Scenario: P_R2

Emission Rate Calculations for Modeling

							before RC	after RC	before RC	After RC-CFM only								
		Source	B01	B24	B25	B11current	B11	B38current	B38	B08	B10	B32	B33	B34	B35	C79	C80	Total
		Type	Furnace	Furnace	Furnace	FH	FH	FH	FH	RE1	RE2	RE2	RE1	RE2	RE2	RE1	RE1	
		Current Base Case Emission Rate (g/s)	3.55E-05			1.51E-04		3.32E-05		2.05E-06	2.39E-06	2.39E-06		2.39E-06	2.39E-06	2.04E-06	2.04E-06	2.35E-04
Uncertainty =	1.15	2016 Base RC Emission Rate (g/s) with Uncertainty Factor applied		2.04E-05	2.04E-05		8.66E-05		3.82E-05		1.37E-06	1.37E-06	2.36E-06	1.37E-06	1.37E-06	2.34E-06	2.34E-06	1.78E-04
Combination ID	Option Description		B01	B24	B25	B11	B11	B38current	B38	B08	B10	B32	B33	B34	B35	C79	C80	
P_R1	Facility reconfiguration (RC) + Scrubber system on forehearth stack (6,7,8, or 9) + incorporating more accurate combustion control skids and construction of front end superstructures (14)	Description of Reduction Component							Scrubber + Partial Prototype									
		Individual Reduction Description							(6,7,8, or 9) + 14		Result of 14	Result of 14		Result of 14	Result of 14			
		Reduction Efficiency							20%	0%	50%	50%	0%	50%	50%	0%	0%	
		Additional Reduction Efficiency							50%									
		Comments	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	TotalER (g/s)
		RC+(6,7,8 or 9)+14		2.04E-05	2.04E-05				6.52E-05		6.87E-07	6.87E-07	2.36E-06	6.87E-07	6.87E-07	2.34E-06	2.34E-06	1.16E-04
	Explanation of calculation for B38 :	The 50% reduction efficiency for control option #14 only applies to the B11 reconfigured emission rate, not the B38 current emission rate since the technology already exists on that portion of CFM forehearth.																

Annual Hexavalent Chromium Results
Technical Benchmarking Option P - 5 year data set

Run (tab) Name:	Ann_Opt_P_R2_Metyr1	Ann_Opt_P_R2_Metyr2	Ann_Opt_P_R2_Metyr3	Ann_Opt_P_R2_Metyr4	Ann_Opt_P_R2_Metyr5	
Run Description:	Option P_R2, Reg 419 grid, Site Specific Met (2009)	Option P_R2, Reg 419 grid, Site Specific Met (2010)	Option P_R2, Reg 419 grid, Site Specific Met (2011)	Option P_R2, Reg 419 grid, Site Specific Met (2012)	Option P_R2, Reg 419 grid, Site Specific Met (2013)	**MAX**
Result Units:		**ng/m3**	**ng/m3**	**ng/m3**	**ng/m3**	**ng/m3**
ALL	9.44364	10.74366	8.99074	9.62457	9.40688	**10.74366**
B10	0.03908	0.04012	0.04024	0.04071	0.0402	**0.04071**
B32	0.07978	0.0847	0.07868	0.08102	0.08023	**0.0847**
B34	0.05933	0.06748	0.0576	0.06099	0.05966	**0.06748**
B35	0.05924	0.06836	0.05762	0.06181	0.05927	**0.06836**
C79	0.08277	0.10893	0.07708	0.08782	0.08021	**0.10893**
C80	0.07892	0.1091	0.07271	0.08492	0.07221	**0.1091**
B38	7.00207	7.93647	6.64175	7.16243	6.93703	**7.93647**
B24	0.94663	1.05854	0.91869	0.94959	0.98204	**1.05854**
B25	0.85795	0.98808	0.81885	0.85051	0.85959	**0.98808**
B33	0.24981	0.29562	0.23972	0.25766	0.24583	**0.29562**
FURNACE	1.80458	2.04661	1.73754	1.80009	1.84163	**2.04661**
FOREHEAR	7.00207	7.93647	6.64175	7.16243	6.93703	**7.93647**
GENEXHTS	0.63699	0.76057	0.61145	0.66205	0.62822	**0.76057**

