

DEPARTEMENT DE LA SAVOIE

COMMUNE DE SAINT GEORGES D'HURTIERES

SCHEMA DIRECTEUR DE L'ALIMENTATION EN EAU POTABLE

Fichier résultat de la modélisation mathématique du
réseau d'eau potable



Société de Conseils, Etudes et Réalisations pour les Collectivités Locales

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Réseau du Fayet

***** COMMUNE DE SAINT GEORGES D'HURTIERES *****
RESEAU DU FAYET
« FAYET1B »

JOB ETUDE 0
LABEL RESEAU FAYET - DEF.INCENDIE
LABL2
C
PARAMS 1000 1000
C
C
FLUID WATER 1000 1.328E-04 0.01225 10
FORMULA DARCY
RANDOM
NOLIST
FILE RESULTS SINGLE
PACK HEADINGS
FLOWCON 3
HEADCON 0.2
MAXPRESSURE 7
MINPRESSURE 2.0
MAXVELOCITY 1.3

C
DATE JUIN.2007

C
C
MAXITER 20

C
C
C
CAS 1 -

C
C
C CONDUITES :
RUGOS .003

C	Nø de C Conduite	Noeud Amont	Noeud Aval	Longueur (m)	DiamŠtre (mm)
C					
COND	13	14	16	100	124.2
COND	43	44	46	40	69.8
COND	45	46	48	5	69.8
COND	47	46	50	170	69.8
COND	49	50	52	5	69.8
COND	51	50	54	130	69.8
COND	55	56	58	5	69.8
COND	57	56	60	210	69.8
COND	59	60	62	45	85.4
COND	61	62	64	5	85.4
COND	63	62	66	60	31.0
COND	67	68	70	5	69.8
COND	79	80	82	90	69.8
COND	83	84	86	5	69.8
COND	87	88	90	3	69.8
COND	89	90	92	5	69.8
COND	91	90	94	35	69.8
COND	97	98	112	5	69.8
COND	99	100	102	5	69.8
COND	105	104	108	85	69.8
COND	115	118	100	100	69.8

C
RUGOS
RUGOS 1

C
C Nø de Noeud Noeud Longueur DiamŠtre
C Conduite Amont Aval (m) (mm)
C
COND 15 16 18 115 50
COND 93 94 96 55 60

C
RUGOS
RUGOS .2

C
C Nø de Noeud Noeud Longueur DiamŠtre
C Conduite Amont Aval (m) (mm)
C
COND 9 10 12 5 100
COND 17 18 20 1 100
COND 21 22 24 1 100
COND 27 28 30 5 100
COND 31 32 34 360 100
COND 33 34 36 1 100
COND 37 38 40 1 100
COND 39 40 42 100 100
COND 107 110 72 5 100
COND 73 34 76 620 100
COND 77 74 80 460 100
COND 29 28 32 40 100
COND 25 26 28 80 100
COND 15 16 18 115 100
COND 11 10 14 65 100
COND 7 8 10 120 100
COND 3 4 6 70 100
COND 1 2 4 140 100
COND 5 6 8 15 100
COND 23 24 26 30 100
COND 41 42 44 10 100
COND 53 44 56 115 100
COND 65 42 68 45 100
COND 69 68 110 205 100
COND 71 68 74 110 100
COND 75 76 78 5 100
COND 81 80 84 4 100
COND 85 84 88 160 100
COND 95 88 98 175 100
COND 101 98 104 270 100
COND 103 104 106 5 100
COND 109 112 114 1 100
COND 113 116 118 1 100

C
RUGOS

C
REGULATEURS DE PRESSION AVAL :

C
C Nø am av type Pc code Nc D K
REGP 19 20 22 2 3.2 2 22 80.0 10
REGP 35 36 38 2 4.0 2 38 80.0 10
REGP 111 114 116 2 3.5 2 116 80.0 10

C
C
C
C
C
C
RESERVOIRS :

C
C Nø Cote Pi,zo Cote sol
C Noeud (m) (NGF)
COTEP 2 830 830

C
C
NOEUDS PASSIFS :

C	Nº	COTE SOL
C	NOEUD	(NGF)
ALTIM	4	802
ALTIM	6	781
ALTIM	8	771
ALTIM	10	745
ALTIM	12	745
ALTIM	14	728
ALTIM	16	720
ALTIM	18	700
ALTIM	20	700
ALTIM	22	700
ALTIM	24	700
ALTIM	26	680
ALTIM	28	656
ALTIM	30	656
ALTIM	32	650
ALTIM	34	608
ALTIM	36	608
ALTIM	38	608
ALTIM	40	608
ALTIM	42	582
ALTIM	44	582
ALTIM	46	582
ALTIM	48	582
ALTIM	50	580
ALTIM	52	580
ALTIM	54	582
ALTIM	56	576
ALTIM	58	576
ALTIM	60	562
ALTIM	62	562
ALTIM	64	562
ALTIM	66	562
ALTIM	68	580
ALTIM	70	580
ALTIM	72	562
ALTIM	110	562
ALTIM	74	590
ALTIM	76	638
ALTIM	78	638
ALTIM	80	586
ALTIM	82	600
ALTIM	84	585
ALTIM	86	585
ALTIM	88	555
ALTIM	90	555
ALTIM	92	555
ALTIM	94	552
ALTIM	96	545
ALTIM	98	548
ALTIM	112	547
ALTIM	114	547
ALTIM	116	547
ALTIM	118	547
ALTIM	100	512
ALTIM	102	512
ALTIM	104	560
ALTIM	106	560
ALTIM	108	560
C		
C		
SOLVE		
C		
C		
END		

1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
0CAS 1 -
0 14 ITERATIONS, CONVERGED TO .2326E-01 M3/H AND .2604E-03 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
1	2 4	.30196	-6.32520E-04	100.00	1.06795E-02
3	4 6	.30196	-3.34863E-04	100.00	1.06795E-02
5	6 8	.30196	-3.72070E-05	100.00	1.06795E-02
7	8 10	.30196	-5.58105E-04	100.00	1.06795E-02
9	10 12	.00000	.00000	100.00	.00000
11	10 14	.30196	-2.97656E-04	100.00	1.06795E-02
13	14 16	.30196	-1.86035E-04	124.20	6.92324E-03
15	16 18	.30196	-5.20898E-04	100.00	1.06795E-02
17	18 20	.30196	.00000	100.00	1.06795E-02
21	22 24	.29440	.00000	100.00	1.04122E-02
23	24 26	.29440	-1.30225E-04	100.00	1.04122E-02
25	26 28	.29440	-3.53467E-04	100.00	1.04122E-02
27	28 30	.00000	.00000	100.00	.00000
29	28 32	.29440	-1.86035E-04	100.00	1.04122E-02
31	32 34	.29440	-1.59990E-03	100.00	1.04122E-02
33	34 36	.29440	.00000	100.00	1.04122E-02
37	38 40	.30000	.00000	100.00	1.06103E-02
39	40 42	.30000	-4.55786E-04	100.00	1.06103E-02
41	42 44	.10000	-1.86035E-05	100.00	3.53675E-03
43	44 46	.00000	.00000	69.800	.00000
45	46 48	.00000	.00000	69.800	.00000
47	46 50	.00000	.00000	69.800	.00000
49	50 52	.00000	.00000	69.800	.00000
51	50 54	.00000	.00000	69.800	.00000
53	44 56	.10000	-1.67432E-04	100.00	3.53675E-03
55	56 58	.00000	.00000	69.800	.00000
57	56 60	.10000	-1.33015E-03	69.800	7.25928E-03
59	60 62	.10000	-1.30225E-04	85.400	4.84941E-03
61	62 64	.00000	.00000	85.400	.00000
63	62 66	.10000	-9.76685E-03	31.000	3.68028E-02
65	42 68	.20000	-1.39526E-04	100.00	7.07350E-03
67	68 70	.00000	.00000	69.800	.00000
69	68 110	-3.37396E-11	.00000	100.00	-1.19329E-12
71	68 74	.20000	-3.25562E-04	100.00	7.07350E-03
73	74 76	.00000	.00000	100.00	.00000
75	76 78	.00000	.00000	100.00	.00000
77	74 80	.20000	-1.38596E-03	100.00	7.07350E-03

79	80	82	.10000	-5.67407E-04	69.800	7.25928E-03
81	80	84	9.99999E-02	.00000	100.00	3.53675E-03
83	84	86	.00000	.00000	69.800	.00000
85	84	88	9.99999E-02	-2.41846E-04	100.00	3.53675E-03
87	88	90	.00000	.00000	69.800	.00000
89	90	92	.00000	.00000	69.800	.00000

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ETUDE 0

0CAS 1 -

0 14 ITERATIONS, CONVERGED TO .2326E-01 M3/H AND .2604E-03 M

C O N D U I T E S ...

ELEMENT	NOEUDS		DEBIT	DELTA P	DIAMETRE	VITESSE
NUMERO	AM	AV	M3/H	M	MM	M/S
91	90	94	.00000	.00000	69.800	.00000
93	94	96	.00000	.00000	60.000	.00000
95	88	98	9.99999E-02	-2.60449E-04	100.00	3.53675E-03
97	98	112	9.99999E-02	-3.72070E-05	69.800	7.25928E-03
99	100	102	.10000	-3.25562E-05	69.800	7.25928E-03
101	98	104	.00000	.00000	100.00	.00000
103	104	106	.00000	.00000	100.00	.00000
105	104	108	.00000	.00000	69.800	.00000
107	110	72	.00000	.00000	100.00	.00000
109	112	114	9.99999E-02	.00000	100.00	3.53675E-03
113	116	118	.10000	.00000	100.00	3.53675E-03
115	118	100	.10000	-6.32520E-04	69.800	7.25928E-03

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ETUDE 0

0CAS 1 -

0 14 ITERATIONS, CONVERGED TO .2326E-01 M3/H AND .2604E-03 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS		REG-P	CONSIGNE	DEBIT		DELTA P
NUMERO	AM	AV	TYPE	VAL	UNITES	NOEUD M3/H	M
19	20	22	2	3.2000	BAR	22 .30196	-97.367 E
35	36	38	2	4.0000	BAR	38 .29440	-83.840 E
111	114	116	2	3.5000	BAR	116 9.99999E-02	-66.096 E

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

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ETUDE 0

0CAS 1 -

0 14 ITERATIONS, CONVERGED TO .2326E-01 M3/H AND .2604E-03 M

N O E U D S ...

NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION
	M3/H	M	M	BAR
C.P.	2	.30196	830.00	830.00 .00000 --
	4	.00000	802.00	830.00 2.7458
	6	.00000	781.00	830.00 4.8052
	8	.00000	771.00	830.00 5.7858
	10	.00000	745.00	830.00 8.3355 ++
	12	.00000	745.00	830.00 8.3355 ++
	14	.00000	728.00	830.00 10.003 ++
	16	.00000	720.00	830.00 10.787 ++
	18	.00000	700.00	830.00 12.748 ++
	20	.00000	700.00	830.00 12.748 ++
	22	.00000	700.00	732.63 3.2000
	24	.00000	700.00	732.63 3.2000
	26	.00000	680.00	732.63 5.1613
	28	.00000	656.00	732.63 7.5149 ++
	30	.00000	656.00	732.63 7.5149 ++
	32	.00000	650.00	732.63 8.1033 ++
	34	.00000	608.00	732.63 12.222 ++
	36	.00000	608.00	732.63 12.222 ++
	38	.00000	608.00	648.79 4.0000

40	.00000	608.00	648.79	4.0000	
42	.00000	582.00	648.79	6.5497	
44	.00000	582.00	648.79	6.5497	
46	.00000	582.00	648.79	6.5497	
48	.00000	582.00	648.79	6.5497	
50	.00000	580.00	648.79	6.7458	
52	.00000	580.00	648.79	6.7458	
54	.00000	582.00	648.79	6.5497	
56	.00000	576.00	648.79	7.1381	++
58	.00000	576.00	648.79	7.1381	++
60	.00000	562.00	648.79	8.5109	++
62	.00000	562.00	648.79	8.5109	++
64	.00000	562.00	648.79	8.5109	++
66	-.10000	562.00	648.78	8.5099	++
68	.00000	580.00	648.79	6.7458	
70	.00000	580.00	648.79	6.7458	
72	.00000	562.00	648.79	8.5110	++
74	.00000	590.00	648.79	5.7651	
76	.00000	638.00	648.79	1.0579	--
78	.00000	638.00	648.79	1.0579	--
80	.00000	586.00	648.79	6.1572	
82	-.10000	600.00	648.79	4.7843	
84	.00000	585.00	648.79	6.2553	
86	.00000	585.00	648.79	6.2553	

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OCAS 1 -

0 14 ITERATIONS, CONVERGED TO .2326E-01 M3/H AND .2604E-03 M

N O E U D S ...					
NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR	
88	.00000	555.00	648.79	9.1973	++
90	.00000	555.00	648.79	9.1973	++
92	.00000	555.00	648.79	9.1973	++
94	.00000	552.00	648.79	9.4915	++
96	.00000	545.00	648.79	10.178	++
98	.00000	548.00	648.79	9.8837	++
100	.00000	512.00	582.69	6.9323	
102	-.10000	512.00	582.69	6.9323	
104	.00000	560.00	648.79	8.7069	++
106	.00000	560.00	648.79	8.7069	++
108	.00000	560.00	648.79	8.7069	++
110	.00000	562.00	648.79	8.5110	++
112	.00000	547.00	648.79	9.9818	++
114	.00000	547.00	648.79	9.9818	++
116	.00000	547.00	582.69	3.5000	
118	.00000	547.00	582.69	3.5000	

END

1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0

OCAS 1 -

1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0 NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0 PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
0CAS 1 -
0 5 ITERATIONS, CONVERGED TO .1399E-04 M3/H AND .3349E-03 M

C O N D U I T E S ...						
ELEMENT NUMERO	AM	AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
1	2	4	60.000	-7.8656	100.00	2.1221 ++
3	4	6	60.000	-3.9328	100.00	2.1221 ++
5	6	8	60.000	-.84274	100.00	2.1221 ++
7	8	10	60.000	-6.7419	100.00	2.1221 ++
9	10	12	60.000	-.28091	100.00	2.1221 ++
11	10	14	-3.54699E-11	.00000	100.00	-1.25448E-12
13	14	16	.00000	.00000	124.20	.00000
15	16	18	.00000	.00000	100.00	.00000
17	18	20	.00000	.00000	100.00	.00000
21	22	24	.00000	.00000	100.00	.00000
23	24	26	.00000	.00000	100.00	.00000
25	26	28	2.88193E-11	.00000	100.00	1.01927E-12
27	28	30	.00000	.00000	100.00	.00000
29	28	32	.00000	.00000	100.00	.00000
31	32	34	.00000	.00000	100.00	.00000
33	34	36	.00000	.00000	100.00	.00000
37	38	40	.00000	.00000	100.00	.00000
39	40	42	-1.84443E-10	.00000	100.00	-6.52330E-12
41	42	44	.00000	.00000	69.800	.00000
43	44	46	.00000	.00000	69.800	.00000
45	46	48	.00000	.00000	69.800	.00000
47	46	50	.00000	.00000	69.800	.00000
49	50	52	.00000	.00000	69.800	.00000
51	50	54	-4.20970E-12	.00000	69.800	-3.05594E-13
53	44	56	.00000	.00000	69.800	.00000
55	56	58	.00000	.00000	69.800	.00000
57	56	60	.00000	.00000	69.800	.00000
59	60	62	.00000	.00000	85.400	.00000
61	62	64	.00000	.00000	85.400	.00000
63	62	66	.00000	.00000	31.000	.00000
65	42	68	-1.82420E-10	.00000	69.800	-1.32424E-11
67	68	70	.00000	.00000	69.800	.00000
69	68	110	-4.91122E-11	.00000	48.800	-7.29380E-12
71	68	74	.00000	.00000	69.800	.00000
73	74	76	.00000	.00000	100.00	.00000
75	76	78	.00000	.00000	69.800	.00000
77	74	80	.00000	.00000	100.00	.00000

79	80	82	-6.08068E-12	.00000	69.800	-4.41414E-13
81	80	84	.00000	.00000	69.800	.00000
83	84	86	.00000	.00000	69.800	.00000
85	84	88	.00000	.00000	69.800	.00000
87	88	90	.00000	.00000	69.800	.00000
89	90	92	.00000	.00000	69.800	.00000

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 0CAS 1 - V2.4B-PCF
 0 5 ITERATIONS, CONVERGED TO .1399E-04 M3/H AND .3349E-03 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
91	90 94	1.56360E-11	.00000	69.800	1.13506E-12
93	94 96	.00000	.00000	60.000	.00000
95	88 98	.00000	.00000	69.800	.00000
97	98 100	.00000	.00000	69.800	.00000
99	100 102	.00000	.00000	69.800	.00000
101	98 104	.00000	.00000	69.800	.00000
103	104 106	.00000	.00000	69.800	.00000
105	104 108	-6.43837E-12	.00000	69.800	-4.67379E-13
107	110 72	.00000	.00000	100.00	.00000

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 5
 0CAS 1 - V2.4B-PCF
 0 5 ITERATIONS, CONVERGED TO .1399E-04 M3/H AND .3349E-03 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE	CONSIGNE VAL	UNITES	NOEUD	DEBIT M3/H	DELTA P M
19	20 22	2	3.2000	BAR	22	4.01952E-14	3.72070E-05
35	36 38	2	4.0000	BAR	38	4.01952E-14	1.86035E-05

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 6
 0CAS 1 - V2.4B-PCF
 0 5 ITERATIONS, CONVERGED TO .1399E-04 M3/H AND .3349E-03 M

N O E U D S ...

	NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR	
C.P.	2	60.000	830.00	830.00	.00000	--
	4	.00000	802.00	822.13	1.9745	--
	6	.00000	781.00	818.20	3.6482	
	8	.00000	771.00	817.36	4.5463	
	10	.00000	745.00	810.62	6.4348	
	12	-60.000	745.00	810.34	6.4073	
	14	.00000	728.00	810.62	8.1020	++
	16	.00000	720.00	810.62	8.8865	++
	18	.00000	700.00	810.62	10.848	++
	20	.00000	700.00	810.62	10.848	++
	22	.00000	700.00	810.62	10.848	++
	24	.00000	700.00	810.62	10.848	++
	26	.00000	680.00	810.62	12.809	++
	28	.00000	656.00	810.62	15.163	++
	30	.00000	656.00	810.62	15.163	++
	32	.00000	650.00	810.62	15.751	++
	34	.00000	608.00	810.62	19.870	++
	36	.00000	608.00	810.62	19.870	++
	38	.00000	608.00	810.62	19.870	++
	40	.00000	608.00	810.62	19.870	++
	42	.00000	582.00	810.62	22.420	++
	44	.00000	582.00	810.62	22.420	++
	46	.00000	582.00	810.62	22.420	++

48	.000000	582.00	810.62	22.420	++
50	.000000	580.00	810.62	22.616	++
52	.000000	580.00	810.62	22.616	++
54	.000000	582.00	810.62	22.420	++
56	.000000	576.00	810.62	23.008	++
58	.000000	576.00	810.62	23.008	++
60	.000000	562.00	810.62	24.381	++
62	.000000	562.00	810.62	24.381	++
64	.000000	562.00	810.62	24.381	++
66	.000000	562.00	810.62	24.381	++
68	.000000	580.00	810.62	22.616	++
70	.000000	580.00	810.62	22.616	++
72	.000000	562.00	810.62	24.381	++
74	.000000	590.00	810.62	21.635	++
76	.000000	638.00	810.62	16.928	++
78	.000000	638.00	810.62	16.928	++
80	.000000	586.00	810.62	22.027	++
82	.000000	600.00	810.62	20.655	++
84	.000000	585.00	810.62	22.125	++
86	.000000	585.00	810.62	22.125	++

1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0

OCAS 1 -

0 5 ITERATIONS, CONVERGED TO .1399E-04 M3/H AND .3349E-03 M

N O E U D S . . .					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
88	.000000	555.00	810.62	25.067	++
90	.000000	555.00	810.62	25.067	++
92	.000000	555.00	810.62	25.067	++
94	.000000	552.00	810.62	25.362	++
96	.000000	545.00	810.62	26.048	++
98	.000000	548.00	810.62	25.754	++
100	.000000	512.00	810.62	29.284	++
102	.000000	512.00	810.62	29.284	++
104	.000000	560.00	810.62	24.577	++
106	.000000	560.00	810.62	24.577	++
108	.000000	560.00	810.62	24.577	++
110	.000000	562.00	810.62	24.381	++

END

1RESEAU FAYET - DEF.INCENDIE

JUIN.2007

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ETUDE 0

OCAS 1 -

1RESEAU FAYET - DEF.INCENDIE

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PAGE 2
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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARC
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU FAYET - DEF.INCENDIE

JUIN.2007

PAGE 3
V2.4B-PCF

ETUDE 0
0CAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.001	-7.8655	100.00	2.1221	++
3	4 6	60.001	-3.9327	100.00	2.1221	++
5	6 8	60.001	-.84272	100.00	2.1221	++
7	8 10	60.001	-6.7418	100.00	2.1221	++
9	10 12	.00000	.00000	100.00	.00000	
11	10 14	60.001	-3.6518	100.00	2.1221	++
13	14 16	60.001	-1.3318	124.20	1.3757	++
15	16 18	60.001	-6.4609	100.00	2.1221	++
17	18 20	60.001	-5.61826E-02	100.00	2.1221	++
21	22 24	60.000	-5.61826E-02	100.00	2.1221	++
23	24 26	60.000	-1.6855	100.00	2.1221	++
25	26 28	60.000	-4.4946	100.00	2.1221	++
27	28 30	.00000	.00000	100.00	.00000	
29	28 32	.00000	.00000	100.00	.00000	
31	32 34	.00000	.00000	100.00	.00000	
33	34 36	-2.30554E-09	.00000	100.00	-8.15413E-11	
37	38 40	2.30554E-09	.00000	100.00	8.15413E-11	
39	40 42	-1.38332E-10	.00000	100.00	-4.89248E-12	
41	42 44	.00000	.00000	69.800	.00000	
43	44 46	.00000	.00000	69.800	.00000	
45	46 48	.00000	.00000	69.800	.00000	
47	46 50	.00000	.00000	69.800	.00000	
49	50 52	.00000	.00000	69.800	.00000	
51	50 54	.00000	.00000	69.800	.00000	
53	44 56	.00000	.00000	69.800	.00000	
55	56 58	.00000	.00000	69.800	.00000	
57	56 60	.00000	.00000	69.800	.00000	
59	60 62	.00000	.00000	85.400	.00000	
61	62 64	.00000	.00000	85.400	.00000	
63	62 66	.00000	.00000	31.000	.00000	
65	42 68	-1.21614E-10	.00000	69.800	-8.82827E-12	
67	68 70	.00000	.00000	69.800	.00000	
69	68 110	-3.50801E-11	.00000	48.800	-5.20986E-12	
71	68 74	.00000	.00000	69.800	.00000	
73	74 76	.00000	.00000	100.00	.00000	
75	76 78	.00000	.00000	69.800	.00000	
77	74 80	.00000	.00000	100.00	.00000	

79	80	82	.00000	.00000	69.800	.00000
81	80	84	1.36815E-10	.00000	69.800	9.93181E-12
83	84	86	.00000	.00000	69.800	.00000
85	84	88	.00000	.00000	69.800	.00000
87	88	90	.00000	.00000	69.800	.00000
89	90	92	.00000	.00000	69.800	.00000

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 4
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT	NOEUDS	DEBIT	DELTA P	DIAMETRE	VITESSE	
NUMERO	AM	AV	M3/H	M	MM	M/S
91	90	94	.00000	.00000	69.800	.00000
93	94	96	5.43269E-12	.00000	60.000	5.33725E-13
95	88	98	.00000	.00000	69.800	.00000
97	98	100	.00000	.00000	69.800	.00000
99	100	102	.00000	.00000	69.800	.00000
101	98	104	.00000	.00000	69.800	.00000
103	104	106	.00000	.00000	69.800	.00000
105	104	108	.00000	.00000	69.800	.00000
107	110	72	.00000	.00000	100.00	.00000

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 5
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P			
NUMERO	AM	AV	TYPE	VAL	UNITES	NOEUD	M3/H	M
19	20	22	2	3.2000	BAR	22	60.001	-66.486 E
35	36	38	2	4.0000	BAR	38	4.01952E-14	1.86035E-05

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 6
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S ...

NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
C.P.	2	60.001	830.00	830.00	.00000 --
	4	.00000	802.00	822.13	1.9745 --
	6	.00000	781.00	818.20	3.6483
	8	.00000	771.00	817.36	4.5463
	10	.00000	745.00	810.62	6.4349
	12	.00000	745.00	810.62	6.4349
	14	.00000	728.00	806.97	7.7439 ++
	16	.00000	720.00	805.63	8.3978 ++
	18	.00000	700.00	799.17	9.7255 ++
	20	.00000	700.00	799.12	9.7200 ++
	22	.00000	700.00	732.63	3.2000
	24	.00000	700.00	732.57	3.1945
	26	.00000	680.00	730.89	4.9905
	28	-60.000	656.00	726.39	6.9034
	30	.00000	656.00	726.39	6.9034
	32	.00000	650.00	726.39	7.4918 ++
	34	.00000	608.00	726.39	11.611 ++
	36	.00000	608.00	726.39	11.611 ++
	38	.00000	608.00	726.39	11.611 ++
	40	.00000	608.00	726.39	11.611 ++
	42	.00000	582.00	726.39	14.160 ++
	44	.00000	582.00	726.39	14.160 ++
	46	.00000	582.00	726.39	14.160 ++

48	.000000	582.00	726.39	14.160	++
50	.000000	580.00	726.39	14.356	++
52	.000000	580.00	726.39	14.356	++
54	.000000	582.00	726.39	14.160	++
56	.000000	576.00	726.39	14.749	++
58	.000000	576.00	726.39	14.749	++
60	.000000	562.00	726.39	16.122	++
62	.000000	562.00	726.39	16.122	++
64	.000000	562.00	726.39	16.122	++
66	.000000	562.00	726.39	16.122	++
68	.000000	580.00	726.39	14.356	++
70	.000000	580.00	726.39	14.356	++
72	.000000	562.00	726.39	16.122	++
74	.000000	590.00	726.39	13.376	++
76	.000000	638.00	726.39	8.6686	++
78	.000000	638.00	726.39	8.6686	++
80	.000000	586.00	726.39	13.768	++
82	.000000	600.00	726.39	12.395	++
84	.000000	585.00	726.39	13.866	++
86	.000000	585.00	726.39	13.866	++

1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
OCAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S . . .					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
88	.000000	555.00	726.39	16.808	++
90	.000000	555.00	726.39	16.808	++
92	.000000	555.00	726.39	16.808	++
94	.000000	552.00	726.39	17.102	++
96	.000000	545.00	726.39	17.789	++
98	.000000	548.00	726.39	17.495	++
100	.000000	512.00	726.39	21.025	++
102	.000000	512.00	726.39	21.025	++
104	.000000	560.00	726.39	16.318	++
106	.000000	560.00	726.39	16.318	++
108	.000000	560.00	726.39	16.318	++
110	.000000	562.00	726.39	16.122	++

END
1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
OCAS 1 -

1RESEAU FAYET - DEF.INCENDIE

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PAGE 2
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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARC
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
0CAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.001	-7.8655	100.00	2.1221	++
3	4 6	60.001	-3.9327	100.00	2.1221	++
5	6 8	60.001	-.84272	100.00	2.1221	++
7	8 10	60.001	-6.7418	100.00	2.1221	++
9	10 12	.00000	.00000	100.00	.00000	
11	10 14	60.001	-3.6518	100.00	2.1221	++
13	14 16	60.001	-1.3318	124.20	1.3757	++
15	16 18	60.001	-6.4609	100.00	2.1221	++
17	18 20	60.001	-5.61826E-02	100.00	2.1221	++
21	22 24	60.022	-5.62198E-02	100.00	2.1228	++
23	24 26	60.022	-1.6867	100.00	2.1228	++
25	26 28	60.022	-4.4978	100.00	2.1228	++
27	28 30	.00000	.00000	100.00	.00000	
29	28 32	60.022	-2.2489	100.00	2.1228	++
31	32 34	60.022	-20.240	100.00	2.1228	++
33	34 36	60.022	-5.62198E-02	100.00	2.1228	++
37	38 40	60.000	-5.61826E-02	100.00	2.1221	++
39	40 42	60.000	-5.6182	100.00	2.1221	++
41	42 44	60.000	-2.1529	69.800	4.3556	++
43	44 46	60.000	-8.6118	69.800	4.3556	++
45	46 48	60.000	-1.0765	69.800	4.3556	++
47	46 50	.00000	.00000	69.800	.00000	
49	50 52	.00000	.00000	69.800	.00000	
51	50 54	.00000	.00000	69.800	.00000	
53	44 56	.00000	.00000	69.800	.00000	
55	56 58	.00000	.00000	69.800	.00000	
57	56 60	.00000	.00000	69.800	.00000	
59	60 62	.00000	.00000	85.400	.00000	
61	62 64	.00000	.00000	85.400	.00000	
63	62 66	.00000	.00000	31.000	.00000	
65	42 68	-7.90488E-11	.00000	69.800	-5.73838E-12	
67	68 70	.00000	.00000	69.800	.00000	
69	68 110	-2.16859E-11	.00000	48.800	-3.22064E-12	
71	68 74	.00000	.00000	69.800	.00000	
73	74 76	.00000	.00000	100.00	.00000	
75	76 78	.00000	.00000	69.800	.00000	
77	74 80	.00000	.00000	100.00	.00000	

79	80	82	.00000	.00000	69.800	.00000
81	80	84	.00000	.00000	69.800	.00000
83	84	86	.00000	.00000	69.800	.00000
85	84	88	.00000	.00000	69.800	.00000
87	88	90	.00000	.00000	69.800	.00000
89	90	92	.00000	.00000	69.800	.00000

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 4
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT	NOEUDS	DEBIT	DELTA P	DIAMETRE	VITESSE
NUMERO	AM AV	M3/H	M	MM	M/S
91	90 94	.00000	.00000	69.800	.00000
93	94 96	.00000	.00000	60.000	.00000
95	88 98	.00000	.00000	69.800	.00000
97	98 100	.00000	.00000	69.800	.00000
99	100 102	.00000	.00000	69.800	.00000
101	98 104	.00000	.00000	69.800	.00000
103	104 106	.00000	.00000	69.800	.00000
105	104 108	.00000	.00000	69.800	.00000
107	110 72	.00000	.00000	100.00	.00000

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 5
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P
NUMERO	AM AV	TYPE	VAL	UNITES NOEUD M3/H	M
19	20 22	2	3.2000	BAR 22	60.001 -66.486 E
35	36 38	2	4.0000	BAR 38	60.022 -54.996 E

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 6
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S ...

NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION
	M3/H	M	M	BAR
C.P.	2	60.001	830.00	830.00 .00000 --
	4	.00000	802.00	822.13 1.9745 --
	6	.00000	781.00	818.20 3.6483
	8	.00000	771.00	817.36 4.5463
	10	.00000	745.00	810.62 6.4349
	12	.00000	745.00	810.62 6.4349
	14	.00000	728.00	806.97 7.7439 ++
	16	.00000	720.00	805.63 8.3978 ++
	18	.00000	700.00	799.17 9.7255 ++
	20	.00000	700.00	799.12 9.7200 ++
	22	.00000	700.00	732.63 3.2000
	24	.00000	700.00	732.57 3.1945
	26	.00000	680.00	730.89 4.9904
	28	.00000	656.00	726.39 6.9029
	30	.00000	656.00	726.39 6.9029
	32	.00000	650.00	724.14 7.2708 ++
	34	.00000	608.00	703.90 9.4047 ++
	36	.00000	608.00	703.84 9.3992 ++
	38	.00000	608.00	648.85 4.0059
	40	.00000	608.00	648.79 4.0004
	42	.00000	582.00	643.17 5.9992
	44	.00000	582.00	641.02 5.7881
	46	.00000	582.00	632.41 4.9435

48	-60.000	582.00	631.33	4.8380	
50	.00000	580.00	632.41	5.1397	
52	.00000	580.00	632.41	5.1397	
54	.00000	582.00	632.41	4.9435	
56	.00000	576.00	641.02	6.3765	
58	.00000	576.00	641.02	6.3765	
60	.00000	562.00	641.02	7.7494	++
62	.00000	562.00	641.02	7.7494	++
64	.00000	562.00	641.02	7.7494	++
66	.00000	562.00	641.02	7.7494	++
68	.00000	580.00	643.17	6.1953	
70	.00000	580.00	643.17	6.1953	
72	.00000	562.00	643.17	7.9605	++
74	.00000	590.00	643.17	5.2147	
76	.00000	638.00	643.17	.50748	--
78	.00000	638.00	643.17	.50748	--
80	.00000	586.00	643.17	5.6069	
82	.00000	600.00	643.17	4.2340	
84	.00000	585.00	643.17	5.7050	
86	.00000	585.00	643.17	5.7050	

1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
OCAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S . . .					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
88	.00000	555.00	643.17	8.6470	++
90	.00000	555.00	643.17	8.6470	++
92	.00000	555.00	643.17	8.6470	++
94	.00000	552.00	643.17	8.9412	++
96	.00000	545.00	643.17	9.6277	++
98	.00000	548.00	643.17	9.3335	++
100	.00000	512.00	643.17	12.864	++
102	.00000	512.00	643.17	12.864	++
104	.00000	560.00	643.17	8.1567	++
106	.00000	560.00	643.17	8.1567	++
108	.00000	560.00	643.17	8.1567	++
110	.00000	562.00	643.17	7.9605	++

END
1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
OCAS 1 -

1RESEAU FAYET - DEF.INCENDIE

JUIN.2007

PAGE 2
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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU FAYET - DEF.INCENDIE

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PAGE 3
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ETUDE 0
0CAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.001	-7.8655	100.00	2.1221	++
3	4 6	60.001	-3.9327	100.00	2.1221	++
5	6 8	60.001	-.84272	100.00	2.1221	++
7	8 10	60.001	-6.7418	100.00	2.1221	++
9	10 12	.00000	.00000	100.00	.00000	
11	10 14	60.001	-3.6518	100.00	2.1221	++
13	14 16	60.001	-1.3318	124.20	1.3757	++
15	16 18	60.001	-6.4609	100.00	2.1221	++
17	18 20	60.001	-5.61826E-02	100.00	2.1221	++
21	22 24	60.022	-5.62198E-02	100.00	2.1228	++
23	24 26	60.022	-1.6867	100.00	2.1228	++
25	26 28	60.022	-4.4978	100.00	2.1228	++
27	28 30	.00000	.00000	100.00	.00000	
29	28 32	60.022	-2.2489	100.00	2.1228	++
31	32 34	60.022	-20.240	100.00	2.1228	++
33	34 36	60.022	-5.62198E-02	100.00	2.1228	++
37	38 40	60.000	-5.61826E-02	100.00	2.1221	++
39	40 42	60.000	-5.6182	100.00	2.1221	++
41	42 44	60.000	-2.1529	69.800	4.3556	++
43	44 46	60.000	-8.6118	69.800	4.3556	++
45	46 48	.00000	.00000	69.800	.00000	
47	46 50	60.000	-36.600	69.800	4.3556	++
49	50 52	60.000	-1.0765	69.800	4.3556	++
51	50 54	.00000	.00000	69.800	.00000	
53	44 56	.00000	.00000	69.800	.00000	
55	56 58	.00000	.00000	69.800	.00000	
57	56 60	.00000	.00000	69.800	.00000	
59	60 62	.00000	.00000	85.400	.00000	
61	62 64	.00000	.00000	85.400	.00000	
63	62 66	.00000	.00000	31.000	.00000	
65	42 68	-7.90488E-11	.00000	69.800	-5.73838E-12	
67	68 70	.00000	.00000	69.800	.00000	
69	68 110	-2.16859E-11	.00000	48.800	-3.22064E-12	
71	68 74	.00000	.00000	69.800	.00000	
73	74 76	.00000	.00000	100.00	.00000	
75	76 78	.00000	.00000	69.800	.00000	
77	74 80	.00000	.00000	100.00	.00000	

79	80	82	.00000	.00000	69.800	.00000
81	80	84	.00000	.00000	69.800	.00000
83	84	86	.00000	.00000	69.800	.00000
85	84	88	.00000	.00000	69.800	.00000
87	88	90	.00000	.00000	69.800	.00000
89	90	92	.00000	.00000	69.800	.00000

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 4
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT	NOEUDS	DEBIT	DELTA P	DIAMETRE	VITESSE
NUMERO	AM AV	M3/H	M	MM	M/S
91	90 94	.00000	.00000	69.800	.00000
93	94 96	.00000	.00000	60.000	.00000
95	88 98	.00000	.00000	69.800	.00000
97	98 100	.00000	.00000	69.800	.00000
99	100 102	.00000	.00000	69.800	.00000
101	98 104	.00000	.00000	69.800	.00000
103	104 106	.00000	.00000	69.800	.00000
105	104 108	.00000	.00000	69.800	.00000
107	110 72	.00000	.00000	100.00	.00000

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 5
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P
NUMERO	AM AV	TYPE	VAL	UNITES NOEUD M3/H	M
19	20 22	2	3.2000	BAR 22	60.001 -66.486 E
35	36 38	2	4.0000	BAR 38	60.022 -54.996 E

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ETUDE 0 PAGE 6
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S ...

NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION
	M3/H	M	M	BAR
C.P.	2	60.001	830.00	830.00 .00000 --
	4	.00000	802.00	822.13 1.9745 --
	6	.00000	781.00	818.20 3.6483
	8	.00000	771.00	817.36 4.5463
	10	.00000	745.00	810.62 6.4349
	12	.00000	745.00	810.62 6.4349
	14	.00000	728.00	806.97 7.7439 ++
	16	.00000	720.00	805.63 8.3978 ++
	18	.00000	700.00	799.17 9.7255 ++
	20	.00000	700.00	799.12 9.7200 ++
	22	.00000	700.00	732.63 3.2000
	24	.00000	700.00	732.57 3.1945
	26	.00000	680.00	730.89 4.9904
	28	.00000	656.00	726.39 6.9029
	30	.00000	656.00	726.39 6.9029
	32	.00000	650.00	724.14 7.2708 ++
	34	.00000	608.00	703.90 9.4047 ++
	36	.00000	608.00	703.84 9.3992 ++
	38	.00000	608.00	648.85 4.0059
	40	.00000	608.00	648.79 4.0004
	42	.00000	582.00	643.17 5.9992
	44	.00000	582.00	641.02 5.7881
	46	.00000	582.00	632.41 4.9435

48	.00000	582.00	632.41	4.9435	
50	.00000	580.00	595.81	1.5504	--
52	-60.000	580.00	594.73	1.4449	--
54	.00000	582.00	595.81	1.3543	--
56	.00000	576.00	641.02	6.3765	
58	.00000	576.00	641.02	6.3765	
60	.00000	562.00	641.02	7.7494	++
62	.00000	562.00	641.02	7.7494	++
64	.00000	562.00	641.02	7.7494	++
66	.00000	562.00	641.02	7.7494	++
68	.00000	580.00	643.17	6.1953	
70	.00000	580.00	643.17	6.1953	
72	.00000	562.00	643.17	7.9605	++
74	.00000	590.00	643.17	5.2147	
76	.00000	638.00	643.17	.50748	--
78	.00000	638.00	643.17	.50748	--
80	.00000	586.00	643.17	5.6069	
82	.00000	600.00	643.17	4.2340	
84	.00000	585.00	643.17	5.7050	
86	.00000	585.00	643.17	5.7050	

1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
OCAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S . . .					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
88	.00000	555.00	643.17	8.6470	++
90	.00000	555.00	643.17	8.6470	++
92	.00000	555.00	643.17	8.6470	++
94	.00000	552.00	643.17	8.9412	++
96	.00000	545.00	643.17	9.6277	++
98	.00000	548.00	643.17	9.3335	++
100	.00000	512.00	643.17	12.864	++
102	.00000	512.00	643.17	12.864	++
104	.00000	560.00	643.17	8.1567	++
106	.00000	560.00	643.17	8.1567	++
108	.00000	560.00	643.17	8.1567	++
110	.00000	562.00	643.17	7.9605	++

END
1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
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1RESEAU FAYET - DEF.INCENDIE

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PAGE 2
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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARC
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU FAYET - DEF.INCENDIE

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PAGE 3
V2.4B-PCF

ETUDE 0
0CAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.001	-7.8655	100.00	2.1221	++
3	4 6	60.001	-3.9327	100.00	2.1221	++
5	6 8	60.001	-.84272	100.00	2.1221	++
7	8 10	60.001	-6.7418	100.00	2.1221	++
9	10 12	.00000	.00000	100.00	.00000	
11	10 14	60.001	-3.6518	100.00	2.1221	++
13	14 16	60.001	-1.3318	124.20	1.3757	++
15	16 18	60.001	-6.4609	100.00	2.1221	++
17	18 20	60.001	-5.61826E-02	100.00	2.1221	++
21	22 24	60.022	-5.62198E-02	100.00	2.1228	++
23	24 26	60.022	-1.6867	100.00	2.1228	++
25	26 28	60.022	-4.4978	100.00	2.1228	++
27	28 30	.00000	.00000	100.00	.00000	
29	28 32	60.022	-2.2489	100.00	2.1228	++
31	32 34	60.022	-20.240	100.00	2.1228	++
33	34 36	60.022	-5.62198E-02	100.00	2.1228	++
37	38 40	60.000	-5.61826E-02	100.00	2.1221	++
39	40 42	60.000	-5.6182	100.00	2.1221	++
41	42 44	60.000	-2.1529	69.800	4.3556	++
43	44 46	.00000	.00000	69.800	.00000	
45	46 48	.00000	.00000	69.800	.00000	
47	46 50	.00000	.00000	69.800	.00000	
49	50 52	.00000	.00000	69.800	.00000	
51	50 54	.00000	.00000	69.800	.00000	
53	44 56	60.000	-24.759	69.800	4.3556	++
55	56 58	60.000	-1.0765	69.800	4.3556	++
57	56 60	.00000	.00000	69.800	.00000	
59	60 62	.00000	.00000	85.400	.00000	
61	62 64	.00000	.00000	85.400	.00000	
63	62 66	.00000	.00000	31.000	.00000	
65	42 68	-7.90488E-11	.00000	69.800	-5.73838E-12	
67	68 70	.00000	.00000	69.800	.00000	
69	68 110	-2.16859E-11	.00000	48.800	-3.22064E-12	
71	68 74	.00000	.00000	69.800	.00000	
73	74 76	.00000	.00000	100.00	.00000	
75	76 78	.00000	.00000	69.800	.00000	
77	74 80	.00000	.00000	100.00	.00000	

79	80	82	.00000	.00000	69.800	.00000
81	80	84	.00000	.00000	69.800	.00000
83	84	86	.00000	.00000	69.800	.00000
85	84	88	.00000	.00000	69.800	.00000
87	88	90	.00000	.00000	69.800	.00000
89	90	92	.00000	.00000	69.800	.00000

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 4
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
91	90 94	.00000	.00000	69.800	.00000
93	94 96	.00000	.00000	60.000	.00000
95	88 98	.00000	.00000	69.800	.00000
97	98 100	.00000	.00000	69.800	.00000
99	100 102	.00000	.00000	69.800	.00000
101	98 104	.00000	.00000	69.800	.00000
103	104 106	.00000	.00000	69.800	.00000
105	104 108	.00000	.00000	69.800	.00000
107	110 72	.00000	.00000	100.00	.00000

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 5
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE VAL	CONSIGNE UNITES	DEBIT NOEUD M3/H	DELTA P M	
19	20 22	2 3.2000	BAR	22 60.001	-66.486	E
35	36 38	2 4.0000	BAR	38 60.022	-54.996	E

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 6
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S ...

	NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR	
C.P.	2	60.001	830.00	830.00	.00000	--
	4	.00000	802.00	822.13	1.9745	--
	6	.00000	781.00	818.20	3.6483	
	8	.00000	771.00	817.36	4.5463	
	10	.00000	745.00	810.62	6.4349	
	12	.00000	745.00	810.62	6.4349	
	14	.00000	728.00	806.97	7.7439	++
	16	.00000	720.00	805.63	8.3978	++
	18	.00000	700.00	799.17	9.7255	++
	20	.00000	700.00	799.12	9.7200	++
	22	.00000	700.00	732.63	3.2000	
	24	.00000	700.00	732.57	3.1945	
	26	.00000	680.00	730.89	4.9904	
	28	.00000	656.00	726.39	6.9029	
	30	.00000	656.00	726.39	6.9029	
	32	.00000	650.00	724.14	7.2708	++
	34	.00000	608.00	703.90	9.4047	++
	36	.00000	608.00	703.84	9.3992	++
	38	.00000	608.00	648.85	4.0059	
	40	.00000	608.00	648.79	4.0004	
	42	.00000	582.00	643.17	5.9992	
	44	.00000	582.00	641.02	5.7881	
	46	.00000	582.00	641.02	5.7881	

48	.00000	582.00	641.02	5.7881	
50	.00000	580.00	641.02	5.9842	
52	.00000	580.00	641.02	5.9842	
54	.00000	582.00	641.02	5.7881	
56	.00000	576.00	616.26	3.9485	
58	-60.000	576.00	615.19	3.8429	
60	.00000	562.00	616.26	5.3214	
62	.00000	562.00	616.26	5.3214	
64	.00000	562.00	616.26	5.3214	
66	.00000	562.00	616.26	5.3214	
68	.00000	580.00	643.17	6.1953	
70	.00000	580.00	643.17	6.1953	
72	.00000	562.00	643.17	7.9605	++
74	.00000	590.00	643.17	5.2147	
76	.00000	638.00	643.17	.50748	--
78	.00000	638.00	643.17	.50748	--
80	.00000	586.00	643.17	5.6069	
82	.00000	600.00	643.17	4.2340	
84	.00000	585.00	643.17	5.7050	
86	.00000	585.00	643.17	5.7050	

1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
OCAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S . . .					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
88	.00000	555.00	643.17	8.6470	++
90	.00000	555.00	643.17	8.6470	++
92	.00000	555.00	643.17	8.6470	++
94	.00000	552.00	643.17	8.9412	++
96	.00000	545.00	643.17	9.6277	++
98	.00000	548.00	643.17	9.3335	++
100	.00000	512.00	643.17	12.864	++
102	.00000	512.00	643.17	12.864	++
104	.00000	560.00	643.17	8.1567	++
106	.00000	560.00	643.17	8.1567	++
108	.00000	560.00	643.17	8.1567	++
110	.00000	562.00	643.17	7.9605	++

END
1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
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1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

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0SOLVE

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ETUDE 0
0CAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.001	-7.8655	100.00	2.1221	++
3	4 6	60.001	-3.9327	100.00	2.1221	++
5	6 8	60.001	-.84272	100.00	2.1221	++
7	8 10	60.001	-6.7418	100.00	2.1221	++
9	10 12	.00000	.00000	100.00	.00000	
11	10 14	60.001	-3.6518	100.00	2.1221	++
13	14 16	60.001	-1.3318	124.20	1.3757	++
15	16 18	60.001	-6.4609	100.00	2.1221	++
17	18 20	60.001	-5.61826E-02	100.00	2.1221	++
21	22 24	60.022	-5.62198E-02	100.00	2.1228	++
23	24 26	60.022	-1.6867	100.00	2.1228	++
25	26 28	60.022	-4.4978	100.00	2.1228	++
27	28 30	.00000	.00000	100.00	.00000	
29	28 32	60.022	-2.2489	100.00	2.1228	++
31	32 34	60.022	-20.240	100.00	2.1228	++
33	34 36	60.022	-5.62198E-02	100.00	2.1228	++
37	38 40	60.000	-5.61826E-02	100.00	2.1221	++
39	40 42	60.000	-5.6182	100.00	2.1221	++
41	42 44	60.000	-.56183	100.00	2.1221	++
43	44 46	.00000	.00000	69.800	.00000	
45	46 48	.00000	.00000	69.800	.00000	
47	46 50	.00000	.00000	69.800	.00000	
49	50 52	.00000	.00000	69.800	.00000	
51	50 54	.00000	.00000	69.800	.00000	
53	44 56	60.000	-6.4609	100.00	2.1221	++
55	56 58	.00000	.00000	69.800	.00000	
57	56 60	60.000	-45.212	69.800	4.3556	++
59	60 62	60.000	-3.6488	85.400	2.9096	++
61	62 64	60.000	-.40542	85.400	2.9096	++
63	62 66	.00000	.00000	31.000	.00000	
65	42 68	-7.90488E-11	.00000	69.800	-5.73838E-12	
67	68 70	.00000	.00000	69.800	.00000	
69	68 110	-2.20048E-11	.00000	48.800	-3.26800E-12	
71	68 74	.00000	.00000	69.800	.00000	
73	74 76	.00000	.00000	100.00	.00000	
75	76 78	.00000	.00000	69.800	.00000	
77	74 80	.00000	.00000	100.00	.00000	

79	80	82	.00000	.00000	69.800	.00000
81	80	84	.00000	.00000	69.800	.00000
83	84	86	.00000	.00000	69.800	.00000
85	84	88	.00000	.00000	69.800	.00000
87	88	90	.00000	.00000	69.800	.00000
89	90	92	.00000	.00000	69.800	.00000

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ETUDE 0 PAGE 4
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
91	90 94	.00000	.00000	69.800	.00000
93	94 96	.00000	.00000	60.000	.00000
95	88 98	.00000	.00000	69.800	.00000
97	98 100	.00000	.00000	69.800	.00000
99	100 102	.00000	.00000	69.800	.00000
101	98 104	.00000	.00000	69.800	.00000
103	104 106	.00000	.00000	69.800	.00000
105	104 108	.00000	.00000	69.800	.00000
107	110 72	.00000	.00000	100.00	.00000

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 5
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE VAL	CONSIGNE UNITES	DEBIT NOEUD M3/H	DELTA P M	
19	20 22	2 3.2000	BAR	22 60.001	-66.486	E
35	36 38	2 4.0000	BAR	38 60.022	-54.996	E

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 6
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S ...

	NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR	
C.P.	2	60.001	830.00	830.00	.00000	--
	4	.00000	802.00	822.13	1.9745	--
	6	.00000	781.00	818.20	3.6483	
	8	.00000	771.00	817.36	4.5463	
	10	.00000	745.00	810.62	6.4349	
	12	.00000	745.00	810.62	6.4349	
	14	.00000	728.00	806.97	7.7439	++
	16	.00000	720.00	805.63	8.3978	++
	18	.00000	700.00	799.17	9.7255	++
	20	.00000	700.00	799.12	9.7200	++
	22	.00000	700.00	732.63	3.2000	
	24	.00000	700.00	732.57	3.1945	
	26	.00000	680.00	730.89	4.9904	
	28	.00000	656.00	726.39	6.9029	
	30	.00000	656.00	726.39	6.9029	
	32	.00000	650.00	724.14	7.2708	++
	34	.00000	608.00	703.90	9.4047	++
	36	.00000	608.00	703.84	9.3992	++
	38	.00000	608.00	648.85	4.0059	
	40	.00000	608.00	648.79	4.0004	
	42	.00000	582.00	643.17	5.9992	
	44	.00000	582.00	642.61	5.9441	
	46	.00000	582.00	642.61	5.9441	

48	.000000	582.00	642.61	5.9441	
50	.000000	580.00	642.61	6.1402	
52	.000000	580.00	642.61	6.1402	
54	.000000	582.00	642.61	5.9441	
56	.000000	576.00	636.15	5.8989	
58	.000000	576.00	636.15	5.8989	
60	.000000	562.00	590.94	2.8381	
62	.000000	562.00	587.29	2.4802	
64	-60.000	562.00	586.89	2.4405	
66	.000000	562.00	587.29	2.4802	
68	.000000	580.00	643.17	6.1953	
70	.000000	580.00	643.17	6.1953	
72	.000000	562.00	643.17	7.9605	++
74	.000000	590.00	643.17	5.2147	
76	.000000	638.00	643.17	.50748	--
78	.000000	638.00	643.17	.50748	--
80	.000000	586.00	643.17	5.6069	
82	.000000	600.00	643.17	4.2340	
84	.000000	585.00	643.17	5.7050	
86	.000000	585.00	643.17	5.7050	

1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
OCAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S . . .					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
88	.000000	555.00	643.17	8.6470	++
90	.000000	555.00	643.17	8.6470	++
92	.000000	555.00	643.17	8.6470	++
94	.000000	552.00	643.17	8.9412	++
96	.000000	545.00	643.17	9.6277	++
98	.000000	548.00	643.17	9.3335	++
100	.000000	512.00	643.17	12.864	++
102	.000000	512.00	643.17	12.864	++
104	.000000	560.00	643.17	8.1567	++
106	.000000	560.00	643.17	8.1567	++
108	.000000	560.00	643.17	8.1567	++
110	.000000	562.00	643.17	7.9605	++

END
1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
OCAS 1 -

1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
0CAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.001	-7.8655	100.00	2.1221	++
3	4 6	60.001	-3.9327	100.00	2.1221	++
5	6 8	60.001	-.84272	100.00	2.1221	++
7	8 10	60.001	-6.7418	100.00	2.1221	++
9	10 12	.00000	.00000	100.00	.00000	
11	10 14	60.001	-3.6518	100.00	2.1221	++
13	14 16	60.001	-1.3318	124.20	1.3757	++
15	16 18	60.001	-6.4609	100.00	2.1221	++
17	18 20	60.001	-5.61826E-02	100.00	2.1221	++
21	22 24	60.022	-5.62198E-02	100.00	2.1228	++
23	24 26	60.022	-1.6867	100.00	2.1228	++
25	26 28	60.022	-4.4978	100.00	2.1228	++
27	28 30	.00000	.00000	100.00	.00000	
29	28 32	60.022	-2.2489	100.00	2.1228	++
31	32 34	60.022	-20.240	100.00	2.1228	++
33	34 36	60.022	-5.62198E-02	100.00	2.1228	++
37	38 40	60.000	-5.61826E-02	100.00	2.1221	++
39	40 42	60.000	-5.6182	100.00	2.1221	++
41	42 44	.00000	.00000	100.00	.00000	
43	44 46	.00000	.00000	69.800	.00000	
45	46 48	.00000	.00000	69.800	.00000	
47	46 50	.00000	.00000	69.800	.00000	
49	50 52	.00000	.00000	69.800	.00000	
51	50 54	.00000	.00000	69.800	.00000	
53	44 56	.00000	.00000	100.00	.00000	
55	56 58	.00000	.00000	69.800	.00000	
57	56 60	.00000	.00000	69.800	.00000	
59	60 62	.00000	.00000	85.400	.00000	
61	62 64	.00000	.00000	85.400	.00000	
63	62 66	.00000	.00000	31.000	.00000	
65	42 68	60.000	-9.6883	69.800	4.3556	++
67	68 70	60.000	-1.0765	69.800	4.3556	++
69	68 110	-2.00913E-11	.00000	48.800	-2.98383E-12	
71	68 74	.00000	.00000	69.800	.00000	
73	74 76	.00000	.00000	100.00	.00000	
75	76 78	.00000	.00000	69.800	.00000	
77	74 80	.00000	.00000	100.00	.00000	

79	80	82	.00000	.00000	69.800	.00000
81	80	84	.00000	.00000	69.800	.00000
83	84	86	.00000	.00000	69.800	.00000
85	84	88	.00000	.00000	69.800	.00000
87	88	90	.00000	.00000	69.800	.00000
89	90	92	.00000	.00000	69.800	.00000

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 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT	NOEUDS	DEBIT	DELTA P	DIAMETRE	VITESSE
NUMERO	AM AV	M3/H	M	MM	M/S
91	90 94	.00000	.00000	69.800	.00000
93	94 96	.00000	.00000	60.000	.00000
95	88 98	.00000	.00000	69.800	.00000
97	98 100	.00000	.00000	69.800	.00000
99	100 102	.00000	.00000	69.800	.00000
101	98 104	.00000	.00000	69.800	.00000
103	104 106	.00000	.00000	69.800	.00000
105	104 108	.00000	.00000	69.800	.00000
107	110 72	.00000	.00000	100.00	.00000

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 5
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P
NUMERO	AM AV	TYPE	VAL	UNITES NOEUD M3/H	M
19	20 22	2	3.2000	BAR 22	60.001 -66.486 E
35	36 38	2	4.0000	BAR 38	60.022 -54.996 E

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ETUDE 0 PAGE 6
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S ...

NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION
	M3/H	M	M	BAR
C.P.	2	60.001	830.00	830.00 .00000 --
	4	.00000	802.00	822.13 1.9745 --
	6	.00000	781.00	818.20 3.6483
	8	.00000	771.00	817.36 4.5463
	10	.00000	745.00	810.62 6.4349
	12	.00000	745.00	810.62 6.4349
	14	.00000	728.00	806.97 7.7439 ++
	16	.00000	720.00	805.63 8.3978 ++
	18	.00000	700.00	799.17 9.7255 ++
	20	.00000	700.00	799.12 9.7200 ++
	22	.00000	700.00	732.63 3.2000
	24	.00000	700.00	732.57 3.1945
	26	.00000	680.00	730.89 4.9904
	28	.00000	656.00	726.39 6.9029
	30	.00000	656.00	726.39 6.9029
	32	.00000	650.00	724.14 7.2708 ++
	34	.00000	608.00	703.90 9.4047 ++
	36	.00000	608.00	703.84 9.3992 ++
	38	.00000	608.00	648.85 4.0059
	40	.00000	608.00	648.79 4.0004
	42	.00000	582.00	643.17 5.9992
	44	.00000	582.00	643.17 5.9992
	46	.00000	582.00	643.17 5.9992

48	.00000	582.00	643.17	5.9992	
50	.00000	580.00	643.17	6.1953	
52	.00000	580.00	643.17	6.1953	
54	.00000	582.00	643.17	5.9992	
56	.00000	576.00	643.17	6.5876	
58	.00000	576.00	643.17	6.5876	
60	.00000	562.00	643.17	7.9605	++
62	.00000	562.00	643.17	7.9605	++
64	.00000	562.00	643.17	7.9605	++
66	.00000	562.00	643.17	7.9605	++
68	.00000	580.00	633.49	5.2452	
70	-60.000	580.00	632.41	5.1397	
72	.00000	562.00	633.49	7.0104	++
74	.00000	590.00	633.49	4.2646	
76	.00000	638.00	633.49	- .44262	--
78	.00000	638.00	633.49	- .44262	--
80	.00000	586.00	633.49	4.6568	
82	.00000	600.00	633.49	3.2839	
84	.00000	585.00	633.49	4.7549	
86	.00000	585.00	633.49	4.7549	

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ETUDE 0
OCAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S . . .					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
88	.00000	555.00	633.49	7.6969	++
90	.00000	555.00	633.49	7.6969	++
92	.00000	555.00	633.49	7.6969	++
94	.00000	552.00	633.49	7.9911	++
96	.00000	545.00	633.49	8.6776	++
98	.00000	548.00	633.49	8.3834	++
100	.00000	512.00	633.49	11.914	++
102	.00000	512.00	633.49	11.914	++
104	.00000	560.00	633.49	7.2066	++
106	.00000	560.00	633.49	7.2066	++
108	.00000	560.00	633.49	7.2066	++
110	.00000	562.00	633.49	7.0104	++

END
1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

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0SOLVE

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ETUDE 0
0CAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.001	-7.8655	100.00	2.1221	++
3	4 6	60.001	-3.9327	100.00	2.1221	++
5	6 8	60.001	-.84272	100.00	2.1221	++
7	8 10	60.001	-6.7418	100.00	2.1221	++
9	10 12	.00000	.00000	100.00	.00000	
11	10 14	60.001	-3.6518	100.00	2.1221	++
13	14 16	60.001	-1.3318	124.20	1.3757	++
15	16 18	60.001	-6.4609	100.00	2.1221	++
17	18 20	60.001	-5.61826E-02	100.00	2.1221	++
21	22 24	60.022	-5.62198E-02	100.00	2.1228	++
23	24 26	60.022	-1.6867	100.00	2.1228	++
25	26 28	60.022	-4.4978	100.00	2.1228	++
27	28 30	.00000	.00000	100.00	.00000	
29	28 32	60.022	-2.2489	100.00	2.1228	++
31	32 34	60.022	-20.240	100.00	2.1228	++
33	34 36	60.022	-5.62198E-02	100.00	2.1228	++
37	38 40	60.000	-5.61826E-02	100.00	2.1221	++
39	40 42	60.000	-5.6182	100.00	2.1221	++
41	42 44	.00000	.00000	100.00	.00000	
43	44 46	.00000	.00000	69.800	.00000	
45	46 48	.00000	.00000	69.800	.00000	
47	46 50	.00000	.00000	69.800	.00000	
49	50 52	.00000	.00000	69.800	.00000	
51	50 54	.00000	.00000	69.800	.00000	
53	44 56	.00000	.00000	100.00	.00000	
55	56 58	.00000	.00000	69.800	.00000	
57	56 60	.00000	.00000	69.800	.00000	
59	60 62	.00000	.00000	85.400	.00000	
61	62 64	.00000	.00000	85.400	.00000	
63	62 66	.00000	.00000	31.000	.00000	
65	42 68	60.000	-2.5282	100.00	2.1221	++
67	68 70	.00000	.00000	69.800	.00000	
69	68 110	60.000	-11.517	100.00	2.1221	++
71	68 74	.00000	.00000	69.800	.00000	
73	74 76	.00000	.00000	100.00	.00000	
75	76 78	.00000	.00000	69.800	.00000	
77	74 80	.00000	.00000	100.00	.00000	

79	80	82	.00000	.00000	69.800	.00000
81	80	84	.00000	.00000	69.800	.00000
83	84	86	.00000	.00000	69.800	.00000
85	84	88	.00000	.00000	69.800	.00000
87	88	90	.00000	.00000	69.800	.00000
89	90	92	.00000	.00000	69.800	.00000

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ETUDE 0 PAGE 4
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT	NOEUDS	DEBIT	DELTA P	DIAMETRE	VITESSE	
NUMERO	AM AV	M3/H	M	MM	M/S	
91	90 94	.00000	.00000	69.800	.00000	
93	94 96	.00000	.00000	60.000	.00000	
95	88 98	.00000	.00000	69.800	.00000	
97	98 100	.00000	.00000	69.800	.00000	
99	100 102	.00000	.00000	69.800	.00000	
101	98 104	.00000	.00000	69.800	.00000	
103	104 106	.00000	.00000	69.800	.00000	
105	104 108	.00000	.00000	69.800	.00000	
107	110 72	60.000	-.28091	100.00	2.1221	++

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ETUDE 0 PAGE 5
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P	
NUMERO	AM AV	TYPE	VAL	UNITES	NOEUD M3/H	M
19	20 22	2	3.2000	BAR	22	60.001 -66.486 E
35	36 38	2	4.0000	BAR	38	60.022 -54.996 E

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 6
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S ...

NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
C.P.	2	60.001	830.00	830.00	.00000 --
	4	.00000	802.00	822.13	1.9745 --
	6	.00000	781.00	818.20	3.6483
	8	.00000	771.00	817.36	4.5463
	10	.00000	745.00	810.62	6.4349
	12	.00000	745.00	810.62	6.4349
	14	.00000	728.00	806.97	7.7439 ++
	16	.00000	720.00	805.63	8.3978 ++
	18	.00000	700.00	799.17	9.7255 ++
	20	.00000	700.00	799.12	9.7200 ++
	22	.00000	700.00	732.63	3.2000
	24	.00000	700.00	732.57	3.1945
	26	.00000	680.00	730.89	4.9904
	28	.00000	656.00	726.39	6.9029
	30	.00000	656.00	726.39	6.9029
	32	.00000	650.00	724.14	7.2708 ++
	34	.00000	608.00	703.90	9.4047 ++
	36	.00000	608.00	703.84	9.3992 ++
	38	.00000	608.00	648.85	4.0059
	40	.00000	608.00	648.79	4.0004
	42	.00000	582.00	643.17	5.9992
	44	.00000	582.00	643.17	5.9992
	46	.00000	582.00	643.17	5.9992

48	.00000	582.00	643.17	5.9992	
50	.00000	580.00	643.17	6.1953	
52	.00000	580.00	643.17	6.1953	
54	.00000	582.00	643.17	5.9992	
56	.00000	576.00	643.17	6.5876	
58	.00000	576.00	643.17	6.5876	
60	.00000	562.00	643.17	7.9605	++
62	.00000	562.00	643.17	7.9605	++
64	.00000	562.00	643.17	7.9605	++
66	.00000	562.00	643.17	7.9605	++
68	.00000	580.00	640.65	5.9474	
70	.00000	580.00	640.65	5.9474	
72	-60.000	562.00	628.85	6.5556	
74	.00000	590.00	640.65	4.9667	
76	.00000	638.00	640.65	.25955	--
78	.00000	638.00	640.65	.25955	--
80	.00000	586.00	640.65	5.3590	
82	.00000	600.00	640.65	3.9861	
84	.00000	585.00	640.65	5.4571	
86	.00000	585.00	640.65	5.4571	

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ETUDE 0
OCAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S . . .					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
88	.00000	555.00	640.65	8.3991	++
90	.00000	555.00	640.65	8.3991	++
92	.00000	555.00	640.65	8.3991	++
94	.00000	552.00	640.65	8.6933	++
96	.00000	545.00	640.65	9.3797	++
98	.00000	548.00	640.65	9.0855	++
100	.00000	512.00	640.65	12.616	++
102	.00000	512.00	640.65	12.616	++
104	.00000	560.00	640.65	7.9087	++
106	.00000	560.00	640.65	7.9087	++
108	.00000	560.00	640.65	7.9087	++
110	.00000	562.00	629.13	6.5831	

END
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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARC
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

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0SOLVE

1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
0CAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.001	-7.8655	100.00	2.1221	++
3	4 6	60.001	-3.9327	100.00	2.1221	++
5	6 8	60.001	-.84272	100.00	2.1221	++
7	8 10	60.001	-6.7418	100.00	2.1221	++
9	10 12	.00000	.00000	100.00	.00000	
11	10 14	60.001	-3.6518	100.00	2.1221	++
13	14 16	60.001	-1.3318	124.20	1.3757	++
15	16 18	60.001	-6.4609	100.00	2.1221	++
17	18 20	60.001	-5.61826E-02	100.00	2.1221	++
21	22 24	60.000	-5.61826E-02	100.00	2.1221	++
23	24 26	60.000	-1.6855	100.00	2.1221	++
25	26 28	60.000	-4.4946	100.00	2.1221	++
27	28 30	.00000	.00000	100.00	.00000	
29	28 32	60.000	-2.2473	100.00	2.1221	++
31	32 34	60.000	-20.226	100.00	2.1221	++
33	34 36	2.30554E-09	.00000	100.00	8.15413E-11	
37	38 40	2.30554E-09	.00000	100.00	8.15413E-11	
39	40 42	1.36027E-09	.00000	100.00	4.81093E-11	
41	42 44	.00000	.00000	100.00	.00000	
43	44 46	.00000	.00000	69.800	.00000	
45	46 48	.00000	.00000	69.800	.00000	
47	46 50	.00000	.00000	69.800	.00000	
49	50 52	.00000	.00000	69.800	.00000	
51	50 54	.00000	.00000	69.800	.00000	
53	44 56	.00000	.00000	100.00	.00000	
55	56 58	.00000	.00000	69.800	.00000	
57	56 60	2.60601E-12	.00000	69.800	1.89177E-13	
59	60 62	.00000	.00000	85.400	.00000	
61	62 64	.00000	.00000	85.400	.00000	
63	62 66	.00000	.00000	31.000	.00000	
65	42 68	1.28086E-09	.00000	100.00	4.53007E-11	
67	68 70	.00000	.00000	69.800	.00000	
69	68 110	-3.37396E-11	.00000	100.00	-1.19329E-12	
71	68 74	1.40428E-09	.00000	100.00	4.96660E-11	
73	34 76	60.000	-34.833	100.00	2.1221	++
75	76 78	60.000	-.28089	100.00	2.1221	++
77	74 80	1.41340E-09	.00000	100.00	4.99883E-11	

79	80	82	.00000	.00000	69.800	.00000
81	80	84	1.15277E-09	.00000	100.00	4.07706E-11
83	84	86	.00000	.00000	69.800	.00000
85	84	88	1.13836E-09	.00000	100.00	4.02610E-11
87	88	90	.00000	.00000	69.800	.00000
89	90	92	.00000	.00000	69.800	.00000

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 4
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT	NOEUDS	DEBIT	DELTA P	DIAMETRE	VITESSE	
NUMERO	AM	AV	M3/H	M	MM	M/S
91	90	94	.00000	.00000	69.800	.00000
93	94	96	.00000	.00000	60.000	.00000
95	88	98	1.02761E-09	.00000	100.00	3.63441E-11
97	98	112	1.09452E-09	.00000	69.800	7.94545E-11
99	100	102	.00000	.00000	69.800	.00000
101	98	104	.00000	.00000	100.00	.00000
103	104	106	.00000	.00000	100.00	.00000
105	104	108	.00000	.00000	69.800	.00000
107	110	72	.00000	.00000	100.00	.00000
109	112	114	.00000	.00000	100.00	.00000
113	116	118	.00000	.00000	100.00	.00000
115	118	100	-5.47261E-11	.00000	69.800	-3.97272E-12

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 5
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P			
NUMERO	AM	AV	TYPE	VAL	UNITES	NOEUD	M3/H	M
19	20	22	2	3.2000	BAR	22	60.001	-66.486 E
35	36	38	2	4.0000	BAR	38	1.41710E-09	3.72070E-05
111	114	116	2	3.5000	BAR	116	4.54068E-10	3.72070E-05

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 6
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S ...

NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
C.P.	2	60.001	830.00	830.00	.00000 --
	4	.00000	802.00	822.13	1.9745 --
	6	.00000	781.00	818.20	3.6483
	8	.00000	771.00	817.36	4.5463
	10	.00000	745.00	810.62	6.4349
	12	.00000	745.00	810.62	6.4349
	14	.00000	728.00	806.97	7.7439 ++
	16	.00000	720.00	805.63	8.3978 ++
	18	.00000	700.00	799.17	9.7255 ++
	20	.00000	700.00	799.12	9.7200 ++
	22	.00000	700.00	732.63	3.2000
	24	.00000	700.00	732.57	3.1945
	26	.00000	680.00	730.89	4.9905
	28	.00000	656.00	726.39	6.9034
	30	.00000	656.00	726.39	6.9034
	32	.00000	650.00	724.15	7.2714 ++
	34	.00000	608.00	703.92	9.4067 ++
	36	.00000	608.00	703.92	9.4067 ++
	38	.00000	608.00	703.92	9.4067 ++

40	.00000	608.00	703.92	9.4067	++
42	.00000	582.00	703.92	11.956	++
44	.00000	582.00	703.92	11.956	++
46	.00000	582.00	703.92	11.956	++
48	.00000	582.00	703.92	11.956	++
50	.00000	580.00	703.92	12.153	++
52	.00000	580.00	703.92	12.153	++
54	.00000	582.00	703.92	11.956	++
56	.00000	576.00	703.92	12.545	++
58	.00000	576.00	703.92	12.545	++
60	.00000	562.00	703.92	13.918	++
62	.00000	562.00	703.92	13.918	++
64	.00000	562.00	703.92	13.918	++
66	.00000	562.00	703.92	13.918	++
68	.00000	580.00	703.92	12.153	++
70	.00000	580.00	703.92	12.153	++
72	.00000	562.00	703.92	13.918	++
74	.00000	590.00	703.92	11.172	++
76	.00000	638.00	669.09	3.0488	
78	-60.000	638.00	668.81	3.0212	
80	.00000	586.00	703.92	11.564	++
82	.00000	600.00	703.92	10.191	++
84	.00000	585.00	703.92	11.662	++
86	.00000	585.00	703.92	11.662	++

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N O E U D S ...					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
88	.00000	555.00	703.92	14.604	++
90	.00000	555.00	703.92	14.604	++
92	.00000	555.00	703.92	14.604	++
94	.00000	552.00	703.92	14.898	++
96	.00000	545.00	703.92	15.585	++
98	.00000	548.00	703.92	15.291	++
100	.00000	512.00	703.92	18.821	++
102	.00000	512.00	703.92	18.821	++
104	.00000	560.00	703.92	14.114	++
106	.00000	560.00	703.92	14.114	++
108	.00000	560.00	703.92	14.114	++
110	.00000	562.00	703.92	13.918	++
112	.00000	547.00	703.92	15.389	++
114	.00000	547.00	703.92	15.389	++
116	.00000	547.00	703.92	15.389	++
118	.00000	547.00	703.92	15.389	++

END

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

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0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...						
ELEMENT NUMERO	AM	AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
1	2	4	60.001	-7.8655	100.00	2.1221 ++
3	4	6	60.001	-3.9327	100.00	2.1221 ++
5	6	8	60.001	-.84272	100.00	2.1221 ++
7	8	10	60.001	-6.7418	100.00	2.1221 ++
9	10	12	.00000	.00000	100.00	.00000
11	10	14	60.001	-3.6518	100.00	2.1221 ++
13	14	16	60.001	-1.3318	124.20	1.3757 ++
15	16	18	60.001	-6.4609	100.00	2.1221 ++
17	18	20	60.001	-5.61826E-02	100.00	2.1221 ++
21	22	24	60.022	-5.62198E-02	100.00	2.1228 ++
23	24	26	60.022	-1.6867	100.00	2.1228 ++
25	26	28	60.022	-4.4978	100.00	2.1228 ++
27	28	30	.00000	.00000	100.00	.00000
29	28	32	60.022	-2.2489	100.00	2.1228 ++
31	32	34	60.022	-20.240	100.00	2.1228 ++
33	34	36	60.022	-5.62198E-02	100.00	2.1228 ++
37	38	40	60.000	-5.61826E-02	100.00	2.1221 ++
39	40	42	60.000	-5.6182	100.00	2.1221 ++
41	42	44	.00000	.00000	100.00	.00000
43	44	46	.00000	.00000	69.800	.00000
45	46	48	.00000	.00000	69.800	.00000
47	46	50	.00000	.00000	69.800	.00000
49	50	52	.00000	.00000	69.800	.00000
51	50	54	.00000	.00000	69.800	.00000
53	44	56	.00000	.00000	100.00	.00000
55	56	58	.00000	.00000	69.800	.00000
57	56	60	.00000	.00000	69.800	.00000
59	60	62	.00000	.00000	85.400	.00000
61	62	64	.00000	.00000	85.400	.00000
63	62	66	.00000	.00000	31.000	.00000
65	42	68	60.000	-2.5282	100.00	2.1221 ++
67	68	70	.00000	.00000	69.800	.00000
69	68	110	-2.24931E-11	.00000	100.00	-7.95525E-13
71	68	74	60.000	-6.1800	100.00	2.1221 ++
73	74	76	.00000	.00000	100.00	.00000
75	76	78	.00000	.00000	100.00	.00000
77	74	80	60.000	-25.844	100.00	2.1221 ++

79	80	82	.00000	.00000	69.800	.00000	
81	80	84	60.000	-.86118	69.800	4.3556	++
83	84	86	60.000	-1.0765	69.800	4.3556	++
85	84	88	.00000	.00000	69.800	.00000	
87	88	90	.00000	.00000	69.800	.00000	
89	90	92	.00000	.00000	69.800	.00000	

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 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT	NOEUDS	DEBIT	DELTA P	DIAMETRE	VITESSE
NUMERO	AM AV	M3/H	M	MM	M/S
91	90 94	.00000	.00000	69.800	.00000
93	94 96	.00000	.00000	60.000	.00000
95	88 98	.00000	.00000	69.800	.00000
97	98 100	.00000	.00000	69.800	.00000
99	100 102	.00000	.00000	69.800	.00000
101	98 104	.00000	.00000	69.800	.00000
103	104 106	.00000	.00000	69.800	.00000
105	104 108	.00000	.00000	69.800	.00000
107	110 72	.00000	.00000	100.00	.00000

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 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P
NUMERO	AM AV	TYPE	VAL	UNITES NOEUD M3/H	M
19	20 22	2	3.2000	BAR 22	60.001 -66.486 E
35	36 38	2	4.0000	BAR 38	60.022 -54.996 E

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 6
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S ...

NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION
	M3/H	M	M	BAR
C.P.	2	60.001	830.00	830.00 .00000 --
	4	.00000	802.00	822.13 1.9745 --
	6	.00000	781.00	818.20 3.6483
	8	.00000	771.00	817.36 4.5463
	10	.00000	745.00	810.62 6.4349
	12	.00000	745.00	810.62 6.4349
	14	.00000	728.00	806.97 7.7439 ++
	16	.00000	720.00	805.63 8.3978 ++
	18	.00000	700.00	799.17 9.7255 ++
	20	.00000	700.00	799.12 9.7200 ++
	22	.00000	700.00	732.63 3.2000
	24	.00000	700.00	732.57 3.1945
	26	.00000	680.00	730.89 4.9904
	28	.00000	656.00	726.39 6.9029
	30	.00000	656.00	726.39 6.9029
	32	.00000	650.00	724.14 7.2708 ++
	34	.00000	608.00	703.90 9.4047 ++
	36	.00000	608.00	703.84 9.3992 ++
	38	.00000	608.00	648.85 4.0059
	40	.00000	608.00	648.79 4.0004
	42	.00000	582.00	643.17 5.9992
	44	.00000	582.00	643.17 5.9992
	46	.00000	582.00	643.17 5.9992

48	.00000	582.00	643.17	5.9992	
50	.00000	580.00	643.17	6.1953	
52	.00000	580.00	643.17	6.1953	
54	.00000	582.00	643.17	5.9992	
56	.00000	576.00	643.17	6.5876	
58	.00000	576.00	643.17	6.5876	
60	.00000	562.00	643.17	7.9605	++
62	.00000	562.00	643.17	7.9605	++
64	.00000	562.00	643.17	7.9605	++
66	.00000	562.00	643.17	7.9605	++
68	.00000	580.00	640.65	5.9474	
70	.00000	580.00	640.65	5.9474	
72	.00000	562.00	640.65	7.7126	++
74	.00000	590.00	634.47	4.3607	
76	.00000	638.00	634.47	- .34651	--
78	.00000	638.00	634.47	- .34651	--
80	.00000	586.00	608.62	2.2185	
82	.00000	600.00	608.62	.84561	--
84	.00000	585.00	607.76	2.2322	
86	-60.000	585.00	606.69	2.1266	

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ETUDE 0
OCAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S . . .					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
88	.00000	555.00	607.76	5.1742	
90	.00000	555.00	607.76	5.1742	
92	.00000	555.00	607.76	5.1742	
94	.00000	552.00	607.76	5.4684	
96	.00000	545.00	607.76	6.1548	
98	.00000	548.00	607.76	5.8606	
100	.00000	512.00	607.76	9.3910	++
102	.00000	512.00	607.76	9.3910	++
104	.00000	560.00	607.76	4.6838	
106	.00000	560.00	607.76	4.6838	
108	.00000	560.00	607.76	4.6838	
110	.00000	562.00	640.65	7.7126	++

END
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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

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0SOLVE

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ETUDE 0
0CAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.001	-7.8655	100.00	2.1221	++
3	4 6	60.001	-3.9327	100.00	2.1221	++
5	6 8	60.001	-.84272	100.00	2.1221	++
7	8 10	60.001	-6.7418	100.00	2.1221	++
9	10 12	.00000	.00000	100.00	.00000	
11	10 14	60.001	-3.6518	100.00	2.1221	++
13	14 16	60.001	-1.3318	124.20	1.3757	++
15	16 18	60.001	-6.4609	100.00	2.1221	++
17	18 20	60.001	-5.61826E-02	100.00	2.1221	++
21	22 24	60.022	-5.62198E-02	100.00	2.1228	++
23	24 26	60.022	-1.6867	100.00	2.1228	++
25	26 28	60.022	-4.4978	100.00	2.1228	++
27	28 30	.00000	.00000	100.00	.00000	
29	28 32	60.022	-2.2489	100.00	2.1228	++
31	32 34	60.022	-20.240	100.00	2.1228	++
33	34 36	60.022	-5.62198E-02	100.00	2.1228	++
37	38 40	60.000	-5.61826E-02	100.00	2.1221	++
39	40 42	60.000	-5.6182	100.00	2.1221	++
41	42 44	.00000	.00000	100.00	.00000	
43	44 46	.00000	.00000	69.800	.00000	
45	46 48	.00000	.00000	69.800	.00000	
47	46 50	.00000	.00000	69.800	.00000	
49	50 52	.00000	.00000	69.800	.00000	
51	50 54	.00000	.00000	69.800	.00000	
53	44 56	.00000	.00000	100.00	.00000	
55	56 58	.00000	.00000	69.800	.00000	
57	56 60	.00000	.00000	69.800	.00000	
59	60 62	.00000	.00000	85.400	.00000	
61	62 64	.00000	.00000	85.400	.00000	
63	62 66	.00000	.00000	31.000	.00000	
65	42 68	60.000	-2.5282	100.00	2.1221	++
67	68 70	.00000	.00000	69.800	.00000	
69	68 110	-2.24931E-11	.00000	100.00	-7.95525E-13	
71	68 74	60.000	-6.1800	100.00	2.1221	++
73	74 76	.00000	.00000	100.00	.00000	
75	76 78	.00000	.00000	100.00	.00000	
77	74 80	60.000	-25.844	100.00	2.1221	++

79	80	82	.00000	.00000	69.800	.00000	
81	80	84	60.000	-.86118	69.800	4.3556	++
83	84	86	.00000	.00000	69.800	.00000	
85	84	88	60.000	-34.447	69.800	4.3556	++
87	88	90	60.000	-.64589	69.800	4.3556	++
89	90	92	60.000	-1.0765	69.800	4.3556	++

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 4
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
91	90 94	.00000	.00000	69.800	.00000
93	94 96	.00000	.00000	60.000	.00000
95	88 98	.00000	.00000	69.800	.00000
97	98 100	.00000	.00000	69.800	.00000
99	100 102	.00000	.00000	69.800	.00000
101	98 104	.00000	.00000	69.800	.00000
103	104 106	.00000	.00000	69.800	.00000
105	104 108	.00000	.00000	69.800	.00000
107	110 72	.00000	.00000	100.00	.00000

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 5
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE	CONSIGNE VAL	UNITES NOEUD	DEBIT M3/H	DELTA P M
19	20 22	2	3.2000	BAR	22 60.001	-66.486 E
35	36 38	2	4.0000	BAR	38 60.022	-54.996 E

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 6
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S ...

NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR
C.P. 2	60.001	830.00	830.00	.00000 --
4	.00000	802.00	822.13	1.9745 --
6	.00000	781.00	818.20	3.6483
8	.00000	771.00	817.36	4.5463
10	.00000	745.00	810.62	6.4349
12	.00000	745.00	810.62	6.4349
14	.00000	728.00	806.97	7.7439 ++
16	.00000	720.00	805.63	8.3978 ++
18	.00000	700.00	799.17	9.7255 ++
20	.00000	700.00	799.12	9.7200 ++
22	.00000	700.00	732.63	3.2000
24	.00000	700.00	732.57	3.1945
26	.00000	680.00	730.89	4.9904
28	.00000	656.00	726.39	6.9029
30	.00000	656.00	726.39	6.9029
32	.00000	650.00	724.14	7.2708 ++
34	.00000	608.00	703.90	9.4047 ++
36	.00000	608.00	703.84	9.3992 ++
38	.00000	608.00	648.85	4.0059
40	.00000	608.00	648.79	4.0004
42	.00000	582.00	643.17	5.9992
44	.00000	582.00	643.17	5.9992
46	.00000	582.00	643.17	5.9992

48	.00000	582.00	643.17	5.9992	
50	.00000	580.00	643.17	6.1953	
52	.00000	580.00	643.17	6.1953	
54	.00000	582.00	643.17	5.9992	
56	.00000	576.00	643.17	6.5876	
58	.00000	576.00	643.17	6.5876	
60	.00000	562.00	643.17	7.9605	++
62	.00000	562.00	643.17	7.9605	++
64	.00000	562.00	643.17	7.9605	++
66	.00000	562.00	643.17	7.9605	++
68	.00000	580.00	640.65	5.9474	
70	.00000	580.00	640.65	5.9474	
72	.00000	562.00	640.65	7.7126	++
74	.00000	590.00	634.47	4.3607	
76	.00000	638.00	634.47	- .34651	--
78	.00000	638.00	634.47	- .34651	--
80	.00000	586.00	608.62	2.2185	
82	.00000	600.00	608.62	.84561	--
84	.00000	585.00	607.76	2.2322	
86	.00000	585.00	607.76	2.2322	

1RESEAU FAYET - DEF.INCENDIE

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PAGE 7
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ETUDE 0
OCAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S . . .					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
88	.00000	555.00	573.31	1.7960	--
90	.00000	555.00	572.67	1.7327	--
92	-60.000	555.00	571.59	1.6271	--
94	.00000	552.00	572.67	2.0269	
96	.00000	545.00	572.67	2.7134	
98	.00000	548.00	573.31	2.4825	
100	.00000	512.00	573.31	6.0129	
102	.00000	512.00	573.31	6.0129	
104	.00000	560.00	573.31	1.3057	--
106	.00000	560.00	573.31	1.3057	--
108	.00000	560.00	573.31	1.3057	--
110	.00000	562.00	640.65	7.7126	++

END
1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
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1RESEAU FAYET - DEF.INCENDIE

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PAGE 2

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0 NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0 PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU FAYET - DEF.INCENDIE

JUIN.2007

PAGE 3

V2.4B-PCF

ETUDE 0
0CAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.001	-7.8655	100.00	2.1221	++
3	4 6	60.001	-3.9327	100.00	2.1221	++
5	6 8	60.001	-.84272	100.00	2.1221	++
7	8 10	60.001	-6.7418	100.00	2.1221	++
9	10 12	.00000	.00000	100.00	.00000	
11	10 14	60.001	-3.6518	100.00	2.1221	++
13	14 16	60.001	-1.3318	124.20	1.3757	++
15	16 18	60.001	-6.4609	100.00	2.1221	++
17	18 20	60.001	-5.61826E-02	100.00	2.1221	++
21	22 24	60.022	-5.62198E-02	100.00	2.1228	++
23	24 26	60.022	-1.6867	100.00	2.1228	++
25	26 28	60.022	-4.4978	100.00	2.1228	++
27	28 30	.00000	.00000	100.00	.00000	
29	28 32	60.022	-2.2489	100.00	2.1228	++
31	32 34	60.022	-20.240	100.00	2.1228	++
33	34 36	60.022	-5.62198E-02	100.00	2.1228	++
37	38 40	60.000	-5.61826E-02	100.00	2.1221	++
39	40 42	60.000	-5.6182	100.00	2.1221	++
41	42 44	.00000	.00000	100.00	.00000	
43	44 46	.00000	.00000	69.800	.00000	
45	46 48	.00000	.00000	69.800	.00000	
47	46 50	.00000	.00000	69.800	.00000	
49	50 52	.00000	.00000	69.800	.00000	
51	50 54	.00000	.00000	69.800	.00000	
53	44 56	.00000	.00000	100.00	.00000	
55	56 58	.00000	.00000	69.800	.00000	
57	56 60	.00000	.00000	69.800	.00000	
59	60 62	.00000	.00000	85.400	.00000	
61	62 64	.00000	.00000	85.400	.00000	
63	62 66	.00000	.00000	31.000	.00000	
65	42 68	60.000	-2.5282	100.00	2.1221	++
67	68 70	.00000	.00000	69.800	.00000	
69	68 110	-2.24931E-11	.00000	100.00	-7.95525E-13	
71	68 74	60.000	-6.1800	100.00	2.1221	++
73	74 76	.00000	.00000	100.00	.00000	
75	76 78	.00000	.00000	100.00	.00000	
77	74 80	60.000	-25.844	100.00	2.1221	++

79	80	82	.00000	.00000	69.800	.00000	
81	80	84	60.000	-.22473	100.00	2.1221	++
83	84	86	.00000	.00000	69.800	.00000	
85	84	88	60.000	-8.9891	100.00	2.1221	++
87	88	90	.00000	.00000	69.800	.00000	
89	90	92	.00000	.00000	69.800	.00000	

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 4
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
91	90 94	.00000	.00000	69.800	.00000	
93	94 96	.00000	.00000	60.000	.00000	
95	88 98	60.000	-37.677	69.800	4.3556	++
97	98 100	60.000	-23.682	69.800	4.3556	++
99	100 102	60.000	-1.0765	69.800	4.3556	++
101	98 104	.00000	.00000	69.800	.00000	
103	104 106	.00000	.00000	69.800	.00000	
105	104 108	.00000	.00000	69.800	.00000	
107	110 72	.00000	.00000	100.00	.00000	

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 5
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE VAL	CONSIGNE UNITES	NOEUD	DEBIT M3/H	DELTA P M	
19	20 22	2 3.2000	BAR	22	60.001	-66.486	E
35	36 38	2 4.0000	BAR	38	60.022	-54.996	E

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 6
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S ...

NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR	
C.P. 2	60.001	830.00	830.00	.00000	--
4	.00000	802.00	822.13	1.9745	--
6	.00000	781.00	818.20	3.6483	
8	.00000	771.00	817.36	4.5463	
10	.00000	745.00	810.62	6.4349	
12	.00000	745.00	810.62	6.4349	
14	.00000	728.00	806.97	7.7439	++
16	.00000	720.00	805.63	8.3978	++
18	.00000	700.00	799.17	9.7255	++
20	.00000	700.00	799.12	9.7200	++
22	.00000	700.00	732.63	3.2000	
24	.00000	700.00	732.57	3.1945	
26	.00000	680.00	730.89	4.9904	
28	.00000	656.00	726.39	6.9029	
30	.00000	656.00	726.39	6.9029	
32	.00000	650.00	724.14	7.2708	++
34	.00000	608.00	703.90	9.4047	++
36	.00000	608.00	703.84	9.3992	++
38	.00000	608.00	648.85	4.0059	
40	.00000	608.00	648.79	4.0004	
42	.00000	582.00	643.17	5.9992	
44	.00000	582.00	643.17	5.9992	
46	.00000	582.00	643.17	5.9992	

48	.00000	582.00	643.17	5.9992	
50	.00000	580.00	643.17	6.1953	
52	.00000	580.00	643.17	6.1953	
54	.00000	582.00	643.17	5.9992	
56	.00000	576.00	643.17	6.5876	
58	.00000	576.00	643.17	6.5876	
60	.00000	562.00	643.17	7.9605	++
62	.00000	562.00	643.17	7.9605	++
64	.00000	562.00	643.17	7.9605	++
66	.00000	562.00	643.17	7.9605	++
68	.00000	580.00	640.65	5.9474	
70	.00000	580.00	640.65	5.9474	
72	.00000	562.00	640.65	7.7126	++
74	.00000	590.00	634.47	4.3607	
76	.00000	638.00	634.47	- .34651	--
78	.00000	638.00	634.47	- .34651	--
80	.00000	586.00	608.62	2.2185	
82	.00000	600.00	608.62	.84561	--
84	.00000	585.00	608.40	2.2946	
86	.00000	585.00	608.40	2.2946	

1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
OCAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S ...				
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION
	M3/H	M	M	BAR
88	.00000	555.00	599.41	4.3550
90	.00000	555.00	599.41	4.3550
92	.00000	555.00	599.41	4.3550
94	.00000	552.00	599.41	4.6492
96	.00000	545.00	599.41	5.3357
98	.00000	548.00	561.73	1.3467
100	.00000	512.00	538.05	2.5546
102	-60.000	512.00	536.97	2.4491
104	.00000	560.00	561.73	.16988
106	.00000	560.00	561.73	.16988
108	.00000	560.00	561.73	.16988
110	.00000	562.00	640.65	7.7126

END
1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
OCAS 1 -

1RESEAU FAYET - DEF.INCENDIE

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PAGE 2

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ETUDE 0

0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS

SOLUTION CRITERIA

0NOEUDS 1000(R)

EQUATION POUR DELTA P

DARCY

ELEMENTS..... 1000(R)

NOMBRE MAXI D'ITERATIONS

20

STOCKAGE UTILISE 21762

CRITERE DE CONV POUR DEBIT-M3/H

3.00

STOCKAGE DISPON. 68734

CRITERE DE CONV COTE PIEZO-M

.200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0PRESSION-BAR

NOM

WATER

++ ... 7.00

MASSE VOL.-KGF /M **3100E+04

-- ... 2.00

VISCOSITE -KGF *S/M **2133E-03

VITESSE- M/S

PRESSION DE VAPEUR-BAR122E-01

++ ... 1.30

TEMPERATURE-DEGREES C 10.0

--000

0CAS 1 -

0SOLVE

1RESEAU FAYET - DEF.INCENDIE

JUIN.2007

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V2.4B-PCF

ETUDE 0

0CAS 1 -

0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM	NOEUDS AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	60.001	-7.8655	100.00	2.1221	++
3	4	6	60.001	-3.9327	100.00	2.1221	++
5	6	8	60.001	-.84272	100.00	2.1221	++
7	8	10	60.001	-6.7418	100.00	2.1221	++
9	10	12	.00000	.00000	100.00	.00000	
11	10	14	60.001	-3.6518	100.00	2.1221	++
13	14	16	60.001	-1.3318	124.20	1.3757	++
15	16	18	60.001	-6.4609	100.00	2.1221	++
17	18	20	60.001	-5.61826E-02	100.00	2.1221	++
21	22	24	60.022	-5.62198E-02	100.00	2.1228	++
23	24	26	60.022	-1.6867	100.00	2.1228	++
25	26	28	60.022	-4.4978	100.00	2.1228	++
27	28	30	.00000	.00000	100.00	.00000	
29	28	32	60.022	-2.2489	100.00	2.1228	++
31	32	34	60.022	-20.240	100.00	2.1228	++
33	34	36	60.022	-5.62198E-02	100.00	2.1228	++
37	38	40	60.000	-5.61826E-02	100.00	2.1221	++
39	40	42	60.000	-5.6182	100.00	2.1221	++
41	42	44	.00000	.00000	100.00	.00000	
43	44	46	.00000	.00000	69.800	.00000	
45	46	48	.00000	.00000	69.800	.00000	
47	46	50	.00000	.00000	69.800	.00000	
49	50	52	.00000	.00000	69.800	.00000	
51	50	54	.00000	.00000	69.800	.00000	
53	44	56	.00000	.00000	100.00	.00000	
55	56	58	.00000	.00000	69.800	.00000	
57	56	60	.00000	.00000	69.800	.00000	
59	60	62	.00000	.00000	85.400	.00000	
61	62	64	.00000	.00000	85.400	.00000	
63	62	66	.00000	.00000	31.000	.00000	
65	42	68	60.000	-2.5282	100.00	2.1221	++
67	68	70	.00000	.00000	69.800	.00000	
69	68	110	-2.24931E-11	.00000	100.00	-7.95525E-13	
71	68	74	60.000	-6.1800	100.00	2.1221	++
73	74	76	.00000	.00000	100.00	.00000	
75	76	78	.00000	.00000	100.00	.00000	
77	74	80	60.000	-25.844	100.00	2.1221	++

79	80	82	.00000	.00000	69.800	.00000	
81	80	84	60.000	-.22473	100.00	2.1221	++
83	84	86	.00000	.00000	69.800	.00000	
85	84	88	60.000	-8.9891	100.00	2.1221	++
87	88	90	.00000	.00000	69.800	.00000	
89	90	92	.00000	.00000	69.800	.00000	

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 4
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
91	90 94	.00000	.00000	69.800	.00000	
93	94 96	.00000	.00000	60.000	.00000	
95	88 98	60.000	-9.8319	100.00	2.1221	++
97	98 100	.00000	.00000	69.800	.00000	
99	100 102	.00000	.00000	69.800	.00000	
101	98 104	60.000	-15.169	100.00	2.1221	++
103	104 106	60.000	-.28091	100.00	2.1221	++
105	104 108	.00000	.00000	69.800	.00000	
107	110 72	.00000	.00000	100.00	.00000	

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 5
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE VAL	CONSIGNE UNITES	NOEUD	DEBIT M3/H	DELTA P M	
19	20 22	2 3.2000	BAR	22	60.001	-66.486	E
35	36 38	2 4.0000	BAR	38	60.022	-54.996	E

1RESEAU FAYET - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 6
 0CAS 1 - V2.4B-PCF
 0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S ...

NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR	
C.P. 2	60.001	830.00	830.00	.00000	--
4	.00000	802.00	822.13	1.9745	--
6	.00000	781.00	818.20	3.6483	
8	.00000	771.00	817.36	4.5463	
10	.00000	745.00	810.62	6.4349	
12	.00000	745.00	810.62	6.4349	
14	.00000	728.00	806.97	7.7439	++
16	.00000	720.00	805.63	8.3978	++
18	.00000	700.00	799.17	9.7255	++
20	.00000	700.00	799.12	9.7200	++
22	.00000	700.00	732.63	3.2000	
24	.00000	700.00	732.57	3.1945	
26	.00000	680.00	730.89	4.9904	
28	.00000	656.00	726.39	6.9029	
30	.00000	656.00	726.39	6.9029	
32	.00000	650.00	724.14	7.2708	++
34	.00000	608.00	703.90	9.4047	++
36	.00000	608.00	703.84	9.3992	++
38	.00000	608.00	648.85	4.0059	
40	.00000	608.00	648.79	4.0004	
42	.00000	582.00	643.17	5.9992	
44	.00000	582.00	643.17	5.9992	
46	.00000	582.00	643.17	5.9992	

48	.00000	582.00	643.17	5.9992	
50	.00000	580.00	643.17	6.1953	
52	.00000	580.00	643.17	6.1953	
54	.00000	582.00	643.17	5.9992	
56	.00000	576.00	643.17	6.5876	
58	.00000	576.00	643.17	6.5876	
60	.00000	562.00	643.17	7.9605	++
62	.00000	562.00	643.17	7.9605	++
64	.00000	562.00	643.17	7.9605	++
66	.00000	562.00	643.17	7.9605	++
68	.00000	580.00	640.65	5.9474	
70	.00000	580.00	640.65	5.9474	
72	.00000	562.00	640.65	7.7126	++
74	.00000	590.00	634.47	4.3607	
76	.00000	638.00	634.47	- .34651	--
78	.00000	638.00	634.47	- .34651	--
80	.00000	586.00	608.62	2.2185	
82	.00000	600.00	608.62	.84561	--
84	.00000	585.00	608.40	2.2946	
86	.00000	585.00	608.40	2.2946	

1RESEAU FAYET - DEF.INCENDIE

JUIN.2007

PAGE 7
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ETUDE 0
OCAS 1 -
0 7 ITERATIONS, CONVERGED TO .9863E-01 M3/H AND .1026 M

N O E U D S . . .				
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION
	M3/H	M	M	BAR
88	.00000	555.00	599.41	4.3550
90	.00000	555.00	599.41	4.3550
92	.00000	555.00	599.41	4.3550
94	.00000	552.00	599.41	4.6492
96	.00000	545.00	599.41	5.3357
98	.00000	548.00	589.58	4.0773
100	.00000	512.00	589.58	7.6077
102	.00000	512.00	589.58	7.6077
104	.00000	560.00	574.41	1.4129
106	-60.000	560.00	574.13	1.3854
108	.00000	560.00	574.41	1.4129
110	.00000	562.00	640.65	7.7126

END
1RESEAU FAYET - DEF.INCENDIE

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ETUDE 0
OCAS 1 -

Réseau de la Minière

RESEAU DE LA MINIERE

Sous-réseau de la Minière

***** COMMUNE DE SAINT GEORGES D'HURTIERES *****
RESEAU DE LA MINIERE – SOUS-RESEAU DE LA MINIERE
« MINIERE1 »

JOB ETUDE 0
LABEL RESEAU MINIERE - DEF.INCENDIE FUTUR
LABL2

C
PARAMS 1000 1000
C
FLUID WATER 1000 1.328E-04 0.01225 10
FORMULA DARCY
RANDOM
NOLIST
FILE RESULTS SINGLE
PACK HEADINGS
FLOWCON 3
HEADCON 0.2
MAXPRESSURE 7
MINPRESSURE 2.0
MAXVELOCITY 1.3

C
DATE JUIN.2007

C
MAXITER 20

C
CAS 1 -

C
CONDUITES :
RUGOS .2

C	Nø de Conduite	Noeud Amont	Noeud Aval	Longueur (m)	DiamStre (mm)
C					
COND	1	2	4	93	100
COND	3	4	6	93	100
COND	5	6	8	5	100
COND	7	6	10	80	100
COND	9	10	12	50	100
COND	11	12	14	5	100
COND	13	10	16	190	100
COND	15	16	24	5	100
COND	17	16	18	1	100
COND	21	20	22	1	100
COND	23	22	26	28	100
COND	25	26	28	215	100
COND	27	28	30	50	100
COND	29	30	32	5	100
COND	31	28	34	100	100
COND	33	34	36	1	100
COND	37	38	40	1	100
COND	39	40	42	310	100
COND	41	42	44	130	100
COND	43	44	56	5	100
COND	47	42	48	5	100
COND	49	48	50	1	100
COND	53	52	54	1	100

