

Labor Rates

Professional/Technical Level	Labor Rate (\$/hr)	Overhead Multiplier	Loaded Labor Rate (\$/hr)	Comment
Junior Technician (TEC1)	\$14.94	1.90	\$28.38	
Senior Technician (TEC2)	\$22.29	1.83	\$40.86	
Junior Professional (PRO1)	\$25.19	1.75	\$44.12	
Mid-level Professional (PRO2)	\$30.02	1.64	\$49.26	
Staff Professional (PRO3)	\$35.43	1.57	\$55.47	
Senior Professional (PRO4)	\$40.89	1.43	\$58.59	
Contractor	\$25.00	1.00	\$25.00	

Labor rates based on year

2013

Inflation Adjustment for	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Comment
Year 1		1.158						1.045	1.032	1.053	1.074	1.086	1.108	1.130	1.336	1.175	1.198			
Year 2		1.18						1.065	1.052	1.073	1.094	1.116	1.138	1.161	1.184	1.198	1.223			
Year 3		1.204						1.086	1.073	1.094	1.116	1.139	1.161	1.185	1.208	1.223	1.247			

Year 1 = 2013

**Monitoring
Equipment
Costs**

Pollutant	Analyzer		Routine Visits		Maintenance			
	Analyzer	Year	Supplies	Year	SpareParts/ Supplies	Year	Filters	Year
CO	\$10,000	2013	\$800	2013	\$1,000	2013		
Generic Network								
NATTS								
NO2	\$11,700	2013	\$800	2013	\$1,000	2013		
O3	\$7,200	2013	\$800	2013	\$1,000	2013		
PAMSVOC	\$30,000	2013	\$16,000	2013	\$3,000	2013		
PAMSNMOC	\$11,426	2013	\$800	2013	\$1,000	2013		
PAMSNOx	\$20,500	2013	\$800	2013	\$1,000	2013		
PAMSSurfMet	\$17,285	2013	\$750	2013	\$2,000	2013		
PAMSuperAir		2013	\$1,000	2013	\$2,000	2013		
PAMSCarbD	\$16,000	2013	\$250	2013	\$3,400	2013		
PAMSCarbE	\$16,000	2013	\$750	2013	\$10,200	2013		
PAMSHalfD	\$16,000	2013	\$125	2013	\$1,700	2013		
Pb	\$2,000	2013	\$150	2013	\$300	2013	\$150	2013
PM10	\$5,500	2013			\$950	2013		2013
PM25	\$7,000	2013			\$950	2013	\$400	2013
SO2	\$10,000	2013	\$800	2013	\$1,000	2013		

**Monitoring
Equipment
Costs**

Pollutant	Item 4	Cost	Year	Year	Item 5	Cost	Year
CO							
Generic Network	Shelter (large, temp	\$25,500	2013	2013	Shelter delivery charges	\$500	2013
NATTS							
NO2							
O3							
PAMSVOC							
PAMSNMOC							
PAMSNOx							
PAMSSurfMet							
PAMSuperAir	SODAR	\$65,000	2013	2013	Computer hardware & software	\$8,000	2013
PAMSCarbD	Supplies/reagents	\$1,200	2013	2013	Calibration Stds	\$1,500	2013
PAMSCarbE	Supplies/reagents	\$2,400	2013	2013	Calibration Stds	\$4,500	2013
PAMSHalfD	Supplies/reagents	\$600	2013	2013	Calibration Stds	\$1,500	2013
Pb							
PM10	Filter Tape	\$500	2013	2013	Audit/Calibration Kits (Filter Based)	\$125	2013
PM25	Data acquisition (la	\$400	2013	2013	Speciation sampling national contract	\$7,057,204	2013
SO2							

**Monitoring
Equipment
Costs**

Pollutant	Item 12	Cost	Year	Item 13	Cost	Year
CO						
Generic Network	Utilities	\$1,000	2013	Vehicle	\$65,362	2013
NATTS						
NO2						
O3						
PAMSVOC						
PAMSNMOC						
PAMSNOx						
PAMSSurfMet						
PAMSupperAir						
PAMSCarbD						
PAMSCarbE						
PAMSHalfD						
Pb						
PM10						
PM25						
SO2						

Data Entry for	SO2	Updated on	February 1, 2012	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org	Sites
Overall Comment				113	437	113	437	113	437	113	437
				5.00%	22	22	22	22	22	22	22

General Costs													Non Labor O & M		
Element 1 - Network Design													Labor		
a) Network Design (by Reporting Organization)															
b) Site Selection (Reporting Organization)															
Sub Total - Hours															
Sub Total - Costs															

Element 2 - Site Installation															
Materials															
Labor															
Procurement															
Installation															
Sub Total - Hours															
Sub Total - Costs															

Element 3 - Supplies and Site Visits															
Supplies															
Routine visits															
Sub Total - Hours															
Sub Total - Costs															

Element 4 - Maintenance															
Spare parts/supplies															
Remedial Repairs															
Routine Maint.															
Sub Total - Hours															
Sub Total - Costs															

Element 5 - Data Management															
Data aquisition/processing															
Data reporting															
Data validation															
Data distribution															
Sub Total - Hours															
Sub Total - Costs															

Element 6 - Quality Assurance		Comment						Element 6 - Quality Assurance				Element 6 - Quality Assurance			Element 6 - Quality Assurance			Non Labor O & M		Equipment					
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Labor	O & M	Equipment					
Audits	Hours per site	0	0	0	20	16	0	36	NA	15,732	15,732	NA	15,732	NA	15,732	15,732									
	Cost per site	0	0	0	985	887	0	\$1,872	\$2,243	\$980,041	\$980,041	\$2,289	\$1,000,492	\$1,000,492	\$2,334	\$1,020,126	\$1,020,126	\$1,000,220	NA	NA					
Routine Calibrations	Hours per site	0	26	0	0	0	0	26	NA	11,362	11,362	NA	11,362	NA	11,362	11,362									
	Cost per site	0	1062	0	0	0	0	\$1,062	\$1,272	\$555,985	\$555,985	\$1,299	\$567,587	\$567,587	\$1,324	\$578,725	\$578,725	\$567,432	NA	NA					
Coordination/implementation	Hours per site	0	0	0	2	2	0	4	NA	1,748	1,748	NA	1,748	NA	1,748	1,748									
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$109,940	\$109,940	\$257	\$112,235	\$112,235	\$262	\$114,437	\$114,437	\$112,204	NA	NA					
Training	Hours per site	0	1	1	2	1	0	5	NA	2,185	2,185	NA	2,185	NA	2,185	2,185									
	Cost per site	0	41	44	99	55	0	\$239	\$286	\$125,123	\$125,123	\$292	\$127,734	\$127,734	\$298	\$130,240	\$130,240	\$127,699	NA	NA					
Reporting	Hours per site	0	0	0	3	3	0	6	NA	2,622	2,622	NA	2,622	NA	2,622	2,622									
	Cost per site	0	0	0	148	166	0	\$314	\$376	\$164,387	\$164,387	\$384	\$167,818	\$167,818	\$392	\$171,111	\$171,111	\$167,772	NA	NA					
QA Plan review (annual)	Hours per RO	0	0	0.2	0.3	0	0	0.5	NA	57	57	NA	57	NA	57	57									
	Cost	0	0	9	15	0	0	\$24	\$29	\$3,249	\$3,249	\$29	\$3,317	\$3,317	\$30	\$3,382	\$3,382	\$3,316	NA	NA					
QA Plan preparation	Hours per RO	0	0	0	5	5	5	15	NA	1695	339	NA	1695	339	NA	1695	339								
	Cost per RO	0	0	0	246	277	293	\$816	\$978	\$110,465	\$22,093	\$998	\$112,770	\$22,554	\$1,018	\$114,983	\$22,997	\$22,548	NA	NA					
Sub Total - Hours		0	27	1	32	27	5	93	NA	NA	34,045	NA	NA	NA	NA	34,045									
Sub Total - Costs		\$0	\$1,103	\$53	\$1,592	\$1,496	\$293	\$4,537	\$5,435	NA	\$1,960,818	\$5,549	NA	\$2,001,736	\$5,658	NA	\$2,041,018	\$2,001,191	NA	NA					
Element 7 - Supervision																									
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Labor	O & M	Equipment					
Planning/coordination	Hours per site	0	0	0	0	8	4	12	NA	5,244	5,244	NA	5,244	NA	5,244	5,244									
	Cost per site	0	0	0	0	444	234	\$678	\$812	\$354,951	\$354,951	\$829	\$362,358	\$362,358	\$845	\$369,469	\$369,469	\$362,259	NA	NA					
Supervision/review	Hours per site	0	0	16	8	4	2	30	NA	13,110	13,110	NA	13,110	NA	13,110	13,110									
	Cost per site	0	0	706	394	222	117	\$1,439	\$1,724	\$753,354	\$753,354	\$1,760	\$769,075	\$769,075	\$1,794	\$784,167	\$784,167	\$768,865	NA	NA					
Sub Total - Hours		0	0	16	8	12	6	42	NA	18354	18354	NA	18354	NA	18354	18354									
Sub Total - Costs		\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$1,108,305	\$1,108,305	\$2,589	\$1,131,433	\$1,131,433	\$2,640	\$1,153,636	\$1,153,636	\$1,131,124	NA	NA					
Summary by Element																									
		SO2						Year 1			2013			Year 2			2014			Year 3			2015		
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Labor	O & M	Equipment		
1 - Network Design	Hours	0	0	0	14	14	10	38	NA	4,294	613	NA	4,294	613	NA	4,294	613	NA	4,294	613					
	Costs	\$0	\$0	\$0	\$690	\$777	\$586	\$2,053	\$2,459	\$277,923	\$39,703	\$2,511	\$283,723	\$40,532	\$2,560	\$289,290	\$41,327	\$40,521	NA	NA					
2 - Site Installation	Hours	0	8	8	4	0	0	20	NA	8,827	1,261	NA	8,827	1,261	NA	8,827	1,261	NA	8,827	1,261					
	Costs	\$0	\$327	\$353	\$197	\$0	\$0	\$877	\$1,051	\$0	\$851,616	\$1,073	\$0	\$868,636	\$1,094	\$0	\$885,682	\$67,186	NA	NA	\$801,458				
3 - Supplies & site visits	Hours	0	60	60	0	0	0	120	NA	52440	52440	NA	52440	52440	NA	52440	52440								
	Costs	\$0	\$60	\$60	\$0	\$0	\$0	\$5,898	\$7,066	\$3,087,756	\$3,087,756	\$7,213	\$3,152,192	\$3,152,192	\$7,355	\$3,214,050	\$3,214,050	\$3,151,333	\$427,444	NA					
4 - Maintenance	Hours	0	22	11	35	0	0	68	NA	29716	29716	NA	29716	29716	NA	29716	29716								
	Costs	\$0	\$899	\$485	\$1,724	\$0	\$0	\$4,108	\$4,921	\$2,150,645	\$2,150,645	\$5,024	\$2,195,525	\$2,195,525	\$5,123	\$2,238,609	\$2,238,609	\$1,660,621	\$534,305	NA					
5 - Data Managment	Hours	0	8	10	17	4	0	39	NA	17043	17043	NA	17043	17043	NA	17043	17043								
	Costs	\$0	\$327	\$440	\$838	\$222	\$0	\$1,827	\$2,189	\$956,482	\$956,482	\$2,234	\$976,442	\$976,442	\$2,278	\$995,604	\$995,604	\$976,176	NA	NA					
6 - Quality Assurance	Hours	0	27	1	32	27	5	93	NA	NA	34,045	NA	NA	34,045	NA	NA	34,045								
	Costs	\$0	\$1,103	\$53	\$1,592	\$1,496	\$293	\$4,537	\$5,435	NA	\$1,960,818	\$5,549	NA	\$2,001,736	\$5,658	NA	\$2,041,018	\$2,001,191	\$0	NA					
7 - Supervision	Hours	0	0	16	8	12	6	42	NA	18354	18354	NA	18354	NA	18354	18354									
	Costs	\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$1,108,305	\$1,108,305	\$2,589	\$1,131,433	\$1,131,433	\$2,640	\$1,153,636	\$1,153,636	\$1,131,124	NA	NA					
Total	Hours	0	125	106	110	57	21	420	NA	130,674	153,472	NA	130,674	153,472	NA	130,674	153,472								
	Costs	\$0	\$2,716	\$2,097	\$5,435	\$3,161	\$1,230	\$21,417	\$25,658	\$7,581,111	\$10,155,325	\$26,193	\$7,739,314	\$10,366,495	\$26,707	\$7,891,189	\$10,569,926	\$9,028,152	\$961,750	\$801,458					

Data Entry for	CO	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org	Sites
Overall Comment				92	303 Spares 15	92	303 Spares 15	92	303 Spares 15	92	303 Spares 15

General Costs													Non Labor O & M		
Element 1 - Network Design													Labor		
a) Network Design (by Reporting Organization)															
b) Site Selection (Reporting Organization)															
Sub Total - Hours															
Sub Total - Costs															

Element 2 - Site Installation															
Materials															
Labor															
Procurement															
Installation															
Sub Total - Hours															
Sub Total - Costs															

Element 3 - Supplies and Site Visits															
Supplies															
Routine visits															
Sub Total - Hours															
Sub Total - Costs															

Element 4 - Maintenance															
Spare parts/supplies															
Remedial Repairs															
Routine Maint.															
Sub Total - Hours															
Sub Total - Costs															

Element 5 - Data Management															
Data aquisition/processing															
Data reporting															
Data validation															
Data distribution															
Sub Total - Hours															
Sub Total - Costs															

Element 6 - Quality Assurance		Comment						Element 6 - Quality Assurance				Element 6 - Quality Assurance			Element 6 - Quality Assurance			Non Labor O & M		Equipment				
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total		Yearly Cost	Per Site Adjusted	Entire Network Total		Yearly Cost	Per Site Adjusted	Entire Network Total		Yearly Cost	Labor	O & M	Equipment	
Audits	Hours per site	0	0	0	20	16	0	36	NA	10,908	10,908	10,908	NA	10,908	10,908	10,908	NA	10,908	10,908	10,908	10,908	NA	NA	NA
	Cost per site	0	0	0	985	887	0	\$1,872	\$2,243	\$679,525	\$679,525	\$679,525	\$2,289	\$693,705	\$693,705	\$693,705	\$2,334	\$707,318	\$707,318	\$707,318	\$693,516	NA	NA	NA
Routine Calibrations	Hours per site	0	26	0	0	0	0	26	NA	7,878	7,878	7,878	NA	7,878	7,878	7,878	NA	7,878	7,878	7,878	7,878	NA	NA	NA
	Cost per site	0	1062	0	0	0	0	\$1,062	\$1,272	\$385,500	\$385,500	\$385,500	\$1,299	\$393,544	\$393,544	\$393,544	\$1,324	\$401,267	\$401,267	\$401,267	\$393,437	NA	NA	NA
Coordination/implementation	Hours per site	0	0	0	2	2	0	4	NA	1,212	1,212	1,212	NA	1,212	1,212	1,212	NA	1,212	1,212	1,212	1,212	NA	NA	NA
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$76,229	\$76,229	\$76,229	\$257	\$77,819	\$77,819	\$77,819	\$262	\$79,347	\$79,347	\$79,347	\$77,798	NA	NA	NA
Training	Hours per site	0	1	1	2	1	0	5	NA	1,515	1,515	1,515	NA	1,515	1,515	1,515	NA	1,515	1,515	1,515	1,515	NA	NA	NA
	Cost per site	0	41	44	99	55	0	\$239	\$286	\$86,756	\$86,756	\$86,756	\$292	\$88,566	\$88,566	\$88,566	\$298	\$90,304	\$90,304	\$90,304	\$88,542	NA	NA	NA
Reporting	Hours per site	0	0	0	3	3	0	6	NA	1,818	1,818	1,818	NA	1,818	1,818	1,818	NA	1,818	1,818	1,818	1,818	NA	NA	NA
	Cost per site	0	0	0	148	166	0	\$314	\$376	\$113,980	\$113,980	\$113,980	\$384	\$116,359	\$116,359	\$116,359	\$392	\$118,642	\$118,642	\$118,642	\$116,327	NA	NA	NA
QA Plan review (annual)	Hours per RO	0	0	0.2	0.3	0	0	0.5	NA	46	46	46	NA	46	46	46	NA	46	46	46	46	NA	NA	NA
	Cost	0	0	9	15	0	0	\$24	\$29	\$2,645	\$2,645	\$2,645	\$29	\$2,700	\$2,700	\$2,700	\$30	\$2,753	\$2,753	\$2,753	\$2,700	NA	NA	NA
QA Plan preparation	Hours per RO	0	0	0	5	5	5	15	NA	1380	276	276	NA	1380	276	276	NA	1380	276	276	276	NA	NA	NA
	Cost per RO	0	0	0	246	277	293	\$816	\$978	\$89,936	\$17,987	\$17,987	\$998	\$91,813	\$18,363	\$18,363	\$1,018	\$93,615	\$18,723	\$18,723	\$18,358	NA	NA	NA
Sub Total - Hours		0	27	1	32	27	5	93	NA	NA	23,653	23,653	NA	NA	23,653	23,653	NA	NA	23,653	23,653	23,653	NA	NA	NA
Sub Total - Costs		\$0	\$1,103	\$53	\$1,592	\$1,496	\$293	\$4,537	\$5,435	NA	\$1,362,621	\$1,362,621	\$5,549	NA	\$1,391,057	\$1,391,057	\$5,658	NA	\$1,418,355	\$1,418,355	\$1,390,677	NA	NA	NA

Element 7 - Supervision		Comment						Element 7 - Supervision				Element 7 - Supervision			Element 7 - Supervision			Non Labor O & M		Equipment				
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total		Yearly Cost	Per Site Adjusted	Entire Network Total		Yearly Cost	Per Site Adjusted	Entire Network Total		Yearly Cost	Labor	O & M	Equipment	
Planning/coordination	Hours per site	0	0	0	0	8	4	12	NA	3,636	3,636	3,636	NA	3,636	3,636	3,636	NA	3,636	3,636	3,636	3,636	NA	NA	NA
	Cost per site	0	0	0	0	444	234	\$678	\$812	\$246,110	\$246,110	\$246,110	\$829	\$251,246	\$251,246	\$251,246	\$845	\$256,176	\$256,176	\$256,176	\$251,177	NA	NA	NA
Supervision/review	Hours per site	0	0	16	8	4	2	30	NA	9,090	9,090	9,090	NA	9,090	9,090	9,090	NA	9,090	9,090	9,090	9,090	NA	NA	NA
	Cost per site	0	0	706	394	222	117	\$1,439	\$1,724	\$522,348	\$522,348	\$522,348	\$1,760	\$533,249	\$533,249	\$533,249	\$1,794	\$543,713	\$543,713	\$543,713	\$533,103	NA	NA	NA
Sub Total - Hours		0	0	16	8	12	6	42	NA	12726	12726	12726	NA	12726	12726	12726	NA	12726	12726	12726	12,726	NA	NA	NA
Sub Total - Costs		\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$768,458	\$768,458	\$768,458	\$2,589	\$784,495	\$784,495	\$784,495	\$2,640	\$799,889	\$799,889	\$799,889	\$784,281	NA	NA	NA

Summary by Element		CO						Year 1 2013			Year 2 2014			Year 3 2015			Non Labor O & M		Equipment					
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Labor	O & M	Equipment				
1 - Network Design	Hours	0	0	0	14	14	10	38	NA	3,496	499	499	NA	3,496	499	499	499	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$690	\$777	\$586	\$2,053	\$2,459	\$226,273	\$32,325	\$32,325	\$2,511	\$230,995	\$32,999	\$32,999	\$2,560	\$235,528	\$33,647	\$33,647	\$32,990	NA	NA	NA
2 - Site Installation	Hours	0	8	8	4	0	0	20	NA	6,121	874	874	NA	6,121	874	874	874	NA	874	874	874	NA	NA	NA
	Costs	\$0	\$327	\$353	\$197	\$0	\$0	\$877	\$1,051	\$0	\$590,480	\$590,480	\$1,073	\$0	\$602,281	\$602,281	\$1,094	\$0	\$614,100	\$614,100	\$46,585	NA	NA	\$555,702
3 - Supplies & site visits	Hours	0	60	60	0	0	0	120	NA	36360	36360	36360	NA	36360	36360	36360	NA	36360	36360	36360	36360	NA	NA	NA
	Costs	\$0	\$60	\$60	\$0	\$0	\$0	\$5,898	\$7,066	\$2,140,939	\$2,140,939	\$2,140,939	\$7,213	\$2,185,616	\$2,185,616	\$2,185,616	\$7,355	\$2,228,506	\$2,228,506	\$2,228,506	\$2,185,020	\$296,374	NA	NA
4 - Maintenance	Hours	0	22	11	35	0	0	68	NA	20604	20604	20604	NA	20604	20604	20604	NA	20604	20604	20604	20604	NA	NA	NA
	Costs	\$0	\$899	\$485	\$1,724	\$0	\$0	\$4,108	\$4,921	\$1,491,179	\$1,491,179	\$1,491,179	\$5,024	\$1,522,297	\$1,522,297	\$1,522,297	\$5,123	\$1,552,171	\$1,552,171	\$1,552,171	\$1,151,415	\$370,468	NA	NA
5 - Data Managment	Hours	0	8	10	17	4	0	39	NA	11817	11817	11817	NA	11817	11817	11817	NA	11817	11817	11817	11817	NA	NA	NA
	Costs	\$0	\$327	\$440	\$838	\$222	\$0	\$1,827	\$2,189	\$663,190	\$663,190	\$663,190	\$2,234	\$677,030	\$677,030	\$677,030	\$2,278	\$690,316	\$690,316	\$690,316	\$676,845	NA	NA	NA
6 - Quality Assurance	Hours	0	27	1	32	27	5	93	NA	NA	23653	23653	NA	NA	23653	23653	NA	NA	23653	23653	23653	NA	NA	NA
	Costs	\$0	\$1,103	\$53	\$1,592	\$1,496	\$293	\$4,537	\$5,435	NA	\$1,362,621	\$1,362,621	\$5,549	NA	\$1,391,057	\$1,391,057	\$5,658	NA	\$1,418,355	\$1,418,355	\$1,390,677	NA	NA	NA
7 - Supervision	Hours	0	0	16	8	12	6	42	NA	12726	12726	12726	NA	12726	12726	12726	NA	12726	12726	12726	12,726	NA	NA	NA
	Costs	\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$768,458	\$768,458	\$768,458	\$2,589	\$784,495	\$784,495	\$784,495	\$2,640	\$799,889	\$799,889	\$799,889	\$784,281	NA	NA	NA
Total	Hours	0	125	106	110	57	21	420	NA	91,124	106,534	106,534	NA	91,124	106,534	106,534	NA	91,124	106,534	106,534	106,534	NA	NA	NA
	Costs	\$0	\$2,716	\$2,097	\$5,435	\$3,161	\$1,230	\$21,417	\$25,658	\$2,290,040	\$7,049,192	\$7,049,192	\$26,193	\$5,400,433	\$7,195,774	\$7,195,774	\$26,707	\$5,506,410	\$7,336,983	\$7,336,983	\$6,267,813	\$666,842	NA	\$555,702

Data Entry for	NO2	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org	Sites
Overall Comment				87	368	87	420	87	420	87	87
				5.00%	18	21	21	21	21	402.666666667	20

General Costs													Non Labor O & M		
Element 1 - Network Design													Labor		
a) Network Design (by Reporting Organization)															
b) Site Selection (Reporting Organization)															
Sub Total - Hours															
Sub Total - Costs															

Element 2 - Site Installation															
Materials															
Labor															
Procurement															
Installation															
Sub Total - Hours															
Sub Total - Costs															

Element 3 - Supplies and Site Visits															
Supplies															
Routine visits															
Sub Total - Hours															
Sub Total - Costs															

Element 4 - Maintenance															
Spare parts/supplies															
Remedial Repairs															
Routine Maint.															
Sub Total - Hours															
Sub Total - Costs															

Element 5 - Data Management															
Data aquisition/processing															
Data reporting															
Data validation															
Data distribution															
Sub Total - Hours															
Sub Total - Costs															

Element 6 - Quality Assurance		Comment						Element 6 - Quality Assurance				Element 6 - Quality Assurance			Element 6 - Quality Assurance			Non Labor O & M		Equipment			
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total		Yearly Cost	Per Site Adjusted	Entire Network Total		Yearly Cost	Per Site Adjusted	Entire Network Total		Yearly Cost	Labor	O & M	Equipment
Audits	Hours per site	0	0	0	36	36	0	72	NA	26,496	26,496		NA	30,240	30,240		NA	30,240	30,240		28,992	NA	NA
	Cost per site	0	0	0	1,773	1,997	0	\$3,770	\$4,516	\$1,662,057	\$1,662,057		\$4,611	\$1,936,498	\$1,936,498		\$4,701	\$1,974,500	\$1,974,500		\$1,857,685	NA	NA
Routine Calibrations	Hours per site	0	24	24	0	0	0	48	NA	17,664	17,664		NA	20,160	20,160		NA	20,160	20,160		19,328	NA	NA
	Cost per site	0	981	1,059	0	0	0	\$2,040	\$2,444	\$899,363	\$899,363		\$2,495	\$1,047,866	\$1,047,866		\$2,544	\$1,068,430	\$1,068,430		\$1,005,220	NA	NA
Coordination/implementation	Hours per site	0	0	0	2	2	0	4	NA	1,472	1,472		NA	1,680	1,680		NA	1,680	1,680		1,611	NA	NA
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$92,581	\$92,581		\$257	\$107,869	\$107,869		\$262	\$109,985	\$109,985		\$103,478	NA	NA
Training	Hours per site	0	1	1	2	1	0	5	NA	1,840	1,840		NA	2,100	2,100		NA	2,100	2,100		2,013	NA	NA
	Cost per site	0	41	44	99	55	0	\$239	\$286	\$105,366	\$105,366		\$292	\$122,765	\$122,765		\$298	\$125,174	\$125,174		\$117,768	NA	NA
Reporting	Hours per site	0	0	0	3	3	0	6	NA	2,208	2,208		NA	2,520	2,520		NA	2,520	2,520		2,416	NA	NA
	Cost per site	0	0	0	148	166	0	\$314	\$376	\$138,431	\$138,431		\$384	\$161,289	\$161,289		\$392	\$164,454	\$164,454		\$154,725	NA	NA
QA Plan review (annual)	Hours per RO	0	0	0.2	0.3	0	0	0.5	NA	44	44		NA	44	44		NA	44	44		44	NA	NA
	Cost	0	0	9	15	0	0	\$24	\$29	\$2,501	\$2,501		\$29	\$2,554	\$2,554		\$30	\$2,604	\$2,604		\$2,553	NA	NA
QA Plan preparation	Hours per RO	0	0	0	5	5	5	15	NA	1,305	261		NA	1,305	261		NA	1,305	261		261	NA	NA
	Cost per RO	0	0	0	246	277	293	\$816	\$978	\$85,048	\$17,010		\$998	\$86,823	\$17,365		\$1,018	\$88,527	\$17,705		\$17,360	NA	NA
Sub Total - Hours		0	25	25	48	47	5	151	NA	NA	49,985		NA	NA	57,005		NA	NA	57,005		54,665	NA	NA
Sub Total - Costs		\$0	\$1,022	\$1,112	\$2,380	\$2,606	\$293	\$7,413	\$8,881	NA	\$2,917,310		\$9,066	NA	\$3,396,205		\$9,244	NA	\$3,462,852		\$3,258,789	NA	NA

