

June 12, 2013

Mr. Scott Settemeyer, P.G.  
Texas Commission on Environmental Quality  
P.O. Box 13087, Mail: MC-221  
Austin, Texas 78711-3087

**Re: Texas Custodial Trust  
Former ASARCO Smelter Site, El Paso, Texas**

**Subject: Perimeter Air Monitoring Plan for the Category I, Cell 4 Landfill**

Dear Mr. Settemeyer:

Malcolm Pirnie, Inc. (Malcolm Pirnie), on behalf of the Texas Custodial Trust (Trust), is pleased to provide the Texas Commission on Environmental Quality (TCEQ) this perimeter air monitoring plan for the filling of the Category I Cell 4 landfill, at the former ASARCO Smelter site, in El Paso Texas. Malcolm Pirnie is requesting review and approval from TCEQ for the implementation of this plan, prior to the placement of Category I material into the landfill. Upon agency approval the plan will be implemented in conjunction with the initial placement of Category I material into the landfill.

This perimeter air monitoring plan has been developed to establish site-specific target limits for dust concentrations based on the site-specific analytes of concern. The procedures and analytical methods are consistent with the previously approved baseline air monitoring plan (Malcolm Pirnie, 2011). Concentrations of metals and particulate matter will be compared with local and state comparison levels and federal standards (see Table 1). The chemicals and particulate matter have been selected based on the:

- Chemicals of concern and analytes of interest listed in the Remedial Action Work Plan, and
- Particulate matter (measured as PM<sub>10</sub>), to correlate the chemicals concentrations to continuous perimeter dust monitoring data.

This perimeter monitoring plan will be implemented as Category I material is initially placed into the landfill and every 3 months thereafter unless substantial changes in the nature of the excavated material placed in Cell 4 changes. The frequency of testing is estimated at an average of every 3 months, until the landfill filling is complete. Perimeter sampling will be conducted for 3 consecutive work days for 24-hours in each sampling day. The sampling will coincide with periods of high activity to make sure that the samples capture a conservative data set.

The proposed sampling locations for the perimeter air monitoring plan are shown in Figure 1. At each landfill perimeter monitoring location a continuous dust monitor (DustTrak™) will be paired with a high-volume sampler (TE-6070V PM10 model, or a similar approved sampler identified in the USEPA Ambient Air Monitoring Reference and Equivalent Methods).





Sampling will be collected and sampled in accordance with methods summarized in Table 2. At each high-volume sampler one 8"x10" filter (203mm x 254 mm) will be used. At each DustTrak three 8-hour samples, collected using 37 or 47 mm diameter pre-weighed Teflon filters, will be used to measure each 24-hour period.

All sample collection procedures will follow the requirements outlined in the following documents:

- USEPA List of Designated Reference and Equivalent Methods (April, 2011)
- USEPA Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air (June, 1999)

Filter samples will be sent to an accredited analytical laboratory for analysis, using a 5-day turnaround time.

Filter data will be compared against the local and state levels and federal standards listed in Table 1. Concentration data will also be used to evaluate and update a site-specific target limit for particulate matter that will be used as the perimeter sentinel value for the landfill filling, as well as perimeter monitoring for excavation work zones. In addition to the chemical concentration data evaluation, a comparison between concentrations from the high-volume samplers and the DustTraks will be conducted, to determine if additional perimeter sampling can be conducted using the existing onsite monitoring network DustTrak samplers. This data and recommendations for future sampling will be presented to TCEQ in a technical memorandum for review and comment.

If you have any questions regarding this analysis and our conclusions please contact Scott Brown at 602-797-4536 or Alicia Fogg at 512-527-6101.

