



**Pinal County  
2009 First Quarter  
PM<sub>10</sub> Exceptional/Natural Events  
Executive summary**

Pinal County is located between Maricopa County (Phoenix) and Pima County (Tucson) in south central Arizona. Pinal county has an estimated population of 324,962<sup>1</sup> and has experienced significant growth since the last census in 2000 (179,727). Central and western portions of Pinal County include significant PM<sub>10</sub> sources such as dirt roads, feedlots, agriculture and construction. Additionally, central Arizona experiences periods of significant winds associated with frontal passages and summer monsoon storms. Pinal County Air Quality Control District (PACQCD) currently runs several continuous Tapered Element Oscillating Microbalance (TEOM) and filter based (47 mm & Hi-Vol) monitors in central and western Pinal County.

In the first quarter of 2009, there were five days where Pinal County monitors exceeded the PM<sub>10</sub> 24-hr National Ambient Air Quality Standard (NAAQS). Two of the five exceedance days can be shown “but for” the particular “exceptional/Natural event” each monitor would NOT have exceeded the PM<sub>10</sub> 24-hr NAAQS.

The table below briefly outlines the exceedance, wind speed and exceptional/natural event data. More details of the events can be found in the Technical Support Documentation (TSD) which is in Microsoft PowerPoint (PPT). The TSDs should be viewed in their entirety in order to get a complete picture of the events which justify flagging each exceedance day as an “exceptional event”. This executive summary combined with the TSDs will be sent to the Environmental Protection Agency (EPA) requesting that EPA concur with PACQCD’s flagging of these PM<sub>10</sub> 24-hr concentrations as associated with an “exceptional event” and thus not be used for compliance determination with the PM<sub>10</sub> 24-hr NAAQS.

Table of First Quarter 2009 Pinal County PM<sub>10</sub> 24-hr Exceedances Associated with Exceptional Events

Date	Site	AQS Site Number (POC)	24-hr Concentration (ug/m <sup>3</sup> )	Max. Wind (mph)	Event
3/22/09	Cowtown (TEOM)	04-021-3013 (3)	332.1	37 mph	Cold Front
3/22/09	Stanfield (TEOM)	04-021-3008 (3)	196.8		
3/22/09	PCH (TEOM)	04-021-3011(3)	170.6		
3/26/09	PCH (TEOM)	04-021-3011(3)	337.1	37 mph	Cold Front
3/26/09	Maricopa (TEOM)	04-021-3010 (3)	284.8		
3/26/09	Cowtown (TEOM)	04-021-3013 (3)	224.6		
3/26/09	Stanfield (TEOM)	04-021-3008 (3)	209.6		
3/26/09	Cowtown (Filter)	04-021-3013 (1)	197		
3/26/09	Coolidge (Filter)	04-021-3004 (1)	189		
3/26/09	PCH <sub>East</sub> (Filter)	04-021-3011 (2)	187		
3/26/09	PCH <sub>West</sub> (Filter)	04-021-3011 (1)	179		

<sup>1</sup> Central Arizona Association of Governments (CAAG) July 1, 2007 estimate.