

May 5, 2015

Ms. Eleanor Wehner, P.G.
Texas Commission on Environmental Quality
VCP-CA Section, Mail Code MC-127
P.O. Box 13087
Austin, Texas 78753

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

**Subject: Request to Plug & Abandon Monitoring Wells at the Former ASARCO
Smelter Site**

Dear Ms. Wehner:

Malcolm Pirnie, Inc. (MP) is pleased to submit this letter requesting approval to plug and abandon (P&A) groundwater monitoring wells at various locations across the plant site at the Former ASARCO Smelter in El Paso, Texas (the Site). MP is conducting this work on behalf of the Texas Custodial Trust (Trust). The purpose of this submittal is to obtain agency concurrence with our proposed actions to plug and abandon monitoring wells on the former smelter plant site to prepare for constructing the final cover systems.

The plant site areas will be undergoing construction in the near future to lay the cover to support the overall site remedial plan and MP has taken this opportunity to evaluate the technical need for the existing monitoring well network. MP has conducted an evaluation of concentration and water level trends in these monitoring wells and has evaluated them with respect to the closure goals being proposed in a Remedial Action Plan (RAP) that is currently being prepared. The goal of the monitoring program for the RAP is to demonstrate that the response actions have effectively mitigated potential exposures to constituents of concern (COCs) in soil and groundwater above their respective PCLs. MP has selected a network of monitoring wells within each assessment area that address these needs. A list of these monitoring wells, their location, monitoring requirement, and data collection type is included in **Table 1**. The objectives of the RAP monitoring plan are to:

1. Demonstrate waste control units (WCUs) do not adversely impact groundwater quality.
2. Demonstrate performance of low-permeability soil covers and asphalt covers to prevent direct contact and control storm water infiltration and future leaching of COCs to groundwater.
3. Monitor groundwater compliance at alternative points of exposure (POEs) wells based on the plume management zone (PMZ).
4. Monitor groundwater elevations at attenuation monitoring wells for demonstration of achieving remedial goal at alternative POEs.





5. Monitor performance of permeable reactive barriers (PRBs).

The monitoring wells that are proposed to be P&Aed are wells that are not part of the RAP monitoring program. These monitoring wells are located in areas on the plant site that are in or near the cover areas. MP is requesting the approval to abandon these monitoring wells in advance of the work to be performed to construct the cover. The monitoring wells that are proposed to be P&Aed are included in **Table 2** and shown on **Figure 1**. A status summary for each proposed well is included in **Table 2**. The table summarizes the dates of most recent sampling event and arsenic concentrations reported for each of the monitoring wells recommended for P&A. Arsenic is the COC that defines the PCL Exclusion Zone in groundwater at the Site and represents the most significant COC mass. As a result, arsenic represents the most appropriate COC for evaluation of the utility for a monitoring well.

MP will abandon the monitoring wells in accordance with the Texas Administrative Codes Chapter 76. However, MP will request a variance from the Texas Department of Licensing and Regulation (TDLR) as discussed in 76.109, to not attempt to pull the well casing out of the ground as this may result in ineffective well bore sealing, which is an inadequate condition that is not consistent with our RAP objective to confidently eliminate all pathways to the subsurface. Therefore, MP will be requesting to plug the full depth of all existing casings with an approved bentonite plugging material. All other required abandonment procedures will be employed as noted in the regulations.

SCHEDULE

Upon TCEQ approval, these wells will immediately be P&Aed.

If you have any questions regarding the proposed scope of work please feel free contact me at (602) 797-4536 or Bob Forsberg at (480) 905-9311.

Very truly yours,

MALCOLM PIRNIE, INC.

