



**Pinal County
2009 Fourth Quarter
PM₁₀ 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 324,962¹ and has experienced significant growth since the last census in 2000 (179,727). Central and western portions of Pinal County include significant PM₁₀ 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 (PCAQCD) 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 fourth quarter of 2009, there were twenty five days where Pinal County monitors exceeded the PM₁₀ 24-hr National Ambient Air Quality Standard (NAAQS). Five of the exceedance days can be shown “but for” the particular “exceptional/Natural event” each monitor would NOT have exceeded the PM₁₀ 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 a Technical Support document (TSD). The TSDs should be viewed in their entirety in order to get a complete picture of the particular event 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 PCAQCD’s flagging of these PM₁₀ 24-hr concentrations as associated with an “exceptional event” and thus not be used for compliance determination with the PM₁₀ 24-hr NAAQS.

Table of Fourth Quarter 2009 Pinal County PM₁₀ 24-hr Exceedances Associated with Exceptional Events

Date	Site	AQS Site Number (POC)	24-hr Concentration (ug/m ³)	Max. Wind (mph)	Event
10/4/09	PCH (TEOM)	04-021-3011(3)	167.4	25 mph	Upper level low
10/27/09	PCH (TEOM)	04-021-3011(3)	798.5	37 mph	Cold Front
	Stanfield (TEOM)	04-021-3008 (3)	660.9		
	Cowtown (TEOM)	04-021-3013(3)	626.3		
	Maricopa (TEOM)	04-021-3010(3)	428.3		
	Casa Grande (TEOM)	04-021-0001(3)	274.4		
	Combs (TEOM)	04-021-3009(3)	220.4		
11/28/09	PCH	04-021-3011(3)	267.4	30 mph	Cold Front

¹ Central Arizona Association of Governments (CAAG) July 1, 2007 estimate.

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Assistant County
Manager



Terry Doolittle
County Manager

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Date	Site	AQS Site Number (POC)	24-hr Concentration (ug/m ³)	Max. Wind (mph)	Event
12/7/09	Cowtown (TEOM)	04-021-3013(3)	305.9	51 mph	Cold Front
	Stanfield (TEOM)	04-021-3008(3)	282.4		
	Maricopa (TEOM)	04-021-3010(3)	164.4		
	Casa Grande (TEOM)	04-021-0001 (3)	162.6		
	PCH (TEOM)	04-021-3011 (3)	157.3		
12/22/09	PCH (TEOM)	04-021-3011 (3)	887.2	48 mph	Cold Front