Run Description:	Option P_R2, Reg 419 grid, Site Specific Met (2009)	Option P_R2, Reg 419 grid, Site Specific Met (2010)	Option P_R2, Reg 419 grid, Site Specific Met (2011)	Option P_R2, Reg 419 grid, Site Specific Met (2012)	Option P_R2, Reg 419 grid, Site Specific Met (2013)	**MAX**
Result Units:	**ug/m3**	**ug/m3**	**ug/m3**	**ug/m3**	**ug/m3**	**ug/m3**
ALL	0.00944364	0.01074366	0.00899074	0.00962457	0.00940688	**0.010744**
B10	0.00003908	0.00004012	0.00004024	0.00004071	0.0000402	**4.07E-05**
B32	0.00007978	0.0000847	0.00007868	0.00008102	0.00008023	**8.47E-05**
B34	0.00005933	0.00006748	0.0000576	0.00006099	0.00005966	**6.75E-05**
B35	0.00005924	0.00006836	0.00005762	0.00006181	0.00005927	**6.84E-05**
C79	0.00008277	0.00010893	0.00007708	0.00008782	0.00008021	**0.000109**
C80	0.00007892	0.0001091	0.00007271	0.00008492	0.00007221	**0.000109**
B38	0.00700207	0.00793647	0.00664175	0.00716243	0.00693703	**0.007936**
B24	0.00094663	0.00105854	0.00091869	0.00094959	0.00098204	**0.001059**
B25	0.00085795	0.00098808	0.00081885	0.00085051	0.00085959	**0.000988**
B33	0.00024981	0.00029562	0.00023972	0.00025766	0.00024583	**0.000296**
FURNACE	0.00180458	0.00204661	0.00173754	0.00180009	0.00184163	**0.002047**
FOREHEAR	0.00700207	0.00793647	0.00664175	0.00716243	0.00693703	**0.007936**
GENEXHTS	0.00063699	0.00076057	0.00061145	0.00066205	0.00062822	**0.000761**

Source Pathway - Source Inputs

AERMOD

Point Sources

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Gas Exit Temp. [K]	Gas Exit Velocity [m/s]	Stack Inside Diameter [m]
POINT	B10	562030.25	4821525.28	312.00	14.45	6.87E-7	321.90	12.10	1.24
		General Exhaust Above T107B F/H							
POINT	B32	562047.16	4821528.02	312.00	14.48	6.87E-7	321.90	19.19	1.24
		General Exhaust Above T106							
POINT	B34	562039.70	4821535.65	312.00	14.48	6.87E-7	321.90	19.19	1.24
		General Exhaust Above T107A F/H							
POINT	B35	562047.03	4821543.82	312.00	14.48	6.87E-7	321.90	19.19	1.24
		General Exhaust Above CFM Main Channel							
POINT	C79	562023.15	4821559.58	312.00	11.64	2.34E-6	310.80	9.59	1.41
		General Exhaust West CFM F/H							
POINT	C80	562028.25	4821564.97	312.00	11.64	2.34E-6	310.80	9.59	1.41
		General Exhaust East CFM F/H							
POINT	B38	562043.48	4821544.79	312.00	16.46	0.00007	379.00	5.43	0.75
		105 Forehearth Stack							
POINT	B33	562055.21	4821536.35	312.00	14.48	2.36E-6	321.90	12.59	1.22
		Gen Exhaust Above T105							
POINT	B24	562052.59	4821531.65	312.00	27.77	0.00002	597.00	5.89	0.53
		105 Furnace Stack							
POINT	B25	562057.67	4821536.90	312.00	27.77	0.00002	597.00	5.89	0.53
		105 Furnace Stack							

