

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)																
	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per RO	Per RO	Entire Network	Per RO	Entire Network	Per RO	Entire Network			
Hours per RO	0	0	0	10	10	10	30	NA	3390	484	NA	3390	484	484	NA	NA
Costs per RO	0	0	0	493	555	586	\$1,634	\$1,958	\$221,201	\$31,600	\$1,998	\$225,817	\$32,260	\$2,038	\$230,249	\$32,893
b) Site Selection (Reporting Organization)																
Hours per RO	0	0	0	4	4	0	8	NA	904	129	NA	904	129	129	NA	NA
Costs per RO	0	0	0	197	222	0	\$419	\$502	\$56,722	\$8,103	\$512	\$57,905	\$8,272	\$522	\$59,042	\$8,435
Sub Total - Hours	0	0	0	14	14	10	38	NA	4,294	613	NA	4,294	613	613	NA	NA
Sub Total - 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

Element 2 - Site Installation																
Materials																
Unit cost	Year							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		
\$10,000	2013		\$11,980	\$5,235,260	\$747,894	\$12,230	\$5,344,510	\$763,501	\$12,470	\$5,449,390	\$778,484	\$12,470	\$5,449,390	\$778,484	NA	NA
Spare Analyzers																
Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost		
				\$261,763	\$37,395		\$267,226	\$38,175		\$272,470	\$38,924		\$272,470	\$38,924	NA	NA
Labor																
TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site	Entire Network	Per Site	Entire Network	Per Site	Entire Network	Per Site	Entire Network		
0	0	0	4	0	0	4	NA	1,835	262	NA	1,835	262	NA	1,835	262	262
0	0	0	197	0	0	\$197	\$236	\$108,291	\$15,470	\$241	\$105,287	\$15,041	\$246	\$107,353	\$15,336	\$15,282
Installation																
Hours per site	0	8	8	0	0	16	NA	6,992	999	NA	6,992	999	NA	6,992	999	999
Cost per site	0	327	353	0	0	\$680	\$815	\$355,998	\$50,857	\$832	\$363,427	\$51,918	\$848	\$370,559	\$52,937	\$51,904
Sub Total - Hours	0	8	8	4	0	20	NA	8,827	1,261	NA	8,827	1,261	NA	8,827	1,261	1,261
Sub Total - Costs	\$0	\$327	\$353	\$197	\$0	\$877	\$1,051	\$8,827	\$851,616	\$1,073	\$8,827	\$868,636	\$1,094	\$8,827	\$885,682	\$67,186

Element 3 - Supplies and Site Visits																
Supplies																
Unit cost	Year							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		
\$800	2013		\$958	\$418,821	\$418,821	\$978	\$427,561	\$427,561	\$998	\$435,951	\$435,951	\$998	\$435,951	\$435,951	NA	\$427,444
Routine visits																
Hours per site	0	60	60	0	0	120	NA	52,440	52,440	NA	52,440	52,440	NA	52,440	52,440	52,440
Cost per site	0	2451	2647	0	0	\$5,098	\$6,107	\$2,668,936	\$2,668,936	\$6,235	\$2,724,631	\$2,724,631	\$6,357	\$2,778,099	\$2,778,099	\$2,723,889
Sub Total - Hours	0	60	60	0	0	120	NA	52,440	52,440	NA	52,440	52,440	NA	52,440	52,440	52,440
Sub Total - Costs	\$0	\$60	\$60	\$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

Element 4 - Maintenance																
Spare parts/supplies																
Unit cost	Year							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		
\$1,000	2013		\$1,198	\$523,526	\$523,526	\$1,223	\$534,451	\$534,451	\$1,247	\$544,939	\$544,939	\$1,247	\$544,939	\$544,939	NA	\$534,305
Remedial Repairs																
Hours per site	0	6	3	3	0	12	NA	5,244	5,244	NA	5,244	5,244	NA	5,244	5,244	5,244
Cost per site	0	245	132	148	0	\$525	\$629	\$274,851	\$274,851	\$642	\$280,587	\$280,587	\$655	\$286,093	\$286,093	\$280,510
Routine Maint.																
Hours per site	0	16	8	32	0	56	NA	24,472	24,472	NA	24,472	24,472	NA	24,472	24,472	24,472
Cost per site	0	654	353	1576	0	\$2,583	\$3,094	\$1,352,268	\$1,352,268	\$3,159	\$1,380,487	\$1,380,487	\$3,221	\$1,407,577	\$1,407,577	\$1,380,111
Sub Total - Hours	0	22	11	35	0	68	NA	29,716	29,716	NA	29,716	29,716	NA	29,716	29,716	29,716
Sub Total - Costs	\$0	\$899	\$485	\$1,724	\$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

Element 5 - Data Management																
Data aquisition/processing																
TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site	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		
0	6	3	3	2	0	14	NA	6,118	6,118	NA	6,118	6,118	NA	6,118	6,118	6,118
0	245	132	148	111	0	\$636	\$762	\$332,963	\$332,963	\$778	\$339,911	\$339,911	\$793	\$346,581	\$346,581	\$339,818
Data reporting																
Hours per site	0	1	2	4	2	9	NA	3,933	3,933	NA	3,933	3,933	NA	3,933	3,933	3,933
Cost per site	0	41	88	197	111	\$437	\$524	\$228,781	\$228,781	\$534	\$233,555	\$233,555	\$545	\$238,138	\$238,138	\$233,491
Data validation																
Hours per site	0	0	4	8	0	12	NA	5,244	5,244	NA	5,244	5,244	NA	5,244	5,244	5,244
Cost per site	0	0	176	394	0	\$570	\$683	\$298,410	\$298,410	\$697	\$304,637	\$304,637	\$711	\$310,615	\$310,615	\$304,554
Data distribution																
Hours per site	0	1	1	2	0	4	NA	1,748	1,748	NA	1,748	1,748	NA	1,748	1,748	1,748
Cost per site	0	41	44	99	0	\$184	\$220	\$96,329	\$96,329	\$225	\$98,339	\$98,339	\$229	\$100,269	\$100,269	\$98,312
Sub Total - Hours	0	8	10	17	4	39	NA	17,043	17,043	NA	17,043	17,043	NA	17,043	17,043	17,043
Sub Total - Costs	\$0	\$327	\$440	\$838	\$222	\$1,827	\$2,189	\$956,482	\$956,482	\$2,234	\$976,442	\$976,442	\$2,278	\$995,604	\$995,604	\$976,176

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	NA	15,732	NA	NA					
	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	NA	11,362	NA	NA					
	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	NA	1,748	NA	NA					
	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	NA	2,185	NA	NA					
	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	NA	2,622	NA	NA					
	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	NA	57	NA	NA					
	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	339	NA	NA					
	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	NA	34,045	NA	NA					
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	NA	5,244	NA	NA					
	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	NA	13,110	NA	NA					
	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	NA	18,354	NA	NA					
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	613	NA	NA		
	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	\$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	1,261	NA	NA		
	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	\$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	NA	52440	52440	52440	NA	NA		
	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	\$3,151,333	NA	NA	NA		
4 - Maintenance	Hours	0	22	11	35	0	0	68	NA	29716	29716	NA	29716	29716	NA	29716	29716	NA	29716	29716	29716	NA	NA		
	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	\$2,238,609	NA	NA	NA		
5 - Data Managment	Hours	0	8	10	17	4	0	39	NA	17043	17043	NA	17043	17043	NA	17043	17043	NA	17043	17043	17043	NA	NA		
	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	\$976,176	NA	NA	NA		
6 - Quality Assurance	Hours	0	27	1	32	27	5	93	NA	NA	34045	NA	NA	34045	NA	NA	34045	NA	NA	34045	NA	NA	NA		
	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	\$2,041,018	NA	NA	NA		
7 - Supervision	Hours	0	0	16	8	12	6	42	NA	18354	18354	NA	18354	NA	18354	18354	NA	18354	NA	18354	NA	NA	NA		
	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	\$1,131,124	NA	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	NA	130,674	153,472	153,472	NA	NA		
	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	\$9,028,152	NA	NA	\$801,458		

