

APPENDIX G

Meteorological Data including Excerpts of
Raw Data and Select Files

Outline of Included Files:

- Raw Met Data File for 2008 – excerpt
- Stage 1 Input File for 2008
- Stage 1 Input File for 2009
- Stage 1 Input File for 2010
- Stage 1 Report File for 2008
- Stage 1 Report File for 2009 – excerpt
- Stage 1 Report File for 2010 – excerpt
- Stage 2 Input File for 2008
- Stage 2 Input File for 2009
- Stage 2 Input File for 2010
- Stage 3 Input File for 2008
- Stage 3 Input File for 2009
- Stage 3 Input File for 2010
- Final Processed Combined Surface File for 2008-2010 – excerpt
- Final Processed Combined Profile File for 2008-2010 – excerpt

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

Excerpt of Raw Onsite Data from Doe Run Herculaneum as formatted for input into AERMET Stage 1, for first full day of 2008. Data for full years of 2008-2010 were used for this analysis and raw data are available in full digital form upon request but are not included in print for brevity.

2008 Raw Data File Excerpt (Herc2008.txt) (First Day of 2008)

08	1	1	0	15	7.21	4.64	282.40	283.40	10.68	13.33	-1.32	-1.08	-1.11	63.25	-47.51	0.057	0	10047.4488
08	1	1	0	30	7.19	4.71	281.20	283.10	11.58	14.43	-1.44	-1.21	-1.23	63.43	-47.93	0.042	0	10050.8352
08	1	1	0	45	7.98	5.13	280.30	283.30	10.37	14.63	-1.54	-1.30	-1.33	62.81	-47.98	0.048	0	10050.8352
08	1	1	1	0	9.45	6.10	283.40	282.10	11.30	13.47	-1.65	-1.40	-1.42	61.32	-48.16	0.027	0	10050.8352
08	1	1	1	15	8.30	5.47	282.20	284.80	10.50	13.18	-1.83	-1.57	-1.58	61.33	-48.22	0.025	0	10050.8352
08	1	1	1	30	7.61	5.03	283.90	287.30	10.15	12.57	-2.01	-1.75	-1.77	62.03	-48.29	0.036	0	10054.2216
08	1	1	1	45	6.82	4.50	283.20	283.80	9.94	12.78	-2.20	-1.95	-1.96	63.00	-48.43	0.024	0	10057.608
08	1	1	2	0	7.21	4.53	283.20	286.00	11.95	13.93	-2.37	-2.12	-2.13	63.50	-48.41	0.024	0	10060.9944
08	1	1	2	15	6.86	4.16	279.80	279.10	9.23	12.83	-2.54	-2.29	-2.31	64.43	-48.29	0.033	0	10060.9944
08	1	1	2	30	6.24	4.07	280.60	282.90	9.49	13.22	-2.71	-2.46	-2.47	65.39	-48.30	0.03	0	10064.3808
08	1	1	2	45	9.41	5.99	284.60	285.30	9.64	13.02	-2.81	-2.54	-2.54	65.93	-48.12	-0.007	0	10067.7672
08	1	1	3	0	8.89	5.96	285.40	285.20	9.17	12.54	-2.89	-2.62	-2.60	66.42	-48.03	-0.024	0	10067.7672
08	1	1	3	15	7.71	5.04	282.20	284.10	10.49	14.19	-3.05	-2.78	-2.78	67.76	-47.25	-0.009	0	10074.54
08	1	1	3	30	8.56	5.85	284.10	286.00	10.59	13.32	-3.19	-2.91	-2.88	68.13	-46.74	-0.041	0	10074.54
08	1	1	3	45	7.87	5.32	291.00	294.30	10.79	12.55	-3.34	-3.06	-3.05	68.69	-47.90	-0.024	0	10074.54
08	1	1	4	0	6.29	4.30	286.40	288.00	11.35	13.20	-3.45	-3.17	-3.17	69.32	-48.32	0.006	0	10077.9264
08	1	1	4	15	6.34	4.30	287.60	289.70	11.09	14.21	-3.56	-3.28	-3.28	70.10	-48.32	0.006	0	10081.3128
08	1	1	4	30	6.36	4.39	277.50	277.30	11.79	14.45	-3.68	-3.41	-3.40	70.79	-48.54	-0.007	0	10081.3128
08	1	1	4	45	6.34	4.18	284.50	285.60	10.24	14.26	-3.78	-3.52	-3.51	71.00	-48.87	-0.012	0	10081.3128
08	1	1	5	0	6.10	3.98	280.40	282.80	10.68	14.27	-3.87	-3.62	-3.63	71.78	-48.93	0.003	0	10084.6992
08	1	1	5	15	6.46	4.04	281.30	284.80	9.74	12.74	-3.89	-3.64	-3.64	71.98	-44.55	0.008	0	10088.0856
08	1	1	5	30	6.45	4.52	280.50	283.40	12.42	14.63	-3.94	-3.67	-3.67	72.01	-47.81	0.006	0	10091.472
08	1	1	5	45	6.93	4.37	281.80	282.40	9.74	14.26	-3.96	-3.71	-3.71	71.56	-49.32	0.011	0	10091.472
08	1	1	6	0	6.26	4.06	277.30	275.80	8.67	12.93	-4.03	-3.79	-3.79	71.98	-49.51	-0.001	0	10091.472

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

08	1	1	6	15	6.65	4.32	274.30	275.50	8.59	13.59	-4.04	-3.83	-3.84	72.14	-50.31	0.019	0	10094.8584
08	1	1	6	30	6.59	4.23	278.40	280.50	9.54	13.80	-4.10	-3.87	-3.87	70.49	-50.94	0.001	0	10098.2448
08	1	1	6	45	8.49	5.84	281.00	282.90	8.92	12.96	-4.07	-3.81	-3.81	66.00	-51.32	-0.006	0	10098.2448
08	1	1	7	0	6.73	4.53	285.90	285.50	9.77	13.13	-4.18	-3.93	-3.93	62.52	-50.89	0.007	0	10101.6312
08	1	1	7	15	5.50	3.38	278.50	281.50	10.54	14.55	-4.32	-4.08	-4.07	63.89	-38.10	-0.025	1.74	10101.6312
08	1	1	7	30	5.75	3.85	274.90	275.70	10.66	14.57	-4.28	-3.99	-3.95	62.36	-24.63	-0.082	8.05	10101.6312
08	1	1	7	45	6.23	4.31	277.40	276.80	10.36	13.57	-4.17	-3.87	-3.78	60.37	-12.17	-0.158	11.35	10101.6312
08	1	1	8	0	7.64	4.84	280.60	281.00	9.34	14.98	-4.10	-3.78	-3.68	57.52	-3.45	-0.184	20.68	10101.6312
08	1	1	8	15	8.11	5.41	280.50	283.30	9.99	14.10	-4.03	-3.71	-3.60	55.43	3.28	-0.195	36.55	10105.0176
08	1	1	8	30	7.38	4.78	286.60	289.40	13.60	15.28	-4.03	-3.71	-3.63	53.77	-6.69	-0.149	53.99	10105.0176
08	1	1	8	45	9.54	6.43	289.00	289.10	12.09	13.86	-3.95	-3.63	-3.52	49.45	13.37	-0.187	118.5	10108.404
08	1	1	9	0	9.31	6.31	291.70	294.40	13.62	15.45	-3.82	-3.46	-3.28	45.40	44.72	-0.33	194.2	10111.7904
08	1	1	9	15	10.59	6.97	288.00	289.80	10.46	13.77	-3.90	-3.50	-3.27	45.19	69.40	-0.422	248	10111.7904
08	1	1	9	30	9.39	6.34	284.90	287.40	8.67	13.41	-3.84	-3.43	-3.13	45.81	103.30	-0.528	292.2	10115.1768
08	1	1	9	45	10.39	7.33	295.30	296.30	11.15	13.14	-3.83	-3.40	-3.08	44.13	133.40	-0.565	348.3	10118.5632
08	1	1	10	0	11.26	8.03	292.90	296.10	11.03	13.12	-4.04	-3.62	-3.31	43.67	-16.70	-0.559	332	10118.5632
08	1	1	10	15	11.50	8.07	283.50	284.00	11.65	14.87	-4.03	-3.58	-3.19	43.51	26.35	-0.691	377.4	10121.9496
08	1	1	10	30	11.13	7.41	290.00	290.90	11.13	14.04	-4.21	-3.74	-3.37	43.29	150.80	-0.665	370.5	10121.9496
08	1	1	10	45	9.96	7.24	294.10	296.00	14.91	15.36	-4.47	-4.01	-3.66	44.60	154.70	-0.632	353.1	10125.336