Volume Sources

No Volume Sources Specified

Area Sources

No Area Sources Specified

Source Pathway - Source Inputs

Open Pit Sources

No Open Pit Sources Specified

Circular Area Sources

No Circular Area Sources Specified

Polygon Area Sources

No Polygon Area Sources Specified

Flare Sources

No Flare Sources Specified

Line Sources

No Line Sources Specified

Line Volume Sources

No Line Volume Sources Specified

Line Area Sources

No Line Area Sources Specified

 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA

                                        ***   MODEL SETUP OPTIONS SUMMARY   ***
 -

 **Model Is Setup For Calculation of Average CONCentration Values.

   -- DEPOSITION LOGIC --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION. DRYDPLT = F
 **Model Uses NO WET DEPLETION. WETDPLT = F

 **Model Uses RURAL Dispersion Only.

 **Model Allows User-Specified Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. BETA Option for Capped & Horiz Stacks Selected With:

                5 Capped Stack(s); and   0 Horiz Stack(s)

 **Other Options Specified:
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Accepts FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of: HCR

 **Model Calculates ANNUAL Averages Only

 **This Run Includes: 10 Source(s);   14 Source Group(s); and   2062 Receptor(s)

 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date: 14134

 **Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

 **NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) =   325.00 ; Decay Coef. =   0.000   ; Rot. Angle =   0.0
                  Emission Units = GRAMS/S   ; Emission Rate Unit Factor =   0.10000E+10
                  Output Units   = NANOGRAMS/M3

```
**Approximate Storage Requirements of Model =      4.5 MB of RAM.

**File for Saving Result Arrays: Ann_Opt_P_R2_Metyr2.sv1
**File for Summary of Results:   Ann_Opt_P_R2_Metyr2.sum
♀ *** AERMOD - VERSION  14134 ***   *** OC Guelph Project 144539 - Site Specific Standard                   ***        02/27/15
*** AERMET - VERSION  14134 ***   *** Ann_Opt_P_R2_Metyr2                                                 ***        14:55:42
                                                                                                                     PAGE   2
**MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    BETA

                                        *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                         (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1

                      METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2010   1  1  1
                                                              AND END DATE: 2010  12 31 24

               NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.


                              *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                      (METERS/SEC)

                                         1.54,   3.09,   5.14,   8.23,  10.80,
♀ *** AERMOD - VERSION  14134 ***   *** OC Guelph Project 144539 - Site Specific Standard                   ***        02/27/15
*** AERMET - VERSION  14134 ***   *** Ann_Opt_P_R2_Metyr2                                                 ***        14:55:42
                                                                                                                     PAGE   3
**MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    BETA

                                *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

  Surface file:   E:\_Site Specific Met\OCGuelph_ONLY\V14134\OwensCorning-Guelph-v14134.SFC          Met Version:  14134
  Profile file:   E:\_Site Specific Met\OCGuelph_ONLY\V14134\OwensCorning-Guelph-v14134.PFL
  Surface format: FREE
  Profile format: FREE
  Surface station no.:    61430                  Upper air station no.:    14733
                Name: UNKNOWN                                     Name: BUFFALO/GREATER_BUFFALO_INT'L
                Year:   2009                                      Year:   2009

First 24 hours of scalar data
YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

09 01 01   1 01   -8.4  0.105 -9.000 -9.000 -999.   81.     11.8  0.57   0.55   1.00    1.50  291.   10.0  258.1    2.0
09 01 01   1 02  -16.5  0.147 -9.000 -9.000 -999.  135.     16.6  0.57   0.55   1.00    2.10  308.   10.0  258.1    2.0
09 01 01   1 03   -8.4  0.105 -9.000 -9.000 -999.   82.     11.8  0.57   0.55   1.00    1.50  294.   10.0  257.5    2.0
09 01 01   1 04   -7.9  0.100 -9.000 -9.000 -999.   76.     11.0  0.50   0.55   1.00    1.50  233.   10.0  255.9    2.0
09 01 01   1 05   -3.5  0.067 -9.000 -9.000 -999.   41.      7.3  0.50   0.55   1.00    1.00  223.   10.0  255.3    2.0
```