Scott M. Brown, P.E.
Vice President

Attachments: Table 1
Table 2
Figure 1



**Table 1 - Proposed Monitoring Well Network for Remedial Action Plan
Former ASARCO Smelter Site
El Paso, Texas**

Assessment Area	Monitoring Well ID	Location	Monitoring Requirement	Data Collection
Flood Plain	EP-07	Flood Plain	Down-gradient Well	Analytical
South Terrace	EP-67	South Terrace Arroyo AA	Up-gradient Well	Water elevation for gradient
	EP-71R	South Terrace Arroyo AA	Down-gradient Well	Water elevation for gradient
	EP-68	South Terrace Arroyo AA	Up-gradient Well for Plant Site Cover	Analytical
	EP-72R	South Terrace Arroyo AA	Cover Monitoring Well	Analytical
			Attenuation Monitoring for PMZ	Water elevation for gradient
	EP-20	South Terrace Arroyo AA	Down-gradient Well for Cover Monitoring	Analytical
EP-06	South Terrace Arroyo AA	Alternative POE for PMZ	Analytical	
Pond 1 Arroyo	EP-68	Pond 1 Arroyo AA	Up-gradient Well for Plant Site Cover	Analytical
	New Well (No. 1)	Pond 1 Arroyo AA	Up-gradient Well for WCU (Cell 1 Landfill)	Analytical
			Cover Monitoring Well	Analytical
			Attenuation Monitoring for PMZ	Water elevation for gradient
	EX-8	Pond 1 Arroyo AA	Down-gradient Well for WCU (Cell 1 Landfill)	Analytical
			Cover Monitoring Well	Analytical
EP-35	Pond 1 Arroyo AA	Down-gradient Well for Cover Monitoring	Analytical	
EP-04	Pond 1 Arroyo AA	Alternative POE for PMZ	Analytical	
Pond 5/6 Arroyo	EP-82	Pond 5/6 Arroyo AA	Up-gradient Well for Plant Site Cover	Analytical
	New Well (No. 2)	Pond 5/6 Arroyo AA	Up-gradient Well for WCU (Cells 2&3 Landfill)	Analytical
			Cover Monitoring Well	Analytical
			Attenuation Monitoring for PMZ	Water elevation for gradient
	MW-131	Pond 5/6 Arroyo AA	Down-gradient Well for WCU (Cells 2&3 Landfill)	Analytical
			Cover Monitoring Well	Analytical
EP-117	Pond 5/6 Arroyo AA	Down-gradient Well for Cover Monitoring	Analytical	
EP-133	Pond 5/6 Arroyo AA	Alternative POE for PMZ	Analytical	
EP-26	Pond 5/6 Arroyo AA	Down-gradient Well	Analytical	
Acid Plant Arroyo	EP-82	Acid Plant Arroyo AA	Up-gradient Well for Plant Site Cover	Analytical
	New Well (No. 3)	Acid Plant Arroyo AA	Cover Monitoring Well	Analytical
			Attenuation Monitoring for PMZ	Water elevation for gradient
	EP-49	Acid Plant Arroyo AA	Cover Monitoring Well	Analytical
	EP-51	Acid Plant Arroyo AA	Attenuation Monitoring for PMZ	Water elevation for gradient
			Cover Monitoring Well	Analytical
	EP-100	Acid Plant Arroyo AA	Attenuation Monitoring for PMZ	Water elevation for gradient
			Cover Monitoring Well	Analytical
	EP-114	Acid Plant Arroyo AA	Attenuation Monitoring for PMZ	Analytical
	EP-58	Acid Plant Arroyo AA	Attenuation Monitoring for PMZ	Analytical
EX-4	Acid Plant Arroyo AA	Attenuation Monitoring for PMZ	Analytical	
EP-112	Acid Plant Arroyo AA	Alternative POE for PMZ	Analytical	
MW-2	Acid Plant Arroyo AA	Alternative POE for PMZ	Analytical	
East Property	EP-96	East Property, North Arroyo	Up-gradient Well for Category II Stock Pile	Analytical
	EP-94	East Property, North Arroyo	Up-gradient Well for Category II Stock Pile	Analytical
	New Well (No. 4)	East Property, North Arroyo	Cover Monitoring Well for Category II Stock Pile	Analytical
	EP-163	East Property, North Arroyo	GHB Pumping Well	Water elevation and analytical
	EP-95	East Property, North Arroyo	GHB Monitoring Well	Water elevation
	EP-164	East Property, North Arroyo	GHB Monitoring Well	Water elevation
	EP-120	East Property, North Arroyo	Down-gradient Well for Category II Stock Pile	Analytical
	EP-162	East Property, South Arroyo	Attenuation Monitoring for PMZ	Water elevation for gradient
EP-129	East Property, South Arroyo	Up-gradient Well for Category II Stock Pile	Analytical	