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

08	1	1	11	0	8.89	6.51	287.20	287.20	11.72	15.25	-4.23	-3.78	-3.32	44.89	236.90	-0.839	473
10125.336																	
08	1	1	11	15	8.55	5.95	287.20	289.80	16.55	20.26	-4.11	-3.56	-3.09	45.77	195.70	-0.857	376.6
10121.9496																	
08	1	1	11	30	9.17	6.16	285.00	286.80	11.43	16.87	-4.55	-4.01	-3.51	52.23	179.60	-0.899	367.4
10121.9496																	
08	1	1	11	45	10.40	7.30	285.60	287.60	17.40	17.97	-4.32	-3.74	-3.27	43.81	253.30	-0.858	468.3
10121.9496																	
08	1	1	12	0	8.87	6.30	294.00	296.00	15.52	17.40	-4.27	-3.72	-3.24	42.03	231.00	-0.854	428.8
10121.9496																	
08	1	1	12	15	9.89	6.87	295.20	298.30	10.41	13.28	-4.87	-4.38	-4.06	48.79	97.10	-0.589	199.9
10121.9496																	
08	1	1	12	30	10.13	6.75	290.20	292.80	13.48	15.25	-4.83	-4.36	-3.98	45.87	170.80	-0.683	326.8
10121.9496																	
08	1	1	12	45	10.40	7.44	289.40	293.10	10.75	13.21	-4.97	-4.47	-4.09	44.33	157.40	-0.673	306.4
10125.336																	
08	1	1	13	0	8.08	5.93	292.40	293.40	15.11	15.70	-4.82	-4.35	-4.03	44.73	100.90	-0.57	210.1
10125.336																	
08	1	1	13	15	9.34	6.52	292.60	293.20	11.13	12.89	-4.96	-4.51	-4.22	43.44	86.10	-0.526	194.5
10125.336																	
08	1	1	13	30	9.80	6.78	276.30	277.90	9.08	13.19	-4.66	-4.11	-3.57	41.84	268.40	-0.976	478
10125.336																	
08	1	1	13	45	7.93	5.40	286.60	288.70	14.20	18.01	-4.44	-3.98	-3.54	42.02	143.70	-0.789	272.9
10128.7224																	
08	1	1	14	0	9.46	7.05	293.30	294.50	12.51	14.28	-4.47	-4.01	-3.61	41.07	213.00	-0.717	382.4
10125.336																	
08	1	1	14	15	9.50	6.21	281.20	280.80	12.88	17.19	-4.55	-4.02	-3.63	40.49	102.40	-0.701	214.6
10128.7224																	
08	1	1	14	30	8.25	5.84	298.90	300.00	10.83	13.46	-4.87	-4.43	-4.14	43.44	59.50	-0.518	149.1
10132.1088																	
08	1	1	14	45	9.25	6.38	301.90	304.90	13.36	16.63	-4.72	-4.32	-4.07	42.28	62.96	-0.44	152.1
10132.1088																	

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

08	1	1	15	0	10.16	6.99	287.00	286.80	13.50	16.06	-4.65	-4.24	-3.96	40.29	61.64	-0.516	176.6	10135.4952
08	1	1	15	15	9.60	6.78	285.20	284.50	11.51	14.81	-4.61	-4.18	-3.91	39.33	63.95	-0.498	161.7	10135.4952
08	1	1	15	30	9.67	6.64	286.40	288.20	11.77	13.57	-4.76	-4.37	-4.14	39.00	24.56	-0.397	115.5	10138.8816
08	1	1	15	45	9.28	6.45	298.80	299.90	11.63	15.30	-4.94	-4.58	-4.43	39.75	6.69	-0.266	73.39	10142.268
08	1	1	16	0	7.83	5.20	293.60	297.40	15.32	17.45	-5.10	-4.74	-4.63	40.00	-1.10	-0.197	70.89	10145.6544
08	1	1	16	15	9.41	6.24	286.70	290.70	11.39	12.93	-5.14	-4.81	-4.69	39.74	-13.52	-0.201	44.66	10145.6544
08	1	1	16	30	9.28	6.14	291.80	294.10	10.41	12.80	-5.28	-4.94	-4.86	39.76	-28.48	-0.159	23.46	10149.0408
08	1	1	16	45	9.52	6.53	302.30	303.90	11.11	14.28	-5.54	-5.21	-5.12	39.96	-32.74	-0.162	8.94	10152.4272
08	1	1	17	0	8.93	6.08	297.00	300.40	11.79	14.32	-5.89	-5.58	-5.52	42.59	-47.08	-0.113	3.657	10155.8136
08	1	1	17	15	10.30	7.28	294.80	296.00	10.85	12.83	-6.18	-5.86	-5.79	44.93	-51.93	-0.12	0.542	10155.8136
08	1	1	17	30	9.17	6.22	294.30	295.10	10.58	12.34	-6.38	-6.08	-6.03	45.03	-55.61	-0.084	0	10159.2
08	1	1	17	45	8.82	6.06	292.10	294.10	9.62	13.31	-6.53	-6.23	-6.19	44.91	-55.43	-0.077	0	10159.2
08	1	1	18	0	9.38	6.56	294.20	297.50	10.63	13.43	-6.64	-6.34	-6.30	44.45	-55.23	-0.081	0	10159.2
08	1	1	18	15	8.73	5.91	295.30	296.40	11.52	14.00	-6.78	-6.49	-6.45	45.58	-55.02	-0.071	0	10162.5864
08	1	1	18	30	8.24	5.83	292.20	292.90	10.54	12.91	-6.93	-6.63	-6.59	46.91	-55.09	-0.076	0	10162.5864
08	1	1	18	45	7.78	5.28	293.90	296.20	11.78	13.08	-7.08	-6.80	-6.77	48.53	-55.04	-0.055	0	10165.9728
08	1	1	19	0	7.90	5.67	295.30	297.00	10.43	13.63	-7.19	-6.92	-6.88	49.58	-54.85	-0.072	0	10165.9728
08	1	1	19	15	7.66	5.40	295.50	298.10	11.20	12.45	-7.32	-7.03	-6.99	50.60	-54.64	-0.067	0	10169.3592