Ann_Opt_P_R2_Metyr2

09	01	01	1	06	-3.2	0.067	-9.000	-9.000	-999.	41.	8.1	0.50	0.55	1.00	1.00	222.	10.0	254.8	2.0
09	01	01	1	07	-9.5	0.113	-9.000	-9.000	-999.	91.	13.2	0.70	0.55	1.00	1.50	145.	10.0	255.9	2.0
09	01	01	1	08	-8.5	0.109	-9.000	-9.000	-999.	86.	13.0	0.63	0.50	1.00	1.50	243.	10.0	257.5	2.0
09	01	01	1	09	-6.0	0.107	-9.000	-9.000	-999.	84.	17.8	0.61	0.95	0.76	1.50	127.	10.0	258.1	2.0
09	01	01	1	10	-1.6	0.057	-9.000	-9.000	-999.	33.	9.9	0.30	0.95	0.66	1.00	121.	10.0	263.8	2.0
09	01	01	1	11	13.2	0.424	0.253	0.009	42.	662.	-499.8	0.50	0.55	0.54	3.10	224.	10.0	264.2	2.0
09	01	01	1	12	19.8	0.428	0.402	0.008	114.	671.	-342.9	0.50	0.55	0.51	3.10	196.	10.0	265.4	2.0
09	01	01	1	13	22.9	0.367	0.559	0.011	265.	536.	-187.8	0.50	0.55	0.51	2.60	203.	10.0	265.4	2.0
09	01	01	1	14	2.1	0.468	0.256	0.007	275.	768.	-4237.3	0.70	0.55	0.48	3.10	179.	10.0	265.9	2.0
09	01	01	1	15	-4.6	0.538	-9.000	-9.000	-999.	946.	2954.8	0.70	0.55	0.51	3.60	162.	10.0	265.4	2.0
09	01	01	1	16	-20.2	0.526	-9.000	-9.000	-999.	915.	625.4	0.70	0.55	0.59	3.60	164.	10.0	265.9	2.0
09	01	01	1	17	-33.2	0.401	-9.000	-9.000	-999.	622.	168.7	0.61	0.95	0.82	3.10	141.	10.0	265.9	2.0
09	01	01	1	18	-28.3	0.491	-9.000	-9.000	-999.	824.	362.7	0.61	0.95	1.00	3.60	137.	10.0	265.9	2.0
09	01	01	1	19	-53.3	0.464	-9.000	-9.000	-999.	760.	163.0	0.61	0.95	1.00	3.60	134.	10.0	265.9	2.0
09	01	01	1	20	-60.2	0.545	-9.000	-9.000	-999.	964.	233.5	0.61	0.95	1.00	4.10	127.	10.0	265.4	2.0
09	01	01	1	21	-44.8	0.474	-9.000	-9.000	-999.	788.	206.2	0.61	0.95	1.00	3.60	130.	10.0	265.9	2.0
09	01	01	1	22	-61.4	0.544	-9.000	-9.000	-999.	961.	227.6	0.61	0.95	1.00	4.10	132.	10.0	266.4	2.0
09	01	01	1	23	-53.4	0.464	-9.000	-9.000	-999.	764.	162.3	0.61	0.95	1.00	3.60	140.	10.0	266.4	2.0
09	01	01	1	24	-21.2	0.225	-9.000	-9.000	-999.	318.	46.9	0.70	0.55	1.00	2.10	160.	10.0	267.0	2.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
09	01	01	01	10.0	1	291.	1.50	258.2	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

