Pièce n°:4/6

Centre Développement et Ingénierie Lyon
Groupe Maintenance Réseau Forez-Velay

Liaison aérienne à 225 kV

RUEYRES - SAVIGNAC

PROFIL EN LONG

Du support n°60N au support n°81

DEPARTEMENT DU CANTAL

PARAMETRES CONDUCTEURS ET CABLES DE GARDE
VOIR TABLEAU EN DEBUT DE PLAN

ECHELLES : Hauteurs : 1/500
Longueurs : 1/2500

Indice : P	Format: 0.44x4.10 Surface : 1.80m²
Date: 27/03/2023	Vérifié le: 27/03/2023 Par: A. Brougui

SIE AVENIR ETUDES
SPIE Thépault
9, rue du Jardin d'Ecosse - 57530 ARS LAQUENEXY
Tél : 03 87 38 41 39

PLAN N° R-RF-RUEYRL61SAVIG-LAPL-60N-81-P

INDICE	DATE	MODIFICATION	DEMANDEE	EXECUTEE	VERIFIEE
A	03/1996	Mise à jour Paramètres		CGEE ALSTHOM	
B	03/1996	Relevé topographique de la ligne et création du profil en long sous Autocad	CDI LYON	GEOTEAM	GEOTEAM
C	28/07/15	Mise à jour suite à remarques client (Mail envoyé le 01-07-2015)	CDI LYON	GEOTEAM	GEOTEAM
D	16/11/15	Mise à la charte de Lyon	C.D.I. LYON	H.E.I. - DCH	H.E.I. - JPB
E	04/02/16	Ajout des anciens paramètres de réglage à +45°C	C.D.I. LYON	H.E.I. - JPB	H.E.I. - JPB
F	28/01/22	Création du plan à partir du relevé laser et des plans existants	CDI	Y. Appenzeller	A. Brougui
G	07/04/22	Mise à jour du report étude	CDI	Y. Appenzeller	A. Brougui
H	25/07/22	Déplacement support n°63N	CDI	Y. Appenzeller	A. Brougui
I	07/10/22	Déplacement support n°68N	CDI	Y. Appenzeller	A. Brougui
J	03/11/22	Déplacement support n°70N	CDI	Y. Appenzeller	A. Brougui
K	10/11/2022	Ajout des balises avifaune	CDI	Y. Appenzeller	A. Brougui
L	13/12/2022	Déplacement du support n°67N	CDI	Y. Appenzeller	A. Brougui
M	30/01/2023	Mise à jour du cartouche des paramètres conducteurs et C.d.G.	CDI	S. Naceur	A. Brougui
N	06/02/2023	Déplacement du support n°72N	CDI	Y. Appenzeller	A. Brougui
O	09/03/2023	Ajout paramètres de répartition à 85 °C et distance aux obstacles	CDI	E.HEMMER	A. Brougui
P	27/03/2023	Ajout distance sécurité 5m	CDI	E.HEMMER	A. Brougui

CONDUCTEURS

Canton	Portée n°	Température	Nature
53(ex.375) - 65(ex.355)	60N - 61(ex.361)	+15°C	3x1 Aster 570mm² ~~3x1 Alu-Acier 280mm²~~
	61(ex.361) - 62N	+15°C	
	62N - 63N	+15°C	
	63N - 64N	+15°C	
	64N - 65(ex.355)	+15°C	
65(ex.355) - 73N	65(ex.355) - 66N	+15°C	
	66N - 67N	+15°C	
	67N - 68N	+15°C	
	68N - 69N	+15°C	
	69N - 70N	+15°C	
	70N - 71N	+15°C	
	71N - 72N	+15°C	
	72N - 73N	+15°C	
73N - 81(ex.330)	73N - 74N	+15°C	
	74N - 75N	+15°C	
	75N - 76N	+15°C	
	76N - 77N	+15°C	
	77N - 78N	+15°C	
	78N - 79N	+15°C	
	79N - 80N	+15°C	
	80N - 81(ex.330)	+15°C	

CABLES DE GARDE

Canton	Portée n°	Température	Nature
59N - 61(ex.361)	60N - 61(ex.361)	+15°C	
61(ex.361) - 65(ex.355)	61(ex.361) - 62N	+15°C	1x1 Thym 228mm²* 1x1 Phlox 228mm²** ~~1x1 Phlox 147.1mm²~~
	62N - 63N	+15°C	
	63N - 64N	+15°C	
	64N - 65(ex.355)	+15°C	
65(ex.355) - 73N	65(ex.355) - 66N	+15°C	1x1 Thym 157mm²* 1x1 Phlox 147.1mm²** ~~1x1 Phlox 147.1mm²~~
	66N - 67N	+15°C	
	67N - 68N	+15°C	
	68N - 69N	+15°C	
	69N - 70N	+15°C	
	70N - 71N	+15°C	
	71N - 72N	+15°C	
	72N - 73N	+15°C	
73N - 74N	73N - 74N	+15°C	1x1 Thym 228mm²* 1x1 Phlox 228mm²** ~~1x1 Phlox 181mm~~
74N - 81(ex.330)	74N - 75N	+15°C	1x1 Thym 228mm²* 1x1 Phlox 228mm²** ~~1x1 Phlox 147.1mm²~~
	75N - 76N	+15°C	
	76N - 77N	+15°C	
	77N - 78N	+15°C	
	78N - 79N	+15°C	
	79N - 80N	+15°C	
	80N - 81(ex.330)	+15°C	

