

Table 4.1, 2012 CO Monitoring Costs

Jan 21, 2011

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 Hours	Labor Costs	Non-labor O & M
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			\$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													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

Jan 21, 2011

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 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
234	16	7	\$815	535	\$27,232	77	16	7	\$815	176	\$8,961	311	711		711	\$36,193			311	16
				890	\$596,585					176	\$8,961		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				
				1,632	\$644,709					176	\$8,961		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

Jan 21, 2011

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

Jan 21, 2011

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