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

08	1	1	19	30	6.15	4.33	294.00	295.10	11.06	13.31	-7.50	-7.21	-7.17	52.13	-54.86	-0.06	0	10169.3592
08	1	1	19	45	5.63	3.52	287.60	290.80	10.38	14.90	-7.68	-7.41	-7.38	53.94	-54.93	-0.032	0	10172.7456
08	1	1	20	0	6.52	4.60	290.50	289.00	8.76	12.74	-7.81	-7.52	-7.48	54.78	-54.03	-0.068	0	10172.7456
08	1	1	20	15	6.61	4.41	289.40	291.20	12.25	14.84	-7.97	-7.68	-7.64	56.45	-53.76	-0.071	0	10172.7456
08	1	1	20	30	7.06	4.76	288.40	291.50	11.12	13.01	-8.15	-7.85	-7.80	57.38	-53.37	-0.087	0	10172.7456
08	1	1	20	45	7.95	5.46	290.80	292.70	10.37	12.71	-8.31	-8.01	-7.94	57.67	-52.84	-0.116	0	10176.132
08	1	1	21	0	8.09	5.47	292.80	294.40	12.10	13.25	-8.46	-8.16	-8.09	57.27	-52.89	-0.107	0	10176.132
08	1	1	21	15	7.41	5.14	293.50	296.90	12.53	14.29	-8.61	-8.31	-8.25	56.84	-53.01	-0.098	0	10176.132
08	1	1	21	30	5.45	3.92	295.40	296.40	11.92	13.07	-8.80	-8.51	-8.47	57.95	-53.63	-0.07	0	10179.5184
08	1	1	21	45	4.89	3.32	301.10	304.50	14.70	16.74	-8.99	-8.71	-8.69	58.58	-54.01	-0.021	0	10179.5184
08	1	1	22	0	7.15	4.92	302.10	302.20	10.05	12.49	-9.19	-8.89	-8.84	58.25	-53.34	-0.09	0	10179.5184
08	1	1	22	15	7.10	4.62	302.00	303.50	13.23	14.75	-9.41	-9.11	-9.05	58.62	-53.37	-0.098	0	10179.5184
08	1	1	22	30	6.53	4.58	297.80	299.10	12.11	13.39	-9.60	-9.29	-9.24	59.74	-52.76	-0.099	0	10182.9048
08	1	1	22	45	6.44	4.38	292.60	294.60	10.72	14.66	-9.78	-9.48	-9.41	60.51	-51.03	-0.121	0	10182.9048
08	1	1	23	0	6.62	4.34	297.70	297.90	11.46	14.27	-9.93	-9.62	-9.54	60.60	-48.75	-0.125	0	10182.9048
08	1	1	23	15	7.71	5.46	301.20	300.70	12.57	14.22	-10.12	-9.81	-9.73	59.54	-52.34	-0.142	0	10186.2912
08	1	1	23	30	6.66	4.62	298.40	295.90	10.91	11.88	-10.28	-9.97	-9.89	60.24	-50.84	-0.136	0	10186.2912
08	1	1	23	45	6.11	4.37	299.30	299.00	11.50	12.79	-10.42	-10.11	-10.04	61.08	-50.70	-0.126	0	10186.2912

AERMET Stage 1 Input File for 2008 (Stage1_2008.inp)

```
**MDNR APCP METEOROLOGICAL PROCESSING
**SO2 SIP
**STAGE 1 EXTRACTION OF ONSITE AND UPPER AIR DATA NOT INCLUDING SURFACE STATION DATA
**Doe Run Herculaneum On-Site\KILX
** taking out the ws, wd for the 2 meter tower.
JOB
MESSAGES .\Stage_1-no-sub\HERILX_OnSite-2008.MSG
REPORT .\Stage_1-no-sub\HERILX_OnSite-2008.RPT
**SURFACE
**DATA .\Raw_Data\IHSD_RawData-3505\725314-03960-2008.txt ISHD
**EXTRACT .\Stage_1\SFCHER_OnSITE-2008.DSK
**QAOUT .\Stage_1\SFCHER_OnSITEQA-2008.DSK
**LOCATION 3960 90.1487W 38.564N 6 126
**XDATES 08/01/01 TO 08/12/31
UPPERAIR
DATA .\Raw_Data\KILX_2008_FSL.txt FSL
EXTRACT .\Stage_1-no-sub\UAILX_OnSITE-2008.DSK
QAOUT .\Stage_1-no-sub\UAILX_ONSITEQA-2008.DSK
XDATES 08/01/01 TO 08/12/31
LOCATION 4833 89.43W 40.15N 6
ONSITE
DATA .\Raw_Data\Herc2008.txt
OBS/HOUR 4
OSHEIGHTS 2 10 40
DELTA_TEMP 1 2 10
**TOOK OUT SA01 FOR 2M LEVEL
READ 1 OSYR OSMO OSDY OSHR OSMN WS03 WS02 WD03 WD02 SA03 SA02 TT03 TT02 TT01 RH01 NRAD DT01 INSO PRES
Format 1 Free
XDATES 08/01/01 TO 08/12/31
```

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

LOCATION 99999 38.26N 90.38W 0 151
QAOUT .\Stage_1-no-sub\OnsiteQA-2008.DSK
**changed the SA range from 35 to 125 according to EPA QA guidelines
RANGE PAMT 0 <= 100 999
RANGE NRAD -100.00 <= 800.00 -999
RANGE DT01 -2 <= 5 -999
RANGE PRES 8000 < 10999 -999
AUDIT SA
RANGE SA 0.00 < 125.00 -999
RANGE SE 0.00 < 25.00 -999
AUDIT TT
RANGE TT -30.00 < 38.00 -999
AUDIT WD
RANGE WD 0.00 <= 360.00 -999
AUDIT WS
RANGE WS 0.00 < 50.00 -999
RANGE VV 0.0 < 5.00 999
RANGE RH 0.00 <= 100.00 -999
RANGE INSO 0 <= 1250 -999
AUDIT WS WD SA TT RH INSO NRAD PRES
NO_MISSING RH02 RH03 SA01 WS01 WD01
THRESHOLD 0.2

AERMET Stage 1 Input File for 2009 (Stage1_2009.inp)

**MDNR APCP METEOROLOGICAL PROCESSING
**SO2 SIP
**STAGE 1 EXTRACTION OF ONSITE AND UPPER AIR DATA NOT INCLUDING SURFACE STATION DATA
**Doe Run Herculaneum On-Site\KILX
** taking out the ws, wd for the 2 meter tower.
JOB
MESSAGES .\Stage_1-no-sub\HERILX_OnSite-2009.MSG

