



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

December 11, 2007

Robert E. Roberts, Regional Administrator
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

RE: Proposed Designations in South Dakota for the PM2.5 Standard

Dear Administrator Roberts:

Thank you for your letter asking Governor Rounds to provide the Environmental Protection Agency (EPA) with the appropriate recommendations for designating areas of the state for the fine particulate (PM2.5) National Ambient Air Quality Standard. Governor Rounds has previously delegated the authority to determine and submit these designations for South Dakota to the Secretary of the Department of Environment and Natural Resources (DENR).

EPA revised the particulate matter standard in 2006 by reducing the 24-hour standard for PM2.5. DENR operates a network of monitoring sites which began collecting PM2.5 data in 1999. The sampling network includes sites in several counties to meet the monitoring goals of high concentration, population, source impact, background and regional transport. The population of these counties with air monitoring sites represents about 50 percent of the state's population. See Attachment 1 for a map of the state showing the counties with PM2.5 monitoring data.

The average 24-hour concentration for each site was calculated as the three-year average of the yearly 98 percentile concentration (see Attachment 2). The PM2.5 data collected in the state during the years of 2004 to 2006 show no 24-hour concentration levels that exceed the revised 24-hour standard. DENR expects future sampling will continue to show the same results. As required by Section 107(d)(1) of the Clean Air Act, I recommend that EPA designate all counties in South Dakota as attaining the 24-hour standard for PM2.5. See Attachment 3 for a complete list of proposed designations for the counties in South Dakota.

The highest calculated 24-hour 98 percentile average was recorded at the Sioux Falls Hilltop site and Watertown site. Both had a concentration level of 24 micrograms per cubic meter. Attachment 4 contains a PM2.5 data summary report AMP 450 printed from the Air Quality Systems. This report was used to calculate the 24-hour concentrations.

Thank you again for the opportunity to propose designations for the revised 24-hour PM2.5 standard. We look forward to EPA's approval of these recommended designations. If there are questions about this notice, please contact Brian Gustafson with DENR at 605-773-3151.

