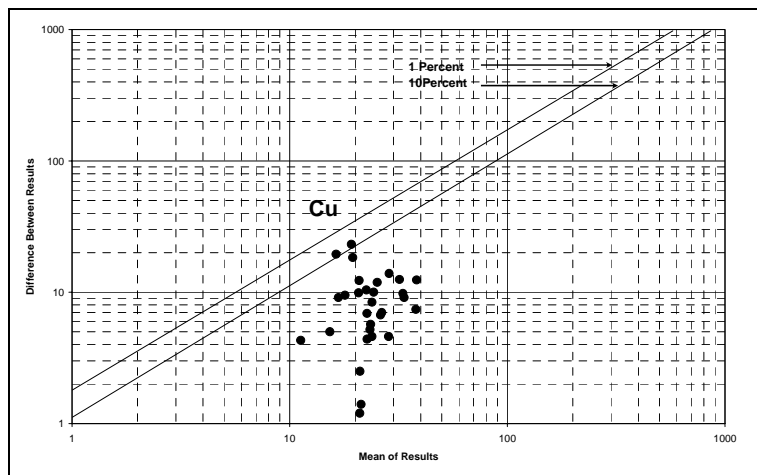
شکل (۲-۱۲): نمودار خطای آنالیز برای متغیر Co



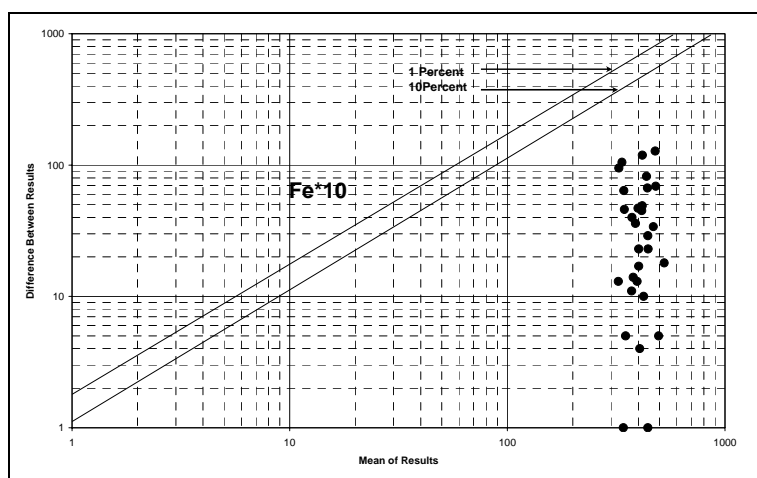
شکل (۲-۱۳): نمودار خطای آنالیز برای متغیر Cr



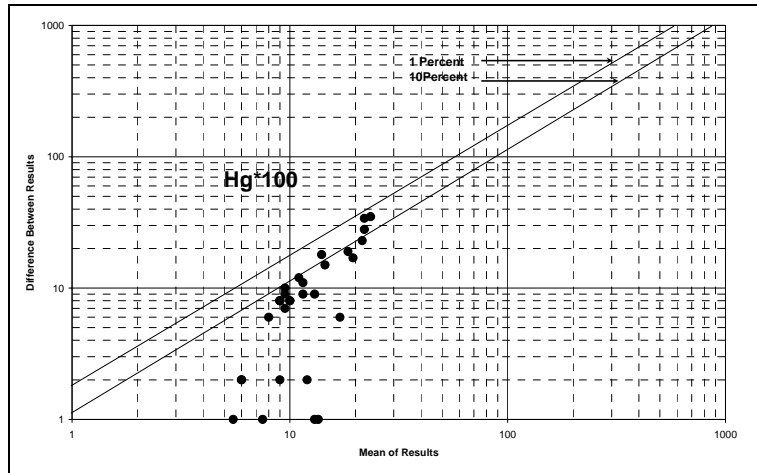
شکل (۲-۱۴): نمودار خطای آنالیز برای متغیر Cs



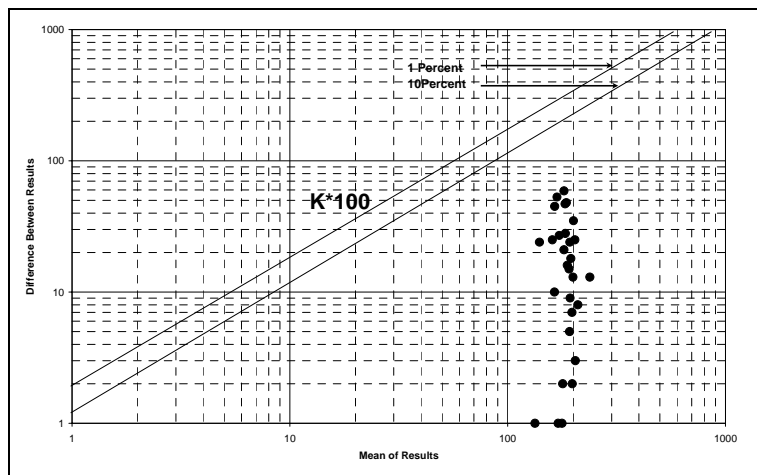
شکل (۲-۱۵): نمودار خطای آنالیز برای متغیر Cu



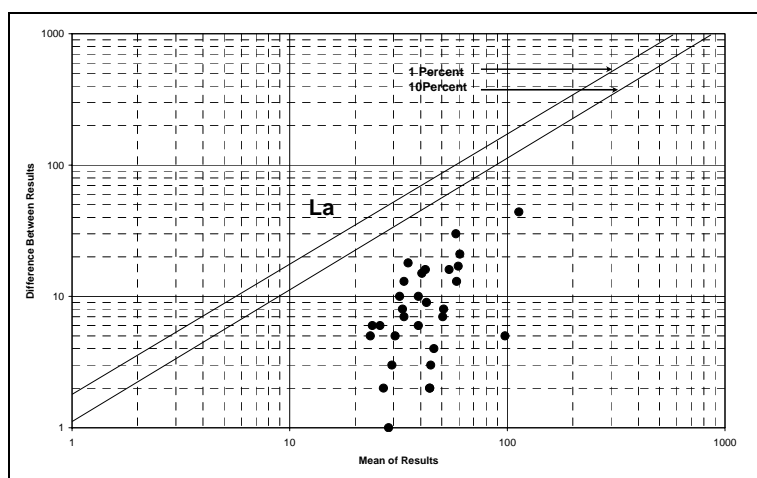
شکل (۲-۱۶): نمودار خطای آنالیز برای متغیر Fe



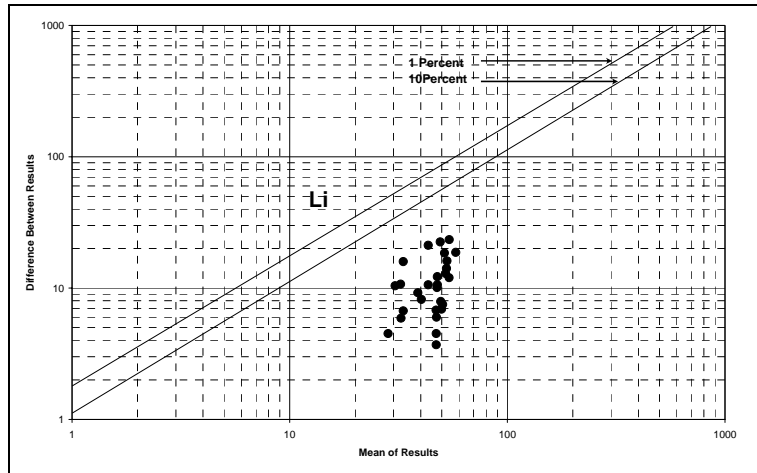
شکل (۲-۱۷): نمودار خطای آنالیز برای متغیر Hg



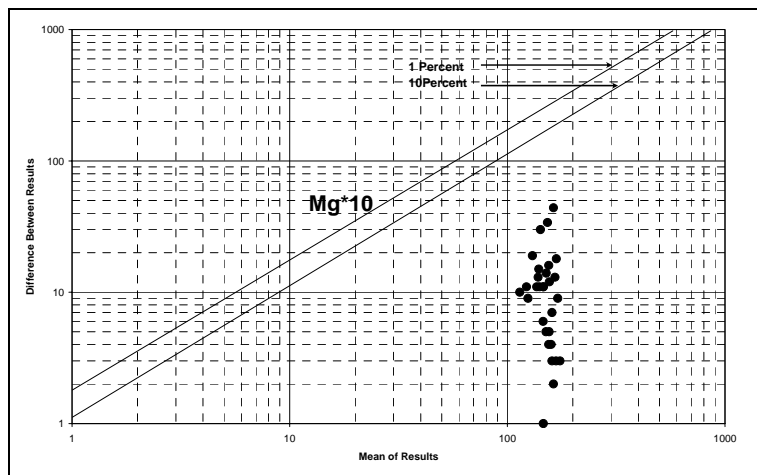
شکل (۲-۱۸): نمودار خطای آنالیز برای متغیر K



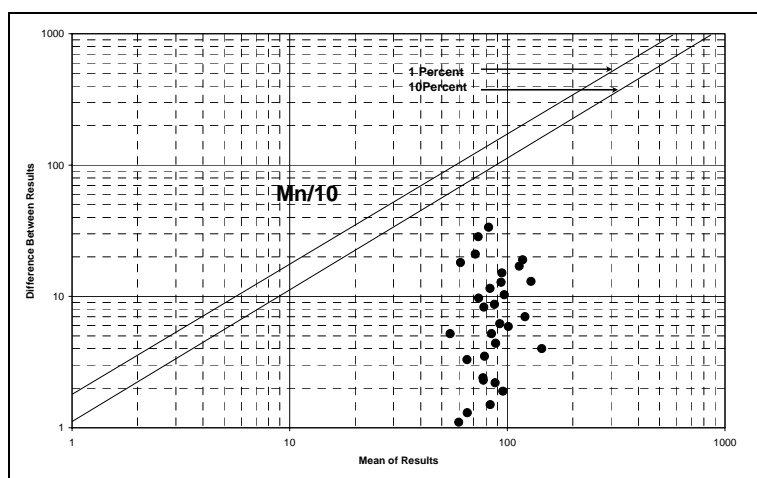
شکل (۲-۱۹): نمودار خطای آنالیز برای متغیر La



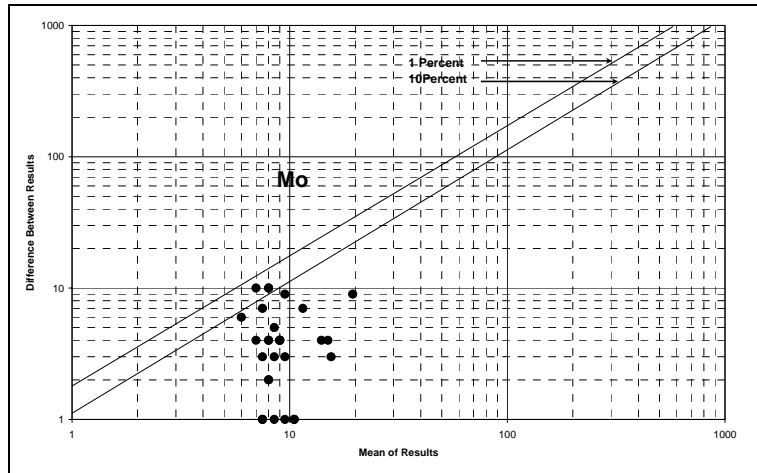
شکل (۲-۲۰): نمودار خطای آنالیز برای متغیر Li



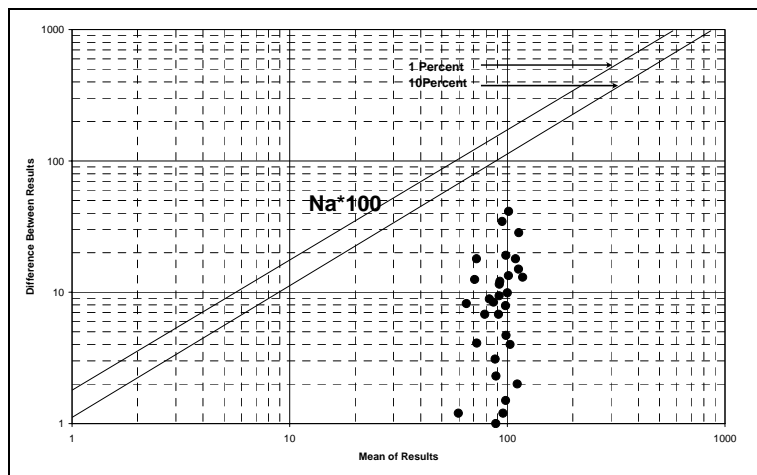
شکل (۲-۲۱): نمودار خطای آنالیز برای متغیر Mg



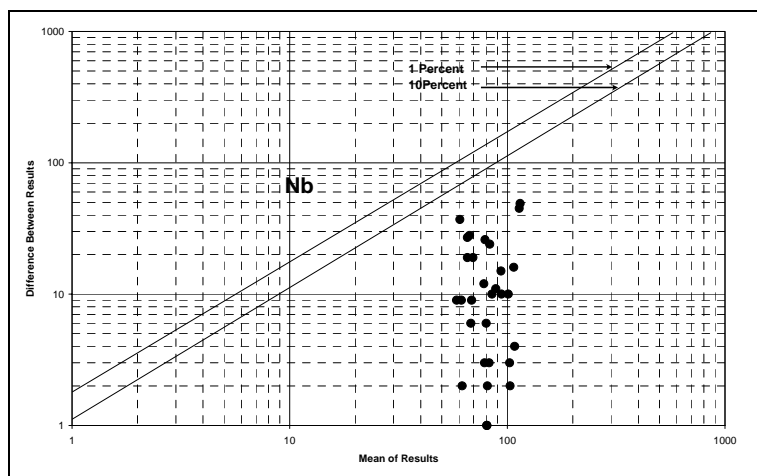
شکل (۲-۲۲): نمودار خطای آنالیز برای متغیر Mn



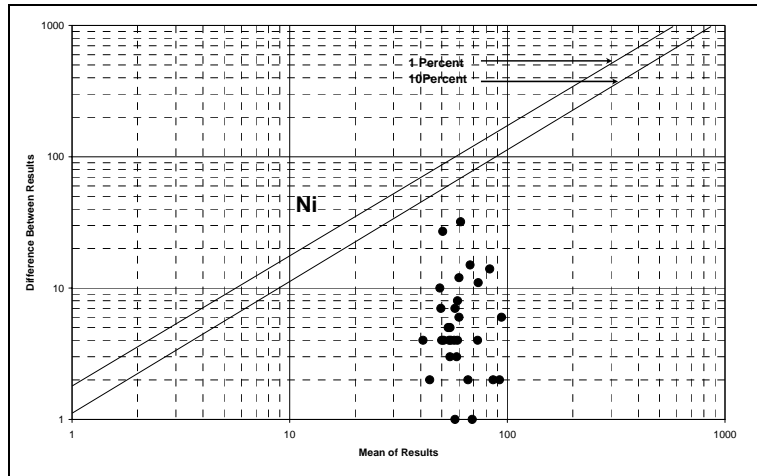
شکل (۲-۲۳): نمودار خطای آنالیز برای متغیر Mo



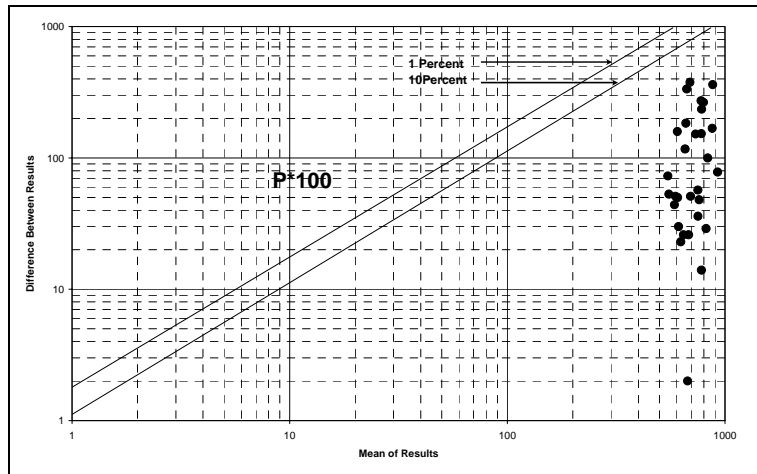
شکل (۲-۲۴): نمودار خطای آنالیز برای متغیر Na



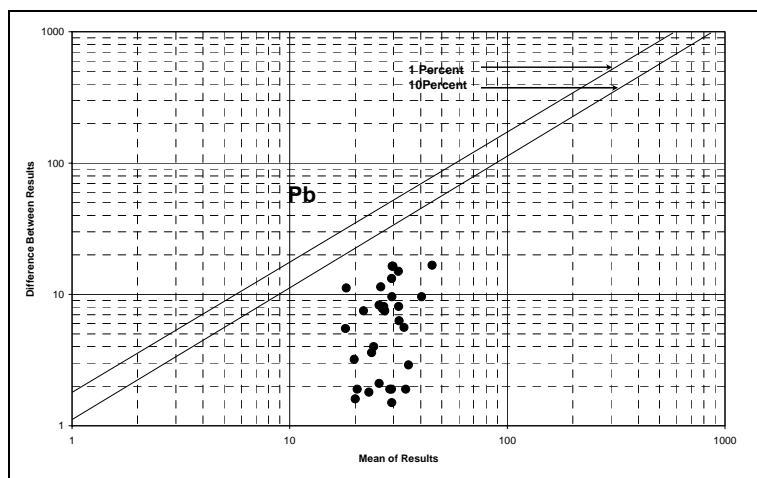
شکل (۲-۲۵): نمودار خطای آنالیز برای متغیر Nb



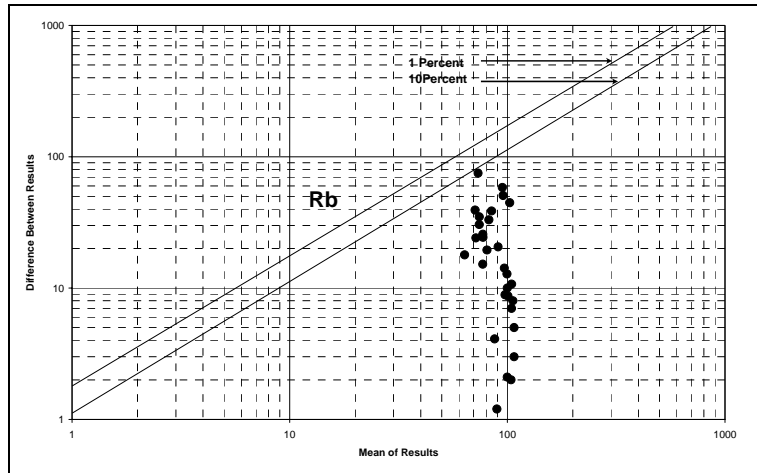
شکل (۲-۲۶): نمودار خطای آنالیز برای متغیر Ni



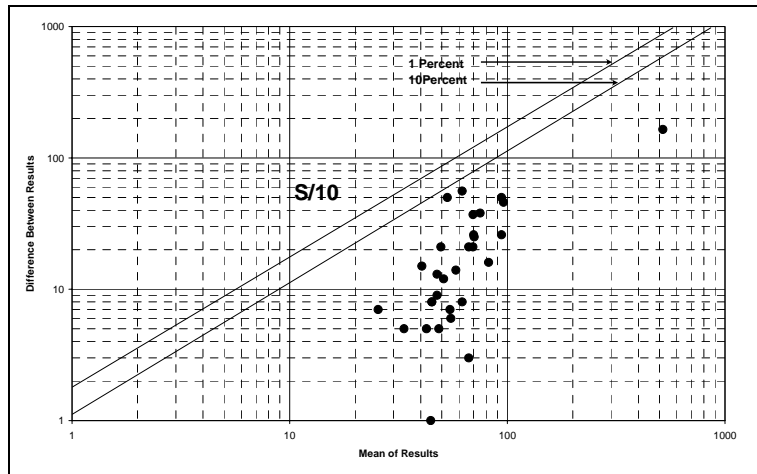
شکل (۲-۲۷): نمودار خطای آنالیز برای متغیر P



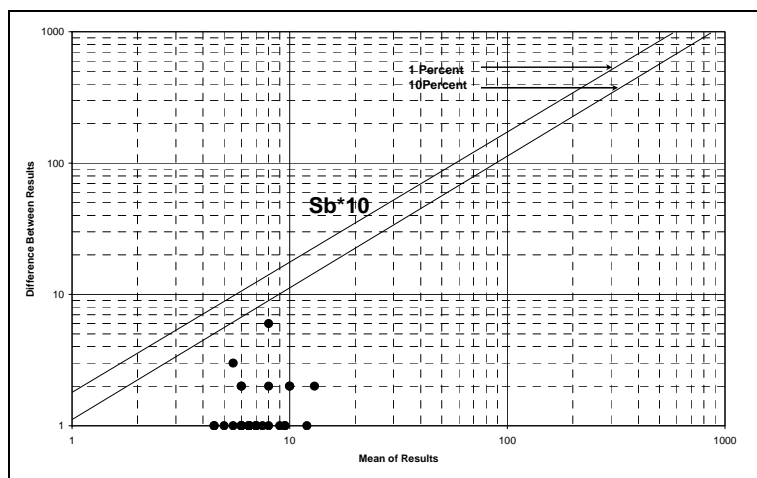
شکل (۲-۲۸): نمودار خطای آنالیز برای متغیر Pb



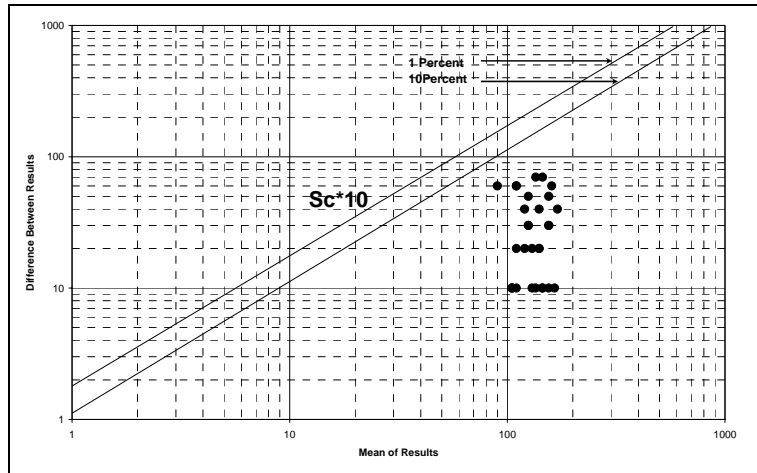
شکل (۲-۲۹): نمودار خطای آنالیز برای متغیر Rb



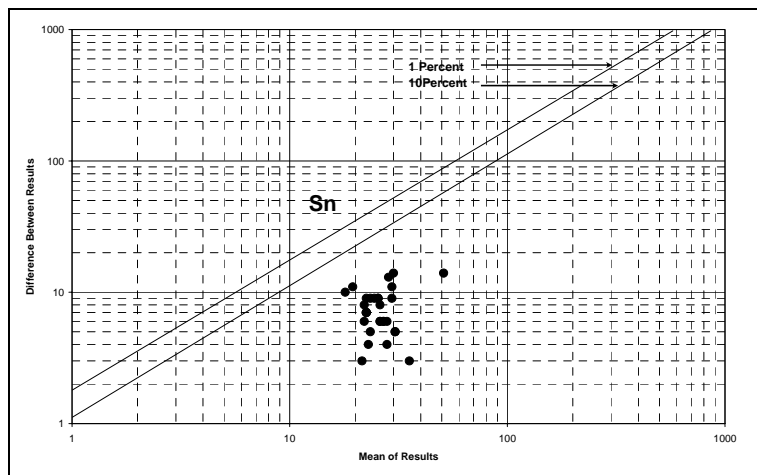
شکل (۲-۳۰): نمودار خطای آنالیز برای متغیر S



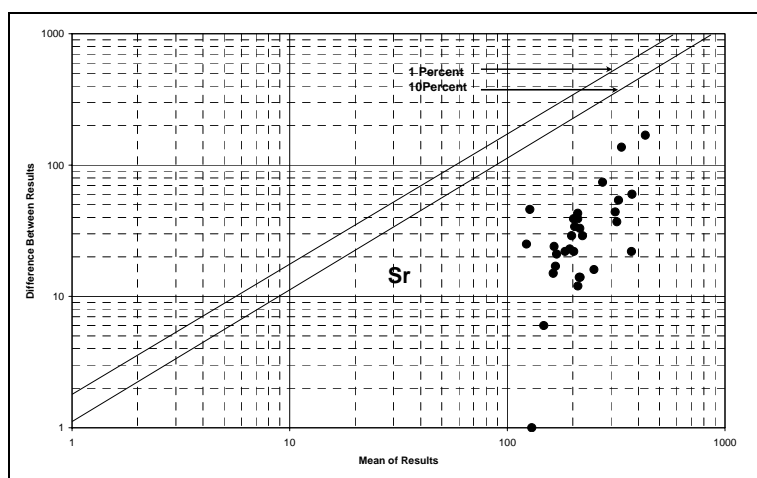
شکل (۲-۳۱): نمودار خطای آنالیز برای متغیر Sb



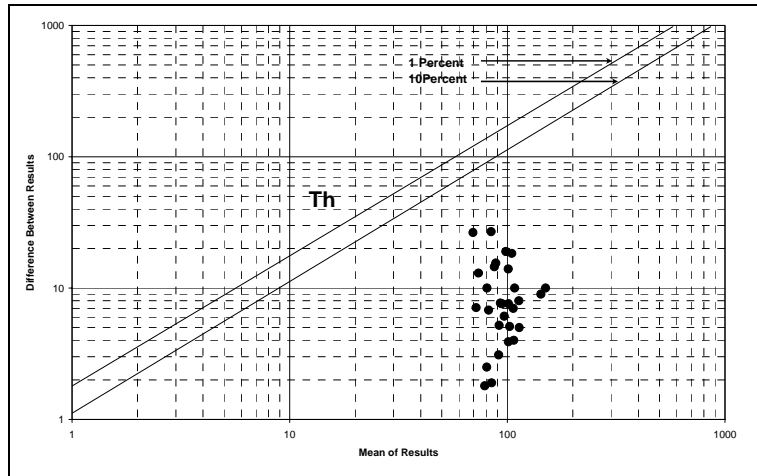
شکل (۲-۳۲): نمودار خطای آنالیز برای متغیر Sc



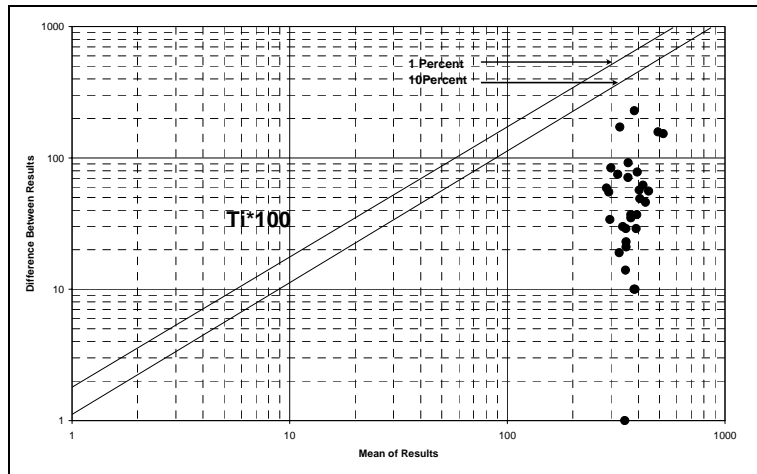
شکل (۲-۳۳): نمودار خطای آنالیز برای متغیر Sn



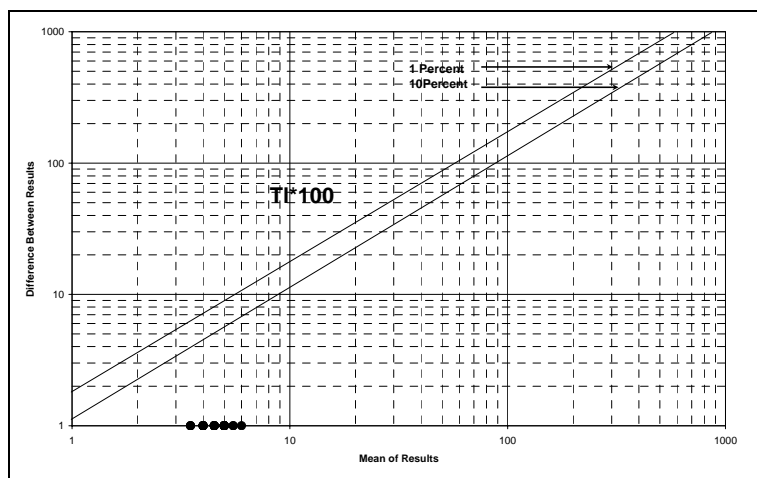
شکل (۲-۳۴): نمودار خطای آنالیز برای متغیر Sr



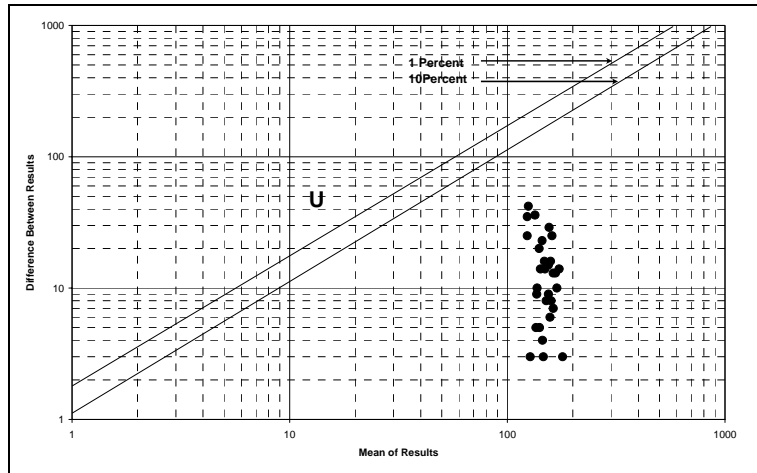
شکل (۲-۳۵): نمودار خطای آنالیز برای متغیر Th



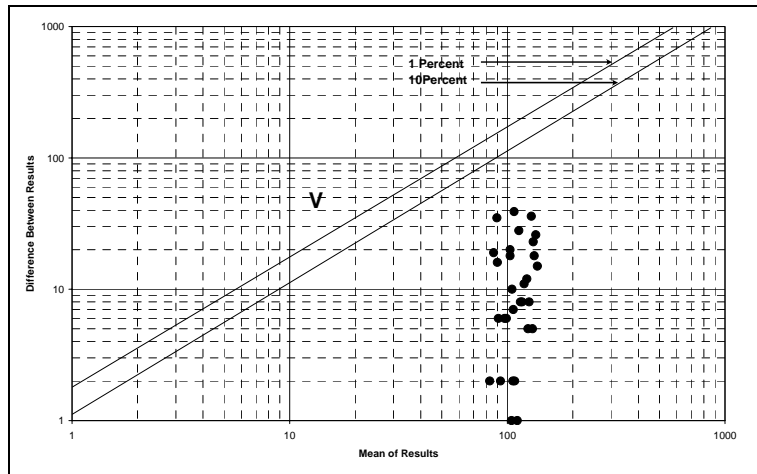
شکل (۲-۳۶): نمودار خطای آنالیز برای متغیر Ti



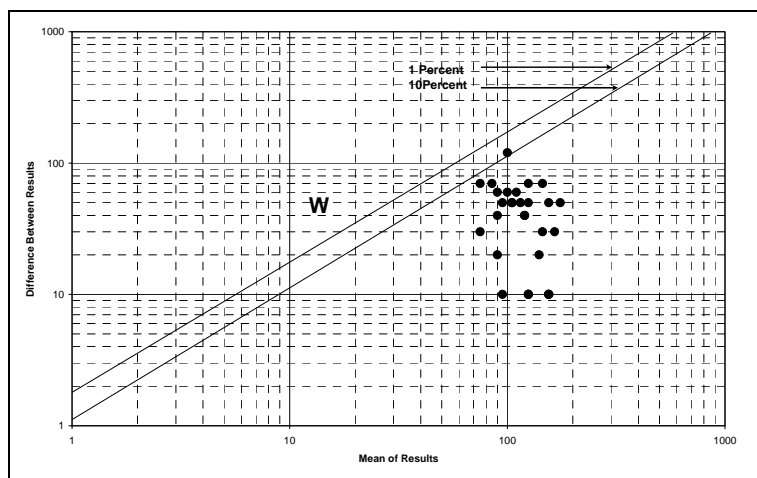
شکل (۲-۳۷): نمودار خطای آنالیز برای متغیر Tl



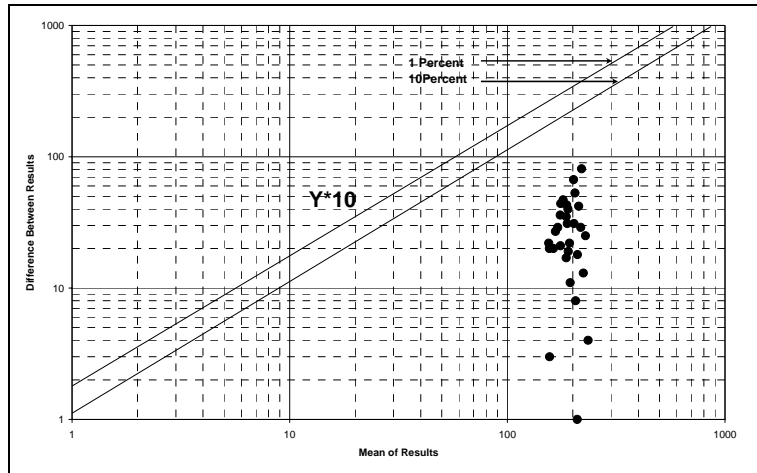
شکل (۲-۳۸): نمودار خطای آنالیز برای متغیر U



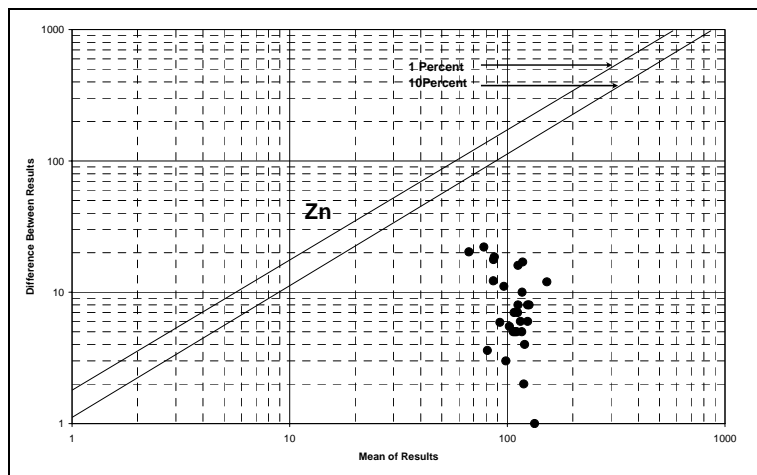
شکل (۲-۳۹): نمودار خطای آنالیز برای متغیر V



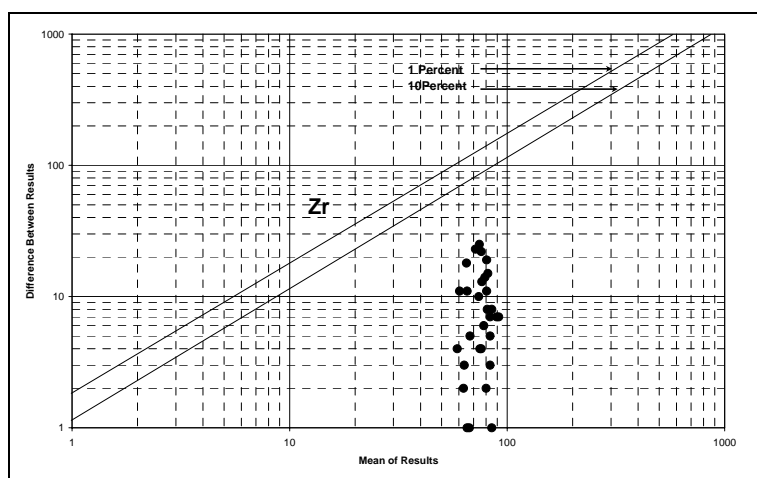
شکل (۲-۴۰): نمودار خطای آنالیز برای متغیر W



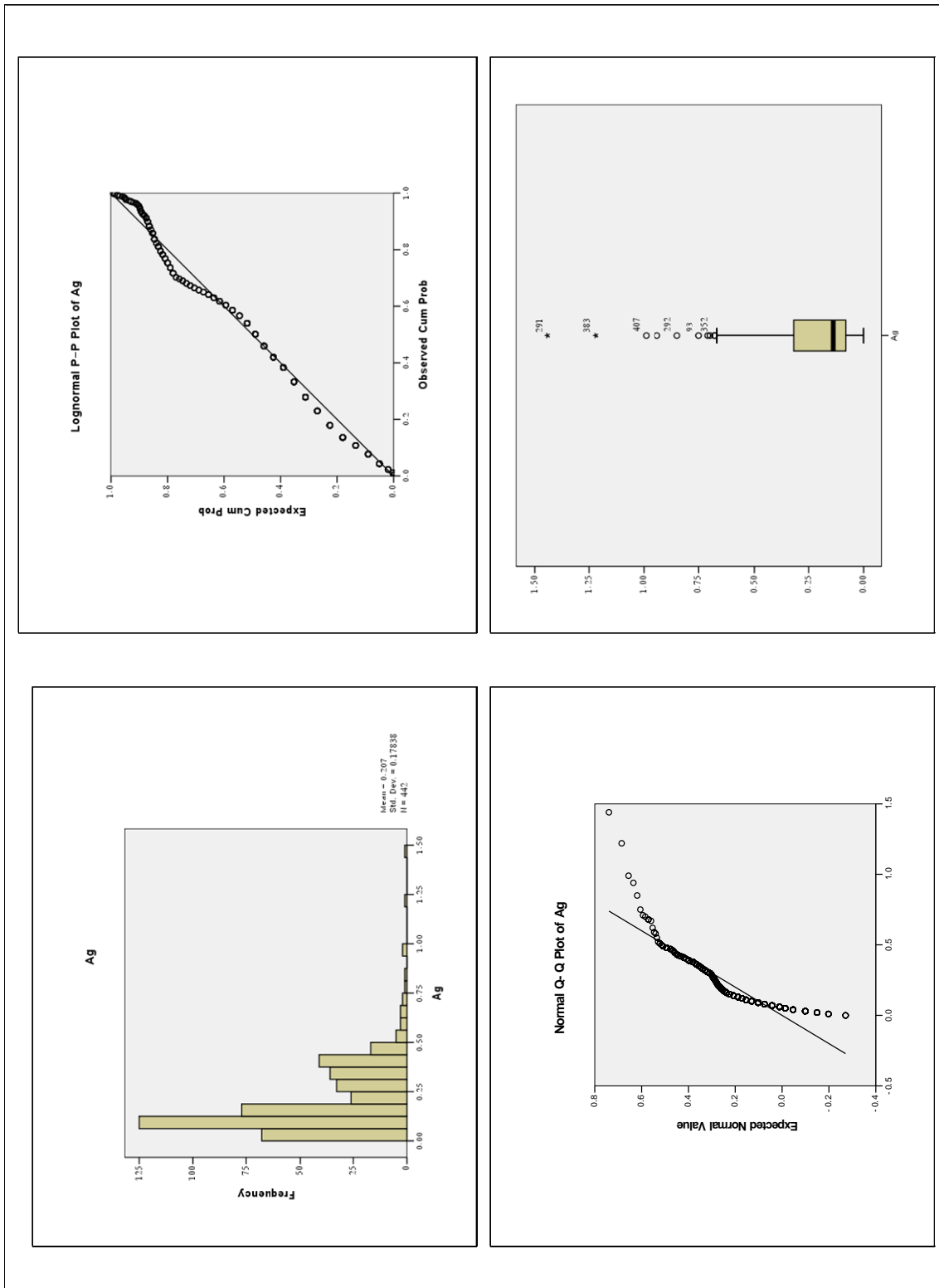
شکل (۲-۴۱): نمودار خطای آنالیز برای متغیر Y



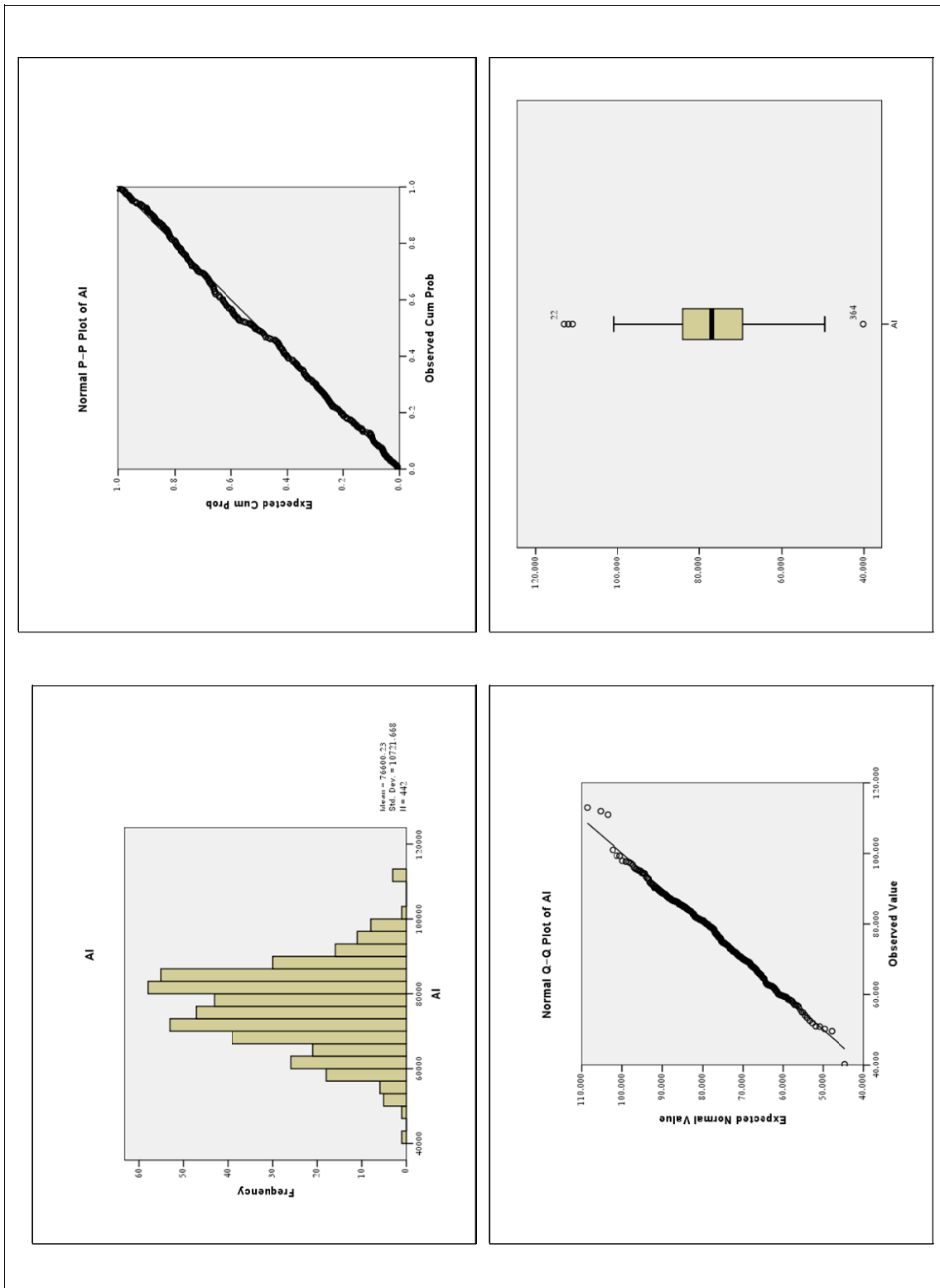
شکل (۲-۴۲): نمودار خطای آنالیز برای متغیر Zn



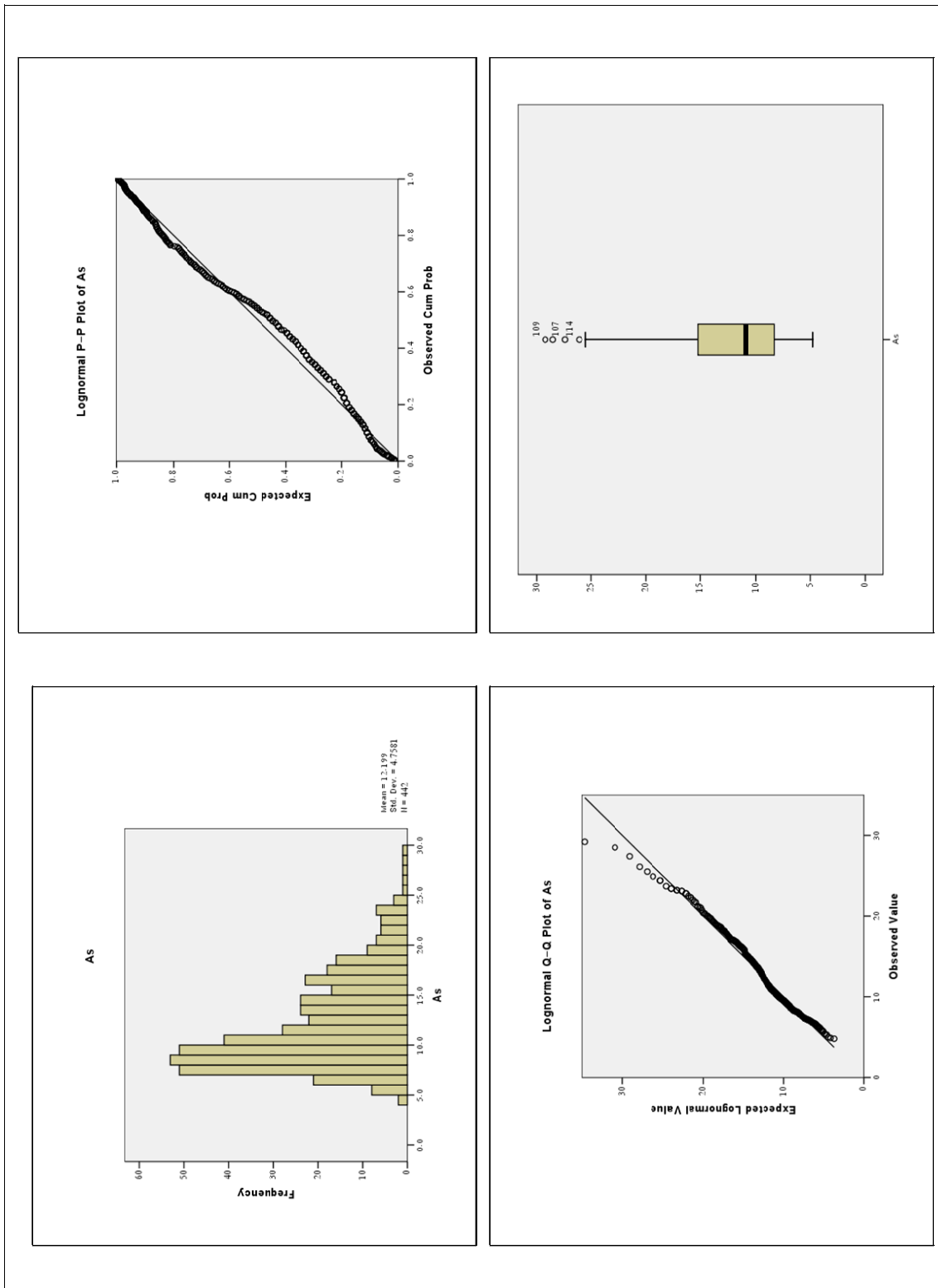
شکل (۲-۴۳): نمودار خطای آنالیز برای متغیر Zr



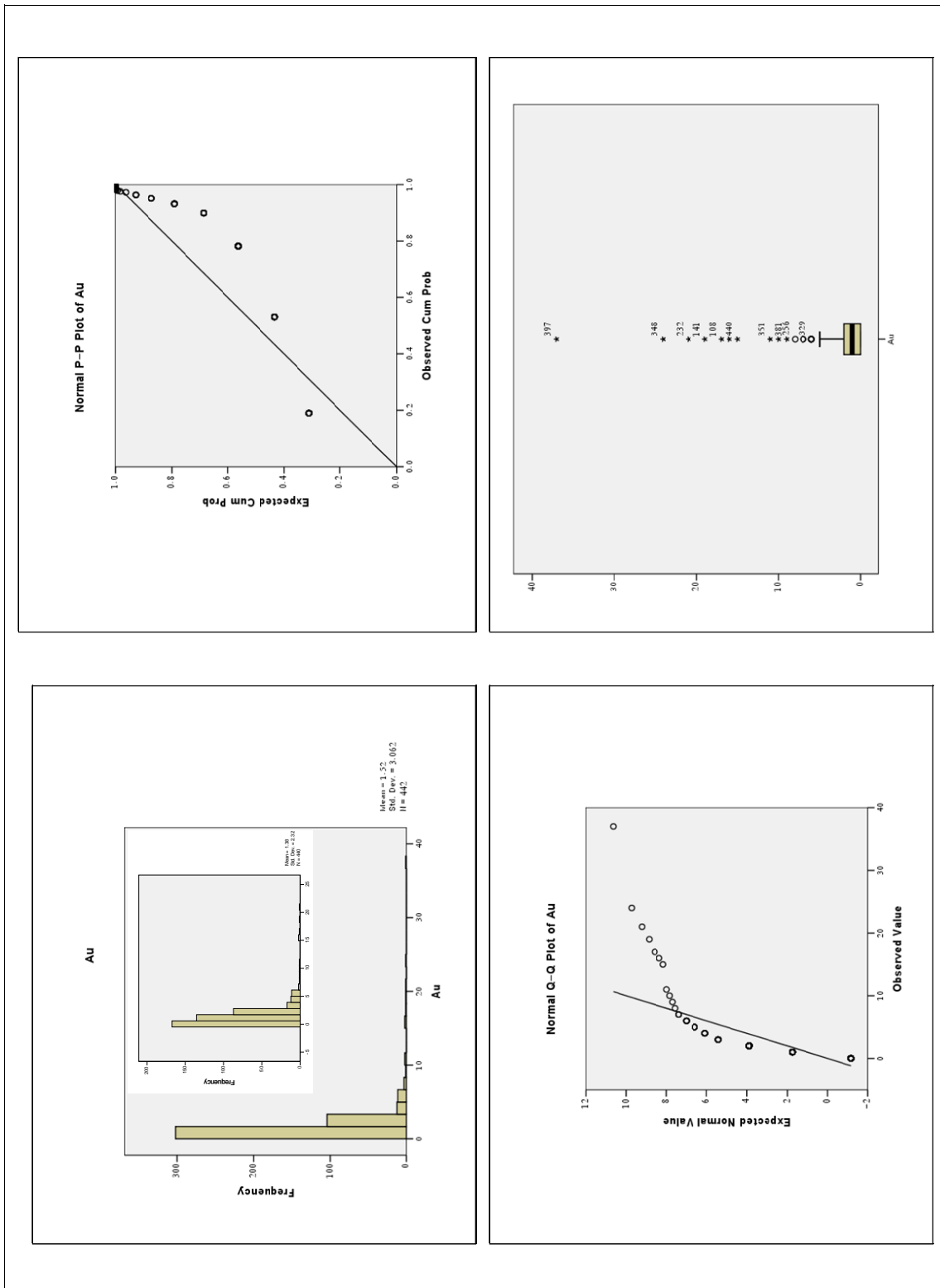
شکل (۲-۴۴): هیستوگرام و نمودارهای P-P، Q-Q و BOX PLOT توزیم شده برای متغیر Ag در منطقه مطالعاتی.



