

CEMRC Radiological Results Station A B

Station A (WIPP Exhaust Pre-HEPA Filter)											
Date/Time Installed	Date/Time Removed	241Am Bq/Sample Gamma Spectroscopy	241Am Bq/m3* Gamma	241Am Bq/Sample Alpha Spectroscopy	241Am Bq/m3* Alpha	239+240Pu Bq/Sample Alpha	239+240Pu Bq/m3* Alpha	238Pu Bq/Sample Alpha	238Pu Bq/m3* Alpha	137Cs Bq/Sample Gamma	137Cs Bq/m3* Gamma
2/14/14, 07:43	2/15/14, 06:30	96,333.33	1,364.95	306,000.00	4,335.71	47,400.00	671.61	2,140.00	30.32	0.34	0.0049
2/15/14, 06:30	2/15/14, 08:40	3,830.00	520.00	8,660.00	1,175.76	1,374.00	186.55	72.00	9.78	n/d	n/d
2/15/14, 08:40	2/15/14, 23:30	6,540.00	135.80	11,150.00	231.53	870.00	18.07	37.60	0.7808	n/d	n/d
2/15/14, 23:30	2/16/14, 08:50	831.33	26.20	Bad recovery	Bad recovery	40.21	1.27	1.80	0.0570	n/d	n/d
2/16/14, 08:50	2/16/14, 16:50	227.38	8.36	229.32	8.43	17.05	0.6270	1.24	0.0457	n/d	n/d
2/16/14, 16:50	2/17/14, 00:15	76.50	3.03	73.36	2.91	6.19	0.2454	4.03	0.1599	n/d	n/d
2/17/14, 00:15	2/17/14, 08:20	58.17	2.12	57.96	2.11	5.01	0.1824	0.626	0.0228	n/d	n/d
2/17/14, 08:20	2/17/14, 16:20	25.90	0.953	21.14	0.777	1.93	0.0710	0.146	0.0054	n/d	n/d
2/17/14, 16:20	2/18/14, 00:10	18.96	0.712	37.12	1.394	1.85	0.0694	0.090	0.0034	n/d	n/d
2/18/14, 00:10	2/18/14, 08:20	6.96	0.251	12.88	0.464	0.700	0.0252	0.032	0.0011	n/d	n/d
2/18/14, 08:20	2/18/14, 16:05	8.22	0.312	9.29	0.353	0.820	0.0311	0.039	0.0015	n/d	n/d
2/18/14, 16:05	2/19/14, 00:40	12.16	0.417	10.66	0.365	0.950	0.0326	0.044	0.0015	n/d	n/d
2/19/14, 00:40	2/19/14, 08:23	5.28	0.201	4.62	0.176	0.380	0.0145	0.018	0.0007	n/d	n/d
2/19/14, 08:23	2/19/14, 16:00	4.60	0.178	3.86	0.149	0.358	0.0138	0.020	0.0008	n/d	n/d
2/19/14, 16:00	2/20/14, 00:08	3.98	0.144	4.32	0.156	0.432	0.0156	0.016	0.0006	n/d	n/d
2/20/14, 00:10	2/20/14, 08:17	8.12	0.294	8.28	0.300	0.724	0.0262	0.031	0.0011	n/d	n/d