C
RUGOS
RUGOS 1

C	Nø de Conduite	Noeud Amont	Noeud Aval	Longueur (m)	DiamStre (mm)
C					
COND	45	44	46	165	50

```

RUGOS
C
C      REGULATEURS :
C
C      Les donn,es sont dans l'ordre:
C      Nø du regulateur
C      Nø du noeud amont
C      Nø du noeud aval
C      Type
C      Pression de consigne
C      Code propre au programme
C      Noeud de prise de pression
C      DiamStre
C      Coefficient de perte de charge, r,gulateur ouvert ... 100%
C
C      REGULATEURS DE PRESSION AMONT :
C
C      Nø      am      av      type      Pc      code      Nc      D      K
REGP      51      50      52      3      12.3      2      50      80.0      10
C
C      REGULATEURS DE PRESSION AVAL :
C
C      Nø      am      av      type      Pc      code      Nc      D      K
REGP      19      18      20      2      2.5      2      20      80.0      10
REGP      35      36      38      2      3.0      2      38      80.0      10
C
C      RESERVOIRS :
C
C      Nø      Cote Pi,zo      Cote sol
C      Noeud      ( m )      (NGF)
COTEP      2      945      945
C
C      NOEUDS PASSIFS :
C
C      Nø      COTE SOL
C      NOEUD      (NGF)
ALTIM      4      926
ALTIM      6      908
ALTIM      8      908
ALTIM      10     893
ALTIM      12     888
ALTIM      14     888
ALTIM      16     853
ALTIM      18     853
ALTIM      20     853
ALTIM      22     853
ALTIM      24     853
ALTIM      26     847
ALTIM      28     788
ALTIM      30     782
ALTIM      32     782
ALTIM      34     760
ALTIM      36     760
ALTIM      38     760
ALTIM      40     760
ALTIM      42     668
ALTIM      44     675
ALTIM      46     720
ALTIM      48     665
ALTIM      50     665
ALTIM      52     665
ALTIM      54     665
ALTIM      56     675
C
SOLVE
C
END

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1RESEAU MINIERE - DEF.INCENDIE FUTUR

JUN.2007

PAGE 2

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ETUDE 0

0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA

0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY

ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20

STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00

STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0PRESSION-BAR

NOM WATER

++ ... 7.00 MASSE VOL.-KGF /M **3100E+04

-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03

VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01

++ ... 1.30 TEMPERATURE-DEGREES C 10.0

--000

0CAS 1 -

0SOLVE

1RESEAU MINIERE - DEF.INCENDIE FUTUR

JUN.2007

PAGE 3

V2.4B-PCF

ETUDE 0

0CAS 1 -

0 12 ITERATIONS, CONVERGED TO .9034E-01 M3/H AND .3349E-03 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
1	2 4	.28931	-4.09277E-04	100.00	1.02323E-02
3	4 6	.28931	-3.90674E-04	100.00	1.02323E-02
5	6 8	.00000	.00000	100.00	.00000
7	6 10	.28931	-3.53467E-04	100.00	1.02323E-02
9	10 12	.00000	.00000	100.00	.00000
11	12 14	4.61108E-10	.00000	100.00	1.63083E-11
13	10 16	.28931	-8.37158E-04	100.00	1.02323E-02
15	16 24	.00000	.00000	100.00	.00000
17	16 18	.28931	.00000	100.00	1.02323E-02
21	20 22	.30000	.00000	100.00	1.06103E-02
23	22 26	.30000	-1.30225E-04	100.00	1.06103E-02
25	26 28	.30000	-9.67383E-04	100.00	1.06103E-02
27	28 30	.00000	.00000	100.00	.00000
29	30 32	.00000	.00000	100.00	.00000
31	28 34	.30000	-4.46484E-04	100.00	1.06103E-02
33	34 36	.30000	-1.86035E-05	100.00	1.06103E-02
37	38 40	.30000	.00000	100.00	1.06103E-02
39	40 42	.30000	-1.40457E-03	100.00	1.06103E-02
41	42 44	.20000	-3.90674E-04	100.00	7.07351E-03
43	44 56	.00000	.00000	100.00	.00000
45	44 46	.20000	-7.93440E-03	50.000	2.82940E-02
47	42 48	.10000	-9.30176E-06	100.00	3.53675E-03
49	48 50	.10000	.00000	100.00	3.53675E-03
53	52 54	.10000	.00000	100.00	3.53675E-03

1RESEAU MINIERE - DEF.INCENDIE FUTUR

JUN.2007

PAGE 4

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ETUDE 0

0CAS 1 -

0 12 ITERATIONS, CONVERGED TO .9034E-01 M3/H AND .3349E-03 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE	CONSIGNE VAL	UNITES	DEBIT NOEUD M3/H	DELTA P M
19	18 20	2	2.5000	BAR	20 .28931	-66.505 E
35	36 38	2	3.0000	BAR	38 .30000	-87.900 E
51	50 52	3	12.300	BAR	50 .10000	-9.30176E-05E

1RESEAU MINIERE - DEF.INCENDIE FUTUR

JUN.2007

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ETUDE 0 V2.4B-PCF
 0CAS 1 -
 0 12 ITERATIONS, CONVERGED TO .9034E-01 M3/H AND .3349E-03 M

		N O E U D S . . .				
	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	
C.P.	2	.28931	945.00	945.00	.00000	--
	4	.00000	926.00	945.00	1.8632	--
	6	.00000	908.00	945.00	3.6284	
	8	.00000	908.00	945.00	3.6284	
	10	.00000	893.00	945.00	5.0994	
	12	.00000	888.00	945.00	5.5897	
	14	.00000	888.00	945.00	5.5897	
	16	.00000	853.00	945.00	9.0219	++
	18	.00000	853.00	945.00	9.0219	++
	20	.00000	853.00	878.49	2.5000	
	22	.00000	853.00	878.49	2.5000	
	24	.00000	853.00	945.00	9.0219	++
	26	.00000	847.00	878.49	3.0884	
	28	.00000	788.00	878.49	8.8742	++
	30	.00000	782.00	878.49	9.4626	++
	32	.00000	782.00	878.49	9.4626	++
	34	.00000	760.00	878.49	11.620	++
	36	.00000	760.00	878.49	11.620	++
	38	.00000	760.00	790.59	3.0000	
	40	.00000	760.00	790.59	3.0000	
	42	.00000	668.00	790.59	12.022	++
	44	.00000	675.00	790.59	11.335	++
	46	-.20000	720.00	790.58	6.9217	
	48	.00000	665.00	790.59	12.316	++
	50	.00000	665.00	790.59	12.316	++
	52	.00000	665.00	790.59	12.316	++
	54	-.10000	665.00	790.59	12.316	++
	56	.00000	675.00	790.59	11.335	++

END
 1RESEAU MINIERE - DEF.INCENDIE FUTUR JUIN.2007

ETUDE 0 PAGE 6
 0CAS 1 - V2.4B-PCF

1RESEAU MINIERE - DEF.INCENDIE FUTUR

JUIN.2007

PAGE 2

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARC
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU MINIERE - DEF.INCENDIE FUTUR

JUIN.2007

PAGE 3

V2.4B-PCF

ETUDE 0
0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .7441E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	AM	AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	60.000	-5.2249	100.00	2.1221	++
3	4	6	60.000	-5.2249	100.00	2.1221	++
5	6	8	60.000	-.28089	100.00	2.1221	++
7	6	10	-2.88193E-11	.00000	100.00	-1.01927E-12	
9	10	12	.00000	.00000	100.00	.00000	
11	12	14	.00000	.00000	100.00	.00000	
13	10	16	.00000	.00000	100.00	.00000	
15	16	24	.00000	.00000	100.00	.00000	
17	16	18	2.30554E-09	.00000	100.00	8.15413E-11	
21	20	22	.00000	.00000	100.00	.00000	
23	22	26	.00000	.00000	100.00	.00000	
25	26	28	.00000	.00000	100.00	.00000	
27	28	30	.00000	.00000	100.00	.00000	
29	30	32	.00000	.00000	100.00	.00000	
31	28	34	.00000	.00000	100.00	.00000	
33	34	36	.00000	.00000	100.00	.00000	
37	38	40	.00000	.00000	100.00	.00000	
39	40	42	.00000	.00000	100.00	.00000	
41	42	44	.00000	.00000	100.00	.00000	
43	44	56	.00000	.00000	100.00	.00000	
45	44	46	8.73311E-13	.00000	50.000	1.23547E-13	
47	42	48	.00000	.00000	100.00	.00000	
49	48	50	.00000	.00000	100.00	.00000	
53	52	54	.00000	.00000	100.00	.00000	

1RESEAU MINIERE - DEF.INCENDIE FUTUR

JUIN.2007

PAGE 4

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ETUDE 0
0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .7441E-04 M

R E G U L A T E U R S D E P R E S S I O N ...								
ELEMENT	NOEUDS		REG-P	CONSIGNE		DEBIT		DELTA P
NUMERO	AM	AV	TYPE	VAL	UNITES	NOEUD	M3/H	M
19	18	20	2	2.5000	BAR	20	4.01952E-14	3.72070E-05
35	36	38	2	3.0000	BAR	38	4.01952E-14	3.72070E-05
51	50	52	3	12.300	BAR	50	.00000	.00000

1RESEAU MINIERE - DEF.INCENDIE FUTUR

JUIN.2007

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ETUDE 0

0CAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .7441E-04 M

N O E U D S ...						
	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	
C.P.	2	60.000	945.00	945.00	.00000	--
	4	.00000	926.00	939.78	1.3509	--
	6	.00000	908.00	934.55	2.6037	
	8	-60.000	908.00	934.27	2.5761	
	10	.00000	893.00	934.55	4.0747	
	12	.00000	888.00	934.55	4.5650	
	14	.00000	888.00	934.55	4.5650	
	16	.00000	853.00	934.55	7.9973	++
	18	.00000	853.00	934.55	7.9973	++
	20	.00000	853.00	934.55	7.9974	++
	22	.00000	853.00	934.55	7.9974	++
	24	.00000	853.00	934.55	7.9973	++
	26	.00000	847.00	934.55	8.5858	++
	28	.00000	788.00	934.55	14.372	++
	30	.00000	782.00	934.55	14.960	++
	32	.00000	782.00	934.55	14.960	++
	34	.00000	760.00	934.55	17.118	++
	36	.00000	760.00	934.55	17.118	++
	38	.00000	760.00	934.55	17.118	++
	40	.00000	760.00	934.55	17.118	++
	42	.00000	668.00	934.55	26.140	++
	44	.00000	675.00	934.55	25.453	++
	46	.00000	720.00	934.55	21.040	++
	48	.00000	665.00	934.55	26.434	++
	50	.00000	665.00	934.55	26.434	++
	52	.00000	665.00	934.55	26.434	++
	54	.00000	665.00	934.55	26.434	++
	56	.00000	675.00	934.55	25.453	++

END

1RESEAU MINIERE - DEF.INCENDIE FUTUR

JUIN.2007

PAGE 6
V2.4B-PCF

ETUDE 0

0CAS 1 -

1RESEAU MINIERE - DEF.INCENDIE FUTUR

JUIN.2007

PAGE 2

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ETUDE 0

0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA

0 NOEUDS 1000(R) EQUATION POUR DELTA P DARCY

ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20

STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00

STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0 PRESSION-BAR NOM WATER

++ ... 7.00 MASSE VOL.-KGF /M **3100E+04

-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03

VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01

++ ... 1.30 TEMPERATURE-DEGREES C 10.0

--000

0 CAS 1 -

0 SOLVE

1RESEAU MINIERE - DEF.INCENDIE FUTUR

JUIN.2007

PAGE 3

V2.4B-PCF

ETUDE 0

0 CAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .9302E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	AM	AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	60.000	-5.2249	100.00	2.1221	++
3	4	6	60.000	-5.2249	100.00	2.1221	++
5	6	8	-4.61108E-10	.00000	100.00	-1.63083E-11	
7	6	10	60.000	-4.4946	100.00	2.1221	++
9	10	12	60.000	-2.8091	100.00	2.1221	++
11	12	14	60.000	-.28091	100.00	2.1221	++
13	10	16	.00000	.00000	100.00	.00000	
15	16	24	4.61108E-10	.00000	100.00	1.63083E-11	
17	16	18	.00000	.00000	100.00	.00000	
21	20	22	2.30554E-09	.00000	100.00	8.15413E-11	
23	22	26	.00000	.00000	100.00	.00000	
25	26	28	.00000	.00000	100.00	.00000	
27	28	30	.00000	.00000	100.00	.00000	
29	30	32	.00000	.00000	100.00	.00000	
31	28	34	.00000	.00000	100.00	.00000	
33	34	36	.00000	.00000	100.00	.00000	
37	38	40	.00000	.00000	100.00	.00000	
39	40	42	.00000	.00000	100.00	.00000	
41	42	44	.00000	.00000	100.00	.00000	
43	44	56	.00000	.00000	100.00	.00000	
45	44	46	8.73311E-13	.00000	50.000	1.23547E-13	
47	42	48	.00000	.00000	100.00	.00000	
49	48	50	.00000	.00000	100.00	.00000	
53	52	54	.00000	.00000	100.00	.00000	

1RESEAU MINIERE - DEF.INCENDIE FUTUR

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ETUDE 0

0 CAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .9302E-04 M

R E G U L A T E U R S D E P R E S S I O N ...								
ELEMENT	NOEUDS		REG-P	CONSIGNE		DEBIT		DELTA P
NUMERO	AM	AV	TYPE	VAL	UNITES	NOEUD	M3/H	M
19	18	20	2	2.5000	BAR	20	1.43967E-14	.00000
35	36	38	2	3.0000	BAR	38	.00000	.00000
51	50	52	3	12.300	BAR	50	.00000	.00000

1RESEAU MINIERE - DEF.INCENDIE FUTUR

JUIN.2007

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ETUDE 0

0CAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .9302E-04 M

N O E U D S ...						
	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	
C.P.	2	60.000	945.00	945.00	.00000	--
	4	.00000	926.00	939.78	1.3509	--
	6	.00000	908.00	934.55	2.6037	
	8	.00000	908.00	934.55	2.6037	
	10	.00000	893.00	930.06	3.6339	
	12	.00000	888.00	927.25	3.8488	
	14	-60.000	888.00	926.97	3.8212	
	16	.00000	853.00	930.06	7.5566	++
	18	.00000	853.00	930.06	7.5566	++
	20	.00000	853.00	930.06	7.5566	++
	22	.00000	853.00	930.06	7.5566	++
	24	.00000	853.00	930.06	7.5566	++
	26	.00000	847.00	930.06	8.1450	++
	28	.00000	788.00	930.06	13.931	++
	30	.00000	782.00	930.06	14.519	++
	32	.00000	782.00	930.06	14.519	++
	34	.00000	760.00	930.06	16.677	++
	36	.00000	760.00	930.06	16.677	++
	38	.00000	760.00	930.06	16.677	++
	40	.00000	760.00	930.06	16.677	++
	42	.00000	668.00	930.06	25.699	++
	44	.00000	675.00	930.06	25.012	++
	46	.00000	720.00	930.06	20.599	++
	48	.00000	665.00	930.06	25.993	++
	50	.00000	665.00	930.06	25.993	++
	52	.00000	665.00	930.06	25.993	++
	54	.00000	665.00	930.06	25.993	++
	56	.00000	675.00	930.06	25.012	++

END

1RESEAU MINIERE - DEF.INCENDIE FUTUR

JUIN.2007

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ETUDE 0

0CAS 1 -

1RESEAU MINIERE - DEF.INCENDIE FUTUR

JUIN.2007

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ETUDE 0
 0 D O N N E E S D U P R O B L E M E
 0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
 0 NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
 ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
 STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
 STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
 0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
 0 PRESSION-BAR NOM WATER
 ++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
 -- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
 VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
 ++ ... 1.30 TEMPERATURE-DEGREES C 10.0
 --000

0CAS 1 -

0SOLVE

1RESEAU MINIERE - DEF.INCENDIE FUTUR

JUIN.2007

PAGE 3

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ETUDE 0
 0CAS 1 -
 0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
 0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .5581E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	AM	AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	60.000	-5.2249	100.00	2.1221	++
3	4	6	60.000	-5.2249	100.00	2.1221	++
5	6	8	-4.61108E-10	.00000	100.00	-1.63083E-11	
7	6	10	60.000	-4.4946	100.00	2.1221	++
9	10	12	.00000	.00000	100.00	.00000	
11	12	14	4.61108E-10	.00000	100.00	1.63083E-11	
13	10	16	60.000	-10.675	100.00	2.1221	++
15	16	24	60.000	-.28091	100.00	2.1221	++
17	16	18	.00000	.00000	100.00	.00000	
21	20	22	.00000	.00000	100.00	.00000	
23	22	26	.00000	.00000	100.00	.00000	
25	26	28	.00000	.00000	100.00	.00000	
27	28	30	.00000	.00000	100.00	.00000	
29	30	32	.00000	.00000	100.00	.00000	
31	28	34	.00000	.00000	100.00	.00000	
33	34	36	.00000	.00000	100.00	.00000	
37	38	40	.00000	.00000	100.00	.00000	
39	40	42	-7.43723E-12	.00000	100.00	-2.63036E-13	
41	42	44	.00000	.00000	100.00	.00000	
43	44	56	.00000	.00000	100.00	.00000	
45	44	46	.00000	.00000	50.000	.00000	
47	42	48	.00000	.00000	100.00	.00000	
49	48	50	.00000	.00000	100.00	.00000	
53	52	54	.00000	.00000	100.00	.00000	

1RESEAU MINIERE - DEF.INCENDIE FUTUR

JUIN.2007

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ETUDE 0
 0CAS 1 -
 0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
 0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .5581E-04 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS REG-P		CONSIGNE		DEBIT		DELTA P	
NUMERO	AM	AV	TYPE	VAL	UNITES	NOEUD	M3/H	M
19	18	20	2	2.5000	BAR	20	.00000	.00000
35	36	38	2	3.0000	BAR	38	.00000	.00000
51	50	52	3	12.300	BAR	50	4.01952E-14	1.86035E-05

1RESEAU MINIERE - DEF.INCENDIE FUTUR JUIN.2007

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ETUDE 0

OCAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .5581E-04 M

		N O E U D S ...				
	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	
C.P.	2	60.000	945.00	945.00	.00000	--
	4	.00000	926.00	939.78	1.3509	--
	6	.00000	908.00	934.55	2.6037	
	8	.00000	908.00	934.55	2.6037	
	10	.00000	893.00	930.06	3.6339	
	12	.00000	888.00	930.06	4.1243	
	14	.00000	888.00	930.06	4.1243	
	16	.00000	853.00	919.38	6.5098	
	18	.00000	853.00	919.38	6.5098	
	20	.00000	853.00	919.38	6.5098	
	22	.00000	853.00	919.38	6.5098	
	24	-60.000	853.00	919.10	6.4822	
	26	.00000	847.00	919.38	7.0982	++
	28	.00000	788.00	919.38	12.884	++
	30	.00000	782.00	919.38	13.473	++
	32	.00000	782.00	919.38	13.473	++
	34	.00000	760.00	919.38	15.630	++
	36	.00000	760.00	919.38	15.630	++
	38	.00000	760.00	919.38	15.630	++
	40	.00000	760.00	919.38	15.630	++
	42	.00000	668.00	919.38	24.652	++
	44	.00000	675.00	919.38	23.966	++
	46	.00000	720.00	919.38	19.553	++
	48	.00000	665.00	919.38	24.946	++
	50	.00000	665.00	919.38	24.946	++
	52	.00000	665.00	919.38	24.946	++
	54	.00000	665.00	919.38	24.946	++
	56	.00000	675.00	919.38	23.966	++

END

1RESEAU MINIERE - DEF.INCENDIE FUTUR JUIN.2007

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ETUDE 0

OCAS 1 -

1RESEAU MINIERE - DEF.INCENDIE FUTUR

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PAGE 2

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU MINIERE - DEF.INCENDIE FUTUR

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ETUDE 0
0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .7441E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.000	-5.2249	100.00	2.1221	++
3	4 6	60.000	-5.2249	100.00	2.1221	++
5	6 8	.00000	.00000	100.00	.00000	
7	6 10	60.000	-4.4946	100.00	2.1221	++
9	10 12	.00000	.00000	100.00	.00000	
11	12 14	.00000	.00000	100.00	.00000	
13	10 16	60.000	-10.675	100.00	2.1221	++
15	16 24	-4.61108E-10	.00000	100.00	-1.63083E-11	
17	16 18	60.000	-5.61826E-02	100.00	2.1221	++
21	20 22	60.000	-5.61826E-02	100.00	2.1221	++
23	22 26	60.000	-1.5731	100.00	2.1221	++
25	26 28	60.000	-12.079	100.00	2.1221	++
27	28 30	60.000	-2.8091	100.00	2.1221	++
29	30 32	60.000	-.28091	100.00	2.1221	++
31	28 34	.00000	.00000	100.00	.00000	
33	34 36	.00000	.00000	100.00	.00000	
37	38 40	.00000	.00000	100.00	.00000	
39	40 42	.00000	.00000	100.00	.00000	
41	42 44	.00000	.00000	100.00	.00000	
43	44 56	.00000	.00000	100.00	.00000	
45	44 46	.00000	.00000	50.000	.00000	
47	42 48	.00000	.00000	100.00	.00000	
49	48 50	.00000	.00000	100.00	.00000	
53	52 54	.00000	.00000	100.00	.00000	

1RESEAU MINIERE - DEF.INCENDIE FUTUR

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ETUDE 0
0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .7441E-04 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS REG-P			CONSIGNE		DEBIT		DELTA P	
NUMERO	AM	AV	TYPE	VAL	UNITES	NOEUD	M3/H	M	E
19	18	20	2	2.5000	BAR	20	60.000	-40.832	E
35	36	38	2	3.0000	BAR	38	.00000	.00000	
51	50	52	3	12.300	BAR	50	.00000	.00000	

1RESEAU MINIERE - DEF.INCENDIE FUTUR JUIN.2007

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ETUDE 0

OCAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .7441E-04 M

		N O E U D S ...				
	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	
C.P.	2	60.000	945.00	945.00	.00000	--
	4	.00000	926.00	939.78	1.3509	--
	6	.00000	908.00	934.55	2.6037	
	8	.00000	908.00	934.55	2.6037	
	10	.00000	893.00	930.06	3.6339	
	12	.00000	888.00	930.06	4.1243	
	14	.00000	888.00	930.06	4.1243	
	16	.00000	853.00	919.38	6.5098	
	18	.00000	853.00	919.32	6.5043	
	20	.00000	853.00	878.49	2.5000	
	22	.00000	853.00	878.44	2.4945	
	24	.00000	853.00	919.38	6.5098	
	26	.00000	847.00	876.86	2.9286	
	28	.00000	788.00	864.78	7.5300	++
	30	.00000	782.00	861.98	7.8429	++
	32	-60.000	782.00	861.69	7.8154	++
	34	.00000	760.00	864.78	10.276	++
	36	.00000	760.00	864.78	10.276	++
	38	.00000	760.00	864.78	10.276	++
	40	.00000	760.00	864.78	10.276	++
	42	.00000	668.00	864.78	19.298	++
	44	.00000	675.00	864.78	18.612	++
	46	.00000	720.00	864.78	14.199	++
	48	.00000	665.00	864.78	19.592	++
	50	.00000	665.00	864.78	19.592	++
	52	.00000	665.00	864.78	19.592	++
	54	.00000	665.00	864.78	19.592	++
	56	.00000	675.00	864.78	18.612	++

END

1RESEAU MINIERE - DEF.INCENDIE FUTUR JUIN.2007

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ETUDE 0

OCAS 1 -

1RESEAU MINIERE - DEF.INCENDIE FUTUR

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0 NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0 PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU MINIERE - DEF.INCENDIE FUTUR

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ETUDE 0
0CAS 1 -
0 9 ITERATIONS, CONVERGED TO .4444E-01 M3/H AND .1127 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	59.948	-5.2158	100.00	2.1202	++
3	4 6	59.948	-5.2158	100.00	2.1202	++
5	6 8	.00000	.00000	100.00	.00000	
7	6 10	59.948	-4.4867	100.00	2.1202	++
9	10 12	.00000	.00000	100.00	.00000	
11	12 14	4.61108E-10	.00000	100.00	1.63083E-11	
13	10 16	59.948	-10.656	100.00	2.1202	++
15	16 24	.00000	.00000	100.00	.00000	
17	16 18	59.948	-5.60896E-02	100.00	2.1202	++
21	20 22	60.003	-5.61826E-02	100.00	2.1222	++
23	22 26	60.003	-1.5733	100.00	2.1222	++
25	26 28	60.003	-12.081	100.00	2.1222	++
27	28 30	.00000	.00000	100.00	.00000	
29	30 32	.00000	.00000	100.00	.00000	
31	28 34	60.003	-5.6188	100.00	2.1222	++
33	34 36	60.003	-5.61826E-02	100.00	2.1222	++
37	38 40	60.000	-5.61826E-02	100.00	2.1221	++
39	40 42	60.000	-17.416	100.00	2.1221	++
41	42 44	60.000	-7.3037	100.00	2.1221	++
43	44 56	60.000	-.28090	100.00	2.1221	++
45	44 46	.00000	.00000	50.000	.00000	
47	42 48	.00000	.00000	100.00	.00000	
49	48 50	.00000	.00000	100.00	.00000	
53	52 54	.00000	.00000	100.00	.00000	

1RESEAU MINIERE - DEF.INCENDIE FUTUR

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PAGE 4

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ETUDE 0
0CAS 1 -
0 9 ITERATIONS, CONVERGED TO .4444E-01 M3/H AND .1127 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS REG-P		CONSIGNE		DEBIT		DELTA P	
NUMERO	AM	AV	TYPE	VAL	UNITES	NOEUD	M3/H	M
19	18	20	2	2.5000	BAR	20	59.948	-40.877 E
35	36	38	2	3.0000	BAR	38	60.003	-68.516 E
51	50	52	3	12.300	BAR	50	4.01952E-14	2.79053E-05

1RESEAU MINIERE - DEF.INCENDIE FUTUR JUIN.2007

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ETUDE 0

0CAS 1 -

0 9 ITERATIONS, CONVERGED TO .4444E-01 M3/H AND .1127 M

		N O E U D S ...				
	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	
C.P.	2	59.948	945.00	945.00	.00000	--
	4	.00000	926.00	939.78	1.3518	--
	6	.00000	908.00	934.57	2.6055	
	8	.00000	908.00	934.57	2.6055	
	10	.00000	893.00	930.08	3.6365	
	12	.00000	888.00	930.08	4.1268	
	14	.00000	888.00	930.08	4.1268	
	16	.00000	853.00	919.43	6.5142	
	18	.00000	853.00	919.37	6.5087	
	20	.00000	853.00	878.49	2.5000	
	22	.00000	853.00	878.44	2.4945	
	24	.00000	853.00	919.43	6.5142	
	26	.00000	847.00	876.86	2.9286	
	28	.00000	788.00	864.78	7.5298	++
	30	.00000	782.00	864.78	8.1182	++
	32	.00000	782.00	864.78	8.1182	++
	34	.00000	760.00	859.16	9.7247	++
	36	.00000	760.00	859.11	9.7192	++
	38	.00000	760.00	790.59	3.0000	
	40	.00000	760.00	790.54	2.9945	
	42	.00000	668.00	773.12	10.309	++
	44	.00000	675.00	765.82	8.9059	++
	46	.00000	720.00	765.82	4.4929	
	48	.00000	665.00	773.12	10.603	++
	50	.00000	665.00	773.12	10.603	++
	52	.00000	665.00	773.12	10.603	++
	54	.00000	665.00	773.12	10.603	++
	56	-60.000	675.00	765.53	8.8784	++

END

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ETUDE 0

0CAS 1 -

RESEAU DE LA MINIERE

Sous-réseau de Froide Fontaine

***** COMMUNE DE SAINT GEORGES D'HURTIERES *****
RESEAU DE LA MINIERE – SOUS-RESEAU DE FROIDE FONTAINE
« FFTAIN2b »

JOB ETUDE 0
LABEL RESEAU FFAINE - DEF.INCENDIE
LABL2
C
PARAMS 1000 1000
C
C
FLUID WATER 1000 1.328E-04 0.01225 10
FORMULA DARCY
RANDOM
NOLIST
FILE RESULTS SINGLE
PACK HEADINGS
FLOWCON 3
HEADCON 0.2
MAXPRESSURE 7
MINPRESSURE 2.0
MAXVELOCITY 1.3

C
DATE JUIN.2007

C
C
MAXITER 20

C
C
C
CAS 1 -

C
C
C CONDUITES :
RUGOS .003

	Nø de Conduite	Noeud Amont	Noeud Aval	Longueur (m)	DiamStre (mm)
COND	3	4	6	210	85.4
COND	5	6	8	200	85.4
COND	7	6	10	36	85.4
COND	9	10	12	5	85.4
COND	11	10	14	6	85.4
COND	13	14	16	128	85.4
COND	15	14	18	32	85.4
COND	17	18	20	150	85.4
COND	19	18	22	104	85.4
COND	21	22	24	5	85.4
COND	23	22	26	26	85.4
COND	33	32	36	140	85.4
COND	39	38	42	165	85.4
COND	41	42	44	5	85.4
COND	43	8	46	5	85.4
COND	45	16	48	20	69.8
COND	47	48	50	5	69.8
COND	51	52	54	275	85.4
COND	53	54	56	5	85.4
COND	55	54	58	50	85.4
COND	55	54	58	50	85.4

C
RUGOS
C
RUGOS 0.2

C

C	Nø de Conduite	Noeud Amont	Noeud Aval	Longueur (m)	DiamŠtre (mm)
COND	49	42	52	65	100
COND	63	64	66	400	100
COND	65	66	68	1	100
COND	69	70	72	1	100
COND	71	72	74	110	100
COND	73	74	76	5	100
COND	75	74	78	400	100
COND	77	78	80	5	100
COND	79	78	82	360	100
COND	81	82	84	40	100
COND	83	84	86	5	100
COND	1	2	4	64	125
COND	25	26	28	100	100
COND	27	28	30	5	100
COND	29	28	32	120	100
COND	31	32	34	5	100
COND	35	4	38	315	125
COND	37	38	40	5	100
COND	57	58	60	1	100
COND	61	62	64	1	100

C

RUGOS

C

C

C

REGULATEURS DE PRESSION AVAL :

C

C	Nø	am	av	type	Pc	code	Nc	D	K
REGP	59	60	62	2	2.4	2	62	80.0	10
REGP	67	68	70	2	3.2	2	70	80.0	10

C

C

C

C

RESERVOIRS :

C

C	Nø Noeud	Cote Pi,zo (m)	Cote sol (NGF)
COTEP	2	665	665

C

C

NOEUDS PASSIFS :

C

C	Nø NOEUD	COTE SOL (NGF)
ALTIM	4	655
ALTIM	6	615
ALTIM	8	615
ALTIM	10	608
ALTIM	12	608
ALTIM	14	605
ALTIM	16	603
ALTIM	18	605
ALTIM	20	592
ALTIM	22	598
ALTIM	24	598
ALTIM	26	592
ALTIM	28	588
ALTIM	30	588
ALTIM	32	580
ALTIM	34	580
ALTIM	36	555
ALTIM	38	636
ALTIM	40	636
ALTIM	42	611

ALTIM	44	611
ALTIM	46	615
ALTIM	48	604
ALTIM	50	604
ALTIM	52	605
ALTIM	54	575
ALTIM	56	575
ALTIM	58	571
ALTIM	60	571
ALTIM	62	571
ALTIM	64	571
ALTIM	66	468
ALTIM	68	468
ALTIM	70	468
ALTIM	72	468
ALTIM	74	435
ALTIM	76	435
ALTIM	78	442
ALTIM	80	442
ALTIM	82	411
ALTIM	84	411
ALTIM	86	411
C		
C		
SOLVE		
C		
C		
C		
END		

1RESEAU FFAINE - DEF.INCENDIE

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PAGE 2

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU FFAINE - DEF.INCENDIE

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PAGE 3

V2.4B-PCF

ETUDE 0
0CAS 1 -
0 14 ITERATIONS, CONVERGED TO .2359E-01 M3/H AND .3535E-03 M

C O N D U I T E S ...						
ELEMENT	NOEUDS		DEBIT	DELTA P	DIAMETRE	VITESSE
NUMERO	AM	AV	M3/H	M	MM	M/S
1	2	4	.29578	-1.11621E-04	125.00	6.69495E-03
3	4	6	.20000	-1.19063E-03	85.400	9.69882E-03
5	6	8	.10000	-5.58105E-04	85.400	4.84941E-03
7	6	10	.10000	-1.11621E-04	85.400	4.84941E-03
9	10	12	.00000	.00000	85.400	.00000
11	10	14	.10000	.00000	85.400	4.84941E-03
13	14	16	.00000	.00000	85.400	.00000
15	14	18	.10000	-9.30176E-05	85.400	4.84941E-03
17	18	20	.00000	.00000	85.400	.00000
19	18	22	.10000	-2.97656E-04	85.400	4.84941E-03
21	22	24	.00000	.00000	85.400	.00000
23	22	26	.10000	-7.44141E-05	85.400	4.84941E-03
25	26	28	.10000	-1.48828E-04	100.00	3.53675E-03
27	28	30	-4.61108E-10	.00000	100.00	-1.63083E-11
29	28	32	.10000	-7.44141E-05	100.00	3.53675E-03
31	32	34	.00000	.00000	100.00	.00000
33	32	36	.10000	-6.51123E-04	85.400	4.84941E-03
35	4	38	9.57759E-02	-1.86035E-04	125.00	2.16791E-03
37	38	40	.00000	.00000	100.00	.00000
39	38	42	9.57759E-02	-4.46484E-04	85.400	4.64457E-03
41	42	44	2.45264E-10	.00000	85.400	1.18939E-11
43	8	46	.10000	-1.86035E-05	85.400	4.84941E-03
45	16	48	.00000	.00000	69.800	.00000
47	48	50	.00000	.00000	69.800	.00000
49	42	52	9.57759E-02	-9.30176E-05	100.00	3.38736E-03
51	52	54	9.57759E-02	-7.44141E-04	85.400	4.64457E-03
53	54	56	.00000	.00000	85.400	.00000
55	54	58	9.57759E-02	-1.48828E-04	85.400	4.64457E-03
57	58	60	9.57759E-02	.00000	85.400	4.64457E-03
61	62	64	1.00000E-01	.00000	85.400	4.84941E-03
63	64	66	1.00000E-01	-5.95313E-04	100.00	3.53675E-03
65	66	68	1.00000E-01	-1.86035E-05	100.00	3.53675E-03
69	70	72	.10000	.00000	100.00	3.53675E-03
71	72	74	.10000	-1.67432E-04	100.00	3.53675E-03
73	74	76	.00000	.00000	100.00	.00000
75	74	78	.10000	-6.04614E-04	100.00	3.53675E-03
77	78	80	.00000	.00000	100.00	.00000

79	78	82	.10000	-5.39502E-04	100.00	3.53675E-03
81	82	84	.10000	-5.58105E-05	100.00	3.53675E-03
83	84	86	.10000	-9.30176E-06	100.00	3.53675E-03

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0CAS 1 -

0 14 ITERATIONS, CONVERGED TO .2359E-01 M3/H AND .3535E-03 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P
NUMERO	AM	AV	TYPE	VAL	UNITES
59	60	62	2	2.3000	BAR
67	68	70	2	2.6000	BAR

1RESEAU FFAINE - DEF.INCENDIE JUIN.2007

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ETUDE 0 V2.4B-PCF

0CAS 1 -

0 14 ITERATIONS, CONVERGED TO .2359E-01 M3/H AND .3535E-03 M

N O E U D S ...

	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION
		M3/H	M	M	BAR

C.P.

2	.29578	665.00	665.00	.00000	--
4	.00000	655.00	665.00	.98066	--
6	.00000	615.00	665.00	4.9032	
8	.00000	615.00	665.00	4.9031	
10	.00000	608.00	665.00	5.5897	
12	.00000	608.00	665.00	5.5897	
14	.00000	605.00	665.00	5.8839	
16	.00000	603.00	665.00	6.0800	
18	.00000	605.00	665.00	5.8839	
20	.00000	592.00	665.00	7.1587	++
22	.00000	598.00	665.00	6.5703	
24	.00000	598.00	665.00	6.5703	
26	.00000	592.00	665.00	7.1587	++
28	.00000	588.00	665.00	7.5509	++
30	.00000	588.00	665.00	7.5509	++
32	.00000	580.00	665.00	8.3355	++
34	.00000	580.00	665.00	8.3355	++
36	-.10000	555.00	665.00	10.787	++
38	.00000	636.00	665.00	2.8439	
40	.00000	636.00	665.00	2.8439	
42	.00000	611.00	665.00	5.2955	
44	.00000	611.00	665.00	5.2955	
46	-.10000	615.00	665.00	4.9031	
48	.00000	604.00	665.00	5.9819	
50	.00000	604.00	665.00	5.9819	
52	.00000	605.00	665.00	5.8839	
54	.00000	575.00	665.00	8.8258	++
56	.00000	575.00	665.00	8.8258	++
58	.00000	571.00	665.00	9.2181	++
60	.00000	571.00	665.00	9.2181	++
62	.00000	571.00	594.45	2.3000	
64	.00000	571.00	594.45	2.3000	
66	.00000	468.00	594.45	12.401	++
68	.00000	468.00	594.45	12.401	++
70	.00000	468.00	494.51	2.6000	
72	.00000	468.00	494.51	2.6000	
74	.00000	435.00	494.51	5.8362	
76	.00000	435.00	494.51	5.8362	
78	.00000	442.00	494.51	5.1497	
80	.00000	442.00	494.51	5.1497	
82	.00000	411.00	494.51	8.1897	++
84	.00000	411.00	494.51	8.1897	++
86	-.10000	411.00	494.51	8.1897	++

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
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0SOLVE

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ETUDE 0
0CAS 1 -
0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .7255E-03 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.000	-5.1895	85.400	2.9096	++
3	4 6	60.000	-17.028	85.400	2.9096	++
5	6 8	.00000	.00000	85.400	.00000	
7	6 10	60.000	-2.9191	85.400	2.9096	++
9	10 12	60.000	-.40543	85.400	2.9096	++
11	10 14	.00000	.00000	85.400	.00000	
13	14 16	.00000	.00000	85.400	.00000	
15	14 18	.00000	.00000	85.400	.00000	
17	18 20	.00000	.00000	85.400	.00000	
19	18 22	.00000	.00000	85.400	.00000	
21	22 24	.00000	.00000	85.400	.00000	
23	22 26	.00000	.00000	85.400	.00000	
25	26 28	.00000	.00000	60.000	.00000	
27	28 30	.00000	.00000	60.000	.00000	
29	28 32	.00000	.00000	60.000	.00000	
31	32 34	.00000	.00000	60.000	.00000	
33	32 36	.00000	.00000	85.400	.00000	
35	4 38	.00000	.00000	85.400	.00000	
37	38 40	.00000	.00000	85.400	.00000	
39	38 42	.00000	.00000	85.400	.00000	
41	42 44	.00000	.00000	85.400	.00000	
43	8 46	.00000	.00000	85.400	.00000	
45	16 48	.00000	.00000	69.800	.00000	
47	48 50	.00000	.00000	69.800	.00000	
49	42 52	.00000	.00000	100.00	.00000	
51	52 54	.00000	.00000	85.400	.00000	
53	54 56	.00000	.00000	85.400	.00000	
55	54 58	.00000	.00000	85.400	.00000	
57	58 60	.00000	.00000	85.400	.00000	
61	62 64	1.22632E-09	.00000	85.400	5.94694E-11	
63	64 66	.00000	.00000	100.00	.00000	
65	66 68	.00000	.00000	100.00	.00000	
69	70 72	2.30554E-09	.00000	100.00	8.15413E-11	
71	72 74	.00000	.00000	100.00	.00000	
73	74 76	.00000	.00000	100.00	.00000	
75	74 78	.00000	.00000	100.00	.00000	
77	78 80	.00000	.00000	100.00	.00000	

79	78	82	.00000	.00000	100.00	.00000
81	82	84	.00000	.00000	100.00	.00000
83	84	86	.00000	.00000	100.00	.00000

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ETUDE 0 V2.4B-PCF

0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .7255E-03 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P
NUMERO	AM	AV	TYPE VAL	UNITES NOEUD M3/H	M
59	60	62	2 2.3000	BAR 62	4.50286E-15 -3.72070E-05
67	68	70	2 2.6000	BAR 70	2.15337E-13 -1.86035E-05

1RESEAU FFAINE - DEF.INCENDIE JUIN.2007

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ETUDE 0 V2.4B-PCF

0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .7255E-03 M

N O E U D S ...

	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	
C.P.	2	60.000	665.00	665.00	.00000	--
	4	.00000	655.00	659.81	.47175	--
	6	.00000	615.00	642.78	2.7245	
	8	.00000	615.00	642.78	2.7245	
	10	.00000	608.00	639.86	3.1247	
	12	-60.000	608.00	639.46	3.0850	
	14	.00000	605.00	639.86	3.4189	
	16	.00000	603.00	639.86	3.6151	
	18	.00000	605.00	639.86	3.4189	
	20	.00000	592.00	639.86	4.6938	
	22	.00000	598.00	639.86	4.1054	
	24	.00000	598.00	639.86	4.1054	
	26	.00000	592.00	639.86	4.6938	
	28	.00000	588.00	639.86	5.0861	
	30	.00000	588.00	639.86	5.0861	
	32	.00000	580.00	639.86	5.8706	
	34	.00000	580.00	639.86	5.8706	
	36	.00000	555.00	639.86	8.3223	++
	38	.00000	636.00	659.81	2.3350	
	40	.00000	636.00	659.81	2.3350	
	42	.00000	611.00	659.81	4.7867	
	44	.00000	611.00	659.81	4.7867	
	46	.00000	615.00	642.78	2.7245	
	48	.00000	604.00	639.86	3.5170	
	50	.00000	604.00	639.86	3.5170	
	52	.00000	605.00	659.81	5.3751	
	54	.00000	575.00	659.81	8.3171	++
	56	.00000	575.00	659.81	8.3171	++
	58	.00000	571.00	659.81	8.7093	++
	60	.00000	571.00	659.81	8.7093	++
	62	.00000	571.00	659.81	8.7093	++
	64	.00000	571.00	659.81	8.7093	++
	66	.00000	468.00	659.81	18.810	++
	68	.00000	468.00	659.81	18.810	++
	70	.00000	468.00	659.81	18.810	++
	72	.00000	468.00	659.81	18.810	++
	74	.00000	435.00	659.81	22.046	++
	76	.00000	435.00	659.81	22.046	++
	78	.00000	442.00	659.81	21.360	++
	80	.00000	442.00	659.81	21.360	++
	82	.00000	411.00	659.81	24.400	++
	84	.00000	411.00	659.81	24.400	++
	86	.00000	411.00	659.81	24.400	++

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ETUDE 0

0CAS 1 -

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
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0CAS 1 -

0SOLVE

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0
0CAS 1 -
0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .1060E-02 M

C O N D U I T E S ...

ELEMENT NUMERO	AM	AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	60.000	-5.1895	85.400	2.9096	++
3	4	6	60.000	-17.028	85.400	2.9096	++
5	6	8	.00000	.00000	85.400	.00000	
7	6	10	60.000	-2.9191	85.400	2.9096	++
9	10	12	.00000	.00000	85.400	.00000	
11	10	14	60.000	-.48652	85.400	2.9096	++
13	14	16	.00000	.00000	85.400	.00000	
15	14	18	60.000	-2.5947	85.400	2.9096	++
17	18	20	.00000	.00000	85.400	.00000	
19	18	22	60.000	-8.4330	85.400	2.9096	++
21	22	24	60.000	-.40543	85.400	2.9096	++
23	22	26	.00000	.00000	85.400	.00000	
25	26	28	.00000	.00000	60.000	.00000	
27	28	30	.00000	.00000	60.000	.00000	
29	28	32	.00000	.00000	60.000	.00000	
31	32	34	.00000	.00000	60.000	.00000	
33	32	36	.00000	.00000	85.400	.00000	
35	4	38	.00000	.00000	85.400	.00000	
37	38	40	.00000	.00000	85.400	.00000	
39	38	42	.00000	.00000	85.400	.00000	
41	42	44	.00000	.00000	85.400	.00000	
43	8	46	.00000	.00000	85.400	.00000	
45	16	48	.00000	.00000	69.800	.00000	
47	48	50	.00000	.00000	69.800	.00000	
49	42	52	.00000	.00000	100.00	.00000	
51	52	54	.00000	.00000	85.400	.00000	
53	54	56	.00000	.00000	85.400	.00000	
55	54	58	.00000	.00000	85.400	.00000	
57	58	60	.00000	.00000	85.400	.00000	
61	62	64	1.22632E-09	.00000	85.400	5.94694E-11	
63	64	66	.00000	.00000	100.00	.00000	
65	66	68	.00000	.00000	100.00	.00000	
69	70	72	2.30554E-09	.00000	100.00	8.15413E-11	
71	72	74	.00000	.00000	100.00	.00000	
73	74	76	.00000	.00000	100.00	.00000	
75	74	78	.00000	.00000	100.00	.00000	
77	78	80	.00000	.00000	100.00	.00000	

79	78	82	.00000	.00000	100.00	.00000
81	82	84	.00000	.00000	100.00	.00000
83	84	86	.00000	.00000	100.00	.00000

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ETUDE 0

0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .1060E-02 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P
NUMERO	AM	AV	TYPE	VAL	UNITES
					NOEUD
					M3/H

59	60	62	2	2.3000	BAR	62	4.50286E-15	-3.72070E-05
67	68	70	2	2.6000	BAR	70	2.15337E-13	-1.86035E-05

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ETUDE 0

0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .1060E-02 M

N O E U D S ...

	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	

C.P.	2	60.000	665.00	665.00	.00000	--
	4	.00000	655.00	659.81	.47175	--
	6	.00000	615.00	642.78	2.7245	
	8	.00000	615.00	642.78	2.7245	
	10	.00000	608.00	639.86	3.1247	
	12	.00000	608.00	639.86	3.1247	
	14	.00000	605.00	639.38	3.3712	
	16	.00000	603.00	639.38	3.5673	
	18	.00000	605.00	636.78	3.1168	
	20	.00000	592.00	636.78	4.3916	
	22	.00000	598.00	628.35	2.9762	
	24	-60.000	598.00	627.94	2.9365	
	26	.00000	592.00	628.35	3.5646	
	28	.00000	588.00	628.35	3.9569	
	30	.00000	588.00	628.35	3.9569	
	32	.00000	580.00	628.35	4.7414	
	34	.00000	580.00	628.35	4.7414	
	36	.00000	555.00	628.35	7.1931	++
	38	.00000	636.00	659.81	2.3350	
	40	.00000	636.00	659.81	2.3350	
	42	.00000	611.00	659.81	4.7867	
	44	.00000	611.00	659.81	4.7867	
	46	.00000	615.00	642.78	2.7245	
	48	.00000	604.00	639.38	3.4693	
	50	.00000	604.00	639.38	3.4693	
	52	.00000	605.00	659.81	5.3751	
	54	.00000	575.00	659.81	8.3171	++
	56	.00000	575.00	659.81	8.3171	++
	58	.00000	571.00	659.81	8.7093	++
	60	.00000	571.00	659.81	8.7093	++
	62	.00000	571.00	659.81	8.7093	++
	64	.00000	571.00	659.81	8.7093	++
	66	.00000	468.00	659.81	18.810	++
	68	.00000	468.00	659.81	18.810	++
	70	.00000	468.00	659.81	18.810	++
	72	.00000	468.00	659.81	18.810	++
	74	.00000	435.00	659.81	22.046	++
	76	.00000	435.00	659.81	22.046	++
	78	.00000	442.00	659.81	21.360	++
	80	.00000	442.00	659.81	21.360	++
	82	.00000	411.00	659.81	24.400	++
	84	.00000	411.00	659.81	24.400	++
	86	.00000	411.00	659.81	24.400	++

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ETUDE 0

0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS

SOLUTION CRITERIA

0NOEUDS 1000(R)

EQUATION POUR DELTA P

DARCY

ELEMENTS..... 1000(R)

NOMBRE MAXI D'ITERATIONS

20

STOCKAGE UTILISE 21762

CRITERE DE CONV POUR DEBIT-M3/H

3.00

STOCKAGE DISPON. 68734

CRITERE DE CONV COTE PIEZO-M

.200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0PRESSION-BAR

NOM

WATER

++ ... 7.00

MASSE VOL.-KGF /M **3100E+04

-- ... 2.00

VISCOSITE -KGF *S/M **2133E-03

VITESSE- M/S

PRESSION DE VAPEUR-BAR122E-01

++ ... 1.30

TEMPERATURE-DEGREES C 10.0

--000

0CAS 1 -

0SOLVE

1RESEAU FFAINE - DEF.INCENDIE

JUIN.2007

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ETUDE 0

0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .1228E-02 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM	NOEUDS AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	60.000	-3.5957	100.00	2.1221	++
3	4	6	60.000	-17.028	85.400	2.9096	++
5	6	8	.00000	.00000	85.400	.00000	
7	6	10	60.000	-2.9191	85.400	2.9096	++
9	10	12	.00000	.00000	85.400	.00000	
11	10	14	60.000	-.48652	85.400	2.9096	++
13	14	16	.00000	.00000	85.400	.00000	
15	14	18	60.000	-2.5948	85.400	2.9096	++
17	18	20	.00000	.00000	85.400	.00000	
19	18	22	60.000	-8.4330	85.400	2.9096	++
21	22	24	.00000	.00000	85.400	.00000	
23	22	26	60.000	-2.1082	85.400	2.9096	++
25	26	28	60.000	-5.6184	100.00	2.1221	++
27	28	30	60.000	-.28093	100.00	2.1221	++
29	28	32	.00000	.00000	100.00	.00000	
31	32	34	.00000	.00000	100.00	.00000	
33	32	36	.00000	.00000	85.400	.00000	
35	4	38	-3.89308E-12	.00000	85.400	-1.88792E-13	
37	38	40	.00000	.00000	85.400	.00000	
39	38	42	.00000	.00000	85.400	.00000	
41	42	44	.00000	.00000	85.400	.00000	
43	8	46	.00000	.00000	85.400	.00000	
45	16	48	.00000	.00000	69.800	.00000	
47	48	50	.00000	.00000	69.800	.00000	
49	42	52	-3.54699E-11	.00000	100.00	-1.25448E-12	
51	52	54	-4.45935E-12	.00000	85.400	-2.16252E-13	
53	54	56	2.45264E-10	.00000	85.400	1.18939E-11	
55	54	58	.00000	.00000	85.400	.00000	
57	58	60	.00000	.00000	85.400	.00000	
61	62	64	.00000	.00000	85.400	.00000	
63	64	66	.00000	.00000	100.00	.00000	
65	66	68	2.30554E-09	.00000	100.00	8.15413E-11	
69	70	72	2.30554E-09	.00000	100.00	8.15413E-11	
71	72	74	.00000	.00000	100.00	.00000	
73	74	76	.00000	.00000	100.00	.00000	
75	74	78	.00000	.00000	100.00	.00000	
77	78	80	.00000	.00000	100.00	.00000	

79	78	82	.00000	.00000	100.00	.00000
81	82	84	.00000	.00000	100.00	.00000
83	84	86	.00000	.00000	100.00	.00000

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

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0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .1228E-02 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P
NUMERO	AM	AV	TYPE	VAL	UNITES
59	60	62	2	2.3000	BAR
67	68	70	2	2.6000	BAR

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

V2.4B-PCF

0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .1228E-02 M

N O E U D S ...

NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION
	M3/H	M	M	BAR
C.P.	2	60.000	665.00	665.00
	4	.00000	655.00	661.40
	6	.00000	615.00	644.38
	8	.00000	615.00	644.38
	10	.00000	608.00	641.46
	12	.00000	608.00	641.46
	14	.00000	605.00	640.97
	16	.00000	603.00	640.97
	18	.00000	605.00	638.38
	20	.00000	592.00	638.38
	22	.00000	598.00	629.94
	24	.00000	598.00	629.94
	26	.00000	592.00	627.83
	28	.00000	588.00	622.22
	30	-60.000	588.00	621.94
	32	.00000	580.00	622.22
	34	.00000	580.00	622.22
	36	.00000	555.00	622.22
	38	.00000	636.00	661.40
	40	.00000	636.00	661.40
	42	.00000	611.00	661.40
	44	.00000	611.00	661.40
	46	.00000	615.00	644.38
	48	.00000	604.00	640.97
	50	.00000	604.00	640.97
	52	.00000	605.00	661.40
	54	.00000	575.00	661.40
	56	.00000	575.00	661.40
	58	.00000	571.00	661.40
	60	.00000	571.00	661.40
	62	.00000	571.00	661.40
	64	.00000	571.00	661.40
	66	.00000	468.00	661.40
	68	.00000	468.00	661.40
	70	.00000	468.00	661.40
	72	.00000	468.00	661.40
	74	.00000	435.00	661.40
	76	.00000	435.00	661.40
	78	.00000	442.00	661.40
	80	.00000	442.00	661.40
	82	.00000	411.00	661.40
	84	.00000	411.00	661.40
	86	.00000	411.00	661.40

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

END

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

1RESEAU FFAINE - DEF.INCENDIE

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PAGE 2

V2.4B-PCF

ETUDE 0

0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS

SOLUTION CRITERIA

0NOEUDS 1000(R)

EQUATION POUR DELTA P

DARCY

ELEMENTS..... 1000(R)

NOMBRE MAXI D'ITERATIONS

20

STOCKAGE UTILISE 21762

CRITERE DE CONV POUR DEBIT-M3/H

3.00

STOCKAGE DISPON. 68734

CRITERE DE CONV COTE PIEZO-M

.200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0PRESSION-BAR

NOM

WATER

++ ... 7.00

MASSE VOL.-KGF /M **3100E+04

-- ... 2.00

VISCOSITE -KGF *S/M **2133E-03

VITESSE- M/S

PRESSION DE VAPEUR-BAR122E-01

++ ... 1.30

TEMPERATURE-DEGREES C 10.0

--000

0CAS 1 -

0SOLVE

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

0 5 ITERATIONS, CONVERGED TO .1399E-04 M3/H AND .6325E-03 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM	NOEUDS AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	60.000	-1.1359	125.00	1.3581	++
3	4	6	60.000	-17.028	85.400	2.9096	++
5	6	8	.00000	.00000	85.400	.00000	
7	6	10	60.000	-2.9191	85.400	2.9096	++
9	10	12	.00000	.00000	85.400	.00000	
11	10	14	60.000	-.48650	85.400	2.9096	++
13	14	16	.00000	.00000	85.400	.00000	
15	14	18	60.000	-2.5947	85.400	2.9096	++
17	18	20	8.17548E-12	.00000	85.400	3.96462E-13	
19	18	22	60.000	-8.4328	85.400	2.9096	++
21	22	24	.00000	.00000	85.400	.00000	
23	22	26	60.000	-2.1082	85.400	2.9096	++
25	26	28	60.000	-5.6183	100.00	2.1221	++
27	28	30	.00000	.00000	100.00	.00000	
29	28	32	60.000	-6.7419	100.00	2.1221	++
31	32	34	60.000	-.28091	100.00	2.1221	++
33	32	36	.00000	.00000	85.400	.00000	
35	4	38	.00000	.00000	125.00	.00000	
37	38	40	4.61108E-10	.00000	100.00	1.63083E-11	
39	38	42	.00000	.00000	85.400	.00000	
41	42	44	.00000	.00000	85.400	.00000	
43	8	46	.00000	.00000	85.400	.00000	
45	16	48	.00000	.00000	69.800	.00000	
47	48	50	.00000	.00000	69.800	.00000	
49	42	52	3.54699E-11	.00000	100.00	1.25448E-12	
51	52	54	.00000	.00000	85.400	.00000	
53	54	56	.00000	.00000	85.400	.00000	
55	54	58	.00000	.00000	85.400	.00000	
57	58	60	.00000	.00000	85.400	.00000	
61	62	64	.00000	.00000	85.400	.00000	
63	64	66	.00000	.00000	100.00	.00000	
65	66	68	.00000	.00000	100.00	.00000	
69	70	72	.00000	.00000	100.00	.00000	
71	72	74	.00000	.00000	100.00	.00000	
73	74	76	-4.61108E-10	.00000	100.00	-1.63083E-11	
75	74	78	.00000	.00000	100.00	.00000	
77	78	80	-4.61108E-10	.00000	100.00	-1.63083E-11	

79	78	82	.00000	.00000	100.00	.00000
81	82	84	-5.76385E-11	.00000	100.00	-2.03853E-12
83	84	86	.00000	.00000	100.00	.00000

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

0 5 ITERATIONS, CONVERGED TO .1399E-04 M3/H AND .6325E-03 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P
NUMERO	AM	AV	TYPE	VAL	UNITES
					NOEUD
					M3/H

59	60	62	2	2.3000	BAR	62	4.01952E-14	1.86035E-05
67	68	70	2	2.6000	BAR	70	4.01952E-14	3.72070E-05

1RESEAU FFAINE - DEF.INCENDIE

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PAGE 5

ETUDE 0

0CAS 1 -

0 5 ITERATIONS, CONVERGED TO .1399E-04 M3/H AND .6325E-03 M

N O E U D S ...

	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	

C.P.	2	60.000	665.00	665.00	.00000	--
	4	.00000	655.00	663.86	.86928	--
	6	.00000	615.00	646.84	3.1221	
	8	.00000	615.00	646.84	3.1221	
	10	.00000	608.00	643.92	3.5223	
	12	.00000	608.00	643.92	3.5223	
	14	.00000	605.00	643.43	3.7688	
	16	.00000	603.00	643.43	3.9649	
	18	.00000	605.00	640.84	3.5143	
	20	.00000	592.00	640.84	4.7892	
	22	.00000	598.00	632.40	3.3738	
	24	.00000	598.00	632.40	3.3738	
	26	.00000	592.00	630.29	3.7555	
	28	.00000	588.00	624.68	3.5968	
	30	.00000	588.00	624.68	3.5968	
	32	.00000	580.00	617.93	3.7201	
	34	-60.000	580.00	617.65	3.6926	
	36	.00000	555.00	617.93	6.1718	
	38	.00000	636.00	663.86	2.7325	
	40	.00000	636.00	663.86	2.7325	
	42	.00000	611.00	663.86	5.1842	
	44	.00000	611.00	663.86	5.1842	
	46	.00000	615.00	646.84	3.1221	
	48	.00000	604.00	643.43	3.8668	
	50	.00000	604.00	643.43	3.8668	
	52	.00000	605.00	663.86	5.7726	
	54	.00000	575.00	663.86	8.7146	++
	56	.00000	575.00	663.86	8.7146	++
	58	.00000	571.00	663.86	9.1069	++
	60	.00000	571.00	663.86	9.1069	++
	62	.00000	571.00	663.86	9.1069	++
	64	.00000	571.00	663.86	9.1069	++
	66	.00000	468.00	663.86	19.208	++
	68	.00000	468.00	663.86	19.208	++
	70	.00000	468.00	663.86	19.208	++
	72	.00000	468.00	663.86	19.208	++
	74	.00000	435.00	663.86	22.444	++
	76	.00000	435.00	663.86	22.444	++
	78	.00000	442.00	663.86	21.757	++
	80	.00000	442.00	663.86	21.757	++
	82	.00000	411.00	663.86	24.798	++
	84	.00000	411.00	663.86	24.798	++
	86	.00000	411.00	663.86	24.798	++

1RESEAU FFAINE - DEF.INCENDIE

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0CAS 1 -

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1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0
0CAS 1 -
0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .9860E-03 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.000	-1.1359	125.00	1.3581	++
3	4 6	60.000	-17.028	85.400	2.9096	++
5	6 8	60.000	-16.217	85.400	2.9096	++
7	6 10	3.40645E-11	.00000	85.400	1.65193E-12	
9	10 12	.00000	.00000	85.400	.00000	
11	10 14	.00000	.00000	85.400	.00000	
13	14 16	.00000	.00000	85.400	.00000	
15	14 18	.00000	.00000	85.400	.00000	
17	18 20	.00000	.00000	85.400	.00000	
19	18 22	.00000	.00000	85.400	.00000	
21	22 24	.00000	.00000	85.400	.00000	
23	22 26	.00000	.00000	85.400	.00000	
25	26 28	.00000	.00000	100.00	.00000	
27	28 30	.00000	.00000	100.00	.00000	
29	28 32	.00000	.00000	100.00	.00000	
31	32 34	.00000	.00000	100.00	.00000	
33	32 36	.00000	.00000	85.400	.00000	
35	4 38	.00000	.00000	125.00	.00000	
37	38 40	4.61108E-10	.00000	100.00	1.63083E-11	
39	38 42	.00000	.00000	85.400	.00000	
41	42 44	.00000	.00000	85.400	.00000	
43	8 46	60.000	-.40543	85.400	2.9096	++
45	16 48	.00000	.00000	69.800	.00000	
47	48 50	.00000	.00000	69.800	.00000	
49	42 52	3.54699E-11	.00000	100.00	1.25448E-12	
51	52 54	.00000	.00000	85.400	.00000	
53	54 56	2.45264E-10	.00000	85.400	1.18939E-11	
55	54 58	.00000	.00000	85.400	.00000	
57	58 60	.00000	.00000	85.400	.00000	
61	62 64	.00000	.00000	85.400	.00000	
63	64 66	.00000	.00000	100.00	.00000	
65	66 68	.00000	.00000	100.00	.00000	
69	70 72	-2.30554E-09	.00000	100.00	-8.15413E-11	
71	72 74	.00000	.00000	100.00	.00000	
73	74 76	4.61108E-10	.00000	100.00	1.63083E-11	