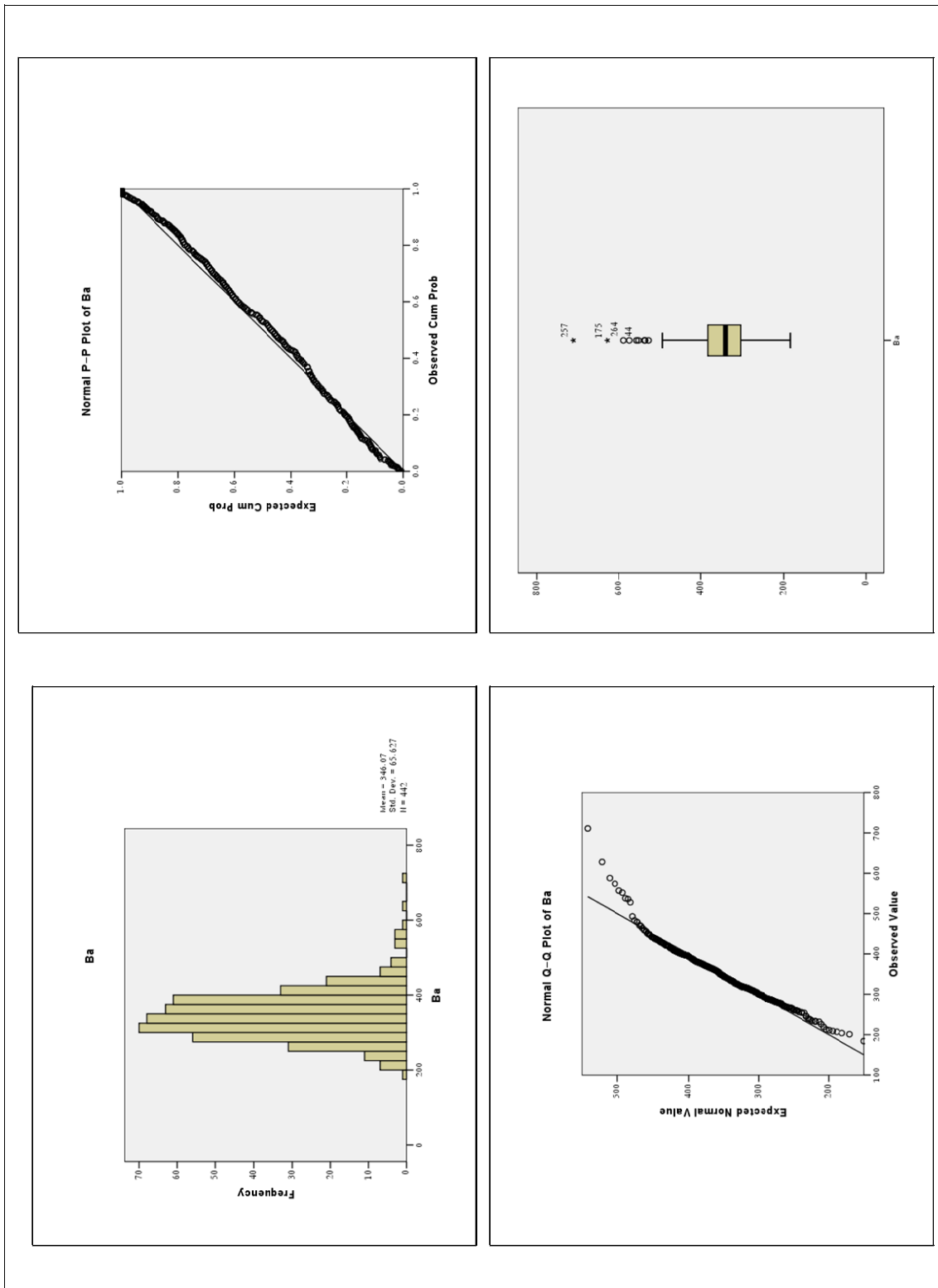
شکل (۲-۴۵): هیستوگرام و نمودارهای Q-Q، P-P و BOX PLOT فرسایش شده برای متغیر AI در منطقه مطالعاتی.



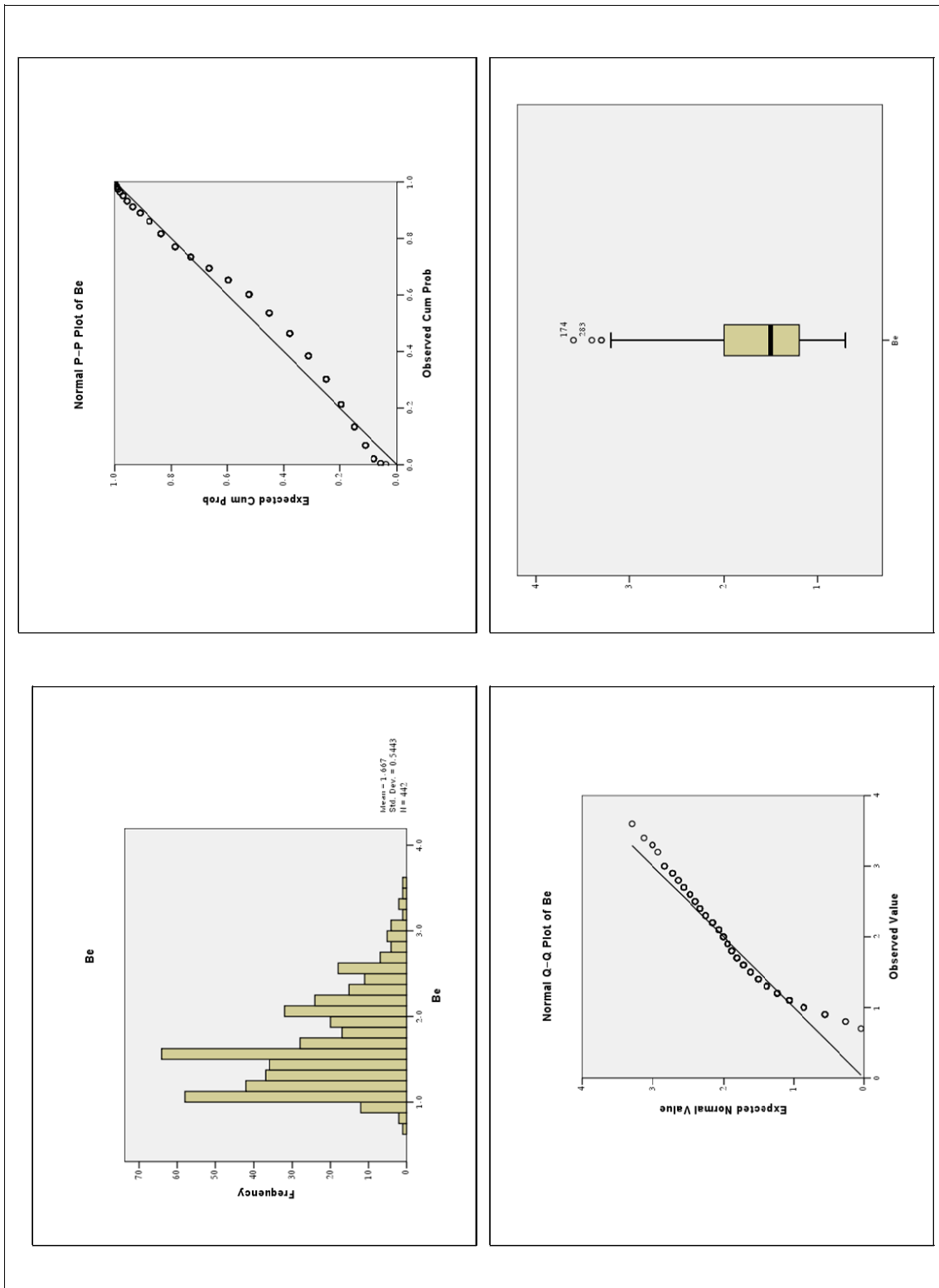
شکل (۲-۴): هیستوگرام و نمودارهای Q-Q، P-P، و BOX PLOT ترسیم شده برای متغیر As در منطقه مطالعاتی.



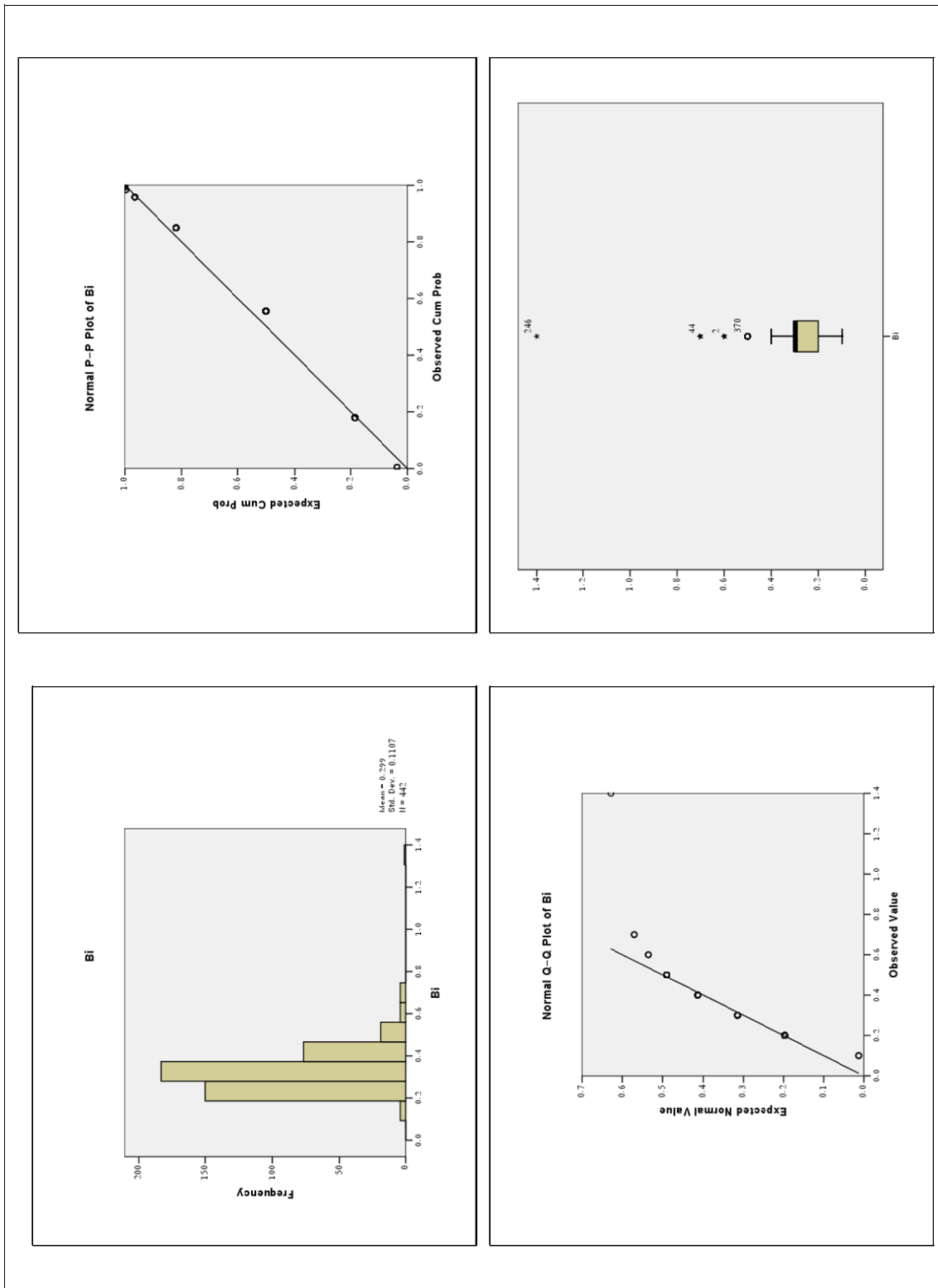
شکل (۲-۴۷): هیستوگرام و نمودارهای BOX PLOT و P-P, Q-Q برای متغیر Au در منطقه مطالعاتی.



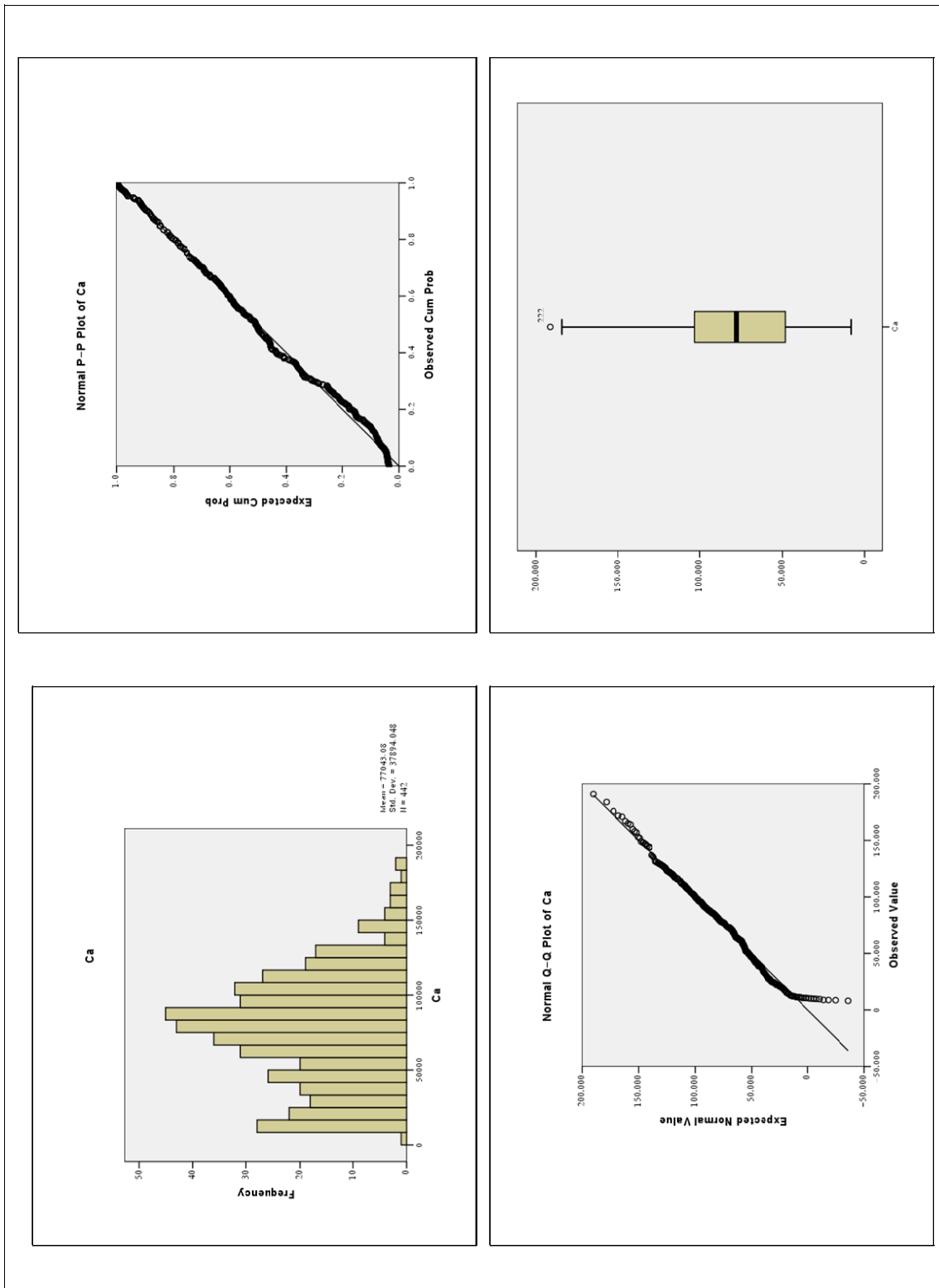
شکل (۲-۴۸): هیستوگرام و نمودارهای P-P، Q-Q، BOX PLOT ترسیم شده برای متغیر Ba در منطقه مطالعاتی.



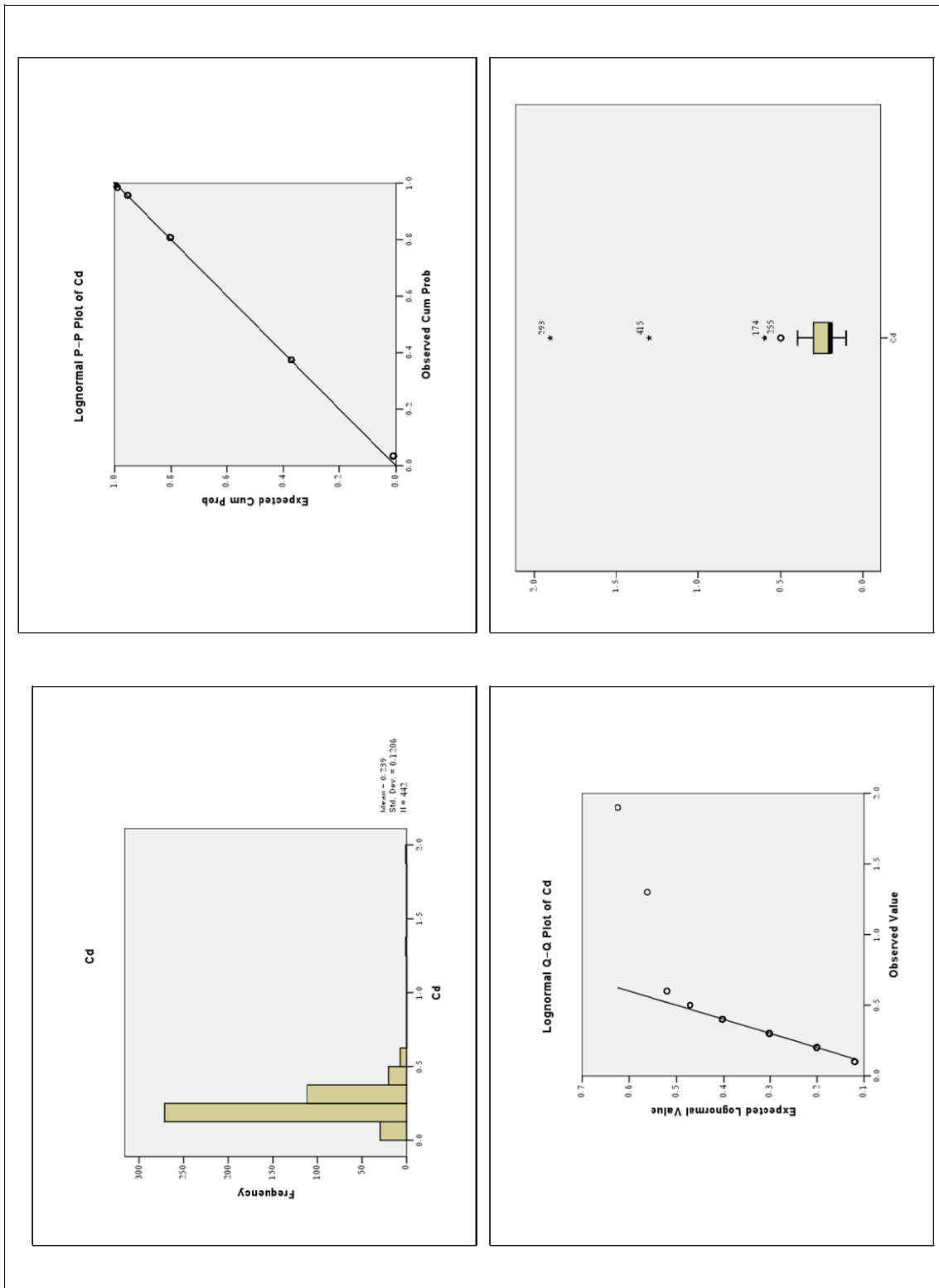
شکل (۲-۴۹): هیستوگرام و نمودارهای P-P، Q-Q و BOX PLOT توزیم شده برای متغیر Be در منطقه مطالعاتی.



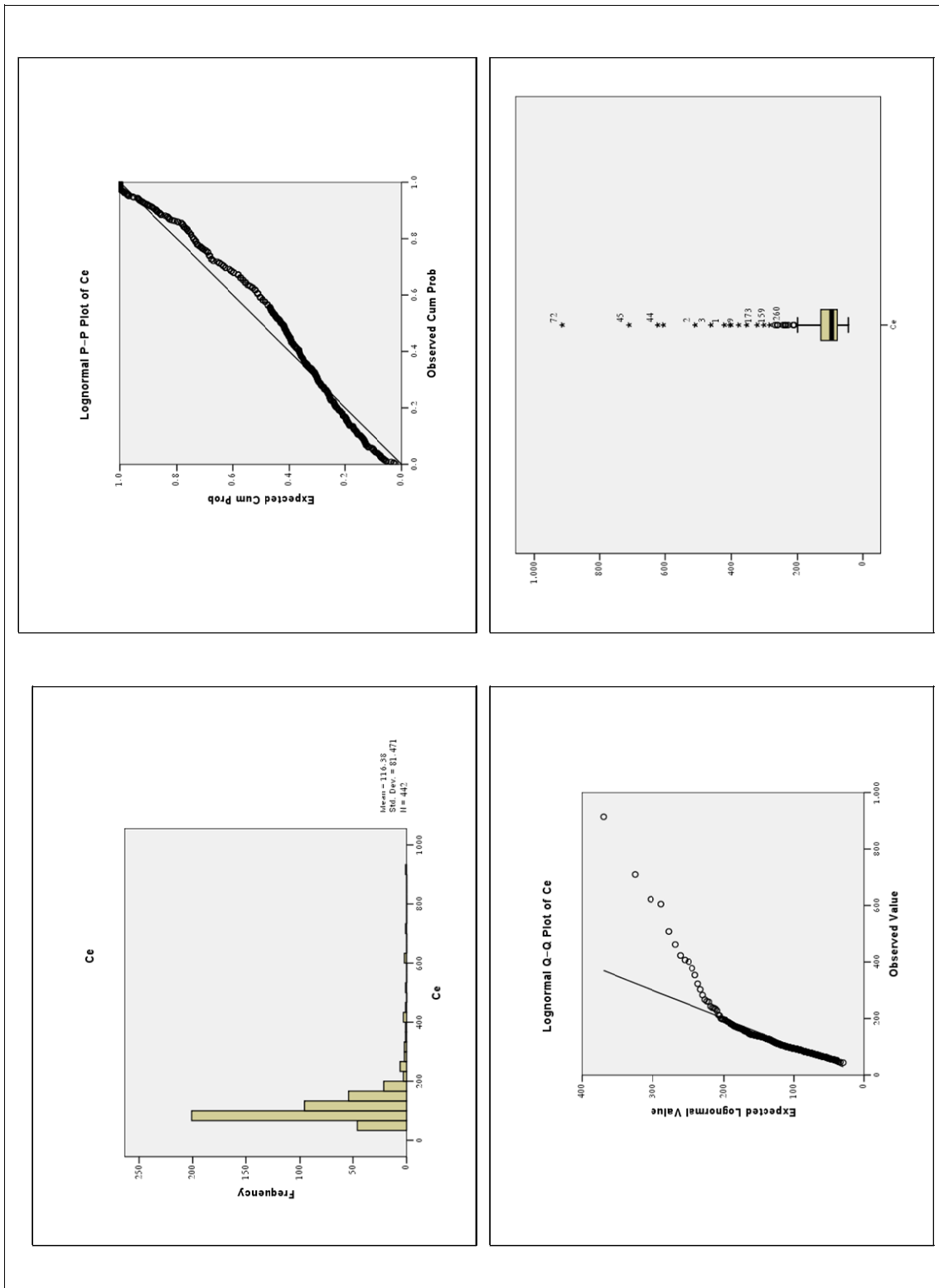
شکل (۲-۵): هیستوگرام و نمودارهای P-P, Q-Q و BOX ترسیم شده برای متغیر Bi در منطقه مطالعاتی.



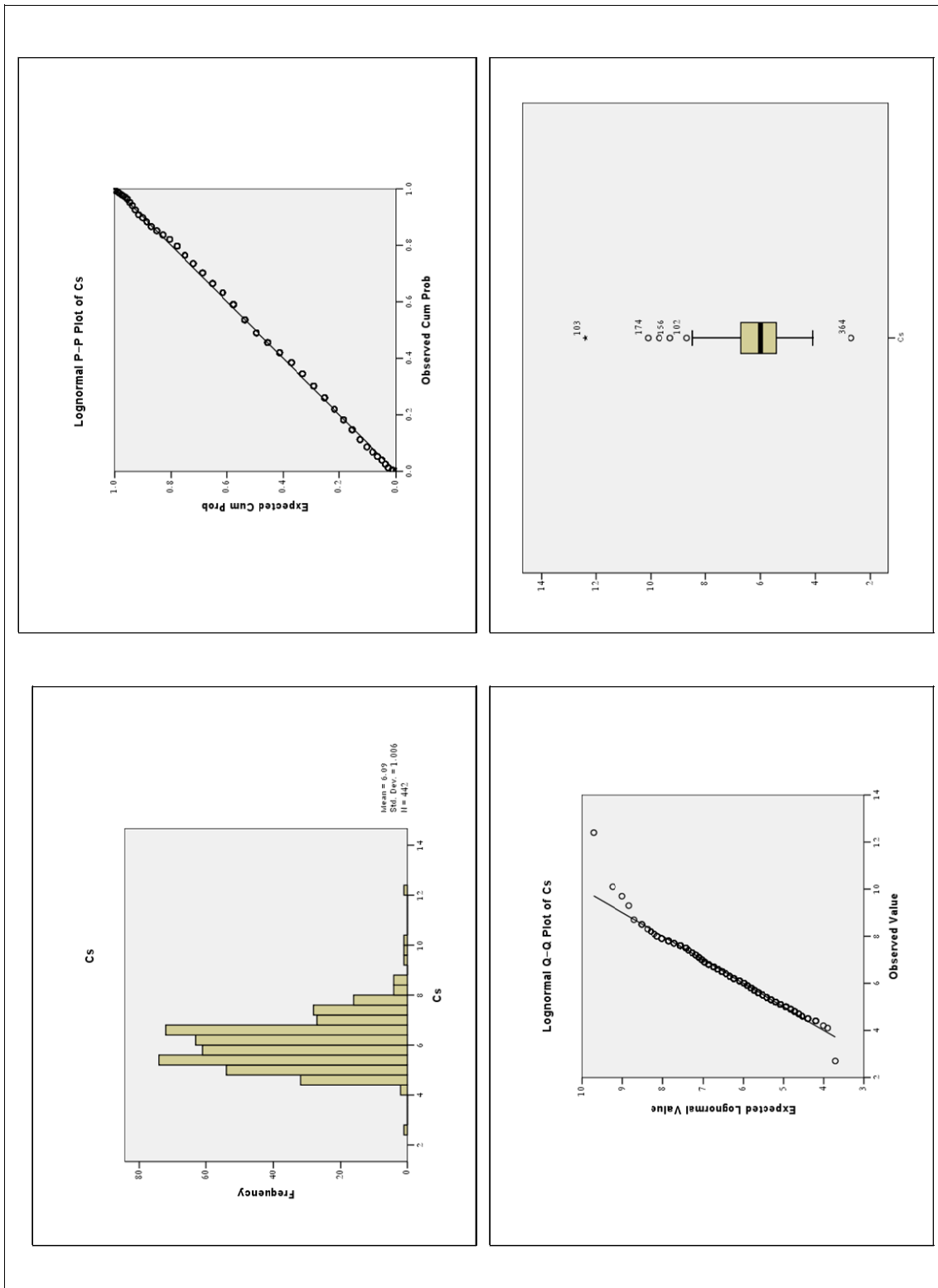
شکل (۲-۵۱): هیستوگرام و نمودارهای P-Q، Q-Q، BOX PLOT و P-P، ترسیم شده برای متغیر Ca در منطقه مطالعاتی.



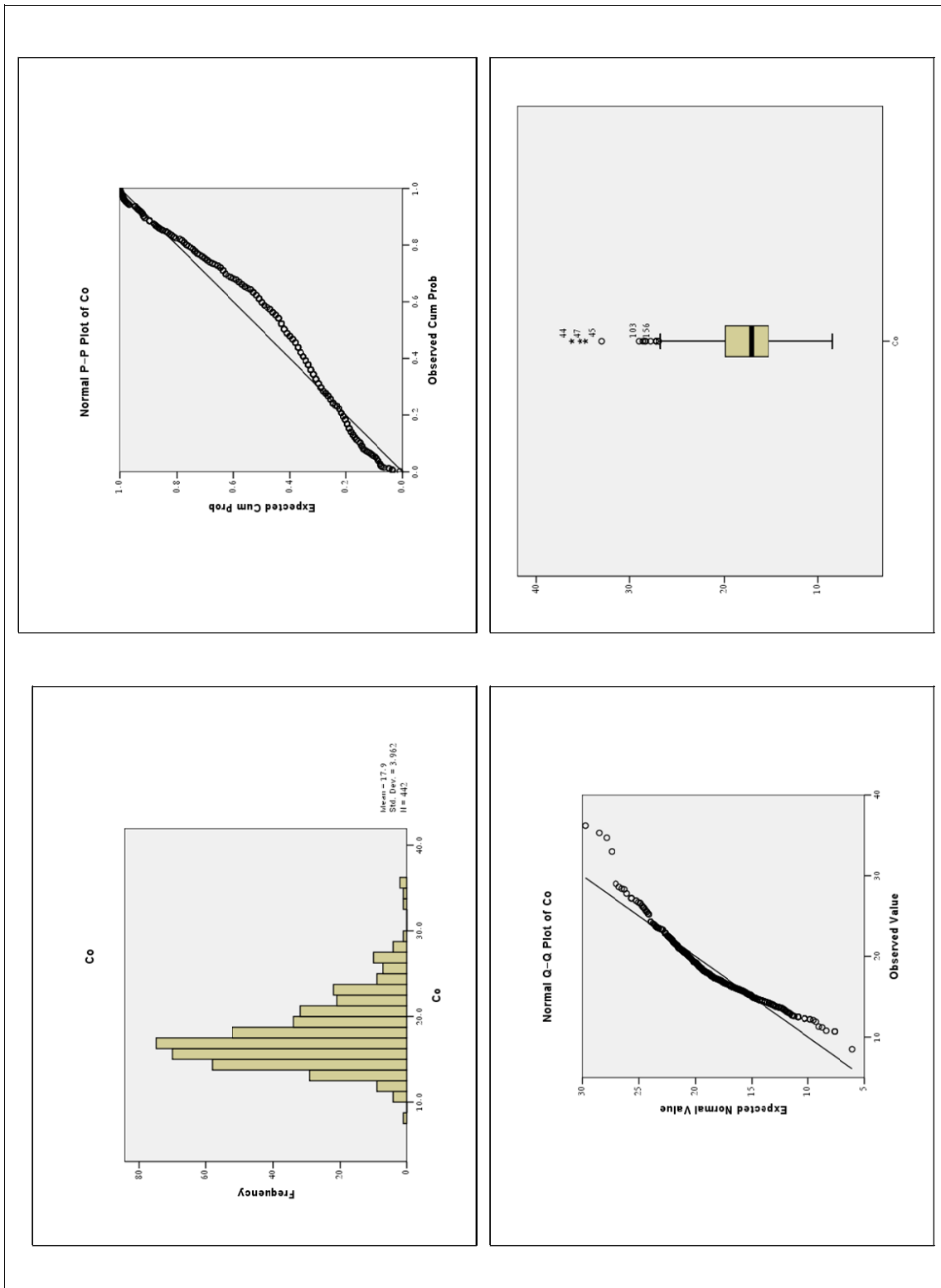
شکل (۲-۵۲): هیستوگرام و نمودارهای Q-Q، P-P، BOX PLOT و نرمال شده برای متغیر Cd در منطقه مطالعاتی.



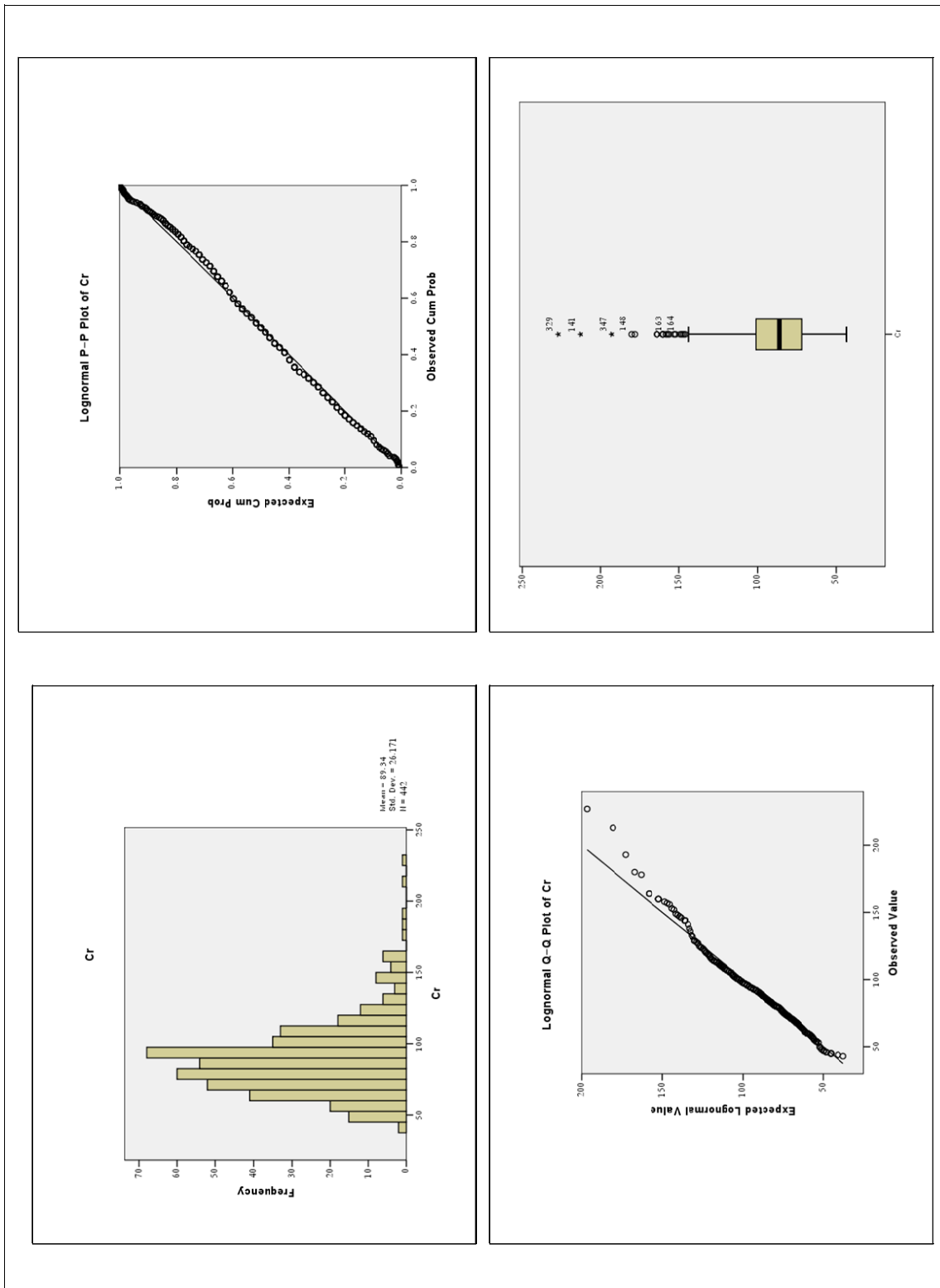
شکل (۲-۵۳): هیستوگرام و نمودارهای Q-Q، P-P، و BOX PLOT ترسیم شده برای متغیر Ce در منطقه مطالعاتی.



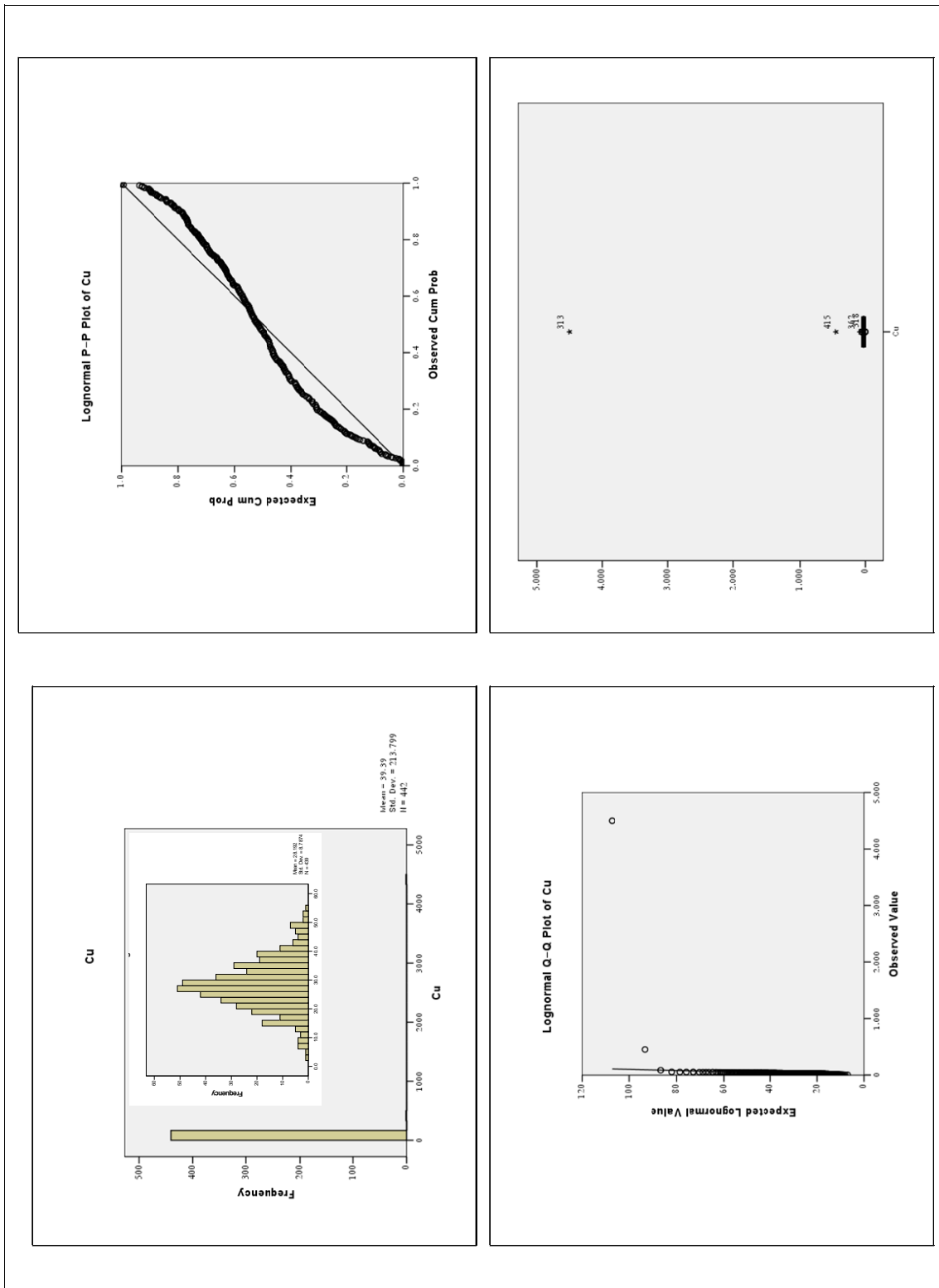
شکل (۲-۵۴): هیستوگرام و نمودارهای P-P, Q-Q و BOX PLOT تو سیم شده برای متغیر Cs در منطقه مطالعاتی.



