Table S1. Representative whole rock major and trace element compositions of Shadan region.

Sample	Group	SiO_2	Al_2O_3	Fe_2O_3	CaO	MgO	K_2O	Na_2O	TiO_2	MnO	LOI	Total	Au	Ag	As	Cu	Mo	Pb	Zn	Sb	Sr	Ba	Rb	Cs
		wt.%											ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SHD-G1-01	*G1*	65.4	17.3	5.02	1.69	1.13	3.31	1.26	0.54	0.05	4.84	100.5	212	1.73	820	266	8.13	24.5	72.13	2.91	181	413	96.3	8.32
SHD-G1-02		63.1	18.4	4.83	2.18	1.27	3.74	0.82	0.61	0.06	5.16	100.2	189	2.08	903	284	7.64	25.7	79.35	3.20	165	439	126	7.94
SHD-G1-03		66.8	16.2	4.36	1.49	0.98	3.27	1.53	0.52	0.03	5.09	100.3	326	2.61	1184	349	8.59	28.7	88.26	3.38	159	358	132	9.45
SHD-G1-04		62.9	18.9	4.61	2.38	1.16	3.66	0.94	0.64	0.04	4.95	100.1	164	1.77	765	198	6.44	21.2	70.21	2.23	205	425	118	7.78
SHD-G1-05		64.3	17.1	3.72	1.94	0.87	3.54	1.22	0.42	0.02	7.1	100.2	241	1.95	988	315	8.91	20.7	76.34	3.27	177	402	127	8.94
SHD-G1-06		63.3	18.8	4.18	1.54	1.32	2.91	0.87	0.73	0.05	6.37	100	288	3.40	1052	484	5.96	19.6	81.84	2.75	213	371	149	10.2
SHD-G2-01	*G2*	58.7	15.9	3.99	6.44	2.36	2.96	0.91	0.48	0.05	8.71	100.4	269	1.54	653	313	7.29	13.3	68.54	2.66	421	336	92.4	7.56
SHD-G2-02		56	16.6	4.13	7.23	3.11	2.62	0.88	0.52	0.04	8.94	100.1	194	1.55	584	267	6.94	20.2	71.45	2.38	197	327	78.6	6.68
SHD-G2-03		60.3	15.4	3.28	5.94	1.97	1.87	1.23	0.56	0.03	9.67	100.2	271	1.72	725	319	5.79	23.6	80.95	2.51	395	369	95.3	8.13
SHD-G2-04		57.4	16.9	4.57	6.72	2.54	2.91	0.72	0.57	0.06	8.31	100.6	209	1.33	619	238	6.35	19.1	67.09	2.43	446	298	90.1	7.64
SHD-G2-05		59.3	15.7	3.65	6.11	2.21	2.67	0.95	0.58	0.04	8.9	100	235	1.68	698	288	7.48	17.1	75.13	3.14	415	355	101	6.29
SHD-G3-01	*G3*	88	5.36	1.29	0.89	0.56	1.24	1.38	0.03	0.02	1.27	100	146	1.26	393	216	7.19	25.6	65.46	1.80	124	269	104	8.51
SHD-G3-02		89.2	4.42	0.97	0.91	0.61	0.94	0.96	0.14	0.02	2.21	100.3	113	1.16	364	197	6.64	15.6	60.57	1.77	139	234	82.1	7.23
SHD-G3-03		87.9	4.13	1.46	0.63	0.58	1.42	0.87	0.13	0.03	2.67	99.8	167	1.44	421	248	7.85	19.5	72.71	2.13	108	251	98.2	7.88
SHD-G3-04		85.1	6.72	1.38	0.76	0.79	0.99	1.14	0.18	0.02	2.93	99.9	125	1.32	389	209	7.02	13.7	68.29	1.78	122	245	87.2	6.94
SHD-G3-05		85.2	7.84	1.29	0.48	0.94	1.37	0.79	0.10	0.02	2.1	100.1	154	1.21	416	235	7.59	22.1	66.21	1.97	118	218	91.1	6.73
SHD-G4-01	*G4*	61.3	8.22	19.11	2.33	2.09	1.23	0.93	0.54	0.03	4.63	100.4	264	2.09	724	318	6.32	18.1	55.58	2.23	167	287	71.2	4.39