2/20/14, 08:17	2/20/14, 16:24	3.58	0.130	3.34	0.121	0.302	0.0109	0.013	0.0005	n/d	n/d
02/20/14, 16:24	02/21/14, 00:12	4.82	0.182	4.16	0.157	0.428	0.0161	0.021	0.0008	n/d	n/d
02/21/14, 00:12	02/21/14, 08:45	9.68	0.333	8.98	0.309	0.810	0.0279	0.039	0.0013	n/d	n/d
2/21/14, 08:45	2/22/14, 0:50	7.86	0.144	8.18	0.150	0.870	0.0160	0.037	0.0007	n/d	n/d
2/22/14, 0:50	2/23/14, 0:11	34.00	0.428	29.12	0.367	3.460	0.0440	0.150	0.0019	n/d	n/d
2/23/14, 0:11	2/24/14, 0:25	12.52	0.191	11.80	0.180	1.370	0.0210	0.061	0.0009	n/d	n/d
2/24/14, 0:25	2/25/14, 0:05	6.36	0.079	7.24	0.090	0.662	0.0080	0.037	0.0005	n/d	n/d
2/25/14, 0:05	2/26/14, 0:25	4.76	0.058	5.20	0.063	0.480	0.0060	0.344	0.0042	n/d	n/d
2/26/14, 0:25	2/27/14, 0:15	2.48	0.031	1.74	0.021	0.175	0.0020	0.007	0.00009	n/d	n/d
2/27/14, 0:15	2/28/14, 0:16	1.44	0.017	1.41	0.017	0.143	0.0020	0.007	0.00009	n/d	n/d
2/28/14, 0:16	3/1/14, 1:04	n/a	n/a	1.03	0.012	0.088	0.0010	0.004	0.00004	n/d	n/d
3/1/14, 1:04	3/2/14, 0:07	n/a	n/a	1.79	0.023	0.188	0.0024	0.008	0.00008	n/d	n/d
3/2/14, 0:07	3/3/14, 1:06	n/a	n/a	1.32	0.016	0.126	0.0015	0.005	0.00010	n/d	n/d
3/3/14, 1:06	3/4/14, 0:34	n/a	n/a	1.01	0.013	0.114	0.0014	0.004	0.00010	n/d	n/d
3/4/14, 0:34	3/5/14, 0:22	2.76	0.034	2.88	0.036	0.278	0.0034	0.013	0.00016	n/d	n/d
3/5/14, 0:22	3/6/14, 0:40	1.59	0.020	1.79	0.022	0.172	0.0021	0.008	0.00010	n/d	n/d
3/6/14, 0:40	3/7/14, 0:15	0.69	0.010	0.77	0.010	0.078	0.0010	0.004	0.00004	n/d	n/d
3/7/14, 0:15	3/8/14, 0:29	1.39	0.020	1.70	0.021	0.044	0.0005	0.004	0.00004	n/d	n/d
3/8/14, 0:29	3/9/14, 0:20	0.75	0.009	0.77	0.010	0.078	0.0010	0.003	0.00004	n/d	n/d
3/9/14, 0:20	3/10/14, 0:10	0.83	0.010	0.62	0.008	0.060	0.0007	0.002	0.00003	n/d	n/d
3/10/14, 0:10	3/11/14, 0:30	1.15	0.014	1.10	0.013	0.099	0.0012	0.005	0.00006	n/d	n/d