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

REPORT .\Stage_1-no-sub\HERILX_OnSite-2009.RPT

**SURFACE

**DATA ..\Raw_Data\IHSD_RawData-3505\725314-03960-2009.txt ISHD

**EXTRACT .\Stage_1\SFCHER_OnSITE-2009.DSK

**QAOUT .\Stage_1\SFCHER_OnSITEQA-2009.DSK

**LOCATION 3960 90.1487W 38.564N 6 126

**XDATES 09/01/01 TO 09/12/31

UPPERAIR

DATA .\Raw_Data\KILX_2009_FSL.txt FSL

EXTRACT .\Stage_1-no-sub\UAILX_OnSITE-2009.DSK

QAOUT .\Stage_1-no-sub\UAILX_ONSITEQA-2009.DSK

XDATES 09/01/01 TO 09/12/31

LOCATION 4833 89.43W 40.15N 6

ONSITE

DATA .\Raw_Data\Herc2009.txt

OBS/HOUR 4

OSHEIGHTS 2 10 40

DELTA_TEMP 1 2 10

**TOOK OUT SA01 FOR 2M LEVEL

READ 1 OSYR OSMO OSDY OSHR OSMN WS03 WS02 WD03 WD02 SA03 SA02 TT03 TT02 TT01 RH01 NRAD DT01 INSO PRES

Format 1 Free

XDATES 09/01/01 TO 09/12/31

LOCATION 99999 38.26N 90.38W 0 151

QAOUT .\Stage_1-no-sub\OnsiteQA-2009.DSK

RANGE PAMT 0 <= 100 999

RANGE NRAD -100.00 <= 800.00 -999.00

**RANGE DT01 -2 < 5 -999

RANGE DT01 -2 <= 5 -999

RANGE PRES 8000 < 10999 -999

AUDIT SA

RANGE SA 0.00 < 125.00 -999.00

**changed the SA range from 35 to 125 according to EPA QA guidelines

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

RANGE SE 0.00 < 25.00 -999.00
AUDIT TT
RANGE TT -30.00 < 38.00 -999.00
AUDIT WD
RANGE WD 0.00 <= 360.00 -999.00
AUDIT WS
RANGE WS 0.00 < 50.00 -999.00
RANGE VV 0.0 < 5.00 999
RANGE RH 0.00 <= 100.00 -999.00
RANGE INSO 0 <= 1250 -999
AUDIT WS WD SA TT RH INSO NRAD PRES
NO_MISSING RH02 RH03 SA01 WS01 WD01
THRESHOLD 0.2

AERMET Stage 1 Input File for 2010 (Stage1_2010.inp)

**MDNR APCP METEOROLOGICAL PROCESSING
**SO2 SIP
**STAGE 1 EXTRACTION OF ONSITE AND UPPER AIR DATA NOT INCLUDING SURFACE STATION DATA
**Doe Run Herculaneum On-Site\KILX
** taking out the ws, wd for the 2 meter tower.
JOB
MESSAGES .\Stage_1-no-sub\HERILX_OnSite-2010.MSG
REPORT .\Stage_1-no-sub\HERILX_OnSite-2010.RPT
**SURFACE
**DATA .\Raw_Data\IHSD_RawData-3505\725314-03960-2010.txt ISHD
**EXTRACT .\Stage_1\SFCHER_OnSITE-2010.DSK
**QAOUT .\Stage_1\SFCHER_OnSITEQA-2010.DSK
**LOCATION 3960 90.1487W 38.564N 6 126
**XDATES 10/01/01 TO 10/12/31
UPPERAIR
DATA .\Raw_Data\KILX_2010_FSL.txt FSL

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

```
EXTRACT  .\Stage_1-no-sub\UAILX_OnSITE-2010.DSK
QAOUT    .\Stage_1-no-sub\UAILX_ONSITEQA-2010.DSK
XDATES    10/01/01 TO 10/12/31
LOCATION    4833 89.43W 40.15N 6
ONSITE
DATA      .\Raw_Data\Herc2010.txt
OBS/HOUR  4
OSHEIGHTS 2 10 40
DELTA_TEMP 1 2 10
  READ 1 OSYR OSMO OSDY OSHR OSMN WS03 WS02 WD03 WD02 SA03 SA02 TT03 TT02 TT01 RH01 NRAD DT01 INSO PRES
Format 1 Free
XDATES    10/01/01 TO 10/12/31
LOCATION    99999 38.26N 90.38W 0 151
QAOUT     .\Stage_1-no-sub\OnsiteQA-2010.DSK
**TOOK OUT SA01 FOR 2M LEVEL
**changed the SA range from 35 to 125 according to EPA QA guidelines
RANGE PAMT 0 <= 100 999
RANGE NRAD -100.00 <= 800.00 -999
RANGE DT01 -2 <= 5 -999
RANGE PRES 8000 < 10999 -999
AUDIT SA
RANGE SA 0.00 < 125.00 -999
RANGE SE 0.00 < 25.00 -999
AUDIT TT
RANGE TT -30.00 < 38.00 -999
AUDIT WD
RANGE WD 0.00 <= 360.00 -999
AUDIT WS
RANGE WS 0.00 < 50.00 -999
RANGE VV 0.0 < 5.00 999
RANGE RH 0.00 <= 100.00 -999
RANGE INSO 0 <= 1250 -999
```

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

AUDIT WS WD SA TT RH INSO NRAD PRES
NO_MISSING RH02 RH03 SA01 WS01 WD01
THRESHOLD 0.2

Below are AERMET Stage 1 Report Files for each year 2008, 2009, 2010, indicating the data completeness for each year. The full file for 2008 is included and excerpts of 2009 and 2010 are included below for brevity.

Stage 1 Report 2008 (HERILX_ONSITE-2008.RPT)

AERMET, A Meteorological Processor for the AERMOD Dispersion Model

Version 14134

Data Processed on 28-APR-2015 at 09:03:42

Stage 1 Page 1

*** AERMET Setup Finished Successfully ***

1. Job File Names

Listing of Messages: .\STAGE_1-NO-SUB\HERILX_ONSITE-2008.MSG

Summary (this file): .\STAGE_1-NO-SUB\HERILX_ONSITE-2008.RPT

2. Upper Air Data

Site ID	Latitude(deg.)	Longitude(deg.)	Time Adjustment
4833	40.15N	89.43W	6

Data Format: FSL

AERMET Has Determined That Processing For This Pathway Includes:

EXTRACT AND QUALITY ASSESSMENT

Extract Input - OPEN: .\RAW_DATA\KILX_2008_FSL.TXT

Extract Output- OPEN: .\STAGE_1-NO-SUB\UAILX_ONSITE-2008.DSK

QA Output - OPEN: .\STAGE_1-NO-SUB\UAILX_ONSITEQA-2008.DSK

The Extract Dates Are: Starting: 1-JAN-2008

Ending: 31-DEC-2008

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

Upper Air Data Above the First Level Above 5000 Meters Not Extracted
 Upper Air Automatic Data Checks Are: OFF

3. NWS Surface Data

AERMET Has Determined That Processing For This Pathway Includes:
 NONE, NO DATA TO BE PROCESSED ON THIS PATH

4. On-site Data

Site ID	Latitude(deg.)	Longitude(deg.)	Time Adjustment	Elev. (m)
99999	38.26N	90.38W	0	151.0

AERMET Has Determined That Processing For This Pathway Includes:

