

Overpressure (Blast Force) Threat Zone

ALOHA® 5.4.3



Time: April 3, 2012 1058 hours ST (user specified)

Chemical Name: METHANE

Wind: 2.8 meters/second from 315° true at 10 meters

THREAT ZONE:

Threat Modeled: Overpressure (blast force) from vapor cloud explosion

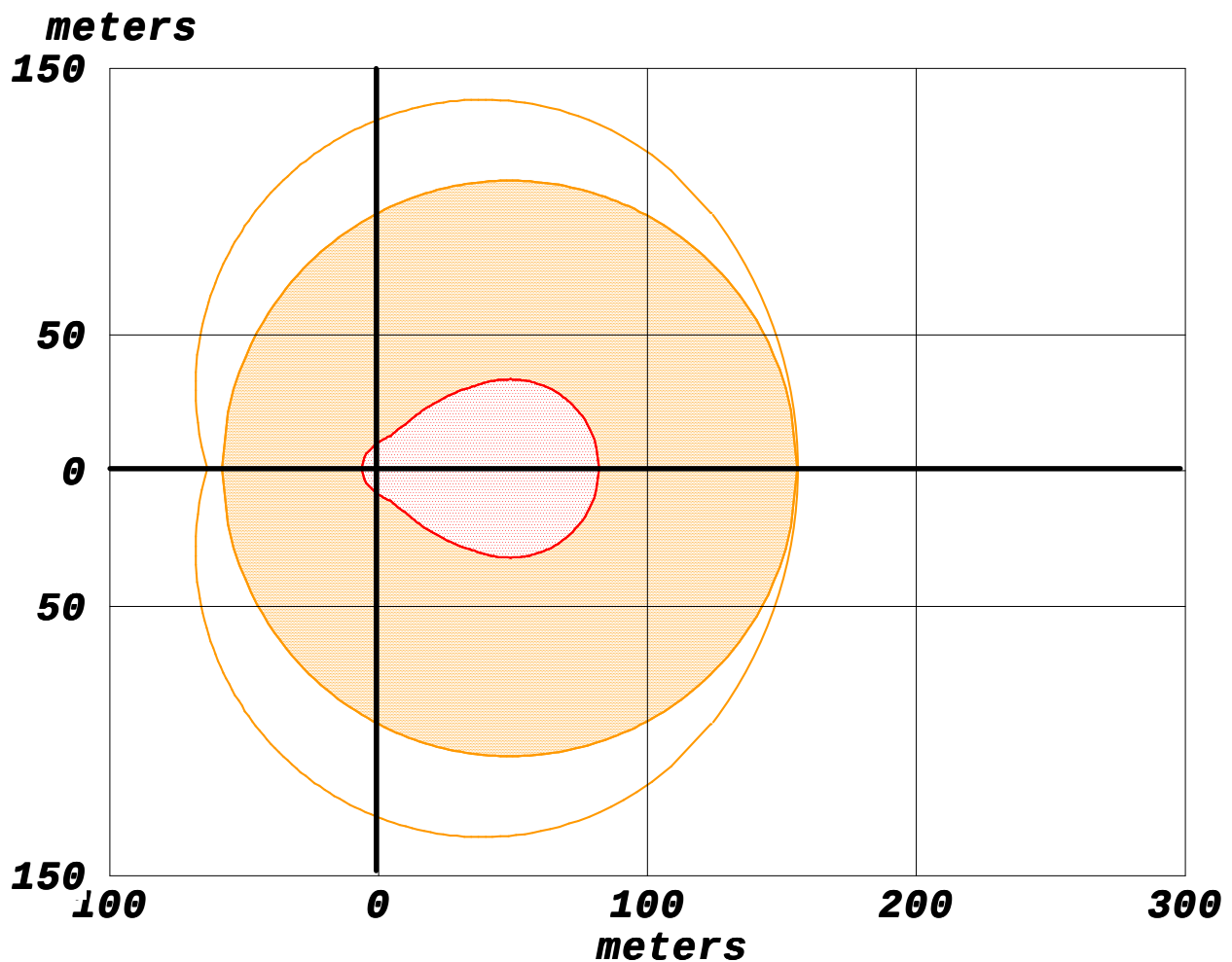
Type of Ignition: ignited by spark or flame

Level of Congestion: congested

Model Run: Heavy Gas

Red : 83 meters --- (2.03 psi)

Orange: 156 meters --- (0.7 psi)



-  **greater than 2.03 psi**
-  **greater than 0.7 psi**
-  **Confidence Lines**

**SITE DATA:****Location: MORA, PORTUGAL****Building Air Exchanges Per Hour: 0.30 (unsheltered double storied)****Time: April 3, 2012 1058 hours ST (user specified)****CHEMICAL DATA:****Chemical Name: METHANE****Molecular Weight: 16.04 g/mol****PAC-1: 2900 ppm PAC-2: 2900 ppm****PAC-3: 17000 ppm****LEL: 50000 ppm UEL: 150000 ppm****Ambient Boiling Point: -161.6° C****Vapor Pressure at Ambient Temperature: greater than 1 atm****Ambient Saturation Concentration: 1,000,000 ppm or 100.0%****ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)****Wind: 2.8 meters/second from 315° true at 10 meters****Ground Roughness: open country****Cloud Cover: 5 tenths****Air Temperature: 22° C****Stability Class: B****No Inversion Height****Relative Humidity: 25%****SOURCE STRENGTH:****Evaporating Puddle (Note: chemical is flammable)****Puddle Area: 428 square meters****Puddle Mass: 50.4 tons****Ground Type: Concrete****Ground Temperature: 22° C****Initial Puddle Temperature: -161.6° C****Release Duration: 48 minutes****Max Average Sustained Release Rate: 5,100 kilograms/min****(averaged over a minute or more)****Total Amount Released: 45,722 kilograms****THREAT ZONE:****Threat Modeled: Overpressure (blast force) from vapor cloud explosion****Type of Ignition: ignited by spark or flame****Level of Congestion: congested****Model Run: Heavy Gas****Red : 83 meters --- (2.03 psi)****Orange: 156 meters --- (0.7 psi)**