3/11/14, 0:30	3/12/14, 0:10	1.20	0.015	1.08	0.013	0.107	0.0013	0.005	0.00006	n/d	n/d
3/12/14, 0:10	3/13/14, 0:20	0.64	0.008	0.85	0.010	0.063	0.0008	0.003	0.00004	n/d	n/d
3/13/14, 0:20	3/14/14, 0:18	4.68	0.057	7.14	0.088	0.720	0.0090	0.034	0.00040	n/d	n/d
3/14/14, 0:18	3/15/14, 0:05	0.48	0.006	0.52	0.006	0.050	0.0006	0.002	0.00003	n/d	n/d
3/15/14, 0:05	3/16/14, 0:01	1.11	0.014	0.89	0.011	0.088	0.0011	0.005	0.00006	n/d	n/d
3/16/14, 0:01	3/17/14, 0:07	0.47	0.006	0.49	0.006	0.055	0.0007	0.003	0.00004	n/d	n/d
3/17/14, 0:07	3/18/14, 0:01	0.45	0.006	0.61	0.008	0.051	0.0006	0.002	0.00002	n/d	n/d
3/18/14, 0:01	3/19/14, 0:15	1.43	0.017	1.26	0.015	0.161	0.0020	0.005	0.00006	n/d	n/d
3/19/14, 0:15	3/20/14, 0:05	0.58	0.007	0.72	0.009	0.082	0.0010	0.003	0.00004	n/d	n/d
3/20/14, 0:05	3/21/14, 0:05	0.97	0.012	1.18	0.014	0.108	0.0013	0.006	0.00007	n/d	n/d
3/21/14, 0:05	3/22/14, 0:10	1.06	0.013	1.28	0.016	0.129	0.0016	0.006	0.00007	n/d	n/d
3/22/14, 0:10	3/23/14, 0:15	0.74	0.009	0.87	0.011	0.085	0.0010	0.004	0.00005	n/d	n/d
3/23/14, 0:15	3/24/14, 0:15	1.57	0.019	1.54	0.019	0.153	0.0019	0.007	0.00009	n/d	n/d
3/24/14, 0:15	3/25/14, 0:15	1.53	0.019	1.58	0.019	0.171	0.0021	0.007	0.00008	n/d	n/d
3/25/14, 0:15	3/26/14, 0:33	1.06	0.013	1.12	0.014	0.125	0.0015	0.005	0.00006	n/d	n/d
3/26/14, 0:33	3/27/14, 0:01	1.02	0.013	0.84	0.011	0.094	0.0012	0.004	0.00005	n/d	n/d
3/27/14, 0:01	3/28/14, 0:16	0.63	0.008	0.61	0.007	0.064	0.0008	0.004	0.00004	n/d	n/d
3/28/14, 0:16	3/29/14, 0:00	1.71	0.021	2.04	0.025	0.220	0.0027	0.011	0.00013	n/d	n/d
3/29/14, 0:00	3/29/14, 23:40	0.52	0.006	0.61	0.008	0.085	0.0011	0.005	0.00006	n/d	n/d
3/29/14, 23:40	3/31/14, 0:35	0.36	0.004	0.56	0.007	0.052	0.0006	0.002	0.00002	n/d	n/d
3/31/14, 0:35	4/1/14, 0:00	0.26	0.003	0.30	0.004	0.033	0.0004	0.002	0.00002	n/d	n/d