Very truly yours,

**MALCOLM PIRNIE, INC.**

Scott M. Brown, P.E.  
Project Manager

Attachments

cc: Roberto Puga  
Lorinda Gardner  
Maria Lebron  
Beth Seaton



**Table 1**  
**Regulatory Compliance Target Limits**  
**Former ASARCO El Paso Smelter Site**  
**El Paso, Texas**

Analytes of Concern	El Paso Ambient Air Standard ( $\mu\text{g}/\text{m}^3$ )	TCEQ AMCV ( $\mu\text{g}/\text{m}^3$ )		NAAQS ( $\mu\text{g}/\text{m}^3$ )			
	30-day Average	Short-Term (1-hour)	Long-Term (Annual Average)	24-hour Average	Rolling 3-Month Average	Quarterly Average	Annual Average
Aluminum	--	50	5	--	--	--	--
Antimony	--	5	0.50	--	--	--	--
Arsenic	--	9.9	0.067	--	--	--	--
Barium	--	5	0.50	--	--	--	--
Cadmium	--	0.1	0.01	--	--	--	--
Chromium	--	0.1	0.01	--	--	--	--
Cobalt	--	0.20	0.02	--	--	--	--
Copper	--	10	1	--	--	--	--
Iron	--	--	--	--	--	--	--
Lead	5	--	--	--	0.15	1.5	--
Manganese	--	2	0.20	--	--	--	--
Mercury	--	--	--	--	--	--	--
Molybdenum	--	50	5	--	--	--	--
Nickel	--	1.1	0.059	--	--	--	--
Selenium	--	2	0.20	--	--	--	--
Silica	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--
Zinc	--	50	50	--	--	--	--
PM <sub>10</sub>	--	--	--	150	--	--	50

