



**Consequence Report**  
**Set 4: Updated Smoke forecast**  
**Automated Report - Assessment**

Issued: May 27, 2009 15:49 GMT

## SUMMARY:

This report describes the health effect consequences associated with a hypothetical fire release to the atmosphere from a generic source. This is an initial, automated NARAC product, not a final recommendation. Initial predictions are for a limited time period and areas affected may change at later times. Please consult NARAC staff (925-422-7627) for refined, quality assured predictions. Predictions should be confirmed and refined using measurements.

## PRODUCTS:

**Average Air Conc. of particulate 05/27/2009 15:00:00 UTC**

Material: particulate

**Average Air Conc. of particulate 05/27/2009 18:00:00 UTC**

Material: particulate

**Average Air Conc. of particulate 05/27/2009 21:00:00 UTC**

Material: particulate

**Average Air Conc. of particulate 05/28/2009 00:00:00 UTC**

Material: particulate

**Average Air Conc. of particulate 05/28/2009 03:00:00 UTC**

Material: particulate

## SOURCE INFORMATION:

Release Start Time:	May 27, 2009 14:00 UTC
Release Stop Time:	May 28, 2009 03:00 UTC
Release Location:	(32.5825,-95.1989)
Source Material and Amount:	0.541667 g of particulate
Source Geometry:	gaussian cloud top at 875 ft
Particle Size Distribution:	All particulate is in the respirable range from 1-10 microns

## METEOROLOGY:

No precipitation is included in this calculation

## CONTACT INFORMATION:

Calculation requested on May 27, 2009 15:45 UTC by:

NARAC Staff, NARAC  
925-424-6465  
narac@lnl.gov

Approved by: IMAAC Operations  
Approver organization: IMAAC  
NARAC Contact Information email: narac@lnl.gov or phone (925) 424-6465

Phone: 925-422-9100

Email: [imaac@llnl.gov](mailto:imaac@llnl.gov)

Approved on: May 27, 2009 15:48 UTC

Classification: Not For Public Dissemination

## DISCLAIMER:

These model predictions are intended to be guidance, and are not final recommendations. The accuracy of any prediction will be limited by the accuracy of the input data, such as estimates of the amount of material that becomes airborne and the available meteorological data for the area and time of the incident. Plume predictions may be for a limited time period, and may change at later times if new input data becomes available. Predictions should be confirmed and refined using field measurements. Air and ground concentration may be higher than predicted by this plume model simulation due the limited resolution of this particular simulation. For actual incidents or exercises, consult incident command and subject matter experts from the appropriate coordinating agency before making any decisions based on this model prediction.