**MODELOPTs: NonDFAULT CONC ELEV FLGPOL BETA

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF HCR IN NANOGRAMS/M3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
FURNACE	1ST HIGHEST VALUE IS	2.04661 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	2.04661 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	1.72434 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	1.72434 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00)	DC	
	5TH HIGHEST VALUE IS	1.65046 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00)	DC	
	6TH HIGHEST VALUE IS	1.65046 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00)	DC	
	7TH HIGHEST VALUE IS	1.43889 AT (562065.76, 4821512.01, 311.00, 311.00, 0.00)	DC	
	8TH HIGHEST VALUE IS	1.32402 AT (562085.76, 4821512.01, 311.00, 311.00, 0.00)	DC	
	9TH HIGHEST VALUE IS	1.27844 AT (562085.76, 4821532.01, 311.00, 311.00, 0.00)	DC	
	10TH HIGHEST VALUE IS	0.97929 AT (562050.10, 4821511.55, 311.00, 311.00, 0.00)	DC	
FOREHEAR	1ST HIGHEST VALUE IS	7.93647 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	7.93647 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	6.81793 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	6.81793 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00)	DC	
	5TH HIGHEST VALUE IS	5.98718 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00)	DC	

	6TH HIGHEST VALUE IS	5.98718 AT	(562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC	
	7TH HIGHEST VALUE IS	5.46552 AT	(562085.76,	4821512.01,	311.00,	311.00,	0.00)	DC	
	8TH HIGHEST VALUE IS	5.34086 AT	(562065.76,	4821512.01,	311.00,	311.00,	0.00)	DC	
	9TH HIGHEST VALUE IS	4.80684 AT	(562085.76,	4821532.01,	311.00,	311.00,	0.00)	DC	
	10TH HIGHEST VALUE IS	3.95356 AT	(562077.84,	4821540.29,	311.01,	311.01,	0.00)	DC	
GENEXHTS	1ST HIGHEST VALUE IS	0.76057 AT	(562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC	
	2ND HIGHEST VALUE IS	0.76057 AT	(562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC	
	3RD HIGHEST VALUE IS	0.65066 AT	(562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC	
	4TH HIGHEST VALUE IS	0.65066 AT	(562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC	
	5TH HIGHEST VALUE IS	0.60741 AT	(562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC	
	6TH HIGHEST VALUE IS	0.60741 AT	(562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC	
	7TH HIGHEST VALUE IS	0.54638 AT	(562065.76,	4821512.01,	311.00,	311.00,	0.00)	DC	
	8TH HIGHEST VALUE IS	0.51083 AT	(562085.76,	4821512.01,	311.00,	311.00,	0.00)	DC	
	9TH HIGHEST VALUE IS	0.44607 AT	(562050.10,	4821511.55,	311.00,	311.00,	0.00)	DC	
	10TH HIGHEST VALUE IS	0.44607 AT	(562050.10,	4821511.55,	311.00,	311.00,	0.00)	DC	
B10	1ST HIGHEST VALUE IS	0.04012 AT	(562050.10,	4821511.55,	311.00,	311.00,	0.00)	DC	
	2ND HIGHEST VALUE IS	0.04012 AT	(562050.10,	4821511.55,	311.00,	311.00,	0.00)	DC	
	3RD HIGHEST VALUE IS	0.02875 AT	(562076.93,	4821485.66,	310.19,	310.19,	0.00)	DC	
	4TH HIGHEST VALUE IS	0.02875 AT	(562076.93,	4821485.66,	310.19,	310.19,	0.00)	DC	
	5TH HIGHEST VALUE IS	0.02713 AT	(562070.22,	4821492.13,	310.40,	310.40,	0.00)	DC	
	6TH HIGHEST VALUE IS	0.02713 AT	(562070.22,	4821492.13,	310.40,	310.40,	0.00)	DC	
	7TH HIGHEST VALUE IS	0.02679 AT	(562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC	
	8TH HIGHEST VALUE IS	0.02679 AT	(562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC	
	9TH HIGHEST VALUE IS	0.02637 AT	(562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC	
	10TH HIGHEST VALUE IS	0.02637 AT	(562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC	