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

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

Summary by Element		CO							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	
1 - Network Design	Hours	0	0	0	14	14	10	38	NA	3,496	499	NA	3,496	499	NA	3,496	499	499		499	NA	NA		
	Costs	\$0	\$0	\$0	\$690	\$777	\$586	\$2,053	\$2,459	\$226,273	\$32,325	\$2,511	\$230,995	\$32,999	\$2,560	\$235,528	\$33,647	\$32,990		NA	NA	NA		
2 - Site Installation	Hours	0	8	8	4	0	0	20	NA	6,121	874	NA	6,121	874	NA	6,121	874	874		874	NA	NA		
	Costs	\$0	\$327	\$353	\$197	\$0	\$0	\$877	\$1,051	\$0	\$590,480	\$1,073	\$0	\$602,281	\$1,094	\$0	\$614,100	\$46,585		NA	NA	\$555,702		
3 - Supplies & site visits	Hours	0	60	60	0	0	0	120	NA	36360	36360	NA	36360	36360	NA	36360	36360	36360		36360	NA	NA		
	Costs	\$0	\$60	\$60	\$0	\$0	\$0	\$5,898	\$7,066	\$2,140,939	\$2,140,939	\$7,213	\$2,185,616	\$2,185,616	\$7,355	\$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	NA	20604	20604	NA	20604	20604	20604		20604	NA	NA		
	Costs	\$0	\$899	\$485	\$1,724	\$0	\$0	\$4,108	\$4,921	\$1,491,179	\$1,491,179	\$5,024	\$1,522,297	\$1,522,297	\$5,123	\$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	NA	11817	11817	NA	11817	11817	11817		11817	NA	NA		
	Costs	\$0	\$327	\$440	\$838	\$222	\$0	\$1,827	\$2,189	\$663,190	\$663,190	\$2,234	\$677,030	\$677,030	\$2,278	\$690,316	\$690,316	\$676,845		NA	NA	NA		
6 - Quality Assurance	Hours	0	27	1	32	27	5	93	NA	NA	23,653	NA	NA	23,653	NA	NA	23,653	23,653		23,653	NA	NA		
	Costs	\$0	\$1,103	\$53	\$1,592	\$1,496	\$293	\$4,537	\$5,435	NA	\$1,362,621	\$5,549	NA	\$1,391,057	\$5,658	NA	\$1,418,355	\$1,390,677		NA	NA	\$0		
7 - Supervision	Hours	0	0	16	8	12	6	42	NA	12726	12726	NA	12726	12726	NA	12726	12726	12,726		12,726	NA	NA		
	Costs	\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$768,458	\$768,458	\$2,589	\$784,495	\$784,495	\$2,640	\$799,889	\$799,889	\$784,281		NA	NA	NA		
Total		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost				
	Hours	0	125	106	110	57	21	420	NA	91,124	106,534	NA	91,124	106,534	NA	91,124	106,534	106,534		106,534	NA	NA		
	Costs	\$0	\$2,716	\$2,097	\$5,435	\$3,161	\$1,230	\$21,417	\$25,658	\$5,290,040	\$7,049,192	\$26,193	\$5,400,433	\$7,195,774	\$26,707	\$5,506,410	\$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	1059	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																									
		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		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	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		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	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		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	\$394,204	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		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	\$492,755	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		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	NA	NA		
6 - Quality Assurance	Hours	0	25	25	48	47	5	151	NA	NA	49,985		NA	NA	57,005		NA	NA	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	\$0	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		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	NA	NA		
Total		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		
	Hours	0	93	165	147	80	21	507	NA	120,404	161,183		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	\$886,958	\$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		TEC1 TEC2		PRO1 PRO2 PRO3 PRO4		Per Site Total		Per Site Adjusted Total		Per Site Adjusted Total		Per Site Adjusted Total			
Spare Analyzers		\$7,200 2013		0 0		197 222 0 0		\$419		\$8,626 \$10,480,104 \$1,497,158		\$8,806 \$10,698,804 \$1,528,401		\$8,978 \$10,908,756 \$1,558,394		NA NA \$1,527,984	
Labor		0 0		0 0		0 0		0		NA 5,832 833		NA 5,832 833		NA 5,832 833		833 NA NA	
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		NA NA	
Hours per site		0 8		8 0 0 0		16		NA 19440 2777		NA 19,440 2777		NA 19,440 2777		NA 19,440 2777		2,777 NA NA	
Cost per site		0 327		353 0 0 0		\$680		NA \$815 \$989,788 \$141,398		NA \$832 \$1,010,443 \$144,349		NA \$848 \$1,030,271 \$147,182		\$144,310 NA NA		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		3,610 NA NA	
Sub Total - Costs		\$0 \$327		\$353 \$197 \$0 \$0 \$877		\$1,051 \$6,180,223 \$1,987,144		\$1,073 \$2,020,248 \$1,094		\$2,059,893 \$188,848 NA		\$1,833,581		\$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		TEC1 TEC2		PRO1 PRO2 PRO3 PRO4		Per Site 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 2451		2647 0 0 0		\$5,098		NA \$4,397 \$5,341,943 \$5,341,943		NA \$4,488 \$5,453,419 \$5,453,419		NA \$4,576 \$5,560,436 \$5,560,436		\$5,451,933 NA NA		NA NA	
Cost 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		NA NA	
Sub Total - Hours		\$0 \$60		\$60 \$0 \$0 \$0 \$5,898		\$3,598		NA \$6,180,223 \$6,180,223		NA \$5,193 \$6,309,193 \$6,309,193		NA \$5,295 \$6,433,004 \$6,433,004		\$5,451,933 \$855,541 NA		NA NA	
Sub Total - Costs		\$0 \$60		\$60 \$0 \$0 \$0 \$5,898		\$3,598		NA \$6,180,223 \$6,180,223		NA \$5,193 \$6,309,193 \$6,309,193		NA \$5,295 \$6,433,004 \$6,433,004		\$5,451,933 \$855,541 NA		NA 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		TEC1 TEC2		PRO1 PRO2 PRO3 PRO4		Per Site 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		NA \$453 \$550,122 \$550,122		NA \$462 \$561,602 \$561,602		NA \$471 \$572,622 \$572,622		\$561,449 NA NA		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		NA NA	
Routine Maintenance		0 654		353 1576 0 0		\$2,583		NA \$2,228 \$2,706,598 \$2,706,598		NA \$2,274 \$2,763,080 \$2,763,080		NA \$2,319 \$2,817,302 \$2,817,302		\$2,762,327 NA NA		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		NA NA	
Cost per site		\$0 \$899		\$485 \$1,724 \$0 \$0 \$4,108		\$4,108		NA \$3,543 \$4,304,571 \$4,304,571		NA \$3,617 \$4,394,399 \$4,394,399		NA \$3,688 \$4,480,634 \$4,480,634		\$3,323,775 \$1,069,426 NA		NA NA	
Sub Total - Hours		\$0 \$899		\$485 \$1,724 \$0 \$0 \$4,108		\$4,108		NA \$3,543 \$4,304,571 \$4,304,571		NA \$3,617 \$4,394,399 \$4,394,399		NA \$3,688 \$4,480,634 \$4,480,634		\$3,323,775 \$1,069,426 NA		NA NA	
Sub Total - Costs		\$0 \$899		\$485 \$1,724 \$0 \$0 \$4,108		\$4,108		NA \$3,543 \$4,304,571 \$4,304,571		NA \$3,617 \$4,394,399 \$4,394,399		NA \$3,688 \$4,480,634 \$4,480,634		\$3,323,775 \$1,069,426 NA		NA 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		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 site		0 6		3 3 2 0		14		NA 12,245 12,245		NA 12,245 12,245		NA 12,245 12,245		12,245 NA NA			
Cost per site		0 245		132 148 111 0		\$636		NA \$549 \$666,433 \$666,433		NA \$560 \$680,340 \$680,340		NA \$571 \$693,691 \$693,691		\$680,155 NA NA		NA NA	
Data reporting		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		NA NA	
Hours per site		0 41		88 197 111 0		\$437		NA \$377 \$457,911 \$457,911		NA \$385 \$467,466 \$467,466		NA \$392 \$476,640 \$476,640		\$467,339 NA NA		NA NA	
Cost per site		0 0		176 394 0 0		\$570		NA \$492 \$597,275 \$597,275		NA \$502 \$609,739 \$609,739		NA \$512 \$621,704 \$621,704		\$609,573 NA NA		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		NA NA	
Hours per site		0 41		44 99 0 0		\$184		NA \$159 \$192,805 \$192,805		NA \$162 \$196,828 \$196,828		NA \$165 \$200,691 \$200,691		\$196,774 NA NA		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		NA NA	
Sub Total - Hours		\$0 \$327		\$440 \$838 \$222 \$0 \$1,827		\$1,827		NA \$1,576 \$1,914,423 \$1,914,423		NA \$1,609 \$1,954,374 \$1,954,374		NA \$1,640 \$1,992,726 \$1,992,726		\$1,953,841 NA NA		NA NA	
Sub Total - Costs		\$0 \$327		\$440 \$838 \$222 \$0 \$1,827		\$1,827		NA \$1,576 \$1,914,423 \$1,914,423		NA \$1,609 \$1,954,374 \$1,954,374		NA \$1,640 \$1,992,726 \$1,992,726		\$1,953,841 NA NA		NA NA	

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	Filter-Based Samplers	1/1 (daily)	230	Filter-Based Samplers	1/1 (daily)	230	Total	809
				Report Org	1/2	1	Report Org	1/2	1	Report Org	1/2	1	Samplers	1545
					1/3	44		1/3	44		1/3	44	Spares	77
					1/6	383		1/6	383		1/6	383	Avg Percent Sampled	38%
					collocated	151		collocated	151		collocated	151	Continuous Sites	268
					Total	809		Total	809		Total	809	Spares	13
					Samplers	1545		Samplers	1545		Samplers	1545	Platforms	947
					Spares	77		Spares	77		Spares	77		
					Avg Percent Sampled	38%		Avg Percent Sampled	38%		Avg Percent Sampled	38%		
					Continuous Sites	268		Continuous Sites	268		Continuous Sites	268		
					Spares	13		Spares	13		Spares	13		
					Platforms	947		Platforms	947		Platforms	947		

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	0	6	2	2	0	0	10	NA	1,460	209	NA	1,460	209	209	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	

Element 2 - Site Installation																
a) Sampler																
b) Cont Sampler																
Sub Total - Hours	0	4	4	0	0	0	8	NA	7,907	1,512	NA	7,907	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	

Element 3 - Sampling and Analysis																
a) Routine visits																
Laboratory																
Sub Total - Hours	0	84	169	127	0	0	380	NA	185,974	185,974	NA	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	

Element 4 - Maintenance																
Remedial Repairs																
Routine Maint. Filter																
Sub Total - Hours	0	85	50	25	0	0	160	NA	49,440	49,440	NA	49,440	49,440	49,440	NA	
Sub Total - 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	

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	NA	NA
	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
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	NA	NA
	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
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
	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
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	NA	NA
	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
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
	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
6 - Quality Assurance	Hours	0	24	60	45	27	6	162	132	59263	59263	132	59263	59263	132	59263	59263	59263	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
7 - Supervision	Hours	0	18	19	57	69	30	193	NA	79830	79830	NA	79830	79830	NA	79830	79830	79830	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
Total	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