Element 7 - Supervision		Comment						Element 7 - Supervision				Element 7 - Supervision			Element 7 - Supervision			Non Labor O & M		Equipment			
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total		Yearly Cost	Per Site Adjusted	Entire Network Total		Yearly Cost	Per Site Adjusted	Entire Network Total		Yearly Cost	Labor	O & M	Equipment
Planning/coordination	Hours per site	0	0	0	8	8	4	12	NA	4,416	4,416		NA	5,040	5,040		NA	5,040	5,040		4,832	NA	NA
	Cost per site	0	0	0	0	444	234	\$678	\$812	\$298,906	\$298,906		\$829	\$348,261	\$348,261		\$845	\$355,096	\$355,096		\$334,088	NA	NA
Supervision/review	Hours per site	0	0	16	8	4	2	30	NA	11,040	11,040		NA	12,600	12,600		NA	12,600	12,600		12,080	NA	NA
	Cost per site	0	0	706	394	222	117	\$1,439	\$1,724	\$634,403	\$634,403		\$1,760	\$739,157	\$739,157		\$1,794	\$753,662	\$753,662		\$709,074	NA	NA
Sub Total - Hours		0	0	16	8	12	6	42	NA	15,456	15,456		NA	17,640	17,640		NA	17,640	17,640		16,912	NA	NA
Sub Total - Costs		\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$933,309	\$933,309		\$2,589	\$1,087,418	\$1,087,418		\$2,640	\$1,108,758	\$1,108,758		\$1,043,162	NA	NA

Summary by Element		NO2							Year 1			2013			Year 2			2014			Year 3			2015		
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Labor	O & M	Equipment			
1 - Network Design	Hours	0	0	0	14	14	10	38	NA	3,306	472	NA	3,306	472	NA	3,306	472	NA	3,306	472	472	NA	NA			
	Costs	\$0	\$0	\$0	\$690	\$777	\$586	\$2,053	\$2,459	\$213,976	\$30,568	\$2,511	\$218,441	\$31,206	\$2,560	\$222,728	\$31,818	\$31,197	\$222,728	\$31,818	\$31,197	NA	NA			
2 - Site Installation	Hours	0	8	8	4	0	0	20	NA	7,434	1,062	NA	8,484	1,212	NA	8,484	1,212	NA	8,484	1,212	1,162	NA	NA			
	Costs	\$0	\$327	\$353	\$197	\$0	\$0	\$877	\$1,051	\$0	\$829,571	\$1,073	\$0	\$966,550	\$1,094	\$0	\$985,518	\$62,428	\$985,518	\$62,428	NA	NA	\$864,784			
3 - Supplies & site visits	Hours	0	60	60	0	0	0	120	NA	44,160	44,160	NA	50,400	50,400	NA	50,400	50,400	NA	50,400	50,400	48,320	NA	NA			
	Costs	\$0	\$60	\$60	\$0	\$0	\$0	\$5,898	\$7,066	\$2,600,216	\$2,600,216	\$7,213	\$3,029,567	\$3,029,567	\$7,355	\$3,089,019	\$3,089,019	\$2,906,267	\$3,089,019	\$2,906,267	\$394,204	NA	NA			
4 - Maintenance	Hours	0	0	38	48	0	0	86	NA	31,648	31,648	NA	36,120	36,120	NA	36,120	36,120	NA	36,120	36,120	34,629	NA	NA			
	Costs	\$0	\$0	\$1,677	\$2,365	\$0	\$0	\$5,042	\$6,040	\$2,222,836	\$2,222,836	\$6,166	\$2,589,874	\$2,589,874	\$6,287	\$2,640,697	\$2,640,697	\$1,991,714	\$2,640,697	\$2,640,697	\$492,755	NA	NA			
5 - Data Management	Hours	0	0	18	25	7	0	50	NA	18,400	18,400	NA	21,000	21,000	NA	21,000	21,000	NA	21,000	21,000	20,133	NA	NA			
	Costs	\$0	\$0	\$794	\$1,232	\$388	\$0	\$2,414	\$2,892	\$1,064,246	\$1,064,246	\$2,952	\$1,239,975	\$1,239,975	\$3,010	\$1,264,308	\$1,264,308	\$1,189,510	\$1,264,308	\$1,264,308	\$1,189,510	NA	NA			
6 - Quality Assurance	Hours	0	25	25	48	47	5	151	NA	NA	49,985	NA	NA	57,005	NA	57,005	NA	57,005	57,005	54,665	NA	NA				
	Costs	\$0	\$1,022	\$1,112	\$2,380	\$2,606	\$293	\$7,413	\$8,881	NA	\$2,917,310	\$9,066	NA	\$3,396,205	\$9,244	NA	\$3,462,852	\$3,258,789	\$3,462,852	\$3,258,789	\$0	NA	NA			
7 - Supervision	Hours	0	0	16	8	12	6	42	NA	15,456	15,456	NA	17,640	17,640	NA	17,640	17,640	NA	17,640	17,640	16,912	NA	NA			
	Costs	\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$933,309	\$933,309	\$2,589	\$1,087,418	\$1,087,418	\$2,640	\$1,108,758	\$1,108,758	\$1,043,162	\$1,108,758	\$1,043,162	NA	NA	NA			
Total	Hours	0	93	165	147	80	21	507	NA	120,404	161,183	NA	136,950	183,849	NA	136,950	183,849	NA	136,950	183,849	176,293	NA	NA			
	Costs	\$0	\$1,409	\$4,702	\$7,258	\$4,437	\$1,230	\$25,814	\$30,925	7,034,583	\$10,598,056	\$31,571	8,165,275	\$12,340,796	\$32,190	8,325,509	\$12,582,970	\$10,483,068	\$12,582,970	\$10,483,068	\$886,958	NA	\$864,784			

Data Entry for		O3		Updated on February 1, 2013		Year 1 2013		Year 2 2014		Year 3 2015		Average Yearly Costs		Equipment	
Overall Comment		Spare Factor 20.00%		Report Org 153		Sites 4 month 8, 5 month 78, 6 month 119, 7 month 385, 8 month 181, 9 month 37, 12 month 407, Total Sites 1215, Avg Percent Sampled 72.0%, Spares 243		Report Org 153		Sites 4 month 8, 5 month 78, 6 month 119, 7 month 385, 8 month 181, 9 month 37, 12 month 407, Total Sites 1215, Avg Percent Sampled 72.0%, Spares 243		Report Org 153		Sites 4 month 8, 5 month 78, 6 month 119, 7 month 385, 8 month 181, 9 month 37, 12 month 407, Total Sites 1215, Report Org 153	
General Costs															
Element 1 - Network design		Years Amortized 7		Comment		Element 1 - Network Design		Element 1 - Network Design		Element 1 - Network Design		Element 1 - Network Design		Labor Non Labor O & M	
a) Network Design (by Reporting Organization)		TEC1 TEC2		PRO1 PRO2 PRO3 PRO4		Per RO Total		Per RO Adjusted Total		Per RO Adjusted Total		Per RO Adjusted Total		Per RO Adjusted Total	
Labor Category		0 0		10 10 10 10		30		NA 4590 656		NA 4,590 656		NA 4,590 656		NA 4,590 656	
Hours per RO		0 0		0 0 0 0		0		NA		NA		NA		NA	
Costs per RO		0 0		493 555 586		\$1,634		\$1,958 \$299,502 \$42,786		\$1,998 \$305,752 \$43,679		\$2,038 \$311,752 \$44,536		\$43,667 NA NA	
b) Site Selection (Reporting Organization)		TEC1 TEC2		PRO1 PRO2 PRO3 PRO4		Per Site Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total	
Hours per RO		0 0		4 4 0 0		8		NA 1224 175		NA 1224 175		NA 1224 175		NA 1224 175	
Costs per RO		0 0		197 222 0 0		\$419		\$502 \$76,800 \$10,971		\$512 \$78,403 \$11,200		\$522 \$79,941 \$11,420		\$11,197 NA NA	
Sub Total - Hours		0 0		14 14 10 38		38		NA 5,814 831		NA 5814 831		NA 5,814 831		831 NA NA	
Sub Total - Costs		\$0 \$0		\$690 \$777 \$586 \$2,053		\$2,459 \$376,303 \$53,758		\$2,511 \$384,155 \$54,879		\$2,560 \$391,694 \$55,956		\$54,864 NA NA		\$1,833,581	
Element 2 - Site Installation		Years Amortized 7		Comment		Element 2 - Site Installation		Element 2 - Site Installation		Element 2 - Site Installation		Element 2 - Site Installation		Labor Non Labor O & M	
Materials		Unit cost Year		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total	
Spare Analyzers		\$7,200 2013		\$8,626 \$10,480,104 \$1,497,158		\$8,806 \$10,698,804 \$1,528,401		\$8,978 \$10,908,756 \$1,558,394		\$8,978 \$10,908,756 \$1,558,394		\$8,978 \$10,908,756 \$1,558,394		NA NA \$1,527,984	
Labor		TEC1 TEC2		PRO1 PRO2 PRO3 PRO4		Per Site Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total	
Procurement		0 0		197 222 0 0		\$197		\$236 \$344,097 \$49,157		\$241 \$292,731 \$41,819		\$246 \$298,476 \$42,639		\$44,538 NA NA	
Hours per site		0 0		8 8 0 0		16		NA 19440 2777		NA 19,440 2777		NA 19,440 2777		2,777 NA NA	
Cost per site		0 0		327 353 0 0		\$680		\$815 \$989,788 \$141,398		\$832 \$1,010,443 \$144,349		\$848 \$1,030,271 \$147,182		\$144,310 NA NA	
Installation		0 8		8 4 0 0		20		NA 25,272 3,610		NA 25,272 3,610		NA 25,272 3,610		3,610 NA NA	
Hours per site		0 8		8 4 0 0		20		NA 25,272 3,610		NA 25,272 3,610		NA 25,272 3,610		3,610 NA NA	
Cost per site		0 327		353 0 0 0		\$680		\$815 \$989,788 \$141,398		\$832 \$1,010,443 \$144,349		\$848 \$1,030,271 \$147,182		\$144,310 NA NA	
Sub Total - Hours		0 8		8 4 0 0		20		NA 25,272 3,610		NA 25,272 3,610		NA 25,272 3,610		3,610 NA NA	
Sub Total - Costs		\$0 \$327		\$353 \$197 \$0 \$0 \$877		\$1,051 \$6,180,223 \$1,987,144		\$1,073 \$6,309,193 \$2,020,248		\$1,094 \$6,433,004 \$2,059,893		\$1,094 \$6,433,004 \$2,059,893		\$1,833,581	
Element 3 - Supplies and Site Visits (1)		Unit cost Year		Comment		Element 3 - Supplies and Site Visits		Element 3 - Supplies and Site Visits		Element 3 - Supplies and Site Visits		Element 3 - Supplies and Site Visits		Labor Non Labor O & M	
Supplies		\$800 2013		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total	
Routine visits		0 60		60 0 0 0		120		NA 104,960 104,960		NA 104,960 104,960		NA 104,960 104,960		104,960 NA NA	
Hours per site		0 60		60 0 0 0		120		NA 104,960 104,960		NA 104,960 104,960		NA 104,960 104,960		104,960 NA NA	
Cost per site		0 2451		2647 0 0 0		\$5,098		\$4,397 \$5,341,943 \$5,341,943		\$4,488 \$5,453,419 \$5,453,419		\$4,576 \$5,560,436 \$5,560,436		\$5,451,933 NA NA	
Sub Total - Hours		0 60		60 0 0 0		120		NA 104,960 104,960		NA 104,960 104,960		NA 104,960 104,960		104,960 NA NA	
Sub Total - Costs		\$0 \$60		\$60 \$0 \$0 \$0 \$5,898		\$3,543 \$4,304,571 \$4,304,571		\$3,617 \$4,394,399 \$4,394,399		\$3,688 \$4,480,634 \$4,480,634		\$3,688 \$4,480,634 \$4,480,634		\$5,451,933 \$855,541 NA	
Element 4 - Maintenance (1)		Unit cost Year		Comment		Element 4 - Maintenance		Element 4 - Maintenance		Element 4 - Maintenance		Element 4 - Maintenance		Labor Non Labor O & M	
Spare parts/supplies		\$1,000 2013		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total	
Remedial Repairs		0 6		3 3 0 0		12		NA 10,496 10,496		NA 10,496 10,496		NA 10,496 10,496		10,496 NA NA	
Hours per site		0 245		132 148 0 0		\$525		\$453 \$550,122 \$550,122		\$462 \$561,602 \$561,602		\$471 \$572,622 \$572,622		\$561,449 NA NA	
Cost per site		0 16		8 32 0 0		56		NA 48,981 48,981		NA 48,981 48,981		NA 48,981 48,981		48,981 NA NA	
Routine Maintenance		0 654		353 1576 0 0		\$2,583		\$2,228 \$2,706,598 \$2,706,598		\$2,274 \$2,763,080 \$2,763,080		\$2,319 \$2,817,302 \$2,817,302		\$2,762,327 NA NA	
Hours per site		0 22		11 35 0 0		68		NA 59,477 59,477		NA 59,477 59,477		NA 59,477 59,477		59,477 NA NA	
Cost per site		0 41		44 99 0 0		\$184		\$159 \$192,805 \$192,805		\$162 \$196,828 \$196,828		\$165 \$200,691 \$200,691		\$196,774 NA NA	
Sub Total - Hours		0 8		10 17 4 0		39		NA 34,112 34,112		NA 34,112 34,112		NA 34,112 34,112		34,112 NA NA	
Sub Total - Costs		\$0 \$899		\$485 \$1,724 \$0 \$0 \$4,108		\$3,543 \$4,304,571 \$4,304,571		\$3,617 \$4,394,399 \$4,394,399		\$3,688 \$4,480,634 \$4,480,634		\$3,688 \$4,480,634 \$4,480,634		\$3,323,775 \$1,069,426 NA	
Element 5 - Data Management (1)		Unit cost Year		Comment		Element 5 - Data Management		Element 5 - Data Management		Element 5 - Data Management		Element 5 - Data Management		Labor Non Labor O & M	
Data acquisition/processing		0 6		3 12,245 2 12,245		14		NA 12,245 12,245		NA 12,245 12,245		NA 12,245 12,245		12,245 NA NA	
Hours per site		0 245		132 148 111 0		\$636		\$549 \$666,433 \$666,433		\$560 \$680,340 \$680,340		\$571 \$693,691 \$693,691		\$680,155 NA NA	
Cost per site		0 1		2 4 2 0		9		NA 7,872 7,872		NA 7,872 7,872		NA 7,872 7,872		7,872 NA NA	
Data reporting		0 41		88 197 111 0		\$437		\$377 \$457,911 \$457,911		\$385 \$467,466 \$467,466		\$392 \$476,640 \$476,640		\$467,339 NA NA	
Hours per site		0 0		4 10,496 8 10,496		12		NA 10,496 10,496		NA 10,496 10,496		NA 10,496 10,496		10,496 NA NA	
Cost per site		0 0		176 394 0 0		\$570		\$492 \$597,275 \$597,275		\$502 \$609,739 \$609,739		\$512 \$621,704 \$621,704		\$609,573 NA NA	
Data validation		0 1		1 2 0 0		4		NA 3,499 3,499		NA 3,499 3,499		NA 3,499 3,499		3,499 NA NA	
Hours per site		0 41		44 99 0 0		\$184		\$159 \$192,805 \$192,805		\$162 \$196,828 \$196,828		\$165 \$200,691 \$200,691		\$196,774 NA NA	
Cost per site		0 8		10 17 4 0		39		NA 34,112 34,112		NA 34,112 34,112		NA 34,112 34,112		34,112 NA NA	
Sub Total - Hours		\$0 \$327		\$440 \$838 \$222 \$0 \$1,827		\$1,576 \$1,914,423 \$1,914,423		\$1,609 \$1,954,374 \$1,954,374		\$1,640 \$1,992,726 \$1,992,726		\$1,640 \$1,992,726 \$1,992,726		\$1,953,841 NA NA	
Sub Total - Costs		\$0 \$327		\$440 \$838 \$222 \$0 \$1,827		\$1,576 \$1,914,423 \$1,914,423		\$1,609 \$1,954,374 \$1,954,374		\$1,640 \$1,992,726 \$1,992,726		\$1,640 \$1,992,726 \$1,992,726		\$1,953,841 NA NA	

Element 6 - Quality Assurance (1)		Comment							Element 6 - Quality Assurance				Element 6 - Quality Assurance				Element 6 - Quality Assurance			
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network		Per Site Adjusted	Entire Network		Per Site Adjusted	Entire Network				
										Total	Yearly Cost		Total	Yearly Cost		Total	Yearly Cost			
Audits	Hours per site	0	0	0	20	16	0	36	NA	31,488	31,488	NA	31,488	31,488	NA	31,488	31,488			
	Cost per site	0	0	0	985	887	0	\$1,872	\$1,614	\$1,961,576	\$1,961,576	\$1,648	\$2,002,511	\$2,002,511	\$1,681	\$2,041,808	\$2,041,808			
Routine Calibrations	Hours per site	0	26	0	0	0	0	26	NA	22,741	22,741	NA	22,741	22,741	NA	22,741	22,741			
	Cost per site	0	1062	0	0	0	0	\$1,062	\$916	\$1,112,817	\$1,112,817	\$935	\$1,136,040	\$1,136,040	\$953	\$1,158,333	\$1,158,333			
Coordination/implementation	Hours per site	0	0	0	2	2	0	4	NA	3,499	3,499	NA	3,499	3,499	NA	3,499	3,499			
	Cost per site	0	0	0	99	111	0	\$210	\$181	\$220,049	\$220,049	\$185	\$224,641	\$224,641	\$189	\$229,049	\$229,049			
Training	Hours per site	0	1	1	2	1	0	5	NA	6,075	6,075	NA	6,075	6,075	NA	6,075	6,075			
	Cost per site	0	41	44	99	55	0	\$239	\$286	\$347,881	\$347,881	\$292	\$355,141	\$355,141	\$298	\$362,110	\$362,110			
Reporting	Hours per site	0	0	0	3	2	0	5	NA	4,373	4,373	NA	4,373	4,373	NA	4,373	4,373			
	Cost per site	0	0	0	148	111	0	\$259	\$223	\$271,393	\$271,393	\$228	\$277,057	\$277,057	\$233	\$282,494	\$282,494			
QA Plan review (annual)	Hours per reporting organization	0	0	0.2	0.3	0	0	0.5	NA	77	77	NA	77	77	NA	77	77			
	Cost per reporting organization	0	0	9	15	0	0	\$24	\$29	\$4,399	\$4,399	\$29	\$4,491	\$4,491	\$30	\$4,579	\$4,579			
QA Plan preparation	Hours per reporting organization	0	0	0	5	5	5	15	NA	2295	459	NA	2295	459	NA	2295	459			
	Cost per reporting organization	0	0	0	246	277	293	\$816	\$978	\$149,568	\$29,914	\$998	\$152,689	\$30,538	\$1,018	\$155,685	\$31,137			
Sub Total - Hours		0	27	1	32	26	5	92	NA	NA	68,712	NA	NA	68,712	NA	NA	68,712			
Sub Total - Costs		\$0	\$1,103	\$53	\$1,592	\$1,441	\$293	\$4,482	\$4,227	NA	\$3,948,030	\$4,316	NA	\$4,030,418	\$4,400	NA	\$4,109,510			

Element 7 - Supervision (1)		Comment							Element 7 - Supervision				Element 7 - Supervision				Element 7 - Supervision			
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network		Per Site Adjusted	Entire Network		Per Site Adjusted	Entire Network				
										Total	Yearly Cost		Total	Yearly Cost		Total	Yearly Cost			
Planning/coordination	Hours per site	0	0	0	0	8	4	12	NA	10,496	10,496	NA	10,496	10,496	NA	10,496	10,496			
	Cost per site	0	0	0	0	444	234	\$678	\$585	\$710,443	\$710,443	\$597	\$725,268	\$725,268	\$609	\$739,501	\$739,501			
Supervision/review	Hours per site	0	0	16	8	4	2	30	NA	26,240	26,240	NA	26,240	26,240	NA	26,240	26,240			
	Cost per site	0	0	706	394	222	117	\$1,439	\$1,241	\$1,507,857	\$1,507,857	\$1,267	\$1,539,323	\$1,539,323	\$1,292	\$1,569,531	\$1,569,531			
Sub Total - Hours		0	0	16	8	12	6	42	NA	36,736	36,736	NA	36,736	36,736	NA	36,736	36,736			
Sub Total - Costs		\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$1,826	\$2,218,300	\$2,218,300	\$1,864	\$2,264,592	\$2,264,592	\$1,900	\$2,309,032	\$2,309,032			

Summary by Element		O3							Year 1				2013				Year 2				2014				Year 3				2015			
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost			
1 - Network Design	Hours	0	0	0	14	14	10	38	NA	5,814	831	NA	5,814	831	NA	5,814	831	NA	5,814	831	NA	5,814	831	NA	5,814	831	NA	5,814	831			
	Costs	\$0	\$0	\$0	\$690	\$777	\$586	\$2,053	\$2,459	\$376,303	\$53,758	\$2,511	\$384,155	\$54,879	\$2,560	\$391,694	\$55,956	\$2,560	\$391,694	\$55,956	\$2,560	\$391,694	\$55,956	\$2,560	\$391,694	\$55,956	\$2,560	\$391,694				
2 - Site Installation	Hours	0	8	8	4	0	0	20	NA	25,272	3,610	NA	25,272	3,610	NA	25,272	3,610	NA	25,272	3,610	NA	25,272	3,610	NA	25,272	3,610	NA	25,272				
	Costs	\$0	\$327	\$353	\$197	\$0	\$0	\$877	\$1,051	\$0	\$1,987,144	\$1,073	\$0	\$2,020,248	\$1,094	\$0	\$2,059,893	\$1,094	\$0	\$2,059,893	\$1,094	\$0	\$2,059,893	\$1,094	\$0	\$2,059,893	\$1,094	\$0				
3 - Supplies and Site Visits	Hours	0	60	60	0	0	0	120	NA	104960	104960	NA	104960	104960	NA	104960	104960	NA	104960	104960	NA	104960	104960	NA	104960	104960	NA	104960				
	Costs	\$0	\$60	\$60	\$0	\$0	\$0	\$5,898	\$5,087	\$6,180,223	\$6,180,223	\$5,193	\$6,309,193	\$6,309,193	\$5,295	\$6,433,004	\$6,433,004	\$5,295	\$6,433,004	\$6,433,004	\$5,295	\$6,433,004	\$6,433,004	\$5,295	\$6,433,004	\$6,433,004	\$5,295	\$6,433,004				
4 - Maintenance	Hours	0	22	11	35	0	0	68	NA	59477.33333333	59477.33333333	NA	59477.33333333	59477.33333333	NA	59477.33333333	59477.33333333	NA	59477.33333333	59477.33333333	NA	59477.33333333	59477.33333333	NA	59477.33333333	59477.33333333	NA	59477.33333333				
	Costs	\$0	\$899	\$485	\$1,724	\$0	\$0	\$4,108	\$3,543	\$4,304,571	\$4,304,571	\$3,617	\$4,394,399	\$4,394,399	\$3,688	\$4,480,634	\$4,480,634	\$3,688	\$4,480,634	\$4,480,634	\$3,688	\$4,480,634	\$4,480,634	\$3,688	\$4,480,634	\$4,480,634	\$3,688	\$4,480,634				
5 - Data Management	Hours	0	8	10	17	4	0	39	NA	34112	34112	NA	34112	34112	NA	34112	34112	NA	34112	34112	NA	34112	34112	NA	34112	34112	NA	34112				
	Costs	\$0	\$327	\$440	\$838	\$222	\$0	\$1,827	\$1,576	\$1,914,423	\$1,914,423	\$1,609	\$1,954,374	\$1,954,374	\$1,640	\$1,992,726	\$1,992,726	\$1,640	\$1,992,726	\$1,992,726	\$1,640	\$1,992,726	\$1,992,726	\$1,640	\$1,992,726	\$1,992,726	\$1,640	\$1,992,726				
6 - Quality Assurance	Hours	0	27	1	32	28	5	92	NA	NA	68712	NA	NA	68712	NA	NA	68712	NA	NA	68712	NA	NA	68712	NA	NA	68712	NA	NA				
	Costs	\$0	\$1,103	\$53	\$1,592	\$1,441	\$293	\$4,482	\$4,227	NA	\$3,948,030	\$4,316	NA	\$4,030,418	\$4,400	NA	\$4,109,510	\$4,029,319	\$0	NA	NA	NA	NA	NA	NA	NA	NA	NA				
7 - Supervision	Hours	0	0	16	8	12	6	42	NA	36,736	36,736	NA	36,736	36,736	NA	36,736	36,736	NA	36,736	36,736	NA	36,736	36,736	NA	36,736	36,736	NA	36,736				
	Costs	\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$1,826	\$2,218,300	\$2,218,300	\$1,864	\$2,264,592	\$2,264,592	\$1,900	\$2,309,032	\$2,309,032	\$1,900	\$2,309,032	\$2,309,032	\$1,900	\$2,309,032	\$2,309,032	\$1,900	\$2,309,032	\$2,309,032	\$1,900	\$2,309,032				
Total	Hours	0	125	106	110	56	21	419	NA	266,371	308,438	NA	266,371	308,438	NA	266,371	308,438	NA	266,371	308,438	NA	266,371	308,438	NA	266,371	308,438	NA	266,371				
	Costs	\$0	\$2,716	\$2,097	\$5,435	\$3,106	\$1,230	\$21,362	\$19,769	\$14,993,819	\$20,606,448	\$20,181	\$15,306,712	\$21,028,102	\$20,577	\$15,607,089	\$21,440,755	\$17,266,555	\$19,244,966	\$1,833,581	\$1,833,581	\$1,833,581	\$1,833,581	\$1,833,581	\$1,833,581	\$1,833,581	\$1,833,581	\$1,833,581				

1) Per site operating costs are weighted by the average percent sampling. For example, the operating expenses for a site operated for 6 months per year are assumed to be half that of a site operated for 12 months per year.