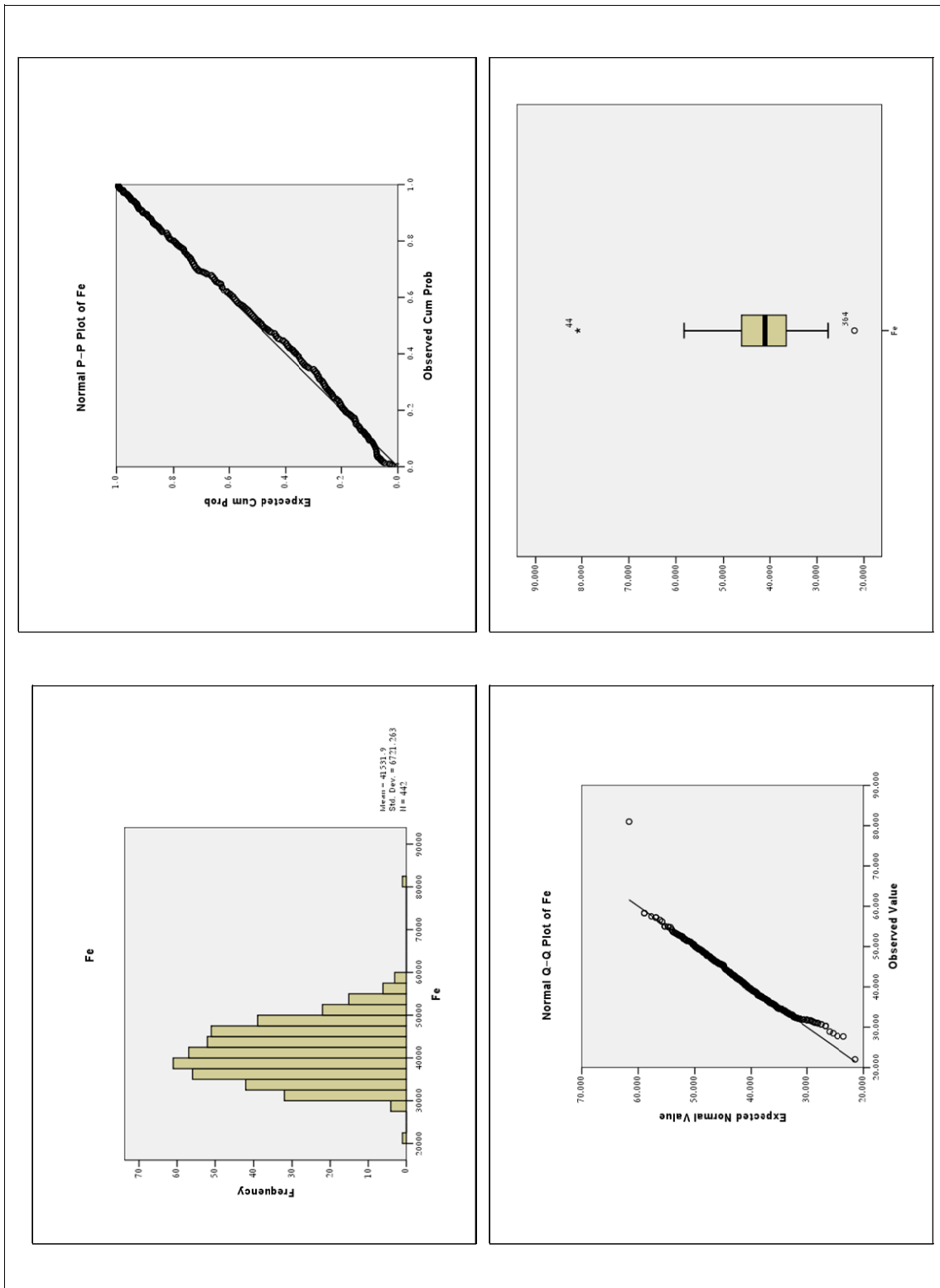
شکل (۲-۵۵): هیستوگرام و نمودارهای P-P, Q-Q و BOX PLOT ترسیم شده برای متغیر Co در منطقه مطالعاتی.



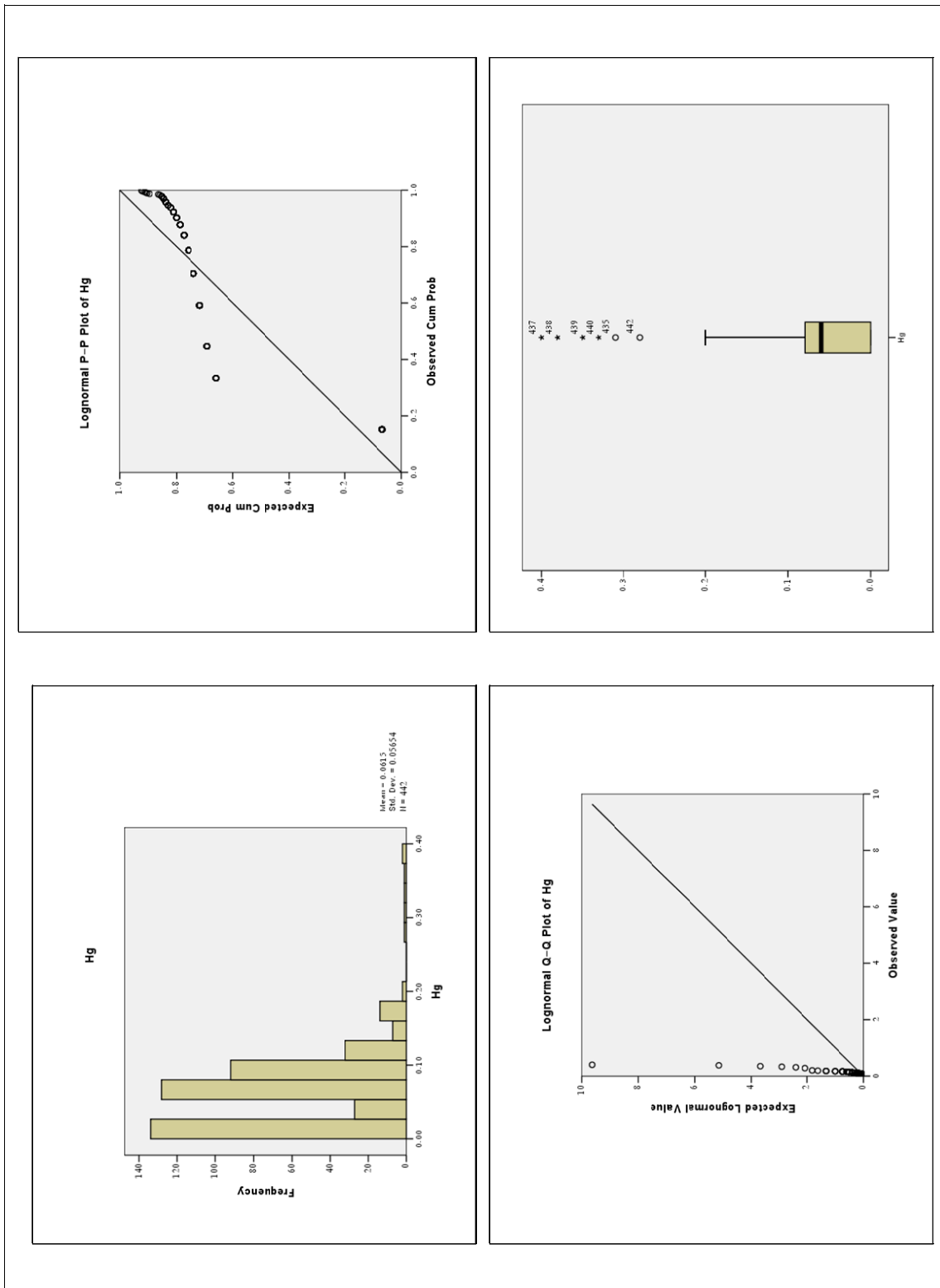
شکل (۲-۵۶): هیستوگرام و نمودارهای P-P, Q-Q و BOX PLOT ترسیم شده برای متغیر Cr در منطقه مطالعاتی.



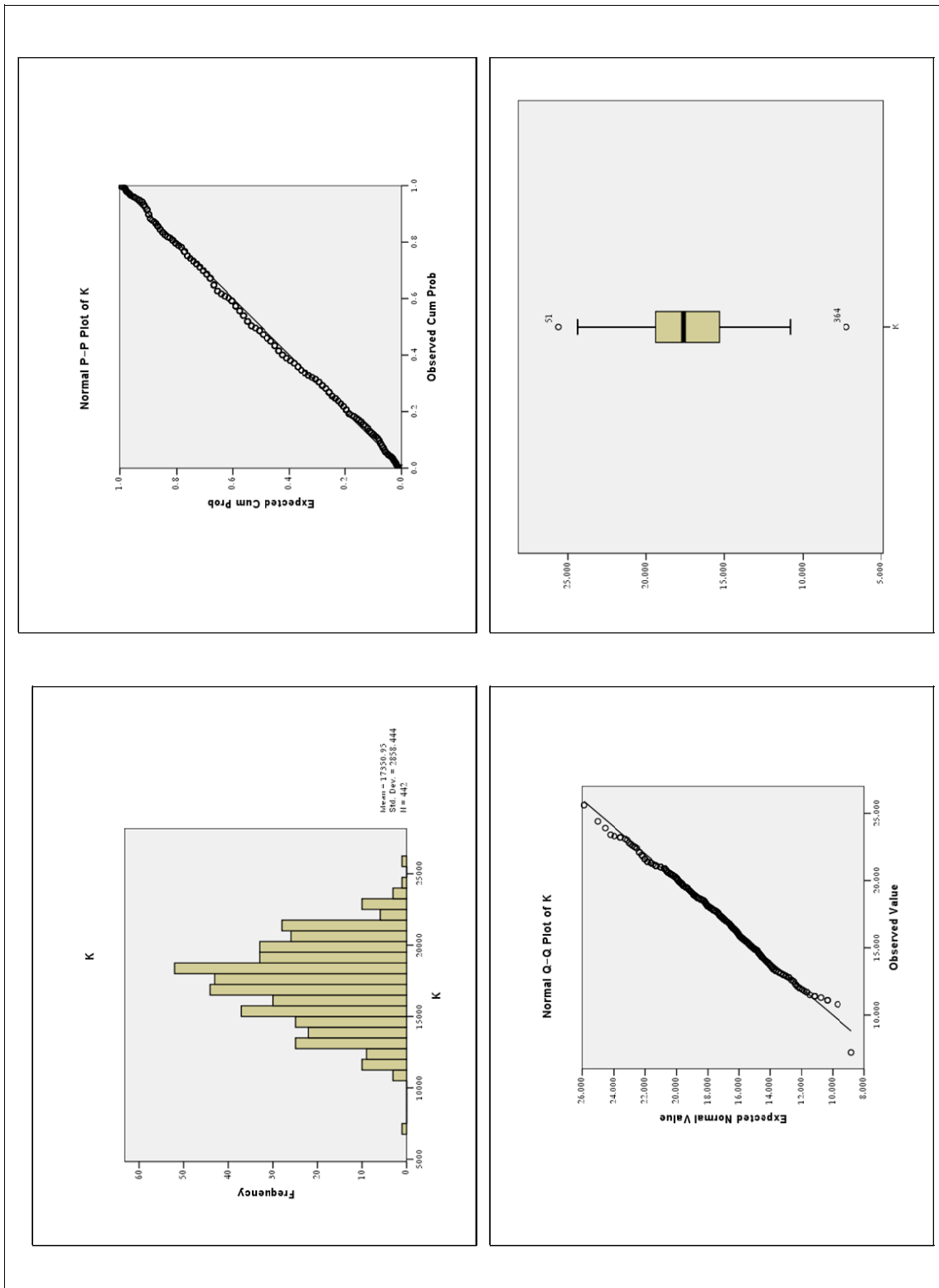
شکل (۲-۵۷): هیستوگرام و نمودارهای P-P, Q-Q و BOX PLOT توزیع شده برای متغیر Cu در منطقه مطالعاتی.



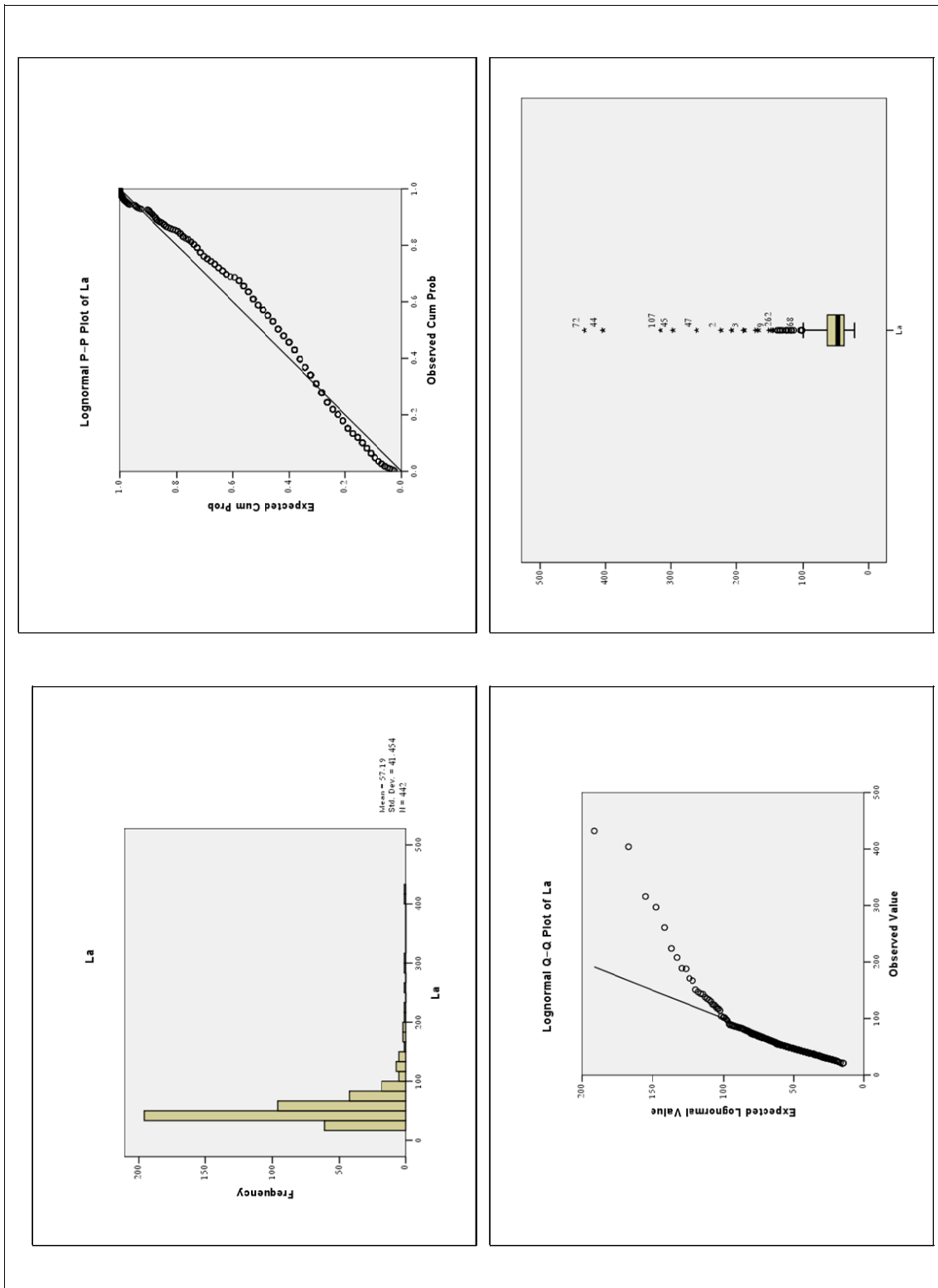
شکل (۲-۵۸): هیستوگرام و نمودارهای P-P، Q-Q و BOX PLOT توزیع شده برای متغیر Fe در منطقه مطالعاتی.



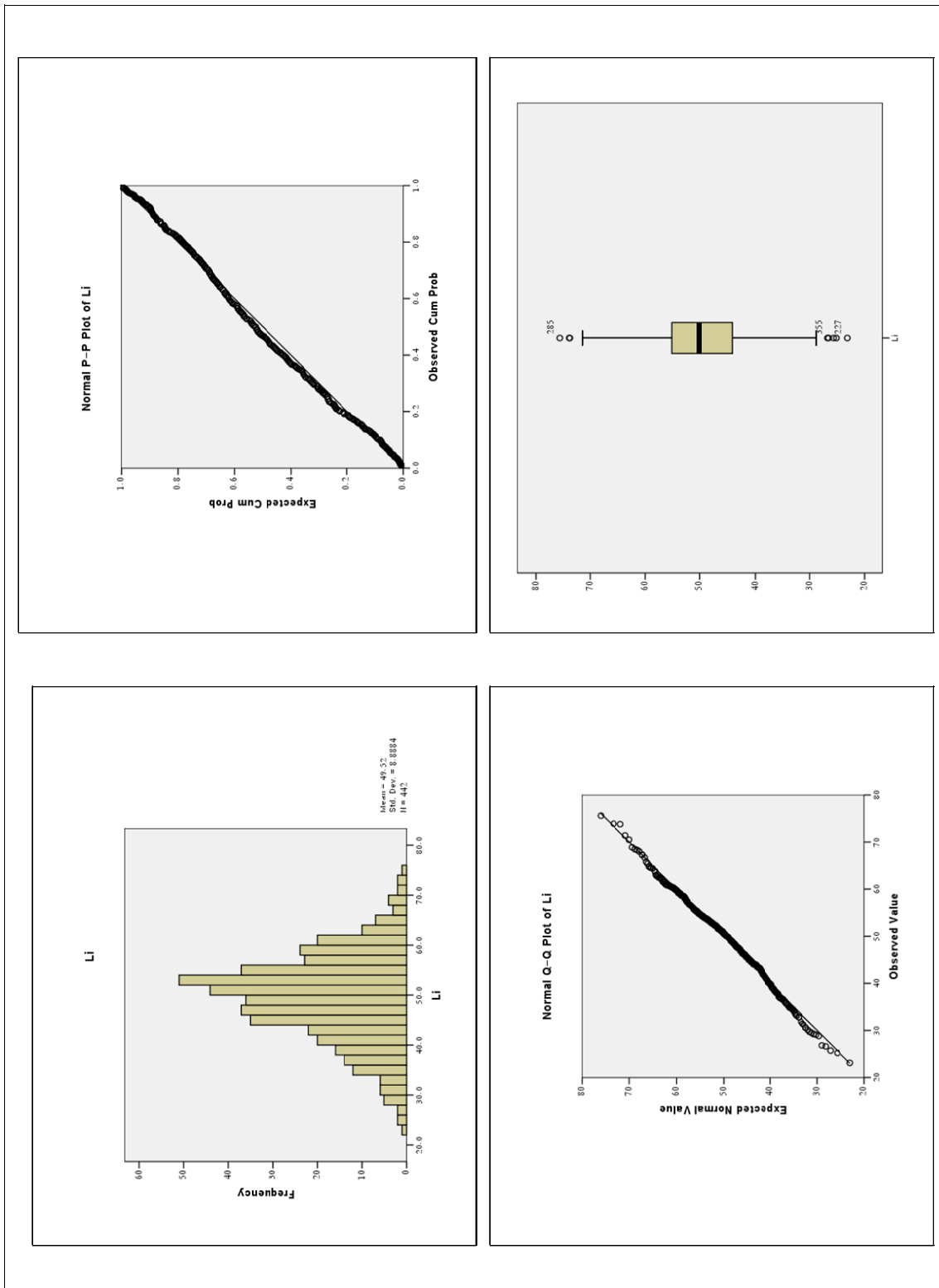
شکل (۲-۵۹): هیستوگرام و نمودارهای P-P, Q-Q, BOX PLOT و P-P, Q-Q ترسیم شده برای متغیر Hg در منطقه مطالعاتی.



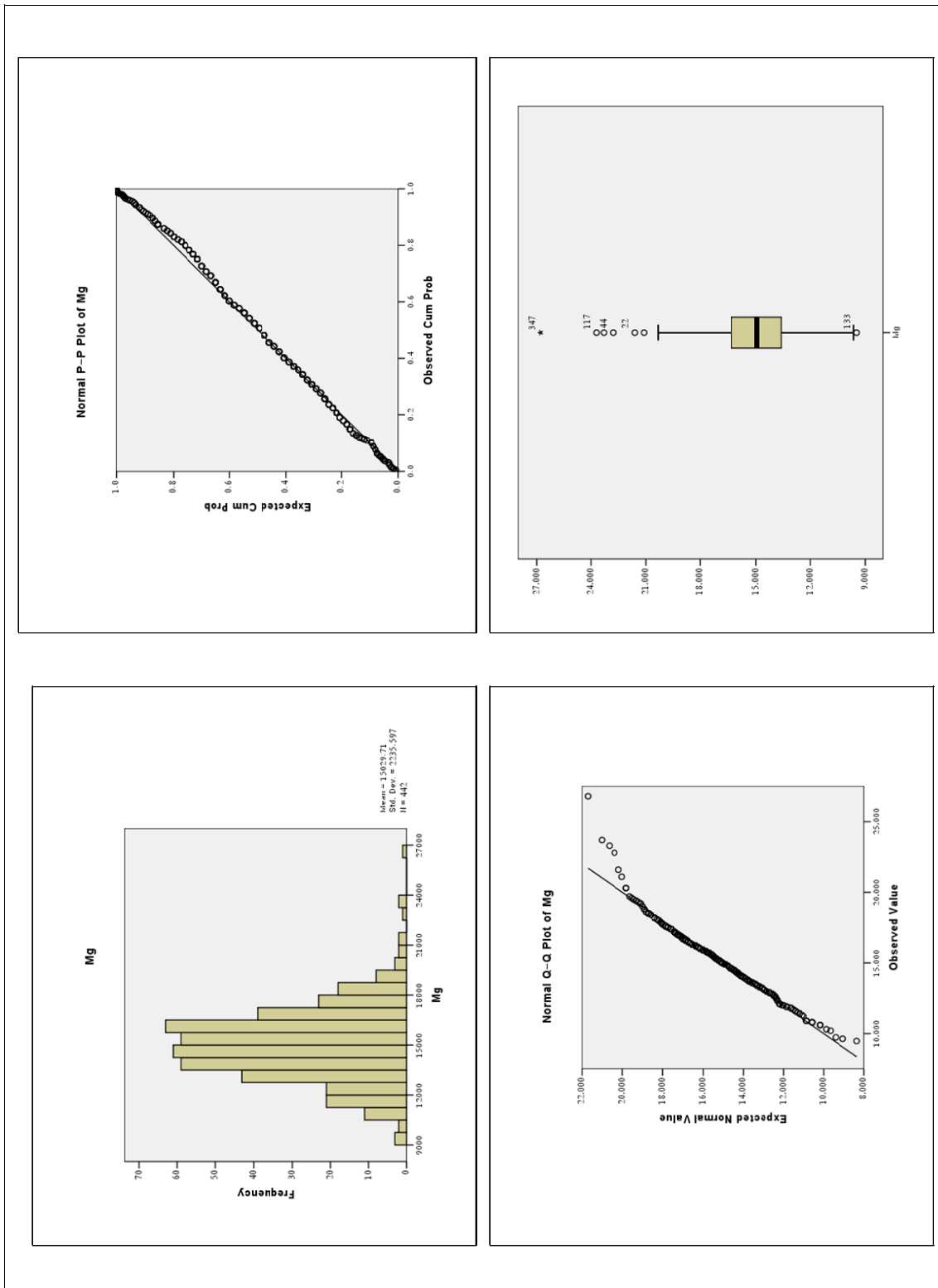
شکل (۲-۶): هیستوگرام و نمودارهای P-P, Q-Q و BOX توزیع شده برای متغیر K در منطقه مطالعاتی.



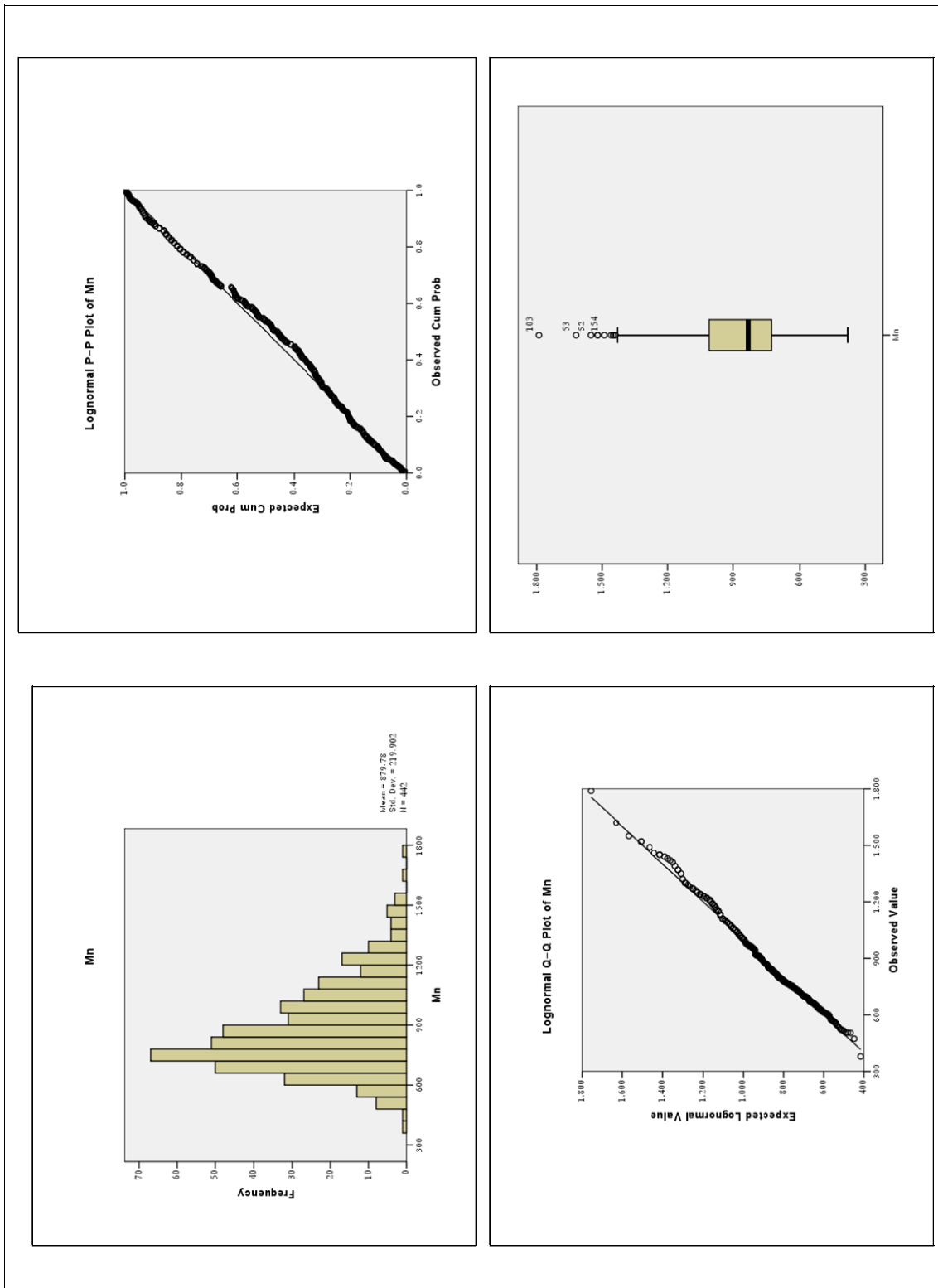
شکل (۲-۶۱): هیستوگرام و نمودارهای Q-Q، P-P، و BOX ترسیم شده برای متغیر L_a در منطقه مطالعاتی.



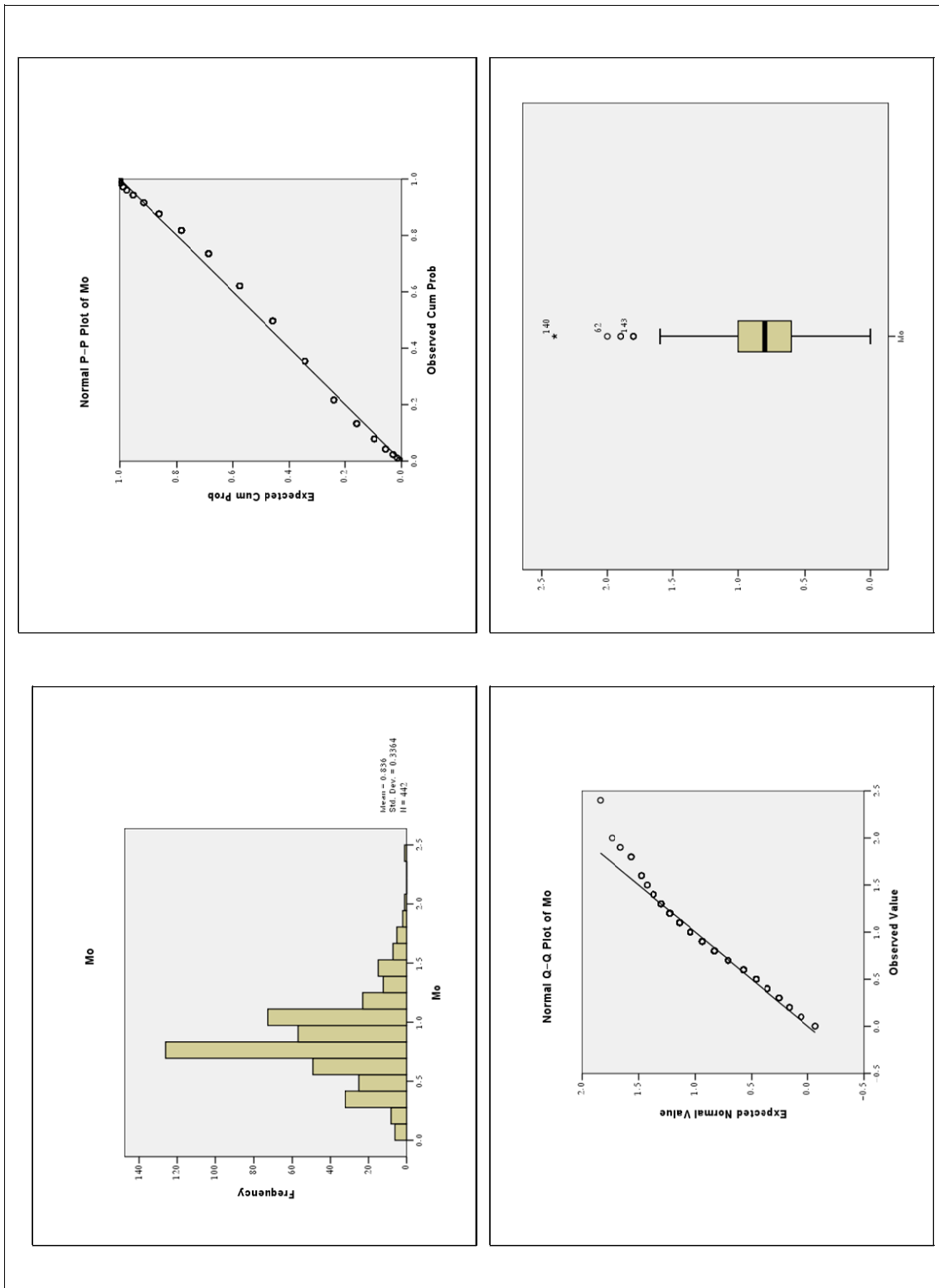
شکل (۲-۶): هیستوگرام و نمودارهای P-Q, Q-Q, BOX PLOT و P-P, Q-Q برای متغیر Li در منطقه مطالعاتی.



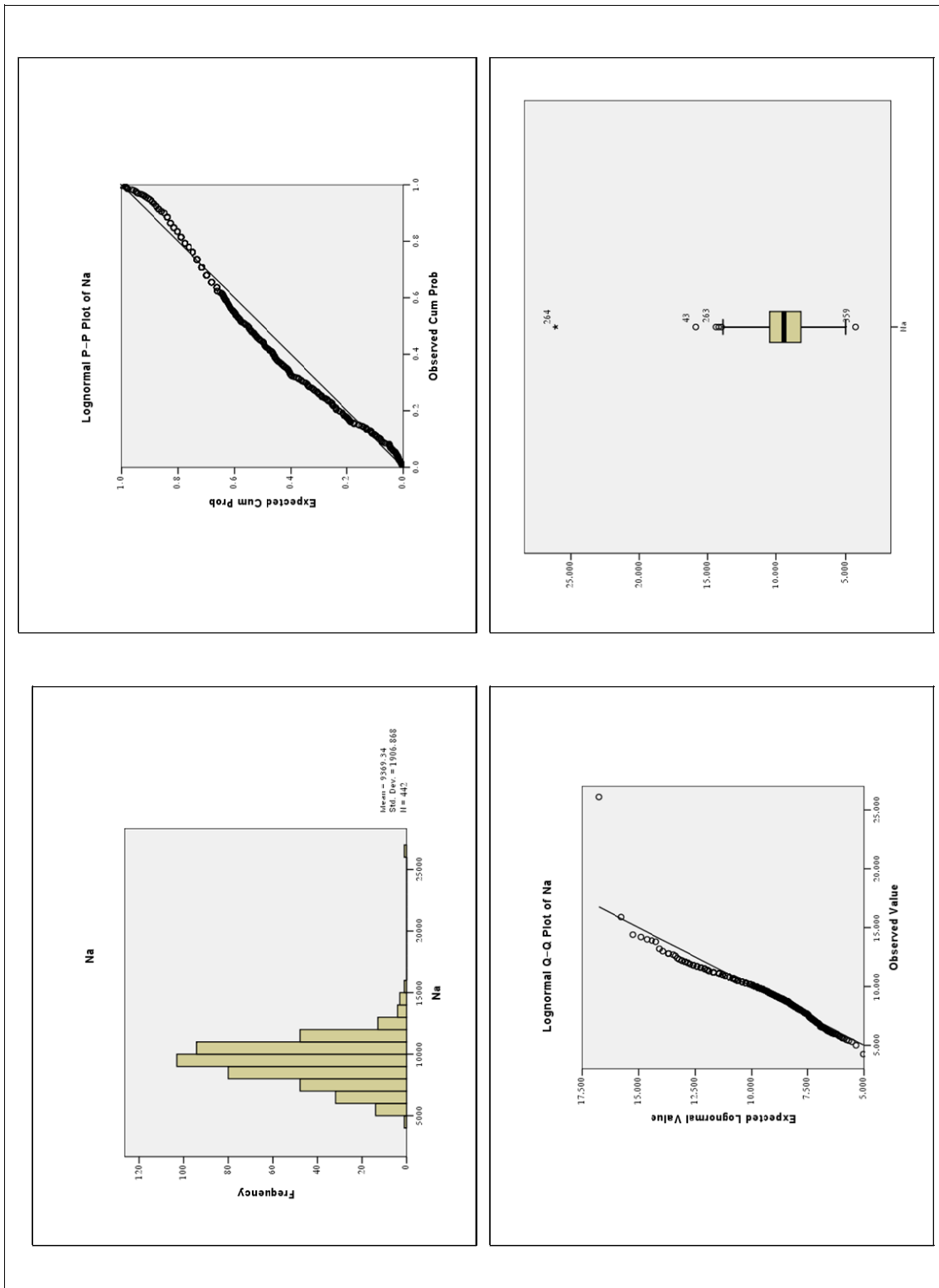
شکل (۲-۶): هیستوگرام و نمودارهای P-Q، Q-Q، و BOX PLOT نرمال شده برای متغیر Mg در منطقه مطالعاتی.



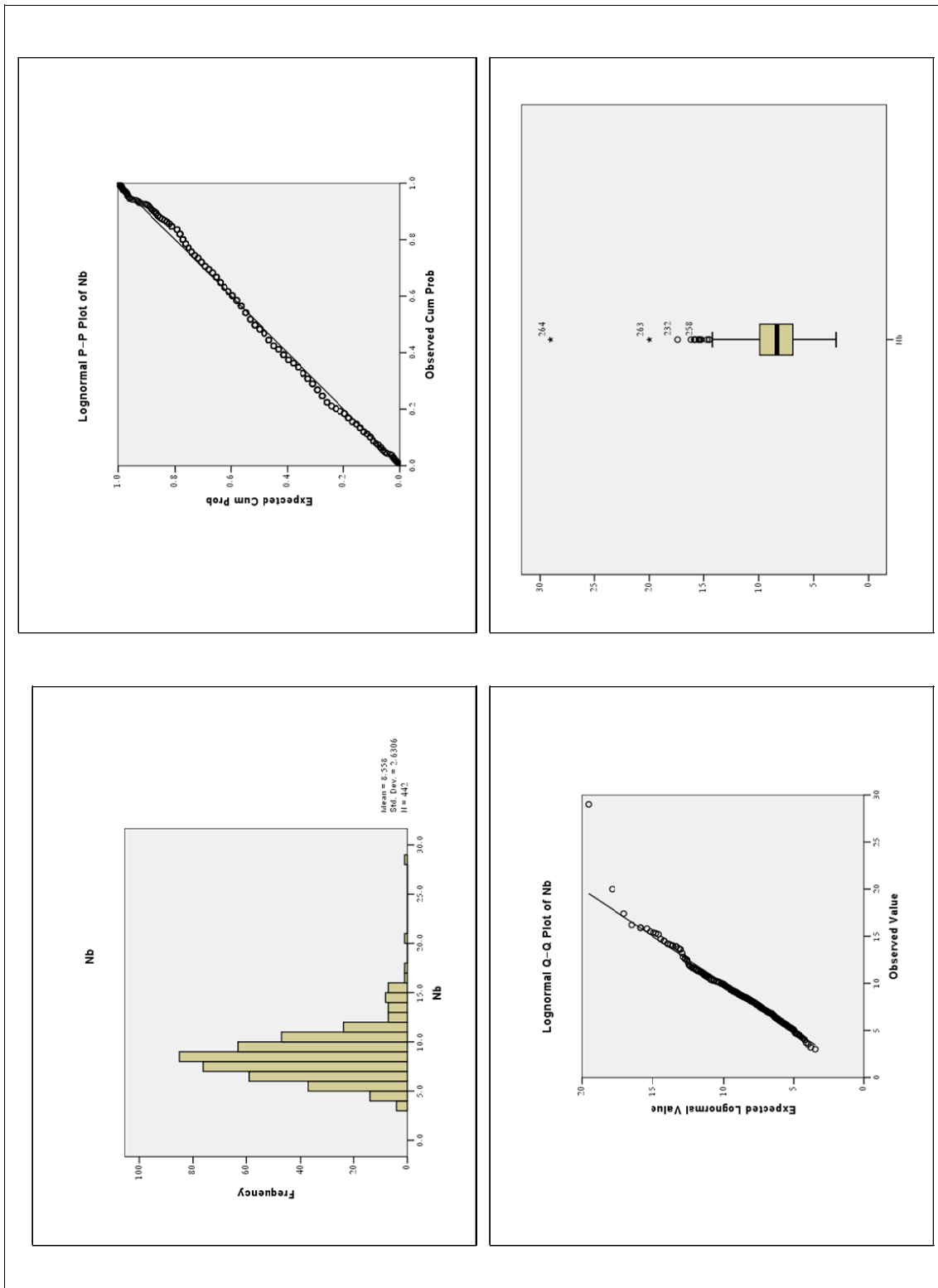
شکل (۲-۶۴): هیستوگرام و نمودارهای P-P، Q-Q و BOX PLOT تو سیم شده برای متغیر Mn در منطقه مطالعاتی.



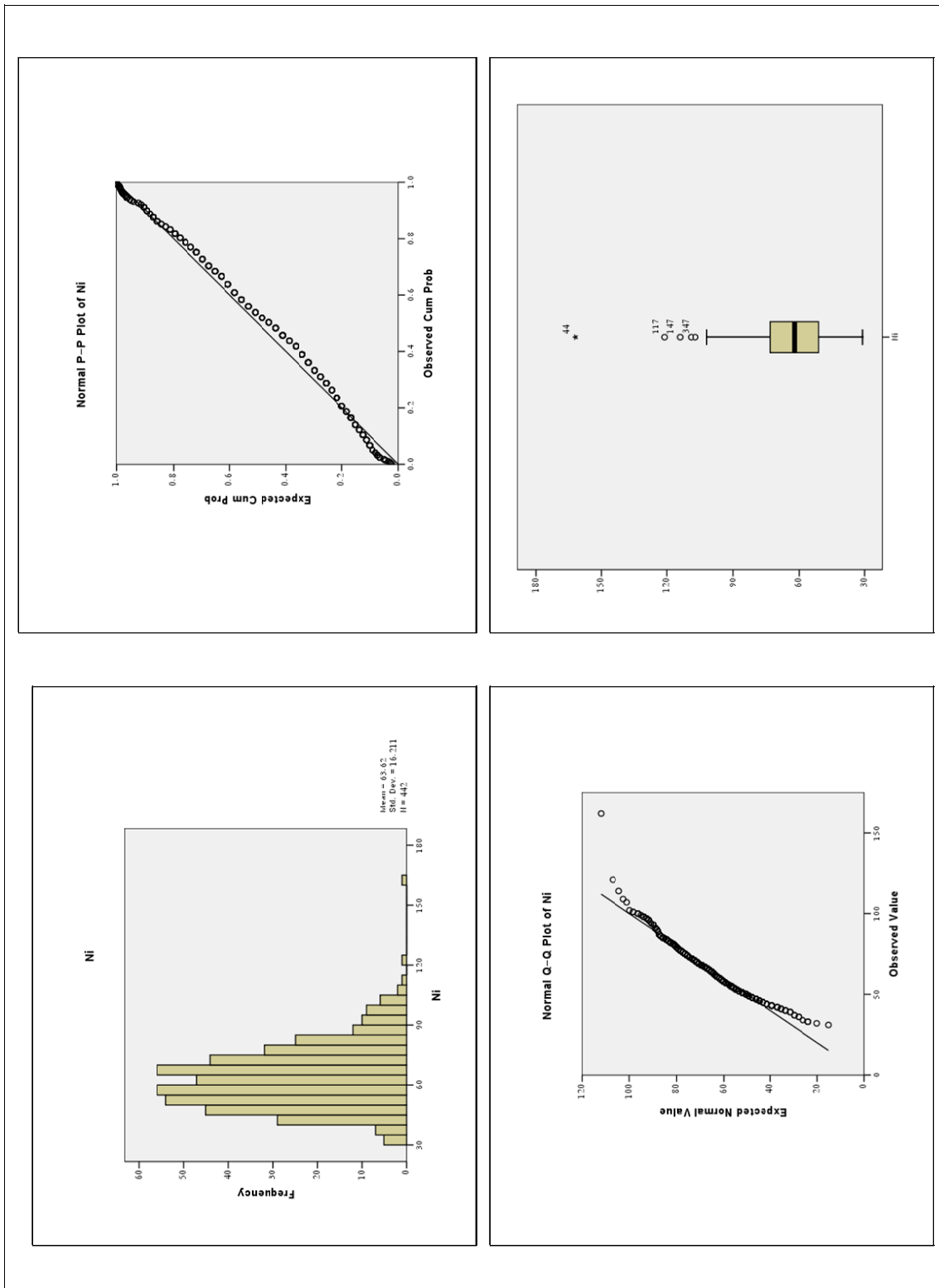
شکل (۶۵-۲): هیستوگرام و نمودارهای P-Q، BOX PLOT و P-P، Q-Q ترسیم شده برای متغیر Mo در منطقه مطالعاتی.



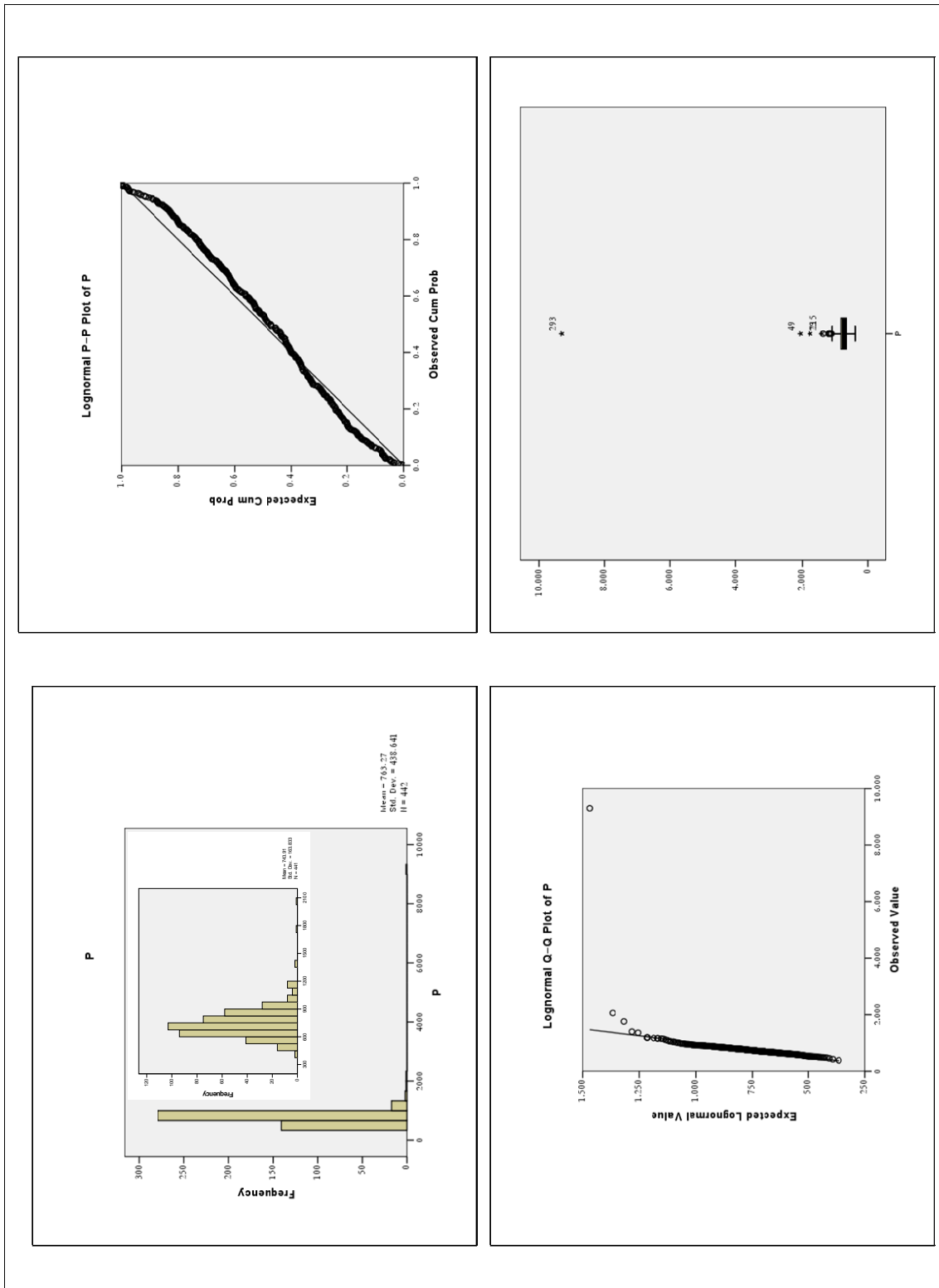
شکل (۲-۶۶): هیستوگرام و نمودارهای P-P, Q-Q و BOX PLOT ترسیم شده برای متغیر Na در منطقه مطالعاتی.