\$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			Labor	Non Labor O & M	Equipment					
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Entire Network Yearly Cost	Per Site Adjusted	Entire Network Total	Entire Network Yearly Cost	Per Site Adjusted	Entire Network Total	Entire Network 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								
	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					
Coordination/implementation	Hours per site	0	1	1	1	1	0	4	NA	944	944	NA	944	944	NA	944	944								
	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					
Training	Hours per site	0	4	0	0	0	0	4	NA	944	944	NA	944	944	NA	944	944								
	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					
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								
	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					
QA Plan preparation	Hours per RO	0	12	0	0	0	0	12	NA	900	180	NA	900	180	NA	900	180								
	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					
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							
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							
Element 7 - Supervision																									
		TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Total	Per Site Adjusted	Entire Network Total	Entire Network Yearly Cost	Per Site Adjusted	Entire Network Total	Entire Network Yearly Cost	Per Site Adjusted	Entire Network Total	Entire Network Yearly Cost								
Planning/coordination	Hours per site	0	0	0	2	2	0	4	NA	944	944	NA	944	944	NA	944	944								
	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					
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								
	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					
Sub Total - Hours		0	0	0	5	5	0	10	NA	2360	2360	NA	2360	2360	NA	2360	2360	2,360	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					
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					
	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	\$1,549	\$116,349	\$16,674	\$16,349	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					
	Costs	\$227	\$327	\$0	\$0	\$0	\$0	\$554	\$664	\$0	\$108,204	\$678	\$0	\$110,462	\$691	\$0	\$112,630	\$22,837	NA	\$87,595	NA	NA			
3 - Sampling and Analysis	Hours	0	30	60	0	0	0	90	NA	21240	21240	NA	21240	21240	NA	21240	21240								
	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	\$86,565	\$464,564	NA	NA			
4 - Maintenance	Hours	0	16	0	0	0	0	16	NA	3776	3776	NA	3776	3776	NA	3776	3776								
	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	\$86,565	NA	NA				
5 - Data Management	Hours	0	0	4	17	0	0	21	NA	4956	4956	NA	4956	4956	NA	4956	4956								
	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	NA	NA	NA				
6 - Quality Assurance	Hours	6	21	3	1	1	0	33	NA	5658	4938	NA	5658	4938	NA	5658	4938								
	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	\$0	NA	NA				
7 - Supervision	Hours	0	0	0	5	5	0	10	NA	2360	2360	NA	2360	2360	NA	2360	2360								
	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				
Total	Hours	14	81	69	30	11	5	211	NA	37,983	38,077	NA	37,983	38,077	NA	37,983	38,077								
	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	\$173,130	\$552,160	NA	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
\$117,376	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA

Non Labor O & M	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
NA	NA
NA	NA
NA	NA
NA	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 Spares 0	Report Org	Sites 26 Spares 0	Report Org	Sites 26 Spares 0	Report Org	Sites 7 Spares 26
Overall Comment				7	0	7	0	7	0	7	0

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												Non Labor O & M		
Element 2 - Site Installation												Labor		
Materials														
Labor														
Procurement														
Installation														
Sub Total - Hours														
Sub Total - Costs														

Element 3 - Supplies and Site Visits												Non Labor O & M		
Element 3 - Supplies and Site Visits												Labor		
Supplies														
Routine visits														
Sub Total - Hours														
Sub Total - Costs														

Element 4 - Maintenance												Non Labor O & M		
Element 4 - Maintenance												Labor		
Spare parts/supplies														
Remedial Repairs														
Routine Maint.														
Sub Total - Hours														
Sub Total - Costs														

Element 5 - Data Management												Non Labor O & M		
Element 5 - Data Management												Labor		
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			Labor	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						
									Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost					
Audits	Hours per site	0	0	0	20	16	0	36	NA	936	936	NA	936	936	NA	936	936	936	NA	NA	NA	
	Cost per site	0	0	0	985	887	0	\$1,872	\$2,243	\$58,309	\$58,309	\$2,289	\$59,526	\$59,526	\$2,334	\$60,694	\$60,694	\$59,510	NA	NA	NA	
Routine Calibrations	Hours per site	0	26	0	0	0	0	26	NA	676	676	NA	676	676	NA	676	676	676	676	NA	NA	NA
	Cost per site	0	1062	0	0	0	0	\$1,062	\$1,272	\$33,079	\$33,079	\$1,299	\$33,769	\$33,769	\$1,324	\$34,432	\$34,432	\$33,760	NA	NA	NA	
Coordination/Implementation	Hours per site	0	0	0	2	2	0	4	NA	104	104	NA	104	104	NA	104	104	104	104	NA	NA	NA
	Cost per site	0	0	0	99	111	0	\$210	\$252	\$6,541	\$6,541	\$257	\$6,678	\$6,678	\$262	\$6,809	\$6,809	\$6,676	NA	NA	NA	
Training	Hours per site	0	1	1	2	1	0	5	NA	130	130	NA	130	130	NA	130	130	130	130	NA	NA	NA
	Cost per site	0	41	44	99	55	0	\$239	\$286	\$7,444	\$7,444	\$292	\$7,600	\$7,600	\$298	\$7,749	\$7,749	\$7,598	NA	NA	NA	
Reporting	Hours per site	0	0	0	3	3	0	6	NA	156	156	NA	156	156	NA	156	156	156	156	NA	NA	NA
	Cost per site	0	0	0	148	166	0	\$314	\$376	\$9,780	\$9,780	\$384	\$9,985	\$9,985	\$392	\$10,181	\$10,181	\$9,982	NA	NA	NA	
QA Plan review (annual)	Hours per RO	0	0	0.2	0.3	0	0	0.5	NA	4	4	NA	4	4	NA	4	4	4	4	NA	NA	NA
	Cost	0	0	9	15	0	0	\$24	\$29	\$201	\$201	\$29	\$205	\$205	\$30	\$209	\$209	\$205	\$205	NA	NA	NA
QA Plan preparation	Hours per RO	0	0	0	5	5	5	15	NA	105	21	NA	105	21	NA	105	21	21	21	NA	NA	NA
	Cost per RO	0	0	0	246	277	293	\$816	\$978	\$6,843	\$1,369	\$998	\$6,986	\$1,397	\$1,018	\$7,123	\$1,425	\$1,397	\$1,397	NA	NA	NA
Sub Total - Hours		0	27	1	32	27	5	93	NA	NA	2,027	NA	NA	2,027	NA	NA	2,027	2,027	2,027	NA	NA	NA
Sub Total - Costs		\$0	\$1,103	\$53	\$1,592	\$1,496	\$293	\$4,537	\$5,435	NA	\$116,724	\$5,549	NA	\$119,160	\$5,658	NA	\$121,498	\$119,127	\$119,127	NA	NA	NA

Element 7 - Supervision		Comment						Element 7 - Supervision				Element 7 - Supervision			Element 7 - Supervision			Labor	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						
									Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost					
Planning/coordination	Hours per site	0	0	0	0	8	4	12	NA	312	312	NA	312	312	NA	312	312	312	312	NA	NA	NA
	Cost per site	0	0	0	0	444	234	\$678	\$812	\$21,118	\$21,118	\$829	\$21,559	\$21,559	\$845	\$21,982	\$21,982	\$21,553	NA	NA	NA	
Supervision/review	Hours per site	0	0	16	8	4	2	30	NA	780	780	NA	780	780	NA	780	780	780	780	NA	NA	NA
	Cost per site	0	0	706	394	222	117	\$1,439	\$1,724	\$44,822	\$44,822	\$1,760	\$45,757	\$45,757	\$1,794	\$46,655	\$46,655	\$45,745	NA	NA	NA	
Sub Total - Hours		0	0	16	8	12	6	42	NA	1092	1092	NA	1092	1092	NA	1092	1,092	1,092	1,092	NA	NA	NA
Sub Total - Costs		\$0	\$0	\$706	\$394	\$666	\$351	\$2,117	\$2,536	\$65,940	\$65,940	\$2,589	\$67,316	\$67,316	\$2,640	\$68,637	\$68,637	\$67,298	NA	NA	NA	

Summary by Element	PAMSNMOC							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	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0	0	0	NA	NA
2 - Site Installation	0	8	8	4	0	0	20	NA	520	104	NA	520	104	NA	520	104	NA	520	104	104	104	NA	NA
3 - Supplies & site visits	0	60	60	0	0	0	120	NA	3120	3120	NA	3120	3120	NA	3120	3120	NA	3120	3120	3120	3120	NA	NA
4 - Maintenance	0	22	11	35	0	0	68	NA	1768	1768	NA	1768	1768	NA	1768	1768	NA	1768	1768	1768	1768	NA	NA
5 - Data Management	0	8	10	17	4	0	39	NA	1014	1014	NA	1014	1014	NA	1014	1014	NA	1014	1014	1014	1014	NA	NA
6 - Quality Assurance	0	27	1	32	27	5	93	NA	NA	2027	NA	NA	2027	NA	NA	2027	NA	NA	2027	2027	2027	NA	NA
7 - Supervision	0	0	16	8	12	6	42	NA	1092	1092	NA	1092	1092	NA	1092	1092	NA	1092	1092	1092	1092	NA	NA
Total	0	125	106	96	43	11	382	NA	7,514	9,125	NA	7,514	9,125	NA	7,514	9,125	NA	7,514	9,125	9,125	9,125	NA	NA
Costs	\$0	\$2,716	\$2,097	\$4,745	\$2,384	\$644	\$19,364	\$23,198	\$434,515	\$627,881	\$23,682	\$443,582	\$640,984	\$24,147	\$452,287	\$653,563	\$536,375	\$57,221	\$72,645	\$72,645	NA	NA	NA

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	NA	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	NA	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	NA	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	NA	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	NA	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	NA	0	0	NA
	Cost	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA
QA Plan preparation	Hours per RO	0	0	5	5	5	0	15	NA	300	60	NA	300	NA	300	60	NA	300	60	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	NA	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	NA	NA

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	NA	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	NA	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	NA	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
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	NA	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	NA	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	NA	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 83	Report Org	Sites 83	Report Org	Sites 83	Report Org	18
Overall Comment		Spare Factor	5.00%	18	Spares 4	18	Spares 4	18	Spares 4	Spares	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			Entire Network			Per RO			Entire Network														
Labor Category													Adjusted			Total			Adjusted			Total			Adjusted			Total								
Hours per RO													NA			342			NA			342			NA			342								
Costs per RO													\$1,233			\$22,189			\$1,258			\$22,652			\$1,283			\$23,097			\$4,619					
Sub Total - Hours													NA			342			NA			342			NA			342			68					
Sub Total - Costs													\$0			\$0			\$0			\$0			\$246			\$666			\$117			\$1,029		