QUALITY ASSESSMENT ONLY

Extract Output- OPEN: .\RAW_DATA\HERC2008.TXT

QA Output - OPEN: .\STAGE_1-NO-SUB\ONSITEQA-2008.DSK

The Extract Dates Are: Starting: 1-JAN-2008

Ending: 31-DEC-2008

**** SUMMARY OF THE QA AUDIT ****

THERE IS NO AUDIT TRAIL FOR SOUNDINGS

SITE SCALARS |-----VIOLATION SUMMARY-----| |-----TEST VALUES-----|

TOTAL	#	LOWER	UPPER	%	MISSING	LOWER	UPPER
-------	---	-------	-------	---	---------	-------	-------

# OBS	MISSING	BOUND	BOUND	ACCEPTED	FLAG	BOUND	BOUND
-------	---------	-------	-------	----------	------	-------	-------

INSO	8782	4	0	0	99.95	-999.0,	0.0, 1250.0
------	------	---	---	---	-------	---------	-------------

NRAD	8782	4	0	0	99.95	-999.0,	-100.0, 800.0
------	------	---	---	---	-------	---------	---------------

PRES	8782	0	0	0	100.00	-999.0,	8000.0,10999.0
------	------	---	---	---	--------	---------	----------------

SITE VECTORS |-----VIOLATION SUMMARY-----| |-----TEST VALUES-----|

TOTAL	#	LOWER	UPPER	%	MISSING	LOWER	UPPER
-------	---	-------	-------	---	---------	-------	-------

# OBS	MISSING	BOUND	BOUND	ACCEPTED	FLAG	BOUND	BOUND
-------	---------	-------	-------	----------	------	-------	-------

2.00 M

TT	8782	4	0	0	99.95	-999.0,	-30.0, 38.0
----	------	---	---	---	-------	---------	-------------

RH	8782	4	0	0	99.95	-999.0,	0.0, 100.0
----	------	---	---	---	-------	---------	------------

10.00 M

SA	8782	8	0	0	99.91	-999.0,	0.0, 125.0
----	------	---	---	---	-------	---------	------------

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

```

TT  8782   4   0   0  99.95  -999.0, -30.0, 38.0
WD  8782   5   0   0  99.94  -999.0,  0.0, 360.0
WS  8782   4   3   0  99.92  -999.0,  0.0, 50.0
40.00 M
SA  8782   8   0   0  99.91  -999.0,  0.0, 125.0
TT  8782   5   0   0  99.94  -999.0, -30.0, 38.0
WD  8782   5   0   0  99.94  -999.0,  0.0, 360.0
WS  8782   5   3   0  99.91  -999.0,  0.0, 50.0

```

THIS CONCLUDES THE AUDIT TRAIL

THE FOLLOWING ON-SITE VALUES ARE IN EFFECT

Number of OBS/HOUR:

4

Threshold wind speed (m/s):

0.20

Heights for tower data (m), based on OSHEIGHTS keyword:

2.00 10.00 40.00

Temperature difference heights (m):

Index Lower Upper

1 2.00 10.00

*** AERMET Data Processing Finished Successfully ***

EXTRACT AND/OR QA THE METEOROLOGICAL DATA

**** AERMET MESSAGE SUMMARY TABLE ****

0-9 10-19 20-29 30-39 40-49 50-59 60-69 70-89 TOTAL

JOB

```

E  0  0  0  0  0  0  0  0  0
W  0  0  0  0  0  0  0  0  0
I  0  1  2  0  0  0  0  0  3

```

UPPERAIR

```

E  0  0  0  0  0  0  0  0  0

```

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

```

W 0 0 0 0 0 0 0 0 0
I 0 0 0 4 0 0 0 0 4
Q 0 0 0 57 0 0 0 0 57
ONSITE
E 0 0 0 0 0 0 0 0 0
W 0 0 0 0 0 16 0 0 16
I 0 0 0 0 0 67 0 0 67
Q 0 0 0 0 0 27 0 0 27

```

```

0 1 2 61 0 110 0 0 174

```

**** ERROR MESSAGES ****

--- NONE ---

**** WARNING MESSAGES ****

```

1 ONSITE W52 OSFILL : Some REALs do not have decimals; Extracted data should be verified. NumVar =14; NumDec =13
1 ONSITE W52 OSFILL : Read# 1; Data: 08 1 1 0 15 7.21 4.64 282.40 283.40 10.68
29 ONSITE W52 OSFILL : Number of REALs with decimals varies; Extracted data may be suspect! NumOld =13; NumNew =14
29 ONSITE W52 OSFILL : Read# 1; Data: 08 1 1 7 15 5.50 3.38 278.50 281.50 10.54
14250 ONSITE W59 OSNEXT : Data gap of 0 hrs & 15 mins with 4 OBS/HOUR in ONSITE data at (Yr,Mn,Dy,Hr,Mn): 8 5 28 10 45
14946 ONSITE W59 OSNEXT : Data gap of 0 hrs & 15 mins with 4 OBS/HOUR in ONSITE data at (Yr,Mn,Dy,Hr,Mn): 8 6 4 17 0
26253 ONSITE W59 OSNEXT : Data gap of 2 hrs & 30 mins with 4 OBS/HOUR in ONSITE data at (Yr,Mn,Dy,Hr,Mn): 8 9 30 14 15
29748 ONSITE W59 OSNEXT : Data gap of 0 hrs & 15 mins with 4 OBS/HOUR in ONSITE data at (Yr,Mn,Dy,Hr,Mn): 8 11 6 0 15
29847 ONSITE W59 OSNEXT : Data gap of 0 hrs & 15 mins with 4 OBS/HOUR in ONSITE data at (Yr,Mn,Dy,Hr,Mn): 8 11 7 1 15
30446 ONSITE W59 OSNEXT : Data gap of 0 hrs & 15 mins with 4 OBS/HOUR in ONSITE data at (Yr,Mn,Dy,Hr,Mn): 8 11 13 7 15
30513 ONSITE W59 OSNEXT : Data gap of 0 hrs & 15 mins with 4 OBS/HOUR in ONSITE data at (Yr,Mn,Dy,Hr,Mn): 8 11 14 0 15
31132 ONSITE W59 OSNEXT : Data gap of 0 hrs & 15 mins with 4 OBS/HOUR in ONSITE data at (Yr,Mn,Dy,Hr,Mn): 8 11 20 11 15
31191 ONSITE W59 OSNEXT : Data gap of 0 hrs & 15 mins with 4 OBS/HOUR in ONSITE data at (Yr,Mn,Dy,Hr,Mn): 8 11 21 2 15
31210 ONSITE W59 OSNEXT : Data gap of 0 hrs & 15 mins with 4 OBS/HOUR in ONSITE data at (Yr,Mn,Dy,Hr,Mn): 8 11 21 7 15
31341 ONSITE W59 OSNEXT : Data gap of 0 hrs & 15 mins with 4 OBS/HOUR in ONSITE data at (Yr,Mn,Dy,Hr,Mn): 8 11 22 16 15
35071 ONSITE W59 OSNEXT : Data gap of 0 hrs & 15 mins with 4 OBS/HOUR in ONSITE data at (Yr,Mn,Dy,Hr,Mn): 8 12 31 13 0