75	74 78	.00000	.00000	100.00	.00000	
77	78 80	4.61108E-10	.00000	100.00	1.63083E-11	

79	78	82	.00000	.00000	100.00	.00000
81	82	84	5.76385E-11	.00000	100.00	2.03853E-12
83	84	86	.00000	.00000	100.00	.00000

1RESEAU FFAINE - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 4
 0CAS 1 - V2.4B-PCF
 0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .9860E-03 M

REGULATEURS DE PRESSION ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P
NUMERO	AM	AV	TYPE	VAL	UNITES
					NOEUD
					M3/H

59	60	62	2	2.3000	BAR	62	4.50286E-15	-3.72070E-05
67	68	70	2	2.6000	BAR	70	2.15337E-13	-1.86035E-05

1RESEAU FFAINE - DEF.INCENDIE JUIN.2007

ETUDE 0 PAGE 5
 0CAS 1 - V2.4B-PCF
 0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .9860E-03 M

NOEUDS ...

NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	

C.P.	2	60.000	665.00	665.00	.00000	--
	4	.00000	655.00	663.86	.86927	--
	6	.00000	615.00	646.84	3.1221	
	8	.00000	615.00	630.62	1.5317	--
	10	.00000	608.00	646.84	3.8085	
	12	.00000	608.00	646.84	3.8085	
	14	.00000	605.00	646.84	4.1027	
	16	.00000	603.00	646.84	4.2989	
	18	.00000	605.00	646.84	4.1027	
	20	.00000	592.00	646.84	5.3776	
	22	.00000	598.00	646.84	4.7892	
	24	.00000	598.00	646.84	4.7892	
	26	.00000	592.00	646.84	5.3776	
	28	.00000	588.00	646.84	5.7699	
	30	.00000	588.00	646.84	5.7699	
	32	.00000	580.00	646.84	6.5544	
	34	.00000	580.00	646.84	6.5544	
	36	.00000	555.00	646.84	9.0061	++
	38	.00000	636.00	663.86	2.7325	
	40	.00000	636.00	663.86	2.7325	
	42	.00000	611.00	663.86	5.1842	
	44	.00000	611.00	663.86	5.1842	
	46	-60.000	615.00	630.21	1.4919	--
	48	.00000	604.00	646.84	4.2008	
	50	.00000	604.00	646.84	4.2008	
	52	.00000	605.00	663.86	5.7726	
	54	.00000	575.00	663.86	8.7146	++
	56	.00000	575.00	663.86	8.7146	++
	58	.00000	571.00	663.86	9.1069	++
	60	.00000	571.00	663.86	9.1069	++
	62	.00000	571.00	663.86	9.1069	++
	64	.00000	571.00	663.86	9.1069	++
	66	.00000	468.00	663.86	19.208	++
	68	.00000	468.00	663.86	19.208	++
	70	.00000	468.00	663.86	19.208	++
	72	.00000	468.00	663.86	19.208	++
	74	.00000	435.00	663.86	22.444	++
	76	.00000	435.00	663.86	22.444	++
	78	.00000	442.00	663.86	21.757	++
	80	.00000	442.00	663.86	21.757	++
	82	.00000	411.00	663.86	24.798	++
	84	.00000	411.00	663.86	24.798	++
	86	.00000	411.00	663.86	24.798	++

1RESEAU FFAINE - DEF.INCENDIE

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PAGE 6
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ETUDE 0

0CAS 1 -

END

1RESEAU FFAINE - DEF.INCENDIE

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PAGE 7
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ETUDE 0

0CAS 1 -

1RESEAU FFAINE - DEF.INCENDIE

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PAGE 2
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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU FFAINE - DEF.INCENDIE

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PAGE 3
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ETUDE 0
0CAS 1 -
0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .1172E-02 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.000	-5.1895	85.400	2.9096	++
3	4 6	60.000	-17.028	85.400	2.9096	++
5	6 8	.00000	.00000	85.400	.00000	
7	6 10	60.000	-2.9191	85.400	2.9096	++
9	10 12	.00000	.00000	85.400	.00000	
11	10 14	60.000	-.48652	85.400	2.9096	++
13	14 16	60.000	-10.379	85.400	2.9096	++
15	14 18	.00000	.00000	85.400	.00000	
17	18 20	.00000	.00000	85.400	.00000	
19	18 22	.00000	.00000	85.400	.00000	
21	22 24	.00000	.00000	85.400	.00000	
23	22 26	.00000	.00000	85.400	.00000	
25	26 28	.00000	.00000	60.000	.00000	
27	28 30	.00000	.00000	60.000	.00000	
29	28 32	.00000	.00000	60.000	.00000	
31	32 34	.00000	.00000	60.000	.00000	
33	32 36	.00000	.00000	85.400	.00000	
35	4 38	.00000	.00000	85.400	.00000	
37	38 40	.00000	.00000	85.400	.00000	
39	38 42	.00000	.00000	85.400	.00000	
41	42 44	.00000	.00000	85.400	.00000	
43	8 46	.00000	.00000	85.400	.00000	
45	16 48	60.000	-4.3060	69.800	4.3556	++
47	48 50	60.000	-1.0765	69.800	4.3556	++
49	42 52	.00000	.00000	100.00	.00000	
51	52 54	.00000	.00000	85.400	.00000	
53	54 56	.00000	.00000	85.400	.00000	
55	54 58	.00000	.00000	85.400	.00000	
57	58 60	.00000	.00000	85.400	.00000	
61	62 64	1.22632E-09	.00000	85.400	5.94694E-11	
63	64 66	.00000	.00000	100.00	.00000	
65	66 68	.00000	.00000	100.00	.00000	
69	70 72	2.30554E-09	.00000	100.00	8.15413E-11	
71	72 74	.00000	.00000	100.00	.00000	
73	74 76	.00000	.00000	100.00	.00000	
75	74 78	.00000	.00000	100.00	.00000	
77	78 80	.00000	.00000	100.00	.00000	

79	78	82	.00000	.00000	100.00	.00000
81	82	84	.00000	.00000	100.00	.00000
83	84	86	.00000	.00000	100.00	.00000

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .1172E-02 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P
NUMERO	AM	AV	TYPE	VAL	UNITES
					NOEUD
					M3/H

59	60	62	2	2.3000	BAR	62	4.50286E-15	-3.72070E-05
67	68	70	2	2.6000	BAR	70	2.15337E-13	-1.86035E-05

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .1172E-02 M

N O E U D S ...

	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	

C.P.	2	60.000	665.00	665.00	.00000	--
	4	.00000	655.00	659.81	.47175	--
	6	.00000	615.00	642.78	2.7245	
	8	.00000	615.00	642.78	2.7245	
	10	.00000	608.00	639.86	3.1247	
	12	.00000	608.00	639.86	3.1247	
	14	.00000	605.00	639.38	3.3712	
	16	.00000	603.00	629.00	2.5495	
	18	.00000	605.00	639.38	3.3712	
	20	.00000	592.00	639.38	4.6461	
	22	.00000	598.00	639.38	4.0577	
	24	.00000	598.00	639.38	4.0577	
	26	.00000	592.00	639.38	4.6461	
	28	.00000	588.00	639.38	5.0383	
	30	.00000	588.00	639.38	5.0383	
	32	.00000	580.00	639.38	5.8229	
	34	.00000	580.00	639.38	5.8229	
	36	.00000	555.00	639.38	8.2745	++
	38	.00000	636.00	659.81	2.3350	
	40	.00000	636.00	659.81	2.3350	
	42	.00000	611.00	659.81	4.7867	
	44	.00000	611.00	659.81	4.7867	
	46	.00000	615.00	642.78	2.7245	
	48	.00000	604.00	624.69	2.0292	
	50	-60.000	604.00	623.62	1.9236	--
	52	.00000	605.00	659.81	5.3751	
	54	.00000	575.00	659.81	8.3171	++
	56	.00000	575.00	659.81	8.3171	++
	58	.00000	571.00	659.81	8.7093	++
	60	.00000	571.00	659.81	8.7093	++
	62	.00000	571.00	659.81	8.7093	++
	64	.00000	571.00	659.81	8.7093	++
	66	.00000	468.00	659.81	18.810	++
	68	.00000	468.00	659.81	18.810	++
	70	.00000	468.00	659.81	18.810	++
	72	.00000	468.00	659.81	18.810	++
	74	.00000	435.00	659.81	22.046	++
	76	.00000	435.00	659.81	22.046	++
	78	.00000	442.00	659.81	21.360	++
	80	.00000	442.00	659.81	21.360	++
	82	.00000	411.00	659.81	24.400	++
	84	.00000	411.00	659.81	24.400	++
	86	.00000	411.00	659.81	24.400	++

1RESEAU FFAINE - DEF.INCENDIE

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0CAS 1 -

END

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ETUDE 0

0CAS 1 -

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU FFAINE - DEF.INCENDIE

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PAGE 3

V2.4B-PCF

ETUDE 0
0CAS 1 -
0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .6511E-03 M

C O N D U I T E S ...						
ELEMENT NUMERO	AM	AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
1	2	4	60.000	-1.1359	125.00	1.3581 ++
3	4	6	.00000	.00000	85.400	.00000
5	6	8	.00000	.00000	85.400	.00000
7	6	10	.00000	.00000	85.400	.00000
9	10	12	.00000	.00000	85.400	.00000
11	10	14	.00000	.00000	85.400	.00000
13	14	16	.00000	.00000	85.400	.00000
15	14	18	.00000	.00000	85.400	.00000
17	18	20	.00000	.00000	85.400	.00000
19	18	22	.00000	.00000	85.400	.00000
21	22	24	.00000	.00000	85.400	.00000
23	22	26	.00000	.00000	85.400	.00000
25	26	28	.00000	.00000	100.00	.00000
27	28	30	4.61108E-10	.00000	100.00	1.63083E-11
29	28	32	.00000	.00000	100.00	.00000
31	32	34	4.61108E-10	.00000	100.00	1.63083E-11
33	32	36	.00000	.00000	85.400	.00000
35	4	38	60.000	-5.5908	125.00	1.3581 ++
37	38	40	.00000	.00000	100.00	.00000
39	38	42	60.000	-13.379	85.400	2.9096 ++
41	42	44	60.000	-.40543	85.400	2.9096 ++
43	8	46	.00000	.00000	85.400	.00000
45	16	48	.00000	.00000	69.800	.00000
47	48	50	.00000	.00000	69.800	.00000
49	42	52	.00000	.00000	100.00	.00000
51	52	54	4.45935E-12	.00000	85.400	2.16252E-13
53	54	56	.00000	.00000	85.400	.00000
55	54	58	.00000	.00000	85.400	.00000
57	58	60	1.22632E-09	.00000	85.400	5.94694E-11
61	62	64	.00000	.00000	85.400	.00000
63	64	66	.00000	.00000	100.00	.00000
65	66	68	.00000	.00000	100.00	.00000
69	70	72	.00000	.00000	100.00	.00000
71	72	74	.00000	.00000	100.00	.00000
73	74	76	.00000	.00000	100.00	.00000
75	74	78	.00000	.00000	100.00	.00000
77	78	80	.00000	.00000	100.00	.00000

79	78	82	.00000	.00000	100.00	.00000
81	82	84	.00000	.00000	100.00	.00000
83	84	86	.00000	.00000	100.00	.00000

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .6511E-03 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P
NUMERO	AM	AV	TYPE	VAL	UNITES
					NOEUD
					M3/H

59	60	62	2	2.3000	BAR	62	2.15337E-13	-1.86035E-05
67	68	70	2	2.6000	BAR	70	4.50286E-15	-3.72070E-05

1RESEAU FFAINE - DEF.INCENDIE

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PAGE 5

ETUDE 0

0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .6511E-03 M

N O E U D S ...

	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	

C.P.	2	60.000	665.00	665.00	.00000	--
	4	.00000	655.00	663.86	.86927	--
	6	.00000	615.00	663.86	4.7919	
	8	.00000	615.00	663.86	4.7919	
	10	.00000	608.00	663.86	5.4784	
	12	.00000	608.00	663.86	5.4784	
	14	.00000	605.00	663.86	5.7726	
	16	.00000	603.00	663.86	5.9687	
	18	.00000	605.00	663.86	5.7726	
	20	.00000	592.00	663.86	7.0475	++
	22	.00000	598.00	663.86	6.4591	
	24	.00000	598.00	663.86	6.4591	
	26	.00000	592.00	663.86	7.0475	++
	28	.00000	588.00	663.86	7.4397	++
	30	.00000	588.00	663.86	7.4397	++
	32	.00000	580.00	663.86	8.2243	++
	34	.00000	580.00	663.86	8.2243	++
	36	.00000	555.00	663.86	10.676	++
	38	.00000	636.00	658.27	2.1843	
	40	.00000	636.00	658.27	2.1843	
	42	.00000	611.00	644.89	3.3239	
	44	-60.000	611.00	644.49	3.2841	
	46	.00000	615.00	663.86	4.7919	
	48	.00000	604.00	663.86	5.8707	
	50	.00000	604.00	663.86	5.8707	
	52	.00000	605.00	644.89	3.9123	
	54	.00000	575.00	644.89	6.8543	
	56	.00000	575.00	644.89	6.8543	
	58	.00000	571.00	644.89	7.2465	++
	60	.00000	571.00	644.89	7.2465	++
	62	.00000	571.00	644.89	7.2465	++
	64	.00000	571.00	644.89	7.2465	++
	66	.00000	468.00	644.89	17.347	++
	68	.00000	468.00	644.89	17.347	++
	70	.00000	468.00	644.89	17.347	++
	72	.00000	468.00	644.89	17.347	++
	74	.00000	435.00	644.89	20.584	++
	76	.00000	435.00	644.89	20.584	++
	78	.00000	442.00	644.89	19.897	++
	80	.00000	442.00	644.89	19.897	++
	82	.00000	411.00	644.89	22.937	++
	84	.00000	411.00	644.89	22.937	++
	86	.00000	411.00	644.89	22.937	++

1RESEAU FFAINE - DEF.INCENDIE

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0CAS 1 -

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0CAS 1 -

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS

SOLUTION CRITERIA

0NOEUDS 1000(R)

EQUATION POUR DELTA P

DARCY

ELEMENTS..... 1000(R)

NOMBRE MAXI D'ITERATIONS

20

STOCKAGE UTILISE 21762

CRITERE DE CONV POUR DEBIT-M3/H

3.00

STOCKAGE DISPON. 68734

CRITERE DE CONV COTE PIEZO-M

.200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0PRESSION-BAR

NOM WATER

++ ... 7.00

MASSE VOL.-KGF /M **3100E+04

-- ... 2.00

VISCOSITE -KGF *S/M **2133E-03

VITESSE- M/S

PRESSION DE VAPEUR-BAR122E-01

++ ... 1.30

TEMPERATURE-DEGREES C 10.0

--000

0CAS 1 -

0SOLVE

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .2791E-03 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.000	-1.1359	125.00	1.3581	++
3	4 6	.00000	.00000	85.400	.00000	
5	6 8	.00000	.00000	85.400	.00000	
7	6 10	.00000	.00000	85.400	.00000	
9	10 12	.00000	.00000	85.400	.00000	
11	10 14	.00000	.00000	85.400	.00000	
13	14 16	.00000	.00000	85.400	.00000	
15	14 18	.00000	.00000	85.400	.00000	
17	18 20	.00000	.00000	85.400	.00000	
19	18 22	.00000	.00000	85.400	.00000	
21	22 24	.00000	.00000	85.400	.00000	
23	22 26	.00000	.00000	85.400	.00000	
25	26 28	.00000	.00000	100.00	.00000	
27	28 30	4.61108E-10	.00000	100.00	1.63083E-11	
29	28 32	.00000	.00000	100.00	.00000	
31	32 34	4.61108E-10	.00000	100.00	1.63083E-11	
33	32 36	.00000	.00000	85.400	.00000	
35	4 38	60.000	-5.5908	125.00	1.3581	++
37	38 40	60.000	-.28091	100.00	2.1221	++
39	38 42	7.43225E-12	.00000	85.400	3.60420E-13	
41	42 44	.00000	.00000	85.400	.00000	
43	8 46	.00000	.00000	85.400	.00000	
45	16 48	.00000	.00000	69.800	.00000	
47	48 50	.00000	.00000	69.800	.00000	
49	42 52	.00000	.00000	100.00	.00000	
51	52 54	.00000	.00000	85.400	.00000	
53	54 56	.00000	.00000	85.400	.00000	
55	54 58	.00000	.00000	85.400	.00000	
57	58 60	.00000	.00000	85.400	.00000	
61	62 64	.00000	.00000	85.400	.00000	
63	64 66	.00000	.00000	100.00	.00000	
65	66 68	.00000	.00000	100.00	.00000	
69	70 72	.00000	.00000	100.00	.00000	
71	72 74	2.09595E-11	.00000	100.00	7.41284E-13	
73	74 76	.00000	.00000	100.00	.00000	
75	74 78	.00000	.00000	100.00	.00000	
77	78 80	.00000	.00000	100.00	.00000	

79	78	82	.00000	.00000	100.00	.00000
81	82	84	.00000	.00000	100.00	.00000
83	84	86	.00000	.00000	100.00	.00000

1RESEAU FFAINE - DEF.INCENDIE

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PAGE 4

ETUDE 0

0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .2791E-03 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P			
NUMERO	AM	AV	TYPE	VAL	UNITES	NOEUD	M3/H	M
59	60	62	2	2.3000	BAR	62	4.50286E-15	-3.72070E-05
67	68	70	2	2.6000	BAR	70	2.15337E-13	-1.86035E-05

1RESEAU FFAINE - DEF.INCENDIE

JUIN.2007

PAGE 5

ETUDE 0

0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .2791E-03 M

N O E U D S ...

	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	
C.P.	2	60.000	665.00	665.00	.00000	--
	4	.00000	655.00	663.86	.86927	--
	6	.00000	615.00	663.86	4.7919	
	8	.00000	615.00	663.86	4.7919	
	10	.00000	608.00	663.86	5.4784	
	12	.00000	608.00	663.86	5.4784	
	14	.00000	605.00	663.86	5.7726	
	16	.00000	603.00	663.86	5.9687	
	18	.00000	605.00	663.86	5.7726	
	20	.00000	592.00	663.86	7.0475	++
	22	.00000	598.00	663.86	6.4591	
	24	.00000	598.00	663.86	6.4591	
	26	.00000	592.00	663.86	7.0475	++
	28	.00000	588.00	663.86	7.4397	++
	30	.00000	588.00	663.86	7.4397	++
	32	.00000	580.00	663.86	8.2243	++
	34	.00000	580.00	663.86	8.2243	++
	36	.00000	555.00	663.86	10.676	++
	38	.00000	636.00	658.27	2.1843	
	40	-60.000	636.00	657.99	2.1567	
	42	.00000	611.00	658.27	4.6359	
	44	.00000	611.00	658.27	4.6359	
	46	.00000	615.00	663.86	4.7919	
	48	.00000	604.00	663.86	5.8707	
	50	.00000	604.00	663.86	5.8707	
	52	.00000	605.00	658.27	5.2243	
	54	.00000	575.00	658.27	8.1663	++
	56	.00000	575.00	658.27	8.1663	++
	58	.00000	571.00	658.27	8.5586	++
	60	.00000	571.00	658.27	8.5586	++
	62	.00000	571.00	658.27	8.5586	++
	64	.00000	571.00	658.27	8.5586	++
	66	.00000	468.00	658.27	18.659	++
	68	.00000	468.00	658.27	18.659	++
	70	.00000	468.00	658.27	18.659	++
	72	.00000	468.00	658.27	18.659	++
	74	.00000	435.00	658.27	21.896	++
	76	.00000	435.00	658.27	21.896	++
	78	.00000	442.00	658.27	21.209	++
	80	.00000	442.00	658.27	21.209	++
	82	.00000	411.00	658.27	24.249	++
	84	.00000	411.00	658.27	24.249	++
	86	.00000	411.00	658.27	24.249	++

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

END

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ETUDE 0

0CAS 1 -

1RESEAU FFAINE - DEF.INCENDIE

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PAGE 2

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ETUDE 0

0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS

SOLUTION CRITERIA

0NOEUDS 1000(R)

EQUATION POUR DELTA P

DARCY

ELEMENTS..... 1000(R)

NOMBRE MAXI D'ITERATIONS

20

STOCKAGE UTILISE 21762

CRITERE DE CONV POUR DEBIT-M3/H

3.00

STOCKAGE DISPON. 68734

CRITERE DE CONV COTE PIEZO-M

.200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0PRESSION-BAR

NOM

WATER

++ ... 7.00

MASSE VOL.-KGF /M

**3 ...

.100E+04

-- ... 2.00

VISCOSITE -KGF *S/M

**2 ...

.133E-03

VITESSE- M/S

PRESSION DE VAPEUR-BAR

.....

.122E-01

++ ... 1.30

TEMPERATURE-DEGREES C

10.0

--000

0CAS 1 -

0SOLVE

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .1991E-02 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM	NOEUDS AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	60.000	-5.1895	85.400	2.9096	++
3	4	6	.00000	.00000	85.400	.00000	
5	6	8	.00000	.00000	85.400	.00000	
7	6	10	3.40645E-11	.00000	85.400	1.65193E-12	
9	10	12	2.45264E-10	.00000	85.400	1.18939E-11	
11	10	14	.00000	.00000	85.400	.00000	
13	14	16	.00000	.00000	85.400	.00000	
15	14	18	.00000	.00000	85.400	.00000	
17	18	20	8.17548E-12	.00000	85.400	3.96462E-13	
19	18	22	.00000	.00000	85.400	.00000	
21	22	24	2.45264E-10	.00000	85.400	1.18939E-11	
23	22	26	.00000	.00000	85.400	.00000	
25	26	28	.00000	.00000	60.000	.00000	
27	28	30	5.97596E-11	.00000	60.000	5.87097E-12	
29	28	32	.00000	.00000	60.000	.00000	
31	32	34	5.97596E-11	.00000	60.000	5.87097E-12	
33	32	36	-5.33183E-12	.00000	85.400	-2.58562E-13	
35	4	38	60.000	-25.542	85.400	2.9096	++
37	38	40	.00000	.00000	85.400	.00000	
39	38	42	60.000	-13.379	85.400	2.9096	++
41	42	44	.00000	.00000	85.400	.00000	
43	8	46	.00000	.00000	85.400	.00000	
45	16	48	.00000	.00000	69.800	.00000	
47	48	50	.00000	.00000	69.800	.00000	
49	42	52	60.000	-3.6519	100.00	2.1221	++
51	52	54	60.000	-22.299	85.400	2.9096	++
53	54	56	60.000	-.40545	85.400	2.9096	++
55	54	58	.00000	.00000	85.400	.00000	
57	58	60	.00000	.00000	85.400	.00000	
61	62	64	.00000	.00000	85.400	.00000	
63	64	66	.00000	.00000	100.00	.00000	
65	66	68	.00000	.00000	100.00	.00000	
69	70	72	.00000	.00000	100.00	.00000	
71	72	74	.00000	.00000	100.00	.00000	
73	74	76	.00000	.00000	100.00	.00000	
75	74	78	.00000	.00000	100.00	.00000	
77	78	80	.00000	.00000	100.00	.00000	

79	78	82	.00000	.00000	100.00	.00000
81	82	84	.00000	.00000	100.00	.00000
83	84	86	.00000	.00000	100.00	.00000

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .1991E-02 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P
NUMERO	AM	AV	TYPE	VAL	UNITES
					NOEUD
					M3/H

59	60	62	2	2.3000	BAR	62	4.50286E-15	-3.72070E-05
67	68	70	2	2.6000	BAR	70	2.15337E-13	-1.86035E-05

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

0 4 ITERATIONS, CONVERGED TO .2415E-04 M3/H AND .1991E-02 M

N O E U D S ...

	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	

C.P.	2	60.000	665.00	665.00	.00000	--
	4	.00000	655.00	659.81	.47175	--
	6	.00000	615.00	659.81	4.3944	
	8	.00000	615.00	659.81	4.3944	
	10	.00000	608.00	659.81	5.0809	
	12	.00000	608.00	659.81	5.0809	
	14	.00000	605.00	659.81	5.3751	
	16	.00000	603.00	659.81	5.5712	
	18	.00000	605.00	659.81	5.3751	
	20	.00000	592.00	659.81	6.6499	
	22	.00000	598.00	659.81	6.0615	
	24	.00000	598.00	659.81	6.0615	
	26	.00000	592.00	659.81	6.6499	
	28	.00000	588.00	659.81	7.0422	++
	30	.00000	588.00	659.81	7.0422	++
	32	.00000	580.00	659.81	7.8267	++
	34	.00000	580.00	659.81	7.8267	++
	36	.00000	555.00	659.81	10.278	++
	38	.00000	636.00	634.27	-.16981	--
	40	.00000	636.00	634.27	-.16981	--
	42	.00000	611.00	620.89	.96980	--
	44	.00000	611.00	620.89	.96980	--
	46	.00000	615.00	659.81	4.3944	
	48	.00000	604.00	659.81	5.4731	
	50	.00000	604.00	659.81	5.4731	
	52	.00000	605.00	617.24	1.2001	--
	54	.00000	575.00	594.94	1.9553	--
	56	-60.000	575.00	594.53	1.9156	--
	58	.00000	571.00	594.94	2.3476	
	60	.00000	571.00	594.94	2.3476	
	62	.00000	571.00	594.94	2.3476	
	64	.00000	571.00	594.94	2.3476	
	66	.00000	468.00	594.94	12.448	++
	68	.00000	468.00	594.94	12.448	++
	70	.00000	468.00	594.94	12.448	++
	72	.00000	468.00	594.94	12.448	++
	74	.00000	435.00	594.94	15.685	++
	76	.00000	435.00	594.94	15.685	++
	78	.00000	442.00	594.94	14.998	++
	80	.00000	442.00	594.94	14.998	++
	82	.00000	411.00	594.94	18.038	++
	84	.00000	411.00	594.94	18.038	++
	86	.00000	411.00	594.94	18.038	++

1RESEAU FFAINE - DEF.INCENDIE

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0CAS 1 -

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0CAS 1 -

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ETUDE 0

0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS

SOLUTION CRITERIA

0NOEUDS 1000(R)

EQUATION POUR DELTA P

DARCY

ELEMENTS..... 1000(R)

NOMBRE MAXI D'ITERATIONS

20

STOCKAGE UTILISE 21762

CRITERE DE CONV POUR DEBIT-M3/H

3.00

STOCKAGE DISPON. 68734

CRITERE DE CONV COTE PIEZO-M

.200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0PRESSION-BAR

NOM

WATER

++ ... 7.00

MASSE VOL.-KGF /M **3100E+04

-- ... 2.00

VISCOSITE -KGF *S/M **2133E-03

VITESSE- M/S

PRESSION DE VAPEUR-BAR122E-01

++ ... 1.30

TEMPERATURE-DEGREES C 10.0

--000

0CAS 1 -

0SOLVE

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

0 11 ITERATIONS, CONVERGED TO .4103E-01 M3/H AND .5166E-01 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM	NOEUDS AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	59.984	-5.1860	85.400	2.9089	++
3	4	6	.00000	.00000	85.400	.00000	
5	6	8	.00000	.00000	85.400	.00000	
7	6	10	.00000	.00000	85.400	.00000	
9	10	12	2.45264E-10	.00000	85.400	1.18939E-11	
11	10	14	.00000	.00000	85.400	.00000	
13	14	16	.00000	.00000	85.400	.00000	
15	14	18	.00000	.00000	85.400	.00000	
17	18	20	.00000	.00000	85.400	.00000	
19	18	22	.00000	.00000	85.400	.00000	
21	22	24	2.45264E-10	.00000	85.400	1.18939E-11	
23	22	26	.00000	.00000	85.400	.00000	
25	26	28	.00000	.00000	60.000	.00000	
27	28	30	.00000	.00000	60.000	.00000	
29	28	32	.00000	.00000	60.000	.00000	
31	32	34	.00000	.00000	60.000	.00000	
33	32	36	.00000	.00000	85.400	.00000	
35	4	38	59.984	-25.525	85.400	2.9089	++
37	38	40	.00000	.00000	85.400	.00000	
39	38	42	59.984	-13.370	85.400	2.9089	++
41	42	44	.00000	.00000	85.400	.00000	
43	8	46	2.45264E-10	.00000	85.400	1.18939E-11	
45	16	48	.00000	.00000	69.800	.00000	
47	48	50	.00000	.00000	69.800	.00000	
49	42	52	59.984	-3.6497	100.00	2.1215	++
51	52	54	59.984	-22.284	85.400	2.9089	++
53	54	56	.00000	.00000	85.400	.00000	
55	54	58	59.984	-4.0516	85.400	2.9089	++
57	58	60	59.984	-8.10369E-02	85.400	2.9089	++
61	62	64	59.984	-8.10369E-02	85.400	2.9089	++
63	64	66	59.984	-22.459	100.00	2.1215	++
65	66	68	59.984	-5.61454E-02	100.00	2.1215	++
69	70	72	60.000	-5.61826E-02	100.00	2.1221	++
71	72	74	60.000	-6.1800	100.00	2.1221	++
73	74	76	60.000	-.28091	100.00	2.1221	++
75	74	78	.00000	.00000	100.00	.00000	
77	78	80	.00000	.00000	100.00	.00000	

79	78	82	.00000	.00000	100.00	.00000
81	82	84	.00000	.00000	100.00	.00000
83	84	86	.00000	.00000	100.00	.00000

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0CAS 1 -

0 11 ITERATIONS, CONVERGED TO .4103E-01 M3/H AND .5166E-01 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P
NUMERO	AM	AV	TYPE	VAL	UNITES
					NOEUD
					M3/H
					M

59	60	62	2	2.3000	BAR	62	59.984	-.22947
67	68	70	2	2.6000	BAR	70	59.984	-73.514

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

0 11 ITERATIONS, CONVERGED TO .4103E-01 M3/H AND .5166E-01 M

N O E U D S ...

	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	

C.P.	2	59.984	665.00	665.00	.00000	--
	4	.00000	655.00	659.81	.47209	--
	6	.00000	615.00	659.81	4.3948	
	8	.00000	615.00	659.81	4.3948	
	10	.00000	608.00	659.81	5.0812	
	12	.00000	608.00	659.81	5.0812	
	14	.00000	605.00	659.81	5.3754	
	16	.00000	603.00	659.81	5.5716	
	18	.00000	605.00	659.81	5.3754	
	20	.00000	592.00	659.81	6.6503	
	22	.00000	598.00	659.81	6.0619	
	24	.00000	598.00	659.81	6.0619	
	26	.00000	592.00	659.81	6.6503	
	28	.00000	588.00	659.81	7.0426	++
	30	.00000	588.00	659.81	7.0426	++
	32	.00000	580.00	659.81	7.8271	++
	34	.00000	580.00	659.81	7.8271	++
	36	.00000	555.00	659.81	10.279	++
	38	.00000	636.00	634.29	-.16779	--
	40	.00000	636.00	634.29	-.16779	--
	42	.00000	611.00	620.92	.97270	--
	44	.00000	611.00	620.92	.97270	--
	46	.00000	615.00	659.81	4.3948	
	48	.00000	604.00	659.81	5.4735	
	50	.00000	604.00	659.81	5.4735	
	52	.00000	605.00	617.27	1.2032	--
	54	.00000	575.00	594.99	1.9599	--
	56	.00000	575.00	594.99	1.9599	--
	58	.00000	571.00	590.93	1.9548	--
	60	.00000	571.00	590.85	1.9469	--
	62	.00000	571.00	590.62	1.9244	--
	64	.00000	571.00	590.54	1.9164	--
	66	.00000	468.00	568.08	9.8148	++
	68	.00000	468.00	568.03	9.8093	++
	70	.00000	468.00	494.51	2.6000	
	72	.00000	468.00	494.46	2.5945	
	74	.00000	435.00	488.28	5.2246	
	76	-60.000	435.00	488.00	5.1971	
	78	.00000	442.00	488.28	4.5382	
	80	.00000	442.00	488.28	4.5382	
	82	.00000	411.00	488.28	7.5782	++
	84	.00000	411.00	488.28	7.5782	++
	86	.00000	411.00	488.28	7.5782	++

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA

0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY

ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20

STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00

STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0PRESSION-BAR NOM WATER

++ ... 7.00 MASSE VOL.-KGF /M **3100E+04

-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03

VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01

++ ... 1.30 TEMPERATURE-DEGREES C 10.0

--000

0CAS 1 -

0SOLVE

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

0 11 ITERATIONS, CONVERGED TO .4103E-01 M3/H AND .5166E-01 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	59.984	-5.1860	85.400	2.9089	++
3	4 6	.00000	.00000	85.400	.00000	
5	6 8	.00000	.00000	85.400	.00000	
7	6 10	.00000	.00000	85.400	.00000	
9	10 12	2.45264E-10	.00000	85.400	1.18939E-11	
11	10 14	.00000	.00000	85.400	.00000	
13	14 16	.00000	.00000	85.400	.00000	
15	14 18	.00000	.00000	85.400	.00000	
17	18 20	.00000	.00000	85.400	.00000	
19	18 22	.00000	.00000	85.400	.00000	
21	22 24	2.45264E-10	.00000	85.400	1.18939E-11	
23	22 26	.00000	.00000	85.400	.00000	
25	26 28	.00000	.00000	60.000	.00000	
27	28 30	.00000	.00000	60.000	.00000	
29	28 32	.00000	.00000	60.000	.00000	
31	32 34	.00000	.00000	60.000	.00000	
33	32 36	.00000	.00000	85.400	.00000	
35	4 38	59.984	-25.525	85.400	2.9089	++
37	38 40	.00000	.00000	85.400	.00000	
39	38 42	59.984	-13.370	85.400	2.9089	++
41	42 44	.00000	.00000	85.400	.00000	
43	8 46	2.45264E-10	.00000	85.400	1.18939E-11	
45	16 48	.00000	.00000	69.800	.00000	
47	48 50	.00000	.00000	69.800	.00000	
49	42 52	59.984	-3.6497	100.00	2.1215	++
51	52 54	59.984	-22.284	85.400	2.9089	++
53	54 56	.00000	.00000	85.400	.00000	
55	54 58	59.984	-4.0516	85.400	2.9089	++
57	58 60	59.984	-8.10369E-02	85.400	2.9089	++
61	62 64	59.984	-8.10369E-02	85.400	2.9089	++
63	64 66	59.984	-22.459	100.00	2.1215	++
65	66 68	59.984	-5.61454E-02	100.00	2.1215	++
69	70 72	60.000	-5.61826E-02	100.00	2.1221	++
71	72 74	60.000	-6.1800	100.00	2.1221	++
73	74 76	.00000	.00000	100.00	.00000	
75	74 78	60.000	-22.473	100.00	2.1221	++
77	78 80	60.000	-.28091	100.00	2.1221	++

79	78	82	.00000	.00000	100.00	.00000
81	82	84	.00000	.00000	100.00	.00000
83	84	86	.00000	.00000	100.00	.00000

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

0 11 ITERATIONS, CONVERGED TO .4103E-01 M3/H AND .5166E-01 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P
NUMERO	AM	AV	TYPE	VAL	UNITES
					NOEUD
					M3/H
					M

59	60	62	2	2.3000	BAR	62	59.984	-.22947
67	68	70	2	2.6000	BAR	70	59.984	-73.514

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

0 11 ITERATIONS, CONVERGED TO .4103E-01 M3/H AND .5166E-01 M

N O E U D S ...

	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION
		M3/H	M	M	BAR

C.P.	2	59.984	665.00	665.00	.00000	--
	4	.00000	655.00	659.81	.47209	--
	6	.00000	615.00	659.81	4.3948	
	8	.00000	615.00	659.81	4.3948	
	10	.00000	608.00	659.81	5.0812	
	12	.00000	608.00	659.81	5.0812	
	14	.00000	605.00	659.81	5.3754	
	16	.00000	603.00	659.81	5.5716	
	18	.00000	605.00	659.81	5.3754	
	20	.00000	592.00	659.81	6.6503	
	22	.00000	598.00	659.81	6.0619	
	24	.00000	598.00	659.81	6.0619	
	26	.00000	592.00	659.81	6.6503	
	28	.00000	588.00	659.81	7.0426	++
	30	.00000	588.00	659.81	7.0426	++
	32	.00000	580.00	659.81	7.8271	++
	34	.00000	580.00	659.81	7.8271	++
	36	.00000	555.00	659.81	10.279	++
	38	.00000	636.00	634.29	-.16779	--
	40	.00000	636.00	634.29	-.16779	--
	42	.00000	611.00	620.92	.97270	--
	44	.00000	611.00	620.92	.97270	--
	46	.00000	615.00	659.81	4.3948	
	48	.00000	604.00	659.81	5.4735	
	50	.00000	604.00	659.81	5.4735	
	52	.00000	605.00	617.27	1.2032	--
	54	.00000	575.00	594.99	1.9599	--
	56	.00000	575.00	594.99	1.9599	--
	58	.00000	571.00	590.93	1.9548	--
	60	.00000	571.00	590.85	1.9469	--
	62	.00000	571.00	590.62	1.9244	--
	64	.00000	571.00	590.54	1.9164	--
	66	.00000	468.00	568.08	9.8148	++
	68	.00000	468.00	568.03	9.8093	++
	70	.00000	468.00	494.51	2.6000	
	72	.00000	468.00	494.46	2.5945	
	74	.00000	435.00	488.28	5.2246	
	76	.00000	435.00	488.28	5.2246	
	78	.00000	442.00	465.80	2.3343	
	80	-60.000	442.00	465.52	2.3068	
	82	.00000	411.00	465.80	5.3744	
	84	.00000	411.00	465.80	5.3744	
	86	.00000	411.00	465.80	5.3744	

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0CAS 1 -

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ETUDE 0

0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS

SOLUTION CRITERIA

0 NOEUDS 1000(R)

EQUATION POUR DELTA P

DARCY

ELEMENTS..... 1000(R)

NOMBRE MAXI D'ITERATIONS

20

STOCKAGE UTILISE 21762

CRITERE DE CONV POUR DEBIT-M3/H

3.00

STOCKAGE DISPON. 68734

CRITERE DE CONV COTE PIEZO-M

.200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0 PRESSION-BAR

NOM

WATER

++ ... 7.00

MASSE VOL.-KGF /M **3100E+04

-- ... 2.00

VISCOSITE -KGF *S/M **2133E-03

VITESSE- M/S

PRESSION DE VAPEUR-BAR122E-01

++ ... 1.30

TEMPERATURE-DEGREES C 10.0

--000

0 CAS 1 -

0 SOLVE

1RESEAU FFAINE - DEF.INCENDIE

JUIN.2007

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ETUDE 0

0 CAS 1 -

0 11 ITERATIONS, CONVERGED TO .4103E-01 M3/H AND .5166E-01 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM	NOEUDS AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	59.984	-5.1860	85.400	2.9089	++
3	4	6	.00000	.00000	85.400	.00000	
5	6	8	.00000	.00000	85.400	.00000	
7	6	10	.00000	.00000	85.400	.00000	
9	10	12	2.45264E-10	.00000	85.400	1.18939E-11	
11	10	14	.00000	.00000	85.400	.00000	
13	14	16	.00000	.00000	85.400	.00000	
15	14	18	.00000	.00000	85.400	.00000	
17	18	20	.00000	.00000	85.400	.00000	
19	18	22	.00000	.00000	85.400	.00000	
21	22	24	2.45264E-10	.00000	85.400	1.18939E-11	
23	22	26	.00000	.00000	85.400	.00000	
25	26	28	.00000	.00000	60.000	.00000	
27	28	30	.00000	.00000	60.000	.00000	
29	28	32	.00000	.00000	60.000	.00000	
31	32	34	.00000	.00000	60.000	.00000	
33	32	36	.00000	.00000	85.400	.00000	
35	4	38	59.984	-25.525	85.400	2.9089	++
37	38	40	.00000	.00000	85.400	.00000	
39	38	42	59.984	-13.370	85.400	2.9089	++
41	42	44	.00000	.00000	85.400	.00000	
43	8	46	2.45264E-10	.00000	85.400	1.18939E-11	
45	16	48	.00000	.00000	69.800	.00000	
47	48	50	.00000	.00000	69.800	.00000	
49	42	52	59.984	-3.6497	100.00	2.1215	++
51	52	54	59.984	-22.284	85.400	2.9089	++
53	54	56	.00000	.00000	85.400	.00000	
55	54	58	59.984	-4.0516	85.400	2.9089	++
57	58	60	59.984	-8.10369E-02	85.400	2.9089	++
61	62	64	59.984	-8.10369E-02	85.400	2.9089	++
63	64	66	59.984	-22.459	100.00	2.1215	++
65	66	68	59.984	-5.61454E-02	100.00	2.1215	++
69	70	72	60.000	-5.61826E-02	100.00	2.1221	++
71	72	74	60.000	-6.1800	100.00	2.1221	++
73	74	76	.00000	.00000	100.00	.00000	
75	74	78	60.000	-22.473	100.00	2.1221	++
77	78	80	.00000	.00000	100.00	.00000	

79	78	82	60.000	-20.226	100.00	2.1221	++
81	82	84	60.000	-2.2473	100.00	2.1221	++
83	84	86	60.000	-.28091	100.00	2.1221	++

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ETUDE 0

0CAS 1 -

0 11 ITERATIONS, CONVERGED TO .4103E-01 M3/H AND .5166E-01 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT	NOEUDS	REG-P	CONSIGNE	DEBIT	DELTA P			
NUMERO	AM	AV	TYPE	VAL	UNITES	NOEUD	M3/H	M
59	60	62	2	2.3000	BAR	62	59.984	-.22947
67	68	70	2	2.6000	BAR	70	59.984	-73.514

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

0 11 ITERATIONS, CONVERGED TO .4103E-01 M3/H AND .5166E-01 M

N O E U D S ...

	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	
C.P.	2	59.984	665.00	665.00	.00000	--
	4	.00000	655.00	659.81	.47209	--
	6	.00000	615.00	659.81	4.3948	
	8	.00000	615.00	659.81	4.3948	
	10	.00000	608.00	659.81	5.0812	
	12	.00000	608.00	659.81	5.0812	
	14	.00000	605.00	659.81	5.3754	
	16	.00000	603.00	659.81	5.5716	
	18	.00000	605.00	659.81	5.3754	
	20	.00000	592.00	659.81	6.6503	
	22	.00000	598.00	659.81	6.0619	
	24	.00000	598.00	659.81	6.0619	
	26	.00000	592.00	659.81	6.6503	
	28	.00000	588.00	659.81	7.0426	++
	30	.00000	588.00	659.81	7.0426	++
	32	.00000	580.00	659.81	7.8271	++
	34	.00000	580.00	659.81	7.8271	++
	36	.00000	555.00	659.81	10.279	++
	38	.00000	636.00	634.29	-.16779	--
	40	.00000	636.00	634.29	-.16779	--
	42	.00000	611.00	620.92	.97270	--
	44	.00000	611.00	620.92	.97270	--
	46	.00000	615.00	659.81	4.3948	
	48	.00000	604.00	659.81	5.4735	
	50	.00000	604.00	659.81	5.4735	
	52	.00000	605.00	617.27	1.2032	--
	54	.00000	575.00	594.99	1.9599	--
	56	.00000	575.00	594.99	1.9599	--
	58	.00000	571.00	590.93	1.9548	--
	60	.00000	571.00	590.85	1.9469	--
	62	.00000	571.00	590.62	1.9244	--
	64	.00000	571.00	590.54	1.9164	--
	66	.00000	468.00	568.08	9.8148	++
	68	.00000	468.00	568.03	9.8093	++
	70	.00000	468.00	494.51	2.6000	
	72	.00000	468.00	494.46	2.5945	
	74	.00000	435.00	488.28	5.2246	
	76	.00000	435.00	488.28	5.2246	
	78	.00000	442.00	465.80	2.3343	
	80	.00000	442.00	465.80	2.3343	
	82	.00000	411.00	445.58	3.3910	
	84	.00000	411.00	443.33	3.1706	
	86	-60.000	411.00	443.05	3.1430	

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

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END

1RESEAU FFAINE - DEF.INCENDIE

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ETUDE 0

0CAS 1 -

Réseau des Abérus

RESEAU DES ABERUS

Sous-réseau des Abérus

JOB ETUDE 0
LABEL RESEAU ABERUS - DEF.INCENDIE
LABL2
C
PARAMS 1000 1000
C
C
FLUID WATER 1000 1.328E-04 0.01225 10
FORMULA DARCY
RANDOM
NOLIST
FILE RESULTS SINGLE
PACK HEADINGS
FLOWCON 3
HEADCON 0.2
MAXPRESSURE 7
MINPRESSURE 2.0
MAXVELOCITY 1.3
C
DATE JUIN.2007
C
C
MAXITER 20
C
C
C
CAS 1 -
C
C
C CONDUITES :
RUGOS .003
C

	Nø de Conduite	Noeud Amont	Noeud Aval	Longueur (m)	DiamŠtre (mm)
COND	3	4	6	8	69.8
COND	5	6	8	5	69.8

C
RUGOS
RUGOS 1
C

	Nø de Conduite	Noeud Amont	Noeud Aval	Longueur (m)	DiamŠtre (mm)
COND	7	6	10	60	60
COND	33	32	36	125	50

C
RUGOS
RUGOS .2
C

	Nø de Conduite	Noeud Amont	Noeud Aval	Longueur (m)	DiamŠtre (mm)
COND	1	2	4	790	100
COND	9	10	12	1	100
COND	13	14	16	1	100
COND	15	16	18	100	100
COND	17	18	20	95	100
COND	19	20	22	80	100
COND	21	22	24	5	100
COND	23	20	26	80	100

COND	25	26	28	5	100
COND	27	4	30	30	100
COND	29	30	32	110	100
COND	31	32	34	5	100

C

RUGOS

C

C REGULATEURS DE PRESSION AVAL :

C

	Nø	am	av	type	Pc	code	Nc	D	K
REGP	11	12	14	2	3.5	2	14	80.0	10

C

C

C

C

C RESERVOIRS :

C

	Nø	Cote Pi,zo	Cote sol
	Noeud	(m)	(NGF)

COTEP	2	890	890
-------	---	-----	-----

C

C NOEUDS PASSIFS :

C

	Nø	COTE SOL
	NOEUD	(NGF)

ALTIM	4	768
-------	---	-----

ALTIM	6	767
-------	---	-----

ALTIM	8	767
-------	---	-----

ALTIM	10	762
-------	----	-----

ALTIM	12	762
-------	----	-----

ALTIM	14	762
-------	----	-----

ALTIM	16	762
-------	----	-----

ALTIM	18	747
-------	----	-----

ALTIM	20	722
-------	----	-----

ALTIM	22	690
-------	----	-----

ALTIM	24	690
-------	----	-----

ALTIM	26	710
-------	----	-----

ALTIM	28	710
-------	----	-----

ALTIM	30	770
-------	----	-----

ALTIM	32	788
-------	----	-----

ALTIM	34	788
-------	----	-----

ALTIM	36	788
-------	----	-----

C

C

SOLVE

C

C

C

END

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0 NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0 PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU ABERUS - DEF.INCENDIE

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ETUDE 0
0CAS 1 -
0 8 ITERATIONS, CONVERGED TO .0000 M3/H AND .0000 M

C O N D U I T E S ...
ELEMENT NOEUDS DEBIT DELTA P DIAMETRE VITESSE
NUMERO AM AV M3/H M MM M/S
1 2 4 .30000 -3.55327E-03 100.00 1.06103E-02
3 4 6 .20000 -1.11621E-04 69.800 1.45186E-02
5 6 8 .10000 -3.72070E-05 69.800 7.25928E-03
7 6 10 1.00000E-01 -6.88330E-04 60.000 9.82431E-03
9 10 12 1.00000E-01 .00000 100.00 3.53675E-03
13 14 16 1.00000E-01 .00000 100.00 3.53675E-03
15 16 18 1.00000E-01 -1.48828E-04 100.00 3.53675E-03
17 18 20 1.00000E-01 -1.39526E-04 100.00 3.53675E-03
19 20 22 5.00000E-02 -6.51123E-05 100.00 1.76838E-03
21 22 24 5.00000E-02 .00000 100.00 1.76838E-03
23 20 26 5.00000E-02 -6.51123E-05 100.00 1.76838E-03
25 26 28 5.00000E-02 .00000 100.00 1.76838E-03
27 4 30 .10000 -5.58105E-05 100.00 3.53675E-03
29 30 32 .10000 -1.67432E-04 100.00 3.53675E-03
31 32 34 .00000 .00000 100.00 .00000
33 32 36 .10000 -2.99517E-03 50.000 1.41470E-02

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ETUDE 0
0CAS 1 -
0 8 ITERATIONS, CONVERGED TO .0000 M3/H AND .0000 M

R E G U L A T E U R S D E P R E S S I O N ...
ELEMENT NOEUDS REG-P CONSIGNE DEBIT DELTA P
NUMERO AM AV TYPE VAL UNITES NOEUD M3/H M
11 12 14 2 3.5000 BAR 14 1.00000E-01 -92.306 E

1RESEAU ABERUS - DEF.INCENDIE

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ETUDE 0
0CAS 1 -
0 8 ITERATIONS, CONVERGED TO .0000 M3/H AND .0000 M

		N O E U D S . . .				
	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	
C.P.	2	.30000	890.00	890.00	.00000	--
	4	.00000	768.00	890.00	11.964	++
	6	.00000	767.00	890.00	12.062	++
	8	-.10000	767.00	890.00	12.062	++
	10	.00000	762.00	890.00	12.552	++
	12	.00000	762.00	890.00	12.552	++
	14	.00000	762.00	797.69	3.5000	
	16	.00000	762.00	797.69	3.5000	
	18	.00000	747.00	797.69	4.9710	
	20	.00000	722.00	797.69	7.4226	++
	22	.00000	690.00	797.69	10.561	++
	24	-5.00000E-02	690.00	797.69	10.561	++
	26	.00000	710.00	797.69	8.5994	++
	28	-5.00000E-02	710.00	797.69	8.5994	++
	30	.00000	770.00	890.00	11.768	++
	32	.00000	788.00	890.00	10.002	++
	34	.00000	788.00	890.00	10.002	++
	36	-.10000	788.00	889.99	10.002	++

END

1RESEAU ABERUS - DEF.INCENDIE

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ETUDE 0
0CAS 1 -

1RESEAU ABERUS - DEF.INCENDIE

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PAGE 2
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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0 NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0 PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU ABERUS - DEF.INCENDIE

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ETUDE 0
0CAS 1 -
0 5 ITERATIONS, CONVERGED TO .1399E-04 M3/H AND .7069E-03 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.000	-44.384	100.00	2.1221	++
3	4 6	60.000	-1.7224	69.800	4.3556	++
5	6 8	60.000	-1.0765	69.800	4.3556	++
7	6 10	.00000	.00000	60.000	.00000	
9	10 12	.00000	.00000	100.00	.00000	
13	14 16	.00000	.00000	100.00	.00000	
15	16 18	.00000	.00000	60.000	.00000	
17	18 20	.00000	.00000	69.800	.00000	
19	20 22	.00000	.00000	69.800	.00000	
21	22 24	.00000	.00000	69.800	.00000	
23	20 26	.00000	.00000	69.800	.00000	
25	26 28	.00000	.00000	69.800	.00000	
27	4 30	.00000	.00000	69.800	.00000	
29	30 32	.00000	.00000	50.000	.00000	
31	32 34	.00000	.00000	50.000	.00000	
33	32 36	.00000	.00000	50.000	.00000	

1RESEAU ABERUS - DEF.INCENDIE

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ETUDE 0
0CAS 1 -
0 5 ITERATIONS, CONVERGED TO .1399E-04 M3/H AND .7069E-03 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE VAL	CONSIGNE UNITES	DEBIT NOEUD M3/H	DELTA P M
11	12 14	2 3.5000	BAR	14 4.01952E-14	2.79053E-05

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ETUDE 0
0CAS 1 -
0 5 ITERATIONS, CONVERGED TO .1399E-04 M3/H AND .7069E-03 M

N O E U D S . . .						
	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	
C.P.	2	60.000	890.00	890.00	.00000	--
	4	.00000	768.00	845.62	7.6115	++
	6	.00000	767.00	843.89	7.5407	++
	8	-60.000	767.00	842.82	7.4351	++
	10	.00000	755.00	843.89	8.7175	++
	12	.00000	755.00	843.89	8.7175	++
	14	.00000	755.00	843.89	8.7175	++
	16	.00000	755.00	843.89	8.7175	++
	18	.00000	747.00	843.89	9.5020	++
	20	.00000	722.00	843.89	11.954	++
	22	.00000	690.00	843.89	15.092	++
	24	.00000	690.00	843.89	15.092	++
	26	.00000	710.00	843.89	13.130	++
	28	.00000	710.00	843.89	13.130	++
	30	.00000	770.00	845.62	7.4154	++
	32	.00000	788.00	845.62	5.6502	
	34	.00000	788.00	845.62	5.6502	
	36	.00000	788.00	845.62	5.6502	
END						
1RESEAU ABERUS - DEF.INCENDIE					JUN.2007	
ETUDE 0					PAGE 6	
0CAS 1 -					V2.4B-PCF	

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0 NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0 PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU ABERUS - DEF.INCENDIE

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ETUDE 0
0CAS 1 -
0 6 ITERATIONS, CONVERGED TO .0000 M3/H AND .1114E-02 M

C O N D U I T E S ...
ELEMENT NOEUDS DEBIT DELTA P DIAMETRE VITESSE
NUMERO AM AV M3/H M MM M/S
1 2 4 60.000 -44.384 100.00 2.1221 ++
3 4 6 60.000 -1.7224 69.800 4.3556 ++
5 6 8 .00000 .00000 69.800 .00000
7 6 10 60.000 -107.48 60.000 5.8946 ++
9 10 12 60.000 -5.61826E-02 100.00 2.1221 ++
13 14 16 60.000 -5.61826E-02 100.00 2.1221 ++
15 16 18 60.000 -4.4946 100.00 2.1221 ++
17 18 20 60.000 -5.3373 100.00 2.1221 ++
19 20 22 60.000 -4.4946 100.00 2.1221 ++
21 22 24 60.000 -.28091 100.00 2.1221 ++
23 20 26 .00000 .00000 69.800 .00000
25 26 28 .00000 .00000 69.800 .00000
27 4 30 .00000 .00000 69.800 .00000
29 30 32 .00000 .00000 50.000 .00000
31 32 34 .00000 .00000 50.000 .00000
33 32 36 .00000 .00000 50.000 .00000

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ETUDE 0
0CAS 1 -
0 6 ITERATIONS, CONVERGED TO .0000 M3/H AND .1114E-02 M

R E G U L A T E U R S D E P R E S S I O N ...
ELEMENT NOEUDS REG-P CONSIGNE DEBIT DELTA P
NUMERO AM AV TYPE VAL UNITES NOEUD M3/H M
11 12 14 2 3.5000 BAR 14 60.000 -5.6053

1RESEAU ABERUS - DEF.INCENDIE

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ETUDE 0
0CAS 1 -
0 6 ITERATIONS, CONVERGED TO .0000 M3/H AND .1114E-02 M

N O E U D S . . .						
	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	
C.P.	2	60.000	890.00	890.00	.00000	--
	4	.00000	768.00	845.62	7.6115	++
	6	.00000	767.00	843.89	7.5407	++
	8	.00000	767.00	843.89	7.5407	++
	10	.00000	755.00	736.41	-1.8226	VAP
	12	.00000	755.00	736.36	-1.8282	VAP
	14	.00000	755.00	730.75	-2.3779	VAP
	16	.00000	755.00	730.70	-2.3834	VAP
	18	.00000	747.00	726.20	-2.0396	VAP
	20	.00000	722.00	720.86	-.11135	--
	22	.00000	690.00	716.37	2.5860	
	24	-60.000	690.00	716.09	2.5585	
	26	.00000	710.00	720.86	1.0655	--
	28	.00000	710.00	720.86	1.0655	--
	30	.00000	770.00	845.62	7.4154	++
	32	.00000	788.00	845.62	5.6502	
	34	.00000	788.00	845.62	5.6502	
	36	.00000	788.00	845.62	5.6502	

END

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ETUDE 0
0CAS 1 -

1RESEAU ABERUS - DEF.INCENDIE

JUIN.2007

PAGE 2

V2.4B-PCF

ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0 NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0 PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU ABERUS - DEF.INCENDIE

JUIN.2007

PAGE 3

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ETUDE 0
0CAS 1 -
0 6 ITERATIONS, CONVERGED TO .0000 M3/H AND .9488E-03 M

C O N D U I T E S ...
ELEMENT NOEUDS DEBIT DELTA P DIAMETRE VITESSE
NUMERO AM AV M3/H M MM M/S
1 2 4 60.000 -44.384 100.00 2.1221 ++
3 4 6 60.000 -1.7224 69.800 4.3556 ++
5 6 8 .00000 .00000 69.800 .00000
7 6 10 60.000 -80.610 60.000 5.8946 ++
9 10 12 60.000 -5.61826E-02 100.00 2.1221 ++
13 14 16 60.000 -5.61826E-02 100.00 2.1221 ++
15 16 18 60.000 -5.6182 100.00 2.1221 ++
17 18 20 60.000 -5.3373 100.00 2.1221 ++
19 20 22 .00000 .00000 100.00 .00000
21 22 24 .00000 .00000 100.00 .00000
23 20 26 60.000 -4.4946 100.00 2.1221 ++
25 26 28 60.000 -.28091 100.00 2.1221 ++
27 4 30 .00000 .00000 69.800 .00000
29 30 32 .00000 .00000 50.000 .00000
31 32 34 .00000 .00000 50.000 .00000
33 32 36 .00000 .00000 50.000 .00000

1RESEAU ABERUS - DEF.INCENDIE

JUIN.2007

PAGE 4

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ETUDE 0
0CAS 1 -
0 6 ITERATIONS, CONVERGED TO .0000 M3/H AND .9488E-03 M

R E G U L A T E U R S D E P R E S S I O N ...
ELEMENT NOEUDS REG-P CONSIGNE DEBIT DELTA P
NUMERO AM AV TYPE VAL UNITES NOEUD M3/H M
11 12 14 2 3.5000 BAR 14 60.000 -5.6053

1RESEAU ABERUS - DEF.INCENDIE

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PAGE 5

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ETUDE 0
0CAS 1 -
0 6 ITERATIONS, CONVERGED TO .0000 M3/H AND .9488E-03 M

N O E U D S . . .						
	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	
C.P.	2	60.000	890.00	890.00	.00000	--
	4	.00000	768.00	845.62	7.6115	++
	6	.00000	767.00	843.89	7.5407	++
	8	.00000	767.00	843.89	7.5407	++
	10	.00000	762.00	763.28	.12592	--
	12	.00000	762.00	763.23	.12041	--
	14	.00000	762.00	757.62	-.42928	--
	16	.00000	762.00	757.57	-.43479	--
	18	.00000	747.00	751.95	.48524	--
	20	.00000	722.00	746.61	2.4135	
	22	.00000	690.00	746.61	5.5516	
	24	.00000	690.00	746.61	5.5516	
	26	.00000	710.00	742.12	3.1495	
	28	-60.000	710.00	741.84	3.1220	
	30	.00000	770.00	845.62	7.4154	++
	32	.00000	788.00	845.62	5.6502	
	34	.00000	788.00	845.62	5.6502	
	36	.00000	788.00	845.62	5.6502	

END

1RESEAU ABERUS - DEF.INCENDIE

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ETUDE 0

OCAS 1 -

1RESEAU ABERUS - DEF.INCENDIE

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PAGE 2
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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0 NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0 PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU ABERUS - DEF.INCENDIE

JUIN.2007

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ETUDE 0
0CAS 1 -
0 5 ITERATIONS, CONVERGED TO .1399E-04 M3/H AND .7813E-03 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.000	-44.384	100.00	2.1221	++
3	4 6	.00000	.00000	69.800	.00000	
5	6 8	.00000	.00000	69.800	.00000	
7	6 10	.00000	.00000	60.000	.00000	
9	10 12	.00000	.00000	100.00	.00000	
13	14 16	.00000	.00000	100.00	.00000	
15	16 18	.00000	.00000	100.00	.00000	
17	18 20	.00000	.00000	100.00	.00000	
19	20 22	.00000	.00000	100.00	.00000	
21	22 24	.00000	.00000	100.00	.00000	
23	20 26	.00000	.00000	100.00	.00000	
25	26 28	.00000	.00000	100.00	.00000	
27	4 30	60.000	-1.6855	100.00	2.1221	++
29	30 32	60.000	-6.1801	100.00	2.1221	++
31	32 34	60.000	-.28091	100.00	2.1221	++
33	32 36	.00000	.00000	50.000	.00000	

1RESEAU ABERUS - DEF.INCENDIE

JUIN.2007

PAGE 4
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ETUDE 0
0CAS 1 -
0 5 ITERATIONS, CONVERGED TO .1399E-04 M3/H AND .7813E-03 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE VAL	CONSIGNE UNITES	DEBIT NOEUD M3/H	DELTA P M
11 12 14	2	3.5000	BAR	14 4.01952E-14	2.79053E-05

1RESEAU ABERUS - DEF.INCENDIE

JUIN.2007

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ETUDE 0
0CAS 1 -
0 5 ITERATIONS, CONVERGED TO .1399E-04 M3/H AND .7813E-03 M

N O E U D S . . .						
	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	
C.P.	2	60.000	890.00	890.00	.00000	--
	4	.00000	768.00	845.62	7.6115	++
	6	.00000	767.00	845.62	7.7096	++
	8	.00000	767.00	845.62	7.7096	++
	10	.00000	762.00	845.62	8.1999	++
	12	.00000	762.00	845.62	8.1999	++
	14	.00000	762.00	845.62	8.1999	++
	16	.00000	762.00	845.62	8.1999	++
	18	.00000	747.00	845.62	9.6709	++
	20	.00000	722.00	845.62	12.123	++
	22	.00000	690.00	845.62	15.261	++
	24	.00000	690.00	845.62	15.261	++
	26	.00000	710.00	845.62	13.299	++
	28	.00000	710.00	845.62	13.299	++
	30	.00000	770.00	843.93	7.2501	++
	32	.00000	788.00	837.75	4.8788	
	34	-60.000	788.00	837.47	4.8513	
	36	.00000	788.00	837.75	4.8788	
END						
1RESEAU ABERUS - DEF.INCENDIE					JUN.2007	
ETUDE 0					PAGE 6	
0CAS 1 -					V2.4B-PCF	

RESEAU DES ABERUS

Sous-réseau des Bonfands

***** COMMUNE DE SAINT GEORGES D'HURTIERES *****
 RESEAU DES ABERUS – SOUS-RESEAU DES BONFANDS
 « BONFAND1 »