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													\$17,285			2013			\$20,707			\$1,718,717			\$21,140			\$1,754,583			\$21,554			\$1,789,015			\$357,803																							
Spare Analyzers																\$85,936						\$87,729						\$89,451						\$17,890																										
Labor													TEC1			TEC2			PRO1			PRO2			PRO3			PRO4			Per Site Total																													
Procurement													0			0			0			4			4			0			8			NA			697			139			NA			697			139											
Installation													0			8			8			0			0			0			16			NA			1,328			266			NA			1,328			266											
Sub Total - Hours													0			327			353			0			0			0			24			NA			2,025			405			NA			2,025			405											
Sub Total - Costs													\$0			\$327			\$353			\$197			\$222			\$0			\$1,099			\$1,317			\$383,203			\$1,344			\$390,774			\$1,370			\$398,443			\$22,444			NA			\$368,362		

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													Unit cost			Year			Per Site Adjusted			Entire Network Total			Per Site Adjusted			Entire Network Total			Per Site Adjusted			Entire Network Total																																						
Routine visits													\$750			2013			\$899			\$74,576			\$917			\$76,132			\$935			\$77,626			\$77,626			NA			\$76,111			NA																										
Hours per site													0			60			60			0			0			120			NA			9,960			9,960			NA			9,960			9,960			9,960			9,960			9,960																	
Cost per site													0			2451			2647			0			0			\$5,098			NA			\$6,107			\$506,915			\$506,915			NA			\$6,235			\$517,493			\$517,493			\$6,357			\$527,648			\$527,648			\$517,352			NA			NA		
Sub Total - Hours													0			60			60			0			0			120			NA			9,960			9,960			NA			9,960			9,960			9,960			9,960			9,960			9,960			9,960											
Sub Total - Costs													\$0			\$2,451			\$2,647			\$0			\$0			\$5,848			\$7,006			\$581,490			\$581,490			NA			\$7,152			\$593,625			\$593,625			\$7,292			\$605,274			\$605,274			\$593,463			\$76,111			NA					

Element 4 - Maintenance													Element 4 - Maintenance			Element 4 - Maintenance			Element 4 - Maintenance																																																					
Spare parts/supplies													Unit cost			Year			Per Site Adjusted			Entire Network Total			Per Site Adjusted			Entire Network Total			Per Site Adjusted			Entire Network Total																																						
Remedial Repairs													\$2,000			2013			\$2,396			\$198,868			\$2,446			\$203,018			\$2,494			\$207,002			\$207,002			NA			\$202,963			NA																										
Hours per site													0			0			8			8			0			16			NA			1,328			1,328			NA			1,328			1,328			1,328			1,328			1,328			1,328														
Cost per site													0			0			353			394			0			\$747			NA			\$895			\$74,277			\$74,277			NA			\$914			\$75,827			\$75,827			\$932			\$77,315			\$77,315			\$75,807			NA			NA		
Routine Maint.													0			0			30			40			0			70			NA			5,810			5,810			NA			5,810			5,810			5,810			5,810			5,810			5,810			5,810											
Sub Total - Hours													0			0			1324			1971			0			\$3,295			NA			\$3,947			\$327,635			\$327,635			NA			\$4,030			\$334,472			\$334,472			\$4,109			\$341,036			\$341,036			\$334,381			NA			NA		
Sub Total - Costs													\$0			\$0			\$1,677			\$2,365			\$0			\$6,042			\$7,238			\$600,780			\$600,780			NA			\$7,389			\$613,317			\$613,317			\$7,534			\$625,353			\$625,353			\$410,188			\$202,963			NA					

Element 5 - Data Management													Element 5 - Data Management			Element 5 - Data Management			Element 5 - Data Management																																																								
Data aquisition/processing													TEC1			TEC2			PRO1			PRO2			PRO3			PRO4			Per Site Total			Per Site Adjusted			Entire Network Total			Per Site Adjusted			Entire Network Total			Per Site Adjusted			Entire Network Total																										
Hours per site													0			0			8			8			4			4			20			NA			1,660			1,660			NA			1,660			1,660			1,660			1,660			1,660			1,660														
Cost per site													0			0			353			394			222			0			\$969			NA			\$1,161			\$96,352			\$96,352			NA			\$1,185			\$98,362			\$98,362			\$1,208			\$100,292			\$100,292			\$98,335			NA			NA		
Data reporting													0			0			3			4			3			10			NA			830			830			NA			830			830			830			830			830			830			830			830											
Cost per site													0			0			132			197			166			0			\$495			NA			\$593			\$49,220			\$49,220			NA			\$605			\$50,247			\$50,247			\$617			\$51,233			\$51,233			\$50,233			NA			NA		
Data validation													0			0			5			10			0			15			NA			1,245			1,245			NA			1,245			1,245			1,245			1,245			1,245			1,245			1,245			1,245			1,245								
Cost per site													0			0			221			493			0			\$714			NA			\$855			\$70,996			\$70,996			NA			\$873			\$72,477			\$72,477			\$890			\$73,900			\$73,900			\$72,458			NA			NA					
Data distribution													0			0			2			3			0			5			NA			415			415			NA			415			415			415			415			415			415			415			415			415								
Cost per site													0			0			88			148			0			\$236			NA			\$283			\$23,466			\$23,466			NA			\$289			\$23,956			\$23,956			\$294			\$24,426			\$24,426			\$23,950			NA			NA					
Sub Total - Hours													0			0			18			25			7			50			NA			4,150			4,150			NA			4,150			4,150			4,150			4,150			4,150			4,150			4,150			4,150											
Sub Total - 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			\$244,976			NA			NA								

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	5,976	5,976	NA	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	\$382,585	NA	NA
Routine Calibrations	Hours per site	0	24	24	0	0	0	48	NA	3,984	3,984	NA	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	\$207,022	NA	NA
Coordination/implementation	Hours per site	0	0	0	2	2	0	4	NA	332	332	NA	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	\$21,735	\$21,735	\$21,311	NA	NA
Training	Hours per site	0	1	1	2	1	0	5	NA	415	415	NA	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	\$24,254	NA	NA
Reporting	Hours per site	0	0	0	3	3	0	6	NA	498	498	NA	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	\$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	NA	9	9		9	NA	NA
	Cost	0	0	9	15	0	0	\$24	\$29	\$518	\$518	\$29	\$528	\$528	\$30	\$539	\$539	\$528	NA	NA
QA Plan preparation	Hours per RO	0	0	0	5	5	5	15	NA	270	54	NA	270	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	\$3,592	NA	NA
Sub Total - Hours		0	25	25	48	47	5	151	NA	NA	11,268	NA	NA	NA	NA	11,268	NA	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	\$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	Labor	O & M	Equipment
Planning/coordination	Hours per site	0	0	0	0	8	4	12	NA	996	996	NA	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	\$68,804	NA	NA
Supervision/review	Hours per site	0	0	16	8	4	2	30	NA	2,490	2,490	NA	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	\$146,032	NA	NA
Sub Total - Hours		0	0	16	8	12	6	42	NA	3486	3486	NA	3486	NA	3486	3,486		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	\$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	Adjusted	Total	Yearly Cost
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	NA	342	68
	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	\$4,529	NA	NA	NA	NA	NA	NA	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	NA	2,025	405
	Costs	\$0	\$327	\$353	\$197	\$222	\$0	\$1,099	\$1,317	\$0	\$383,203	\$1,344	\$390,774	\$0	\$1,370	\$398,443	\$22,444	NA	NA	NA	NA	NA	NA	NA	NA	\$368,362
3 - Supplies & site visits	Hours	0	60	60	0	0	0	120	NA	9960	9960	NA	9960	9960	NA	9960	9960		9960	NA	NA	NA	NA	NA	NA	9960
	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	\$593,463	\$76,111	NA	NA	NA	NA	NA	NA	NA
4 - Maintenance	Hours	0	0	38	48	0	0	86	NA	7138	7138	NA	7138	7138	NA	7138	7138		7138	NA	NA	NA	NA	NA	NA	7138
	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	\$410,188	\$202,963	NA	NA	NA	NA	NA	NA	NA
5 - Data Management	Hours	0	0	18	25	7	0	50	NA	4150	4150	NA	4150	4150	NA	4150	4150		4150	NA	NA	NA	NA	NA	NA	4150
	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	\$244,976	NA	NA	NA	NA	NA	NA	NA	NA
6 - Quality Assurance	Hours	0	25	25	48	47	5	151	NA	NA	11,268	NA	NA	NA	NA	11,268	NA	11,268	NA	NA	NA	NA	NA	NA	NA	11,268
	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	\$671,157	\$0	NA	NA	NA	NA	NA	NA	NA
7 - Supervision	Hours	0	0	16	8	12	6	42	NA	3486	3486	NA	3486	NA	3486	3,486		3,486	NA	NA	NA	NA	NA	NA	NA	3,486
	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	\$214,836	NA	NA	NA	NA	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		36,475	NA	NA	NA	NA	NA	NA	36,475
	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	\$2,161,593	\$279,074	NA	NA	NA	NA	NA	NA	NA

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	Sites Spares	14 0	Report Org	Sites Spares	14 0	Report Org	Sites Spares	14 0

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			Per RO			Per RO			Per RO																										
Labor Category														Adjusted			Total			Yearly Cost			Adjusted			Total			Yearly Cost																				
Hours per RO														NA			114			23			NA			114			23																				
Costs per RO														NA			\$1,233			\$7,396			\$1,479			NA			\$1,258			\$7,551			\$1,510			NA			\$1,283			\$7,699			\$1,540		
Sub Total - Hours														NA			114			23			NA			114			23			NA			114			23			NA			114			23		
Sub Total - Costs														NA			\$1,233			\$7,396			\$1,479			NA			\$1,258			\$7,551			\$1,510			NA			\$1,283			\$7,699			\$1,540		