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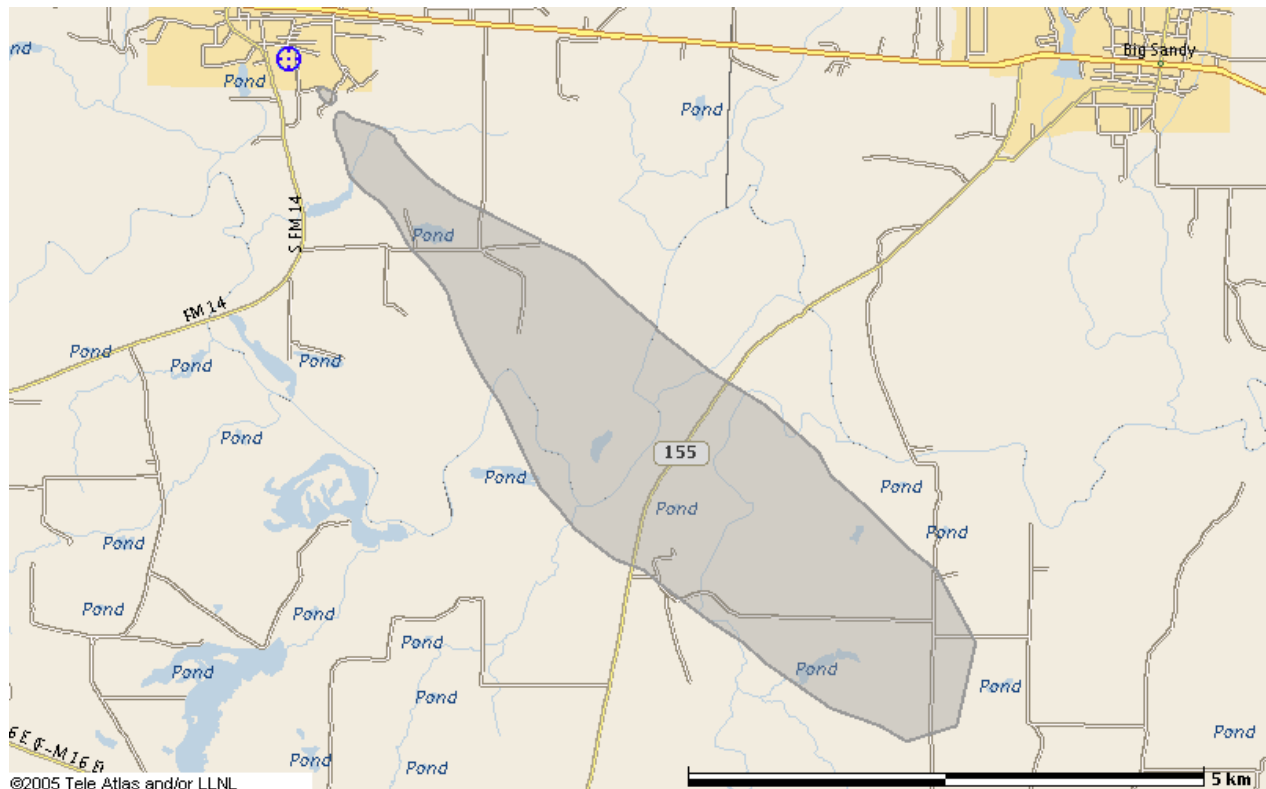
This work performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.

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Not For Public Dissemination  
Average Air Conc. of  
particulate 05/27/2009 15:00:00  
UTC

Set 4: Updated Smoke  
forecast  
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Assessment



### Effects and Actions

	Description	Level (g/m3)	Extent	Area	Population
	No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys.	>1.00E-12	9.2km	11.6 km2	20

Note: Areas and counts in the table are cumulative.

Effects or contamination from May 27, 2009 14:00 UTC to May 27, 2009 15:00 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 27, 2009 15:37 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/27/2009 09:00:00 CDT for 13 hr

