ANEJO Nº 6. ESTRUCTURAS

4. Cálculos

4.1.2. Viaducto sobre el río Segre. Cálculos comunes

VIADUCTO SOBRE EL RÍO SEGRE. L.A.V. TRAMO: LLEIDA-MARTORELL.
VIADUCTO 1 – CÁLCULOS COMUNES

Cálculos Estructurales

Índice

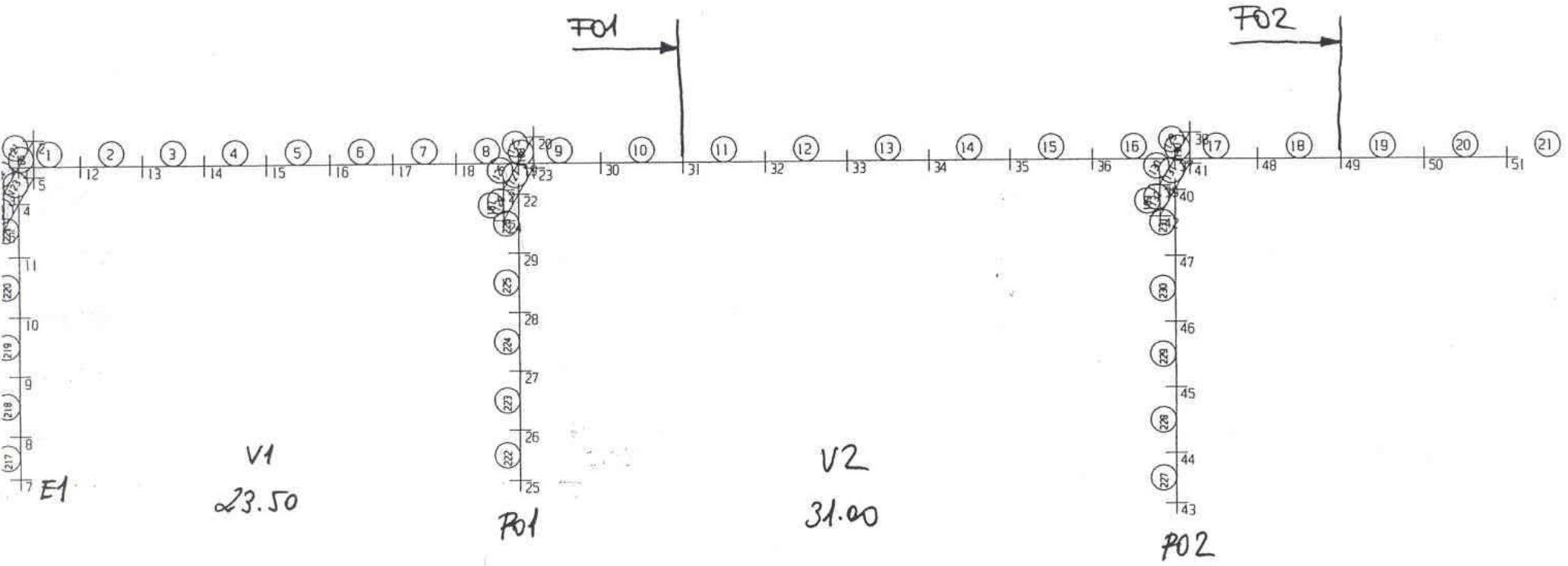
MODELO ESTRUCTURAL CÁLCULO 1 .
LEYES DE ESFUERZOS CÁLCULO 1
TENSIONES CÁLCULO 1
CÁLCULO DINÁMICO CÁLCULO 1
REACCIONES EN APOYOS CÁLCULO 1

MODELO ESTRUCTURAL CÁLCULO 2 .
LEYES DE ESFUERZOS CÁLCULO 2 .
TENSIONES CÁLCULO 2
REACCIONES EN APOYOS CÁLCULO 2
CÁLCULO DINÁMICO CÁLCULO 2

MODELO ESTRUCTURAL CÁLCULO 3 .
LEYES DE ESFUERZOS CÁLCULO 3 .
TENSIONES CÁLCULO 3 .
REACCIONES EN APOYOS CÁLCULO 3
CÁLCULO DINÁMICO CÁLCULO 3

