

Table 1a
Fines Pile Density Test Results
Silty Sand (1-ft-thick lifts)
Former ASARCO Smelter Site - El Paso, Texas

Test #	Date	CQA Point	Lift Number	Moisture Content (%)	Dry Density (pcf)	Percent Compaction (%)	Proctor		Notes
							Max dry density (pcf)	Optimum Moisture (%)	
1	8/19/2016	19	1	10.6	110	95	116.4	13.0	
2	8/19/2016	8	1	12.2	111.2	96	116.4	13.0	
3	8/22/2016	15	1	12.8	111.3	96	116.4	13.0	
4	8/22/2016	13	1	12.7	107.3	92	116.4	13.0	
5	8/23/2016	28	2	12.7	113.7	98	116.4	13.0	
6	8/23/2016	24	2	12.4	114.0	98	116.4	13.0	
7	8/23/2016	1	2	16.0	112.6	97	116.4	13.0	
8	8/23/2016	9	2	12.5	112.0	96	116.4	13.0	
9	8/23/2016	5	2	13.5	114.7	99	116.4	13.0	
10	8/23/2016	18	2	12.5	113.5	98	116.4	13.0	
11	8/25/2016	49	1	12.2	107.8	93	116.4	13.0	Slope
12	8/25/2016	59	1	12.2	109.6	94	116.4	13.0	Slope
13	8/26/2016	62	1	11.0	107.5	92	116.4	13.0	
14	8/26/2016	61	1	11.3	114.5	98	116.4	13.0	
15	8/26/2016	51	1	12.2	111.3	96	116.4	13.0	
16	8/26/2016	60	2	12.0	109.7	94	116.4	13.0	
17	8/26/2016	59	2	10.2	108.5	93	116.4	13.0	
18	9/12/2016	77	1	10.2	112.5	97	116.4	13.0	
19	9/12/2016	78	1	13.1	108.4	93	116.4	13.0	
20	9/12/2016	79	1	11.7	106.8	92	116.4	13.0	
21	9/12/2016	80	1	10.8	111.3	96	116.4	13.0	
22	9/13/2016	83	2	11.9	105.0	90	116.4	13.0	
23	9/13/2016	34	2	11.3	108.1	93	116.4	13.0	

Notes:
 % = percent
 CQA = Construction Quality Assurance
 pcf = pounds per cubic foot
 $Y_{dry, Troxler}$ = Dry density obtained at the field using a nuclear density gauge
 $Y_{moist, Troxler}$ = Wet density obtained at the field using a nuclear density gauge
 $w_{c, Troxler}$ = Moisture content obtained at the field using a nuclear density gauge
 $Y_{dry, max}$ = Maximum dry density obtainable when the compaction is carried out on the material at optimum moisture content

Minimum Field CQA Testing Requirements for Structural Fill = 1 per 1,000 yd³ of placed fill or a minimum of 2 per lift