

# JET FIRE REPORT

Study Folder: TOP EVENT 23

Unique Audit Number: 534

PHAST v6.00



## TOP EVENT 23

### Propane spill out

#### LPG tanks

##### Base Case

##### Data

 **Weather:** Category 2/F

**Speed:** 2,00 m/s

**Stability:** F

TOP EVENT 23\Propane spill out\LPG tanks

#### Flame Data

##### User-Defined Quantities

Model Correlation Type	<b>Shell</b>	
Material	PROPANE	
Ambient Temperature	9,85	C
Ambient Relative Humidity	0,70	fraction
Ambient Wind Speed	2,00	m/s
Maximum Exposure Duration	20,00	s
Elevation	0,10	m

Liquid Fraction	0,61	fraction
Jet Angle from Horizontal	0,00	degrees
Expanded Temperature		C

Release Rate	161,11	kg/s
--------------	--------	------

##### Input and/or Output Quantities

##### Input

##### Output

Flame Emissive Power	87,37	kW/m2
Expanded Radius	0,18	m
Jet Velocity	247,63	m/s
Flame Length	213,83	m
Maximum Flame Radius		m

##### Flame Co-ordinates

<b>X</b>	<b>Z</b>	<b>R</b>	<b>Phi</b>
m	m	m	degrees
3,21	0,10	0,00	90,00
3,21	0,10	0,85	90,00
213,83	0,10	32,13	90,00
213,83	0,10	0,00	90,00

# JET FIRE REPORT

Study Folder: TOP EVENT 23

Unique Audit Number: 534

PHAST v6.00



## Radiation Ellipse

### User-Defined Quantities

Observer Inclination	Variable	degrees
Exposure Duration	20,00	s

### Calculated Quantities

**Incident Radiation Level:** **3,00** kW/m2

Lethality Level n/a percent

View Factor n/a

Total Radiation Received 60,00 kJ/m2

Downwind semi-axis (A) Not Reached m

Crosswind semi-axis (B) Not Reached m

Offset Ratio (D) 0,00

Effect Distance -3,00 m

Area 28,27 m2

**Incident Radiation Level:** **5,00** kW/m2

Lethality Level n/a percent

View Factor n/a

Total Radiation Received 100,00 kJ/m2

Downwind semi-axis (A) Not Reached m

Crosswind semi-axis (B) Not Reached m

Offset Ratio (D) 0,00

Effect Distance -3,00 m

Area 28,27 m2

**Incident Radiation Level:** **7,00** kW/m2

Lethality Level n/a percent

View Factor n/a

Total Radiation Received 140,00 kJ/m2

Downwind semi-axis (A) Not Reached m

Crosswind semi-axis (B) Not Reached m

Offset Ratio (D) 0,00

Effect Distance -3,00 m

Area 28,27 m2

# JET FIRE REPORT

Study Folder: TOP EVENT 23

Unique Audit Number: 534

PHAST v6.00



## Radiation Distance

### User-Defined Quantities

Maximum Distance	50,00	m
Angle from Wind Direction	0,00	degrees
Height above Origin	0,00	m
Observer Inclination	Variable	degrees
Observer Orientation	0,00	degrees

### Calculated Quantities

X Coordinates m	Y Coordinates m	Z Coordinates m	Incident Radiation kW/m2	Lethality Level percent	View Factor
3,21			87,37		
4,14			87,37		
5,08			87,37		
6,02			87,37		
6,95			87,37		
7,89			87,37		
8,82			87,37		
9,76			87,37		
10,69			87,37		
11,63			87,37		
12,57			87,37		
13,50			87,37		
14,44			87,37		
15,37			87,37		
16,31			87,37		
17,25			87,37		
18,18			87,37		
19,12			87,37		
20,05			87,37		
20,99			87,37		
21,92			87,37		
22,86			87,37		
23,80			87,37		
24,73			87,37		
25,67			87,37		
26,60			87,37		
27,54			87,37		
28,48			87,37		
29,41			87,37		
30,35			87,37		
31,28			87,37		
32,22			87,37		
33,15			87,37		
34,09			87,37		
35,03			87,37		
35,96			87,37		
36,90			87,37		

# JET FIRE REPORT

Study Folder: TOP EVENT 23

Unique Audit Number: 534

PHAST v6.00



X Coordinates m	Y Coordinates m	Z Coordinates m	Incident Radiation kW/m2	Lethality Level percent	View Factor
37,83			87,37		
38,77			87,37		
39,71			87,37		
40,64			87,37		
41,58			87,37		
42,51			87,37		
43,45			87,37		
44,38			87,37		
45,32			87,37		
46,26			87,37		
47,19			87,37		
48,13			87,37		
49,06			87,37		



