

**Asimakis P. Iatridis**

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**To:** <glenn.mallory@state.co.us>  
**Cc:** "Robert Krumberger" <rkrumb@aol.com>  
**Sent:** Tuesday, September 02, 2003 2:47 PM  
**Attach:** TCLP summary.XLS  
**Subject:** CSMRI Preliminary TCLP Data

Glenn,

I've attached a spreadsheet of some preliminary TCLP data for the CSMRI site. The submitted soil was duplicate samples that we collected with the original soil samples. That places the samples well beyond the holding times, but it gives us ballpark numbers for the chemicals of concern. I biased the selection of the samples to those that had high metals or rad to ensure we were looking at worse case material.

We have one sample above the lead standard but overall the soil appears to meet the requirements. There was one "J" value hit on methyl ethyl ketone, but we encountered nothing on the site that would have suggested an extensive VOC problem.

We only tested a couple of samples for reactive cyanide and sulfide because again there was nothing on the site that suggested that this was a concern (I would have expected these in the old settling pond).

Let me know if you have any questions.

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Table 1 Toxicity Characteristic Leaching Procedure - Metals Results

Sample ID	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Molybdenum	Selenium
CSM30S	0.044	0.28	0.017	0.10	0.019	0.0020	0.036	0.050
CSM31S	0.024	0.60	0.022	0.10	0.026	0.0020	0.033	0.050
CSM82S	0.10	1.1	0.55	0.10	12	0.00013	0.10	0.050
CSM97S	0.023	0.23	0.028	0.10	0.036	0.0020	0.10	0.050
CSM113S	0.10	0.52	0.042	0.10	0.13	0.0020	0.10	0.050
CSM152S	0.046	0.87	0.0031	0.10	0.054	0.00019	0.22	0.050
CP19-1S	0.022	0.58	0.060	0.10	0.087	0.0020	0.10	0.050
CP21-1.5S	0.10	0.30	0.061	0.10	2.8	0.11	0.10	0.050
CP21-3AS	0.10	0.47	0.0290	0.10	1	0.0020	0.10	0.050
CP23-4S	0.10	0.42	0.093	0.10	0.1	0.0020	0.10	0.050

Notes: All units milligrams per liter; ND, not detected; B, compound identified but at less than practical reporting limit, qualitative value

Silver	Vanadium	Zinc
0.016	0.058	1.2
0.010	0.0053	2.3
0.014	0.10	45
0.014	0.10	4.8
0.011	0.10	2.7
0.015	0.0060	0.98
0.020	0.10	9.2
0.013	0.10	5.9
0.10	0.10	6.1
0.011	0.10	14