

Table 1. Grand Total Average 2007-2009 for Labor Hours & Costs (ICR#0940.20) *

May 2008

Cost Element	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	Total Cost
1. Network Design	48,149	\$2,565,822	\$0	\$5,124,612	\$7,690,434
2. Site Installation	21,274	\$1,250,609	\$8,344,390	\$22,451,237	\$32,046,236
3. Sampling & Analys	719,492	\$37,970,037	\$6,122,679	\$22,074,455	\$66,167,172
4. Maintenance	280,062	\$13,699,783	\$4,869,491	\$0	\$18,569,274
5. Data Management	592,113	\$27,399,513	\$0	\$0	\$27,399,513
6. Quality Assurance	312,164	\$16,085,110	\$108,948	\$488,103	\$16,682,162
7. Supervision	197,662	\$10,405,405	\$0	\$0	\$10,405,405
Totals	2,170,916	\$109,376,280	\$19,445,508	\$50,138,407	\$178,960,195

* Burden estimates for Pb monitoring are based on years 2009 - 2011. All other pollutants are based on years 2007 - 2009.

Table 2. Summary All Items for 2007-2009 Monitoring Burden and Costs*

Cost Element	Average 2007-2009 SO2			Average 2007-2009 CO			Average 2007-2009 NO2			Total Cost	Equip/Contract \$	Non-labor O & M	Total Cost
	Labor Hours	Labor Costs	Non-labor O & M	Labor Hours	Labor Costs	Non-labor O & M	Labor Hours	Labor Costs	Non-labor O & M				
1. Network Design	832	\$47,947	\$47,947	794	\$45,760	\$45,760	746	\$42,948	\$42,948	\$45,760		\$45,760	
2. Site Installation	1,493	\$59,104	\$769,085	1,432	\$56,626	\$734,267	1,285	\$50,880	\$734,267	\$734,267		\$734,267	
3. Sampling & Analysis	54,360	\$2,460,026	\$386,038	51,960	\$2,351,153	\$368,953	46,800	\$2,116,147	\$332,075	\$2,720,106		\$2,720,106	
4. Maintenance	30,804	\$1,499,757	\$482,547	29,444	\$1,433,382	\$461,191	33,540	\$1,677,393	\$415,094	\$1,894,573		\$1,894,573	
5. Data Management	17,667	\$881,614	\$881,614	16,887	\$842,134	\$842,134	19,500	\$1,002,036	\$842,134	\$842,134		\$842,134	
6. Quality Assurance	35,395	\$1,813,903	\$1,813,903	33,831	\$1,733,532	\$1,733,532	53,107	\$2,754,624	\$1,733,532	\$1,733,532		\$1,733,532	
7. Supervision	19,026	\$1,021,552	\$1,021,552	18,186	\$976,342	\$976,342	16,380	\$878,753	\$878,753	\$976,342		\$976,342	
Totals	159,877	\$7,783,903	\$668,585	152,534	\$7,438,929	\$630,144	171,358	\$8,622,781	\$747,168	\$8,946,714		\$8,946,714	

Cost Element	Average 2007-2009 O3			Average 2007-2009 PM-10			Average 2007-2009 PM-2.5			Total Cost	Equip/Contract \$	Non-labor O & M	Total Cost
	Labor Hours	Labor Costs	Non-labor O & M	Labor Hours	Labor Costs	Non-labor O & M	Labor Hours	Labor Costs	Non-labor O & M				
1. Network Design	733	\$42,180	\$42,180	789	\$43,391	\$43,391	456	\$25,770	\$25,770	\$43,391		\$43,391	
2. Site Installation	4,356	\$166,106	\$1,732,182	1,562	\$72,467	\$1,732,182	7,384	\$353,624	\$353,624	\$1,667,158		\$1,667,158	
3. Sampling & Analysis	99,560	\$4,505,977	\$707,097	150,543	\$7,371,480	\$324,256	167,523	\$12,420,101	\$401,138	\$7,810,884		\$7,810,884	
4. Maintenance	56,417	\$2,747,073	\$893,872	31,790	\$1,395,411	\$817,388	50,564	\$2,626,090	\$576,841	\$2,212,799		\$2,212,799	
5. Data Management	32,357	\$1,614,833	\$1,614,833	69,818	\$3,710,980	\$3,710,980	167,532	\$6,380,568	\$6,380,568	\$3,710,980		\$3,710,980	
6. Quality Assurance	64,428	\$3,387,227	\$3,387,227	23,286	\$1,230,438	\$3,387,227	63,663	\$3,186,657	\$3,186,657	\$1,230,438		\$1,230,438	
7. Supervision	34,846	\$1,871,156	\$1,871,156	10,815	\$625,352	\$625,352	72,093	\$3,659,614	\$3,659,614	\$625,352		\$625,352	
Totals	292,897	\$14,334,653	\$1,590,969	288,603	\$14,449,519	\$1,141,644	529,234	\$28,652,423	\$977,979	\$17,378,074		\$17,378,074	

Cost Element	Average 2007-2009 PM-coarse			Average 2009-2011 Pb			Average 2007-2009 Ambient Air Network for Hazardous AP			Total Cost	Equip/Contract \$	Non-labor O & M	Total Cost
	Labor Hours	Labor Costs	Non-labor O & M	Labor Hours	Labor Costs	Non-labor O & M	Labor Hours	Labor Costs	Non-labor O & M				
1. Network Design	100	\$3,141	\$3,141	1,697	\$64,953	\$64,953				\$64,953		\$64,953	
2. Site Installation	133	\$6,524	\$103,964	1,335	\$51,039	\$103,964				\$1,079,674		\$1,079,674	
3. Sampling & Analysis	8,999	\$427,667	\$432,304	70,080	\$2,506,727	\$388,339				\$4,979,151		\$4,979,151	
4. Maintenance	1,172	\$58,483	\$75,184	18,688	\$846,579	\$388,339				\$2,084,085		\$2,084,085	
5. Data Management	1,756	\$90,367	\$90,367	29,200	\$1,311,291	\$1,311,291				\$1,234,917		\$1,234,917	
6. Quality Assurance	1,120	\$69,138	\$71,574	12,063	\$521,708	\$521,708				\$1,311,291		\$1,311,291	
7. Supervision	1,306	\$74,199	\$74,199	5,840	\$339,149	\$339,149				\$339,149		\$339,149	
Totals	14,585	\$729,620	\$21,338	136,903	\$5,641,445	\$776,678				\$3,112,720		\$9,530,843	

Cost Element	Average 2007-2009 PAMS			Average 2007-2009 General Network			Total Cost	Equip/Contract \$	Non-labor O & M	Total Cost
	Labor Hours	Labor Costs	Non-labor O & M	Labor Hours	Labor Costs	Non-labor O & M				
1. Network Design	499	\$28,772	\$28,772	41,504	\$2,220,960	\$2,220,960				\$7,345,571
2. Site Installation	2,295	\$434,240	\$434,240	11,906	\$968,187	\$2,850,918				\$18,448,414
3. Sampling & Analysis	57,761	\$2,842,573	\$359,228			\$8,344,390				\$3,819,105
4. Maintenance	27,624	\$1,415,615	\$827,519			\$2,850,918				\$0
5. Data Management	62,677	\$3,352,483	\$3,352,483	174,720	\$8,213,209	\$8,213,209				\$8,213,209
6. Quality Assurance	25,272	\$1,397,884	\$1,08,948			\$1,496,832				\$474,834
7. Supervision	19,170	\$959,287	\$959,287			\$959,287				\$0
Totals	195,297	\$10,420,853	\$1,295,696	228,130	\$11,402,355	\$11,195,308				\$38,301,134

* Burden estimates for Pb monitoring are based on years 2009 - 2011. All other pollutants are based on years 2007 - 2009.

Table 3.0, Summary of SO2 2007-2009 Monitoring Costs

Cost Element	2007						2008						2009						Average 2007-2009 SO2						
	Summary SO2			Summary SO2			Summary SO2			Summary SO2			Summary SO2			Summary SO2			Summary SO2			Summary SO2			
	Labor Hours	Labor Costs	Equip/Contract \$	Non-labor O & M	Labor Hours	Labor Costs	Equip/Contract \$	Non-labor O & M	Labor Hours	Labor Costs	Equip/Contract \$	Non-labor O & M	Labor Hours	Labor Costs	Equip/Contract \$	Non-labor O & M	Labor Hours	Labor Costs	Equip/Contract \$	Non-labor O & M	Labor Hours	Labor Costs	Equip/Contract \$		
1. Network Design																									
Network design study (RO)	463	\$26,340			463	\$26,844			463	\$27,388			463	\$27,887			463	\$28,857			463	\$26,857			
Site selection (RO)	123	\$6,754			123	\$6,883			123	\$7,023			123	\$6,887			123	\$6,887			123	\$6,887			
Precursor SO2 monitors (RO)	154	\$8,780			193	\$11,185			236	\$13,948			194	\$11,304			194	\$11,304			194	\$11,304			
Site selection	41	\$2,251			51	\$2,868			63	\$3,577			52	\$2,899			52	\$2,899			52	\$2,899			
Element #1 totals	782	\$44,125			831	\$47,780			885	\$51,936			832	\$47,947			832	\$47,947			832	\$47,947			
2. Site Installation																									
Analyzer			\$626,880				\$606,936																		\$604,755
Spare analyzers			\$31,344																						\$10,448
Procurement	480	\$12,350			456	\$11,957			427	\$11,435			427	\$11,435			427	\$11,435			454	\$11,914			
Equipment installation	960	\$42,628			912	\$41,272			855	\$39,470			909	\$41,123			909	\$41,123			909	\$41,123			
Precursor SO2 monitors																									
Analyzer	21	\$1,059			26	\$1,348			31	\$1,682			26	\$1,363			26	\$1,363			26	\$1,363			\$94,778
Procurement	82	\$3,654			103	\$4,655			126	\$5,804			104	\$4,704			104	\$4,704			104	\$4,704			
Equipment installation			\$73,614				\$93,778																		
Element #2 totals	1,543	\$59,690	\$73,614		1,497	\$59,231	\$73,614		1,439	\$58,391	\$700,714		1,493	\$59,104	\$697,391		1,493	\$59,104			1,493	\$59,104			\$709,981
3. Supplies and Site Visits																									
Supplies	50,400	\$2,237,084		\$351,053	47,880	\$2,165,912		\$339,884	44,880	\$2,071,387		\$325,051	47,720	\$2,158,128		\$338,663	47,720	\$2,158,128		\$338,663	47,720	\$2,158,128		\$338,663	
Routine site visits																									
Precursor SO2 monitors																									
Supplies	4,320	\$191,750		\$30,090	6,600	\$298,559		\$46,851	9,000	\$415,385		\$65,184	6,640	\$301,898		\$47,375	6,640	\$301,898		\$47,375	6,640	\$301,898		\$47,375	
Routine site visits	54,720	\$2,428,834		\$381,143	54,480	\$2,464,471		\$386,735	53,880	\$2,486,772		\$390,235	54,360	\$2,460,026		\$386,038	54,360	\$2,460,026		\$386,038	54,360	\$2,460,026		\$386,038	
4. Maintenance																									
Spare parts/supplies	5,040	\$230,378		\$438,816	4,788	\$223,049		\$424,855	4,488	\$213,315		\$406,314	4,772	\$222,247		\$423,328	4,772	\$222,247		\$423,328	4,772	\$222,247		\$423,328	
Remedial repairs	23,520	\$1,133,462			22,344	\$1,097,401		\$37,613	20,944	\$1,049,508		\$81,480	22,269	\$1,093,457		\$81,480	22,269	\$1,093,457		\$81,480	22,269	\$1,093,457		\$81,480	
Routine maintenance																									
Precursor SO2 monitors																									
Spare parts/supplies	432	\$19,747		\$37,613	660	\$30,746		\$58,564	900	\$42,777		\$81,480	664	\$31,090		\$59,219	664	\$31,090		\$59,219	664	\$31,090		\$59,219	
Remedial repairs	2,016	\$97,154			3,080	\$151,271		\$483,419	4,200	\$210,463		\$483,419	3,099	\$152,963		\$483,419	3,099	\$152,963		\$483,419	3,099	\$152,963		\$483,419	
Routine maintenance	31,008	\$1,480,741		\$478,429	30,872	\$1,502,467		\$483,419	30,532	\$1,516,063		\$487,794	30,804	\$1,499,757		\$487,794	30,804	\$1,499,757		\$487,794	30,804	\$1,499,757		\$487,794	
5. Data Management																									
Data acquisition/processing	5,880	\$279,087			5,586	\$270,208			5,236	\$258,415			5,567	\$289,237			5,567	\$289,237			5,567	\$289,237			
Data reporting	3,780	\$191,763			3,591	\$185,662			3,366	\$177,559			3,579	\$184,994			3,579	\$184,994			3,579	\$184,994			
Data validation	5,040	\$250,125			4,788	\$242,167			4,488	\$231,599			4,772	\$241,297			4,772	\$241,297			4,772	\$241,297			
Data distribution	1,680	\$80,742			1,596	\$78,173			1,496	\$74,762			1,591	\$77,892			1,591	\$77,892			1,591	\$77,892			
Precursor SO2 monitors																									
Data acquisition/processing	504	\$23,922			770	\$37,247			1,050	\$51,821			775	\$37,663			775	\$37,663			775	\$37,663			
Data reporting	324	\$16,437			495	\$25,592			675	\$35,607			498	\$25,879			498	\$25,879			498	\$25,879			
Data validation	432	\$21,439			660	\$33,381			900	\$46,444			664	\$33,755			664	\$33,755			664	\$33,755			
Data distribution	144	\$6,921			220	\$10,776			300	\$14,992			221	\$10,896			221	\$10,896			221	\$10,896			
Element #5 totals	17,784	\$870,435			17,706	\$883,207			17,511	\$891,199			17,667	\$881,614			17,667	\$881,614			17,667	\$881,614			
6. Quality Assurance																									
Audits	15,120	\$821,902			14,364	\$795,754			13,464	\$761,025			14,316	\$792,894			14,316	\$792,894			14,316	\$792,894			

Table 3.0, Summary of SO2 2007-2009 Monitoring Costs

Cost Element	2007						2008						2009						Average 2007-2009 SO2					
	Summary SO2			Summary SO2			Summary SO2			Summary SO2			Summary SO2			Summary SO2			Summary SO2			Summary SO2		
	Labor Hours	Labor Costs	Equip/Contract \$	Non-labor O & M	Labor Hours	Labor Costs	Equip/Contract \$	Non-labor O & M	Labor Hours	Labor Costs	Equip/Contract \$	Non-labor O & M	Labor Hours	Labor Costs	Equip/Contract \$	Non-labor O & M	Labor Hours	Labor Costs	Equip/Contract \$	Non-labor O & M	Labor Hours	Labor Costs	Equip/Contract \$	
Routine calibrations	10,920	\$466,023			10,374	\$451,196			9,724	\$431,505			10,339	\$449,575			10,339	\$449,575			10,339	\$449,575		
Coordination/implementation	1,680	\$92,151			1,596	\$89,220			1,496	\$85,326			1,591	\$88,899			1,591	\$88,899			1,591	\$88,899		
Training	2,100	\$104,877			1,995	\$101,540			1,870	\$97,109			1,988	\$101,175			1,988	\$101,175			1,988	\$101,175		
Reporting	2,520	\$137,788			2,394	\$133,405			2,244	\$127,582			2,386	\$132,925			2,386	\$132,925			2,386	\$132,925		
QA plan review (annual) RO	54	\$2,710			54	\$2,762			54	\$2,818			54	\$2,763			54	\$2,763			54	\$2,763		
QA plan preparation (RO)	324	\$18,415			324	\$18,768			324	\$19,148			324	\$18,777			324	\$18,777			324	\$18,777		
Precursor SO2 monitors																								
Audits	1,296	\$70,449			1,980	\$109,690			2,700	\$152,612			1,992	\$110,917			1,992	\$110,917			1,992	\$110,917		
Routine calibrations	936	\$39,945			1,430	\$62,195			1,950	\$86,532			1,439	\$62,891			1,439	\$62,891			1,439	\$62,891		
Coordination/implementation	144	\$7,889			220	\$12,298			300	\$17,111			221	\$12,436			221	\$12,436			221	\$12,436		
Training	180	\$8,989			275	\$13,997			375	\$19,474			277	\$14,153			277	\$14,153			277	\$14,153		
Reporting	216	\$11,810			330	\$18,389			450	\$25,585			332	\$18,595			332	\$18,595			332	\$18,595		
QA plan preparation	108	\$6,138			135	\$7,820			165	\$9,752			136	\$7,903			136	\$7,903			136	\$7,903		
Element #6 totals	35,598	\$1,789,097			35,471	\$1,817,034			35,116	\$1,835,578			35,395	\$1,813,903			35,395	\$1,813,903			35,395	\$1,813,903		
7. Supervision																								
Planning/coordination	5,040	\$297,517			4,788	\$288,052			4,488	\$275,481			4,772	\$287,017			4,772	\$287,017			4,772	\$287,017		
Supervision/review	12,600	\$631,456			11,970	\$611,367			11,220	\$584,685			11,930	\$609,169			11,930	\$609,169			11,930	\$609,169		
Precursor SO2 monitors																								
Planning/coordination	432	\$25,501			660	\$39,706			900	\$55,243			664	\$40,150			664	\$40,150			664	\$40,150		
Supervision/review	1,080	\$54,125			1,650	\$84,274			2,250	\$117,250			1,660	\$85,216			1,660	\$85,216			1,660	\$85,216		
Element #7 totals	19,152	\$1,008,600			19,068	\$1,023,398			18,858	\$1,032,659			19,026	\$1,021,552			19,026	\$1,021,552			19,026	\$1,021,552		
Summary of Burdens and Costs	160,587	\$7,681,522	\$731,838	\$857,572	159,924	\$7,797,589	\$700,714	\$870,155	156,221	\$7,872,598	\$878,028	\$697,391	159,577	\$7,783,903	\$868,585	\$709,981	159,577	\$7,783,903	\$868,585	\$709,981	159,577	\$7,783,903	\$868,585	\$709,981
Summary Totals			\$9,270,931				\$9,368,458				\$9,448,018					\$9,362,469								

Table 3.1, 2007 SO2 Monitoring Costs

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						Summary SO2				
	# 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 Costs	Non-labor O & M	Equip/ Contract \$
1. Network Design																	
Network design study (RO)	108	30	7	\$1,707	463	\$26,340								463	\$26,340		
Site selection (RO)	108	8	7	\$438	123	\$6,754								123	\$6,754		
Precursor SO2 monitors (RO)																	
Network design study	36	30	7	\$1,707	154	\$8,780								154	\$8,780		
Site selection	36	8	7	\$438	41	\$2,251								41	\$2,251		
Element #1 totals					782	\$44,125								782	\$44,125		
2. Site Installation																	
Analyzer	420		7	\$10,448		\$626,880											\$626,880
Spare analyzers	21		7	\$10,448		\$31,344											\$31,344
Procurement	420	8	7	\$206	480	\$12,350								480	\$12,350		
Equipment installation	420	16	7	\$710	960	\$42,628								960	\$42,628		
Precursor SO2 monitors																	
Analyzer	36		7	\$14,314		\$73,614								21	\$1,059		\$73,614
Procurement	36	4	7	\$206	21	\$1,059								82	\$3,654		
Equipment installation	36	16	7	\$710	82	\$3,654								82	\$3,654		
Element #2 totals					1,543	\$791,527								1,543	\$59,690		\$731,838
3. Supplies and Site Visits																	
Supplies													420				
Routine site visits													420	\$2,237,084	\$351,053		
Precursor SO2 monitors																	
Supplies													36				
Routine site visits													36	\$191,750	\$30,090		
Element #3 totals														54,720	\$2,428,834	\$381,143	
4. Maintenance																	
Spare parts/supplies													420				
Remedial repairs													420	\$230,378	\$438,816		
Routine maintenance													420	\$1,133,462	\$1,133,462		
Precursor SO2 monitors																	
Spare parts/supplies													36				
Remedial repairs													36	\$19,747	\$37,613		
Routine maintenance													36	\$97,154	\$97,154		
Element #4 totals														31,008	\$1,480,741	\$476,429	
5. Data Management																	
Data acquisition/processing													420				
Data reporting													420	\$279,087	\$279,087		
Data validation													420	\$191,763	\$191,763		
Data distribution													420	\$250,125	\$250,125		
Precursor SO2 monitors																	
Data acquisition/processing													420				
Data reporting													36	\$23,922	\$23,922		
Data validation													36	\$16,437	\$16,437		
Data distribution													36	\$21,439	\$21,439		
Element #5 totals														17,784	\$870,435	\$870,435	
6. Quality Assurance																	
Audits													420	\$821,902	\$821,902		

Table 3.1, 2007 SO2 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs				New Site Hours and Costs				Summary SO2								
	# 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 Costs	Non-labor O & M	Equip/ Contract \$
Routine calibrations Coordination/implementation														10,920	\$466,023		
Training														1,680	\$92,151		
Reporting														2,100	\$104,877		
QA plan review (annual) RO QA plan preparation (RO)														2,520	\$137,788		
Precursor SO2 monitors	108	15	5	\$853	324	\$18,415							108	54	\$2,710		
Audits														324	\$18,415		
Routine calibrations Coordination/implementation														1,296	\$70,449		
Training														936	\$39,945		
Reporting														144	\$7,899		
QA plan preparation														180	\$8,989		
Element #6 totals	36	15	5	\$853	108	\$6,138								216	\$11,810		
7. Supervision					432	\$24,554								35,598	\$1,789,097		
Planning/coordination Supervision/review														5,040	\$297,517		
Precursor SO2 monitors														12,600	\$631,456		
Planning/coordination Supervision/review														432	\$25,501		
Element #7 totals														1,080	\$54,125		
Summary of Burdens and Costs					2,757	\$860,206								157,830	\$7,553,153	\$857,572	\$731,838
Summary Totals																	\$9,270,931

Table 3.2, 2008 SO2 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs					New Site Hours and Costs					Summary SO2						
	# 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 Costs	Non-labor O & M	Equip/ Contract \$
Audits														14,364	\$795,754		
Routine calibrations													399	10,374	\$451,196		
Coordination/implementation													399	1,596	\$89,220		
Training													399	1,995	\$101,540		
Reporting													399	2,394	\$133,405		
QA plan review (annual) RO													108	54	\$2,762		
QA plan preparation (RO)	108	15	5	\$869	324	\$18,768								324	\$18,768		
Precursor SO2 monitors																	
Audits													55	1,980	\$109,690		
Routine calibrations													55	1,430	\$62,195		
Coordination/implementation													55	220	\$12,298		
Training													55	275	\$13,997		
Reporting													55	330	\$18,389		
QA plan preparation	45	15	5	\$869	135	\$7,820								135	\$7,820		
Element #6 totals					459	\$26,588								35,471	\$1,817,034		
7. Supervision																	
Planning/coordination													399	4,788	\$288,052		
Supervision/review													399	11,970	\$611,367		
Precursor SO2 monitors													55	660	\$39,706		
Planning/coordination													55	1,650	\$84,274		
Supervision/review														19,068	\$1,023,398		
Element #7 totals														157,138	\$7,663,989	\$870,155	\$700,714
Summary of Burdens and Costs					2,786	\$834,314											
Summary Totals																	\$9,368,458

Table 3.3, 2009 SO2 Monitoring Costs

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						Equip/Contract \$					
	# 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 Costs	Non-labor O & M
1. Network Design																		
Network design study (RO)	108	30	7	\$1,775	463	\$27,388								463		\$27,388		
Site selection (RO)	108	8	7	\$455	123	\$7,023								123		\$7,023		
Precursor SO2 monitors (RO)																		
Network design study	55	30	7	\$1,775	236	\$13,948								236		\$13,948		
Site selection	55	8	7	\$455	63	\$3,577								63		\$3,577		
Element #1 totals					885	\$51,936								885		\$51,936		
2. Site Installation																		
Analyzer	374		7	\$10,864		\$580,448												\$580,448
Spare analyzers																		
Procurement	374	8	7	\$214	427	\$11,435								427		\$11,435		
Equipment installation	374	16	7	\$739	855	\$39,470								855		\$39,470		
Precursor SO2 monitors																		
Analyzer	55		7	\$14,884		\$116,943								31		\$1,682		\$116,943
Procurement	55	4	7	\$214	31	\$1,682								31		\$1,682		
Equipment installation	55	16	7	\$739	126	\$5,804								126		\$5,804		
Element #2 totals					1,439	\$755,783								1,439		\$58,391		\$697,391
3. Supplies and Site Visits																		
Supplies																		
Routine site visits																		
Precursor SO2 monitors																		
Supplies																		
Routine site visits																		
Element #3 totals																		
4. Maintenance																		
Spare parts/supplies																		
Remedial repairs																		
Routine maintenance																		
Precursor SO2 monitors																		
Spare parts/supplies																		
Remedial repairs																		
Routine maintenance																		
Element #4 totals																		
5. Data Management																		
Data acquisition/processing																		
Data reporting																		
Data validation																		
Data distribution																		
Precursor SO2 monitors																		
Data acquisition/processing																		
Data reporting																		
Data validation																		
Data distribution																		
Element #5 totals																		
6. Quality Assurance																		
Audits																		
Routine calibrations																		
Element #6 totals																		

Table 4.0, Summary of CO 2007-2009 Monitoring Costs

Cost Element	2007												2008												2009												Average 2007-2009 CO				
	Summary CO				Summary CO				Summary CO				Summary CO				Summary CO				Summary CO				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 \$	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 \$	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$																	
1. Network Design	433	\$24,633			433	\$25,104			433	\$25,613			433	\$25,117			433	\$25,117			433	\$25,117																			
Network design study (RO)	115	\$6,316			115	\$6,437			115	\$6,568			115	\$6,441			115	\$6,441			115	\$6,441																			
Precursor CO monitors (RO)	154	\$8,780			193	\$11,185			236	\$13,948			194	\$11,304			194	\$11,304			194	\$11,304																			
Network design study	41	\$2,251			51	\$2,868			63	\$3,577			52	\$2,899			52	\$2,899			52	\$2,899																			
Site selection	744	\$41,980			793	\$45,594			847	\$49,706			794	\$45,760			794	\$45,760			794	\$45,760																			
2. Site Installation				\$600,014				\$581,077				\$541,648												\$574,246																	
Analyzer				\$30,001																				\$10,000																	
Spare analyzers																																									
Procurement	482	\$12,411			437	\$11,447			399	\$10,670			439	\$11,510			439	\$11,510			439	\$11,510																			
Equipment installation	919	\$40,801			873	\$39,513			798	\$36,832			863	\$39,049			863	\$39,049			863	\$39,049																			
Precursor CO monitors				\$72,539				\$92,409				\$115,236												\$93,395																	
Analyzer	21	\$1,059			26	\$1,348			31	\$1,682			26	\$1,363			26	\$1,363			26	\$1,363																			
Procurement	82	\$3,654			103	\$4,655			126	\$5,804			104	\$4,704			104	\$4,704			104	\$4,704																			
Equipment installation	1,504	\$57,925		\$702,553	1,438	\$56,964		\$673,486	1,354	\$54,989		\$656,884	1,432	\$56,626		\$677,641	1,432	\$56,626			1,432	\$56,626																			
3. Supplies and Site Visits			\$336,008		45,840	\$2,073,630	\$325,403		41,880	\$1,932,925	\$303,323			45,320	\$2,049,255	\$321,578					45,320	\$2,049,255	\$321,578																		
Supplies																																									
Routine site visits	48,240	\$2,141,209			6,600	\$298,559	\$46,851		9,000	\$415,385	\$65,184		6,640	\$301,898	\$47,375		6,640	\$301,898			6,640	\$301,898																			
Supplies	4,320	\$191,750	\$30,090		52,440	\$2,372,189	\$372,254		50,880	\$2,348,310	\$368,507		51,960	\$2,351,153	\$368,953		51,960	\$2,351,153			51,960	\$2,351,153																			
Routine site visits	52,560	\$2,332,959	\$366,098		4,584	\$213,546	\$406,754		4,188	\$199,056	\$379,154		4,532	\$211,035	\$401,972		4,532	\$211,035			4,532	\$211,035																			
4. Maintenance			\$420,010		21,392	\$1,050,645			19,544	\$979,354			21,149	\$1,038,294			21,149	\$1,038,294			21,149	\$1,038,294																			
Spare parts/supplies	4,824	\$220,505			660	\$30,746	\$58,564		900	\$42,777	\$81,480		664	\$31,090	\$59,219		664	\$31,090			664	\$31,090																			
Remedial repairs	22,512	\$1,084,885			3,080	\$151,271			4,200	\$210,463			3,099	\$152,963			3,099	\$152,963			3,099	\$152,963																			
Routine maintenance	29,784	\$1,422,290	\$457,622		29,716	\$1,446,207	\$465,318		28,832	\$1,431,649	\$460,634		29,444	\$1,433,382	\$461,191		29,444	\$1,433,382			29,444	\$1,433,382																			
Precursor CO monitors			\$37,613		5,348	\$258,695			4,886	\$241,142			5,287	\$255,654			5,287	\$255,654			5,287	\$255,654																			
Spare parts/supplies	432	\$19,747			3,438	\$177,751			3,141	\$165,690			3,399	\$175,662			3,399	\$175,662			3,399	\$175,662																			
Remedial repairs	2,016	\$97,154			4,584	\$231,850			4,188	\$216,118			4,532	\$229,124			4,532	\$229,124			4,532	\$229,124																			
Routine maintenance	29,784	\$1,422,290	\$457,622		1,528	\$74,843			1,396	\$68,377			1,511	\$73,501			1,511	\$73,501			1,511	\$73,501																			
5. Data Management					770	\$37,247			1,050	\$51,821			775	\$37,663			775	\$37,663			775	\$37,663																			
Data acquisition/processing	5,628	\$267,126			495	\$25,592			675	\$35,607			498	\$25,879			498	\$25,879			498	\$25,879																			
Data reporting	3,618	\$183,544			660	\$33,381			900	\$46,444			664	\$33,755			664	\$33,755			664	\$33,755																			
Data validation	4,824	\$239,405			220	\$10,776			300	\$14,992			221	\$10,896			221	\$10,896			221	\$10,896																			
Data distribution	1,608	\$77,282			17,043	\$850,135			16,536	\$840,191			16,887	\$842,134			16,887	\$842,134			16,887	\$842,134																			
Precursor CO monitors					14,472	\$786,678			14,472	\$786,678			14,472	\$786,678			14,472	\$786,678			14,472	\$786,678																			
Data acquisition/processing	504	\$23,922			13,752	\$761,849			13,752	\$761,849			13,596	\$752,894			13,596	\$752,894			13,596	\$752,894																			
Data reporting	324	\$16,437																																							
Data validation	432	\$21,439																																							
Data distribution	144	\$6,921																																							
6. Quality Assurance																																									
Audits	17,082	\$836,076			13,752	\$761,849			14,472	\$786,678			14,472	\$786,678			14,472	\$786,678			14,472	\$786,678																			

Table 4.0, Summary of CO 2007-2009 Monitoring Costs

Aug 2006

Cost Element	2007					2008					2009					Average 2007-2009 CO				
	Summary CO					Summary CO					Summary CO					Summary CO				
	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 \$		Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	
Routine calibrations	10,452	\$446,050				9,932	\$431,972				9,074	\$402,661				9,819	\$426,895			
Coordination/implementation	1,608	\$88,202				1,528	\$85,418				1,396	\$79,622				1,511	\$84,414			
Training	2,010	\$100,382				1,910	\$97,214				1,745	\$90,618				1,888	\$96,071			
Reporting	2,412	\$131,883				2,292	\$127,721				2,094	\$119,054				2,266	\$126,219			
QA plan review (annual) RO	51	\$2,534				51	\$2,583				51	\$2,635				51	\$2,584			
QA plan preparation (RO)	303	\$17,222				303	\$17,551				303	\$17,907				303	\$17,560			
Precursor CO monitors																				
Audits	1,296	\$70,449				1,980	\$109,690				2,700	\$152,612				1,992	\$110,917			
Routine calibrations	936	\$39,945				1,430	\$62,195				1,950	\$86,532				1,439	\$62,891			
Coordination/implementation	144	\$7,899				220	\$12,298				300	\$17,111				221	\$12,436			
Training	180	\$8,989				275	\$13,997				375	\$19,474				277	\$14,153			
Reporting	216	\$11,810				330	\$18,389				450	\$25,585				332	\$18,595			
QA plan preparation	108	\$6,138				135	\$7,820				165	\$9,752				136	\$7,903			
Element #6 totals	34,188	\$1,718,182				34,138	\$1,748,698				33,167	\$1,733,717				33,831	\$1,733,532			
7. Supervision																				
Planning/coordination	4,824	\$284,767				4,584	\$275,779				4,188	\$257,066				4,532	\$272,537			
Supervisor/review	12,060	\$604,394				11,460	\$585,318				10,470	\$545,602				11,330	\$578,438			
Precursor CO monitors																				
Planning/coordination	432	\$25,501				660	\$39,706				900	\$55,243				664	\$40,150			
Supervisor/review	1,080	\$54,125				1,650	\$84,274				2,250	\$117,250				1,660	\$85,216			
Element #7 totals	18,396	\$968,767				18,354	\$985,077				17,808	\$975,161				18,186	\$976,342			
Summary of Burdens and Costs	154,257	\$7,378,199	\$823,720	\$702,553	153,921	\$7,504,865	\$837,572	\$673,486	149,423	\$7,433,722	\$829,140	\$656,884	152,534	\$7,438,929	\$830,144	\$677,641				
Summary Totals				\$8,904,472				\$9,015,923					\$8,919,747				\$8,946,714			