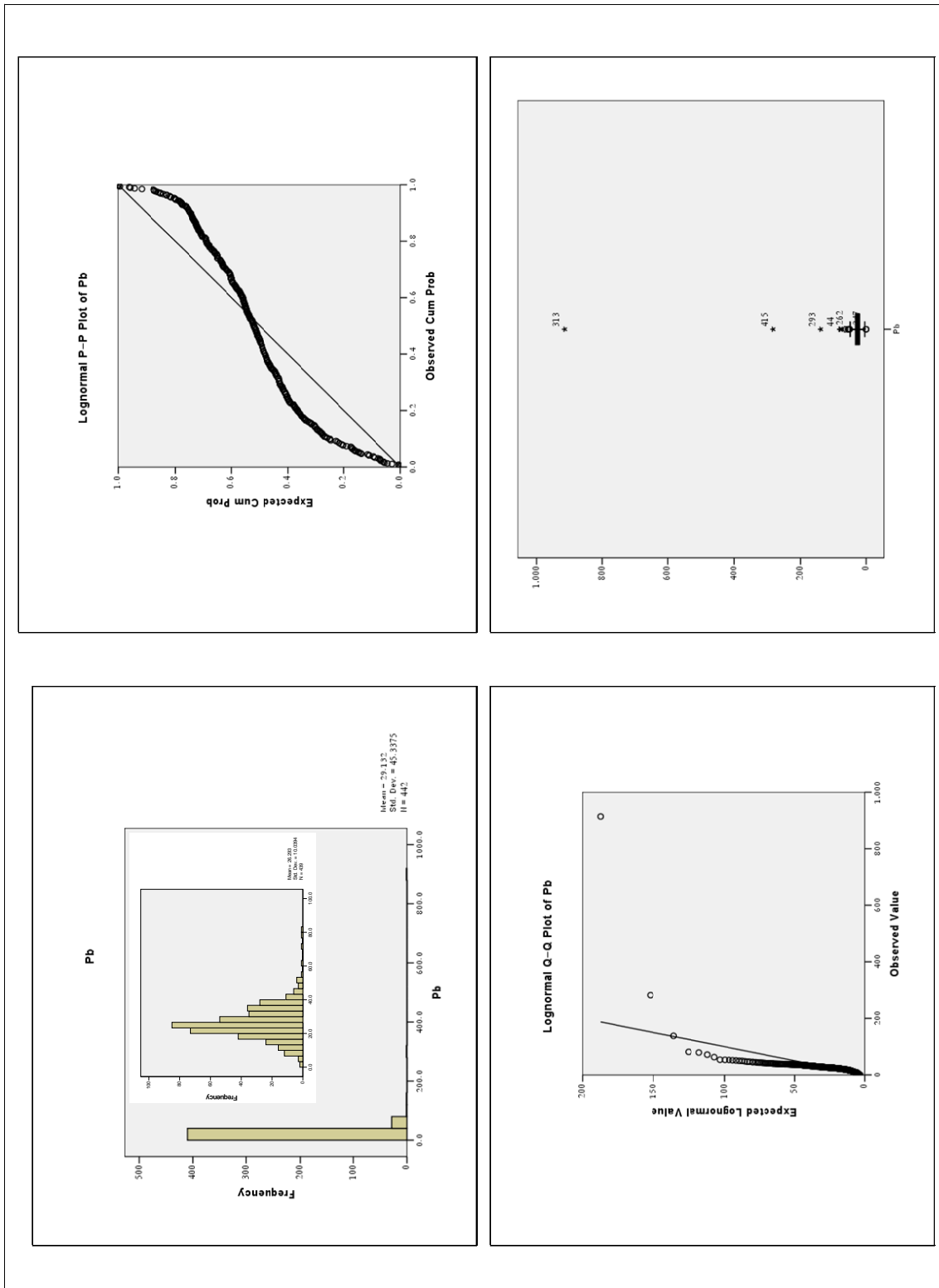
شکل (۲-۶۷): هیستوگرام و نمودارهای P-P, Q-Q و BOX PLOT توزیع شده برای متغیر Nb در منطقه مطالعاتی.



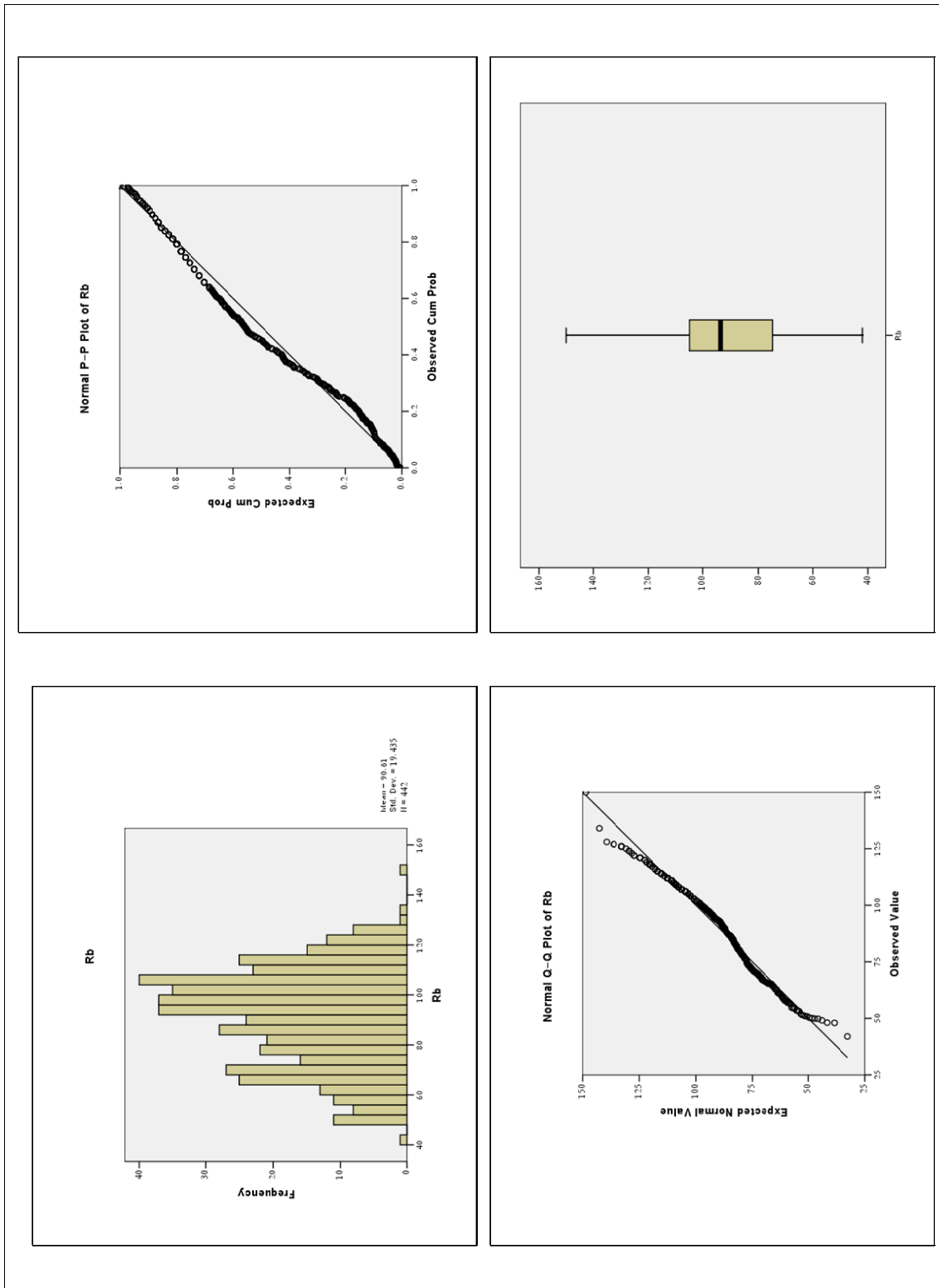
شکل (۲-۶۸): هیستوگرام و نمودارهای P-P, Q-Q, BOX PLOT و نرمال شده برای متغیر Ni در منطقه مطالعاتی.



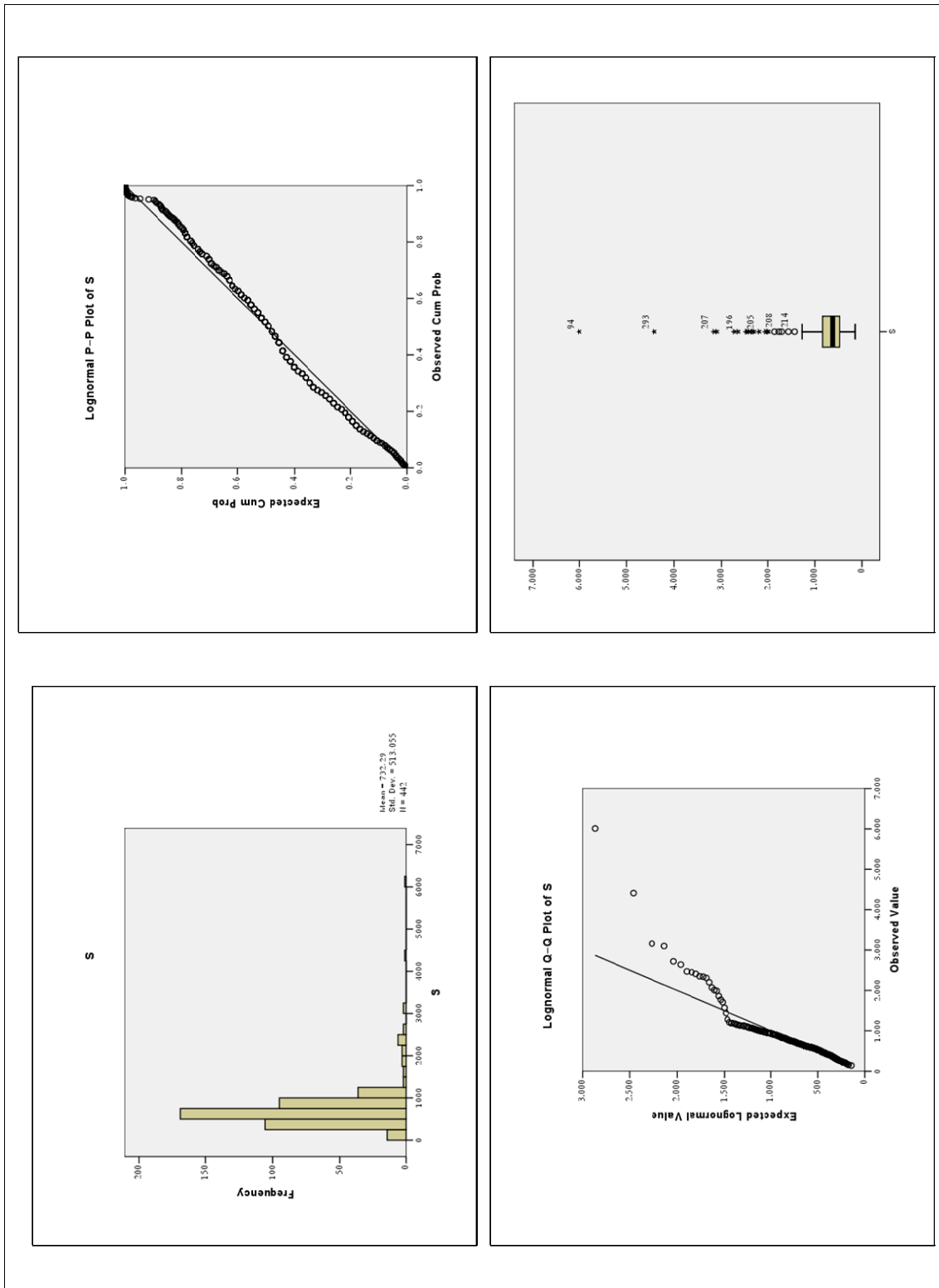
شکل (۲-۶۹): هیستوگرام و نمودارهای P-P، Q-Q، BOX PLOT و P-P، Q-Q ترسیم شده برای متغیر P در منطقه مطالعاتی.



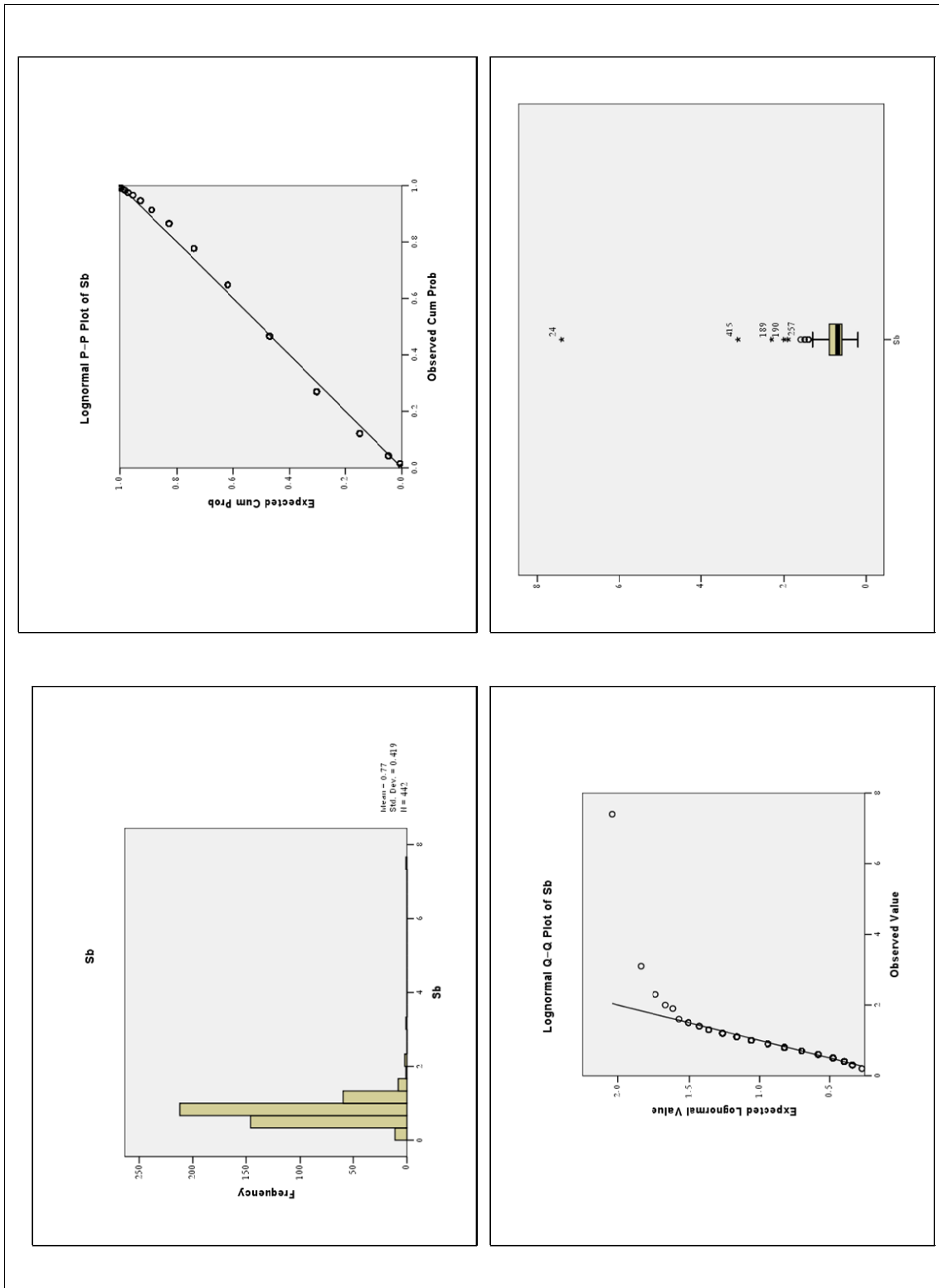
شکل (۷۰-۲): هیستوگرام و نمودارهای P-P، Q-Q، BOX PLOT و ترسیم شده برای متغیر Pb در منطقه مطالعاتی.



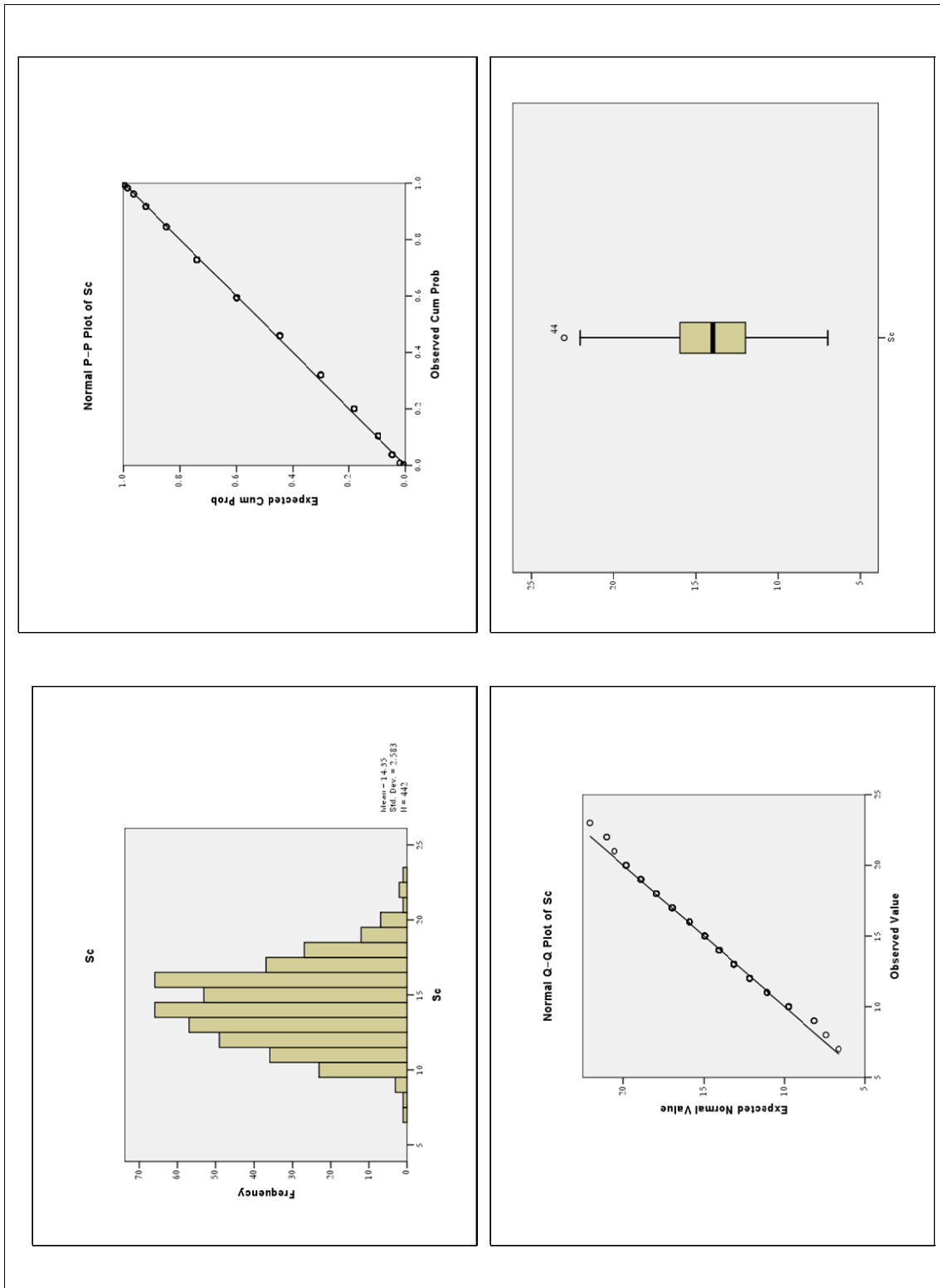
شکل (۷۱-۲): هیستوگرام و نمودارهای P-P, Q-Q, BOX PLOT و P-P, Q-Q ترسیم شده برای متغیر Rb در منطقه مطالعاتی.



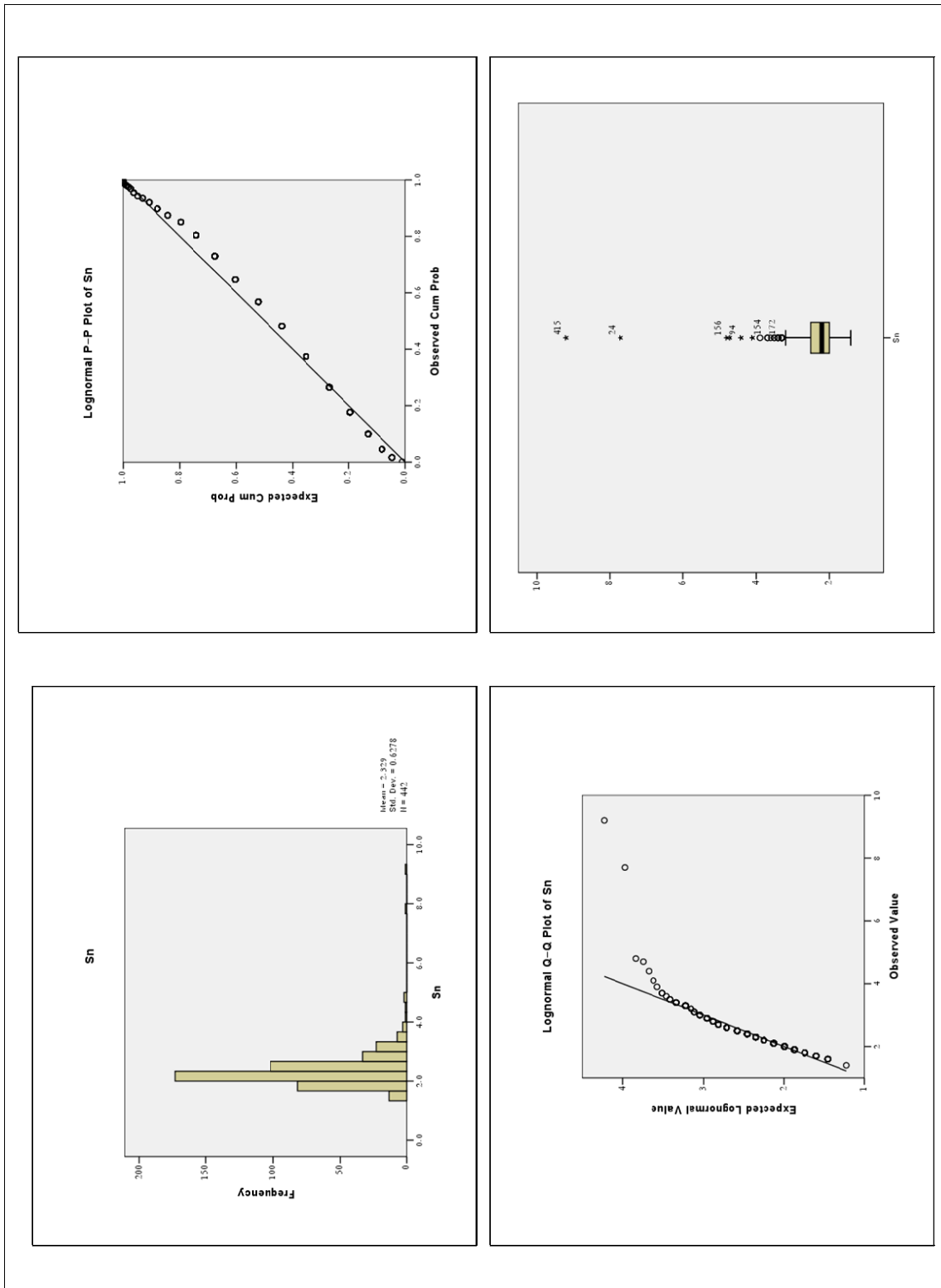
شکل (۲-۷۳): هیستوگرام و نمودارهای Q-Q، P-P، BOX PLOT و ترسیم شده برای متغیر S در منطقه مطالعاتی.



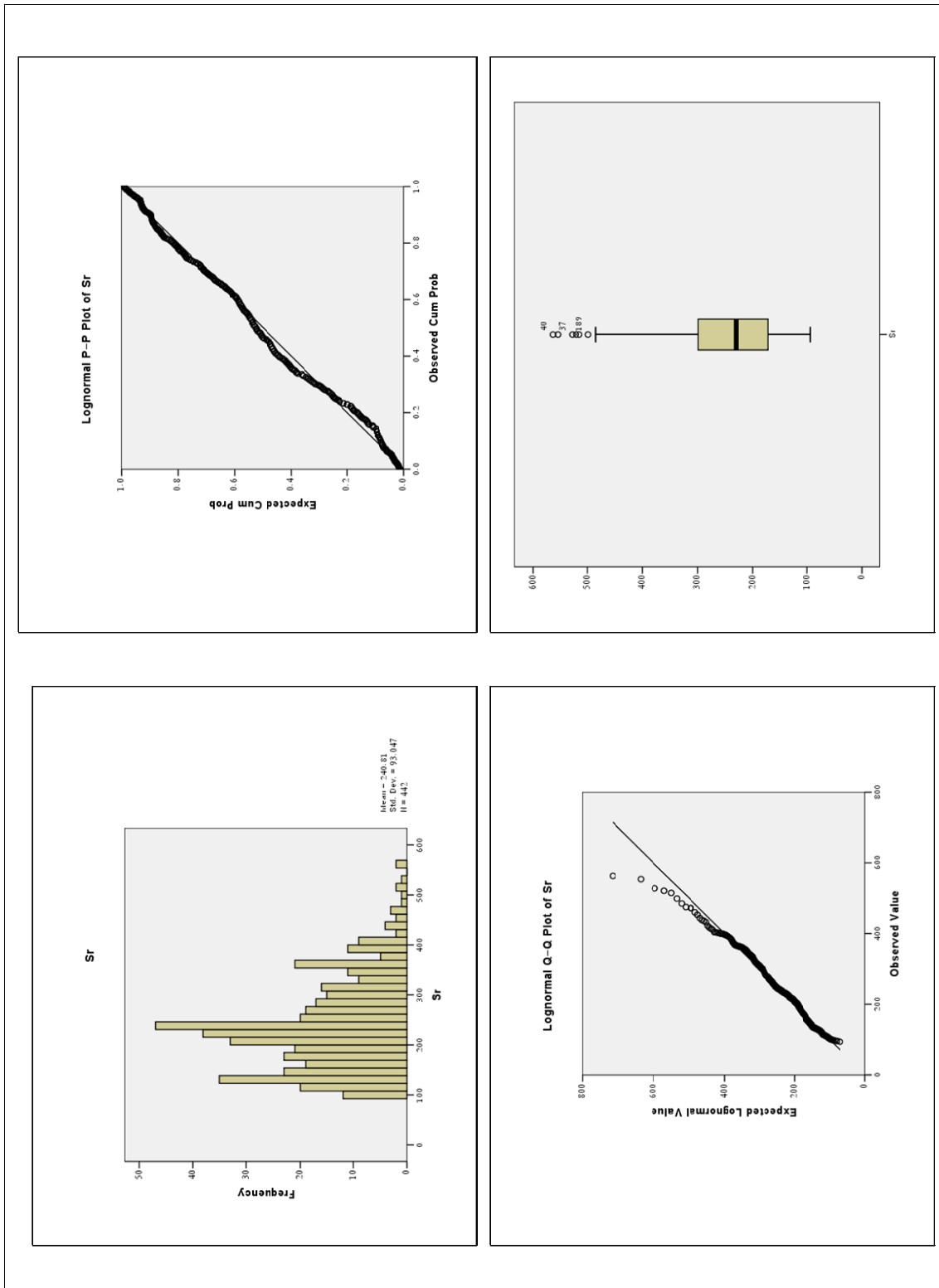
شکل (۲-۷۳): هیستوگرام و نمودارهای P-Q، Q-Q، BOX PLOT و P-P، Q-Q توزیع شده برای متغیر Sb در منطقه مطالعاتی.



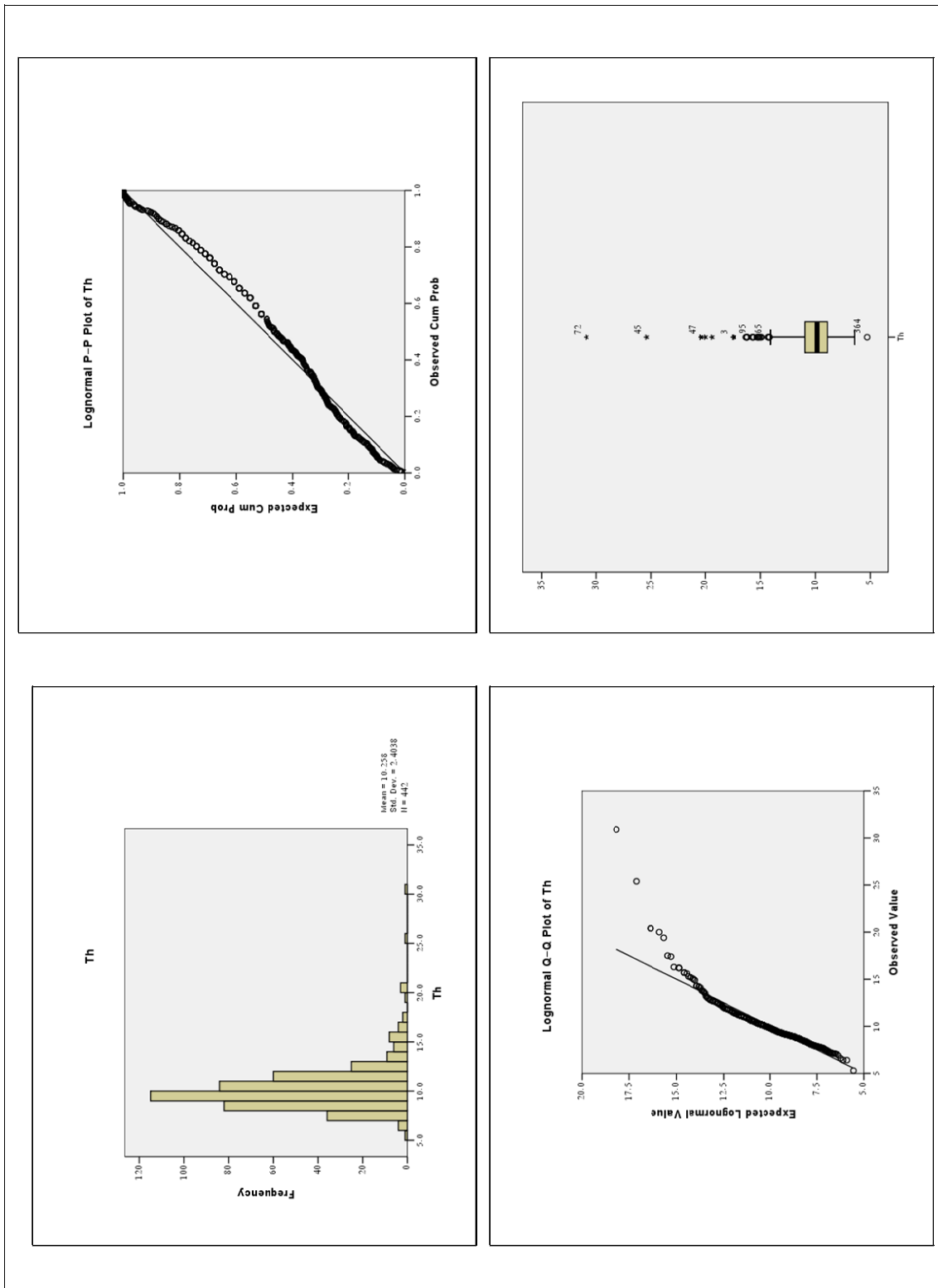
شکل (۲-۷۴): هیستوگرام و نمودارهای P-P, Q-Q و BOX PLOT ترسیم شده برای متغیر Sc در منطقه مطالعاتی.



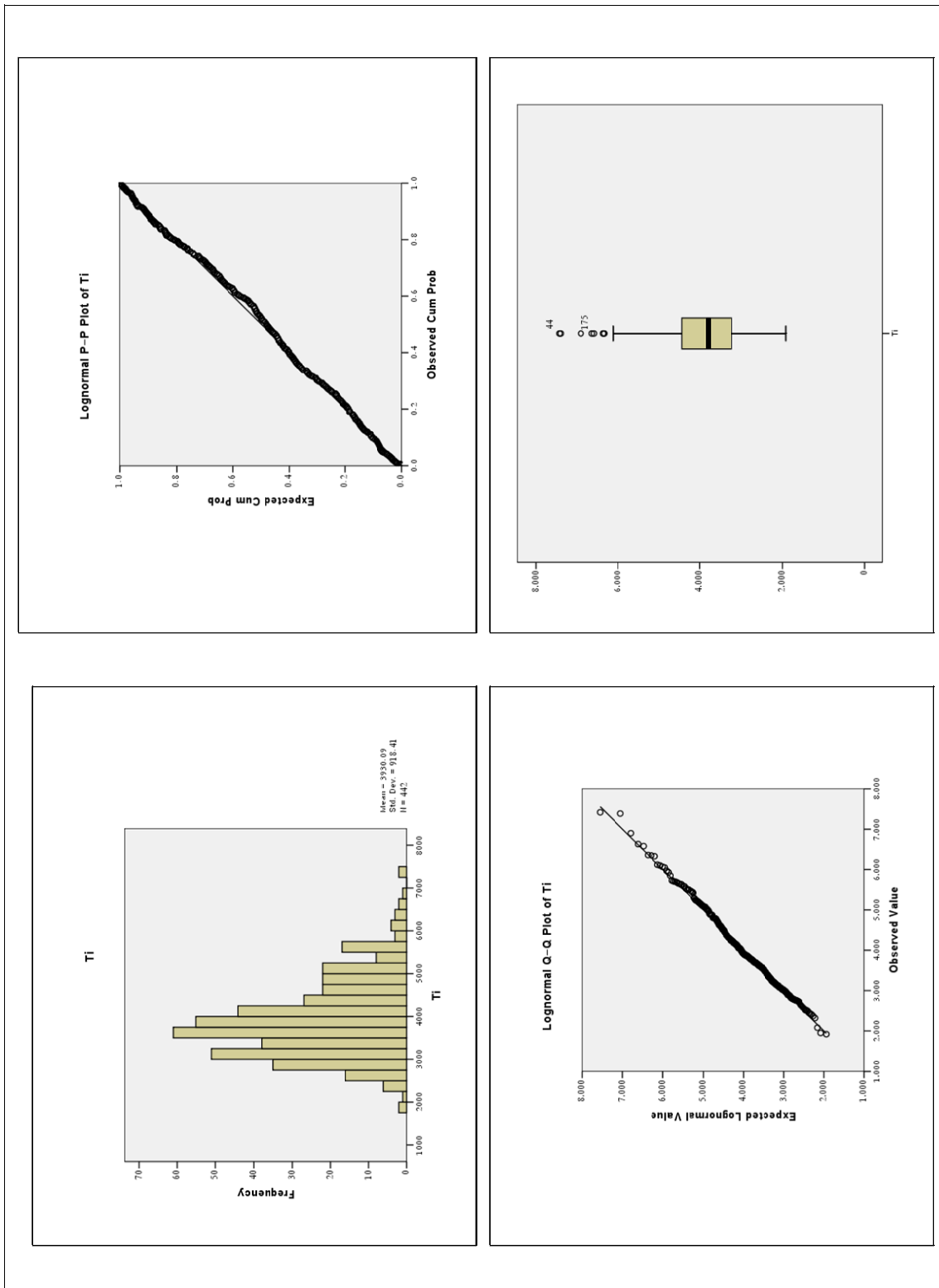
شکل (۷۵-۲): هیستوگرام و نمودارهای P-P، Q-Q، BOX PLOT و P-P، Q-Q ترسیم شده برای متغیر Sn در منطقه مطالعاتی.



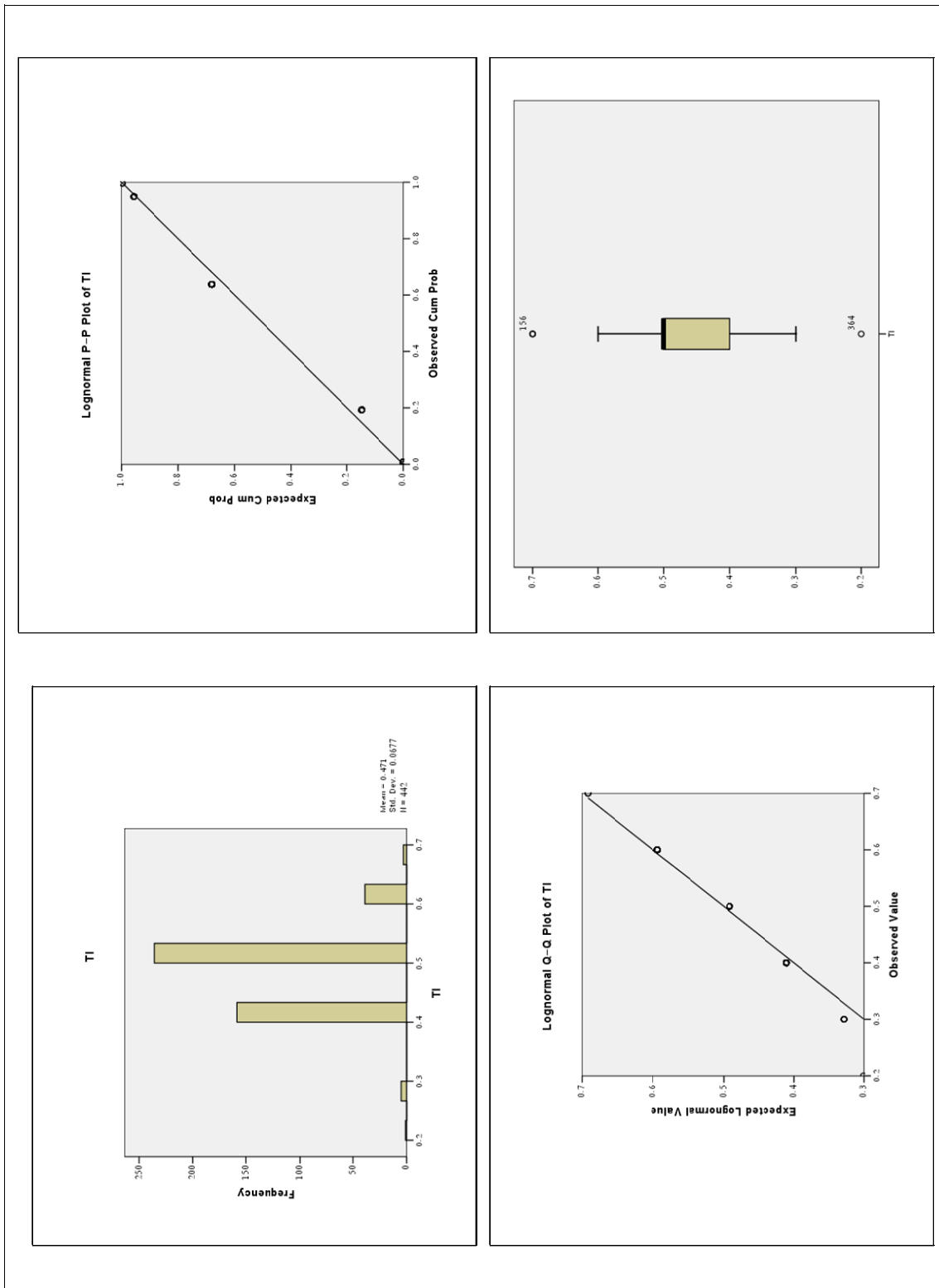
شکل (۲-۷۶): هیستوگرام و نمودارهای BOX PLOT و P-P, Q-Q ترسیم شده برای متغیر Sr در منطقه مطالعاتی.



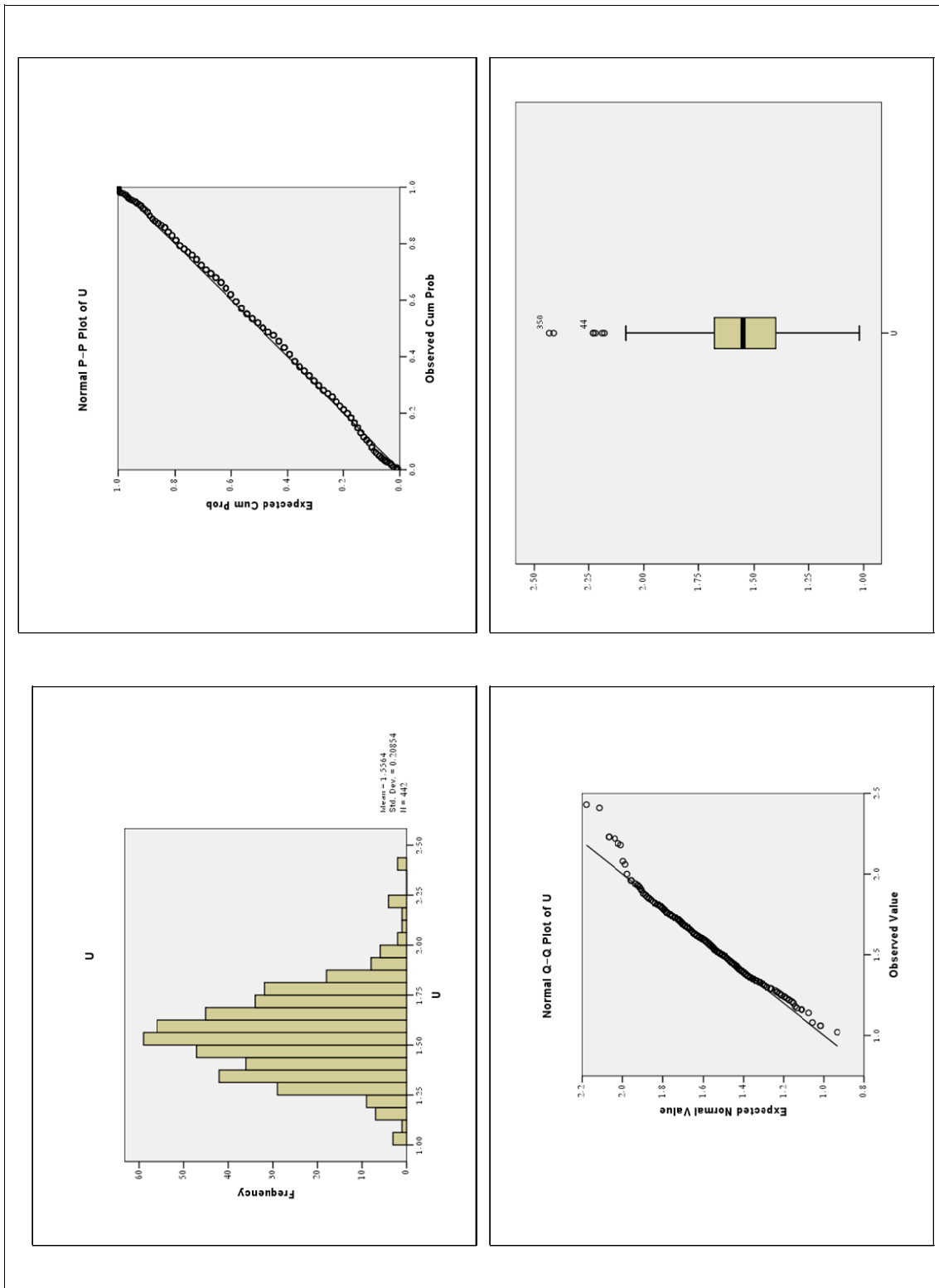
شکل (۲-۷۷): هیستوگرام و نمودارهای P-P، Q-Q و BOX PLOT ترسیم شده برای متغیر Th در منطقه مطالعاتی.



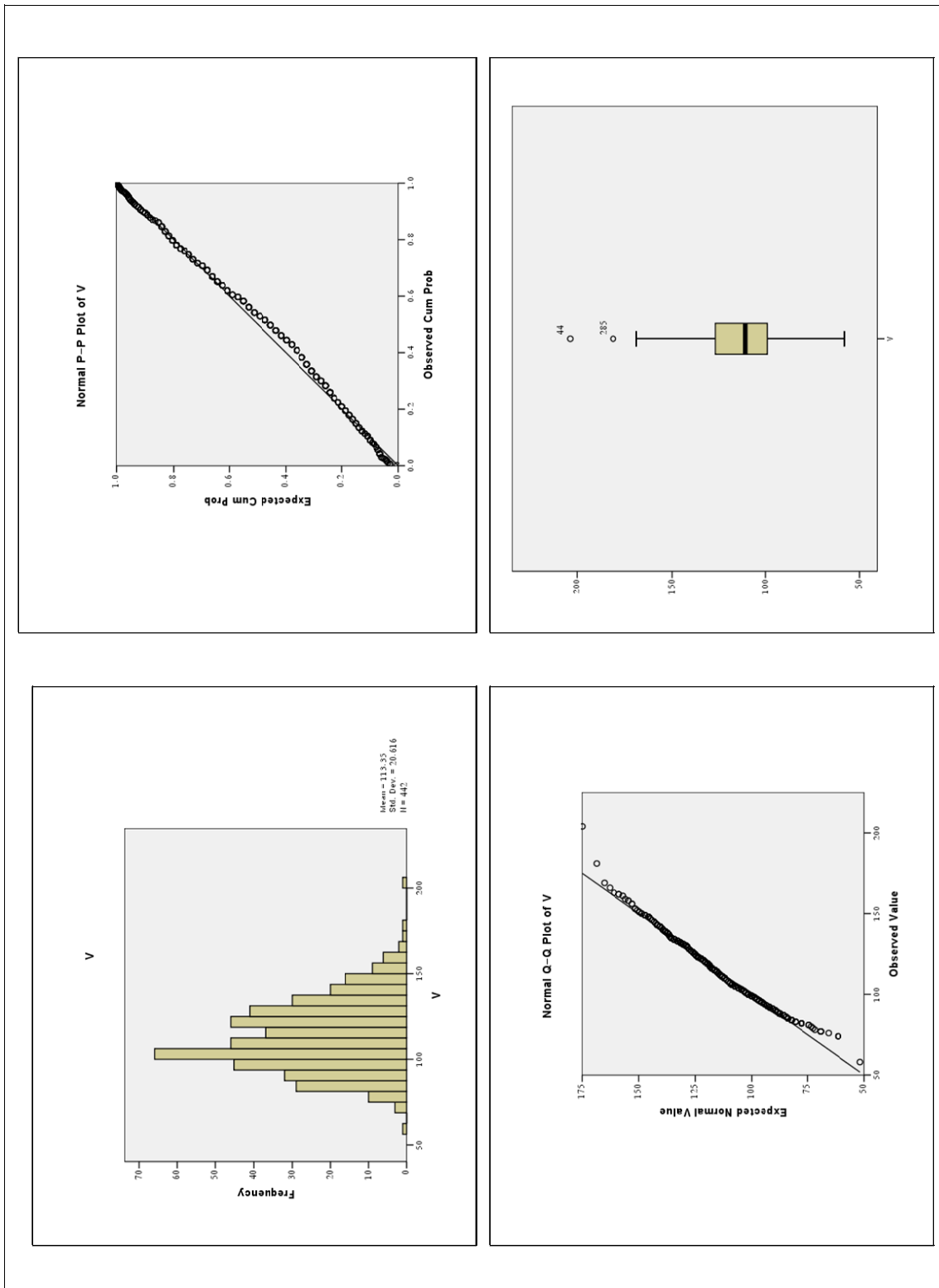
شکل (۲-۷۸): هیستوگرام و نمودارهای P-P، Q-Q، BOX PLOT ترسیم شده برای متغیر Ti در منطقه مطالعاتی.



