

Table 4.1, 2012 CO Monitoring Costs

10-Aug-11

Cost Element	Previous Amortized Hours and Costs							New Site Hours and Costs for CO					Summary Carbon Monoxide (CO)						
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total	Total	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total	Total	# Old Plus New Sites	Labor Hours	Labor O & M	Summary Carbon Monoxide (CO)			
					Amor. Hours	Amor. Cost					Amor. Hours	Amor. Cost				Labor Costs	Non-labor O & M	Equip/ Contract \$	
1. Network Design																			
Network design study (RO)	88	30	7	\$1,920	377	\$24,137								377			\$24,137		
Site selection (RO)	88	8	7	\$492	101	\$6,189								101			\$6,189		
Element #1 totals					478	\$30,326								478			\$30,326		
2. Site Installation																			
Analyzer	311		7	\$11,750		\$522,036													\$522,036
Spare analyzers	16		7	\$11,750		\$26,102													\$26,102
Procurement	311	8	7	\$231	355	\$10,284							311				\$10,284		
Equipment installation	311	16	7	\$799	711	\$35,498							311				\$35,498		
Element #2 totals					1,066	\$593,920								622			\$45,783		\$548,138
3. Supplies and Site Visits																			
Supplies													311						\$292,340
Routine site visits													311	37,320	\$1,862,937	37,320	\$1,862,937		
Element #3 totals														37,320	\$1,862,937	37,320	\$1,862,937	\$292,340	
4. Maintenance																			
Spare parts/supplies													311						\$365,425
Remedial repairs													311	3,732	\$191,848	3,732	\$191,848		
Routine maintenance													311	17,416	\$943,893	17,416	\$943,893		
Element #4 totals														21,148	\$1,135,741	21,148	\$1,135,741	\$365,425	
5 Data Management																			
Data acquisition/processing													311	4,354	\$232,410	4,354	\$232,410		
Data reporting													311	2,799	\$159,691	2,799	\$159,691		
Data validation													311	3,732	\$208,292	3,732	\$208,292		
Data distribution													311	1,244	\$67,238	1,244	\$67,238		
Element # 5 totals														12,129	\$667,631	12,129	\$667,631		
6. Quality Assurance																			
Audits													311	11,196	\$684,441	11,196	\$684,441		
Routine calibrations													311	8,086	\$388,081	8,086	\$388,081		
Coordination/implementation													311	1,244	\$76,739	1,244	\$76,739		
Training													311	1,555	\$87,337	1,555	\$87,337		
Reporting													311	1,866	\$114,743	1,866	\$114,743		
QA plan review (annual) RO													88	44	\$2,483	44	\$2,483		
QA plan preparation (RO)	88	15	5	\$959	264	\$16,875										264	\$16,875		
Element #6 totals					264	\$16,875								23,991	\$1,353,825	24,255	\$1,370,700		
7. Supervision																			
Planning/coordination													311	3,732	\$247,758	3,732	\$247,758		
Supervision/review													311	9,330	\$525,847	9,330	\$525,847		
Element #7 totals														13,062	\$773,605	13,062	\$773,605		
Summary of Burdens and Costs					1,808	\$641,121								107,650	\$5,793,739	109,014	\$5,886,722	\$657,765	\$548,138
Summary Totals																			\$7,092,624

109,458 \$7,092,624

- 1.175 (percent inflation 2004 to 2012)
- 1.198 (percent inflation 2004 to 2013)
- 1.223 (percent inflation 2004 to 2014)