n/d = no detection Bq/m3* = Total activity is converted to activity per cubic meter (m3) using flow rate and time Grey shaded area reflects composite sample (three 8-hour periods)

Results for 241Am were obtained by analyzing samples on both Gamma Spectroscopy and Alpha Spectroscopy, results from each instrument type are provided.

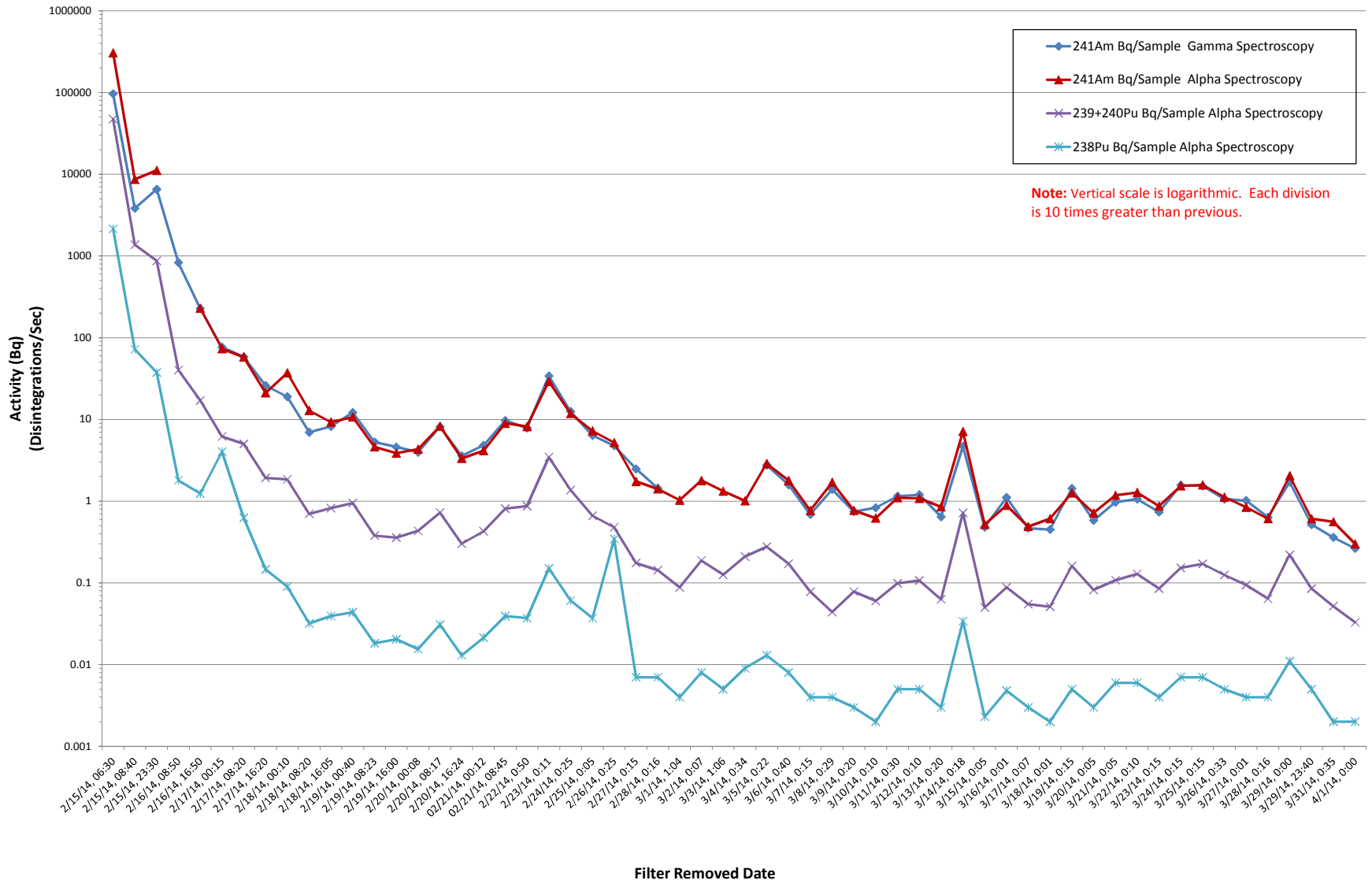
CEMRC Radiological Results Station A B

Station B (WIPP Exhaust Post-HEPA Filter)											
Date/Time Installed	Date/Time Removed	241Am Bq/Sample Gamma Spectroscopy	241Am Bq/m3* Gamma	241Am Bq/Sample Alpha Spectroscopy	241Am Bq/m3* Alpha	239+240Pu Bq/Sample Alpha	239+240Pu Bq/m3* Alpha	238Pu Bq/Sample Alpha	238Pu Bq/m3* Alpha	137Cs Bq/Sample Gamma	137Cs Bq/m3* Gamma
2/14/14, 07:55	2/18/14, 16:55	667.90	1.83	842.00	2.30	82.73	0.2261	11.94	0.03260	n/d	n/d
2/18/14, 16:55	2/19/14, 01:10	1.35	0.0470	1.700	0.0587	0.148	0.0051	0.0066	0.00020	n/d	n/d
2/19/14, 01:11	2/19/14, 09:00	0.75	0.0272	0.930	0.0337	0.105	0.0038	0.0053	0.00019	n/d	n/d
2/19/14, 09:00	2/19/14, 16:27	1.33	0.0507	1.530	0.0582	0.202	0.0077	0.0114	0.00043	n/d	n/d
2/19/14, 16:27	2/20/14, 00:35	1.21	0.0423	1.450	0.0506	0.121	0.0042	0.0063	0.00022	n/d	n/d
2/20/14, 00:35	2/20/14, 08:52	1.14	0.0390	1.08	0.0372	0.101	0.0035	0.0039	0.00013	n/d	n/d
2/20/14, 08:52	2/20/14, 16:54	1.89	0.0670	1.950	0.0688	0.199	0.0070	0.0066	0.00024	n/d	n/d
2/20/14, 16:54	2/21/14, 00:38	0.48	0.0176	0.926	0.0340	0.084	0.0031	0.0057	0.00021	n/d	n/d
2/21/14, 00:38	2/21/14, 08:28	0.68	0.0247	0.736	0.0268	0.062	0.0022	0.0028	0.00010	n/d	n/d
2/21/14, 8:20	2/22/14, 0:19	2.02	0.0360	2.520	0.0450	0.250	0.0045	0.0110	0.00020	n/d	n/d
2/22/14, 0:19	2/22/14, 23:56	0.91	0.0110	1.580	0.0190	0.150	0.0018	0.0060	0.00010	n/d	n/d