Data Entry for	PM10	Updated on	February 1, 2013	Analyzer Spare Factor	5.00%	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs
Overall Comment						Filter-Based Sites	1/1 (daily) 230 1/2 1 1/3 44 1/6 383 collocated 151 Total 809 Samplers 1545 Spares 77 Avg Percent Sampled 38% Continuous Sites 268 Spares 13 Platforms 947	Filter-Based Samplers	1/1 (daily) 230 1/2 1 1/3 44 1/6 383 collocated 151 Total 809 Samplers 1545 Spares 77 Avg Percent Sampled 38% Continuous Sites 268 Spares 13 Platforms 947	Filter-Based Samplers	1/1 (daily) 230 1/2 1 1/3 44 1/6 383 collocated 151 Total 809 Samplers 1545 Spares 77 Avg Percent Sampled 38% Continuous Sites 268 Spares 13 Platforms 947	Total 809 Samplers 1545 Spares 77 Cont Samplers 268 Spares 13 Platforms 947

General Costs													Labor	Non Labor O & M																
Element 1 - Network Design						Element 1 - Network Design						Element 1 - Network Design						Element 1 - Network Design												
a) Network Design (by Reporting Organization)						b) Site Selection (Reporting Organization)						Sub Total - Hours						Sub Total - Costs												
Years Amortized	7					Comment	Per RO	Entire Network					Per RO	Entire Network					Per RO	Entire Network					Per RO	Entire Network				
Labor Category	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per RO	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost								
Hours per RO	0	0	0	0	493	555	586	NA	4,380	626	NA	4,380	626	NA	4,380	626	NA	4,380	626	NA	4,380	626	417	NA						
Costs per RO	0	0	0	0	493	555	586	\$1,634	\$1,958	\$285,800	\$40,829	\$1,998	\$291,764	\$41,681	\$2,038	\$297,489	\$42,498	\$2,038	\$297,489	\$42,498	\$2,038	\$297,489	\$42,498	\$41,669	NA					
Hours per RO	0	6	2	2	0	0	10	NA	1,460	209	NA	1,460	209	NA	1,460	209	NA	1,460	209	NA	1,460	209	209	NA						
Costs per RO	0	245	88	99	0	0	432	\$518	\$75,560	\$10,794	\$528	\$77,137	\$11,200	\$539	\$78,651	\$11,236	\$539	\$78,651	\$11,236	\$539	\$78,651	\$11,236	\$11,017	NA						
Sub Total - Hours	0	6	2	2	10	10	40	NA	5,840	834	NA	5,840	834	NA	5,840	834	NA	5,840	834	NA	5,840	834	209	626	NA					
Sub Total - Costs	\$0	\$245	\$88	\$592	\$555	\$586	\$2,066	\$2,475	\$361,360	\$51,623	\$2,527	\$368,901	\$52,700	\$2,576	\$376,140	\$53,734	\$2,576	\$376,140	\$53,734	\$2,576	\$376,140	\$53,734	\$52,686	NA						

Element 2 - Site Installation													Element 2 - Site Installation						Element 2 - Site Installation						Element 2 - Site Installation						
Materials													Labor						Installation						Procurement						
a) Sampler													b) Cont Sampler						Sub Total - Hours						Sub Total - Costs						
Unit cost	Year		Per Site Total					Per Site	Entire Network					Per Site	Entire Network					Per Site	Entire Network					Per Site	Entire Network				
Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost								
Analizers	\$5,500	2013	4	0	0	0	NA	\$6,589	\$5,330,501	\$761,500	NA	\$6,727	\$5,441,739	\$777,391	NA	\$6,859	\$5,548,527	\$792,647	NA	\$6,859	\$5,548,527	\$792,647	NA	NA							
Spare Analyzers									\$509,000	\$72,714			\$519,622	\$74,232			\$529,819	\$75,688			\$529,819	\$75,688		NA	NA						
Continuous Analyzers	\$17,600	2013	4	0	0	0	NA	\$21,085	\$5,650,726	\$807,247	NA	\$21,525	\$5,768,646	\$824,092	NA	\$21,947	\$5,881,850	\$840,264	NA	\$21,947	\$5,881,850	\$840,264		NA							
Continuous Spare Analyzers									\$282,536	\$40,362			\$288,432	\$41,205			\$294,092	\$42,013			\$294,092	\$42,013		NA	NA						
Sampling Platform	\$2,000	2013	4	0	0	0	NA	\$2,396	\$2,269,012	\$324,145	NA	\$2,446	\$2,269,012	\$324,145	NA	\$2,494	\$2,269,012	\$324,145	NA	\$2,494	\$2,269,012	\$324,145		NA							
Hours per site	0	4	0	0	0	0	4	NA	4,671	667	NA	4,671	667	NA	4,671	667	NA	4,671	667	NA	4,671	667	667	667	NA						
Cost per site	0	163	0	0	0	0	\$163	\$195	\$157,977	\$22,568	\$199	\$161,273	\$23,039	\$203	\$164,438	\$23,491	\$203	\$164,438	\$23,491	\$203	\$164,438	\$23,491	\$23,033	NA							
Hours per site	0	0	0	10	0	0	10	NA	2680	383	NA	2680	383	NA	2680	383	NA	2680	383	NA	2680	383	383	383	NA						
Cost per site	0	0	0	493	0	0	\$493	\$591	\$158,285	\$22,612	\$603	\$161,588	\$23,084	\$615	\$164,759	\$23,537	\$615	\$164,759	\$23,537	\$615	\$164,759	\$23,537	\$23,078	NA							
Sub Total - Hours	0	4	4	0	0	0	8	NA	7,907	1,512	NA	7,907	1,512	NA	7,907	1,512	NA	7,907	1,512	NA	7,907	1,512	1,512	1,512	NA						
Sub Total - Costs	\$0	\$163	\$176	\$0	\$0	\$0	\$339	\$31,067	\$13,812,697	\$2,086,319	\$31,715	\$14,053,592	\$2,123,092	\$32,337	\$14,284,851	\$2,158,395	\$32,337	\$14,284,851	\$2,158,395	\$32,337	\$14,284,851	\$2,158,395	\$82,006	NA							

Element 3 - Sampling and Analysis													Element 3 - Supplies and Site Visits						Element 3 - Supplies and Site Visits						Element 3 - Supplies and Site Visits											
Supplies													Routine visits						Laboratory						Sub Total - Hours						Sub Total - Costs					
a) Filter Based													b) Filter Based						c) Filter Based						d) Filter Based											
Unit cost	Year		Per Site Total					Per Site	Entire Network					Per Site	Entire Network					Per Site	Entire Network					Per Site	Entire Network									
Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost													
Filters	\$1,033	2013	4	0	0	0	NA	\$473	\$730,432	\$730,432	NA	\$483	\$745,675	\$745,675	NA	\$492	\$760,308	\$760,308	NA	\$492	\$760,308	\$760,308		NA	\$745,471											
Filter Tape	\$500	2013	4	0	0	0	NA	\$599	\$160,532	\$160,532	NA	\$612	\$163,882	\$163,882	NA	\$624	\$167,098	\$167,098	NA	\$624	\$167,098	\$167,098		NA	\$163,837											
Laboratory Service	\$86	2013	4	0	0	0	NA	\$103	\$158,649	\$158,649	NA	\$105	\$161,960	\$161,960	NA	\$107	\$165,138	\$165,138	NA	\$107	\$165,138	\$165,138		NA	\$163,837											
Hours per site	0	45	50	25	0	0	120	NA	27,720	27,720	NA	27,720	27,720	27,720	NA	27,720	27,720	27,720	NA	27,720	27,720	27,720		27,720	NA											
Cost per site	0	1839	2206	1232	0	0	\$5,277	\$6,322	\$1,460,346	\$1,460,346	\$6,454	\$1,490,821	\$1,490,821	\$1,490,821	\$1,774	\$409,905	\$409,905	\$409,905	\$1,120,358	\$1,120,358	\$1,120,358	\$1,120,358		\$1,120,358	NA											
Hours per site	0	15	65	100	0	0	180	NA	104,040	104,040	NA	104,040	104,040	104,040	NA	104,040	104,040	104,040	NA	104,040	104,040	104,040		104,040	NA											
Cost per site	0	613	2868	4926	0	0	\$8,407	\$10,072	\$5,821,377	\$5,821,377	\$10,282	\$5,942,858	\$5,942,858	\$5,942,858	\$1,774	\$1,025,650	\$1,025,650	\$1,025,650	\$4,263,295	\$4,263,295	\$4,263,295	\$4,263,295		\$4,263,295	NA											
Hours per site	0	0	30	2	0	0	32	NA	8,576	8,576	NA	25,888	25,888	25,888	NA	25,888	25,888	25,888	NA	25,888	25,888	25,888		20,117	NA											
Cost per site	0	0	1324	99	0	0	\$1,423	\$1,705	\$456,874	\$456,874	\$1,740	\$1,407,926	\$1,407,926	\$1,774	\$1,435,555	\$1,435,555	\$1,435,555	\$1,100,118	\$1,100,118	\$1,100,118	\$1,100,118		\$1,100,118	NA												
Hours per site	0	24	24	0	0	0	48	18.3	28,326	28,326	18.3	28,326	28,326	28,326	18.3	28,326	28,326	28,326	NA	28,326	28,326	28,326		28,326	NA											
Cost per site	0	981	1059	0	0	0	\$2,040	\$2,444	\$3,775,856	\$3,775,856	\$2,495	\$3,854,651	\$3,854,651	\$3,854,651	\$1,774	\$2,741,573	\$2,741,573	\$2,741,573	\$3,457,360	\$3,457,360	\$3,457,360	\$3,457,360		\$3,457,360	NA											
Sub Total - Hours	0	84	169	127	0	0	380	NA	168,662	168,662	NA	185,974	185,974	185,974	NA	185,974	185,974	185,974	NA	185,974	185,974	185,974		20,117	NA											
Sub Total - Costs	\$0	\$3,433	\$7,457	\$6,257	\$0	\$0	\$17,147	\$20,542	\$11,514,454	\$11,514,454	\$20,971	\$12,696,257	\$12,696,257	\$7,098	\$5,612,683	\$5,612,683	\$5,612,683	\$9,941,131	\$9,941,131	\$9,941,131	\$9,941,131	\$9,941,131		\$9,941,131	\$909,309											

Element 4 - Maintenance													Element 4 - Maintenance						Element 4 - Maintenance						Element 4 - Maintenance											
Spare parts/supplies													Remedial Repairs						Routine Maint. Filter						Sub Total - Hours						Sub Total - Costs					
a) Filter Based													b) Filter Based						c) Filter Based						d) Filter Based											
Unit cost	Year		Per Site Total					Per Site	Entire Network					Per Site	Entire Network					Per Site	Entire Network					Per Site	Entire Network									
Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost													
Filter Based	\$950	2013	4	0	0	0	NA	\$1,138	\$920,723	\$920,723	NA	\$1,162	\$939,937	\$939,937	NA	\$1,185	\$958,382	\$958,382	NA	\$1,185	\$958,382	\$958,382		NA	\$939,680											
Spare Parts - Continuous	\$555	2013	4	0	0	0	NA	\$665	\$178,191	\$178,191	NA	\$679	\$181,909	\$181,909	NA	\$692	\$185,479	\$185,479	NA	\$692	\$185,479	\$185,479		NA	\$181,859											
Hours per site	0	85	0	0	0	0	85	32	26,265	26,265	32	26,265	26,265	26,265	32	26,265	26,265	26,265	NA	26,265	26,265	26,265		26,265	NA											
Cost per site	\$0	\$3,473	\$0	\$0	\$0	\$0	\$3,473	\$1,589	\$1,285,642	\$1,285,642	\$1,622	\$1,312,471	\$1,312,471	\$1,654	\$1,338,227	\$1,338,227	\$1,338,227	\$1,312,113	\$1,312,113	\$1,312,113	\$1,312,113		\$1,312,113	NA												
Hours per site	0	0	6	1	0.5	0	8	7.5	2,010	2,010	7.5	2,010	2,010	2,010	7.5	2,010	2,010	2,010	NA	2,010	2,010	2,010		2,010	NA											
Cost per site	\$0	\$0	\$265	\$49	\$28	\$0	\$342	\$410	\$109,804	\$109,804	\$418	\$112,095	\$112,095	\$112,095	\$426	\$114,295	\$114,295	\$114,295	\$112,050	\$112,050	\$112,050	\$112,050		\$112,050	NA											
Hours per site	0	0	50	25	0	0	75	29	23,175	23,175	29	23,175	23,175	23,175	2																					

Element 5 - Data Management		Comment						Element 5 - Data Management				Element 5 - Data Management			Element 5 - Data Management							
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site			Entire Network			Per Site			Entire Network				
									Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost		
Data acquisition/processing	Filter - based	0	0	96	0	0	0	96	37	56,651	56,651	37	77,664	77,664	37	77,664	77,664	70,660	NA			
	Cost per site	\$0	\$0	\$4,236	\$0	\$0	\$0	\$4,236	\$1,938	\$2,994,685	\$2,994,685	\$5,181	\$4,191,128	\$4,191,128	\$5,282	\$4,273,374	\$4,273,374	\$3,819,729	NA			
	Continuous	0	0	6	6	0	0	12	12	3,216	3,216	12	3,216	3,216	12	3,216	3,216	3,216	NA			
	Cost per site	\$0	\$0	\$265	\$296	\$0	\$0	\$561	\$672	\$180,117	\$180,117	\$686	\$183,876	\$183,876	\$700	\$187,484	\$187,484	\$183,825	NA			
Data reporting Filter	Hours per site	0	0	0	38	0	0	38	15	11,742	11,742	15	11,742	11,742	15	11,742	11,742	11,742	NA			
	Cost per site	\$0	\$0	\$0	\$1,872	\$0	\$0	\$1,872	\$857	\$692,981	\$692,981	\$874	\$707,442	\$707,442	\$892	\$721,325	\$721,325	\$707,249	NA			
	Continuous	0	0	6	12	0	0	18	18	4,824	4,824	18	4,824	4,824	18	4,824	4,824	4,824	NA			
	Cost per site	\$0	\$0	\$265	\$591	\$0	\$0	\$856	\$1,025	\$274,831	\$274,831	\$1,047	\$280,566	\$280,566	\$1,067	\$286,072	\$286,072	\$280,490	NA			
Data validation Filter	Hours per site	0	0	24	72	48	0	144	55	44,496	44,496	55	44,496	44,496	55	44,496	44,496	44,496	NA			
	Cost per site	\$0	\$0	\$1,059	\$3,547	\$2,662	\$0	\$7,268	\$3,326	\$2,690,483	\$2,690,483	\$3,395	\$2,746,628	\$2,746,628	\$3,462	\$2,800,528	\$2,800,528	\$2,745,879	NA			
	Continuous	0	0	6	14	0	0	20	20	5,360	5,360	20	5,360	5,360	20	5,360	5,360	5,360	NA			
	Cost per site	\$0	\$0	\$265	\$690	\$0	\$0	\$955	\$1,144	\$306,616	\$306,616	\$1,168	\$313,015	\$313,015	\$1,191	\$319,157	\$319,157	\$312,929	NA			
Data distribution	Hours per site	0	0	6	7	0	0	13	13	10,517	10,517	13	10,517	10,517	13	10,517	10,517	10,517	NA			
	Cost per site	\$0	\$0	\$265	\$345	\$0	\$0	\$610	\$279	\$225,811	\$225,811	\$285	\$230,523	\$230,523	\$291	\$235,047	\$235,047	\$230,460	NA			
	Continuous	0	0	2	2	2	0	6	6	1,608	1,608	6	1,608	1,608	6	1,608	1,608	1,608	NA			
	Cost per site	\$0	\$0	\$88	\$99	\$111	\$0	\$298	\$357	\$95,677	\$95,677	\$364	\$97,674	\$97,674	\$372	\$99,590	\$99,590	\$97,647	NA			
Sub Total - Hours		0	0	146	151	50	0	347	175	138,414	138,414	175	159,427	159,427	175	159,427	159,427	152,423	NA			
Sub Total - Costs		\$0	\$0	\$6,443	\$7,440	\$2,773	\$0	\$16,656	\$9,598	\$7,461,201	\$7,461,201	\$13,001	\$8,750,851	\$8,750,851	\$13,256	\$8,922,577	\$8,922,577	\$8,378,210	NA			

Element 6 - Quality Assurance		Comment						Element 6 - Quality Assurance				Element 6 - Quality Assurance			Element 6 - Quality Assurance			Labor	Non Labor O & M			
		Years Amortized		PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site			Entire Network			Per Site			Entire Network				
		Unit cost	Year						Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost					
Audit/Calibration Kits (Filter Based)		\$125	2013						\$150	\$98,536	\$2,815	\$153	\$100,592	\$2,874	\$156	\$102,566	\$2,930	NA	\$2,873			
Audit/Calibration Kits (Continuous)		\$360	2013						\$431	\$115,583	\$3,302	\$440	\$117,995	\$3,371	\$449	\$120,311	\$3,437	NA	\$3,376			
Audits - Filter based	Hours per site	0	0	0	35	34	0	69	26.4	21,321	21,321	26.4	21,321	21,321	26.4	21,321	21,321	21,321	21,321	NA		
	Cost per site	\$0	\$0	\$0	\$1,724	\$1,886	\$0	\$3,610	\$1,652	\$1,336,357	\$1,336,357	\$1,686	\$1,364,244	\$1,364,244	\$1,719	\$1,391,016	\$1,391,016	\$1,363,872	NA			
Audits - Continuous	Hours per site	0	0	12	0	0	0	12	NA	3,216	3,216	NA	3,216	3,216	NA	3,216	3,216	3,216	NA			
	Cost per site	\$0	\$0	\$529	\$0	\$0	\$0	\$529	\$634	\$169,843	\$169,843	\$647	\$173,387	\$173,387	\$660	\$176,790	\$176,790	\$173,340	NA			
Training - Filter	Hours per site	0	0	0	4	0	0	4	NA	2,632	2,632	NA	2,632	2,632	NA	2,632	2,632	2,632	NA			
	Cost per site	\$0	\$0	\$0	\$197	\$0	\$0	\$197	\$236	\$155,292	\$155,292	\$241	\$158,533	\$158,533	\$246	\$161,644	\$161,644	\$158,489	NA			
Training - Continuous	Hours per site	0	0	2	2	1	0	5	NA	1,340	1,340	NA	1,340	1,340	NA	1,340	1,340	1,340	NA			
	Cost per site	\$0	\$0	\$88	\$99	\$55	\$0	\$242	\$290	\$77,697	\$77,697	\$296	\$79,319	\$79,319	\$302	\$80,875	\$80,875	\$79,297	NA			
Reporting - Filter	Hours per site	0	0	0	6	6	0	12	NA	9,708	9,708	NA	9,708	9,708	NA	9,708	9,708	9,708	NA			
	Cost per site	\$0	\$0	\$0	\$296	\$333	\$0	\$629	\$754	\$609,615	\$609,615	\$769	\$622,337	\$622,337	\$784	\$634,550	\$634,550	\$622,167	NA			
Reporting - Cont	Hours per site	0	0	2	2	1	0	5	NA	1,340	1,340	NA	1,340	1,340	NA	1,340	1,340	1,340	NA			
	Cost per site	\$0	\$0	\$88	\$99	\$55	\$0	\$242	\$290	\$77,697	\$77,697	\$296	\$79,319	\$79,319	\$302	\$80,875	\$80,875	\$79,297	NA			
QA Plan review (annual)	Hours per RO	0	0	0.2	0.3	0	0	0.5	NA	73	73	NA	73	73	NA	73	73	73	NA			
	Cost			9	15	0	0	\$24	\$29	\$4,198	\$4,198	\$29	\$0	\$0	\$30	\$0	\$0	\$1,999	NA			
QA Plan preparation	Hours per RO	0	0	6	5	5	0	16	NA	2,336	467	NA	0	0	NA	0	0	156	NA			
	Cost per RO	\$0	\$0	\$265	\$246	\$277	\$0	\$789	\$944	\$137,828	\$27,566	\$964	\$0	\$0	\$983	\$0	\$0	\$9,189	NA			
Sub Total - Hours		0	0	22	54	47	0	124	NA	41,966	40,097	NA	42,866	42,866	NA	42,866	42,866	41,943	NA			
Sub Total - Costs		\$0	\$0	\$979	\$2,676	\$2,606	\$0	\$6,261	\$4,828	\$2,568,528	\$2,458,266	\$4,929	\$2,477,139	\$2,477,139	\$5,025	\$2,525,750	\$2,525,750	\$2,487,051	\$6,244			

Element 7 - Supervision		Comment						Element 7 - Supervision				Element 7 - Supervision			Element 7 - Supervision							
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site			Entire Network			Per Site			Entire Network				
									Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost		
Planning/coordination	Filter Based	0	0	0	2	2	0	4	NA	2,632	2,632	NA	2,632	2,632	NA	2,632	2,632	2,632	2,632	NA		
	Cost per site	\$0	\$0	\$0	\$99	\$111	\$0	\$210	\$252	\$165,540	\$165,540	\$257	\$168,994	\$168,994	\$262	\$172,310	\$172,310	\$168,948	NA			
	Continuous	0	0	0	6	12	0	18	NA	4,824	4,824	NA	4,824	4,824	NA	4,824	4,824	4,824	NA			
	Cost per site	\$0	\$0	\$0	\$296	\$666	\$0	\$962	\$1,152	\$308,864	\$308,864	\$1,177	\$315,309	\$315,309	\$1,200	\$321,497	\$321,497	\$315,223	NA			
Supervision/review	Filter Based	0	0	0	3	3	0	6	NA	3,948	3,948	NA	3,948	3,948	NA	3,948	3,948	3,948	NA			
	Cost per site	\$0	\$0	\$0	\$166	\$176	\$0	\$342	\$410	\$269,593	\$269,593	\$418	\$275,219	\$275,219	\$426	\$280,620	\$280,620	\$275,144	NA			
	Continuous	0	0	0	3	3	0	6	NA	1,608	1,608	NA	1,608	1,608	NA	1,608	1,608	1,608	NA			
	Cost per site	\$0	\$0	\$0	\$148	\$166	\$0	\$314	\$376	\$100,814	\$100,814	\$384	\$102,918	\$102,918	\$392	\$104,938	\$104,938	\$102,890	NA			
Sub Total - Hours		0	0	0	11	20	3	34	NA	13,012	13,012	NA	13,012	13,012	NA	13,012	13,012	13,012	NA			
Sub Total - Costs		\$0	\$0	\$0	\$543	\$1,109	\$176	\$1,828	NA	\$844,810	\$844,810	NA	\$862,440	\$862,440	NA	\$879,364	\$879,364	\$862,205	NA			

Summary by Element		PM10							Year 1			Year 2			Year 3					
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost			
1 - Network Design	Hours	0	6	2	12	10	10	40	NA	5,840	834	NA	5,840	834	NA	1,460	209	628		
	Costs	\$0	\$245	\$88	\$592	\$555	\$586	\$2,066	\$2,475	\$361,360	\$51,623	\$2,527	\$368,901	\$52,700	\$2,576	\$376,140	\$53,734	\$52,686	NA	NA
2 - Site Installation	Hours	0	4	4	0	0	0	8	NA	7,907	1,512	NA	7,907	1,512	NA	7,907	1,512	1,512		
	Costs	\$0	\$163	\$176	\$0	\$0	\$0	\$339	\$31,067	\$13,812,697	\$2,086,319	\$31,715	\$14,053,592	\$2,123,092	\$32,337	\$14,284,851	\$2,158,395	\$82,006	NA	NA
3 - Supplies & site visits	Hours	0	84	169	127	0	0	380	NA	168,662	168,662	NA	185,974	185,974	NA	185,974	185,974	20,117		NA
	Costs	\$0	\$3,433	\$7,457	\$6,257	\$0	\$0	\$17,147	\$20,542	\$11,514,454	\$11,514,454	\$20,971	\$12,696,257	\$12,696,257	\$7,098	\$5,612,683	\$5,612,683	\$9,941,131	\$909,309	
4 - Maintenance	Hours	0	85	50	25	0	0	160	NA	49,440	49,440	NA	49,440	49,440	NA	49,440	49,440	49,440		
	Costs	\$0	\$3,473	\$2,206	\$1,232	\$0	\$0	\$7,861	\$4,300	\$3,479,051	\$3,479,051	\$4,390	\$3,551,652	\$3,551,652	\$4,476	\$3,621,349	\$3,621,349	\$2,611,003	\$1,121,540	
5 - Data Managment	Hours	0	0	146	151	50	0	347	175	138,414	138,414	175	159,427	159,427	175	159,427	159,427	152,423		NA
	Costs	\$0	\$0	\$6,443	\$7,440	\$2,773	\$0	\$16,656	\$9,598	\$7,461,201	\$7,461,201	\$13,001	\$8,750,851	\$8,750,851	\$13,256	\$8,922,577	\$8,922,577	\$8,378,210	NA	NA
6 - Quality Assurance	Hours	0	0	22	54	47	0	124	NA	41966	40097	NA	42866	42866	NA	42866	42866	41943		NA
	Costs	\$0	\$0	\$979	\$2,676	\$2,606	\$0	\$6,261	\$4,828	\$2,568,528	\$2,458,266	\$4,929	\$2,477,139	\$2,477,139	\$5,025	\$2,525,750	\$2,525,750	\$2,487,051	\$6,244	
7 - Supervision	Hours	0	0	0	11	20	3	34	NA	13012	13012	NA	13012	13012	NA	13012	13012	13012		NA
	Costs	\$0	\$0	\$0	\$543	\$1,109	\$176	\$1,828	NA	\$844,810	\$844,810	NA	\$862,440	\$862,440	NA	\$879,364	\$879,364	\$862,205	NA	NA
Total	TEC1																			
	Hours	0	179	393	380	127	13	1,093	NA	383,275	411,972	NA	421,599	453,065	NA	417,219	452,440	279,073		
	Costs	\$0	\$7,314	\$17,349	\$18,740	\$7,043	\$762	\$52,158	NA	\$37,473,573	\$27,895,723	NA	\$40,283,693	\$30,514,131	NA	\$33,696,965	\$23,773,853	\$24,414,292	\$2,037,092	