Table 4.1, 2007 CO Monitoring Costs

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						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 Costs	Non-labor O & M	Equip/ Contract \$	
1. Network Design																			
Network design study (RO)	101	30	7	\$1,707	433	\$24,633								433		\$24,633			
Site selection (RO)	101	8	7	\$438	115	\$6,316								115		\$6,316			
Precursor CO monitors (RO)	36	30	7	\$1,707	154	\$8,780								154		\$8,780			
Site selection	36	8	7	\$438	41	\$2,251								41		\$2,251			
Element #1 totals					744	\$41,980								744		\$41,980			
2. Site Installation																			
Analyzer	402		7	\$10,448		\$600,014													\$600,014
Spare analyzers	20		7	\$10,448		\$30,001													\$30,001
Procurement	422	8	7	\$206	482	\$12,411								482		\$12,411			
Equipment installation	402	16	7	\$710	919	\$40,801								919		\$40,801			
Precursor CO monitors	36		7	\$14,105		\$72,539								21		\$1,059			\$72,539
Analyzer	36	4	7	\$206	21	\$1,059								21		\$1,059			
Procurement	36	16	7	\$710	82	\$3,654								82		\$3,654			
Equipment installation	36		7	\$710		\$3,654								82		\$3,654			
Element #2 totals					1,504	\$760,478								1,504		\$57,925			\$702,553
3. Supplies and Site Visits																			
Supplies																			
Routine site visits														48,240		\$2,141,209			\$336,008
Precursor CO monitors														4,320		\$191,750			\$30,090
Supplies														52,560		\$2,332,959			\$366,098
Routine site visits														4,320		\$191,750			\$30,090
Element #3 totals														52,560		\$2,332,959			\$366,098
4. Maintenance																			
Spare parts/supplies														4,824		\$220,505			\$420,010
Remedial repairs														4,824		\$220,505			\$420,010
Routine maintenance														22,512		\$1,084,885			\$1,084,885
Precursor CO monitors														432		\$19,747			\$37,613
Spare parts/supplies														432		\$19,747			\$37,613
Remedial repairs														2,016		\$97,154			\$97,154
Routine maintenance														29,784		\$1,422,290			\$457,622
Element #4 totals														29,784		\$1,422,290			\$457,622
5. Data Management																			
Data acquisition/processing														5,628		\$267,126			\$267,126
Data reporting														3,618		\$183,544			\$183,544
Data validation														4,824		\$239,405			\$239,405
Data distribution														1,608		\$77,282			\$77,282
Precursor CO monitors														504		\$23,922			\$23,922
Data acquisition/processing														324		\$16,437			\$16,437
Data reporting														432		\$21,439			\$21,439
Data validation														144		\$6,921			\$6,921
Data distribution														17,082		\$836,076			\$836,076
Element #5 totals														17,082		\$836,076			\$836,076
6. Quality Assurance																			
Audits														14,472		\$786,678			\$786,678
Element #6 totals														14,472		\$786,678			\$786,678

Table 4.1, 2007 CO Monitoring Costs

Cost Element	Previous Amortized Hours and Costs					New Site Hours and Costs					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 Costs	Non-labor O & M	Equip/ Contract \$	
Routine calibrations Coordination/implementation													402	10,452	\$446,050	\$446,050			
Training													402	1,608	\$88,202	\$88,202			
Reporting													402	2,010	\$100,382	\$100,382			
QA plan review (annual) RO													402	2,412	\$131,883	\$131,883			
QA plan preparation (RO)	101	15	5	\$853	303	\$17,222							101	51	\$2,534	\$2,534			
Precursor CO monitors																			
Audits													36	1,296	\$70,449	\$70,449			
Routine calibrations													36	936	\$39,945	\$39,945			
Coordination/implementation													36	144	\$7,899	\$7,899			
Training													36	180	\$8,989	\$8,989			
Reporting													36	216	\$11,810	\$11,810			
QA plan preparation	36	15	5	\$853	108	\$6,138							36	108	\$6,138	\$6,138			
Element #6 totals					411	\$23,360							33,777		\$1,694,822	\$1,718,182			
7. Supervision																			
Planning/coordination													402	4,824	\$284,767	\$284,767			
Supervision/review													402	12,060	\$604,394	\$604,394			
Precursor CO monitors													36	432	\$25,501	\$25,501			
Planning/coordination													36	1,080	\$54,125	\$54,125			
Supervision/review														18,396	\$968,787	\$968,787			
Element #7 totals													151,599		\$7,254,934	\$7,378,199	\$823,720	\$702,553	
Summary of Burdens and Costs					2,659	\$825,818													
Summary Totals																			\$8,904,472

Aug 2006

Table 4.2, 2008 CO Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs				New Site Hours and Costs				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 Costs	Non-labor O & M	Equip/ Contract \$	
Audits													382	13,752	\$761,849			
Routine calibrations													382	9,932	\$431,972			
Coordination/implementation													382	1,528	\$85,418			
Training													382	1,910	\$97,214			
Reporting													382	2,292	\$127,721			
QA plan review (annual) RO	101	15	5	\$869	303	\$17,551							101	51	\$2,583			
QA plan preparation (RO)														303	\$17,551			
Precursor CO monitors																		
Audits													55	1,980	\$109,690			
Routine calibrations													55	1,430	\$62,195			
Coordination/implementation													55	220	\$12,298			
Training													55	275	\$13,997			
Reporting													55	330	\$18,389			
QA plan preparation	45	15	5	\$869	135	\$7,820								135	\$7,820			
Element #6 totals					438	\$25,371								34,138	\$1,748,698			
7. Supervision																		
Planning/coordination													382	4,584	\$275,779			
Supervision/review													382	11,460	\$585,318			
Precursor CO monitors																		
Planning/coordination													55	660	\$39,706			
Supervision/review													55	1,650	\$84,274			
Element #7 totals														18,354	\$985,077			
Summary of Burdens and Costs					2,669	\$801,415								151,253	\$7,376,936	\$837,572	\$673,486	
Summary Totals																		\$9,015,923

Table 4.3, 2009 CO Monitoring Costs

Cost Element	Previous Amortized Hours and Costs										New Site Hours and Costs										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 \$					
1. Network Design																								
Network design study (RO)	101	30	7	\$1,775	433	\$25,613										433	\$25,613							
Site selection (RO)	101	8	7	\$455	115	\$6,568										115	\$6,568							
Precursor CO monitors (RO)																								
Network design study	55	30	7	\$1,775	236	\$13,948										236	\$13,948							
Site selection	55	8	7	\$455	63	\$3,577										63	\$3,577							
Element #1 totals					847	\$49,706										847	\$49,706							
2. Site Installation																								
Analyzer	349		7	\$10,864		\$541,648													\$541,648					
Spare analyzers	349	8	7	\$214	399	\$10,670										399	\$10,670							
Procurement	349	16	7	\$739	798	\$36,832										798	\$36,832							
Precursor CO monitors																								
Analyzer	55		7	\$14,666		\$115,236													\$115,236					
Procurement	55	4	7	\$214	31	\$1,682										31	\$1,682							
Equipment installation	55	16	7	\$739	126	\$5,804										126	\$5,804							
Element #2 totals					1,354	\$711,873										1,354	\$54,989			\$656,884				
3. Supplies and Site Visits																								
Supplies													349			349				\$303,323				
Routine site visits													349			41,880	\$1,932,925							
Precursor CO monitors																								
Supplies													75			9,000	\$415,385			\$65,184				
Routine site visits													75			50,880	\$2,348,310			\$368,507				
Element #3 totals																50,880	\$2,348,310			\$379,154				
4. Maintenance																								
Spare parts/supplies													349			349				\$379,154				
Remedial repairs													349			349	\$199,056			\$199,056				
Routine maintenance													349			19,544	\$979,354			\$979,354				
Precursor CO monitors																								
Spare parts/supplies													75			75				\$81,460				
Remedial repairs													75			900	\$42,777			\$42,777				
Routine maintenance													75			4,200	\$210,463			\$210,463				
Element #4 totals																28,832	\$1,431,649			\$460,634				
5 Data Management																								
Data acquisition/processing													349			4,886	\$241,142			\$241,142				
Data reporting													349			3,141	\$165,690			\$165,690				
Data validation													349			4,188	\$216,118			\$216,118				
Data distribution													349			1,396	\$68,377			\$68,377				
Precursor CO monitors																								
Data acquisition/processing													75			1,050	\$51,821			\$51,821				
Data reporting													75			675	\$35,607			\$35,607				
Data validation													75			900	\$46,444			\$46,444				
Data distribution													75			300	\$14,992			\$14,992				
Element #5 totals																16,536	\$840,191			\$840,191				
6. Quality Assurance																								
Audits													349			12,564	\$710,155			\$710,155				

Table 4.3, 2009 CO Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs					New Site Hours and Costs					Summary Carbon Monoxide (CO)					
	# Old Sites	Hours/ Site	Years/ Amor.	Cost/ Site	Total Amor. Cost	# New Sites	Hours/ Site	Years/ Amor.	Cost/ Site	Total Amor. Cost	# Old Plus New Sites	Labor Hours	Labor O & M	Labor Costs	Non-labor O & M	Equip/ Contract \$
Routine calibrations Coordination/implementation											349	9,074	\$402,661	\$402,661		
Training											349	1,396	\$79,622	\$79,622		
Reporting											349	1,745	\$90,618	\$90,618		
QA plan review (annual) RO											349	2,094	\$119,054	\$119,054		
QA plan preparation (RO)	101	15	5	\$887	\$17,907						101	51	\$2,635	\$2,635		
Precursor CO monitors												303	\$17,907			
Audits											75	2,700	\$152,612	\$152,612		
Routine calibrations Coordination/implementation											75	1,950	\$86,532	\$86,532		
Training											75	300	\$17,111	\$17,111		
Reporting											75	375	\$19,474	\$19,474		
QA plan preparation											75	450	\$25,585	\$25,585		
Element #6 totals												32,699	\$1,706,058	\$1,733,717		
7. Supervision																
Planning/coordination Supervision/review											349	4,188	\$257,066	\$257,066		
Precursor CO monitors											349	10,470	\$545,602	\$545,602		
Planning/coordination Supervision/review											75	900	\$55,243	\$55,243		
Element #7 totals												17,808	\$975,161	\$975,161		
Summary of Burdens and Costs												146,755	\$7,301,369	\$7,433,722	\$829,140	\$656,884
Summary Totals																\$8,919,747

Table 5.0, Summary of NO2 and NOy 2007-2009 Monitoring Costs

Aug 2006

Cost Element	2007					2008					2009					Average 2007-2009 NO2-NOy					
	Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy		
	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 \$	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	
1. Network Design																					
Network design study (RO)	394	\$22,438			394	\$22,867			394	\$23,331			394	\$22,878			394	\$22,878			
Site selection (RO)	105	\$5,754			105	\$5,864			105	\$5,983			105	\$5,867			105	\$5,867			
Precursor NOy monitors (RO)																					
Network design study	154	\$8,780			193	\$11,185			236	\$13,948			194	\$11,304			194	\$11,304			
Site selection	41	\$2,251			51	\$2,868			63	\$3,577			52	\$2,899			52	\$2,899			
Element #1 totals	695	\$39,222			744	\$42,784			798	\$48,838			746	\$42,948			746	\$42,948			
2. Site Installation																					
Analyzer				\$651,373				\$630,027				\$504,804								\$595,401	
Spare analyzers				\$32,569																\$10,856	
Procurement	448	\$11,516			405	\$10,608			318	\$8,500			390	\$10,208			390	\$10,208			
Equipment installation	853	\$37,858			809	\$36,617			635	\$29,339			766	\$34,605			766	\$34,605			
Precursor NOy monitors				\$110,152				\$140,325				\$174,988								\$141,822	
Analyzer	21	\$1,059			26	\$1,348			31	\$1,682			26	\$1,363			26	\$1,363			
Procurement	82	\$3,654			103	\$4,655			126	\$5,804			104	\$4,704			104	\$4,704			
Equipment installation	1,403	\$54,086		\$794,094	1,342	\$53,228		\$770,352	1,110	\$45,325		\$679,792	1,285	\$50,880			1,285	\$50,880			\$748,079
3. Supplies and Site Visits																					
Supplies			\$311,768				\$301,551					\$241,615								\$284,978	
Routine site visits	44,760	\$1,986,744			42,480	\$1,921,636			33,360	\$1,539,694			40,200	\$1,816,025			40,200	\$1,816,025			
Precursor NOy monitors			\$29,254				\$46,851					\$65,184								\$47,097	
Supplies	4,200	\$186,424			6,600	\$298,559			9,000	\$415,385			6,600	\$300,123			6,600	\$300,123			
Routine site visits	48,960	\$2,173,167	\$341,023		49,080	\$2,220,195	\$348,403		42,360	\$1,955,079	\$306,799		46,800	\$2,116,147	\$332,075		46,800	\$2,116,147	\$332,075		
4. Maintenance																					
Spare parts/supplies			\$389,710				\$376,939					\$302,019								\$356,223	
Remedial repairs	5,968	\$291,114			5,664	\$281,574			4,448	\$225,608			5,360	\$266,099			5,360	\$266,099			
Routine maintenance	26,110	\$1,283,706			24,780	\$1,241,638			19,460	\$994,851			23,450	\$1,173,398			23,450	\$1,173,398			
Precursor NOy monitors			\$36,568				\$58,564					\$81,480								\$58,871	
Spare parts/supplies	560	\$27,316			880	\$43,747			1,200	\$60,866			880	\$43,976			880	\$43,976			
Remedial repairs	2,450	\$120,455			3,850	\$192,910			5,250	\$268,395			3,850	\$193,920			3,850	\$193,920			
Routine maintenance	35,088	\$1,722,591	\$425,278		35,174	\$1,759,868	\$435,503		30,358	\$1,549,720	\$383,499		33,540	\$1,677,393	\$415,094		33,540	\$1,677,393	\$415,094		
5 Data Management																					
Data acquisition/processing	7,460	\$377,629			7,080	\$365,254			5,560	\$292,657			6,700	\$345,180			6,700	\$345,180			
Data reporting	3,730	\$192,907			3,540	\$186,585			2,780	\$149,500			3,350	\$176,330			3,350	\$176,330			
Data validation	5,595	\$278,253			5,310	\$269,135			4,170	\$215,642			5,025	\$254,343			5,025	\$254,343			
Data distribution	1,865	\$91,972			1,770	\$88,958			1,390	\$71,277			1,675	\$84,069			1,675	\$84,069			
Precursor NOy monitors																					
Data acquisition/processing	700	\$35,434			1,100	\$56,749			1,500	\$78,954			1,100	\$57,046			1,100	\$57,046			
Data reporting	350	\$18,101			550	\$28,989			750	\$40,333			550	\$29,141			550	\$29,141			
Data validation	525	\$26,110			825	\$41,815			1,125	\$58,177			825	\$42,034			825	\$42,034			
Data distribution	175	\$8,630			275	\$13,821			375	\$19,229			275	\$13,893			275	\$13,893			
Element # 5 totals	20,400	\$1,029,036			20,450	\$1,051,305			17,650	\$925,767			19,500	\$1,002,036			19,500	\$1,002,036			
6. Quality Assurance																					
Audits	26,856	\$1,469,208			25,488	\$1,421,061			20,016	\$1,138,612			24,120	\$1,342,960			24,120	\$1,342,960			

Table 5.0, Summary of NO2 and NOy 2007-2009 Monitoring Costs

Cost Element	2007						2008						2009						Average 2007-2009 NO2-NOy					
	Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy		Summary NO2-NOy			
	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 \$	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 \$
Routine calibrations	17,904	\$795,009			16,992	\$768,956			13,344	\$616,119			16,080	\$726,695			16,080	\$726,695			16,080	\$726,695		
Coordination/implementation	1,492	\$81,839			1,416	\$79,157			1,112	\$63,424			1,340	\$74,807			1,340	\$74,807			1,340	\$74,807		
Training	1,865	\$93,141			1,770	\$90,088			1,390	\$72,183			1,675	\$85,137			1,675	\$85,137			1,675	\$85,137		
Reporting	2,238	\$122,369			2,124	\$118,359			1,668	\$94,834			2,010	\$111,854			2,010	\$111,854			2,010	\$111,854		
QA plan preparation (annual)	46	\$2,308			46	\$2,353			28	\$1,435			40	\$2,032			40	\$2,032			40	\$2,032		
QA plan preparation (RO)	276	\$15,687			276	\$15,987			276	\$16,312			276	\$15,995			276	\$15,995			276	\$15,995		
Precursor NOy monitors																								
Audits	2,520	\$137,861			3,960	\$220,786			5,400	\$307,180			3,960	\$221,942			3,960	\$221,942			3,960	\$221,942		
Routine calibrations	1,680	\$74,599			2,640	\$119,471			3,600	\$166,219			2,640	\$120,096			2,640	\$120,096			2,640	\$120,096		
Coordination/implementation	140	\$7,679			220	\$12,298			300	\$17,111			220	\$12,363			220	\$12,363			220	\$12,363		
Training	175	\$8,740			275	\$13,997			375	\$19,474			275	\$14,070			275	\$14,070			275	\$14,070		
Reporting	210	\$11,482			330	\$18,389			450	\$25,585			330	\$18,485			330	\$18,485			330	\$18,485		
QA plan review (annual)	4	\$176			6	\$281			8	\$391			6	\$283			6	\$283			6	\$283		
QA plan preparation	108	\$6,138			135	\$7,820			165	\$9,752			136	\$7,903			136	\$7,903			136	\$7,903		
Element #6 totals	55,514	\$2,826,237			55,678	\$2,889,004			48,131	\$2,548,630			53,107	\$2,754,624			53,107	\$2,754,624			53,107	\$2,754,624		
7. Supervision																								
Planning/coordination	4,476	\$264,224			4,248	\$255,565			3,336	\$204,769			4,020	\$241,519			4,020	\$241,519			4,020	\$241,519		
Supervision/review	11,190	\$560,793			10,620	\$542,416			8,340	\$434,606			10,050	\$512,605			10,050	\$512,605			10,050	\$512,605		
Precursor NOy monitors																								
Planning/coordination	420	\$24,793			660	\$39,706			900	\$55,243			660	\$39,914			660	\$39,914			660	\$39,914		
Supervision/review	1,050	\$52,621			1,650	\$84,274			2,250	\$117,250			1,650	\$84,715			1,650	\$84,715			1,650	\$84,715		
Element #7 totals	17,136	\$902,431			17,178	\$921,960			14,826	\$811,868			16,380	\$878,753			16,380	\$878,753			16,380	\$878,753		
Summary of Burdens and Costs	179,195	\$8,746,771	\$767,301	\$794,094	179,646	\$8,938,344	\$783,906	\$770,352	155,233	\$7,883,226	\$690,299	\$679,792	171,358	\$8,522,781	\$747,168	\$748,079	171,358	\$8,522,781	\$747,168	\$748,079	171,358	\$8,522,781	\$747,168	\$748,079
Summary Totals				\$10,308,166				\$10,492,603				\$9,253,317				\$10,018,028								\$10,018,028

Table 5.1, 2007 NO2 and NOy Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs					New Site Hours and Costs					Summary NO2-NOy								
	# 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 Costs	Non-labor O & M	Equip/ Contract \$	
6. Quality Assurance																			
Audits																			
Routine calibrations																			
Coordination/implementation																			
Training																			
Reporting																			
QA plan review (annual)																			
QA plan preparation (RO)	92	15	5	\$853	276	\$15,687													
Precursor NOy monitors																			
Audits																			
Routine calibrations																			
Coordination/implementation																			
Training																			
Reporting																			
QA plan review (annual)																			
QA plan preparation	36	15	5	\$853	108	\$6,138													
Element #6 totals					384	\$21,825								55,130	\$2,804,412	\$5,514	\$2,826,237		
7. Supervision																			
Planning/coordination																			
Supervision/review																			
Precursor NOy monitors																			
Planning/coordination																			
Supervision/review																			
Element #7 totals														176,714	\$8,631,638	179,195	\$8,746,771	\$794,094	
Summary of Burdens and Costs					2,482	\$909,227													
Summary Totals																			\$10,308,166

Table 5.2, 2008 NO2 and NOy Monitoring Costs

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						Summary NO2-NOy					
	# 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 Costs	Non-labor O & M	Equip/ Contract \$
1. Network Design																		
Network design study (RO)	92	30	7	\$1,740	394	\$22,867								394		\$22,867		
Site selection (RO)	92	8	7	\$446	105	\$5,864								105		\$5,864		
Precursor NOy monitors (RO)																		
Network design study	45	30	7	\$1,740	193	\$11,185								193		\$11,185		
Site selection	45	8	7	\$446	51	\$2,868								51		\$2,868		
Element #1 totals					744	\$42,784								744		\$42,784		
2. Site Installation																		
Analyzer	354		7	\$12,458		\$630,027												\$630,027
Spare analyzers																		
Procurement	354	8	7	\$210	405	\$10,608								405		\$10,608		
Equipment installation	354	16	7	\$724	809	\$36,617								809		\$36,617		
Precursor NOy monitors																		
Analyzer	45	7	7	\$21,828		\$140,325								26		\$1,348		\$140,325
Procurement	45	4	7	\$210	26	\$1,348								103		\$4,655		
Equipment installation	45	16	7	\$724	103	\$4,655								103		\$4,655		
Element #2 totals					1,342	\$823,581								1,342		\$53,228		\$770,352
3. Supplies and Site Visits																		
Supplies																		
Routine site visits																		
Precursor NOy monitors																		
Supplies																		
Routine site visits																		
Element #3 totals																		
4. Maintenance																		
Spare parts/supplies																		
Remedial repairs																		
Routine maintenance																		
Precursor NOy monitors																		
Spare parts/supplies																		
Remedial repairs																		
Routine maintenance																		
Element #4 totals																		
5 Data Management																		
Data acquisition/processing																		
Data reporting																		
Data validation																		
Data distribution																		
Precursor NOy monitors																		
Data acquisition/processing																		
Data reporting																		
Data validation																		
Data distribution																		
Element #5 totals														20,450	\$1,051,305	\$1,051,305		\$1,051,305

Table 5.2, 2008 NO2 and NOy Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs					New Site Hours and Costs					Summary NO2-NOy							
	# 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 Costs	Non-labor O & M	Equip/ Contract \$
6. Quality Assurance																		
Audits																		
Routine calibrations																		
Coordination/implementation																		
Training																		
Reporting																		
QA plan review (annual)																		
QA plan preparation (RO)																		
Precursor NOy monitors																		
Audits	92	15	5	\$869	276	\$15,987												
Routine calibrations																		
Coordination/implementation																		
Training																		
Reporting																		
QA plan review (annual)																		
QA plan preparation																		
Element #6 totals	45	15	5	\$869	135	\$7,820												
7. Supervision																		
Planning/coordination																		
Supervision/review																		
Precursor NOy monitors																		
Planning/coordination																		
Supervision/review																		
Element #7 totals																		
Summary of Burdens and Costs					2,497	\$890,172								177,149	\$8,818,525	\$8,938,344	\$783,906	\$770,352
Summary Totals																		\$10,492,603

Table 5.3, 2009 NO2 and NOy Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs				New Site Hours and Costs				Summary NO2-NOy						
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Amor. Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	# Old Plus New Sites	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$
1. Network Design															
Network design study (RO)	92	30	7	\$1,775	394	\$23,331						394	\$23,331		
Site selection (RO)	92	8	7	\$455	105	\$5,983						105	\$5,983		
Precursor NOy monitors (RO)															
Network design study	55	30	7	\$1,775	236	\$13,948						236	\$13,948		
Site selection	55	8	7	\$455	63	\$3,577						63	\$3,577		
Element #1 totals					798	\$46,838						798	\$46,838		
2. Site Installation															
Analyzer	278		7	\$12,711		\$504,804									\$504,804
Spare analyzers	278	8	7	\$214	318	\$8,500						318	\$8,500		
Procurement	278	16	7	\$739	635	\$29,339						635	\$29,339		
Equipment installation															
Precursor NOy monitors	55	55	7	\$22,271	31	\$1,682						31	\$1,682		\$174,988
Analyzer	55	4	7	\$214	126	\$5,804						126	\$5,804		
Procurement	55	16	7	\$739	1,110	\$725,116						1,110	\$45,325		\$679,792
Element #2 totals															
3. Supplies and Site Visits															
Supplies											278			\$241,615	
Routine site visits											278	33,360	\$1,539,694		
Precursor NOy monitors											75			\$65,184	
Supplies											75	9,000	\$415,385		
Routine site visits											75	42,360	\$1,955,079		\$306,799
Element #3 totals															
4. Maintenance															
Spare parts/supplies											278			\$302,019	
Remedial repairs											278	4,448	\$225,608		
Routine maintenance											278	19,460	\$994,851		
Precursor NOy monitors															
Spare parts/supplies											75			\$81,480	
Remedial repairs											75	1,200	\$60,866		
Routine maintenance											75	5,250	\$268,395		
Element #4 totals												30,358	\$1,549,720		\$383,499
5 Data Management															
Data acquisition/processing											278	5,560	\$292,657		
Data reporting											278	2,780	\$149,500		
Data validation											278	4,170	\$215,642		
Data distribution											278	1,390	\$71,277		
Precursor NOy monitors															
Data acquisition/processing											75	1,500	\$78,954		
Data reporting											75	750	\$40,333		
Data validation											75	1,125	\$58,177		
Data distribution											75	375	\$19,229		
Element #5 totals												17,650	\$925,767		

Table 5.3, 2009 NO2 and NOy Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs				New Site Hours and Costs				Summary NO2-NOy										
	# 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 Costs	Non-labor O & M	Equip/ Contract \$	
6. Quality Assurance																			
Audits																			
Routine calibrations																			
Coordination/implementation																			
Training																			
Reporting																			
QA plan review (annual)																			
QA plan preparation (RO)																			
Precursor NOy monitors																			
Audits																			
Routine calibrations																			
Coordination/implementation																			
Training																			
Reporting																			
QA plan review (annual)																			
QA plan preparation																			
Element #6 totals	55	15	5	\$887	165	\$9,752								48,131	\$2,522,567	\$2,548,630			
7. Supervision																			
Planning/coordination																			
Supervision/review																			
Precursor NOy monitors																			
Planning/coordination																			
Supervision/review																			
Element #7 totals														152,884	\$7,765,001	\$7,883,226	\$690,299	\$679,792	
Summary of Burdens and Costs					2,349	\$798,017								155,233	\$7,883,226	\$7,883,226	\$690,299	\$679,792	
Summary Totals																			\$9,253,317

Table 6.0, Summary of O3 2007-2009 Monitoring Costs

Cost Element	2007						2008						2009						Average 2007-2009 O3						
	Summary O3		Summary O3		Summary O3		Summary O3		Summary O3		Summary O3		Summary O3		Summary O3		Summary O3		Summary O3		Summary O3				
	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 \$	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 \$	
1. Network Design																									
Network design study (RO)	579	\$32,925																							
Site selection (RO)	154	\$8,443																							
Element #1 totals	733	\$41,367																				733	\$42,180		
2. Site Installation																									
Analyzer				\$1,279,910								\$1,304,410												\$1,305,064	
Spare analyzers				\$255,982								\$260,882												\$261,013	
Procurement	1,633	\$42,024			1,633	\$42,828																1,633	\$42,850		
Equipment installation	2,722	\$120,880			2,722	\$123,194																2,722	\$123,256		
Element #2 totals	4,356	\$162,904		\$1,535,892	4,356	\$166,022		\$1,565,293	4,356	\$169,390		\$1,597,045	4,356	\$166,106		\$1,597,045	4,356	\$166,106						\$1,566,077	
3. Supplies and Site Visits																									
Supplies																									
4 month season			\$836										\$862											\$852	
5 month season			\$15,324										\$15,617											\$15,625	
6 month season			\$71,046										\$72,406											\$72,443	
7 month season			\$215,995										\$220,130											\$220,240	
8 month season			\$104,201										\$106,196											\$106,249	
9 month season			\$4,388										\$4,472											\$4,474	
12 month season			\$281,678										\$287,070											\$287,214	
Routine site visits																									
4 month season	120	\$5,326			120	\$5,428																120	\$5,431		
5 month season	2,200	\$97,650			2,200	\$99,520																2,200	\$99,570		
6 month season	10,200	\$452,743			10,200	\$461,410																10,200	\$461,641		
7 month season	31,010	\$1,376,428			31,010	\$1,402,776																31,010	\$1,403,479		
8 month season	14,960	\$664,023			14,960	\$676,734																14,960	\$677,073		
9 month season	630	\$27,964			630	\$28,489																630	\$28,513		
12 month season	40,440	\$1,794,994			40,440	\$1,829,354																40,440	\$1,830,270		
Element #3 totals	99,560	\$4,419,129	\$693,469		99,560	\$4,503,721	\$706,743		99,560	\$4,595,082	\$721,080		99,560	\$4,505,977	\$707,097		99,560	\$4,505,977							
4. Maintenance																									
Spare parts/supplies																									
4 month season			\$1,045																					\$1,065	
5 month season			\$19,155																					\$19,531	
6 month season			\$88,808																					\$90,553	
7 month season			\$269,994																					\$275,300	
8 month season			\$130,252																					\$132,812	
9 month season			\$5,485																					\$5,593	
12 month season			\$352,098																					\$359,017	
Remedial repairs																									
4 month season	12	\$549			12	\$559																12	\$559		
5 month season	220	\$10,056			220	\$10,249																220	\$10,254		
6 month season	1,020	\$46,624			1,020	\$47,517																1,020	\$47,541		
7 month season	3,101	\$141,747			3,101	\$144,460																3,101	\$144,532		
8 month season	1,496	\$68,382			1,496	\$69,691																1,496	\$69,726		
9 month season	63	\$2,880			63	\$2,935																63	\$2,936		
12 month season	4,044	\$184,851			4,044	\$188,390																4,044	\$188,484		
Routine maintenance																									
4 month season	56	\$2,699			56	\$2,750																56	\$2,752		
5 month season	1,027	\$49,477			1,027	\$50,424																1,027	\$50,449		
6 month season	4,760	\$229,391			4,760	\$233,762																4,760	\$233,899		

Aug 2006

Table 6.0, Summary of O3 2007-2009 Monitoring Costs

Cost Element	2007				2008				2009				Average 2007-2009 O3			
	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 \$	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$
	7 month season	14,471	\$697,394		14,471	\$710,744		14,471	\$725,161	14,471	\$711,100		14,471	\$711,100		
	8 month season	6,981	\$336,440		6,981	\$342,881		6,981	\$349,836	6,981	\$343,052		6,981	\$343,052		
	9 month season	294	\$14,168		294	\$14,439		294	\$14,732	294	\$14,447		294	\$14,447		
	12 month season	18,872	\$909,468		18,872	\$926,878		18,872	\$945,680	18,872	\$927,342		18,872	\$927,342		
Element #4 totals		56,417	\$2,694,125	\$866,836	56,417	\$2,745,698	\$883,429	56,417	\$2,801,395	\$901,350	\$883,872	56,417	\$2,747,073	\$883,872		
5. Data Management																
	Data acquisition/processing															
	4 month season	14	\$664		14	\$677		14	\$691		\$678		14	\$678		
	5 month season	257	\$12,182		257	\$12,416		257	\$12,667		\$12,422		257	\$12,422		
	6 month season	1,190	\$56,482		1,190	\$57,563		1,190	\$58,731		\$57,592		1,190	\$57,592		
	7 month season	3,618	\$171,716		3,618	\$175,003		3,618	\$178,553		\$175,091		3,618	\$175,091		
	8 month season	1,745	\$82,840		1,745	\$84,426		1,745	\$86,138		\$84,468		1,745	\$84,468		
	9 month season	74	\$3,489		74	\$3,555		74	\$3,627		\$3,557		74	\$3,557		
	12 month season	4,718	\$223,934		4,718	\$228,221		4,718	\$232,850		\$228,335		4,718	\$228,335		
Data reporting																
	4 month season	9	\$457		9	\$465		9	\$475		\$466		9	\$466		
	5 month season	165	\$8,371		165	\$8,531		165	\$8,704		\$8,535		165	\$8,535		
	6 month season	765	\$38,809		765	\$39,552		765	\$40,354		\$39,572		765	\$39,572		
	7 month season	2,326	\$117,987		2,326	\$120,246		2,326	\$122,685		\$120,306		2,326	\$120,306		
	8 month season	1,122	\$56,920		1,122	\$58,010		1,122	\$59,186		\$58,039		1,122	\$58,039		
	9 month season	47	\$2,397		47	\$2,443		47	\$2,492		\$2,444		47	\$2,444		
	12 month season	3,033	\$153,867		3,033	\$156,812		3,033	\$159,993		\$156,891		3,033	\$156,891		
Data validation																
	4 month season	12	\$596		12	\$607		12	\$619		\$607		12	\$607		
	5 month season	220	\$10,918		220	\$11,127		220	\$11,353		\$11,133		220	\$11,133		
	6 month season	1,020	\$50,621		1,020	\$51,590		1,020	\$52,636		\$51,615		1,020	\$51,615		
	7 month season	3,101	\$153,896		3,101	\$156,842		3,101	\$160,024		\$156,921		3,101	\$156,921		
	8 month season	1,496	\$74,243		1,496	\$75,665		1,496	\$77,200		\$75,703		1,496	\$75,703		
	9 month season	63	\$3,127		63	\$3,186		63	\$3,251		\$3,188		63	\$3,188		
	12 month season	4,044	\$200,696		4,044	\$204,537		4,044	\$208,687		\$204,640		4,044	\$204,640		
Data distribution																
	4 month season	4	\$192		4	\$196		4	\$200		\$196		4	\$196		
	5 month season	73	\$3,524		73	\$3,592		73	\$3,665		\$3,594		73	\$3,594		
	6 month season	340	\$16,341		340	\$16,653		340	\$16,991		\$16,662		340	\$16,662		
	7 month season	1,034	\$49,679		1,034	\$50,630		1,034	\$51,657		\$50,655		1,034	\$50,655		
	8 month season	499	\$23,966		499	\$24,425		499	\$24,921		\$24,437		499	\$24,437		
	9 month season	21	\$1,009		21	\$1,029		21	\$1,049		\$1,029		21	\$1,029		
	12 month season	1,348	\$64,786		1,348	\$66,026		1,348	\$67,365		\$66,059		1,348	\$66,059		
Element #5 totals		32,357	\$1,583,709		32,357	\$1,614,025		32,357	\$1,646,766		\$1,614,833		32,357	\$1,614,833		
6. Quality Assurance																
	Audits															
	4 month season	36	\$1,957		36	\$1,994		36	\$2,035		\$1,995		36	\$1,995		
	5 month season	660	\$35,877		660	\$36,563		660	\$37,305		\$36,582		660	\$36,582		
	6 month season	3,060	\$166,337		3,060	\$169,521		3,060	\$172,960		\$169,606		3,060	\$169,606		
	7 month season	9,303	\$505,698		9,303	\$515,379		9,303	\$525,833		\$515,637		9,303	\$515,637		
	8 month season	4,488	\$243,961		4,488	\$248,632		4,488	\$253,675		\$248,756		4,488	\$248,756		
	9 month season	189	\$10,274		189	\$10,470		189	\$10,683		\$10,476		189	\$10,476		
	12 month season	12,132	\$659,479		12,132	\$672,103		12,132	\$685,737		\$672,439		12,132	\$672,439		
Routine calibrations																