SHD-G4-02		62.9	7.19	18.42	2.56	2.18	1.45	0.74	0.42	0.07	4.12	100	195	2.14	826	241	5.14	17.6	52.76	2.07	171	239	60.7	5.32
SHD-G4-03		59.5	9.21	20.2	1.78	1.77	1.47	0.89	0.58	0.06	4.8	100.2	305	2.36	734	428	7.19	20.3	61.33	2.32	154	271	69.1	4.57
SHD-G4-04		61.2	8.52	18.73	2.64	2.67	2.19	0.68	0.46	0.04	3.28	100.4	232	1.87	699	297	6.99	15.9	58.99	2.19	165	254	79.3	6.13
SHD-G4-05		60.9	8.03	19.65	2.47	1.58	1.42	0.81	0.57	0.05	4.58	100	245	2.14	763	345	5.84	16.9	46.61	2.34	158	302	64.4	5.38
SHD-G5-01	*G5*	56.7	13.3	16.11	2.61	1.91	1.57	1.21	0.42	0.12	6.44	100.4	211	1.96	957	284	8.21	21.4	80.34	3.31	175	361	105	7.94
SHD-G5-02		57.5	11.8	14.46	4.54	2.31	2.15	0.47	0.25	0.09	7.22	100.7	165	1.74	761	229	6.97	26.8	71.29	2.64	198	314	98.7	4.85
SHD-G5-03		55.9	12.5	15.32	3.78	2.81	1.83	0.83	0.56	0.08	6.73	100.3	245	2.47	1153	308	8.61	22.6	83.47	3.48	165	402	123	8.39
SHD-G5-04		56.8	12.3	14.94	3.49	1.56	2.90	0.92	0.23	0.08	7.08	100.3	196	1.89	846	268	7.44	17.8	78.37	2.83	185	345	85.9	7.61
SHD-G5-05		57.2	12.1	14.83	4.27	1.48	3.34	0.68	0.34	0.1	5.79	100.1	237	1.16	981	304	8.32	20.2	69.89	3.17	157	309	117	8.02
SHD-G6-01	*G6*	63.7	13.7	6.54	3.14	2.68	1.87	1.23	0.56	0.01	7.11	100.5	70.2	0.78	204	168	4.96	11.5	62.7	1.17	211	421	68.9	6.01
SHD-G6-02		64.5	12.3	7.19	2.65	3.29	2.36	1.58	0.70	0.07	5.78	100.4	55.6	0.64	183	142	4.34	9.64	55.94	0.83	237	397	77.5	4.82
SHD-G6-03		62.8	13.9	7.56	3.24	2.34	2.01	2.09	0.34	0.06	5.84	100.1	85.3	0.89	228	151	5.32	8.69	66.11	0.96	194	430	74.6	5.36
SHD-G6-04		64.1	15.4	6.32	2.28	2.44	2.13	2.14	0.72	0.03	4.96	100.5	65.4	0.73	216	176	5.61	13.5	68.12	1.14	215	384	64.03	4.97
SHD-G6-05		62.3	14.2	5.58	4.17	3.51	1.87	1.39	0.76	0.1	6.48	100.3	75.9	0.88	199	155	6.12	11.3	57.37	0.86	186	463	71.7	5.26
SHD-G7-01	*G7*	52.3	6.84	12.63	13.6	2.43	0.86	0.74	0.34	0.09	10.5	100.3	383	3.11	1605	986	15	28.9	90.34	2.74	487	302	66.9	7.13
SHD-G7-02		48.3	8.57	11.24	15.2	3.74	1.34	0.83	0.32	0.11	10.4	100	416	3.24	1758	1328	17.9	31.2	100.3	3.76	542	347	84.7	5.89
SHD-G7-03		50.1	7.19	13.72	13	2.9	1.18	0.66	0.47	0.07	11.1	100.3	296	2.65	1384	728	12.6	26.5	84.57	3.44	610	296	79.5	6.47
SHD-G7-04		49.6	8.61	12.3	13.3	1.56	1.08	1.09	0.29	0.07	12.3	100.1	344	2.97	1499	889	14.3	25.3	88.65	3.37	515	251	73.6	4.63
SHD-G7-05		49.1	7.98	11.47	14.4	4.41	1.54	0.77	0.64	0.12	9.81	100.2	365	3.43	1587	942	15.2	32.2	80.34	3.59	647	328	75.3	6.08