Data Entry for	PM25	Updated on	December 5, 2012	Sampling Schedule				Sampler Type			Spares	Sampling Platforms		
Overall Comment	Report Org 133			1/1 (daily)	148	sequential	733	110			975			
				1/3	585	single channel	144	22						
				1/6	270	single channel collocated	190							
				seasonal	52	continuous	606	91						
				Filter-Based Total	1055	speciation	198							
				Avg Percent Sampled	39%	Analyzer Spare Factor	15.00%							

General Costs													Year 1 2013			Year 2 2014			Year 3 2015			Average Yearly Costs					
													Labor			Non Labor O & M			Equipment								
Element 1 - Network Design													Element 1 - Network Design			Element 1 - Network Design			Element 1 - Network Design								
a) Network Design (by Reporting Organization)													Per RO			Entire Network			Per RO			Entire Network					
Labor Category													Adjusted			Total			Adjusted			Total					
Hours per RO													NA			1,995			NA			1,995					
Costs per RO													\$978			\$130,017			\$998			\$132,730					
b) Site Selection (Reporting Organization)													Per RO			Entire Network			Per RO			Entire Network					
Hours per RO													NA			798			NA			798					
Costs per RO													\$357			\$47,482			\$364			\$48,472					
Sub Total - Hours													NA			2,793			NA			2,793					
Sub Total - Costs													\$1,335			\$177,498			\$1,362			\$181,202					

Element 2 - Site Installation													Element 2 - Site Installation			Element 2 - Site Installation			Element 2 - Site Installation								
Materials													Per Site			Entire Network			Per Site			Entire Network					
Unit cost													Adjusted			Total			Adjusted			Total					
Year													Adjusted			Total			Adjusted			Total					
Single-channel analyzers													\$8,386			\$1,207,584			\$8,561			\$1,232,784					
Spare Single-channel analyzers													\$8,386			\$181,138			\$8,561			\$184,918					
Collocated Single-channel analyzers													\$8,386			\$1,593,340			\$8,561			\$1,626,590					
Seasonal Single-channel analyzers													\$13,178			\$685,256			\$13,453			\$445,172					
Sequential Sampler													\$13,178			\$9,659,474			\$13,453			\$9,861,049					
Spare Sequential Samplers													\$13,178			\$1,448,921			\$13,453			\$1,479,157					
Continuous Sampler													\$21,923			\$13,285,580			\$22,381			\$13,562,825					
Spare Continuous Samplers													\$21,923			\$1,992,837			\$22,381			\$2,034,424					
Speciation Sampler													\$14,376			\$2,846,448			\$14,676			\$2,905,848					
Data acquisition (laptop/PDA)													\$479			\$536,225			\$489			\$547,415					
Sampling Platform													\$2,396			\$2,336,100			\$2,446			\$2,384,850					
Labor													Per Site			Entire Network			Per Site			Entire Network					
Hours per site													NA			34,327			NA			34,327					
Cost per site													\$895			\$1,919,976			\$914			\$1,960,042					
Procurement													Per Site			Entire Network			Per Site			Entire Network					
Hours per site													0			8			0			8					
Cost per site													0			353			0			394					
Installation													Per Site			Entire Network			Per Site			Entire Network					
Hours per site													0			4			0			4					
Cost per site													0			163			0			163					
a) Single Channel													Per Site			Entire Network			Per Site			Entire Network					
Hours per site													0			4			0			4					
Cost per site													0			163			0			163					
b) Sequential													Per Site			Entire Network			Per Site			Entire Network					
Hours per site													0			4			0			4					
Cost per site													0			163			0			163					
c) Seasonal													Per Site			Entire Network			Per Site			Entire Network					
Hours per site													0			4			0			4					
Cost per site													0			163			0			163					
d) Continuous													Per Site			Entire Network			Per Site			Entire Network					
Hours per site													0			2			0			2					
Cost per site													0			82			0			82					
e) Speciation													Per Site			Entire Network			Per Site			Entire Network					
Hours per site													0			2			0			2					
Cost per site													0			82			0			82					
Sub Total - Hours													0			16			0			16					
Sub Total - Costs													\$0			\$653			\$0			\$653					

Element 3 - Sampling and Analysis													Element 3 - Supplies and Site Visits			Element 3 - Supplies and Site Visits			Element 3 - Supplies and Site Visits								
Supplies													Per Site			Entire Network			Per Site			Entire Network					
Unit cost													Adjusted			Total			Adjusted			Total					
Year													Adjusted			Total			Adjusted			Total					
Filters													\$423			\$446,375			\$432			\$455,690					
Speciation sampling national contract													\$8,454,530			\$8,454,530			\$8,630,960			\$8,630,960					
Microbalance													\$3,594			\$3,594			\$3,669			\$3,669					
Clean Room for Weighing													\$89,850			\$89,850			\$91,725			\$91,725					
Routine visits													Per Site			Entire Network			Per Site			Entire Network					
1/1, 1/3, and 1/6 sites													Hours per site			103,590			Hours per site			103,590					
Cost per site													\$7,784			\$9,325			\$9,520			\$5,478,663					
Seasonal sites													Hours per site			2,340			Hours per site			2,340					
Cost per site													\$1,945			\$2,330			\$2,379			\$123,694					
Continuous sites													Hours per site			19,392			Hours per site			19,392					
Cost per site													\$1,546			\$1,852			\$1,891			\$1,145,799					
Speciation													Hours per site			35,640			Hours per site			35,640					
Cost per site													\$8,405			\$10,069			\$10,279			\$2,035,304					
Laboratory													Hours per site			45,819			Hours per site			45,819					
Cost per site													\$10,916			\$13,077			\$13,350			\$6,494,905					
Sub Total - Hours													NA			206,781			NA			206,781					
Sub Total - Costs													\$8,491,608			\$23,866,959			\$8,668,811			\$24,365,017					

Element 4 - Maintenance			Comment						Element 4 - Maintenance				Element 4 - Maintenance				Element 4 - Maintenance							
Spare parts/supplies	Unit cost	Year	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site			Entire Network			Per Site			Entire Network			NA	\$268,864	NA
										Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost			
Sequential	\$300	2013							14	\$359	\$263,440	\$263,440	14	\$367	\$268,938	\$268,938	14	\$374	\$274,215	\$274,215	NA	\$268,864	NA	
Single channel	\$250	2013							8	\$300	\$100,033	\$100,033	8	\$306	\$102,121	\$102,121	8	\$312	\$104,125	\$104,125	NA	\$102,093	NA	
Seasonal	\$275	2013							14	\$329	\$17,131	\$17,131	14	\$336	\$17,489	\$17,489	14	\$343	\$17,832	\$17,832	NA	\$17,484	NA	
Continuous	\$155	2013							14	\$186	\$112,528	\$112,528	14	\$190	\$114,876	\$114,876	14	\$193	\$117,131	\$117,131	NA	\$114,845	NA	
Speciation	\$500	2013							14	\$599	\$118,602	\$118,602	14	\$612	\$121,077	\$121,077	14	\$624	\$123,453	\$123,453	NA	\$121,044	NA	
Remedial Repairs																								
Sequential	Hours per site		2	6	6	0	0	0	14	14	10,262	10,262	14	14	10,262	10,262	14	14	10,262	10,262	NA	NA	NA	
	Cost per site		\$82	\$265	\$296	\$0	\$0	\$0	\$643	\$770	\$564,640	\$564,640	\$786	\$576,423	\$576,423	\$802	\$587,735	\$587,735	\$576,266	NA	NA	NA		
Single channel	Hours per site		2	4	0	0	0	0	8	8	2,672	2,672	8	8	2,672	2,672	8	8	2,672	2,672	NA	NA	NA	
	Cost per site		\$82	\$88	\$197	\$0	\$0	\$0	\$367	\$440	\$146,848	\$146,848	\$449	\$149,913	\$149,913	\$458	\$152,855	\$152,855	\$149,872	NA	NA	NA		
Seasonal	Hours per site		2	6	0.0	0.0	0.0	0.0	14	14	728	728	14	14	728	728	14	14	728	728	NA	NA	NA	
	Cost per site		\$82	\$265	\$296	\$0	\$0	\$0	\$643	\$770	\$40,056	\$40,056	\$786	\$40,892	\$40,892	\$802	\$41,695	\$41,695	\$40,881	NA	NA	NA		
Continuous	Hours per site		2	6	0.0	0.0	0.0	0.0	14	14	8,484	8,484	14	14	8,484	8,484	14	14	8,484	8,484	NA	NA	NA	
	Cost per site		\$82	\$265	\$296	\$0	\$0	\$0	\$643	\$770	\$466,810	\$466,810	\$786	\$476,552	\$476,552	\$802	\$485,904	\$485,904	\$476,422	NA	NA	NA		
Speciation	Hours per site		0	4	4.0	0.0	0.0	0.0	14	14	2,772	2,772	14	14	2,772	2,772	14	14	2,772	2,772	NA	NA	NA	
	Cost per site		\$0	\$176	\$296	\$222	\$0	\$0	\$694	\$831	\$164,620	\$164,620	\$849	\$168,055	\$168,055	\$865	\$171,353	\$171,353	\$168,009	NA	NA	NA		
Routine Maintenance																								
Sequential	Hours per site		2	6	8	0	0	0	16	16	11,728	11,728	16	16	11,728	11,728	16	16	11,728	11,728	NA	NA	NA	
	Cost per site		\$82	\$265	\$394	\$0	\$0	\$0	\$741	\$888	\$650,697	\$650,697	\$906	\$664,276	\$664,276	\$924	\$677,312	\$677,312	\$664,095	NA	NA	NA		
Single channel	Hours per site		2	4	0	0	0	0	12	12	4,008	4,008	12	12	4,008	4,008	12	12	4,008	4,008	NA	NA	NA	
	Cost per site		\$82	\$176	\$296	\$0	\$0	\$0	\$554	\$664	\$221,673	\$221,673	\$678	\$226,299	\$226,299	\$691	\$230,740	\$230,740	\$226,237	NA	NA	NA		
Seasonal	Hours per site		2	6	8	0.0	0.0	0.0	16	16	832	832	16	16	832	832	16	16	832	832	NA	NA	NA	
	Cost per site		\$82	\$265	\$394	\$0	\$0	\$0	\$741	\$888	\$46,161	\$46,161	\$906	\$47,125	\$47,125	\$924	\$48,049	\$48,049	\$47,112	NA	NA	NA		
Continuous	Hours per site		5	5	4	0.0	0.0	0.0	14	14	8,484	8,484	14	14	8,484	8,484	14	14	8,484	8,484	NA	NA	NA	
	Cost per site		\$204	\$221	\$197	\$0	\$0	\$0	\$622	\$745	\$451,565	\$451,565	\$761	\$460,988	\$460,988	\$776	\$470,034	\$470,034	\$460,862	NA	NA	NA		
Speciation	Hours per site		0	4	12	0.0	0.0	0.0	16	16	3,168	3,168	16	16	3,168	3,168	16	16	3,168	3,168	NA	NA	NA	
	Cost per site		\$0	\$176	\$591	\$0	\$0	\$0	\$767	\$919	\$181,935	\$181,935	\$938	\$185,732	\$185,732	\$956	\$189,377	\$189,377	\$185,681	NA	NA	NA		
Sub Total - Hours			19	49	66	4	0	0	138	138	53,138	53,138	138	138	53,138	53,138	138	138	53,138	53,138	NA	NA	NA	
Sub Total - Costs			\$778	\$2,162	\$3,253	\$222	\$0	\$0	\$6,415	\$7,685	\$3,546,741	\$3,546,741	\$7,846	\$3,620,755	\$3,620,755	\$8,000	\$3,691,808	\$3,691,808	\$2,995,438	\$624,330	NA	NA		

Element 5 - Data Management			Comment						Element 5 - Data Management				Element 5 - Data Management				Element 5 - Data Management							
Data acquisition/processing	Hours per site	Cost per site	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site			Entire Network			Per Site			Entire Network			NA	NA	NA
										Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost			
Sequential	0	0	18	54	18	0	0	0	90	90	65,970	65,970	90	90	65,970	65,970	90	90	65,970	65,970	NA	NA	NA	
Single-channel	0	\$4,004	735	2382	887	0	0	0	18	18	\$4,797	\$3,516,049	\$3,516,049	18	18	6,012	6,012	18	18	6,012	6,012	NA	NA	NA
Seasonal	0	\$856	18	54	18	0	0	0	90	90	\$1,025	\$342,513	\$342,513	90	90	4,680	4,680	90	90	4,680	4,680	NA	NA	NA
Continuous	0	\$4,004	735	2382	887	0	0	0	16	16	\$4,797	\$249,433	\$249,433	16	16	9,696	9,696	16	16	9,696	9,696	NA	NA	NA
Speciation	0	\$793	0	0	110	517	166	0	16	16	\$950	\$575,708	\$575,708	16	16	5,877	5,877	16	16	5,877	5,877	NA	NA	NA
Data Reporting																								
Sequential	Hours per site		4.5	13.5	4.5	0	0	0	22.5	23	16,493	16,493	23	23	16,493	16,493	22.5	22.5	16,493	16,493	NA	NA	NA	
	Cost per site		\$184	\$596	\$222	\$0	\$0	\$0	\$1,002	\$1,225	\$879,890	\$879,890	\$1,225	\$898,252	\$898,252	\$1,249	\$915,879	\$915,879	\$898,007	NA	NA	NA		
Single-channel	Hours per site		1	2	1	2	0	0	6	6	2,004	2,004	6	6	2,004	2,004	6.0	6.0	2,004	2,004	NA	NA	NA	
	Cost per site		\$41	\$88	\$49	\$111	\$0	\$0	\$289	\$353	\$115,638	\$115,638	\$353	\$118,051	\$118,051	\$360	\$120,368	\$120,368	\$118,019	NA	NA	NA		
Seasonal	Hours per site		4.5	13.5	4.5	0	0	0	22.5	23	1,170	1,170	23	23	1,170	1,170	22.5	22.5	1,170	1,170	NA	NA	NA	
	Cost per site		\$184	\$596	\$222	\$0	\$0	\$0	\$1,002	\$1,225	\$62,421	\$62,421	\$1,225	\$63,723	\$63,723	\$1,249	\$64,974	\$64,974	\$63,706	NA	NA	NA		
Continuous	Hours per site		0	4	5	2	0	0	12	12	7,272	7,272	12	12	7,272	7,272	12.0	12.0	7,272	7,272	NA	NA	NA	
	Cost per site		\$0	\$176	\$296	\$111	\$0	\$0	\$583	\$698	\$423,251	\$423,251	\$713	\$432,083	\$432,083	\$727	\$440,563	\$440,563	\$431,966	NA	NA	NA		
Data Validation																								
Sequential	Hours per site		9	27	9	18	27	0	63	63	46,179	46,179	63	63	46,179	46,179	63.0	63.0	46,179	46,179	NA	NA	NA	
	Cost per site		\$368	\$978	\$368	\$1,164	\$0	\$0	\$3,150	\$3,852	\$2,766,122	\$2,766,122	\$3,852	\$2,823,846	\$2,823,846	\$3,928	\$2,879,261	\$2,879,261	\$2,823,076	NA	NA	NA		
Single-channel	Hours per site		0	4	5	2	0	0	12	12	3,340	3,340	12	12	3,340	3,340	12.0	12.0	3,340	3,340	NA	NA	NA	
	Cost per site		\$0	\$176	\$296	\$111	\$0	\$0	\$583	\$698	\$233,277	\$233,277	\$713	\$238,145	\$238,145	\$727	\$242,818	\$242,818	\$238,080	NA	NA	NA		
Seasonal	Hours per site		9	27	9	18	27	0	58.5	59	3,042	3,042	59	59	3,042	3,042	58.5	58.5	3,042	3,042	NA	NA	NA	
	Cost per site		\$368	\$978	\$368	\$1,164	\$0	\$0	\$2,928	\$3,581	\$182,403	\$182,403	\$3,581	\$186,209	\$186,209	\$3,651	\$189,863	\$189,863	\$186,158	NA	NA	NA		
Continuous	Hours per site		0	4	5	2	1	0	13	13	9,529	9,529	13	13	9,529	9,529	13.0	13.0	9,529	9,529	NA	NA	NA	
	Cost per site		\$0	\$176	\$296	\$111	\$59	\$0	\$637	\$779	\$462,454	\$462,454	\$779	\$472,105	\$472,105	\$794	\$481,369	\$481,369	\$471,976	NA	NA	NA		
Data Distribution																								
Sequential	Hours per site		0	0	9	9	0	0	18	18	13,194	13,194	18	18	13,194	13,194	18.0	18.0	13,194	13,194	NA	NA	NA	
	Cost per site		\$0	\$0	\$443	\$499	\$0	\$0	\$942	\$1,129	\$827,202	\$827,202	\$1,129	\$844,464	\$844,464	\$1,175	\$861,036							

Element 6 - Quality Assurance		Years Amortized						Comment	Element 6 - Quality Assurance						Labor			Non Labor O & M	Equipment			
		2013		7					Per Site			Entire Network			Per Site					Entire Network		
		Unit cost	Year	TEC1	TEC2	PRO1	PRO2		PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost			Adjusted	Total	Yearly Cost
Filter-based calibration kit		\$120	2013							\$144	\$151,667	\$4,333	\$147	\$154,832	\$4,424	\$150	\$157,870	\$4,511	NA	NA	\$4,423	
Continuous calibration kit		\$75	2013							\$90	\$54,449	\$1,556	\$92	\$55,585	\$1,588	\$94	\$56,676	\$1,619	NA	NA	\$1,588	
Audits																						
Sequential	Hours per site	0	2	6	2	0	0	10	10.0	7,330	7,330	7,330	10.0	7,330	7,330	10.0	7,330	7,330	7,330	7,330	NA	NA
	Cost per site	0	82	265	99	0	0	\$446	\$534	\$391,648	\$391,648	\$545	\$399,821	\$399,821	\$556	\$407,667	\$407,667	\$399,712	NA	NA	NA	
Single-channel	Hours per site	0	2	6	2	0	0	10	10	3,340	3,340	3,340	10	3,340	3,340	10	3,340	3,340	3,340	3,340	NA	NA
	Cost per site	0	82	265	99	0	0	\$446	\$534	\$178,459	\$178,459	\$545	\$182,183	\$182,183	\$556	\$185,758	\$185,758	\$182,133	NA	NA	NA	
Seasonal	Hours per site	0	2	6	2	0	0	10	10	520	520	520	10	520	520	10	520	520	520	520	NA	NA
	Cost per site	0	82	265	99	0	0	\$446	\$534	\$27,784	\$27,784	\$545	\$28,364	\$28,364	\$556	\$28,920	\$28,920	\$28,356	NA	NA	NA	
Continuous	Hours per site	0	3	5	2	0	0	10	10	6,060	6,060	6,060	10	6,060	6,060	10	6,060	6,060	6,060	6,060	NA	NA
	Cost per site	0	123	221	99	0	0	\$443	\$531	\$321,613	\$321,613	\$542	\$328,324	\$328,324	\$552	\$334,767	\$334,767	\$328,235	NA	NA	NA	
Reporting																						
Sequential	Hours per site	0	0	0	2	2	0	4	4	2,932	2,932	2,932	4	2,932	2,932	4	2,932	2,932	2,932	2,932	NA	NA
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$184,408	\$184,408	\$257	\$188,256	\$188,256	\$262	\$191,951	\$191,951	\$188,205	NA	NA	NA	
Single-channel	Hours per site	0	0	0	2	2	0	4	4	3,340	3,340	3,340	4	3,340	3,340	4	3,340	3,340	3,340	3,340	NA	NA
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$84,028	\$84,028	\$257	\$85,781	\$85,781	\$262	\$87,465	\$87,465	\$85,758	NA	NA	NA	
Seasonal	Hours per site	0	0	0	2	2	0	4	4	208	208	208	4	208	208	4	208	208	208	208	NA	NA
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$13,082	\$13,082	\$257	\$13,355	\$13,355	\$262	\$13,617	\$13,617	\$13,352	NA	NA	NA	
Continuous	Hours per site	0	0	0	2	2	0	4	4	2,424	2,424	2,424	4	2,424	2,424	4	2,424	2,424	2,424	2,424	NA	NA
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$152,457	\$152,457	\$257	\$155,639	\$155,639	\$262	\$158,693	\$158,693	\$155,597	NA	NA	NA	
Implementation/coordination																						
Sequential	Hours per site	0	5	5	2	1	0	13	13	9,529	9,529	9,529	13	9,529	9,529	13	9,529	9,529	9,529	9,529	NA	NA
	Cost per site	0	204	221	99	55	0	\$579	\$694	\$508,440	\$508,440	\$708	\$519,050	\$519,050	\$722	\$529,236	\$529,236	\$519,908	NA	NA	NA	
Single-channel	Hours per site	0	5	5	2	1	0	13	13	3,340	3,340	3,340	13	3,340	3,340	13	3,340	3,340	3,340	3,340	NA	NA
	Cost per site	0	204	221	99	55	0	\$579	\$694	\$231,676	\$231,676	\$708	\$236,511	\$236,511	\$722	\$241,152	\$241,152	\$236,447	NA	NA	NA	
Seasonal	Hours per site	0	5	5	2	1	0	13	13	676	676	676	13	676	676	13	676	676	676	676	NA	NA
	Cost per site	0	204	221	99	55	0	\$579	\$694	\$36,069	\$36,069	\$708	\$36,822	\$36,822	\$722	\$37,545	\$37,545	\$36,812	NA	NA	NA	
Continuous	Hours per site	0	0	5	2	1	0	13	13	7,878	7,878	7,878	13	7,878	7,878	13	7,878	7,878	7,878	7,878	NA	NA
	Cost per site	0	0	221	246	111	59	\$637	\$763	\$462,454	\$462,454	\$779	\$472,105	\$472,105	\$794	\$481,369	\$481,369	\$471,976	NA	NA	NA	
Training																						
Sequential	Hours per site	0	0	3	2	1	0	6	6	4,398	4,398	4,398	6	4,398	4,398	6	4,398	4,398	4,398	4,398	NA	NA
	Cost per site	0	0	132	99	55	0	\$286	\$343	\$251,146	\$251,146	\$350	\$256,387	\$256,387	\$357	\$261,419	\$261,419	\$256,317	NA	NA	NA	
Single-channel	Hours per site	0	0	3	2	1	0	6	6	3,340	3,340	3,340	6	3,340	3,340	6	3,340	3,340	3,340	3,340	NA	NA
	Cost per site	0	0	132	99	55	0	\$286	\$343	\$114,438	\$114,438	\$350	\$116,826	\$116,826	\$357	\$119,118	\$119,118	\$116,794	NA	NA	NA	
Seasonal	Hours per site	0	0	3	2	1	0	6	6	312	312	312	6	312	312	6	312	312	312	312	NA	NA
	Cost per site	0	0	132	99	55	0	\$286	\$343	\$17,817	\$17,817	\$350	\$18,188	\$18,188	\$357	\$18,545	\$18,545	\$18,183	NA	NA	NA	
Continuous	Hours per site	0	0	3	2	1	0	6	6	3,636	3,636	3,636	6	3,636	3,636	6	3,636	3,636	3,636	3,636	NA	NA
	Cost per site	0	0	132	99	55	0	\$286	\$343	\$207,633	\$207,633	\$350	\$211,965	\$211,965	\$357	\$216,125	\$216,125	\$211,908	NA	NA	NA	
QA Plan preparation																						
Hours per RO		0	0	5	5	5	0	15	NA	1,995	399	399	NA	1,995	399	399	NA	1,995	399	399	NA	NA
Cost per RO		0	0	221	246	277	0	\$744	\$891	\$118,544	\$23,709	\$910	\$121,018	\$24,204	\$928	\$123,393	\$24,679	\$24,197	NA	NA	NA	
QA Plan review (annual)																						
Hours per RO		0	0	0	5	5	5	15	NA	1,995	1,995	1,995	NA	1,995	1,995	NA	1,995	1,995	1,995	1,995	NA	NA
Cost		0	0	0	246	277	293	\$816	\$978	\$130,017	\$26,003	\$998	\$132,730	\$26,546	\$1,018	\$135,334	\$27,067	\$26,539	NA	NA	NA	
Sub Total - Hours		0	24	60	45	27	6	162	132	59,263	59,263	132	59,263	59,263	132	59,263	59,263	59,263	NA	NA	NA	
Sub Total - Costs		\$0	\$981	\$2,649	\$2,223	\$1,494	\$352	\$7,699	\$9,223	\$3,637,829	\$3,238,753	\$9,416	\$3,713,743	\$3,306,340	\$9,601	\$3,786,621	\$3,371,223	\$3,361,085	\$0	\$6,010	NA	

Element 7 - Supervision		Years Amortized						Comment	Element 7 - Supervision						Labor			Non Labor O & M	Equipment			
		2013		7					Per Site			Entire Network			Per Site					Entire Network		
		Unit cost	Year	TEC1	TEC2	PRO1	PRO2		PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost			Adjusted	Total	Yearly Cost
Planning/coordination																						
Sequential	Hours per site	0	6	3	3	0	0	12	NA	8,796	8,796	8,796	NA	8,796	8,796	NA	8,796	8,796	8,796	8,796	NA	NA
	Cost per site	0	245	132	148	0	0	\$525	\$629	\$461,020	\$461,020	\$642	\$470,641	\$470,641	\$655	\$479,877	\$479,877	\$470,513	NA	NA	NA	
Single Channel	Hours per site	0	6	3	3	0	0	12	NA	1,728	1,728	1,728	NA	1,728	1,728	NA	1,728	1,728	1,728	1,728	NA	NA
	Cost per site	0	245	132	148	0	0	\$525	\$629	\$90,569	\$90,569	\$642	\$92,459	\$92,459	\$655	\$94,273	\$94,273	\$92,434	NA	NA	NA	
Seasonal	Hours per site	0	6	3	3	0	0	12	NA	624	624	624	NA	624	624	NA	624	624	624	624	NA	NA
	Cost per site	0	245	132	148	0	0	\$525	\$629	\$32,705	\$32,705	\$642	\$33,388	\$33,388	\$655	\$34,043	\$34,043	\$33,379	NA	NA	NA	
Continuous	Hours per site	0	0	0	12	24	0	36	NA	21,816	21,816	21,816	NA	21,816	21,816	NA	21,816	21,816	21,816	21,816	NA	NA
	Cost per site	0	0	0	591	1331	0	\$1,922	\$2,303	\$1,395,349	\$1,395,349	\$2,351	\$1,424,467	\$1,424,467	\$2,397	\$1,452,421	\$1,452,421	\$1,424,079	NA	NA	NA	
Speciation	Hours per site	0	0	0	7	7	0	14	NA	2,772	2,772	2,772	NA	2,772	2,772	NA	2,772	2,772	2,772	2,772	NA	NA
	Cost per site	0	0	0	345	388	0	\$733	\$878	\$173,871	\$173,871	\$896	\$177,499	\$177,499	\$914	\$180,982	\$180,982	\$177,451	NA	NA	NA	
Supervision/review																						
Sequential	Hours per site	0	0	5	5	10	10	30	NA	21,990	21,990	21,990	NA	21,990	21,990	NA	21,990	21,990	21,			