Table 6.0, Summary of O3 2007-2009 Monitoring Costs

Cost Element	2007				2008				2009				Average 2007-2009 O3			
	Summary O3		Summary O3		Summary O3		Summary O3		Summary O3		Summary O3		Summary O3		Summary O3	
	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 \$	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$
4 month season	26	\$1,110			26	\$1,131			26	\$1,154			26	\$1,131		
5 month season	477	\$20,342			477	\$20,732			477	\$21,152			477	\$20,742		
6 month season	2,210	\$94,314			2,210	\$96,119			2,210	\$98,089			2,210	\$96,168		
7 month season	6,719	\$286,733			6,719	\$292,222			6,719	\$298,150			6,719	\$292,368		
8 month season	3,241	\$138,327			3,241	\$140,975			3,241	\$143,835			3,241	\$141,046		
9 month season	137	\$5,825			137	\$5,937			137	\$6,057			137	\$5,940		
12 month season	8,762	\$373,928			8,762	\$381,086			8,762	\$388,816			8,762	\$381,276		
Coordination/implementation																
4 month season	4	\$219			4	\$224			4	\$228			4	\$224		
5 month season	59	\$4,022			59	\$4,099			59	\$4,183			59	\$4,102		
6 month season	227	\$18,650			227	\$19,007			227	\$19,392			227	\$19,016		
7 month season	591	\$56,699			591	\$57,764			591	\$58,956			591	\$57,813		
8 month season	249	\$27,353			249	\$27,876			249	\$28,442			249	\$27,890		
9 month season	9	\$1,152			9	\$1,174			9	\$1,198			9	\$1,175		
12 month season	449	\$73,940			449	\$75,356			449	\$76,885			449	\$75,394		
Training																
Reporting																
4 month season	6	\$328			6	\$334			6	\$341			6	\$335		
5 month season	110	\$6,015			110	\$6,130			110	\$6,254			110	\$6,133		
6 month season	510	\$27,886			510	\$28,420			510	\$28,996			510	\$28,434		
7 month season	1,551	\$84,778			1,551	\$86,401			1,551	\$88,154			1,551	\$86,444		
8 month season	748	\$40,899			748	\$41,682			748	\$42,527			748	\$41,703		
9 month season	32	\$1,722			32	\$1,755			32	\$1,791			32	\$1,756		
12 month season	2,022	\$110,559			2,022	\$112,675			2,022	\$114,961			2,022	\$112,731		
QA plan review (annual)																
QA plan preparation (RO)																
Element #6 totals	64,428	\$3,321,941			64,428	\$3,385,531			64,428	\$3,454,209			64,428	\$3,387,227		
7. Supervision																
Planning/coordination																
4 month season	12	\$708			12	\$722			12	\$737			12	\$722		
5 month season	220	\$12,987			220	\$13,235			220	\$13,504			220	\$13,242		
6 month season	1,020	\$60,212			1,020	\$61,364			1,020	\$62,609			1,020	\$61,395		
7 month season	3,101	\$183,056			3,101	\$186,560			3,101	\$190,344			3,101	\$186,653		
8 month season	1,496	\$88,311			1,496	\$90,001			1,496	\$91,827			1,496	\$90,046		
9 month season	63	\$3,719			63	\$3,790			63	\$3,867			63	\$3,792		
12 month season	4,044	\$238,722			4,044	\$243,292			4,044	\$248,227			4,044	\$243,414		
Supervision/Review																
4 month season	30	\$1,503			30	\$1,532			30	\$1,563			30	\$1,533		
5 month season	550	\$27,564			550	\$28,091			550	\$28,661			550	\$28,105		
6 month season	2,550	\$127,795			2,550	\$130,241			2,550	\$132,883			2,550	\$130,306		
7 month season	7,753	\$388,521			7,753	\$395,958			7,753	\$403,990			7,753	\$396,157		
8 month season	3,740	\$187,432			3,740	\$191,020			3,740	\$194,895			3,740	\$191,116		
9 month season	158	\$7,893			158	\$8,044			158	\$8,207			158	\$8,048		
12 month season	10,110	\$506,668			10,110	\$516,367			10,110	\$526,842			10,110	\$516,626		
Element #7 totals	34,846	\$1,835,091			34,846	\$1,870,219			34,846	\$1,908,158			34,846	\$1,871,156		
Summary of Burdens and Costs	292,697	\$14,058,267	\$1,560,304	\$1,535,892	292,697	\$14,327,376	\$1,590,172	\$1,565,283	292,697	\$14,618,014	\$1,622,430	\$1,597,045	292,697	\$14,334,553	\$1,590,869	\$1,566,077
Summary Totals				\$17,154,463				\$17,482,841								\$17,491,598

Table 6.1, 2007 O3 Monitoring Costs

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs for Precursor O3						Summary Ozone (O3)						
	# 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 Costs	Non-labor O & M	Equip/ Contract \$	
1. Network Design																			
Network design study (RO)	135	30	7	\$1,707	579	\$32,925								579		\$32,925			
Site selection (RO)	135	8	7	\$438	154	\$8,443								154		\$8,443			
Element #1 totals					733	\$41,367							733			\$41,367			
2. Site Installation																			
Analyzer	1,191		7	\$7,523		\$1,279,910							1191						\$1,279,910
Spare analyzers	238		7	\$7,523		\$255,982													\$255,982
Procurement	1,429	8	7	\$206	1,633	\$42,024								1,633		\$42,024			
Equipment installation	1,191	16	7	\$710	2,722	\$120,880								2,722		\$120,880			
Element #2 totals					4,356	\$1,698,796								4,356		\$162,904			\$1,535,892
3. Supplies and Site Visits																			
Supplies																			
4 month season													3				\$836		
5 month season													44				\$15,324		
6 month season													170				\$71,046		
7 month season													443				\$215,995		
8 month season													187				\$104,201		
9 month season													7				\$4,388		
12 month season													337				\$281,678		
Routine site visits																			
4 month season													3						
5 month season													44						
6 month season													170						
7 month season													443						
8 month season													187						
9 month season													7						
12 month season													337						
Element #3 totals														99,560		\$4,419,129		\$693,469	
4. Maintenance																			
Spare parts/supplies																			
4 month season													3						\$1,045
5 month season													44						\$19,155
6 month season													170						\$88,808
7 month season													443						\$269,994
8 month season													187						\$130,252
9 month season													7						\$5,485
12 month season													337						\$352,098
Remedial repairs																			
4 month season													3						
5 month season													44						
6 month season													170						
7 month season													443						
8 month season													187						
9 month season													7						
12 month season													337						
Element #4 totals														12		\$549		\$549	
4 month season													3						
5 month season													44						
6 month season													170						
7 month season													443						
8 month season													187						
9 month season													7						
12 month season													337						
Element #5 totals														220		\$10,056		\$10,056	
4 month season													44						
5 month season													170						
6 month season													443						
7 month season													187						
8 month season													7						
9 month season													337						
Element #6 totals														3,101		\$141,747		\$141,747	
4 month season													187						
5 month season													7						
6 month season													337						
7 month season													187						
8 month season													7						
9 month season													337						
Element #7 totals														1,496		\$68,382		\$68,382	
4 month season													187						
5 month season													7						
6 month season													337						
7 month season													187						
8 month season													7						
9 month season													337						
Element #8 totals														63		\$2,880		\$2,880	
4 month season													187						
5 month season													7						
6 month season													337						
7 month season													187						
8 month season													7						
9 month season													337						

Table 6.1, 2007 O3 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs				New Site Hours and Costs for Precursor O3				Summary Ozone (O3)									
	# 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 Costs	Non-labor O & M	Equip/ Contract \$
Routine maintenance														4,044	\$184,851			
4 month season													3	56	\$2,699	\$2,699		
5 month season													44	1,027	\$49,477	\$49,477		
6 month season													170	4,760	\$229,391	\$229,391		
7 month season													443	14,471	\$697,394	\$697,394		
8 month season													187	6,981	\$336,440	\$336,440		
9 month season													7	294	\$14,168	\$14,168		
12 month season													337	18,872	\$909,468	\$909,468		
Element #4 totals														56,417	\$2,694,125	\$2,694,125	\$866,836	
5. Data Management																		
Data acquisition/processing																		
4 month season													3	14	\$664	\$664		
5 month season													44	257	\$12,182	\$12,182		
6 month season													170	1,190	\$56,482	\$56,482		
7 month season													443	3,618	\$171,716	\$171,716		
8 month season													187	1,745	\$82,840	\$82,840		
9 month season													7	74	\$3,489	\$3,489		
12 month season													337	4,718	\$223,934	\$223,934		
Data reporting																		
4 month season													3	9	\$457	\$457		
5 month season													44	165	\$8,371	\$8,371		
6 month season													170	765	\$38,809	\$38,809		
7 month season													443	2,326	\$117,987	\$117,987		
8 month season													187	1,122	\$56,920	\$56,920		
9 month season													7	47	\$2,397	\$2,397		
12 month season													337	3,033	\$153,867	\$153,867		
Data validation																		
4 month season													3	12	\$596	\$596		
5 month season													44	220	\$10,918	\$10,918		
6 month season													170	1,020	\$50,621	\$50,621		
7 month season													443	3,101	\$153,896	\$153,896		
8 month season													187	1,496	\$74,243	\$74,243		
9 month season													7	63	\$3,127	\$3,127		
12 month season													337	4,044	\$200,696	\$200,696		
Data distribution																		
4 month season													3	4	\$192	\$192		
5 month season													44	73	\$3,524	\$3,524		
6 month season													170	340	\$16,341	\$16,341		
7 month season													443	1,034	\$49,679	\$49,679		
8 month season													187	499	\$23,966	\$23,966		
9 month season													7	21	\$1,009	\$1,009		
12 month season													337	1,348	\$64,786	\$64,786		
Element #5 totals														32,357	\$1,583,709	\$1,583,709		

Table 6.1, 2007 O3 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs					New Site Hours and Costs for Precursor O3					Summary Ozone (O3)					
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	# Old Plus New Sites	Labor Hours	Labor O & M	Labor Costs	Non-labor O & M	Equip/ Contract \$
6. Quality Assurance Audits																
4 month season											3	36	\$1,957			
5 month season											44	660	\$35,877			
6 month season											170	3,060	\$166,337			
7 month season											443	9,303	\$505,698			
8 month season											187	4,488	\$243,961			
9 month season											7	189	\$10,274			
12 month season											337	12,132	\$659,479			
Routine calibrations																
4 month season											3	26	\$1,110			
5 month season											44	477	\$20,342			
6 month season											170	2,210	\$94,314			
7 month season											443	6,719	\$286,733			
8 month season											187	3,241	\$138,327			
9 month season											7	137	\$5,825			
12 month season											337	8,762	\$373,928			
Coordination/Implementation																
4 month season											3	4	\$219			
5 month season											44	59	\$4,022			
6 month season											170	227	\$18,650			
7 month season											443	591	\$56,699			
8 month season											187	249	\$27,353			
9 month season											7	9	\$1,152			
12 month season											337	449	\$73,940			
Training											1,191	5,955	\$297,401			
Reporting																
4 month season											3	6	\$328			
5 month season											44	110	\$6,015			
6 month season											170	510	\$27,886			
7 month season											443	1,551	\$84,778			
8 month season											187	748	\$40,899			
9 month season											7	32	\$1,722			
12 month season											337	2,022	\$110,559			
QA plan review (annual)											125	63	\$3,136			
QA plan preparation (RO)												405	\$23,019			
Element #6 totals												64,023	\$3,298,922			
7. Supervision																
Planning/coordination																
4 month season											3	12	\$708			
5 month season											44	220	\$12,987			
6 month season											170	1,020	\$60,212			
7 month season											443	3,101	\$183,056			
8 month season											187	1,496	\$88,311			

Table 6.1, 2007 O3 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs					New Site Hours and Costs for Precursor O3					Summary Ozone (O3)								
	# 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 Costs	Non-labor O & M	Equip/ Contract \$	
9 month season														63	\$3,719	\$3,719			
12 month season													337	4,044	\$238,722	\$238,722			
Supervision/review																			
4 month season													3	30	\$1,503	\$1,503			
5 month season													44	550	\$27,564	\$27,564			
6 month season													170	2,550	\$127,795	\$127,795			
7 month season													443	7,753	\$388,521	\$388,521			
8 month season													187	3,740	\$187,432	\$187,432			
9 month season													7	158	\$7,893	\$7,893			
12 month season													337	10,110	\$506,668	\$506,668			
Element #7 totals														34,846	\$1,835,091	\$1,835,091			
Summary of Burdens and Costs					5,494	\$1,763,182					287,203	\$13,830,977		292,697	\$14,058,267	\$1,560,304		\$1,535,892	
Summary Totals																			\$17,154,463

Table 6.2, 2008 O3 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs for Precursor O3						Summary Ozone (O3)						
	# 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 Costs	Non-labor O & M	Equip/ Contract \$	
1. Network Design																			
Network design study (RO)	135	30	7	\$1,740	579	\$33,555								579		\$33,555			
Site selection (RO)	135	8	7	\$446	154	\$8,604								154		\$8,604			
Element #1 totals					733	\$42,159								733		\$42,159			
2. Site Installation																			
Analyzer	1,191		7	\$7,667		\$1,304,410													\$1,304,410
Spare analyzers	238		7	\$7,667		\$260,882													\$260,882
Procurement	1,429	8	7	\$210	1,633	\$42,828								1,633		\$42,828			
Equipment installation	1,191	16	7	\$724	2,722	\$123,194								2,722		\$123,194			
Element #2 totals					4,356	\$1,731,315								4,356		\$166,022			\$1,565,293
3. Supplies and Site Visits																			
Supplies																			
4 month season													3						\$852
5 month season													44						\$15,617
6 month season													170						\$72,406
7 month season													443						\$220,130
8 month season													187						\$106,196
9 month season													7						\$4,472
12 month season													337						\$287,070
Routine site visits																			
4 month season													3						
5 month season													44						
6 month season													170						
7 month season													443						
8 month season													187						
9 month season													7						
12 month season													337						
Summary														120	\$5,428	\$5,428			
4 month season													44	\$99,520	\$99,520				
5 month season													170	\$461,410	\$461,410				
6 month season													443	\$1,402,776	\$1,402,776				
7 month season													187	\$676,734	\$676,734				
8 month season													7	\$28,499	\$28,499				
9 month season													337	\$1,829,354	\$1,829,354				
12 month season													99,560	\$4,503,721	\$4,503,721				
Element #3 totals														99,560	\$4,503,721	\$4,503,721			\$706,743
4. Maintenance																			
Spare parts/supplies																			
4 month season													3						\$1,065
5 month season													44						\$19,521
6 month season													170						\$90,508
7 month season													443						\$275,162
8 month season													187						\$132,745
9 month season													7						\$5,590
12 month season													337						\$358,838
Remedial repairs																			
4 month season													3						\$559
5 month season													44						\$10,249
6 month season													170						\$47,517
7 month season													443						\$144,460
8 month season													187						\$69,691
Element #4 totals														1,496	\$69,691	\$69,691			

Table 6.2, 2008 O3 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs for Precursor O3						Summary Ozone (O3)					
	# 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 Costs	Non-labor O & M	Equip/ Contract \$
9 month season													7	63	\$2,935	\$2,935		
12 month season													337	4,044	\$188,390	\$188,390		
Routine maintenance																		
4 month season													3	56	\$2,750	\$2,750		
5 month season													44	1,027	\$50,424	\$50,424		
6 month season													170	4,760	\$233,782	\$233,782		
7 month season													443	14,471	\$710,744	\$710,744		
8 month season													187	6,981	\$342,881	\$342,881		
9 month season													7	294	\$14,439	\$14,439		
12 month season													337	18,872	\$926,878	\$926,878		
Element #4 totals														56,417	\$2,745,698	\$2,745,698	\$883,429	
5. Data Management																		
Data acquisition/processing																		
4 month season													3	14	\$677	\$677		
5 month season													44	257	\$12,416	\$12,416		
6 month season													170	1,190	\$57,563	\$57,563		
7 month season													443	3,618	\$175,003	\$175,003		
8 month season													187	1,745	\$84,426	\$84,426		
9 month season													7	74	\$3,555	\$3,555		
12 month season													337	4,718	\$228,221	\$228,221		
Data reporting																		
4 month season													3	9	\$465	\$465		
5 month season													44	165	\$8,531	\$8,531		
6 month season													170	765	\$39,552	\$39,552		
7 month season													443	2,326	\$120,246	\$120,246		
8 month season													187	1,122	\$58,010	\$58,010		
9 month season													7	47	\$2,443	\$2,443		
12 month season													337	3,033	\$156,812	\$156,812		
Data validation																		
4 month season													3	12	\$607	\$607		
5 month season													44	220	\$11,127	\$11,127		
6 month season													170	1,020	\$51,590	\$51,590		
7 month season													443	3,101	\$156,842	\$156,842		
8 month season													187	1,496	\$75,665	\$75,665		
9 month season													7	63	\$3,186	\$3,186		
12 month season													337	4,044	\$204,537	\$204,537		
Data distribution																		
4 month season													3	4	\$196	\$196		
5 month season													44	73	\$3,592	\$3,592		
6 month season													170	340	\$16,653	\$16,653		
7 month season													443	1,034	\$50,630	\$50,630		
8 month season													187	499	\$24,425	\$24,425		
9 month season													7	21	\$1,029	\$1,029		

Table 6.2, 2008 O3 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs for Precursor O3						Summary Ozone (O3)						
	# 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 Costs	Non-labor O & M	Equip/ Contract \$	
12 month season													337	1,348	\$66,026	\$66,026			
Element # 5 totals													337	32,357	\$1,614,025	\$1,614,025			
6. Quality Assurance																			
Audits																			
4 month season													3	36	\$1,994	\$1,994			
5 month season												44	660	\$36,563	\$36,563				
6 month season												170	3,060	\$169,521	\$169,521				
7 month season												443	9,303	\$515,379	\$515,379				
8 month season												187	4,488	\$248,632	\$248,632				
9 month season												7	189	\$10,470	\$10,470				
12 month season												337	12,132	\$672,103	\$672,103				
Routine calibrations																			
4 month season												3	26	\$1,131	\$1,131				
5 month season												44	477	\$20,732	\$20,732				
6 month season												170	2,210	\$96,119	\$96,119				
7 month season												443	6,719	\$292,222	\$292,222				
8 month season												187	3,241	\$140,975	\$140,975				
9 month season												7	137	\$5,937	\$5,937				
12 month season												337	8,762	\$381,086	\$381,086				
Coordination/implementation																			
4 month season												3	4	\$224	\$224				
5 month season												44	59	\$4,099	\$4,099				
6 month season												170	227	\$19,007	\$19,007				
7 month season												443	591	\$57,784	\$57,784				
8 month season												187	249	\$27,876	\$27,876				
9 month season												7	9	\$1,174	\$1,174				
12 month season												337	449	\$75,356	\$75,356				
Training												1,191	5,955	\$303,094	\$303,094				
Reporting																			
4 month season												3	6	\$334	\$334				
5 month season												44	110	\$6,130	\$6,130				
6 month season												170	510	\$28,420	\$28,420				
7 month season												443	1,551	\$86,401	\$86,401				
8 month season												187	748	\$41,682	\$41,682				
9 month season												7	32	\$1,755	\$1,755				
12 month season												337	2,022	\$112,675	\$112,675				
QA plan review (annual)												125	63	\$3,196	\$3,196				
QA plan preparation (RO)																			
Element # 6 totals													135	15	\$869	\$869			
7. Supervision																			
Planning/coordination																			
4 month season												3	12	\$722	\$722				
5 month season												44	220	\$13,235	\$13,235				
Element # 7 totals													44	220	\$13,235	\$13,235			

Table 6.2, 2008 O3 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs				New Site Hours and Costs for Precursor O3				Summary Ozone (O3)											
	# 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 Costs	Non-labor O & M	Equip/ Contract \$		
6 month season							170	1,020					170	1,020	\$61,364	\$61,364				
7 month season							443	3,101					443	3,101	\$186,560	\$186,560				
8 month season							187	1,496					187	1,496	\$90,001	\$90,001				
9 month season							7	63					7	63	\$3,790	\$3,790				
12 month season							337	4,044					337	4,044	\$243,292	\$243,292				
Supervision/review							3	30					3	30	\$1,532	\$1,532				
4 month season							44	550					44	550	\$28,091	\$28,091				
5 month season							170	2,550					170	2,550	\$130,241	\$130,241				
6 month season							443	7,753					443	7,753	\$395,958	\$395,958				
7 month season							187	3,740					187	3,740	\$191,020	\$191,020				
8 month season							7	158					7	158	\$8,044	\$8,044				
9 month season							337	10,110					337	10,110	\$516,367	\$516,367				
12 month season								34,846						34,846	\$1,870,219	\$1,870,219				
Element #7 totals																				
Summary of Burdens and Costs					5,494	\$1,796,934		287,203					287,203	292,697	\$14,095,735	\$14,327,376	\$1,590,172	\$1,565,293		
Summary Totals																			\$17,482,841	

Table 6.3, 2009 O3 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs for Precursor O3						Summary Ozone (O3)				
	# 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	Non-labor O & M	Equip/ Contract \$
1. Network Design																	
Network design study (RO)	135	30	7	\$1,775	579	\$34,236								579		\$34,236	
Site selection (RO)	135	8	7	\$455	154	\$8,779								154		\$8,779	
Element #1 totals					733	\$43,014								733		\$43,014	
2. Site Installation																	
Analyzer	1,191		7	\$7,822		\$1,330,871											\$1,330,871
Spare analyzers	238		7	\$7,822		\$266,174											\$266,174
Procurement	1,429	8	7	\$214	1,633	\$43,697								1,633		\$43,697	
Equipment installation	1,191	16	7	\$739	2,722	\$125,693								2,722		\$125,693	
Element #2 totals					4,356	\$1,766,436								4,356		\$169,390	
3. Supplies and Site Visits																	
Supplies																	
4 month season													3			\$869	
5 month season													44			\$15,934	
6 month season													170			\$73,875	
7 month season													443			\$224,595	
8 month season													187			\$108,350	
9 month season													7			\$4,563	
12 month season													337			\$292,893	
Routine site visits																	
4 month season					120	\$5,538							3	120	\$5,538		
5 month season					2,200	\$101,539							44	2,200	\$101,539		
6 month season					10,200	\$470,770							170	10,200	\$470,770		
7 month season					31,010	\$1,431,232							443	31,010	\$1,431,232		
8 month season					14,960	\$690,462							187	14,960	\$690,462		
9 month season					630	\$29,077							7	630	\$29,077		
12 month season					40,440	\$1,866,463							337	40,440	\$1,866,463		
Element #3 totals					99,560	\$4,595,082								99,560		\$4,595,082	
4. Maintenance																	
Spare parts/supplies																	
4 month season													3			\$1,086	
5 month season													44			\$19,917	
6 month season													170			\$92,344	
7 month season													443			\$280,744	
8 month season													187			\$135,438	
9 month season													7			\$5,704	
12 month season													337			\$366,117	
Remedial repairs																	
4 month season					12	\$570							3	12	\$570		
5 month season					220	\$10,457							44	220	\$10,457		
6 month season					1,020	\$48,481							170	1,020	\$48,481		
7 month season					3,101	\$147,391							443	3,101	\$147,391		
8 month season					1,496	\$71,105							187	1,496	\$71,105		
9 month season					63	\$2,994							7	63	\$2,994		
12 month season					4,044	\$192,211							337	4,044	\$192,211		

Table 7.0, Summary of PM-10 2007-2009 Monitoring Costs

Aug 2006

Cost Element	2007				2008				2009				Average 2007-2009 PM-10			
	Summary PM-10		Summary PM-10		Summary PM-10		Summary PM-10		Summary PM-10		Summary PM-10		Summary PM-10		Summary PM-10	
	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 \$	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$
1. Network Design																
Network design (reporting org)	591	\$33,656			591	\$34,301			591	\$34,996			591	\$34,318		
Site selection (reporting org)	197	\$8,898			197	\$9,068			197	\$9,252			197	\$9,073		
Element #1 totals	789	\$42,554			789	\$43,369			789	\$44,249			789	\$43,391		
2. Site Installation																
Analyzer																
PM-10 sampler				\$1,035,173				\$896,866				\$640,200				\$857,413
PM-10 sampler spares				\$51,759				\$44,843				\$32,010				\$42,871
PM-10 sampler (continuous)				\$475,474				\$484,575				\$494,405				\$484,818
PM-10 sampler (continuous) spares				\$23,774				\$24,229				\$24,720				\$24,241
Sampling platform				\$291,051				\$281,411				\$200,984				\$257,816
Procurement	865	\$39,774			752	\$35,223			532	\$25,430			716	\$33,476		
Equipment installation																
PM-10 sampler	721	\$30,679			613	\$26,580			429	\$18,973			587	\$25,411		
PM-10 sampler (continuous)	259	\$13,319			259	\$13,574			259	\$13,849			259	\$13,580		
Element #2 totals	1,844	\$63,772		\$1,877,230	1,623	\$75,376		\$1,731,925	1,219	\$58,253		\$1,392,319	1,562	\$72,467		\$1,667,158
3. Sampling & analysis																
Filter cost																
Filter (1/1) & acceptance testing			\$80,962					\$70,135				\$50,090				\$67,062
Filter (1/2) & acceptance testing			\$3,238					\$2,805				\$2,004				\$2,682
Filter (1/3) & acceptance testing			\$29,551					\$25,599				\$18,283				\$24,478
Filter (1/6) & acceptance testing			\$161,316					\$139,743				\$99,805				\$133,621
Filter tape continuous			\$94,554					\$96,364				\$98,319				\$98,413
Site visits																
Routine site visits (1/1)	9,000	\$414,916			7,650	\$359,430			5,355	\$256,705			7,335	\$343,684		
Routine site visits (1/2)	720	\$33,193			612	\$28,754			428	\$20,536			587	\$27,495		
Routine site visits (1/3)	13,140	\$640,976			\$11,169	\$555,259			7,818	\$396,566			10,709	\$530,934		
Routine site visits (1/6)	143,460	\$6,998,058			\$121,941	\$6,062,215			85,359	\$4,329,633			116,920	\$5,796,635		
Routine site visits (continuous)	5,792	\$268,156			\$5,792	\$273,289			5,792	\$278,833			5,792	\$273,426		
Laboratory service																
Microbalance				\$112,928				\$115,090				\$117,424				\$115,147
Laboratory																
PM-10 sampler 1/1	3,600	\$153,742			3,060	\$133,183			2,142	\$95,119			2,934	\$127,348		
PM-10 sampler 1/2	144	\$6,150			122	\$5,327			86	\$3,805			117	\$5,094		
PM-10 sampler 1/3	1,168	\$49,881			993	\$43,210			695	\$30,861			952	\$41,317		
PM-10 sampler 1/6 & collocated	6,376	\$272,295			\$5,420	\$235,881			3,794	\$168,466			5,196	\$225,547		
Element #3 totals	183,400	\$8,837,368		\$369,621	156,759	\$7,696,549		\$334,647	111,469	\$5,580,524		\$268,501	150,543	\$7,371,480		\$324,256
4. Maintenance																
Spare parts/supplies																
PM-10 sampler 1/1			\$658,224					\$539,790				\$385,518				\$527,844
PM-10 sampler 1/2			\$14,105					\$12,219				\$8,727				\$11,683
PM-10 sampler 1/3			\$83,897					\$68,696				\$49,062				\$67,218
PM-10 sampler 1/6 & collocated			\$129,069					\$106,057				\$75,746				\$103,624
PM-10 continuous			\$104,955					\$106,964				\$109,134				\$107,018
Remedial repairs																
PM-10 sampler 1/1	10,800	\$460,757			8,690	\$377,853			6,083	\$269,862			8,525	\$369,491		
PM-10 sampler 1/2	324	\$13,823			275	\$11,974			193	\$8,552			264	\$11,450		
PM-10 sampler 1/3	1,752	\$74,745			\$1,408	\$61,202			985	\$43,710			1,382	\$59,886		
PM-10 sampler 1/6 & collocated	4,782	\$204,013			\$3,856	\$167,639			2,699	\$119,728			3,779	\$163,793		
PM-10 continuous	1,358	\$64,959			\$1,358	\$66,202			1,358	\$67,545			1,358	\$66,236		

Table 7.0, Summary of PM-10 2007-2009 Monitoring Costs

Aug 2006

Cost Element	2007						2008						2009						
	Summary PM-10			Summary PM-10			Summary PM-10			Summary PM-10			Summary PM-10			Summary PM-10			
	Labor Hours	Labor Costs	Equip/Contract \$	Labor Hours	Labor Costs	Equip/Contract \$	Labor Hours	Labor Costs	Equip/Contract \$	Labor Hours	Labor Costs	Equip/Contract \$	Labor Hours	Labor Costs	Equip/Contract \$	Labor Hours	Labor Costs	Equip/Contract \$	
PM-10 continuous	724	\$39,713		724	\$40,473		724	\$41,294		724	\$40,493		724	\$40,493		724	\$40,493		
Training																			
PM-10 sampler 1/1	300	\$15,437		\$255	\$13,373		179	\$9,551		245	\$12,787		245	\$12,787		245	\$12,787		
PM-10 sampler 1/2	24	\$1,235		\$20	\$1,070		14	\$764		20	\$1,023		20	\$1,023		20	\$1,023		
PM-10 sampler 1/3	292	\$15,025		\$248	\$13,016		174	\$9,296		238	\$12,446		238	\$12,446		238	\$12,446		
PM-10 sampler 1/6 & collocated	2,560	\$131,728		\$2,176	\$114,112		1,523	\$81,499		2,086	\$109,113		2,086	\$109,113		2,086	\$109,113		
PM-10 continuous	905	\$45,764		\$905	\$46,640		905	\$47,566		905	\$46,664		905	\$46,664		905	\$46,664		
Element # 6 totals	27,594	\$1,436,560	\$4,904	24,101	\$1,276,814	\$4,846	18,164	\$977,939	\$4,068	23,286	\$1,230,438	\$4,068	23,286	\$1,230,438	\$4,068	23,286	\$1,230,438	\$4,068	
7. Supervision																			
Planning/coordination																			
PM-10 sampler 1/1	300	\$16,456		\$255	\$14,255		179	\$10,181		245	\$13,631		245	\$13,631		245	\$13,631		
PM-10 sampler 1/2	24	\$1,316		\$20	\$1,140		14	\$814		20	\$1,090		20	\$1,090		20	\$1,090		
PM-10 sampler 1/3	292	\$16,017		\$248	\$13,875		174	\$9,909		238	\$13,267		238	\$13,267		238	\$13,267		
PM-10 sampler 1/6 & collocated	2,560	\$140,421		\$2,176	\$121,643		1,523	\$86,877		2,086	\$116,314		2,086	\$116,314		2,086	\$116,314		
PM-10 continuous	3,258	\$181,923		\$3,258	\$185,405		3,258	\$189,166		3,258	\$185,498		3,258	\$185,498		3,258	\$185,498		
Supervision/review																			
PM-10 sampler 1/1	450	\$26,799		\$383	\$23,215		268	\$16,580		367	\$22,198		367	\$22,198		367	\$22,198		
PM-10 sampler 1/2	36	\$2,144		\$31	\$1,857		21	\$1,326		29	\$1,776		29	\$1,776		29	\$1,776		
PM-10 sampler 1/3	438	\$26,084		\$372	\$22,596		261	\$16,138		357	\$21,606		357	\$21,606		357	\$21,606		
PM-10 sampler 1/6 & collocated	3,840	\$228,686		\$3,264	\$198,104		2,285	\$141,466		3,130	\$189,425		3,130	\$189,425		3,130	\$189,425		
PM-10 continuous	1,086	\$59,380		\$1,086	\$60,517		1,086	\$61,744		1,086	\$60,547		1,086	\$60,547		1,086	\$60,547		
Element #7 totals	12,284	\$699,226		11,093	\$642,608		9,068	\$534,223		10,815	\$625,352		10,815	\$625,352		10,815	\$625,352		
Summary of Burdens and Costs	348,756	\$17,168,831	\$1,995,062	298,871	\$15,005,604	\$1,168,372	218,181	\$11,174,120	\$1,513,811	286,603	\$14,449,519	\$1,141,644	286,603	\$14,449,519	\$1,141,644	286,603	\$14,449,519	\$1,141,644	
Summary Totals			\$20,523,766			\$18,025,837			\$13,584,619			\$13,584,619						\$17,378,074	

