

JET FIRE REPORT

Study Folder: RDSPoggiofiorito

Unique Audit Number: 2.724

PHAST 6.5



RDSPoggiofiorito

Study

6" D15

Base Case

Data



Weather: Study\Category 2/F

Speed: 2,00 m/s

Stability: F

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Flame Data

User-Defined Quantities

	SHELL - Johnson	
Model Correlation Type	METHANE	
Material		
Ambient Temperature	25,00	degC
Ambient Relative Humidity	0,75	fraction
Ambient Pressure	1,01	bar
Ambient Wind Speed	2,00	m/s
Maximum Exposure Duration	20,00	s
Elevation	1,00	m
Expanded Temperature	-76,82	degC
Release Rate	2,62	kg/s
Liquid Fraction		fraction
Jet Angle from Horizontal	0,00	deg
Crosswind Angle	0,00	deg

	Input	Output
Flame Emissive Power		181,75 kW/m2
Expanded Radius		0,04 m
Jet Velocity	500,00	m/s
Flame Length		18,83 m
Frustrum Lift Off Distance		5,53 m
Frustrum Length		13,43 m
Frustrum Base Width		0,98 m
Frustrum Tip Width		2,96 m
Flame Length in Still Air		23,22 m
Hole to Flame Angle		14,89 deg
Plane Angular Rotation		0,00 deg

Flame Co-ordinates

X	Z	R	Phi
m	m	m	deg
5,53	1,00	0,00	75,11
5,53	1,00	0,49	75,11
18,51	4,45	1,48	75,11
18,51	4,45	0,00	75,11

Radiation Intensity Ellipse

User-Defined Quantities

Observer Inclination	Variable	deg
Observer Orientation	Variable	deg
Exposure Duration	20,00	s

Calculated Quantities

Incident Radiation Level:	3,00	kW/m2
Lethality Level	0,00	%
View Factor	0,02	
Dose Level	865.118,83	(W/m2)^Probit N.s

Downwind semi-axis (A)	14,04	m
Crosswind semi-axis (B)	19,10	m
Offset Ratio (D)	1,15	
Effect Distance	30,17	m
Area	842,52	m2

Incident Radiation Level:	5,00	kW/m2
Lethality Level	0,00	%
View Factor	0,03	
Dose Level	1.709.490,54	(W/m2)^Probit N.s

Downwind semi-axis (A)	12,06	m
Crosswind semi-axis (B)	14,79	m
Offset Ratio (D)	1,24	
Effect Distance	27,08	m
Area	560,48	m2

Incident Radiation Level:	12,50	kW/m2
Lethality Level	6,53	%
View Factor	0,07	
Dose Level	5.800.161,90	(W/m2)^Probit N.s

Downwind semi-axis (A)	9,30	m
Crosswind semi-axis (B)	8,71	m
Offset Ratio (D)	1,44	
Effect Distance	22,67	m
Area	254,60	m2

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Radiation Distance

User-Defined Quantities

Maximum Distance	37,02	m
Angle from Wind Direction	0,00	deg
Height above Origin	0,00	m
Observer Inclination	Variable	deg
Observer Orientation	Variable	deg

Calculated Quantities

X Coordinates m	Y Coordinates m	Z Coordinates m	Incident Radiation kW/m2	Lethality Level %	View Factor
0,00			1,53		
0,76			1,71		
1,51			2,23		
2,27			3,30		
3,02			5,26		
3,78			9,63		
4,53			19,79		
5,29			41,17		
6,04			63,19		
6,80			73,03		
7,56			71,05		
8,31			68,40		
9,07			66,03		
9,82			64,00		
10,58			62,25		
11,33			60,70		
12,09			59,31		
12,84			58,00		
13,60			56,71		
14,36			55,34		
15,11			53,77		
15,87			51,60		
16,62			48,58		
17,38			44,11		
18,13			37,80		
18,89			29,97		
19,64			22,64		
20,40			20,17		
21,16			17,40		
21,91			14,82		
22,67			12,49		
23,42			10,53		
24,18			8,92		
24,93			7,59		
25,69			6,51		
26,44			5,62		
27,20			4,89		

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X Coordinates m	Y Coordinates m	Z Coordinates m	Incident Radiation kW/m2	Lethality Level %	View Factor
27,96			4,28		
28,71			3,77		
29,47			3,34		
30,22			2,98		
30,98			2,67		
31,73			2,40		
32,49			2,17		
33,24			1,97		
34,00			1,80		
34,76			1,64		
35,51			1,51		
36,27			1,39		
37,02			1,28		