2/22/14, 23:56	2/24/14, 0:15	1.06	0.0120	1.040	0.0120	0.098	0.0012	0.0040	0.00010	n/d	n/d
2/24/14, 0:15	2/25/14, 0:16	0.40	0.0050	0.514	0.0060	0.054	0.0006	0.0020	0.00002	n/d	n/d
2/25/14, 0:16	2/26/14, 0:10	0.21	0.0030	0.298	0.0035	0.027	0.0003	0.0050	0.00006	n/d	n/d
2/26/14, 0:10	2/27/14, 0:30	0.44	0.0050	0.340	0.0040	0.037	0.0004	0.0060	0.00007	n/d	n/d
2/27/14, 0:30	2/28/14, 0:12	0.27	0.0030	0.296	0.0036	0.031	0.0004	0.0070	0.00008	n/d	n/d
2/28/14, 0:12	3/1/14, 1:44	n/a	n/a	0.296	0.0030	0.029	0.0003	0.0010	0.00002	n/d	n/d
3/1/14, 1:44	3/2/14, 0:45	n/a	n/a	0.368	0.0050	0.036	0.0005	0.0020	0.00002	n/d	n/d
3/2/14, 0:45	3/3/14, 0:20	n/a	n/a	0.958	0.0120	0.087	0.0011	0.0050	0.00010	n/d	n/d
3/3/14, 0:20	3/4/14, 1:14	n/a	n/a	1.03	0.0120	0.204	0.0023	0.0086	0.00010	n/d	n/d
3/4/14, 1:14	3/5/14, 0:05	0.180	0.0020	0.386	0.0050	0.025	0.0003	0.0010	0.00001	n/d	n/d
3/5/14, 0:05	3/6/14, 0:15	1.45	0.0170	1.66	0.0200	0.156	0.0018	0.0080	0.00009	n/d	n/d
3/6/14, 0:15	3/7/14, 0:01	0.112	0.0010	0.136	0.0020	0.013	0.0002	0.0001	0.000002	n/d	n/d
3/7/14, 0:01	3/8/14, 0:15	0.196	0.0020	0.252	0.0030	0.085	0.0010	0.0030	0.00004	n/d	n/d
3/8/14, 0:15	3/9/14, 0:45	0.306	0.0040	0.406	0.0050	0.032	0.0004	0.0020	0.00002	n/d	n/d
3/9/14, 0:45	3/10/14, 0:10	n/d	n/d	0.095	0.0012	0.009	0.0001	0.0003	0.000003	n/d	n/d
3/10/14, 0:10	3/11/14, 0:50	n/d	n/d	0.089	0.0010	0.007	0.0001	0.0010	0.00001	n/d	n/d
3/11/14, 0:50	3/12/14, 0:30	1.58	0.0190	1.36	0.0164	0.137	0.0017	0.0055	0.00007	n/d	n/d
3/12/14, 0:30	3/13/14, 0:47	0.478	0.0060	0.426	0.0050	0.038	0.0004	0.0018	0.00002	n/d	n/d
3/13/14, 0:47	3/14/14, 0:50	0.137	0.0020	0.195	0.0020	0.019	0.0002	0.0004	0.000005	n/d	n/d
3/14/14, 0:50	3/15/14, 0:20	0.103	0.0010	0.094	0.0010	0.010	0.0001	0.0004	0.000005	n/d	n/d