Sincerely,

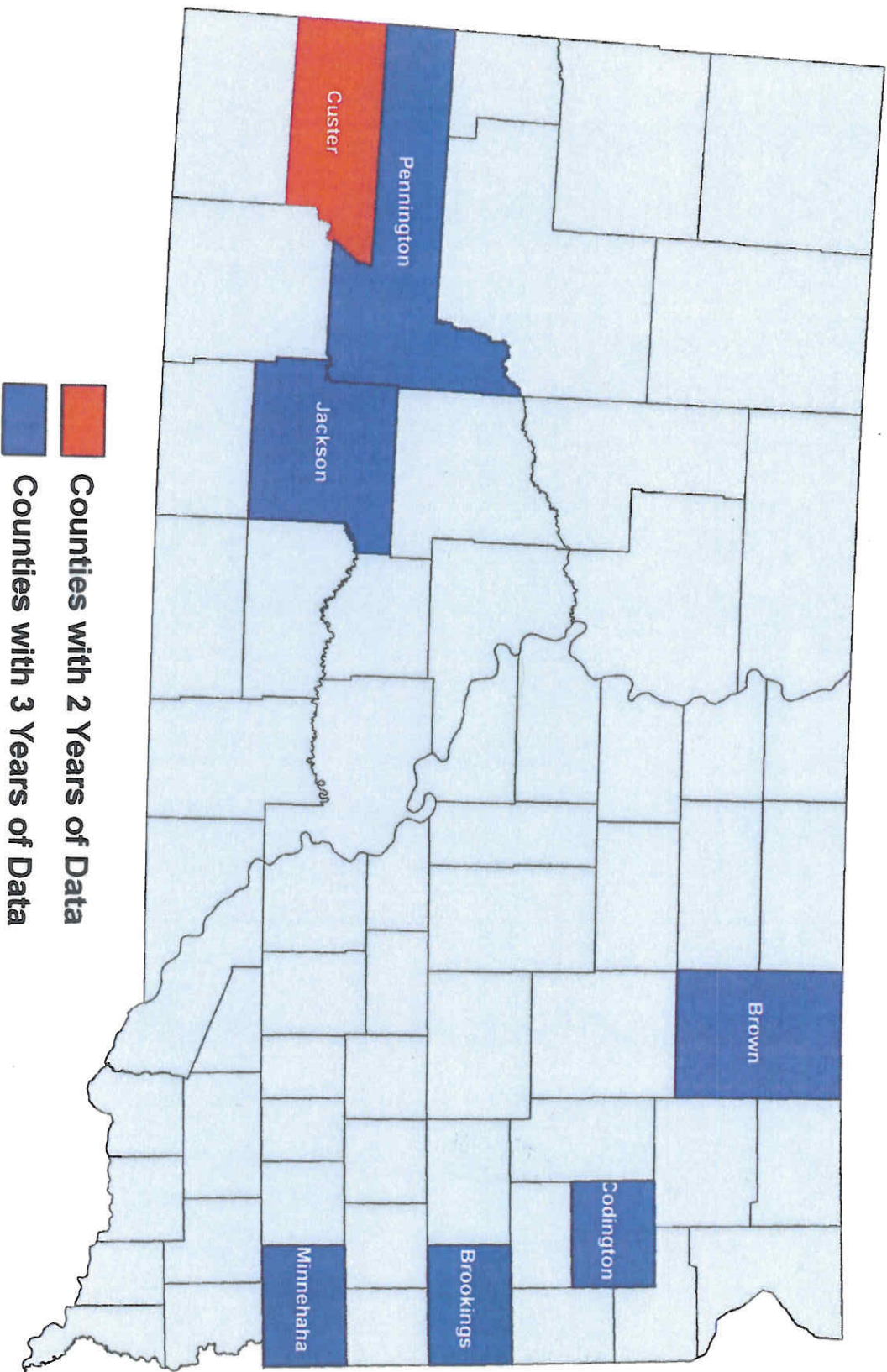


Steven M. Pirner, PE
Secretary

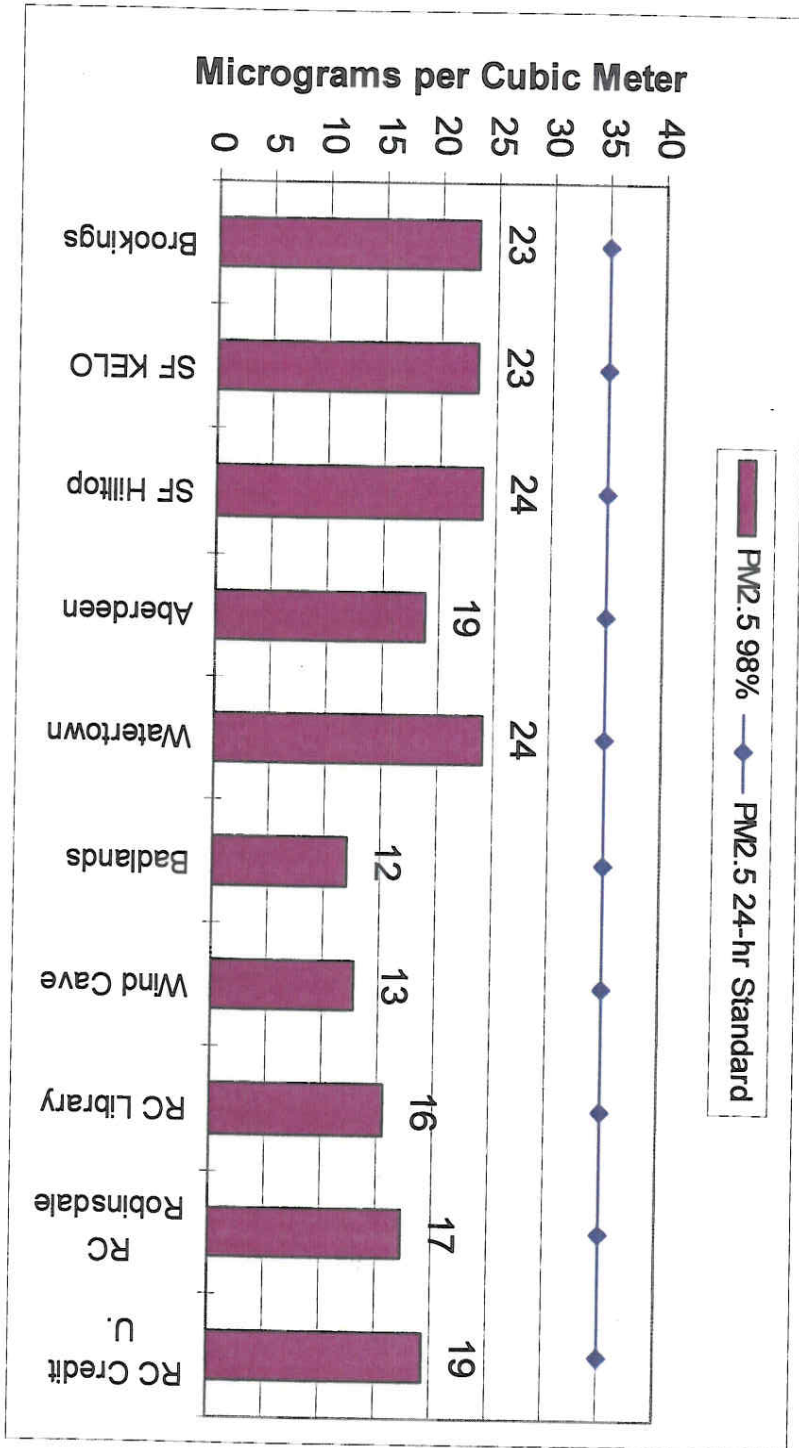
Enclosures

cy: Governor M. Michael Rounds, State of South Dakota
Jason Glodt, Senior Policy Advisor, Governor's Office
Dick Sweetman, Chair, South Dakota Board of Minerals and Environment
Callie Videtich, EPA Region 8
Catherine Roberts, EPA Region 8 ✓

Attachment 1. South Dakota Counties with PM2.5 Sampling Data



Attachment 2. South Dakota 24-Hour PM2.5 3-Year Average Concentrations



Attachment 2: PM_{2.5} Data Summary 2000-2006

Station	Calendar Year	Total # obs	1st max	2nd max	3rd max	4th max	98% value	Rolling 3-yr		Annual year annual	Rolling 3-year annual avg.	Comments
								98% avg.	arith mean			
Cheyenne	2000	112	15	14.5	13.2	12.8	13.2	N/A	5.58	N/A		
	2001	107	13.5	12.5	12.2	11.5	12.2	N/A	5.03	N/A		less than 75% completeness in 2nd qtr
	2002	108	15.2	15	13.8	13.5	13.8	13	4.69	5.1		
	2003	114	18.1	16.4	12.9	12.2	12.9	13	4.95	4.9		
	2004	115	26.8	24.1	15.5	12.8	15.5	14	5.00	4.9		
	2005	107	10.3	9.3	9.2	9	9.2	13	4.14	4.7		
Sheridan - Police Station	2006	115	14.8	13.4	13.4	12.8	13.4	13	4.32	4.5		
	2000	121	45	39.7	34.8	31.9	34.8	N/A	12.07	N/A		
	2001	119	47.8	42.3	39.6	34	39.6	N/A	11.05	N/A		
	2002	118	37.4	35.3	27.9	27.4	27.9	34	10.08	11.1		