**Table 1 - Proposed Monitoring Well Network for Remedial Action Plan
Former ASARCO Smelter Site
El Paso, Texas**

Assessment Area	Monitoring Well ID	Location	Monitoring Requirement	Data Collection
Parker Brothers Arroyo	EP-82	PBA: Boneyard	Up-gradient Well for Plant Site Cover	Analytical
	EP-53	PBA: Boneyard	Cover Monitoring Well	Analytical
	EP-75	PBA: Boneyard	Cover Monitoring Well	Analytical
	EP-76	PBA: Boneyard	Cover Monitoring Well	Analytical
	EP-147	PBA: Boneyard	Down-gradient Well for Cover Monitoring	Analytical
		PBA: Lined Channel	Cover Monitoring Well	Analytical
		PRB	Down-gradient PRB 1	Analytical
	EP-149	PBA: Boneyard	Down-gradient Well for Cover Monitoring	Analytical
		PBA: Lined Channel	Cover Monitoring Well	Analytical
		PRB	Up-gradient PRB 2	Analytical
	EP-78	Lower PBA: Cell 4 Landfill	Up-gradient Well for WCU (Cell 4 Landfill)	Analytical
		Upper PBA: Fines Pile	Down-gradient Well for Fines Pile Cover	Analytical
	EP-81	Lower PBA: Cell 4 Landfill	Down-gradient Well for WCU (Cell 4 Landfill)	Analytical
	EP-120	Upper PBA: Cell 4 Landfill	Up-gradient Well for Fines Pile Cover	Analytical
		PBA: Lined Channel	Attenuation Monitoring for PMZ	Water elevation for gradient
	EP-123	Lower PBA: Fines Pile	Cover Monitoring Well	Analytical
	EX-1	PBA: Lined Channel	Attenuation Monitoring for PMZ	Water elevation for gradient
	EP-138R	PRB	Up-gradient PRB-1	Analytical
	EP-140B	PRB	PRB 1 Monitoring	Analytical
	EP-140C	PRB	PRB 1 Monitoring	Analytical
	EP-142	PRB	Down-gradient PRB-1	Analytical
	EP-143	PRB	Down-gradient PRB-1	Analytical
	EP-144	PRB	Down-gradient PRB-1	Analytical
	EP-146	PRB	Down-gradient PRB-1	Analytical
	EP-148	PRB	Up-gradient PRB-2	Analytical
	EP-150BS	PRB	PRB 2 Monitoring	Analytical
	EP-150CS	PRB	PRB 2 Monitoring	Analytical
	EP-152S	PRB	Down-gradient PRB-2	Analytical
	EP-152D	PRB	Down-gradient PRB-2	Analytical
	EP-154	PRB	Down-gradient PRB-2	Analytical
	EP-156R	PRB	Down-gradient PRB-2	Analytical
OBS-1	PBA: Lined Channel	Attenuation Monitoring for PMZ	Water elevation for gradient	
EP-54	PBA: Lined Channel	Attenuation Monitoring for PMZ	Water elevation for gradient	
MW-9S	PBA AA	Alternative POE for PMZ	Analytical	
MW-11S	PBA AA	Alternative POE for PMZ	Analytical	
La Calavera	EP-86	La Calavera	Up-gradient well	Analytical