Table 7.1, 2007 PM-10 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						Summary PM-10			
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$
1. Network Design																
Network design (reporting org)	138	30	7	\$1,707	591	\$33,656							591	\$33,656		
Site selection (reporting org)	138	10	7	\$451	197	\$8,898							197	\$8,898		
Element #1 totals					789	\$42,554							789	\$42,554		
2. Site Installation																
Analyzer	1,261					\$1,035,173										\$1,035,173
PM-10 sampler	63		7	\$5,746		\$51,759										\$51,759
PM-10 sampler spares	181		7	\$18,388		\$475,474										\$475,474
PM-10 sampler (continuous)	9		7	\$18,388		\$23,774										\$23,774
PM-10 sampler (continuous) spares	975		7	\$2,090		\$291,051										\$291,051
Sampling platform	1,514	4	7	\$184	865	\$39,774							865	\$39,774		
Procurement																
Equipment installation																
PM-10 sampler	1,261	4	7	\$170	721	\$30,679							721	\$30,679		
PM-10 sampler (continuous)	181	10	7	\$515	259	\$13,319							259	\$13,319		
Element #2 totals					1,844	\$1,961,002							1,844	\$83,772		\$1,877,230
3. Sampling & analysis																
Filter cost																
Filter (1/1) & acceptance testing	75														\$80,962	
Filter (1/2) & acceptance testing	6														\$3,238	
Filter (1/3) & acceptance testing	73														\$29,551	
Filter (1/6) & acceptance testing	797														\$161,316	
Filter tape continuous	181														\$94,554	
Site visits																
Routine site visits (1/1)													9,000	\$414,916		
Routine site visits (1/2)													720	\$33,193		
Routine site visits (1/3)													73	\$640,976		
Routine site visits (1/6)													143,460	\$6,998,058		
Routine site visits (continuous)													5,792	\$288,156		
Laboratory service																
Microbalance	1,261		7	\$90		\$112,928										\$112,928
Laboratory																
PM-10 sampler 1/1													3,600	\$153,742		
PM-10 sampler 1/2													144	\$6,150		
PM-10 sampler 1/3													73	\$49,881		
PM-10 sampler 1/6 & collocated													6,376	\$272,295		
Element #3 totals													183,400	\$6,837,368		\$112,928
4. Maintenance																
Spare parts/supplies																
PM-10 sampler 1/1															\$658,224	
PM-10 sampler 1/2															\$14,105	
PM-10 sampler 1/3															\$83,897	
PM-10 sampler 1/6 & collocated															\$129,069	
PM-10 continuous															\$104,955	
Remedial repairs																
PM-10 sampler 1/1													10,800	\$460,757		
PM-10 sampler 1/2													324	\$13,823		
PM-10 sampler 1/3													1,752	\$74,745		
PM-10 sampler 1/6 & collocated													4,782	\$204,013		
PM-10 continuous													1,358	\$64,959		

Table 7.1, 2007 PM-10 Monitoring Costs

Cost Element	Previous Amortized Hours and Costs										New Site Hours and Costs										Summary PM-10		
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Amor. Cost	# Old Plus New	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$				
Routine maintenance																							
PM-10 sampler 1/1														300	10,800	\$460,757	\$460,757						
PM-10 sampler 1/2													18	324	\$13,823	\$13,823							
PM-10 sampler 1/3													146	1,752	\$74,745	\$74,745							
PM-10 sampler 1/6 & collocated													797	4,782	\$204,013	\$204,013							
PM-10 continuous													181	2,534	\$117,626	\$117,626							
Element #4 totals														39,208	\$1,689,259	\$1,689,259	\$990,251						
5. Data Management																							
Data acquisition/processing																							
PM-10 sampler 1/1													300	14,400	\$885,155	\$885,155							
PM-10 sampler 1/2													18	432	\$19,916	\$19,916							
PM-10 sampler 1/3													146	2,336	\$107,694	\$107,694							
PM-10 sampler 1/6 & collocated													797	6,376	\$293,945	\$293,945							
PM-10 continuous													181	2,172	\$106,090	\$106,090							
Data reporting																							
PM-10 sampler 1/1													300	10,800	\$556,669	\$556,669							
PM-10 sampler 1/2													18	324	\$16,700	\$16,700							
PM-10 sampler 1/3													146	1,752	\$90,304	\$90,304							
PM-10 sampler 1/6 & collocated													797	4,782	\$246,481	\$246,481							
PM-10 continuous													181	3,620	\$161,877	\$161,877							
Data validation																							
PM-10 sampler 1/1													300	18,000	\$930,917	\$930,917							
PM-10 sampler 1/2													18	540	\$27,928	\$27,928							
PM-10 sampler 1/3													146	2,920	\$151,015	\$151,015							
PM-10 sampler 1/6 & collocated													797	7,970	\$412,189	\$412,189							
PM-10 continuous													181	3,620	\$180,599	\$180,599							
Data distribution																							
PM-10 sampler 1/1													75	900	\$48,897	\$48,897							
PM-10 sampler 1/2													6	36	\$1,956	\$1,956							
PM-10 sampler 1/3													73	292	\$15,864	\$15,864							
PM-10 sampler 1/6 & collocated													640	1,280	\$69,542	\$69,542							
PM-10 continuous													181	1,086	\$56,354	\$56,354							
Element #5 totals														83,638	\$4,380,092	\$4,380,092	\$2,880,000						
6. Quality Assurance																							
Audit/calibration kit																							
PM-10 sampler													783		\$131	\$131				\$2,959			
PM-10 sampler (continuous)													181		\$376	\$376				\$1,945			
QA plan preparation (RO)													138	16	\$823	\$823				\$22,723			
QA plan review (annual)																							
Audits																							
PM-10 sampler 1/1													75	5,400	\$239,782	\$239,782							
PM-10 sampler 1/2													6	216	\$9,591	\$9,591							
PM-10 sampler 1/3													73	876	\$77,796	\$77,796							
PM-10 sampler 1/6 & collocated													797	7,970	\$424,680	\$424,680							
PM-10 continuous													181	2,172	\$100,039	\$100,039							
Reporting																							
PM-10 sampler 1/1													75	1,800	\$98,734	\$98,734							
PM-10 sampler 1/2													6	72	\$3,949	\$3,949							
PM-10 sampler 1/3													73	584	\$32,034	\$32,034							
PM-10 sampler 1/6 & collocated													797	3,188	\$174,868	\$174,868							

Table 7.2, 2008 PM-10 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						Summary PM-10				
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	
1. Network Design																	
Network design (reporting org)	138	30	7	\$1,740	591	\$34,301							591	\$34,301			
Site selection (reporting org)	138	10	7	\$460	197	\$9,068							197	\$9,068			
Element #1 totals					789	\$43,369							789	\$43,369			
2. Site Installation																	
Analyzer																	
PM-10 sampler	1,072		7	\$5,856		\$896,866										\$896,866	
PM-10 sampler spares	54		7	\$5,856		\$44,843										\$44,843	
PM-10 sampler (continuous)	181		7	\$18,740		\$484,575										\$484,575	
PM-10 sampler (continuous) spares	9		7	\$18,740		\$24,229										\$24,229	
Sampling platform	925		7	\$2,130		\$281,411										\$281,411	
Procurement	1,316	4	7	\$187	752	\$35,223							752	\$35,223			
Equipment installation																	
PM-10 sampler	1,072	4	7	\$174	613	\$26,580							613	\$26,580			
PM-10 sampler (continuous)	181	10	7	\$525	259	\$13,574							259	\$13,574			
Element #2 totals					1,623	\$1,807,301							1,623	\$75,376			\$1,731,925
3. Sampling & analysis																	
Filter cost																	
Filter (1/1) & acceptance testing	64																\$70,135
Filter (1/2) & acceptance testing	5																\$2,805
Filter (1/3) & acceptance testing	62																\$25,599
Filter (1/6) & acceptance testing	677																\$139,743
Filter tape continuous	181																\$96,364
Site visits																	
Routine site visits (1/1)													64				
Routine site visits (1/2)													5				
Routine site visits (1/3)													62				
Routine site visits (1/6)													677				
Routine site visits (continuous)													181				
													64	\$359,430			
													5	\$28,754			
													62	\$555,259			
													677	\$6,062,215			
													181	\$273,289			
Laboratory service																	
Microbalance	1,261		7	\$91		\$115,090											\$115,090
Laboratory																	
PM-10 sampler 1/1													64	\$133,183			
PM-10 sampler 1/2													5	\$5,327			
PM-10 sampler 1/3													62	\$43,210			
PM-10 sampler 1/6 & collocated													677	\$235,881			
Element #3 totals													156,759	\$7,696,549			\$115,090
4. Maintenance																	
Spare parts/supplies																	
PM-10 sampler 1/1													241		\$539,790		
PM-10 sampler 1/2													15		\$12,219		
PM-10 sampler 1/3													117		\$68,696		
PM-10 sampler 1/6 & collocated													643		\$106,057		
PM-10 continuous													181		\$106,964		
Remedial repairs																	
PM-10 sampler 1/1													241	\$377,853			
PM-10 sampler 1/2													15	\$11,974			

Table 7.3, 2009 PM-10 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						Summary PM-10			
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$
1. Network Design																
Network design (reporting org)	138	30	7	\$1,775	591	\$34,996							591	\$34,996		
Site selection (reporting org)	138	10	7	\$469	197	\$9,252							197	\$9,252		
Element #1 totals					789	\$44,249							789	\$44,249		
2. Site Installation																
Analyzer																
PM-10 sampler	750		7	\$5,975		\$640,200										\$640,200
PM-10 sampler spares	38		7	\$5,975		\$32,010										\$32,010
PM-10 sampler (continuous)	181		7	\$19,121		\$494,405										\$494,405
PM-10 sampler (continuous) spares	9		7	\$19,121		\$24,720										\$24,720
Sampling platform	648		7	\$2,173		\$200,984										\$200,984
Procurement	931	4	7	\$191	532	\$25,430							532	\$25,430		
Equipment installation																
PM-10 sampler	750	4	7	\$177	429	\$18,973							429	\$18,973		
PM-10 sampler (continuous)	181	10	7	\$536	259	\$13,849							259	\$13,849		
Element #2 totals					1,219	\$1,450,572							1,219	\$58,253		\$1,392,319
3. Sampling & analysis																
Filter cost																
Filter (1/1) & acceptance testing	45												45		\$50,090	
Filter (1/2) & acceptance testing	4												4		\$2,004	
Filter (1/3) & acceptance testing	43												43		\$18,283	
Filter (1/6) & acceptance testing	474												474		\$99,805	
Filter tape continuous	181												181		\$98,319	
Site visits																
Routine site visits (1/1)													45	\$256,705		
Routine site visits (1/2)													4	\$20,536		
Routine site visits (1/3)													43	\$396,566		
Routine site visits (1/6)													474	\$4,329,633		
Routine site visits (continuous)													181	\$278,833		
Laboratory service																
Microbalance	1,261		7	\$93		\$117,424										\$117,424
Laboratory																
PM-10 sampler 1/1													45	\$95,119		
PM-10 sampler 1/2													4	\$3,805		
PM-10 sampler 1/3													43	\$30,861		
PM-10 sampler 1/6 & collocated													474	\$168,466		
Element #3 totals						\$117,424							111,469	\$5,580,524	\$268,501	\$117,424
4. Maintenance																
Spare parts/supplies																
PM-10 sampler 1/1													169		\$385,518	
PM-10 sampler 1/2													11		\$6,727	
PM-10 sampler 1/3													82		\$49,062	
PM-10 sampler 1/6 & collocated													450		\$75,746	
PM-10 continuous													181		\$109,134	
Remedial repairs																
PM-10 sampler 1/1													169	\$269,862		
PM-10 sampler 1/2													11	\$8,552		
PM-10 sampler 1/3													82	\$43,710		

Table 8.0. Summary of PM-2.5 2007-2009 Monitoring Costs

Aug 2006

Cost Element	2007				2008				2009				Average 2007-2009 PM-2.5			
	Summary PM-2.5				Summary PM-2.5				Summary PM-2.5				Summary PM-2.5			
	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 \$	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$
1. Network Design																
Network design (RO)	326	\$18,513			326	\$18,867			326	\$19,250			326	\$18,876		
Site selection (RO)	130	\$6,761			130	\$6,890			130	\$7,030			130	\$6,894		
Element #1 totals	456	\$25,273			456	\$25,757			456	\$26,280			456	\$25,770		
2. Site Installation																
Analyzer																
PM-2.5 sampler (sequential)				\$1,280,924				\$1,285,061								\$1,285,705
PM-2.5 sampler (sequential) spares				\$189,139				\$192,759								\$192,856
PM-2.5 sampler (single channel)				\$150,451				\$153,331								\$153,408
PM-2.5 sampler (single chan) spare				\$22,568				\$23,000								\$23,011
PM-2.5 sampler (sequential) coll				\$262,693				\$267,721								\$267,855
PM-2.5 sampler (single channel) coll				\$31,344				\$31,944								\$31,960
PM-2.5 sampler (seasonal)				\$27,911				\$28,445								\$28,460
PM-2.5 sampler (continuous)				\$1,469,496				\$1,497,626								\$1,498,376
PM-2.5 sampler (continuous) spares				\$220,424				\$224,644								\$224,756
Speciation sampler (RTI, CA, OR)				\$471,056				\$480,073								\$480,313
Data acquisition (laptop/PDA)				\$65,016				\$66,261								\$66,294
Sampling platform				\$516,430				\$526,315								\$526,579
Procurement	4,886	\$238,321			4,886	\$242,883			4,886	\$247,810			4,886	\$243,004		
Equipment Installation																
Installation (single channel)	199	\$9,090			199	\$9,264			199	\$9,452			199	\$9,268		
Installation (sequential)	1,061	\$48,479			1,061	\$49,407			1,061	\$50,409			1,061	\$49,431		
PM-2.5 sampler (seasonal)	19	\$888			19	\$905			19	\$923			19	\$906		
Installation (continuous)	769	\$29,069			769	\$29,625			769	\$30,226			769	\$29,640		
Installation (speciation)	451	\$20,962			451	\$21,363			451	\$21,797			451	\$21,374		
Element #2 totals	7,384	\$346,808		\$4,687,452	7,384	\$353,447		\$4,777,181	7,384	\$360,617		\$4,874,089	7,384	\$353,624		\$4,779,574
3. Sampling & analysis																
Filter (1/1) & acceptance testing				\$117,540				\$119,790								\$119,850
Filter (1/3) & acceptance testing				\$226,735				\$231,075								\$231,191
Filter (1/6) & acceptance testing				\$25,389				\$25,875								\$25,888
Filter (1/12) & acceptance testing				\$16,749				\$17,070								\$17,079
Filter (seasonal) & acceptance testing				\$6,994				\$7,128								\$7,131
Speciation sampling national contract				\$7,282,329				\$7,422,061								\$7,425,590
Routine site visits (1/1)	22,500	\$1,016,590			22,500	\$1,036,050			22,500	\$1,057,067			22,500	\$1,036,569		
Routine site visits (1/3)	57,870	\$2,614,671			57,870	\$2,664,722			57,870	\$2,718,777			57,870	\$2,666,056		
Routine site visits (1/6)	12,960	\$585,556			12,960	\$596,765			12,960	\$608,871			12,960	\$597,064		
Routine site visits (1/12)	8,550	\$386,304			8,550	\$393,699			8,550	\$401,686			8,550	\$393,896		
Routine site visits (seasonal)	527	\$34,564			527	\$35,226			527	\$35,940			527	\$35,243		
Routine site visits (continuous)	17,216	\$797,061			17,216	\$812,319			17,216	\$828,797			17,216	\$812,728		
Routine site visits (speciation)	47,340	\$2,309,271			47,340	\$2,353,476			47,340	\$2,401,218			47,340	\$2,354,655		
Laboratory service																
Microbalance				\$501,056				\$510,648								\$510,903
Clean room for weighing				\$1,276,149				\$1,300,577								\$1,301,229
Laboratory																
PM-2.5 sampler (sequential) 1/1	240	\$1,425,368			240	\$1,452,653			240	\$1,482,121			240	\$1,453,381		
PM-2.5 sampler (sequential) 1/3	120	\$2,444,032			120	\$2,490,816			120	\$2,541,344			120	\$2,492,064		
PM-2.5 sampler (single channel) 1/6	40	\$273,671			40	\$278,909			40	\$284,567			40	\$279,049		
PM-2.5 sampler (collocated) 1/12	20	\$180,547			20	\$184,003			20	\$187,735			20	\$184,095		
PM-2.5 sampler (seasonal)	140	\$113,079			140	\$115,244			140	\$117,582			140	\$115,302		
Element #3 totals	167,523	\$12,180,715		\$9,059,534	167,523	\$12,413,863		\$9,233,286	167,523	\$12,665,705		\$9,420,346	167,523	\$12,420,101		\$9,237,722

Table 8.0, Summary of PM-2.5 2007-2009 Monitoring Costs

Aug 2006

Cost Element	2007					2008					2009					Average 2007-2009 PM-2.5							
	Summary PM-2.5					Summary PM-2.5					Summary PM-2.5					Summary PM-2.5							
	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 \$		Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$				
4. Maintenance	Spare parts/supplies																						
	PM-2.5 sampler (sequential)	12,992	\$623,436	\$290,872		12,992	\$635,370	\$296,440		12,992	\$648,259	\$302,454		12,992	\$635,689	\$296,589							
	PM-2.5 sampler (single channel)	1,392	\$66,719	\$45,449		1,392	\$67,996	\$46,319		1,392	\$69,375	\$47,258		1,392	\$68,030	\$46,342							
	PM-2.5 sampler (seasonal)	238	\$11,421	\$4,884		238	\$11,639	\$4,978		238	\$11,875	\$5,079		238	\$11,645	\$4,980							
	PM-2.5 sampler (continuous)	5,918	\$309,718	\$87,126		5,918	\$315,647	\$88,794		5,918	\$322,050	\$90,595		5,918	\$315,805	\$88,838							
	PM-2.5 sampler (speciation)	3,682	\$190,699	\$137,391		3,682	\$194,349	\$140,021		3,682	\$198,292	\$142,862		3,682	\$194,447	\$140,091							
	Remedial repairs																						
Routine maintenance	PM-2.5 sampler (sequential)	12,992	\$716,455			12,992	\$732,208			12,992	\$747,061			12,992	\$732,574								
	PM-2.5 sampler (single channel)	1,392	\$100,715			1,392	\$102,642			1,392	\$104,725			1,392	\$102,694								
	PM-2.5 sampler (seasonal)	238	\$13,161			238	\$13,413			238	\$13,665			238	\$13,420								
	PM-2.5 sampler (continuous)	7,532	\$349,628			7,532	\$356,320			7,532	\$363,549			7,532	\$356,499								
	PM-2.5 sampler (speciation)	4,208	\$191,523			4,208	\$195,190			4,208	\$199,149			4,208	\$195,287								
	Element #4 totals	50,584	\$2,575,475	\$585,723		50,584	\$2,624,776	\$576,552		50,584	\$2,678,021	\$588,248		50,584	\$2,626,090	\$576,841							
	5. Data Management	Data acquisition/processing																					
PM-2.5 sampler (sequential) 1/1		15,000	\$696,620			15,000	\$709,955			15,000	\$724,357			15,000	\$710,311								
PM-2.5 sampler (sequential) 1/3		38,580	\$1,194,472			38,580	\$1,217,337			38,580	\$1,242,031			38,580	\$1,217,947								
PM-2.5 sampler (single channel) 1/6		2,592	\$128,786			2,592	\$131,252			2,592	\$133,914			2,592	\$131,317								
PM-2.5 sampler (collocated) 1/12		935	\$87,721			935	\$89,401			935	\$91,214			935	\$89,445								
PM-2.5 sampler (seasonal)		765	\$47,370			765	\$48,277			765	\$49,256			765	\$48,301								
PM-2.5 sampler (continuous)		8,608	\$445,747			8,608	\$454,280			8,608	\$463,495			8,608	\$454,507								
Data reporting	PM-2.5 sampler (sequential) 1/1	3,750	\$173,959			3,750	\$177,289			3,750	\$180,886			3,750	\$177,378								
	PM-2.5 sampler (sequential) 1/3	9,645	\$298,282			9,645	\$303,992			9,645	\$310,159			9,645	\$304,144								
	PM-2.5 sampler (single channel) 1/6	576	\$26,780			576	\$27,293			576	\$27,847			576	\$27,307								
	PM-2.5 sampler (collocated) 1/12	935	\$21,345			935	\$21,754			935	\$22,195			935	\$21,765								
	PM-2.5 sampler (seasonal)	383	\$11,829			383	\$12,056			383	\$12,300			383	\$12,062								
	PM-2.5 sampler (continuous)	6,456	\$327,706			6,456	\$333,979			6,456	\$340,754			6,456	\$334,146								
	Data validation																						
Data distribution	PM-2.5 sampler (sequential) 1/1	7,875	\$548,520			7,875	\$559,020			7,875	\$570,360			7,875	\$559,300								
	PM-2.5 sampler (sequential) 1/3	40,509	\$940,529			40,509	\$958,533			40,509	\$977,977			40,509	\$959,013								
	PM-2.5 sampler (single channel) 1/6	1,728	\$87,713			1,728	\$89,392			1,728	\$91,205			1,728	\$89,437								
	PM-2.5 sampler (collocated) 1/12	935	\$67,646			935	\$68,940			935	\$70,339			935	\$68,975								
	PM-2.5 sampler (seasonal)	1,071	\$37,299			1,071	\$38,013			1,071	\$38,784			1,071	\$38,032								
	PM-2.5 sampler (continuous)	9,146	\$476,944			9,146	\$486,074			9,146	\$495,934			9,146	\$486,317								
	Element #5 totals	2,250	\$164,556			2,250	\$167,706			2,250	\$171,108			2,250	\$167,790								
	11,574	\$282,159			11,574	\$283,393			11,574	\$283,393			11,574	\$287,704									
	288	\$15,647			288	\$15,946			288	\$16,270			288	\$15,954									
	935	\$19,183			935	\$19,550			935	\$19,946			935	\$19,560									
	306	\$11,190			306	\$11,404			306	\$11,635			306	\$11,410									
	2,690	\$145,585			2,690	\$148,371			2,690	\$151,381			2,690	\$148,446									
Element #5 totals	167,532	\$6,257,588			167,532	\$6,377,374			167,532	\$6,506,742			167,532	\$6,380,568									

Table 8.0, Summary of PM-2.5 2007-2009 Monitoring Costs

Cost Element	2007					2008					2009					Equip/Contract \$
	Summary PM-2.5					Summary PM-2.5					Summary PM-2.5					
	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 \$		
6. Quality Assurance																
Audit/calibration kit																
PM-2.5 Filter-based sampler				\$4,951					\$5,045					\$5,148		
PM-2.5 sampler (continuous)				\$1,156				\$1,178						\$1,202		
QA plan preparation (annual)	456	\$25,918			456	\$26,414				456	\$26,950				\$26,427	
QA plan review (annual)	76	\$3,814			76	\$3,887				76	\$3,966				\$3,889	
Audits																
PM-2.5 sampler (sequential)	9,280	\$432,430			9,280	\$440,708				9,280	\$449,648				\$440,929	
PM-2.5 sampler (single channel)	1,740	\$81,081			1,740	\$82,633				1,740	\$84,309				\$82,674	
PM-2.5 sampler (seasonal)	85	\$7,922			85	\$8,073				85	\$8,237				\$8,077	
PM-2.5 sampler (continuous)	5,380	\$247,887			5,380	\$252,632				5,380	\$257,757				\$252,759	
PM-2.5 sampler (speciation)	2,630	\$121,179			2,630	\$123,499				2,630	\$126,004				\$123,561	
Reporting																
PM-2.5 sampler (sequential)	3,712	\$203,611			3,712	\$207,508				3,712	\$211,718				\$207,612	
PM-2.5 sampler (single channel)	696	\$38,177			696	\$38,908				696	\$39,697				\$38,927	
PM-2.5 sampler (seasonal)	34	\$3,730			34	\$3,801				34	\$3,878				\$3,803	
PM-2.5 sampler (continuous)	2,152	\$118,042			2,152	\$120,301				2,152	\$122,741				\$120,361	
PM-2.5 sampler (speciation)	1,052	\$57,704			1,052	\$58,809				1,052	\$60,002				\$58,638	
Implementation/coordination																
PM-2.5 sampler (sequential)	12,064	\$561,384			12,064	\$572,130				12,064	\$583,736				\$572,416	
PM-2.5 sampler (single channel)	2,262	\$105,259			2,262	\$107,274				2,262	\$109,450				\$107,328	
PM-2.5 sampler (seasonal)	111	\$10,284			111	\$10,481				111	\$10,693				\$10,486	
PM-2.5 sampler (continuous)	6,994	\$358,059			6,994	\$364,913				6,994	\$372,316				\$365,096	
PM-2.5 sampler (speciation)	3,419	\$175,036			3,419	\$178,387				3,419	\$182,006				\$178,476	
Training																
PM-2.5 sampler (sequential)	5,568	\$277,298			5,568	\$282,606				5,568	\$288,339				\$282,748	
PM-2.5 sampler (single channel)	1,044	\$51,993			1,044	\$52,989				1,044	\$54,064				\$53,015	
PM-2.5 sampler (seasonal)	102	\$5,080			102	\$5,177				102	\$5,282				\$5,180	
PM-2.5 sampler (continuous)	3,228	\$160,761			3,228	\$163,839				3,228	\$167,162				\$163,921	
PM-2.5 sampler (speciation)	1,578	\$78,588			1,578	\$80,092				1,578	\$81,717				\$80,132	
Element # 6 totals	63,663	\$3,125,237		\$6,107	63,663	\$3,185,061		\$6,224	63,663	\$3,249,672		\$6,350	63,663	\$3,186,657	\$6,227	
7. Supervision																
Planning/coordination																
PM-2.5 sampler (sequential)	11,136	\$612,618			11,136	\$624,345				11,136	\$637,010				\$624,658	
PM-2.5 sampler (single channel)	1,566	\$86,171			1,566	\$87,820				1,566	\$89,602				\$87,864	
PM-2.5 sampler (seasonal)	204	\$11,223			204	\$11,437				204	\$11,669				\$11,443	
PM-2.5 sampler (continuous)	4,842	\$266,437			4,842	\$271,537				4,842	\$277,045				\$271,673	
PM-2.5 sampler (speciation)	3,682	\$213,506			3,682	\$217,593				3,682	\$222,007				\$217,702	
Supervision/review																
PM-2.5 sampler (sequential)	29,689	\$1,230,390			29,689	\$1,253,943				29,689	\$1,279,379				\$1,254,571	
PM-2.5 sampler (single channel)	4,176	\$230,698			4,176	\$235,114				4,176	\$239,884				\$235,232	
PM-2.5 sampler (seasonal)	204	\$11,223			204	\$11,437				204	\$11,669				\$11,443	
PM-2.5 sampler (continuous)	12,912	\$713,308			12,912	\$726,962				12,912	\$741,709				\$727,327	
PM-2.5 sampler (speciation)	3,682	\$213,506			3,682	\$217,593				3,682	\$222,007				\$217,702	
Element # 7 totals	72,093	\$3,589,078			72,093	\$3,657,782			72,093	\$3,731,982			72,093	\$3,659,614		
Summary of Burdens and Costs	529,234	\$28,100,174		\$13,753,092	529,234	\$28,638,079		\$14,016,691	529,234	\$29,219,017		\$997,318	529,234	\$28,652,423	\$977,979	
Summary Totals				\$42,812,395				\$43,632,260					\$44,517,120		\$43,653,925	

Table 8.1, 2007 PM-2.5 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						Summary PM-2.5				
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# Old Plus New	Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$
1. Network Design																	
Network design (RO)	152	15	7	\$853	326	\$18,513								326	\$18,513		
Site selection (RO)	152	6	7	\$311	130	\$6,761								130	\$6,761		
Element #1 totals					456	\$25,273								456	\$25,273		
2. Site Installation																	
Analyzer																	
PM-2.5 sampler (sequential)	768		7	\$11,493		\$1,260,924											\$1,260,924
PM-2.5 sampler (sequential) spares	115		7	\$11,493		\$189,139											\$189,139
PM-2.5 sampler (single channel)	144		7	\$7,314		\$150,451											\$150,451
PM-2.5 sampler (single chan) spare	22		7	\$7,314		\$22,568											\$22,568
PM-2.5 sampler (sequential) coll	160		7	\$11,493		\$262,693											\$262,693
PM-2.5 sampler (single channel) coll	30		7	\$7,314		\$31,344											\$31,344
PM-2.5 sampler (seasonal)	17		7	\$11,493		\$27,911											\$27,911
PM-2.5 sampler (continuous)	538		7	\$19,120		\$1,469,496											\$1,469,496
PM-2.5 sampler (continuous) spares	81		7	\$19,120		\$220,424											\$220,424
Speciation sampler (RTI, CA, OR)	263		7	\$12,538		\$471,056											\$471,056
Data acquisition (laptop/PDA)	1,089		7	\$418		\$65,016											\$65,016
Sampling platform	1,730		7	\$2,090		\$516,430											\$516,430
Procurement	2,138		16	\$780	4,886	\$238,321								4,886	\$238,321		
Equipment installation																	
Installation (single channel)	174		7	\$366	199	\$9,090								199	\$9,090		
Installation (sequential)	928		7	\$366	1,061	\$48,479								1,061	\$48,479		
PM-2.5 sampler (seasonal)	17		7	\$366	19	\$888								19	\$888		
Installation (continuous)	538		7	\$378	769	\$29,069								769	\$29,069		
Installation (speciation)	263		7	\$558	451	\$20,962								451	\$20,962		
Element #2 totals					7,384	\$5,034,260								7,384	\$346,808		\$4,687,452
3. Sampling & analysis																	
Filter (1/1) & acceptance testing	125												125				\$117,540
Filter (1/3) & acceptance testing	643												643				\$226,735
Filter (1/6) & acceptance testing	144												144				\$25,389
Filter (1/12) & acceptance testing	190												190				\$16,749
Filter (seasonal) & acceptance testing	17												17				\$6,994
Speciation sampling national contract																	
Routine site visits (1/1)													125				\$7,282,329
Routine site visits (1/3)													643				\$1,016,590
Routine site visits (1/6)													144				\$2,614,671
Routine site visits (1/12)													190				\$585,556
Routine site visits (seasonal)													17				\$386,304
Routine site visits (continuous)													538				\$34,564
Routine site visits (speciation)													263				\$797,061
Laboratory service													263				\$2,309,271
Microbalance	1,119		7	\$448		\$501,056											\$501,056
Clean room for weighing	114		7	\$11,194		\$1,276,149											\$1,276,149
Laboratory																	
PM-2.5 sampler (sequential) 1/1													125	240	\$1,425,368		
PM-2.5 sampler (sequential) 1/3													643	120	\$2,444,032		
PM-2.5 sampler (single channel) 1/6													144	40	\$273,671		
PM-2.5 sampler (collocated) 1/12													190	20	\$180,547		

Table 8.1, 2007 PM-2.5 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						Summary PM-2.5							
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# Old Plus New	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	
Element #3 totals						\$9,059,534							17	140	\$113,079	167,523	\$12,180,715	\$393,406	\$9,059,534	
4. Maintenance																				
Spare parts/supplies																				
PM-2.5 sampler (sequential)													928	12,992	\$623,436	12,992	\$623,436		\$290,872	
PM-2.5 sampler (single channel)													174	1,392	\$66,719	1,392	\$66,719		\$45,449	
PM-2.5 sampler (seasonal)													17	238	\$11,421	238	\$11,421		\$4,884	
PM-2.5 sampler (continuous)													538	5,918	\$309,718	5,918	\$309,718		\$87,126	
PM-2.5 sampler (speciation)													263	3,682	\$190,699	3,682	\$190,699		\$137,391	
Remedial repairs																				
PM-2.5 sampler (sequential)													928	12,992	\$623,436	12,992	\$623,436		\$290,872	
PM-2.5 sampler (single channel)													174	1,392	\$66,719	1,392	\$66,719		\$45,449	
PM-2.5 sampler (seasonal)													17	238	\$11,421	238	\$11,421		\$4,884	
PM-2.5 sampler (continuous)													538	5,918	\$309,718	5,918	\$309,718		\$87,126	
PM-2.5 sampler (speciation)													263	3,682	\$190,699	3,682	\$190,699		\$137,391	
Routine maintenance																				
PM-2.5 sampler (sequential)													928	12,992	\$623,436	12,992	\$623,436		\$290,872	
PM-2.5 sampler (single channel)													174	1,392	\$66,719	1,392	\$66,719		\$45,449	
PM-2.5 sampler (seasonal)													17	238	\$11,421	238	\$11,421		\$4,884	
PM-2.5 sampler (continuous)													538	5,918	\$309,718	5,918	\$309,718		\$87,126	
PM-2.5 sampler (speciation)													263	3,682	\$190,699	3,682	\$190,699		\$137,391	
Element #4 totals													50,584	50,584	\$2,575,475	50,584	\$2,575,475	\$565,723		
5. Data Management																				
Data acquisition/processing																				
PM-2.5 sampler (sequential) 1/1													125	15,000	\$696,620	15,000	\$696,620			
PM-2.5 sampler (sequential) 1/3													643	38,580	\$1,194,472	38,580	\$1,194,472			
PM-2.5 sampler (single channel) 1/6													144	2,592	\$128,786	2,592	\$128,786			
PM-2.5 sampler (collocated) 1/12													190	935	\$87,721	935	\$87,721			
PM-2.5 sampler (seasonal)													17	765	\$47,370	765	\$47,370			
PM-2.5 sampler (continuous)													538	8,608	\$445,747	8,608	\$445,747			
Data reporting																				
PM-2.5 sampler (sequential) 1/1													125	3,750	\$173,959	3,750	\$173,959			
PM-2.5 sampler (sequential) 1/3													643	9,645	\$298,282	9,645	\$298,282			
PM-2.5 sampler (single channel) 1/6													144	576	\$26,780	576	\$26,780			
PM-2.5 sampler (collocated) 1/12													190	935	\$21,345	935	\$21,345			
PM-2.5 sampler (seasonal)													17	383	\$11,829	383	\$11,829			
PM-2.5 sampler (continuous)													538	6,456	\$327,706	6,456	\$327,706			
Data validation																				
PM-2.5 sampler (sequential) 1/1													125	7,875	\$548,520	7,875	\$548,520			
PM-2.5 sampler (sequential) 1/3													643	40,509	\$940,529	40,509	\$940,529			
PM-2.5 sampler (single channel) 1/6													144	1,728	\$87,713	1,728	\$87,713			
PM-2.5 sampler (collocated) 1/12													190	935	\$67,646	935	\$67,646			
PM-2.5 sampler (seasonal)													17	1,071	\$37,299	1,071	\$37,299			
PM-2.5 sampler (continuous)													538	9,146	\$476,944	9,146	\$476,944			
Data distribution																				
PM-2.5 sampler (sequential) 1/1													125	2,250	\$164,556	2,250	\$164,556			
PM-2.5 sampler (sequential) 1/3													643	11,574	\$282,159	11,574	\$282,159			
PM-2.5 sampler (single channel) 1/6													144	288	\$15,647	288	\$15,647			