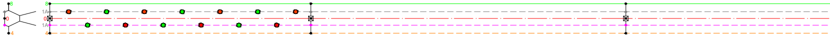
Paramètre		
Phase 8	Phase 0	Phase 4
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600
1600	1600	1600

Paramètre	
CDG G.**	CDG D.*
2000	2000
1900	1900
1900	1900
1900	1900
1900	1900
2200	2200
2200	2200
2200	2200
2200	2200
2200	2200
2200	2200
2200	2200
2200	2200
1900	1900
1800	1800
1800	1800
1800	1800
1800	1800
1800	1800
1800	1800
1800	1800

Alignement

Alignement de: 5073.03m

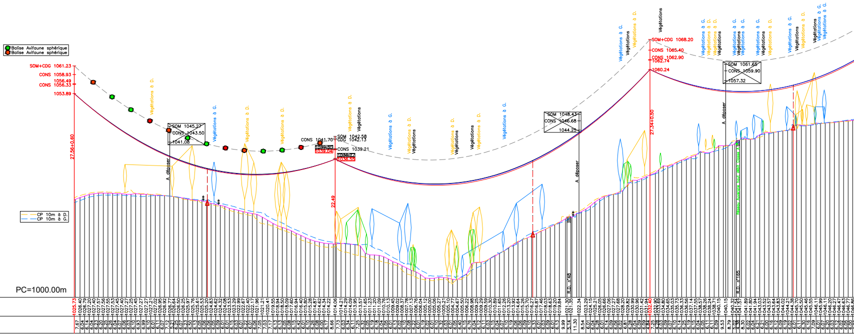
Repérage de phases



Commune

NEUVÉGLISE-SUR-TRUYÈRE

Numéro des Supports	60N	~~362~~	~~361~~ 61	~~360~~	62N	~~359~~
Type des Supports	C4HSBX + OO'=0.60	~~P-3 (coef.3)~~	C1TCW A renforcer	~~PF+4.50 (coef.5)~~	C4HTBX + OO'=0.50	~~P (coef.3)~~
Type des Chaînes	6U1I1N10 + BP	~~6U1I1N10~~	~~6U1I1N10~~ 6U6K2N10 + Cpds 320kg	~~6U1I1N10~~	6U6K2N10 + Cpds 160kg	~~6U6K2N10~~
Type des Massifs			DCC 050			
Type des CDG	2xSCDG	~~1xSCDG~~	2xACDG / 2xACDG	~~1xSCDG~~	2xSCDG	~~1xSCDG~~
Coordonnées Supports (RGF93)	X =692027.83 Y =6424404.33 Pied 2: +1m	~~X =692113.49~~ ~~Y =6424497.28~~	X =692262.34 Y =6424657.54	~~X =692481.29~~ ~~Y =6424894.40~~	X =692545.30 Y =6424963.06	~~X =692613.28~~ ~~Y =6425036.78~~


Balise Avifaune sphérique
Balise Avifaune sphérique
SOM+CDG 1061.23
CONS 1058.93
1056.49
CONS 1056.33
1053.89
27.56+0.60
Végétations à D.
Végétations à G.
SOM 1045.27
CONS 1043.50
1041.08
A déposer
CONS 1041.70
SOM 1042.58
CDG 1042.13
CONS 1039.21
22.49
Végétations
SOM 1048.43
CONS 1046.68
1044.25
SOM+CDG 1068.20
CONS 1065.40
CONS 1062.90
1062.74
1060.24
27.34+0.50
SOM 1061.65
CONS 1059.90
1057.32
CP 10m à D.
CP 10m à G.
R.D. n°48
R.D. n°165

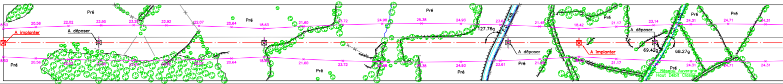
Echelle Y = 1/ 500
Echelle X = 1/2500
Plan de comparaison PC=1000.00m