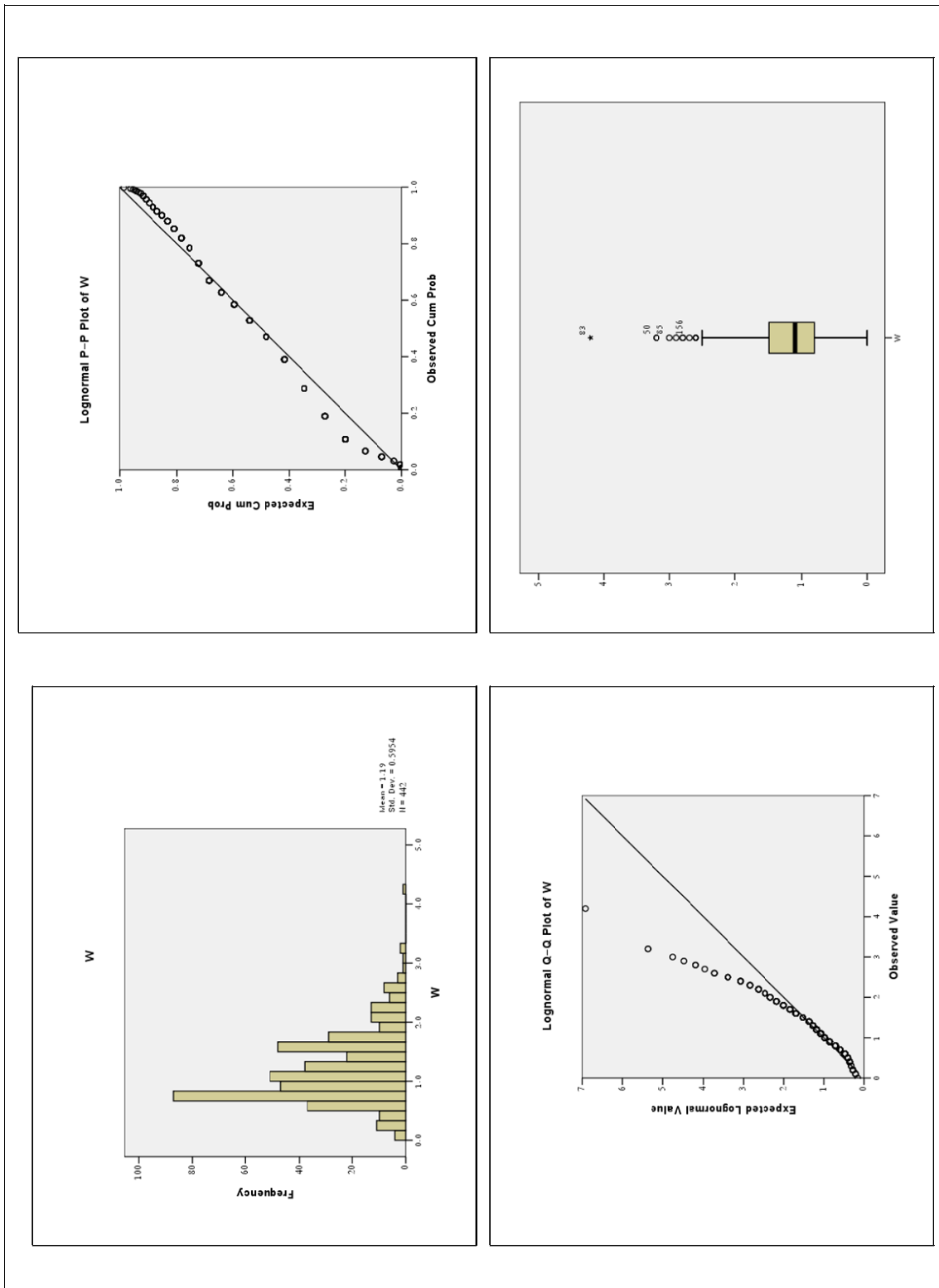
شکل (۷۹-۲): هیستوگرام و نمودارهای Q-Q، P-P و BOX PLOT ترسیم شده برای متغیر TI در منطقه مطالعاتی.



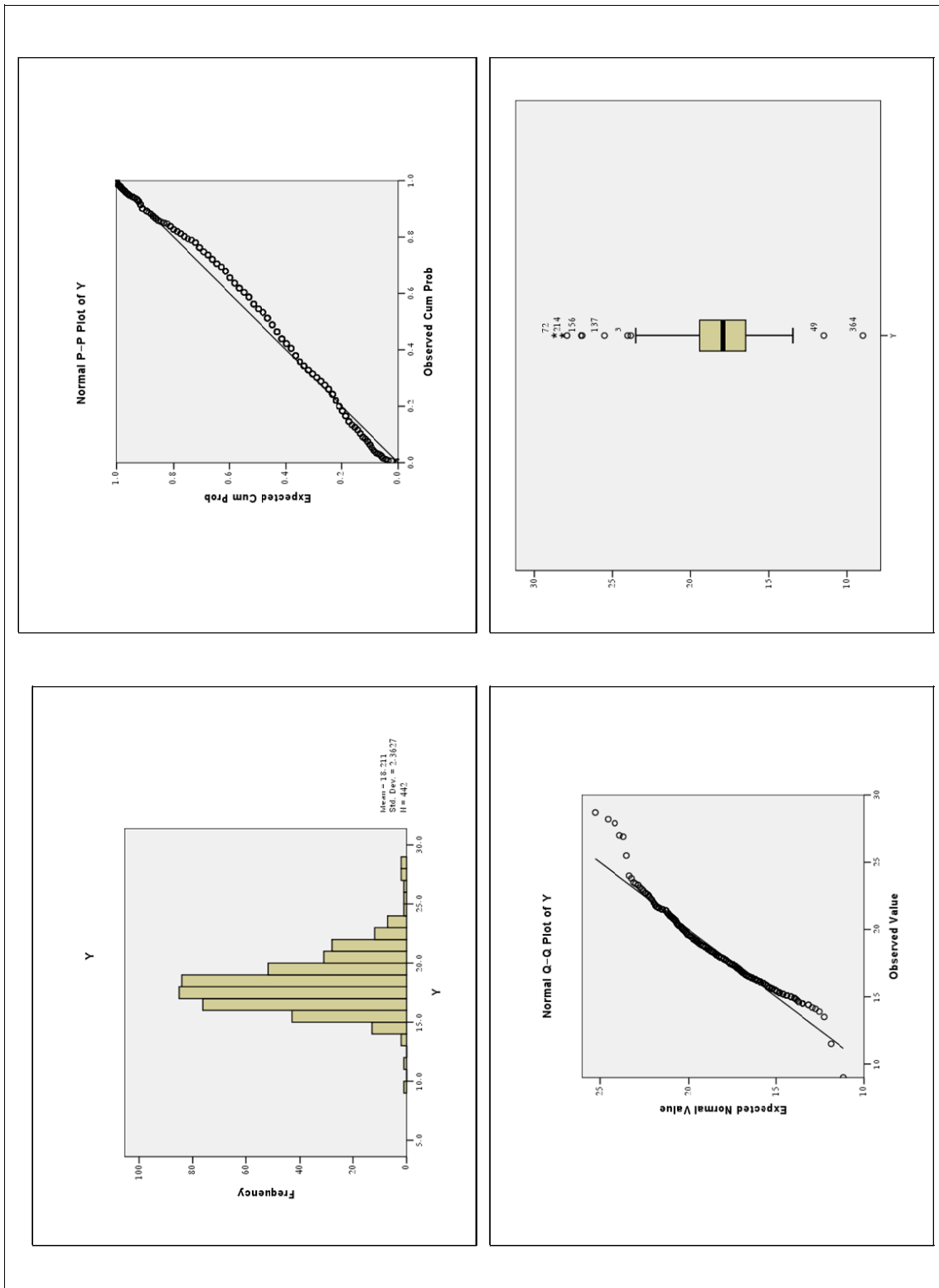
شکل (۸۰-۲): هیستوگرام و نمودارهای P-Q, Q-Q, BOX PLOT و P-P, Q-Q توزیع شده برای متغیر U در منطقه مطالعاتی.



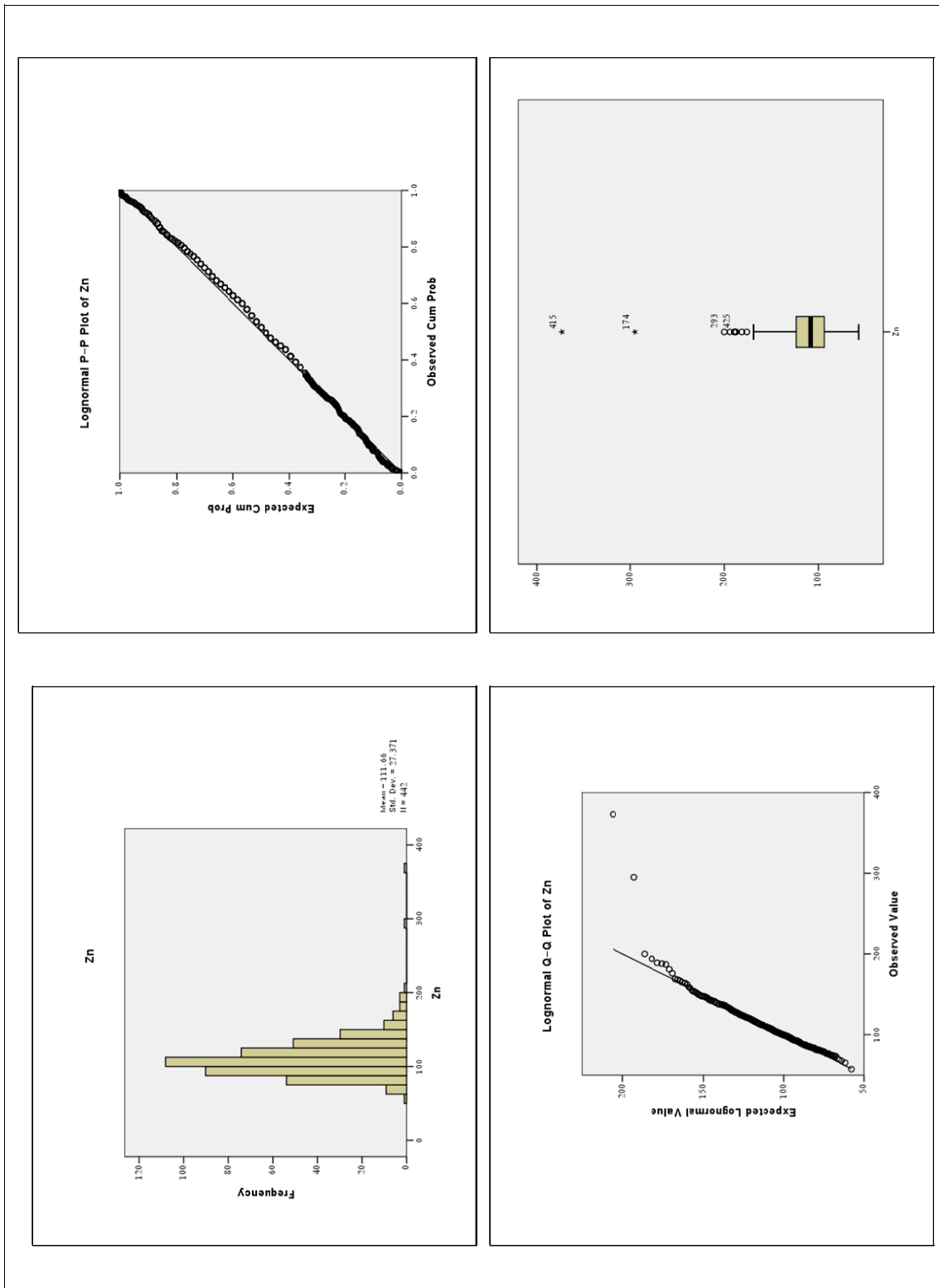
شکل (۲-۸۱): هیستوگرام و نمودارهای P-P, Q-Q و BOX PLOT ترسیم شده برای متغیر V در منطقه مطالعاتی.



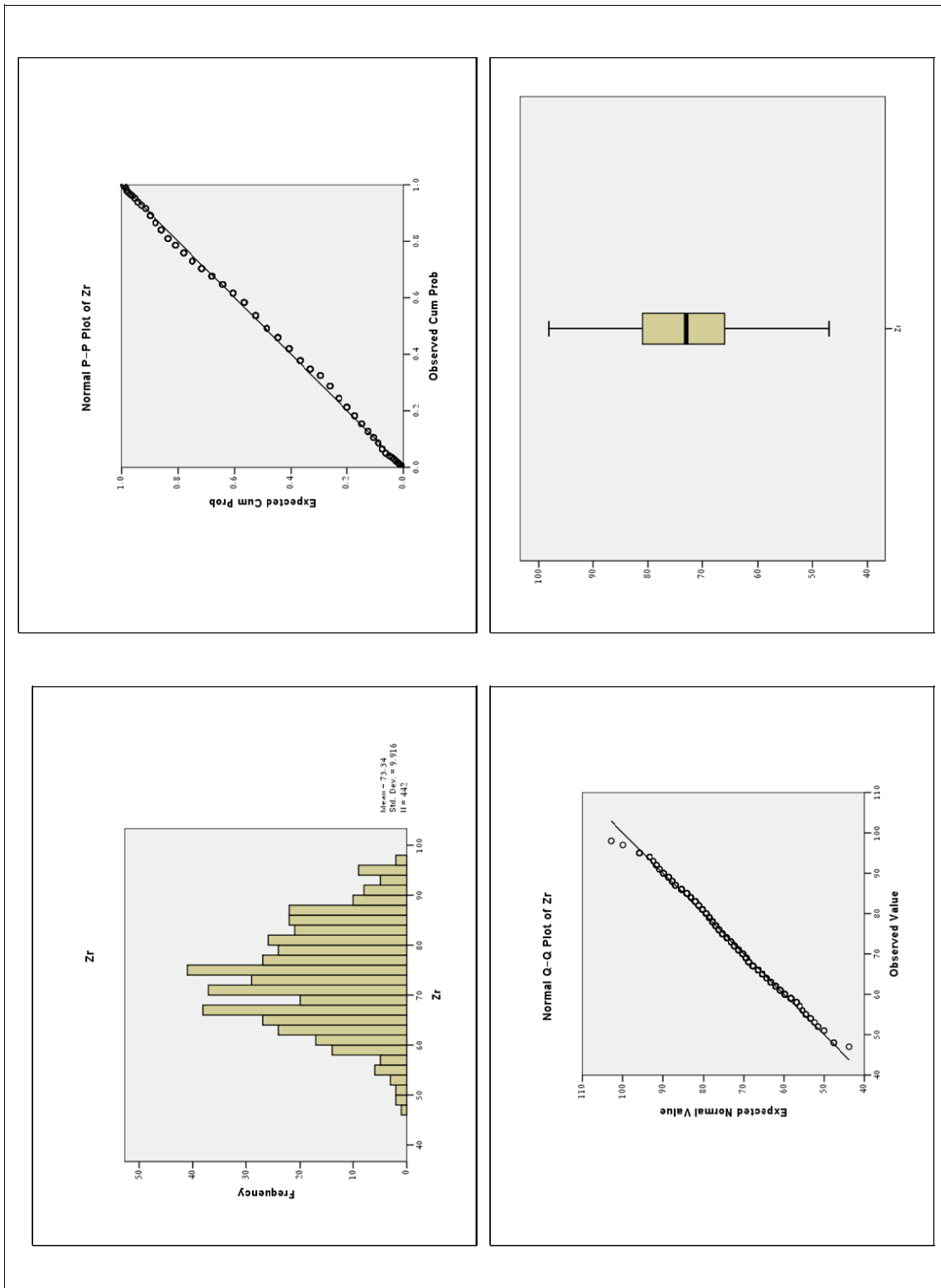
شکل (۸۲-۲): هیستوگرام و نمودارهای P-P, Q-Q و BOX PLOT تو سیم شده برای متغیر W در منطقه مطالعاتی.



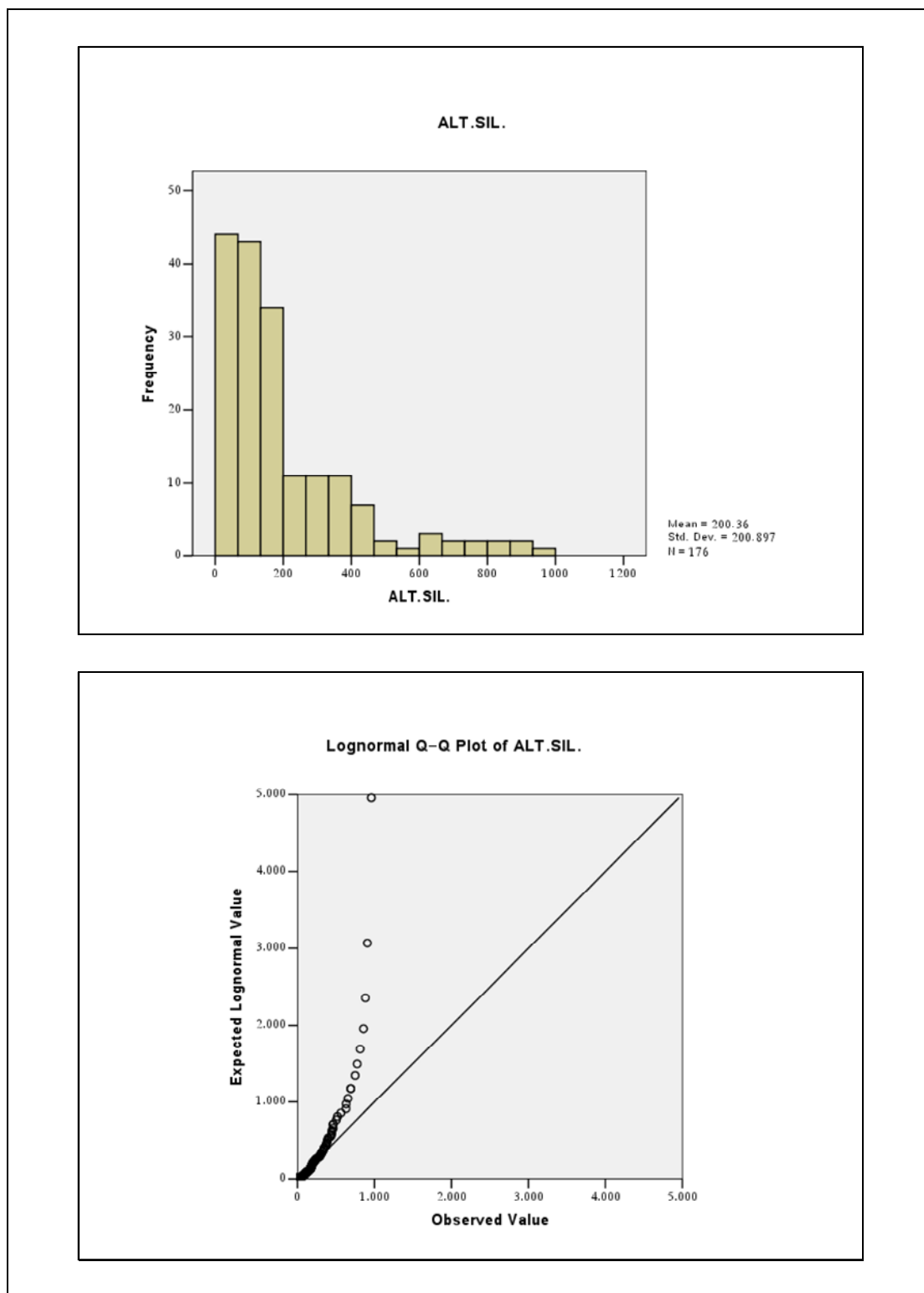
شکل (۲-۸۳): هیستوگرام و نمودارهای P-P، Q-Q و BOX PLOT ترسیم شده برای متغیر Y در منطقه مطالعاتی.



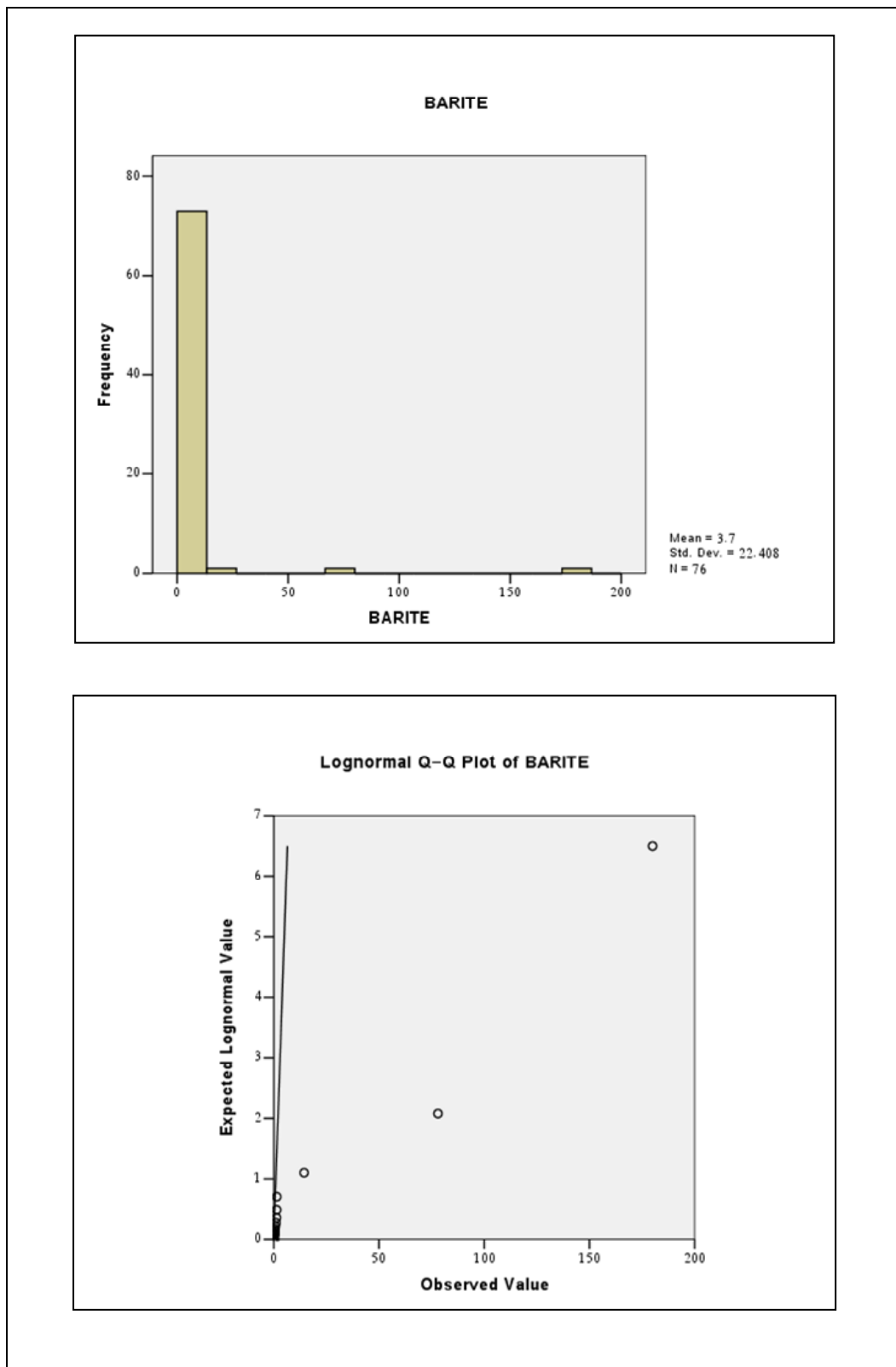
شکل (۲-۸۴): هیستوگرام و نمودارهای BOX PLOT و P-P, Q-Q ترسیم شده برای متغیر Zn در منطقه مطالعاتی.



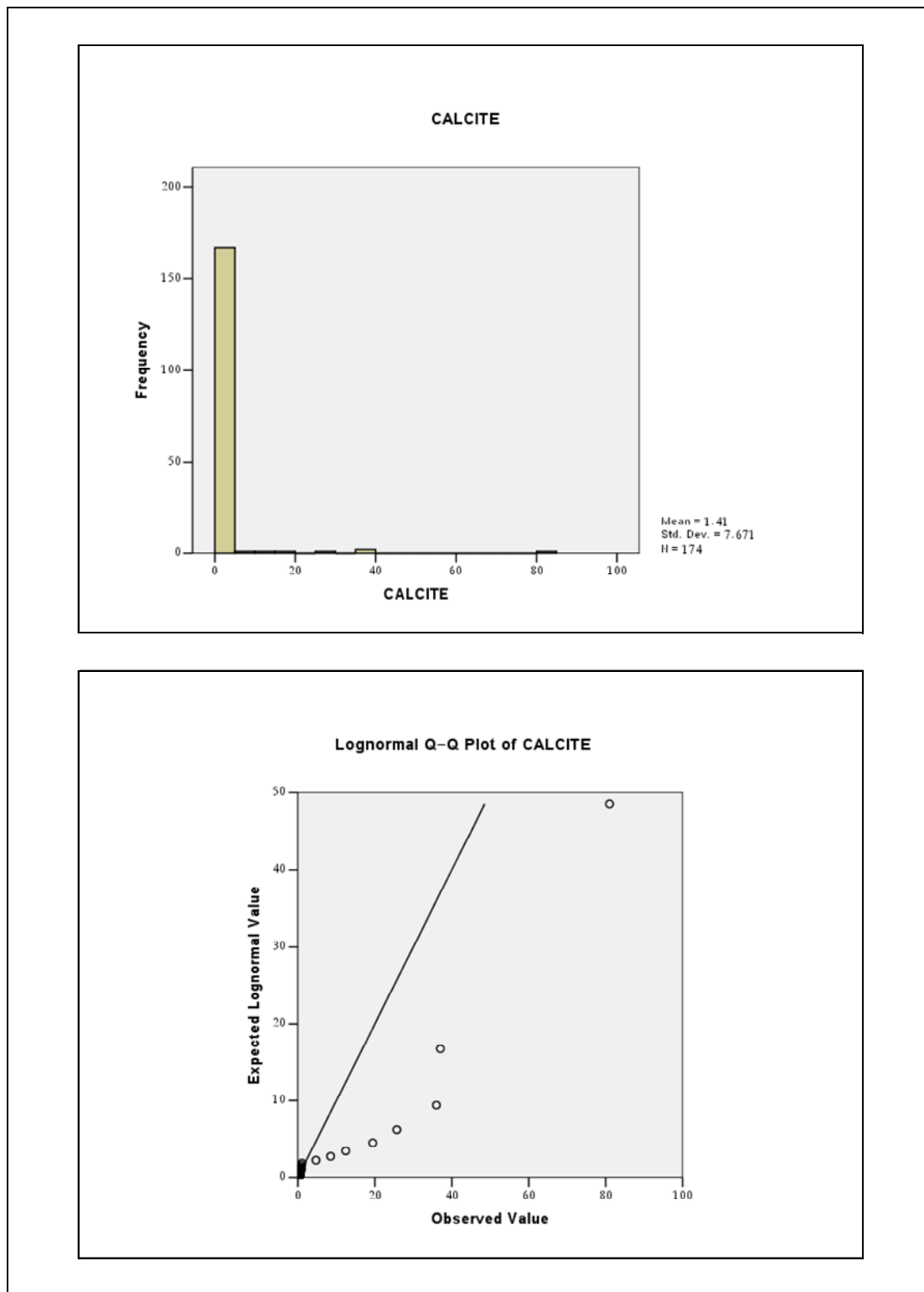
شکل (۲-۸۵): هیستوگرام و نمودارهای P-P، Q-Q و BOX PLOT نرم شده برای متغیر Zr در منطقه مطالعاتی.



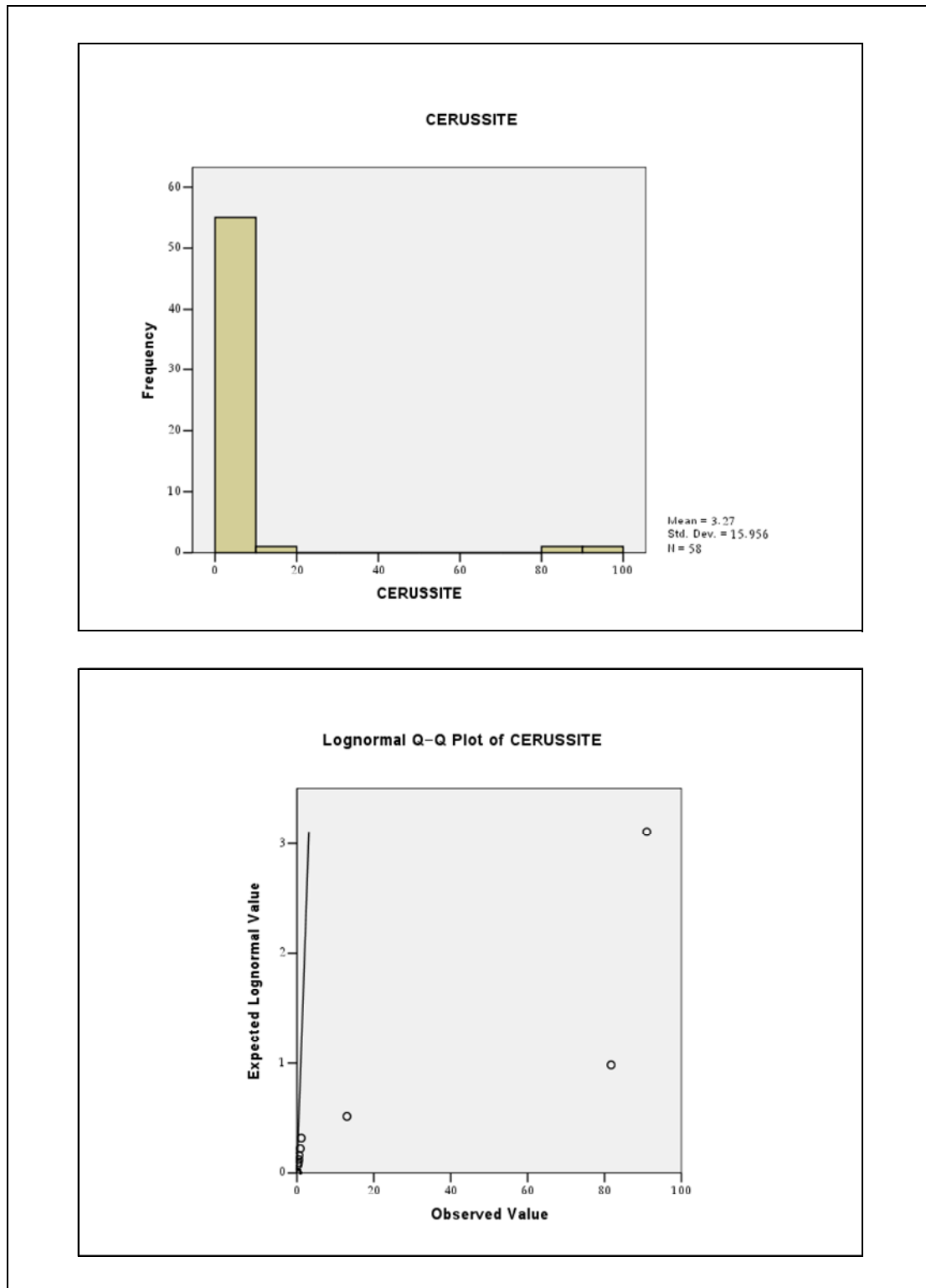
شکل (۲-۳): هیستوگرام و نمودار Q-Q ترسیم شده برای متغیر کانی سنگین سیلیکانهای آتیره شده در منطقه مطالعاتی.



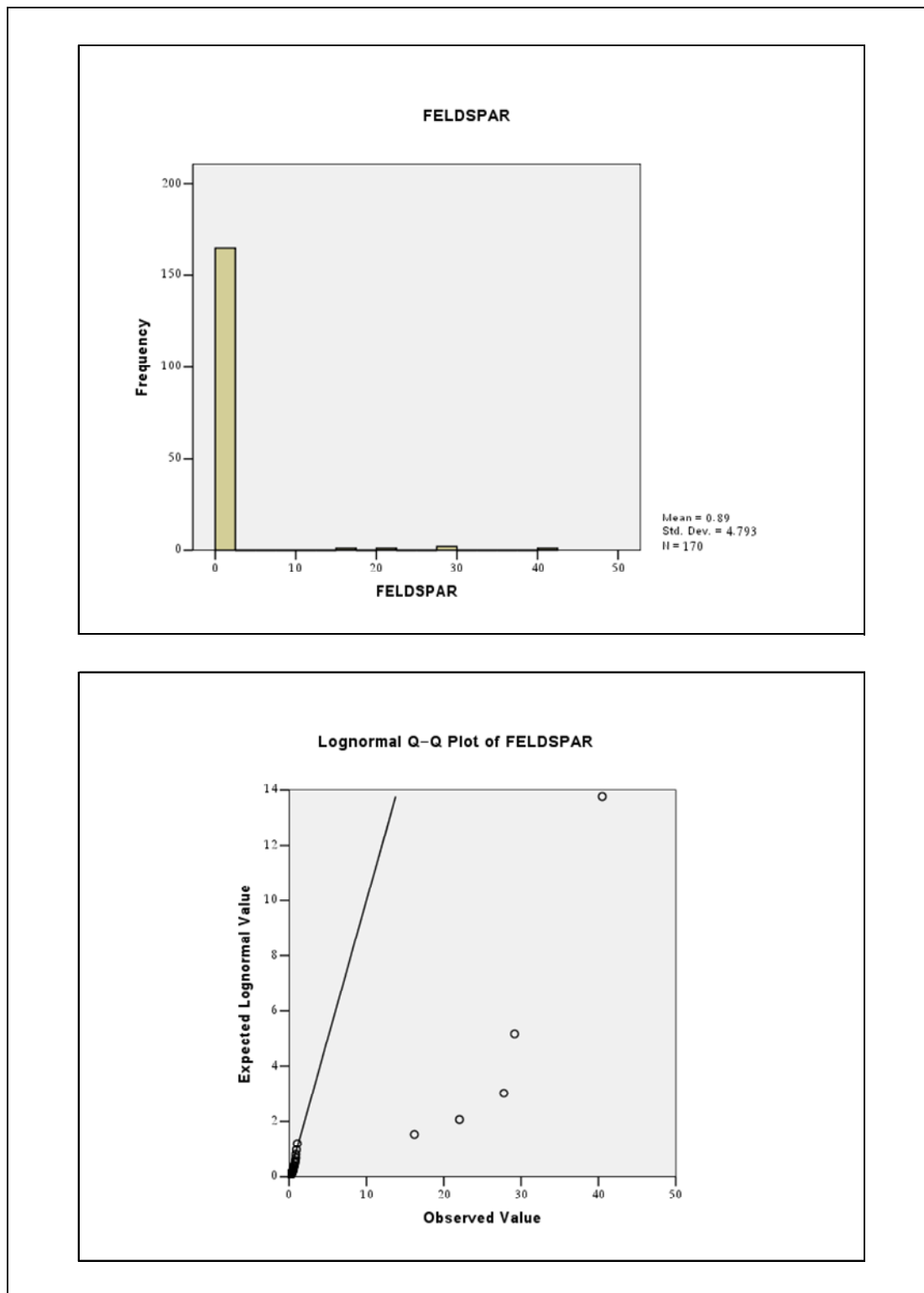
شکل (۳-۳): هیستوگرام و نمودار Q-Q ترسیم شده برای متغیر کانی سنگین باریت در منطقه مطالعاتی.



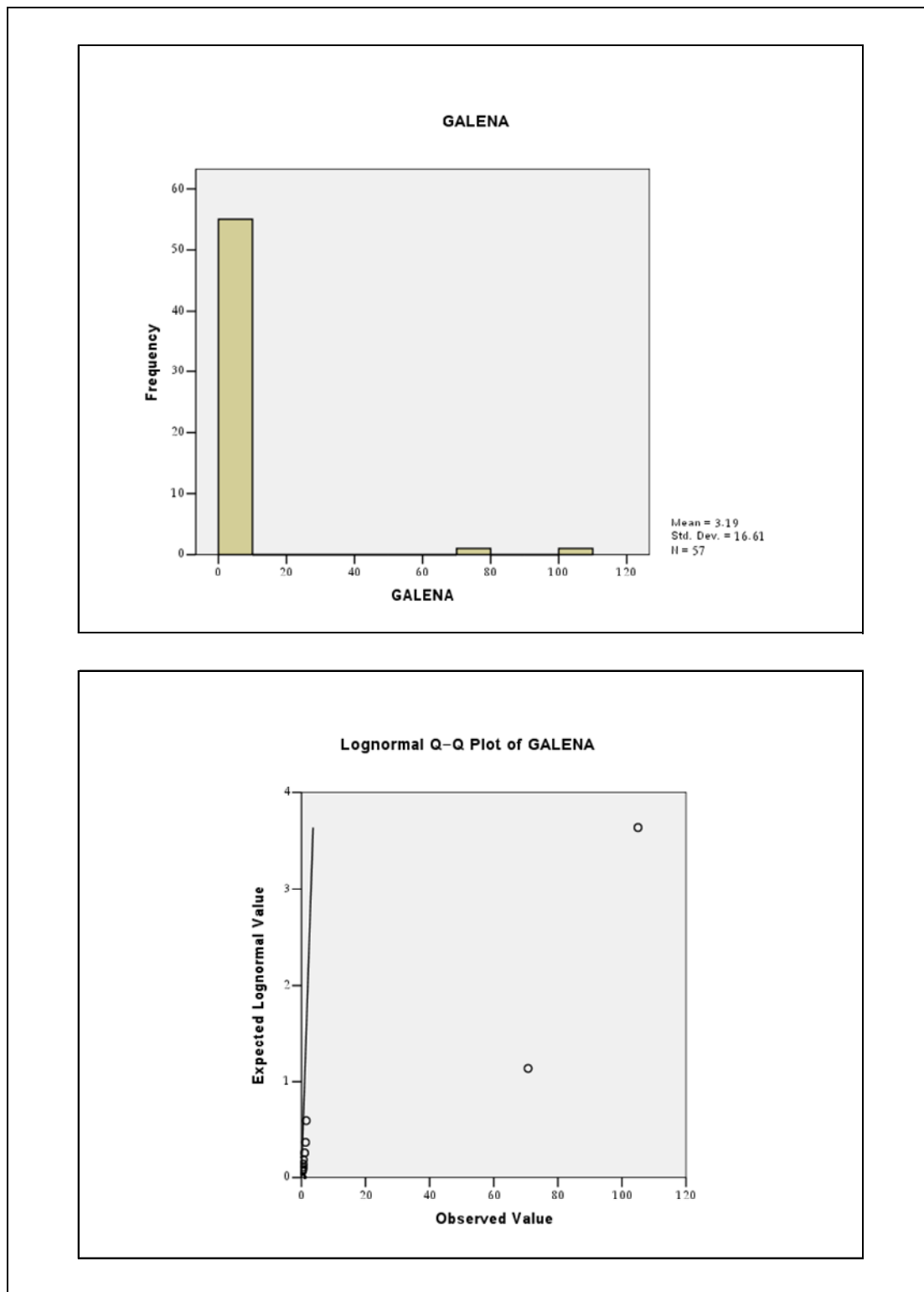
شکل (۳-۴): هیستوگرام و نمودار Q-Q ترسیم شده برای متغیر کانی سنگین کلسیت در منطقه مطالعاتی.



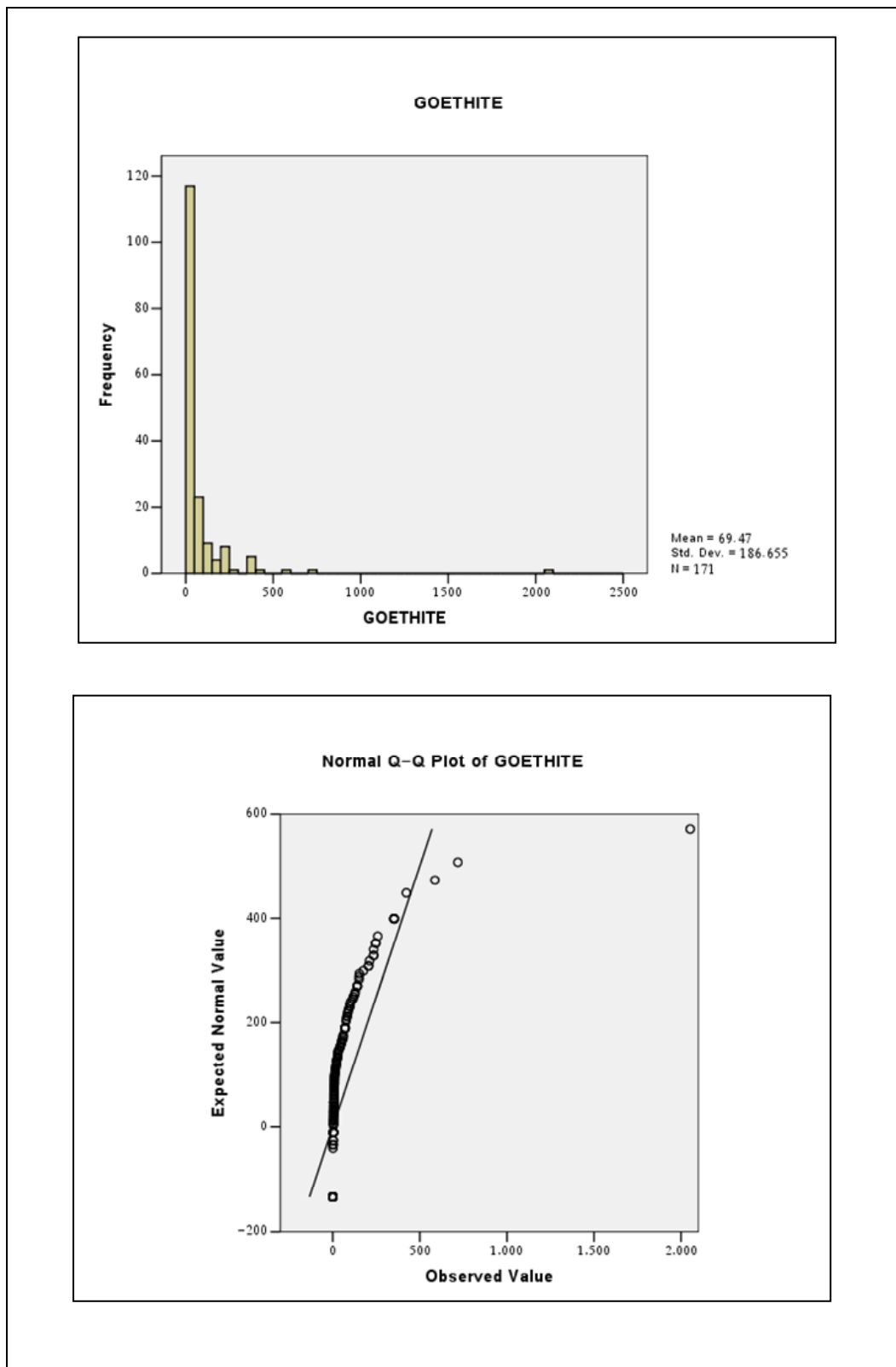
شکل (۳-۵): هیستوگرام و نمودار Q-Q ترسیم شده برای متغیر کانی سنگین سروزیت در منطقه مطالعاتی.



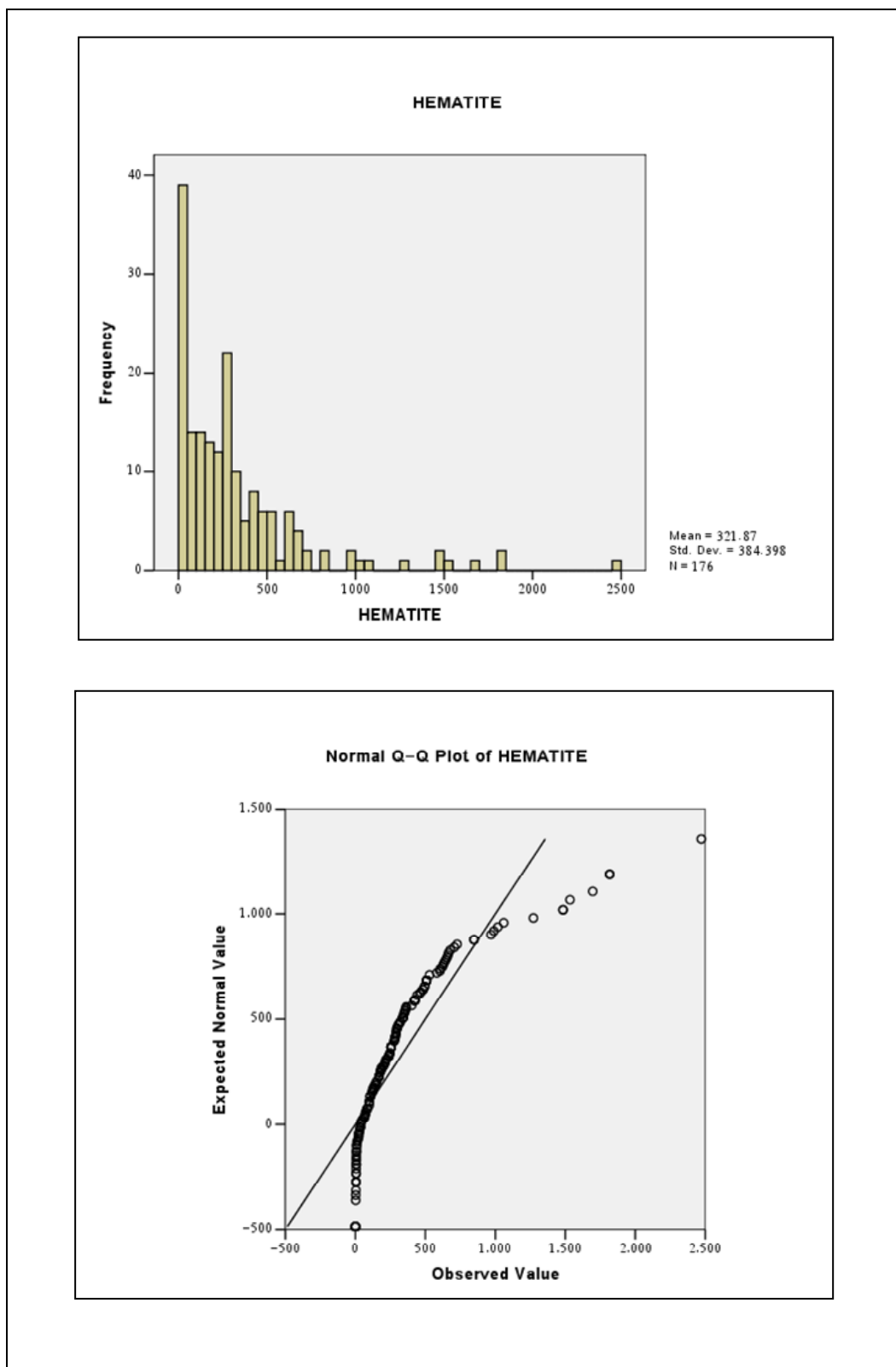
شکل (۳-۶): هیستوگرام و نمودار Q-Q ترسیم شده برای متغیر کانی سنگین فلدسپات در منطقه مطالعاتی.