Notes:

- PMZ = plume management zone
- POE = point of exposure
- PRB = permeable reactive barrier
- AA = assessment area

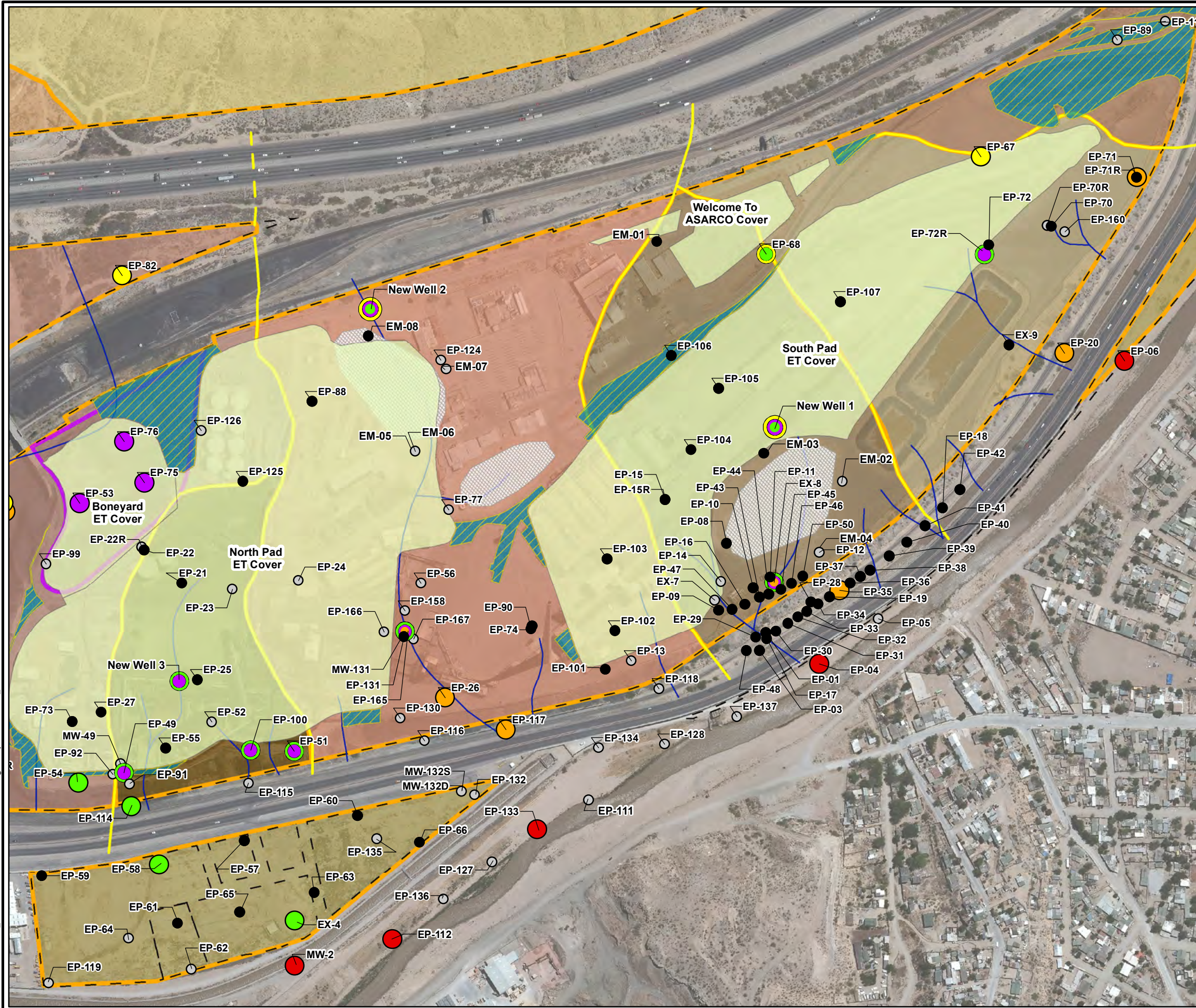
**Table 2 - P&A Well List
Former ASARCO Smelter Site
El Paso, Texas**