Altitudes du terrain

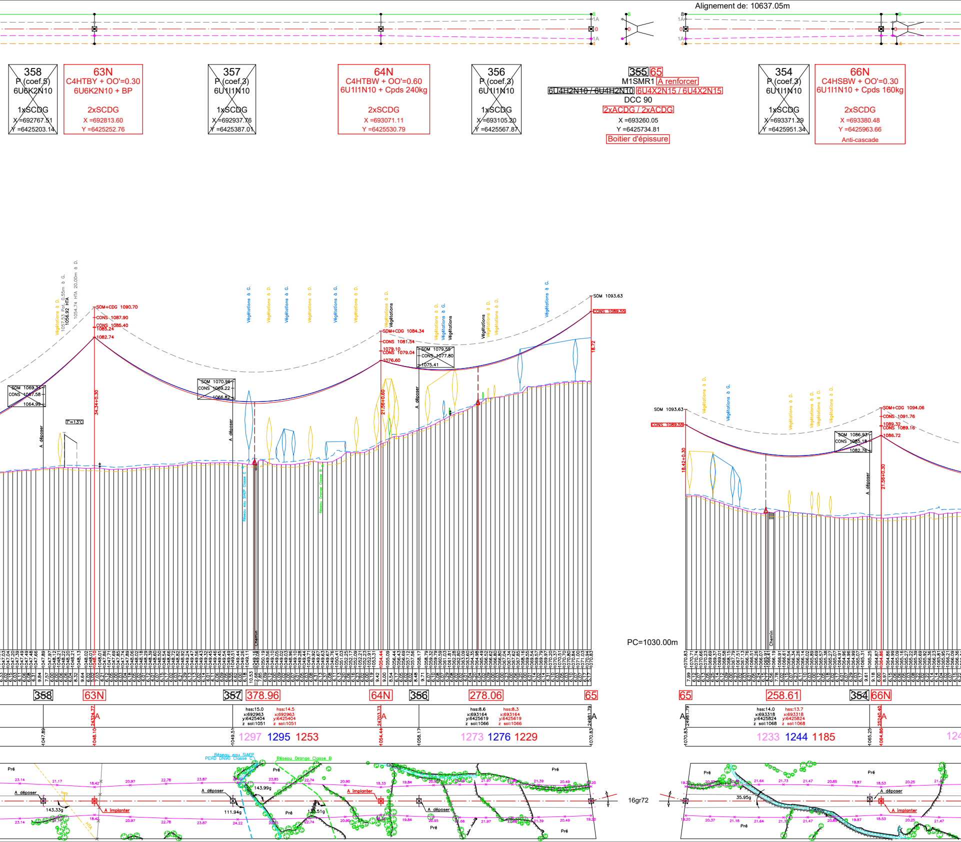
Distances partielles

Numéros des pylônes Distances entre pylônes	60N	~~362~~	345.13	61	416.42	~~360~~	62N	~~359~~	394.86
Distances cumulées des pylônes Classes de précision	23168.36 A		hss:8.2 x:692153 y:6424528 z sol:1026 hss:7.9 x:692153 y:6424528 z sol:1026	23513.49 A	hss:18.7 x:692447 y:6424843 z sol:1018 hss:18.3 x:692447 y:6424843 z sol:1018		23929.91 A		hss:10.3 x:692680 y:6425097 z sol:1046 hss:9.9 x:692680 y:6425097 z sol:1046
Altitudes des pylônes Paramètres à 75°C / Givre 3.50cm	1025.73	1026.77	1363 1348 1333	1014.06	1337 1331 1305	1022.34	1032.40	1040.15	1311 1309 1278