Element 2 - Site Installation														Element 2 - Site Installation			Element 2 - Site Installation			Element 2 - Site Installation			Element 2 - Site Installation																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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Year														NA			\$149,750			\$748,750			NA			\$152,875			\$764,375			NA			\$152,875			\$779,375			NA			\$155,875			\$815,875																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
SODAR														NA			\$53,910			\$1,048,250			\$209,650			NA			\$152,875			\$1,070,125			\$214,025			NA			\$155,875			\$1,091,125			\$218,225																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
LAP/RASS														NA			\$53,910			\$53,910			\$10,782			NA			\$55,035			\$55,035			NA			\$11,007			\$56,115			\$56,115			NA			\$11,223			\$57,338																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Computer hardware & software														NA			\$77,870			\$15,574			NA			\$79,495			\$79,495			NA			\$15,899			\$15,899			NA			\$16,211			\$16,211			NA			\$16,895			\$17,388																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Total														NA			\$149,750			\$0			\$0			NA			\$152,875			\$0			NA			\$155,875			\$0			NA			\$158,875			\$0			NA			\$161,875			\$0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Contractor														NA			\$9,584			\$134,176			\$26,835			NA			\$9,784			\$136,976			\$27,395			NA			\$9,976			\$139,664			\$27,933			NA			\$141,334			\$28,467			NA			\$143,981			\$29,014			NA			\$146,635			\$29,561			NA			\$149,288			\$30,111			NA			\$151,941			\$30,658			NA			\$154,594			\$31,199			NA			\$157,147			\$31,746			NA			\$159,300			\$32,293			NA			\$161,453			\$32,840			NA			\$163,606			\$33,390			NA			\$165,809			\$33,937			NA			\$167,962			\$34,484			NA			\$170,115			\$35,034			NA			\$172,268			\$35,581			NA			\$174,421			\$36,081			NA			\$176,574			\$36,628			NA			\$178,727			\$37,178			NA			\$180,880			\$37,725			NA			\$183,033			\$38,275			NA			\$185,186			\$38,822			NA			\$187,339			\$39,372			NA			\$189,492			\$39,919			NA			\$191,645			\$40,469			NA			\$193,798			\$41,016			NA			\$195,951			\$41,563			NA			\$198,104			\$42,113			NA			\$200,307			\$42,660			NA			\$202,460			\$43,207			NA			\$204,613			\$43,754			NA			\$206,766			\$44,301			NA			\$208,869			\$44,848			NA			\$211,022			\$45,398			NA			\$213,175			\$45,945			NA			\$215,328			\$46,491			NA			\$217,481			\$47,038			NA			\$219,634			\$47,588			NA			\$221,787			\$48,135			NA			\$223,940			\$48,682			NA			\$226,093			\$49,182			NA			\$228,246			\$49,729			NA			\$230,499			\$50,279			NA			\$232,652			\$50,826			NA			\$234,805			\$51,373			NA			\$236,958			\$51,920			NA			\$239,111			\$52,467			NA			\$241,264			\$53,014			NA			\$243,417			\$53,561			NA			\$245,570			\$54,108			NA			\$247,723			\$54,655			NA			\$249,876			\$55,202			NA			\$252,029			\$55,749			NA			\$254,182			\$56,296			NA			\$256,335			\$56,793			NA			\$258,488			\$57,389			NA			\$260,641			\$57,936			NA			\$262,794			\$58,483			NA			\$264,897			\$59,030			NA			\$267,050			\$59,577			NA			\$269,203			\$60,124			NA			\$271,356			\$60,671			NA			\$273,509			\$61,217			NA			\$275,662			\$61,764			NA			\$277,815			\$62,310			NA			\$280,018			\$62,857			NA			\$282,171			\$63,357			NA			\$284,324			\$63,904			NA			\$286,477			\$64,451			NA			\$288,630			\$64,998			NA			\$290,783			\$65,548			NA			\$292,936			\$66,095			NA			\$295,089			\$66,592			NA			\$297,242			\$67,139			NA			\$299,395			\$67,686			NA			\$301,498			\$68,183			NA			\$303,651			\$68,730			NA			\$305,804			\$69,277			NA			\$307,957			\$69,824			NA			\$310,110			\$70,371			NA			\$312,263			\$70,918			NA			\$314,416			\$71,465			NA			\$316,569			\$72,012			NA			\$318,722			\$72,559			NA			\$320,875			\$73,106			NA			\$323,028			\$73,653			NA			\$325,181			\$74,199			NA			\$327,334			\$74,746			NA			\$329,487			\$75,293			NA			\$331,640			\$75,840			NA			\$333,793			\$76,387			NA			\$335,946			\$76,934			NA			\$338,099			\$77,481			NA			\$340,202			\$78,028			NA			\$342,355			\$78,578			NA			\$344,508			\$79,125			NA			\$346,661			\$79,672			NA			\$348,814			\$80,219			NA			\$350,967			\$80,766			NA			\$353,120			\$81,313			NA			\$355,273			\$81,860			NA			\$357,426			\$82,407			NA			\$359,579			\$82,954			NA			\$361,632			\$83,501			NA			\$363,785			\$84,048			NA			\$365,938			\$84,595			NA			\$368,091			\$85,142			NA			\$370,244			\$85,689			NA			\$372,397			\$86,189			NA			\$374,500			\$86,736			NA			\$376,653			\$87,233			NA			\$378,806			\$87,780			NA			\$380,959			\$88,277			NA			\$383,112			\$88,824			NA			\$385,265			\$89,371			NA			\$387,418			\$89,918			NA			\$389,571			\$90,465			NA			\$391,724			\$91,012			NA			\$393,877			\$91,560			NA			\$396,030			\$92,107			NA			\$398,183			\$92,654			NA			\$400,286			\$93,201			NA			\$402,389			\$93,748			NA			\$404,542			\$94,298			NA			\$406,695			\$94,795			NA			\$408,798			\$95,342			NA			\$410,851			\$95,889			NA			\$412,954			\$96,389			NA			\$415,057			\$96,936			NA			\$417,160			\$97,483			NA			\$419,263			\$98,030			NA			\$421,316			\$98,577			NA			\$423,419			\$99,124			NA			\$425,522			\$99,671			NA			\$427,625			\$100,218			NA			\$429,728			\$100,765			NA			\$431,831			\$101,312			NA			\$433,934			\$101,859			NA			\$436,037			\$102,406			NA			\$438,140			\$102,953			NA			\$440,243			\$103,499			NA			\$442,346			\$104,046			NA			\$444,449			\$104,593			NA			\$446,552			\$105,140			NA			\$448,655			\$105,687			NA			\$450,758			\$106,187			NA			\$452,861			\$106,734			NA			\$454,964			\$107,281			NA			\$457,067			\$107,778			NA			\$459,170			\$108,325			NA			\$461,273			\$108,872			NA			\$463,376			\$109,419			NA			\$465,379			\$109,966			NA			\$467,482			\$110,513			NA			\$469,585			\$111,060			NA			\$471,588			\$111,557			NA			\$473,691			\$112,104			NA			\$475,694			\$112,651			NA			\$477,697			\$113,198			NA			\$479,699			\$113,745			NA			\$481,702			\$114,292			NA			\$483,705			\$114,839			NA			\$485,708			\$115,386			NA			\$487,711			\$115,933			NA			\$489,714			\$116,480			NA			\$491,717			\$117,027			NA			\$493,720			\$117,574			NA			\$495,723			\$118,121			NA			\$497,726			\$118,668			NA			\$499,729			\$119,168			NA			\$501,732			\$119,715			NA			\$503,735			\$120,262			NA			\$505,738			\$120,809			NA			\$507,741			\$121,356			NA			\$509,744			\$121,903			NA			\$511,747			\$122,450			NA			\$513,750			\$123,000			NA			\$515,753			\$123,547			NA			\$517,756			\$124,094			NA			\$519,759			\$124,641			NA			\$521,762			\$125,188			NA			\$523,765			\$125,735			NA			\$525,768			\$126,282			NA			\$527,771			\$126,830			NA			\$529,774			\$127,377			NA			\$531,777			\$127,924			NA			\$533,780			\$128,471			NA			\$535,783			\$129,018			NA			\$537,786			\$129,565			NA			\$539,789			\$130,112			NA			\$541,792			\$130,659			NA			\$543,795			\$131,209			NA			\$545,798			\$131,756			NA			\$547,801			\$132,303			NA			\$549,804			\$132,850			NA			\$551,807			\$133,397			NA			\$553,810			\$133,944			NA			\$555,813			\$134,491			NA			\$557,816			\$135,038			NA			\$559,819			\$135,585			NA			\$561,822			\$136,132			NA			\$563,825			\$136,679			NA			\$565,828			\$137,226			NA			\$567,831			\$137,773			NA			\$569,834			\$138,320			NA			\$571,837			\$138,867			NA			\$573,840			\$139,414			NA			\$575,843			\$140,000			NA			\$577,846			\$140,547			NA			\$579,849			\$141,094			NA			\$581,852			\$141,591			NA			\$583,855			\$142,138			NA			\$585,858			\$142,685			NA			\$587,861			\$143,182			NA			\$589,864			\$143,729			NA			\$591,867			\$144,276			NA			\$593,870			\$144,823			NA			\$595,873			\$145,370			NA			\$597,876			\$145,917			NA			\$599,879			\$146,464			NA			\$601,882			\$147,011			NA			\$603,885			\$147,558			NA			\$605,888			\$148,058			NA			\$607,891			\$148,605			NA			\$609,894			\$149,152			NA			\$611,897			\$149,700			NA			\$613,900			\$150,249			NA			\$615,903			\$150,796			NA			\$617,906			\$151,293			NA			\$619,909			\$151,840			NA			\$621,912			\$152,387			NA			\$623,915			\$152,934			NA			\$625,918			\$153,481			NA			\$627,921			\$154,028			NA			\$629,924			\$154,575			NA			\$631,927			\$155,122		