Table 8.1, 2007 PM-2.5 Monitoring Costs

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						Summary PM-2.5							
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Amor. Cost	# Old Plus New	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	
PM-2.5 sampler (collocated) 1/12														935	\$19,183		935	\$19,183		
PM-2.5 sampler (seasonal)													17	\$11,199		306	\$11,190			
PM-2.5 sampler (continuous)													538	\$145,585		2,690	\$145,585			
Element #5 totals														167,532	\$6,257,588		167,532	\$6,257,588		
6. Quality Assurance																				
Audit/calibration kit																				
PM-2.5 Filter based sampler	1,382		7	\$125		\$4,951														
PM-2.5 sampler (continuous)	538		7	\$75		\$1,156														
QA plan preparation (RO)	152	15	5	\$853	456	\$25,918														
QA plan review (annual)																				
Audits																				
PM-2.5 sampler (sequential)																				
PM-2.5 sampler (single channel)																				
PM-2.5 sampler (seasonal)																				
PM-2.5 sampler (continuous)																				
PM-2.5 sampler (specialion)																				
Reporting																				
PM-2.5 sampler (sequential)																				
PM-2.5 sampler (single channel)																				
PM-2.5 sampler (seasonal)																				
PM-2.5 sampler (continuous)																				
PM-2.5 sampler (specialion)																				
Implementation/coordination																				
PM-2.5 sampler (sequential)																				
PM-2.5 sampler (single channel)																				
PM-2.5 sampler (seasonal)																				
PM-2.5 sampler (continuous)																				
PM-2.5 sampler (specialion)																				
Training																				
PM-2.5 sampler (sequential)																				
PM-2.5 sampler (single channel)																				
PM-2.5 sampler (seasonal)																				
PM-2.5 sampler (continuous)																				
PM-2.5 sampler (specialion)																				
Element #6 totals					456	\$32,025								63,207	\$3,059,319		\$3,125,237		\$6,107	
7. Supervision																				
Planning/coordination																				
PM-2.5 sampler (sequential)																				
PM-2.5 sampler (single channel)																				
PM-2.5 sampler (seasonal)																				
PM-2.5 sampler (continuous)																				
PM-2.5 sampler (specialion)																				
Supervision/review																				
PM-2.5 sampler (sequential)																				
PM-2.5 sampler (single channel)																				
PM-2.5 sampler (seasonal)																				
PM-2.5 sampler (continuous)																				
PM-2.5 sampler (specialion)																				
Element #7 totals																				
Supervision/review																				
PM-2.5 sampler (sequential)																				
PM-2.5 sampler (single channel)																				
PM-2.5 sampler (seasonal)																				
PM-2.5 sampler (continuous)																				
PM-2.5 sampler (specialion)																				
Element #8 totals																				
Supervision/review																				
PM-2.5 sampler (sequential)																				
PM-2.5 sampler (single channel)																				
PM-2.5 sampler (seasonal)																				
PM-2.5 sampler (continuous)																				
PM-2.5 sampler (specialion)																				

Table 8.2, 2008 PM-2.5 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						Summary PM-2.5							
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Amor. Cost	# Old Plus New	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	
1. Network Design																				
Network design (RO)	152	15	7	\$869	326	\$18,867										326	\$18,867			
Site selection (RO)	152	6	7	\$317	130	\$6,890										130	\$6,890			
Element #1 totals					456	\$25,757										456	\$25,757			
2. Site Installation																				
Analyzer																				
PM-2.5 sampler (sequential)	768		7	\$11,713		\$1,285,061													\$1,285,061	
PM-2.5 sampler (sequential) spares	115		7	\$11,713		\$192,759													\$192,759	
PM-2.5 sampler (single channel)	144		7	\$7,454		\$153,331													\$153,331	
PM-2.5 sampler (single chan) spare	22		7	\$7,454		\$23,000													\$23,000	
PM-2.5 sampler (sequential) coil	160		7	\$11,713		\$267,721													\$267,721	
PM-2.5 sampler (single channel) coil	30		7	\$7,454		\$31,944													\$31,944	
PM-2.5 sampler (seasonal)	17		7	\$11,713		\$28,445													\$28,445	
PM-2.5 sampler (continuous)	538		7	\$19,486		\$1,497,626													\$1,497,626	
PM-2.5 sampler (continuous) spares	81		7	\$19,486		\$224,644													\$224,644	
Speciation sampler (RTI, CA, OR)	263		7	\$12,778		\$480,073													\$480,073	
Data acquisition (laptop/PDA)	1,089		7	\$426		\$66,261													\$66,261	
Sampling platform	1,730		7	\$2,130		\$526,315													\$526,315	
Procurement	2,138	16	7	\$795	4,886	\$242,883										4,886	\$242,883			
Equipment Installation																				
Installation (single channel)	174	8	7	\$373	199	\$9,264										199	\$9,264			
Installation (sequential)	928	8	7	\$373	1,061	\$49,407										1,061	\$49,407			
PM-2.5 sampler (seasonal)	17	8	7	\$373	19	\$905										19	\$905			
Installation (continuous)	538	10	7	\$385	769	\$29,625										769	\$29,625			
Installation (speciation)	263	12	7	\$569	451	\$21,363										451	\$21,363			
Element #2 totals	9,014	62		\$126,384	7,384	\$5,130,628										7,384	\$353,447		\$4,777,181	
3. Sampling & analysis																				
Filter (1/1) & acceptance testing	125												125					\$119,790		
Filter (1/3) & acceptance testing	643												643					\$231,075		
Filter (1/6) & acceptance testing	144												144					\$25,875		
Filter (1/12) & acceptance testing	190												190					\$17,070		
Filter (seasonal) & acceptance testing	17												17					\$7,128		
Speciation sampling national contract						\$7,422,061													\$7,422,061	
Routine site visits (1/1)					22,500	\$1,036,050							125	22,500	\$1,036,050	22,500	\$1,036,050			
Routine site visits (1/3)					57,870	\$2,664,722							643	57,870	\$2,664,722	57,870	\$2,664,722			
Routine site visits (1/6)					12,960	\$596,765							144	12,960	\$596,765	12,960	\$596,765			
Routine site visits (1/12)					8,550	\$393,699							190	8,550	\$393,699	8,550	\$393,699			
Routine site visits (seasonal)					527	\$35,226							17	527	\$35,226	527	\$35,226			
Routine site visits (continuous)					17,216	\$812,319							538	17,216	\$812,319	17,216	\$812,319			
Routine site visits (speciation)					47,340	\$2,353,476							263	47,340	\$2,353,476	47,340	\$2,353,476			
Laboratory service																				
Microbalance	1,119		7	\$456		\$510,648													\$510,648	
Clean room for weighing	114		7	\$11,409		\$1,300,577													\$1,300,577	
Laboratory																				
PM-2.5 sampler (sequential) 1/1					240	\$1,452,653							125	240	\$1,452,653	240	\$1,452,653			
PM-2.5 sampler (sequential) 1/3					120	\$2,490,816							643	120	\$2,490,816	120	\$2,490,816			
PM-2.5 sampler (single channel) 1/6					40	\$278,909							144	40	\$278,909	40	\$278,909			

Table 8.2, 2008 PM-2.5 Monitoring Costs

Cost Element	Previous Amortized Hours and Costs					New Site Hours and Costs					Summary PM-2.5								
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# Old Plus New	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$
PM-2.5 sampler (collocated) 1/12													19	20	\$184,003	20	\$184,003		
PM-2.5 sampler (seasonal)													17	140	\$115,244	140	\$115,244		
Element #3 totals						\$9,233,286							167,523	167,523	\$12,413,883	167,523	\$12,413,883	\$400,937	\$9,233,286
4. Maintenance																			
Spare parts/supplies																			
PM-2.5 sampler (sequential)													928					\$296,440	
PM-2.5 sampler (single channel)													174					\$46,319	
PM-2.5 sampler (seasonal)													17					\$4,978	
PM-2.5 sampler (continuous)													538					\$88,794	
PM-2.5 sampler (speciation)													263					\$140,021	
Remedial repairs																			
PM-2.5 sampler (sequential)													928	12,992	\$635,370	12,992	\$635,370		
PM-2.5 sampler (single channel)													174	1,392	\$67,996	1,392	\$67,996		
PM-2.5 sampler (seasonal)													17	238	\$11,639	238	\$11,639		
PM-2.5 sampler (continuous)													538	5,918	\$315,647	5,918	\$315,647		
PM-2.5 sampler (speciation)													263	3,682	\$194,349	3,682	\$194,349		
Routine maintenance																			
PM-2.5 sampler (sequential)													928	12,992	\$732,208	12,992	\$732,208		
PM-2.5 sampler (single channel)													174	1,392	\$102,642	1,392	\$102,642		
PM-2.5 sampler (seasonal)													17	238	\$13,413	238	\$13,413		
PM-2.5 sampler (continuous)													538	7,532	\$356,320	7,532	\$356,320		
PM-2.5 sampler (speciation)													263	4,208	\$195,190	4,208	\$195,190		
Element #4 totals													50,584	50,584	\$2,624,776	50,584	\$2,624,776	\$576,552	
5. Data Management																			
Data acquisition/processing																			
PM-2.5 sampler (sequential) 1/1													125	15,000	\$709,955	15,000	\$709,955		
PM-2.5 sampler (sequential) 1/3													643	38,580	\$1,217,337	38,580	\$1,217,337		
PM-2.5 sampler (single channel) 1/6													144	2,592	\$131,252	2,592	\$131,252		
PM-2.5 sampler (collocated) 1/12													190	935	\$89,401	935	\$89,401		
PM-2.5 sampler (seasonal)													17	765	\$48,277	765	\$48,277		
PM-2.5 sampler (continuous)													538	8,608	\$454,280	8,608	\$454,280		
Data reporting																			
PM-2.5 sampler (sequential) 1/1													125	3,750	\$177,289	3,750	\$177,289		
PM-2.5 sampler (sequential) 1/3													643	9,645	\$303,992	9,645	\$303,992		
PM-2.5 sampler (single channel) 1/6													144	576	\$27,293	576	\$27,293		
PM-2.5 sampler (collocated) 1/12													190	935	\$21,754	935	\$21,754		
PM-2.5 sampler (seasonal)													17	383	\$12,056	383	\$12,056		
PM-2.5 sampler (continuous)													538	6,456	\$333,979	6,456	\$333,979		
Data validation																			
PM-2.5 sampler (sequential) 1/1													125	7,875	\$559,020	7,875	\$559,020		
PM-2.5 sampler (sequential) 1/3													643	40,509	\$958,533	40,509	\$958,533		
PM-2.5 sampler (single channel) 1/6													144	1,728	\$89,392	1,728	\$89,392		
PM-2.5 sampler (collocated) 1/12													190	935	\$68,940	935	\$68,940		
PM-2.5 sampler (seasonal)													17	1,071	\$38,013	1,071	\$38,013		
PM-2.5 sampler (continuous)													538	9,146	\$486,074	9,146	\$486,074		
Data distribution																			
PM-2.5 sampler (sequential) 1/1													125	2,250	\$167,706	2,250	\$167,706		

Table 8.2, 2008 PM-2.5 Monitoring Costs

Cost Element	Previous Amortized Hours and Costs							New Site Hours and Costs							Summary PM-2.5					
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Amor. Cost	# Old Plus New	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	
6. Quality Assurance																				
Audit/calibration kit																				
PM-2.5 Filter-based sampler	1,382		7	\$128		\$5,045														\$5,045
PM-2.5 sampler (continuous)	538		7	\$77		\$1,178														\$1,178
QA plan preparation (RO)																				
QA plan review (annual)	152	15	5	\$869	456	\$26,414														\$26,414
Audits													152	76	\$3,887	76	\$3,887			
PM-2.5 sampler (sequential)													928	9,280	\$440,708	9,280	\$440,708			
PM-2.5 sampler (single channel)													174	1,740	\$82,633	1,740	\$82,633			
PM-2.5 sampler (seasonal)													17	85	\$8,073	85	\$8,073			
PM-2.5 sampler (continuous)													538	5,380	\$252,632	5,380	\$252,632			
PM-2.5 sampler (speciation)													263	2,630	\$123,499	2,630	\$123,499			
Reporting																				
PM-2.5 sampler (sequential)													928	3,712	\$207,508	3,712	\$207,508			
PM-2.5 sampler (single channel)													174	696	\$38,908	696	\$38,908			
PM-2.5 sampler (seasonal)													17	34	\$3,801	34	\$3,801			
PM-2.5 sampler (continuous)													538	2,152	\$120,301	2,152	\$120,301			
PM-2.5 sampler (speciation)													263	1,052	\$58,809	1,052	\$58,809			
Implementation/coordination																				
PM-2.5 sampler (sequential)													928	12,064	\$572,130	12,064	\$572,130			
PM-2.5 sampler (single channel)													174	2,262	\$107,274	2,262	\$107,274			
PM-2.5 sampler (seasonal)													17	111	\$10,481	111	\$10,481			
PM-2.5 sampler (continuous)													538	6,994	\$364,913	6,994	\$364,913			
PM-2.5 sampler (speciation)													263	3,419	\$178,387	3,419	\$178,387			
Training																				
PM-2.5 sampler (sequential)													928	5,568	\$282,606	5,568	\$282,606			
PM-2.5 sampler (single channel)													174	1,044	\$52,989	1,044	\$52,989			
PM-2.5 sampler (seasonal)													17	102	\$5,177	102	\$5,177			
PM-2.5 sampler (continuous)													538	3,228	\$163,839	3,228	\$163,839			
PM-2.5 sampler (speciation)													263	1,578	\$80,092	1,578	\$80,092			
Element # 6 totals					456	\$32,638							63,207	\$3,158,648	63,663	\$3,185,061				\$6,224
7. Supervision																				
Planning/coordination																				
PM-2.5 sampler (sequential)													928	11,136	\$624,345	11,136	\$624,345			
PM-2.5 sampler (single channel)													174	1,566	\$87,820	1,566	\$87,820			
PM-2.5 sampler (seasonal)													17	204	\$11,437	204	\$11,437			
PM-2.5 sampler (continuous)													538	4,842	\$271,537	4,842	\$271,537			
PM-2.5 sampler (speciation)													263	3,682	\$217,593	3,682	\$217,593			
Supervisor/review																				
PM-2.5 sampler (sequential)													928	29,689	\$1,253,943	29,689	\$1,253,943			
PM-2.5 sampler (single channel)													174	4,176	\$235,114	4,176	\$235,114			

Table 8.2, 2008 PM-2.5 Monitoring Costs

Cost Element	Previous Amortized Hours and Costs				New Site Hours and Costs				Summary PM-2.5											
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# Old Plus New	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	
PM-2.5 sampler (seasonal)													17	204	\$11,437	204	\$11,437			
PM-2.5 sampler (continuous)													538	12,912	\$726,962	12,912	\$726,962			
PM-2.5 sampler (specialion)													263	3,682	\$217,593	3,682	\$217,593			
Element #7 totals														72,093	\$3,657,782	72,093	\$3,657,782			
Summary of Burdens and Costs					8,296	\$14,422,309								520,938	\$28,232,462	529,234	\$28,638,079	\$977,489	\$14,016,691	
Summary Totals																				\$43,632,260

Table 8.3, 2009 PM-2.5 Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						Summary PM-2.5							
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# Old Plus New	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	
1. Network Design																				
Network design (RO)	152	15	7	\$887	326	\$19,250								326			\$19,250			
Site selection (RO)	152	6	7	\$324	130	\$7,030								130			\$7,030			
Element #1 totals					456	\$26,280								456			\$26,280			
2. Site Installation																				
Analyzer																				
PM-2.5 sampler (sequential)	768		7	\$11,950		\$1,311,130													\$1,311,130	
PM-2.5 sampler (sequential) spares	115		7	\$11,950		\$196,669													\$196,669	
PM-2.5 sampler (single channel)	144		7	\$7,605		\$156,442													\$156,442	
PM-2.5 sampler (single chan) spare	22		7	\$7,605		\$23,466													\$23,466	
PM-2.5 sampler (sequential) coil	160		7	\$11,950		\$273,152													\$273,152	
PM-2.5 sampler (single channel) coil	30		7	\$7,605		\$32,592													\$32,592	
PM-2.5 sampler (seasonal)	538		7	\$11,950		\$29,022													\$29,022	
PM-2.5 sampler (continuous)	17		7	\$19,881		\$1,528,006													\$1,528,006	
PM-2.5 sampler (continuous) spares	81		7	\$19,881		\$229,201													\$229,201	
Specification sampler (RTI, CA, OR)	263		7	\$13,037		\$489,811													\$489,811	
Data acquisition (laptop/PDA)	1,089		7	\$435		\$67,605													\$67,605	
Sampling platform	1,730		7	\$2,173		\$536,992													\$536,992	
Procurement	2,138	16	7	\$812	4,866	\$247,810								4,866			\$247,810			
Equipment installation																				
Installation (single channel)	174	8	7	\$380	199	\$9,452								199			\$9,452			
Installation (sequential)	928	8	7	\$380	1,061	\$50,409								1,061			\$50,409			
PM-2.5 sampler (seasonal)	17	8	7	\$380	19	\$923								19			\$923			
Installation (continuous)	538	10	7	\$393	769	\$30,226								769			\$30,226			
Installation (speciation)	263	12	7	\$580	451	\$21,797								451			\$21,797			
Element #2 totals	9,014	62		\$128,948	7,384	\$5,234,705								7,384			\$360,617		\$4,874,089	
3. Sampling & analysis																				
Filter (1/1) & acceptance testing	125												125						\$122,220	
Filter (1/3) & acceptance testing	643												643						\$235,762	
Filter (1/6) & acceptance testing	144												144						\$26,400	
Filter (1/12) & acceptance testing	190												190						\$17,416	
Filter (seasonal) & acceptance testing	17												17						\$7,272	
Specification sampling national contract						\$7,572,360													\$7,572,360	
Routine site visits (1/1)													125	22,500			\$1,057,067			
Routine site visits (1/3)													643	57,870			\$2,718,777			
Routine site visits (1/6)													144	12,960			\$608,871			
Routine site visits (1/12)													190	8,550			\$401,686			
Routine site visits (seasonal)													17	527			\$35,940			
Routine site visits (continuous)													538	17,216			\$828,797			
Routine site visits (speciation)													263	47,340			\$2,401,218			
Laboratory service																				
Microbalance	1,119		7	\$466		\$521,006													\$521,006	
Clean room for weighing	114		7	\$11,640		\$1,326,960													\$1,326,960	
Laboratory																				
PM-2.5 sampler (sequential) 1/1													125	240			\$1,482,121			
PM-2.5 sampler (sequential) 1/3													643	120			\$2,541,344			
PM-2.5 sampler (single channel) 1/6													144	40			\$284,567			
PM-2.5 sampler (collocated) 1/12													190	20			\$187,735			
PM-2.5 sampler (seasonal)													17	140			\$117,582			

Table 8.3, 2009 PM-2.5 Monitoring Costs

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						Summary PM-2.5				
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Amor. Cost	# Old Plus New	Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$
Element #3 totals						\$9,420,346								167,523	\$12,665,705	\$409,070	\$9,420,346
4. Maintenance																	
Spare parts/supplies																	
PM-2.5 sampler (sequential)													928			\$302,454	
PM-2.5 sampler (single channel)													174			\$47,258	
PM-2.5 sampler (seasonal)													17			\$5,079	
PM-2.5 sampler (continuous)													538			\$90,595	
PM-2.5 sampler (speciation)													263			\$142,862	
Remedial repairs																	
PM-2.5 sampler (sequential)													928	12,992	\$648,259		
PM-2.5 sampler (single channel)													174	1,392	\$69,375		
PM-2.5 sampler (seasonal)													17	238	\$11,875		
PM-2.5 sampler (continuous)													538	5,918	\$322,050		
PM-2.5 sampler (speciation)													263	3,682	\$198,292		
Routine maintenance																	
PM-2.5 sampler (sequential)													928	12,992	\$747,061		
PM-2.5 sampler (single channel)													174	1,392	\$104,725		
PM-2.5 sampler (seasonal)													17	238	\$13,685		
PM-2.5 sampler (continuous)													538	7,532	\$363,549		
PM-2.5 sampler (speciation)													263	4,208	\$199,149		
Element #4 totals													50,584	\$2,678,021	\$588,248		
5. Data Management																	
Data acquisition/processing																	
PM-2.5 sampler (sequential) 1/1													125	15,000	\$724,357		
PM-2.5 sampler (sequential) 1/3													643	38,580	\$1,242,031		
PM-2.5 sampler (single channel) 1/6													144	2,592	\$133,914		
PM-2.5 sampler (collocated) 1/12													190	935	\$91,214		
PM-2.5 sampler (seasonal)													17	765	\$49,256		
PM-2.5 sampler (continuous)													538	8,608	\$463,495		
Data reporting																	
PM-2.5 sampler (sequential) 1/1													125	3,750	\$180,886		
PM-2.5 sampler (sequential) 1/3													643	9,645	\$310,159		
PM-2.5 sampler (single channel) 1/6													144	576	\$27,847		
PM-2.5 sampler (collocated) 1/12													190	935	\$22,195		
PM-2.5 sampler (seasonal)													17	383	\$12,300		
PM-2.5 sampler (continuous)													538	6,456	\$340,754		
Data validation																	
PM-2.5 sampler (sequential) 1/1													125	7,875	\$570,360		
PM-2.5 sampler (sequential) 1/3													643	40,509	\$977,977		
PM-2.5 sampler (single channel) 1/6													144	1,728	\$91,205		
PM-2.5 sampler (collocated) 1/12													190	935	\$70,339		
PM-2.5 sampler (seasonal)													17	1,071	\$38,784		
PM-2.5 sampler (continuous)													538	9,146	\$495,934		
Data distribution																	
PM-2.5 sampler (sequential) 1/1													125	2,250	\$171,108		
PM-2.5 sampler (sequential) 1/3													643	11,574	\$293,393		
PM-2.5 sampler (single channel) 1/6													144	288	\$16,270		
PM-2.5 sampler (collocated) 1/12													190	935	\$19,946		
PM-2.5 sampler (seasonal)													17	306	\$11,635		

Table 8.3, 2009 PM-2.5 Monitoring Costs

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						Summary PM-2.5					
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# Old Plus New	Hours	Labor	Non-labor O & M	Equip/ Contract \$	
Element #5 totals																		
6. Quality Assurance																		
Audit/calibration kit																		
PM-2.5 Filter based sampler	1,382		7	\$130		\$5,148												\$5,148
PM-2.5 sampler (continuous)	538		7	\$78		\$1,202												\$1,202
QA plan preparation (RO)	152	15	5	\$887	456	\$26,950												
QA plan review (annual)																		
Audits																		
PM-2.5 sampler (sequential)																		
PM-2.5 sampler (single channel)																		
PM-2.5 sampler (seasonal)																		
PM-2.5 sampler (continuous)																		
PM-2.5 sampler (speciation)																		
Reporting																		
PM-2.5 sampler (sequential)																		
PM-2.5 sampler (single channel)																		
PM-2.5 sampler (seasonal)																		
PM-2.5 sampler (continuous)																		
PM-2.5 sampler (speciation)																		
Implementation/coordination																		
PM-2.5 sampler (sequential)																		
PM-2.5 sampler (single channel)																		
PM-2.5 sampler (seasonal)																		
PM-2.5 sampler (continuous)																		
PM-2.5 sampler (speciation)																		
Training																		
PM-2.5 sampler (sequential)																		
PM-2.5 sampler (single channel)																		
PM-2.5 sampler (seasonal)																		
PM-2.5 sampler (continuous)																		
PM-2.5 sampler (speciation)																		
Element #6 totals					456	\$33,300												\$6,350
7. Supervision																		
Planning/coordination																		
PM-2.5 sampler (sequential)																		
PM-2.5 sampler (single channel)																		
PM-2.5 sampler (seasonal)																		
PM-2.5 sampler (continuous)																		
PM-2.5 sampler (speciation)																		
Supervision/review																		
PM-2.5 sampler (sequential)																		
PM-2.5 sampler (single channel)																		
PM-2.5 sampler (seasonal)																		
PM-2.5 sampler (continuous)																		
PM-2.5 sampler (speciation)																		
Element #7 totals																		
Summary of Burdens and Costs					8,286	\$14,714,631								520,938	\$28,219,017	\$997,318	\$14,300,785	

Table 8.3, 2009 PM-2.5 Monitoring Costs

Cost Element	Previous Amortized Hours and Costs				New Site Hours and Costs				Summary PM-2.5											
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Amor. Cost	# Old Plus New	Hours	O & M	Labor Hours	Labor Costs	Non-Labor O & M	Equip/ Contract \$	
Summary Totals																				\$44,517,120

Aug 2006

Table 9.0, Summary of PM coarse 2007-2009 Monitoring Costs

Aug 2006

Cost Element	2007				2008				2009				Average 2007-2009 PM coarse			
	Summary PM coarse				Summary PM coarse				Summary PM coarse				Summary PM coarse			
	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 \$	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$
PM-coarse sampler (cont collocated)																
PM-coarse sampler (FRM)																
PM-coarse sampler (FRM collocated)																
PM-coarse speciation sampler																
Remedial repairs																
PM-coarse sampler (continuous)	187	\$10,028			187	\$10,232			187	\$10,232			125	\$6,753		
PM-coarse sampler (cont collocated)	19	\$1,003			19	\$1,023			19	\$1,023			12	\$675		
PM-coarse sampler (FRM)	476	\$23,279			574	\$28,641			574	\$28,641			350	\$17,306		
PM-coarse sampler (FRM collocated)	70	\$3,423			84	\$4,191			84	\$4,191			51	\$2,538		
PM-coarse speciation sampler																
Routine maintenance																
PM-coarse sampler (continuous)	238	\$11,259			238	\$11,488			238	\$11,488			159	\$7,582		
PM-coarse sampler (cont collocated)	24	\$1,126			24	\$1,149			24	\$1,149			16	\$758		
PM-coarse sampler (FRM)	544	\$26,827			656	\$33,006			656	\$33,006			400	\$19,944		
PM-coarse sampler (FRM collocated)	80	\$3,945			96	\$4,830			96	\$4,830			59	\$2,925		
PM-coarse speciation sampler																
Element #4 totals	1,638	\$80,890	\$23,509		1,878	\$94,559	\$26,593		1,878	\$94,559	\$26,593		1,172	\$58,483	\$16,701	
5. Data Management																
Data acquisition/processing																
PM-coarse sampler (continuous)	272	\$14,355			272	\$14,646			272	\$14,646			181	\$9,667		
PM-coarse sampler (cont collocated)	27	\$1,435			27	\$1,465			27	\$1,465			18	\$967		
PM-coarse sampler (FRM)	646	\$31,587			779	\$38,863			779	\$38,863			475	\$23,484		
PM-coarse sampler (FRM collocated)	95	\$4,645			114	\$5,687			114	\$5,687			70	\$3,444		
PM-coarse speciation (contract)																
Data reporting																
PM-coarse sampler (continuous)	204	\$10,553			204	\$10,767			204	\$10,767			136	\$7,107		
PM-coarse sampler (cont collocated)	20	\$1,055			20	\$1,077			20	\$1,077			14	\$711		
PM-coarse sampler (FRM)	153	\$6,444			185	\$7,929			185	\$7,929			113	\$4,791		
PM-coarse sampler (FRM collocated)	23	\$948			27	\$1,160			27	\$1,160			17	\$703		
PM-coarse speciation (contract)																
Data validation																
PM-coarse sampler (continuous)	289	\$15,359			289	\$15,671			289	\$15,671			193	\$10,343		
PM-coarse sampler (cont collocated)	29	\$1,536			29	\$1,567			29	\$1,567			19	\$1,034		
PM-coarse sampler (FRM)	442	\$23,224			533	\$28,574			533	\$28,574			325	\$17,266		
PM-coarse sampler (FRM collocated)	65	\$3,415			78	\$4,182			78	\$4,182			48	\$2,532		
PM-coarse speciation (contract)																
Data distribution																
PM-coarse sampler (continuous)	85	\$4,688			85	\$4,783			85	\$4,783			57	\$3,157		
PM-coarse sampler (cont collocated)	9	\$469			9	\$478			9	\$478			6	\$316		
PM-coarse sampler (FRM)	102	\$5,684			123	\$6,993			123	\$6,993			75	\$4,226		
PM-coarse sampler (FRM collocated)	15	\$836			18	\$1,023			18	\$1,023			11	\$620		
PM-coarse speciation sampler																
Element #5 totals	2,476	\$126,235			2,792	\$144,865			2,792	\$144,865			1,756	\$90,367		

Table 9.1, 2007 PM-coarse Monitoring Costs

Cost Element	Previous Amortized Hours and Costs					New Site Hours and Costs					Summary PM-coarse						
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# Old Plus New	Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$
1. Network Design																	
Network design (RO)																	
Site selection (RO)																	
Element #1 totals																	
2. Site Installation																	
Analyzer cost																	
PM-coarse sampler (continuous)																	
PM-coarse sampler (cont collocated)																	
PM-coarse sampler (FRM)																	
PM-coarse sampler (FRM collocated)																	
PM-coarse speciation sampler																	
Sampling platform (see PM-2.5)																	
Data acquisition (laptop/PDA)																	
Procurement (FEM & FRM)																	
Procurement (speciation)																	
Equipment installation																	
PM-coarse sampler (continuous)																	
PM-coarse sampler (cont collocated)																	
PM-coarse sampler (FRM)																	
PM-coarse sampler (FRM collocated)																	
PM-coarse speciation sampler																	
Element #2 totals																	
3. Sampling & analysis																	
Filters and acceptance testing																	
PM-coarse sampler (FRM)																	
PM-coarse speciation sampler																	
Site visits																	
PM-coarse sampler (continuous)																	
PM-coarse sampler (cont collocated)																	
PM-coarse sampler (FRM)																	
PM-coarse sampler (FRM collocated)																	
PM-coarse speciation sampler																	
Laboratory service																	
Microbalance (see PM-2.5)																	
Clean room (see PM-2.5)																	
Laboratory																	
PM-coarse sampler (FRM)																	
PM-coarse sampler (FRM collocated)																	
PM-coarse speciation (contract)																	
Element #3 totals																	
4. Maintenance																	
Spare parts/supplies																	

Table 9.2, 2008 PM-coarse Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs				New Site Hours and Costs				Summary PM-coarse										
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# Old Plus New	Hours	O & M	Labor Costs	Non-labor O & M	Equip/ Contract \$	
1. Network Design																			
Network design (RO)							25	30	7	869	107	\$3,103		107		\$3,103			
Site selection (RO)							25	8	7	317	29	\$1,133		29		\$1,133			
Element #1 totals											136	\$4,236		136		\$4,236			
2. Site Installation																			
Analyzer cost							17		7	23,426		\$56,891						\$56,891	
PM-coarse sampler (continuous)							2		7	\$23,426		\$5,689						\$5,689	
PM-coarse sampler (cont collocated)							34		7	\$13,842		\$67,235						\$67,235	
PM-coarse sampler (FRM)							5		7	\$13,842		\$9,887						\$9,887	
PM-coarse sampler (FRM collocated)																			
PM-coarse speciation sampler																			
Sampling platform (see PM-2.5)							17		7	426		\$1,034						\$1,034	
Data acquisition (laptop/PDA)							58	16	7	795	132	\$6,556		132		\$6,556			
Procurement (FEM & FRM)																			
Procurement (speciation)																			
Equipment installation																			
PM-coarse sampler (continuous)							17	8	7	\$373	19	\$905		19		\$905			
PM-coarse sampler (cont collocated)							2	8	7	\$373	2	\$91		2		\$91			
PM-coarse sampler (FRM)							34	8	7	\$373	39	\$1,810		39		\$1,810			
PM-coarse sampler (FRM collocated)							5	8	7	\$373	6	\$266		6		\$266			
PM-coarse speciation sampler																			
Element #2 totals											198	\$150,364		198		\$9,628		\$140,736	
3. Sampling & analysis																			
Filters and acceptance testing																			
PM-coarse sampler (FRM)													39					\$6,167	
PM-coarse speciation sampler																			
Site visits																			
PM-coarse sampler (continuous)													17	544	\$25,668	\$25,668			
PM-coarse sampler (cont collocated)													2	54	\$2,567	\$2,567			
PM-coarse sampler (FRM)													34	6,120	\$281,806	\$281,806			
PM-coarse sampler (FRM collocated)													5	900	\$41,442	\$41,442			
PM-coarse speciation sampler																			
Laboratory service																			
Microbalance (see PM-2.5)																			
Clean room (see PM-2.5)																			
Laboratory																			
PM-coarse sampler (FRM)													34	4,080	\$197,561	\$197,561			
PM-coarse sampler (FRM collocated)													5	600	\$29,053	\$29,053			
PM-coarse speciation (contract)																			
Element #3 totals														12,298	\$578,097	\$578,097	\$6,167		
4. Maintenance																			
Spare parts/supplies																			
PM-coarse sampler (continuous)													17					\$10,046	
PM-coarse sampler (cont collocated)													2					\$1,005	