Vers poste de Rueyres

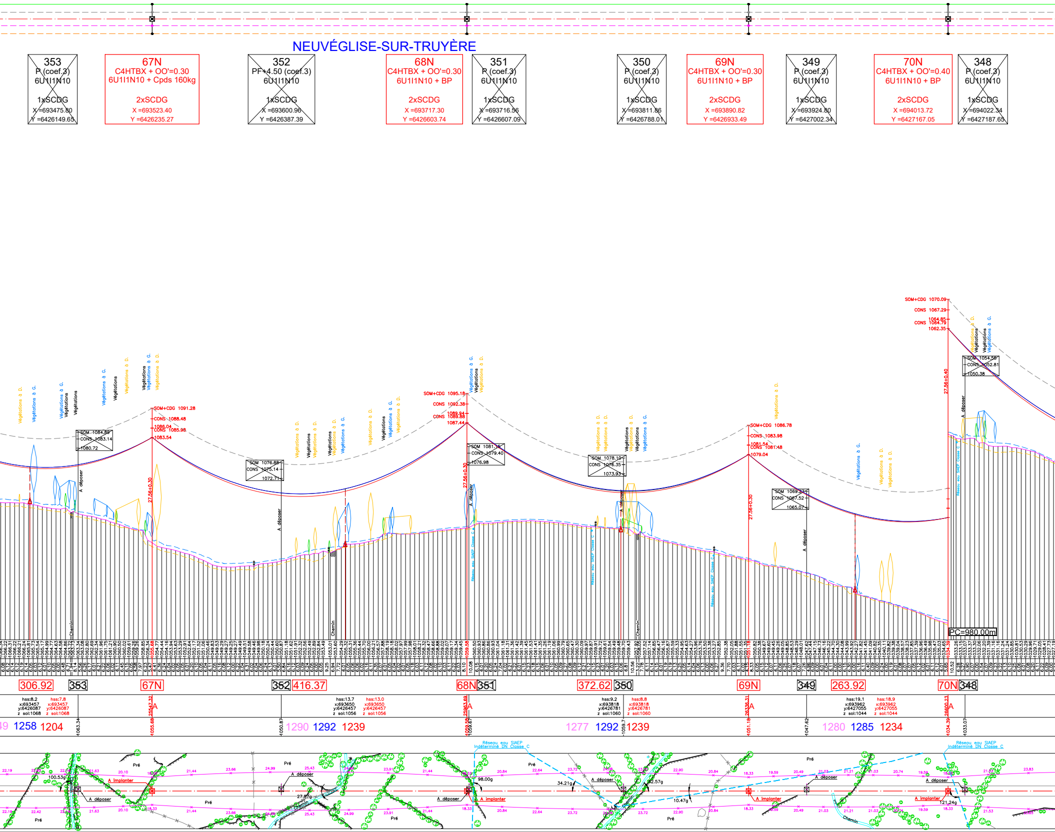

A implanter
A déposer
Pré
127.76g
R.D. n°48
69.42g
68.27g
Réseau Auvergne Haut Débit Classé
18.53
20.56
22.02
22.90
23.26
22.92
22.07
20.64
18.63
21.60
23.72
24.98
25.38
24.93
23.61
21.45
18.42
21.17
23.14
24.31
24.71