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%
				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	2013							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	\$38,336	\$7,667	\$19,568	\$39,136	\$7,827	\$19,952	\$39,904	\$7,981	NA	NA
Spare Analizers									\$0	\$0		\$0	\$0		\$0	\$0	NA	NA
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	3	NA
Cost per site	0	0	0	394	0	0	\$394	\$472	\$944	\$189	\$482	\$964	\$193	\$491	\$983	\$197	\$193	NA
Installation	0	6	0	0	0	0	6	NA	12	2	NA	12	2	NA	12	2	2	NA
Cost per site	0	245	0	0	0	0	\$245	\$294	\$587	\$117	\$300	\$599	\$120	\$306	\$611	\$122	\$120	NA
Sub Total - Hours	0	6	0	8	0	0	14	NA	28	6	NA	28	6	NA	28	6	6	NA
Sub Total - Costs	\$0	\$245	\$0	\$394	\$0	\$0	\$639	\$766	\$1,518	\$306	\$781	\$1,518	\$313	\$797	\$1,595	\$313	\$313	NA

Element 3 - Supplies and Site Visits																		
Supplies and Other Costs																		
Unit cost	2013							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	\$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																		
Hours per site	0	0	8	8	0	0	16	NA	32	32	NA	32	32	NA	32	32	32	NA
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	NA
Sub Total - Hours	0	0	8	8	0	0	16	NA	32	32	NA	32	32	NA	32	32	32	NA
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

Element 4 - Maintenance																		
Spare parts/supplies																		
Unit cost	2013							Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost		
Remedial Calibrations	\$10,200	2013						\$12,220	\$24,439	\$24,439	\$12,475	\$24,949	\$24,949	\$12,719	\$25,439	\$25,439	NA	\$24,942
Repairs																		
Hours per site	0	0	12	4	0	0	16	NA	32	32	NA	32	32	NA	32	32	32	NA
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	NA
Routine Maint.	0	8	72	24	0	0	104	NA	208	208	NA	416	416	NA	832	832	485	NA
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	NA
Sub Total - Hours	0	0	64	160	0	0	224	NA	448	448	NA	448	448	NA	448	448	448	NA
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

Element 5 - Data Management																		
Data acquisition/processing																		
Hours per site	0	0	24	24	0	0	48	NA	96	96	NA	96	96	NA	96	96	96	NA
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	NA
Data reporting																		
Hours per site	0	0	0	16	2	2	20	NA	40	40	NA	40	40	NA	40	40	40	NA
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	NA
Data validation																		
Hours per site	0	0	0	48	12	0	60	NA	120	120	NA	120	120	NA	120	120	120	NA
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	NA
Data distribution																		
Hours per site	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	0	NA
Cost per site	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	256	NA
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
Calibration Stds		\$4,500	2013						\$5,391	\$10,782	\$10,782		\$5,504	\$11,007	\$11,007		NA	\$11,004
Calibrations	Hours per site	0	0	4	10	0	0	14	NA	28	28		NA	28	28		28	NA
	Cost per site	0	0	176	493	0	0	\$669	\$801	\$1,603	\$1,603		\$818	\$1,636	\$1,636		\$1,636	NA
Audits	Hours per site	0	0	4	8	0	0	12	NA	24	24		NA	24	24		24	NA
	Cost per site	0	0	176	394	0	0	\$570	\$683	\$1,366	\$1,366		\$697	\$1,394	\$1,394		\$1,394	NA
Training	Hours per site	0	1	8	5	2	0	16	NA	32	32		NA	32	32		32	NA
	Cost per site	0	41	353	246	111	0	\$751	\$900	\$1,799	\$1,799		\$918	\$1,837	\$1,837		\$1,837	NA
Coordination/implementation	Hours per site	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total					Adjusted	Total	Yearly Cost	Adjusted	Total	Yearly Cost
	Cost per site	0	0	0	12	4	0	\$813	\$974	\$1,948	\$1,948		\$994	\$1,989	\$1,989		\$1,989	NA
QA Plan preparation	Hours per RO	0	0	0	12	0	0	12	NA	12	2		NA	12	2		2	NA
	Cost per RO	0	0	0	591	0	0	\$591	\$708	\$708	\$142		\$723	\$723	\$145		\$737	\$145
Sub Total - Hours		0	1	16	47	6	0	70	NA	118	118		NA	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	\$7,138
Element 7 - Supervision		Comment						Element 7 - Supervision			Element 7 - Supervision			Element 7 - Supervision				
Planning/coordination	Hours per site	0	0	0	24	12	0	36	NA	72	72		NA	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		\$4,519	NA
Supervision/review	Hours per site	0	0	0	0	24	12	36	NA	72	72		NA	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		\$4,974	NA
Sub Total - Hours		0	0	0	24	36	12	72	NA	144	144		NA	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
Summary by Element		PAMSCarBe						Year 1 2013			Year 2 2014			Year 3 2015				
1 - Network Design	Hours	0	0	0	0	0	0	0	NA	0	0		NA	0	0		0	NA
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0		\$0	\$0
2 - Site Installation	Hours	0	6	0	8	0	0	14	NA	28	6		NA	28	6		6	NA
	Costs	\$0	\$245	\$0	\$394	\$0	\$0	\$639	\$766	\$0	\$7,979		\$781	\$0	\$8,140		\$8,300	\$313
3 - Supplies & site visits	Hours	0	0	8	8	0	0	16	NA	32	32		NA	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		\$3,734	\$1,891
4 - Maintenance	Hours	0	0	76	164	0	0	240	NA	480	480		NA	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		\$65,178	\$39,183
5 - Data Management	Hours	0	0	24	88	14	2	128	NA	256	256		NA	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		\$15,682	\$15,376
6 - Quality Assurance	Hours	0	1	16	47	6	0	70	NA	140	118		NA	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	\$7,138
7 - Supervision	Hours	0	0	0	24	36	12	72	NA	144	144		NA	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
Total	Hours	0	7	124	339	56	14	540	NA	940	1,036		NA	940	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

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
\$37,169

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

General Costs													Non Labor O & M					
Element 1 - Network Design (see O3)																		
a) Network Design (by Reporting Organization)																		
Years Amortized	Comment						Per RO	Element 1 - Network Design			Element 1 - Network Design			Element 1 - Network Design			Labor	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			
0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	0	0	NA
0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA
b) Site Selection (Reporting Organization)																		
0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	0	0	NA
0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA
0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	0	0	NA
0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA
0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	0	0	NA
0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA

Element 2 - Site Installation																			
Years Amortized	Comment						Per Site	Element 2 - Site Installation			Element 2 - Site Installation			Element 2 - Site Installation			Labor	Non Labor O & M	
Unit cost	Year	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		
\$16,000	2013	0	0	0	8	0	0	8	\$19,168	\$153,344	\$30,669	\$19,568	\$156,544	\$31,309	\$19,952	\$159,616	\$31,923	NA	NA
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA
Labor																			
0	0	0	0	0	0	0	0	0	NA	0	0	NA	0	0	0	0	0	0	NA
0	0	0	0	0	0	0	0	0	NA	0	0	NA	0	0	0	0	0	0	NA
0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA
0	0	0	0	0	0	0	0	0	NA	0	0	NA	0	0	0	0	0	0	NA
0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA

Element 3 - Supplies and Site Visits																			
Years Amortized	Comment						Per Site	Element 3 - Supplies and Site Visits			Element 3 - Supplies and Site Visits			Element 3 - Supplies and Site Visits			Labor	Non Labor O & M	
Unit cost	Year	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		
\$250	2013	0	0	0	8	0	0	8	\$300	\$2,396	\$2,396	\$306	\$2,446	\$2,446	\$312	\$2,494	\$2,494	NA	\$2,445
\$2,900	2013	0	0	0	0	0	0	0	\$3,474	\$27,794	\$27,794	\$3,547	\$28,374	\$28,374	\$3,616	\$28,930	\$28,930	NA	\$28,366
\$1,200	2013	0	0	0	0	0	0	0	\$1,438	\$11,501	\$11,501	\$1,468	\$11,741	\$11,741	\$1,496	\$11,971	\$11,971	NA	\$11,738
\$4,433	2013	0	0	0	0	0	0	0	\$5,311	\$42,486	\$42,486	\$5,422	\$43,372	\$43,372	\$5,528	\$44,224	\$44,224	NA	\$43,361
Amortized																			
\$59,000	2013	0	0	0	0	0	0	0	\$70,682	\$565,456	\$113,091	\$72,157	\$577,256	\$115,451	\$73,573	\$588,584	\$117,717	NA	NA
\$1,000	2013	0	0	0	0	0	0	0	\$1,198	\$9,584	\$9,584	\$1,223	\$9,784	\$9,784	\$1,247	\$9,976	\$9,976	NA	NA
Routine visits																			
0	0	0	0	0	0	0	0	0	NA	256	256	NA	256	256	NA	256	256	256	256
0	0	0	0	0	0	0	0	0	\$1,629	\$13,034	\$13,034	\$1,663	\$13,306	\$13,306	\$1,696	\$13,567	\$13,567	NA	\$13,303
0	0	0	0	0	0	0	0	0	NA	256	256	NA	256	256	NA	256	256	256	256
0	0	0	0	0	0	0	0	0	\$0	\$16	\$16	\$0	\$0	\$0	\$2,008	\$16,061	\$16,061	\$13,815	\$85,909

