

Figure 4: Concentrations of Ni in different sampling locations and sampling periods

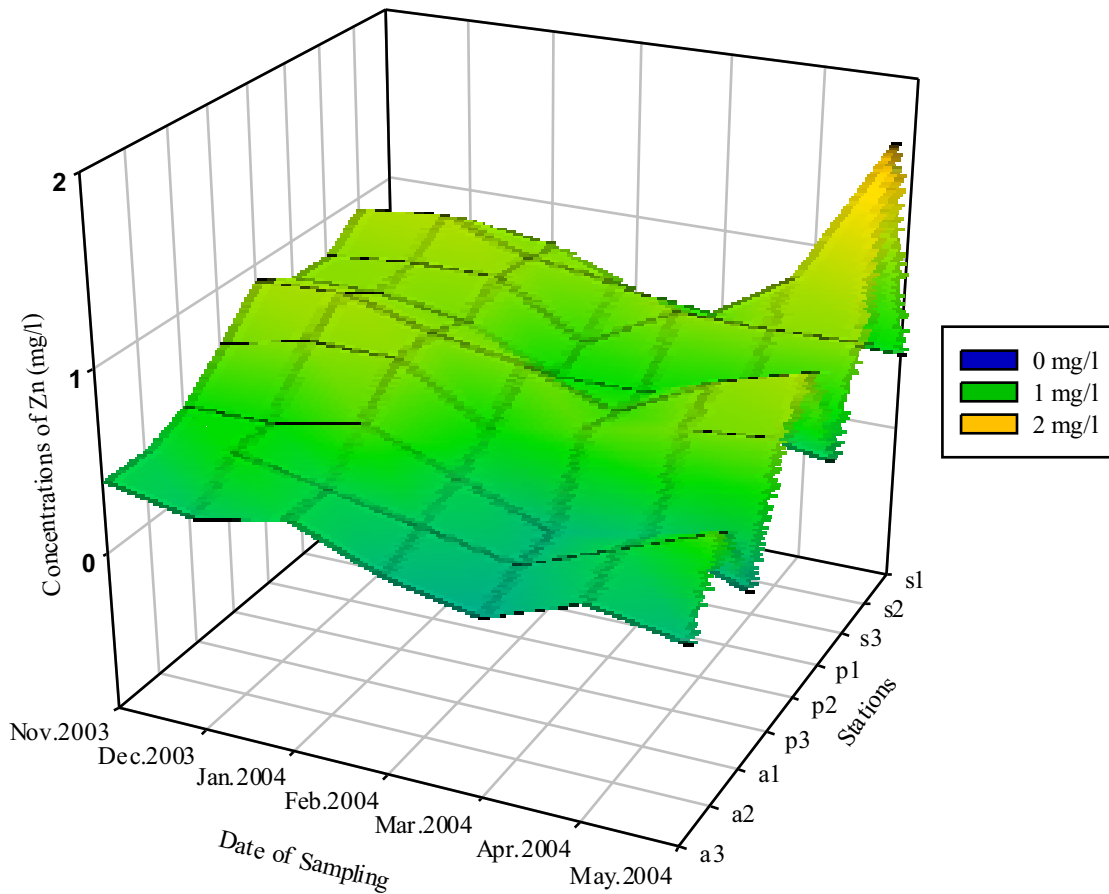


Figure 5: Concentrations of Zn in different sampling locations and sampling periods