Table 4.2, 2013 CO Monitoring Costs

10-Aug-11

Previous Amortized Hours and Costs						New Site Hours and Costs for CO						Summary Carbon Monoxide (CO)						# Old Sites	Hours/ Site	
# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Amor. Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Amor. Cost	# Old Plus New Sites	Labor Hours	Labor O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	# Old Sites	Hours/ Site
88	30	7	\$1,958	377	\$24,609								377		377	\$24,609			88	30
88	8	7	\$502	101	\$6,310								101		101	\$6,310			88	8
				478	\$30,919								478		478	\$30,919				
311		7	\$11,980		\$532,254													\$532,254	311	
16		7	\$11,980		\$26,613													\$26,613	16	
311	8	7	\$236	355	\$10,485								355		355	\$10,485			311	8
311	16	7	\$815	711	\$36,193							311	0		711	\$36,193			311	16
				1,066	\$605,546					0	\$0		1,066		1,066	\$46,679		\$558,867		
												311					\$298,062			
												311	37,320	\$1,899,403	37,320	\$1,899,403				
													37,320	\$1,899,403	37,320	\$1,899,403	\$298,062			
												311					\$372,578			
												311	3,732	\$195,603	3,732	\$195,603				
												311	17,416	\$962,369	17,416	\$962,369				
													21,148	\$1,157,972	21,148	\$1,157,972	\$372,578			
												311	4,354	\$236,960	4,354	\$236,960				
												311	2,799	\$162,817	2,799	\$162,817				
												311	3,732	\$212,369	3,732	\$212,369				
												311	1,244	\$68,554	1,244	\$68,554				
													12,129	\$680,700	12,129	\$680,700				
												311	11,196	\$697,839	11,196	\$697,839				
												311	8,086	\$395,678	8,086	\$395,678				
												311	1,244	\$78,241	1,244	\$78,241				
												311	1,555	\$89,046	1,555	\$89,046				
												311	1,866	\$116,989	1,866	\$116,989				
88	15	5	\$978	264	\$17,205							88	44	\$2,532	44	\$2,532			88	15
				264	\$17,205								23,991	\$1,380,325	24,092	\$1,397,530				
												311	3,732	\$252,608	3,732	\$252,608				
												311	9,330	\$536,140	9,330	\$536,140				
													13,062	\$788,748	13,062	\$788,748				
				1,808	\$653,670					0	\$0		107,650	\$5,907,148	109,295	\$6,001,951	\$670,640	\$558,867		
																		\$7,231,459		

109,458 \$7,231,459

Table 4.3, 2014 C0 Monitoring Costs

10-Aug-11

Previous Amortized Hours and Costs				New Site Hours and Costs for CO							Summary Carbon Monoxide (CO)				2012				
Years Amor.	Cost/ Site	Total Amor. Hours	Total Amor. Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Amor. Cost	# Old Plus New Sites	Labor Hours	Labor O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	Labor Hours	Labor Costs	Non-labor O & M
7	\$1,998	377	\$25,123										377	\$25,123			377	\$24,137	
7	\$512	101	\$6,442										101	\$6,442			101	\$6,189	
		478	\$31,565										478	\$31,565			478	\$30,326	
7	\$12,230		\$543,361													\$543,361			
7	\$12,230		\$27,168													\$27,168			
7	\$241	355	\$10,704										355	\$10,704			311	\$10,284	
7	\$832	711	\$36,949										711	\$36,949			311	\$35,498	
		1,066	\$618,182										1,066	\$47,653		\$570,530	622	\$45,783	
										311					\$304,282				\$292,340
										311	37,320	\$1,939,040	37,320	\$1,939,040			37,320	\$1,862,937	
											37,320	\$1,939,040	37,320	\$1,939,040	\$304,282		37,320	\$1,862,937	\$292,340
										311					\$380,353				\$365,425
										311	3,732	\$199,685	3,732	\$199,685			3,732	\$191,848	
										311	17,416	\$982,452	17,416	\$982,452			17,416	\$943,893	
											21,148	\$1,182,137	21,148	\$1,182,137	\$380,353		21,148	\$1,135,741	\$365,425
										311	4,354	\$241,905	4,354	\$241,905			4,354	\$232,410	
										311	2,799	\$166,214	2,799	\$166,214			2,799	\$159,691	
										311	3,732	\$216,801	3,732	\$216,801			3,732	\$208,292	
										311	1,244	\$69,985	1,244	\$69,985			1,244	\$67,238	
											12,129	\$694,905	12,129	\$694,905			12,129	\$667,631	
										311	11,196	\$712,401	11,196	\$712,401			11,196	\$684,441	
										311	8,086	\$403,935	8,086	\$403,935			8,086	\$388,081	
										311	1,244	\$79,874	1,244	\$79,874			1,244	\$76,739	
										311	1,555	\$90,904	1,555	\$90,904			1,555	\$87,337	
										311	1,866	\$119,431	1,866	\$119,431			1,866	\$114,743	
										88	44	\$2,585	44	\$2,585			44	\$2,483	
5	\$998	264	\$17,564										264	\$17,564			264	\$16,875	
		264	\$17,564								23,991	\$1,409,130	24,255	\$1,426,694			24,255	\$1,370,700	
										311	3,732	\$257,879	3,732	\$257,879			3,732	\$247,758	
										311	9,330	\$547,328	9,330	\$547,328			9,330	\$525,847	
											13,062	\$805,207	13,062	\$805,207			13,062	\$773,605	
		1,808	\$667,311								107,650	\$6,030,419	109,458	\$6,127,201	\$684,635	\$570,530	109,014	\$5,886,722	\$657,765
																\$7,382,365			