Table 9.3, 2009 PM-coarse Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs					New Site Hours and Costs					Summary PM coarse						
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Amor. Cost	# Old Plus New	Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$
PM-coarse speciation sampler																	
Remedial repairs																	
PM-coarse sampler (continuous)															\$10,232		
PM-coarse sampler (cont collocated)															\$1,023		
PM-coarse sampler (FRM)															\$28,641		
PM-coarse sampler (FRM collocated)															\$4,191		
PM-coarse speciation sampler																	
Routine maintenance																	
PM-coarse sampler (continuous)															\$11,488		
PM-coarse sampler (cont collocated)															\$1,149		
PM-coarse sampler (FRM)															\$33,006		
PM-coarse sampler (FRM collocated)															\$4,830		
PM-coarse speciation sampler																	
Element #4 totals															\$94,559	\$26,593	
5. Data Management																	
Data acquisition/processing																	
PM-coarse sampler (continuous)															\$14,646		
PM-coarse sampler (cont collocated)															\$1,465		
PM-coarse sampler (FRM)															\$38,863		
PM-coarse sampler (FRM collocated)															\$5,687		
PM-coarse speciation (contract)																	
Data reporting																	
PM-coarse sampler (continuous)															\$10,767		
PM-coarse sampler (cont collocated)															\$1,077		
PM-coarse sampler (FRM)															\$7,929		
PM-coarse sampler (FRM collocated)															\$1,160		
PM-coarse speciation (contract)																	
Data validation																	
PM-coarse sampler (continuous)															\$15,671		
PM-coarse sampler (cont collocated)															\$1,567		
PM-coarse sampler (FRM)															\$28,574		
PM-coarse sampler (FRM collocated)															\$4,182		
PM-coarse speciation (contract)																	
Data distribution																	
PM-coarse sampler (continuous)															\$4,783		
PM-coarse sampler (cont collocated)															\$478		
PM-coarse sampler (FRM)															\$6,993		
PM-coarse sampler (FRM collocated)															\$1,023		
PM-coarse speciation sampler																	
Element #5 totals															\$144,865		
6. Quality Assurance																	
Audit/calibration kit																	
PM-coarse sampler (continuous)	17		7	\$369	\$179	3	7	369	7	369	32	\$32					\$211
PM-coarse sampler (FRM)	34		7	\$652	\$3,166	7	7	652	7	652	\$652	\$652					\$3,818
PM-coarse speciation sampler																	
QA plan preparation (RO)	25	15	5	\$887	\$4,433	5	15	887	5	887	\$887	\$887					\$5,319

Table 9.3, 2009 PM-coarse Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						Summary PM coarse							
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# Old Plus New	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	
QA plan review (annual) RO													104	52	\$2,700	52	\$2,700			
Audits																				
PM-coarse sampler (continuous)													20	200	\$9,582	200	\$9,582			
PM-coarse sampler (FRM)													41	410	\$19,866	410	\$19,866			
PM-coarse speciation sampler																				
Reporting																				
PM-coarse sampler (continuous)													20	80	\$4,563	80	\$4,563			
PM-coarse sampler (FRM)													41	164	\$9,354	164	\$9,354			
PM-coarse spec. sampler (contract)																				
Implementation/coordination																				
PM-coarse sampler (continuous)													20	260	\$13,841	260	\$13,841			
PM-coarse sampler (FRM)													41	267	\$25,790	267	\$25,790			
PM-coarse speciation sampler																				
Training																				
PM-coarse sampler (continuous)													20	120	\$6,214	120	\$6,214			
PM-coarse sampler (FRM)													41	123	\$12,739	123	\$12,739			
PM-coarse speciation sampler																				
Element # 6 totals					75	\$7,778					15	\$1,570		1,675	\$104,649	1,765	\$109,968		\$4,029	
7. Supervision																				
Planning/coordination																				
PM-coarse sampler (continuous)													20	180	\$10,299	180	\$10,299			
PM-coarse sampler (single channel)													41	369	\$21,113	369	\$21,113			
PM-coarse speciation sampler																				
Supervision/review																				
PM-coarse sampler (continuous)													20	480	\$27,573	480	\$27,573			
PM-coarse sampler (single channel)													41	984	\$56,524	984	\$56,524			
PM-coarse speciation sampler																				
Element #7 totals														2,013	\$115,509	2,013	\$115,509			
Summary of Burdens and Costs					411	\$167,649					55	\$33,017		23,056	\$1,164,487	23,521	\$1,185,530	\$34,337	\$179,622	
Summary Totals																				\$1,399,489

Table 10.0, Summary of Pb 2009-2011 Monitoring Costs

Cost Element	2009					2010					2011							
	Summary Pb					Summary Pb					Summary Pb							
	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 \$				
1. Network Design	643	\$18,996				643	\$19,376				643	\$19,764						
Network design (reporting org)	883	\$35,314				883	\$35,314				883	\$35,314						
One time waivers	171	\$10,057				171	\$10,258				171	\$10,463						
Site selection (reporting org)	1,697	\$64,368				1,697	\$64,949				1,697	\$65,541						
Element #1 totals																		
2. Site Installation				\$997,005					\$1,016,945					\$1,037,284				
Low volume sampler				\$11,330					\$11,556					\$11,787				
Audit calibration kit																		
Procurement	667	\$26,103				667	\$26,625				667	\$27,158						
Equipment installation	667	\$23,928				667	\$24,407				667	\$24,895						
Element #2 totals	1,335	\$50,032		\$1,008,334		1,335	\$51,032		\$1,028,501		1,335	\$52,053		\$1,049,071				
3. Sampling and Analysis																		
Supplies			\$190,337					\$194,144					\$198,027		\$194,169			
Filters			\$190,337					\$194,144					\$198,027		\$194,169			
Laboratory services (contract)	52,560	\$2,457,254		\$2,042,953		52,560	\$2,506,399		\$2,083,813		52,560	\$2,556,527		\$2,125,489				
Routine site visits	52,560	\$2,457,254	\$380,675	\$2,042,953		52,560	\$2,506,399	\$388,288	\$2,083,813		52,560	\$2,556,527	\$396,054	\$2,125,489				
Element #3 totals			\$380,675	\$2,042,953				\$388,288	\$2,083,813				\$396,054	\$2,125,489				
4. Maintenance			\$380,675					\$388,288					\$396,054		\$388,339			
Spare parts/supplies	9,344	\$414,935				9,344	\$423,234				9,344	\$431,699						
Remedial repairs	9,344	\$414,935				9,344	\$423,234				9,344	\$431,699						
Routine maintenance	18,688	\$829,871	\$380,675			18,688	\$846,468	\$388,288			18,688	\$863,397	\$396,054		\$388,339			
Element #4 totals			\$380,675					\$388,288					\$396,054		\$388,339			
5. Data Management																		
Data acquisition/processing	9,344	\$223,329				9,344	\$227,796				9,344	\$232,352						
Data reporting	4,672	\$249,976				4,672	\$254,976				4,672	\$260,075						
Data validation	14,016	\$749,929				14,016	\$764,927				14,016	\$780,226						
Data distribution	1,168	\$62,177				1,168	\$63,420				1,168	\$64,689						
Element #5 totals	29,200	\$1,285,411				29,200	\$1,311,119				29,200	\$1,337,342						
6. Quality Assurance																		
Audits	7,008	\$266,472				7,008	\$271,802				7,008	\$277,238						
Coordination/implementation	2,336	\$119,912				2,336	\$122,311				2,336	\$124,757						
Training	2,336	\$103,417				2,336	\$105,485				2,336	\$107,595						
QA plan review (annual) RO	23	\$2,348				23	\$2,395				23	\$2,443						
QA plan preparation (RO)	360	\$19,262				360	\$19,647				360	\$20,040						
Element #6 totals	12,063	\$511,411				12,063	\$521,639				12,063	\$532,072						
7. Supervision																		
Planning/coordination	2,336	\$133,236				2,336	\$135,901				2,336	\$138,619						
Supervision/review	3,504	\$199,220				3,504	\$203,204				3,504	\$207,268						
Supervision	5,840	\$332,456				5,840	\$339,105				5,840	\$345,887						
Element #7 totals																		
Summary of Burdens and Costs	121,383	\$5,530,802	\$761,349	\$3,051,288	173,943	\$5,640,712	\$776,576	\$3,112,314	\$9,529,602	121,383	\$5,752,820	\$792,108	\$3,174,560	\$9,719,487	138,903	\$5,641,445	\$776,678	\$3,112,720
Summary Totals				\$9,343,439					\$9,529,602					\$9,719,487				\$9,530,843

Table 10.1, 2009 Pb Monitoring Costs

May 2008

Cost Element	Previous Amortized Hours and Costs					New Site Hours and Costs for Pb					Summary Pb									
	# 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	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	
1. Network Design																				
Network design (reporting org)	150	30	7	\$887	643	\$18,996										643	\$18,996			
One time waivers	309	20	7	\$12,360	883	\$35,314										883	\$35,314			
Site selection (reporting org)	150	8	7	\$469	171	\$10,057										171	\$10,057			
Element #1 totals					1,697	\$64,368								1,697		\$64,368				
2. Site Installation																				
Low volume sampler	584		7	\$11,950		\$997,005													\$997,005	
Audit calibration kit	584		7	\$136		\$11,330													\$11,330	
Procurement	584	8	7	\$313	667	\$26,103										667	\$26,103			
Equipment installation	584	8	7	\$287	667	\$23,928										667	\$23,928			
Element #2 totals					1,335	\$1,058,366								1,335		\$50,032			\$1,008,334	
3. Sampling and Analysis																				
Supplies																				
Filters																				
Laboratory services (contract)																				
Routine site visits																				
Element #3 totals																				
4. Maintenance																				
Spare parts/supplies																				
Remedial repairs																				
Routine maintenance																				
Element #4 totals																				
5. Data Management																				
Data acquisition/processing																				
Data reporting																				
Data validation																				
Data distribution																				
Element #5 totals																				
6. Quality Assurance																				
Audits																				
Coordination/implementation																				
Training																				
QA plan review (annual) RO																				
QA plan preparation (RO)																				
Element #6 totals																				
7. Supervision																				
Planning/coordination																				
Supervision/review																				
Element #7 totals																				
Summary of Burdens and Costs					3,392	\$1,141,996								117,991	\$7,440,095	121,383	\$5,530,802	\$761,349	\$3,051,288	
Summary Totals																				\$9,343,439

Table 10.2, 2010 Pb Monitoring Costs

May 2008

Cost Element	Previous Amortized Hours and Costs					New Site Hours and Costs for Pb					Summary Pb									
	# 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	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	
1. Network Design																				
Network design (reporting org)	150	30	7	\$904	643	\$19,376										643	\$19,376			
One time waivers	309	20	7	\$12,360	883	\$35,314										883	\$35,314			
Site selection (reporting org)	150	8	7	\$479	171	\$10,258										171	\$10,258			
Element #1 totals					1,697	\$84,949										1,697	\$84,949			
2. Site Installation																				
Low volume sampler	584		7	\$12,189		\$1,016,945													\$1,016,945	
Audit calibration kit	584		7	\$139		\$11,556													\$11,556	
Procurement	584	8	7	\$319	667	\$26,625										667	\$26,625			
Equipment installation	584	8	7	\$293	667	\$24,407										667	\$24,407			
Element #2 totals					1,335	\$1,079,533										1,335	\$51,032		\$1,028,501	
3. Sampling and Analysis																				
Supplies																				
Filters																				
Laboratory services (contract)																				
Routine site visits																				
Element #3 totals																				
4. Maintenance																				
Spare parts/supplies																				
Remedial repairs																				
Routine maintenance																				
Element #4 totals																				
5. Data Management																				
Data acquisition/processing																				
Data reporting																				
Data validation																				
Data distribution																				
Element # 5 totals																				
6. Quality Assurance																				
Audits																				
Coordination/implementation																				
Training																				
QA plan review (annual) RO																				
QA plan preparation (RO)																				
Element #6 totals																				
7. Supervision																				
Planning/coordination																				
Supervision/review																				
Element #7 totals																				
Summary of Burdens and Costs					3,392	\$1,164,129										170,551	\$7,588,896			\$3,112,314
Summary Totals																				\$9,529,602

Table 10.3, 2011 Pb Monitoring Costs

May 2008

Cost Element	Previous Amortized Hours and Costs										New Site Hours and Costs for Pb										Summary Pb		
	# 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	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$				
																				Total Amor. Hours	Total Amor. Cost	Labor Hours	Labor Costs
1. Network Design																							
Network design (reporting org)	150	30	7	\$922	643	\$19,764									643	\$19,764							
One time waivers	309	20	7	\$12,360	883	\$35,314									883	\$35,314							
Site selection (reporting org)	150	8	7	\$488	171	\$10,463									171	\$10,463							
Element #1 totals					1,697	\$65,541									1,697	\$65,541							
2. Site Installation																							
Low volume sampler	584		7	\$12,433		\$1,037,284														\$1,037,284			
Audit calibration kit	584		7	\$141		\$11,787														\$11,787			
Procurement	584	8	7	\$326	667	\$27,158									667	\$27,158							
Equipment installation	584	8	7	\$298	667	\$24,895									667	\$24,895							
Element #2 totals					1,335	\$1,101,124									1,335	\$52,053				\$1,049,071			
3. Sampling and Analysis																							
Supplies																							
Filters																							
Laboratory services (contract)																							
Routine site visits																							
Element #3 totals																							
4. Maintenance																							
Spare parts/supplies																							
Remedial repairs																							
Routine maintenance																							
Element #4 totals																							
5. Data Management																							
Data acquisition/processing																							
Data reporting																							
Data validation																							
Data distribution																							
Element # 5 totals																							
6. Quality Assurance																							
Audits																							
Coordination/implementation																							
Training																							
QA plan review (annual) RO																							
QA plan preparation (RO)																							
Element #6 totals																							
7. Supervision																							
Planning/coordination																							
Supervision/review																							
Element #7 totals																							
Summary of Burdens and Costs																							
Summary Totals																							

Table 11. PAMS Summary of 2007-2009 Monitoring Burden and Costs

Aug 2006

Cost Element	Average 2007-2009 VOC				Average 2007-2009 NMOC				Average 2007-2009 NOx and NOy						
	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	Total Cost
1. Network Design	1,112	\$375,186		\$259,941	\$635,128	118	\$6,814			\$6,814	81	\$4,687			\$4,687
2. Site Installation	47,377	\$2,299,126	\$106,201	\$1,278,965	\$3,684,293	3,480	\$157,501	\$24,716		\$182,217	43	\$2,002	\$12,784	\$46,799	\$48,801
3. Sampling & Analysis	17,920	\$934,175	\$439,305		\$1,373,480	1,972	\$96,021	\$30,895		\$126,915	1,800	\$81,466	\$15,980		\$94,250
4. Maintenance	50,119	\$2,720,295			\$2,720,295	1,131	\$56,445			\$56,445	1,290	\$64,575			\$64,575
5. Data Management	12,990	\$743,720	\$37,713		\$781,433	2,572	\$133,768			\$133,768	2,072	\$107,721			\$107,721
6. Quality Assurance	9,315	\$553,444			\$553,444	1,218	\$65,404			\$65,404	4,158	\$223,276			\$223,276
7. Supervision	138,833	\$7,625,887	\$583,219	\$1,538,907	\$9,748,012	10,590	\$519,822	\$55,610	\$50,429	\$625,862	14,394	\$738,327	\$28,764	\$46,799	\$813,889
Totals															

Cost Element	Average 2007-2009 Surface Met				Average 2007-2009 Upper Air				Average 2007-2009 Carbonyl Freq E (8/3/1)						
	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	Total Cost
1. Network Design	240	\$13,826		\$188,371	\$13,826	60	\$3,445			\$3,445	8	\$407			\$10,183
2. Site Installation	555	\$29,372			\$29,372	286	\$13,630	\$23,437		\$37,067	414	\$48,983	\$32,458	\$38,186	\$124,240
3. Sampling & Analysis	1,767	\$87,472	\$188,112		\$275,584	110	\$5,766	\$46,875		\$52,640	1,032	\$51,290			\$83,747
4. Maintenance	4,240	\$203,913			\$203,913	220	\$11,180			\$11,180	384	\$20,006			\$20,006
5. Data Management	4,677	\$247,867			\$247,867	638	\$29,949			\$29,949	181	\$9,296	\$14,320		\$23,615
6. Quality Assurance	2,582	\$2,582			\$2,582	113	\$9,023			\$9,023	216	\$12,353			\$12,353
7. Supervision	16,691	\$693,647	\$258,654	\$188,371	\$1,140,673	1,778	\$91,462	\$70,312	\$371,322	\$533,096	2,236	\$142,334	\$83,849	\$48,368	\$274,551
Totals															

Cost Element	Average 2007-2009 Carbonyl Freq D (8/3/3)				Average 2007-2009 Carbonyl Freq Half D (4/3/3)				Average 2007-2009 Carbonyl Misc Freq						
	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	Total Cost
1. Network Design	15	\$723		\$18,092	\$18,815	34	\$1,627			\$1,627	46	\$2,214			\$2,214
2. Site Installation	277	\$33,496	\$24,594	\$67,846	\$125,936	273	\$38,541	\$27,685	\$152,742	\$218,968	270	\$37,810	\$32,197	\$207,891	\$277,899
3. Sampling & Analysis	960	\$47,611	\$19,223		\$66,834	1,080	\$53,593	\$21,639		\$75,232	1,256	\$62,298	\$25,153		\$87,450
4. Maintenance	341	\$17,770			\$17,770	384	\$20,003			\$20,003	453	\$23,616			\$23,616
5. Data Management	247	\$12,643	\$8,481		\$21,124	293	\$14,984	\$19,093		\$34,077	503	\$25,661	\$25,986		\$51,648
6. Quality Assurance	192	\$10,980			\$10,980	216	\$12,359			\$12,359	257	\$14,717			\$14,717
7. Supervision	2,032	\$123,223	\$52,298	\$85,939	\$261,460	2,279	\$141,107	\$68,416	\$193,474	\$402,987	2,786	\$166,316	\$83,337	\$263,329	\$512,982
Totals															

Grand Total PAMS 2007-2009

Cost Element	Average 2007-2009 California Alternative Plan (CAP)				Average 2007-2009 All PAMS (except O3 and NO2)					
	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	Total Cost
1. Network Design	97	\$5,208		\$31,321	\$36,529	499	\$28,772	\$0	\$0	\$28,772
2. Site Installation	868	\$18,547	\$7,881	\$32,515	\$51,063	2,295	\$434,240	\$0	\$1,072,627	\$1,506,867
3. Sampling & Analysis	237	\$12,815			\$12,815	57,761	\$2,842,573	\$359,228	\$1,778,146	\$4,979,948
4. Maintenance	454	\$24,715			\$24,715	27,624	\$1,415,615	\$827,519	\$0	\$2,243,134
5. Data Management	1,099	\$62,275	\$3,356		\$65,631	62,677	\$3,352,483	\$0	\$0	\$3,352,483
6. Quality Assurance	924	\$55,169			\$55,169	25,272	\$1,387,884	\$108,948	\$0	\$1,496,832
7. Supervision	3,678	\$178,729	\$11,237	\$63,836	\$253,802	19,170	\$959,287	\$0	\$0	\$959,287
Totals						195,297	\$10,420,653	\$1,295,696	\$2,850,773	\$14,567,323

Table 12. Summary of PAMS VOC 2007-2009 Monitoring Costs

Cost Element	2007						2008						2009						Average 2007-2009 VOC Costs		
	Summary VOC Costs			Summary VOC Costs			Summary VOC Costs			Summary VOC Costs			Summary VOC Costs			Summary VOC Costs					
	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 \$	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	Labor Hours	Labor Costs		Non-labor O & M	Equip/Contract \$
1. Network Design Network design study (PAMS area) (see O3) Site selection (see O3)				\$120,361 \$134,570				\$122,665 \$137,146													
Element #1 totals																					
2. Site Installation Canister sampling system 3 months operation 12 months operation (1/6 collocation)																					
Procurement																					
GC (on site) & GC (lab) for 23 areas Canister sampling sys and cans	378 91	\$20,046 \$4,693			378 91	\$20,430 \$4,763			378 91	\$20,845 \$4,880				378 91	\$20,440 \$4,785						\$122,726 \$137,215
Equipment Installation GC (on site) & GC (lab) for 16 area & ca Canister sampling system	472 171	\$334,045 \$9,171			472 171	\$340,439 \$9,347			472 171	\$347,345 \$9,536				472 171	\$340,609 \$9,351						
Element # 2 totals	1,112	\$367,955		\$254,931	1,112	\$374,998		\$259,811	1,112	\$382,606		\$265,082	1,112	\$375,186		\$259,941					
3. Sampling & Analysis Automated GC with FID GC installation GC annual checkout Operation of GC				\$1,109,578				\$1,130,818					\$1,153,757			\$1,131,384					
Canisters																					
80 for 8/3/1 40 for 8/3/3 20 for 4/3/3 4 for 1/6 Canister analysis				\$26,747 \$43,464 \$30,090 \$19,057				\$27,259 \$44,296 \$27,259 \$18,740					\$27,812 \$45,194 \$27,812 \$18,078			\$27,273 \$44,318 \$28,387 \$18,625					
8/3/1 8/3/3 4/3/3 1/6	728 806 209 435	\$9,162 \$10,143 \$21,067 \$43,757			728 806 186 419	\$9,337 \$10,337 \$19,084 \$43,030			728 806 186 419	\$9,526 \$10,547 \$19,472 \$41,508			\$28,964	728 806 194 417	\$9,342 \$10,343 \$19,874 \$42,765						\$28,979
Canister cleaning system GC support gases Routine site visits (canister)				\$106,201				\$106,201					\$106,201			\$106,201					
Element # 3 totals	47,880	\$2,275,018	\$106,201	\$1,257,356	47,329	\$2,296,153	\$106,201	\$1,277,336	46,923	\$2,326,208	\$106,201	\$1,302,204	47,377	\$2,299,126	\$106,201	\$1,278,965					
4. Maintenance Spare parts/supplies (GC) Spare parts/supplies (canister) Remedial repairs (GC) Remedial repairs (canister) Routine maintenance (GC) Routine maintenance (canister)				\$154,108 \$288,365				\$157,058 \$281,107					\$160,244 \$277,032			\$157,137 \$282,168					
8/3/1 8/3/3 4/3/3 1/6	4,720 2,944 4,720 5,888	\$240,162 \$156,294 \$226,046 \$312,587			4,720 2,816 4,720 5,632	\$244,759 \$152,360 \$230,373 \$304,720			4,720 2,720 4,720 5,440	\$249,724 \$150,151 \$235,046 \$300,303			\$244,882 \$152,935 \$230,488 \$305,870	4,720 2,827 4,720 5,653	\$244,882 \$152,935 \$230,488 \$305,870						\$439,305
Element # 4 totals	18,272	\$935,089	\$442,473		17,888	\$932,212	\$438,165		17,600	\$935,224	\$437,276		17,920	\$934,175	\$439,305						
5. Data Management Data acquisition/processing (GC) Data acquisition/processing (canisters) Data reporting (GC) Data reporting (canister) Data validation (GC) Data validation (canister) Data analysis & trends (GC)																					
Data acquisition/processing (GC)	4,956	\$242,381			4,956	\$247,021			4,956	\$252,032			4,956	\$247,145							
Data acquisition/processing (canisters)	2,208	\$113,616			2,112	\$110,756			2,040	\$109,151			2,120	\$111,174							
Data reporting (GC)	1,888	\$100,972			1,888	\$102,904			1,888	\$104,992			1,888	\$102,956							
Data reporting (canister)	920	\$48,830			880	\$47,601			850	\$46,911			883	\$47,780							
Data validation (GC)	7,552	\$400,927			7,552	\$408,602			7,552	\$416,891			7,552	\$408,807							
Data validation (canister)	3,680	\$194,166			3,520	\$189,279			3,400	\$186,535			3,533	\$189,993							
Element # 5 totals	19,470	\$1,055,701			19,470	\$1,075,910			19,470	\$1,097,735			19,470	\$1,076,449							

Table 12. Summary of PAMS VOC 2007-2009 Monitoring Costs

Cost Element	2007												2008												2009											
	Summary VOC Costs				Summary VOC Costs				Summary VOC Costs				Summary VOC Costs				Summary VOC Costs				Summary VOC Costs				Summary VOC Costs											
	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 \$	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 \$												
Data analysis & trends (canister)	10,120	\$547,701			9,680	\$533,916			9,350	\$526,176			9,717	\$535,931			50,119	\$2,720,235																		
Element # 5 totals	50,794	\$2,704,293			50,058	\$2,715,990			49,506	\$2,740,422																										
6. Quality Assurance																																				
Calibration standards			\$36,986								\$37,694												\$37,713													
Audits	5,520	\$325,948			5,280	\$317,745			3,540	\$217,355			4,780	\$287,016																						
Routine calibrations	2,832	\$151,689			2,832	\$154,796			2,832	\$157,936			2,832	\$154,874																						
Training	4,416	\$246,360			4,224	\$240,159			2,832	\$164,262			3,824	\$216,934																						
Implementation/coordination	1,416	\$75,944			1,416	\$77,398			1,416	\$78,968			1,416	\$77,437																						
QA plan review (annual) PAMS areas	12	\$602			44	\$2,250			12	\$626			23	\$1,160																						
QA plan preparation (PAMS areas)	115	\$6,179			115	\$6,297			115	\$6,425			115	\$6,300																						
Element # 6 totals	14,311	\$806,922	\$36,986		13,911	\$798,646	\$37,694		10,747	\$625,593	\$38,459		12,990	\$743,720	\$37,713																					
7. Supervision																																				
Planning/coordination (GC)	2,596	\$148,129			2,596	\$150,964			2,596	\$154,027			2,596	\$151,040																						
Planning/coordination (canister)	1,840	\$106,599			1,760	\$103,916			1,700	\$102,409			1,767	\$104,308																						
Supervision/review (GC)	2,832	\$167,176			2,832	\$170,377			2,832	\$173,833			2,832	\$170,462																						
Supervision/review (canister)	2,208	\$130,437			2,112	\$127,154			2,040	\$125,311			2,120	\$127,634																						
Element # 7 totals	9,476	\$552,341			9,300	\$552,411			9,168	\$555,580			9,315	\$553,444																						
Summary of Burdens and Costs	141,845	\$7,641,617	\$585,660	\$1,512,287	139,598	\$7,670,410	\$582,060	\$1,537,147	135,056	\$7,565,652	\$581,936	\$1,567,286	138,833	\$7,625,867	\$583,219	\$1,536,907																				
Summary Totals				\$9,739,564				\$9,789,617																\$9,748,012												

Table 12.1 2007 PAMS VOC Costs

Cost Element	Previous Amortized Hours and Costs				New Site Hours and Costs				Summary VOC Costs											
	# 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	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	
1. Network Design Network design study (PAMS area) (see O3) Site selection (see O3)																				
Element #1 totals																				
2. Site Installation Canister sampling system 3 months operation 12 months operation (1/6 collocation)	36		5	\$16,717		\$120,361														\$120,361
	92		5	\$7,314		\$134,570														\$134,570
Procurement GC (on site) & GC (lab) for 23 areas Canister sampling sys and cans	59	32	5	\$1,699	376	\$20,046								378			\$20,046			
	57	8	5	\$412	91	\$4,693								91			\$4,693			
Equipment installation GC (on site) & GC (lab) for 16 area & ca Canister sampling system	59	40	5	\$28,309	472	\$334,045								472			\$334,045			
	57	15	5	\$804	171	\$9,171								171			\$9,171			
Element #2 totals					1,112	\$622,886								1,112			\$367,955			\$254,931
3. Sampling & Analysis Automated GC with FID GC installation GC annual checkout Operation of GC	59		5	\$94,032	3,186	\$1,109,578								3,186			\$158,534			\$1,109,578
	59	270	5	\$13,435		\$158,534								3,740	\$189,799		\$189,799			
														30,680	\$1,425,869		\$1,425,869			
Canisters 80 for 8/3/1 40 for 8/3/3 20 for 4/3/3 4 for 1/6 Canister analysis 8/3/1 8/3/3 4/3/3 1/6	4		5	\$33,434		\$26,747								4			\$9,162			\$26,747
	13		5	\$16,717		\$43,464								13			\$10,143			\$43,464
	18		5	\$8,358		\$30,090								18			\$21,067			\$30,090
	57		5	\$1,672		\$19,057								57			\$43,757			\$19,057
Canister cleaning system GC support gases Routine site visits (canister)	24		5	\$5,921		\$28,420								59			\$416,687			\$28,420
														92	\$416,687		\$416,687			
Element #3 totals					3,186	\$1,415,890								361	\$2,116,484		\$2,275,018			\$1,257,356
4. Maintenance Spare parts/supplies (GC) Spare parts/supplies (canister) Remedial repairs (GC) Remedial repairs (canister) Routine maintenance (GC) Routine maintenance (canister)														59						\$154,108
														92						\$288,365
														59			\$240,162			
														92			\$156,294			
														59			\$226,046			
														92			\$312,587			
Element #4 totals														18,272	\$935,089		\$935,089			\$442,473
5. Data Management Data acquisition/processing (GC) Data acquisition/processing (canisters) Data reporting (GC) Data reporting (canister) Data validation (GC)														59			\$242,381			
														92			\$113,616			
														59			\$100,972			
														92			\$48,830			
														59			\$400,927			

Table 12.1 2007 PAMS VOC Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs					New Site Hours and Costs					Summary VOC Costs									
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# Old Plus New	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	
Data validation (canister)													92	3,680	\$194,166	3,680	\$194,166			
Data analysis & trends (GC)													59	19,470	\$1,055,701	19,470	\$1,055,701			
Data analysis & trends (canister)													92	10,120	\$547,701	10,120	\$547,701			
Element # 5 totals														50,794	\$2,704,293	50,794	\$2,704,293			
6. Quality Assurance													59					\$36,986		
Calibration standards													92	5,520	\$325,948	5,520	\$325,948			
Routine calibrations													59	2,832	\$151,889	2,832	\$151,889			
Training													92	4,416	\$246,360	4,416	\$246,360			
Implementation/coordination													59	1,416	\$75,944	1,416	\$75,944			
QA plan review (annual) PAMS areas													24	12	\$602	12	\$602			
QA plan preparation (PAMS areas)																115	\$6,179			
Element # 6 totals														14,196	\$800,743	14,311	\$806,922	\$36,986		
7. Supervision													59	2,596	\$148,129	2,596	\$148,129			
Planning/coordination (GC)													92	1,840	\$106,599	1,840	\$106,599			
Planning/coordination (canister)													59	2,832	\$167,176	2,832	\$167,176			
Supervision/review (GC)													92	2,208	\$130,437	2,208	\$130,437			
Supervision/review (canister)																9,476	\$552,341			
Element # 7 totals														137,432	\$7,108,950	141,845	\$7,641,617	\$585,660	\$1,512,287	
Summary of Burdens and Costs																				
Summary Totals																				\$9,739,564

Table 12.2, 2008 PAMS VOC Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs					New Site Hours and Costs					Summary VOC Costs						
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	# Old Plus New	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$
Data analysis & trends (canister)											88	9,680	\$533,916	9,680	\$533,916		
Element # 5 totals												50,058	\$2,715,990	50,058	\$2,715,990		
6. Quality Assurance																	
Calibration standards																	
Audits																	
Routine calibrations																	
Training																	
Implementation/coordination																	
QA plan review (annual) PAMS areas																	
QA plan preparation (PAMS areas)	24	24	5	\$1,312	115						88	44	\$2,250	44	2,250		
Element # 6 totals					\$6,297					\$6,297		13,796	\$792,349	13,911	\$798,646	\$37,694	
7. Supervision																	
Planning/coordination (GC)																	
Planning/coordination (canister)																	
Supervision/review (GC)																	
Supervision/review (canister)																	
Element # 7 totals												9,300	\$552,411	9,300	\$552,411		
Summary of Burdens and Costs					\$2,080,011					4,413		135,185	\$7,427,546	139,598	\$7,670,410	\$582,060	\$1,537,147
Summary Totals																	\$9,789,617