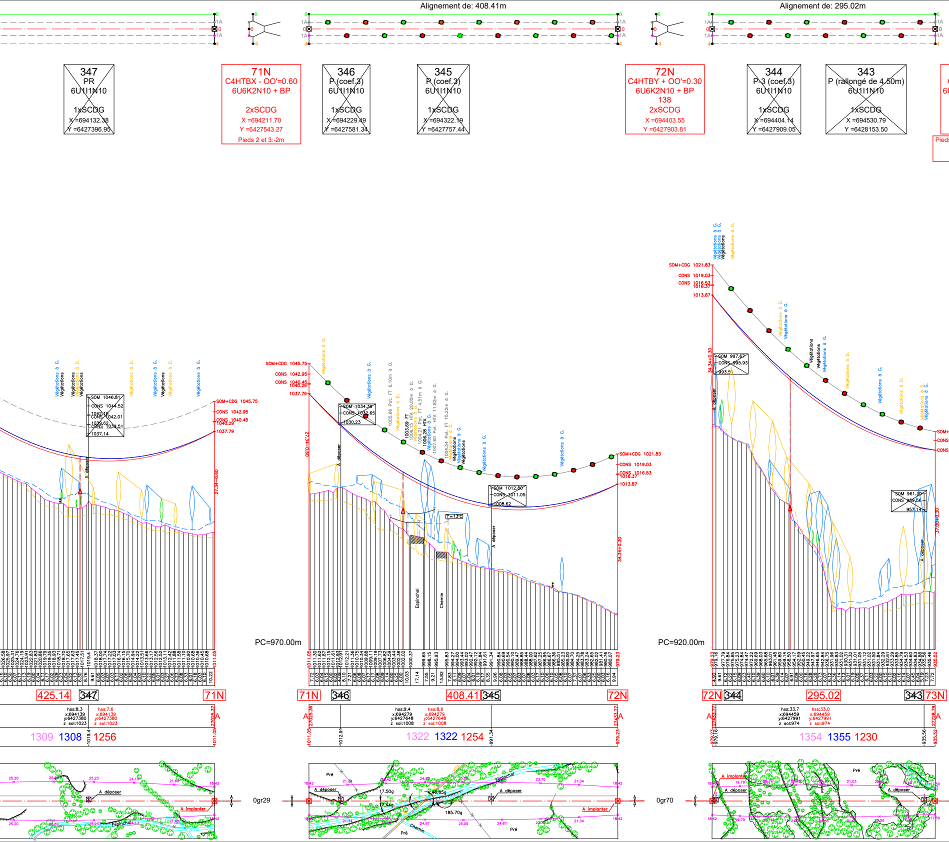
Alignement de: 10637.05m

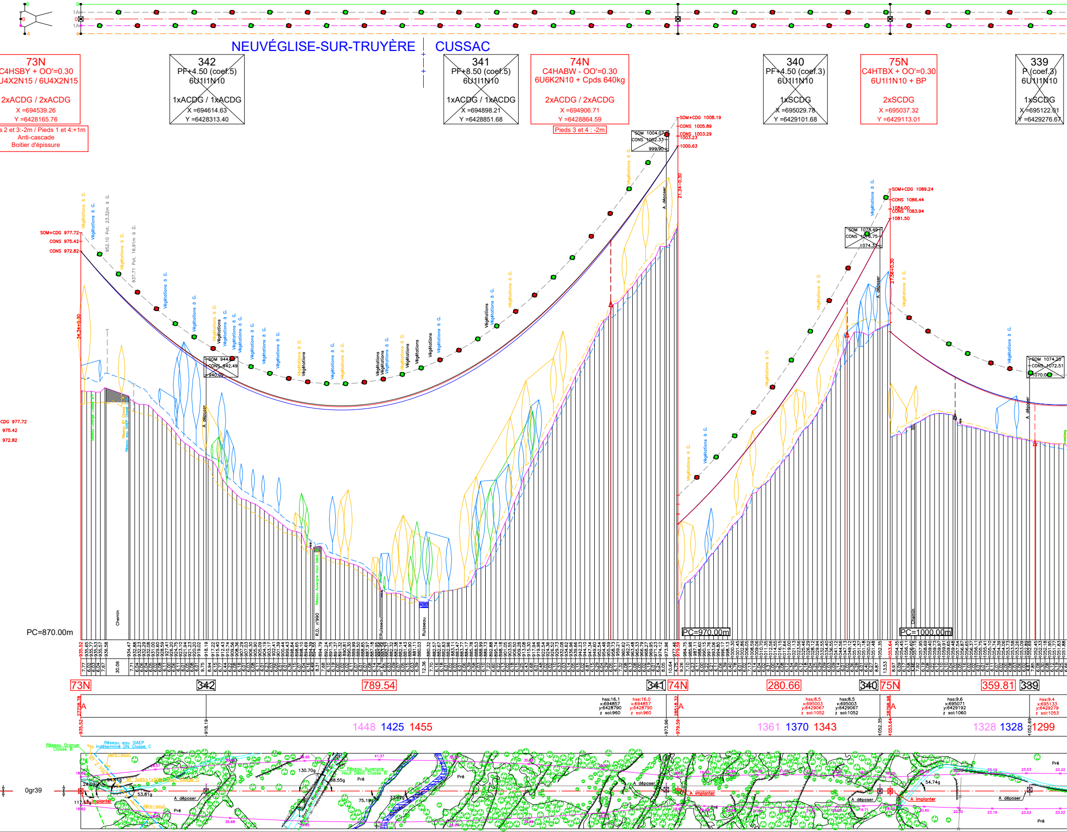


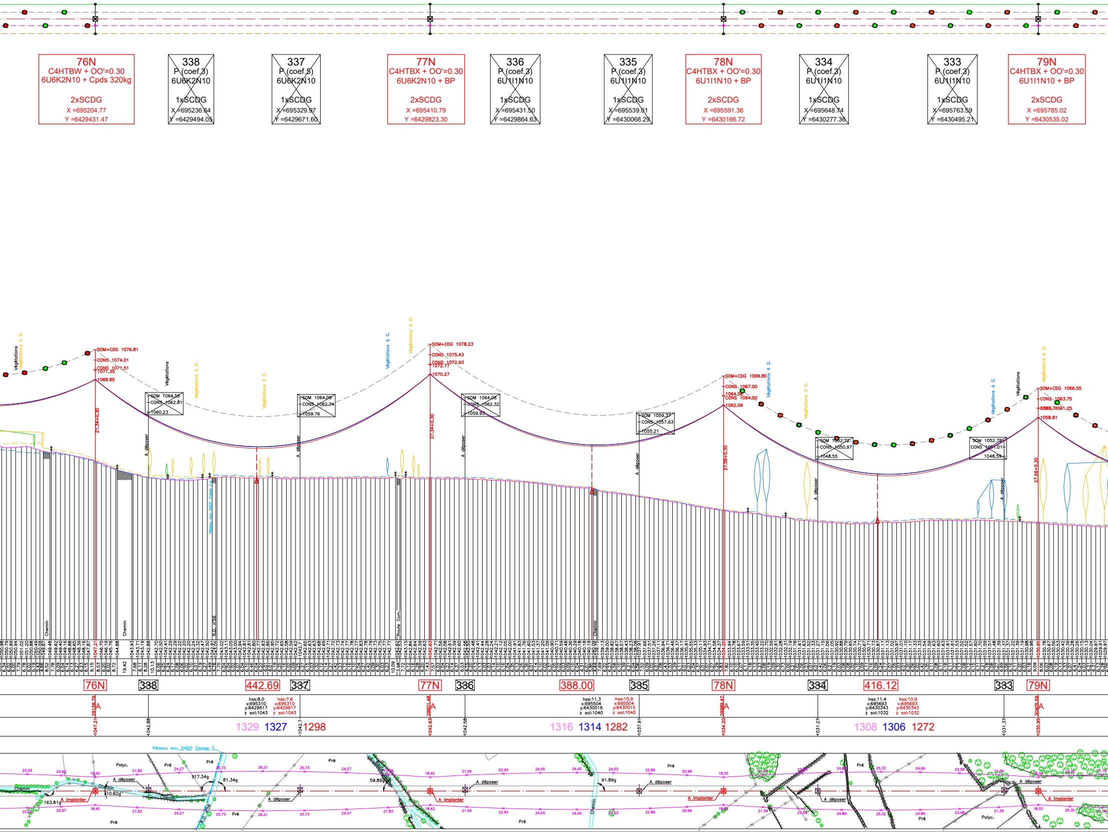
358
P (coef.5)
6U6K2N10
1xSCDG
X =692767.51
Y =6425203.14
63N
C4HTBY + OO'=0.30
6U6K2N10 + BP
2xSCDG
X =692813.60
Y =6425252.76
357
P (coef.3)
6U1I1N10
1xSCDG
X =692937.76
Y =6425387.01
64N
C4HTBW + OO'=0.60
6U1I1N10 + Cpds 240kg
2xSCDG
X =693071.11
Y =6425530.79
356
P (coef.3)
6U1I1N10
1xSCDG
X =693105.20
Y =6425567.87
~~355~~ 65
M1SMR1 A renforcer
~~6U4H2N10 / 6U4H2N10~~ 6U4X2N15 / 6U4X2N15
DCC 90
2xACDG / 2xACDG
X =693260.05
Y =6425734.81
Boitier d'épissure
354
P (coef.3)
6U1I1N10
1xSCDG
X =693371.29
Y =6425951.34
66N
C4HSBW + OO'=0.30
6U1I1N10 + Cpds 160kg
2xSCDG
X =693380.48
Y =6425963.66
Anti-cascade
SOM+CDG 1090.70
CONS 1087.90
CONS 1085.40
1085.24
1082.74
SOM 1069.34
CONS 1067.58
1064.99
SOM 1070.96
CONS 1069.22
1066.82
SOM+CDG 1084.34
CONS 1081.54
1079.10
CONS 1079.04
1076.60
SOM 1079.55
CONS 1077.80
1075.41
SOM 1093.63
CONS 1089.55
18.72
34.34+0.30
21.56+0.60
18.42+0.30
21.56+0.30
SOM+CDG 1094.06
CONS 1091.76
1089.32
CONS 1089.16
1086.72
SOM 1086.93
CONS 1085.18
1082.76
T=15°C
A déposer
Végétations à D.
Végétations à G.
Végétations
HTA 20.00m à D.
Réseau eau SIAEP Classe C
Réseau Orange Classe B
Chemin
PC=1030.00m
358
63N
357
378.96
64N
356
278.06
65
65
258.61
354
66N
hss:15.0
x:692963
y:6425404
z sol:1051
hss:14.5
x:692963
y:6425404
z sol:1051
hss:8.6
x:693164
y:6425619
z sol:1066
hss:8.3
x:693164
y:6425619
z sol:1066
hss:14.0
x:693318
y:6425824
z sol:1068
hss:13.7
x:693318
y:6425824
z sol:1068
1297 1295 1253
1273 1276 1229
1233 1244 1185
Réseau eau SIAEP
PEHD DN90 Classe C
Réseau Orange Classe B
Pré
A déposer
A implanter
143.33g
111.94g
143.99g
148.51g
35.95g
16gr72
Chemin