Element 4 - Maintenance																			
Years Amortized	Comment						Per Site	Element 4 - Maintenance			Element 4 - Maintenance			Element 4 - Maintenance			Labor	Non Labor O & M	
Unit cost	Year	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		
\$3,400	2013	0	0	12	4	0	0	16	\$4,073	\$32,586	\$32,586	\$4,158	\$33,266	\$33,266	\$4,240	\$33,918	\$33,918	NA	\$33,257
0	0	0	0	0	0	0	0	0	NA	128	128	NA	128	128	NA	128	128	128	128
0	0	0	0	0	0	0	0	0	\$870	\$6,958	\$6,958	\$888	\$7,103	\$7,103	\$905	\$7,243	\$7,243	NA	\$7,101
0	0	0	0	0	0	0	0	0	NA	832	832	NA	832	832	NA	832	832	832	832
0	0	0	0	0	0	0	0	0	\$5,614	\$44,911	\$44,911	\$5,614	\$44,911	\$44,911	\$5,614	\$44,911	\$44,911	NA	\$44,911
0	0	0	0	0	0	0	0	0	NA	896	896	NA	896	896	NA	896	896	896	896
0	0	0	0	0	0	0	0	0	\$6,413	\$51,303	\$51,303	\$6,547	\$52,374	\$52,374	\$6,675	\$53,402	\$53,402	NA	\$52,359
0	0	0	0	0	0	0	0	0	NA	1,024	1,024	NA	1,024	1,024	NA	1,024	1,024	1,024	1,024
0	0	0	0	0	0	0	0	0	\$0	\$1,941	\$4,138	\$0	\$0	\$0	\$17,434	\$139,473	\$139,473	\$104,371	\$33,257

Element 5 - Data Management																			
Years Amortized	Comment						Per Site	Element 5 - Data Management			Element 5 - Data Management			Element 5 - Data Management			Labor	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				
0	0	12	12	0	0	24	NA	192	192	NA	192	192	NA	192	192	192	192	192	192
0	0	0	0	0	0	0	\$1,120	\$1,342	\$10,734	\$10,734	\$1,370	\$10,958	\$10,958	\$1,397	\$11,173	\$11,173	\$10,955	\$10,955	NA
0	0	0	0	0	0	0	0	0	NA	80	80	NA	80	80	NA	80	80	80	80
0	0	0	0	0	0	0	\$508	\$609	\$4,869	\$4,869	\$621	\$4,970	\$4,970	\$633	\$5,068	\$5,068	\$4,969	\$4,969	NA
0	0	0	0	0	0	0	0	0	NA	240	240	NA	240	240	NA	240	240	240	240
0	0	0	0	0	0	0	\$1,515	\$1,815	\$14,520	\$14,520	\$1,853	\$14,823	\$14,823	\$1,889	\$15,114	\$15,114	\$14,819	\$14,819	NA
0	0	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	0	0
0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0	0	0	0	0	0	0	0	0	NA	512	512	NA	512	512	NA	512	512	512	512
0	0	0	0	0	0	0	0	0	\$3,765	\$30,123	\$30,123	\$3,844	\$30,751	\$30,751	\$3,919	\$31,355	\$31,355	\$30,743	NA

Element 6 - Quality Assurance								Element 6 - Quality Assurance					Element 6 - Quality Assurance					Element 6 - Quality Assurance					Non Labor O & M	
	Comment							Per Site Total	Element 6 - Quality Assurance			Element 6 - Quality Assurance			Element 6 - Quality Assurance			Labor	Non Labor O & M					
	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Per Site Adjusted		Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost								
Calibration Stds	\$1,500	2013						\$1,797	\$14,376	\$14,376	\$1,835	\$14,676	\$14,676	\$1,871	\$14,964	\$14,964	NA	\$14,672						
Calibrations	0	0	2	5	0	0	7	NA	56	56	NA	56	56	NA	56	56	56	NA						
Costs	0	0	88	246	0	0	\$334	\$400	\$3,201	\$3,201	\$408	\$3,268	\$3,268	\$416	\$3,332	\$3,332	\$3,267	NA						
Audits	0	0	4	8	0	0	12	NA	96	96	NA	96	96	NA	96	96	96	NA						
Costs	0	0	176	394	0	0	\$570	\$683	\$5,463	\$5,463	\$697	\$5,577	\$5,577	\$711	\$5,686	\$5,686	\$5,575	NA						
Training	0	1	8	5	2	0	16	NA	128	128	NA	128	128	NA	128	128	128	NA						
Costs	0	41	353	246	111	0	\$751	\$900	\$7,198	\$7,198	\$918	\$7,348	\$7,348	\$936	\$7,492	\$7,492	\$7,346	NA						
Coordination/implementation	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								
Hours per site	0	0	0	6	3	0	9	NA	72	72	NA	72	72	NA	72	72	72	NA						
Costs	0	0	0	296	166	0	\$462	\$553	\$4,428	\$4,428	\$565	\$4,520	\$4,520	\$576	\$4,609	\$4,609	\$4,519	NA						
QA Plan preparation	0	0	0	0	0	0	0	Per RO	Entire Network	Per RO	Entire Network	Per RO	Entire Network	Per RO	Entire Network	Per RO	Entire Network							
Hours per RO	0	0	0	12	0	0	12	NA	72	14	NA	72	14	NA	72	14	NA							
Cost per RO	0	0	0	591	0	0	\$591	\$708	\$4,248	\$850	\$723	\$4,337	\$867	\$737	\$4,422	\$884	\$867	NA						
Sub Total - Hours	0	1	14	36	5	0	56	NA	NA	366	NA	NA	366	NA	NA	366	366	NA						
Sub Total - Costs	\$0	\$41	\$617	\$1,773	\$277	\$0	\$2,708	\$3,244	\$24,537	\$21,139	\$3,312	\$25,049	\$21,580	\$3,377	\$25,541	\$22,004	\$21,574	\$14,672						

Element 7 - Supervision								Element 7 - Supervision					Element 7 - Supervision					Element 7 - Supervision				
	Comment							Per Site Total	Element 7 - Supervision			Element 7 - Supervision			Element 7 - Supervision			Labor	Non Labor O & M			
	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	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	0	0	0	12	6	0	18	NA	144	144	NA	144	144	NA	144	144	144	NA				
Costs	0	0	0	591	333	0	\$924	\$1,107	\$8,856	\$8,856	\$1,130	\$9,040	\$9,040	\$1,152	\$9,218	\$9,218	\$9,038	NA				
Supervision/review	0	0	0	0	12	6	18	NA	144	144	NA	144	144	NA	144	144	144	NA				
Costs	0	0	0	666	352	0	\$1,018	\$1,220	\$9,757	\$9,757	\$1,245	\$9,960	\$9,960	\$1,269	\$10,156	\$10,156	\$9,957	NA				
Sub Total - Hours	0	0	0	12	18	6	36	NA	288	288	NA	288	288	NA	288	288	288	NA				
Sub Total - Costs	\$0	\$0	\$0	\$591	\$999	\$352	\$1,942	\$2,327	\$18,612	\$18,612	\$2,375	\$19,001	\$19,001	\$2,422	\$19,373	\$19,373	\$18,995	NA				

Summary by Element		PAMSCarbd							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			
		1 - Network Design	Hours	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0	
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
2 - Site Installation	Hours	0	6	0	8	0	0	14	NA	112	22	NA	112	22	NA	112	22	NA	112	22	NA	112	22			
	Costs	\$0	\$245	\$0	\$394	\$0	\$0	\$639	\$766	\$0	\$31,894	\$781	\$0	\$32,559	\$797	\$0	\$33,198	\$1,250	\$0	\$33,198	\$1,250	\$0	\$33,198			
3 - Supplies & site visits	Hours	0	16	16	0	0	0	32	NA	256	256	NA	256	256	NA	256	256	NA	256	256	NA	256	256			
	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	\$13,815	\$0	\$16,061	\$13,815	\$0	\$16,061			
4 - Maintenance	Hours	0	0	44	84	0	0	128	NA	1024	1024	NA	1024	1024	NA	1024	1024	NA	1024	1024	NA	1024	1024			
	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	\$104,371	\$0	\$139,473	\$104,371	\$0	\$139,473			
5 - Data Managment	Hours	0	0	12	44	7	1	64	NA	512	512	NA	512	512	NA	512	512	NA	512	512	NA	512	512			
	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	\$30,743	\$0	\$31,355	\$30,743	\$0	\$31,355			
6 - Quality Assurance	Hours	0	1	14	36	5	0	56	NA	366	366	NA	366	366	NA	366	366	NA	366	366	NA	366	366			
	Costs	\$0	\$41	\$617	\$1,773	\$277	\$0	\$2,708	\$3,244	\$24,537	\$21,139	\$3,312	\$25,049	\$21,580	\$3,377	\$25,541	\$22,004	\$21,574	\$0	\$22,004	\$21,574	\$0	\$22,004			
7 - Supervision	Hours	0	0	0	12	18	6	36	NA	288	288	NA	288	288	NA	288	288	NA	288	288	NA	288	288			
	Costs	\$0	\$0	\$0	\$591	\$999	\$352	\$1,942	\$2,327	\$18,612	\$18,612	\$2,375	\$19,001	\$19,001	\$2,422	\$19,373	\$19,373	\$18,995	\$0	\$19,373	\$18,995	\$0	\$19,373			
Total	Hours	0	23	86	184	30	7	330	NA	2,192	2,469	NA	2,192	2,469	NA	2,192	2,469	NA	2,192	2,469	NA	2,469	2,469			
	Costs	\$0	\$302	\$3,103	\$9,063	\$1,664	\$411	\$24,207	\$29,000	\$199,922	\$252,955	\$29,488	\$203,157	\$257,296	\$29,957	\$206,262	\$261,464	\$190,748	\$0	\$261,464	\$190,748	\$0	\$261,464			

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
NA
NA
NA

NA
\$31,300
NA
\$117,376
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
\$148,676

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)																		
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	\$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	0	NA
Costs per RO	0	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	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	\$0