MODELO ESTRUCTURAL CÁLCULO 1

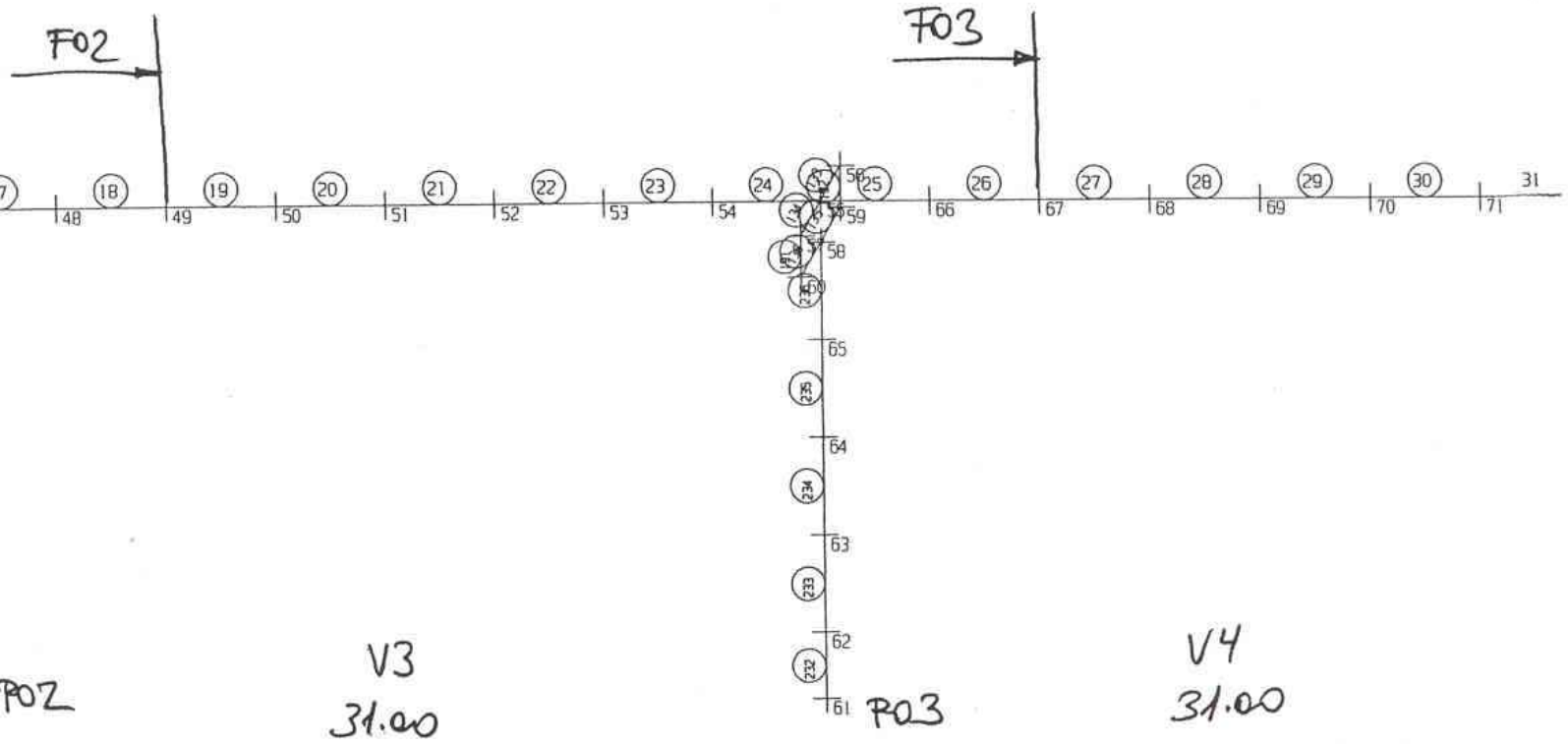
FASES DE CONSTRUCCION

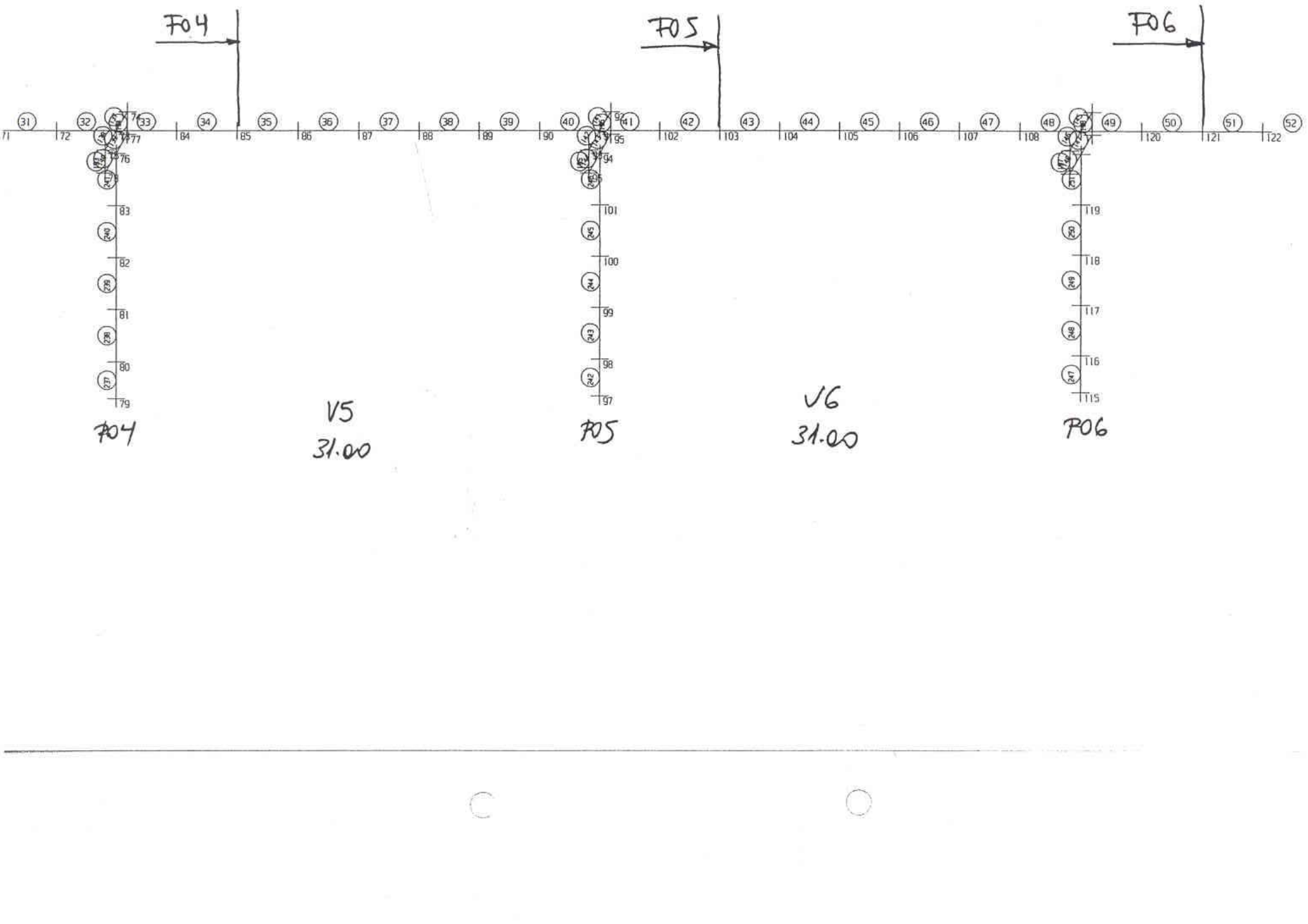


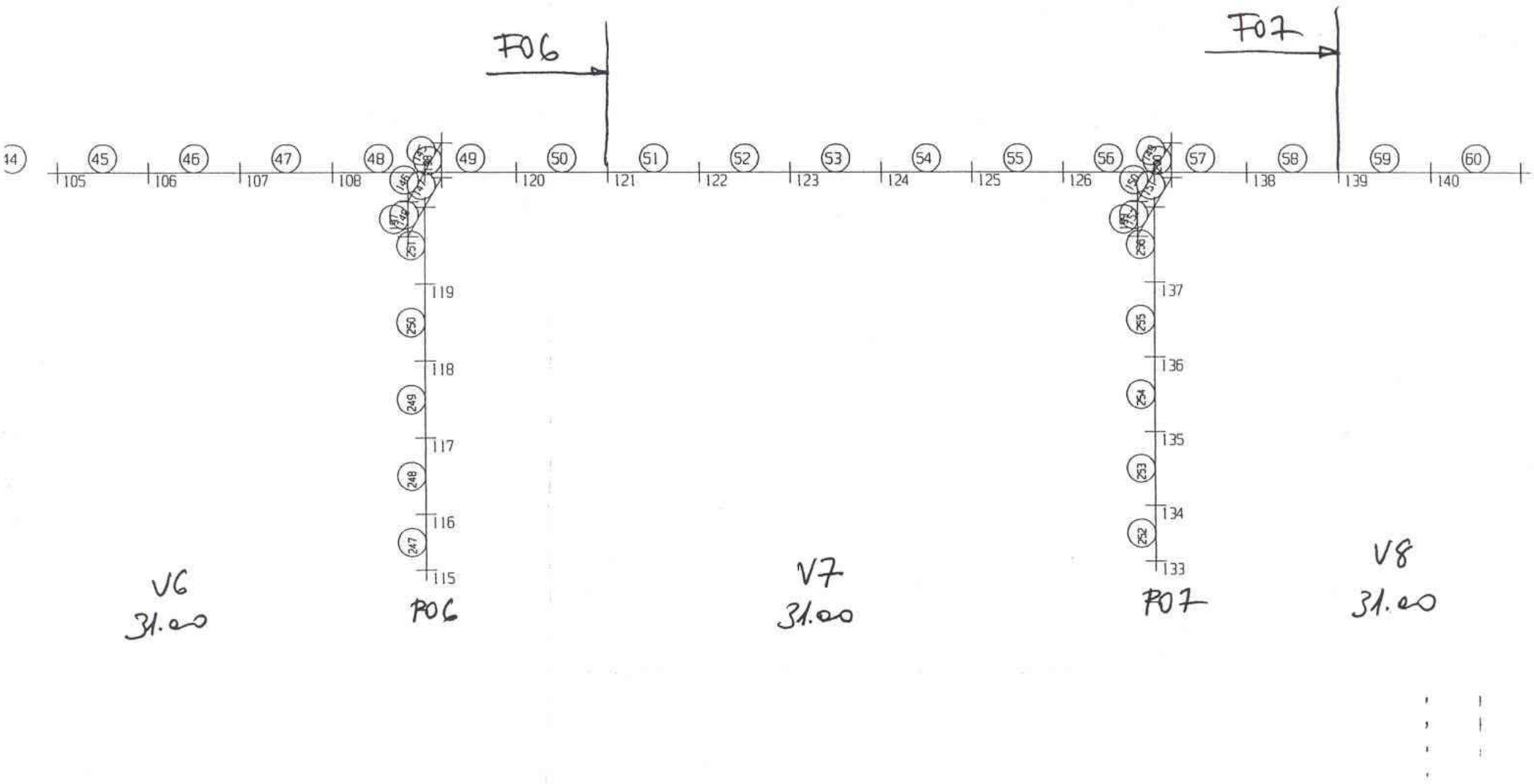
CALCULO - 1

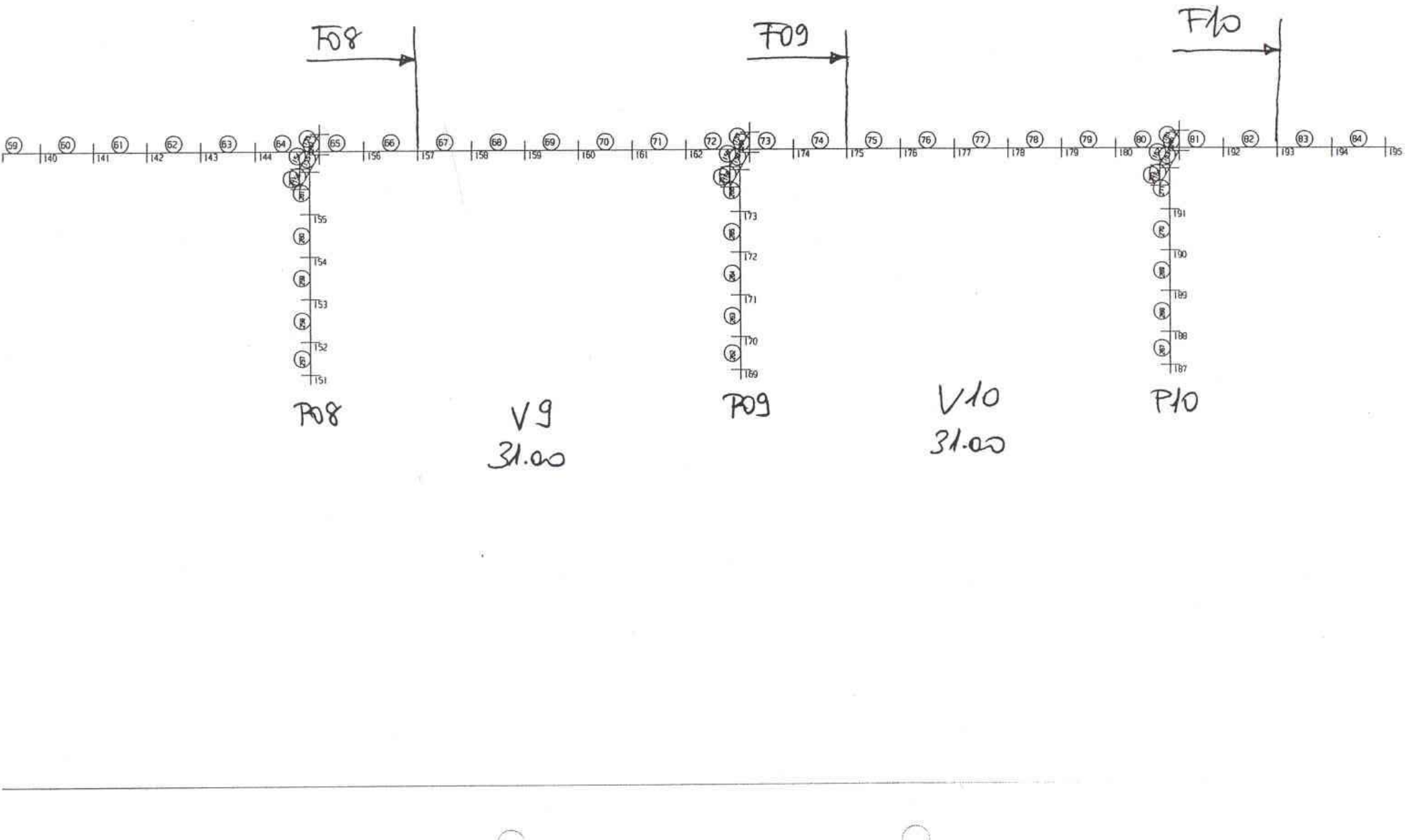
23.50 + 13 * 31.00 + 23.50 = 450 M (MODELO)
23.50 + 14 * 31.00 + 23.50 = 481 M (REALIDAD)

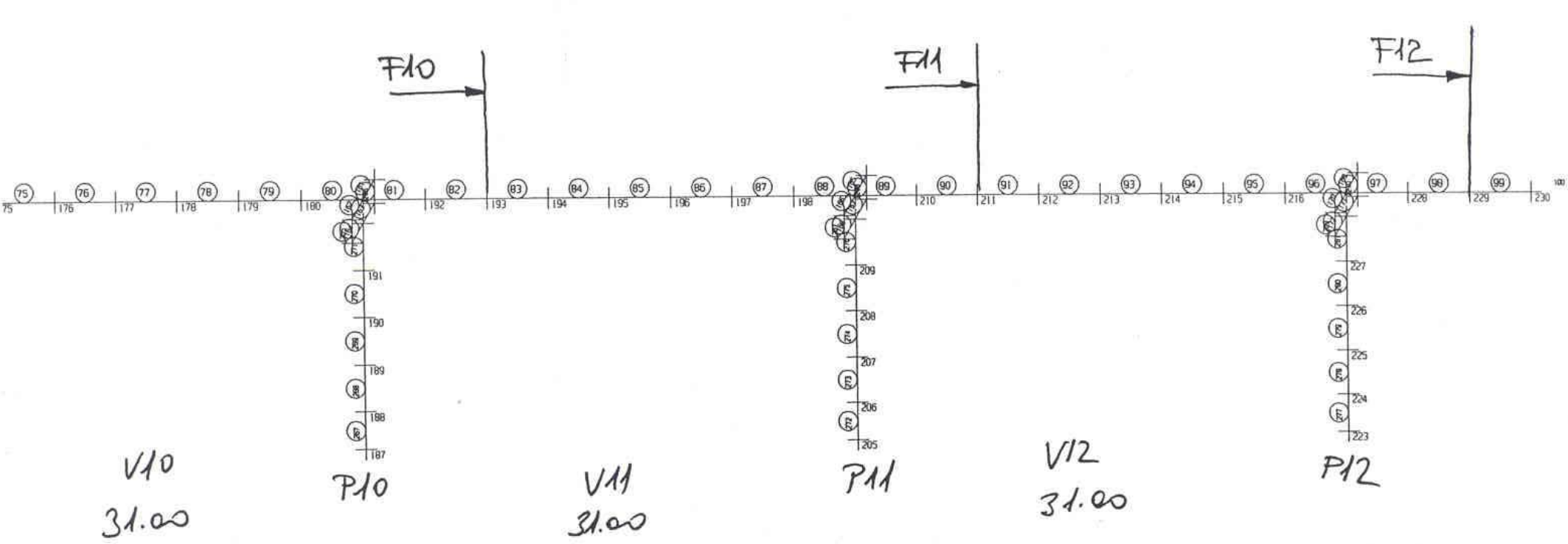
El Modelo representado tiene un vano menos que el puente real
Esta circunstancia se tiene en cuenta en el cálculo de fuerzas horizontales