**NOTES:**

"--" : Not available

PM<sub>10</sub> : Particulate Matter <10 microns

AMCV: Air Monitoring Comparison Value

NAAQS: National Ambient Air Quality Standard

( $\mu\text{g}/\text{m}^3$ ): Microgram per Cubic Meter

**Table 2**  
**Sampling and Analytical Methods**  
**Former ASARCO Smelter Site**  
**El Paso, Texas**

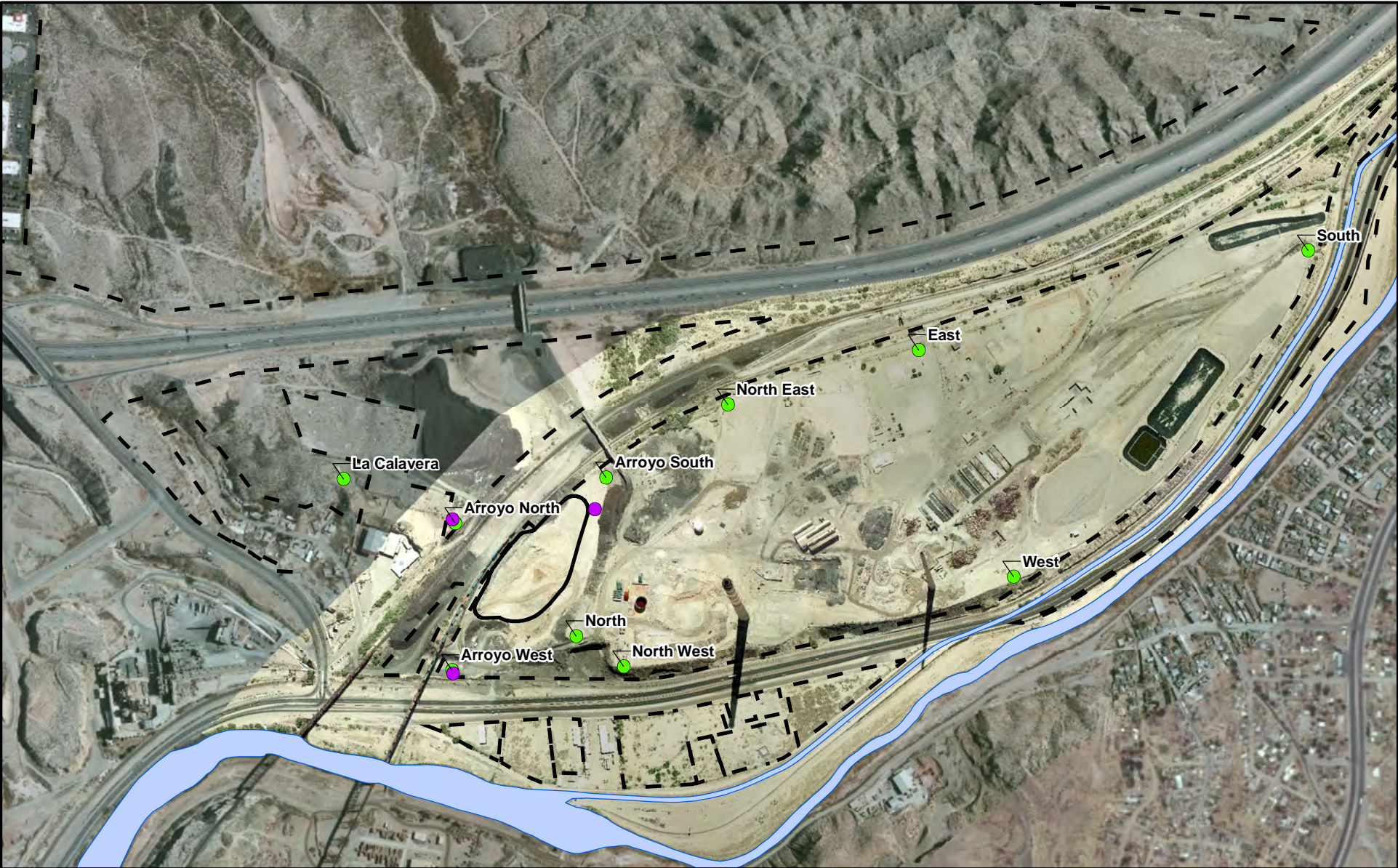
Sampler	Analytes of Concern	Analytical Method/ Sampling Method	# of Sampling Locations	# of Samples per day	# of QA/QC Samples	Total # Samples	Filter Size	Sampling Flow Rate	Time Interval (hours)
DUSTTRAK™ II Aerosol Monitor	Aluminum Antimony Arsenic Barium Cadmium Chromium Cobalt Copper Iron	Class I Laser- light scattering sensor (PM <sub>10</sub> ) EPA Method IO-3.3 (Metals as PM <sub>10</sub> ) / Class I Laser- light scattering sensor (PM <sub>10</sub> ) EPA Method IO-2.1 (Metals as PM <sub>10</sub> )	3	3	1	28	37 - 47 mm	3 L/min	8 (Metals as PM <sub>10</sub> ) Continuous (PM <sub>10</sub> )
High-Volume Sampler (TE-6070V PM10 model, or a similar approved sampler identified in the USEPA Ambient Air Monitoring Reference and Equivalent Methods)	Lead Manganese Mercury Molybdenum Nickel Selenium Silver Thallium Zinc PM <sub>10</sub>	EPA Method IO-3.3/ EPA Method IO-2.1	3	1	0	3	8" x 10" (203.2 mm x 254 mm)	40 ft <sup>3</sup> /min (1,133 L/min)	24

**NOTES:**



PM<sub>10</sub>: Particulate Matter < 10 microns in diameter

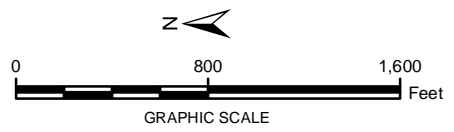
QA/QC: Quality Assurance/ Quality Control


CITY: Highlands Ranch DIV: GROUP: GIS DB: BG  
Project: (Project)  
Path: I:\SAS\GISCO - El Paso\GIS\MXD\El Paso\El Paso\Monitor\Network.mxd Date: 6/27/2013 Time: 11:49:35 AM



**LEGEND**

-  Proposed Landfill Perimeter Monitoring Locations
-  Perimeter Dust Monitoring Locations DustTrak (Continuous)
-  Cell 4 Landfill Boundary
-  Property Boundary



FORMER EL PASO SMELTER SITE EL PASO, TEXAS	
LANDFILL PERIMETER AIR MONITORING NETWORK JUNE 2013	
	FIGURE <b>1</b>