	2003	116	29.9	27.1	26.3	24.3	26.3	31	10.07	10.4		
	2004	118	41.7	39.8	38.9	35.6	38.9	31	9.96	10.0		
Lander	2005	119	37.7	34.5	32.5	30.7	32.5	33	9.51	9.8		
	2006	118	27	26	24.4	23.9	24.4	32	9.78	9.8		
	2002	120	35.3	35.1	33.2	32.4	33.2	N/A	9.59	N/A		
	2003	119	36	26	25.7	25.4	25.7	N/A	8.15	N/A		
	2004	113	45.7	41.7	40.2	38.1	40.2	33	9.64	9.1		
	2005	115	37.1	32.1	30	28.3	30	32	7.74	8.5		
Buckskin	2006	116	24.7	23.5	23	20.2	23	31	7.72	8.4		
	2000	92	82	20.9	20.5	18.3	20.9	N/A	5.81	N/A		
	2001	46	17.7	14.9	10.7	10	17.7	N/A	4.83	N/A		less than 75% completeness 1st,2nd,3rd qtr
	2002	83	15.5	12.6	10.2	9.5	12.6	17	3.99	4.9		less than 75% completeness 4th qtr
	2003	109	24.4	21.5	16.4	15.8	16.4	16	5.90	4.9		
	2004	114	12.8	12.6	11.9	11.7	11.9	14	5.46	5.1		
Antelope	2005	115	14.2	12.7	12.2	11.2	12.2	14	5.13	5.5		
	2006	103	26.9	20.9	11.8	11.5	11.8	12	5.16	5.3		
	2000	83	14.5	13.7	13.5	12.8	13.7	N/A	3.33	N/A		less than 75% collection in 4th qtr
	2001	49	12.3	8	7.5	7	12.3	N/A	3.78	N/A		less than 75% collection in 1st,2nd qtr
	2002	93	15.4	10.6	9.9	8.3	10.6	12	3.40	3.5		less than 75% collection in 3rd qtr
	2003	113	28.7	15.8	15.5	12.7	15.5	13	4.30	3.8		
Antelope	2004	108	10.5	9.7	8.8	8.7	8.8	12	3.30	3.7		
	2005	111	12.2	8.2	7.3	7	7.3	11	3.20	3.6		
	2006	106	22	17	12.3	9.9	12.3	9	3.87	3.5		