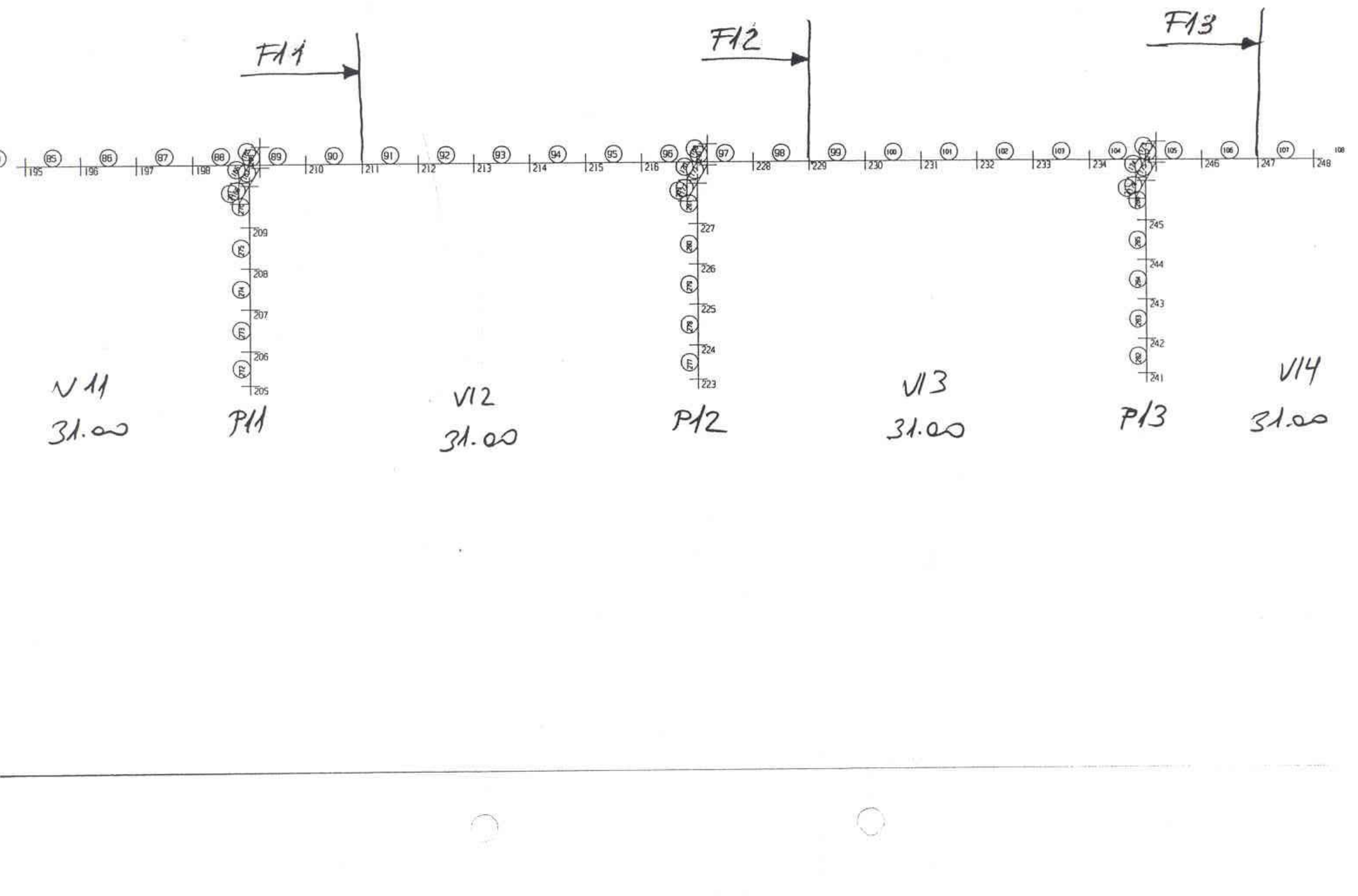



F04
F05
F06
V5
31.00
V6
31.00
F04
F05
F06


F06
F07
V6
31.00
V7
31.00
V8
31.00
F06
F07


F08
F09
F10
P08
V9
31.00
P09
V10
31.00
P10


F10
F11
F12
V10
31.00
P10
V11
31.00
P11
V12
31.00
P12


F11
F12
F13
V11
31.00
P11
V12
31.00
P12
V13
31.00
P13
V14
P13
F13
F14
F15
V14
31.00
P14
V15
23.50
P15

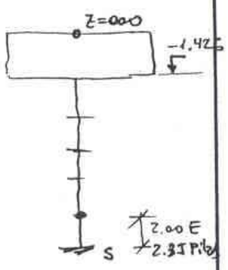
LONGITUDES DE PILAS. VIADUCTO DEL SEGRE

23.50 + 14 + 31.00 + 23.50

H

E1.		Z.000
	P01	5.734
	P02	5.390
	P03	5.587
	P04	5.356
	P05	5.155
	P06	4.827
	P07	4.529
	P08	4.393
	P09	4.168
	P10	4.004
	P11	4.943
	P12	4.711
	P13	4.523
	P14	4.293
	P15	4.298
P16		4.734

	E1	P01	P02	P03	P04
COGtablero	0.000	0.000	0.000	0.000	0.000
	-1.4255	-1.4582	-1.4582	-1.458	-1.458
	H=7.0000	H=5.234	H=5.390	H=5.587	H=5.356
	H/4=1.7500	H/4=1.4335	H/4=1.3475	H/4=1.392	H/4=1.339
	Zinf=-10.4255	Zinf=9.5422	Zinf=9.1982	Zinf=9.325	Zinf=9.164



	P05	P06	P07	P08	P09
COGtablero	0.000	0.000	0.000	0.000	0.000
	-1.458	-1.4582	-1.4582	-1.4582	-1.4582
	H=5.155	H=4.827	H=4.529	H=4.393	H=4.168
	H/4=1.2888	H/4=1.2068	H/4=1.1323	H/4=1.0983	H/4=1.042
	Zinf=8.963	Zinf=8.6352	Zinf=8.3372	Zinf=8.2012	Zinf=7.9762

Eliminada del Modelo

CARLOS FERNANDEZ CASADO, S.L.
OFICINA DE PROYECTOS

PROYECTO

HOJA ___ DE ___
FECHA

CARLOS FERNANDEZ CASADO, S.L.
OFICINA DE PROYECTOS

PROYECTO

HOJA ____ DE ____
FECHA

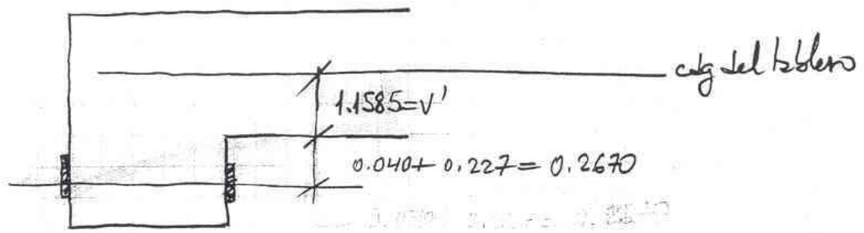
	P10	P11	P12	P13	P14	P15	P16
CotaPalus	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	-1.4582	-1.4582	-1.4582	-1.4582	-1.4582	-1.4582	-1.4582
	H=4.204	H=4.943	H=4.711	H=4.523	H=4.293	H=4.798	H=4.784
	H4=1.0170	H4=1.2283	H4=1.1978	H4=1.1308	H4=1.0733	H4=1.1995	H4=1.1835
	Zuf=8.0122	Zuf=8.7212	Zuf=8.5192	Zuf=8.3312	Zuf=8.1012	Zuf=8.6062	Zuf=8.3722