**MODELOPTs: NonDFAULT CONC ELEV FLGPOL BETA

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF HCR IN NANOGRAMS/M3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
B24	1ST HIGHEST VALUE IS 1.05854 AT	(562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC	
	2ND HIGHEST VALUE IS 1.05854 AT	(562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC	
	3RD HIGHEST VALUE IS 0.92257 AT	(562070.91, 4821533.11, 311.00, 311.00, 0.00)	DC	
	4TH HIGHEST VALUE IS 0.92257 AT	(562070.91, 4821533.11, 311.00, 311.00, 0.00)	DC	
	5TH HIGHEST VALUE IS 0.85389 AT	(562057.04, 4821518.74, 311.00, 311.00, 0.00)	DC	
	6TH HIGHEST VALUE IS 0.85389 AT	(562057.04, 4821518.74, 311.00, 311.00, 0.00)	DC	
	7TH HIGHEST VALUE IS 0.72997 AT	(562065.76, 4821512.01, 311.00, 311.00, 0.00)	DC	
	8TH HIGHEST VALUE IS 0.69230 AT	(562085.76, 4821532.01, 311.00, 311.00, 0.00)	DC	
	9TH HIGHEST VALUE IS 0.63497 AT	(562085.76, 4821512.01, 311.00, 311.00, 0.00)	DC	
	10TH HIGHEST VALUE IS 0.52969 AT	(562077.84, 4821540.29, 311.01, 311.01, 0.00)	DC	
B25	1ST HIGHEST VALUE IS 0.98808 AT	(562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC	
	2ND HIGHEST VALUE IS 0.98808 AT	(562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC	
	3RD HIGHEST VALUE IS 0.80177 AT	(562070.91, 4821533.11, 311.00, 311.00, 0.00)	DC	
	4TH HIGHEST VALUE IS 0.80177 AT	(562070.91, 4821533.11, 311.00, 311.00, 0.00)	DC	

	5TH HIGHEST VALUE IS	0.79658 AT	(562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC	
	6TH HIGHEST VALUE IS	0.79658 AT	(562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC	
	7TH HIGHEST VALUE IS	0.70892 AT	(562065.76,	4821512.01,	311.00,	311.00,	0.00)	DC	
	8TH HIGHEST VALUE IS	0.68905 AT	(562085.76,	4821512.01,	311.00,	311.00,	0.00)	DC	
	9TH HIGHEST VALUE IS	0.58614 AT	(562085.76,	4821532.01,	311.00,	311.00,	0.00)	DC	
	10TH HIGHEST VALUE IS	0.50560 AT	(562105.76,	4821512.01,	311.00,	311.00,	0.00)	DC	
B32	1ST HIGHEST VALUE IS	0.08470 AT	(562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC	
	2ND HIGHEST VALUE IS	0.08470 AT	(562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC	
	3RD HIGHEST VALUE IS	0.07642 AT	(562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC	
	4TH HIGHEST VALUE IS	0.07642 AT	(562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC	
	5TH HIGHEST VALUE IS	0.06892 AT	(562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC	
	6TH HIGHEST VALUE IS	0.06892 AT	(562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC	
	7TH HIGHEST VALUE IS	0.06327 AT	(562050.10,	4821511.55,	311.00,	311.00,	0.00)	DC	
	8TH HIGHEST VALUE IS	0.06327 AT	(562050.10,	4821511.55,	311.00,	311.00,	0.00)	DC	
	9TH HIGHEST VALUE IS	0.04438 AT	(562085.76,	4821512.01,	311.00,	311.00,	0.00)	DC	
	10TH HIGHEST VALUE IS	0.04392 AT	(562065.76,	4821512.01,	311.00,	311.00,	0.00)	DC	
B33	1ST HIGHEST VALUE IS	0.29562 AT	(562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC	
	2ND HIGHEST VALUE IS	0.29562 AT	(562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC	
	3RD HIGHEST VALUE IS	0.25393 AT	(562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC	
	4TH HIGHEST VALUE IS	0.25393 AT	(562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC	
	5TH HIGHEST VALUE IS	0.23387 AT	(562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC	
	6TH HIGHEST VALUE IS	0.23387 AT	(562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC	
	7TH HIGHEST VALUE IS	0.20783 AT	(562065.76,	4821512.01,	311.00,	311.00,	0.00)	DC	
	8TH HIGHEST VALUE IS	0.18964 AT	(562085.76,	4821512.01,	311.00,	311.00,	0.00)	DC	
	9TH HIGHEST VALUE IS	0.16851 AT	(562050.10,	4821511.55,	311.00,	311.00,	0.00)	DC	
	10TH HIGHEST VALUE IS	0.16851 AT	(562050.10,	4821511.55,	311.00,	311.00,	0.00)	DC	