```

JOB ETUDE  0
LABEL RESEAU BONFANDS - DEF.INCENDIE
LABL2
C
PARAMS 1000 1000
C
C
FLUID WATER 1000 1.328E-04 0.01225 10
FORMULA DARCY
RANDOM
NOLIST
FILE RESULTS SINGLE
PACK HEADINGS
FLOWCON 3
HEADCON 0.2
MAXPRESSURE 7
MINPRESSURE 2.0
MAXVELOCITY 1.3
C
DATE JUIN.2007
C
C
MAXITER 20
C
C
C
CAS 1 -
C
C
C      CONDUITES :
RUGOS .003
C
C      Nø de      Noeud      Noeud      Longueur      DiamŠtre
C      Conduite  Amont      Aval      (m)          (mm)
C
COND      13      14      16      50      48.8
C
RUGOS
RUGOS 1
C
C      Nø de      Noeud      Noeud      Longueur      DiamŠtre
C      Conduite  Amont      Aval      (m)          (mm)
C
COND      11      12      14      40      50
COND      31      30      34      10      50
C
RUGOS
RUGOS .2
C
C      Nø de      Noeud      Noeud      Longueur      DiamŠtre
C      Conduite  Amont      Aval      (m)          (mm)
C
COND      3      4      6      1      100
COND      7      8      10     1      100
COND     21     22     24     1      100
COND     25     26     28     1      100
COND      1      2      4     270     100
COND      9     10     12     165     100
COND     15     12     18     90      100
COND     17     18     20     40      100
COND     19     20     22     70      100
    
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COND      27      28      30      70      100
COND      29      30      32      5       100
C
RUGOS
C
C      REGULATEURS DE PRESSION AVAL :
C
C      Nø      am      av      type      Pc      code      Nc      D      K
REGP      5      6      8      2      3.5      2      8      80.0    10
REGP      23     24     26     2      3.2      2      26     80.0    10
C
C
C
C
C      RESERVOIRS :
C
C      Nø      Cote Pi,zo      Cote sol
C      Noeud      ( m )      (NGF)
COTEP      2      890      890
C
C      NOEUDS PASSIFS :
C
C      Nø      COTE SOL
C      NOEUD      (NGF)
ALTIM      4      760
ALTIM      6      760
ALTIM      8      760
ALTIM      10     760
ALTIM      12     725
ALTIM      14     710
ALTIM      16     709
ALTIM      18     711
ALTIM      20     711
ALTIM      22     675
ALTIM      24     675
ALTIM      26     675
ALTIM      28     675
ALTIM      30     648
ALTIM      32     648
ALTIM      34     636
C
C
SOLVE
C
C
C
END

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1RESEAU BONFANDS - DEF.INCENDIE

JUIN.2007

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU BONFANDS - DEF.INCENDIE

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ETUDE 0
0CAS 1 -
0 12 ITERATIONS, CONVERGED TO .9345E-01 M3/H AND .3535E-03 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
1	2 4	.28534	-1.15342E-03	100.00	1.00919E-02
3	4 6	.28534	.00000	100.00	1.00919E-02
7	8 10	.30000	.00000	100.00	1.06103E-02
9	10 12	.30000	-7.44141E-04	100.00	1.06103E-02
11	12 14	.10000	-9.67383E-04	50.000	1.41470E-02
13	14 16	.10000	-1.32085E-03	48.800	1.48513E-02
15	12 18	.20000	-2.79053E-04	100.00	7.07350E-03
17	18 20	.20000	-1.11621E-04	100.00	7.07350E-03
19	20 22	.20000	-2.23242E-04	100.00	7.07350E-03
21	22 24	.20000	.00000	100.00	7.07350E-03
25	26 28	.20000	-4.65088E-06	100.00	7.07351E-03
27	28 30	.20000	-2.09290E-04	100.00	7.07351E-03
29	30 32	.00000	.00000	100.00	.00000
31	30 34	.20000	-4.79041E-04	50.000	2.82940E-02

1RESEAU BONFANDS - DEF.INCENDIE

JUIN.2007

PAGE 4

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ETUDE 0
0CAS 1 -
0 12 ITERATIONS, CONVERGED TO .9345E-01 M3/H AND .3535E-03 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE	CONSIGNE VAL	UNITES	NOEUD	DEBIT M3/H	DELTA P M	
5	6 8	2	3.5000	BAR	8	.28534	-94.309	E
23	24 26	2	3.2000	BAR	26	.20000	-88.058	E

1RESEAU BONFANDS - DEF.INCENDIE

JUIN.2007

PAGE 5

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ETUDE 0
0CAS 1 -
0 12 ITERATIONS, CONVERGED TO .9345E-01 M3/H AND .3535E-03 M

N O E U D S . . .						
	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	
C.P.	2	.28534	890.00	890.00	.00000	--
	4	.00000	760.00	890.00	12.749	++
	6	.00000	760.00	890.00	12.749	++
	8	.00000	760.00	795.69	3.5000	
	10	.00000	760.00	795.69	3.5000	
	12	.00000	725.00	795.69	6.9323	
	14	.00000	710.00	795.69	8.4032	++
	16	-.10000	709.00	795.69	8.5011	++
	18	.00000	711.00	795.69	8.3052	++
	20	.00000	711.00	795.69	8.3052	++
	22	.00000	675.00	795.69	11.836	++
	24	.00000	675.00	795.69	11.836	++
	26	.00000	675.00	707.63	3.2000	
	28	.00000	675.00	707.63	3.2000	
	30	.00000	648.00	707.63	5.8478	
	32	.00000	648.00	707.63	5.8478	
	34	-.20000	636.00	707.63	7.0245	++
END						
1RESEAU BONFANDS - DEF.INCENDIE					JUN.2007	
ETUDE 0					PAGE 6	
OCAS 1 -					V2.4B-PCF	

1RESEAU BONFANDS - DEF.INCENDIE

JUIN.2007

PAGE 2
V2.4B-PCF

ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
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0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU BONFANDS - DEF.INCENDIE

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PAGE 3
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ETUDE 0
0CAS 1 -
0 7 ITERATIONS, CONVERGED TO .2489E-01 M3/H AND .1278E-01 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.000	-15.169	100.00	2.1221	++
3	4 6	60.000	-5.61826E-02	100.00	2.1221	++
7	8 10	60.000	-5.61826E-02	100.00	2.1221	++
9	10 12	60.000	-9.2701	100.00	2.1221	++
11	12 14	.00000	.00000	50.000	.00000	
13	14 16	.00000	.00000	48.800	.00000	
15	12 18	60.000	-5.0564	100.00	2.1221	++
17	18 20	60.000	-2.2473	100.00	2.1221	++
19	20 22	60.000	-3.9327	100.00	2.1221	++
21	22 24	60.000	-5.61826E-02	100.00	2.1221	++
25	26 28	60.000	-5.61826E-02	100.00	2.1221	++
27	28 30	60.000	-3.9328	100.00	2.1221	++
29	30 32	60.000	-.28091	100.00	2.1221	++
31	30 34	.00000	.00000	50.000	.00000	

1RESEAU BONFANDS - DEF.INCENDIE

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PAGE 4
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ETUDE 0
0CAS 1 -
0 7 ITERATIONS, CONVERGED TO .2489E-01 M3/H AND .1278E-01 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE	CONSIGNE VAL	UNITES	NOEUD	DEBIT M3/H	DELTA P M	
5	6 8	2	3.5000	BAR	8	60.000	-79.085	E
23	24 26	2	3.2000	BAR	26	60.000	-67.440	E

1RESEAU BONFANDS - DEF.INCENDIE

JUIN.2007

PAGE 5
V2.4B-PCF

ETUDE 0
0CAS 1 -
0 7 ITERATIONS, CONVERGED TO .2489E-01 M3/H AND .1278E-01 M

N O E U D S . . .						
	NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
		M3/H	M	M	BAR	
C.P.	2	60.000	890.00	890.00	.00000	--
	4	.00000	760.00	874.83	11.261	++
	6	.00000	760.00	874.77	11.256	++
	8	.00000	760.00	795.69	3.5000	
	10	.00000	760.00	795.63	3.4945	
	12	.00000	725.00	786.36	6.0177	
	14	.00000	710.00	786.36	7.4887	++
	16	.00000	709.00	786.36	7.5868	++
	18	.00000	711.00	781.31	6.8948	
	20	.00000	711.00	779.06	6.6744	
	22	.00000	675.00	775.13	9.8191	++
	24	.00000	675.00	775.07	9.8136	++
	26	.00000	675.00	707.63	3.2000	
	28	.00000	675.00	707.58	3.1945	
	30	.00000	648.00	703.64	5.4567	
	32	-60.000	648.00	703.36	5.4291	
	34	.00000	636.00	703.64	6.6335	

END

1RESEAU BONFANDS - DEF.INCENDIE

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ETUDE 0

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OCAS 1 -

RESEAU DES ABERUS

Sous-réseau des Collombs

C CONDUITES :
RUGOS .003

C C C	Nø de Conduite	Noeud Amont	Noeud Aval	Longueur (m)	DiamŠtre (mm)
COND	37	2	40	70	85.4
COND	39	40	42	110	85.4
COND	41	42	44	5	85.4
COND	43	42	46	25	48.8
COND	51	52	54	120	69.8
COND	53	54	56	5	69.8
COND	55	54	58	20	48.8

RUGOS

RUGOS 1.5

C	Nø de Conduite	Noeud Amont	Noeud Aval	Longueur (m)	DiamStre (mm)
COND	35	34	38	160	50
COND	45	46	48	85	50
COND	87	74	76	110	60

RUGOS

RUGOS .2

C	Nø de	Noeud	Noeud	Longueur	DiamŠtre
C	Conduite	Amont	Aval	(m)	(mm)
COND	13	6	16	40	100
COND	105	108	110	1	100

COND	109	112	114	1	100
COND	19	20	22	5	100
COND	25	26	28	1	100
COND	29	30	32	1	100
COND	57	58	60	480	100
COND	59	60	62	5	100
COND	63	64	66	1	100
COND	67	68	70	1	100
COND	71	72	94	190	100
COND	75	96	98	1	100
COND	79	100	102	1	100
COND	91	78	80	5	100
COND	95	82	84	1	100
COND	99	86	88	1	100
COND	3	4	6	180	100
COND	1	2	4	20	100
COND	5	6	8	185	100
COND	7	8	10	15	100
COND	9	10	12	125	100
COND	11	12	14	5	100
COND	15	16	18	30	100
COND	111	18	108	65	100
COND	17	114	20	145	100
COND	21	20	24	5	100
COND	23	24	26	185	100
COND	31	32	34	425	100
COND	33	34	36	5	100
COND	47	40	50	350	100
COND	49	50	52	135	100
COND	81	102	104	330	100
COND	83	104	106	5	100
COND	61	50	64	45	100
COND	69	70	72	45	100
COND	73	94	96	120	100
COND	85	72	74	170	100
COND	89	74	78	25	100
COND	93	78	82	15	100
COND	101	88	90	405	100
COND	103	90	92	5	100

C

RUGOS

C

C REGULATEURS DE PRESSION AVAL :

C

C	Nø	am	av	type	Pc	code	Nc	D	K
REGP	107	110	112	2	3.0	2	112	80.0	10
REGP	27	28	30	2	3.0	2	30	80.0	10
REGP	65	66	68	2	3.0	2	68	80.0	10
REGP	77	98	100	2	3.0	2	100	80.0	10
REGP	97	84	86	2	3.5	2	86	80.0	10

C

C

C

C RESERVOIRS :

C

C	Nø	Cote Pi,zo	Cote sol
C	Noeud	(m)	(NGF)
COTEP	2	636	636

C

C NOEUDS PASSIFS :