Attachment 2: PM_{2.5} Data Summary 2000-2006

Station	Calendar Year	Total # obs	1st max	2nd max	3rd max	4th max	98% value	Rolling 3-yr		Annual year annual avg.	Rolling 3-year annual avg.	Comments
								98% avg.	arith mean			
Pinedale - High School	2005	48	24.3	13.2	12.8	12.7	N/A	N/A	N/A	N/A	N/A	began operation in July 2005
	2006	115	39.2	18.3	16.5	16.5	16.5	N/A	N/A	7.07	N/A	Waiting for concurrence on 39.2 flagged for wildfire event
Jackson - Teton City.	2001	60	29.5	26.8	26.6	20.8	N/A	N/A	N/A	N/A	N/A	began operation in July 2001
	2002	65	17.8	15.1	14.4	13.5	15.1	N/A	N/A	7.41	N/A	less than 75% data collection in 2nd qtr
	2003	97	23.7	22.5	19.2	15.5	22.5	N/A	N/A	6.70	N/A	less than 75% data collection in 1st qtr
	2004	99	32.4	22.5	21.3	15.1	22.5	20	20	6.72	6.9	less than 75% data collection in 4th qtr
	2005	85	37.5	29.7	22.6	21.1	29.7	25	25	6.82	6.7	less than 75% data collection 3rd, 4th qtr
	2006	114	23.3	20.4	19.6	18	19.6	24	24	6.84	6.8	
Sheridan - Highland Park	2005	27	15.8	15.1	12.5	11.3	N/A	N/A	N/A	N/A	N/A	site moved from Central Middle School
	2006	120	22.3	20	13	12.8	13	N/A	N/A	5.70	N/A	
Sheridan - Central Middle School	2000	121	40.1	38.8	38.3	35.5	38.3	N/A	N/A	11.90	N/A	
	2001	119	47.8	40.7	35.8	34.9	35.8	N/A	N/A	10.00	N/A	
	2002	115	32.8	30.1	27.8	26.4	27.8	34	34	8.80	10.2	
	2003	113	31.9	25.2	25.1	23.7	25.1	30	30	9.00	9.3	check on data completeness
	2004	110	39	34.1	31.3	31.3	31.3	28	28	8.40	8.7	site moved to Highland Park School
	2005	58	29.5	22.6	16.5	14.8	N/A	N/A	N/A	N/A	N/A	
Black Thunder 26-2	2000	108	21.1	18.2	16.1	15	16.1	N/A	N/A	6.08	N/A	
	2001	112	17.3	17.3	16.2	14.7	16.2	N/A	N/A	6.46	N/A	
	2002	103	19.3	18.3	17.9	17.6	17.9	17	17	6.18	6.2	less than 75% data collection in 1st qtr
	2003	105	24	22.2	20.7	19.9	20.7	18	18	6.75	6.5	
	2004	114	17	16.8	16.7	16.1	16.7	18	18	5.69	6.2	less than 75% data collection in 4th qtrs
	2005	103	22.6	19.3	18.5	15.8	18.5	19	19	6.44	6.3	less than 75% data collection in 1st, 3rd qtrs
Belle Ayr	2000	89	30	21.8	18.5	15.4	21.8	19	19	6.33	6.2	
	2001	99	23.8	23	20.5	19.2	23	N/A	N/A	6.20	N/A	1-in-6 schedule during 1st qtr
	2002	74	14.7	11.7	10.8	10.2	11.7	N/A	N/A	5.22	N/A	1-in-6 schedule May-Dec.
	2003	98	15	13	12.5	12.2	13	16	16	4.96	5.5	1-in-6 schedule Jan.-April
	2004	114	24.5	18.8	16.3	14.8	16.3	14	14	5.78	5.3	
	2005	115	13.4	11.7	10.9	10.3	10.9	13	13	4.66	5.1	
2006	115	10.1	9.5	9.5	9.4	9.5	12	12	4.70	5.0		
2006	108	20.8	20	15.8	13.4	15.8	12	12	5.51	5.0	less than 75% data collection in 4th qtr	