**MODELOPTs: NonDFAULT CONC ELEV FLGPOL BETA

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF HCR IN NANOGRAMS/M3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
B34	1ST HIGHEST VALUE IS 0.06748 AT	(562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC	
	2ND HIGHEST VALUE IS 0.06748 AT	(562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC	
	3RD HIGHEST VALUE IS 0.05800 AT	(562057.04, 4821518.74, 311.00, 311.00, 0.00)	DC	
	4TH HIGHEST VALUE IS 0.05800 AT	(562057.04, 4821518.74, 311.00, 311.00, 0.00)	DC	
	5TH HIGHEST VALUE IS 0.05603 AT	(562070.91, 4821533.11, 311.00, 311.00, 0.00)	DC	
	6TH HIGHEST VALUE IS 0.05603 AT	(562070.91, 4821533.11, 311.00, 311.00, 0.00)	DC	
	7TH HIGHEST VALUE IS 0.04644 AT	(562050.10, 4821511.55, 311.00, 311.00, 0.00)	DC	
	8TH HIGHEST VALUE IS 0.04644 AT	(562050.10, 4821511.55, 311.00, 311.00, 0.00)	DC	
	9TH HIGHEST VALUE IS 0.04229 AT	(562085.76, 4821512.01, 311.00, 311.00, 0.00)	DC	
	10TH HIGHEST VALUE IS 0.04150 AT	(562065.76, 4821512.01, 311.00, 311.00, 0.00)	DC	
B35	1ST HIGHEST VALUE IS 0.06836 AT	(562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC	
	2ND HIGHEST VALUE IS 0.06836 AT	(562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC	
	3RD HIGHEST VALUE IS 0.05709 AT	(562070.91, 4821533.11, 311.00, 311.00, 0.00)	DC	

	4TH HIGHEST VALUE IS	0.05709 AT (	562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC
	5TH HIGHEST VALUE IS	0.05418 AT (	562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC
	6TH HIGHEST VALUE IS	0.05418 AT (	562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC
	7TH HIGHEST VALUE IS	0.04574 AT (	562065.76,	4821512.01,	311.00,	311.00,	0.00)	DC
	8TH HIGHEST VALUE IS	0.04462 AT (	562085.76,	4821512.01,	311.00,	311.00,	0.00)	DC
	9TH HIGHEST VALUE IS	0.04101 AT (	562085.76,	4821532.01,	311.00,	311.00,	0.00)	DC
	10TH HIGHEST VALUE IS	0.03141 AT (	562077.84,	4821540.29,	311.01,	311.01,	0.00)	DC
B38	1ST HIGHEST VALUE IS	7.93647 AT (	562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC
	2ND HIGHEST VALUE IS	7.93647 AT (	562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC
	3RD HIGHEST VALUE IS	6.81793 AT (	562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC
	4TH HIGHEST VALUE IS	6.81793 AT (	562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC
	5TH HIGHEST VALUE IS	5.98718 AT (	562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC
	6TH HIGHEST VALUE IS	5.98718 AT (	562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC
	7TH HIGHEST VALUE IS	5.46552 AT (	562085.76,	4821512.01,	311.00,	311.00,	0.00)	DC
	8TH HIGHEST VALUE IS	5.34086 AT (	562065.76,	4821512.01,	311.00,	311.00,	0.00)	DC
	9TH HIGHEST VALUE IS	4.80684 AT (	562085.76,	4821532.01,	311.00,	311.00,	0.00)	DC
	10TH HIGHEST VALUE IS	3.95356 AT (	562077.84,	4821540.29,	311.01,	311.01,	0.00)	DC
C79	1ST HIGHEST VALUE IS	0.10893 AT (	562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC
	2ND HIGHEST VALUE IS	0.10893 AT (	562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC
	3RD HIGHEST VALUE IS	0.09493 AT (	562085.76,	4821512.01,	311.00,	311.00,	0.00)	DC
	4TH HIGHEST VALUE IS	0.09149 AT (	562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC
	5TH HIGHEST VALUE IS	0.09149 AT (	562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC
	6TH HIGHEST VALUE IS	0.08665 AT (	562065.76,	4821512.01,	311.00,	311.00,	0.00)	DC
	7TH HIGHEST VALUE IS	0.08102 AT (	562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC
	8TH HIGHEST VALUE IS	0.08102 AT (	562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC
	9TH HIGHEST VALUE IS	0.06501 AT (	562085.76,	4821532.01,	311.00,	311.00,	0.00)	DC
	10TH HIGHEST VALUE IS	0.06296 AT (	562105.76,	4821512.01,	311.00,	311.00,	0.00)	DC