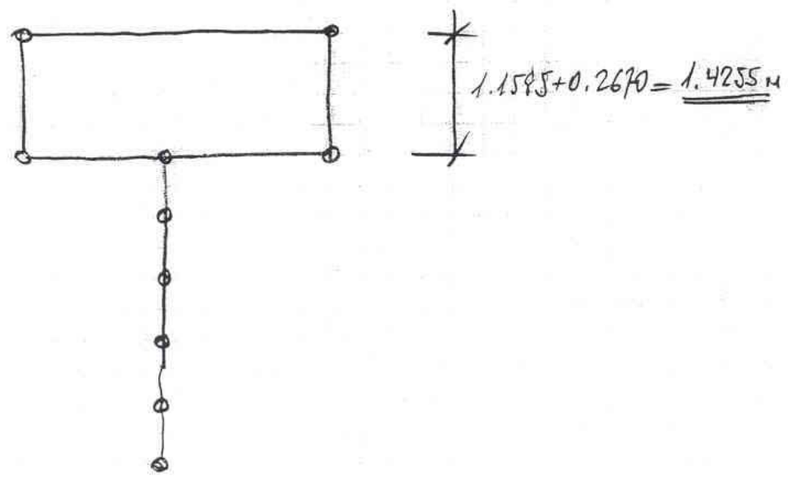
CARLOS FERNANDEZ CASADO, S.L.
OFICINA DE PROYECTOS

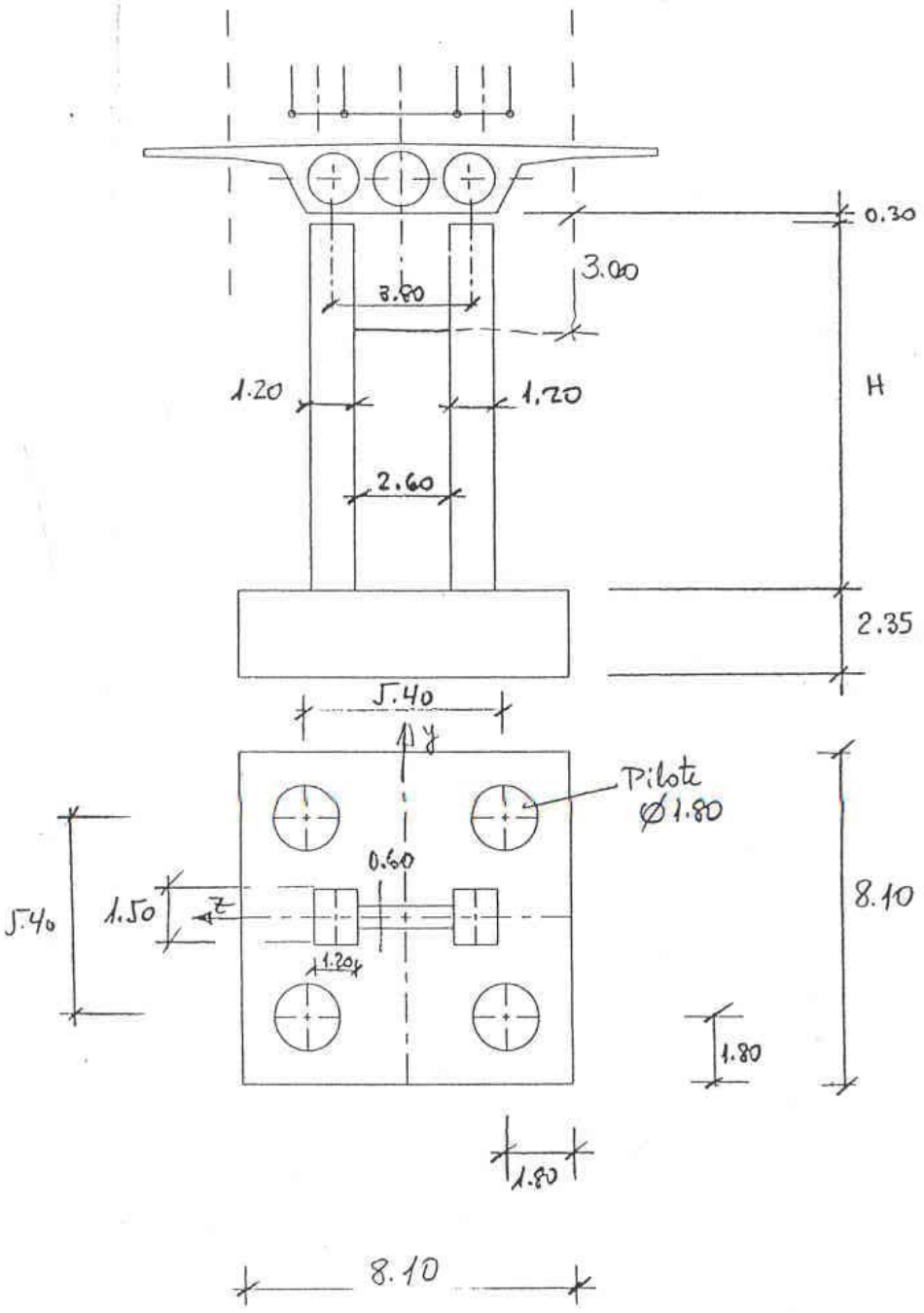
PROYECTO

HOJA ____ DE ____
FECHA

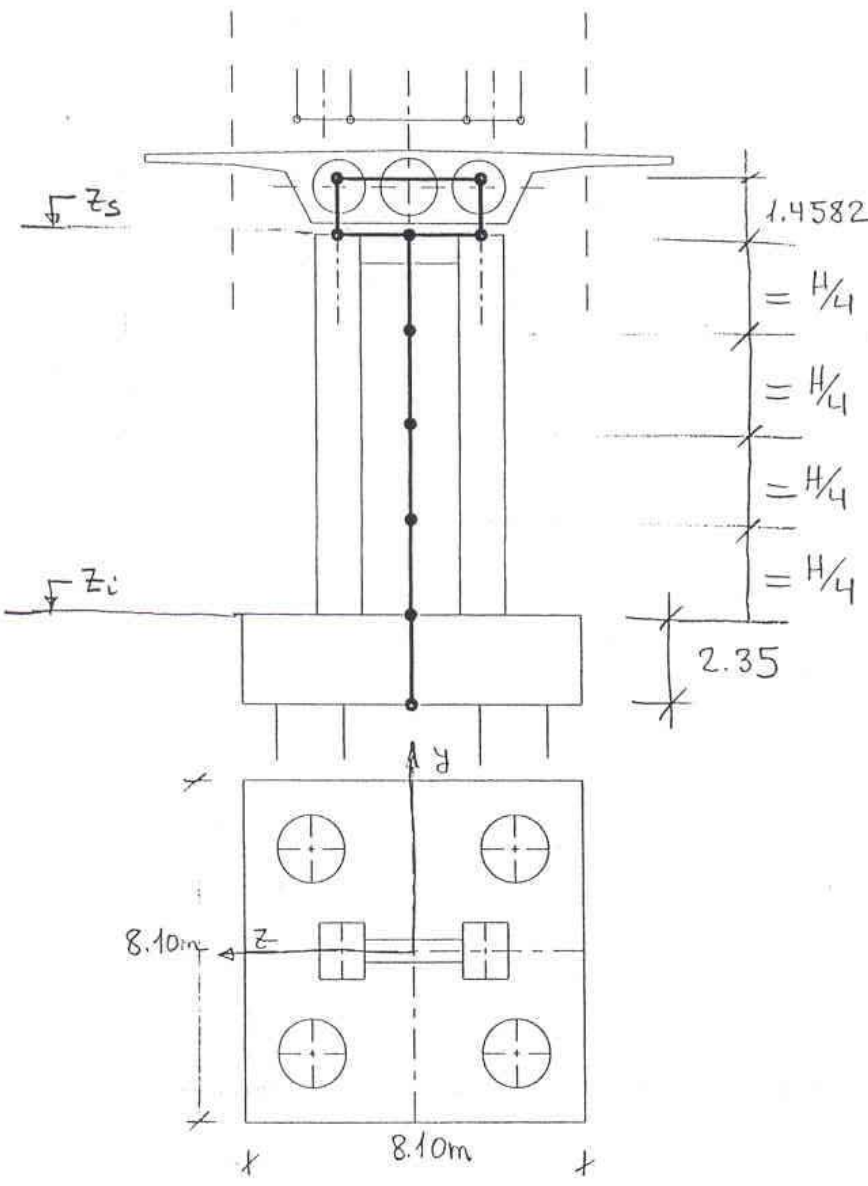
POSICION TACOS ANCLAJE E1:






0.30
3.00
3.80
1.20
1.20
H
2.60
2.35
5.40
y
Pilote
Ø 1.80
0.60
5.40
1.50
z
1.20
8.10
1.80
1.80
8.10

$H = Z_s - Z_i$


Zs
1.4582
= H/4
= H/4
= H/4
= H/4
Zi
2.35
y
8.10m
z
8.10m

E · 1/200

```
estr  VIADUCTO 1 SOBRE EL RIO SEGRE - CALCULO_1
nume de nudo  281
nume de barr  296
nume de hipo **
nume de apoy   16
tipo port espa
list nada
coor de nudo
    1      0.0000      0.000      0.0000
    2      0.0000      0.000     -1.9000
    3      0.0000      0.000      1.9000
    4      0.0000     -1.426      0.0000
    5      0.0000     -1.426     -1.9000
    6      0.0000     -1.426      1.9000
    7      0.0000    -10.426      0.0000 s
    8      0.0000     -8.426      0.0000
    9      0.0000     -6.676      0.0000
   10      0.0000     -4.926      0.0000
   11      0.0000     -3.176      0.0000
   12      2.9375      0.000      0.0000
   13      5.8750      0.000      0.0000
   14      8.8125      0.000      0.0000
   15     11.7500      0.000      0.0000
   16     14.6875      0.000      0.0000
   17     17.6250      0.000      0.0000
   18     20.5625      0.000      0.0000
   19     23.5000      0.000      0.0000
   20     23.5000      0.000     -1.9000
   21     23.5000      0.000      1.9000
   22     23.5000     -1.458      0.0000
   23     23.5000     -1.458     -1.9000
   24     23.5000     -1.458      1.9000
   25     23.5000     -9.542      0.0000 s
   26     23.5000     -7.192      0.0000
   27     23.5000     -5.759      0.0000
   28     23.5000     -4.325      0.0000
   29     23.5000     -2.892      0.0000
   30     27.3750      0.000      0.0000
   31     31.2500      0.000      0.0000
   32     35.1250      0.000      0.0000
   33     39.0000      0.000      0.0000
   34     42.8750      0.000      0.0000
   35     46.7500      0.000      0.0000
   36     50.6250      0.000      0.0000
   37     54.5000      0.000      0.0000
   38     54.5000      0.000     -1.9000
   39     54.5000      0.000      1.9000
   40     54.5000     -1.458      0.0000
   41     54.5000     -1.458     -1.9000
   42     54.5000     -1.458      1.9000
   43     54.5000     -9.198      0.0000 s
   44     54.5000     -6.848      0.0000
   45     54.5000     -5.500      0.0000
   46     54.5000     -4.152      0.0000
   47     54.5000     -2.804      0.0000
```

48	58.3750	0.000	0.0000	
49	62.2500	0.000	0.0000	
50	66.1250	0.000	0.0000	
51	70.0000	0.000	0.0000	
52	73.8750	0.000	0.0000	
53	77.7500	0.000	0.0000	
54	81.6250	0.000	0.0000	
55	85.5000	0.000	0.0000	
56	85.5000	0.000	-1.9000	
57	85.5000	0.000	1.9000	
58	85.5000	-1.458	0.0000	
59	85.5000	-1.458	-1.9000	
60	85.5000	-1.458	1.9000	
61	85.5000	-9.375	0.0000	s
62	85.5000	-7.025	0.0000	
63	85.5000	-5.633	0.0000	
64	85.5000	-4.241	0.0000	
65	85.5000	-2.849	0.0000	
66	89.3750	0.000	0.0000	
67	93.2500	0.000	0.0000	
68	97.1250	0.000	0.0000	
69	101.0000	0.000	0.0000	
70	104.8750	0.000	0.0000	
71	108.7500	0.000	0.0000	
72	112.6250	0.000	0.0000	
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74	116.5000	0.000	-1.9000	
75	116.5000	0.000	1.9000	
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77	116.5000	-1.458	-1.9000	
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83	116.5000	-2.797	0.0000	
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98	147.5000	-6.613	0.0000	
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161	263.7500	0.000	0.0000
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201	333.5000	0.000	1.9000
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212	345.1250	0.000	0.0000
213	349.0000	0.000	0.0000
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217	364.5000	0.000	0.0000
218	364.5000	0.000	-1.9000
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221	364.5000	-1.458	-1.9000
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234	391.6250	0.000	0.0000
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236	395.5000	0.000	-1.9000
237	395.5000	0.000	1.9000
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245	395.5000	-2.532	0.0000
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255	426.5000	0.000	1.9000
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269	444.1250	0.000	0.0000
270	447.0625	0.000	0.0000
271	450.0000	0.000	0.0000

272	450.0000	0.000	-1.9000	
273	450.0000	0.000	1.9000	
274	450.0000	-1.458	0.0000	
275	450.0000	-1.458	-1.9000	
276	450.0000	-1.458	1.9000	
277	450.0000	-8.542	0.0000	s
278	450.0000	-6.192	0.0000	
279	450.0000	-5.009	0.0000	
280	450.0000	-3.825	0.0000	
281	450.0000	-2.642	0.0000	

inci de barr

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101	231	232

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178	253	255
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180	256	258
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202	149	146
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204	167	164
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206	185	182
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208	203	200
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210	221	218
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212	239	236
213	258	255

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215  276  273
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219    9   10
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289  261  262
290  262  263
291  263  256
292  277  278
293  278  279
294  279  280
295  280  281
296  281  274
libe de barr
* E1
  185 inic          mome x y z
  186 inic fuer   z mome x y z
* P01
  187 inic fuer y   mome x y z
  188 inic fuer y z mome x y z
* P02
  189 inic fuer y   mome x y z
  190 inic fuer y z mome x y z
* P03
  191 inic fuer y   mome x y z
  192 inic fuer y z mome x y z
* P04
  193 inic fuer y   mome x y z
  194 inic fuer y z mome x y z
* P05
  195 inic fuer y   mome x y z
  196 inic fuer y z mome x y z
* P06
  197 inic fuer y   mome x y z
  198 inic fuer y z mome x y z
* P07
  199 inic fuer y   mome x y z
  200 inic fuer y z mome x y z
* P08
  201 inic fuer y   mome x y z
  202 inic fuer y z mome x y z
* P09
```

```
  203 inic fuer y   mome x y z
  204 inic fuer y z mome x y z
* P10
  205 inic fuer y   mome x y z
  206 inic fuer y z mome x y z
* P11
  207 inic fuer y   mome x y z
  208 inic fuer y z mome x y z
* P12
  209 inic fuer y   mome x y z
  210 inic fuer y z mome x y z
* P13
  211 inic fuer y   mome x y z
  212 inic fuer y z mome x y z
* P14
  213 inic fuer y   mome x y z
  214 inic fuer y z mome x y z
* P15
  215 inic fuer y   mome x y z
  216 inic fuer y z mome x y z
mate de barr
    1 a  120    1
  121 a  216    1
         217    3
  218 a  221    3
         222    3
  223 a  226    2
         227    3
  228 a  231    2
         232    3
  233 a  236    2
         237    3
  238 a  241    2
         242    3
  243 a  246    2
         247    3
  248 a  251    2
         252    3
  253 a  261    2
         262    3
  263 a  266    2
         267    3
  268 a  271    2
         272    3
  273 a  276    2
         277    3
  278 a  281    2
         282    3
  283 a  286    2
         287    3
  288 a  291    2
         292    3
  293 a  296    3
prop de barr pris
* TABLERO
    1 a  120 8.787 2.972 3.860  5.447 80.54 3.341
* BARRAS DE GRAN RIGIDEZ
  121 a  184 100. 100. 100.  100. 1000. 100.
* APARATOS DE APOYO
* E1
  185 a  186 100. 100. 100.  100.  500. 100.
* P01
  187 a  188 100. 100. 100.  100.  500. 100.
* P02
  189 a  190 100. 100. 100.  100.  500. 100.
* P03
  191 a  192 100. 100. 100.  100.  500. 100.
* P04
  193 a  194 100. 100. 100.  100.  500. 100.
* P05
  195 a  196 100. 100. 100.  100.  500. 100.
* P06
  197 a  198 100. 100. 100.  100.  500. 100.
* P07
  199 a  200 100. 100. 100.  100.  500. 100.
* P08
  201 a  202 100. 100. 100.  100.  500. 100.
* P09
  203 a  204 100. 100. 100.  100.  500. 100.
* P10
  205 a  206 100. 100. 100.  100.  500. 100.
* P11
  207 a  208 100. 100. 100.  100.  500. 100.
* P12
  209 a  210 100. 100. 100.  100.  500. 100.
* P13
  211 a  212 100. 100. 100.  100.  500. 100.
* P14
  213 a  214 100. 100. 100.  100.  500. 100.
* P15
  215 a  216 100. 100. 100.  100.  500. 100.
* FUSTES DE ESTRIBOS Y PILAS
* E1
        217 158.4  132.   132.   3182.3  3379.2 1293.7
  218 a 221  54.17  45.14  45.14   44.19 1129.3  337.3
*
* 3 ULTIMOS METROS SIN TABIQUE DE UNION
*
* P01
        222 65.61 54.68 54.68  606.24 358.72 358.72
  223 a 225  5.16  4.30  4.30    1.166 14.31   0.722
        226  3.60  3.00  3.00    0.887 13.43   0.675
*
* P02
        227 65.61 54.68 54.68  606.24 358.72 358.72
  228 a 230  5.16  4.30  4.30    1.166 14.31   0.722
        231  3.60  3.00  3.00    0.887 13.43   0.675
*
* P03
        232 65.61 54.68 54.68  606.24 358.72 358.72
  233 a 235  5.16  4.30  4.30    1.166 14.31   0.722
        236  3.60  3.00  3.00    0.887 13.43   0.675
```