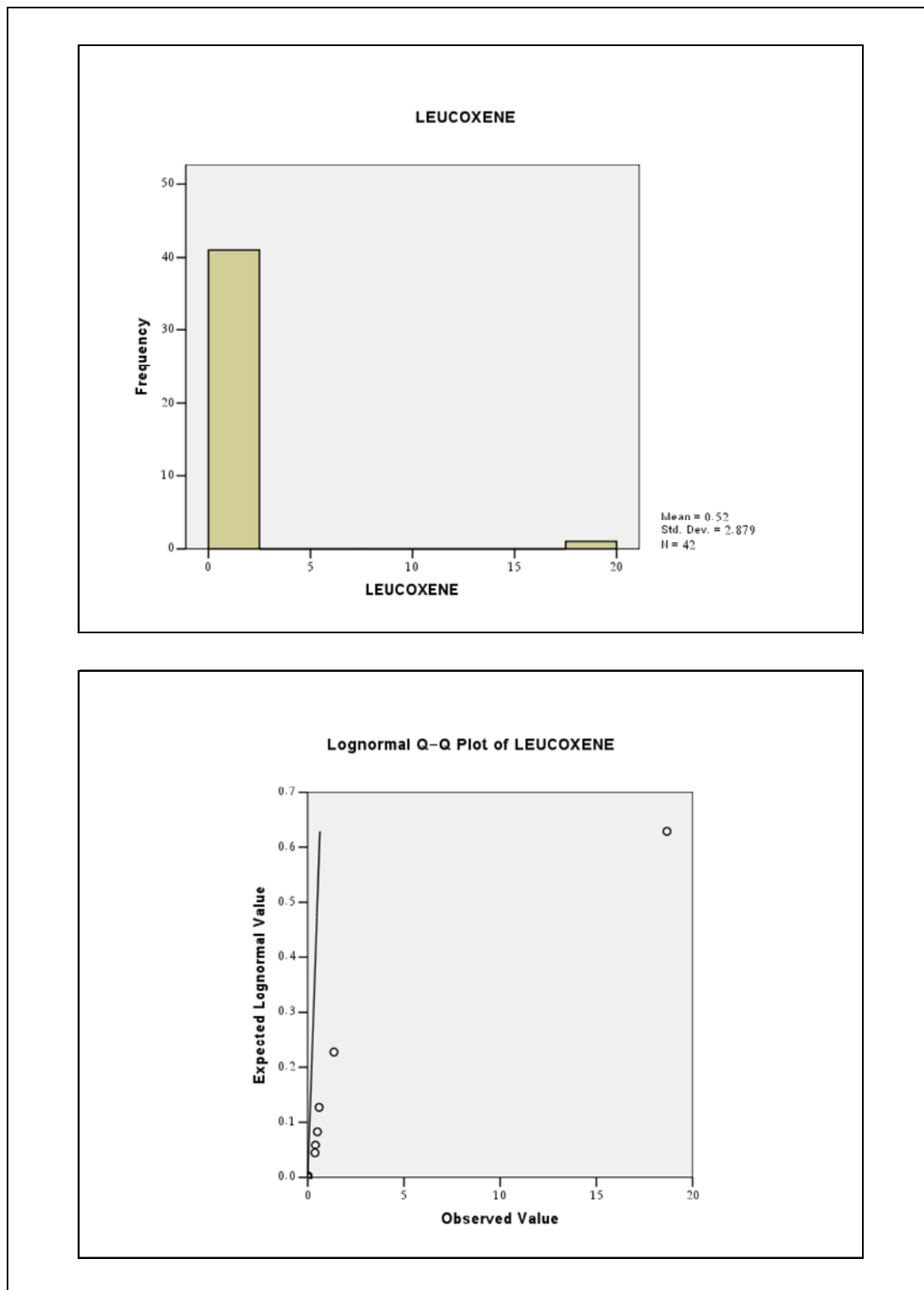
شکل (۳-۷): هیستوگرام و نمودار Q-Q ترسیم شده برای متغیر کانی سنگین گالن در منطقه مطالعاتی.



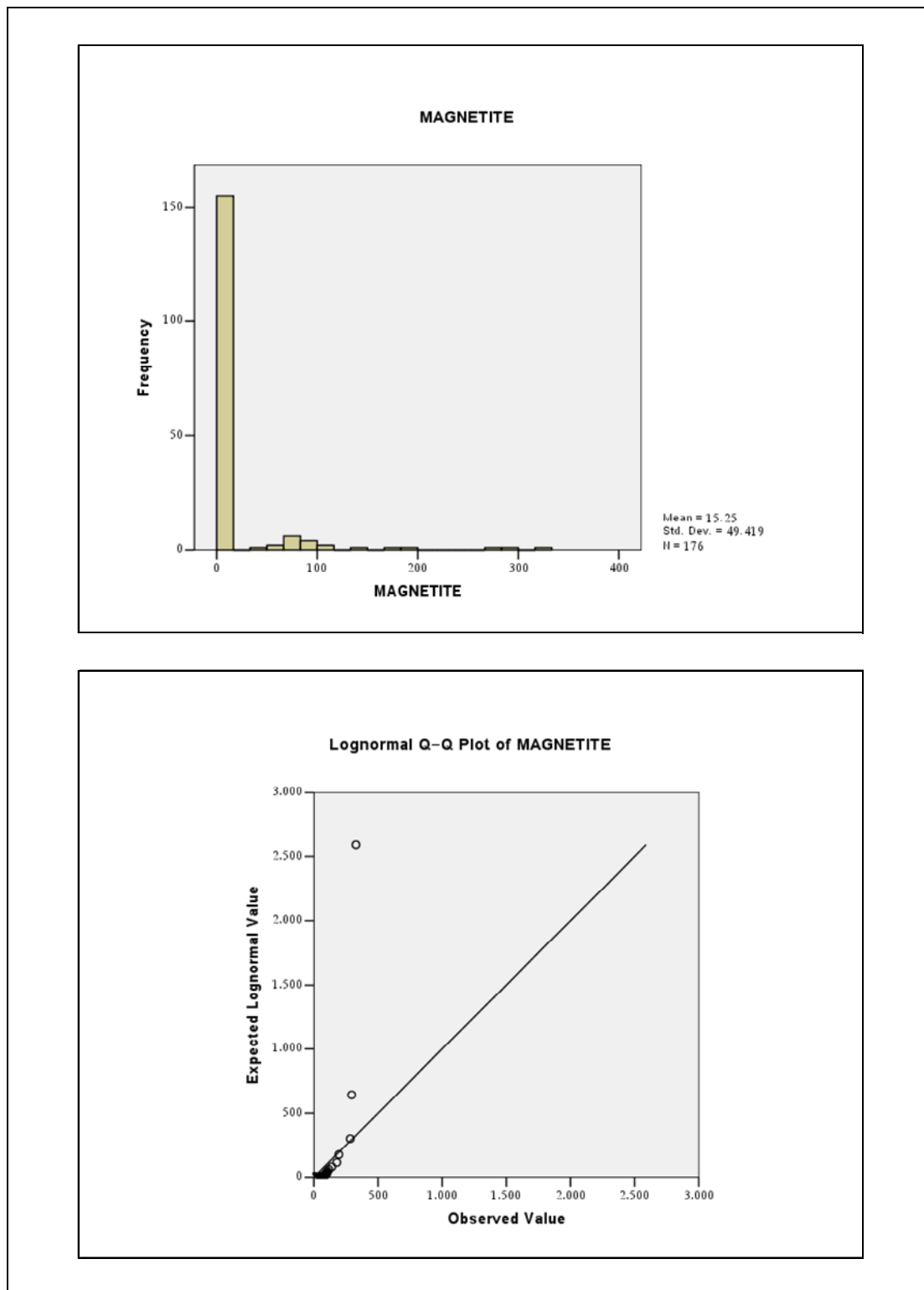
شکل (۳-۸): هیستوگرام و نمودار Q-Q ترسیم شده برای متغیر کانی سنگین گوتیت در منطقه مطالعاتی.



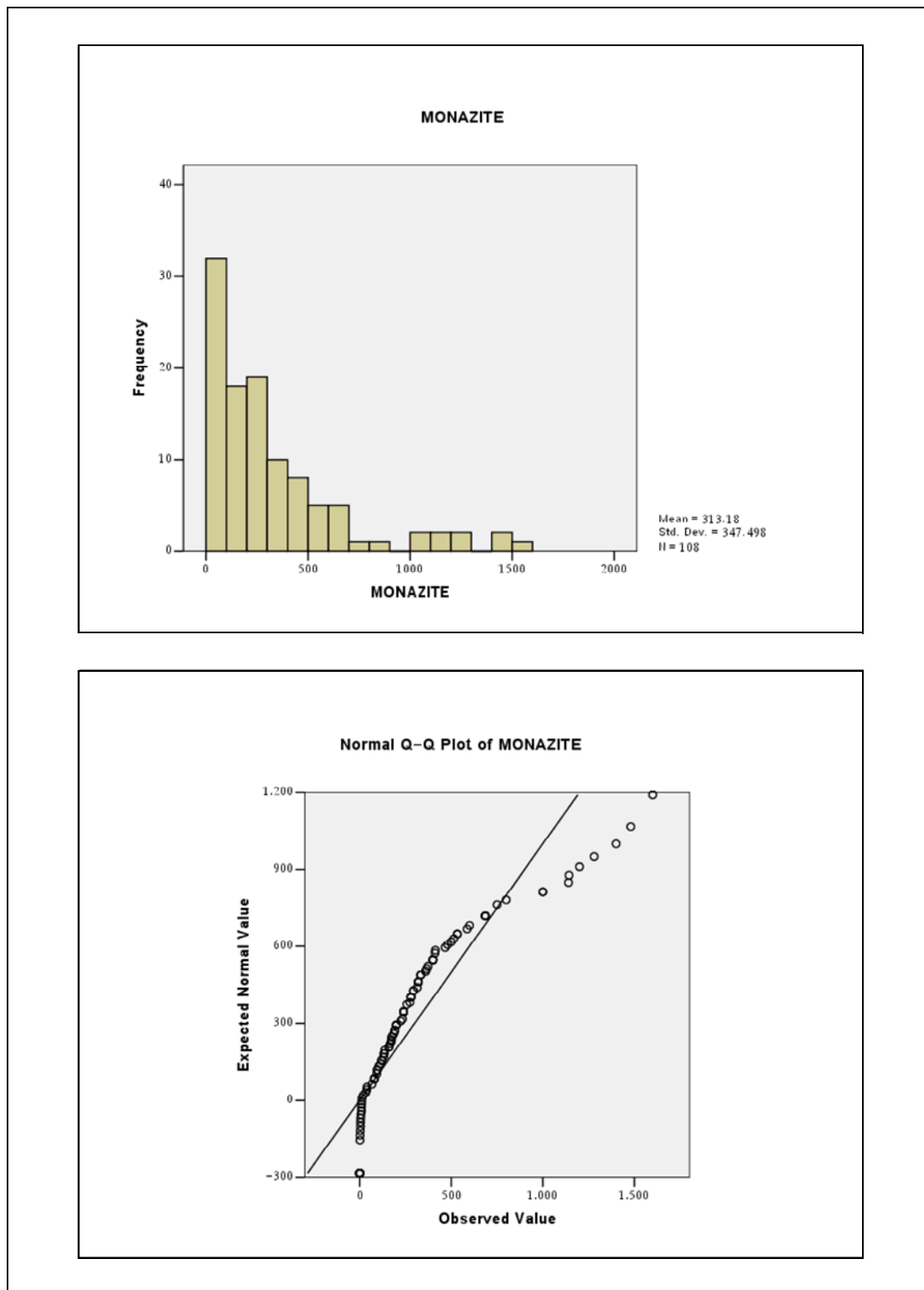
شکل (۳-۹): هیستوگرام و نمودار Q-Q ترسیم شده برای متغیر کانی سنگین هماتیت در منطقه مطالعاتی.



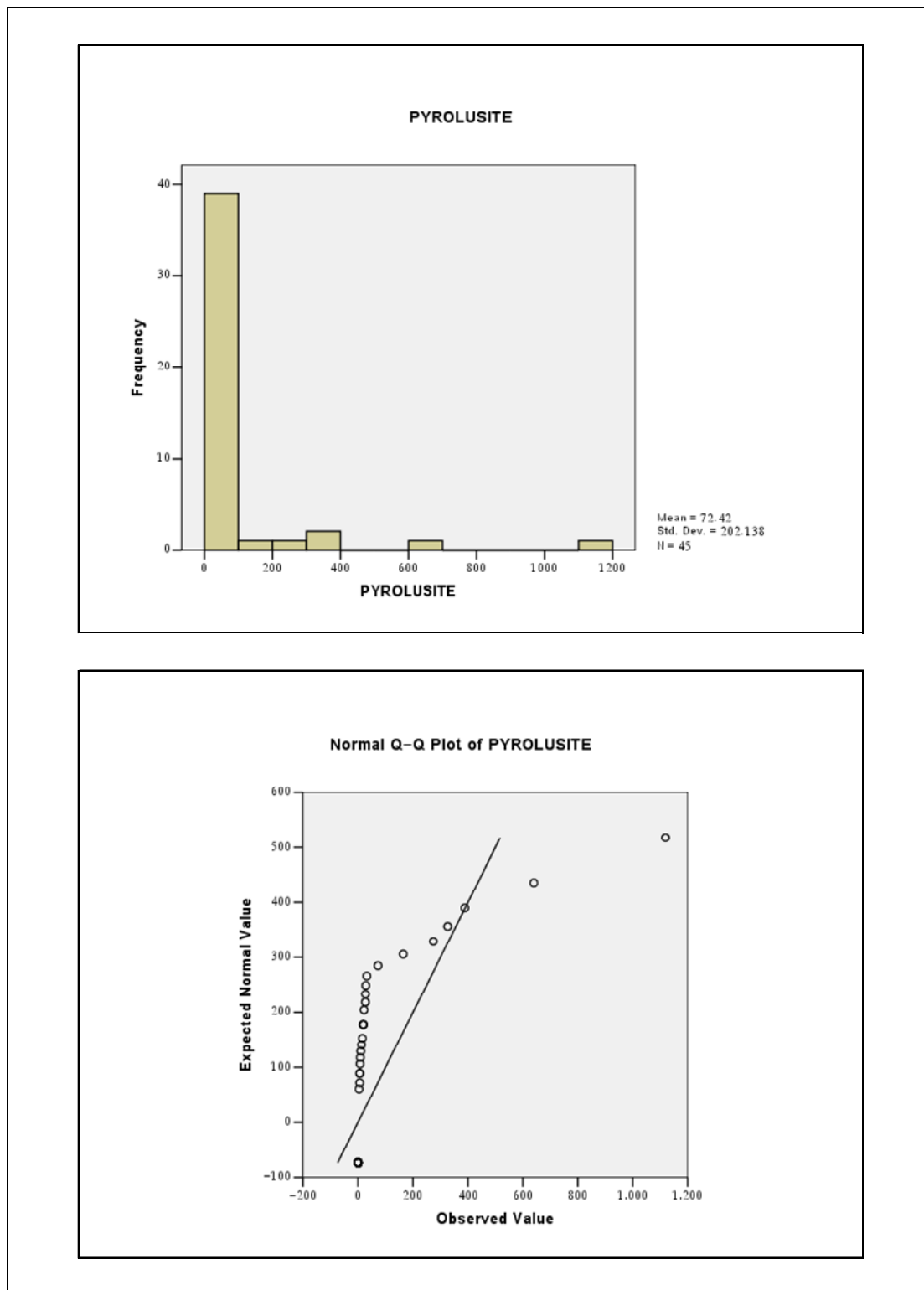
شکل (۳-۱۰): هیستوگرام و نمودار Q-Q ترسیم شده برای متغیر کانی سنگین لوکوسن در منطقه مطالعاتی.



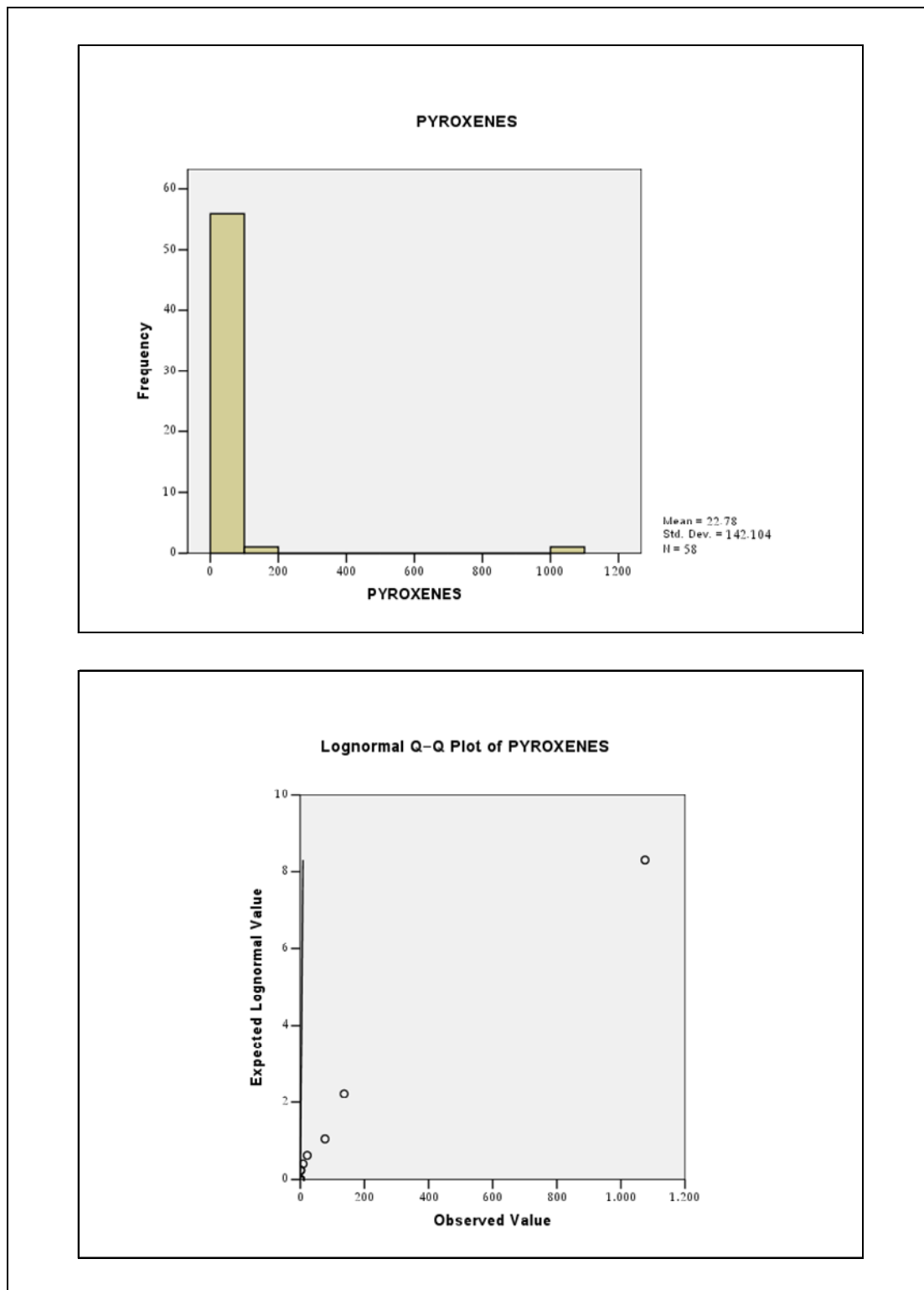
شکل (۱۱-۳): هیستوگرام و نمودار Q-Q ترسیم شده برای متغیر کانی سنگین مگنتیت در منطقه مطالعاتی.



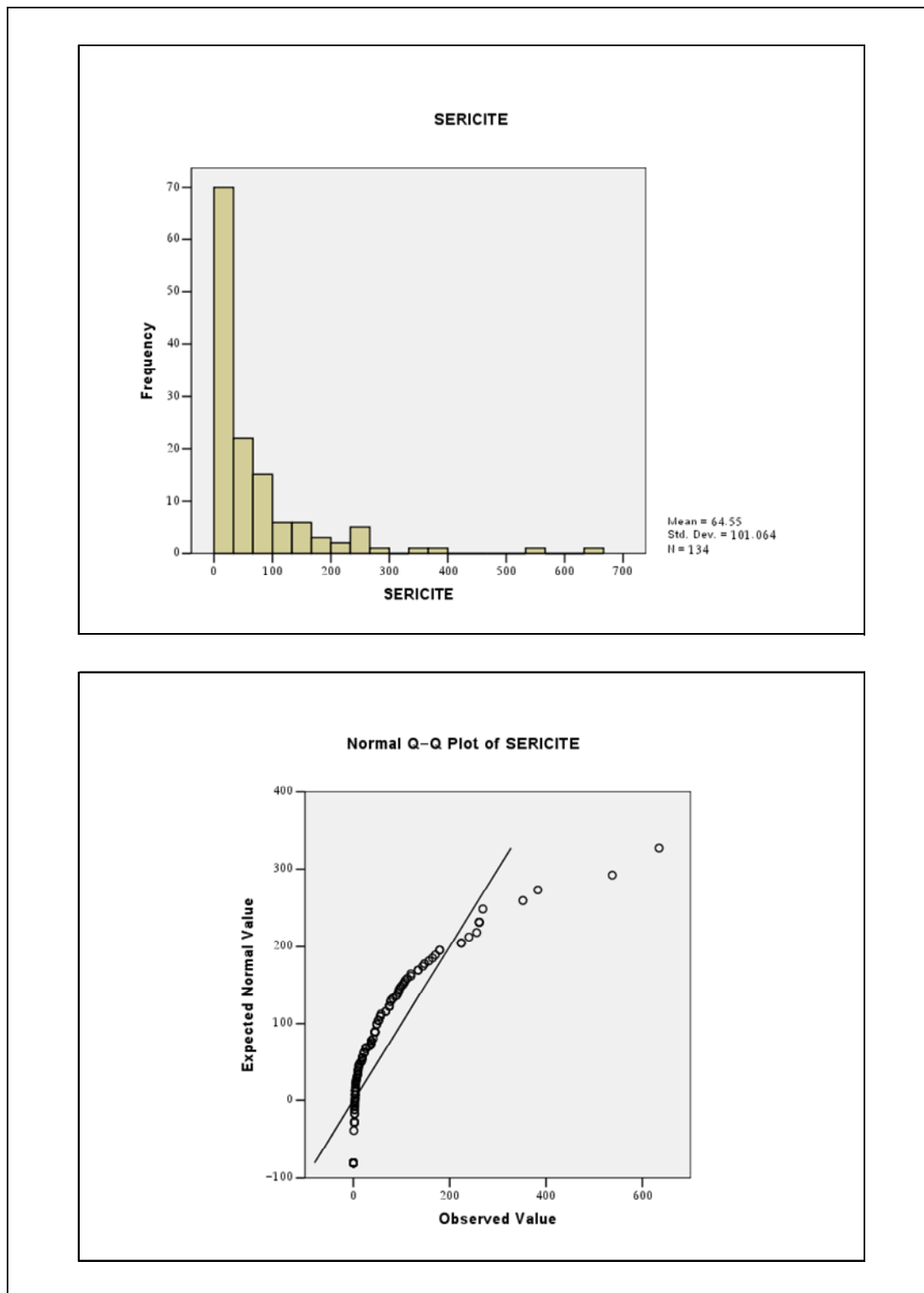
شکل (۳-۱۲): هیستوگرام و نمودار Q-Q ترسیم شده برای متغیر کانی سنگین مونازیت در منطقه مطالعاتی.



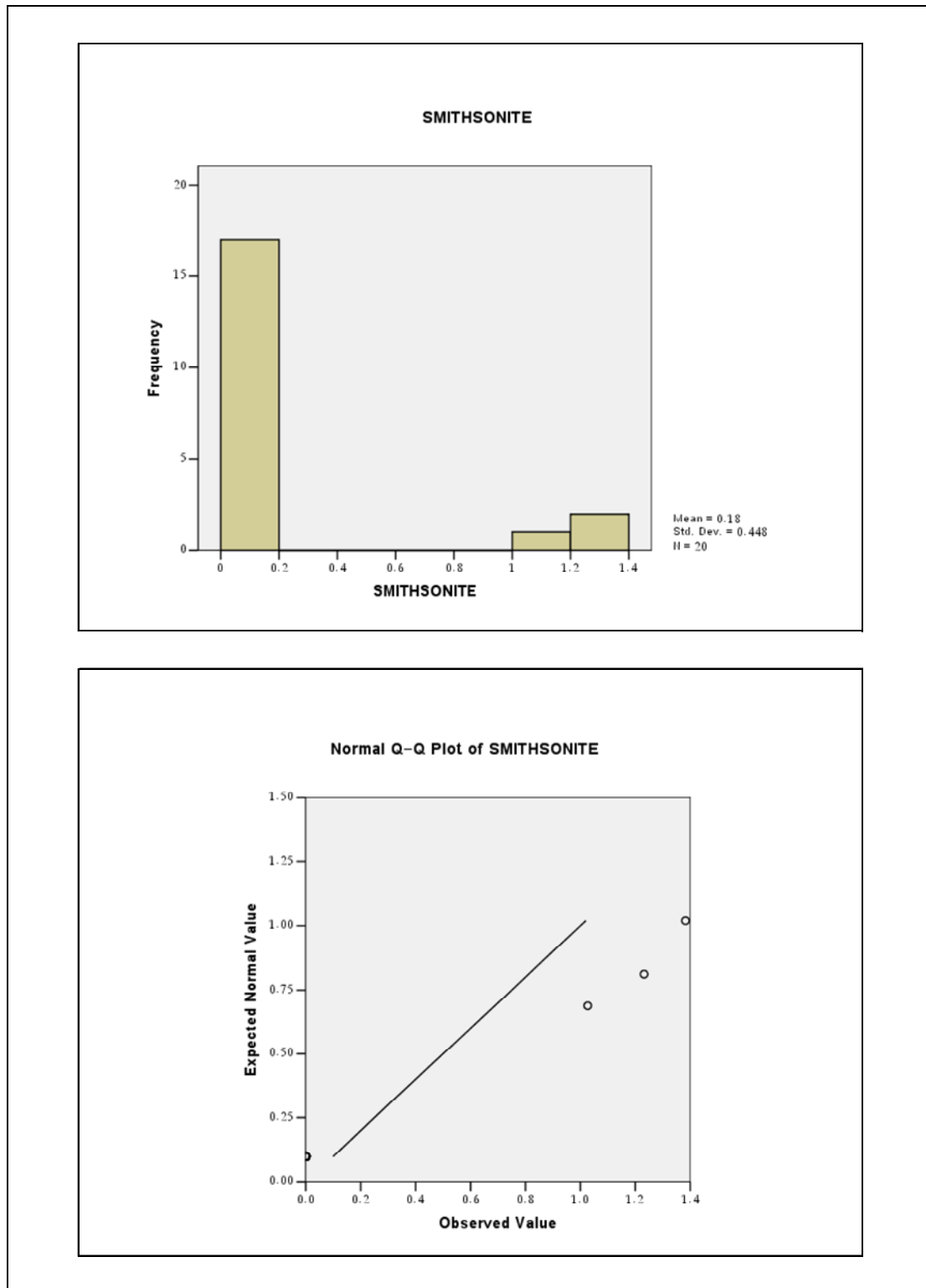
شکل (۳-۱۳): هیستوگرام و نمودار Q-Q ترسیم شده برای متغیر کانی سنگین پیرولوزیت در منطقه مطالعاتی.



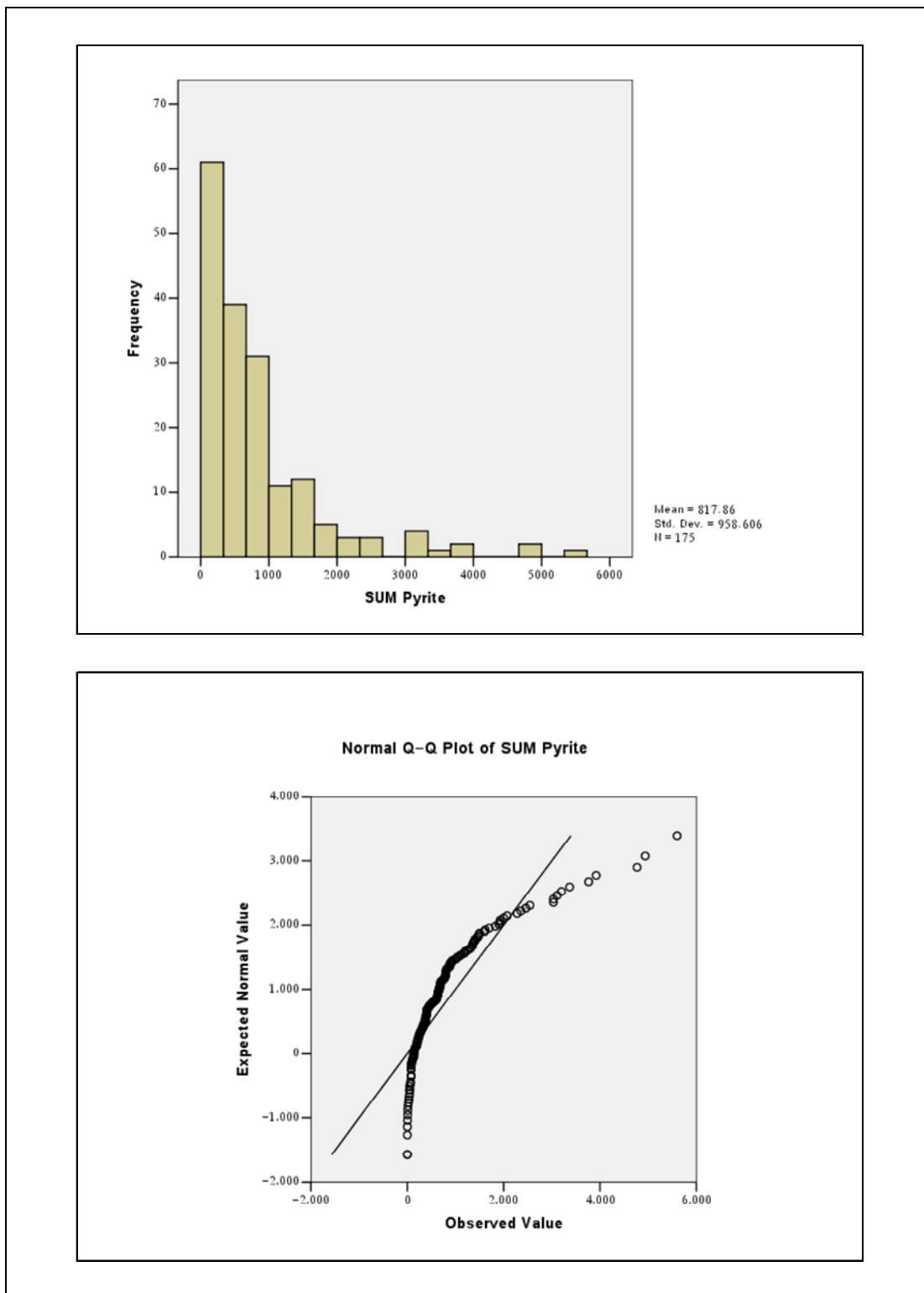
شکل (۳-۱۴): هیستوگرام و نمودار Q-Q ترسیم شده برای متغیر کانی سنگین پیروکسن در منطقه مطالعاتی.



شکل (۳-۱۵): هیستوگرام و نمودار Q-Q ترسیم شده برای متغیر کانی سنگین سربست در منطقه مطالعاتی.



شکل (۳-۱۶): هیستوگرام و نمودار Q-Q ترسیم شده برای متغیر کانی سنگین اسمیتزونیت در منطقه مطالعاتی.



شکل (۳-۱۷): هیستوگرام و نمودار Q-Q ترسیم شده برای متغیر مجموع کانی های پیریت در منطقه مطالعاتی.



شناسنامه های مناطق آنومال



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Arak II

Anomaly NO.

AI

Geochemical Anomaly Samples:

Sample No.	Anomaly	Raw Data	USPT	EI
257	Ba	711	KsII	2.1

Alforno Geoph. : Shallow Magnetic Bodies: Geoph. Faults:

Altration: Serpentine Silification Propylitic Argillic QzCarbonate Listv. Chloritization Potassic

Fault: Fractures: Limonite Hematite Goelite Siderite Graizen Seritization Philitic

Weathering: Gossan: Other:

Heavy Mineral Samples Taken From Anomaly Area :

Heavy Mineral	A2-255H	A2-256H	A2-257H	A2-258H	A2-260H	A2-262H
ALT.SIL.	194.4	105.6	10.8	243	108	345.6
AMPHIBOL	0	0	0	0	0	0
ANATASE	0	0	0	0	0	0
APATITE	0	0	0	0	0	0
BARTITE	0.20	0.001	180	0.405	0.001	14.4
CALCITE	0.001	0.001	0.001	0.001	0.001	0.001
CHLORITE	0	0	0	0	0	0
CINABAR	0	0	0	0	0	0
CERUSITE	0	0.001	0	0	0	0.001
ELECTROM	0	0	0	0	0	0
EPIDOTS	0	0	0	0	0	0
FELDSPAR	0.001	0.001	0.001	0.001	0.001	0.001
FLOURITE	0	0	0	0	0	0
GALENA	0	0	0	0	0	0.001
GARNET	0	0	0	0	0	0
GOLD	0	0	0	0	0	0
GOETHITE	0.001	0.001	16.544	0.001	8.8	0.001
HEMATITE	190.8	207.3	402.8	9.54	530	339.2
LMENITE	0	0	0	0	0	0
KIANTITE	0	0.001	0	0	0	0
LEUCOXENE	0	0	0	0	0	0
LMONITE	0.001	0.001	0.001	0.001	0	0
MAGNETITE	0.001	0.001	1.04	0.468	0.001	0.001
MALACHITE	0	0	0	0	0	0
MASSCOOT	0	0.001	0	0	0	0
MONAZITE	90	9.8	0	450	200	320
NATIVE COPPER	0	0.001	0	0.763	0	0
NATIVE LEAD	0	0	0	0	0	0
PYRITE	0.001	0.001	0	0	0	0
PYRITE LIMONITE	0.001	0.001	150.9	0.001	0	140.8
PYRITE(OXIDE)	270	586.7	228.6	900	160	480
PYROXENITE	0	0	0	0	0	0
PYROXENES	0	0	0	0	0	0
RUTILE	0	0	0	0	0.001	0
SAPPHIRE	0	0	0	0	0	0
SERICITE	2.52	0.001	0	0.001	224	179.2
SMITHSONITE	0	0	0	0	0	0
ZIRCON	0	0	0	0	0.001	0
Fe Minerals	190.8	207.3	420.4	10.01	538.8	339.2
Sum Pyrite	270.0	586.7	379.4	900	160	620.8
Sum Ore M	0	0.003	0	0.763	0	0.002
Sum_Ore_NM	0.2025	0.001	180	0.405	0.001	14.4

Mineralized Samples Taken from Anomaly Area :

Variables	A2-255-M1	A2-255-M2	A2-258-M
Au	<1	2.94	1.32
Ag	2.76	7.79	0.1
As	0.6	1.1	0.7
Ba	9540	9110	12400
Bi	<0.1	<0.1	<0.1
Ca	459	454	228000
Cd	2.3	14.7	0.3
Ce	<0.5	0.6	4
Co	<0.2	5	<0.2
Cr	<2	<2	<2
Cu	9.9	31.5	4.5
Fe	2190	5240	6670
Hg	0.13	0.47	<0.05
K	88	190	50
Mg	95	156	1180
Mn	90	200	689
Mo	<0.1	<0.1	0.2
Na	<10	12	<10
Nb	<0.5	<0.5	<0.5
Ni	3.3	5.1	4.6
P	<5	31	17
Pb	2350	6530	195
Re	0.014	0.013	0.019
S	1610	1600	1490
Sb	9	27	1.6
Sn	<0.2	<0.2	<0.2
Sr	<0.1	<0.1	2640
Te	<0.2	<0.2	<0.2
Th	0.06	0.03	0.06
Tl	52	74	29
Ti	<0.1	<0.1	<0.1
U	0.02	0.06	0.04
V	<2	3	2
W	<0.1	<0.1	<0.1
Zn	2390	8730	171
Zr	<5	<5	<5

Observed Lithology

Rock Type	Minerals
Felsic-Intermediate Volcanic	Chalcopyrite
Malic Volcanic	Galenite
Basalt	Pyrolusite
Granite	Biotite
Basalt	Hematite
Olwin Basalt	Silica
Basalt	Quartz
Slate	Q-Kianit
Apilite	Qtzopaz
Clay	
Dolomite	
Gypsum	
Marl	
Obcidian	
Limstone	
Bereccia	
Shale	
Silt	
Fillings	
vein	
Barite	
Carbonate	
Quartz Carbonate	



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Arak II

Anomaly NO.

A2

Geochemical Anomaly Samples:

Sample No.	Anomaly	Raw Data	USRT	EI
141	Au	19	K1s1	7.8
141	Cr	213	K1s1	2.5
137	Sn	4.7	K1s1	2.1

Alforno Geoph. : Shallow Magnetic Bodies: Geoph. Faults:

Altration: Serpentine Silification Argillic Gz.Carbonate Listv. Chloritization Potassic

Fault: Limonite Hematite Goethite Siderite Graizen Serpentinization Philitic

Weathering: Gossan: Other:

Heavy Mineral Samples Taken From Anomaly Area :

Heavy Mineral	A2-138H	A2-139H	EI
ALT.SIL	36	129.6	
AMPHIBOL	0	0	
AMETYST	0	0	
ANATASE	0	0	
ANDALUSITE	0	0	
AZORITE	0	0	
APATITE	0	0	
BARITE	0	0	
CALCITE	0.001	0.001	
CHALCOPYRITE	0	0	
CHLORITE	0	0	
CINNABAR	0	0	
CERUSITE	0	0	
ELECTROM	0	0	
EPIDOTS	0	0	
FELDSPAR	0.001	0.001	
FLOURITE	0	0	
GALENA	0	0	
GARNET	0	0	
GOLD	0	0	
GOETHITE	205.33	246.4	
HEMATITE	70.67	84.8	
ILMENITE	0	0	
KIANITE	0	0	
LEUCOXENE	0	0	
LIQUONITE	0	0	
MARGNETITE	0.001	0.001	
MALACHITE	0	0	
MARITIME	0	0	
MASSICOT	0	0	
MONAZITE	3.33	0	
NATIVE COPPER	0	0	
NATIVE LEAD	0	0	
PYRITE	0.001	0	
PYRITE LIMONITE	55.31	0.001	
PYRITE(OXIDE)	4714.29	5600	
PYROXENITE	0	0	
PYROXENES	0	0	
RUTILE	0	0	
SAPPHIRE	0	0	
SERCITE	56	2.24	
SMITHSONITE	0	0	
SPHENE	0	0	
ZIRCON	0	0	
Fe Minerals	276.001	337.201	
Sum_Pyrite	4769.601	5600.001	
Sum_Ore_M	0	0	
Sum_Ore_NMI	0	0	

Mineralized Samples Taken from Anomaly Area :

Variables		
Au		
Ag		
As		
Ba		
Bi		
Ca		
Cd		
Cs		
Co		
Cr		
Cu		
Fe		
Hg		
K		
Mg		
Mn		
Mo		
Na		
Nb		
Ni		
P		
Pb		
Re		
S		
Sb		
Sn		
Sr		
Te		
Th		
Ti		
Tl		
U		
V		
W		
Zn		
Zr		

Observed Lithology

Rock Type		
Felsic-Intermediate Volcanic		
Mafic Volcanic		
Barrencia with Mn(Oxid)		
Andesite		
Monzo-Diorite		
Basalt		
Olivin Basalt		
Rhyolite		
Dacite		
Monzo-Gabro		
Shale		
Clay		
Argill. Slate		
Tuff		
Silt		
Dolomite		
Sandstone		
Obcidian		
Marl		
Gypsum		

Observed Minerals And Fillings In Anomaly Checking :

Minerals		
Malachite		
Chalcopyrite		
Galena		
Pyrolusite		
Biotite		
Hematite		
Silica		
Quartz		
Quartz Granit		
Feldspar		
Q-Klanit		
Q-topaz		
Fillings		
Quartz Carbonate		
Carbonate		
vein		
Eye Quartz		



A3

Anomaly NO :

Sheet 1:25:000

Arak II

Geochemical Anomaly Samples:		USRT		EI	
Sample No.	Anomaly Raw Data	Sb	7.4	KsII	10.75
24					

Albitzer Geoph. : Shallow Magnetic Bodies: Geoph. Faults:

Alitration: Serpentine Silicification Argilic OzCarbonate Listv. Chloritization Potassic

Fault: Fracture Limonite Siderite Goethite Hematite Serpentinization Phyllic

Weathering: Gossan: Other:

Heavy Mineral	A2-20-H	A2-24-H	A2-25-H
ALT.SIL.	629.64	108	432
AMPHIBOL	0	0	0
ANATASE	0	0	0
APATITE	0	0.001	0
BARITE	0.001	0.001	0
BROCHANITTE	0.001	0.001	0
CHALCITE	1.0494	0.108	0.3
CHLORITE	0.001	0	0.001
CINNABAR	0	0	0
CERUSSITE	0	0	0
ELECTROM	0	0	0.001
EPIDOTS	0.001	0	0
FELDSPAR	1.0494	0.108	0.001
FLOURITE	0	0.001	0
GALENA	0	0.001	0
GARNET	0	0	0
GOLD	0	0.001	0
GOETHITE	2052.16	0.001	215.11
HEMATITE	2471.92	254.4	259.11
ILMENITE	0	0	0.001
KIANITE	0	0.001	7.2
LEUCOXENE	1.36	0.001	0.001
LIMONITE	0	0	0.001
MAGNETITE	282.95	0.208	138.67
MALACHITE	0	0	0.001
MASCICOT	0	0	0
MOXZITE	36.87	40	0.001
NATIVE COPPER	0	0.001	0.001
NATIVE LEAD	0	0	0
OPYRITE	0	0	0.001
PYRITE LIMONITE	0.001	0.001	0.001
PYRITE(OXIDE)	628.57	320	600
PYROLUSITE	1119.36	7.68	9.6
PYROXENES	0.001	0	0.001
RUTILE	0.001	0.001	0
SAPHIRE	1.55	0.001	0
SERICITE	0	0	112
SMITHSONITE	0	0	18.67
ZIRCON	0.001	0.001	0.001
Fe Minerals	4608.59	254.61	612.89
Sum Pyrite	628.57	320.001	600.002
Sum Ore IM	1119.36	7.682	9.605
Sum_Ore_NM	0.001	0.001	0.501

Variables	A2-23-MI
Au	1.3
Ag	<0.01
As	0.8
Ba	184
Bi	0.2
Ca	215000
Cd	<0.1
Ce	32.4
Co	7.8
Cr	30
Cu	14.5
Fe	23600
Hg	<0.05
K	10600
Mg	5690
Mn	1320
Mo	0.6
Na	4850
Nb	6.2
Ni	21.3
P	359
Pb	5.4
Re	0.007
S	2640
Sb	0.6
Sn	2.6
Sr	578
Te	<0.2
Th	3.61
Ti	1960
Tl	0.2
U	1.02
V	55
W	0.8
Zn	63.1
Zr	34

Mineralized Samples Taken from Anomaly Area :

Observed Lithology

Rock Type

Felsic-Intermediate Volcanic Malic Volcanic Barrencia with Mn(Oxid)

Andesite Monzo-Diorite Granite Slate Olivin Basalt

Rhyolite Monzo-Gabro Diorit Phyllite Clay

Calcsite Tuff Shale Silt Dolomite

Sandstone Limestone Obcidian Marl Gypsum

Observed Minerals And Fillings Anomaly Checking :	
Minerals	Malachite <input type="checkbox"/> Chalcopyrite <input type="checkbox"/> Pyrite <input type="checkbox"/> Pyrite Oxid <input type="checkbox"/> Pyrolusite <input type="checkbox"/> Biotite <input type="checkbox"/>
	Ankrite <input type="checkbox"/> Limonite <input type="checkbox"/> Goethite <input type="checkbox"/> Hematit <input type="checkbox"/> Barite <input type="checkbox"/> Silica <input type="checkbox"/> Quartz <input type="checkbox"/>
	Quartz Granit <input type="checkbox"/> Feldspar <input type="checkbox"/> Iron Oxide <input type="checkbox"/> Ion Oxide <input type="checkbox"/> Qtzopaz <input type="checkbox"/>
Fillings	Quartz Carbonate <input type="checkbox"/> Carbonate <input type="checkbox"/> vein <input type="checkbox"/> Eye Quartz <input type="checkbox"/>



Sheet 1:25,000

Anomaly NO :

Arak II

A4

Sample No.	Anomaly Raw Data	USRT	EI
397	Au 37	KsII	15.22
348	Au 24	KsII+mo	9.6

Albitone Geoph. : Shallow Magnetic Bodies: Geoph. Faults:

Alitration: Serpentine Sulfidification Argillic Oz.Carbonate Listv. Chloritization Potassic

Fault: Hematite Goethite Siderite Graizen Sericification Philitic

Weathering: Gossan: Other:

Heavy Mineral Samples Taken From Anomaly Area :

Heavy Mineral	A2-332H	A2-346H	A2-347H	A2-348H	A2-393H	A2-394H	A2-397H	A2-398H
ALT.SIL.	748.8	172.8	907.2	36	108	37.03	21.6	207.36
AMPHIBOL	0	0	0.001	0	0	0	0	0
ANATASE	0	0.001	0.001	0	0	0	0	0
ANDALUSITE	0	0	0	0	0	0.001	0	0
APATITE	0	0	0	0	0	0.001	0	0
BARITE	0	0.001	0.001	0	0	0.001	0	0
CALCITE	0.001	0.001	0.4536	0.001	0.18	0.46	0.001	0.001
CHLORITE	0	0.001	10.08	0	0	0	0	0
CHINABAR	0	0	0	0	0	0	0	0
CERUSITE	0.001	0.001	0.001	0	0	1.14	0	0.001
ELECTROM	0	0	0	0	0	0.001	0	0
EPIDOTS	0	0	0.001	0	0	0	0	0
FELDSPAR	0.001	0.001	0.001	0.001	0.18	0.001	0.001	0.001
FLOURITE	0	0	0	0	0	0	0	0
GALENA	0.001	0.001	0.001	0	1.29	0	0.001	0.001
GARNET	0	0	0	0	0	0	0	0
GOLD	0	0	0	0	0	0	0	0
GOETHITE	0.001	3.52	0.001	352	0.001	0.001	0.001	84.48
HEMATITE	339.2	169.6	0.001	117.78	494.67	1817.14	424	508.8
ILMENITE	0	0	0	0	0	0	0	0
KANITE	0	0	0.001	0	0	0.001	0	0
LEUCOXENE	0	0.001	0.888	0	0	0.001	0	0
LIMONITE	0	0	0	0	0.001	0.001	0.001	0.001
MAGNETITE	0.001	0.208	0.8736	0.001	0.001	115.69	0.208	0.4982
MALACHITE	0	0	0	0	0	0	0	0
MASSCOIT	0	0	0	0	0	0	0	0
MONAZITE	10.67	0	0	0	133.33	574.29	40	192
NATIVE LEAD	0	0	0	0	0	0.001	0.001	0
NYRITE	0.001	0.001	0	0	0	0.001	0.001	0
NYRITE LIMONITE	0.001	0.001	0	0	0.001	0.001	0.001	0.001
NYRITE OXIDE	1600	766.67	400	22.22	102.86	100	240	80
NYRULUSITE	10.24	0	0	0	0	0	0	0
NYROXENES	136.53	76.8	1075.2	0.71	0	0.001	0.001	0
NYRUTILE	0	0.001	0	0	0	0	0	0
SAPPHIRE	0	0.001	0	0	0	0	0	0
SERICITE	119.47	67.2	0	12.44	3.73	86	44.8	107.52
SMITHSONITE	0	0	0	0	0	0.001	0	0
ZIRCON	0	0	0.001	0	0	0	0	0.001
Fe Minerals	339.202	173.33	1.46	117.78	846.67	1933.03	424.21	593.78
Sum_Pyrite	1600.00	766.67	400	22.22	102.86	100.002	240.002	80.001
Sum_Ore_M	10.242	0.002	0.002	0	0	2.403	0.001	0.002
Sum_Ore_NMI	0	0.001	0.001	0	0	0.001	0.001	0

Mineralized Samples Taken Form Anomaly Area :

Variables	A2-348-M1	A2-346-M2	A2-348-M3	A2-348-M4	A2-397-M	A2-398-M
Au	1.77	1.73	<1	3.47	1.62	1.91
Ag	<0.01	<0.01	0.5	0.1	0.06	<0.01
As	5.5	6.7	1.4	0.9	8.3	7
Ba	242	296	299	405	83.5	334
Bi	<0.1	0.3	<0.1	<0.1	0.5	0.3
Ca	308000	65000	70300	45500	238000	62800
Cd	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
Ce	32.9	50.6	24.3	47.6	18.9	38.3
Co	<0.2	12.7	31.8	24.1	6.5	9.3
Cr	<2	189	189	100	8	43
Cu	1.4	30.5	88.7	28.5	24.6	26
Fe	15900	46000	68700	57100	15400	36900
Hg	<0.05	<0.05	<0.05	<0.05	0.16	<0.05
K	134	20100	15300	22800	3880	17800
Mg	3580	13800	35900	24100	3840	13900
Mn	2530	807	964	739	2340	612
Mo	0.2	<0.1	0.4	0.3	0.9	0.4
Na	<10	12100	19500	30400	3290	9890
Nb	<0.5	7.9	11.7	10.5	2.5	9.8
Ni	5.1	34.2	77.7	54.8	13.1	33.3
P	80	703	1050	857	176	367
Pb	13.6	11.2	<0.2	<0.2	27.3	6.4
R	0.008	0.007	0.007	0.008	0.008	0.008
Se	<50	1460	190	210	<50	680
Sb	0.2	0.8	1.2	0.2	1.6	0.6
Sn	<0.2	3	2.3	2.2	1.7	2.5
Sr	1560	279	418	231	862	194
Te	<0.2	<0.2	<0.2	<0.2	0.2	<0.2
Th	0.23	7.86	1.21	7.09	2.02	7.34
Tl	44	4680	7770	5440	816	9510
Ti	<0.1	0.4	<0.1	0.2	<0.1	0.3
U	0.22	1.64	0.33	1.69	1.13	1.55
V	11	90	108	117	30	134
W	<0.1	0.5	<0.1	<0.1	0.5	1.4
Zn	18.3	100	92.3	93.6	37.9	93.7
Zr	<5	87	58	68	16	74

Observed Lithology

Rock Type

Felsic-Intermediate Volcanic Malic Volcanic Barrencia with Mn(Oxid)

Andesite Monzo-Diorite Granite Slate Olivin Basalt

Rhyolite Monzo-Gabro Diorit Phyllite Clay

Calcite Tuff Shale Silt Dolomite

Sandstone Limestone Obcidian Marl Gypsum

Observed Minerals And Fillings In Anomaly Checking :

Minerals

Malachite Chalcopyrite Pyrite Pyrite Oxid Pyrolusite Biotite

Ankrite Limonite Goethite Hematit Barite Silica Quartz

Quartz Granit Feldspar Iron Oxide Q-topaz

Fillings

Quartz Carbonate Carbonate vein Eye Quartz



Sheet 1:25,000

Arak II

Anomaly NO.