**MODELOPTs: NonDFAULT CONC ELEV FLGPOL BETA

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF HCR IN NANOGRAMS/M3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
C80	1ST HIGHEST VALUE IS 0.10910 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)		DC	
	2ND HIGHEST VALUE IS 0.10910 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)		DC	
	3RD HIGHEST VALUE IS 0.10763 AT (562065.76, 4821512.01, 311.00, 311.00, 0.00)		DC	
	4TH HIGHEST VALUE IS 0.10032 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00)		DC	
	5TH HIGHEST VALUE IS 0.10032 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00)		DC	
	6TH HIGHEST VALUE IS 0.08681 AT (562085.76, 4821512.01, 311.00, 311.00, 0.00)		DC	
	7TH HIGHEST VALUE IS 0.07391 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00)		DC	
	8TH HIGHEST VALUE IS 0.07391 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00)		DC	
	9TH HIGHEST VALUE IS 0.06977 AT (562085.76, 4821492.01, 310.52, 310.52, 0.00)		DC	
	10TH HIGHEST VALUE IS 0.06310 AT (562056.81, 4821505.08, 310.84, 310.84, 0.00)		DC	
ALL	1ST HIGHEST VALUE IS 10.74366 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)		DC	
	2ND HIGHEST VALUE IS 10.74366 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)		DC	

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         3RD HIGHEST VALUE IS       9.14968 AT (  562070.91,  4821533.11,   311.00,   311.00,    0.00)  DC
         4TH HIGHEST VALUE IS       9.14968 AT (  562070.91,  4821533.11,   311.00,   311.00,    0.00)  DC
         5TH HIGHEST VALUE IS       8.28830 AT (  562057.04,  4821518.74,   311.00,   311.00,    0.00)  DC
         6TH HIGHEST VALUE IS       8.28830 AT (  562057.04,  4821518.74,   311.00,   311.00,    0.00)  DC
         7TH HIGHEST VALUE IS       7.32613 AT (  562065.76,  4821512.01,   311.00,   311.00,    0.00)  DC
         8TH HIGHEST VALUE IS       7.30037 AT (  562085.76,  4821512.01,   311.00,   311.00,    0.00)  DC
         9TH HIGHEST VALUE IS       6.49330 AT (  562085.76,  4821532.01,   311.00,   311.00,    0.00)  DC
        10TH HIGHEST VALUE IS       5.20929 AT (  562077.84,  4821540.29,   311.01,   311.01,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀*** AERMOD - VERSION  14134 ***   *** OC Guelph Project 144539 - Site Specific Standard                  ***        02/27/15
 *** AERMET - VERSION  14134 ***   *** Ann_Opt_P_R2_Metyr2                                               ***       14:55:42
                                                                                                                 PAGE   8
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    BETA

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of            3 Informational Message(s)

 A Total of         8760 Hours Were Processed

 A Total of            3 Calm Hours Identified

 A Total of            0 Missing Hours Identified (  0.00 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***
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