```
*
* P04
          237 65.61 54.68 54.68  606.24 358.72 358.72
  238 a   240  5.16  4.30  4.30    1.166 14.31   0.722
          241  3.60  3.00  3.00    0.887 13.43   0.675
*
* P05
          242 65.61 54.68 54.68  606.24 358.72 358.72
  243 a   245  5.16  4.30  4.30    1.166 14.31   0.722
          246  3.60  3.00  3.00    0.887 13.43   0.675
*
* P06
          247 65.61 54.68 54.68  606.24 358.72 358.72
  248 a   250  5.16  4.30  4.30    1.166 14.31   0.722
          251  3.60  3.00  3.00    0.887 13.43   0.675
*
* P07
          252 65.61 54.68 54.68  606.24 358.72 358.72
  253 a   255  5.16  4.30  4.30    1.166 14.31   0.722
          256  3.60  3.00  3.00    0.887 13.43   0.675
*
* P08
          257 65.61 54.68 54.68  606.24 358.72 358.72
  258 a   260  5.16  4.30  4.30    1.166 14.31   0.722
          261  3.60  3.00  3.00    0.887 13.43   0.675
*
* P09
          262 65.61 54.68 54.68  606.24 358.72 358.72
  263 a   265  5.16  4.30  4.30    1.166 14.31   0.722
          266  3.60  3.00  3.00    0.887 13.43   0.675
*
* P10
          267 65.61 54.68 54.68  606.24 358.72 358.72
  268 a   270  5.16  4.30  4.30    1.166 14.31   0.722
          271  3.60  3.00  3.00    0.887 13.43   0.675
*
* P11
          272 65.61 54.68 54.68  606.24 358.72 358.72
  273 a   275  5.16  4.30  4.30    1.166 14.31   0.722
          276  3.60  3.00  3.00    0.887 13.43   0.675
*
* P12
          277 65.61 54.68 54.68  606.24 358.72 358.72
  278 a   280  5.16  4.30  4.30    1.166 14.31   0.722
          281  3.60  3.00  3.00    0.887 13.43   0.675
*
* P13
          282 65.61 54.68 54.68  606.24 358.72 358.72
  283 a   285  5.16  4.30  4.30    1.166 14.31   0.722
          286  3.60  3.00  3.00    0.887 13.43   0.675
*
* P14
          287 65.61 54.68 54.68  606.24 358.72 358.72
  288 a   290  5.16  4.30  4.30    1.166 14.31   0.722
          291  3.60  3.00  3.00    0.887 13.43   0.675
*
```

```
* PILA 15 (PILA DOBLE)
          292 65.61 54.68 54.68  606.24 358.72 358.72
  293 a   295 13.40 11.16 11.16    7.335 31.86   8.860
          296  7.68  6.40  6.40    2.815 28.65   6.554
*
cons de mate
* HORMIGON TABLERO fck=40 MPa
* E=100000*[9.50*(40.00+8)**1/3]=3452529.
* G=E/2(1+nu=0.2)=1438554.
    1 3452529. 1438554. 2.5
* HORMIGON PILAS fck=3000 t/m2
* E=100000*[9.50*(30.00+8)**1/3]=3193877.
* G=E/2(1+nu=0.2)=1330782.
    2 3193877. 1330782. 2.5
* HORMIGON ZAPATAS Y ESTRIBOS fck=2500 t/m2
* E=950000*[9.50*(25.00+8)**1/3]=3047158.
* G=E/2(1+nu=0.2)=1269649.
    3 3047158. 1269649. 2.5
* HIPOTESIS DE CALCULO
* ====================

.../...