Table 12.3, 2009 PAMS VOC Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						Summary VOC Costs							
	# 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	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	
1. Network Design Network design study (PAMS area) (see O3) Site selection (see O3)																				
Element #1 totals																				
2. Site installation Canister sampling system 3 months operation 12 months operation (1/6 collocation)	36		5	\$17,382		\$125,153													\$125,153	
	92		5	\$7,605		\$139,928													\$139,928	
Procurement GC (on site) & GC (lab) for 23 areas Canister sampling sys and cans	59	32	5	\$1,766	378	\$20,845								378			\$20,845			
	57	8	5	\$428	91	\$4,880								91			\$4,880			
Equipment installation GC (on site) & GC (lab) for 16 area & ca Canister sampling system	59	40	5	\$29,436	472	\$347,345								472			\$347,345			
	57	15	5	\$837	171	\$9,536								171			\$9,536			
Element # 2 totals														1,112			\$382,606			\$265,082
3. Sampling & Analysis Automated GC with FID GC installation GC annual checkout Operation of GC	59	270	5	\$97,776	3,166	\$1,153,757								3,166			\$164,846			\$1,153,757
	59		5	\$13,970		\$164,846							59	3,460	\$197,357		\$197,357			
													59	30,680	\$1,482,642		\$1,482,642			
Canisters 80 for 8/3/1 40 for 8/3/3 20 for 4/3/3 4 for 1/6 Canister analysis 8/3/1 8/3/3 4/3/3 1/6	4		5	\$34,765		\$27,812								4			\$9,526			\$27,812
	13		5	\$17,382		\$45,194								13			\$10,547			\$45,194
	16		5	\$8,691		\$27,812								16			\$19,472			\$27,812
	52		5	\$1,738		\$18,078								52			\$41,508			\$18,078
														728			\$9,526			
														806			\$10,547			
														186			\$19,472			
														397			\$41,508			
Canister cleaning system GC support gases Routine site visits (canister)	24		5	\$6,157		\$29,552								59						\$29,552
													85	7,480	\$400,311		\$400,311			\$106,201
Element # 3 totals					3,166	\$1,467,050								43,737	\$2,161,362		\$2,326,208			\$1,302,204
4. Maintenance Spare parts/supplies (GC) Spare parts/supplies (canister) Remedial repairs (GC) Remedial repairs (canister) Routine maintenance (GC) Routine maintenance (canister)														59						\$160,244
													85							\$277,032
													59	4,720	\$249,724		\$249,724			
													85	2,720	\$150,151		\$150,151			
													59	4,720	\$235,046		\$235,046			
													85	5,440	\$300,303		\$300,303			
Element # 4 totals														17,600	\$935,224		\$935,224			\$437,276
5. Data Management Data acquisition/processing (GC) Data acquisition/processing (canisters) Data reporting (GC) Data reporting (canister) Data validation (GC) Data validation (canister)														59	4,956	\$252,032		\$252,032		
													85	2,040	\$109,151		\$109,151			
													59	1,888	\$104,992		\$104,992			
													85	850	\$46,911		\$46,911			
													59	7,552	\$416,891		\$416,891			
													85	3,400	\$186,535		\$186,535			

Table 12.3, 2009 PAMS VOC Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs						Summary VOC Costs							
	# 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	Hours	O & M	Labor Hours	Labor Costs	Non-Labor O & M	Equip/ Contract \$	
Data analysis & trends (GC)														19,470	\$1,097,735	19,470	\$1,097,735			
Data analysis & trends (canister)													85	9,350	\$526,176	9,350	\$526,176			
Element # 5 totals														49,506	\$2,740,422	49,506	\$2,740,422			
6. Quality Assurance																				
Calibration standards																				
Audits													59	3,540	\$217,355	3,540	\$217,355	\$38,459		
Routine calibrations													59	2,832	\$157,936	2,832	\$157,936			
Training													59	2,832	\$164,282	2,832	\$164,282			
Implementation/coordination													59	1,416	\$78,968	1,416	78,968			
QA plan review (annual) PAMS areas		24	24	5	\$1,338	\$6,425							24	12	\$626	12	626			
QA plan preparation (PAMS areas)														115	\$6,425	115	\$6,425			
Element # 6 totals														10,632	\$619,168	10,747	\$625,593	\$38,459		
7. Supervision																				
Planning/coordination (GC)													59	2,596	\$154,027	2,596	\$154,027			
Planning/coordination (canister)													85	1,700	\$102,409	1,700	\$102,409			
Supervision/review (GC)													59	2,832	\$173,833	2,832	\$173,833			
Supervision/review (canister)													85	2,040	\$125,311	2,040	\$125,311			
Element # 7 totals														9,168	\$555,580	9,168	\$555,580			
Summary of Burdens and Costs					4,413	\$2,121,162								130,643	\$7,011,756	135,056	\$7,565,632	\$581,936	\$1,567,286	
Summary Totals																				\$9,714,854

Table 14, Summary of 2007- 2009 NOx & NOy Monitoring Costs

Aug. 2006

Cost Element	2007					2008					2009					Average 2007-2009 NOx-NOy					
	Summary NOx-NOy					Summary NOx-NOy					Summary NOx-NOy					Summary NOx-NOy					
	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 \$		Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$		
1. Network Design																					
Network design study (see NO2)																					
Site selection (see NO2)																					
Precursor NOy monitors																					
Network design study	64	\$3,658				64	\$3,728				64	\$3,804				64	\$3,730				
Site selection	17	\$938				17	\$956				17	\$975				17	\$957				
Element #1 totals	81	\$4,596				81	\$4,684				81	\$4,779				81	\$4,687				
2. Site Installation																					
Analyzer (see NO2)																					
Procurement (see NO2)																					
Equipment installation (see NO2)																					
Precursor NOy monitors																					
Analyzer				\$45,897					\$46,775					\$46,775					\$47,724		\$46,799
Procurement	9	\$441			9	\$449				9	\$459				9	\$450					
Equipment installation	34	\$1,522			34	\$1,552				34	\$1,583				34	\$1,552					
Element #2 totals	43	\$1,963		\$45,897		43	\$2,001		\$46,775		43	\$2,042		\$47,724		43	\$2,002		\$47,724		\$46,799
3. Supplies and Site Visits																					
Supplies (see NO2)																					
Routine site visits (see NO2)																					
Precursor NOy monitors																					
Supplies			\$12,538					\$12,778					\$12,778						\$13,037		\$12,784
Routine site visits	1,800	\$79,896			1,800	\$81,425				1,800	\$83,077				1,800	\$81,466			\$12,784		
Element #3 totals	1,800	\$79,896	\$12,538		1,800	\$81,425	\$12,538		\$12,778		1,800	\$83,077	\$12,538		1,800	\$81,466	\$12,538		\$12,784		
4. Maintenance																					
Spare parts/supplies (see NO2)																					
Remedial repairs (see NO2)																					
Routine maintenance (see NO2)																					
Precursor NOy monitors																					
Spare parts/supplies			\$15,672					\$15,972					\$15,972						\$16,296		\$15,980
Remedial repairs	240	\$11,707			240	\$11,931				240	\$12,173				240	\$11,937			\$15,980		
Routine maintenance	1,050	\$51,624			1,050	\$52,612				1,050	\$53,679				1,050	\$52,638			\$16,296		
Element #4 totals	1,290	\$63,331	\$15,672		1,290	\$64,543	\$15,672		\$15,972		1,290	\$65,852	\$15,672		1,290	\$64,575	\$15,672		\$16,296		\$15,980
5 Data Management																					
Data acquisition/processing																					
Data reporting	1,680	\$85,043			1,680	\$86,670				1,680	\$88,429				1,680	\$86,714			\$86,714		
Data validation	840	\$43,443			840	\$44,274				840	\$45,173				840	\$44,297			\$44,297		
Data distribution	1,260	\$62,663			1,260	\$63,862				1,260	\$65,158				1,260	\$63,894			\$63,894		
Precursor NOy monitors																					
Data acquisition/processing																					
Data reporting	300	\$15,186			300	\$15,477				300	\$15,791				300	\$15,485			\$15,485		
Data validation	150	\$7,758			150	\$7,906				150	\$8,067				150	\$7,910			\$7,910		
Data distribution	225	\$11,190			225	\$11,404				225	\$11,635				225	\$11,410			\$11,410		
Element #5 totals	75	\$3,699			75	\$3,769				75	\$3,846				75	\$3,771			\$3,771		
6. Quality Assurance																					
Quality Assurance	4,950	\$249,693			4,950	\$254,472				4,950	\$259,634				4,950	\$254,600			\$254,600		

Table 14, Summary of 2007- 2009 NOx & NOy Monitoring Costs

Aug 2006

Cost Element	2007				2008				2009				Average 2007-2009 NOx-NOy			
	Summary NOx-NOy				Summary NOx-NOy				Summary NOx-NOy				Summary NOx-NOy			
	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 \$	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$
Audits (see NO2)																
Routine calibrations (see NO2)																
Coordination/implementation (see NO2)																
Training (see NO2)																
Reporting (see NO2)																
QA plan review (annual) (see NO2)																
QA plan preparation (RO) (see NO2)																
Precursor NOy monitors																
Audits	1,080	\$59,083			1,080	\$60,214			1,080	\$61,436			1,080	\$60,245		
Routine calibrations	720	\$31,971			720	\$32,583			720	\$33,244			720	\$32,599		
Coordination/implementation	60	\$3,291			60	\$3,354			60	\$3,422			60	\$3,356		
Training	75	\$3,746			75	\$3,817			75	\$3,895			75	\$3,819		
Reporting	90	\$4,921			90	\$5,015			90	\$5,117			90	\$5,018		
QA plan review (annual)	2	\$75			2	\$77			2	\$78			2	\$77		
QA plan preparation	45	\$2,558			45	\$2,607			45	\$2,660			45	\$2,608		
Element #6 totals	2,072	\$105,645			2,072	\$107,667			2,072	\$109,851			2,072	\$107,721		
7. Supervision																
Planning/coordination	1,008	\$59,503			1,008	\$60,642			1,008	\$61,873			1,008	\$60,673		
Supervision/review	2,520	\$126,291			2,520	\$128,709			2,520	\$131,320			2,520	\$128,773		
Precursor NOy monitors																
Planning/coordination	180	\$10,626			180	\$10,829			180	\$11,049			180	\$10,834		
Supervision/review	450	\$22,552			450	\$22,984			450	\$23,450			450	\$22,995		
Element #7 totals	4,158	\$218,972			4,158	\$223,164			4,158	\$227,691			4,158	\$223,276		
Summary of Burdens and Costs	14,394	\$724,096	\$28,210	\$45,897	14,394	\$737,957	\$28,750	\$46,775	14,394	\$752,927	\$29,333	\$47,724	14,394	\$738,327	\$28,764	\$46,799
Summary Totals				\$798,202				\$813,482				\$829,984				\$813,889

Table 14.1, 2007 NOx & NOy Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Cost				New Site Hours and Costs for NOx & Precursor NOy				Summary NOx-NOy									
	# 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 Costs	Non-labor O & M	Equip/ Contract \$	
1. Network Design																		
Network design study (see NO2)																		
Site selection (see NO2)																		
Precursor NOy monitors																		
Network design study	15	30	7	\$1,707	64	\$3,658								64	\$3,658			
Site selection	15	8	7	\$438	17	\$938								17	\$938			
Element #1 totals					81	\$4,596								81	\$4,596			
2. Site Installation																		
Analyzer (see NO2)																		
Procurement (see NO2)																		
Equipment installation (see NO2)																		
Precursor NOy monitors																		
Analyzer	15		7	\$21,418		\$45,897												
Procurement	15	4	7	\$206	9	\$441								9	\$441			
Equipment installation	15	16	7	\$710	34	\$1,522								34	\$1,522			
Element #2 totals					43	\$47,860								43	\$1,963		\$45,897	
3. Supplies and Site Visits																		
Supplies (see NO2)																		
Routine site visits (see NO2)																		
Precursor NOy monitors																		
Supplies																		
Routine site visits														15				
Element #3 totals														15				
4. Maintenance																		
Spare parts/supplies (see NO2)																		
Remedial repairs (see NO2)																		
Routine maintenance (see NO2)																		
Precursor NOy monitors																		
Spare parts/supplies																		
Remedial repairs																		
Routine maintenance																		
Element #4 totals																		
5 Data Management																		
Data acquisition/processing																		
Data reporting																		
Data validation																		
Data distribution																		
Precursor NOy monitors																		
Data acquisition/processing																		
Data reporting																		
Data validation																		
Data distribution																		
Element #5 totals														4,950	\$249,693		\$249,693	

Table 15.1, 2007 Surface Meteorology Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs for Surface Met						Summary Surface Met						
	# 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 Costs	Non-labor O & M	Equip/ Contract \$	
1. Network Design																			
Network design & site selection	92	19	7	\$1,075	250	\$14,130													
Element #1 totals					250	\$14,130								250		\$14,130			
2. Site Installation																			
Met equip/sensors (4 parameters)	68		7	\$14,136		\$137,323													
Met equip/sensors (8 parameters)	24		7	\$16,017		\$54,915													
Procurement	92	8	7	\$438	105	\$5,754								105		\$5,754			\$137,323
Equipment installation	92	8	7	\$383	105	\$5,040								105		\$5,040			\$54,915
Acceptance testing	92	28	7	\$1,463	368	\$19,224								368		\$19,224			
Element #2 totals					578	\$222,255								578		\$30,017			\$192,237
3. Sampling and Analysis																			
Supplies																			
Routine field service checks																			
Element #3 totals														2,760	\$111,020	\$111,020		\$72,091	
4. Maintenance																			
Repairs & maintenance																			
Spare parts																			
Element #4 totals														1,840	\$89,393	\$89,393		\$192,243	
5. Data Management																			
Data acquisition, processing, rep																			
Data validation																			
Data distribution																			
Element #5 totals														4,416	\$208,392	\$208,392			
6. Quality Assurance																			
Audits																			
Routine calibrations																			
Coordination/implementation																			
Reporting																			
Training																			
QA plan review (annual)																			
QA plan preparation																			
Element #6 totals														4,796	\$249,006	\$249,006			
7. Supervision																			
Planning/coordination																			
Supervision/review																			
Element #7 totals														828	\$48,253	\$48,253			
Summary of Burdens and Costs					900	\$240,467								16,480	\$660,479	\$708,709		\$264,334	\$192,237
Summary Totals																			\$1,165,280

Table 15.2, 2008 Surface Meteorology Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs					New Site Hours and Costs for Surface Met					Summary Surface Met							
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# Old Plus New Sites	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	
1. Network Design																		
Network design & site selection	88	19	7	\$1,096	239	\$13,774								239	\$13,774			
Element #1 totals					239	\$13,774								239	\$13,774			
2. Site Installation																		
Met equip/sensors (4 parameters)	64		7	\$14,407		\$131,719											\$131,719	
Met equip/sensors (8 parameters)	24		7	\$16,323		\$55,966											\$55,966	
Procurement	88	8	7	\$446	101	\$5,609								101	\$5,609			
Equipment installation	88	8	7	\$391	101	\$4,913								101	\$4,913			
Acceptance testing	88	28	7	\$1,491	352	\$18,740								352	\$18,740			
Element #2 totals					553	\$216,947								553	\$29,262		\$187,685	
3. Sampling and Analysis																		
Supplies																		
Routine field service checks																	\$70,277	
Element #3 totals														2,640	\$108,226			
4. Maintenance																		
Repairs & maintenance																		
Spare parts																		
Element #4 totals														2,640	\$108,226		\$70,277	
5. Data Management																		
Data acquisition, processing, rep																		
Data validation																		
Data distribution																		
Element #5 totals														1,760	\$87,143		\$187,405	
6. Quality Assurance																		
Audits																		
Routine calibrations																		
Coordination/implementation																		
Reporting																		
Training																		
QA plan review (annual)																		
QA plan preparation																		
Element #6 totals														1,760	\$87,143		\$187,405	
7. Supervision																		
Planning/coordination																		
Supervision/review																		
Element #7 totals														1,760	\$105,134		\$2,552	
Summary of Burdens and Costs					864	\$234,881								15,764	\$643,861		\$691,057	\$187,685
Summary Totals																		\$1,136,423

Table 15.3, 2009 Surface Meteorology Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs for Surface Met						Summary Surface Met					
	# 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	Non-labor O & M	Equip/ Contract \$	
1. Network Design																		
Network design & site selection	85	19	7	\$1,118	231	\$13,575								231				
Element #1 totals					231	\$13,575								231				
2. Site Installation																		
Met equip/sensors (4 parameters)	61		7	\$14,699		\$128,091											\$128,091	
Met equip/sensors (8 parameters)	24		7	\$16,655		\$57,101											\$57,101	
Procurement	85	8	7	\$455	97	\$5,527								97		\$5,527		
Equipment installation	85	8	7	\$399	97	\$4,841								97		\$4,841		
Acceptance testing	85	28	7	\$1,521	340	\$18,469								340		\$18,469		
Element #2 totals					534	\$214,030								534		\$28,838	\$185,192	
3. Sampling and Analysis																		
Supplies													85			\$69,258		
Routine field service checks												85	2,550	\$106,657	\$106,657			
Element #3 totals													2,550	\$106,657	\$106,657	\$69,258		
4. Maintenance																		
Repairs & maintenance												85	1,700	\$85,880	\$85,880			
Spare parts												85			\$184,688			
Element #4 totals													1,700	\$85,880	\$184,688			
5. Data Management																		
Data acquisition, processing, rep.												85	1,360	\$67,042	\$67,042			
Data validation												85	1,360	\$72,767	\$72,767			
Data distribution												85	1,360	\$60,393	\$60,393			
Element #5 totals													4,080	\$200,202	\$200,202			
6. Quality Assurance																		
Audits												85	510	\$27,334	\$27,334			
Routine calibrations												85	680	\$37,584	\$37,584			
Coordination/implementation												85	850	\$50,420	\$50,420			
Reporting												85	1,530	\$76,184	\$76,184			
Training												85	850	\$46,541	\$46,541			
QA plan review (annual)												24	12	\$1,252	\$1,252			
QA plan preparation												24			\$4,245			
Element #6 totals					72	\$4,245							4,432	\$239,315	\$239,315	\$4,245		
7. Supervision																		
Planning/coordination												85	765	\$46,357	\$46,357			
Supervision/review												85	1,700	\$103,610	\$103,610			
Element #7 totals													2,465	\$2,465	\$2,465			
Summary of Burdens and Costs					837	\$231,949							15,227	\$634,519	\$634,519	\$253,946	\$185,192	
Summary Totals																		\$1,120,315

Table 16, Summary of 2007-2009 Upper Air Meteorological Monitoring Costs

Aug 2006

Cost Element	2007						2008						2009						Average 2007-2009						
	Summary Upper Air Met			Summary Upper Air Met			Summary Upper Air Met			Summary Upper Air Met			Summary Upper Air Met			Summary Upper Air Met			Summary Upper Air Met			Summary Upper Air Met			
	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 \$	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 \$	
1. Network Design																									
Network design and site selection	60	\$3,379			60	\$3,444															60	\$3,445			
Element #1 totals	\$60	\$3,379			\$60	\$3,444															\$60	\$3,445			
2. Site Installation																									
Continuous - LAP/RASS				\$167,914																					\$171,214
Continuous - radar profiler				\$74,629																					\$76,095
Inter. soundings - Rawindsondes				\$6,903																					\$7,038
Continuous - SODAR				\$69,793																					\$71,165
Continuous - LAP/RASS +NEXRA				\$18,657																					\$19,024
Computer hardware & software				\$26,269																					\$26,786
Element #2 totals	\$286	\$13,368		\$364,165	\$286	\$13,624		\$371,136	\$286	\$13,900		\$378,665	\$286	\$13,630		\$371,322									
3. Sampling and Analysis																									
Supplies/spare parts				\$22,986																					\$23,437
Routine field service checks	352	\$18,113			352	\$18,459															352	\$18,469			\$23,437
Element #3 totals	\$352	\$18,113		\$22,986	\$352	\$18,459		\$23,426	\$352	\$18,834		\$23,901	\$352	\$18,469		\$23,437									
4. Maintenance																									
Remedial field service	110	\$5,654			110	\$5,763															110	\$5,766			\$46,875
Spare parts				\$45,971																					\$46,875
Element #4 totals	\$110	\$5,654		\$45,971	\$110	\$5,763		\$46,851	\$110	\$5,880		\$47,802	\$110	\$5,766		\$46,875									
5. Data Management																									
Data acquisition, processing, etc.	132	\$6,436			132	\$6,559															132	\$6,562			
Data validation	88	\$4,528			88	\$4,615															88	\$4,617			
Element #5 totals	\$220	\$10,964			\$220	\$11,174															\$220	\$11,180			
6. Quality Assurance																									
Audits	176	\$4,827			176	\$4,919															176	\$4,922			
Routine calibrations	110	\$5,953			110	\$6,067															110	\$6,070			
Coordination/implementation	44	\$2,345			44	\$2,389															44	\$2,391			
Training	176	\$9,631			176	\$9,815															176	\$9,820			
QA/QC reporting & review	33	\$1,770			33	\$1,804															33	\$1,805			
QA plan review (annual)	11	\$1,104			11	\$1,125															11	\$1,126			
QA plan preparation	88	\$3,742			88	\$3,814															88	\$3,816			
Element #6 totals	\$638	\$29,372			\$638	\$29,934															\$638	\$29,949			
7. Supervision																									
Planning/coordination	41	\$2,345			41	\$2,389															41	\$2,391			
Supervision/review	72	\$6,505			72	\$6,629															72	\$6,633			
Element #7 totals	\$113	\$8,849			\$113	\$9,019															\$113	\$9,023			

Table 16.2, 2008 Upper Air Meteorology Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs for Upper Air Met						Summary Upper Air Met						
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	Total Cost	# Old Plus New	Hours	O & M	Labor Hours	Non-labor O & M	Equip/ Contract \$	
1. Network Design																			
Network design and site selection	22	19	7	\$1,096	60	\$3,444										60	\$3,444		
Element #1 totals					60	\$3,444										\$60	\$3,444		
2. Site Installation																			
Continuous - LAP/RASS	9		7	\$133,100		\$171,129												\$171,129	
Continuous - radar profiler	4		7	\$133,100		\$76,057												\$76,057	
Inter. soundings - Rawindsondes	1		7	\$49,243		\$7,035												\$7,035	
Continuous - SODAR	7		7	\$71,129		\$71,129												\$71,129	
Continuous - LAP/RASS +NEXRA	1		7	\$133,100		\$19,014												\$19,014	
Computer hardware & software	22		7	\$8,518		\$26,772												\$26,772	
Acceptance testing	22	60	7	\$2,623	189	\$8,242										189	\$8,242		
Procurement	22	16	7	\$892	50	\$2,804										50	\$2,804		
Equipment installation	22	15	7	\$820	47	\$2,577										47	\$2,577		
Element #2 totals					286	\$384,760										\$286	\$13,624	\$371,136	
3. Sampling and Analysis																			
Supplies/spare parts													22					\$23,426	
Routine field service checks												22		352	\$18,459	\$18,459			
Element #3 totals														352	\$18,459	\$352	\$18,459	\$23,426	
4. Maintenance																			
Remedial field service												22		110	\$5,763	\$5,763			
Spare parts											22			110	\$5,763	\$5,763	\$46,851		
Element #4 totals														110	\$5,763	\$110	\$5,763	\$46,851	
5. Data Management																			
Data acquisition, processing, etc.												22		132	\$6,559	\$6,559			
Data validation											22			88	\$4,615	\$4,615			
Element #5 totals														220	\$11,174	\$220	\$11,174		
6. Quality Assurance																			
Audits											22			176	\$4,919	\$4,919			
Routine calibrations											22			110	\$6,067	\$6,067			
Coordination/implementation											22			44	\$2,389	\$2,389			
Training											22			176	\$9,815	\$9,815			
QA/QC reporting & review											22			33	\$1,804	\$1,804			
QA plan review (annual)											22			11	\$1,125	\$1,125			
QA plan preparation			5	\$867	88	\$3,814								550	\$26,120	\$638	\$29,934		
Element #6 totals					88	\$3,814								550	\$26,120	\$638	\$29,934		
7. Supervision																			
Planning/coordination											22			41	\$2,389	\$2,389			
Supervision/review											22			72	\$6,629	\$6,629			

Table 16.3, 2009 Upper Air Meteorology Monitoring Costs

Aug 2006

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs for Upper Air Met						Summary Upper Air Met				
	# 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	Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$
1. Network Design																	
Network design and site selection	22	19	7	\$1,118	60	\$3,513								60	\$3,513		
Element #1 totals					60	\$3,513								\$60	\$3,513		
2. Site Installation																	
Continuous - LAP/RASS	9		7	\$135,800		\$174,600											\$174,600
Continuous - radar profiler	4		7	\$135,800		\$77,600											\$77,600
Inter. soundings - Rawindsondes	1		7	\$50,242		\$7,177											\$7,177
Continuous - SODAR	7		7	\$72,572		\$72,572											\$72,572
Continuous - LAP/RASS +NEXRA	1		7	\$135,800		\$19,400											\$19,400
Computer hardware & software	22		7	\$8,691		\$27,315											\$27,315
Acceptance testing	22	60	7	\$2,676	189	\$8,410								189	\$8,410		
Procurement	22	16	7	\$910	50	\$2,861								50	\$2,861		
Equipment installation	22	15	7	\$837	47	\$2,629								47	\$2,629		
Element #2 totals					286	\$392,565								\$286	\$13,900		\$378,665
3. Sampling and Analysis																	
Supplies/spare parts													22				
Routine field service checks													22				
Element #3 totals																	
4. Maintenance																	
Remedial field service																	
Spare parts																	
Element #4 totals																	
5. Data Management																	
Data acquisition, processing, etc.																	
Data validation																	
Element #5 totals																	
6. Quality Assurance																	
Audits																	
Routine calibrations																	
Coordination/implementation																	
Training																	
QA/QC reporting & review																	
QA plan review (annual)																	
QA plan preparation																	
Element #6 totals					88	\$3,891											
7. Supervision																	
Planning/coordination																	
Supervision/review																	
Element #7 totals																	
Summary of Burdens and Costs					434	\$399,969								1,345	\$71,966	\$71,702	\$378,665
														1,778	\$93,271	\$71,702	\$378,665

Table 16.3, 2009 Upper Air Meteorology Monitoring Costs

Cost Element	Previous Amortized Hours and Costs				New Site Hours and Costs for Upper Air Met				Summary Upper Air Met						
	# 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	Labor Hours	Non-labor O & M	Equip/ Contract \$
Summary Totals															\$543,638

Aug 2006

Table 17, Summary of 2007 - 2009 Carbonyl Frequency E

Aug 2006

Cost Element	2007				2008				2009				Average 2007-2009			
	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 \$	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$
1. Network Design (see O3)																
Element #1 totals				\$13,373				\$10,222				\$6,953				\$10,183
2. Site Installation																
Cartridge sampler																
Procurement	6	\$329			5	\$252			3	\$171			5	\$251		
Equipment Installation	5	\$205			4	\$157			2	\$106			4	\$156		
Element # 2 totals	11	\$534		\$13,373	8	\$408		\$10,222	6	\$278		\$6,953	8	\$407		\$10,183
3. Sampling & Analysis																
Supplies			\$3,134				\$2,396								\$2,387	
Carbonyl sample cartridges			\$35,523				\$27,152								\$27,048	
HPLC/UV with autosampler								\$37,694								\$37,549
Equipment (auxiliary)				\$836				\$639								\$636
Supplies/reagents			\$10,030				\$7,667								\$7,637	
Sample analysis	270	\$55,583			270	\$42,486			270	\$28,898			270	\$42,322		
Equipment setup	32	\$1,647			24	\$1,259			16	\$856			24	\$1,254		
Routine site visits	160	\$7,100			120	\$5,427			80	\$3,692			120	\$5,406		
Element # 3 totals	462	\$64,330	\$48,688	\$50,150	414	\$49,171	\$37,215	\$38,333	366	\$33,446	\$25,313	\$26,074	414	\$48,983	\$37,072	\$38,186
4. Maintenance																
Spare parts/supplies			\$42,628				\$32,583								\$32,458	
Remedial calibrations	64	\$3,034			48	\$2,319			32	\$1,577			48	\$2,310		
Repairs	416	\$19,584			312	\$14,969			208	\$10,182			312	\$14,911		
Maintenance	896	\$44,743			672	\$34,199			448	\$23,262			672	\$34,068		
Element # 4 totals	1,376	\$67,360	\$42,628		1,032	\$51,487	\$32,583		688	\$35,021	\$22,163		1,032	\$51,290	\$32,458	
5. Data Management																
Data acquisition/processing	192	\$9,366			144	\$7,159			96	\$4,869			144	\$7,131		
Data reporting	80	\$4,246			60	\$3,246			40	\$2,208			60	\$3,233		
Data validation	240	\$12,663			180	\$9,679			120	\$6,584			180	\$9,642		
Element # 5 totals	512	\$26,275			384	\$20,083			256	\$13,660			384	\$20,006		
6. Quality Assurance																
Calibration standards			\$18,806				\$14,375								\$14,320	
Calibrations (site & lab)	56	\$2,796			42	\$2,137			28	\$1,454			42	\$2,129		
Audits	48	\$2,382			36	\$1,821			24	\$1,238			36	\$1,814		
Training	64	\$3,139			48	\$2,399			32	\$1,632			48	\$2,390		
Implementation/coordination	64	\$3,398			48	\$2,597			32	\$1,766			48	\$2,587		
QA plan preparation	10	\$494			7	\$378			5	\$257			7	\$376		
Element # 6 totals	242	\$12,208	\$18,806		181	\$9,331	\$14,375		121	\$6,347	\$9,778		181	\$9,296	\$14,320	
7. Supervision																
Planning/coordination	144	\$7,723			108	\$5,903			72	\$4,015			108	\$5,881		
Supervision/review	144	\$8,500			108	\$6,497			72	\$4,419			108	\$6,472		
Element # 7 totals	288	\$16,224			216	\$12,401			144	\$8,435			216	\$12,353		
Summary of Burdens and Costs	2,891	\$186,931	\$110,122	\$63,524	2,236	\$142,882	\$84,172	\$48,555	1,580	\$97,187	\$57,253	\$33,027	2,236	\$142,334	\$83,849	\$48,368
Summary Totals				\$360,577				\$275,610				\$187,467				\$274,551

Table 18, Summary of 2007- 2009 Carbonyl Frequency D (8/3/3)

Aug 2006

Cost Element	2007				2008				2009				Average 2007-2009			
	Summary Carbonyl Frequency D		Summary Carbonyl Frequency D		Summary Carbonyl Frequency D		Summary Carbonyl Frequency D		Summary Carbonyl Frequency D		Summary Carbonyl Frequency D		Summary Carbonyl Frequency D		Summary Carbonyl Frequency D	
	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 \$	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$
1. Network Design (see O3)																
Element #1 totals																
2. Site Installation																
Cartridge sampler				\$23,404				\$20,444								\$18,092
Procurement	11	\$576			10	\$503			5	\$257			9	\$446		
Equipment installation	8	\$358			7	\$313			4	\$160			6	\$277		
Element # 2 totals	20	\$935		\$23,404	17	\$816		\$20,444	8	\$417		\$10,429	15	\$723		\$18,092
3. Sampling & Analysis																
Supplies			\$1,828								\$1,597				\$815	
Carbonyl sample cartridges			\$21,209					\$18,528			\$18,528				\$9,452	
HPLC/UV with autosampler				\$86,300				\$75,388								\$66,716
Equipment (auxiliary)				\$1,463				\$1,278								\$1,131
Supplies/reagents			\$8,776					\$7,667							\$3,911	
Element # 3 totals	335	\$43,329	\$31,814	\$87,763	300	\$37,850	\$27,791	\$76,666	195	\$19,309	\$14,178	\$39,110	277	\$33,496	\$24,594	\$67,846
4. Maintenance																
Spare parts/supplies			\$24,866					\$21,722							\$11,081	
Remedial calibrations	112	\$5,310			96	\$4,638			48	\$2,366			85	\$4,105		\$19,223
Repairs	364	\$17,128			312	\$14,963			156	\$7,633			277	\$13,241		
Maintenance	784	\$39,150			672	\$34,199			336	\$17,446			597	\$30,265		
Element # 4 totals	1,260	\$61,588	\$24,866		1,080	\$53,800	\$21,722		540	\$27,446	\$11,081		960	\$47,611	\$19,223	
5. Data Management																
Data acquisition/processing	168	\$8,191			144	\$7,155			72	\$3,650			128	\$6,332		
Data reporting	70	\$3,715			60	\$3,246			30	\$1,656			53	\$2,872		
Data validation	210	\$11,080			180	\$9,679			90	\$4,938			160	\$8,566		
Element # 5 totals	448	\$22,987			384	\$20,080			192	\$10,244			341	\$17,770		
6. Quality Assurance																
Calibration standards			\$10,970					\$9,583								\$8,481
Calibrations (site & lab)	49	\$2,450			42	\$2,140			21	\$1,092			37	\$1,894		
Audits	84	\$4,169			72	\$3,642			36	\$1,858			64	\$3,223		
Training	112	\$5,493			96	\$4,798			48	\$2,448			85	\$4,246		
Implementation/coordination	63	\$3,379			54	\$2,952			27	\$1,506			48	\$2,612		
QA plan preparation	17	\$864			14	\$755			7	\$385			13	\$668		
Element # 6 totals	325	\$16,355	\$10,970		278	\$14,287	\$9,583		139	\$7,288	\$4,889		247	\$12,643	\$8,481	
7. Supervision																
Planning/coordination	126	\$6,758			108	\$5,903			54	\$3,012			96	\$5,224		
Supervision/review	126	\$7,445			108	\$6,504			54	\$3,318			96	\$5,756		
Element # 7 totals	252	\$14,203			216	\$12,407			108	\$6,329			192	\$10,980		
T total	2,639	\$159,396	\$67,651	\$111,167	2,275	\$139,240	\$59,096	\$97,110	1,163	\$71,032	\$30,148	\$49,540	2,032	\$123,223	\$52,298	\$85,939
Summary Totals				\$338,213				\$295,446				\$150,720				\$261,460

Table 18.1, 2007 PAMS Carbonyl Costs, Frequency D (8/3/3)