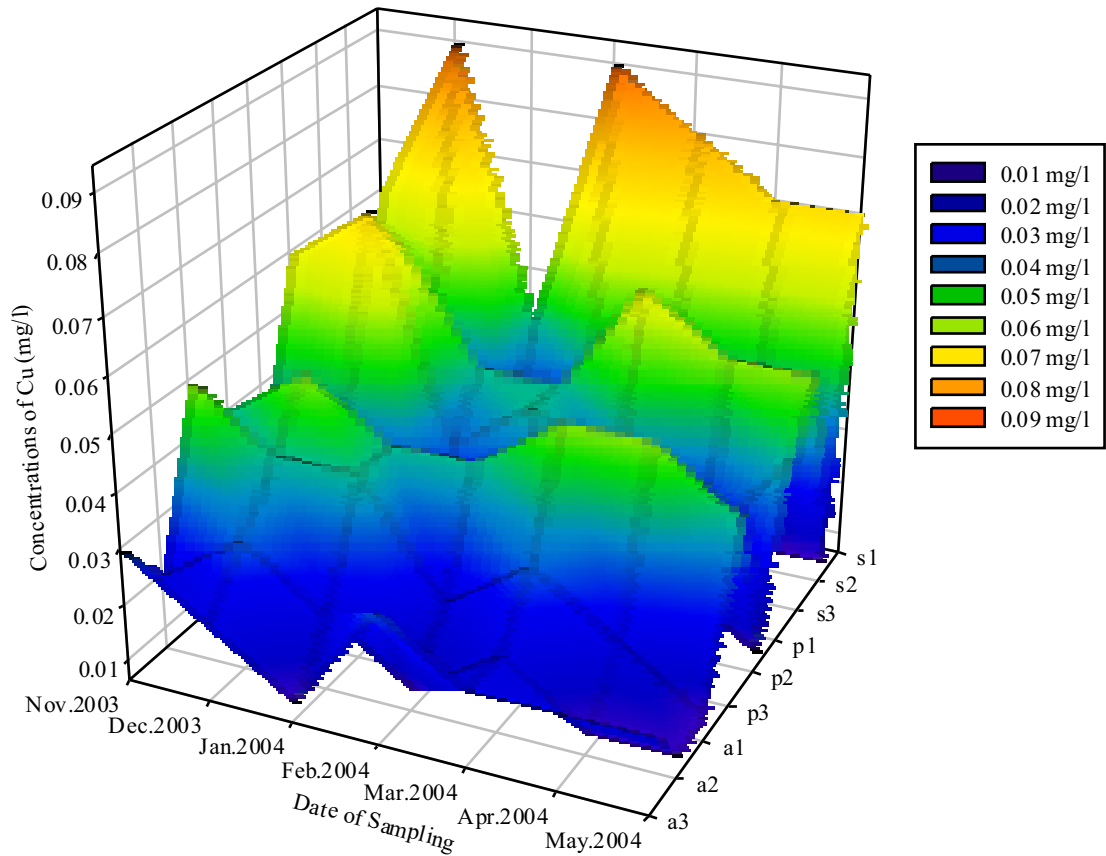


Figure 6: Concentrations of Cu in different sampling locations and sampling periods