calcula y almacena
2 2 2
```

CARLOS FERNANDEZ CASADO, S.L.
OFICINA DE PROYECTOS

PROYECTO

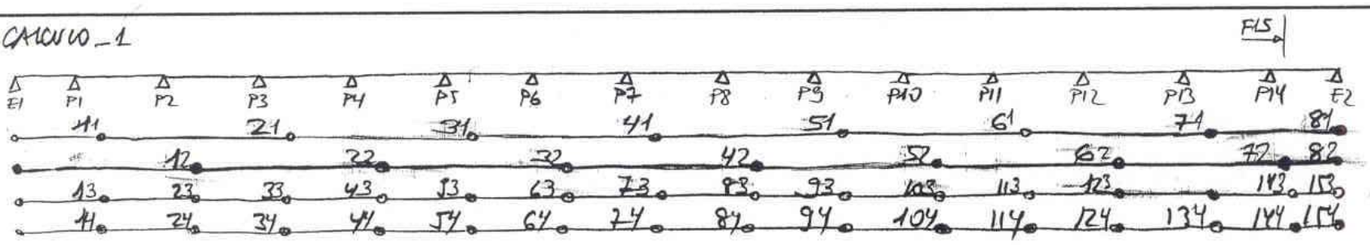
HOJA ___ DE ___

FECHA

1 2 3 4

PRETENSADO. CALCULO_1

CALCULO_1

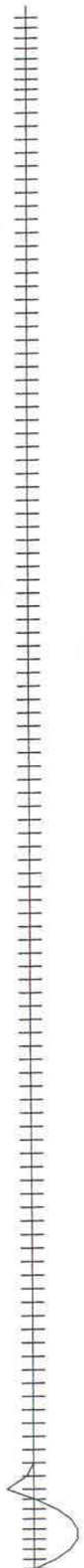


$23.50 + 14 * 31.00 + 23.50 = 481_m$.

El modelo de calculo tiene un vano menos que el puente real.

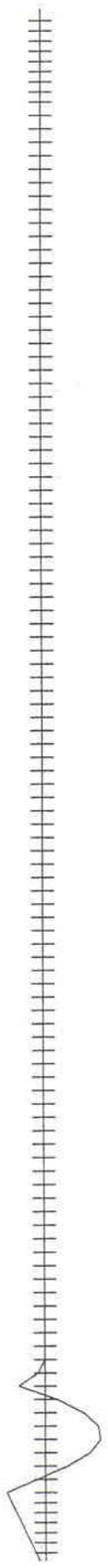
VIADUCTO 1 SOBRE EL RIO SEGRE
hipo 985 PESO PROPIO FASE 1

M. Z 2000.0



VIADUCTO I SOBRE EL RIO SEGRE
hipo 986 PESO PROPIO FASE 2

M. Z 2000.0



VIADUCTO I SOBRE EL RIO SEGRE
hipo 987 PESO PROPIO FASE 3

M. Z 2000.0



VIADUCTO 1 SOBRE EL RIO SEGRE
hipo 988 PESO PROPIO FASE 4

M. Z 2000.0



VIADUCTO 1 SOBRE EL RIO SEGRE
hipo 989 PESO PROPIO FASE 5

M. Z 2000.0



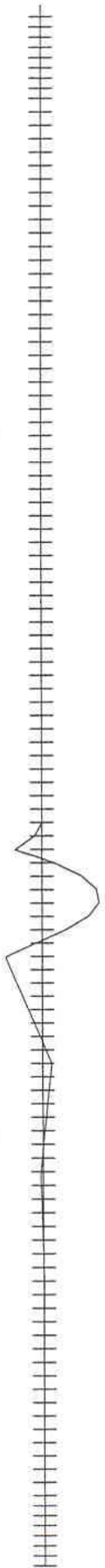
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hipo 990 PESO PROPIO FASE 6

M. Z 2000.0



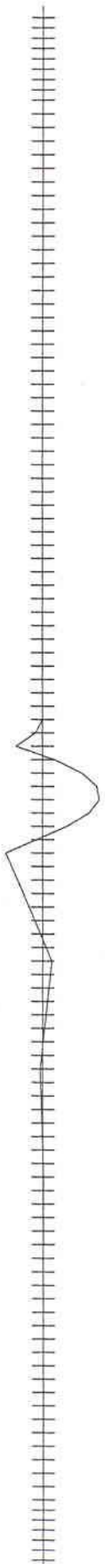
VIADUCTO I SOBRE EL RIO SEGRE
hipo 991 PESO PROPIO FASE 7

M. Z 2000.0



VIADUCTO I SOBRE EL RIO SEGRE
hipo 992 PESO PROPIO FASE 8

M. Z 2000.0



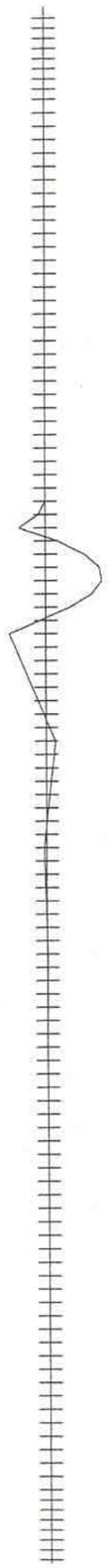
VIADUCTO I SOBRE EL RIO SEGRE
hipo 993 PESO PROPIO FASE 9

M. Z 2000.0



VIADUCTO I SOBRE EL RIO SEGRE
hipo 994 PESO PROPIO FASE 10

M. Z 2000.0



VIADUCTO I SOBRE EL RIO SEGRE
hipo 995 PESO PROPIO FASE 11

M. Z 2000.0



VIADUCTO 1 SOBRE EL RIO SEGRE
hipo 996 PESO PROPIO FASE 12

M. Z 2000.0



VIADUCTO 1 SOBRE EL RIO SEGRE
hipo 997 PESO PROPIO FASE 13

M. Z 2000.0



VIADUCTO 1 SOBRE EL RIO SEGRE
hipo 998 PESO PROPIO FASE 14

M. Z 2000.0



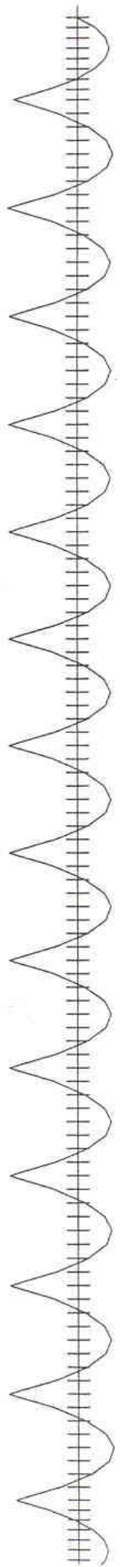
VIADUCTO 1 SOBRE EL RIO SEGRE
hipo 999 PESO PROPIO FASE 15

M. Z 2000.0



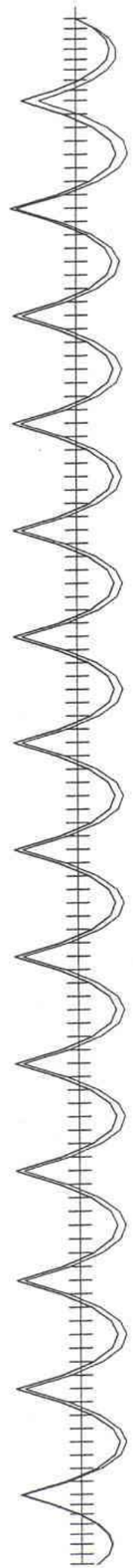
VIADUCTO I SOBRE EL RIO SEGRE
hipo 1000 PESO PROPIO DE UNA SOLA VEZ

M. Z 2000.0



VIADUCTO I SOBRE EL RIO SEGRE
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PESO PROPIO t=inf

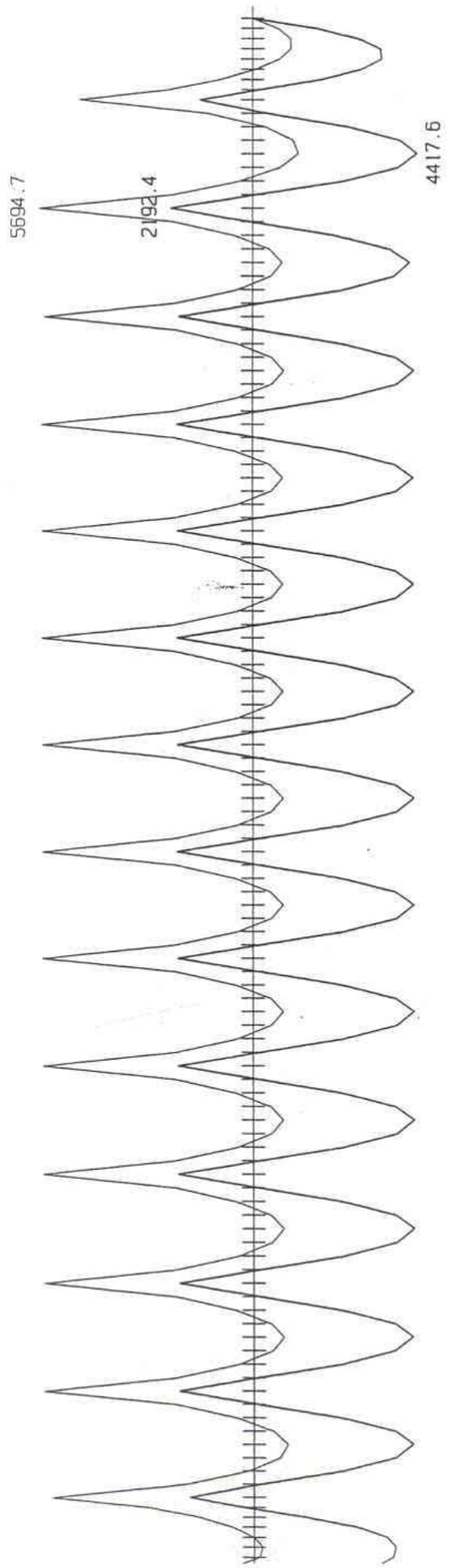
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M. Z 2000.0



VIADUCTO 1 SOBRE EL RIO SEGRE
MOME Z MAX grupo I (ELS) (ipf-75)
MOME Z MIN grupo I (ELS) (ipf-75)

CALCULO_1

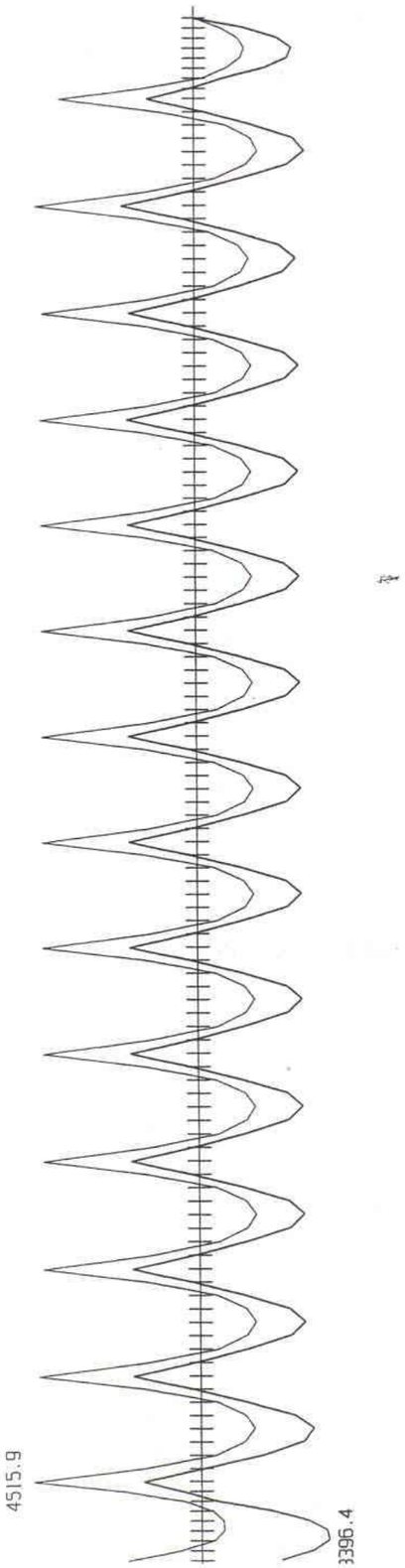
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M. Z 2000.0



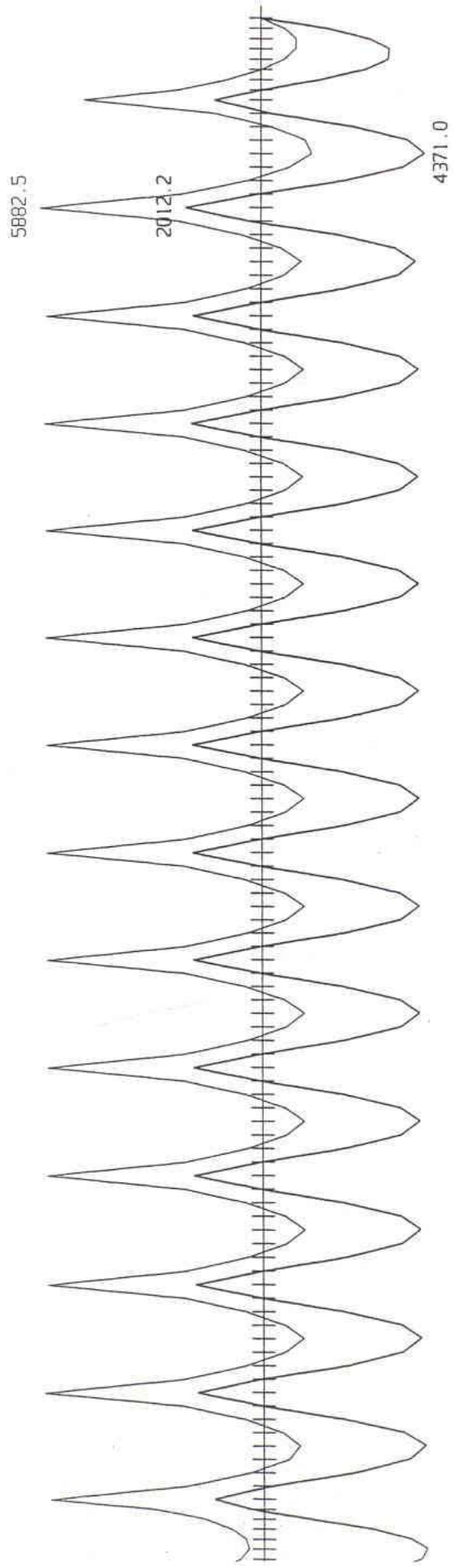
VIADUCTO 1 SOBRE EL RIO SEGRE
MOME Z MAX grupo II (ELS) (ipf-75)
MOME Z MIN grupo II (ELS) (ipf-75)

CALCULO_1

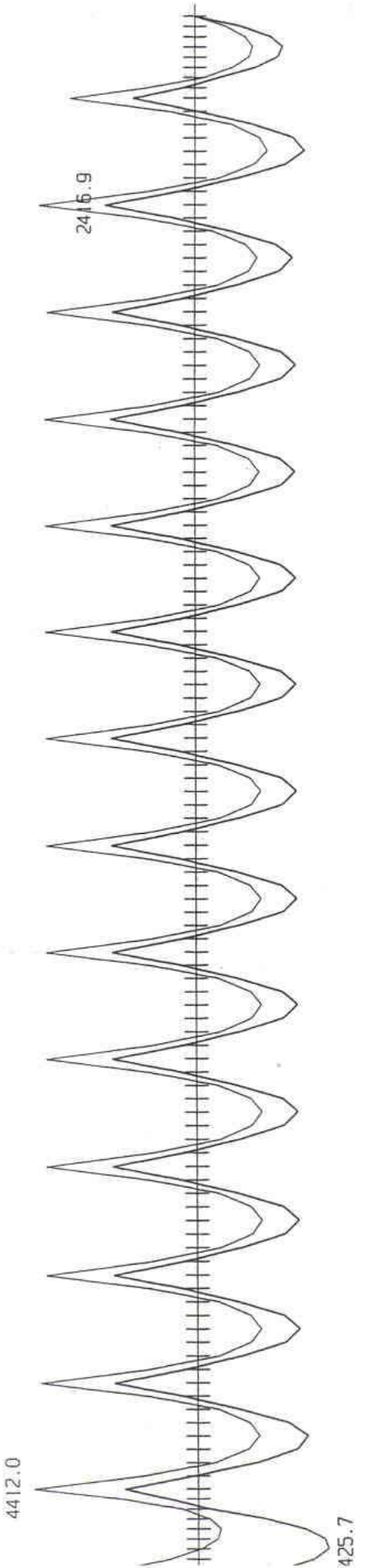
M. Z 2000.0
M. Z 2000.0



VIADUCTO 1 SOBRE EL RIO SEGRE CALCULO_1
MOME Z MAX grupo I (ELS) (ec-1) M. Z 2000.0
MOME Z MIN grupo I (ELS) (ec-1) M. Z 2000.0

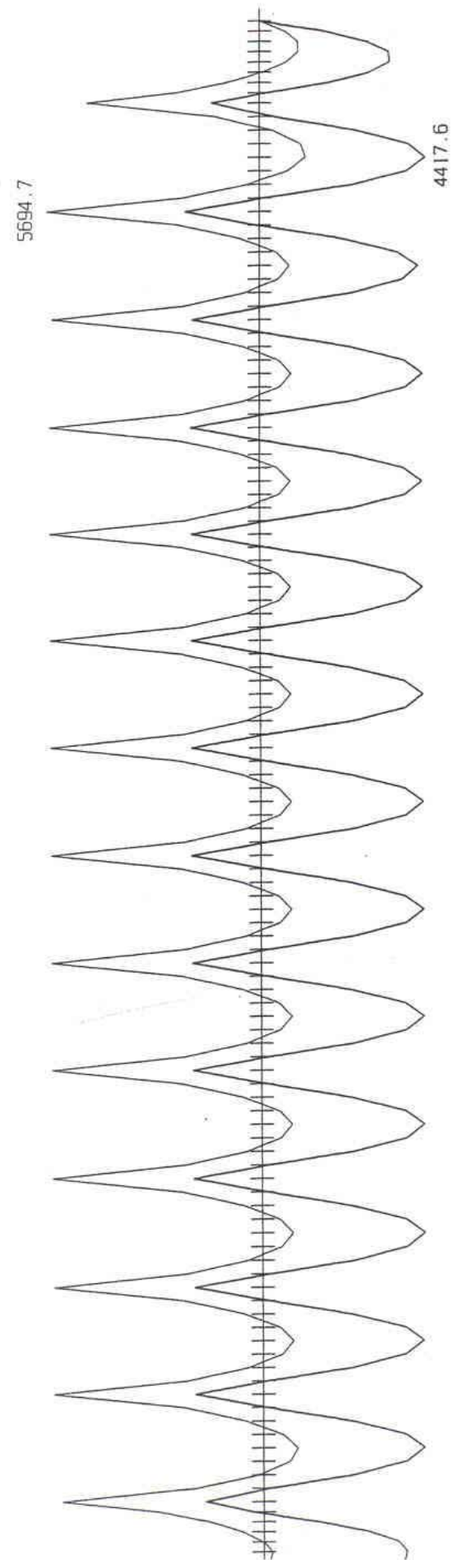


VIADUCTO 1 SOBRE EL RIO SEGRE CALCULO_1
MOME Z MAX grupo II (ELS) (ec-1) M. Z 2000.0
MOME Z MIN grupo II (ELS) (ec-1) M. Z 2000.0



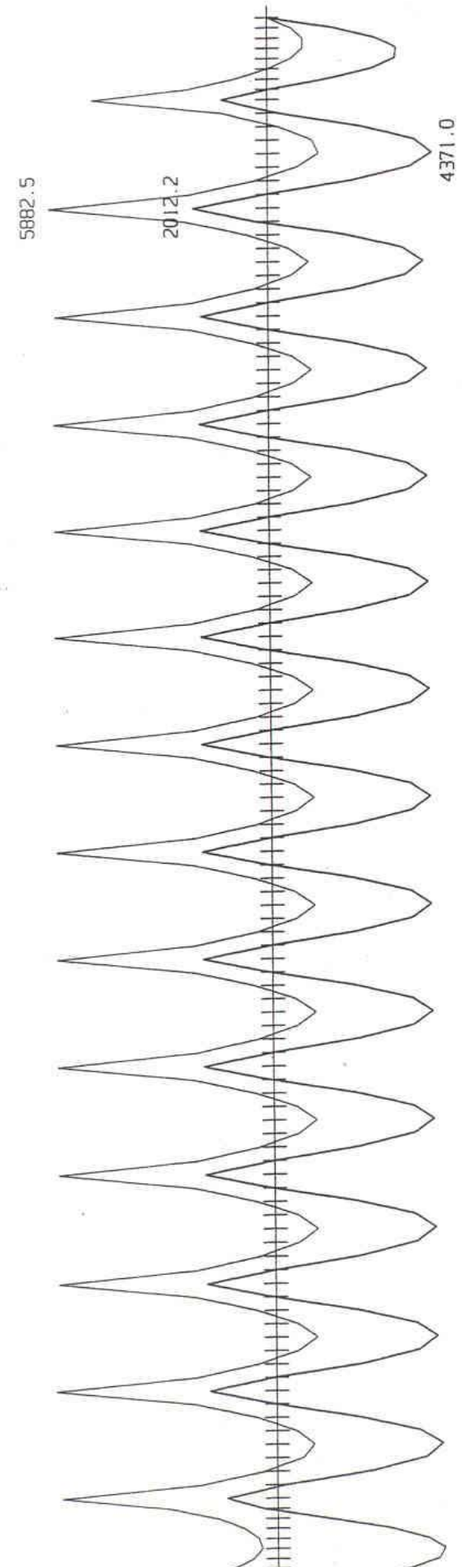
VIADUCTO I SOBRE EL RIO SEGRE CALCULO_1
MOME Z MAX envolvente (ELS) (ipf-75)
MOME Z MIN envolvente (ELS) (ipf-75)

M. Z 2000.0
M. Z 2000.0



VIADUCTO I SOBRE EL RIO SEGRE CALCULO_1
MOME Z MAX envolvente (ELS) (ec-1)
MOME Z MIN envolvente (ELS) (ec-1)

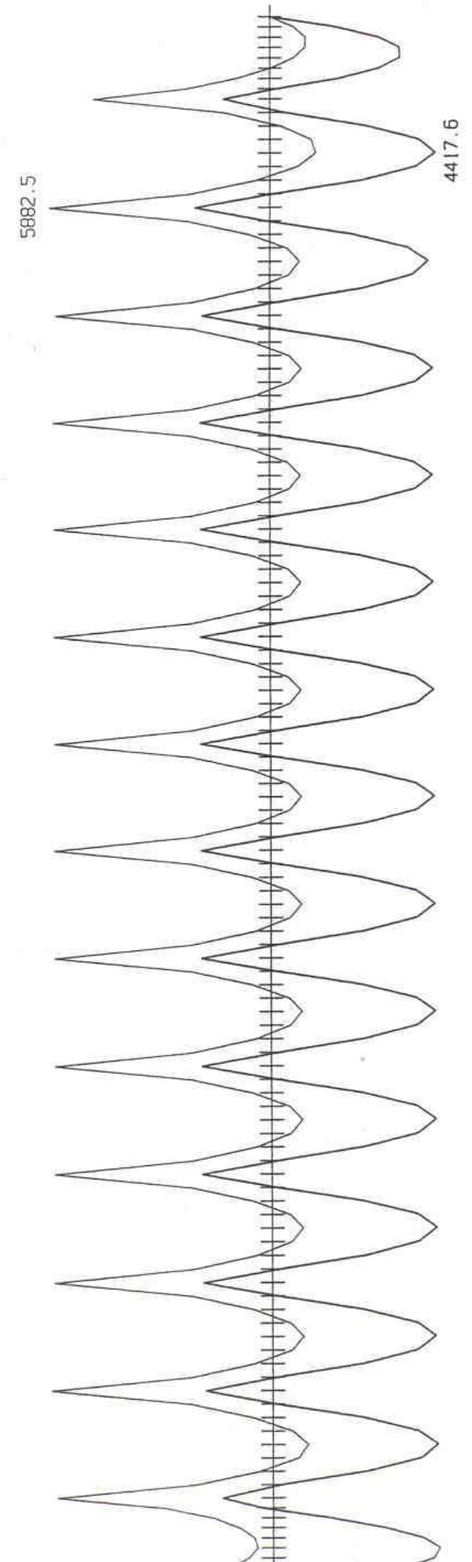
M. Z 2000.0
M. Z 2000.0



VIADUCTO 1 SOBRE EL RIO SEGRE
MOME Z MAX envolvente (ELS) (total)
MOME Z MIN envolvente (ELS) (total)

CALCULO_1

M. Z 2000.0
M. Z 2000.0



UCTO 1 SOBRE EL RIO SEGRE

TESIS 1063

a permanente (Pret*1.0) (t=0)

ESFUERZOS EN BARRAS — TENSIONES

A	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
	1	4981.963	-102.322	0.043	-0.012	-0.738	605.803	43.25	43.27	77.71	77.71
	12	-5054.348	58.626	-0.043	0.012	0.612	-934.586	36.79	36.80	89.94	89.94
	12	5054.349	-58.626	0.043	-0.012	-0.612	934.585	36.79	36.80	89.94	89.94
	13	-5125.562	-3.632	-0.043	0.012	0.486	-974.802	36.71	36.72	92.15	92.15
	13	5125.563	3.633	0.043	-0.012	-0.486	974.802	36.71	36.72	92.15	92.15
	14	-5159.598	74.998	-0.043	0.012	0.360	-1096.817	34.39	34.40	96.77	96.77
	14	5159.597	-74.999	0.043	-0.012	-0.360	1096.817	34.39	34.40	96.77	96.77
	15	-5202.292	107.785	-0.043	0.012	0.234	-1410.009	27.93	27.93	108.12	108.12
	15	5202.293	-107.755	0.043	-0.012	-0.234	1410.010	27.93	27.93	108.12	108.12
	16	-5301.802	-162.056	-0.043	0.012	0.108	-1505.465	26.95	26.95	112.56	112.56
	16	5301.800	162.057	0.043	-0.012	-0.108	1505.465	26.95	26.95	112.56	112.56
	17	-5359.793	-439.152	-0.043	0.012	-0.018	-532.496	49.19	49.19	79.47	79.47
	17	5359.797	439.151	0.043	-0.012	0.018	532.497	49.19	49.19	79.47	79.47
	18	-5379.542	-412.617	-0.043	0.012	-0.144	725.969	77.32	77.32	36.04	36.04
	18	5379.540	412.618	0.043	-0.012	0.144	-725.969	77.32	77.32	36.04	36.04
	19	-5539.447	545.635	-0.043	0.012	-0.270	1021.804	85.71	85.70	27.60	27.59
	19	5595.246	564.199	-0.024	0.010	0.270	-1021.816	86.34	86.34	28.23	28.23
	30	-5421.832	308.049	0.024	-0.010	-0.178	471.663	72.17	72.16	45.34	45.34
	30	5421.833	-308.049	-0.024	0.010	0.178	-471.663	72.17	72.16	45.34	45.34
	31	-5370.076	68.981	0.024	-0.010	-0.085	44.684	62.11	62.10	59.56	59.56
	31	5126.650	30.327	-0.024	0.010	0.085	55.672	57.11	57.11	60.28	60.27
	32	-5212.308	273.427	0.024	-0.010	0.007	-464.641	49.01	49.01	75.44	75.44