Attachment 3

South Dakota – PM2.5 Designations

Designated Area	Designation	Classification
	Type	Type
Aurora County	Attainment	
Beadle County	Attainment	
Bennett County	Attainment	
Bon Homme County	Attainment	
Brookings County	Attainment	
Brown County	Attainment	
Brule County	Attainment	
Buffalo County	Attainment	
Butte County	Attainment	
Campbell County	Attainment	
Charles County	Attainment	
Clark County	Attainment	
Clay County	Attainment	
Codington County	Attainment	
Corson County	Attainment	
Custer County	Attainment	
Davison County	Attainment	
Day County	Attainment	
Deuel County	Attainment	
Dewey County	Attainment	
Douglas County	Attainment	
Edmunds County	Attainment	
Fall River County	Attainment	
Faulk County	Attainment	
Grant County	Attainment	
Gregory County	Attainment	
Haakon County	Attainment	
Hamlin County	Attainment	
Hand County	Attainment	
Hanson County	Attainment	
Harding County	Attainment	
Hughes County	Attainment	
Hutchinson County	Attainment	

Designated Area	Designation	Classification
	Type	Type
Hyde County	Attainment	
Jackson County	Attainment	
Jerauld County	Attainment	
Jones County	Attainment	
Kingsbury County	Attainment	
Lake County	Attainment	
Lawrence County	Attainment	
Lincoln County	Attainment	
Lyman County	Attainment	
Marshall County	Attainment	
McCook County	Attainment	
McPherson County	Attainment	
Meade County	Attainment	
Mellette County	Attainment	
Miner County	Attainment	
Minnehaha County	Attainment	
Moody County	Attainment	
Pennington County	Attainment	
Perkins County	Attainment	
Potter County	Attainment	
Roberts County	Attainment	
Sanborn County	Attainment	
Shannon County	Attainment	
Spink County	Attainment	
Stanley County	Attainment	
Sully County	Attainment	
Todd County	Attainment	
Tripp County	Attainment	
Turner County	Attainment	
Union County	Attainment	
Walworth County	Attainment	
Yankton County	Attainment	
Ziebach County	Attainment	

Attachment 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SYSTEM
 QUICK LOOK REPORT (AMP450)

Oct. 25, 2007

PM2.5 - Local Conditions (88101)
 24-HOUR

South Dakota

Micrograms/cubic meter (LC) (105)