gridded met

**Map Size:** 12.2 km by 7.6 km **Id:** Production.rcE17026.rcC1

**NARAC Operations:** ( onDuty Assessor ); narac@llnl.gov; 925-424-6465

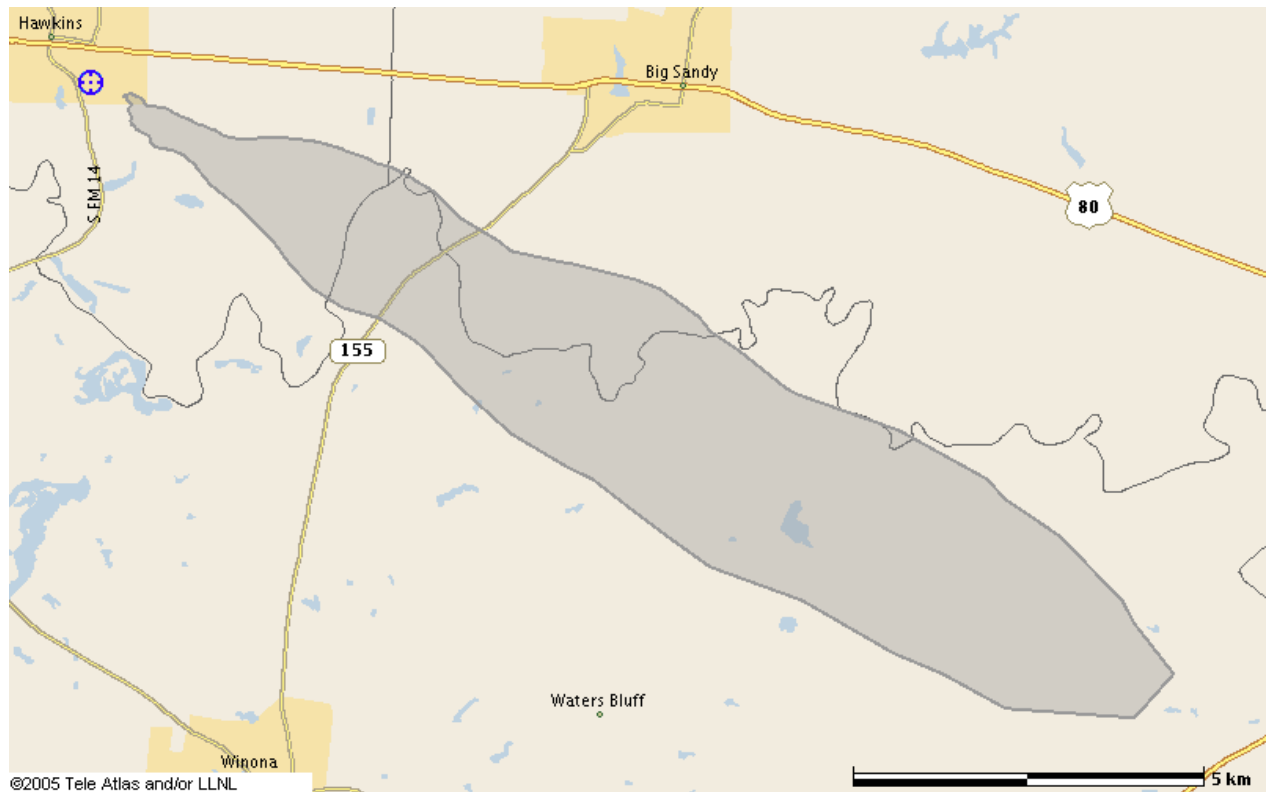
**Requested by:** {NARAC Staff; NARAC; 925-424-6465; narac@llnl.gov}

Approved by: {IMAAC Operations; IMAAC; 925-422-9100}



Not For Public Dissemination  
Average Air Conc. of  
particulate 05/27/2009 18:00:00  
UTC

Set 4: Updated Smoke  
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### Effects and Actions

	Description	Level (g/m3)	Extent	Area	Population
	No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys.	>1.00E-12	17.7km	34.9 km2	100

Note: Areas and counts in the table are cumulative.

Effects or contamination from May 27, 2009 17:00 UTC to May 27, 2009 18:00 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 27, 2009 15:37 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/27/2009 09:00:00 CDT for 13 hr