Summary by Element	PM25							Year 1 2013			Year 2 2014			Year 3 2015							
	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost					
1 - Network Design	Hours	0	0	2	7	7	5	21	NA	2,793	399	NA	2,793	399	NA	2,793	399	399			
	Costs	\$0	\$0	\$88	\$345	\$388	\$293	\$1,114	\$1,335	\$177,498	\$25,357	\$1,362	\$181,202	\$25,886	\$1,389	\$184,758	\$26,394	\$25,879	NA	NA	NA
2 - Site Installation	Hours	0	16	17	11	0	0	44	NA	36,999	5,625	NA	36,999	5,625	NA	36,999	5,625	5,625			
	Costs	\$0	\$653	\$749	\$544	\$0	\$0	\$1,946	\$129,016	\$38,551,550	\$5,507,364	\$126,817	\$39,101,664	\$5,585,952	\$129,305	\$39,868,991	\$5,695,570	\$405,123	NA	\$5,191,173	NA
3 - Supplies & site visits	Hours	0	208	196	273	0	0	677	NA	206,781	206,781	NA	206,781	206,781	NA	206,781	206,781	19,392	NA	NA	NA
	Costs	\$0	\$8,499	\$4,677	\$9,015	\$0	\$0	\$22,191	\$8,491,608	\$23,866,959	\$23,866,959	\$8,668,811	\$24,365,017	\$24,365,017	\$8,838,927	\$24,843,153	\$24,843,153	\$15,274,202	\$455,566	\$8,642,232	NA
4 - Maintenance	Hours	0	19	49	66	4	0	138	138	53,138	53,138	138	53,138	53,138	138	53,138	53,138	53,138			
	Costs	\$0	\$778	\$2,162	\$3,253	\$222	\$0	\$7,685	#REF!	\$3,546,741	\$3,546,741	\$7,846	\$3,620,755	\$3,620,755	\$8,000	\$3,691,808	\$3,691,808	\$2,995,438	\$624,330	NA	NA
5 - Data Managment	Hours	0	64	176.5	139	86	1	466.5	467	193,215	193,215	467	193,215	193,215	467	193,215	193,215	193,215	NA	NA	NA
	Costs	\$0	\$2,615	\$7,786	\$6,848	\$4,770	\$59	\$22,078	\$26,449	\$10,924,689	\$10,924,689	\$27,001	\$11,152,667	\$11,152,667	\$27,531	\$11,371,525	\$11,371,525	\$11,149,627	NA	NA	NA
6 - Quality Assurance	Hours	0	24	60	45	27	6	162	132	59263	59263	132	59263	59263	132	59263	59263	59263	NA	NA	NA
	Costs	\$0	\$981	\$2,649	\$2,223	\$1,494	\$352	\$7,699	\$9,223	\$3,637,829	\$3,238,753	\$9,416	\$3,713,743	\$3,306,340	\$9,601	\$3,786,621	\$3,371,223	\$3,361,085	\$0	\$6,010	NA
7 - Supervision	Hours	0	18	19	57	69	30	193	NA	79830	79830	NA	79830	79830	NA	79830	79830	79830	NA	NA	NA
	Costs	\$0	\$735	\$838	\$2,808	\$3,828	\$1,757	\$9,966	NA	\$4,978,067	\$4,978,067	NA	\$5,081,950	\$5,081,950	NA	\$5,181,678	\$5,181,678	\$5,080,565	NA	NA	NA
Total		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost				
	Hours	0	349	520	598	193	42	1,702	NA	572,755	598,250	NA	572,755	598,250	NA	572,755	598,250	410,862		NA	NA
	Costs	\$0	\$14,261	\$18,949	\$25,036	\$10,702	\$2,461	\$72,679	NA	\$2,045,505	\$52,087,931	NA	\$3,503,255	\$53,138,567	NA	\$5,141,913	\$54,181,351	\$38,291,920	\$1,079,896	\$13,839,415	NA

\$53,211,231

Data Entry for	Pb	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
				Report Org	Sites 236 Spares 0	Report Org	Sites 236 Spares 0	Report Org	Sites 236 Spares 0	Report Org	Sites 75 Spares 0
Overall Comment				0.00%	75	75	75	75	75	75	75

General Costs													Labor		Non Labor O & M	
Element 1 - Network Design																
a) Network Design (by Reporting Organization)																
b) Site Selection (Reporting Organization)																
Sub Total - Hours																
Sub Total - Costs																

Element 2 - Site Installation																
Materials																
Labor																
Procurement																
Installation																
Sub Total - Hours																
Sub Total - Costs																

Element 3 - Sampling and Analysis																
Supplies																
Filters																
Lab Services																
Routine visits																
Sub Total - Hours																
Sub Total - Costs																

Element 4 - Maintenance																
Spare parts/supplies																
Remedial Repairs																
Routine Maint.																
Sub Total - Hours																
Sub Total - Costs																

Element 5 - Data Management																
Data aquisition/processing																
Data reporting																
Data validation																
Data distribution																
Sub Total - Hours																
Sub Total - Costs																

Element 6 - Quality Assurance		Comment						Element 6 - Quality Assurance				Element 6 - Quality Assurance			Element 6 - Quality Assurance			Non Labor O & M		Equipment					
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network		Per Site Adjusted	Entire Network		Per Site Adjusted	Entire Network		Labor							
									Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost								
Audits	Hours per site	6	4	2	0	0	0	12	NA	2,832	2,832	NA	2,832	2,832	NA	2,832	2,832	2,832	NA	NA	NA				
	Cost per site	170	163	88	0	0	0	\$421	\$504	\$119,028	\$119,028	\$515	\$121,512	\$121,512	\$525	\$123,897	\$123,897	\$121,479	NA	NA	NA				
Coordination/implementation	Hours per site	0	1	1	1	1	0	4	NA	944	944	NA	944	944	NA	944	944	944	NA	NA	NA				
	Cost per site	0	41	44	49	55	0	\$189	\$226	\$53,436	\$53,436	\$231	\$54,551	\$54,551	\$236	\$55,621	\$55,621	\$54,536	NA	NA	NA				
Training	Hours per site	0	4	0	0	0	0	4	NA	944	944	NA	944	944	NA	944	944	944	NA	NA	NA				
	Cost per site	0	163	0	0	0	0	\$163	\$195	\$46,085	\$46,085	\$199	\$47,046	\$47,046	\$203	\$47,970	\$47,970	\$47,034	NA	NA	NA				
QA Plan review (annual)	Hours per RO	0	0	0.2	0.3	0	0	0.5	NA	38	38	NA	38	38	NA	38	38	38	NA	NA	NA				
	Cost	0	0	9	15	0	0	\$24	\$29	\$2,156	\$2,156	\$29	\$2,201	\$2,201	\$30	\$2,245	\$2,245	\$2,201	NA	NA	NA				
QA Plan preparation	Hours per RO	0	12	0	0	0	0	12	NA	900	180	NA	900	180	NA	900	180	180	NA	NA	NA				
	Cost	0	490	0	0	0	0	\$490	\$587	\$44,027	\$8,805	\$599	\$44,945	\$8,989	\$611	\$45,827	\$9,165	\$8,987	NA	NA	NA				
Sub Total - Hours		6	21	3	1	1	0	33	NA	5,658	4,938	NA	5,658	4,938	NA	5,658	4,938	4,938	NA	NA	NA				
Sub Total - Costs		\$170	\$857	\$141	\$64	\$55	\$0	\$1,287	\$1,542	\$264,732	\$229,510	\$1,574	\$270,256	\$234,300	\$1,605	\$275,560	\$238,898	\$234,236	NA	NA	NA				
Element 7 - Supervision																									
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network		Per Site Adjusted	Entire Network		Per Site Adjusted	Entire Network									
Planning/coordination	Hours per site	0	0	0	2	2	0	4	NA	944	944	NA	944	944	NA	944	944	944	NA	NA	NA				
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$59,373	\$59,373	\$257	\$60,612	\$60,612	\$262	\$61,801	\$61,801	\$60,595	NA	NA	NA				
Supervision/review	Hours per site	0	0	0	3	3	0	6	NA	1,416	1,416	NA	1,416	1,416	NA	1,416	1,416	1,416	NA	NA	NA				
	Cost per site	0	0	0	148	166	0	\$314	\$376	\$88,777	\$88,777	\$384	\$90,629	\$90,629	\$392	\$92,408	\$92,408	\$90,604	NA	NA	NA				
Sub Total - Hours		0	0	0	5	5	0	10	NA	2360	2360	NA	2360	2360	NA	2360	2360	2,360	NA	NA	NA				
Sub Total - Costs		\$0	\$0	\$0	\$247	\$277	\$0	\$524	\$628	\$148,149	\$148,149	\$641	\$151,241	\$151,241	\$653	\$154,209	\$154,209	\$151,200	NA	NA	NA				
Summary by Element																									
		Pb						Year 1			2013			Year 2			2014			Year 3			2015		
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost					
1 - Network Design	Hours	0	6	2	7	5	5	25	NA	1,875	268	NA	1,875	268	NA	1,875	268	NA	1,875	268	NA	NA	NA	NA	
	Costs	\$0	\$245	\$88	\$345	\$277	\$293	\$1,248	\$1,495	\$112,133	\$16,019	\$1,526	\$114,473	\$16,353	\$1,556	\$116,719	\$16,674	\$1,539	\$116,349	\$16,674	\$16,349	NA	NA	NA	
2 - Site Installation	Hours	8	8	0	0	0	0	16	NA	3,776	539	NA	3,776	539	NA	3,776	539	NA	3,776	539	NA	NA	NA	NA	
	Costs	\$227	\$327	\$0	\$0	\$0	\$0	\$554	\$664	\$0	\$108,204	\$678	\$0	\$110,462	\$691	\$0	\$112,630	\$22,837	\$691	\$112,630	\$22,837	NA	\$87,595	NA	
3 - Sampling and Analysis	Hours	0	30	60	0	0	0	90	NA	21240	21240	NA	21240	21240	NA	21240	21240	NA	21240	21240	NA	NA	NA	NA	
	Costs	\$0	\$30	\$60	\$0	\$0	\$0	\$4,023	\$6,928	\$1,635,016	\$1,635,016	\$4,920	\$1,204,445	\$1,204,445	\$7,211	\$1,701,891	\$1,701,891	\$1,117,552	\$7,211	\$1,701,891	\$1,117,552	\$86,565	\$464,564	NA	
4 - Maintenance	Hours	0	16	0	0	0	0	16	NA	3776	3776	NA	3776	3776	NA	3776	3776	NA	3776	3776	NA	NA	NA	NA	
	Costs	\$0	\$654	\$0	\$0	\$0	\$0	\$954	\$1,143	\$269,723	\$269,723	\$1,167	\$275,351	\$275,351	\$1,190	\$280,755	\$280,755	\$188,711	\$1,190	\$280,755	\$188,711	\$86,565	NA	NA	
5 - Data Management	Hours	0	0	4	17	0	0	21	NA	4956	4956	NA	4956	4956	NA	4956	4956	NA	4956	4956	NA	NA	NA	NA	
	Costs	\$0	\$0	\$176	\$837	\$0	\$0	\$1,013	\$1,214	\$286,403	\$286,403	\$1,239	\$292,380	\$292,380	\$1,263	\$298,118	\$298,118	\$292,300	\$1,263	\$298,118	\$298,118	\$292,300	NA	NA	NA
6 - Quality Assurance	Hours	6	21	3	1	1	0	33	NA	5658	4938	NA	5658	4938	NA	5658	4938	4938	NA	5658	4938	NA	NA	NA	
	Costs	\$170	\$857	\$141	\$64	\$55	\$0	\$1,287	\$1,542	\$264,732	\$229,510	\$1,574	\$270,256	\$234,300	\$1,605	\$275,560	\$238,898	\$234,236	\$1,605	\$275,560	\$238,898	\$234,236	\$0	NA	NA
7 - Supervision	Hours	0	0	0	5	5	0	10	NA	2360	2360	NA	2360	2360	NA	2360	2360	2360	NA	2360	2360	NA	NA	NA	
	Costs	\$0	\$0	\$0	\$247	\$277	\$0	\$524	\$628	\$148,149	\$148,149	\$641	\$151,241	\$151,241	\$653	\$154,209	\$154,209	\$151,200	\$653	\$154,209	\$154,209	\$151,200	NA	NA	NA
Total	Hours	14	81	69	30	11	5	211	NA	37,983	38,077	NA	37,983	38,077	NA	37,983	38,077	38,077	NA	37,983	38,077	38,077	NA	NA	NA
	Costs	\$397	\$2,113	\$465	\$1,493	\$609	\$293	\$9,603	\$13,613	\$2,451,424	\$2,693,025	\$11,744	\$2,037,890	\$2,284,532	\$14,170	\$2,551,691	\$2,803,174	\$2,023,185	\$14,170	\$2,551,691	\$2,803,174	\$2,023,185	\$173,130	\$552,160	NA

Data Entry for	PAMSVOC	Updated on	February 1, 2013
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Overall Comment

General Costs

Element 1 - Network Design	Years Amortized	5	Comment
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a) Network Design (by Reporting Organization)

Labor Category	TEC1	TEC2	PRO1	PRO2	PRO3
Hours per RO	0	0	0	10	10
Costs per RO	0	0	0	493	555

b) Site Selection (Reporting Organization)

Hours per RO	0	0	0	4	4
Costs per RO	0	0	0	197	222
Sub Total - Hours	0	0	0	14	14
Sub Total - Costs	\$0	\$0	\$0	\$690	\$777

Element 2 - Site Installation	Years Amortized	5	Comment
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		Unit cost	Year			
Materials						
	Analyzers	\$30,000	2013			
	Canister sampling system	\$16,000	2013			
	Gas cleaning system	\$5,667	2013			
Labor		TEC1	TEC2	PRO1	PRO2	PRO3
Procurement	Hours per site	0	0	0	8	0
	Cost per site	0	0	0	394	0
Installation	Hours per site	0	0	0	10	5
	Cost per site	0	0	0	493	277
Sub Total - Hours		0	0	0	18	5
Sub Total - Costs		\$0	\$0	\$0	\$887	\$277

Element 3 - Supplies and Site Visits	Comment
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Supplies		Unit cost	Year			
		\$16,000	2013			
Routine visits		TEC1	TEC2	PRO1	PRO2	PRO3
	Hours per site	0	0	0	88	0
	Cost per site	0	0	0	4335	0
Sub Total - Hours		0	0	0	88	0
Sub Total - Costs		\$0	\$0	\$0	\$4,335	\$0

Element 4 - Maintenance	Comment
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Spare parts/supplies		Unit cost	Year			
		\$3,000	2013			
Remedial Repairs		TEC1	TEC2	PRO1	PRO2	PRO3
	Hours per site	0	0	0	24	8
	Cost per site	0	0	0	1182	444
Routine Maint.	Hours per site	0	0	0	48	16

Cost per site	0	0	0	2365	887
Sub Total - Hours	0	0	0	72	24
Sub Total - Costs	\$0	\$0	\$0	\$3,547	\$1,331

Element 5 - Data Management

Comment

	TEC1	TEC2	PRO1	PRO2	PRO3
Data aquisition/processing					
Hours per site	0	0	0	24	0
Cost per site	0	0	0	1182	0
Data reporting					
Hours per site	0	0	0	8	1
Cost per site	0	0	0	394	55
Data validation					
Hours per site	0	0	0	32	8
Cost per site	0	0	0	1576	444
Data distribution					
Hours per site	0	0	0	70	30
Cost per site	0	0	0	3448	1664
Sub Total - Hours	0	0	0	134	39
Sub Total - Costs	\$0	\$0	\$0	\$6,600	\$2,163

Element 6 - Quality Assurance

Comment

	TEC1	TEC2	PRO1	PRO2	PRO3
Audits					
Hours per site	0	0	0	8	8
Cost per site	0	0	0	394	444
Routine Calibrations					
Hours per site	0	0	0	16	0
Cost per site	0	0	0	788	0
Coordination/implementation					
Hours per site	0	0	0	4	2
Cost per site	0	0	0	197	111
Training					
Hours per site	0	0	0	0	16
Cost per site	0	0	0	0	887
Reporting					
Hours per site	0	0	0	6	2
Cost per site	0	0	0	296	111
QA Plan review (annual)					
Hours per RO	0	0	0	0	0
Cost	0	0	0	0	0
QA Plan preparation		Years Amortized	5		
Hours per RO	0	0	0	0	10
Cost per RO	0	0	0	0	555
Sub Total - Hours	0	0	0	34	38
Sub Total - Costs	\$0	\$0	\$0	\$1,675	\$2,108

Element 7 - Supervision

Comment

	TEC1	TEC2	PRO1	PRO2	PRO3
Planning/coordination					
Hours per site	0	0	0	0	20
Cost per site	0	0	0	0	1109
Supervision/review					
Hours per site	0	0	0	0	16
Cost per site	0	0	0	0	887
Sub Total - Hours	0	0	0	0	36

Sub Total - Costs		\$0	\$0	\$0	\$0	\$1,996
Summary by Element PAMSVOC						
		TEC1	TEC2	PRO1	PRO2	PRO3
1 - Network Design	Hours	0	0	0	14	14
	Costs	\$0	\$0	\$0	\$690	\$777
2 - Site Installation	Hours	0	0	0	18	5
	Costs	\$0	\$0	\$0	\$887	\$277
3 - Supplies & site visits	Hours	0	0	0	88	0
	Costs	\$0	\$0	\$0	\$4,335	\$0
4 - Maintenance	Hours	0	0	0	72	24
	Costs	\$0	\$0	\$0	\$3,547	\$1,331
5 - Data Managment	Hours	0	0	0	134	39
	Costs	\$0	\$0	\$0	\$6,600	\$2,163
6 - Quality Assurance	Hours	0	0	0	34	38
	Costs	\$0	\$0	\$0	\$1,675	\$2,108
7 - Supervision	Hours	0	0	0	0	36
	Costs	\$0	\$0	\$0	\$0	\$1,996
Total		TEC1	TEC2	PRO1	PRO2	PRO3
	Hours	0	0	0	360	156
	Costs	\$0	\$0	\$0	\$17,734	\$8,652

	Year 1	2013		Year 2
Spare Factor				
0.00%	Report Org	Auto GC Sites	32	Report Org
	14	Canister Sites	38	14

		Element 1 - Network Design			Element 1 - Net
Per RO		Per RO	Entire Network		Per RO
PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted
10	30	NA	420	84	NA
586	\$1,634	\$1,958	\$27,405	\$5,481	\$1,998
0	8	NA	112	22	NA
0	\$419	\$502	\$7,027	\$1,405	\$512
10	38	NA	532	106	NA
\$586	\$2,053	\$2,459	\$34,433	\$6,887	\$2,511

		Element 2 - Site Installation			Element 2 - Site
Per Site		Per Site	Entire Network		Per Site
PRO4	Per Site Total	Adjusted	Total	Yearly Cost	Adjusted
		\$35,940	\$1,150,080	\$230,016	\$36,690
		\$19,168	\$728,384	\$145,677	\$19,568
		\$6,789	\$217,250	\$43,450	\$6,931
0	8	NA	560	112	NA
0	\$394	\$472	\$33,041	\$6,608	\$482
0	15	NA	480	96	NA
0	\$770	\$922	\$29,519	\$5,904	\$942
0	23	NA	1,040	208	NA
\$0	\$1,164	\$1,394	62,560	\$431,655	\$1,424

		Element 3 - Supplies and Site Visits			Element 3 - Sup
Per Site		Per Site	Entire Network		Per Site
PRO4	Per Site Total	Adjusted	Total	Yearly Cost	Adjusted
		\$19,168	\$613,376	\$613,376	\$19,568
0	88	NA	2,816	2,816	NA
0	\$4,335	\$5,193	\$166,187	\$166,187	\$5,302
0	88	NA	2,816	2,816	NA
\$0	\$20,335	\$24,361	\$779,563	\$779,563	\$24,870

		Element 4 - Maintenance			Element 4 - Mai
Per Site		Per Site	Entire Network		Per Site
PRO4	Per Site Total	Adjusted	Total	Yearly Cost	Adjusted
		\$3,594	\$115,008	\$115,008	\$3,669
0	32	NA	1,024	1,024	NA
0	\$1,626	\$1,948	\$62,334	\$62,334	\$1,989
0	64	NA	2,048	2,048	NA

0	\$3,252	\$3,896	\$124,669	\$124,669	\$3,977
0	96	NA	3,072	3,072	NA
\$0	\$7,878	\$9,438	\$302,011	\$302,011	\$9,635

		Element 5 - Data Management			Element 5 - Dat
	Per Site	Per Site	Entire Network		Per Site
PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted
0	24	NA	768	768	NA
0	\$1,182	\$1,416	\$45,313	\$45,313	\$1,446
1	10	NA	320	320	NA
59	\$508	\$609	\$19,475	\$19,475	\$621
0	40	NA	1,280	1,280	NA
0	\$2,020	\$2,420	\$77,439	\$77,439	\$2,470
10	110	NA	3,520	3,520	NA
586	\$5,698	\$6,826	\$218,439	\$218,439	\$6,969
11	184	NA	5,888	5,888	NA
\$645	\$9,408	\$11,271	\$360,665	\$360,665	\$11,506

		Element 6 - Quality Assurance			Element 6 - Qu
	Per Site	Per Site	Entire Network		Per Site
PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted
0	16	NA	512	512	NA
0	\$838	\$1,004	\$32,126	\$32,126	\$1,025
0	16	NA	512	512	NA
0	\$788	\$944	\$30,209	\$30,209	\$964
PRO4	Total				Adjusted
0	6	NA	192	192	NA
0	\$308	\$369	\$11,807	\$11,807	\$377
0	16	NA	512	512	NA
0	\$887	\$1,063	\$34,004	\$34,004	\$1,085
0	8	NA	256	256	NA
0	\$407	\$488	\$15,603	\$15,603	\$498
PRO4	Labor per RO				Adjusted per RO
0	0	NA	0	0	NA
0	\$0	\$0	\$0	\$0	\$0
	Per RO				Per RO
5	15	NA	210	42	NA
293	\$848	\$1,016	\$14,223	\$2,845	\$1,037
5	77	NA	NA	2,026	NA
\$293	\$4,076	\$4,883	NA	\$126,593	\$4,985

		Element 7 - Supervision			Element 7 - Sup
	Per Site	Per Site	Entire Network		Per Site
PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted
0	20	NA	640	640	NA
0	\$1,109	\$1,329	\$42,515	\$42,515	\$1,356
8	24	NA	768	768	NA
469	\$1,356	\$1,624	\$51,984	\$51,984	\$1,658
8	44	NA	1408	1408	NA

\$469	\$2,465	\$2,953	\$94,498	\$94,498	\$3,015
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		2013				
		Year 1			Year 2	
PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	
10	38	NA	532	106	NA	
\$586	\$2,053	\$2,459	\$34,433	\$6,887	\$2,511	
0	23	NA	1,040	208	NA	
\$0	\$1,164	\$1,394	\$62,560	\$431,655	\$1,424	
0	88	NA	2816	2816	NA	
\$0	\$20,335	\$24,361	\$779,563	\$779,563	\$24,870	
0	96	NA	3072	3072	NA	
\$0	\$7,878	\$9,438	\$302,011	\$302,011	\$9,635	
11	184	NA	5888	5888	NA	
\$645	\$9,408	\$11,271	\$360,665	\$360,665	\$11,506	
5	77	NA	NA	2026	NA	
\$293	\$4,076	\$4,883	NA	\$126,593	\$4,985	
8	44	NA	1408	1408	NA	
\$469	\$2,465	\$2,953	\$94,498	\$94,498	\$3,015	
PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	
34	550	NA	14,756	15,524	NA	
\$1,993	\$47,379	\$56,760	1,633,729	\$2,101,871	\$57,945	

2014		Year 3		2015		Average Yearly
Sites	32	Report Org		Sites	32	Report Org
Canister Sites	38	14		Canister Sites	38	Canister Sites

Network Design						Labor
Entire Network		Per RO		Entire Network		
Total	Yearly Cost	Adjusted	Total	Yearly Cost		
420	84	NA	420	84		84
\$27,977	\$5,595	\$2,038	\$28,526	\$5,705		\$5,594
112	22	NA	112	22		22
\$7,174	\$1,435	\$522	\$7,315	\$1,463		\$1,434
532	106	NA	532	106		106
\$35,151	\$7,030	\$2,560	\$35,841	\$7,168		\$7,028

Site Installation		Element 2 - Site Installation			
Entire Network		Per Site	Entire Network		
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
\$1,174,080	\$234,816	\$37,410	\$1,197,120	\$239,424	NA
\$626,176	\$125,235	\$19,952	\$638,464	\$127,693	
\$221,784	\$44,357	\$7,067	\$226,136	\$45,227	NA
560	112	NA	560	112	112
\$15,420	\$3,084	\$491	\$15,722	\$3,144	\$4,279
480	96	NA	480	96	96
\$30,135	\$6,027	\$960	\$30,726	\$6,145	\$6,025
1,040	208	NA	1,040	208	208
45,554	\$413,519	\$1,452	46,448	\$421,634	\$10,304

Supplies and Site Visits		Element 3 - Supplies and Site Visits			
Entire Network		Per Site	Entire Network		
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
\$626,176	\$626,176	\$19,952	\$638,464	\$638,464	NA
2,816	2,816	NA	2,816	2,816	2,816
\$169,655	\$169,655	\$5,406	\$172,984	\$172,984	\$169,608
2,816	2,816	NA	2,816	2,816	2,816
\$795,831	\$795,831	\$25,358	\$811,448	\$811,448	\$795,614