SITE ID	P	C	POAO	CITY	COUNTY	ADDRESS	YEAR	METH	#OBS	98TH				WTD		CERT	EDI
										1ST MAX	2ND MAX	3RD MAX	4TH MAX	PERCENTILE VALUE	ARITH MEAN		
46-011-0002	1	0973	Brookings	Brookings	BROOKINGS CITY HALL BUILDING	2004	119	118	30.1	24.3	23.9	23.5	23.9	9.33	Y	0	
46-011-0002	1	0973	Brookings	Brookings	BROOKINGS CITY HALL BUILDING	2005	119	113	27.1	25.8	24.4	24.1	24.4	9.67	Y	0	
46-011-0002	1	0973	Brookings	Brookings	BROOKINGS CITY HALL BUILDING	2006	119	114	26.2	21.9	21.6	18.9	21.6	8.89	Y	0	
46-013-0003	1	0973	Aberdeen	Brown	111 2ND AVE SE FIRE STATION #1 ABERDEEN	2004	119	122	28.1	22.9	16.6	16.5	16.6	8.06	Y	0	
46-013-0003	1	0973	Aberdeen	Brown	111 2ND AVE SE FIRE STATION #1 ABERDEEN	2005	119	122	26.5	22.7	21.7	21.3	21.7	8.97	Y	0	
46-013-0003	1	0973	Aberdeen	Brown	111 2ND AVE SE FIRE STATION #1 ABERDEEN	2006	119	121	21.8	20.5	18.1	17.4	18.1	8.18	Y	0	
46-029-0002	1	0973	Watertown	Codington	801 4TH AVE SW - WATERTOWN	2004	119	120	36.3	25.7	23.0	22.9	23.0	10.42	Y	0	
46-029-0002	1	0973	Watertown	Codington	801 4TH AVE SW - WATERTOWN	2005	119	121	27.0	26.5	25.8	25.6	25.8	10.69	Y	0	
46-029-0002	1	0973	Watertown	Codington	801 4TH AVE SW - WATERTOWN	2006	119	118	28.1	23.9	23.2	22.2	23.2	9.92	Y	0	
46-033-0132	1	0973	Not in a city	Custer	WIND CAVE NATIONAL PARK, SOUTH	2005	119	121	16.2	13.6	13.4	10.8	13.4	5.39	Y	0	

Note: The * indicates that the mean does not satisfy summary criteria.

Attachment 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SYSTEM
 QUICK LOOK REPORT (AMP450)

Oct. 25, 2007

PM2.5 - Local Conditions (88101)
 24-HOUR

South Dakota

Micrograms/cubic meter (LC) (105)

SITE ID	C	PQAO	CITY	COUNTY	ADDRESS	YEAR	METH	#OBS	98TH				WTD	ARITH	MEAN	CERT	EDT
									1ST	2ND	3RD	4TH					
									MAX	MAX	MAX	MAX	VALUE				
46-033-0132	1	0973	Not in a city	Custer	WIND CAVE NATIONAL PARK, SOUTH DAKOTA	2006	119	111	16.5	14.8	12.2	12.2	12.2	12.2	5.34	0	
46-071-0001	1	0973	Not in a city	Jackson	BADLANDS PO BOX 6 HEADQUARTERS	2004	119	120	13.5	12.5	12.1	11.9	12.1	12.1	5.25	Y	0
46-071-0001	1	0973	Not in a city	Jackson	BADLANDS PO BOX 6 HEADQUARTERS	2005	119	120	15.4	14.1	11.4	10.1	11.4	11.4	5.35	Y	0
46-071-0001	1	0973	Not in a city	Jackson	BADLANDS PO BOX 6 HEADQUARTERS	2006	119	120	15.7	14.1	13.5	12.8	13.5	13.5	5.38	0	
46-093-0001	1	0973	Not in a city	Meade	7108 SEHAIRE ST - BLACK HAWK ELEMENTARY	2004	119	120	24.4	19.3	18.0	14.8	18.0	18.0	6.29	Y	0
46-099-0006	1	0973	Sioux Falls	Minnehaha	500 S. PHILLIPS KELO SITE	2004	119	115	34.2	23.3	21.3	21.1	21.3	21.3	10.07	Y	0
46-099-0006	1	0973	Sioux Falls	Minnehaha	500 S. PHILLIPS KELO SITE	2005	119	121	29.8	28.2	26.1	21.7	26.1	26.1	10.68	Y	0
46-099-0006	1	0973	Sioux Falls	Minnehaha	500 S. PHILLIPS KELO SITE	2006	119	120	26.1	24.0	22.1	22.0	22.1	22.1	9.72	0	
46-099-0007	1	0973	Sioux Falls	Minnehaha	BAHNSON AVE, HILLTOP SITE	2004	119	120	33.5	22.6	22.3	20.4	22.3	22.3	9.62	Y	0
46-099-0007	1	0973	Sioux Falls	Minnehaha	BAHNSON AVE, HILLTOP SITE	2005	119	119	26.5	26.2	26.0	21.4	26.0	26.0	9.95	Y	0
46-099-0007	1	0973	Sioux Falls	Minnehaha	BAHNSON AVE, HILLTOP SITE	2006	119	114	33.2	23.3	23.1	19.9	23.1	23.1	9.37	0	