A5

Geochemical Anomaly Samples:

Sample No.	Anomaly Raw Data	USRT	EI
114	As	Ks11	2.44
362	As	Ks11	2.66
362	Cu	Ks11	3.06

Alfame Geoph. : Shallow Magnetic Bodies: Geoph. Faults:

Alteration: Serpentine Silicification Propylitic Argillic Oz.Carbonate Listv. Chloritization Potassic

Fault: Limonite Hematite Goethite Siderite Graizen Seritization Philitic

Weathering: Gossan: Other:

Heavy Mineral Samples Taken From Anomaly Area :

Heavy Mineral	A2-110H	A2-111H	A2-114H	A2-116H	A2-117H	A2-125H	A2-126H	A2-129H
ALT.SIL.	144	345.6	288	84	81	345.6	230.4	856.8
AMPHIBOL	0	0	0	0	0	0	0	0
ANATASE	0	0	0	0	0	0	0	0
APATITE	0	0	0	0	0	0	0	0
BARTITE	0	0	0	0.001	0.001	0	0	0
CALCITE	0.18	0.664	0.18	0.06	0.0675	0.432	0.001	0.001
CHALCOPYRITE	0	0	0	0	0	0	0	0
CHLORITE	0	0	0	0	0	0	0	0
CINNABAR	0	0	0	0	0	0	0	0
CERUSITE	0	0	0	0	0	0	0	0
ELECTROM	0	0	0	0	0	0	0	0
EPIDOTS	0	0	0	0	0	0	0	0
FLOURITE	0.18	0.664	0.18	0.001	0.001	0.432	0.001	0.001
GALENA	0	0	0	0	0	0	0	0
GARNET	0.5	0	0	0	0	0	0	0
GOLD	0	0	0	0	0	0	0	0
GOETHITE	6	28.16	6	39	44	14.08	9	10
HEMATITE	141	339.2	7	24	53	0.001	0.001	120
LMENITE	0	0	0	0	0	0	0	0
KIANTITE	0	0	0	0	0	0	0	0
LEUCOXENE	0	0	0	0	0	0	0	0
LMONITE	0	0	0	0.001	0.001	0	0	0
MAGNETITE	0.001	1.664	0.001	0	0.13	0.832	0.001	0.001
MALACHITE	0	0	0	0	0	0	0	0
MASSCOIT	0	0	0	0	0	0	0	0
MONAZITE	0	1280	0.001	0	0	320	320	0
NATIVE COPPER	0	0	0	0	0	0	0	0
NATIVE LEAD	0	0	0	0	0	0	0	0
PYRITE	0.001	0	0.001	0	0.001	0	0.001	0
PYRITE LIMONITE	0	0	0	0.001	0.001	0	0	0
PYRITE OXIDE	360	240	133	222	250	1200	1447	2280
PYROLUSITE	0	0	0	0	0	0	0	326.4
PYROXENES	0	0	0	0	0	0.001	0	0.001
RUTILE	0	0	0	0	0	0	0	0
SAPPHIRE	0	0	0	0	0	0	0	0
SERICITE	75	537.6	4	1	1.4	179.2	119	0.001
SMITHSONITE	0	0	0	0	0	0	0	0
ZIRCON	0	0.001	0	0.001	0.001	0.001	0.001	0
Fe Minerals	147	369	13	63	97.131	14.913	9	130
Sum Pyrite	360	240	133	222	250	1200	1447	2280
Sum_Ore_M	0.5	0	0	0	0	0	0	326.4
Sum_Ore_NM	0	0	0	0.001	0.001	0	0	0

Mineralized Samples Taken from Anomaly Area :

Variables	A2-113M	A2-116-M	A2-117-M	A2-127-M1	A2-127-M2	A2-127-M3
Au	3.52	7.43	2.41	107	7.99	15.7
Ag	0.07	<0.01	<0.01	0.42	0.72	<0.01
As	25.5	2.3	5.7	59.9	11.6	206
Ba	125	172	436	76.6	59.9	64.5
Bi	0.8	0.2	<0.1	0.3	<0.1	<0.1
Ca	13100	271000	237000	19400	2510	75700
Co	<0.1	<0.1	<0.1	<0.1	0.3	<0.1
Cu	9.4	8.8	5.5	7.4	18	7.1
Cr	61	11.4	<0.2	62.3	92.7	145
Fe	982	26.3	1077	636	205	135
Hg	0.2	<0.05	<0.05	<0.05	<0.05	<0.05
K	505	1870	790	2320	102	484
Mg	1390	1970	8980	2140	1180	2130
Mn	187	8570	10600	55	230	1700
Mo	5.2	5.4	2.8	3.4	15.1	3.7
Na	23	<10	<10	25	53	<10
Ni	633	17.6	13.6	299	154	150
P	65	166	126	227	422	313
Pb	481	25.3	7.9	68.3	32.7	51.3
Re	0.008	0.008	0.009	0.008	0.008	0.007
S	300	<50	120	11000	870	3140
Sb	6	1	0.6	5	1.6	3.2
Sn	0.8	0.6	0.2	3	<0.2	1.8
Sr	29.8	84.9	159	28.9	18.7	55.5
Te	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Th	0.39	0.7	0.38	1.7	0.36	0.41
Tl	15	275	103	424	<10	59
Ti	<0.1	0.2	<0.1	0.5	0.2	<0.1
U	5.81	3.31	2.32	1.96	6.52	1.71
V	48	17	33	54	73	46
W	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Zn	75	49.3	56.9	62.6	68.1	48.7
Zr	7	9	6	21	<5	6

Observed lithology:

Rock Type

Felsic-Intermediate Volcanic Malic Volcanic Barrencia with Mn(Oxid)

Andesite Monzo-Diorite Granite Basalt Calcite

Carbonate Monzo-Gabro Diorite Phylite Silice

Quartz Tuff Shale Silt Dolomite

Sandstone Limestone Obcidian Marl Gypsum

Observed Minerals And Fillings in Anomaly Checking :

Minerals

Malachite Chalcopyrite Pyrite Calcite Pyrolusite Biotite

Bornite Limonite Goethite Hematite Barite Silica Ankrite

Cuprite Feldspar Iron Oxide Iron Carbonate

Fillings

Quartz Carbonate Carbonate vein Calcite Silice



Sheet 1:25,000

Arak II

A6

Anomaly NO :

Geochemical Anomaly Raw Data

Sample No.	Anomaly	Raw Data	USRT	Ks/I	Ei
351	Au	11			4.51

Heavy Mineral Samples Taken From Anomaly Area :

Heavy Mineral	A2-281-H	A2-286-H	A2-351-H	A2-357-H	A2-364-H
ALT. SIL.	188.8	155.52	181.44	201.6	691.2
AMPHIBOL	0	0	0	0	0
ANATASE	0.001	0	0	0	0
ANDALUSITE	0.001	0	0	0	0.001
APATITE	0	0	0	0	0
BARTITE	0.001	0	0	0.001	78
CALCITE	0.001	0.001	0.001	0.252	0.001
CHLORITE	0	0	0	0	0
CINNABAR	0	0	0	0	0
CERUSSITE	0.001	0	0	0	0.9
ELECTROM	0	0	0	0	0
EPIDOTS	0	0	0	0	0
FELDSPAR	0.001	0.001	0.001	0.262	0.36
FLOURITE	0	0	0	0	21.3
GALENA	0.5	0	0	0	1
GARNET	0.001	0	0	0	0
GOLD	0	0	0	0	0.001
GOETHITE	0.001	0.001	4.928	0.001	117.3
HEMATITE	130.8	5.088	237.44	197.9	706.7
ILMENITE	0	0	0	0	250.7
KIANITE	0.001	0	0	0	0.001
LEUCOXENE	0.001	0	0	0	0
LIMONITE	0.001	0	0.001	0	0
MAGNETITE	99.84	0.001	0.001	0.5	69.3
MALACHITE	0	0	0	0	0
MASSCOIT	0	0	0	0	0
MONAZITE	0	0	5.6	186.7	0
NATIVE COPPER	0.6	0	0	0	0
NATIVE LEAD	0	0	0	0	0
PYRITE	0.001	0.4	0	0	0.001
PYRITE LIMONITE	5.5	7.04	0	0	739.2
PYRITE(OXIDE)	628.6	800	1300	1026.7	960
PYROXUSITE	0.001	0	0	0	12.8
PYROXENES	0	0	0.001	0.001	8.5
RUTILE	0.001	0	0	0	0.001
SAPPHIRE	0	0	0	0	0
SERICITE	0	0.001	94.08	52.3	0
SMITHSONITE	0	0	0	0	0.001
SPHENE	0	0	0	0	0
ZIRCON	0.001	0	0	0	0.001
Fe Minerals	230.7	5.09	282.4	186.4	893.3
Sum_Pyrite	634.1	807.44	1300	1026.7	1699.2
Sum_Ore IM	1.1	0	0	0	14.7
Sum_Ore NMI	0.001	0	0	0.001	98.3

Albitone Geoph.: Shallow Magnetic Bodies: Geoph. Faults:

Allrati Serpentine Silicification Propylitic Argillic OzCarbonate Listv. Chloritization Potasic

Fault: Limonite Hematite Goethite Siderite Glauzen Sericitization Philitic

Weathering : Gossan : Other :

Mineralized Samples Taken from Anomaly Area :

Variables	A2-357-M1	A2-357-M2
Au	<1	
Ag	0.02	2.12
As	2.5	<0.01
Ba	43.9	7.1
Bi	<0.1	330
Cd	109000	<0.1
Ce	<0.1	385000
Co	11.2	<0.1
Cu	6.4	28.9
Cr	14	3.8
Cu	34	<2
Fe	24300	3.6
Hg	<0.05	16400
K	<0.05	<0.05
Mg	2600	1670
Mn	5860	2910
Ni	6.2	2170
Ni	0.6	0.6
Na	637	0.6
Nb	1	<10
Ni	15.7	1
P	482	8.1
Ph	11.1	338
Re	0.007	12.4
S	80	0.008
Sh	0.4	0.2
Sn	1.5	0.4
Sr	557	0.4
Tc	<0.2	357
Th	0.82	<0.2
Ti	471	1.3
Tl	<0.1	356
U	0.21	<0.1
V	19	0.57
W	<0.1	18
Zn	58.5	<0.1
Zn	8	20.1
Zn	8	11

Observed Lithology:

Felsic-Intermediate Volcanic Mafic Volcanic Barrencia with Mn(Oxid)

Andesite Monzo-Diorite Granite Slate Olivin Basalt

Rhyolite Monzo-Gabro Diorite Phyllite Clay

Ignimbrite Tuff Shale Silt Dolomite

Sandstone Limestone Obolidian Marl Gypsum

Observed Minerals And Fillings In Anomaly Checking :

Minerals

Malachite Chalcocopyrite Pyrite Galena Pyrolusite Biotite

Bornite Limonite Goethite Hematite Barite Silica Quartz

Quartz Grant Feldspar Iron Oxide Ankrite

Fillings

Quartz Carbonate Carbonate vein Calcite



Sheet 1:25,000

Anomaly NO.

A7

Arak II

Geochemical Anomaly Samples:

Sample No.	Anomaly	Raw Data	USRT	EI
174	Zn	285	mo	2.46

Heavy Mineral Samples Taken From Anomaly Area :

Heavy Mineral	A2-174-H	A2-264-H	A2-268-H	A2-269-H
ALT-SIL	96	813.6	230.4	462.9
AMPHIBOL	0	0.001	0	0
AMETYSTIE	0	0.001	0	0
ANATASE	0	0.001	0.001	0.001
ANDALUSITE	0	0.001	0	0
APATITE	0	0.001	0	0
BARITE	0.001	0.001	0.001	0.001
CALCITE	0.001	36	0.001	0.001
CHLORITE	0.001	0	0	0
CINNABAR	0.001	0	0	0
CERUSITE	0.001	0.001	0.001	0.001
ELECTROM	0	0	0	0
EPIDOTS	0.001	0	0	0
FELDSPAR	0.001	0.001	0.001	0.001
FLOURITE	0	0	0	0
GALENA	0.001	0	0.001	0.001
GARNET	0	0	0	0.001
GOLD	0	0	0	0
GOETHITE	76.2	234.7	8.8	125.7
HEMATITE	47.1	282.7	644.5	605.7
LMENITE	0	0	0	0.001
KIANTIE	0.001	0	0	0
LEUCOXENE	0.001	18.667	0.373	0.5
LMONITE	0.001	0	0	0.001
MAGNETITE	0.116	0.638	83.2	0.7
MALACHITE	0	0	0	0
MASSCOOT	0	0	0	0
MONAZITE	0	0	0	0
NATIVE COPPER	0.163	0	0	0
NATIVE LEAD	0	0.001	0	0
PYRITE	0.001	93.3	0.001	0.001
PYRITE LIMONITE	0.001	1027	0	0.001
PYRITE(OXIDE)	88.9	2800	206	373
PYROLUSITE	0	640	389	274
PYROXENES	0.001	0.001	0.001	0.001
RUTILE	0	0	0.001	0.001
SAPPHIRE	0	0	0.427	0
SERICITE	24.889	0	0	0
SMITHSONITE	0	0	0.001	0.001
SPHENE	0	0	0	0
ZIRCON	0.001	0.001	0.001	0.001
Fe Minerals	125.451	537	737	733
Sum Pyrite	89	3920	206	373
Sum_Ore_M	0.168	640	389	274
Sum_Ore_NW	0.001	0.001	0.001	0.001

Shallow Magnetic Bodies: Geoph. Faults:

Aliteone Geoph.:

Aliteation: Serpentine Silification Propylitic Argillic Ox.Carbonate Listv. Chloritization Potasic

Fracture: Limonite Hematite Goethite Siderite Graizen Sericization Phlic

Weathering : Gossan : Other :

Mineralized Samples Taken form Anomal Arera :

Variables	A2-174-M	A2-264-M
Au	1.8	<1
Ag	0.02	0.02
As	7.5	2.4
Ba	343	321
Bi	<0.1	<0.1
Ca	16000	74200
Cl	<0.1	<0.1
Cu	15.2	47.8
Co	15.2	16.5
Cr	84	60
Cu	14.4	48.5
Fe	48900	40300
Hg	<0.05	<0.05
K	24400	17600
Mg	12400	6600
Mn	548	778
Mo	<0.1	0.5
Na	27800	287
Nb	7.6	7.7
Ni	43.2	36
P	577	493
Pb	8.8	8.4
Re	0.009	0.009
Se	220	3780
Sb	0.2	0.6
Sn	3.4	3.2
Sr	107	155
Te	<0.2	<0.2
Th	8.72	7.44
Tl	9640	3890
Ti	0.3	0.3
U	1.86	1.69
V	105	118
W	0.4	0.7
Zn	61.9	93.1
Zr	96	67

Observed Lithology:

Rock Type

Felsic-Intermediate Volcanic Malic Volcanic Barrencia with Mn(Oxid)

Andesite Monzo-Diorite Granite Slate Olivin Basalt

Rhyolite Monzo-Gabro Diorite Phylite Silice

Ignebitite Tuff Shale Silt Dolomite

Sandstone Limestone Obcidian Marl Gypsum

Observed Minerals And Fillings in Anomaly Checking :

Minerals

Malachite Chalcopyrite Pyrite Galena Pyrolusite Biotite

Bornite Limonite Goethite Hematit Barite Silica Quartz

Quanz Granit Feldspar Iron Oxide Qtzopaz

Fillings

Quartz Carbonate Carbonate vein Calcite Silice



Sheet: 1:25,000

Arak II

Anomaly NO :

A9

Geochemical Anomaly Samples:		USRT		EI
Sample No.	Anomaly	Raw Data		
179	Pb	42.9		1.7

Althorne Geoph. : Shallow Magnetic Bodies: Geoph. Faults:

Alitration: Serpentine Silification Argillic Gz.Carbonate Listv. Chloritization Potassic

Fault: Fracture Limonite Hematite Goethite Siderite Graizen Serpentinization Phillic

Weathering: Gossan: Other:

Heavy Mineral	Az-179-H	Mineralized Samples Taken From Anomal Area :	Variables
ALT.SIL.	100.8		Au
AMPHIBOL	0		Ag
ANATASE	0		As
APATITE	0		Ba
BARITE	1.05		Bi
BROCHANITITE	0		Ca
CALCITE	0.63		Cd
CHLORITE	0		Ce
CINNABAR	0		Co
CERUSSITE	81		Cr
ELECTROM	0		Cu
EPIDOTS	0		Fe
FELDSPAR	0.001		Hg
FLOURITE	0		K
GALENA	105		Mg
GARNET	0		Mn
GOLD	0		Mo
GOETHITE	20.53		Na
HEMATITE	24.73		Nb
ILMENITE	0		Ni
KIANITE	0		P
LEUCOXENE	0.001		Pb
LIMONITE	0.001		Re
MAGNETITE	60.67		S
MALACHITE	0		Sb
MASSICOT	0		Sn
MONAZITE	233.33		Sr
NATIVE COPPER	0		Te
NATIVE LEAD	0		Th
PYRITE	0.24		Ti
PYRITE LIMONITE	0		Tl
PYRITE(OXIDE)	192		U
PYROLUSITE	0		V
PYROXENES	0		W
RUTILE	0.001		Zn
SAPPHIRE	0		Zr
SERICITE	261.33		
SMITHSONITE	1.03		
ZIRCON	0.001		
Fe Minerals	105.94		
Sum Pyrite	192.24		
Sum_Ore_I.M	197.03		
Sum_Ore_NM	1.05		

Mineralized Samples Taken form Anomal Area :

Observed Lithology

Rock Type

Felsic-Intermediate Volcanic Malic Volcanic Barrencia with Mn(Oxid)

Andesite Monzo-Diorite Granite Slate Olivin Basalt

Rhyolite Monzo-Gabro Diorit Phyllite Clay

Calcsite Tuff Shale Silt Dolomite

Sandstone Limestone Obcidian Marl Gypsum

Observed Minerals And Fillings in Anomaly Checking :

Minerals

Malachite Chalcopyrite Pyrite Pyrite Oxid Pyrolusite Biotite

Ankrite Limonite Goethite Hematit Barite Silica Quartz

Quartz Granit Feldspar Iron Oxide Qtzopaz

Fillings

Quartz Carbonate Carbonate vein Eye Quartz



Sheet 1:25,000

Arak II

Anomaly NO :

A10

Geochemical Anomaly Samples:

Sample No.	Anomaly/ Raw Data	USRT	EI
293	Cd	1.9	Ks11
293	P	9300	Ks11
293	S	840	Ks11
293	Pb	138	Ks11
			5.48

Altoberne Geoph. : Shallow Magnetic Bodies: Geoph. Faults:

Alteration: Serpentine Silicification Propylitic Agilic Qz Carbonate List.v Chloritization Potassic

Fault: Fracture: Limonite Hematite Goethite Siderite Graisen Serpentinization Philitic

Weathering: Gossan: Other:

Heavy Mineral Samples Taken From Anomaly Area :

Heavy Mineral	A2-293-H	A2-301-H	A2-302-H
ALT.SL.	77.76	98.182	180
AMPHIBOL	0	0	0
ANATASE	0	0	0
ANDALUSITE	0	0	0
APATITE	0	0	0
BARITE	0	0.001	0.001
CALCITE	0.001	0.123	0.001
CHLORITE	0	0	0
CHINABAR	0	0	0
CERUSSITE	0	0	0
ELECTROM	0	0	0
EPIDOTS	0	0	0
FELDSPAR	0.001	0.001	0.001
FLOURITE	0	0	0
GALENA	0	0	0
GARNET	0	0	0
GOLD	0	0	0
GOETHITE	42.24	0.001	0.001
HEMATITE	254.4	289	70.867
LMENITE	0	0	0
KIANITE	0	0	0
LEUCOXENE	0	0	0
LMONITE	0.001	0.001	0.001
MAGNETITE	0.001	0.001	0.001
MALACHITE	0	0	0
MARSHITE	0	0	0
MASSICOT	0	0	0
MONAZITE	480	272.73	135.33
NATIVE COPPER	0	0.001	0
NATIVE LEAD	0	0	0
NATIVE ZINC	0	0	0
PYRITE	0.001	0.227	0.001
PYRITE LIMONITE	232.32	0.001	0
PYRITE(OXIDE)	616	181.82	133.33
PYROLUSITE	0	0	0
PYROXENES	0	0	0
RUTILE	0	0	0
SAPPHIRE	0	0	0
SERICITE	0	2.55	0.001
SMITHSONITE	0	0	0
ZIRCON	0	0	0
Fe Minerals	296.6	289.1	70.7
Sum_Pyrite	848.3	182.0	133.3
Sum_Oxide_M	0	0.001	0
Sum_Oxide_NM	0	0.001	0.001

Mineralized Samples Taken from Anomaly Area :

Variables	A2-293-M	A2-301-M
Au	3.05	1.63
Ag	<0.01	<0.01
As	5.4	5.5
Ba	877	200
Bi	<0.1	<0.1
Cd	260000	242000
Ce	4.2	0.2
Co	30.1	24.8
Cr	49	7.8
Cu	<2	22.4
Fe	9.2	22.4
Fe	52900	59900
Hg	<0.05	<0.05
K	2230	7570
Mg	3250	3990
Mn	6860	2030
Mo	3.1	1.1
Na	481	1550
Nb	1	2.5
Ni	52.3	19.1
P	185	278
Pb	526	14.8
Re	0.009	0.007
S	220	190
Sb	9.6	1
Sn	0.2	1.8
Sr	170	366
Te	<0.2	<0.2
Th	1.08	2.43
Ti	412	1150
Tl	0.3	<0.1
U	2.87	1.14
V	13	37
W	<0.1	<0.1
Zn	1980	240
Zr	11	24

Observed Lithology

Rock Type

Felsic-Intermediate Volcanic Malic Volcanic Barrencia with Mn(Oxid)

Andesite Monzo-Diorite Granite Slate Olivin Basalt

Rhyolite Monzo-Gabro Diorit Phyllite Clay

Calcsite Tuff Shale Silt Dolomite

Sandstone Limestone Obcidian Marl Gypsum

Observed Minerals And Fillings in Anomaly Checking :

Minerals

Malachite Chalcopyrite Pyrite Pyrite Oxid Pyrolusite Biotite

Ankrite Limonite Goethite Hematit Barite Silica Quartz

Quartz Granit Feldspar Iron Oxide Q-topaz

Fillings

Silice Carbonate vein Eye Quartz



Sheet 1:25,000

Arak II

Anomaly NO.

AI1

Geochemical Anomaly Samples:

Sample No.	Anomaly	Raw Data	USPT	EI
313	Cu	4500	Ks11	163.63
313	Pb	9.4	Ks11	36.27

Alfabe Geoph. : Shallow Magnetic Bodies: Geoph. Faults:

Alteration: Serpentine Silification Propylitic Argillic QzCarbonate Listv. Chloritization Potassic

Fault: Fractures: Limonite Hematite Goethite Siderite Graizen Serpentinization Philitic

Weathering: Gossan: Other:

Heavy Mineral Samples Taken From Anomaly Area :

Heavy Mineral	A2-313-H	A2-313-M	A2-313-MI
ALT.SIL.	291.6		
AMPHIBOL	0		
ANATASE	0		
APATITE	0		
BARITE	27		
CALCITE	8.1		
CHLORITE	0		
CINABAR	0		
CERUSITE	0		
ELECTROM	0		
EPIDOTS	0		
FELDSPAR	0		
FLOURITE	0		
GALENA	0		
GARNET	0		
GOLD	0		
GOETHITE	0.001		
HEMATITE	95.4		
LMENITE	0		
KIANTITE	0		
LEUCOXENE	0		
LIMONITE	0		
MAGNETITE	0.001		
MALACHITE	0		
MASSICOT	0		
MONAZITE	90		
NATIVE COPPER	443.7		
NATIVE LEAD	0		
PYRITE	0.001		
PYRITE LIMONITE	0		
PYRITE(OXIDE)	846.0		
PYROLUSITE	0		
PYROXENES	0		
RUTILE	0		
SAPPHIRE	0		
SERICITE	50.4		
SMITHSONITE	0		
ZIRCON	0		
Fe Minerals	95.402		
Sum_Pyrite	846.0		
Sum_Ore_M	443.7		
Sum_Ore_NMI	27		

Mineralized Samples Taken from Anomaly Area :

Variables	A2-311-M	A2-313-M	A2-313-MI
Au	1.3	2.46	
Ag	<0.01	<0.01	
As	3	11	
Ba	216	167	
Bi	<0.1	0.2	
Cd	265000	277000	
Ce	<0.1	<0.1	
Co	13.3	16.6	
Cr	3.8	5	
Cu	8	6	
Cu	21.1	66.3	
Fe	62600	46700	
Hg	<0.05	<0.05	
K	3860	4040	
Mg	5130	2840	
Mn	2320	2810	
Mo	0.8	0.4	
Na	1690	1020	
Nb	1.4	1.4	
Ni	15.4	14.5	
P	132	157	
Pb	8.4	20.2	
Re	0.007	0.008	
S	280	140	
Sb	0.2	0.4	
Sn	1.3	1.3	
Sr	580	619	
Te	<0.2	<0.2	
Th	1.34	1.16	
Ti	688	585	
Tl	<0.1	<0.1	
U	1.31	0.99	
V	21	20	
W	<0.1	<0.1	
Zn	41.8	43	
Zr	18	14	

Observed Lithology:

Rock Type

Felsic-Intermediate Volcanic Malic Volcanic Barrencia with Mn(Oxid)

Andesite Monzo-Diorite Granite Basalt Olivin Basalt

Rhyolite Monzo-Gabro Slate Phyllite Clay

Ignebruite Tuff Shale Siltstone Dolomite

Sandstone Limestone Obcidian Marl Gypsum

Observed Minerals And Fillings in Anomaly Checking :

Minerals

Malachite Chalcopyrite Pyrite Galena Pyrolusite Biotite

Bornite Limonite Goethite Hematt Silica Quartz

Fe-Oxid Feldspar Barite Qtzopaz

Fillings

Silice Carbonate vein Eye Quartz



Sheet 1:25,000

Anomaly NO.

Arak II

Al12

Geochemical Anomaly Samples:

Sample No.	Anomaly	Raw Data	USRT	EI
383	Ag	1.22	Ks11	8.7

Alforno Geoph. : Shallow Magnetic Bodies: Geoph. Faults:

Alteration: Serpentine Silification Argillic Gz.Carbonate Listv. Chloritization Potassic

Fault: Fractures: Limonite Hematite Goethite Siderite Graizen Seritization Philitic

Weathering: Gossan: Other:

Heavy Mineral Samples Taken From Anomaly Area :

Heavy Mineral	A2-383-H	78.55
ALT.SIL.	0	
AMPHIBOL	0	
ANATASE	0	
APATITE	0.001	
BARITE	0.001	
CALCITE	0.001	
CHLORITE	0	
CINABAR	0	
CERUSITE	0.001	
ELECTROM	0	
EPIDOTS	0	
FELDSPAR	0.001	
FLOURITE	0	
GALENA	0	
GARNET	0	
GOLD	0	
GOETHITE	1.6	
HEMATITE	192.73	
LMENITE	0	
LEUCOXENE	0	
LIMONITE	0.001	
MAGNETITE	0.001	
MALACHITE	0	
MASSCOOT	0	
MONAZITE	0.001	
NATIVE COPPER	0	
NATIVE LEAD	0.001	
PYRITE	0.001	
PYRITE LIMONITE	0.001	
PYRITE(OXIDE)	36.36	
PYROLUSITE	0	
PYROXENES	0	
RUTILE	0	
SAPPHIRE	0	
SERICITE	1.02	
SMITHSONITE	0	
ZIRCON	0.001	
Fe Minerals	194.33	
Sum_Pyrite	36.37	
Sum_Ore_M	0.002	
Sum_Ore_NM	0.001	

Mineralized Samples Taken from Anomaly Area :

Variables	A2-383-M
Au	1.72
Ag	0.04
As	9.8
Ba	42.8
Bi	0.3
Ca	4040
Cd	<-0.1
Ce	5.3
Co	17.6
Cr	10
Cu	1370
Fe	317000
Hg	<-0.05
K	1510
Mg	1770
Mn	<2
Mo	16.9
Na	53
Nb	1.2
Ni	58.3
P	<5
Pb	12.1
Re	0.006
S	940
Sb	0.8
Sn	1.4
Sr	32.8
Te	0.5
Th	0.94
Tl	261
Ti	<-0.1
U	5.17
V	42
W	0.2
Zn	33.7
Zr	6

Observed Lithology:

Felsic-Intermediate Volcanic Malic Volcanic Barrencia with Mn(Oxid)

Andesite Monzo-Diorite Granite Basalt Olivin Basalt

Rhyolite Monzo-Gabro Slate Phylite Clay

Ignebitrite Tuff Shale Siltstone Dolomite

Sandstone Limestone Obcidian Marl Gypsum

Observed Minerals And Fillings In Anomaly Checking :

Minerals

Malachite Chalcopyrite Pyrite Galena Pyrolusite Biotite

Bornite Limonite Goethite Hematit Barite Silica Quartz

Fe-Oxid Feldspar Iron Oxide Q-topaz

Fillings

Quartz Carbonate Carbonate vein Eye Quartz



Arak II

Anomaly NO. : A13

Sheet: 1:25,000

Geochemical Anomaly Samples:

Sample No.	Anomaly	Raw Data	USRT	EI
407	Ag	0.99	Ks/I	7

Airborne Geoph. : Shallow Magnetic Bodies: Geoph. Faults:
 Alteration: Serpentine Silification Propylitic Argillic Qz.Carbonate Listv. Chloritization Potassic
 Fault: Fracture: Limonite Hematite Goethite Siderite Graizan Serpentinization Philitic

Weathering: Gossan: Other:

Heavy Mineral Samples Taken From Anomaly Area :

Heavy Mineral	A2-404-H	A2-420-H	A2-422-H
ALTSIL	135	27	151.2
AMPHIBOL	0	0	0
ANATASE	0	0.001	0.001
APATITE	0.001	0.001	0
BARITE	0.001	0.75	1.26
CALCITE	0.135	0.001	0.001
CHALCOPYRITE	0	0	0.001
CHLORITE	0	0	0
CINNABAR	0	0	0
CERUSSITE	0	0.001	0.001
ELECTROM	0	0	0
EPIDOTS	0	0	0
FELDSPAR	0.135	0.001	0.001
FLOURITE	0	0	0
GALENA	0	0.001	0.001
GARNET	0	0	0.001
GOLD	0	0	0
GOETHITE	0.001	586.67	24.64
HEMATITE	530	1060	1464
ILMENITE	0	0	0
KIANTITE	0	0.6	1.008
LEUCOXENE	0	0.001	0.001
LIMONITE	0	0.001	0.001
MAGNETITE	0.001	138.67	1.456
MALACHITE	0	0	0
MASSICOT	0	0.001	0
MONAZITE	200	1000	1400
NATIVE COPPER	0.435	0.001	0.001
NATIVE LEAD	0	0	0
PYRITE	0.001	0	0.001
PYRITE LIMONITE	0.001	0	0
PYRITE(OXIDE)	50	80	666.67
PYROXENES	0	16	2688
QUARTZ	0	0.001	0.001
RUTILE	0	0.001	0.001
SAPPHIRE	0	0.001	0
SERICITE	0.001	9.33	0.001
SMITHSONITE	0	0.001	1.232
ZIRCON	0.001	0.001	0.001
Fe_Mineral	530.002	1765.34	1510.10
Sum_Pyrite	50.002	80	666.67
Sum_Orp_M	0.435	16.005	28.116
Sum_Orp_NM	0.001	0.75	1.26

Mineralized Samples Taken from Anomaly Area :

Variables			
Au			
Ag			
As			
Ba			
Bi			
Ca			
Cd			
Co			
Cu			
Fe			
Hg			
K			
Mg			
Mn			
Mo			
Na			
Nb			
Ni			
P			
Pb			
Re			
S			
Sb			
Sn			
Sr			
Te			
Ti			
Tl			
U			
V			
W			
Zn			
Zr			

Observed Lithology:

Felsic-Intramedial Volcanic Mafic Volcanic Breccia with Mn(Oxid)
 Andesite Monzo-Diorite Granite Basalt Olivln Basalt
 Rhyolite Monzo-Gabbro Slate Phyllite Clay
 Ignimbrite Tuff Shale Siltstone Dolomite
 Sandstone Limestone Obcidian Marl Gypsum

Rock Type

Observed Minerals And Fillings in Anomaly Checking :

Minerals

Malachite Chalcopyrite Pyrite Galena Pyrolusite Biotite
 Bornite Limonite Goethite Hematit Barite Silica Quartz
 Fe-Oxid Feldspar Iron Oxide Q-topaz

Fillings

Quartz Carbonate Carbonate vein Eye Quartz



Sheet 1:25,000

Anomaly NO.

A14

Arak II

Geochemical Anomaly Samples:

Sample No.	Anomaly	Raw Data	USPT	EI
415	Pb	282	Ks11	11.19
415	Cu	452	Ks11	16.43
415	Sn	9.2	Ks11	4.18
415	Cd	1.3	Ks11	6.5
415	Zn	373	Ks11	3.45
415	Sb	3.1	Ks11	4.42

Alforno Geoph. : Shallow Magnetic Bodies: Geoph. Faults:

Alteration: Serpentine Silification Propylitic Argillic Oz.Carbonate Listv. Chloritization Potassic

Fault: Fractures: Limonite Hematite Goethite Siderite Graizen Serpentinization Philitic

Weathering: Gossan: Other:

Heavy Mineral Samples Taken From Anomaly Area :

Heavy Mineral	A2-414H	A2-415H	A2-416H	A2-419H	EI
ALT.SIL.	162	47.52	241.92	8.64	
AMPHIBOL	0	0	0	0	
ANATASE	0	0	0	0	
APATITE	0	0	0	0	
BARTITE	0	0.001	37.8	0.001	
CALCITE	0.001	0.001	15.12	0.108	
CHLORITE	0	0	0	0	
CINABAR	0.001	0	0	0	
CERUSITE	86	0	0	0	
ELECTROM	0.001	0	0	0.001	
EPIDOTS	0	0	0	0	
FELDSPAR	162	0	0.001	0.001	
FLOURITE	0	0	0	0	
GALENA	1.5	0	0	0	
GARNET	0	0	0	0	
GOLD	0.001	0	0	0	
GOETHITE	176	0.001	0.001	70.4	
HEMATITE	1272	93.28	601.02	424	
LMENITE	0	0	0	0	
KIANTITE	0	0	0	0	
LEUCOXENE	0	0	0	0	
LEUCONITE	0.001	0.001	0.001	0.001	
MAGNETITE	104	0.25	0.364	0.001	
MALACHITE	0	0	0	0	
MASSCOOT	0	0	0	0	
MONAZITE	1200	58.67	252	240	
NATIVE COPPER	0	128301	0	0	
NATIVE LEAD	0	0	0	0	
PYRITE	0	0	0	0	
PYRITE LIMONITE	0	0	0	0	
PYRITE(OXIDE)	10.67	0.001	63	0	
PYROLUSITE	0	0	0	0	
PYROXENES	0.001	0	0	0	
RUTILE	0	0	0	0	
SAPPHIRE	0	0	0	0	
SERCITE	11.2	0.001	0.001	0.001	
SMITHSONITE	0.001	0	0	0	
ZIRCON	0.001	0	0	0	
Fe Minerals	1552.001	93.54	601.386	494.402	
Sum_Pyrite	10.67	0.001	63	0	
Sum_Ore_M	14.504	1283.01	0	0.001	
Sum_Ore_NM	0	0.001	37.8	0.001	

Mineralized Samples Taken from Anomaly Area :

Variables					
Au					
Ag					
As					
Ba					
Bi					
Ca					
Cd					
Cs					
Co					
Cr					
Cu					
Fe					
Hg					
K					
Mg					
Mn					
Mo					
Na					
Nb					
Ni					
P					
Pb					
Re					
S					
Sb					
Sn					
Sr					
Te					
Th					
Ti					
Tl					
U					
V					
W					
Zn					
Zr					

Observed Lithology:

Rock Type

Felsic-Intermediate Volcanic Malic Volcanic Barrencia with Mn(Oxid)

Andesite Monzo-Diorite Granite Basalt Olivin Basalt

Rhyolite Monzo-Gabro Slate Phyllite Clay

Ignebruite Tuff Shale Siltstone Dolomite

Sandstone Limestone Obcidian Marl Gypsum

Observed Minerals And Fillings in Anomaly Checking :

Minerals

Malachite Chalcopyrite Pyrite Galena Pyrolusite Biotite

Bornite Limonite Goethite Hematit Barite Silica Quartz

Fe-Oxid Feldspar Iron Oxide Quartz

Fillings

Quartz Carbonate Carbonate vein Eye Quartz



Sheet 1,25,000

Arak II

Anomaly NO.