**Weather:** Category 5/D

**Speed:** 5,00 m/s

**Stability:** D

TOP EVENT 23\Propane spill out\LPG tanks

## Flame Data

### User-Defined Quantities

Model Correlation Type	<b>Shell</b>	
Material	PROPANE	
Ambient Temperature	9,85	C
Ambient Relative Humidity	0,70	fraction
Ambient Wind Speed	5,00	m/s
Maximum Exposure Duration	20,00	s
Elevation	0,10	m
Liquid Fraction	0,61	fraction
Jet Angle from Horizontal	0,00	degrees
Expanded Temperature		C

Release Rate	161,11	kg/s
--------------	--------	------

### Input and/or Output Quantities

	Input	Output
Flame Emissive Power		120,19 kW/m2
Expanded Radius		0,18 m
Jet Velocity	247,63	m/s
Flame Length		166,22 m
Maximum Flame Radius		m

# JET FIRE REPORT

Study Folder: TOP EVENT 23

Unique Audit Number: 534

PHAST v6.00



## Flame Co-ordinates

X	Z	R	Phi
m	m	m	degrees
2,49	0,10	0,00	90,00
2,49	0,10	1,39	90,00
166,22	0,10	28,85	90,00
166,22	0,10	0,00	90,00

## Radiation Ellipse

### User-Defined Quantities

Observer Inclination	Variable	degrees
Exposure Duration	20,00	s

### Calculated Quantities

<b>Incident Radiation Level:</b>	<b>3,00</b>	<b>kW/m2</b>
Lethality Level	n/a	percent
View Factor	n/a	
Total Radiation Received	60,00	kJ/m2

Downwind semi-axis (A)	Not Reached	m
Crosswind semi-axis (B)	Not Reached	m
Offset Ratio (D)	0,00	
Effect Distance	-3,00	m
Area	28,27	m2

<b>Incident Radiation Level:</b>	<b>5,00</b>	<b>kW/m2</b>
Lethality Level	n/a	percent
View Factor	n/a	
Total Radiation Received	100,00	kJ/m2

Downwind semi-axis (A)	Not Reached	m
Crosswind semi-axis (B)	Not Reached	m
Offset Ratio (D)	0,00	
Effect Distance	-3,00	m
Area	28,27	m2

<b>Incident Radiation Level:</b>	<b>7,00</b>	<b>kW/m2</b>
Lethality Level	n/a	percent
View Factor	n/a	
Total Radiation Received	140,00	kJ/m2

Downwind semi-axis (A)	Not Reached	m
Crosswind semi-axis (B)	Not Reached	m
Offset Ratio (D)	0,00	
Effect Distance	-3,00	m
Area	28,27	m2

# JET FIRE REPORT

Study Folder: TOP EVENT 23

Unique Audit Number: 534

PHAST v6.00



## Radiation Distance

### User-Defined Quantities

Maximum Distance	50,00	m
Angle from Wind Direction	0,00	degrees
Height above Origin	0,00	m
Observer Inclination	Variable	degrees
Observer Orientation	0,00	degrees

### Calculated Quantities

X Coordinates m	Y Coordinates m	Z Coordinates m	Incident Radiation kW/m2	Lethality Level percent	View Factor
2,49			120,19		
3,44			120,19		
4,39			120,19		
5,34			120,19		
6,29			120,19		
7,24			120,19		
8,19			120,19		
9,14			120,19		
10,09			120,19		
11,04			120,19		
11,99			120,19		
12,94			120,19		
13,89			120,19		
14,85			120,19		
15,80			120,19		
16,75			120,19		
17,70			120,19		
18,65			120,19		
19,60			120,19		
20,55			120,19		
21,50			120,19		
22,45			120,19		
23,40			120,19		
24,35			120,19		
25,30			120,19		
26,25			120,19		
27,20			120,19		
28,15			120,19		
29,10			120,19		
30,05			120,19		
31,00			120,19		
31,95			120,19		
32,90			120,19		
33,85			120,19		
34,80			120,19		
35,75			120,19		
36,70			120,19		

# JET FIRE REPORT

Study Folder: TOP EVENT 23

Unique Audit Number: 534

PHAST v6.00



X Coordinates m	Y Coordinates m	Z Coordinates m	Incident Radiation kW/m2	Lethality Level percent	View Factor
37,65			120,19		
38,60			120,19		
39,55			120,19		
40,50			120,19		
41,45			120,19		
42,40			120,19		
43,35			120,19		
44,30			120,19		
45,25			120,19		
46,20			120,19		
47,15			120,19		
48,10			120,19		
49,05			120,19		