3/15/14, 0:20	3/16/14, 0:30	0.166	0.0020	0.328	0.0040	0.030	0.0004	0.0054	0.000060	n/d	n/d
3/16/14, 0:30	3/17/14, 0:30	0.298	0.0040	0.112	0.0013	0.011	0.0001	0.0006	0.000007	n/d	n/d
3/17/14, 0:30	3/18/14, 0:15	n/a	n/a	0.050	0.0006	0.003	0.00004	0.0006	0.000007	n/d	n/d
3/18/14, 0:15	3/19/14, 0:30	n/a	n/a	0.174	0.0020	0.019	0.0002	0.0005	0.000006	n/d	n/d
3/19/14, 0:30	3/20/14, 0:20	n/a	n/a	0.246	0.0029	0.025	0.0003	0.0015	0.000018	n/d	n/d
3/20/14, 0:20	3/21/14, 0:20	n/a	n/a	0.137	0.0016	0.011	0.0001	0.0009	0.000011	n/d	n/d
3/21/14, 0:20	3/22/14, 0:01	n/a	n/a	0.083	0.0010	0.006	0.0001	0.0004	0.000005	n/d	n/d
3/22/14, 0:01	3/23/14, 0:00	n/a	n/a	0.062	0.0007	0.006	0.0001	0.0003	0.000004	n/d	n/d
3/23/14, 0:00	3/24/14, 0:00	n/a	n/a	0.053	0.0006	0.003	0.00004	n/d	n/d	n/d	n/d
3/24/14, 0:00	3/25/14, 0:00	n/a	n/a	0.043	0.0005	0.003	0.00004	n/d	n/d	n/d	n/d
3/25/14, 0:00	3/26/14, 0:12	n/a	n/a	0.039	0.0005	0.005	0.00005	0.0001	0.000002	n/d	n/d
3/26/14, 0:12	3/27/14, 0:20	n/a	n/a	0.018	0.0002	0.002	0.00002	n/d	n/d	n/d	n/d
3/27/14, 0:20	3/28/14, 0:01	n/a	n/a	0.032	0.0004	0.004	0.00005	0.0005	0.000006	n/d	n/d
3/28/14, 0:01	3/29/14, 0:20	n/a	n/a	0.033	0.0004	0.004	0.00004	n/d	n/d	n/d	n/d
3/29/14, 0:20	3/30/14, 0:25	n/a	n/a	0.024	0.0003	0.004	0.00005	n/d	n/d	n/d	n/d
3/30/14, 0:25	3/31/14, 1:00	n/a	n/a	0.026	0.0003	0.002	0.00003	0.0007	0.000008	n/d	n/d
3/31/14, 1:00	4/1/14, 0:20	n/a	n/a	0.018	0.0002	0.002	0.00003	n/d	n/d	n/d	n/d

n/d = no detection Bq/m3* = Total activity is converted to activity per cubic meter (m3) using flow rate and time Grey shaded area reflects composite sample (three 8-hour periods)

Results for 241Am were obtained by analyzing samples on both Gamma Spectroscopy and Alpha Spectroscopy, results from each instrument type are provided.

Station A Activity



Station B Activity