Note: The * indicates that the mean does not satisfy summary criteria.

Attachment 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
QUICK LOOK REPORT (AMP450)

Oct. 25, 2007

PM2.5 - Local Conditions (881011)
24-HOUR

South Dakota

Micrograms/cubic meter (LC) (105)

SITE ID	C	PQAO	CITY	COUNTY	ADDRESS	YEAR	METH	#OBS	98TH				MTD		Y	0
									1ST	2ND	3RD	4TH	PERCENTILE	ARITH		
									MAX	MAX	MAX	MAX	VALUE	MEAN	CERT	EDT
46-103-0013	1	0973	Rapid City	Pennington	HILLTOP SITE NATIONAL GUARD CAMP	2004	119	40	13.6	13.3	13.1	11.1	13.6	8.09*	Y	0
46-103-0016	1	0973	Rapid City	Pennington	ARMORY SITE INDIANA STREET ROBINSDALE SITE	2004	119	116	23.8	21.8	19.8	15.0	19.8	7.46	Y	0
46-103-0016	1	0973	Rapid City	Pennington	424 EAST INDIANA STREET ROBINSDALE SITE	2005	119	117	19.1	17.5	15.1	14.9	15.1	7.50	Y	0
46-103-0016	1	0973	Rapid City	Pennington	424 EAST INDIANA STREET ROBINSDALE SITE	2006	119	122	31.5	21.7	16.6	16.5	16.6	7.81	Y	0
46-103-0020	1	0973	Rapid City	Pennington	CREDIT UNION SITE, 106 KINNEY AVE.	2004	119	122	29.1	20.1	19.4	18.7	19.4	8.63	Y	0
46-103-0020	1	0973	Rapid City	Pennington	CREDIT UNION SITE, 106 KINNEY AVE.	2005	119	122	34.0	23.1	18.4	17.9	18.4	8.58	Y	0
46-103-0020	1	0973	Rapid City	Pennington	CREDIT UNION SITE, 106 KINNEY AVE.	2006	119	120	35.5	22.7	19.9	18.6	19.9	9.30	Y	0
46-103-1001	1	0973	Rapid City	Pennington	CITY LIBRARY 6TH AND QUINCY	2004	119	118	20.7	16.6	15.8	15.3	15.8	7.25	Y	0
46-103-1001	1	0973	Rapid City	Pennington	CITY LIBRARY	2005	119	120	17.4	17.3	14.5	13.4	14.5	7.25	Y	0

Note: The * indicates that the mean does not satisfy summary criteria.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SYSTEM
 QUICK LOOK REPORT (AMP450)

Oct. 25, 2007

PM2.5 - Local Conditions (88101)

South Dakota

Micrograms/cubic meter (LC) (105)

SITE ID	C	POAO	CITY	COUNTY	ADDRESS	YEAR	METH	#OBS	98TH				WTD		
									1ST MAX	2ND MAX	3RD MAX	4TH MAX	PERCENTILE VALUE	ARITH MEAN	CERT EST
46-103-1001	1	0973	Rapid City	Pennington	6TH AND QUINCY CITY LIBRARY	2006	119	121	17.2	16.8	16.1	15.0	16.1	7.43	0

Note: The * indicates that the mean does not satisfy summary criteria.