NEUVÉGLISE-SUR-TRUYÈRE

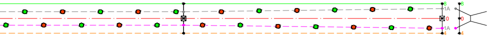

353
P (coef.3)
6U1I1N10
1xSCDG
X =693475.80
Y =6426149.65
67N
C4HTBX + OO'=0.30
6U1I1N10 + Cpds 160kg
2xSCDG
X =693523.40
Y =6426235.27
352
PF+4.50 (coef.3)
6U1I1N10
1xSCDG
X =693600.96
Y =6426387.39
68N
C4HTBX + OO'=0.30
6U1I1N10 + BP
2xSCDG
X =693717.30
Y =6426603.74
351
P (coef.3)
6U1I1N10
1xSCDG
X =693716.56
Y =6426607.09
350
P (coef.3)
6U1I1N10
1xSCDG
X =693811.86
Y =6426788.01
69N
C4HTBX + OO'=0.30
6U1I1N10 + BP
2xSCDG
X =693890.82
Y =6426933.49
349
P (coef.3)
6U1I1N10
1xSCDG
X =693924.80
Y =6427002.34
70N
C4HTBX + OO'=0.40
6U1I1N10 + BP
2xSCDG
X =694013.72
Y =6427167.05
348
P (coef.3)
6U1I1N10
1xSCDG
X =694022.34
Y =6427187.65
SOM+CDG 1091.28
CONS 1088.48
CONS 1085.98
1083.54
SOM+CDG 1095.18
CONS 1092.38
CONS 1089.88
1087.44
SOM+CDG 1086.78
CONS 1083.98
CONS 1081.48
1079.04
SOM+CDG 1070.09
CONS 1067.29
CONS 1064.79
1062.35
27.56+0.30
27.56+0.40
Végétations à G.
Végétations à D.
Végétations
A déposer
A implanter
Chemin
Pré
Réseau eau SIAEP Classe C
Réseau eau SIAEP Indéterminé DN Classe C
306.92
416.37
372.62
263.92
PC=980.00m
1258 1204
1290 1292 1239
1277 1292 1239
1280 1285 1234