Aug 2006

Cost Element	Previous Amortized Hours and Costs					New Site Hours and Costs for Carbonyl					Summary Carbonyl							
	# 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	Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$	
1. Network Design (see O3)																		
Element #1 totals																		
2. Site Installation																		
Cartridge sampler	7	8	5	\$16,717	11	\$23,404								11	\$576		\$23,404	
Procurement	7	6	5	\$412	8	\$576								8	\$358			
Equipment installation	7	6	5	\$256	8	\$358								20	\$935		\$23,404	
Element # 2 totals					20	\$24,338												
3. Sampling & Analysis																		
Supplies													7			\$1,828		
Carbonyl sample cartridges													7			\$21,209		
HPLC/UV with autosampler	7		5	\$61,643		\$86,300								90	\$32,421		\$86,300	
Equipment (auxiliary)	7		5	\$1,045		\$1,463								21	\$961		\$1,463	
Supplies/reagents														224	\$9,946			
Sample analysis														335	\$43,329		\$8,776	
Equipment setup	7	15	5	\$686	21	\$961												
Routine site visits																		
Element # 3 totals					21	\$88,724												
4. Maintenance																		
Spare parts/supplies																		
Remedial calibrations																		
Repairs																		
Maintenance																		
Element # 4 totals																		
5. Data Management																		
Data acquisition/processing																		
Data reporting																		
Data validation																		
Element # 5 totals																		
6. Quality Assurance																		
Calibration standards																		
Calibrations (site & lab)																		
Audits																		
Training																		
Implementation/coordination																		
QA plan preparation	7	12	5	\$617	17	\$864												
Element # 6 totals					17	\$864												
7. Supervision																		
Planning/coordination																		
Supervision/review																		
Element # 7 totals																		
Total					57	\$113,927								2,582	\$156,635		\$67,651	\$111,167
Summary Totals														2,639	\$159,396		\$67,651	\$335,213

Table 20, Summary of 2007- 2009 Carbonyl Misc Frequency

Aug 2006

Cost Element	2007					2008					2009					Average 2007-2009				
	Summary Carbonyl Misc Frequency					Summary Carbonyl Misc Frequency					Summary Carbonyl Misc Frequency					Summary Carbonyl Misc Frequency				
	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 \$		Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	
Spare parts/supplies (61/yr)	18	\$634	\$1,806			18	\$850	\$920			9	\$434	\$1,878		15	\$706				
Spare parts/supplies (collocated 61/yr)	9	\$405	\$27,086			9	\$412				4	\$210	\$11,266		7	\$342				
Remedial calibrations (44/yr)	2	\$101				1	\$52				2	\$105			2	\$86				
Remedial calibrations (32 yr)	8	\$386				4	\$196				8	\$401			7	\$328				
Remedial calibrations (16/yr)	122	\$5,784				73	\$3,537				49	\$2,406			81	\$3,909				
Remedial calibrations (collocated 61/yr)	57	\$2,692				57	\$2,743				29	\$1,399			48	\$2,278				
Repairs (44/yr)	28	\$1,305				28	\$1,330				14	\$678			23	\$1,105				
Repairs (32/yr)	7	\$326				3	\$166				7	\$339			6	\$277				
Repairs (16/yr)	26	\$1,244				13	\$634				26	\$1,293			22	\$1,057				
Repairs (61/yr)	397	\$18,658				238	\$11,409				159	\$7,760			264	\$12,609				
Repairs (collocation 61/yr)	123	\$6,152				123	\$6,270				62	\$3,199			103	\$5,207				
Maintenance (44/yr)	60	\$2,983				60	\$3,040				30	\$1,551			50	\$2,525				
Maintenance (32/yr)	15	\$746				7	\$380				15	\$775			12	\$634				
Maintenance (16/yr)	57	\$2,843				28	\$1,449				57	\$2,956			47	\$2,416				
Maintenance (61/yr)	854	\$42,645				512	\$26,077				342	\$17,737			569	\$28,820				
Maintenance (collocation 61/yr)	1,782	\$87,103	\$35,168			1,175	\$58,545	\$23,638			812	\$41,245	\$16,653		1,256	\$62,298	\$25,153			
Element # 4 totals																				
5. Data Management																				
Data acquisition/processing (44/yr)	26	\$1,287				26	\$1,312				13	\$669			22	\$1,089				
Data acquisition/processing (32/yr)	13	\$624				13	\$636				6	\$324			11	\$528				
Data acquisition/processing (16/yr)	3	\$156				2	\$80				3	\$162			3	\$133				
Data acquisition/processing (61/yr)	12	\$595				6	\$303				12	\$619			10	\$505				
Data acquisition/processing (coll 61/yr)	183	\$8,923				110	\$5,456				73	\$3,711			122	\$6,030				
Data reporting (44/yr)	11	\$584				11	\$595				7	\$405			10	\$528				
Data reporting (32/yr)	5	\$283				5	\$288				3	\$147			4	\$240				
Data reporting (16/yr)	1	\$71				1	\$72				1	\$74			1	\$72				
Data reporting (61/yr)	5	\$270				5	\$275				5	\$281			5	\$275				
Data reporting (collocation 61/yr)	76	\$4,047				46	\$2,475				31	\$1,683			51	\$2,735				
Data validation (44/yr)	33	\$1,741				33	\$1,774				22	\$1,207			29	\$1,574				
Data validation (32/yr)	16	\$844				16	\$860				8	\$439			13	\$714				
Data validation (16/yr)	4	\$211				4	\$215				4	\$219			4	\$215				
Data validation (61/yr)	15	\$805				15	\$820				15	\$837			15	\$820				
Data validation (collocation 61/yr)	229	\$12,069				137	\$7,380				92	\$5,020			153	\$8,157				
Element # 5 totals	634	\$32,510				431	\$22,542				296	\$15,797			453	\$23,616				
6. Quality Assurance																				
Calibration standards			\$34,478					\$25,555					\$17,926					\$25,986		
Calibrations (site & lab)	154	\$7,700				112	\$5,707				77	\$4,003			114	\$5,804				
Audits	264	\$13,102				192	\$9,711				132	\$6,812			196	\$9,875				
Training	112	\$5,493				112	\$5,598				112	\$5,711			112	\$5,600				
Implementation/coordination (44/yr)	10	\$531				10	\$541				7	\$368			9	\$480				

Table 20, Summary of 2007- 2009 Carbonyl Misc Frequency

Aug 2006

Cost Element	2007					2008					2009					Average 2007-2009				
	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	Summary Carbonyl Misc Frequency	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	Summary Carbonyl Misc Frequency	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	Summary Carbonyl Misc Frequency	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$	
Implementation/coordination (32/yr)	5	\$257				5	\$262				2	\$134				4	\$218			
Implementation/coordination (16/yr)	1	\$64				1	\$66				1	\$67				1	\$66			
Implementation/coordination (61/yr)	5	\$245				5	\$250				5	\$255				5	\$250			
Implementation/coordination (coll 61/yr)	69	\$3,681				41	\$2,251				27	\$1,531				46	\$2,487			
QA plan preparation	17	\$864				17	\$881				17	\$899				17	\$881			
Element # 6 totals	636	\$31,938	\$34,478			494	\$25,267	\$25,555			380	\$19,780	\$17,926			503	\$25,661	\$25,986		
7. Supervision																				
Planning/coordination (44/yr)	20	\$1,062				20	\$1,082				13	\$736				18	\$960			
Planning/coordination (32/yr)	10	\$515				10	\$525				5	\$268				8	\$436			
Planning/coordination (16/yr)	2	\$129				2	\$131				2	\$134				2	\$131			
Planning/coordination (61/yr)	9	\$491				9	\$500				9	\$510				9	\$500			
Planning/coordination (collocation 61/yr)	137	\$7,361				82	\$4,501				55	\$3,062				92	\$4,975			
Supervision/review (44/yr)	20	\$1,170				20	\$1,192				13	\$811				18	\$1,058			
Supervision/review (32/yr)	10	\$567				10	\$578				5	\$295				8	\$480			
Supervision/review (16/yr)	2	\$142				2	\$145				2	\$147				2	\$145			
Supervision/review (61/yr)	9	\$541				9	\$551				9	\$562				9	\$551			
Supervision/review (collocation 61/yr)	137	\$8,110				82	\$4,959				55	\$3,373				92	\$5,481			
Element # 7 totals	356	\$20,087				247	\$14,165				169	\$9,898				257	\$14,717			
Total	3,769	\$226,681	\$114,641	\$349,381		2,663	\$158,584	\$79,435	\$258,959		1,927	\$113,685	\$55,934	\$181,646		2,786	\$166,316	\$83,337	\$263,329	
Summary Totals				\$690,702					\$496,978					\$351,264					\$512,982	

Table 20.1, 2007 PAMS Carbonyl Costs, Misc Frequency

Aug 2006

Cost Element	Previous Amortized Hours and Costs				New Site Hours & Costs for Carbonyl Misc Frequency				Summary Carbonyl Misc Freq										
	# 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	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Misc Equip/ Contract \$
Spare parts/supplies (collocated 61/yr)													15	18	\$834	18	\$834	\$27,086	
Remedial calibrations (44/yr)													3	9	\$405	9	\$405		
Remedial calibrations (32 yr)													2	2	\$101	2	\$101		
Remedial calibrations (16/yr)													1	8	\$386	8	\$386		
Remedial calibrations (61/yr)													15	122	\$5,784	122	\$5,784		
Repairs (44/yr)													3	57	\$2,692	57	\$2,692		
Repairs (32/yr)													2	28	\$1,305	28	\$1,305		
Repairs (16/yr)													1	7	\$326	7	\$326		
Repairs (61/yr)													1	26	\$1,244	26	\$1,244		
Repairs (collocation 61/yr)													15	397	\$18,658	397	\$18,658		
Maintenance (44/yr)													3	123	\$6,152	123	\$6,152		
Maintenance (32/yr)													2	60	\$2,983	60	\$2,983		
Maintenance (16/yr)													1	15	\$746	15	\$746		
Maintenance (61/yr)													1	57	\$2,843	57	\$2,843		
Maintenance (collocation 61/yr)													15	854	\$42,645	854	\$42,645		
Element # 4 totals														1,782	\$87,103	1,782	\$87,103	\$35,168	
5. Data Management																			
Data acquisition/processing (44/yr)													3	26	\$1,287	26	\$1,287		
Data acquisition/processing (32/yr)													2	13	\$624	13	\$624		
Data acquisition/processing (16/yr)													1	3	\$156	3	\$156		
Data acquisition/processing (61/yr)													1	12	\$595	12	\$595		
Data acquisition/processing (coll 61/yr)													15	183	\$8,923	183	\$8,923		
Data reporting (44/yr)													3	11	\$584	11	\$584		
Data reporting (32/yr)													2	5	\$283	5	\$283		
Data reporting (16/yr)													1	1	\$71	1	\$71		
Data reporting (61/yr)													1	5	\$270	5	\$270		
Data reporting (collocation 61/yr)													15	76	\$4,047	76	\$4,047		
Data validation (44/yr)													3	33	\$1,741	33	\$1,741		
Data validation (32/yr)													2	16	\$844	16	\$844		
Data validation (16/yr)													1	4	\$211	4	\$211		
Data validation (61/yr)													1	15	\$805	15	\$805		
Data validation (collocation 61/yr)													15	229	\$12,069	229	\$12,069		
Element # 5 totals														634	\$32,510	634	\$32,510		
6. Quality Assurance																			
Calibration standards													22					\$34,478	
Calibrations (site & lab)													22	154	\$7,700	154	\$7,700		
Audits													22	264	\$13,102	264	\$13,102		
Training													7	112	\$5,493	112	\$5,493		
Implementation/coordination (44/yr)													3	10	\$531	10	\$531		
Implementation/coordination (32/yr)													2	5	\$257	5	\$257		
Implementation/coordination (16/yr)													1	1	\$64	1	\$64		

Table 20.2, 2008 PAMS Carbonyl Costs, Misc Frequency

Aug 2006

Cost Element	Previous Amortized Hours and Costs				New Site Hours & Costs for Carbonyl				Misc Frequency				Summary Carbonyl Misc Freq					
	# 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	Hours	O & M	Labor Hours	Non-labor O & M	Equip/ Contract \$
1. Network Design (see O3)																		
Element #1 totals																		
2. Site Installation																		
Cartridge sampler	16		5	\$17,037		\$54,518												\$54,518
Procurement	16	8	5	\$420	26	\$1,342								26		\$1,342		
Equipment installation	16	6	5	\$261	19	\$835								19		\$835		
Element # 2 totals					45	\$66,695								45		\$2,177		\$54,518
3. Sampling & Analysis																		
Supplies (44/yr)													3				\$293	
Supplies (32/yr)													2				\$142	
Supplies (16/yr)													1				\$18	
Supplies (61/yr)													1				\$68	
Supplies (collocated 61/yr)													9				\$1,218	
Carbonyl sample cartridges (44/yr)													3				\$3,397	
Carbonyl sample cartridges (32/yr)													2				\$1,647	
Carbonyl sample cartridges (16/yr)													1				\$206	
Carbonyl sample cartridges (61/yr)													1				\$785	
Carbonyl sample cartridges (collocated 61/yr)													9				\$14,127	
HPLC/UV with autosampler	16		5	\$62,823		\$201,034							16					\$201,034
Equipment (auxiliary)	16		5	\$1,065		\$3,407							16					\$3,407
Supplies/reagents (44/yr)													3				\$1,406	
Supplies/reagents (32/yr)													2				\$681	
Supplies/reagents (16/yr)													1				\$85	
Supplies/reagents (61/yr)													1				\$325	
Supplies/reagents (collocated 61/yr)													9				\$5,846	
Sample analysis (44/yr)													3	33	\$5,192	33	\$5,192	
Sample analysis (32/yr)													2	24	\$2,517	24	\$2,517	
Sample analysis (16/yr)													1	12	\$315	12	\$315	
Sample analysis (61/yr)													1	46	\$1,200	46	\$1,200	
Sample analysis (collocated 61/yr)													9	46	\$21,595	46	\$21,595	
Equipment setup													16			48	\$2,239	
Routine site visits (44/yr)	16	15	5	\$700	48	\$2,239							3	35	\$1,593	35	\$1,593	
Routine site visits (32/yr)													2	17	\$772	17	\$772	
Routine site visits (16/yr)													1	2	\$97	2	\$97	
Routine site visits (61/yr)													1	8	\$368	8	\$368	
Routine site visits (collocated 61/yr)													9	146	\$6,625	146	\$6,625	
Element # 3 totals					48	\$206,680								223	\$33,649	271	\$35,888	\$204,442
4. Maintenance																		
Spare parts/supplies (44/yr)													3				\$3,982	
Spare parts/supplies (32/yr)													2				\$1,931	
Spare parts/supplies (16/yr)													1				\$241	
Spare parts/supplies (61/yr)													1				\$920	

Table 20.3, 2009 PAMS Carbonyl Costs, Misc Frequency

Cost Element	Previous Amortized Hours and Costs					New Site Hours & Costs for Carbonyl Misc Frequency					Summary Carbonyl Misc Freq							
	# 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	Hours	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$
1. Network Design (see O3)																		
Element #1 totals																		
2. Site Installation																		
Cartridge sampler	11		5	\$17,382		\$38,241												\$38,241
Procurement	11	8	5	\$428	18	\$942								18		\$942		
Equipment installation	11	6	5	\$266	13	\$586								13		\$586		
Element #2 totals														31		\$1,527		\$38,241
3. Sampling & Analysis																		
Supplies (44/yr)													2				\$199	
Supplies (32/yr)													1				\$72	
Supplies (16/yr)													1				\$36	
Supplies (61/yr)													1				\$138	
Supplies (collocated 61/yr)													6				\$828	
Carbonyl sample cartridges (44/yr)													2				\$1,733	
Carbonyl sample cartridges (32/yr)													1				\$840	
Carbonyl sample cartridges (16/yr)													1				\$420	
Carbonyl sample cartridges (61/yr)													1				\$1,602	
Carbonyl sample cartridges (coll 61/yr)													6				\$9,609	
HPLC/UV with autosampler	11		5	\$64,098		\$141,015							11					\$141,015
Equipment (auxiliary)	11		5	\$1,086		\$2,390							11					\$2,390
Supplies/reagents (44/yr)													2				\$717	
Supplies/reagents (32/yr)													1				\$348	
Supplies/reagents (16/yr)													1				\$174	
Supplies/reagents (61/yr)													1				\$663	
Supplies/reagents (collocated 61/yr)													6				\$3,976	
Sample analysis (44/yr)													2	33		\$2,649		
Sample analysis (32/yr)													1	24		\$1,284		
Sample analysis (16/yr)													1	12		\$642		
Sample analysis (61/yr)													1	46		\$2,448		
Sample analysis (collocated 61/yr)													6	46		\$14,689		
Equipment setup	11	15	5	\$714	33	\$1,570							11			\$1,570		
Routine site visits (44/yr)													2	18		\$813		
Routine site visits (32/yr)													1	9		\$394		
Routine site visits (16/yr)													1	4		\$197		
Routine site visits (61/yr)													1	16		\$751		
Routine site visits (collocated 61/yr)													6	98		\$4,506		
Element #3 totals														207		\$23,867		\$21,355
4. Maintenance																		
Spare parts/supplies (44/yr)													2				\$2,032	
Spare parts/supplies (32/yr)													1				\$985	
Spare parts/supplies (16/yr)													1				\$493	
Spare parts/supplies (61/yr)													1				\$1,878	
Spare parts/supplies (collocated 61/yr)													6				\$11,266	

Table 20.3, 2009 PAMS Carbonyl Costs, Misc Frequency

Aug 2006

Cost Element	Previous Amortized Hours and Costs					New Site Hours & Costs for Carbonyl Misc Frequency					Summary Carbonyl Misc Freq						
	# Old Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	# New Sites	Hours/ Site	Years Amor.	Cost/ Site	Total Amor. Hours	# Old Plus New	Hours	O & M	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$
Remedial calibrations (44/yr)											2	9	\$434	9	\$434		
Remedial calibrations (32 yr)											1	4	\$210	4	\$210		
Remedial calibrations (16/yr)											1	2	\$105	2	\$105		
Remedial calibrations (61/yr)											1	8	\$401	8	\$401		
Remedial calibrations (collocated 61/yr)											6	49	\$2,406	49	\$2,406		
Repairs (44/yr)											2	29	\$1,399	29	\$1,399		
Repairs (32/yr)											1	14	\$678	14	\$678		
Repairs (16/yr)											1	7	\$339	7	\$339		
Repairs (61/yr)											1	26	\$1,293	26	\$1,293		
Repairs (collocation 61/yr)											6	159	\$7,760	159	\$7,760		
Maintenance (44/yr)											2	62	\$3,199	62	\$3,199		
Maintenance (32/yr)											1	30	\$1,551	30	\$1,551		
Maintenance (16/yr)											1	15	\$775	15	\$775		
Maintenance (61/yr)											1	57	\$2,956	57	\$2,956		
Maintenance (collocation 61/yr)											6	342	\$17,737	342	\$17,737		
Element # 4 totals												812	\$41,245	812	\$41,245		\$16,653
5. Data Management																	
Data acquisition/processing (44/yr)											2	13	\$669	13	\$669		
Data acquisition/processing (32/yr)											1	6	\$324	6	\$324		
Data acquisition/processing (16/yr)											1	3	\$162	3	\$162		
Data acquisition/processing (61/yr)											1	12	\$619	12	\$619		
Data acquisition/processing (coll 61/yr)											6	73	\$3,711	73	\$3,711		
Data reporting (44/yr)											2	7	\$405	7	\$405		
Data reporting (32/yr)											1	3	\$147	3	\$147		
Data reporting (16/yr)											1	1	\$74	1	\$74		
Data reporting (61/yr)											1	5	\$281	5	\$281		
Data reporting (collocation 61/yr)											6	31	\$1,683	31	\$1,683		
Data validation (44/yr)											2	22	\$1,207	22	\$1,207		
Data validation (32/yr)											1	8	\$439	8	\$439		
Data validation (16/yr)											1	4	\$219	4	\$219		
Data validation (61/yr)											1	15	\$837	15	\$837		
Data validation (collocation 61/yr)											6	92	\$5,020	92	\$5,020		
Element # 5 totals												296	\$15,797	296	\$15,797		
6. Quality Assurance																	
Calibration standards											11						\$17,926
Calibrations (site & lab)											11	77	\$4,003	77	\$4,003		
Audits											11	132	\$6,812	132	\$6,812		
Training											7	112	\$5,711	112	\$5,711		
Implementation/coordination (44/yr)											2	7	\$368	7	\$368		
Implementation/coordination (32/yr)											1	2	\$134	2	\$134		
Implementation/coordination (16/yr)											1	1	\$67	1	\$67		
Implementation/coordination (61/yr)											1	5	\$255	5	\$255		
Implementation/coordination (coll 61/yr)											6	27	\$1,531	27	\$1,531		

Table 22, Summary Ambient Air Monitor Network for Hazardous Air Pollutants 2007-2009 Monitoring Costs

Aug 2006

Cost Element	2007			2008			2009			Average 2007-2009 Hazardous AP		
	Summary Ambient Net. for Hazardous AP			Summary Ambient Net. for Hazardous AP			Summary Ambient Net. for Hazardous AP			Summary Ambient Net. for Hazardous AP		
	Labor Hours	Non-labor Costs	Equip/Contract \$	Labor Hours	Non-labor Costs	Equip/Contract \$	Labor Hours	Non-labor Costs	Equip/Contract \$	Labor Hours	Non-labor Costs	Equip/Contract \$
1. Network Design Network design study Site selection												
Element #1 totals												
2. Site Installation Analyzer Procurement Equipment installation												
Element #2 totals												
3. Supplies and Site Visits Supplies Routine site visits Analysis (grant for NATTS) Analysis (grant for CSATMP)			\$2,804,243 \$6,000,000 \$8,804,243			\$2,857,923 \$6,000,000 \$8,857,923			\$2,915,898 \$6,000,000 \$8,915,898			\$2,859,355 \$6,000,000 \$8,859,355
Element #3 totals												
4. Maintenance Spare parts/supplies Remedial repairs Routine maintenance												
Element #4 totals												
5 Data Management Data acquisition/processing Data reporting Data validation Data distribution												
Element #5 totals												
6. Quality Assurance Audits Routine calibrations Coordination/implementation Training Reporting QA plan review (annual) QA plan preparation (RO)												
Element #6 totals												
7. Supervision Planning/coordination Supervision/review												
Element #7 totals												
Summary of Burdens and Costs	0	\$0	\$8,804,243	0	\$0	\$8,857,923	0	\$0	\$8,915,898	0	\$0	\$8,859,355
Summary Totals			\$8,804,243			\$8,857,923			\$8,915,898			\$8,859,355

Table 23, Summary of General Network 2007-2009 Monitoring Costs*

Cost Element	2007				2008				2009				Average 2007-2009			
	Summary, General Network				Summary, General Network				Summary, General Network				Summary, General Network			
	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 \$	Labor Hours	Labor Costs	Non-labor O & M	Equip/Contract \$
1. Network Design																
Network design study (see pollutant site selection) (see pollutant)																
Travel other than monitoring site	24,595	\$1,218,793			24,595	\$1,242,263			24,595	\$1,267,418			24,595	\$1,242,825		
Saturation studies	16,909	\$959,221			16,909	\$977,693			16,909	\$997,491			16,909	\$978,135		
Additional indirect cost adj (\$2/hour)				\$5,132,595				\$5,270,674				\$4,970,567				\$5,124,612
Element #1 totals	41,504	\$2,178,014		\$5,132,595	41,504	\$2,219,957		\$5,270,674	41,504	\$2,264,909		\$4,970,567	41,504	\$2,220,960		\$5,124,612
2. Site Installation																
Multigas calibrator				\$3,266,045				\$2,995,708				\$2,716,869				\$2,992,874
Zero air supply				\$933,156				\$855,917				\$776,248				\$855,107
Ambient air intake manifold assembly				\$349,933				\$320,969				\$291,093				\$320,665
Shelter (large, temp controlled)				\$716,681				\$657,360				\$596,173				\$656,738
Shelter (small, temp controlled)				\$1,757,563				\$1,612,086				\$1,462,034				\$1,610,561
Shelter delivery charges								\$74,893				\$67,922				\$47,605
Other shelter equipment/accessories				\$653,209				\$598,142				\$543,374				\$598,575
Site preparation				\$1,951,164				\$1,789,663				\$1,623,082				\$1,787,969
Power drop				\$303,514				\$278,392				\$252,479				\$278,129
Land/lease				\$9,105,432				\$8,353,356				\$7,574,381				\$8,344,390
Rent				\$939,284				\$954,868				\$973,256				\$955,603
Element #2 totals				\$9,105,432				\$10,138,986				\$7,574,381				\$8,344,390
3. Sampling and Analysis																
Open path monitoring	2,610	\$125,597			2,610	\$125,597			2,610	\$128,015			2,610	\$126,403		
Utilities				\$3,035,144				\$2,783,920				\$2,524,794				\$2,781,266
Vehicle				\$88,290				\$69,597				\$71,009				\$89,632
Travel time to sites				\$825,559				\$841,362				\$856,430				\$841,764
Element #3 totals	11,906	\$951,156		\$3,103,434	11,906	\$966,959		\$2,853,517	11,906	\$986,445		\$2,595,803	11,906	\$968,187		\$2,850,918
4. Maintenance																
Element #4 totals																
5. Data Management																
Analysis and trends (rep org)	174,720	\$8,054,906			174,720	\$8,209,097			174,720	\$8,375,623			174,720	\$8,213,209		
Element #5 totals	174,720	\$8,054,906			174,720	\$8,209,097			174,720	\$8,375,623			174,720	\$8,213,209		
6. Quality Assurance																
Multigas calibrator				\$325,978				\$332,218				\$338,957				\$332,384
Zero air supply				\$93,136				\$94,919				\$96,845				\$94,967
Miscellaneous equipment				\$46,568				\$48,460				\$48,422				\$47,483
Element #6 totals				\$465,682				\$474,597				\$484,224				\$474,834
7. Supervision																
Element #7 totals																
Summary of Burdens and Costs	228,130	\$11,184,076	\$12,208,866	\$16,468,826	228,130	\$11,396,013	\$11,206,873	\$16,884,267	228,130	\$11,626,976	\$10,170,184	\$14,757,321	228,130	\$11,402,356	\$11,196,308	\$16,703,471
Summary Totals				\$39,861,767				\$38,487,152				\$36,554,481				\$38,301,134

* Burden estimates for Pb monitoring are based on years 2009 - 2011. All other pollutants are based on years 2007 - 2009.

Table 23.3, 2009 General Network Monitoring Costs*

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs for General Network						Summary, General Network					
	# 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	Hours	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$
1. Network Design																		
Network design study (see pollutant site selection (see pollutant))																		
Travel other than monitoring site					24,595	\$1,267,418								24,595		\$1,267,418		
Saturation studies					16,909	\$997,491								16,909		\$997,491		
Additional indirect cost adj. (\$2/hour)						\$4,970,567												\$4,970,567
Element #1 totals					41,504	\$7,235,475								41,504	\$2,264,909			\$4,970,567
2. Site Installation																		
Multigas calibrator	1,250		7	\$15,210		\$2,716,869												\$2,716,869
Zero air supply	1,250		7	\$4,346		\$776,248												\$776,248
Ambient air intake manifold assembly	1,250		7	\$1,630		\$291,093												\$291,093
Shelter (large, temp controlled)	215		10	\$27,703		\$596,173												\$596,173
Shelter (small, temp controlled)	1,035		10	\$14,123		\$1,462,034												\$1,462,034
Shelter delivery charges	1,250		10	\$543		\$67,922												\$67,922
Other shelter equipment/accessories	1,250		10	\$4,346		\$543,374												\$543,374
Site preparation	2,324		7	\$4,889		\$1,623,082												\$1,623,082
Power drop	2,324		7	\$760		\$252,479												\$252,479
Land/lease													2,324	\$3,259			\$7,574,381	
Rent						\$973,256												\$973,256
Element #2 totals						\$9,302,530												\$9,302,530
3. Sampling and Analysis																		
Open path monitoring					2,610	\$128,015								2,610		\$128,015		
Utilities	2,324																	
Vehicle	2,324																	
Travel time to sites	2,324																	
Element #3 totals																		
4. Maintenance																		
Element #4 totals																		
5. Data Management																		
Analysis and trends (rep.org)	168		1,040	\$49,855	174,720	\$8,375,623								174,720		\$8,375,623		
Element #5 totals					174,720	\$8,375,623								174,720	\$8,375,623			
6. Quality Assurance																		
Multigas calibrator	156		7	\$15,210		\$338,957												\$338,957
Zero air supply	156		7	\$4,346		\$96,845												\$96,845
Miscellaneous equipment	156		7	\$2,173		\$48,422												\$48,422
Element #6 totals						\$484,224												\$484,224
7. Supervision																		
Element #7 totals																		
Summary of Burdens and Costs					228,130	\$26,384,297								228,130	\$11,626,976	\$10,170,184		\$14,757,321
Summary Totals														228,130				\$36,554,481

* Burden estimates for Pb monitoring are based on years 2009 - 2011. All other pollutants are based on years 2007 - 2009.

Table 23.2, 2008 General Network Monitoring Costs*

Cost Element	Previous Amortized Hours and Costs						New Site Hours and Costs for General Network						Summary, General Network					
	# 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	Hours	Labor Hours	Labor Costs	Non-labor O & M	Equip/ Contract \$
1. Network Design																		
Network design study (see pollutant site selection (see pollutant))																		
Travel other than monitoring site					24,595	\$1,242,263										\$1,242,263		
Saturation studies					16,909	\$977,693										\$977,693		
Additional indirect cost adj (\$2/hour)						\$5,270,674												\$5,270,674
Element #1 totals					41,504	\$7,490,630								41,504	\$2,219,957			\$5,270,674
2. Site Installation																		
Multigas calibrator	1,407		7	\$14,907		\$2,995,708												\$2,995,708
Zero air supply	1,407		7	\$4,259		\$855,917												\$855,917
Ambient air intake manifold assembly	1,407		7	\$1,597		\$320,969												\$320,969
Shelter (large, temp controlled)	242		10	\$27,152		\$657,360												\$657,360
Shelter (small, temp controlled)	1,165		10	\$13,842		\$1,612,086												\$1,612,086
Shelter delivery charges	1,407		10	\$532		\$74,893												\$74,893
Other shelter equipment/accessories	1,407		10	\$4,259		\$599,142												\$599,142
Site preparation	2,615		7	\$4,792		\$1,789,663												\$1,789,663
Power drop	2,615		7	\$745		\$278,392												\$278,392
Land/lease													2,615	\$3,194			\$8,353,356	\$954,868
Rent																		\$10,138,996
Element #2 totals																		\$10,138,996
3. Sampling and Analysis																		
Open path monitoring					2,615	\$125,597								2,615		\$125,597		\$125,597
Utilities																		\$2,783,920
Vehicle																		\$69,597
Travel time to sites																		\$841,362
Element #3 totals																		\$2,853,517
4. Maintenance																		
Element #4 totals																		
5. Data Management																		
Analysis and trends (rep org)	168	1,040		\$48,864	174,720	\$8,209,097								174,720	\$8,209,097			\$8,209,097
Element #5 totals																		
6. Quality Assurance																		
Multigas calibrator	156		7	\$14,907		\$332,218												\$332,218
Zero air supply	156		7	\$4,259		\$94,919												\$94,919
Miscellaneous equipment	156		7	\$2,130		\$47,460												\$47,460
Element #6 totals																		\$474,597
7. Supervision																		
Element #7 totals																		
Summary of Burdens and Costs					228,130	\$27,280,279								228,130	\$11,396,013	\$11,206,873		\$15,884,267
Summary Totals														228,130				\$38,487,152

* Burden estimates for Pb monitoring are based on years 2009 - 2011. All other pollutants are based on years 2007 - 2009.

Table 24, Total EPA Burdens And Costs for CY-2007

Aug 2006

Item	EPA Regional Offices		EPA OAQPS				Total EPA	
	Hours	Costs	ITPID		EMAD		Hours	Costs
			Hours	Costs	Hours	Costs		
1. NAMS/SLAMS/PAMS oversight (includes site visits, annual network review)	75,436	\$3,778,608	-	-	43,680	\$2,235,440	119,116	\$6,014,048
2. QA audits (includes perf. audits NPAP, & systems audits)	31,551	\$1,660,346	-	-	-	-	31,551	\$1,660,346
3. Regional monitoring meeting with States	4,735	\$232,074	-	-	-	-	4,735	\$232,074
4. National or regional monitoring meetings	3,486	\$173,168	-	-	-	-	3,486	\$173,168
5. 105 Grant activities	13,096	\$582,121	-	-	-	-	13,096	\$582,121
7. Other items	7,489	\$191,734	-	-	-	-	7,489	\$191,734
8. Methods development in support of regulatory program, and reference and equivalent activities (See footnote)	-	-	-	-	-	-	-	-
9. In-house burdens for AIRS/AQS (includes AIRS Exec, AIRS TTN Web/Homepage, AIRS conference training)	-	-	10,296	\$1,080,290	-	-	10,296	\$1,080,290
10. Contractor support including hot line, enhancements maintenance, training, etc.	-	-	3,000	\$156,330	-	-	3,000	\$156,330
11. Hardware/software NCC burden, national AQS costs	-	-	-	\$1,027,146	-	-	-	\$1,027,146
12. AIR NOW	-	-	-	\$500,000	-	-	-	\$500,000
13. Other (software purchased internal support)	-	-	-	\$78,196	-	-	-	\$78,196
Totals	135,793	\$6,618,051	13,296	\$2,841,962	43,680	\$2,235,440	192,769	\$11,695,453

Method development and reference and equivalent activities covered under another ICR (OMB # 2080.0005, EPA # 0559.08 for 4,718 hours and \$101,000.