Element 2 - Site Installation																		
Materials																		
Unit cost	2013							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	NA	NA
Labor																		
Hours per site	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	16	NA
Cost per site	0	0	0	394	0	0	\$394	\$472	\$4,720	\$944	\$482	\$4,819	\$964	\$491	\$4,913	\$983	\$963	NA
Installation	0	6	0	0	0	0	6	NA	60	12	NA	60	12	NA	60	12	12	NA
Cost per site	0	245	0	0	0	0	\$245	\$294	\$2,935	\$587	\$300	\$2,996	\$599	\$306	\$3,055	\$611	\$599	NA
Sub Total - Hours	0	6	0	8	0	0	14	NA	140	28	NA	140	28	NA	140	28	28	NA
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	\$1,563	NA

Element 3 - Supplies and Site Visits																		
Supplies and Other Costs																		
Unit cost	2013							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	NA	\$1,528
Carbonyl sample cartridges	\$1,450	2013						\$1,737	\$17,371	\$17,371	\$1,773	\$17,734	\$17,734	\$1,808	\$18,082	\$18,082	NA	\$17,729
Supplies/reagents	\$600	2013						\$719	\$7,188	\$7,188	\$734	\$7,338	\$7,338	\$748	\$7,482	\$7,482	NA	\$7,336
Sample analysis	\$2,217	2013						\$2,655	\$26,554	\$26,554	\$2,711	\$27,108	\$27,108	\$2,764	\$27,640	\$27,640	NA	\$27,100
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	NA	NA
Equipment (auxiliary)	\$1,000	2013						\$1,198	\$11,980	\$2,396	\$1,223	\$12,230	\$2,446	\$1,247	\$12,470	\$2,494	NA	NA
Routine visits																		
Hours per site	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		
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	\$16,628	NA
Sub Total - Hours	0	16	16	0	0	0	32	NA	320	320	NA	320	320	NA	320	320	320	NA
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	\$17,268	\$53,693

Element 4 - Maintenance																		
Spare parts/supplies																		
Unit cost	2013							Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost	Per Site Adjusted	Entire Network Total	Yearly Cost		
Remedial Calibrations	\$1,700	2013						\$2,037	\$20,366	\$20,366	\$2,079	\$20,791	\$20,791	\$2,120	\$21,199	\$21,199	NA	\$20,785
Repairs																		
Hours per site	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		
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	\$4,451	NA
Routine Maint.	0	2	16	8	0	0	26	NA	260	260	NA	2,600	2,600	NA	26,000	26,000	9,620	NA
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	\$14,160	NA
Sub Total - Hours	0	0	16	40	0	0	56	NA	560	560	NA	5,600	5,600	NA	56,000	56,000	560	NA
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	\$51,342	\$20,785

Element 5 - Data Management																		
Data acquisition/processing																		
Hours per site	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		
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	\$6,859	NA
Data reporting																		
Hours per site	0	0	0	4	0.5	0.5	5	NA	50	50	NA	50	50	NA	50	50	50	NA
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	\$3,106	NA
Data validation																		
Hours per site	0	0	0	12	3	0	15	NA	150	150	NA	150	150	NA	150	150	150	NA
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	\$9,256	NA
Data distribution																		
Hours per site	0	0	0	0	0	0	0	NA	0	0	NA	0	0	NA	0	0	0	NA
Cost per site	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA
Sub Total - Hours	0	0	6	22	3.5	0.5	32	NA	320	320	NA	320	320	NA	320	320	320	NA
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	\$19,220	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		\$1,500	2013						\$1,797	\$17,970	\$17,970		\$1,835	\$18,345	\$18,345		\$1,871	\$18,705	\$18,705	NA	\$18,340		
Calibrations	Hours per site	0	0	1	2.5	0	0	3.5	NA	35	35		NA	35	35		NA	35	35		35	NA	
	Cost per site	0	0	44	123	0	0	\$167		\$200	\$2,001	\$2,001		\$204	\$2,042	\$2,042		\$208	\$2,082	\$2,082		\$2,042	NA
Audits	Hours per site	0	0	2	4	0	0	6	NA	60	60		NA	60	60		NA	60	60		60	NA	
	Cost per site	0	0	88	197	0	0	\$285		\$341	\$3,414	\$3,414		\$349	\$3,486	\$3,486		\$355	\$3,554	\$3,554		\$3,485	NA
Training	Hours per site	0	0.5	4	2.5	1	0	8	NA	80	80		NA	80	80		NA	80	80		80	NA	
	Cost per site	0	20	176	123	55	0	\$374		\$448	\$4,481	\$4,481		\$457	\$4,574	\$4,574		\$466	\$4,664	\$4,664		\$4,573	NA
Coordination/implementation	Hours per site	TEC1	TEC2	PRO1	PRO2	PRO3	PRO4	Total					Adjusted	Total	Yearly Cost		Adjusted	Total	Yearly Cost				
	Hours per site	0	0	0	3	1.5	0	4.5	NA	45	45		NA	45	45		NA	45	45		45	NA	
	Cost per site	0	0	0	148	83	0	\$231		\$277	\$2,767	\$2,767		\$283	\$2,825	\$2,825		\$288	\$2,881	\$2,881		\$2,824	NA
QA Plan preparation	Hours per RO	0	0	0	12	0	0	12	NA	84	84		NA	84	84		NA	84	84		84	NA	
	Cost per RO	0	0	0	591	0	0	\$591		\$708	\$4,956	\$4,956		\$723	\$5,060	\$5,060		\$737	\$5,159	\$5,159		\$1,032	NA
Sub Total - Hours		0	1	7	24	3	0	34	NA	NA	237		NA	NA	237		NA	NA	237		237	NA	
Sub Total - Costs		\$0	\$20	\$308	\$1,182	\$138	\$0	\$1,648	\$1,974	\$17,619	\$13,654		\$2,016	\$17,987	\$13,939		\$2,055	\$18,340	\$14,213		\$13,935	\$18,340	

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	6	3	0	9	NA	90	90		NA	90	90		NA	90	90		90	NA	
	Cost per site	0	0	0	296	166	0	\$462		\$553	\$5,535	\$5,535		\$565	\$5,650	\$5,650		\$576	\$5,761	\$5,761		\$5,649	NA
Supervision/review	Hours per site	0	0	0	0	6	3	9	NA	90	90		NA	90	90		NA	90	90		90	NA	
	Cost per site	0	0	0	0	333	176	\$509		\$610	\$6,098	\$6,098		\$623	\$6,225	\$6,225		\$635	\$6,347	\$6,347		\$6,223	NA
Sub Total - Hours		0	0	0	6	9	3	18	NA	180	180		NA	180	180		NA	180	180		180	NA	
Sub Total - Costs		\$0	\$0	\$0	\$296	\$499	\$176	\$971	\$1,163	\$11,633	\$11,633		\$1,188	\$11,875	\$11,875		\$1,211	\$12,108	\$12,108		\$11,872	NA	

Summary by Element		PAMSHalfD							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									
1 - Network Design	Hours	0	0	0	0	0	0	0	NA	0	0	0	NA	0	0	0	NA	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	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	
2 - Site Installation	Hours	0	6	0	8	0	0	14	NA	140	28		NA	140	28		NA	140	28		140	28		140	28		140	28		28	NA	
	Costs	\$0	\$245	\$0	\$394	\$0	\$0	\$639		\$766	\$0	\$39,867		\$781	\$0	\$40,699		\$797	\$0	\$41,498		\$1,563	\$1,563		\$1,563	\$1,563		\$1,563	\$1,563		\$1,563	NA
3 - Supplies & site visits	Hours	0	16	16	0	0	0	32	NA	320	320		NA	320	320		NA	320	320		320	320		320	320		320	320		320	NA	
	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		\$17,268	\$17,268		\$17,268	\$17,268		\$17,268	\$17,268		\$53,693	NA
4 - Maintenance	Hours	0	0	0	22	42	0	64	NA	640	640		NA	640	640		NA	640	640		640	640		640	640		640	640		640	NA	
	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		\$51,342	\$51,342		\$51,342	\$51,342		\$51,342	\$51,342		\$20,785	NA
5 - Data Management	Hours	0	0	6	22	3.5	0.5	32	NA	320	320		NA	320	320		NA	320	320		320	320		320	320		320	320		320	NA	
	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		\$19,220	\$19,220		\$19,220	\$19,220		\$19,220	\$19,220		NA	NA
6 - Quality Assurance	Hours	0	1	7	24	3	0	34	NA	NA	237		NA	NA	237		NA	NA	237		237	237		237	237		237	237		237	NA	
	Costs	\$0	\$20	\$308	\$1,182	\$138	\$0	\$1,648		\$1,974	\$17,619	\$13,654		\$2,016	\$17,987	\$13,939		\$2,055	\$18,340	\$14,213		\$13,935	\$13,935		\$13,935	\$13,935		\$13,935	\$13,935		\$18,340	NA
7 - Supervision	Hours	0	0	0	6	9	3	18	NA	180	180		NA	180	180		NA	180	180		180	180		180	180		180	180		180	NA	
	Costs	\$0	\$0	\$0	\$296	\$499	\$176	\$971		\$1,163	\$11,633	\$11,633		\$1,188	\$11,875	\$11,875		\$1,211	\$12,108	\$12,108		\$11,872	\$11,872		\$11,872	\$11,872		\$11,872	\$11,872		NA	NA
Total	Hours	0	23	51	102	15	4	194	NA	1,600	1,725		NA	1,600	1,725		NA	1,600	1,725		1,725	1,725		1,725	1,725		1,725	1,725		1,725	NA	
	Costs	\$0	\$281	\$1,560	\$5,026	\$831	\$205	\$12,238	\$14,661	\$119,213	\$172,734		\$14,938	\$121,405	\$176,043		\$15,203	\$123,510	\$179,220		\$115,200	\$115,200		\$115,200	\$115,200		\$115,200	\$115,200		\$92,819	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
NA
NA

NA
\$39,125
NA
\$146,720
NA
NA
NA
NA
NA
NA
NA
NA
NA
NA
\$185,845

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	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	7	\$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		
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