gridded met

**Map Size:** 18.0 km by 11.3 km **Id:** Production.rcE17026.rcC1

**NARAC Operations:** ( onDuty Assessor ); narac@llnl.gov; 925-424-6465

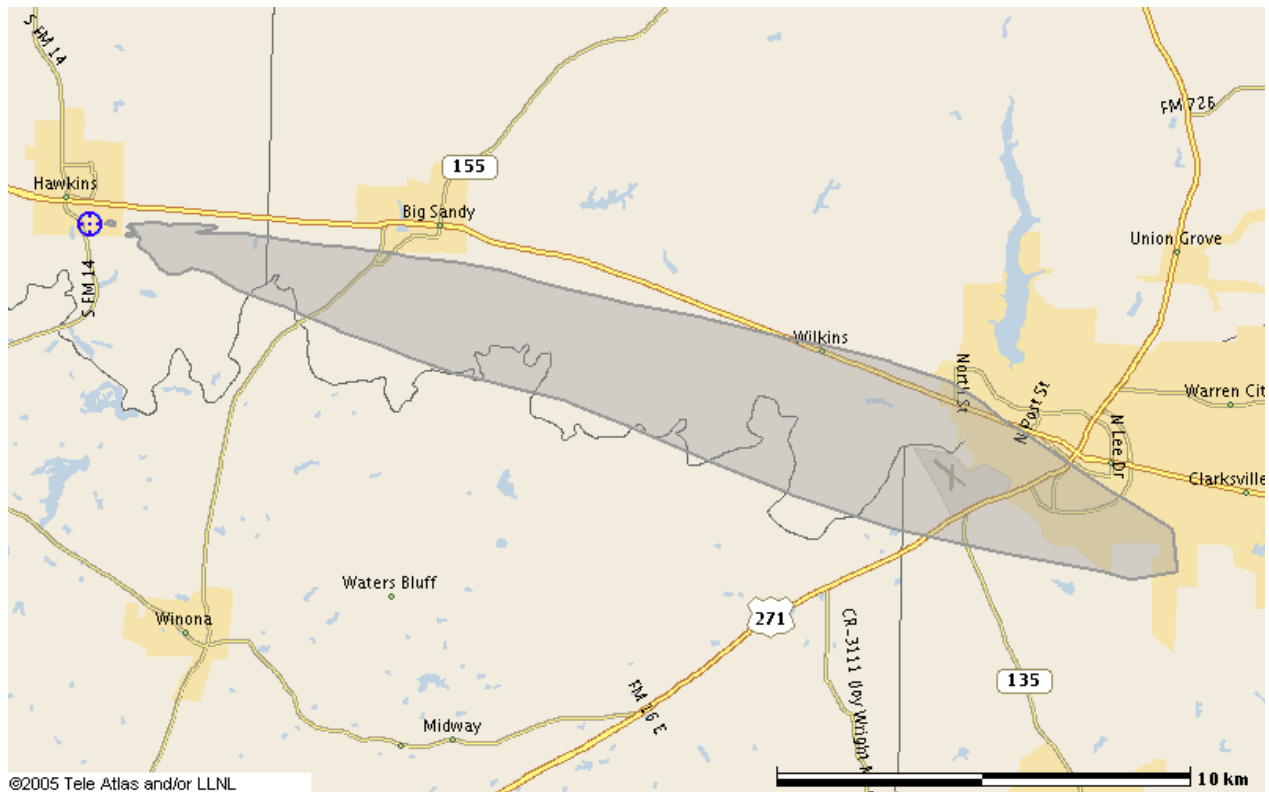
**Requested by:** {NARAC Staff; NARAC; 925-424-6465; narac@llnl.gov}

Approved by: {IMAAC Operations; IMAAC; 925-422-9100}



**Not For Public Dissemination**  
**Average Air Conc. of**  
**particulate 05/27/2009 21:00:00**  
**UTC**

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Effects and Actions					
	Description	Level (g/m3)	Extent	Area	Population
	No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys.	>1.00E-12	27.7km	69.1 km2	1,680
Note: Areas and counts in the table are cumulative.					

Effects or contamination from May 27, 2009 20:00 UTC to May 27, 2009 21:00 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 27, 2009 15:37 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/27/2009 09:00:00 CDT for 13 hr