Maintenance		Element 4 - Maintenance			
Entire Network		Per Site	Entire Network		
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
\$117,408	\$117,408	\$3,741	\$119,712	\$119,712	NA
1,024	1,024	NA	1,024	1,024	1,024
\$63,635	\$63,635	\$2,028	\$64,884	\$64,884	\$63,618
2,048	2,048	NA	2,048	2,048	2,048

\$127,270	\$127,270	\$4,055	\$129,768	\$129,768	\$127,236
3,072	3,072	NA	3,072	3,072	3,072
\$308,313	\$308,313	\$9,824	\$314,364	\$314,364	\$190,853

Data Management		Element 5 - Data Management			
Entire Network		Per Site	Entire Network		
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
768	768	NA	768	768	768
\$46,259	\$46,259	\$1,474	\$47,167	\$47,167	\$46,246
320	320	NA	320	320	320
\$19,881	\$19,881	\$633	\$20,271	\$20,271	\$19,876
1,280	1,280	NA	1,280	1,280	1,280
\$79,055	\$79,055	\$2,519	\$80,606	\$80,606	\$79,033
3,520	3,520	NA	3,520	3,520	3,520
\$222,997	\$222,997	\$7,105	\$227,373	\$227,373	\$222,936
5,888	5,888	NA	5,888	5,888	5,888
\$368,191	\$368,191	\$11,732	\$375,417	\$375,417	\$368,091

Quality Assurance		Element 6 - Quality Assurance			Labor
Entire Network		Per Site	Entire Network		
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
512	512	NA	512	512	512
\$32,796	\$32,796	\$1,045	\$33,440	\$33,440	\$32,787
512	512	NA	512	512	512
\$30,839	\$30,839	\$983	\$31,444	\$31,444	\$30,831
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
192	192	NA	192	192	192
\$12,054	\$12,054	\$384	\$12,290	\$12,290	\$12,051
512	512	NA	512	512	512
\$34,714	\$34,714	\$1,106	\$35,395	\$35,395	\$34,704
256	256	NA	256	256	256
\$15,928	\$15,928	\$508	\$16,241	\$16,241	\$15,924
Total	Yearly Cost	Adjusted per RO	Total	Yearly Cost	
0	0	NA	0	0	0
\$0	\$0	\$0	\$0	\$0	\$0
Entire Network		Per RO	Entire Network		
210	42	NA	210	42	42
\$14,519	\$2,904	\$1,057	\$14,804	\$2,961	\$2,903
NA	2,026	NA	NA	2,026	2,026
NA	\$129,235	\$5,083	NA	\$131,771	\$129,200

Supervision		Element 7 - Supervision			
Entire Network		Per Site	Entire Network		
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
640	640	NA	640	640	640
\$43,402	\$43,402	\$1,383	\$44,254	\$44,254	\$43,390
768	768	NA	768	768	768
\$53,068	\$53,068	\$1,691	\$54,110	\$54,110	\$53,054
1408	1408	NA	1408	1,408	1,408

\$96,470	\$96,470	\$3,074	\$98,363	\$98,363	\$96,444
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2014		Year 3	2015		
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
532	106	NA	532	106	106
\$35,151	\$7,030	\$2,560	\$35,841	\$7,168	\$7,028
1,040	208	NA	1,040	208	208
\$45,554	\$413,519	\$1,452	\$46,448	\$421,634	\$10,304
2816	2816	NA	2816	2816	2816
\$795,831	\$795,831	\$25,358	\$811,448	\$811,448	\$795,614
3072	3072	NA	3072	3072	3072
\$308,313	\$308,313	\$9,824	\$314,364	\$314,364	\$190,853
5888	5888	NA	5888	5888	5888
\$368,191	\$368,191	\$11,732	\$375,417	\$375,417	\$368,091
NA	2026	NA	NA	2026	2026
NA	\$129,235	\$5,083	NA	\$131,771	\$129,200
1408	1408	NA	1408	1408	1408
\$96,470	\$96,470	\$3,074	\$98,363	\$98,363	\$96,444
Total	Yearly Cost	Adjusted	Total	Yearly Cost	
14,756	15,524	NA	14,756	15,524	15,524
1,649,511	\$2,118,590	\$59,082	1,681,881	\$2,160,165	\$1,597,534

Early Costs	Equipment
14	
32	
38	
Non Labor O & M	
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	\$234,752
	\$132,868
NA	\$44,345
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	\$411,965
\$626,005	NA
NA	NA
NA	NA
NA	NA
\$626,005	NA
\$117,376	NA
NA	NA
NA	NA
NA	NA

NA	NA
NA	NA
NA	\$411,965
NA	NA
\$626,005	NA
\$117,376	NA
NA	NA
NA	NA
NA	NA
\$0	NA
NA	NA
NA	NA
	NA
\$743,381	\$411,965

Data Entry for	PAMSNMOC	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
				Report Org	Sites 26	Report Org	Sites 26	Report Org	Sites 26	Report Org	Sites 7
Overall Comment				Spare Factor 0.00%	Report Org 7	Spare Factor 0.00%	Report Org 7	Spare Factor 0.00%	Report Org 7	Spare Factor 0.00%	Report Org 7

General Costs												Non Labor O & M					
Element 1 - Network Design												Labor					
a) Network Design (by Reporting Organization)																	
b) Site Selection (Reporting Organization)																	
Hours per RO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Costs per RO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub Total - Hours	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub Total - Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Element 2 - Site Installation												Non Labor O & M					
Element 2 - Site Installation												Labor					
Hours per RO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Costs per RO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub Total - Hours	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub Total - Costs	\$0	\$327	\$353	\$197	\$0	\$0	\$877	\$1,051	\$76,643	\$1,073	\$78,242	\$1,094	\$79,778	\$5,576	\$72,645	\$72,645	

Element 3 - Supplies and Site Visits												Non Labor O & M				
Element 3 - Supplies and Site Visits												Labor				
Hours per site	0	60	60	0	0	0	120	NA	3,120	3,120	NA	3,120	3,120	3,120	3,120	3,120
Cost per site	0	2451	2647	0	0	0	\$5,098	NA	\$6,107	\$158,793	NA	\$6,235	\$162,106	\$162,106	\$6,357	\$165,287
Sub Total - Hours	0	60	60	0	0	0	120	NA	3,120	3,120	NA	3,120	3,120	3,120	3,120	3,120
Sub Total - Costs	\$0	\$60	\$60	\$0	\$0	\$0	\$5,898	\$7,066	\$183,711	\$183,711	\$7,213	\$187,545	\$187,545	\$7,355	\$191,225	

Element 4 - Maintenance												Non Labor O & M				
Element 4 - Maintenance												Labor				
Hours per site	0	6	3	3	2	0	12	NA	312	312	NA	312	312	312	312	312
Cost per site	0	245	132	148	0	0	\$525	NA	\$629	\$16,353	NA	\$642	\$16,694	\$16,694	\$655	\$17,022
Sub Total - Hours	0	22	11	35	0	0	68	NA	1,768	1,768	NA	1,768	1,768	1,768	1,768	1,768
Sub Total - Costs	\$0	\$899	\$485	\$1,724	\$0	\$0	\$4,108	\$4,921	\$127,956	\$127,956	\$5,024	\$130,626	\$130,626	\$5,123	\$133,190	

Element 5 - Data Management												Non Labor O & M				
Element 5 - Data Management												Labor				
Hours per site	0	6	3	3	2	0	14	NA	364	364	NA	364	364	364	364	364
Cost per site	0	245	132	148	111	0	\$636	NA	\$762	\$19,810	NA	\$778	\$20,224	\$20,224	\$793	\$20,620
Sub Total - Hours	0	8	10	17	4	0	39	NA	1,014	1,014	NA	1,014	1,014	1,014	1,014	1,014
Sub Total - Costs	\$0	\$327	\$440	\$838	\$222	\$0	\$1,827	\$2,189	\$56,907	\$56,907	\$2,234	\$58,095	\$58,095	\$2,278	\$59,235	

Data Entry for	PAMSNOx	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
				Report Org	Precursor NOy	Report Org	Precursor NOy	Report Org	Precursor NOy	Report Org	Precursor NOy
				0.00%	103	0	103	0	103	0	20
Overall Comment				20	0	20	0	20	0	0	103
					Other		Other		Other		0
					Spares		Spares		Spares		0

General Costs													Labor		Non Labor O & M	
Element 1 - Network Design (1)																
a) Network Design (by Reporting Organization)																
b) Site Selection (Reporting Organization)																
Sub Total - Hours																
Sub Total - Costs																

Element 2 - Site Installation (1)																
Materials																
Labor																
Procurement																
Installation																
Sub Total - Hours																
Sub Total - Costs																

Element 3 - Supplies and Site Visits (1)																
Supplies																
Routine visits																
Sub Total - Hours																
Sub Total - Costs																

Element 4 - Maintenance (1)																
Spare parts/supplies																
Remedial Repairs																
Routine Maint.																
Sub Total - Hours																
Sub Total - Costs																

Element 5 - Data Management																
Data aquisition/processing																
Data reporting																
Data validation																
Data distribution																
Sub Total - Hours																
Sub Total - Costs																

Element 6 - Quality Assurance (1)		Comment						Element 6 - Quality Assurance				Element 6 - Quality Assurance			Element 6 - Quality Assurance			Labor	Non Labor O & M	Equipment	
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost				
Audits	Hours per site	0	0	36	36	0	0	72	NA	7,416	7,416	NA	7,416	NA	7,416	7,416		7,416	NA	NA	
	Cost per site	0	0	1588	1773	0	0	\$3,361	\$4,026	\$414,727	\$414,727	\$4,111	\$423,382	\$423,382	\$4,191	\$431,690	\$431,690	\$423,266	NA	NA	
Routine Calibrations	Hours per site	0	24	24	0	0	0	48	NA	4,944	4,944	NA	4,944	NA	4,944	4,944		4,944	NA	NA	
	Cost per site	0	981	1059	0	0	0	\$2,040	\$2,444	\$251,724	\$251,724	\$2,495	\$256,977	\$256,977	\$2,544	\$262,020	\$262,020	\$256,907	NA	NA	
Coordination/implementation	Hours per site	0	0	0	2	2	0	4	NA	412	412	NA	412	NA	412	412		412	NA	NA	
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$25,913	\$25,913	\$257	\$26,453	\$26,453	\$262	\$26,973	\$26,973	\$26,446	NA	NA	
Training	Hours per site	0	1	1	2	1	0	5	NA	515	515	NA	515	NA	515	515		515	NA	NA	
	Cost per site	0	41	44	99	55	0	\$239	\$286	\$29,491	\$29,491	\$292	\$30,107	\$30,107	\$298	\$30,697	\$30,697	\$30,098	NA	NA	
Reporting	Hours per site	0	0	3	3	0	0	6	NA	618	618	NA	618	NA	618	618		618	NA	NA	
	Cost per site	0	0	132	148	0	0	\$280	\$335	\$34,550	\$34,550	\$342	\$35,271	\$35,271	\$349	\$35,963	\$35,963	\$35,262	NA	NA	
QA Plan review (annual)	Hours per RO	0	0	0	0	0	0	0	NA	0	0	NA	0	NA	0	0	0		0	NA	NA
	Cost	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA
QA Plan preparation	Hours per RO	0	0	5	5	5	0	15	NA	300	60	NA	300	60	NA	300	60		60	NA	NA
	Cost	0	0	221	246	277	0	\$744	\$891	\$17,826	\$3,565	\$910	\$18,198	\$3,640	\$928	\$18,555	\$3,711	\$3,639	NA	NA	
Sub Total - Hours		0	25	69	48	8	0	150	NA	NA	13,965	NA	NA	NA	NA	13,965	13,965	13,965	NA	NA	
Sub Total - Costs		\$0	\$1,022	\$3,044	\$2,365	\$443	\$0	\$6,874	\$8,235	NA	\$759,970	\$8,407	NA	\$775,830	\$8,572	NA	\$791,054	\$775,618			

Element 7 - Supervision		Comment						Element 7 - Supervision				Element 7 - Supervision			Element 7 - Supervision					
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost			
Planning/coordination	Hours per site	0	0	0	0	8	4	12	NA	1,236	1,236	NA	1,236	NA	1,236	1,236		1,236	NA	NA
	Cost per site	0	0	0	0	444	234	\$678	\$812	\$83,661	\$83,661	\$829	\$85,407	\$85,407	\$845	\$87,083	\$87,083	\$85,384	NA	NA
Supervision/review	Hours per site	0	0	16	8	4	2	30	NA	3,090	3,090	NA	3,090	NA	3,090	3,090		3,090	NA	NA
	Cost per site	0	0	706	394	222	117	\$1,439	\$1,724	\$177,564	\$177,564	\$1,760	\$181,269	\$181,269	\$1,794	\$184,827	\$184,827	\$181,220	NA	NA
Sub Total - Hours		0	0	16	8	12	6	42	NA	4326	4326	NA	4326	NA	4326	4,326	4,326	4,326	NA	NA
Sub Total - Costs		\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$261,225	\$261,225	\$2,589	\$266,676	\$266,676	\$2,640	\$271,910	\$271,910	\$266,604	NA	NA

Summary by Element		PAMSNOx						Year 1 2013			Year 2 2014			Year 3 2015							
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost				
1 - Network Design	Hours	0	0	0	0	0	0	0	NA	0	0	NA	0	NA	0	0	0	0	NA	NA	
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA
2 - Site Installation	Hours	0	0	0	0	0	0	0	NA	0	0	NA	0	NA	0	0	0	0	NA	NA	
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$505,915	\$0	\$0	\$516,473	\$0	\$0	\$526,608	\$0	NA	\$516,332	
3 - Supplies & site visits	Hours	0	0	0	0	0	0	0	NA	0	0	NA	0	NA	0	0	0	0	NA	NA	
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$958	\$98,715	\$98,715	\$978	\$100,775	\$100,775	\$998	\$102,753	\$102,753	\$100,748	NA	\$100,748	
4 - Maintenance	Hours	0	0	0	0	0	0	0	NA	0	0	NA	0	NA	0	0	0	0	NA	NA	
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,198	\$123,394	\$123,394	\$1,223	\$125,969	\$125,969	\$1,247	\$128,441	\$128,441	\$0	\$125,935	NA	
5 - Data Management	Hours	0	0	7	13	0	0	20	NA	2060	2060	NA	2060	NA	2060	2060		2060	NA	NA	
	Costs	\$0	\$0	\$309	\$641	\$0	\$0	\$950	\$1,138	\$117,224	\$117,224	\$1,162	\$119,671	\$119,671	\$1,185	\$122,019	\$122,019	\$119,638	NA	NA	
6 - Quality Assurance	Hours	0	25	69	48	8	0	150	NA	NA	13,965	NA	NA	NA	NA	13,965		13,965	NA	NA	
	Costs	\$0	\$1,022	\$3,044	\$2,365	\$443	\$0	\$6,874	\$8,235	NA	\$759,970	\$8,407	NA	\$775,830	\$8,572	NA	\$791,054	\$775,618	\$0	NA	
7 - Supervision	Hours	0	0	16	8	12	6	42	NA	4326	4326	NA	4326	NA	4326	4,326		4,326	NA	NA	
	Costs	\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$261,225	\$261,225	\$2,589	\$266,676	\$266,676	\$2,640	\$271,910	\$271,910	\$266,604	NA	NA	
Total		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost				
	Hours	0	25	92	69	20	6	212	NA	6,386	20,351	NA	6,386	20,351	NA	6,386	20,351	20,351	NA	NA	
	Costs	\$0	\$1,022	\$4,059	\$3,400	\$1,109	\$351	\$9,941	\$14,066	\$600,559	\$1,866,444	\$14,359	\$613,091	\$1,905,394	\$14,641	\$625,122	\$1,942,785	\$1,262,608	\$226,682	\$516,332	

1) includes costs for Precursor NOy analyzers only, NO2 analyzers are covered in NO2 network costs (see separate spreadsheet)

Data Entry for	PAMSSurfMet	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org	Sites
Overall Comment				18	83	18	83	18	83	18	83
				Spares	Spares	Spares	Spares	Spares	Spares	Spares	Spares
				4	4	4	4	4	4	4	4

General Costs													Labor			Non Labor O & M														
Element 1 - Network Design													Element 1 - Network Design			Element 1 - Network Design			Element 1 - Network Design											
Network Design and Site Selection													Per RO			Per RO			Per RO			Per RO								
Labor Category													Adjusted			Total			Adjusted			Total			Adjusted			Total		
Hours per RO													NA			342			NA			342			NA			342		
Costs per RO													NA			\$1,233			NA			\$1,258			NA			\$1,283		
Sub Total - Hours													NA			342			NA			342			NA			342		
Sub Total - Costs													NA			\$1,233			NA			\$1,258			NA			\$1,283		

Element 2 - Site Installation													Element 2 - Site Installation			Element 2 - Site Installation			Element 2 - Site Installation											
Materials													Per Site Adjusted			Entire Network Total			Per Site Adjusted			Entire Network Total			Per Site Adjusted			Entire Network Total		
Analyzers													\$20,707			\$1,718,717			\$21,140			\$1,754,583			\$21,554			\$1,789,015		
Spare Analyzers																\$85,936						\$87,729						\$89,451		
Labor													Per Site Adjusted			Entire Network Total			Per Site Adjusted			Entire Network Total			Per Site Adjusted			Entire Network Total		
Procurement													NA			697			NA			697			NA			697		
Installation													NA			\$502			NA			\$512			NA			\$522		
Sub Total - Hours													NA			2,025			NA			2,025			NA			2,025		
Sub Total - Costs													NA			\$1,317			NA			\$1,344			NA			\$1,370		

Element 3 - Supplies and Site Visits													Element 3 - Supplies and Site Visits			Element 3 - Supplies and Site Visits			Element 3 - Supplies and Site Visits											
Supplies													Per Site Adjusted			Entire Network Total			Per Site Adjusted			Entire Network Total			Per Site Adjusted			Entire Network Total		
Routine visits													NA			\$6,107			NA			\$6,235			NA			\$6,357		
Sub Total - Hours													NA			9,960			NA			9,960			NA			9,960		
Sub Total - Costs													NA			\$7,006			NA			\$7,152			NA			\$7,292		

Element 4 - Maintenance													Element 4 - Maintenance			Element 4 - Maintenance			Element 4 - Maintenance											
Remedial Repairs													NA			\$895			NA			\$914			NA			\$932		
Routine Maint.													NA			\$3,947			NA			\$4,030			NA			\$4,109		
Sub Total - Hours													NA			7,138			NA			7,138			NA			7,138		
Sub Total - Costs													NA			\$7,238			NA			\$7,389			NA			\$7,534		

Element 5 - Data Management													Element 5 - Data Management			Element 5 - Data Management			Element 5 - Data Management											
Data reporting													NA			\$1,185			NA			\$1,208			NA			\$1,233		
Data validation													NA			\$855			NA			\$873			NA			\$890		
Data distribution													NA			\$283			NA			\$289			NA			\$294		
Sub Total - Hours													NA			4,150			NA			4,150			NA			4,150		
Sub Total - Costs													NA			\$2,892			NA			\$2,952			NA			\$3,010		

Element 6 - Quality Assurance		Comment						Element 6 - Quality Assurance				Element 6 - Quality Assurance				Element 6 - Quality Assurance				Non Labor O & M		Equipment	
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Labor	O & M	Equipment
Audits	Hours per site	0	0	0	36	36	0	72	NA	5,976	5,976	NA	5,976	5,976	NA	5,976	5,976	NA	5,976	5,976	5,976	NA	NA
	Cost per site	0	0	0	1,773	1,997	0	\$3,770	\$4,516	\$374,866	\$374,866	\$4,611	\$382,689	\$382,689	\$4,701	\$390,199	\$390,199	\$4,701	\$390,199	\$390,199	\$382,685	NA	NA
Routine Calibrations	Hours per site	0	24	24	0	0	0	48	NA	3,984	3,984	NA	3,984	3,984	NA	3,984	3,984	NA	3,984	3,984	3,984	NA	NA
	Cost per site	0	981	1,059	0	0	0	\$2,040	\$2,444	\$202,845	\$202,845	\$2,495	\$207,078	\$207,078	\$2,544	\$211,142	\$211,142	\$2,544	\$211,142	\$211,142	\$207,022	NA	NA
Coordination/implementation	Hours per site	0	0	0	2	2	0	4	NA	332	332	NA	332	332	NA	332	332	NA	332	332	332	NA	NA
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$20,881	\$20,881	\$257	\$21,317	\$21,317	\$262	\$21,795	\$21,795	\$262	\$21,795	\$21,795	\$21,311	NA	NA
Training	Hours per site	0	1	1	2	1	0	5	NA	415	415	NA	415	415	NA	415	415	NA	415	415	415	NA	NA
	Cost per site	0	41	44	99	55	0	\$239	\$286	\$23,765	\$23,765	\$292	\$24,261	\$24,261	\$298	\$24,737	\$24,737	\$298	\$24,737	\$24,737	\$24,254	NA	NA
Reporting	Hours per site	0	0	0	3	3	0	6	NA	498	498	NA	498	498	NA	498	498	NA	498	498	498	NA	NA
	Cost per site	0	0	0	148	166	0	\$314	\$376	\$31,222	\$31,222	\$384	\$31,874	\$31,874	\$392	\$32,499	\$32,499	\$392	\$32,499	\$32,499	\$31,865	NA	NA
QA Plan review (annual)	Hours per RO	0	0	0.2	0.3	0	0	0.5	NA	9	9	NA	9	9	NA	9	9	NA	9	9	9	NA	NA
	Cost	0	0	9	15	0	0	\$24	\$29	\$518	\$518	\$29	\$528	\$528	\$30	\$539	\$539	\$30	\$539	\$539	\$528	NA	NA
QA Plan preparation	Hours per RO	0	0	0	5	5	5	15	NA	270	54	NA	270	54	NA	270	54	NA	270	54	54	NA	NA
	Cost per RO	0	0	0	246	277	293	\$816	\$978	\$17,596	\$3,519	\$998	\$17,963	\$3,593	\$1,018	\$18,316	\$3,663	\$1,018	\$18,316	\$3,663	\$3,592	NA	NA
Sub Total - Hours		0	25	25	48	47	5	151	NA	NA	11,268	NA	NA	11,268	NA	NA	11,268	NA	NA	11,268	11,268	NA	NA
Sub Total - Costs		\$0	\$1,022	\$1,112	\$2,380	\$2,606	\$293	\$7,413	\$8,881	NA	\$657,616	\$9,066	NA	\$671,340	\$9,244	NA	\$684,514	\$9,244	NA	\$684,514	\$671,157	NA	NA

Element 7 - Supervision		Comment						Element 7 - Supervision				Element 7 - Supervision				Element 7 - Supervision				Non Labor O & M		Equipment	
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Labor	O & M	Equipment
Planning/coordination	Hours per site	0	0	0	0	8	4	12	NA	996	996	NA	996	996	NA	996	996	NA	996	996	996	NA	NA
	Cost per site	0	0	0	0	444	234	\$678	\$812	\$67,416	\$67,416	\$829	\$68,823	\$68,823	\$845	\$70,174	\$70,174	\$845	\$70,174	\$70,174	\$68,804	NA	NA
Supervision/review	Hours per site	0	0	16	8	4	2	30	NA	2,490	2,490	NA	2,490	2,490	NA	2,490	2,490	NA	2,490	2,490	2,490	NA	NA
	Cost per site	0	0	706	394	222	117	\$1,439	\$1,724	\$143,086	\$143,086	\$1,760	\$146,071	\$146,071	\$1,794	\$148,938	\$148,938	\$1,794	\$148,938	\$148,938	\$146,032	NA	NA
Sub Total - Hours		0	0	16	8	12	6	42	NA	3486	3486	NA	3486	3486	NA	3486	3486	NA	3486	3486	3,486	NA	NA
Sub Total - Costs		\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$210,502	\$210,502	\$2,589	\$214,895	\$214,895	\$2,640	\$219,112	\$219,112	\$2,640	\$219,112	\$219,112	\$214,836	NA	NA

Summary by Element		AMSSurfMet						Year 1			2013			Year 2			2014			Year 3			2015			
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Labor	O & M	Equipment
1 - Network Design	Hours	0	0	0	5	12	2	19	NA	342	68	NA	342	68	NA	342	68	NA	342	68	NA	342	68	68	NA	NA
	Costs	\$0	\$0	\$0	\$246	\$666	\$117	\$1,029	\$1,233	\$22,189	\$4,438	\$1,258	\$22,652	\$4,530	\$1,283	\$23,097	\$4,619	\$1,283	\$23,097	\$4,619	\$1,283	\$23,097	\$4,619	\$4,529	NA	NA
2 - Site Installation	Hours	0	8	8	4	4	0	24	NA	2,025	405	NA	2,025	405	NA	2,025	405	NA	2,025	405	NA	2,025	405	405	NA	\$368,362
	Costs	\$0	\$327	\$353	\$197	\$222	\$0	\$1,099	\$1,317	\$0	\$383,203	\$1,344	\$390,774	\$0	\$398,443	\$22,444	\$398,443	\$1,370	\$0	\$398,443	\$22,444	\$398,443	\$22,444	NA	NA	
3 - Supplies & site visits	Hours	0	60	60	0	0	0	120	NA	9960	9960	NA	9960	9960	NA	9960	9960	NA	9960	9960	NA	9960	9960	9960	NA	NA
	Costs	\$0	\$2,451	\$2,647	\$0	\$0	\$0	\$5,848	\$7,006	\$581,490	\$581,490	\$7,152	\$593,625	\$593,625	\$7,292	\$605,274	\$605,274	\$7,292	\$605,274	\$605,274	\$593,463	\$76,111	NA	NA	NA	
4 - Maintenance	Hours	0	0	38	48	0	0	86	NA	7138	7138	NA	7138	7138	NA	7138	7138	NA	7138	7138	7138	7138	7138	7138	NA	NA
	Costs	\$0	\$0	\$1,677	\$2,365	\$0	\$0	\$6,042	\$7,238	\$600,780	\$600,780	\$7,389	\$613,317	\$613,317	\$7,534	\$625,353	\$625,353	\$7,534	\$625,353	\$625,353	\$410,188	\$202,963	NA	NA	NA	
5 - Data Management	Hours	0	0	18	25	7	0	50	NA	4150	4150	NA	4150	4150	NA	4150	4150	NA	4150	4150	4150	4150	4150	4150	NA	NA
	Costs	\$0	\$0	\$794	\$1,232	\$388	\$0	\$2,414	\$2,892	\$240,034	\$240,034	\$2,952	\$245,043	\$245,043	\$3,010	\$249,851	\$249,851	\$3,010	\$249,851	\$249,851	\$244,976	NA	NA	NA	NA	
6 - Quality Assurance	Hours	0	25	25	48	47	5	151	NA	NA	11,268	NA	NA	11,268	NA	NA	11,268	NA	NA	11,268	11,268	NA	NA	NA	NA	
	Costs	\$0	\$1,022	\$1,112	\$2,380	\$2,606	\$293	\$7,413	\$8,881	NA	\$657,616	\$9,066	NA	\$671,340	\$9,244	NA	\$684,514	\$9,244	NA	\$684,514	\$671,157	\$0	NA	NA	NA	
7 - Supervision	Hours	0	0	16	8	12	6	42	NA	3486	3486	NA	3486	3486	NA	3486	3486	NA	3486	3486	3486	3486	3486	3486	NA	NA
	Costs	\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$210,502	\$210,502	\$2,589	\$214,895	\$214,895	\$2,640	\$219,112	\$219,112	\$2,640	\$219,112	\$219,112	\$214,836	NA	NA	NA	NA	
Total	Hours	0	93	165	138	82	13	492	NA	27,101	36,475	NA	27,101	36,475	NA	27,101	36,475	NA	27,101	36,475	36,475	36,475	36,475	36,475	NA	NA
	Costs	\$0	\$3,800	\$7,289	\$6,814	\$4,548	\$761	\$25,962	\$31,102	1,654,995	\$2,678,063	\$31,752	1,689,532	\$2,733,524	\$32,375	1,722,687	\$2,787,166	\$32,375	1,722,687	\$2,787,166	\$2,161,593	\$279,074	NA	NA	\$368,362	