 **Weather:** Study/Category 5/D
Speed: 5.00 **m/s** **Stability:** D

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Flame Data

User-Defined Quantities

Model Correlation Type	SHELL - Johnson	
Material	METHANE	
Ambient Temperature	25,00	degC
Ambient Relative Humidity	0,75	fraction
Ambient Pressure	1,01	bar
Ambient Wind Speed	5,00	m/s
Maximum Exposure Duration	20,00	s
Elevation	1,00	m
Expanded Temperature	-76,82	degC
Release Rate	2,62	kg/s
Liquid Fraction		fraction
Jet Angle from Horizontal	0,00	deg
Crosswind Angle	0,00	deg

	Input	Output
Flame Emissive Power		174,69 kW/m2
Expanded Radius		0,04 m
Jet Velocity	500,00	m/s
Flame Length		19,86 m
Frustrum Lift Off Distance		5,53 m
Frustrum Length		14,41 m
Frustrum Base Width		0,98 m
Frustrum Tip Width		2,72 m
Flame Length in Still Air		23,22 m
Hole to Flame Angle		11,28 deg
Plane Angular Rotation		0,00 deg

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Flame Co-ordinates

X	Z	R	Phi
m	m	m	deg
5,53	1,00	0,00	78,72
5,53	1,00	0,49	78,72
19,66	3,82	1,36	78,72
19,66	3,82	0,00	78,72

Radiation Intensity Ellipse

User-Defined Quantities

Observer Inclination	Variable	deg
Observer Orientation	Variable	deg
Exposure Duration	20,00	s

Calculated Quantities

Incident Radiation Level:	3,00	kW/m2
Lethality Level	0,00	%
View Factor	0,02	
Dose Level	865.118,83	(W/m2)^Probit N.s
Downwind semi-axis (A)	13,95	m
Crosswind semi-axis (B)	18,87	m
Offset Ratio (D)	1,15	
Effect Distance	30,07	m
Area	827,25	m2
Incident Radiation Level:	5,00	kW/m2
Lethality Level	0,00	%
View Factor	0,03	
Dose Level	1.709.490,54	(W/m2)^Probit N.s
Downwind semi-axis (A)	12,19	m
Crosswind semi-axis (B)	14,52	m
Offset Ratio (D)	1,24	
Effect Distance	27,33	m
Area	556,16	m2
Incident Radiation Level:	12,50	kW/m2
Lethality Level	6,53	%
View Factor	0,07	
Dose Level	5.800.161,90	(W/m2)^Probit N.s
Downwind semi-axis (A)	9,70	m
Crosswind semi-axis (B)	8,40	m
Offset Ratio (D)	1,42	
Effect Distance	23,46	m
Area	255,97	m2

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Radiation Distance

User-Defined Quantities

Maximum Distance	39,32	m
Angle from Wind Direction	0,00	deg
Height above Origin	0,00	m
Observer Inclination	Variable	deg
Observer Orientation	Variable	deg

Calculated Quantities

X Coordinates m	Y Coordinates m	Z Coordinates m	Incident Radiation kW/m2	Lethality Level %	View Factor
0,00			1,15		
0,80			1,57		
1,60			2,24		
2,41			3,49		
3,21			6,09		
4,01			11,92		
4,81			25,90		
5,62			45,46		
6,42			72,35		
7,22			73,00		
8,02			71,45		
8,83			68,98		
9,63			66,78		
10,43			65,13		
11,23			63,68		
12,04			62,40		
12,84			61,23		
13,64			60,14		
14,44			59,06		
15,25			57,92		
16,05			56,56		
16,85			54,72		
17,65			51,94		
18,46			46,95		
19,26			39,13		
20,06			28,53		
20,86			22,72		
21,67			19,78		
22,47			16,22		
23,27			13,14		
24,07			10,65		
24,88			8,70		
25,68			7,18		
26,48			5,99		
27,28			5,05		
28,09			4,30		
28,89			3,69		

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X Coordinates m	Y Coordinates m	Z Coordinates m	Incident Radiation kW/m2	Lethality Level %	View Factor
29,69			3,20		
30,49			2,79		
31,30			2,46		
32,10			2,18		
32,90			1,94		
33,70			1,74		
34,51			1,56		
35,31			1,41		
36,11			1,28		
36,91			1,17		
37,72			1,07		
38,52			0,98		
39,32			0,91		