

TABLE I.1.2.1-4.—Summary of 1994 Concentration Averages for Metals in Soils

AREA / SAMPLE NO.	ALUMINUM (mg/kg)	BORON ⁷ (mg/kg)	CADMIUM (mg/kg)	CHROMIUM ⁴ (mg/kg)	COBALT (mg/kg)	COPPER (mg/kg)	MAGNESIUM (mg/kg)	MANGANESE (mg/kg)	MOLY- BDENUM (mg/kg)	MERCURY (mg/kg)	NICKEL (mg/kg)	SILVER (mg/kg)	ZINC (mg/kg)										
“CLEANUP” LEVELS ²																							
Surf Soil (0'-2')	not determined	not determined	1.59	27.8 ⁵	not determined	19.4	not determined	not determined	not determined	0.2	21.5	51.1	3070										
Subsurf Soil (2'- 432')	not determined	not determined	4.0	69.0 ⁵	not determined	48.6	not determined	not determined	not determined	0.2	55.0	51.1	3070										
RBC LEVELS ³																							
Industrial	1,000,000	180,000	not reported	not reported	120,000	not reported	not determined	10,000	10,000	not reported	not reported	not reported	not reported										
Residential	78,000	7,000	not reported	not reported	4,700	not reported	not determined	390	390	not reported	not reported	not reported	not reported										
BURNING GROUND																							
BG-SS-01	16,333	±3,300	NC ¹	NC ¹	21	±7.6	6.7	±0.7	14	±1.4	3,200	±350	330	±47	NC ¹	NC ¹	13	±1.9	NC ¹	52	±5.6		
BG-SS-02	13,485	±4,200	NC ¹	0.7	±0.1	20	±8.7	7.1	±0.8	13	±2.8	2,800	±530	450	±54	NC ¹	NC ¹	13	±2.2	NC ¹	51	±11.0	
BG-SS-04	15,116	±5,600	NC ¹	NC ¹	21	±9.1	7.3	±0.6	13	±1.4	2,800	±670	420	±31	NC ¹	NC ¹	14	±2.2	NC ¹	49	±12.0		
BG-SS-05	16,350	±4,000	13	±7	0.7	±0.1	20	±7.2	7.5	±0.9	14	±1.7	3,000	±570	440	±45	NC ¹	NC ¹	13	±1.6	NC ¹	55	±8.7
BG-SS-06	13,842	±3,300	NC ¹	NC ¹	20	±6.6	7.7	±0.5	11	±1.3	2,300	±370	480	±48	NC ¹	NC ¹	13	±2.8	NC ¹	47	±6.9		
BG-SS-07	15,342	±2,900	NC ¹	NC ¹	20	±5.0	7.8	±0.2	13	±5.2	2,500	±570	480	±48	NC ¹	NC ¹	14	±1.5	NC ¹	50	±4.3		
BG-SS-08	14,850	±2,600	NC ¹	NC ¹	20	±5.8	7.5	±0.5	12	±0.9	2,500	±390	460	±40	NC ¹	NC ¹	13	±1.9	NC ¹	51	±3.6		
BG-SS-09	15,283	±3,800	NC ¹	NC ¹	21	±7.6	7.4	±0.5	12	±0.8	2,600	±470	440	±37	NC ¹	NC ¹	14	±2.4	NC ¹	49	±5.4		
BG-SS-10	17,700	±2,000	NC ¹	NC ¹	22	±5.3	7.6	±0.5	13	±0.4	3,000	±170	430	±33	NC ¹	NC ¹	15	±1.6	NC ¹	52	±4.6		
BG-SS-11	15,316	±7,700	NC ¹	NC ¹	19	±7.7	7.9	±1.6	13	±3.4	2,800	±1,100	520	±150	NC ¹	NC ¹	13	±3.6	NC ¹	52	±14.0		
PLAYA 3																							
P3-SS-01	19,250	±4,900	NC ¹	----	1	22	±6.6	9.6	±3.0	18	±1.8	3,800	±620	640	±310	NC ¹	NC ¹	16	±2.4	NC ¹	73	±13.0	
P3-SS-02	15,085	±5,000	NC ¹	0.8	±0.2	18	±8.6	6.5	±0.9	15	±2.4	2,700	±620	280	±120	NC ¹	NC ¹	12	±2.1	NC ¹	76	±18.0	
OFFSITE (BUSHLAND)																							
OS-SS-32	19,000	±3,600	NC ¹	NC ¹	26	±6.1	7.2	±0.9	15	±1.5	3,800	±460	380	±120	NC ¹	NC ¹	14	±0.6	NC ¹	54	±4.4		
PB-SS-01	21,000	±4,000	NC ¹	NC ¹	26	±7.2	7.1	±0.9	16	±5.9	4,000	±500	390	±190	NC ¹	NC ¹	14	±1.5	NC ¹	58	±9.2		

¹NC = mean was not calculated if fewer than four observations were above detection limits.

²"Cleanup" Levels are based on TNRCC Risk Reduction Standards (DOE 1994).

³EPA III - Risk Based Concentrations (RBCs): Soil Ingestion by Residential Standards (EPA 1995). RBCs were reported in the table only if "cleanup" levels were not determined for that parameter.

⁴Assume metal is Chromium III. Note: "Cleanup" levels for Hexavalent Chromium is 10 mg/kg for surface and subsurface soils. RBCs for Chromium IV is 10,000 mg/kg for Industrial levels and 390 mg/kg for Residential levels.

⁵"Cleanup" Levels for Chromium IV are 10 mg/kg for both surface and subsurface soils.

⁶RBC Levels for Chromium IV: Industrial is 10,000 mg/kg and Residential is 390 mg/kg.

⁷Boron, listed in summary table 12.7 in 1994 *Environmental Report for Pantex Plant* (DOE 1995b) as a metal, is not a metal.

Note that shaded sample concentrations are above the Residential RBC levels (taking deviation values into account).

Sources: DOE 1995b:12-15 through 12-19; DOE 1994; EPA 1995