```

Stage 1 Report 2009 (HERILX_ONSITE-2009.RPT) Excerpt

*** AERMET Data Processing Finished Successfully ***

*** SUMMARY OF THE QA AUDIT, CONTINUED ***

SITE SCALARS										
-----VIOLATION SUMMARY----- -----TEST VALUES-----										
TOTAL	#	LOWER	UPPER	%	MISSING	LOWER	UPPER			
# OBS	MISSING	BOUND	BOUND	ACCEPTED	FLAG	BOUND	BOUND			
INSO	8760	0	0	0	100.00	-999.0,	0.0,	1250.0		
NRAD	8760	0	2	0	99.98	-999.0,	-100.0,	800.0		
PRES	8760	0	0	0	100.00	-999.0,	8000.0,	10999.0		
SITE VECTORS										
-----VIOLATION SUMMARY----- -----TEST VALUES-----										
TOTAL	#	LOWER	UPPER	%	MISSING	LOWER	UPPER			
# OBS	MISSING	BOUND	BOUND	ACCEPTED	FLAG	BOUND	BOUND			
2.00 M										
TT	8760	0	0	0	100.00	-999.0,	-30.0,	38.0		
RH	8760	0	0	0	100.00	-999.0,	0.0,	100.0		
10.00 M										
SA	8760	5	0	0	99.94	-999.0,	0.0,	125.0		
TT	8760	0	0	0	100.00	-999.0,	-30.0,	38.0		
WD	8760	1	0	0	99.99	-999.0,	0.0,	360.0		
WS	8760	0	4	0	99.95	-999.0,	0.0,	50.0		
40.00 M										
SA	8760	2	0	0	99.98	-999.0,	0.0,	125.0		
TT	8760	0	0	0	100.00	-999.0,	-30.0,	38.0		
WD	8760	1	0	0	99.99	-999.0,	0.0,	360.0		
WS	8760	0	1	0	99.99	-999.0,	0.0,	50.0		

Stage 1 Report 2010 (HERCPSILX_ONSITE-2010.RPT) Excerpt

*** AERMET Data Processing Finished Successfully ***

**** SUMMARY OF THE QA AUDIT, CONTINUED ****

SITE SCALARS		-----VIOLATION SUMMARY-----				-----TEST VALUES-----		
TOTAL	#	LOWER	UPPER	%	MISSING	LOWER	UPPER	
# OBS	MISSING	BOUND	BOUND	ACCEPTED	FLAG	BOUND	BOUND	
INSO	8760	4	0	0	99.95	-999.0,	0.0,	1250.0
NRAD	8760	3	2	0	99.94	-999.0,	-100.0,	800.0
PRES	8760	0	0	0	100.00	-999.0,	8000.0,	10999.0

SITE VECTORS		-----VIOLATION SUMMARY-----				-----TEST VALUES-----		
TOTAL	#	LOWER	UPPER	%	MISSING	LOWER	UPPER	
# OBS	MISSING	BOUND	BOUND	ACCEPTED	FLAG	BOUND	BOUND	

2.00 M

TT	8760	0	0	0	100.00	-999.0,	-30.0,	38.0
RH	8760	0	0	0	100.00	-999.0,	0.0,	100.0

10.00 M

SA	8760	6	0	0	99.93	-999.0,	0.0,	125.0
TT	8760	0	0	0	100.00	-999.0,	-30.0,	38.0
WD	8760	1	0	0	99.99	-999.0,	0.0,	360.0
WS	8760	0	5	0	99.94	-999.0,	0.0,	50.0

40.00 M

SA	8760	2	0	0	99.98	-999.0,	0.0,	125.0
TT	8760	0	0	0	100.00	-999.0,	-30.0,	38.0
WD	8760	0	0	0	100.00	-999.0,	0.0,	360.0
WS	8760	0	2	0	99.98	-999.0,	0.0,	50.0

AERMET Stage 2 Input File for 2008 (Aermet-Stage_2-2008.inp)

```
**STAGE 2 MERGE Onsite & UPPER AIR DATA
**Lincoln, Illinois Upper AirIndicator-KILX And Onsite Here
JOB
  REPORT  .\Stage_2\HERCILX_Merge2008.rpt
  MESSAGES .\Stage_2\HERCILX_Merge2008.msg
UPPERAIR
  QAOUT   .\STAGE_1\UAILX_ONSITE-2008.DSK
ONSITE
  QAOUT   .\STAGE_1\ONSITEQA-2008.DSK
MERGE
  OUTPUT  .\Stage_2\HERCILX_Onsite-2008.DSK
XDATES    08/01/01 TO 08/12/31
```

AERMET Stage 2 Input File for 2009 (Aermet-Stage_2-2009.inp)

```
**STAGE 2 MERGE Onsite & UPPER AIR DATA
**Lincoln, Illinois Upper AirIndicator-KILX And Onsite Here
JOB
  REPORT  .\Stage_2\HERCILX_Merge2009.rpt
  MESSAGES .\Stage_2\HERCILX_Merge2009.msg
UPPERAIR
  QAOUT   .\STAGE_1\UAILX_ONSITE-2009.DSK
ONSITE
  QAOUT   .\STAGE_1\ONSITEQA-2009.DSK
MERGE
  OUTPUT  .\Stage_2\HERCILX_Onsite-2009.DSK
XDATES    09/01/01 TO 09/12/31
```

AERMET Stage 2 Input File for 2010 (Aermet-Stage_2-2010.inp)

```
**STAGE 2 MERGE Onsite & UPPER AIR DATA
**Lincoln, Illinois Upper AirIndicator-KILX And Onsite Herc
JOB
  REPORT  .\Stage_2\HERCILX_Merge2010.rpt
  MESSAGES .\Stage_2\HERCILX_Merge2010.msg
UPPERAIR
  QAOUT   .\STAGE_1\UAILX_ONSITE-2010.DSK
ONSITE
  QAOUT   .\STAGE_1\ONSITEQA-2010.DSK
MERGE
  OUTPUT  .\Stage_2\HERCILX_Onsite-2010.DSK
XDATES    10/01/01 TO 10/12/31
```

AERMET Stage 3 Input File for 2008 (HERCPSILX_WET_2008.inp)

```
**Stage 3 met processing for Herc Onsite and KILX Upper Air - no Surface data and exclude WS/WD from 2m tower
JOB
  REPORT  .\STAGE_3-no-sub\HERCPSILX-2008_OnSite-rev.rpt
  MESSAGES .\STAGE_3-no-sub\HERCPSILX-2008_OnSite-rev.msg
METPREP
  DATA   .\STAGE_2-no-sub\HERCPSILX_OnSite-2008.dsk
  METHOD  STABLEBL BULKRN
  THRESH_1MIN 0.5
  OUTPUT  .\STAGE_3-no-sub\HERCILX-2008_OnSite-rev.sfc
  PROFILE .\STAGE_3-no-sub\HERCILX-2008_OnSite-rev.pfl
  AERSURF .\AERSURFACE\herc_wet.out
XDATES    08/01/01 TO 08/12/31
MODEL  AERMOD
```

AERMET Stage 3 Input File for 2009 (HERCPSILX_WET_2009.inp)

