

**Asarco El Paso Smelter - Cost Estimate Waste Management [Present Value Calculation]
 Sitewide Evaluation - June 2008
 El Paso, Texas**

	Quantities	units	Unit Price	Total
Demolition of Structures [One time]				
Demolition of Structures (steel)	264,141	sq. ft.	\$11	\$2,905,551
Demolition of Structures (Brick and concrete)	191,157	sq. ft.	\$17.50	\$3,345,248
Demolition of Structures (Wood railroad trussels)	40,025	sq. ft.	\$40	\$1,601,000
Demolition of Structures (1-10 Bridge and Slag bridge)	17,625	sq. ft.	\$16	\$282,000
Demolition of two Smokestacks	1	Lump Sum	\$750,000	\$750,000
Subtotal of demolition of structure				\$8,883,799
Groundwater [construction and 50 years operation]				
Construction [One time]				
Slurry Wall (Bentonite soil mix, 3 feet wide) Design and installation	3,000	feet	\$590	\$1,770,000
Additional Extraction Wells will use existing wells whenever possible	50	well	\$4,500	\$225,000
Injection Well (800 foot injection well for discharge of treated groundwater)	1	well	\$100,000	\$100,000
Design and Construction of Groundwater Treatment system	1	system	\$5,000,000	\$5,000,000
Subtotal of Groundwater construction				\$7,095,000
Continuous operation [Present value of 50 years annuity factor of 25.72976]				
Operation and Maintenance (electrical and general maintenance)	25.72976	Annual Cost	\$563,600	\$14,501,293
Monitor Well Plugging and Abandonment [One time charge 50 years later, using Presnet Value factor of 0.22811]	0.22811	Lump Sum	\$64,800	\$14,782
Semi-annual groundwater reports [2 reports per year @ \$5000 per report]	25.72976	Annual Cost	\$10,000	\$257,298
Subtotal of Groundwater operation				\$14,773,372
Subtotal of Groundwater construction and operation				\$21,868,372
Asphalt Paving to manage exposure [One time]				
Acreage left to be paved from May 20, 2005 Corrective Action Directive letter Northern Section of Smelter	16	acres	\$130,000	\$2,080,000
Former Building and Process footprint	8	acres	\$130,000	\$975,000
	52	acres	\$130,000	\$6,760,000
Subtotal of apshalt paving				\$9,815,000
Fencing to control access in Northern Section of the Smelter [One time]	2800	feet	\$25	\$68,628
Engineering Design and Construction of Disposal unit Cell 4 [One time]				
Engineer and Construction of Cell 4 for disposal of: Minus 50 Slag waste pile (255,111 cubic yds) Abrasive Blasting Area (1,111 cubic yds.) Soil underneath Process area (20,000 cubic yds Estimated) Category I soils from May 5, 2005 letter (25,000 cubic yds Estimated)	1	Cell	\$4,000,000	\$4,000,000
Excavation and Disposal of material in Cell 4 [One time]	303,000	cubic yds.	\$6	\$1,818,000
Verification of Waste Excavation of materials to Cell 4	100	soil samples	\$250	\$25,000
Completion Report	1	report	\$5,000	\$5,000
Subtotal of design and construction of disposal unit cell 4				\$5,848,000
Long term monitoring of engineering control and groundwater [Present Value of 400 years annuity factor of 33.333]				
Annual site inspection report is covered under the groundwater report for the first 50 years	0	reports	\$0	\$0
Monitoring and Sampling (Management of Waste) 30 wells biannual (\$150 per sample)	33.333	Annual Cost	\$9,000	\$299,997
TCEQ Oversight	33.333	Annual Cost	\$11,024	\$367,463
TCEQ travel (once a year)	33.333	Annual Cost	\$1,000	\$33,333
Annaual site inspection report [Present Value of 350 years annuity factor of 33.332]	33.332	Annual Cost	\$5,000	\$166,660
General repairs per year (Fence and Asphalt Cap) Assume 1% of fence is required repair [1300 lf x \$25 LF]	33.333	Annual Cost	\$32,500	\$1,083,323
Assume 0.5% of 98 Acres asphalt cover is required repair [\$2.00/sf x 20,000 SF]	33.333	Annual Cost	\$40,000	\$1,333,320
Subtotal of long term monitoring				\$3,284,095
Contingency for unexpected expense	0	Lump Sum	\$0	\$0
SUBTOTAL FOR WASTE MANAGEMENT				\$49,767,893
Other Identified Costs				\$2,237,293
TOTAL				\$52,005,186.00