gridded met

**Map Size:** 30.5 km by 19.1 km **Id:** Production.rcE17026.rcC1

**NARAC Operations:** ( onDuty Assessor ); narac@llnl.gov; 925-424-6465

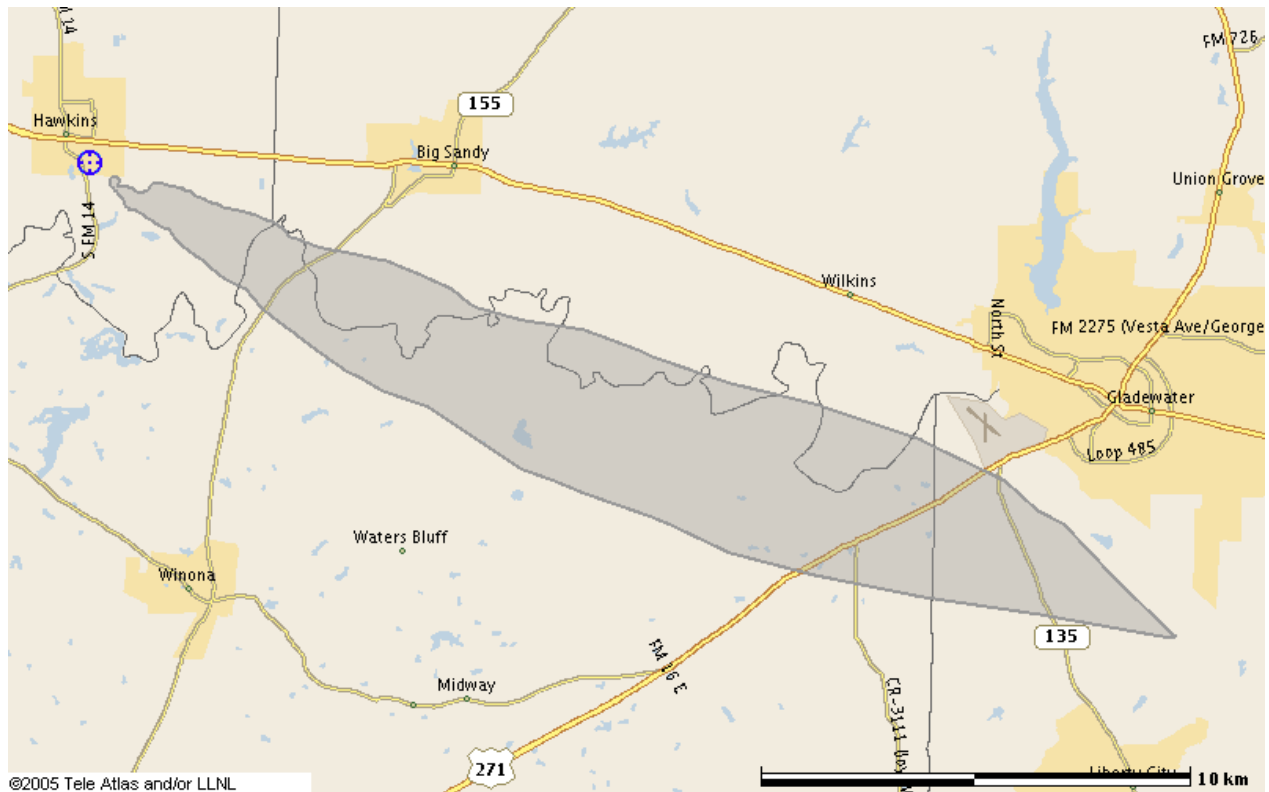
**Requested by:** {NARAC Staff; NARAC; 925-424-6465; narac@llnl.gov}

**Approved by:** {IMAAC Operations; IMAAC; 925-422-9100}



**Not For Public Dissemination**  
**Average Air Conc. of**  
**particulate 05/28/2009 00:00:00**  
**UTC**

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Effects and Actions					
	Description	Level (g/m3)	Extent	Area	Population
	No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys.	>1.00E-12	27.7km	72.5 km2	620
Note: Areas and counts in the table are cumulative.					

Effects or contamination from May 27, 2009 23:00 UTC to May 28, 2009 00:00 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 27, 2009 15:37 UTC