Location	Well ID	Most Recent Water Level Collection	Most Recent Sample Collection	Arsenic Concentration (mg/l)
North Pad ET Cover and Surrounding Area	EM-05	9/7/2014	4/18/2014	0.0223
	EM-06	9/7/2014	8/7/2009	< 0.00448 UJ
	EM-07	9/7/2014 (dry)	1/31/2000	2.1
	EP-124	9/7/2014	8/13/2009	4.34
	EP-126	8/3/2009	8/3/2009	0.023
	EP-130	9/7/2014	8/10/2009	0.014
	EP-158	9/7/2014	4/25/2013	0.127
	EP-165	5/30/2014	5/30/2014	0.383
	EP-166	5/29/2014	5/29/2014	9.88
	EP-167	6/2/2014	6/2/2014	3.22
	EP-22R	8/11/2009	8/11/2009	18.7
	EP-23	9/7/2014	8/10/2009	0.542
	EP-24	9/7/2014	8/13/2009	0.171
	EP-52	9/7/2014	9/10/2014	0.399
	EP-56	9/7/2014	8/10/2009	3.79
	EP-77	9/7/2014	9/9/2014	2.42
	EP-91	NA	NA	NA
	EP-92	NA	NA	NA
	MW-49	NA	NA	NA
Boneyard ET Cover Area	EP-99	9/7/2014	2/22/2001	6.5
South Pad ET Cover and Surrounding Area	EM-02	9/7/2014	2/24/2015	0.315
	EM-04	9/7/2014	4/18/2014	0.00265 J
	EP-110	9/7/2014	8/3/2009	< 0.00448 U
	EP-12	9/7/2014	2/25/2015	0.0415
	EP-13	9/7/2014	2/24/2015	27.7
	EP-14	9/7/2014	2/24/2015	2.34
	EP-160	9/7/2014	4/25/2013	0.739
	EP-70R	9/7/2014	NA	NA
	EP-89	9/7/2014	8/5/2009	< 0.00448 U
	EX-7	8/13/2008	NA	NA

Notes:

- mg/l = milligrams per liter
- NA = not available
- J = estimated value
- UJ = estimated reporting limit
- U = the analyte was analyzed for but not detected

CITY: Highlands Ranch DIV/GROUP: GIS DB: BG
 Path: G:\GIS\ASARCO_EIPaso\GIS\MXD\Well_Status022415\Fig 1 Proposed P&A Wells_rev1.mxd Date: 4/20/2015 Time: 8:57:00 AM



LEGEND

- - - Property Boundary
- Historical Arroyo Trace Lines
- Historical Drainage Divide
- Cover Areas
- Low Permeability Cover

Investigation Area Boundaries

- Acid Plant Arroyo
- East Mountain
- East Property
- Floodplain
- Parker Brothers Arroyo
- Plant Entrance Arroyo
- Pond 1 Arroyo
- Pond 5, 6 Arroyo
- South Terrace Arroyo
- Secondary Units
- Lined Landfill Cell

Proposed Wells for RAP

- Up-gradient Well
- Down-gradient Well
- Cover monitoring Well
- Attenuation Monitoring for PMZ
- Alternative POE for PMZ

Proposed Plugged and Abandoned Wells

- Previously Abandoned Wells
- Proposed Wells to be Abandoned

N

0 350 700
Feet

FORMER EL PASO SMELTER SITE
EL PASO, TEXAS

PROPOSED P&A WELLS – PLANT SITE

MALCOLM PIRNIE

FIGURE
1