	32	5212.307	-273.425	-0.024	0.010	-0.007	464.641	49.01	49.01	75.44	75.44
	33	-5333.072	90.296	0.024	-0.010	0.100	-1627.316	24.60	24.60	117.14	117.14
	33	5333.070	-90.297	-0.024	0.010	-0.100	1627.315	24.60	24.60	117.14	117.14
	34	-5469.494	-282.627	0.024	-0.010	0.193	-1042.378	39.12	39.13	98.40	98.41
	34	5469.494	282.628	-0.024	0.010	-0.193	1042.380	39.12	39.13	98.41	98.41
	35	-5509.464	-271.426	0.024	-0.010	0.285	-28.327	62.07	62.07	63.68	63.68
	35	5509.465	271.426	-0.024	0.010	-0.285	28.329	62.07	62.07	63.68	63.68
	36	-5569.508	-297.258	0.024	-0.010	0.378	1092.687	87.61	87.62	25.48	25.48
	36	5569.508	297.259	-0.024	0.010	-0.378	-1092.686	87.61	87.62	25.48	25.48
	37	-5645.434	704.719	0.024	-0.010	0.470	975.775	85.89	85.89	30.40	30.40
	37	5702.831	417.158	0.002	-0.004	-0.470	-975.772	86.54	86.55	31.05	31.05
	48	-5538.927	277.146	-0.002	0.004	0.464	395.650	71.81	71.81	49.31	49.31
	48	5538.927	-277.146	0.002	-0.004	-0.464	-395.649	71.81	71.81	49.31	49.31
	49	-5490.071	87.472	-0.002	0.004	0.458	-53.413	61.29	61.30	64.33	64.33
	49	5161.893	23.585	0.002	-0.004	-0.458	137.423	55.69	55.70	63.31	63.31
	50	-5252.126	268.469	-0.002	0.004	0.452	-544.543	47.69	47.70	78.66	78.66
	50	5252.126	-268.468	0.002	-0.004	-0.452	544.543	47.69	47.70	78.66	78.66

20	51	-5371.189	87.730	-0.002	0.004	0.446	-1686.098	23.73	23.73	119.62	119.62
21	51	5371.188	-87.729	0.002	-0.004	-0.446	1686.096	23.73	23.73	119.62	119.62
21	52	-5509.216	-281.030	-0.002	0.004	0.440	-1102.682	38.24	38.24	100.95	100.95
22	52	5509.217	281.030	0.002	-0.004	-0.440	1102.684	38.24	38.24	100.95	100.95
22	53	-5541.880	-269.723	-0.002	0.004	0.433	-92.688	61.01	61.02	66.28	66.29
23	53	5541.879	269.723	0.002	-0.004	-0.433	92.691	61.01	61.02	66.28	66.29
23	54	-5604.793	-297.064	-0.002	0.004	0.427	1025.038	86.52	86.52	28.22	28.23
24	54	5604.792	297.063	0.002	-0.004	-0.427	-1025.037	86.52	86.52	28.22	28.23
24	55	-5685.511	703.612	-0.002	0.004	0.421	912.803	84.95	84.95	33.04	33.04
25	55	5742.714	419.828	0.000	-0.001	-0.421	-912.803	85.60	85.60	33.69	33.69
25	66	-5582.430	273.823	0.000	0.001	0.421	345.717	71.19	71.20	51.54	51.54
26	66	5582.428	-273.823	0.000	-0.001	-0.421	-345.716	71.19	71.20	51.54	51.54
26	67	-5536.159	83.655	0.000	0.001	0.420	-88.425	61.04	61.05	66.07	66.07
27	67	5237.463	28.283	0.000	-0.001	-0.420	160.467	56.04	56.05	65.17	65.17
27	68	-5325.487	269.232	0.000	0.001	0.420	-558.535	48.22	48.22	79.98	79.98
28	68	5325.486	-269.231	0.000	-0.001	-0.420	558.535	48.22	48.22	79.98	79.98
28	69	-5496.068	87.988	0.000	0.001	0.419	-1710.457	24.04	24.05	121.31	121.32
29	69	5496.069	-87.988	0.000	-0.001	-0.419	1710.457	24.04	24.05	121.31	121.32
9	70	-5582.951	-285.347	0.000	0.001	0.419	-1115.509	38.79	38.80	102.23	102.24
30	70	5582.952	285.347	0.000	-0.001	-0.419	1115.508	38.79	38.80	102.23	102.24
30	71	-5624.213	-274.103	0.000	0.001	0.419	-91.520	61.97	61.98	67.18	67.18
31	71	5624.213	274.103	0.000	-0.001	-0.419	91.519	61.97	61.98	67.18	67.18
31	72	-5684.115	-299.958	0.000	0.001	0.418	1039.938	87.75	87.76	28.61	28.61
32	72	5684.116	299.958	0.000	-0.001	-0.418	-1039.937	87.75	87.76	28.61	28.61
32	73	-5759.661	702.036	0.000	0.001	0.418	933.260	86.24	86.25	33.17	33.17
97	217	6275.861	412.390	0.009	-0.001	-0.508	-972.481	92.99	93.00	37.68	37.69
97	228	-6111.715	281.892	-0.009	0.001	0.472	373.821	77.84	77.85	56.58	56.59
98	228	6111.715	-281.892	0.009	-0.001	-0.472	-373.822	77.84	77.85	56.58	56.59
98	229	-6062.726	92.225	-0.009	0.001	0.436	-93.706	66.91	66.92	72.25	72.25
99	229	5738.458	18.901	0.009	-0.001	-0.436	176.127	61.40	61.40	71.41	71.42
99	230	-5828.803	273.650	-0.009	0.001	0.400	-601.993	52.98	52.99	87.22	87.22
100	230	5828.805	-273.651	0.009	-0.001	-0.400	601.992	52.98	52.99	87.22	87.22
100	231	-5947.944	92.758	-0.009	0.001	0.364	-1764.094	28.56	28.57	128.89	128.89
101	231	5947.944	-92.756	0.009	-0.001	-0.364	1764.092	28.56	28.57	128.89	128.89
101	232	-6086.141	-276.658	-0.009	0.001	0.328	-1198.488	42.68	42.68	110.84	110.84
102	232	6086.139	276.657	0.009	-0.001	-0.328	1198.488	42.68	42.68	110.84	110.84
2	233	-6118.847	-265.281	-0.009	0.001	0.292	-205.579	65.07	65.08	76.77	76.77
103	233	6118.849	265.280	0.009	-0.001	-0.292	205.578	65.07	65.08	76.77	76.77
103	234	-6181.843	-292.431	-0.009	0.001	0.257	894.689	90.19	90.20	39.31	39.32
104	234	6181.839	292.431	0.009	-0.001	-0.257	-894.689	90.19	90.20	39.31	39.32
104	235	-6262.635	708.464	-0.009	0.001	0.221	764.051	88.22	88.22	44.77	44.77
105	235	6321.235	447.598	0.020	-0.005	-0.221	-764.055	88.88	88.89	45.43	45.43
105	246	-6161.006	246.228	-0.020	0.005	0.142	304.306	76.86	76.87	59.56	59.56
106	246	6161.008	-246.228	0.020	-0.005	-0.142	-304.307	76.86	76.87	59.56	59.56
106	247	-6114.782	56.198	-0.020	0.005	0.064	-23.234	69.07	69.07	70.39	70.40
107	247	6000.511	49.569	0.020	-0.005	-0.064	157.705	64.79	64.79	73.76	73.76
107	248	-6093.559	249.805	-0.020	0.005	-0.014	-476.395	58.78	58.78	85.87	85.87
108	248	6093.560	-249.805	0.020	-0.005	0.014	476.396	58.78	58.78	85.87	85.87
108	249	-6213.992	77.311	-0.020	0.005	-0.093	-1565.133	36.01	36.00	125.01	125.01