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

**Stage 3 met processing for Herc ONSite and KILX Upper Air - no Surface data and exclude WS/WD from 2m tower
JOB

```
REPORT .\STAGE_3-no-sub\HERCPSILX-2009_OnSite-rev.rpt
MESSAGES .\STAGE_3-no-sub\HERCPSILX-2009_OnSite-rev.msg
METPREP
DATA .\STAGE_2-no-sub\HERCPSILX_OnSite-2009.dsk
METHOD STABLEBL BULKRN
THRESH_1MIN 0.5
OUTPUT .\STAGE_3-no-sub\HERCILX-2009_OnSite-rev.sfc
PROFILE .\STAGE_3-no-sub\HERCILX-2009_OnSite-rev.pfl
AERSURF .\AERSURFACE\herc_wet.out
XDATES 09/01/01 TO 09/12/31
MODEL AERMOD
```

AERMET Stage 3 Input File for 2010 (HERCPSILX_AVG_2010.inp)

**Stage 3 met processing for Herc ONSite and KILX Upper Air - no Surface data and exclude WS/WD from 2m tower
JOB

```
REPORT .\STAGE_3-no-sub\HERCPSILX-2010_OnSite-rev.rpt
MESSAGES .\STAGE_3-no-sub\HERCPSILX-2010_OnSite-rev.msg
METPREP
DATA .\STAGE_2-no-sub\HERCPSILX_OnSite-2010.dsk
METHOD STABLEBL BULKRN
THRESH_1MIN 0.5
OUTPUT .\STAGE_3-no-sub\HERCILX-2010_OnSite-rev.sfc
PROFILE .\STAGE_3-no-sub\HERCILX-2010_OnSite-rev.pfl
AERSURF .\AERSURFACE\herc_avg.out
XDATES 10/01/01 TO 10/12/31
MODEL AERMOD
```

Excerpts from total combined meteorological files used in AERMOD runs (.SFC and .PFL files) included below, full digital files are available upon request. Stage 3 outputs for each year are combined into the total (3 year) files. (HERCILX-ONSITE-08-10.SFC and HERCILX-ONSITE-08-10.PFL)

Excerpt of HERCILX-ONSITE-08-10.SFC (First day of 2008)

```

38.26N 90.38W UA_ID: 4833 SF_ID: OS_ID: 99999 VERSION: 14134 BULKRN TEMP_Sub
8 1 1 1 1 -16.7 0.449 -9.000 -9.000 -999. 721. 484.3 0.1130 0.35 1.00 5.14 283.0 10.0 271.9 2.0 9999 -9.00 63. 1005. 10
NAD-OS NoSubs
8 1 1 1 2 -13.8 0.426 -9.000 -9.000 -999. 669. 502.1 0.1130 0.35 1.00 4.88 285.5 10.0 271.3 2.0 9999 -9.00 62. 1006. 10
NAD-OS NoSubs
8 1 1 1 3 -11.9 0.443 -9.000 -9.000 -999. 706. 653.4 0.1130 0.35 1.00 5.05 283.1 10.0 270.7 2.0 9999 -9.00 66. 1007. 10
NAD-OS NoSubs
8 1 1 1 4 -8.8 0.452 -9.000 -9.000 -999. 730. 947.1 0.1130 0.35 1.00 5.13 288.1 10.0 270.2 2.0 9999 -9.00 68. 1008. 10
NAD-OS NoSubs
8 1 1 1 5 -8.7 0.368 -9.000 -9.000 -999. 541. 517.1 0.1130 0.35 1.00 4.21 283.9 10.0 269.7 2.0 9999 -9.00 71. 1008. 10
NAD-OS NoSubs
8 1 1 1 6 -9.7 0.370 -9.000 -9.000 -999. 541. 472.5 0.1130 0.35 1.00 4.25 281.6 10.0 269.4 2.0 9999 -9.00 72. 1009. 10
NAD-OS NoSubs
8 1 1 1 7 -10.8 0.414 -9.000 -9.000 -999. 639. 590.4 0.1130 0.35 1.00 4.73 281.1 10.0 269.3 2.0 9999 -9.00 68. 1010. 10
NAD-OS NoSubs
8 1 1 1 8 -0.0 0.365 -9.000 -9.000 -999. 532. 8888.0 0.1130 0.35 0.70 4.09 278.8 10.0 269.3 2.0 9999 -9.00 61. 1010. 10
NAD-OS NoSubs
8 1 1 1 9 3.2 0.513 0.286 0.007 264. 881. -3807.5 0.1130 0.35 0.38 5.73 289.0 10.0 269.6 2.0 9999 -9.00 51. 1011. 8
NAD-OS NoSubs
8 1 1 1 10 16.9 0.643 0.566 0.005 388. 1237. -1423.1 0.1130 0.35 0.26 7.17 292.4 10.0 270.0 2.0 9999 -9.00 45. 1012. 0
NAD-OS NoSubs

```

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

8	1	1	1	11	33.2	0.659	0.793	0.005	542.	1283.	-778.9	0.1130	0.35	0.22	7.31	289.5	10.0	269.8	2.0	9999	-9.00	44.	1012.	0
NAD-OS NoSubs																								
8	1	1	1	12	50.1	0.586	0.988	0.006	695.	1085.	-362.4	0.1130	0.35	0.21	6.43	290.0	10.0	269.9	2.0	9999	-9.00	46.	1012.	4
NAD-OS NoSubs																								
8	1	1	1	13	30.7	0.610	0.867	0.005	766.	1141.	-666.1	0.1130	0.35	0.21	6.75	294.4	10.0	269.1	2.0	9999	-9.00	46.	1012.	8
NAD-OS NoSubs																								
8	1	1	1	14	41.5	0.585	0.964	0.006	780.	1076.	-435.8	0.1130	0.35	0.22	6.44	288.6	10.0	269.4	2.0	9999	-9.00	42.	1013.	6
NAD-OS NoSubs																								
8	1	1	1	15	16.7	0.572	0.714	0.006	786.	1039.	-1010.6	0.1130	0.35	0.25	6.36	293.1	10.0	269.2	2.0	9999	-9.00	42.	1013.	8
NAD-OS NoSubs																								
8	1	1	1	16	5.5	0.561	0.493	0.006	788.	1009.	-2907.2	0.1130	0.35	0.35	6.27	292.5	10.0	268.9	2.0	9999	-9.00	40.	1014.	8
NAD-OS NoSubs																								
8	1	1	1	17	-0.0	0.557	-9.000	-9.000	-999.	999.	8888.0	0.1130	0.35	0.62	6.25	297.3	10.0	268.1	2.0	9999	-9.00	41.	1015.	10
NAD-OS NoSubs																								
8	1	1	1	18	-0.0	0.583	-9.000	-9.000	-999.	1066.	8888.0	0.1130	0.35	1.00	6.53	295.7	10.0	267.1	2.0	9999	-9.00	45.	1016.	10
NAD-OS NoSubs																								
8	1	1	1	19	-1.7	0.505	-9.000	-9.000	-999.	869.	7075.5	0.1130	0.35	1.00	5.67	295.6	10.0	266.5	2.0	9999	-9.00	48.	1016.	10
NAD-OS NoSubs																								
8	1	1	1	20	-2.8	0.396	-9.000	-9.000	-999.	608.	1999.7	0.1130	0.35	1.00	4.46	293.2	10.0	265.9	2.0	9999	-9.00	53.	1017.	10
NAD-OS NoSubs																								
8	1	1	1	21	-0.0	0.448	-9.000	-9.000	-999.	720.	8888.0	0.1130	0.35	1.00	5.03	292.5	10.0	265.3	2.0	9999	-9.00	57.	1017.	10
NAD-OS NoSubs																								
8	1	1	1	22	-1.3	0.442	-9.000	-9.000	-999.	705.	6150.8	0.2010	0.35	1.00	4.32	300.0	10.0	264.6	2.0	9999	-9.00	58.	1018.	10
NAD-OS NoSubs																								
8	1	1	1	23	-0.0	0.400	-9.000	-9.000	-999.	608.	8888.0	0.1130	0.35	1.00	4.48	298.8	10.0	263.8	2.0	9999	-9.00	60.	1018.	10
NAD-OS NoSubs																								
8	1	1	1	24	-0.0	0.411	-9.000	-9.000	-999.	631.	8888.0	0.1130	0.35	1.00	4.60	297.8	10.0	263.2	2.0	9999	-9.00	61.	1019.	10
NAD-OS NoSubs																								