**Model:** ADAPT/LODI

**Comments:**

Hypothetical release

05/27/2009 09:00:00 CDT for 13 hr

gridded met

**Map Size:** 29.4 km by 18.4 km **Id:** Production.rcE17026.rcC1

**NARAC Operations:** ( onDuty Assessor ); narac@llnl.gov; 925-424-6465

**Requested by:** {NARAC Staff; NARAC; 925-424-6465; narac@llnl.gov}

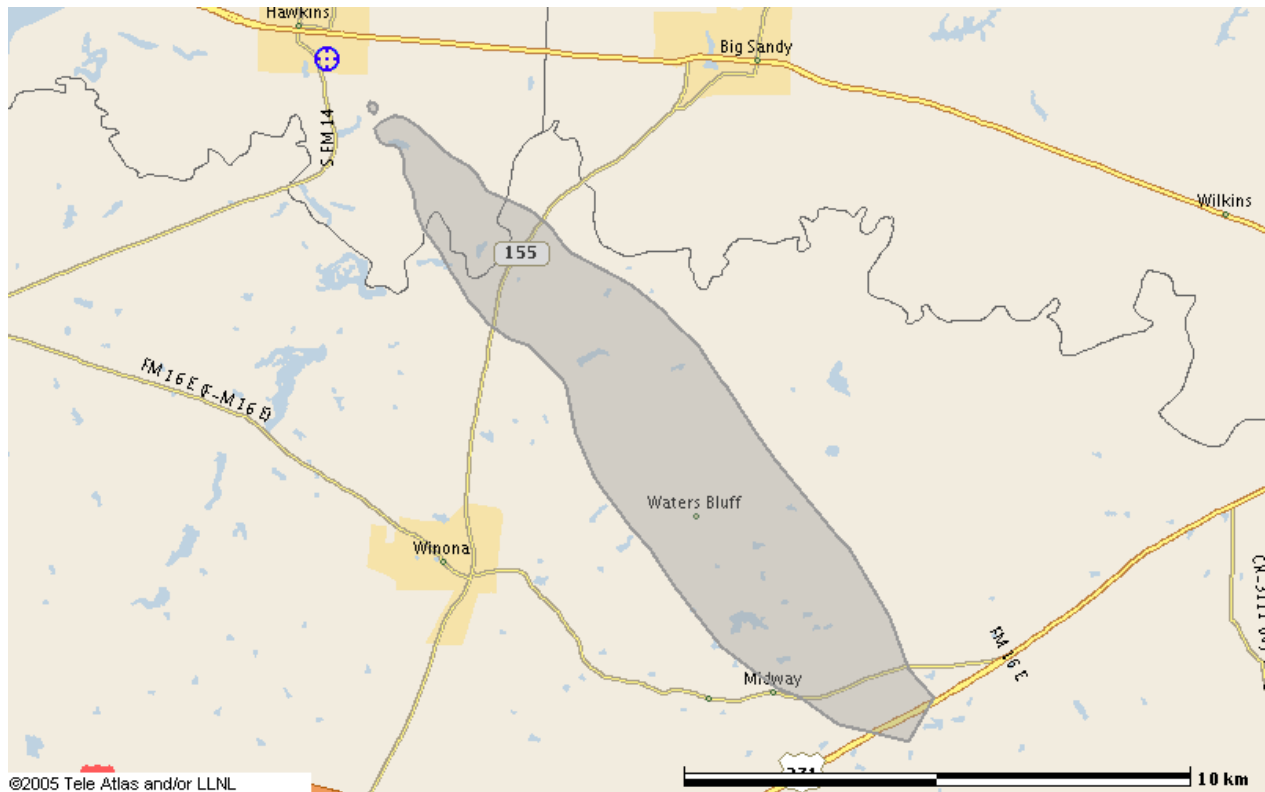
**Approved by:** {IMAAC Operations; IMAAC; 925-422-9100}



Not For Public Dissemination

Average Air Conc. of  
particulate 05/28/2009 03:00:00  
UTC

Set 4: Updated Smoke  
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Automated Report -  
Assessment



## Effects and Actions

	Description	Level (g/m3)	Extent	Area	Population
	No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys.	>1.00E-12	17.7km	37.5 km2	500

Note: Areas and counts in the table are cumulative.

Effects or contamination from May 28, 2009 02:00 UTC to May 28, 2009 03:00 UTC at or near ground level.

**Release Location:** 32.582458 N, 95.198950 W **Material:** particulate

**Generated On:** May 27, 2009 15:37 UTC

**Model:** ADAPT/LODI

**Comments:**

**Hypothetical release**

05/27/2009 09:00:00 CDT for 13 hr

gridded met

**Map Size:** 24.9 km by 15.5 km      **Id:** Production.rcE17026.rcC1

**NARAC Operations:** ( onDuty Assessor ); [narac@llnl.gov](mailto:narac@llnl.gov); 925-424-6465

**Requested by:** {NARAC Staff; NARAC; 925-424-6465; narac@llnl.gov}

Approved by: {IMAAC Operations; IMAAC; 925-422-9100}