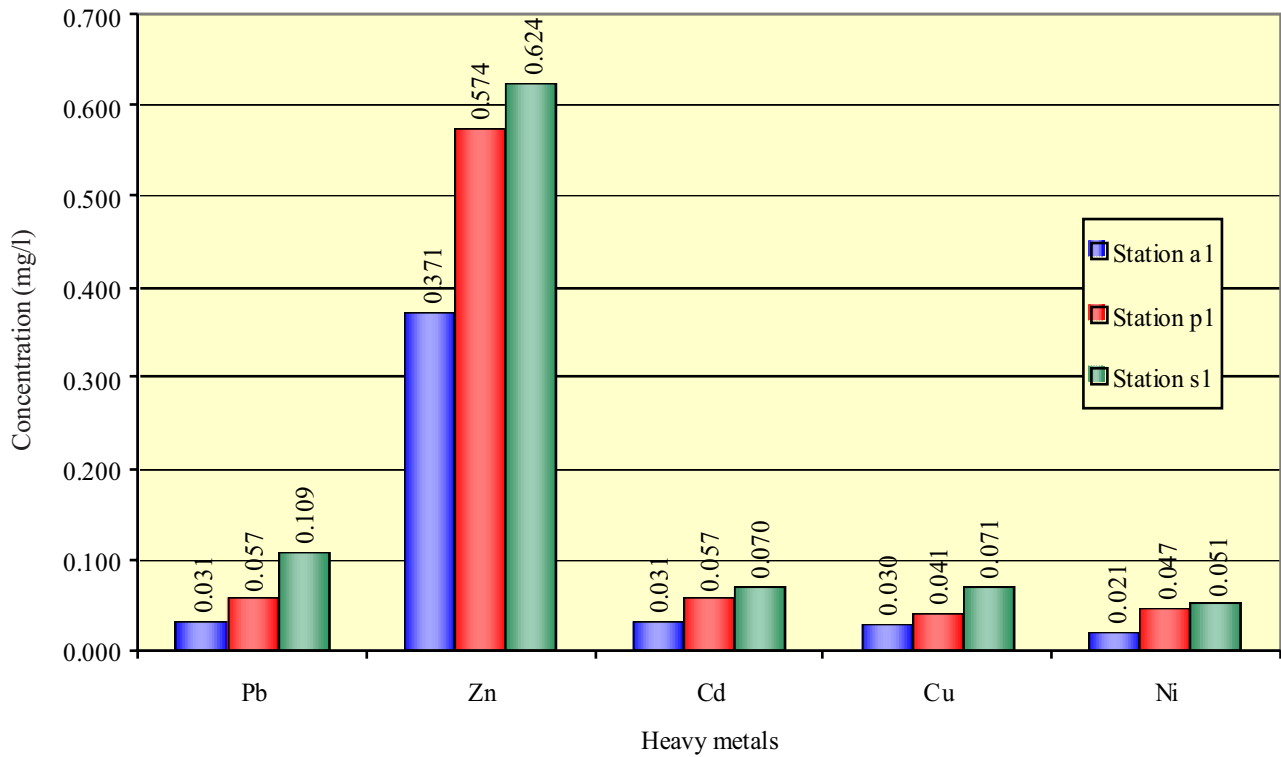


Figure 7: Average of heavy metals in Sorkh-e-Hesar drainage

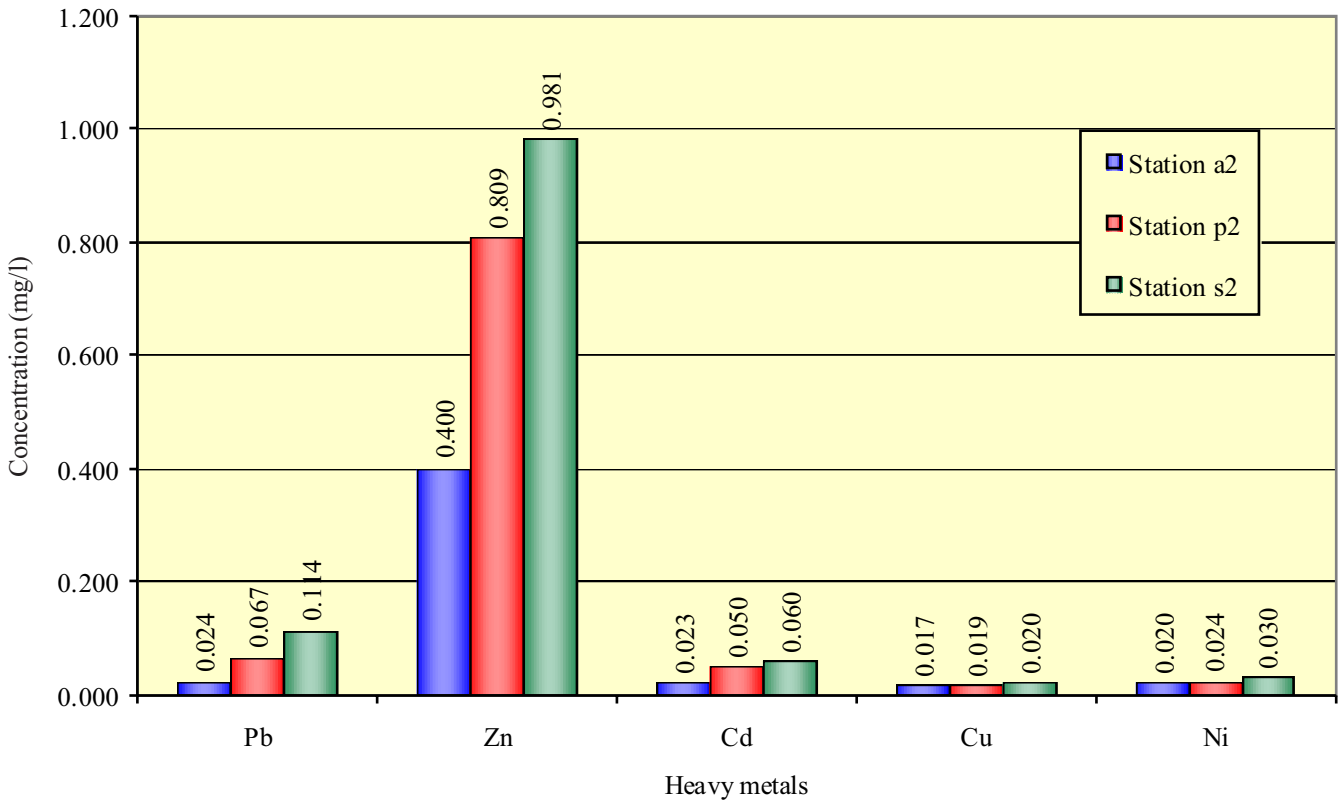


Figure 8: Average of heavy metals in Emad Avard drainage

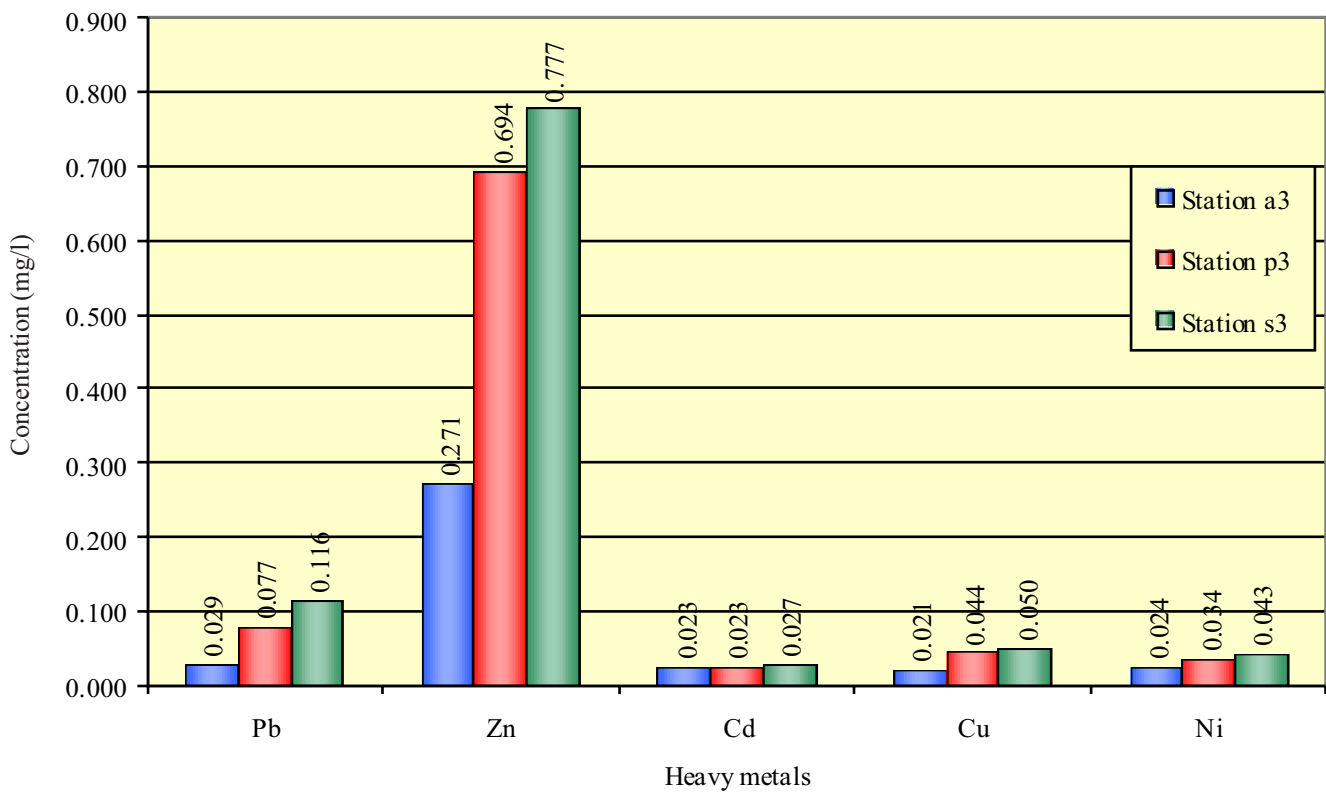


Figure 9: Average of heavy metals in Kan drainage



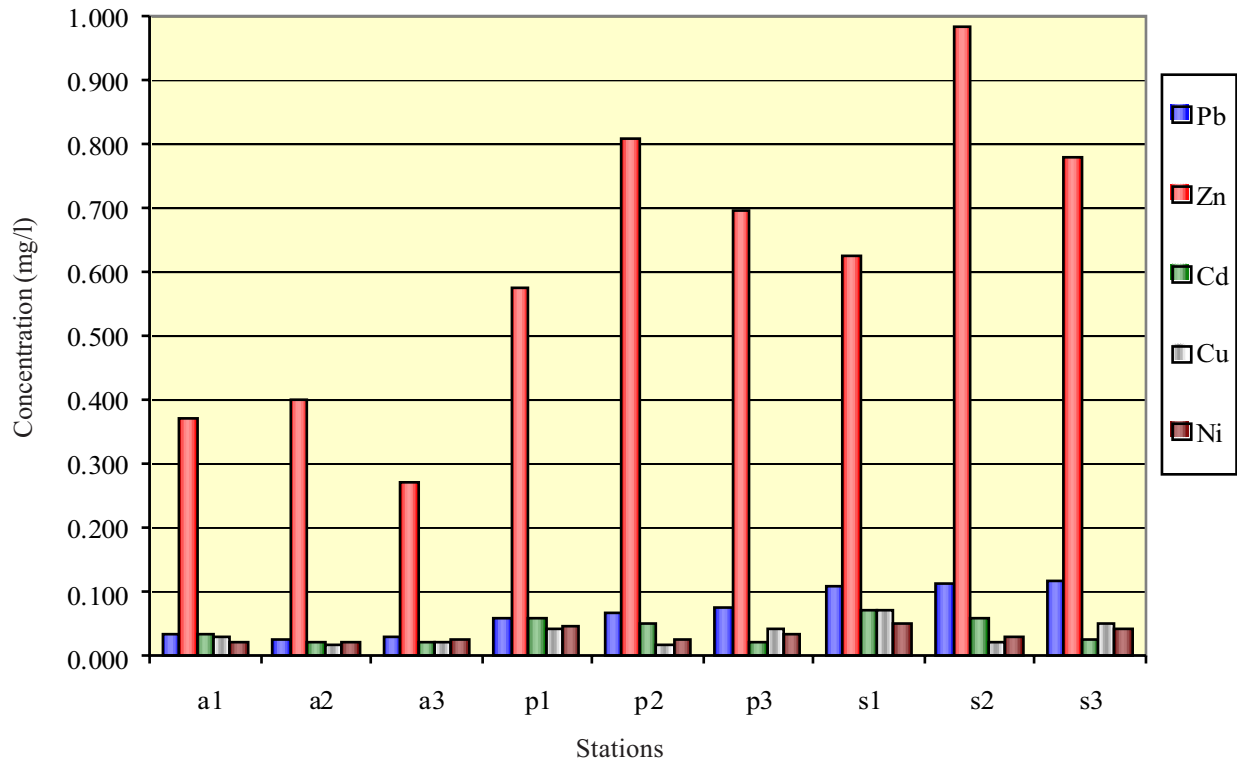


Figure 10: Average of heavy metals in all stations

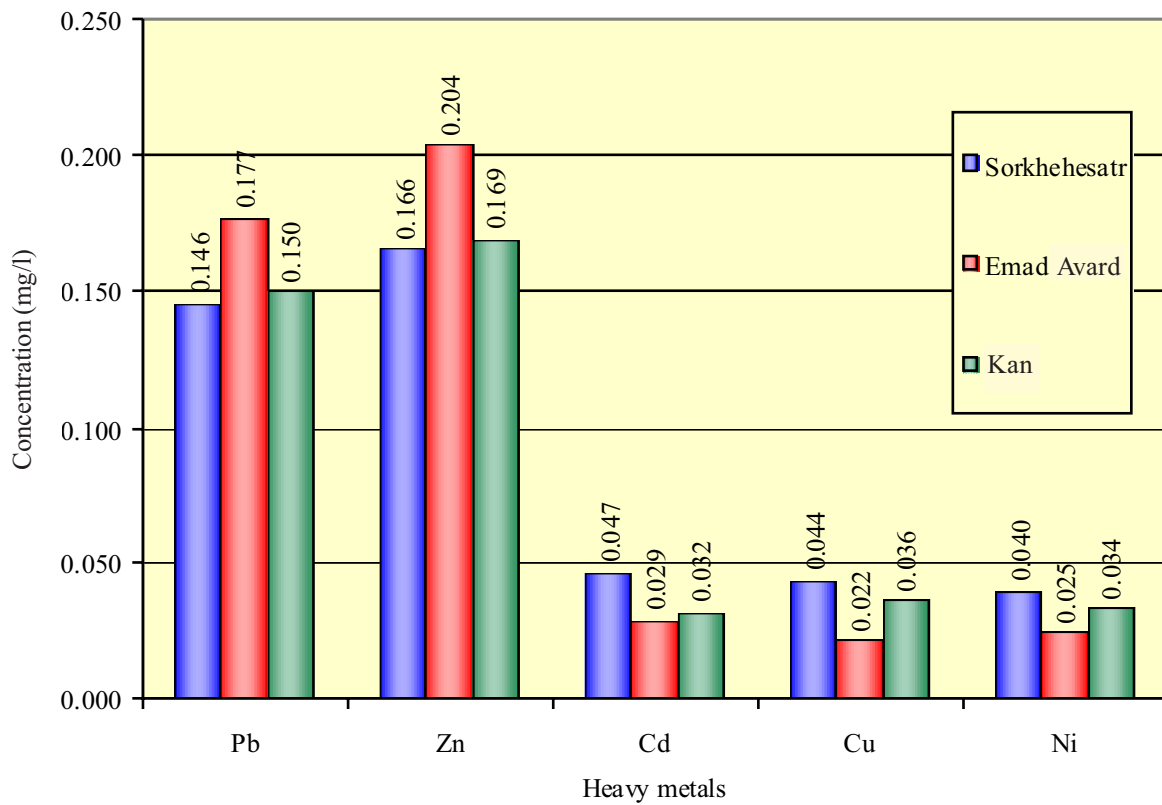


Figure 11: Comparison of heavy metals in three drainage

Table 1: Average concentrations of heavy metals in 9 stations (mg/l)