Data Entry for	PAMSupperAir	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment	
Overall Comment				Spare Factor 0.00%	Report Org 6	Sites 14	Report Org 6	Sites 14	Report Org 6	Sites 14	Report Org 6	Sites 14

General Costs													Labor		Non Labor O & M											
Element 1 - Network Design													Element 1 - Network Design		Element 1 - Network Design		Element 1 - Network Design									
Network Design and Site Selection (by Reporting Organization)													Per RO		Entire Network		Per RO		Entire Network		Per RO		Entire Network			
Year	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Contractor	Per Site Total	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost			
Hours per RO	0	0	0	5	12	2		19	NA	114	23	NA	114	23	NA	114	23	NA	114	23	NA	114	23	NA	114	23
Costs per RO	0	0	0	246	666	117		\$1,029	NA	\$1,233	\$7,396	NA	\$1,258	\$7,551	NA	\$1,510	\$1,283	NA	\$7,699	\$1,540	NA	\$1,510	NA	NA	NA	
Sub Total - Hours	0	0	0	5	12	2		19	NA	114	23	NA	114	23	NA	114	23	NA	114	23	NA	114	23	NA	114	23
Sub Total - Costs	\$0	\$0	\$0	\$246	\$666	\$117		\$1,029	NA	\$1,233	\$7,396	NA	\$1,258	\$7,551	NA	\$1,510	\$1,283	NA	\$7,699	\$1,540	NA	\$1,510	NA	NA	NA	

Element 2 - Site Installation													Element 2 - Site Installation		Element 2 - Site Installation		Element 2 - Site Installation								
Materials													Per Site		Entire Network		Per Site		Entire Network		Per Site		Entire Network		
Year	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Contractor	Per Site Total	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost		
LAP/RASS	\$125,000	2013	5							\$149,750	\$748,750	\$149,750	\$152,875	\$764,375	\$152,875	\$779,375	\$155,875	NA	NA	NA	NA	NA	NA	\$152,833	
Radar profiler	\$125,000	2013	7							\$149,750	\$1,048,250	\$209,650	\$152,875	\$1,070,125	\$214,025	\$1,558,125	\$218,225	NA	NA	NA	NA	NA	NA	\$213,967	
Rawindsondes	\$45,000	2013	1							\$53,910	\$53,910	\$10,782	\$55,035	\$55,035	\$11,007	\$56,115	\$11,223	NA	NA	NA	NA	NA	NA	\$11,004	
SODAR	\$65,000	2013	1							\$77,870	\$77,870	\$15,574	\$79,495	\$79,495	\$15,899	\$81,055	\$16,211	NA	NA	NA	NA	NA	NA	\$15,895	
LAP/RASS +NEXRAD	\$125,000	2013	0							\$149,750	\$0	\$0	\$152,875	\$0	\$0	\$155,875	\$0	NA	NA	NA	NA	NA	NA	\$0	
Computer hardware & software	\$8,000	2013	0							\$9,584	\$134,176	\$26,835	\$9,784	\$136,976	\$27,395	\$9,976	\$139,664	\$27,933	NA	NA	NA	NA	NA	\$27,388	
Total										\$2,062,956	\$412,891		\$2,106,006	\$421,201		\$2,147,334	\$429,467	NA	NA	NA	NA	NA	NA	\$421,086	
Acceptance Testing	Hours per site	0	24	0	24	0	0	12	60	NA	840	168	NA	840	168	NA	840	168	NA	840	168	NA	NA	NA	NA
Cost per site	\$0	\$981	\$0	\$1,182	\$0	\$0	\$300	\$2,463	NA	\$2,951	\$41,309	\$8,262	NA	\$3,012	\$42,171	\$8,434	\$3,071	NA	\$42,999	\$8,600	NA	NA	NA	NA	NA
Procurement	Hours per site	0	0	0	8	8	0	0	16	NA	224	45	NA	224	45	NA	224	45	NA	224	45	NA	NA	NA	NA
Cost per site	\$0	\$0	\$0	\$394	\$444	\$0	\$0	\$838	NA	\$1,004	\$14,055	\$2,811	NA	\$1,025	\$14,348	\$2,870	\$1,045	NA	\$14,630	\$2,926	NA	NA	NA	NA	NA
Installation	Hours per site	0	0	0	10	5	0	0	15	NA	210	42	NA	210	42	NA	210	42	NA	210	42	NA	NA	NA	NA
Cost per site	\$0	\$0	\$0	\$493	\$277	\$0	\$0	\$770	NA	\$922	\$12,914	\$2,583	NA	\$942	\$13,184	\$2,637	\$960	NA	\$13,443	\$2,689	NA	NA	NA	NA	NA
Sub Total - Hours	0	0	0	18	13	0	0	31	NA	1,274	255	NA	1,274	255	NA	1,274	255	NA	1,274	255	NA	NA	NA	NA	NA
Sub Total - Costs	\$0	\$0	\$0	\$887	\$721	\$0	\$0	\$1,608	NA	\$2,142	\$29,988	\$4,262	NA	\$2,187	\$30,614	\$3,614	\$2,230	NA	\$31,215	\$3,215	NA	NA	NA	NA	NA

Element 3 - Supplies and Site Visits													Element 3 - Supplies and Site Visits		Element 3 - Supplies and Site Visits		Element 3 - Supplies and Site Visits							
Supplies													Per Site		Entire Network		Per Site		Entire Network		Per Site		Entire Network	
Year	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Contractor	Per Site Total	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	
Routine field service checks	Hours per site	0	0	0	16	0	0	16	NA	224	224	NA	224	224	NA	224	224	NA	224	224	NA	NA	NA	NA
Cost per site	\$0	\$0	\$0	\$788	\$0	\$0	\$0	\$788	NA	\$944	\$13,216	\$13,216	NA	\$964	\$13,492	\$13,492	\$983	NA	\$13,757	\$13,757	NA	NA	NA	NA
Sub Total - Hours	0	0	0	16	0	0	0	16	NA	224	224	NA	224	224	NA	224	224	NA	224	224	NA	NA	NA	NA
Sub Total - Costs	\$0	\$0	\$0	\$16	\$0	\$0	\$0	\$16	NA	\$2,142	\$29,988	\$29,988	NA	\$2,187	\$30,614	\$30,614	\$2,230	NA	\$31,215	\$31,215	NA	NA	NA	NA

Element 4 - Maintenance													Element 4 - Maintenance		Element 4 - Maintenance		Element 4 - Maintenance							
Spare parts/supplies													Per Site		Entire Network		Per Site		Entire Network		Per Site		Entire Network	
Year	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Contractor	Per Site Total	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	
Remedial Field Service	Hours per site	0	0	0	5	0	0	5	NA	70	70	NA	70	70	NA	70	70	NA	70	70	NA	NA	NA	NA
Cost per site	\$0	\$0	\$0	\$246	\$0	\$0	\$0	\$246	NA	\$295	\$4,126	\$4,126	NA	\$301	\$4,212	\$4,212	\$307	NA	\$4,295	\$4,295	NA	NA	NA	NA
Sub Total - Hours	0	0	0	5	0	0	0	5	NA	70	70	NA	70	70	NA	70	70	NA	70	70	NA	NA	NA	NA
Sub Total - Costs	\$0	\$0	\$0	\$246	\$0	\$0	\$0	\$246	NA	\$295	\$4,126	\$4,126	NA	\$301	\$4,212	\$4,212	\$307	NA	\$4,295	\$4,295	NA	NA	NA	NA

Element 5 - Data Management													Element 5 - Data Management		Element 5 - Data Management		Element 5 - Data Management							
Data acquisition/processing, etc.													Per Site		Entire Network		Per Site		Entire Network		Per Site		Entire Network	
Year	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Contractor	Per Site Total	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	Per Site Adjusted	Total	Yearly Cost	
Data validation	Hours per site	0	0	3	3	0	0	6	NA	84	84	NA	84	84	NA	84	84	NA	84	84	NA	NA	NA	NA
Cost per site	\$0	\$0	\$132	\$148	\$0	\$0	\$0	\$280	NA	\$335	\$4,696	\$4,696	NA	\$342	\$4,794	\$4,794	\$349	NA	\$4,888	\$4,888	NA	NA	NA	NA
Sub Total - Hours	0	0	3	7	0	0	0	10	NA	140	140	NA	140	140	NA	140	140	NA	140	140	NA	NA	NA	NA
Sub Total - Costs	\$0	\$0	\$132	\$345	\$0	\$0	\$0	\$477	NA	\$571	\$8,000	\$8,000	NA	\$583	\$8,167	\$8,167	\$595	NA	\$8,327	\$8,327	NA	NA	NA	NA

Data Entry for	PAMSCarBE	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org	
				1	2	1	2	1	2	1	
Overall Comment				Spare Factor	0.00%	Spare Factor	0.00%	Spare Factor	0.00%	Spare Factor	0.00%
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org	
				1	0	1	0	1	0	1	

General Costs													Labor	Non Labor O & M				
Element 1 - Network Design (see O3)																		
a) Network Design (by Reporting Organization)																		
Labor Category	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per RO Total	Per RO Adjusted	Entire Network Total	Yearly Cost	Per RO Adjusted	Entire Network Total	Yearly Cost	Per RO Adjusted	Entire Network Total	Yearly Cost		
Hours per RO	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	0	NA
Costs per RO	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA
b) Site Selection (Reporting Organization)																		
Hours per RO	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	0	NA
Costs per RO	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA
Sub Total - Hours	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	0	NA
Sub Total - Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA

Element 2 - Site Installation																								
Materials																								
Unit cost	Year																							
Analizers	\$16,000	2013												\$19,168	\$38,336	\$7,667	\$19,568	\$39,136	\$7,827	\$19,952	\$39,904	\$7,981	NA	NA
Spare Analizers																								
Labor																								
Procurement	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost								
Hours per site	0	0	0	8	0	0	8	NA	16	3	NA	16	3	NA	16	3								
Cost per site	0	0	0	394	0	0	\$394	\$472	\$944	\$189	\$482	\$964	\$193	\$491	\$983	\$197	\$193	\$193	NA					
Installation	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost								
Hours per site	0	6	0	0	0	0	6	NA	12	2	NA	12	2	NA	12	2								
Cost per site	0	245	0	0	0	0	\$245	\$294	\$587	\$117	\$300	\$599	\$120	\$306	\$611	\$122	\$120	\$120	NA					
Sub Total - Hours	0	6	0	8	0	0	14	NA	28	6	NA	28	6	NA	28	6								
Sub Total - Costs	\$0	\$245	\$0	\$394	\$0	\$0	\$639	\$766	\$1,518	\$306	\$781	\$1,562	\$313	\$797	\$1,596	\$313	\$313	\$313	NA					

Element 3 - Supplies and Site Visits																								
Supplies and Other Costs																								
Unit cost	Year																							
Supplies	\$750	2013												\$899	\$1,797	\$1,797	\$917	\$1,835	\$1,835	\$935	\$1,871	\$1,871	NA	\$1,834
Carbonyl sample cartridges	\$8,500	2013												\$10,183	\$20,366	\$20,366	\$10,396	\$20,791	\$20,791	\$10,600	\$21,199	\$21,199	NA	\$20,785
Supplies/reagents	\$2,400	2013												\$2,875	\$5,750	\$5,750	\$2,935	\$5,870	\$5,870	\$2,993	\$5,986	\$5,986	NA	\$5,869
Sample analysis	\$13,300	2013												\$15,933	\$31,867	\$31,867	\$16,266	\$32,532	\$32,532	\$16,585	\$33,170	\$33,170	NA	\$32,523
Amortized																								
HPLC/UV with autosampler	\$59,000	2013												\$70,682	\$141,364	\$28,273	\$72,157	\$144,314	\$28,863	\$73,573	\$147,146	\$29,429	NA	NA
Equipment (auxiliary)	\$1,000	2013												\$1,198	\$2,396	\$479	\$1,223	\$2,446	\$489	\$1,247	\$2,494	\$499	NA	NA
Routine visits																								
TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost									
Hours per site	0	0	8	8	0	0	16	NA	32	32	NA	32	32	NA	32	32								
Cost per site	0	0	353	394	0	0	\$747	\$895	\$1,790	\$1,790	\$914	\$1,827	\$1,827	\$932	\$1,863	\$1,863	\$1,827	\$1,827	NA					
Sub Total - Hours	0	0	8	8	0	0	16	NA	32	32	NA	32	32	NA	32	32								
Sub Total - Costs	\$0	\$0	\$8	\$8	\$0	\$0	\$1,497	\$1,793	\$3,587	\$3,587	\$1,831	\$3,662	\$3,662	\$1,867	\$3,734	\$3,734	\$1,891	\$61,011	NA					

Element 4 - Maintenance																								
Spare parts/supplies																								
Unit cost	Year																							
	\$10,200	2013												\$12,220	\$24,439	\$24,439	\$12,475	\$24,949	\$24,949	\$12,719	\$25,439	\$25,439	NA	\$24,942
Remedial Calibrations																								
TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost									
Hours per site	0	0	12	4	0	0	16	NA	32	32	NA	32	32	NA	32	32								
Cost per site	0	0	529	197	0	0	\$726	\$870	\$1,739	\$1,739	\$888	\$1,776	\$1,776	\$905	\$1,811	\$1,811	\$1,775	\$1,775	NA					
Repairs	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost								
Hours per site	0	8	72	24	0	0	104	NA	208	208	NA	208	208	NA	208	208								
Cost per site	0	327	3177	1182	0	0	\$4,686	\$5,614	\$11,228	\$11,228	\$5,614	\$11,228	\$11,228	\$5,614	\$11,228	\$11,228	\$11,228	\$11,228	NA					
Routine Maint.	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost								
Hours per site	0	0	64	160	0	0	224	NA	448	448	NA	448	448	NA	448	448								
Cost per site	0	0	2824	7882	0	0	\$10,706	\$12,826	\$25,652	\$25,652	\$13,093	\$26,187	\$26,187	\$13,350	\$26,701	\$26,701	\$26,180	\$26,180	NA					
Sub Total - Hours	0	0	76	164	0	0	240	NA	480	480	NA	480	480	NA	480	480								
Sub Total - Costs	\$0	\$0	\$3,353	\$8,079	\$0	\$0	\$26,318	\$31,529	\$63,058	\$63,058	\$32,070	\$64,140	\$64,140	\$32,589	\$65,178	\$65,178	\$39,183	\$24,942	NA					

Element 5 - Data Management																			
Data acquisition/processing																			
TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost				
Hours per site	0	0	24	24	0	0	48	NA	96	96	NA	96	96	NA	96	96			
Cost per site	0	0	1059	1182	0	0	\$2,241	\$2,685	\$5,369	\$5,369	\$2,741	\$5,481	\$5,481	\$2,795	\$5,589	\$5,589	\$5,480	\$5,480	NA
Data reporting	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost			
Hours per site	0	0	0	16	2	2	20	NA	40	40	NA	40	40	NA	40	40			
Cost per site	0	0	0	788	111	117	\$1,016	\$1,217	\$2,434	\$2,434	\$1,243	\$2,485	\$2,485	\$1,267	\$2,534	\$2,534	\$2,484	\$2,484	NA
Data validation	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost			
Hours per site	0	0	0	48	12	0	60	NA	120	120	NA	120	120	NA	120	120			
Cost per site	0	0	0	2365	666	0	\$3,031	\$3,631	\$7,262	\$7,262	\$3,707	\$7,414	\$7,414	\$3,780	\$7,559	\$7,559	\$7,412	\$7,412	NA
Data distribution	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost			
Hours per site	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0			
Cost per site	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA
Sub Total - Hours	0	0	24	88	14	2	128	NA	256	256	NA	256	256	NA	256	256			
Sub Total - Costs	\$0	\$0	\$1,059	\$4,335	\$777	\$117	\$6,288	\$7,533	\$15,066	\$15,066	\$7,690	\$15,380	\$15,380	\$7,841	\$15,682	\$15,682	\$15,376	NA	

Element 6 - Quality Assurance		Comment						Element 6 - Quality Assurance			Element 6 - Quality Assurance			Element 6 - Quality Assurance			Non Labor O & M				
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Labor	Non Labor O & M		
Calibration Stds		\$4,500	2013						\$5,391	\$10,782	\$10,782		\$5,504	\$11,007	\$11,007		\$5,612	\$11,223	\$11,223	NA	\$11,004
Calibrations	Hours per site	0	0	4	10	0	0	14	NA	28	28	NA	28	28	28	NA	28	28	28	28	NA
	Cost per site	0	0	176	493	0	0	\$669	\$801	\$1,603	\$1,603	\$818	\$1,636	\$1,636	\$834	\$1,668	\$1,668	\$1,668	\$1,668	\$1,668	NA
Audits	Hours per site	0	0	4	8	0	0	12	NA	24	24	NA	24	24	24	NA	24	24	24	24	NA
	Cost per site	0	0	176	394	0	0	\$570	\$683	\$1,366	\$1,366	\$697	\$1,394	\$1,394	\$711	\$1,422	\$1,422	\$1,422	\$1,394	NA	NA
Training	Hours per site	0	1	8	5	2	0	16	NA	32	32	NA	32	32	32	NA	32	32	32	32	NA
	Cost per site	0	41	353	246	111	0	\$751	\$900	\$1,799	\$1,799	\$918	\$1,837	\$1,837	\$936	\$1,873	\$1,873	\$1,873	\$1,836	NA	NA
Coordination/implementation	Hours per site	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Labor	Non Labor O & M		
	Hours per site	0	0	0	12	4	0	16	NA	32	32	NA	32	32	32	NA	32	32	32	32	NA
	Cost per site	0	0	0	591	222	0	\$813	\$974	\$1,948	\$1,948	\$994	\$1,989	\$1,989	\$1,014	\$2,028	\$2,028	\$1,988	\$1,988	NA	NA
QA Plan preparation	Hours per RO	0	0	0	12	0	0	12	NA	12	2	NA	12	2	NA	12	2	2	2	2	NA
	Cost per RO	0	0	0	591	0	0	\$591	\$708	\$708	\$142	\$723	\$723	\$145	\$737	\$737	\$147	\$145	\$145	NA	NA
Sub Total - Hours		0	1	16	47	6	0	70	NA	118	118	NA	118	118	118	NA	118	118	118	118	NA
Sub Total - Costs		\$0	\$41	\$705	\$2,315	\$333	\$0	\$3,394	\$4,066	\$7,424	\$6,858	\$4,151	\$7,579	\$7,001	\$4,232	\$7,728	\$7,138	\$6,999	\$6,999	\$11,004	

Element 7 - Supervision		Comment						Element 7 - Supervision			Element 7 - Supervision			Element 7 - Supervision							
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Labor	Non Labor O & M		
Planning/coordination	Hours per site	0	0	0	24	12	0	36	NA	72	72	NA	72	72	72	NA	72	72	72	72	NA
	Cost per site	0	0	0	1182	666	0	\$1,848	\$2,214	\$4,428	\$4,428	\$2,260	\$4,520	\$4,520	\$2,304	\$4,609	\$4,609	\$4,519	\$4,519	NA	NA
Supervision/review	Hours per site	0	0	0	0	24	12	36	NA	72	72	NA	72	72	72	NA	72	72	72	72	NA
	Cost per site	0	0	0	0	1331	703	\$2,034	\$2,437	\$4,873	\$4,873	\$2,488	\$4,975	\$4,975	\$2,536	\$5,073	\$5,073	\$4,974	\$4,974	NA	NA
Sub Total - Hours		0	0	0	24	36	12	72	NA	144	144	NA	144	144	144	NA	144	144	144	144	NA
Sub Total - Costs		\$0	\$0	\$0	\$1,182	\$1,997	\$703	\$3,882	\$4,651	\$9,301	\$9,301	\$4,748	\$9,495	\$9,495	\$4,841	\$9,682	\$9,682	\$9,493	\$9,493	NA	NA

Summary by Element		PAMSCarBe							Year 1 2013			Year 2 2014			Year 3 2015						
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Labor	Non Labor O & M		
1 - Network Design	Hours	0	0	0	0	0	0	0	NA	0	0	NA	0	0	0	0	0	0	0	0	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA
2 - Site Installation	Hours	0	6	0	8	0	0	14	NA	28	6	NA	28	6	NA	28	6	6	6	6	NA
	Costs	\$0	\$245	\$0	\$394	\$0	\$0	\$639	\$766	\$0	\$7,979	\$781	\$0	\$8,140	\$797	\$0	\$8,300	\$313	\$313	NA	NA
3 - Supplies & site visits	Hours	0	0	8	8	0	0	16	NA	32	32	NA	32	32	NA	32	32	32	32	32	NA
	Costs	\$0	\$0	\$8	\$8	\$0	\$0	\$1,497	\$1,793	\$3,587	\$3,587	\$1,831	\$3,662	\$3,662	\$1,867	\$3,734	\$3,734	\$1,891	\$1,891	\$61,011	NA
4 - Maintenance	Hours	0	0	76	164	0	0	240	NA	480	480	NA	480	480	NA	480	480	480	480	480	NA
	Costs	\$0	\$0	\$3,353	\$8,079	\$0	\$0	\$26,318	\$31,529	\$63,058	\$63,058	\$32,070	\$64,140	\$64,140	\$32,589	\$65,178	\$65,178	\$39,183	\$24,942	\$24,942	NA
5 - Data Management	Hours	0	0	24	88	14	2	128	NA	256	256	NA	256	256	NA	256	256	256	256	256	NA
	Costs	\$0	\$0	\$1,059	\$4,335	\$777	\$117	\$6,288	\$7,533	\$15,066	\$15,066	\$7,690	\$15,380	\$15,380	\$7,841	\$15,682	\$15,682	\$15,376	\$15,376	NA	NA
6 - Quality Assurance	Hours	0	1	16	47	6	0	70	NA	140	118	NA	140	118	NA	140	118	118	118	118	NA
	Costs	\$0	\$41	\$705	\$2,315	\$333	\$0	\$3,394	\$4,066	\$7,424	\$6,858	\$4,151	\$7,579	\$7,001	\$4,232	\$7,728	\$7,138	\$6,999	\$6,999	\$11,004	NA
7 - Supervision	Hours	0	0	0	24	36	12	72	NA	144	144	NA	144	144	NA	144	144	144	144	144	NA
	Costs	\$0	\$0	\$0	\$1,182	\$1,997	\$703	\$3,882	\$4,651	\$9,301	\$9,301	\$4,748	\$9,495	\$9,495	\$4,841	\$9,682	\$9,682	\$9,493	\$9,493	NA	NA
Total	Hours	0	7	124	339	56	14	540	NA	940	1,036	NA	940	1,036	NA	940	1,036	1,036	1,036	1,036	NA
	Costs	\$0	\$286	\$5,125	\$16,313	\$3,107	\$820	\$42,018	\$50,338	\$91,012	\$105,843	\$51,271	\$92,677	\$107,818	\$52,167	\$94,275	\$109,713	\$73,254	\$73,254	\$96,957	NA

Equipment

NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA

NA
NA
NA
NA
NA
NA

NA
\$7,825
NA
\$29,344
NA
NA
NA
NA
NA
NA
NA
NA
NA
\$37,169

Data Entry for	PAMSCarBD	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org
				6	8	6	8	6	8	6
Overall Comment				Spare Factor	0.00%	Spare Factor	0.00%	Spare Factor	0.00%	Spare Factor
				0	0	0	0	0	0	0

General Costs														Labor	Non Labor O & M	
Element 1 - Network Design (see O3)																
a) Network Design (by Reporting Organization)																
	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per RO Total	Per RO Adjusted	Entire Network Total	Yearly Cost	Per RO Adjusted	Entire Network Total	Yearly Cost	Per RO Adjusted	Entire Network Total	Yearly Cost
Labor Category	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0
Hours per RO	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0
Costs per RO	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
b) Site Selection (Reporting Organization)																
Hours per RO	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0
Costs per RO	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub Total - Hours	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0
Sub Total - Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Element 2 - Site Installation																
Materials																
	Unit cost	Year						Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost
Analizers	\$16,000	2013						\$19,168	\$153,344	\$30,669	\$19,568	\$156,544	\$31,309	\$19,952	\$159,616	\$31,923
Spare Analizers									\$0	\$0		\$0		\$0	\$0	
Labor																
Procurement	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost
Hours per site	0	0	0	8	0	0	8	NA	64	13	NA	64	13	NA	64	13
Cost per site	0	0	0	394	0	0	\$394	\$472	\$3,776	\$755	\$482	\$3,855	\$771	\$491	\$3,931	\$786
Installation	0	6	0	0	0	0	6	NA	48	10	NA	48	10	NA	48	10
Hours per site	0	245	0	0	0	0	\$245	\$294	\$2,348	\$470	\$300	\$2,397	\$479	\$306	\$2,444	\$489
Cost per site	0	6	0	8	0	0	14	NA	112	22	NA	112	22	NA	112	22
Sub Total - Hours	0	6	0	8	0	0	14	NA	112	22	NA	112	22	NA	112	22
Sub Total - Costs	\$0	\$245	\$0	\$394	\$0	\$0	\$639	\$766	\$31,894	\$781	\$32,559	\$797	\$33,198	\$1,250	\$33,198	\$1,250