C

C	Nø	COTE SOL
C	NOEUD	(NGF)
ALTIM	4	620
ALTIM	6	595
ALTIM	8	611
ALTIM	10	606

ALTIM	12	575
ALTIM	14	577
ALTIM	16	568
ALTIM	18	568
ALTIM	108	550
ALTIM	110	550
ALTIM	112	550
ALTIM	114	550
ALTIM	20	518
ALTIM	22	518
ALTIM	24	516
ALTIM	26	460
ALTIM	28	460
ALTIM	30	460
ALTIM	32	460
ALTIM	34	394
ALTIM	36	394
ALTIM	38	360
ALTIM	40	625
ALTIM	42	595
ALTIM	44	595
ALTIM	46	591
ALTIM	48	551
ALTIM	50	552
ALTIM	52	530
ALTIM	54	525
ALTIM	56	525
ALTIM	58	525
ALTIM	60	500
ALTIM	62	500
ALTIM	64	535
ALTIM	66	535
ALTIM	68	535
ALTIM	70	535
ALTIM	72	522
ALTIM	74	482
ALTIM	76	465
ALTIM	78	475
ALTIM	80	475
ALTIM	82	470
ALTIM	84	470
ALTIM	86	470
ALTIM	88	470
ALTIM	90	422
ALTIM	92	422
ALTIM	94	485
ALTIM	96	450
ALTIM	98	450
ALTIM	100	450
ALTIM	102	450
ALTIM	104	388
ALTIM	106	388
C		
C		
SOLVE		
C		
C		
C		
END		

1RESEAU COLLOMB - DEF.INCENDI

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V2.4B-PCF

ETUDE 0

0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA

0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY

ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20

STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00

STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0PRESSION-BAR NOM WATER

++ ... 7.00 MASSE VOL.-KGF /M **3100E+04

-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03

VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01

++ ... 1.30 TEMPERATURE-DEGREES C 10.0

--000

0CAS 1 -

0SOLVE

1RESEAU COLLOMB - DEF.INCENDI

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ETUDE 0

0CAS 1 -

0 13 ITERATIONS, CONVERGED TO .1873E-01 M3/H AND .9302E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	AM	AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
1	2	4	.19674	-5.58105E-05	100.00	6.95838E-03
3	4	6	.19674	-5.39502E-04	100.00	6.95838E-03
5	6	8	.10000	-2.79053E-04	100.00	3.53675E-03
7	8	10	.10000	-1.86035E-05	100.00	3.53675E-03
9	10	12	.10000	-1.86035E-04	100.00	3.53675E-03
11	12	14	.10000	.00000	100.00	3.53675E-03
13	6	16	9.67449E-02	-5.58105E-05	100.00	3.42163E-03
15	16	18	9.67449E-02	-3.72070E-05	100.00	3.42163E-03
17	114	20	1.00000E-01	-2.23242E-04	100.00	3.53675E-03
19	20	22	.00000	.00000	100.00	.00000
21	20	24	1.00000E-01	.00000	100.00	3.53675E-03
23	24	26	1.00000E-01	-2.79053E-04	100.00	3.53675E-03
25	26	28	1.00000E-01	.00000	100.00	3.53675E-03
29	30	32	.10000	.00000	100.00	3.53675E-03
31	32	34	.10000	-6.41821E-04	100.00	3.53675E-03
33	34	36	.00000	.00000	100.00	.00000
35	34	38	.10000	-3.84163E-03	50.000	1.41470E-02
37	2	40	.40000	-7.99951E-04	85.400	1.93976E-02
39	40	42	.10000	-2.97656E-04	85.400	4.84941E-03
41	42	44	2.45264E-10	.00000	85.400	1.18939E-11
43	42	46	.10000	-6.69727E-04	48.800	1.48513E-02
45	46	48	.10000	-2.04639E-03	50.000	1.41470E-02
47	40	50	.30000	-1.56270E-03	100.00	1.06103E-02
49	50	52	.10000	-2.04639E-04	100.00	3.53675E-03
51	52	54	.10000	-7.62744E-04	69.800	7.25928E-03
53	54	56	.00000	.00000	69.800	.00000
55	54	58	.10000	-5.39502E-04	48.800	1.48513E-02
57	58	60	.10000	-7.06934E-04	100.00	3.53675E-03
59	60	62	.10000	-1.86035E-05	100.00	3.53675E-03
61	50	64	.20000	-1.48828E-04	100.00	7.07351E-03
63	64	66	.20000	.00000	100.00	7.07351E-03
67	68	70	.20000	.00000	100.00	7.07351E-03
69	70	72	.20000	-1.30225E-04	100.00	7.07351E-03
71	72	94	.10000	-2.97656E-04	100.00	3.53675E-03
73	94	96	.10000	-1.67432E-04	100.00	3.53675E-03
75	96	98	.10000	-1.86035E-05	100.00	3.53675E-03
79	100	102	.10000	.00000	100.00	3.53675E-03

81	102	104	.10000	-4.92993E-04	100.00	3.53675E-03
83	104	106	.10000	-9.30176E-06	100.00	3.53675E-03
85	72	74	1.00000E-01	-2.60449E-04	100.00	3.53675E-03
87	74	76	.00000	.00000	60.000	.00000
89	74	78	.10000	-3.72070E-05	100.00	3.53675E-03
91	78	80	.00000	.00000	100.00	.00000

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 4
0CAS 1 - V2.4B-PCF

0 13 ITERATIONS, CONVERGED TO .1873E-01 M3/H AND .9302E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	AM	NOEUDS AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
93	78	82	1.00000E-01	-1.86035E-05	100.00	3.53675E-03
95	82	84	.10000	.00000	100.00	3.53675E-03
99	86	88	.10000	.00000	100.00	3.53675E-03
101	88	90	.10000	-6.13916E-04	100.00	3.53675E-03
103	90	92	.10000	.00000	100.00	3.53675E-03
105	108	110	9.67449E-02	.00000	100.00	3.42163E-03
109	112	114	1.00000E-01	.00000	100.00	3.53675E-03
111	18	108	9.67449E-02	-9.30176E-05	100.00	3.42163E-03

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 5
0CAS 1 - V2.4B-PCF

0 13 ITERATIONS, CONVERGED TO .1873E-01 M3/H AND .9302E-04 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	AM	NOEUDS AV	REG-P TYPE	CONSIGNE VAL	UNITES	NOEUD M3/H	DEBIT M3/H	DELTA P M	
27	28	30	2	3.0000	BAR	30	1.00000E-01	-89.999	E
65	66	68	2	3.0000	BAR	68	.20000	-70.406	E
77	98	100	2	3.0000	BAR	100	.10000	-84.999	E
97	84	86	2	3.5000	BAR	86	1.00000E-01	-59.901	E
107	110	112	2	3.0000	BAR	112	9.67449E-02	-55.408	E

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 6
0CAS 1 - V2.4B-PCF

0 13 ITERATIONS, CONVERGED TO .1873E-01 M3/H AND .9302E-04 M

N O E U D S ...

	NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR	
C.P.	2	.59674	636.00	636.00	.00000	--
	4	.00000	620.00	636.00	1.5691	--
	6	.00000	595.00	636.00	4.0207	
	8	.00000	611.00	636.00	2.4516	
	10	.00000	606.00	636.00	2.9419	
	12	.00000	575.00	636.00	5.9820	
	14	-.10000	577.00	636.00	5.7858	
	16	.00000	568.00	636.00	6.6685	
	18	.00000	568.00	636.00	6.6685	
	20	.00000	518.00	580.59	6.1381	
	22	.00000	518.00	580.59	6.1381	
	24	.00000	516.00	580.59	6.3342	
	26	.00000	460.00	580.59	11.826	++
	28	.00000	460.00	580.59	11.826	++
	30	.00000	460.00	490.59	3.0000	
	32	.00000	460.00	490.59	3.0000	
	34	.00000	394.00	490.59	9.4723	++
	36	.00000	394.00	490.59	9.4723	++
	38	-.10000	360.00	490.59	12.806	++
	40	.00000	625.00	636.00	1.0787	--
	42	.00000	595.00	636.00	4.0206	

44	.00000	595.00	636.00	4.0206	
46	.00000	591.00	636.00	4.4128	
48	-.10000	551.00	636.00	8.3353	++
50	.00000	552.00	636.00	8.2374	++
52	.00000	530.00	636.00	10.395	++
54	.00000	525.00	636.00	10.885	++
56	.00000	525.00	636.00	10.885	++
58	.00000	525.00	636.00	10.885	++
60	.00000	500.00	636.00	13.337	++
62	-.10000	500.00	636.00	13.337	++
64	.00000	535.00	636.00	9.9045	++
66	.00000	535.00	636.00	9.9045	++
68	.00000	535.00	565.59	3.0000	
70	.00000	535.00	565.59	3.0000	
72	.00000	522.00	565.59	4.2749	
74	.00000	482.00	565.59	8.1975	++
76	.00000	465.00	565.59	9.8646	++
78	.00000	475.00	565.59	8.8840	++
80	.00000	475.00	565.59	8.8840	++
82	.00000	470.00	565.59	9.3743	++
84	.00000	470.00	565.59	9.3743	++
86	.00000	470.00	505.69	3.5000	

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007
 ETUDE 0 PAGE 7
 0CAS 1 - V2.4B-PCF

0 13 ITERATIONS, CONVERGED TO .1873E-01 M3/H AND .9302E-04 M

N O E U D S ...					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
88	.00000	470.00	505.69	3.5000	
90	.00000	422.00	505.69	8.2071	++
92	-.10000	422.00	505.69	8.2071	++
94	.00000	485.00	565.59	7.9033	++
96	.00000	450.00	565.59	11.336	++
98	.00000	450.00	565.59	11.336	++
100	.00000	450.00	480.59	3.0000	
102	.00000	450.00	480.59	3.0000	
104	.00000	388.00	480.59	9.0801	++
106	-.10000	388.00	480.59	9.0801	++
108	.00000	550.00	636.00	8.4337	++
110	.00000	550.00	636.00	8.4337	++
112	.00000	550.00	580.59	3.0000	
114	.00000	550.00	580.59	3.0000	

END
 1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007
 ETUDE 0 PAGE 8
 0CAS 1 - V2.4B-PCF

1RESEAU COLLOMB - DEF.INCENDI

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ETUDE 0

0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA

0NOEUDS 1000(R) EQUATION POUR DELTA P DARC

ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20

STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00

STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0PRESSION-BAR NOM WATER

++ ... 7.00 MASSE VOL.-KGF /M **3100E+04

-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03

VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01

++ ... 1.30 TEMPERATURE-DEGREES C 10.0

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0CAS 1 -

0SOLVE

1RESEAU COLLOMB - DEF.INCENDI

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ETUDE 0

0CAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .5581E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	AM	AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	60.000	-1.1236	100.00	2.1221	++
3	4	6	60.000	-10.113	100.00	2.1221	++
5	6	8	60.000	-10.394	100.00	2.1221	++
7	8	10	60.000	-.84272	100.00	2.1221	++
9	10	12	60.000	-7.0228	100.00	2.1221	++
11	12	14	60.000	-.28091	100.00	2.1221	++
13	6	16	-1.72916E-10	.00000	100.00	-6.11560E-12	
15	16	18	-1.83054E-10	.00000	48.800	-2.71860E-11	
17	114	20	-8.43709E-10	.00000	50.000	-1.19360E-10	
19	20	22	-4.61108E-10	.00000	100.00	-1.63083E-11	
21	20	24	.00000	.00000	48.800	.00000	
23	24	26	.00000	.00000	50.000	.00000	
25	26	28	.00000	.00000	100.00	.00000	
29	30	32	.00000	.00000	100.00	.00000	
31	32	34	.00000	.00000	50.000	.00000	
33	34	36	2.88193E-11	.00000	50.000	4.07706E-12	
35	34	38	9.00602E-13	.00000	50.000	1.27408E-13	
37	2	40	.00000	.00000	85.400	.00000	
39	40	42	.00000	.00000	85.400	.00000	
41	42	44	.00000	.00000	85.400	.00000	
43	42	46	.00000	.00000	48.800	.00000	
45	46	48	.00000	.00000	50.000	.00000	
47	40	50	.00000	.00000	60.000	.00000	
49	50	52	.00000	.00000	60.000	.00000	
51	52	54	.00000	.00000	69.800	.00000	
53	54	56	.00000	.00000	69.800	.00000	
55	54	58	.00000	.00000	48.800	.00000	
57	58	60	.00000	.00000	100.00	.00000	
59	60	62	.00000	.00000	100.00	.00000	
61	50	64	.00000	.00000	60.000	.00000	
63	64	66	.00000	.00000	100.00	.00000	
67	68	70	.00000	.00000	100.00	.00000	
69	70	72	.00000	.00000	60.000	.00000	
71	72	94	.00000	.00000	100.00	.00000	
73	94	96	.00000	.00000	50.000	.00000	
75	96	98	.00000	.00000	100.00	.00000	

79	100	102	.00000	.00000	100.00	.00000
81	102	104	.00000	.00000	50.000	.00000
83	104	106	.00000	.00000	50.000	.00000
85	72	74	.00000	.00000	60.000	.00000
87	74	76	.00000	.00000	60.000	.00000

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 4
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0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .5581E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
89	74 78	.00000	.00000	60.000	.00000
91	78 80	.00000	.00000	100.00	.00000
93	78 82	.00000	.00000	50.000	.00000
95	82 84	.00000	.00000	100.00	.00000
99	86 88	.00000	.00000	100.00	.00000
101	88 90	.00000	.00000	50.000	.00000
103	90 92	.00000	.00000	50.000	.00000
105	108 110	-2.30554E-09	.00000	100.00	-8.15413E-11
109	112 114	.00000	.00000	100.00	.00000
111	18 108	-1.86217E-10	.00000	50.000	-2.63441E-11

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 5
V2.4B-PCF

0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .5581E-04 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE	CONSIGNE VAL	UNITES	DEBIT NOEUD M3/H	DELTA P M
27	28 30	2	3.2000	BAR	30 3.20953E-14	1.86035E-05
65	66 68	2	3.2000	BAR	68 .00000	.00000
77	98 100	2	3.2000	BAR	100 .00000	.00000
97	84 86	2	3.0000	BAR	86 .00000	.00000
107	110 112	2	3.0000	BAR	112 -1.30745E-10	.00000

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 6
V2.4B-PCF

0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .5581E-04 M

N O E U D S ...

NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR	
C.P.	2	60.000	636.00	636.00	.00000 --
	4	.00000	620.00	634.88	1.4589 --
	6	.00000	595.00	624.76	2.9188
	8	.00000	611.00	614.37	.33048 --
	10	.00000	606.00	613.53	.73817 --
	12	.00000	575.00	606.50	3.0895
	14	-60.000	577.00	606.22	2.8659
	16	.00000	568.00	624.76	5.5666
	18	.00000	568.00	624.76	5.5666
	20	.00000	518.00	624.76	10.470 ++
	22	.00000	518.00	624.76	10.470 ++
	24	.00000	516.00	624.76	10.666 ++
	26	.00000	460.00	624.76	16.158 ++
	28	.00000	460.00	624.76	16.158 ++
	30	.00000	460.00	624.76	16.158 ++
	32	.00000	460.00	624.76	16.158 ++
	34	.00000	394.00	624.76	22.630 ++

36	.00000	394.00	624.76	22.630	++
38	.00000	360.00	624.76	25.964	++
40	.00000	625.00	636.00	1.0787	--
42	.00000	595.00	636.00	4.0207	
44	.00000	595.00	636.00	4.0207	
46	.00000	591.00	636.00	4.4130	
48	.00000	551.00	636.00	8.3357	++
50	.00000	552.00	636.00	8.2376	++
52	.00000	530.00	636.00	10.395	++
54	.00000	525.00	636.00	10.885	++
56	.00000	525.00	636.00	10.885	++
58	.00000	525.00	636.00	10.885	++
60	.00000	500.00	636.00	13.337	++
62	.00000	500.00	636.00	13.337	++
64	.00000	535.00	636.00	9.9047	++
66	.00000	535.00	636.00	9.9047	++
68	.00000	535.00	636.00	9.9047	++
70	.00000	535.00	636.00	9.9047	++
72	.00000	522.00	636.00	11.180	++
74	.00000	482.00	636.00	15.102	++
76	.00000	465.00	636.00	16.769	++
78	.00000	475.00	636.00	15.789	++
80	.00000	475.00	636.00	15.789	++
82	.00000	470.00	636.00	16.279	++

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 7

0CAS 1 - V2.4B-PCF

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .5581E-04 M

N O E U D S . . .					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
84	.00000	470.00	636.00	16.279	++
86	.00000	470.00	636.00	16.279	++
88	.00000	470.00	636.00	16.279	++
90	.00000	422.00	636.00	20.986	++
92	.00000	422.00	636.00	20.986	++
94	.00000	485.00	636.00	14.808	++
96	.00000	450.00	636.00	18.240	++
98	.00000	450.00	636.00	18.240	++
100	.00000	450.00	636.00	18.240	++
102	.00000	450.00	636.00	18.240	++
104	.00000	388.00	636.00	24.321	++
106	.00000	388.00	636.00	24.321	++
108	.00000	550.00	624.76	7.3318	++
110	.00000	550.00	624.76	7.3318	++
112	.00000	550.00	624.76	7.3318	++
114	.00000	550.00	624.76	7.3318	++

END

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

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0CAS 1 - V2.4B-PCF

1RESEAU COLLOMB - DEF.INCENDI

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ETUDE 0

0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS

SOLUTION CRITERIA

0NOEUDS 1000(R)

EQUATION POUR DELTA P

DARCY

ELEMENTS..... 1000(R)

NOMBRE MAXI D'ITERATIONS

20

STOCKAGE UTILISE 21762

CRITERE DE CONV POUR DEBIT-M3/H

3.00

STOCKAGE DISPON. 68734

CRITERE DE CONV COTE PIEZO-M

.200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0PRESSION-BAR

NOM

WATER

++ ... 7.00

MASSE VOL.-KGF /M

**3 ...

.100E+04

-- ... 2.00

VISCOSITE -KGF *S/M

**2 ...

.133E-03

VITESSE- M/S

PRESSION DE VAPEUR-BAR

.....

.122E-01

++ ... 1.30

TEMPERATURE-DEGREES C

10.0

--000

0CAS 1 -

0SOLVE

1RESEAU COLLOMB - DEF.INCENDI

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PAGE 3

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ETUDE 0

0CAS 1 -

0 5 ITERATIONS, CONVERGED TO .6014E-01 M3/H AND .1104 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM	NOEUDS AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	60.060	-1.1259	100.00	2.1242	++
3	4	6	60.060	-10.133	100.00	2.1242	++
5	6	8	.00000	.00000	100.00	.00000	
7	8	10	.00000	.00000	100.00	.00000	
9	10	12	.00000	.00000	100.00	.00000	
11	12	14	.00000	.00000	100.00	.00000	
13	6	16	60.060	-2.2518	100.00	2.1242	++
15	16	18	60.060	-1.6889	100.00	2.1242	++
17	114	20	60.000	-8.1465	100.00	2.1221	++
19	20	22	60.000	-.28091	100.00	2.1221	++
21	20	24	.00000	.00000	48.800	.00000	
23	24	26	.00000	.00000	50.000	.00000	
25	26	28	.00000	.00000	100.00	.00000	
29	30	32	-2.30554E-09	.00000	100.00	-8.15413E-11	
31	32	34	.00000	.00000	50.000	.00000	
33	34	36	.00000	.00000	50.000	.00000	
35	34	38	.00000	.00000	50.000	.00000	
37	2	40	.00000	.00000	85.400	.00000	
39	40	42	.00000	.00000	85.400	.00000	
41	42	44	.00000	.00000	85.400	.00000	
43	42	46	.00000	.00000	48.800	.00000	
45	46	48	.00000	.00000	50.000	.00000	
47	40	50	.00000	.00000	60.000	.00000	
49	50	52	.00000	.00000	60.000	.00000	
51	52	54	.00000	.00000	69.800	.00000	
53	54	56	.00000	.00000	69.800	.00000	
55	54	58	.00000	.00000	48.800	.00000	
57	58	60	.00000	.00000	100.00	.00000	
59	60	62	.00000	.00000	100.00	.00000	
61	50	64	.00000	.00000	60.000	.00000	
63	64	66	.00000	.00000	100.00	.00000	
67	68	70	.00000	.00000	100.00	.00000	
69	70	72	-6.63996E-12	.00000	60.000	-6.52330E-13	
71	72	94	.00000	.00000	100.00	.00000	
73	94	96	.00000	.00000	50.000	.00000	
75	96	98	.00000	.00000	100.00	.00000	

79	100	102	.00000	.00000	100.00	.00000
81	102	104	4.36655E-13	.00000	50.000	6.17737E-14
83	104	106	-2.88193E-11	.00000	50.000	-4.07706E-12
85	72	74	-1.75764E-12	.00000	60.000	-1.72676E-13
87	74	76	.00000	.00000	60.000	.00000
89	74	78	.00000	.00000	60.000	.00000
91	78	80	4.61108E-10	.00000	100.00	1.63083E-11

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 4
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0CAS 1 -
0 5 ITERATIONS, CONVERGED TO .6014E-01 M3/H AND .1104 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
93	78 82	.00000	.00000	50.000	.00000	
95	82 84	.00000	.00000	100.00	.00000	
99	86 88	2.30554E-09	.00000	100.00	8.15413E-11	
101	88 90	.00000	.00000	50.000	.00000	
103	90 92	.00000	.00000	50.000	.00000	
105	108 110	60.060	-5.62942E-02	100.00	2.1242	++
109	112 114	60.000	-5.61826E-02	100.00	2.1221	++
111	18 108	60.060	-3.6592	100.00	2.1242	++

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 5
V2.4B-PCF

0CAS 1 -
0 5 ITERATIONS, CONVERGED TO .6014E-01 M3/H AND .1104 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE	CONSIGNE VAL	UNITES	NOEUD	DEBIT M3/H	DELTA P M	
27	28 30	2	3.2000	BAR	30	3.20953E-14	1.86035E-05	
65	66 68	2	3.2000	BAR	68	1.00488E-14	3.72070E-05	
77	98 100	2	3.2000	BAR	100	3.20953E-14	1.86035E-05	
97	84 86	2	3.0000	BAR	86	3.20953E-14	1.86035E-05	
107	110 112	2	3.0000	BAR	112	60.060	-36.383	E

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 6
V2.4B-PCF

0CAS 1 -
0 5 ITERATIONS, CONVERGED TO .6014E-01 M3/H AND .1104 M

N O E U D S ...

	NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR	
C.P.	2	60.060	636.00	636.00	.00000	--
	4	.00000	620.00	634.87	1.4587	--
	6	.00000	595.00	624.74	2.9166	
	8	.00000	611.00	624.74	1.3475	--
	10	.00000	606.00	624.74	1.8379	--
	12	.00000	575.00	624.74	4.8779	
	14	.00000	577.00	624.74	4.6818	
	16	.00000	568.00	622.49	5.3436	
	18	.00000	568.00	620.80	5.1779	
	20	.00000	518.00	572.50	5.3445	
	22	-60.000	518.00	572.22	5.3170	
	24	.00000	516.00	572.50	5.5407	
	26	.00000	460.00	572.50	11.032	++
	28	.00000	460.00	572.50	11.032	++
	30	.00000	460.00	572.50	11.032	++
	32	.00000	460.00	572.50	11.032	++
	34	.00000	394.00	572.50	17.505	++
	36	.00000	394.00	572.50	17.505	++
	38	.00000	360.00	572.50	20.839	++

40	.00000	625.00	636.00	1.0787	--
42	.00000	595.00	636.00	4.0207	
44	.00000	595.00	636.00	4.0207	
46	.00000	591.00	636.00	4.4130	
48	.00000	551.00	636.00	8.3357	++
50	.00000	552.00	636.00	8.2376	++
52	.00000	530.00	636.00	10.395	++
54	.00000	525.00	636.00	10.885	++
56	.00000	525.00	636.00	10.885	++
58	.00000	525.00	636.00	10.885	++
60	.00000	500.00	636.00	13.337	++
62	.00000	500.00	636.00	13.337	++
64	.00000	535.00	636.00	9.9047	++
66	.00000	535.00	636.00	9.9047	++
68	.00000	535.00	636.00	9.9047	++
70	.00000	535.00	636.00	9.9047	++
72	.00000	522.00	636.00	11.180	++
74	.00000	482.00	636.00	15.102	++
76	.00000	465.00	636.00	16.769	++
78	.00000	475.00	636.00	15.789	++
80	.00000	475.00	636.00	15.789	++
82	.00000	470.00	636.00	16.279	++
84	.00000	470.00	636.00	16.279	++
86	.00000	470.00	636.00	16.279	++

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 7

0CAS 1 - V2.4B-PCF

0 5 ITERATIONS, CONVERGED TO .6014E-01 M3/H AND .1104 M

N O E U D S ...					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
88	.00000	470.00	636.00	16.279	++
90	.00000	422.00	636.00	20.986	++
92	.00000	422.00	636.00	20.986	++
94	.00000	485.00	636.00	14.808	++
96	.00000	450.00	636.00	18.240	++
98	.00000	450.00	636.00	18.240	++
100	.00000	450.00	636.00	18.240	++
102	.00000	450.00	636.00	18.240	++
104	.00000	388.00	636.00	24.321	++
106	.00000	388.00	636.00	24.321	++
108	.00000	550.00	617.14	6.5843	
110	.00000	550.00	617.08	6.5788	
112	.00000	550.00	580.70	3.0108	
114	.00000	550.00	580.65	3.0053	

END

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 8

0CAS 1 - V2.4B-PCF

1RESEAU COLLOMB - DEF.INCENDI

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU COLLOMB - DEF.INCENDI

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ETUDE 0
0CAS 1 -
0 5 ITERATIONS, CONVERGED TO .6014E-01 M3/H AND .1104 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2 4	60.060	-1.1259	100.00	2.1242	++
3	4 6	60.060	-10.133	100.00	2.1242	++
5	6 8	.00000	.00000	100.00	.00000	
7	8 10	.00000	.00000	100.00	.00000	
9	10 12	.00000	.00000	100.00	.00000	
11	12 14	.00000	.00000	100.00	.00000	
13	6 16	60.060	-2.2518	100.00	2.1242	++
15	16 18	60.060	-1.6889	100.00	2.1242	++
17	114 20	60.000	-8.1465	100.00	2.1221	++
19	20 22	.00000	.00000	100.00	.00000	
21	20 24	60.000	-.28091	100.00	2.1221	++
23	24 26	60.000	-10.394	100.00	2.1221	++
25	26 28	.00000	.00000	100.00	.00000	
29	30 32	.00000	.00000	100.00	.00000	
31	32 34	.00000	.00000	100.00	.00000	
33	34 36	.00000	.00000	100.00	.00000	
35	34 38	.00000	.00000	50.000	.00000	
37	2 40	.00000	.00000	85.400	.00000	
39	40 42	.00000	.00000	85.400	.00000	
41	42 44	.00000	.00000	85.400	.00000	
43	42 46	.00000	.00000	48.800	.00000	
45	46 48	.00000	.00000	50.000	.00000	
47	40 50	.00000	.00000	60.000	.00000	
49	50 52	.00000	.00000	60.000	.00000	
51	52 54	.00000	.00000	69.800	.00000	
53	54 56	.00000	.00000	69.800	.00000	
55	54 58	.00000	.00000	48.800	.00000	
57	58 60	.00000	.00000	100.00	.00000	
59	60 62	.00000	.00000	100.00	.00000	
61	50 64	.00000	.00000	60.000	.00000	
63	64 66	.00000	.00000	100.00	.00000	
67	68 70	.00000	.00000	100.00	.00000	
69	70 72	-6.63996E-12	.00000	60.000	-6.52330E-13	
71	72 94	.00000	.00000	100.00	.00000	
73	94 96	.00000	.00000	50.000	.00000	
75	96 98	.00000	.00000	100.00	.00000	

79	100	102	.00000	.00000	100.00	.00000
81	102	104	4.36655E-13	.00000	50.000	6.17737E-14
83	104	106	-2.88193E-11	.00000	50.000	-4.07706E-12
85	72	74	-1.75764E-12	.00000	60.000	-1.72676E-13
87	74	76	.00000	.00000	60.000	.00000
89	74	78	.00000	.00000	60.000	.00000
91	78	80	4.61108E-10	.00000	100.00	1.63083E-11

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 4
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0CAS 1 -
0 5 ITERATIONS, CONVERGED TO .6014E-01 M3/H AND .1104 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
93	78 82	.00000	.00000	50.000	.00000	
95	82 84	.00000	.00000	100.00	.00000	
99	86 88	2.30554E-09	.00000	100.00	8.15413E-11	
101	88 90	.00000	.00000	50.000	.00000	
103	90 92	.00000	.00000	50.000	.00000	
105	108 110	60.060	-5.62942E-02	100.00	2.1242	++
109	112 114	60.000	-5.61826E-02	100.00	2.1221	++
111	18 108	60.060	-3.6592	100.00	2.1242	++

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 5
V2.4B-PCF

0CAS 1 -
0 5 ITERATIONS, CONVERGED TO .6014E-01 M3/H AND .1104 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE	CONSIGNE VAL	UNITES	NOEUD	DEBIT M3/H	DELTA P M	
27	28 30	2	3.2000	BAR	30	4.01952E-14	3.72070E-05	
65	66 68	2	3.2000	BAR	68	1.00488E-14	3.72070E-05	
77	98 100	2	3.2000	BAR	100	3.20953E-14	1.86035E-05	
97	84 86	2	3.0000	BAR	86	3.20953E-14	1.86035E-05	
107	110 112	2	3.0000	BAR	112	60.060	-36.383	E

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 6
V2.4B-PCF

0CAS 1 -
0 5 ITERATIONS, CONVERGED TO .6014E-01 M3/H AND .1104 M

N O E U D S ...

	NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR	
C.P.	2	60.060	636.00	636.00	.00000	--
	4	.00000	620.00	634.87	1.4587	--
	6	.00000	595.00	624.74	2.9166	
	8	.00000	611.00	624.74	1.3475	--
	10	.00000	606.00	624.74	1.8379	--
	12	.00000	575.00	624.74	4.8779	
	14	.00000	577.00	624.74	4.6818	
	16	.00000	568.00	622.49	5.3436	
	18	.00000	568.00	620.80	5.1779	
	20	.00000	518.00	572.50	5.3445	
	22	.00000	518.00	572.50	5.3445	
	24	.00000	516.00	572.22	5.5131	
	26	-60.000	460.00	561.82	9.9856	++
	28	.00000	460.00	561.82	9.9856	++
	30	.00000	460.00	561.82	9.9856	++
	32	.00000	460.00	561.82	9.9856	++
	34	.00000	394.00	561.82	16.458	++
	36	.00000	394.00	561.82	16.458	++
	38	.00000	360.00	561.82	19.792	++

40	.00000	625.00	636.00	1.0787	--
42	.00000	595.00	636.00	4.0207	
44	.00000	595.00	636.00	4.0207	
46	.00000	591.00	636.00	4.4130	
48	.00000	551.00	636.00	8.3357	++
50	.00000	552.00	636.00	8.2376	++
52	.00000	530.00	636.00	10.395	++
54	.00000	525.00	636.00	10.885	++
56	.00000	525.00	636.00	10.885	++
58	.00000	525.00	636.00	10.885	++
60	.00000	500.00	636.00	13.337	++
62	.00000	500.00	636.00	13.337	++
64	.00000	535.00	636.00	9.9047	++
66	.00000	535.00	636.00	9.9047	++
68	.00000	535.00	636.00	9.9047	++
70	.00000	535.00	636.00	9.9047	++
72	.00000	522.00	636.00	11.180	++
74	.00000	482.00	636.00	15.102	++
76	.00000	465.00	636.00	16.769	++
78	.00000	475.00	636.00	15.789	++
80	.00000	475.00	636.00	15.789	++
82	.00000	470.00	636.00	16.279	++
84	.00000	470.00	636.00	16.279	++
86	.00000	470.00	636.00	16.279	++

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 7

0CAS 1 - V2.4B-PCF

0 5 ITERATIONS, CONVERGED TO .6014E-01 M3/H AND .1104 M

N O E U D S ...					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
88	.00000	470.00	636.00	16.279	++
90	.00000	422.00	636.00	20.986	++
92	.00000	422.00	636.00	20.986	++
94	.00000	485.00	636.00	14.808	++
96	.00000	450.00	636.00	18.240	++
98	.00000	450.00	636.00	18.240	++
100	.00000	450.00	636.00	18.240	++
102	.00000	450.00	636.00	18.240	++
104	.00000	388.00	636.00	24.321	++
106	.00000	388.00	636.00	24.321	++
108	.00000	550.00	617.14	6.5843	
110	.00000	550.00	617.08	6.5788	
112	.00000	550.00	580.70	3.0108	
114	.00000	550.00	580.65	3.0053	

END

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 8

0CAS 1 - V2.4B-PCF

1RESEAU COLLOMB - DEF.INCENDI

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ETUDE 0

0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA

0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY

ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20

STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00

STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0PRESSION-BAR NOM WATER

++ ... 7.00 MASSE VOL.-KGF /M **3100E+04

-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03

VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01

++ ... 1.30 TEMPERATURE-DEGREES C 10.0

--000

0CAS 1 -

0SOLVE

1RESEAU COLLOMB - DEF.INCENDI

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ETUDE 0

0CAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	AM	AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	-1.15277E-10	.00000	100.00	-4.07706E-12	
3	4	6	-2.04937E-10	.00000	100.00	-7.24811E-12	
5	6	8	.00000	.00000	100.00	.00000	
7	8	10	.00000	.00000	100.00	.00000	
9	10	12	-1.84443E-11	.00000	100.00	-6.52330E-13	
11	12	14	.00000	.00000	100.00	.00000	
13	6	16	-2.30554E-10	.00000	100.00	-8.15413E-12	
15	16	18	-1.53703E-10	.00000	100.00	-5.43608E-12	
17	114	20	-2.22604E-10	.00000	100.00	-7.87295E-12	
19	20	22	.00000	.00000	100.00	.00000	
21	20	24	.00000	.00000	100.00	.00000	
23	24	26	.00000	.00000	100.00	.00000	
25	26	28	.00000	.00000	100.00	.00000	
29	30	32	.00000	.00000	100.00	.00000	
31	32	34	.00000	.00000	100.00	.00000	
33	34	36	4.61108E-10	.00000	100.00	1.63083E-11	
35	34	38	9.00602E-13	.00000	50.000	1.27408E-13	
37	2	40	60.000	-5.6759	85.400	2.9096	++
39	40	42	60.000	-8.9193	85.400	2.9096	++
41	42	44	60.000	-.40543	85.400	2.9096	++
43	42	46	.00000	.00000	48.800	.00000	
45	46	48	.00000	.00000	50.000	.00000	
47	40	50	-8.53709E-13	.00000	60.000	-8.38710E-14	
49	50	52	-2.21332E-12	.00000	60.000	-2.17443E-13	
51	52	54	.00000	.00000	69.800	.00000	
53	54	56	-1.09452E-10	.00000	69.800	-7.94545E-12	
55	54	58	.00000	.00000	48.800	.00000	
57	58	60	.00000	.00000	100.00	.00000	
59	60	62	.00000	.00000	100.00	.00000	
61	50	64	.00000	.00000	60.000	.00000	
63	64	66	.00000	.00000	100.00	.00000	
67	68	70	.00000	.00000	100.00	.00000	
69	70	72	.00000	.00000	60.000	.00000	
71	72	94	.00000	.00000	100.00	.00000	
73	94	96	.00000	.00000	50.000	.00000	
75	96	98	.00000	.00000	100.00	.00000	

79	100	102	2.30554E-09	.000000	100.00	8.15413E-11
81	102	104	.000000	.000000	50.000	.000000
83	104	106	.000000	.000000	50.000	.000000
85	72	74	1.75764E-12	.000000	60.000	1.72676E-13
87	74	76	.000000	.000000	60.000	.000000

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 4
V2.4B-PCF

0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
89	74 78	.000000	.000000	60.000	.000000
91	78 80	.000000	.000000	100.00	.000000
93	78 82	9.60642E-12	.000000	50.000	1.35902E-12
95	82 84	.000000	.000000	100.00	.000000
99	86 88	.000000	.000000	100.00	.000000
101	88 90	.000000	.000000	50.000	.000000
103	90 92	2.88193E-11	.000000	50.000	4.07706E-12
105	108 110	-2.30554E-09	.000000	100.00	-8.15413E-11
109	112 114	-2.30554E-09	.000000	100.00	-8.15413E-11
111	18 108	-1.41879E-10	.000000	100.00	-5.01792E-12

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 5
V2.4B-PCF

0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE	CONSIGNE VAL	UNITES	DEBIT NOEUD M3/H	DELTA P M
27	28 30	2	3.2000	BAR	30 -1.59062E-14	.000000
65	66 68	2	3.2000	BAR	68 .000000	.000000
77	98 100	2	3.2000	BAR	100 3.20953E-14	3.72070E-05
97	84 86	2	3.0000	BAR	86 3.20953E-14	3.72070E-05
107	110 112	2	3.0000	BAR	112 -6.93512E-12	.000000

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 6
V2.4B-PCF

0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

N O E U D S ...

NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR	
C.P.	2 60.000	636.00	636.00	.000000	--
	4 .000000	620.00	636.00	1.5691	--
	6 .000000	595.00	636.00	4.0207	
	8 .000000	611.00	636.00	2.4517	
	10 .000000	606.00	636.00	2.9420	
	12 .000000	575.00	636.00	5.9821	
	14 .000000	577.00	636.00	5.7859	
	16 .000000	568.00	636.00	6.6685	
	18 .000000	568.00	636.00	6.6685	
	20 .000000	518.00	636.00	11.572	++
	22 .000000	518.00	636.00	11.572	++
	24 .000000	516.00	636.00	11.768	++
	26 .000000	460.00	636.00	17.260	++
	28 .000000	460.00	636.00	17.260	++
	30 .000000	460.00	636.00	17.260	++
	32 .000000	460.00	636.00	17.260	++
	34 .000000	394.00	636.00	23.732	++

36	.00000	394.00	636.00	23.732	++
38	.00000	360.00	636.00	27.066	++
40	.00000	625.00	630.32	.52212	--
42	.00000	595.00	621.40	2.5894	
44	-60.000	595.00	621.00	2.5497	
46	.00000	591.00	621.40	2.9817	
48	.00000	551.00	621.40	6.9044	
50	.00000	552.00	630.32	7.6810	++
52	.00000	530.00	630.32	9.8385	++
54	.00000	525.00	630.32	10.329	++
56	.00000	525.00	630.32	10.329	++
58	.00000	525.00	630.32	10.329	++
60	.00000	500.00	630.32	12.780	++
62	.00000	500.00	630.32	12.780	++
64	.00000	535.00	630.32	9.3481	++
66	.00000	535.00	630.32	9.3481	++
68	.00000	535.00	630.32	9.3481	++
70	.00000	535.00	630.32	9.3481	++
72	.00000	522.00	630.32	10.623	++
74	.00000	482.00	630.32	14.546	++
76	.00000	465.00	630.32	16.213	++
78	.00000	475.00	630.32	15.232	++
80	.00000	475.00	630.32	15.232	++
82	.00000	470.00	630.32	15.722	++

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 7

0CAS 1 - V2.4B-PCF

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

N O E U D S ...					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
84	.00000	470.00	630.32	15.722	++
86	.00000	470.00	630.32	15.722	++
88	.00000	470.00	630.32	15.722	++
90	.00000	422.00	630.32	20.430	++
92	.00000	422.00	630.32	20.430	++
94	.00000	485.00	630.32	14.251	++
96	.00000	450.00	630.32	17.684	++
98	.00000	450.00	630.32	17.684	++
100	.00000	450.00	630.32	17.684	++
102	.00000	450.00	630.32	17.684	++
104	.00000	388.00	630.32	23.764	++
106	.00000	388.00	630.32	23.764	++
108	.00000	550.00	636.00	8.4337	++
110	.00000	550.00	636.00	8.4337	++
112	.00000	550.00	636.00	8.4337	++
114	.00000	550.00	636.00	8.4337	++

END

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 8

0CAS 1 - V2.4B-PCF

1RESEAU COLLOMB - DEF.INCENDI

JUILLET.2007

PAGE 2

V2.4B-PCF

ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARCY
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU COLLOMB - DEF.INCENDI

JUILLET.2007

PAGE 3

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ETUDE 0
0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	AM	AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	-1.15277E-10	.00000	100.00	-4.07706E-12	
3	4	6	-2.04937E-10	.00000	100.00	-7.24811E-12	
5	6	8	.00000	.00000	100.00	.00000	
7	8	10	.00000	.00000	100.00	.00000	
9	10	12	-1.84443E-11	.00000	100.00	-6.52330E-13	
11	12	14	.00000	.00000	100.00	.00000	
13	6	16	-2.30554E-10	.00000	100.00	-8.15413E-12	
15	16	18	-1.53703E-10	.00000	100.00	-5.43608E-12	
17	114	20	-2.22604E-10	.00000	100.00	-7.87295E-12	
19	20	22	.00000	.00000	100.00	.00000	
21	20	24	.00000	.00000	100.00	.00000	
23	24	26	.00000	.00000	100.00	.00000	
25	26	28	.00000	.00000	100.00	.00000	
29	30	32	.00000	.00000	100.00	.00000	
31	32	34	.00000	.00000	100.00	.00000	
33	34	36	4.61108E-10	.00000	100.00	1.63083E-11	
35	34	38	9.00602E-13	.00000	50.000	1.27408E-13	
37	2	40	60.000	-5.6759	85.400	2.9096	++
39	40	42	.00000	.00000	85.400	.00000	
41	42	44	2.45264E-10	.00000	85.400	1.18939E-11	
43	42	46	.00000	.00000	48.800	.00000	
45	46	48	.00000	.00000	50.000	.00000	
47	40	50	60.000	-19.664	100.00	2.1221	++
49	50	52	60.000	-7.5846	100.00	2.1221	++
51	52	54	60.000	-25.835	69.800	4.3556	++
53	54	56	60.000	-1.0765	69.800	4.3556	++
55	54	58	.00000	.00000	48.800	.00000	
57	58	60	.00000	.00000	100.00	.00000	
59	60	62	.00000	.00000	100.00	.00000	
61	50	64	.00000	.00000	60.000	.00000	
63	64	66	.00000	.00000	100.00	.00000	
67	68	70	.00000	.00000	100.00	.00000	
69	70	72	.00000	.00000	60.000	.00000	
71	72	94	.00000	.00000	100.00	.00000	
73	94	96	-1.20080E-12	.00000	50.000	-1.69878E-13	
75	96	98	.00000	.00000	100.00	.00000	

79	100	102	.00000	.00000	100.00	.00000
81	102	104	.00000	.00000	50.000	.00000
83	104	106	.00000	.00000	50.000	.00000
85	72	74	.00000	.00000	60.000	.00000
87	74	76	.00000	.00000	60.000	.00000

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 4
V2.4B-PCF

0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
89	74 78	.00000	.00000	60.000	.00000
91	78 80	.00000	.00000	100.00	.00000
93	78 82	-9.60642E-12	.00000	50.000	-1.35902E-12
95	82 84	.00000	.00000	100.00	.00000
99	86 88	.00000	.00000	100.00	.00000
101	88 90	.00000	.00000	50.000	.00000
103	90 92	.00000	.00000	50.000	.00000
105	108 110	-2.30554E-09	.00000	100.00	-8.15413E-11
109	112 114	-2.30554E-09	.00000	100.00	-8.15413E-11
111	18 108	-1.41879E-10	.00000	100.00	-5.01792E-12

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 5
V2.4B-PCF

0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE	CONSIGNE VAL	UNITES	DEBIT NOEUD M3/H	DELTA P M
27	28 30	2	3.2000	BAR	30 -1.59062E-14	.00000
65	66 68	2	3.2000	BAR	68 1.00488E-14	3.72070E-05
77	98 100	2	3.2000	BAR	100 .00000	.00000
97	84 86	2	3.0000	BAR	86 .00000	.00000
107	110 112	2	3.0000	BAR	112 -6.93512E-12	.00000

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 6
V2.4B-PCF

0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

N O E U D S ...

NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR	
C.P.	2 60.000	636.00	636.00	.00000	--
	4 .00000	620.00	636.00	1.5691	--
	6 .00000	595.00	636.00	4.0207	
	8 .00000	611.00	636.00	2.4517	
	10 .00000	606.00	636.00	2.9420	
	12 .00000	575.00	636.00	5.9821	
	14 .00000	577.00	636.00	5.7859	
	16 .00000	568.00	636.00	6.6685	
	18 .00000	568.00	636.00	6.6685	
	20 .00000	518.00	636.00	11.572	++
	22 .00000	518.00	636.00	11.572	++
	24 .00000	516.00	636.00	11.768	++
	26 .00000	460.00	636.00	17.260	++
	28 .00000	460.00	636.00	17.260	++
	30 .00000	460.00	636.00	17.260	++
	32 .00000	460.00	636.00	17.260	++
	34 .00000	394.00	636.00	23.732	++

36	.000000	394.00	636.00	23.732	++
38	.000000	360.00	636.00	27.066	++
40	.000000	625.00	630.32	.52212	--
42	.000000	595.00	630.32	3.4641	
44	.000000	595.00	630.32	3.4641	
46	.000000	591.00	630.32	3.8564	
48	.000000	551.00	630.32	7.7791	++
50	.000000	552.00	610.66	5.7526	
52	.000000	530.00	603.08	7.1663	++
54	.000000	525.00	577.24	5.1231	
56	-60.000	525.00	576.16	5.0175	
58	.000000	525.00	577.24	5.1231	
60	.000000	500.00	577.24	7.5747	++
62	.000000	500.00	577.24	7.5747	++
64	.000000	535.00	610.66	7.4198	++
66	.000000	535.00	610.66	7.4198	++
68	.000000	535.00	610.66	7.4198	++
70	.000000	535.00	610.66	7.4198	++
72	.000000	522.00	610.66	8.6946	++
74	.000000	482.00	610.66	12.617	++
76	.000000	465.00	610.66	14.284	++
78	.000000	475.00	610.66	13.304	++
80	.000000	475.00	610.66	13.304	++
82	.000000	470.00	610.66	13.794	++

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 7

0CAS 1 - V2.4B-PCF

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

N O E U D S ...					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
84	.000000	470.00	610.66	13.794	++
86	.000000	470.00	610.66	13.794	++
88	.000000	470.00	610.66	13.794	++
90	.000000	422.00	610.66	18.501	++
92	.000000	422.00	610.66	18.501	++
94	.000000	485.00	610.66	12.323	++
96	.000000	450.00	610.66	15.755	++
98	.000000	450.00	610.66	15.755	++
100	.000000	450.00	610.66	15.755	++
102	.000000	450.00	610.66	15.755	++
104	.000000	388.00	610.66	21.836	++
106	.000000	388.00	610.66	21.836	++
108	.000000	550.00	636.00	8.4337	++
110	.000000	550.00	636.00	8.4337	++
112	.000000	550.00	636.00	8.4337	++
114	.000000	550.00	636.00	8.4337	++

END

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 8

0CAS 1 - V2.4B-PCF

1RESEAU COLLOMB - DEF.INCENDI

JUILLET.2007

PAGE 2

V2.4B-PCF

ETUDE 0

0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS

SOLUTION CRITERIA

0NOEUDS 1000(R)

EQUATION POUR DELTA P

DARCY

ELEMENTS..... 1000(R)

NOMBRE MAXI D'ITERATIONS

20

STOCKAGE UTILISE 21762

CRITERE DE CONV POUR DEBIT-M3/H

3.00

STOCKAGE DISPON. 68734

CRITERE DE CONV COTE PIEZO-M

.200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0PRESSION-BAR

NOM

WATER

++ ... 7.00

MASSE VOL.-KGF /M

**3 ...

.100E+04

-- ... 2.00

VISCOSITE -KGF *S/M

**2 ...

.133E-03

VITESSE- M/S

PRESSION DE VAPEUR-BAR

.....

.122E-01

++ ... 1.30

TEMPERATURE-DEGREES C

10.0

--000

0CAS 1 -

0SOLVE

1RESEAU COLLOMB - DEF.INCENDI

JUILLET.2007

PAGE 3

V2.4B-PCF

ETUDE 0

0CAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	AM	AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	-1.15277E-10	.00000	100.00	-4.07706E-12	
3	4	6	-2.04937E-10	.00000	100.00	-7.24811E-12	
5	6	8	.00000	.00000	100.00	.00000	
7	8	10	.00000	.00000	100.00	.00000	
9	10	12	-1.84443E-11	.00000	100.00	-6.52330E-13	
11	12	14	.00000	.00000	100.00	.00000	
13	6	16	-2.30554E-10	.00000	100.00	-8.15413E-12	
15	16	18	-1.53703E-10	.00000	100.00	-5.43608E-12	
17	114	20	-2.22604E-10	.00000	100.00	-7.87295E-12	
19	20	22	.00000	.00000	100.00	.00000	
21	20	24	.00000	.00000	100.00	.00000	
23	24	26	.00000	.00000	100.00	.00000	
25	26	28	.00000	.00000	100.00	.00000	
29	30	32	.00000	.00000	100.00	.00000	
31	32	34	.00000	.00000	100.00	.00000	
33	34	36	4.61108E-10	.00000	100.00	1.63083E-11	
35	34	38	9.00602E-13	.00000	50.000	1.27408E-13	
37	2	40	60.000	-5.6759	85.400	2.9096	++
39	40	42	.00000	.00000	85.400	.00000	
41	42	44	2.45264E-10	.00000	85.400	1.18939E-11	
43	42	46	.00000	.00000	48.800	.00000	
45	46	48	.00000	.00000	50.000	.00000	
47	40	50	60.000	-19.664	100.00	2.1221	++
49	50	52	60.000	-7.5846	100.00	2.1221	++
51	52	54	60.000	-25.835	69.800	4.3556	++
53	54	56	.00000	.00000	69.800	.00000	
55	54	58	60.000	-24.581	48.800	8.9108	++
57	58	60	60.000	-26.967	100.00	2.1221	++
59	60	62	60.000	-.28091	100.00	2.1221	++
61	50	64	.00000	.00000	60.000	.00000	
63	64	66	.00000	.00000	100.00	.00000	
67	68	70	.00000	.00000	100.00	.00000	
69	70	72	.00000	.00000	60.000	.00000	
71	72	94	.00000	.00000	100.00	.00000	
73	94	96	-1.20080E-12	.00000	50.000	-1.69878E-13	
75	96	98	.00000	.00000	100.00	.00000	

79	100	102	.00000	.00000	100.00	.00000
81	102	104	.00000	.00000	50.000	.00000
83	104	106	.00000	.00000	50.000	.00000
85	72	74	.00000	.00000	60.000	.00000
87	74	76	.00000	.00000	60.000	.00000

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 4
V2.4B-PCF

0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
89	74 78	.00000	.00000	60.000	.00000
91	78 80	.00000	.00000	100.00	.00000
93	78 82	-9.60642E-12	.00000	50.000	-1.35902E-12
95	82 84	.00000	.00000	100.00	.00000
99	86 88	.00000	.00000	100.00	.00000
101	88 90	.00000	.00000	50.000	.00000
103	90 92	.00000	.00000	50.000	.00000
105	108 110	-2.30554E-09	.00000	100.00	-8.15413E-11
109	112 114	-2.30554E-09	.00000	100.00	-8.15413E-11
111	18 108	-1.41879E-10	.00000	100.00	-5.01792E-12

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 5
V2.4B-PCF

0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE	CONSIGNE VAL	UNITES	DEBIT NOEUD M3/H	DELTA P M
27	28 30	2	3.2000	BAR	30 -1.59062E-14	.00000
65	66 68	2	3.2000	BAR	68 1.00488E-14	3.72070E-05
77	98 100	2	3.2000	BAR	100 .00000	.00000
97	84 86	2	3.0000	BAR	86 .00000	.00000
107	110 112	2	3.0000	BAR	112 -6.93512E-12	.00000

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 6
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0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

N O E U D S ...

NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR	
C.P.	2 60.000	636.00	636.00	.00000	--
	4 .00000	620.00	636.00	1.5691	--
	6 .00000	595.00	636.00	4.0207	
	8 .00000	611.00	636.00	2.4517	
	10 .00000	606.00	636.00	2.9420	
	12 .00000	575.00	636.00	5.9821	
	14 .00000	577.00	636.00	5.7859	
	16 .00000	568.00	636.00	6.6685	
	18 .00000	568.00	636.00	6.6685	
	20 .00000	518.00	636.00	11.572	++
	22 .00000	518.00	636.00	11.572	++
	24 .00000	516.00	636.00	11.768	++
	26 .00000	460.00	636.00	17.260	++
	28 .00000	460.00	636.00	17.260	++
	30 .00000	460.00	636.00	17.260	++
	32 .00000	460.00	636.00	17.260	++
	34 .00000	394.00	636.00	23.732	++

36	.00000	394.00	636.00	23.732	++
38	.00000	360.00	636.00	27.066	++
40	.00000	625.00	630.32	.52212	--
42	.00000	595.00	630.32	3.4641	
44	.00000	595.00	630.32	3.4641	
46	.00000	591.00	630.32	3.8564	
48	.00000	551.00	630.32	7.7791	++
50	.00000	552.00	610.66	5.7526	
52	.00000	530.00	603.08	7.1663	++
54	.00000	525.00	577.24	5.1231	
56	.00000	525.00	577.24	5.1231	
58	.00000	525.00	552.66	2.7125	
60	.00000	500.00	525.69	2.5196	
62	-60.000	500.00	525.41	2.4920	
64	.00000	535.00	610.66	7.4198	++
66	.00000	535.00	610.66	7.4198	++
68	.00000	535.00	610.66	7.4198	++
70	.00000	535.00	610.66	7.4198	++
72	.00000	522.00	610.66	8.6946	++
74	.00000	482.00	610.66	12.617	++
76	.00000	465.00	610.66	14.284	++
78	.00000	475.00	610.66	13.304	++
80	.00000	475.00	610.66	13.304	++
82	.00000	470.00	610.66	13.794	++

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 7

0CAS 1 - V2.4B-PCF

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

N O E U D S ...					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
84	.00000	470.00	610.66	13.794	++
86	.00000	470.00	610.66	13.794	++
88	.00000	470.00	610.66	13.794	++
90	.00000	422.00	610.66	18.501	++
92	.00000	422.00	610.66	18.501	++
94	.00000	485.00	610.66	12.323	++
96	.00000	450.00	610.66	15.755	++
98	.00000	450.00	610.66	15.755	++
100	.00000	450.00	610.66	15.755	++
102	.00000	450.00	610.66	15.755	++
104	.00000	388.00	610.66	21.836	++
106	.00000	388.00	610.66	21.836	++
108	.00000	550.00	636.00	8.4337	++
110	.00000	550.00	636.00	8.4337	++
112	.00000	550.00	636.00	8.4337	++
114	.00000	550.00	636.00	8.4337	++

END

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 8

0CAS 1 - V2.4B-PCF

1RESEAU COLLOMB - DEF.INCENDI

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ETUDE 0
0 D O N N E E S D U P R O B L E M E
0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA
0NOEUDS 1000(R) EQUATION POUR DELTA P DARC
ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20
STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00
STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200
0 AVERTISSEMENTS CARACTERISTIQUES DU FLUIDE
0PRESSION-BAR NOM WATER
++ ... 7.00 MASSE VOL.-KGF /M **3100E+04
-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03
VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01
++ ... 1.30 TEMPERATURE-DEGREES C 10.0
--000

0CAS 1 -

0SOLVE

1RESEAU COLLOMB - DEF.INCENDI

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ETUDE 0
0CAS 1 -
0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.
0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .1860E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	AM	AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	-1.15277E-10	.00000	100.00	-4.07706E-12	
3	4	6	-2.04937E-10	.00000	100.00	-7.24811E-12	
5	6	8	.00000	.00000	100.00	.00000	
7	8	10	.00000	.00000	100.00	.00000	
9	10	12	-1.84443E-11	.00000	100.00	-6.52330E-13	
11	12	14	.00000	.00000	100.00	.00000	
13	6	16	-2.30554E-10	.00000	100.00	-8.15413E-12	
15	16	18	-1.53703E-10	.00000	100.00	-5.43608E-12	
17	114	20	-2.22604E-10	.00000	100.00	-7.87295E-12	
19	20	22	.00000	.00000	100.00	.00000	
21	20	24	.00000	.00000	100.00	.00000	
23	24	26	.00000	.00000	100.00	.00000	
25	26	28	.00000	.00000	100.00	.00000	
29	30	32	.00000	.00000	100.00	.00000	
31	32	34	.00000	.00000	100.00	.00000	
33	34	36	4.61108E-10	.00000	100.00	1.63083E-11	
35	34	38	9.00602E-13	.00000	50.000	1.27408E-13	
37	2	40	60.000	-5.6759	85.400	2.9096	++
39	40	42	.00000	.00000	85.400	.00000	
41	42	44	.00000	.00000	85.400	.00000	
43	42	46	.00000	.00000	48.800	.00000	
45	46	48	.00000	.00000	50.000	.00000	
47	40	50	60.000	-19.664	100.00	2.1221	++
49	50	52	.00000	.00000	100.00	.00000	
51	52	54	.00000	.00000	69.800	.00000	
53	54	56	.00000	.00000	69.800	.00000	
55	54	58	.00000	.00000	48.800	.00000	
57	58	60	.00000	.00000	100.00	.00000	
59	60	62	.00000	.00000	100.00	.00000	
61	50	64	60.000	-2.5282	100.00	2.1221	++
63	64	66	60.000	-5.61826E-02	100.00	2.1221	++
67	68	70	60.000	-5.61826E-02	100.00	2.1221	++
69	70	72	60.000	-2.5282	100.00	2.1221	++
71	72	94	60.000	-10.675	100.00	2.1221	++
73	94	96	60.000	-6.7418	100.00	2.1221	++
75	96	98	60.000	-5.61826E-02	100.00	2.1221	++

79	100	102	60.000	-5.61826E-02	100.00	2.1221	++
81	102	104	60.000	-18.540	100.00	2.1221	++
83	104	106	60.000	-.28090	100.00	2.1221	++
85	72	74	.00000	.00000	60.000	.00000	
87	74	76	.00000	.00000	60.000	.00000	

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

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ETUDE 0

OCAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .1860E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	AM	NOEUDS AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S
89	74	78	.00000	.00000	60.000	.00000
91	78	80	.00000	.00000	100.00	.00000
93	78	82	9.60642E-12	.00000	50.000	1.35902E-12
95	82	84	.00000	.00000	100.00	.00000
99	86	88	.00000	.00000	100.00	.00000
101	88	90	.00000	.00000	50.000	.00000
103	90	92	.00000	.00000	50.000	.00000
105	108	110	-2.30554E-09	.00000	100.00	-8.15413E-11
109	112	114	-2.30554E-09	.00000	100.00	-8.15413E-11
111	18	108	-1.41879E-10	.00000	100.00	-5.01792E-12

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

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ETUDE 0

OCAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .1860E-04 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	AM	NOEUDS AV	REG-P TYPE	CONSIGNE VAL	UNITES	DEBIT NOEUD M3/H	DELTA P M
27	28	30	2	3.2000	BAR	30 -1.59062E-14	.00000
65	66	68	2	3.2000	BAR	68 60.000	-40.445 E
77	98	100	2	3.2000	BAR	100 60.000	-64.943 E
97	84	86	2	3.0000	BAR	86 .00000	.00000
107	110	112	2	3.0000	BAR	112 -6.93512E-12	.00000

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

PAGE 6
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ETUDE 0

OCAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .1860E-04 M

N O E U D S ...

NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR
C.P.	2 60.000	636.00	636.00	.00000 --
	4 .00000	620.00	636.00	1.5691 --
	6 .00000	595.00	636.00	4.0207
	8 .00000	611.00	636.00	2.4517
	10 .00000	606.00	636.00	2.9420
	12 .00000	575.00	636.00	5.9821
	14 .00000	577.00	636.00	5.7859
	16 .00000	568.00	636.00	6.6685
	18 .00000	568.00	636.00	6.6685
	20 .00000	518.00	636.00	11.572 ++
	22 .00000	518.00	636.00	11.572 ++
	24 .00000	516.00	636.00	11.768 ++
	26 .00000	460.00	636.00	17.260 ++
	28 .00000	460.00	636.00	17.260 ++
	30 .00000	460.00	636.00	17.260 ++
	32 .00000	460.00	636.00	17.260 ++
	34 .00000	394.00	636.00	23.732 ++

36	.00000	394.00	636.00	23.732	++
38	.00000	360.00	636.00	27.066	++
40	.00000	625.00	630.32	.52212	--
42	.00000	595.00	630.32	3.4641	
44	.00000	595.00	630.32	3.4641	
46	.00000	591.00	630.32	3.8564	
48	.00000	551.00	630.32	7.7791	++
50	.00000	552.00	610.66	5.7526	
52	.00000	530.00	610.66	7.9101	++
54	.00000	525.00	610.66	8.4004	++
56	.00000	525.00	610.66	8.4004	++
58	.00000	525.00	610.66	8.4004	++
60	.00000	500.00	610.66	10.852	++
62	.00000	500.00	610.66	10.852	++
64	.00000	535.00	608.13	7.1718	++
66	.00000	535.00	608.08	7.1663	++
68	.00000	535.00	567.63	3.2000	
70	.00000	535.00	567.57	3.1945	
72	.00000	522.00	565.05	4.2214	
74	.00000	482.00	565.05	8.1441	++
76	.00000	465.00	565.05	9.8112	++
78	.00000	475.00	565.05	8.8306	++
80	.00000	475.00	565.05	8.8306	++
82	.00000	470.00	565.05	9.3209	++

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 7

0CAS 1 - V2.4B-PCF

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .1860E-04 M

N O E U D S ...					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
84	.00000	470.00	565.05	9.3209	++
86	.00000	470.00	565.05	9.3209	++
88	.00000	470.00	565.05	9.3209	++
90	.00000	422.00	565.05	14.028	++
92	.00000	422.00	565.05	14.028	++
94	.00000	485.00	554.37	6.8031	
96	.00000	450.00	547.63	9.5743	++
98	.00000	450.00	547.57	9.5687	++
100	.00000	450.00	482.63	3.2000	
102	.00000	450.00	482.57	3.1945	
104	.00000	388.00	464.03	7.4565	++
106	-60.000	388.00	463.75	7.4289	++
108	.00000	550.00	636.00	8.4337	++
110	.00000	550.00	636.00	8.4337	++
112	.00000	550.00	636.00	8.4337	++
114	.00000	550.00	636.00	8.4337	++

END

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

ETUDE 0 PAGE 8

0CAS 1 - V2.4B-PCF

1RESEAU COLLOMB - DEF.INCENDI

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ETUDE 0

0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS

SOLUTION CRITERIA

0NOEUDS 1000(R)

EQUATION POUR DELTA P

DARCY

ELEMENTS..... 1000(R)

NOMBRE MAXI D'ITERATIONS

20

STOCKAGE UTILISE 21762

CRITERE DE CONV POUR DEBIT-M3/H

3.00

STOCKAGE DISPON. 68734

CRITERE DE CONV COTE PIEZO-M

.200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0PRESSION-BAR

NOM

WATER

++ ... 7.00

MASSE VOL.-KGF /M **3100E+04

-- ... 2.00

VISCOSITE -KGF *S/M **2133E-03

VITESSE- M/S

PRESSION DE VAPEUR-BAR122E-01

++ ... 1.30

TEMPERATURE-DEGREES C 10.0

--000

0CAS 1 -

0SOLVE

1RESEAU COLLOMB - DEF.INCENDI

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ETUDE 0

0CAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	AM	AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	-1.15277E-10	.00000	100.00	-4.07706E-12	
3	4	6	-2.04937E-10	.00000	100.00	-7.24811E-12	
5	6	8	.00000	.00000	100.00	.00000	
7	8	10	.00000	.00000	100.00	.00000	
9	10	12	-1.84443E-11	.00000	100.00	-6.52330E-13	
11	12	14	.00000	.00000	100.00	.00000	
13	6	16	-2.30554E-10	.00000	100.00	-8.15413E-12	
15	16	18	-1.53703E-10	.00000	100.00	-5.43608E-12	
17	114	20	-2.22604E-10	.00000	100.00	-7.87295E-12	
19	20	22	.00000	.00000	100.00	.00000	
21	20	24	.00000	.00000	100.00	.00000	
23	24	26	.00000	.00000	100.00	.00000	
25	26	28	.00000	.00000	100.00	.00000	
29	30	32	.00000	.00000	100.00	.00000	
31	32	34	.00000	.00000	100.00	.00000	
33	34	36	4.61108E-10	.00000	100.00	1.63083E-11	
35	34	38	9.00602E-13	.00000	50.000	1.27408E-13	
37	2	40	60.000	-5.6759	85.400	2.9096	++
39	40	42	.00000	.00000	85.400	.00000	
41	42	44	.00000	.00000	85.400	.00000	
43	42	46	.00000	.00000	48.800	.00000	
45	46	48	.00000	.00000	50.000	.00000	
47	40	50	60.000	-19.664	100.00	2.1221	++
49	50	52	.00000	.00000	100.00	.00000	
51	52	54	.00000	.00000	69.800	.00000	
53	54	56	.00000	.00000	69.800	.00000	
55	54	58	.00000	.00000	48.800	.00000	
57	58	60	.00000	.00000	100.00	.00000	
59	60	62	.00000	.00000	100.00	.00000	
61	50	64	60.000	-2.5282	100.00	2.1221	++
63	64	66	60.000	-5.61826E-02	100.00	2.1221	++
67	68	70	60.000	-5.61826E-02	100.00	2.1221	++
69	70	72	60.000	-2.5282	100.00	2.1221	++
71	72	94	.00000	.00000	100.00	.00000	
73	94	96	.00000	.00000	100.00	.00000	
75	96	98	.00000	.00000	100.00	.00000	

79	100	102	.00000	.00000	100.00	.00000	
81	102	104	.00000	.00000	100.00	.00000	
83	104	106	.00000	.00000	100.00	.00000	
85	72	74	60.000	-9.5510	100.00	2.1221	++
87	74	76	.00000	.00000	60.000	.00000	

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OCAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	AM	NOEUDS AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
89	74	78	60.000	-1.4045	100.00	2.1221	++
91	78	80	60.000	-.28091	100.00	2.1221	++
93	78	82	.00000	.00000	50.000	.00000	
95	82	84	.00000	.00000	100.00	.00000	
99	86	88	.00000	.00000	100.00	.00000	
101	88	90	.00000	.00000	50.000	.00000	
103	90	92	.00000	.00000	50.000	.00000	
105	108	110	-2.30554E-09	.00000	100.00	-8.15413E-11	
109	112	114	-2.30554E-09	.00000	100.00	-8.15413E-11	
111	18	108	-1.41879E-10	.00000	100.00	-5.01792E-12	

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007
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OCAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	AM	NOEUDS AV	REG-P TYPE	CONSIGNE VAL	UNITES	DEBIT NOEUD M3/H	DELTA P M	
27	28	30	2	3.2000	BAR	30 -1.59062E-14	.00000	
65	66	68	2	3.2000	BAR	68 60.000	-40.445	E
77	98	100	2	3.2000	BAR	100 .00000	.00000	
97	84	86	2	3.0000	BAR	86 .00000	.00000	
107	110	112	2	3.0000	BAR	112 -6.93512E-12	.00000	

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007
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ETUDE 0

OCAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

N O E U D S ...

	NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR	
C.P.	2	60.000	636.00	636.00	.00000	--
	4	.00000	620.00	636.00	1.5691	--
	6	.00000	595.00	636.00	4.0207	
	8	.00000	611.00	636.00	2.4517	
	10	.00000	606.00	636.00	2.9420	
	12	.00000	575.00	636.00	5.9821	
	14	.00000	577.00	636.00	5.7859	
	16	.00000	568.00	636.00	6.6685	
	18	.00000	568.00	636.00	6.6685	
	20	.00000	518.00	636.00	11.572	++
	22	.00000	518.00	636.00	11.572	++
	24	.00000	516.00	636.00	11.768	++
	26	.00000	460.00	636.00	17.260	++
	28	.00000	460.00	636.00	17.260	++
	30	.00000	460.00	636.00	17.260	++
	32	.00000	460.00	636.00	17.260	++
	34	.00000	394.00	636.00	23.732	++

36	.00000	394.00	636.00	23.732	++
38	.00000	360.00	636.00	27.066	++
40	.00000	625.00	630.32	.52212	--
42	.00000	595.00	630.32	3.4641	
44	.00000	595.00	630.32	3.4641	
46	.00000	591.00	630.32	3.8564	
48	.00000	551.00	630.32	7.7791	++
50	.00000	552.00	610.66	5.7526	
52	.00000	530.00	610.66	7.9101	++
54	.00000	525.00	610.66	8.4004	++
56	.00000	525.00	610.66	8.4004	++
58	.00000	525.00	610.66	8.4004	++
60	.00000	500.00	610.66	10.852	++
62	.00000	500.00	610.66	10.852	++
64	.00000	535.00	608.13	7.1718	++
66	.00000	535.00	608.08	7.1663	++
68	.00000	535.00	567.63	3.2000	
70	.00000	535.00	567.57	3.1945	
72	.00000	522.00	565.05	4.2214	
74	.00000	482.00	555.50	7.2075	++
76	.00000	465.00	555.50	8.8746	++
78	.00000	475.00	554.09	7.7562	++
80	-60.000	475.00	553.81	7.7286	++
82	.00000	470.00	554.09	8.2465	++

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

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0CAS 1 - V2.4B-PCF

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .3721E-04 M

N O E U D S ...					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
84	.00000	470.00	554.09	8.2465	++
86	.00000	470.00	554.09	8.2465	++
88	.00000	470.00	554.09	8.2465	++
90	.00000	422.00	554.09	12.954	++
92	.00000	422.00	554.09	12.954	++
94	.00000	485.00	565.05	7.8499	++
96	.00000	450.00	565.05	11.282	++
98	.00000	450.00	565.05	11.282	++
100	.00000	450.00	565.05	11.282	++
102	.00000	450.00	565.05	11.282	++
104	.00000	388.00	565.05	17.362	++
106	.00000	388.00	565.05	17.362	++
108	.00000	550.00	636.00	8.4337	++
110	.00000	550.00	636.00	8.4337	++
112	.00000	550.00	636.00	8.4337	++
114	.00000	550.00	636.00	8.4337	++

END

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007

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0 D O N N E E S D U P R O B L E M E

0 NOMBRE DE COMPOSANTS SOLUTION CRITERIA

0NOEUDS 1000(R) EQUATION POUR DELTA P DARC

ELEMENTS..... 1000(R) NOMBRE MAXI D'ITERATIONS 20

STOCKAGE UTILISE 21762 CRITERE DE CONV POUR DEBIT-M3/H 3.00

STOCKAGE DISPON. 68734 CRITERE DE CONV COTE PIEZO-M .200

0 AVERTISSEMENTS

CARACTERISTIQUES DU FLUIDE

0PRESSION-BAR NOM WATER

++ ... 7.00 MASSE VOL.-KGF /M **3100E+04

-- ... 2.00 VISCOSITE -KGF *S/M **2133E-03

VITESSE- M/S PRESSION DE VAPEUR-BAR122E-01

++ ... 1.30 TEMPERATURE-DEGREES C 10.0

--000

0CAS 1 -

0SOLVE

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0CAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .1860E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	AM	AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
1	2	4	-1.15277E-10	.00000	100.00	-4.07706E-12	
3	4	6	-2.04937E-10	.00000	100.00	-7.24811E-12	
5	6	8	.00000	.00000	100.00	.00000	
7	8	10	.00000	.00000	100.00	.00000	
9	10	12	-1.84443E-11	.00000	100.00	-6.52330E-13	
11	12	14	.00000	.00000	100.00	.00000	
13	6	16	-2.30554E-10	.00000	100.00	-8.15413E-12	
15	16	18	-1.53703E-10	.00000	100.00	-5.43608E-12	
17	114	20	-2.22604E-10	.00000	100.00	-7.87295E-12	
19	20	22	.00000	.00000	100.00	.00000	
21	20	24	.00000	.00000	100.00	.00000	
23	24	26	.00000	.00000	100.00	.00000	
25	26	28	.00000	.00000	100.00	.00000	
29	30	32	.00000	.00000	100.00	.00000	
31	32	34	.00000	.00000	100.00	.00000	
33	34	36	4.61108E-10	.00000	100.00	1.63083E-11	
35	34	38	9.00602E-13	.00000	50.000	1.27408E-13	
37	2	40	60.000	-5.6759	85.400	2.9096	++
39	40	42	.00000	.00000	85.400	.00000	
41	42	44	.00000	.00000	85.400	.00000	
43	42	46	.00000	.00000	48.800	.00000	
45	46	48	-1.69525E-12	.00000	50.000	-2.39827E-13	
47	40	50	60.000	-19.664	100.00	2.1221	++
49	50	52	.00000	.00000	100.00	.00000	
51	52	54	.00000	.00000	69.800	.00000	
53	54	56	.00000	.00000	69.800	.00000	
55	54	58	.00000	.00000	48.800	.00000	
57	58	60	.00000	.00000	100.00	.00000	
59	60	62	.00000	.00000	100.00	.00000	
61	50	64	60.000	-2.5282	100.00	2.1221	++
63	64	66	60.000	-5.61826E-02	100.00	2.1221	++
67	68	70	60.000	-5.61826E-02	100.00	2.1221	++
69	70	72	60.000	-2.5282	100.00	2.1221	++
71	72	94	.00000	.00000	100.00	.00000	
73	94	96	.00000	.00000	100.00	.00000	
75	96	98	.00000	.00000	100.00	.00000	

79	100	102	.00000	.00000	100.00	.00000	
81	102	104	.00000	.00000	100.00	.00000	
83	104	106	.00000	.00000	100.00	.00000	
85	72	74	60.000	-9.5510	100.00	2.1221	++
87	74	76	.00000	.00000	60.000	.00000	

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OCAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .1860E-04 M

C O N D U I T E S ...

ELEMENT NUMERO	NOEUDS AM AV	DEBIT M3/H	DELTA P M	DIAMETRE MM	VITESSE M/S	
89	74 78	60.000	-1.4045	100.00	2.1221	++
91	78 80	.00000	.00000	100.00	.00000	
93	78 82	60.000	-.84272	100.00	2.1221	++
95	82 84	60.000	-5.61826E-02	100.00	2.1221	++
99	86 88	60.000	-5.61826E-02	100.00	2.1221	++
101	88 90	60.000	-22.754	100.00	2.1221	++
103	90 92	60.000	-.28091	100.00	2.1221	++
105	108 110	-2.30554E-09	.00000	100.00	-8.15413E-11	
109	112 114	-2.30554E-09	.00000	100.00	-8.15413E-11	
111	18 108	-1.41879E-10	.00000	100.00	-5.01792E-12	

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OCAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .1860E-04 M

R E G U L A T E U R S D E P R E S S I O N ...

ELEMENT NUMERO	NOEUDS AM AV	REG-P TYPE	CONSIGNE VAL	UNITES	DEBIT NOEUD M3/H	DELTA P M	
27	28 30	2	3.2000	BAR	30 -1.59062E-14	.00000	
65	66 68	2	3.2000	BAR	68 60.000	-40.445	E
77	98 100	2	3.2000	BAR	100 .00000	.00000	
97	84 86	2	3.0000	BAR	86 60.000	-52.601	E
107	110 112	2	3.0000	BAR	112 -6.93512E-12	.00000	

1RESEAU COLLOMB - DEF.INCENDI JUILLET.2007
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ETUDE 0

OCAS 1 -

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .1860E-04 M

N O E U D S ...

	NOEUD	DEBIT M3/H	ALTIMETRIE M	COTE PIEZO M	PRESSION BAR	
C.P.	2	60.000	636.00	636.00	.00000	--
	4	.00000	620.00	636.00	1.5691	--
	6	.00000	595.00	636.00	4.0207	
	8	.00000	611.00	636.00	2.4517	
	10	.00000	606.00	636.00	2.9420	
	12	.00000	575.00	636.00	5.9821	
	14	.00000	577.00	636.00	5.7859	
	16	.00000	568.00	636.00	6.6685	
	18	.00000	568.00	636.00	6.6685	
	20	.00000	518.00	636.00	11.572	++
	22	.00000	518.00	636.00	11.572	++
	24	.00000	516.00	636.00	11.768	++
	26	.00000	460.00	636.00	17.260	++
	28	.00000	460.00	636.00	17.260	++
	30	.00000	460.00	636.00	17.260	++
	32	.00000	460.00	636.00	17.260	++
	34	.00000	394.00	636.00	23.732	++

36	.00000	394.00	636.00	23.732	++
38	.00000	360.00	636.00	27.066	++
40	.00000	625.00	630.32	.52212	--
42	.00000	595.00	630.32	3.4641	
44	.00000	595.00	630.32	3.4641	
46	.00000	591.00	630.32	3.8564	
48	.00000	551.00	630.32	7.7791	++
50	.00000	552.00	610.66	5.7526	
52	.00000	530.00	610.66	7.9101	++
54	.00000	525.00	610.66	8.4004	++
56	.00000	525.00	610.66	8.4004	++
58	.00000	525.00	610.66	8.4004	++
60	.00000	500.00	610.66	10.852	++
62	.00000	500.00	610.66	10.852	++
64	.00000	535.00	608.13	7.1718	++
66	.00000	535.00	608.08	7.1663	++
68	.00000	535.00	567.63	3.2000	
70	.00000	535.00	567.57	3.1945	
72	.00000	522.00	565.05	4.2214	
74	.00000	482.00	555.50	7.2075	++
76	.00000	465.00	555.50	8.8746	++
78	.00000	475.00	554.09	7.7562	++
80	.00000	475.00	554.09	7.7562	++
82	.00000	470.00	553.25	8.1639	++

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0CAS 1 - V2.4B-PCF

0** W 2. SOLUTION CRITERIA NOT FULLY SATISFIED.

0 20 ITERATIONS, CONVERGED TO 12.00 M3/H AND .1860E-04 M

N O E U D S ...					
NOEUD	DEBIT	ALTIMETRIE	COTE PIEZO	PRESSION	
	M3/H	M	M	BAR	
84	.00000	470.00	553.19	8.1584	++
86	.00000	470.00	500.59	3.0000	
88	.00000	470.00	500.54	2.9945	
90	.00000	422.00	477.78	5.4703	
92	-60.000	422.00	477.50	5.4428	
94	.00000	485.00	565.05	7.8499	++
96	.00000	450.00	565.05	11.282	++
98	.00000	450.00	565.05	11.282	++
100	.00000	450.00	565.05	11.282	++
102	.00000	450.00	565.05	11.282	++
104	.00000	388.00	565.05	17.362	++
106	.00000	388.00	565.05	17.362	++
108	.00000	550.00	636.00	8.4337	++
110	.00000	550.00	636.00	8.4337	++
112	.00000	550.00	636.00	8.4337	++
114	.00000	550.00	636.00	8.4337	++

END

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