Stations	Pb	Zn	Cd	Cu	Ni
a1	0.030	0.370	0.030	0.030	0.020
a2	0.024	0.400	0.023	0.017	0.020
a3	0.118	0.510	0.020	0.021	0.024
p1	0.057	0.570	0.057	0.041	0.047
p2	0.067	0.810	0.050	0.018	0.024
p3	0.077	0.694	0.023	0.044	0.034
s1	0.108	0.624	0.070	0.071	0.051
s2	0.114	0.981	0.060	0.020	0.030
s3	0.115	0.780	0.027	0.050	0.043
Average	0.079	0.638	0.040	0.035	0.033

to 0.40, 0.81 and 0.98 mg/l from north, center and south stations, respectively (Table 1 and Figures 7, 10, 11). For Kan Dry river, again zinc has the highest concentration which is: 0.51, 0.69, and 0.78 mg/l. The increase of concentration from northern to southern stations is because of wash out and accumulation of heavy metals in runoffs that carries them towards the Southern stations. (Table 1 and Figures 10 and 11). Results show that in three northern stations the concentrations of Zn is the highest. Comparison of total average of heavy metals concentration in three main drainages show 0.177, 0.176, and 0.145 mg/l (Table 1 and Figure 11), that show heavy metals concentration in Emad Avard drainage channel is more than the other two channels, because this runoff is flowing through the center of the city where slow traffic, high fuel consumption, frequency of cars stoppage, more abrasion of asphalt, abrasion of tire and brake lent, lead to Zn, Ni and Pb discharge in the environment, increasing concentration of those metals in runoffs. Average of total heavy metals concentration for Zn, Pb, Cd, Cu and Ni are 0.638, 0.097, 0.04, 0.35, and 0.33 mg/l respectively. Zn has the highest and Ni has the lowest amount of concentration (Table 1 and Figure 10).

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