109,458 \$7,382,365

Table 4.0, Summary of CO 2012-2014 Monitoring Costs

10-Aug-11

2013				2014				Average 2012-2014 CO				
Summary CO				Summary CO				Average 2012-2014 CO				
Equip/ Contract \$	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$
	377	\$24,609			377	\$25,123			377	\$24,623		
	101	\$6,310			101	\$6,442			101	\$6,314		
	478	\$30,919			478	\$31,565			478	\$30,937		
\$522,036 \$26,102				\$532,254 \$26,613				\$543,361 \$27,168				\$532,550 \$26,628
	355	\$10,485			355	\$10,704			341	\$10,491		
	711	\$36,193			711	\$36,949			578	\$36,213		
\$548,138	1,066	\$46,679		\$558,867	1,066	\$47,653		\$570,530	918	\$46,705		\$559,178
			\$298,062				\$304,282				\$298,228	
	37,320	\$1,899,403			37,320	\$1,939,040			37,320	\$1,900,460		
	37,320	\$1,899,403	\$298,062		37,320	\$1,939,040	\$304,282		37,320	\$1,900,460	\$298,228	
			\$372,578				\$380,353				\$372,785	
	3,732	\$195,603			3,732	\$199,685			3,732	\$195,712		
	17,416	\$962,369			17,416	\$982,452			17,416	\$962,905		
	21,148	\$1,157,972	\$372,578		21,148	\$1,182,137	\$380,353		21,148	\$1,158,617	\$372,785	
	4,354	\$236,960			4,354	\$241,905			4,354	\$237,091		
	2,799	\$162,817			2,799	\$166,214			2,799	\$162,907		
	3,732	\$212,369			3,732	\$216,801			3,732	\$212,488		
	1,244	\$68,554			1,244	\$69,985			1,244	\$68,593		
	12,129	\$680,700			12,129	\$694,905			12,129	\$681,079		
	11,196	\$697,839			11,196	\$712,401			11,196	\$698,227		
	8,086	\$395,678			8,086	\$403,935			8,086	\$395,898		
	1,244	\$78,241			1,244	\$79,874			1,244	\$78,285		
	1,555	\$89,046			1,555	\$90,904			1,555	\$89,096		
	1,866	\$116,989			1,866	\$119,431			1,866	\$117,055		
	44	\$2,532			44	\$2,585			44	\$2,533		
	101	\$17,205			264	\$17,564			210	\$17,215		
	24,092	\$1,397,530			24,255	\$1,426,694			24,201	\$1,398,308		
	3,732	\$252,608			3,732	\$257,879			3,732	\$252,748		
	9,330	\$536,140			9,330	\$547,328			9,330	\$536,438		
	13,062	\$788,748			13,062	\$805,207			13,062	\$789,187		
\$548,138	109,295	\$6,001,951	\$670,640	\$558,867	109,458	\$6,127,201	\$684,635	\$570,530	109,256	\$6,005,291	\$671,014	\$559,178
\$7,092,624				\$7,231,459				\$7,382,365				\$7,235,483