Excerpt of HERCILX-ONSITE-08-10.pfl (First day of 2008)

8	1	1	1	2.00	-999.0	-999.00	-1.27	-999.00	99.00
8	1	1	1	10.00	283.0	5.14	-1.25	13.98	99.00
8	1	1	1	40.01	281.8	7.96	-1.49	10.99	99.00
8	1	1	2	2.00	-999.0	-999.00	-1.86	-999.00	99.00
8	1	1	2	10.00	285.5	4.88	-1.85	13.13	99.00
8	1	1	2	40.01	283.1	7.49	-2.10	10.66	99.00
8	1	1	3	2.00	-999.0	-999.00	-2.48	-999.00	99.00
8	1	1	3	10.00	283.1	5.05	-2.48	12.90	99.00
8	1	1	3	40.01	282.6	7.85	-2.74	9.38	99.00
8	1	1	4	2.00	-999.0	-999.00	-2.97	-999.00	99.00
8	1	1	4	10.00	288.1	5.13	-2.98	13.33	99.00
8	1	1	4	40.01	285.9	7.61	-3.26	10.81	99.00
8	1	1	5	2.00	-999.0	-999.00	-3.45	-999.00	99.00
8	1	1	5	10.00	283.9	4.21	-3.46	14.30	99.00
8	1	1	5	40.01	282.5	6.28	-3.72	10.96	99.00
8	1	1	6	2.00	-999.0	-999.00	-3.70	-999.00	99.00
8	1	1	6	10.00	281.6	4.25	-3.70	13.66	99.00
8	1	1	6	40.01	280.2	6.53	-3.95	10.24	99.00
8	1	1	7	2.00	-999.0	-999.00	-3.86	-999.00	99.00
8	1	1	7	10.00	281.1	4.73	-3.86	13.37	99.00
8	1	1	7	40.01	279.9	7.11	-4.10	9.22	99.00
8	1	1	8	2.00	-999.0	-999.00	-3.87	-999.00	99.00
8	1	1	8	10.00	278.8	4.09	-3.93	14.43	99.00
8	1	1	8	40.01	277.9	6.28	-4.22	10.24	99.00
8	1	1	9	2.00	-999.0	-999.00	-3.51	-999.00	99.00
8	1	1	9	10.00	289.0	5.73	-3.63	14.69	99.00
8	1	1	9	40.01	287.0	8.59	-3.96	12.41	99.00
8	1	1	10	2.00	-999.0	-999.00	-3.20	-999.00	99.00
8	1	1	10	10.00	292.4	7.17	-3.49	13.36	99.00

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

8 1 1 10	40.0	1	290.3	10.41	-3.90	10.38	99.00
8 1 1 11	2.0	0	-999.0	-999.00	-3.38	-999.00	99.00
8 1 1 11	10.0	0	289.5	7.31	-3.78	14.89	99.00
8 1 1 11	40.0	1	288.7	10.37	-4.24	12.44	99.00
8 1 1 12	2.0	0	-999.0	-999.00	-3.28	-999.00	99.00
8 1 1 12	10.0	0	290.0	6.43	-3.76	18.17	99.00
8 1 1 12	40.0	1	288.0	9.25	-4.31	15.40	99.00
8 1 1 13	2.0	0	-999.0	-999.00	-4.04	-999.00	99.00
8 1 1 13	10.0	0	294.4	6.75	-4.39	14.40	99.00
8 1 1 13	40.0	1	291.8	9.62	-4.87	12.59	99.00
8 1 1 14	2.0	0	-999.0	-999.00	-3.73	-999.00	99.00
8 1 1 14	10.0	0	288.6	6.44	-4.15	14.73	99.00
8 1 1 14	40.0	1	287.2	9.13	-4.63	11.88	99.00
8 1 1 15	2.0	0	-999.0	-999.00	-3.95	-999.00	99.00
8 1 1 15	10.0	0	293.1	6.36	-4.25	15.90	99.00
8 1 1 15	40.0	1	292.2	9.29	-4.70	12.69	99.00
8 1 1 16	2.0	0	-999.0	-999.00	-4.28	-999.00	99.00
8 1 1 16	10.0	0	292.5	6.27	-4.47	15.35	99.00
8 1 1 16	40.0	1	291.0	9.09	-4.85	12.66	99.00
8 1 1 17	2.0	0	-999.0	-999.00	-5.05	-999.00	99.00
8 1 1 17	10.0	0	297.3	6.25	-5.14	13.60	99.00
8 1 1 17	40.0	1	294.5	9.28	-5.46	11.19	99.00
8 1 1 18	2.0	0	-999.0	-999.00	-6.08	-999.00	99.00
8 1 1 18	10.0	0	295.7	6.53	-6.13	12.98	99.00
8 1 1 18	40.0	1	293.9	9.42	-6.43	10.43	99.00
8 1 1 19	2.0	0	-999.0	-999.00	-6.67	-999.00	99.00
8 1 1 19	10.0	0	295.6	5.67	-6.71	13.41	99.00
8 1 1 19	40.0	1	294.2	8.16	-6.99	11.08	99.00
8 1 1 20	2.0	0	-999.0	-999.00	-7.26	-999.00	99.00
8 1 1 20	10.0	0	293.2	4.46	-7.29	13.38	99.00
8 1 1 20	40.0	1	291.9	6.49	-7.58	10.40	99.00
8 1 1 21	2.0	0	-999.0	-999.00	-7.87	-999.00	99.00

APPENDIX G - Meteorological Data including Excerpts of Raw Data and Select Files

8	1	1	21	10.0	0	292.5	5.03	-7.93	13.48	99.00
8	1	1	21	40.0	1	290.4	7.43	-8.22	11.49	99.00
8	1	1	22	2.0	0	-999.0	-999.00	-8.56	-999.00	99.00
8	1	1	22	10.0	0	300.0	4.32	-8.60	14.24	99.00
8	1	1	22	40.0	1	298.0	6.22	-8.90	12.41	99.00
8	1	1	23	2.0	0	-999.0	-999.00	-9.31	-999.00	99.00
8	1	1	23	10.0	0	298.8	4.48	-9.38	14.28	99.00
8	1	1	23	40.0	1	297.5	6.67	-9.68	11.92	99.00
8	1	1	24	2.0	0	-999.0	-999.00	-9.96	-999.00	99.00
8	1	1	24	10.0	0	297.8	4.60	-10.03	12.80	99.00
8	1	1	24	40.0	1	298.2	6.56	-10.34	11.42	99.00