Alignement de: 408.41m
Alignement de: 295.02m
347
PR
6U1I1N10
1xSCDG
X =694132.38
Y =6427396.95
71N
C4HTBX - OO'=0.60
6U6K2N10 + BP
2xSCDG
X =694211.70
Y =6427543.27
Pieds 2 et 3:-2m
346
P (coef.3)
6U1I1N10
1xSCDG
X =694229.49
Y =6427581.34
345
P (coef.3)
6U1I1N10
1xSCDG
X =694322.19
Y =6427757.44
72N
C4HTBY + OO'=0.30
6U6K2N10 + BP
138
2xSCDG
X =694403.55
Y =6427903.81
344
P-3 (coef.3)
6U1I1N10
1xSCDG
X =694404.14
Y =6427909.05
343
P (rallongé de 4.50m)
6U1I1N10
1xSCDG
X =694530.79
Y =6428153.50
Pieds
SOM+CDG 1045.75
CONS 1042.95
CONS 1040.45
1040.29
1037.79
SOM 1046.81
CONS 1044.52
CONS 1042.01
1039.62
CONS 1039.51
1037.14
27.34-0.60
SOM 1034.39
CONS 1032.65
1030.23
SOM+CDG 1021.83
CONS 1019.03
CONS 1016.53
1016.37
1013.87
SOM 1012.80
CONS 1011.05
1008.62
34.34+0.30
SOM 997.67
CONS 995.93
993.51
SOM 961.30
CONS 959.56
957.14
37.00+0.30
1005.66 Pot. FT 6.10m à D.
1003.69 FT
1006.15 HTA 20.00m à D.
1004.21 Pot. FT 4.51m à G.
1006.28 HTA
1007.60 Pot. HTA 11.82m à G.
1004.54 Pot. FT 15.22m à G.
Végétations à G.
Végétations à D.
A déposer
Espinchal
Chemin
T=13°C
PC=970.00m
PC=920.00m
425.14
347
71N
346
408.41
345
72N
344
295.02
343
73N
hss:8.3
x:694139
y:6427380
z sol:1023
hss:7.6
x:694139
y:6427380
z sol:1023
hss:9.4
x:694279
y:6427648
z sol:1008
hss:8.6
x:694279
y:6427648
z sol:1008
hss:33.7
x:694459
y:6427991
z sol:974
hss:33.0
x:694459
y:6427991
z sol:974
1309 1308 1256
1322 1322 1254
1354 1355 1230
27025.37
27433.77
27728.79
1011.05
1019.4
1012.91
979.23
991.34
979.16
935.52
935.56
A
0gr29
0gr70
A déposer
A implanter
Pré
Espinchal
Chemin
17.50g
185.70g
16.85g


NEUVÉGLISE-SUR-TRUYÈRE
CUSSAC
73N
C4HSBY + OO'=0.30
J4X2N15 / 6U4X2N15
2xACDG / 2xACDG
X =694539.26
Y =6428165.76
s 2 et 3:-2m / Pieds 1 et 4:+1m
Anti-cascade
Boitier d'épissure
342
PF+4.50 (coef.5)
6U1I1N10
1xACDG / 1xACDG
X =694614.63
Y =6428313.40
341
PF+8.50 (coef.5)
6U1I1N10
1xACDG / 1xACDG
X =694898.21
Y =6428851.68
74N
C4HABW - OO'=0.30
6U6K2N10 + Cpds 640kg
2xACDG / 2xACDG
X =694906.71
Y =6428864.59
Pieds 3 et 4 : -2m
340
PF+4.50 (coef.3)
6U1I1N10
1xSCDG
X =695029.78
Y =6429101.68
75N
C4HTBX + OO'=0.30
6U1I1N10 + BP
2xSCDG
X =695037.32
Y =6429113.01
339
P (coef.3)
6U1I1N10
1xSCDG
X =695122.01
Y =6429276.67
SOM+CDG 977.72
CONS 975.42
CONS 972.82
SOM+CDG 1008.19
CONS 1005.89
CONS 1003.29
1003.23
1000.63
SOM 1004.07
CONS 1002.33
999.90
SOM+CDG 1089.24
CONS 1086.44
1084.00
CONS 1083.94
1081.50
SOM 1078.49
CONS 1076.75
1074.33
SOM 944
CONS 942.49
940.09
SOM 1074.25
CONS 1072.51
1070.09
952.10 Pot. 23.32m à G.
937.71 Pot. 16.91m à D.
Végétations à D.
Végétations à G.
A déposer
34.34+0.30
21.34-0.30
27.56+0.30
PC=870.00m
PC=970.00m
PC=1000.00m
Chemin
R.D. n°990
Ruisseau
Réseau Orange Classe B
Réseau BT Classe C
Réseau eau SIAEP Classe C
Réseau Auvergne Haut Débit Classe B
73N
342
789.54
341
74N
280.66
340
75N
359.81
339
hss:16.1
x:694857
y:6428790
z sol:960
hss:16.0
x:694857
y:6428790
z sol:960
hss:8.5
x:695003
y:6429067
z sol:1052
hss:8.5
x:695003
y:6429067
z sol:1052
hss:9.6
x:695071
y:6429192
z sol:1060
hss:9.4
x:695133
y:6429279
z sol:1053
1448 1425 1455
1361 1370 1343
1328 1328 1299
935.52
27728.78
918.19
973.96
979.59
28518.32
1052.35
1053.64
28798.98
1052.69
0gr39
Réseau Orange Classe B
Réseau eau SIAEP Indéterminé DN Classe C
Aéro-souter
130.70g
88.55g
75.19g
37.62g
53.81g
24.09g
117.53g
54.74g
A implanter
A déposer
Pré
Réseau Auvergne Haut Débit Classe B
Pont de Rosso...