Element 3 - Supplies and Site Visits																
Supplies and Other Costs																
	Unit cost	Year						Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost
Supplies	\$250	2013						\$300	\$2,396	\$2,396	\$306	\$2,446	\$2,446	\$312	\$2,494	\$2,494
Carbonyl sample cartridges	\$2,900	2013						\$3,474	\$27,794	\$27,794	\$3,547	\$28,374	\$28,374	\$3,616	\$28,930	\$28,930
Supplies/reagents	\$1,200	2013						\$1,438	\$11,501	\$11,501	\$1,468	\$11,741	\$11,741	\$1,496	\$11,971	\$11,971
Sample analysis	\$4,433	2013						\$5,311	\$42,486	\$42,486	\$5,422	\$43,372	\$43,372	\$5,528	\$44,224	\$44,224
Amortized																
HPLC/UV with autosampler	\$59,000	2013						\$70,682	\$565,456	\$113,091	\$72,157	\$577,256	\$115,451	\$73,573	\$588,584	\$117,717
Equipment (auxiliary)	\$1,000	2013						\$1,198	\$9,584	\$9,584	\$1,223	\$9,784	\$9,784	\$1,247	\$9,976	\$9,976
Routine visits																
Hours per site	0	16	16	0	0	0	32	NA	256	256	NA	256	256	NA	256	256
Cost per site	0	654	706	0	0	0	\$1,360	\$1,629	\$13,034	\$13,034	\$1,663	\$13,306	\$13,306	\$1,696	\$13,567	\$13,567
Sub Total - Hours	0	16	16	0	0	0	32	NA	256	256	NA	256	256	NA	256	256
Sub Total - Costs	\$0	\$16	\$16	\$0	\$0	\$0	\$1,610	\$1,929	\$15,430	\$15,430	\$1,969	\$15,752	\$15,752	\$2,008	\$16,061	\$16,061

Element 4 - Maintenance																
Spare parts/supplies																
	Unit cost	Year						Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost
	\$3,400	2013						\$4,073	\$32,586	\$32,586	\$4,158	\$33,266	\$33,266	\$4,240	\$33,918	\$33,918
Remedial Calibrations																
Hours per site	0	0	12	4	0	0	16	NA	128	128	NA	128	128	NA	128	128
Cost per site	0	0	529	197	0	0	\$726	\$870	\$6,958	\$6,958	\$888	\$7,103	\$7,103	\$905	\$7,243	\$7,243
Repairs	0	8	72	24	0	0	104	NA	832	832	NA	832	832	NA	832	832
Cost per site	0	327	3177	1182	0	0	\$4,686	\$5,614	\$44,911	\$44,911	\$5,614	\$44,911	\$44,911	\$5,614	\$44,911	\$44,911
Routine Maint.	0	0	32	80	0	0	112	NA	896	896	NA	896	896	NA	896	896
Hours per site	0	0	1412	3941	0	0	\$5,353	\$6,413	\$51,303	\$51,303	\$6,547	\$52,374	\$52,374	\$6,675	\$53,402	\$53,402
Cost per site	0	0	44	84	0	0	128	NA	1,024	1,024	NA	1,024	1,024	NA	1,024	1,024
Sub Total - Hours	0	0	12	44	7	1	64	NA	512	512	NA	512	512	NA	512	512
Sub Total - Costs	\$0	\$0	\$1,941	\$4,138	\$0	\$0	\$14,165	\$16,970	\$135,757	\$135,757	\$17,207	\$137,653	\$137,653	\$17,434	\$139,473	\$139,473

Element 5 - Data Management																
Data acquisition/processing																
	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost
Hours per site	0	0	12	12	0	0	24	NA	192	192	NA	192	192	NA	192	192
Cost per site	0	0	529	591	0	0	\$1,120	\$1,342	\$10,734	\$10,734	\$1,370	\$10,958	\$10,958	\$1,397	\$11,173	\$11,173
Data reporting	0	0	0	8	1	1	10	NA	80	80	NA	80	80	NA	80	80
Hours per site	0	0	0	394	55	59	\$508	\$609	\$4,869	\$4,869	\$621	\$4,970	\$4,970	\$633	\$5,068	\$5,068
Cost per site	0	0	0	24	6	0	30	NA	240	240	NA	240	240	NA	240	240
Hours per site	0	0	0	1182	333	0	\$1,515	\$1,815	\$14,520	\$14,520	\$1,853	\$14,823	\$14,823	\$1,889	\$15,114	\$15,114
Cost per site	0	0	0	0	0	0	\$0	NA	0	0	NA	0	0	NA	0	0
Hours per site	0	0	0	0	0	0	\$0	NA	0	0	NA	0	0	NA	0	0
Cost per site	0	0	12	44	7	1	64	NA	512	512	NA	512	512	NA	512	512
Sub Total - Hours	0	0	12	44	7	1	64	NA	512	512	NA	512	512	NA	512	512
Sub Total - Costs	\$0	\$0	\$529	\$2,167	\$388	\$59	\$3,143	\$3,765	\$30,123	\$30,123	\$3,844	\$30,751	\$30,751	\$3,919	\$31,355	\$31,355

Data Entry for	PAMSHalfD	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org
				7	10	7	10	7	10	7
Overall Comment				Spare Factor	0.00%	Spare Factor	0.00%	Spare Factor	0.00%	Spare Factor
				7	0	7	0	7	0	7

General Costs														Labor	Non Labor O & M	
Element 1 - Network Design (see O3)																
a) Network Design (by Reporting Organization)																
	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per RO Total	Per RO Adjusted	Entire Network Total	Yearly Cost	Per RO Adjusted	Entire Network Total	Yearly Cost	Per RO Adjusted	Entire Network Total	Yearly Cost
Labor Category	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0
Hours per RO	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0
Costs per RO	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
b) Site Selection (Reporting Organization)																
Hours per RO	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0
Costs per RO	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub Total - Hours	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0
Sub Total - Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Element 2 - Site Installation																
Materials																
	Unit cost	Year						Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost
Analizers	\$16,000	2013						\$19,168	\$191,680	\$38,336	\$19,568	\$195,680	\$39,136	\$19,952	\$199,520	\$39,904
Spare Analizers									\$0	\$0		\$0	\$0		\$0	
Labor																
	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost
Procurement	0	0	0	8	0	0	8	NA	80	16	NA	80	16	NA	80	16
Cost per site	0	0	0	394	0	0	\$394	\$472	\$4,720	\$944	\$482	\$4,819	\$964	\$491	\$4,913	\$983
Installation	0	6	0	0	0	0	6	NA	60	12	NA	60	12	NA	60	12
Cost per site	0	245	0	0	0	0	\$245	\$294	\$2,935	\$587	\$300	\$2,996	\$599	\$306	\$3,055	\$611
Sub Total - Hours	0	6	0	8	0	0	14	NA	140	28	NA	140	28	NA	140	28
Sub Total - Costs	\$0	\$245	\$0	\$394	\$0	\$0	\$639	\$766	\$7,660	\$1,532	\$781	\$7,810	\$1,562	\$797	\$7,970	\$1,563

Element 3 - Supplies and Site Visits																
Supplies and Other Costs																
	Unit cost	Year						Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost
Supplies	\$125	2013						\$150	\$1,498	\$1,498	\$153	\$1,529	\$1,529	\$156	\$1,559	\$1,559
Carbonyl sample cartridges	\$1,450	2013						\$1,737	\$17,371	\$17,371	\$1,773	\$17,734	\$17,734	\$1,808	\$18,082	\$18,082
Supplies/reagents	\$600	2013						\$719	\$7,188	\$7,188	\$734	\$7,338	\$7,338	\$748	\$7,482	\$7,482
Sample analysis	\$2,217	2013						\$2,655	\$26,554	\$26,554	\$2,711	\$27,108	\$27,108	\$2,764	\$27,640	\$27,640
Amortized																
HPLC/UV with autosampler	\$59,000	2013						\$70,682	\$706,820	\$141,364	\$72,157	\$721,570	\$144,314	\$73,573	\$735,730	\$147,146
Equipment (auxiliary)	\$1,000	2013						\$1,198	\$11,980	\$2,396	\$1,223	\$12,230	\$2,446	\$1,247	\$12,470	\$2,494
Routine visits																
	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost
Hours per site	0	16	16	0	0	0	32	NA	320	320	NA	320	320	NA	320	320
Cost per site	0	654	706	0	0	0	\$1,360	\$1,629	\$16,293	\$16,293	\$1,663	\$16,633	\$16,633	\$1,696	\$16,959	\$16,959
Sub Total - Hours	0	16	16	0	0	0	32	NA	320	320	NA	320	320	NA	320	320
Sub Total - Costs	\$0	\$16	\$16	\$0	\$0	\$0	\$1,485	\$1,779	\$17,790	\$17,790	\$1,816	\$18,162	\$18,162	\$1,852	\$18,518	\$18,518

Element 4 - Maintenance																
Spare parts/supplies																
	Unit cost	Year						Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost
	\$1,700	2013						\$2,037	\$20,366	\$20,366	\$2,079	\$20,791	\$20,791	\$2,120	\$21,199	\$21,199
Remedial Calibrations																
	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost
Hours per site	0	0	6	2	0	0	8	NA	80	80	NA	80	80	NA	80	80
Cost per site	0	0	265	99	0	0	\$364	\$436	\$4,361	\$4,361	\$445	\$4,452	\$4,452	\$454	\$4,539	\$4,539
Repairs	0	2	16	8	0	0	26	NA	260	260	NA	2,600	2,600	NA	26,000	26,000
Cost per site	0	82	706	394	0	0	\$1,182	\$1,416	\$14,160	\$14,160	\$1,416	\$14,160	\$14,160	\$1,416	\$14,160	\$14,160
Routine Maint.	0	0	16	40	0	0	56	NA	560	560	NA	560	560	NA	560	560
Cost per site	0	0	706	1971	0	0	\$2,677	\$3,207	\$32,070	\$32,070	\$3,274	\$32,740	\$32,740	\$3,338	\$33,382	\$33,382
Sub Total - Hours	0	0	22	42	0	0	64	NA	640	640	NA	640	640	NA	640	640
Sub Total - Costs	\$0	\$0	\$971	\$2,070	\$0	\$0	\$5,923	\$7,096	\$70,958	\$70,958	\$7,214	\$72,143	\$72,143	\$7,328	\$73,281	\$73,281

Element 5 - Data Management																
Data aquisition/processing																
	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost
Hours per site	0	0	6	6	0	0	12	NA	120	120	NA	120	120	NA	120	120
Cost per site	0	0	265	296	0	0	\$561	\$672	\$6,721	\$6,721	\$686	\$6,861	\$6,861	\$700	\$6,996	\$6,996
Data reporting	0	0	0	4	0.5	0.5	5	NA	50	50	NA	50	50	NA	50	50
Cost per site	0	0	0	197	28	29	\$254	\$304	\$3,043	\$3,043	\$311	\$3,106	\$3,106	\$317	\$3,167	\$3,167
Data validation	0	0	0	12	3	0	15	NA	150	150	NA	150	150	NA	150	150
Cost per site	0	0	0	591	166	0	\$757	\$907	\$9,069	\$9,069	\$926	\$9,258	\$9,258	\$944	\$9,440	\$9,440
Data distribution	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0
Cost per site	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub Total - Hours	0	0	6	22	3.5	0.5	32	NA	320	320	NA	320	320	NA	320	320
Sub Total - Costs	\$0	\$0	\$265	\$1,084	\$194	\$29	\$1,572	\$1,883	\$18,833	\$18,833	\$1,923	\$19,226	\$19,226	\$1,960	\$19,603	\$19,603

Data Entry for	NATTS	Updated on	February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
				Report Org	Sites	Report Org	Sites	Report Org	Sites	Report Org	Sites
Overall Comment				22	27	22	27	22	27	22	27
				Spares	0	Spares	0	Spares	0	Spares	0

General Costs										Labor	Non Labor O & M	Equipment
Element 1 - Network Design												
Costs included with other pollutants												
Sub Total - Hours										NA	NA	NA
Sub Total - Costs										NA	NA	NA
Element 2 - Site Installation												
Costs included with other pollutants												
Sub Total - Hours										NA	NA	NA
Sub Total - Costs										NA	NA	NA
Element 3 - Supplies and Site Visits												
Supplies												
Analysis (grant to RO)												
Sub Total - Hours										NA	NA	NA
Sub Total - Costs										NA	NA	NA
Element 4 - Maintenance												
Costs included with other pollutants												
Sub Total - Hours										NA	NA	NA
Sub Total - Costs										NA	NA	NA
Element 5 - Data Management												
Costs included with other pollutants												
Sub Total - Hours										NA	NA	NA
Sub Total - Costs										NA	NA	NA

Element 6 - Quality Assurance										Labor	Non Labor O & M	Equipment
Costs included with other pollutants												
Sub Total - Hours										NA	NA	NA
Sub Total - Costs										NA	NA	NA
Element 7 - Supervision												
Costs included with other pollutants												
Sub Total - Hours										NA	NA	NA
Sub Total - Costs										NA	NA	NA

Summary by Element		NATTS							Year 1 2013			Year 2 2014			Year 3 2015					
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost			
1 - Network Design	Hours	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 - Site Installation	Hours	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 - Supplies & site visits	Hours	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$155,003	\$3,410,071	\$3,410,071	\$158,238	\$3,481,233	\$3,481,233	\$161,343	\$3,549,548	\$3,549,548	NA	NA	3,480,284
4 - Maintenance	Hours	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5 - Data Management	Hours	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 - Quality Assurance	Hours	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7 - Supervision	Hours	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	Hours	0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$155,003	\$3,410,071	\$3,410,071	\$158,238	\$3,481,233	\$3,481,233	\$161,343	\$3,549,548	\$3,549,548	NA	NA	\$3,480,284

Data Entry for	Generic Network	Updated on February 1, 2013	Year 1	2013	Year 2	2014	Year 3	2015	Average Yearly Costs	Equipment
			Small Shelter Sites	1,294	Small Shelter Sites	1,294	Small Shelter Sites	1,294	Report Org Sites	168
			Large Shelter Sites	269	Large Shelter Sites	269	Large Shelter Sites	269	Sites	1294
			Total Shelter Sites	1,563	Total Shelter Sites	1,563	Total Shelter Sites	1,563		
			Other Sites	1,342	Other Sites	1,342	Other Sites	1,342		
			Total Sites	2,905	Total Sites	2,905	Total Sites	2,905		
Overall Comment			Report Org	168	Report Org	168	Report Org	168		
			QA Orgs	156	QA Orgs	156	QA Orgs	156		

General Costs									
Element 1 - Network Design									
a) Network Design (see individual pollutants)									
b) Site Selection (see individual pollutants)									
c) Travel other than monitoring sites									
d) Saturation studies									
e) Additional indirect cost adj (\$2/hour)									
Sub Total - Hours									
Sub Total - Costs									

Element 2 - Site Installation									
Materials									
Shelters									
Other									
Sub Total - Hours									
Sub Total - Costs									

Element 3 - Sampling and Analysis									
Supplies									
Open Path Monitoring									
Routine visits									
Sub Total - Hours									
Sub Total - Costs									

Element 4 - Maintenance - see individual pollutants									
Sub Total - Hours									
Sub Total - Costs									

Element 5 - Data Management									
Analysis and Trends (Rep. Org.)									
Sub Total - Hours									
Sub Total - Costs									

Element 6 - Quality Assurance				Comment			Element 6 - Quality Assurance			Element 6 - Quality Assurance			Element 6 - Quality Assurance			Labor		Non Labor O & M	Equipment	
Equipment		Unit cost	Year	Years Amortized	7	Per Site Adjusted	Entire Network Total		Yearly Cost	Per Site Adjusted	Entire Network Total		Yearly Cost	Per Site Adjusted	Entire Network Total		Yearly Cost			
Multigas calibrator		\$14,000	2013			\$16,772	\$2,616,432	\$373,776	\$17,122	\$2,671,032	\$381,576	\$17,458	\$2,723,448	\$389,064	NA	NA	\$381,472			
Zero air supply		\$4,000	2013			\$4,792	\$747,552	\$106,793	\$4,892	\$763,152	\$109,022	\$4,988	\$778,128	\$111,161	NA	NA	\$108,992			
Miscellaneous equipment		\$2,000	2013			\$2,396	\$373,776	\$53,397	\$2,446	\$381,576	\$54,511	\$2,494	\$389,064	\$55,581	NA	NA	\$54,496			
Sub Total - Hours						0	0	0	0	0	0	0	0	0						
Sub Total - Costs						\$23,960	\$3,737,760	\$533,966	\$24,460	\$3,815,760	\$545,109	\$24,940	\$3,890,640	\$555,806			\$544,960			

Element 7 - Supervision - see individual pollutants				Comment			Element 7 - Supervision			Element 7 - Supervision			Element 7 - Supervision			Labor		Non Labor O & M	Equipment
Sub Total - Hours		Sub Total - Costs		Per Site	Entire Network		Per Site	Entire Network		Per Site	Entire Network		Per Site	Entire Network					
0		0		\$0	0	0	\$0	0	0	\$0	0	0	\$0	0	0	0	NA	NA	
0		0		\$0	0	0	\$0	0	0	\$0	0	0	\$0	0	0	0	NA	NA	

Summary by Element		Generic Network							Year 1 2013			Year 2 2014			Year 3 2015			Labor		Non Labor O & M	Equipment
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost				
1 - Network Design		0	0	0	0	0	0	41,504	41,504	0	0	0	0	41,504	0	0	41,504	41,504			
Costs		\$0	\$0	\$0	\$0	\$0	\$0	\$6,092,268	\$4,345,772	\$0	\$0	\$4,429,158	\$0	\$4,518,862	\$2,220,960	NA	4,431,264				
2 - Site Installation		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Costs		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$102,835,223	\$22,909,540	\$0	\$104,981,200	\$23,387,619	NA	NA	\$23,381,245				
3 - Sampling and Analysis		0	0	0	0	1.6	1.6	3.2	3.2	11,906	11,906	3.2	11,906	11,906	3.2	11,906	11,906	11,906	NA		
Costs		\$0	\$0	\$0	\$0	\$2	\$2	\$183	\$219	\$762,471	\$762,471	\$224	\$778,180	\$778,180	\$228	\$793,531	\$793,531	\$778,061	\$3,631,763	NA	
4 - Maintenance		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Costs		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	
5 - Data Managment		0	0	1040	0	0	0	1040	1040	174,720	174,720	1040	174,720	174,720	1040	174,720	174,720	174,720	NA	NA	
Costs		\$0	\$0	\$45,885	\$0	\$0	\$0	\$45,885	\$54,970	\$9,234,999	\$9,234,999	\$56,117	\$9,427,716	\$9,427,716	\$57,219	\$9,612,724	\$9,612,724	\$9,425,146	NA	NA	
6 - Quality Assurance		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Costs		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$23,960	\$3,737,760	\$533,966	\$24,460	\$3,815,760	\$545,109	\$24,940	\$3,890,640	\$555,806	NA	\$0	555,806	
7 - Supervision		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Costs		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	NA	
Total		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost				
Hours		0	0	1,040	0	2	2	42,547	NA	186,626	186,626	NA	186,626	228,130	NA	186,626	228,130	228,130	NA	NA	
Costs		\$0	\$0	\$45,885	\$0	\$2	\$2	\$6,138,336	\$4,424,921	\$116,570,453	\$33,440,976	\$80,801	\$115,187,096	\$38,567,782	\$82,387	\$117,447,593	\$39,327,498	\$12,424,167	\$3,631,763	\$28,913,274	

Cost Element	Average 2013-2015 SO2					Average 2013-2015 CO					Average 2013-2015 NO2				
	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost
1. Network Design	613	\$40,521			\$40,521	499	\$32,990			\$32,990	472	\$31,197			\$31,197
2. Site Installation	1,261	\$67,186		\$801,458	\$868,644	874	\$46,585		\$555,702	\$602,287	1,162	\$62,428		\$864,784	\$927,213
3. Sampling & Analysis	52,440	\$3,151,333	\$427,444		\$3,578,777	36,360	\$2,185,020	\$296,374		\$2,481,395	48,320	\$2,906,267	\$394,204		\$3,300,471
4. Maintenance	29,716	\$1,660,621	\$534,305		\$2,194,926	20,604	\$1,151,415	\$370,468		\$1,521,883	34,629	\$1,991,714	\$492,755		\$2,484,469
5. Data Management	17,043	\$976,176			\$976,176	11,817	\$676,845			\$676,845	20,133	\$1,189,510			\$1,189,510
6. Quality Assurance	34,045	\$2,001,191			\$2,001,191	23,653	\$1,390,677			\$1,390,677	54,665	\$3,258,789			\$3,258,789
7. Supervision	18,354	\$1,131,124			\$1,131,124	12,726	\$784,281			\$784,281	16,912	\$1,043,162			\$1,043,162
Totals	153,472	\$9,028,152	\$961,750	\$801,458	\$10,791,359	106,534	\$6,267,813	\$666,842	\$555,702	\$7,490,357	176,293	\$10,483,068	\$886,958	\$864,784	\$12,234,811

Cost Element	Average 2013-2015 O3					Average 2013-2015 PM 10					Average 2013-2015 PM 2.5				
	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost
1. Network Design	831	\$54,864			\$54,864	626	\$52,686			\$52,686	399	\$25,879			\$25,879
2. Site Installation	3,610	\$188,848		\$1,833,581	\$2,022,429	1,512	\$82,006		2,040,597	\$2,122,602	5,625	\$405,123		5,191,173	\$5,596,295
3. Sampling & Analysis	104,960	\$5,451,933	\$855,541		\$6,307,473	20,117	\$9,941,131	\$909,309	161,916	\$11,012,356	19,392	\$15,274,202	\$455,566	8,642,232	\$24,372,000
4. Maintenance	59,477	\$3,323,775	\$1,069,426		\$4,393,201	49,440	\$2,611,003	1,121,540		\$3,732,543	53,138	\$2,995,438	624,330		\$3,619,768
5. Data Management	34,112	\$1,953,841			\$1,953,841	152,423	\$8,378,210			\$8,378,210	193,215	\$1,149,627			\$1,149,627
6. Quality Assurance	68,712	\$4,029,319			\$4,029,319	41,943	\$2,487,051		6,244	\$2,493,295	59,263	\$3,361,085		6,010	\$3,367,096
7. Supervision	36,736	\$2,263,974			\$2,263,974	13,012	\$862,205			\$862,205	79,830	\$5,080,565			\$5,080,565
Totals	308,438	\$17,266,555	\$1,924,966	\$1,833,581	\$21,025,102	279,073	\$24,414,292	\$2,030,849	\$2,208,756	\$28,653,897	410,862	\$8,291,920	1,079,896	13,839,415	\$53,211,231

Cost Element	Average 2013-2015 Pb					Average 2013-2015 NATTS					Average 2013-2015 PAMS				
	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost
1. Network Design	268	\$16,349			\$16,349					\$0	198	\$13,097			\$13,097
2. Site Installation	539	\$22,837		\$87,595	\$110,432					\$0	1,028	\$485,131		\$1,868,641	\$2,353,772
3. Sampling & Analysis	21,240	\$1,117,552	\$86,565	\$464,564	\$1,668,681				\$3,480,284	\$3,480,284	16,728	\$1,741,506	\$1,059,515	293,440	\$3,094,461
4. Maintenance	3,776	\$188,711	\$86,565		\$275,276					\$0	14,192	\$899,033	561,258		\$1,460,290
5. Data Management	4,956	\$292,300			\$292,300					\$0	14,340	\$864,451			\$864,451
6. Quality Assurance	4,938	\$234,236			\$234,236					\$0	31,145	\$1,808,284	113,310		\$1,921,594
7. Supervision	2,360	\$151,200			\$151,200					\$0	11,512	\$722,623			\$722,623
Totals	38,077	\$2,023,185	\$173,130	\$552,160	\$2,748,474	0	\$0	\$0	\$3,480,284	\$3,480,284	89,142	6,534,124	1,734,083	2,162,081	10,430,289

Cost Element	Average 2013-2015 General Network				
	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost
1. Network Design	41,504	\$2,220,960		\$4,431,264	\$6,652,224
2. Site Installation				23,381,245	\$23,381,245
3. Sampling & Analysis	11,906	\$778,061	\$3,631,763		\$4,409,824
4. Maintenance					\$0
5. Data Management	174,720	\$9,425,146			\$9,425,146
6. Quality Assurance				\$555,806	\$555,806
7. Supervision					\$0
Totals	228,130	\$12,424,167	\$3,631,763	\$28,368,314	\$44,424,244

Cost Element	Grand Total Average 2013-2015				
	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost
1. Network Design	45,410	\$2,488,544	\$0	\$4,431,264	\$6,919,808
2. Site Installation	15,612	\$1,360,143	\$0	\$36,624,776	\$37,994,919
3. Sampling & Analysis	331,463	\$42,547,005	\$8,116,280	\$13,042,437	\$63,705,722
4. Maintenance	264,973	\$14,821,710	\$4,860,647	\$0	\$19,682,357
5. Data Management	622,759	\$34,906,106	\$0	\$0	\$34,906,106
6. Quality Assurance	318,362	\$18,570,633	\$113,310	\$568,060	\$19,252,003
7. Supervision	191,442	\$12,039,134	\$0	\$0	\$12,039,134
Totals	1,790,021	\$126,733,274	\$13,090,237	\$54,666,536	\$194,490,047

Table 1. Grand Total Average 2013-2015 Renewal for Labor Hours & Costs

Cost Element	Labor Hours	Labor Costs	Non-labor O & M	Equipment Contract	Total Cost
1. Network Design	45,410	\$2,488,544	\$0	\$4,431,264	\$6,919,808
2. Site Installation	15,612	\$1,360,143	\$0	\$36,624,776	\$37,984,919
3. Sampling & Analysis	331,463	\$42,547,005	\$8,116,280	\$13,042,437	\$63,705,722
4. Maintenance	264,973	\$14,821,710	\$4,860,647	\$0	\$19,682,357
5. Data Management	622,759	\$34,906,106	\$0	\$0	\$34,906,106
6. Quality Assurance	318,362	\$18,570,633	\$113,310	\$568,060	\$19,252,003
7. Supervision	191,442	\$12,039,134	\$0	\$0	\$12,039,134
Totals	1,790,021	\$126,733,274	\$13,090,237	\$54,666,536	\$194,490,047