A15

Geochemical Anomal Samples:

Sample No.	Anomaly	Raw Data	USRT	Ei
190	As	18.9	K1s1	1.7
190	Sb	1.1	K1s1	2.86

Alphome Geoph. : Shallow Magnetic Bodies: Geoph. Faults:

Alteration: Serpentine Silicification Propylitic Argillic Oz.Carbonate Listv. Chloritization Potassic

Fault: Fracture: Hematite Goelite Siderite Graizen Serfification Philic

Weathering: Gossan: Other:

Heavy Mineral Samples Taken From Anomal Area :

Heavy Mineral	A2-186-H	A2-190-H		
ALT.SIL.	9	162		
AMPHIBOL	0	0		
ANATASE	0	0		
APATITE	0	0		
BARTITE	0.001	0.001		
CALCITE	0.45	0.135		
CHLORITE	0	0		
CINNABAR	0	0		
CERUSITE	0.001	0		
ELECTROM	0	0		
EPIDOTS	0	0		
FELDSPAR	0.001	0.001		
FLOURITE	0	0		
GALENA	0.001	0		
GARNET	0	0		
GOLD	0	0.001		
GOETHITE	58.67	4.4		
HEMATITE	106	212		
ILMENITE	0	0		
KIANITE	0	0		
LEUCOXENE	0.001	0		
LIMONITE	0.001	0		
MAGNETITE	0.87	0.26		
MALACHITE	0	0		
MASSICOT	0	0		
MONAZITE	500	0		
NATIVE COPPER	0	0		
NATIVE LEAD	0	0		
OPYRITE	0	0		
PYRITE	140.8	0.001		
PYRITE(OXIDE)	1760	500		
PYROLUSITE	0	0		
PYROXENES	0	0.001		
RUTILE	0	0		
SAPPHIRE	0	0		
SERICITE	93.33	0.001		
SMITHSONITE	0	0		
ZIRCON	0	0.001		
Fe Minerals	165.54	216.66		
Sum Pyrite	1900.8	500.001		
Sum Ore M	0.002	0.001		
Sum Ore NM	0.001	0.001		

Mineralized Samples Taken form Anomal Area :

Variables	A2-186-M1	A2-186-M2	A2-186-M3	A2-186-M4
Au	2.64	9.1	2.18	4.59
Ag	<0.01	<0.01	0.43	
As	8.5	1050	13.3	196
Ba	382	64.5	537	7630
Bi	<0.1	1.3	<0.1	0.9
Ca	272000	20200	269000	179000
Cd	0.3	0.2	<0.1	0.3
Ce	3.7	2.1	3.9	5.3
Co	<0.2	62.3	<0.2	17.7
Cr	<2	<2	<2	<2
Cu	11.8	472	<0.2	133
Fe	121000	529000	115000	159000
Hg	<0.05	<0.05	0.07	<0.05
K	581	587	1170	842
Mg	2990	1600	1870	2110
Mn	13700	2680	11400	47000
Mo	6	9	6.2	6.5
Na	<10	12	<10	<10
Nb	0.6	0.6	0.7	<0.5
Ni	12.6	276	10.5	38
P	91	274	96	78
Pb	13.3	307	6.5	39.5
Re	0.007	0.009	0.007	0.013
S	<50	320	<50	110
Sb	2.4	28.6	0.6	4.8
Sn	0.7	2	0.7	<0.2
Sr	105	42.7	89	22.1
Tb	<0.2	<0.2	<0.2	<0.2
Th	0.36	0.24	0.39	0.36
Ti	99	16	148	65
Tl	<0.1	<0.1	<0.1	0.3
U	5.21	3.75	2.7	3.66
V	18	57	13	13
W	<0.1	<0.1	<0.1	<0.1
Zn	61.9	38.3	24.8	98
Zr	<5	<5	<5	8

Observed Lithology:

Rock Type

Felsic-Intermediate Volcanic Basalt Olivin Basalt Berreclia with Mn(Oxid)

Andesite Monzo-Diorite Granite Basalt Phyllite Clay

Rhyolite Monzo-Gabro Slate Shale Siltstone Dolomite

Carbonate(Fe) Tuff Sandstone Limestone Obolidian Marl Gypsum

Observed Minerals And Fillings In Anomaly Checking :

Minerals

Malachite Chalcopyrite Pyrite Calcite Pyrolusite Biotite

Bornite Limonite Goethite Hematt Barite Silica Quartz

Fe-Oxid Feldspar Iron Oxide Q-topaz

Fillings

Quartz Carbonate Carbonate(Fe) vein Calcite



نتایج مدل سازی



A1

FINAL CALC-N MODELING RESULTS		
Probable Types of Ore Deposit	Rank (%)	Score (%)
Appalachian Zn	83	10.80
Bedded Barite	90	9.00
Sandstone Hosted Pb-Zn	65	5.30
Kipushi Cu-Pb-Zn	28	3.70
Missouri Pb-Zn	35	3.60

A1Y1

####	Appalachian Zn	Pos.Score	Neg.Score	Interval S	State
480	DOLOMITIZATION REPLACEMENT PRO	100	10	110	YES L
147	CARBONATE ROCKS	75	75	150	YES R
863	Pb	60	10	70	YES L
886	Zn	60	75	135	YES L
832	Ba	30	10	40	YES L
1072	PYRITE	30	30	60	YES L
298	FRACTURE SYSTEM	15	0	15	YES R
440	MARIN SEDIMENTARY ENVIRONMENT	15	0	15	YES L
559	DOLOMITE	15	0	15	YES L
661	SUPERGENE ENRICHMENT MINERALS	15	0	15	YES L
682	CERRUSITE	15	0	15	YES L
686	SMITHSONITE	15	0	15	YES L
732	SEDIMENTARY TEXTURES	15	0	15	YES L
	Total	460	210	670	

A1N1

####	Appalachian Zn	Pos.Score	Neg.Score	Interval S	State
1207	Appalachian Zn	150	0	150	L
230	PRECAMBRIAN	100	0	100	R
234	PALEOZOIC	100	0	100	R
244	TRIASSIC	100	0	100	R
323	PASSIVE CONTINENTAL MARGINE-SH	15	0	15	R
444	SHELF SEDIMENTARY ENVIRONMENT	15	0	15	L
605	SURFACE AND NEAR SURFACE OXIDA	15	0	15	L
610	SECONDARY ENRICHMENT PROCESSES	15	0	15	L
614	CHEMICAL SECONDARY ENRICHMENT	15	0	15	L
615	LEACHING PROCESSES	15	0	15	L
616	OXIDIZING LEACHING	15	0	15	L
620	WEATHERING PRODUCTS EXIST	15	0	15	L
687	HEMIMORPHITE	15	0	15	L
748	CAVITY FILLING	15	0	15	L
		۱۴۰			



749	OPEN SPACE FILLINGS	15	0	15	L
750	BRECCIA FILLINGS	15	0	15	L
762	BRECCIA	15	0	15	L
772	RIBBON	15	0	15	L
773	TABULAR	15	0	15	L
779	FRACTURE FILLINGS	15	0	15	L
801	STRATIFORM	15	0	15	L
802	TECTONIC BRECCIA	15	0	15	L
803	PIPES BRECCIA	15	0	15	L
809	CONCORDANT LAYERED	15	0	15	L
812	BEDDED	15	0	15	L
Total		765	0	765	

A1ND1

###	Appalachian Zn	Pos.Score	Neg.Score	Interval S	State
516	SILICIFICATION PROCESSES	100	10	110	nd L
1097	SPHALERITE	60	75	135	nd L
11	MARINE SEQUENCE	50	50	100	nd R
845	F	30	30	60	nd L
852	Mg	30	75	105	nd L
1032	MARCASITE	30	30	60	nd L
Total		300	270	570	

A2

FINAL CALC-N MODELING RESULTS		
Probable Types of Ore Deposit	Rank (%)	Score (%)

*** Invalid modeling, not enough data! ***



A3

FINAL CALC-N MODELING RESULTS		
Probable Types of Ore Deposit	Rank (%)	Score (%)
Sedimentary Mn	98	8.30
Sedimentary exhalative Zn-Pb	5	-2.20
Sandstone Hosted Pb-Zn	63	-6.00
Appalachian Zn	10	-9.40
Bedded Barite	73	-9.90

A3Y1

###	Sedimentary Mn	Pos.Score	Neg.Score	Interval S	State
243	MESOZOIC	100	0	100	YES R
150	LIMESTONE	75	75	150	YES R
1074	PYROLUSITE	60	75	135	YES L
122	PELITE	45	10	55	YES R
440	MARIN SEDIMENTARY ENVIRONMENT	15	0	15	YES L
444	SHELF SEDIMENTARY ENVIRONMENT	15	0	15	YES L
732	SEDIMENTARY TEXTURES	15	0	15	YES L
941	CARBONATES	15	0	15	YES L
	Total	340	160	500	

A3N1

###	Sedimentary Mn	Pos.Score	Neg.Score	Interval S	State
1210	Superior Fe	150	0	150	L
1211	Sedimentary Mn	150	0	150	L
234	PALEOZOIC	100	0	100	R
1001	GLOUCONITE	30	10	40	L
260	INTRACRATONIC	15	0	15	R
452	ANOXIC CONTINENTAL ENVIRONMENT	15	0	15	L
605	SURFACE AND NEAR SURFACE OXIDA	15	0	15	L
610	SECONDARY ENRICHMENT PROCESSES	15	0	15	L
614	CHEMICAL SECONDARY ENRICHMENT	15	0	15	L
616	OXIDIZING LEACHING	15	0	15	L
620	WEATHERING PRODUCTS EXIST	15	0	15	L
655	Mn-OXIDES STAINS	15	0	15	L
761	PISOLITIC	15	0	15	L
765	OOLITES	15	0	15	L
774	CHAOTIC LAMINAR	15	0	15	L
775	REGULAR LAMINAR	15	0	15	L
	Total	610	10	620	



A3ND1

####	Sedimentary Mn	Pos.Score	Neg.Score	Interval S	State
853	Mn	60	75	135	nd L
1080	RHODOCHROSITE	60	75	135	nd L
11	MARINE SEQUENCE	50	50	100	nd R
881	V	30	30	60	nd L
	Total	200	230	430	

A4

FINAL CALC-N MODELING RESULTS		
Probable Types of Ore Deposit	Rank (%)	Score (%)
Sedimentary Mn	93	3.10
Lateritic-Saprolite Au	10	3.00
Sandstone Hosted Pb-Zn	5	2.50
Polymetallic-Replacement	3	2.40
Bedded Barite	55	0.60

A4Y1

####	Sedimentary Mn	Pos.Score	Neg.Score	Interval S	State
243	MESOZOIC	100	0	100	YES R
150	LIMESTONE	75	75	150	YES R
1074	PYROLUSITE	60	75	135	YES L
122	PELITE	45	10	55	YES R
440	MARIN SEDIMENTARY ENVIRONMENT	15	0	15	YES L
620	WEATHERING PRODUCTS EXIST	15	0	15	YES L
732	SEDIMENTARY TEXTURES	15	0	15	YES L
	Total	325	160	485	

A4N1

####	Sedimentary Mn	Pos.Score	Neg.Score	Interval S	State
1210	Superior Fe	150	0	150	L
1211	Sedimentary Mn	150	0	150	L
234	PALEOZOIC	100	0	100	R
853	Mn	60	75	135	L
881	V	30	30	60	L
260	INTRACRATONIC	15	0	15	R
		۱۴۸			



444	SHELF SEDIMENTARY ENVIRONMENT	15	0	15	L
452	ANOXIC CONTINENTAL ENVIRONMENT	15	0	15	L
605	SURFACE AND NEAR SURFACE OXIDA	15	0	15	L
610	SECONDARY ENRICHMENT PROCESSES	15	0	15	L
614	CHEMICAL SECONDARY ENRICHMENT	15	0	15	L
616	OXIDIZING LEACHING	15	0	15	L
655	Mn-OXIDES STAINS	15	0	15	L
761	PISOLITIC	15	0	15	L
765	OOLITES	15	0	15	L
774	CHAOTIC LAMINAR	15	0	15	L
775	REGULAR LAMINAR	15	0	15	L
941	CARBONATES	15	0	15	L
Total		685	105	790	

A4ND1

####	Sedimentary Mn	Pos.Score	Neg.Score	Interval S	State
1080	RHODOCHROSITE	60	75	135	nd L
11	MARINE SEQUENCE	50	50	100	nd R
1001	GLOUCONITE	30	10	40	nd L
Total		140	135	275	



A5

FINAL CALC-N MODELING RESULTS		
Probable Types of Ore Deposit	Rank (%)	Score (%)
Missouri Pb-Zn	80	11.60
Kipushi Cu-Pb-Zn	63	9.40
Sedimentary exhalative Zn-Pb	15	6.60
Sedimentary Mn	70	5.60
Polymetallic-Replacement	8	5.10

A5Y1

####	Missouri Pb-Zn	Pos.Score	Neg.Score	Interval S	State
157	DOLOMITE	75	75	150	YES R
863	Pb	45	75	120	YES L
886	Zn	45	75	120	YES L
947	CHALCOPYRITE	45	30	75	YES L
996	GALENA	45	75	120	YES L
829	Ag	30	30	60	YES L
836	Co	30	30	60	YES L
837	Cu	30	75	105	YES L
855	Ni	30	30	60	YES L
1072	PYRITE	30	75	105	YES L
298	FRACTURE SYSTEM	15	0	15	YES R
440	MARIN SEDIMENTARY ENVIRONMENT	15	0	15	YES L
444	SHELF SEDIMENTARY ENVIRONMENT	15	0	15	YES L
559	DOLOMITE	15	0	15	YES L
605	SURFACE AND NEAR SURFACE OXIDA	15	0	15	YES L
661	SUPERGENE ENRICHMENT MINERALS	15	0	15	YES L
732	SEDIMENTARY TEXTURES	15	0	15	YES L
828	As	15	5	20	YES L
	Total	525	575	1100	

A5N1

####	Missouri Pb-Zn	Pos.Score	Neg.Score	Interval S	State
1189	Volcanic-Hosted Magnetite	150	0	150	L
1206	Missouri Pb-Zn	150	0	150	L
230	PRECAMBRIAN	100	0	100	R
234	PALEOZOIC	100	0	100	R
244	TRIASSIC	100	0	100	R
1097	SPHALERITE	45	75	120	L
854	Mo	30	30	60	L
323	PASSIVE CONTINENTAL MARGINE-SH	15	0	15	R



610	SECONDARY ENRICHMENT PROCESSES	15	0	15	L
614	CHEMICAL SECONDARY ENRICHMENT	15	0	15	L
615	LEACHING PROCESSES	15	0	15	L
616	OXIDIZING LEACHING	15	0	15	L
620	WEATHERING PRODUCTS EXIST	15	0	15	L
682	CERRUSITE	15	0	15	L
686	SMITHSONITE	15	0	15	L
687	HEMIMORPHITE	15	0	15	L
748	CAVITY FILLING	15	0	15	L
749	OPEN SPACE FILLINGS	15	0	15	L
750	BRECCIA FILLINGS	15	0	15	L
762	BRECCIA	15	0	15	L
772	RIBBON	15	0	15	L
773	TABULAR	15	0	15	L
779	FRACTURE FILLINGS	15	0	15	L
801	STRATIFORM	15	0	15	L
802	TECTONIC BRECCIA	15	0	15	L
803	PIPES BRECCIA	15	0	15	L
809	CONCORDANT LAYERED	15	0	15	L
812	BEDDED	15	0	15	L
870	Sb	15	0	15	L
Total		1005	105	1110	

A5ND1

####	Missouri Pb-Zn	Pos.Score	Neg.Score	Interval S	State
480	DOLOMITIZATION REPLACEMENT PRO	100	10	110	nd L
11	MARINE SEQUENCE	50	50	100	nd R
1032	MARCASITE	30	30	60	nd L
839	C (Organic)	15	10	25	nd L
845	F	15	5	20	nd L
Total		210	105	315	



A6

FINAL CALC-N MODELING RESULTS		
Probable Types of Ore Deposit	Rank (%)	Score (%)
Comstock Epithermal Veins	5	2.30
Bedded Barite	93	-1.20
Sedimentary Mn	88	-2.40
Lateritic-Saprolite Au	18	-4.70
Sandstone Hosted Pb-Zn	58	-6.20

A6Y1

###	Comstock Epithermal Veins	Pos.Score	Neg.Score	Interval S	State
830	Au	45	75	120	YES L
1045	NATIVES GOLD	45	75	120	YES L
996	GALENA	30	30	60	YES L
1010	HEMATITE	30	10	40	YES L
10	SEDIMENTARY SEQUENCE	15	15	30	YES R
423	FAULTED STRUCTURE	15	0	15	YES L
424	NORMAL FAULT STRUCTURE	15	0	15	YES L
605	SURFACE AND NEAR SURFACE OXIDA	15	0	15	YES L
650	GOETHITE IN BLEACHED COUNTRY R	15	0	15	YES L
651	LIMONITE IN BLEACHED COUNTRY R	15	0	15	YES L
652	HEMATITE IN BLEACHED COUNTRY R	15	0	15	YES L
664	GOETHITE	15	0	15	YES L
665	LIMONITE	15	0	15	YES L
17	LOW GRADE METAMORPHIC SEQUENCE	10	10	20	YES R
	Total	295	215	510	

A6N1

###	Comstock Epithermal Veins	Pos.Score	Neg.Score	Interval S	State
1183	Comstock Epithermal Veins	150	0	150	L
1185	Epithermal Quartz-Alunite Au	150	0	150	L
1223	Placer Au-PGE	150	0	150	L
247	TERTIARY	100	0	100	R
516	SILICIFICATION PROCESSES	100	10	110	L
87	FELSIC VOLCANIC BODY	75	75	150	R
828	As	45	30	75	L
847	Hg	45	10	55	L
870	Sb	45	30	75	L
914	ARGENTITE	45	75	120	L
1107	SULFOSALT	45	30	75	L
1112	TELLURIDES	45	10	55	L
829	Ag	30	75	105	L
837	Cu	30	75	105	L
863	Pb	30	75	105	L



916	ARSENOPYRITE	30	5	35	L
947	CHALCOPYRITE	30	30	60	L
8	FELSIC VOLCANIC SEQUENCE	25	25	50	R
266	UNSTABLE CONDITION	15	0	15	R
277	STEEP NORMAL FAULT	15	0	15	R
286	DOMING	15	0	15	R
290	NORMAL FAULT	15	0	15	R
302	RING FRACTURE SYSTEM	15	0	15	R
303	DOMING RELATED RING FRACTURE S	15	0	15	R
304	CALDERA RELATED RING FRACTURE	15	0	15	R
318	ACTIVE CONTINENTAL MARGINE	15	0	15	R
327	OCEANIC PLATE MARGINE-ARC	15	0	15	R
334	OCEANIC-OCEANIC SUBDUCTION	15	0	15	R
336	OCEANIC-CONTINENTAL SUBDUCTION	15	0	15	R
381	X=SUBVOLCANIC PLUTONS Y=CLASTI	15	0	15	L
400	LINEAR BIMODAL EXTRUSIVE	15	0	15	L
401	LINEAR CALC-ALKALINE EXTRUSIVE	15	0	15	L
403	CALDERA EXTRUSIVE	15	0	15	L
404	CALDERA RIMS	15	0	15	L
405	CALDERA RING FRACTURE ZONE	15	0	15	L
407	SHALLOW SEATED MAGMATISM	15	0	15	L
418	GEOHERMAL ACTIVITY	15	0	15	L
419	VOLCANIC RELATED GEOHERMAL AC	15	0	15	L
439	EPICONTINENTAL SEDIMENTARY ENV	15	0	15	L
445	NEAR SHORE SEDIMENTARY ENVIRON	15	0	15	L
526	ADULARIA	15	0	15	L
542	BUDDINGTONITE	15	0	15	L
560	EPIDOT	15	0	15	L
564	GROSSULAR	15	0	15	L
601	ZEOLITE	15	0	15	L
608	LATERITIZATION	15	0	15	L
616	OXIDIZING LEACHING	15	0	15	L
623	HEMATITE GOSSAN	15	0	15	L
624	LIMONITE GOSSAN	15	0	15	L
648	JAROSITE IN BLEACHED COUNTRY R	15	0	15	L
649	ALUNITE IN BLEACHED COUNTRY RO	15	0	15	L
683	ALUNITE	15	0	15	L
715	INEQUIGRANULAR TEXTURES	15	0	15	L
717	PORPHYRY	15	0	15	L
748	CAVITY FILLING	15	0	15	L
791	STOCKWORK	15	0	15	L
814	BANDED	15	0	15	L
821	REGULAR VIEN	15	0	15	L
	Total	1770	555	2325	

A6ND1

###	Comstock Epithermal Veins	Pos.Score	Neg.Score	Interval S	State
1097	SPHALERITE	30	30	60	nd L
	Total	30	30	60	



A7

FINAL CALC-N MODELING RESULTS		
Probable Types of Ore Deposit	Rank (%)	Score (%)
Sedimentary Mn	95	6.80
Polymetallic-Replacement	8	-0.40
Appalachian Zn	75	-8.90
Bedded Barite	58	-10.70
Sandstone Hosted Pb-Zn	20	-11.80

A7Y1

###	Sedimentary Mn	Pos.Score	Neg.Score	Interval S	State
243	MESOZOIC	100	0	100	YES R
150	LIMESTONE	75	75	150	YES R
1074	PYROLUSITE	60	75	135	YES L
11	MARINE SEQUENCE	50	50	100	YES R
122	PELITE	45	10	55	YES R
440	MARIN SEDIMENTARY ENVIRONMENT	15	0	15	YES L
444	SHELF SEDIMENTARY ENVIRONMENT	15	0	15	YES L
605	SURFACE AND NEAR SURFACE OXIDA	15	0	15	YES L
620	WEATHERING PRODUCTS EXIST	15	0	15	YES L
732	SEDIMENTARY TEXTURES	15	0	15	YES L
	Total	405	210	615	

A7N1

###	Sedimentary Mn	Pos.Score	Neg.Score	Interval S	State
1210	Superior Fe	150	0	150	L
1211	Sedimentary Mn	150	0	150	L
234	PALEOZOIC	100	0	100	R
853	Mn	60	75	135	L
881	V	30	30	60	L
260	INTRACRATONIC	15	0	15	R
452	ANOXIC CONTINENTAL ENVIRONMENT	15	0	15	L
610	SECONDARY ENRICHMENT PROCESSES	15	0	15	L
614	CHEMICAL SECONDARY ENRICHMENT	15	0	15	L
616	OXIDIZING LEACHING	15	0	15	L
761	PISOLITIC	15	0	15	L
765	OOLITES	15	0	15	L
774	CHAOTIC LAMINAR	15	0	15	L
775	REGULAR LAMINAR	15	0	15	L
941	CARBONATES	15	0	15	L
	Total	640	105	745	



A7ND1

####	Sedimentary Mn	Pos.Score	Neg.Score	Interval S	State
1080	RHODOCHROSITE	60	75	135	nd L
1001	GLOUCONITE	30	10	40	nd L
655	Mn-OXIDES STAINS	15	0	15	nd L
	Total	105	85	190	

A8

FINAL CALC-N MODELING RESULTS		
Probable Types of Ore Deposit	Rank (%)	Score (%)
Besshi-Massive Sulfide	3	2.20
Appalachian Zn	88	-0.20
Bedded Barite	80	-0.30
Sedimentary Mn	43	-1.80
Sedimentary exhalative Zn-Pb	18	-1.90

A8Y1

####	Besshi-Massive Sulfide	Pos.Score	Neg.Score	Interval S	State
233	PHANEROZOIC	100	0	100	YES R
124	SHALE	60	5	65	YES R
226	BRECCIA	45	5	50	YES R
1072	PYRITE	45	75	120	YES L
996	GALENA	30	10	40	YES L
1029	MAGNETITE	30	30	60	YES L
266	UNSTABLE CONDITION	15	0	15	YES R
423	FAULTED STRUCTURE	15	0	15	YES L
424	NORMAL FAULT STRUCTURE	15	0	15	YES L
734	FINE GRAINE CLASTIC	15	0	15	YES L
735	MEDIUM GRAINE CLASTIC	15	0	15	YES L
	Total	385	125	510	



A8 N1

###	Besshi-Massive Sulfide	Pos.Score	Neg.Score	Interval S	State
1178	Besshi-Massive Sulfide	150	0	150	L
514	CHLORITIZATION	100	10	110	L
93	TUFF	75	10	85	R
136	SANDSTONE	75	5	80	R
140	RED BED	45	5	50	R
164	CHERT	45	5	50	R
886	Zn	45	75	120	L
947	CHALCOPYRITE	45	75	120	L
1077	PYRRHOTITE	45	30	75	L
1115	TETRAHEDRITE	45	10	55	L
431	DEFORMED STRUCTURE	30	0	30	L
829	Ag	30	75	105	L
830	Au	30	30	60	L
835	Cr	30	10	40	L
836	Co	30	30	60	L
855	Ni	30	10	40	L
928	BORNITE	30	10	40	L
963	COBALTITE	30	5	35	L
1038	MOLYBDENITE	30	5	35	L
1101	STANNITE	30	5	35	L
4	MAFIC VOLCANIC SEQUENCE	25	25	50	R
267	EXTENSIONAL REGIME	15	0	15	R
268	RIFT SYSTEM	15	0	15	R
272	OCEANIC RIFT SYSTEM	15	0	15	R
273	MARGINAL OCEANIC RIFT SYSTEM	15	0	15	R
315	RIFTED BASIN (RIDGE)	15	0	15	R
332	OCEANIC DIVERGENT BOUNDARY-RIFT	15	0	15	R
341	ARC RELATED	15	0	15	R
345	RIFT RELATED MAGMATISM	15	0	15	R
353	BACK ARC RELATED MAGMATISM	15	0	15	R
369	SUBMARINE MAGMATISM	15	0	15	R
418	GEO THERMAL ACTIVITY	15	0	15	L
544	CARBONATES	15	0	15	L
608	LATERITIZATION	15	0	15	L
622	Fe-RICH GOSSAN	15	0	15	L
745	MASSIVE	15	0	15	L
750	BRECCIA FILLINGS	15	0	15	L
762	BRECCIA	15	0	15	L
791	STOCKWORK	15	0	15	L
792	STRINGER	15	0	15	L
821	REGULAR VEIN	15	0	15	L
	Total	1295	430	1725	

A8ND1

###	Besshi-Massive Sulfide	Pos.Score	Neg.Score	Interval S	State
837	Cu	45	75	120	nd L
1097	SPHALERITE	45	75	120	nd L
11	MARINE SEQUENCE	25	25	50	nd R
	Total	115	175	290	



A9

FINAL CALC-N MODELING RESULTS		
Probable Types of Ore Deposit	Rank (%)	Score (%)
Polymetallic-Replacement	3	2.00
Appalachian Zn	88	-5.10
Sedimentary exhalative Zn-Pb	18	-5.60
Sandstone Hosted Pb-Zn	73	-8.60
Bedded Barite	70	-8.80

A9Y1

###	Polymetallic-Replacement	Pos.Score	Neg.Score	Interval S	State
150	LIMESTONE	75	75	150	YES R
124	SHALE	45	10	55	YES R
863	Pb	30	75	105	YES L
921	BARITE	30	30	60	YES L
996	GALENA	30	30	60	YES L
1072	PYRITE	30	75	105	YES L
536	ARGILLITE	15	0	15	YES L
682	CERRUSITE	15	0	15	YES L
	Total	270	295	565	

A9N1

###	Polymetallic-Replacement	Pos.Score	Neg.Score	Interval S	State
1159	Porphyry-Cu	150	0	150	L
1162	Skarn-Pb-Zn	150	0	150	L
1165	Polymetallic-Replacement	150	0	150	L
480	DOLOMITIZATION REPLACEMENT PRO	100	10	110	L
514	CHLORITIZATION	100	10	110	L
516	SILICIFICATION PROCESSES	100	10	110	L
7	FELSIC PLUTONIC SEQUENCE	50	50	100	R
54	PLUTONIC FELSIC BODY	30	30	60	R
828	As	30	10	40	L
829	Ag	30	30	60	L
830	Au	30	30	60	L
832	Ba	30	10	40	L
834	Bi	30	10	40	L
837	Cu	30	75	105	L
853	Mn	30	30	60	L
870	Sb	30	10	40	L
871	S	30	75	105	L
877	Te	30	10	40	L
886	Zn	30	75	105	L
914	ARGENTITE	30	10	40	L
947	CHALCOPYRITE	30	30	60	L
982	DIGENITE	30	5	35	L
986	EMARGITE	30	10	40	L



1032	MARCASITE	30	30	60	L
1071	PYRARGYRITE	30	30	60	L
266	UNSTABLE CONDITION	15	0	15	R
282	MOBILE BELT	15	0	15	R
284	OROGENIC	15	0	15	R
304	CALDERA RELATED RING FRACTURE	15	0	15	R
318	ACTIVE CONTINENTAL MARGINE	15	0	15	R
336	OCEANIC-CONTINENTAL SUBDUCTION	15	0	15	R
341	ARC RELATED	15	0	15	R
344	OROGENIC RELATED MAGMATISM	15	0	15	R
348	SUBDUCTION RELATED MAGMATISM	15	0	15	R
350	ARC RELATED MAGMATISM	15	0	15	R
366	MIDDLE STAGE (CALC ALKALINE) S	15	0	15	R
389	X=EPIZONAL COMPLEX Y=CARBONATE	15	0	15	L
392	X=STOCKS Y=CARBONATE ROCK	15	0	15	L
403	CALDERA EXTRUSIVE	15	0	15	L
405	CALDERA RING FRACTURE ZONE	15	0	15	L
408	EPIZONAL MAGMATISM	15	0	15	L
547	CHLORITE	15	0	15	L
566	JASPORID	15	0	15	L
605	SURFACE AND NEAR SURFACE OXIDA	15	0	15	L
610	SECONDARY ENRICHMENT PROCESSES	15	0	15	L
616	OXIDIZING LEACHING	15	0	15	L
625	OCHREOUS MASSES	15	0	15	L
661	SUPERGENE ENRICHMENT MINERALS	15	0	15	L
681	ANGELSITE	15	0	15	L
687	HEMIMORPHITE	15	0	15	L
715	INEQUIGRANULAR TEXTURES	15	0	15	L
717	PORPHYRY	15	0	15	L
745	MASSIVE	15	0	15	L
748	CAVITY FILLING	15	0	15	L
796	MASSIVE	15	0	15	L
	Total	1790	590	2380	



A10

FINAL CALC-N MODELING RESULTS		
Probable Types of Ore Deposit	Rank (%)	Score (%)
Bedded Barite	95	3.70
Appalachian Zn	83	2.20
Sandstone Hosted Pb-Zn	65	1.00
Missouri Pb-Zn	5	-3.80
Polymetallic-Replacement	8	-4.30

A10Y1

###	Bedded Barite	Pos.Score	Neg.Score	Interval S	State
124	SHALE	75	10	85	YES R
921	BARITE	75	75	150	YES L
10	SEDIMENTARY SEQUENCE	50	50	100	YES R
150	LIMESTONE	45	10	55	YES R
122	PELITE	30	5	35	YES R
871	S	30	75	105	YES L
886	Zn	30	10	40	YES L
1072	PYRITE	30	10	40	YES L
298	FRACTURE SYSTEM	15	0	15	YES R
440	MARIN SEDIMENTARY ENVIRONMENT	15	0	15	YES L
732	SEDIMENTARY TEXTURES	15	0	15	YES L
733	VERY FINE GRAINE CLASTIC	15	0	15	YES L
734	FINE GRAINE CLASTIC	15	0	15	YES L
735	MEDIUM GRAINE CLASTIC	15	0	15	YES L
	Total	455	245	700	

A10N1

###	Bedded Barite	Pos.Score	Neg.Score	Interval S	State
1203	Sedimentary exhalative Zn-Pb	150	0	150	L
1204	Bedded Barite	150	0	150	L
232	PROTZOIC	100	0	100	R
233	PHANEROZOIC	100	0	100	R
832	Ba	75	75	150	L
164	CHERT	60	10	70	R
227	GREEN STONE	30	5	35	R
801	STRATIFORM	30	0	30	L
812	BEDDED	30	0	30	L
996	GALENA	30	10	40	L
1097	SPHALERITE	30	10	40	L
891	GRAVITY-HIGH	25	50	75	L
261	EPEICRATONIC	15	0	15	R
289	FAULT SYSTEM	15	0	15	R



295	FAULTS INTERSECTIONS	15	0	15	R
297	SYNSEDIMENTARY FAULT	15	0	15	R
588	SERICITE	15	0	15	L
760	GRAIN	15	0	15	L
773	TABULAR	15	0	15	L
808	LENTICULAR	15	0	15	L
809	CONCORDANT LAYERED	15	0	15	L
811	INTERLAYED	15	0	15	L
Total		960	160	1120	

A10ND1

####	Bedded Barite	Pos.Score	Neg.Score	Interval S	State
136	SANDSTONE	30	5	35	nd R
839	C (Organic)	30	30	60	nd L
Total		60	35	95	



A11

FINAL CALC-N MODELING RESULTS		
Probable Types of Ore Deposit	Rank (%)	Score (%)
Sediment Hosted Cu	93	6.50
Sedimentary exhalative Zn-Pb	10	2.60
Polymetallic-Replacement	3	2.40
Sedimentary Mn	3	-0.10
Bedded Barite	65	-1.00

A11Y1

###	Sediment Hosted Cu	Pos.Score	Neg.Score	Interval S	State
233	PHANEROZOIC	100	0	100	YES R
837	Cu	60	75	135	YES L
10	SEDIMENTARY SEQUENCE	50	50	100	YES R
124	SHALE	45	10	55	YES R
863	Pb	30	10	40	YES L
1072	PYRITE	30	30	60	YES L
266	UNSTABLE CONDITION	15	0	15	YES R
277	STEEP NORMAL FAULT	15	0	15	YES R
289	FAULT SYSTEM	15	0	15	YES R
322	PASSIVE CONTINENTAL MARGINE	15	0	15	YES R
439	EPICONTINENTAL SEDIMENTARY ENV	15	0	15	YES L
661	SUPERGENE ENRICHMENT MINERALS	15	0	15	YES L
733	VERY FINE GRAINE CLASTIC	15	0	15	YES L
734	FINE GRAINE CLASTIC	15	0	15	YES L
735	MEDIUM GRAINE CLASTIC	15	0	15	YES L
	Total	450	175	625	

A11N1

###	Sediment Hosted Cu	Pos.Score	Neg.Score	Interval S	State
1176	Basaltic Cu	150	0	150	L
1201	Sediment Hosted Cu	150	0	150	L
1202	Sandstone U	150	0	150	L
1208	Kipushi Cu-Pb-Zn	150	0	150	L
232	PROTROZOIC	100	0	100	R
829	Ag	45	75	120	L
267	EXTENTIONAL REGIME	15	0	15	R
269	CONTINENTAL RIFT SYSTEM	15	0	15	R
271	INTRACONTINENTAL RIFT SYSTEM	15	0	15	R
275	FAILED RIFT SYSTEM	15	0	15	R
291	HIGH ANGLE NORMAL FAULT	15	0	15	R
606	SURFACE AND NEAR SURFACE REDUC	15	0	15	L
617	REDUCING LEACHING	15	0	15	L
620	WEATHERING PRODUCTS EXIST	15	0	15	L
676	CHALCOCITE	15	0	15	L



736	COARSE GRAINE CLASTIC	15	0	15	L
744	DESIMINATED	15	0	15	L
785	COLLOFORM	15	0	15	L
Total		925	75	1000	

A11ND1

###	Sediment Hosted Cu	Pos.Score	Neg.Score	Interval S	State
140	RED BED	75	75	150	nd R
839	C (Organic)	75	75	150	nd L
946	CHALCOCITE	60	30	90	nd L
129	GREEN SHALE	45	5	50	nd R
136	SANDSTONE	45	75	120	nd R
928	BORNITE	45	30	75	nd L
801	STRATIFORM	30	30	60	nd L
854	Mo	30	10	40	nd L
880	U	30	30	60	nd L
881	V	30	15	45	nd L
886	Zn	30	10	40	nd L
1047	NATIVES SILVER	30	30	60	nd L
836	Co	15	5	20	nd L
848	Ga	15	5	20	nd L
Total		555	425	980	



A12

FINAL CALC-N MODELING RESULTS		
Probable Types of Ore Deposit	Rank (%)	Score (%)
Sediment Hosted Cu	100	4.80
Besshi-Massive Sulfide	10	3.20
Polymetallic-Replacement	5	2.80
Kipushi Cu-Pb-Zn	13	-0.30
Sedimentary exhalative Zn-Pb	3	-3.70

A12Y1

###	Sediment Hosted Cu	Pos.Score	Neg.Score	Interval S	State
233	PHANEROZOIC	100	0	100	YES R
837	Cu	60	75	135	YES L
10	SEDIMENTARY SEQUENCE	50	50	100	YES R
124	SHALE	45	10	55	YES R
829	Ag	45	75	120	YES L
928	BORNITE	45	30	75	YES L
1072	PYRITE	30	30	60	YES L
266	UNSTABLE CONDITION	15	0	15	YES R
289	FAULT SYSTEM	15	0	15	YES R
322	PASSIVE CONTINENTAL MARGINE	15	0	15	YES R
439	EPICONTINENTAL SEDIMENTARY ENV	15	0	15	YES L
661	SUPERGENE ENRICHMENT MINERALS	15	0	15	YES L
733	VERY FINE GRAINE CLASTIC	15	0	15	YES L
734	FINE GRAINE CLASTIC	15	0	15	YES L
735	MEDIUM GRAINE CLASTIC	15	0	15	YES L
	Total	495	270	765	

A12N1

###	Sediment Hosted Cu	Pos.Score	Neg.Score	Interval S	State
1176	Basaltic Cu	150	0	150	L
1201	Sediment Hosted Cu	150	0	150	L
1202	Sandstone U	150	0	150	L
1208	Kipushi Cu-Pb-Zn	150	0	150	L
232	PROTROZOIC	100	0	100	R
946	CHALCOCITE	60	30	90	L
129	GREEN SHALE	45	5	50	R
854	Mo	30	10	40	L
863	Pb	30	10	40	L
880	U	30	30	60	L
886	Zn	30	10	40	L
267	EXTENTIONAL REGIME	15	0	15	R
269	CONTINENTAL RIFT SYSTEM	15	0	15	R
271	INTRACONTINENTAL RIFT SYSTEM	15	0	15	R



275	FAILED RIFT SYSTEM	15	0	15	R
277	STEEP NORMAL FAULT	15	0	15	R
291	HIGH ANGLE NORMAL FAULT	15	0	15	R
606	SURFACE AND NEAR SURFACE REDUC	15	0	15	L
617	REDUCING LEACHING	15	0	15	L
620	WEATHERING PRODUCTS EXIST	15	0	15	L
676	CHALCOCITE	15	0	15	L
736	COARSE GRAINE CLASTIC	15	0	15	L
744	DESIMINATED	15	0	15	L
785	COLLOFORM	15	0	15	L
836	Co	15	5	20	L
Total		1135	100	1235	

A12ND1

####	Sediment Hosted Cu	Pos.Score	Neg.Score	Interval S	State
140	RED BED	75	75	150	nd R
839	C (Organic)	75	75	150	nd L
136	SANDSTONE	45	75	120	nd R
801	STRATIFORM	30	30	60	nd L
881	V	30	15	45	nd L
1047	NATIVES SILVER	30	30	60	nd L
848	Ga	15	5	20	nd L
Total		300	305	605	



A13

FINAL CALC-N MODELING RESULTS		
Probable Types of Ore Deposit	Rank (%)	Score (%)
Besshi-Massive Sulfide	10	2.90
Sedimentary exhalative Zn-Pb	8	2.80
Bedded Barite	83	-0.10
Sandstone Hosted Pb-Zn	60	-1.00
Sedimentary Mn	70	-1.90

A13Y1

###	Besshi-Massive Sulfide	Pos.Score	Neg.Score	Interval S	State
124	SHALE	60	5	65	YES R
947	CHALCOPYRITE	45	75	120	YES L
1072	PYRITE	45	75	120	YES L
829	Ag	30	75	105	YES L
996	GALENA	30	10	40	YES L
266	UNSTABLE CONDITION	15	0	15	YES R
423	FAULTED STRUCTURE	15	0	15	YES L
424	NORMAL FAULT STRUCTURE	15	0	15	YES L
734	FINE GRAINE CLASTIC	15	0	15	YES L
735	MEDIUM GRAINE CLASTIC	15	0	15	YES L
	Total	285	240	525	

A13N1

###	Besshi-Massive Sulfide	Pos.Score	Neg.Score	Interval S	State
1178	Besshi-Massive Sulfide	150	0	150	L
233	PHANEROZOIC	100	0	100	R
514	CHLORITIZATION	100	10	110	L
93	TUFF	75	10	85	R
164	CHERT	45	5	50	R
226	BRECCIA	45	5	50	R
837	Cu	45	75	120	L
886	Zn	45	75	120	L
1077	PYRRHOTITE	45	30	75	L
1115	TETRAHEDRITE	45	10	55	L
431	DEFORMED STRUCTURE	30	0	30	L
830	Au	30	30	60	L
835	Cr	30	10	40	L
836	Co	30	30	60	L
855	Ni	30	10	40	L
928	BORNITE	30	10	40	L
963	COBALTITE	30	5	35	L
1029	MAGNETITE	30	30	60	L
1038	MOLYBDENITE	30	5	35	L
1101	STANNITE	30	5	35	L



4	MAFIC VOLCANIC SEQUENCE	25	25	50	R
267	EXTENTIONAL REGIME	15	0	15	R
268	RIFT SYSTEM	15	0	15	R
272	OCEANIC RIFT SYSTEM	15	0	15	R
273	MARGINAL OCEANIC RIFT SYSTEM	15	0	15	R
315	RIFTED BASIN (RIDGE)	15	0	15	R
332	OCEANIC DIVERGENT BOUNDARY-RIF	15	0	15	R
341	ARC RELATED	15	0	15	R
345	RIFT RELATED MAGMATISM	15	0	15	R
353	BACK ARC RELATED MAGMATISM	15	0	15	R
369	SUBMARINE MAGMATISM	15	0	15	R
418	GEOHERMAL ACTIVITY	15	0	15	L
544	CARBONATES	15	0	15	L
608	LATERITIZATION	15	0	15	L
622	Fe-RICH GOSSAN	15	0	15	L
745	MASSIVE	15	0	15	L
750	BRECCIA FILLINGS	15	0	15	L
762	BRECCIA	15	0	15	L
791	STOCKWORK	15	0	15	L
792	STRINGER	15	0	15	L
821	REGULAR VIEN	15	0	15	L
Total		1320	380	1700	

A13ND1

####	Besshi-Massive Sulfide	Pos.Score	Neg.Score	Interval S	State
136	SANDSTONE	75	5	80	nd R
140	RED BED	45	5	50	nd R
1097	SPHALERITE	45	75	120	nd L
11	MARINE SEQUENCE	25	25	50	nd R
Total		190	110	300	



A14

FINAL CALC-N MODELING RESULTS		
Probable Types of Ore Deposit	Rank (%)	Score (%)
Sandstone Hosted Pb-Zn	75	4.20
Missouri Pb-Zn	10	3.80
Polymetallic-Replacement	5	3.30
Bedded Barite	58	2.60
Sedimentary exhalative Zn-Pb	13	2.20

A14Y1

###	Sandstone Hosted Pb-Zn	Pos.Score	Neg.Score	Interval S	State
863	Pb	60	75	135	YES L
886	Zn	60	75	135	YES L
996	GALENA	60	75	135	YES L
132	SILTSTONE	45	5	50	YES R
921	BARITE	30	10	40	YES L
1072	PYRITE	30	30	60	YES L
449	CONTINENTAL SEDIMENTARY ENVIRO	15	0	15	YES L
682	CERRUSITE	15	0	15	YES L
686	SMITHSONITE	15	0	15	YES L
732	SEDIMENTARY TEXTURES	15	0	15	YES L
870	Sb	15	5	20	YES L
	Total	360	275	635	

A14N1

###	Sandstone Hosted Pb-Zn	Pos.Score	Neg.Score	Interval S	State
1200	Sandstone Hosted Pb-Zn	150	0	150	L
1201	Sediment Hosted Cu	150	0	150	L
10	SEDIMENTARY SEQUENCE	50	50	100	R
145	CONGLOMERATE	45	5	50	R
832	Ba	45	10	55	L
829	Ag	30	30	60	L
258	STABLE CONDITION	15	0	15	R
283	UPLIFT	15	0	15	R
284	OROGENIC	15	0	15	R
310	GRANITIC SIALIC BASEMENT	15	0	15	R
311	GRANITIC GENISSES SIALIC BASEM	15	0	15	R
440	MARIN SEDIMENTARY ENVIRONMENT	15	0	15	L
444	SHELF SEDIMENTARY ENVIRONMENT	15	0	15	L
445	NEAR SHORE SEDIMENTARY ENVIRON	15	0	15	L
453	FLUVIAL FAN ENVIRONMENT	15	0	15	L
456	ALLUVIAL FAN ENVIRONMENT	15	0	15	L
459	PIEDMONT ENVIRONMENT	15	0	15	L
460	STABLE COASTAL PLAIN ENVIRONME	15	0	15	L
461	DELTAIC ENVIRONMENT	15	0	15	L



552	ILLITE	15	0	15	L
588	SERICITE	15	0	15	L
605	SURFACE AND NEAR SURFACE OXIDA	15	0	15	L
610	SECONDARY ENRICHMENT PROCESSES	15	0	15	L
615	LEACHING PROCESSES	15	0	15	L
616	OXIDIZING LEACHING	15	0	15	L
675	COVLLITE	15	0	15	L
676	CHALCOCITE	15	0	15	L
677	AZURITE	15	0	15	L
678	MALACHAITE	15	0	15	L
681	ANGELSITE	15	0	15	L
688	HYDROZINCITE	15	0	15	L
736	COARSE GRAINE CLASTIC	15	0	15	L
760	GRAIN	15	0	15	L
772	RIBBON	15	0	15	L
773	TABULAR	15	0	15	L
809	CONCORDANT LAYERED	15	0	15	L
811	INTERLAYERED	15	0	15	L
812	BEDDED	15	0	15	L
813	CROSSBEDDING	15	0	15	L
814	BANDED	15	0	15	L
815	POKETS	15	0	15	L
816	BLANKETS	15	0	15	L
828	As	15	0	15	L
834	Bi	15	0	15	L
Total		1040	95	1135	

A14ND1

####	Sandstone Hosted Pb-Zn	Pos.Score	Neg.Score	Interval S	State
136	SANDSTONE	75	75	150	nd R
1097	SPHALERITE	60	75	135	nd L
839	C (Organic)	30	10	40	nd L
845	F	30	10	40	nd L
992	FLUORITE	30	10	40	nd L
801	STRATIFORM	15	0	15	nd L
Total		240	180	420	



A15

FINAL CALC-N MODELING RESULTS		
Probable Types of Ore Deposit	Rank (%)	Score (%)
Sedimentary Mn	98	17.10
Kipushi Cu-Pb-Zn	3	3.40
Disseminated-Ag-Au	3	-3.20
Bedded Barite	80	-4.80
Appalachian Zn	43	-6.50

A15Y1

####	Sedimentary Mn	Pos.Score	Neg.Score	Interval S	State
243	MESOZOIC	100	0	100	YES R
150	LIMESTONE	75	75	150	YES R
853	Mn	60	75	135	YES L
11	MARINE SEQUENCE	50	50	100	YES R
122	PELITE	45	10	55	YES R
440	MARIN SEDIMENTARY ENVIRONMENT	15	0	15	YES L
444	SHELF SEDIMENTARY ENVIRONMENT	15	0	15	YES L
452	ANOXIC CONTINENTAL ENVIRONMENT	15	0	15	YES L
605	SURFACE AND NEAR SURFACE OXIDA	15	0	15	YES L
610	SECONDARY ENRICHMENT PROCESSES	15	0	15	YES L
616	OXIDIZING LEACHING	15	0	15	YES L
620	WEATHERING PRODUCTS EXIST	15	0	15	YES L
732	SEDIMENTARY TEXTURES	15	0	15	YES L
775	REGULAR LAMINAR	15	0	15	YES L
941	CARBONATES	15	0	15	YES L
	Total	480	210	690	

A15N1

####	Sedimentary Mn	Pos.Score	Neg.Score	Interval S	State
1210	Superior Fe	150	0	150	L
1211	Sedimentary Mn	150	0	150	L
234	PALEOZOIC	100	0	100	R
1074	PYROLUSITE	60	75	135	L
260	INTRACRATONIC	15	0	15	R
614	CHEMICAL SECONDARY ENRICHMENT	15	0	15	L
655	Mn-OXIDES STAINS	15	0	15	L
761	PISOLITIC	15	0	15	L
765	OOLITES	15	0	15	L
774	CHAOTIC LAMINAR	15	0	15	L
	Total	550	75	625	



A15ND1

####	Sedimentary Mn	Pos.Score	Neg.Score	Interval S	State
1080	RHODOCHROSITE	60	75	135	nd L
881	V	30	30	60	nd L
1001	GLOUCONITE	30	10	40	nd L
	Total	120	115	235	

