

were met, however, for total constituent analysis of the organic constituents and cyanide. Therefore, in our evaluation of the organic constituents (except for the PCDDs and PCDFs) and cyanide, we have calculated the theoretical maximum leachate concentrations by applying the most conservative assumption.

Analyzing a waste for TCLP constituent concentrations involves application of the TCLP followed by analysis of the TCLP leachate for the constituents of concern. For a waste that is a physical solid (*i.e.*, a waste that does not contain a liquid phase), the maximum theoretical leachate concentration can be calculated by dividing the total concentration of the

constituent by twenty. This twenty-fold dilution is part of the TCLP protocol and represents the liquid to solid ratio employed in the test procedure.

If the TCLP were performed on the actual waste, the concentration of this constituent in the TCLP leachate could not exceed the calculated value derived from the procedure described above. The actual TCLP concentration, if determined, may be substantially less than the calculated value because the calculated value assumes that 100 percent of the constituent leaches from the waste.

PCDD and PCDF analysis of the samples collected during the October 15, 2002 sampling event were inadvertently analyzed by SPSA/Onyx's

laboratory using SW-846 Method 8280 rather than the specified method, SW-846 Method 8290. Method 8280 did not yield results that were sufficiently sensitive for this evaluation. On January 28, 2003, four additional composite ash samples were collected and analyzed for total and leachable PCDDs and PCDFs concentrations using Method 8290.

The maximum total constituent and maximum leachate concentrations for all detected inorganic constituents in SPSA/Onyx's waste samples are presented in Table 1.

The detection limits presented in Table 1 represent the lowest concentrations quantifiable by SPSA/Onyx using appropriate methods to analyze the waste.

TABLE 1.—MAXIMUM TOTAL CONSTITUENT AND LEACHATE CONCENTRATIONS ¹ IN ASH

Inorganic constituents	Total constituent concentration (mg/kg)	TCLP leachate concentration (mg/l)
Antimony	125	0.54
Arsenic	45.9	0.18
Barium	375	0.21
Beryllium	1.7	<0.005
Cadmium	34.9	0.11
Chromium	808	<0.5
Cobalt	27.3	<0.05
Copper	2830	1.8
Lead	1650	<0.5
Mercury	6.8	0.003
Nickel	449	0.065
Selenium	4.6	<0.25
Silver	9.5	<0.5
Thallium	1.2	<2.0
Tin	149	<0.1
Vanadium	29.6	0.012
Zinc	9810	8.5
Cyanide (total)	0.28	0.014 ²

¹ These levels represent the highest concentration of each constituent found in any sample. These levels do not necessarily represent the specific levels found in any one sample.

² This value is the calculated theoretical maximum leachate concentration based on the maximum total constituent concentration.

< Denotes that the constituent was not detected at the concentration specified in the table.

The maximum total constituent and maximum leachate concentrations for all detected organic constituents in

SPSA/Onyx's waste samples are presented in Table 2.

TABLE 2.—MAXIMUM TOTAL CONSTITUENT AND LEACHATE CONCENTRATIONS ¹ IN ASH

Organic constituents	Total constituent concentration (mg/kg)	TCLP leachate concentration (mg/l)
Actone	0.058	0.0029 ³
Aceonitrile	<0.31	<0.0155 ³
Bis(2-ethylhexyl)phthalate	2.6	0.13 ³
Butylbenzylphthalate	<2.0	<0.1 ³
DDD	<0.0022	<0.00011 ³
Endrin aldehyde	<0.0022	<0.00011 ³
Heptachlor	<0.002	<0.0001 ³
Methyl ethyl ketone (2-butanone)	<0.049	<0.00245 ³
Methylene chloride	0.0082	0.00014 ³