

**Date:** July 13, 2016

**To:** Rob Ede  
Hahn and Associates Inc.

**From:** Jeanne Peterson  
Sr. Data Validator, AQA

**Subject:** Data Validation  
Siltronic RI - Doane Creek  
ACZ Laboratories, Inc. Project ID L29960 (A6C1124)

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## SUMMARY

Level III data validation was performed on the data for eight soil samples prepared and analyzed with approved procedures using method SM 4500-CN M (thiocyanate). The samples were prepared by Apex Laboratories, and the leachates were submitted to ACZ Laboratories, Inc. (ACZ) for analysis. Data were reported for all requested analytes.

The analytical data were evaluated in accordance with the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (October 1999) and the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (February 1994) (NFG).

In general, the data are valid as reported. No sample data were rejected. Other qualifiers were applied to the data as specified in the Data Qualifiers section below.

See attached data validation spreadsheets for supporting documentation on the data review and validation.



## SAMPLES

The samples included in this validation are listed below.

<b>Sample ID</b>	<b>ACZ Laboratory ID</b>	<b>APEX Laboratory ID</b>	<b>Matrix</b>
5237-160329-DC-EMB010	L29960-01	A6C1124-02	Leachate
5237-160329-DC-EMB005	L29960-02	A6C1124-04	Leachate
5237-160329-DC-EMB004	L29960-03	A6C1124-06	Leachate
5237-160329-DC-EMB001	L29960-04	A6C1124-08	Leachate
5237-160329-DC-EMB013	L29960-05	A6C1124-10	Leachate
5237-160329-DC-EMB014	L29960-06	A6C1124-12	Leachate
5237-160329-DC-EMB017	L29960-07	A6C1124-14	Leachate
5237-160329-DC-EMB020	L29960-08	A6C1124-16	Leachate

**DATA QUALIFIERS** (see following sections for detailed explanations)

<b>Sample ID</b>	<b>Analyte</b>	<b>Qualifier</b>	<b>Reason for Qualification</b>
5237-160329-DC-EMB010	Thiocyanate	UJ	Analyzed beyond holding time
5237-160329-DC-EMB005	Thiocyanate	UJ	Analyzed beyond holding time
5237-160329-DC-EMB004	Thiocyanate	UJ	Analyzed beyond holding time
5237-160329-DC-EMB001	Thiocyanate	UJ	Analyzed beyond holding time
5237-160329-DC-EMB013	Thiocyanate	UJ	Analyzed beyond holding time
5237-160329-DC-EMB014	Thiocyanate	UJ	Analyzed beyond holding time
5237-160329-DC-EMB017	Thiocyanate	UJ	Analyzed beyond holding time
5237-160329-DC-EMB020	Thiocyanate	UJ	Analyzed beyond holding time



## **DISCUSSION**

### **Sample Shipping/Receiving**

All COC, analysis request, and sample receipt documentation was complete and correct.

### **Holding Times and Preservation**

The samples were properly preserved and analyzed within the prescribed holding times with the following exceptions.

The samples were analyzed beyond, but within 2X, the specified holding time. The associated sample results were non-detects and, therefore, were **qualified UJ**.

It should be noted that the leachate preparation information was not included in the data package.

### **Calibration**

All initial and continuing calibration acceptance criteria were met.

### **Blanks**

The target analyte was not detected in the calibration blanks.

### **Laboratory Control Sample (LCS)**

The LCS analysis met all laboratory QC acceptance criteria.

### **Matrix Spike (MS)**

The MS analyses met laboratory QC acceptance criteria.

### **Laboratory Duplicate**

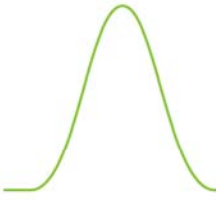
The laboratory duplicate analysis met all laboratory QC acceptance criteria.

### **Field Duplicate**

A field duplicate was not collected with the samples in this data package.

### **Reporting Limits**

All reporting limits were properly reported. The samples were not diluted.



**Other QC**

No other specific issues that affect data quality were identified.

## Hahn Data Validation Summary Worksheet

SDG#: L29960_A6C1124	Laboratory: ARI	Validator: Jeanne Peterson	Validation Date: 06/06/2016
Site: Siltronic RI - Doane Creek	COC#: NA		Validation Level: <input type="checkbox"/> II <input checked="" type="checkbox"/> III
Matrix: Leachate	# of Samples: 10	Tracking docs present: See sample receipt and log-in documentation	
COCs present: Yes	COCs signed: Yes	COCs dated: Yes	Sample Container Integrity: OK
Analyses: <input type="checkbox"/> VOCs <input type="checkbox"/> SVOCs <input type="checkbox"/> PAHs <input type="checkbox"/> GRO <input type="checkbox"/> DRO <input type="checkbox"/> Pests <input type="checkbox"/> PCBs <input type="checkbox"/> Metals <input checked="" type="checkbox"/> Gen Chem <input type="checkbox"/> Cyanide <input type="checkbox"/> Other:			

Requested Analyses Not Reported			
Client Sample ID	Lab Sample ID	Analysis	Comments
None			

Hold Time/Preservation Outliers								
Client Sample ID	Lab Sample ID	Analysis	Pres.	Collection Date	Preparation Date	Analysis Date	Analysis <2X HT	Analysis ≥2X HT
All samples	L29960-1 thru -8	4500-CN M	4°C, acid	3/29/2016	--	4/18/2016	Yes	No

Comments: Samples collected 3/29.  
Cooler temps OK. Samples preserved.