76N
C4HTBW + OO'=0.30
6U6K2N10 + Cpds 320kg
2xSCDG
X =695204.77
Y =6429431.47
338
P (coef.3)
6U6K2N10
1xSCDG
X =695236.64
Y =6429494.05
337
P (coef.5)
6U6K2N10
1xSCDG
X =695329.97
Y =6429671.60
77N
C4HTBX + OO'=0.30
6U6K2N10 + BP
2xSCDG
X =695410.79
Y =6429823.30
336
P (coef.3)
6U1I1N10
1xSCDG
X =695431.50
Y =6429864.63
335
P (coef.3)
6U1I1N10
1xSCDG
X =695539.01
Y =6430068.29
78N
C4HTBX + OO'=0.30
6U1I1N10 + BP
2xSCDG
X =695591.36
Y =6430166.72
334
P (coef.3)
6U1I1N10
1xSCDG
X =695648.74
Y =6430277.36
333
P (coef.3)
6U1I1N10
1xSCDG
X =695763.59
Y =6430495.21
79N
C4HTBX + OO'=0.30
6U1I1N10 + BP
2xSCDG
X =695785.02
Y =6430535.02
SOM+CDG 1076.81
CONS 1074.01
CONS 1071.51
1071.35
1068.85
21.34+0.30
SOM 1064.56
CONS 1062.81
1060.23
SOM 1064.09
CONS 1062.34
1059.76
SOM+CDG 1078.23
CONS 1075.43
CONS 1072.93
1072.77
1070.27
27.34+0.30
SOM 1064.06
CONS 1062.32
1059.93
SOM 1059.37
CONS 1057.63
1055.21
SOM+CDG 1069.80
CONS 1067.00
1064.56
CONS 1064.50
1062.06
27.56+0.30
SOM 1052.72
CONS 1050.97
1048.55
SOM 1052.75
CONS 1051.01
1048.59
SOM+CDG 1066.55
CONS 1063.75
CONS 1061.25
1058.81
27.56+0.30
Végétations à D.
Végétations à G.
Végétations
A déposer
Chemin
R.D. n56
Route Com.
Réseau eau SIAEP Classe C
76N
338
442.69
337
77N
336
388.00
335
78N
334
416.12
333
79N
hss:8.0
x:695310
y:6429617
z sol:1043
hss:7.6
x:695310
y:6429617
z sol:1043
hss:11.3
x:695504
y:6430016
z sol:1040
hss:10.9
x:695504
y:6430015
z sol:1040
hss:11.4
x:695693
y:6430343
z sol:1032
hss:10.9
x:695693
y:6430343
z sol:1032
1047.21
1042.88
1042.7
1042.63
1042.58
1037.91
1034.20
1031.27
1031.37
1030.95
1329
1327
1298
1316
1314
1282
1308
1306
1272
A
Polyc.
Pré
Chemin
A déposer
A implanter
163.81g
10.62g
117.34g
81.34g
59.86g
91.89g
R.D. n56

Alignement de: 10637.05m



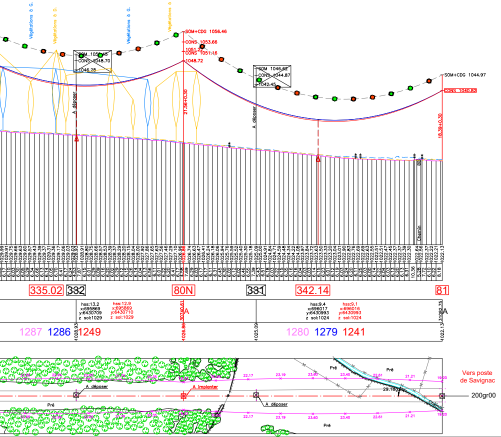
CUSSAC

~~332~~
~~P (coef.3)~~
~~6U1I1N10~~
~~1xSCDG~~
~~X =695874.54~~
~~Y =6430705.85~~

80N
C4HTBW + OO'=0.30
6U1I1N10 + Cpds 160kg
2xSCDG
X =695940.93
Y =6430831.56

~~331~~
~~P (coef.3)~~
~~6U1I1N10~~
~~1xSCDG~~
~~X =695985.49~~
~~Y =6430916.59~~

~~330~~ 81
M1SMR1 A renforcer
6U4X2N15 / 6U4X2N15 ~~6U4H2N10 / 6U4H2N10~~
PRC 200
2xACDG / 2xACDG
X =696100.16
Y =6431134.39
Anti-cascade
+ Boitier d'épissure



Végétations à G.
Végétations à D.
Végétations à G.
Végétations à D.
SOM+CDG 1056.46
CONS 1053.66
1051.22
CONS 1051.16
1048.72
SOM 1050.45
CONS 1048.70
1046.28
A déposer
21.56+0.30
SOM 1046.62
CONS 1044.87
1042.45
A déposer
SOM+CDG 1044.97
CONS 1040.82
18.39+0.30
Chemin
335.02
~~332~~
80N
~~331~~
342.14
81
hss:13.2
x:695869
y:6430709
z sol:1029
hss:12.9
x:695869
y:6430710
z sol:1029
30740.61
A
hss:9.4
x:696017
y:6430993
z sol:1024
hss:9.1
x:696016
y:6430993
z sol:1024
31082.75
A
1287
1286
1028.93
1249
1026.86
1025.09
1280
1279
1241
1022.13
22.65
22.94
22.65
21.79
20.35
18.13
20.33
22.17
23.19
23.60
23.40
22.61
21.21
19.20
Pré
Pré
Pré
A déposer
A implanter
A déposer
29.18gr
Chemin
Pré
Vers poste de Savignac
200gr00