109	249	6213.991	-77.311	0.020	-0.005	0.093	1565.131	36.01	36.00	125.01	125.01
109	250	-6367.080	-379.644	-0.020	0.005	-0.171	-841.810	53.79	53.79	101.66	101.66
110	250	6367.085	379.644	0.020	-0.005	0.171	841.808	53.79	53.79	101.66	101.66
110	251	-6391.743	-348.545	-0.020	0.005	-0.249	645.347	87.06	87.05	50.35	50.35
111	251	6391.743	348.549	0.020	-0.005	0.249	-645.348	87.06	87.05	50.35	50.35
111	252	-6419.015	-172.243	-0.020	0.005	-0.328	1669.924	110.09	110.09	15.12	15.12

112	252	6419.011	172.244	0.020	-0.005	0.328	-1669.923	110.09	110.09	15.12	15.12
112	253	-6316.027	784.719	-0.020	0.005	-0.406	951.300	92.98	92.97	38.88	38.88
	253	6370.828	230.117	-0.017	0.005	0.406	-951.285	93.60	93.60	39.50	39.50
113	264	-6258.961	340.086	0.017	-0.005	-0.357	455.013	81.32	81.32	55.45	55.44
114	264	6258.961	-340.085	-0.017	0.005	0.357	-455.013	81.32	81.32	55.45	55.44
114	265	-6234.397	293.672	0.017	-0.005	-0.309	-438.483	61.23	61.22	86.16	86.16
115	265	6580.577	-69.689	-0.017	0.005	0.309	651.073	60.45	60.45	97.48	97.47
115	266	-6592.192	129.232	0.017	-0.005	-0.260	-910.877	54.82	54.82	106.62	106.62
116	266	6592.182	-129.232	-0.017	0.005	0.260	910.876	54.82	54.82	106.62	106.62
116	267	-6591.429	349.690	0.017	-0.005	-0.212	-1529.501	41.09	41.09	128.07	128.07
117	267	6591.437	-349.689	-0.017	0.005	0.212	1529.500	41.09	41.09	128.07	128.07
117	268	-6516.620	135.549	0.017	-0.005	-0.163	-2462.928	19.54	19.54	159.60	159.60
118	268	6516.629	-135.550	-0.017	0.005	0.163	2462.927	19.54	19.54	159.60	159.60
118	269	-6381.724	-197.042	0.017	-0.005	-0.114	-2105.658	25.93	25.92	145.67	145.67
119	269	6381.717	197.043	-0.017	0.005	0.114	2105.659	25.93	25.92	145.67	145.67
119	270	-6344.538	-58.793	0.017	-0.005	-0.066	-1676.515	35.02	35.02	130.36	130.36
120	270	6344.543	58.792	-0.017	0.005	0.066	1676.517	35.02	35.02	130.36	130.36
120	271	-6298.796	118.679	0.017	-0.005	-0.017	-1764.534	32.55	32.55	132.90	132.90

VIADUCTO 1 SOBRE EL RIO SEGRE

HIPOTESIS 1064

carga permanente (Pret*1.0) (t=inf.)

ESFUERZOS EN BARRAS — TENSIONES

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	4164.139	-59.195	0.073	-0.020	-0.740	355.961	39.49	39.50	59.74	59.74
1	12	-4226.317	36.367	-0.073	0.020	0.526	-575.681	35.32	35.33	68.07	68.07
2	12	4226.318	-36.367	0.073	-0.020	-0.526	575.680	35.32	35.33	68.07	68.07
2	13	-4287.490	-2.406	-0.073	0.020	0.313	-590.723	35.69	35.69	69.28	69.29
3	13	4287.491	2.407	0.073	-0.020	-0.313	590.723	35.69	35.69	69.28	69.29
3	14	-4316.727	79.843	-0.073	0.020	0.099	-719.230	33.17	33.18	74.08	74.08
4	14	4316.729	-79.845	0.073	-0.020	-0.099	719.230	33.17	33.18	74.08	74.08
4	15	-4353.399	122.688	-0.073	0.020	-0.115	-1055.159	26.14	26.14	86.15	86.15
5	15	4353.402	-122.688	0.073	-0.020	0.115	1055.160	26.14	26.14	86.15	86.15
5	16	-4438.881	-94.373	-0.073	0.020	-0.329	-1247.253	22.86	22.85	93.78	93.78
6	16	4438.881	94.374	0.073	-0.020	0.329	1247.253	22.86	22.85	93.78	93.78
6	17	-4488.697	-317.692	-0.073	0.020	-0.542	-564.771	38.56	38.55	70.68	70.67
7	17	4488.695	317.691	0.073	-0.020	0.542	564.771	38.56	38.55	70.68	70.67
7	18	-4505.655	-280.192	-0.073	0.020	-0.756	319.752	58.37	58.36	40.19	40.18
8	18	4505.656	280.193	0.073	-0.020	0.756	-319.752	58.37	58.36	40.19	40.18
8	19	-4643.016	557.653	-0.073	0.020	-0.970	334.175	60.26	60.24	41.25	41.24
9	19	4698.814	560.859	-0.038	0.018	0.970	-334.189	60.90	60.88	41.88	41.88
9	30	-4549.852	207.802	0.038	-0.018	-0.823	119.341	54.43	54.42	47.64	47.64
10	30	4549.853	-207.802	-0.038	0.018	0.823	-119.342	54.43	54.42	47.64	47.64
10	31	-4505.394	22.867	0.038	-0.018	-0.676	-65.162	49.83	49.82	53.54	53.53
11	31	4296.292	62.438	-0.038	0.018	0.676	151.388	45.54	45.53	54.15	54.14
11	32	-4369.872	219.766	0.038	-0.018	-0.529	-405.529	40.74	40.73	63.80	63.80
12	32	4369.873	-219.765	-0.038	0.018	0.529	405.529	40.74	40.73	63.80	63.80
12	33	-4473.609	81.857	0.038	-0.018	-0.382	-1383.312	20.23	20.23	98.90	98.90
13	33	4473.601	-81.857	-0.038	0.018	0.382	1383.312	20.23	20.23	98.90	98.90
13	34	-4590.789	-219.085	0.038	-0.018	-0.235	-935.073	31.51	31.50	84.68	84.68
14	34	4590.798	219.084	-0.038	0.018	0.235	935.074	31.51	31.50	84.68	84.68
14	35	-4625.132	-190.062	0.038	-0.018	-0.088	-193.399	48.35	48.35	59.35	59.34
15	35	4625.126	190.062	-0.038	0.018	0.088	193.400	48.35	48.35	59.35	59.34
15	36	-4676.703	-192.852	0.038	-0.018	0.059	564.980	65.75	65.75	33.62	33.62
16	36	4676.712	192.852	-0.038	0.018	-0.059	-564.979	65.75	65.75	33.62	33.62
16	37	-4741.932	687.247	0.038	-0.018	0.206	184.805	58.06	58.07	47.56	47.56
17	37	4799.323	438.352	-0.001	-0.005	-0.206	-184.812	58.72	58.72	48.21	48.21
17	48	-4658.529	177.455	0.001	0.005	0.208	-41.049	52.10	52.11	54.44	54.44
18	48	4658.538	-177.455	-0.001	-0.005	-0.208	41.049	52.10	52.11	54.44	54.44
18	49	-4616.571	34.950	0.001	0.005	0.211	-229.813	47.44	47.44	60.51	60.51
19	49	4334.660	60.448	-0.001	-0.005	-0.211	301.977	42.63	42.63	59.81	59.81
19	50	-4412.170	211.705	0.001	0.005	0.213	-539.799	38.24	38.24	68.94	68.94
20	50	4412.162	-211.706	-0.001	-0.005	-0.213	539.799	38.24	38.24	68.94	68.94

20	51	-4514.438	75.852	0.001	0.005	0.215	-1484.712	18.45	18.45	102.88	102.88
21	51	4514.446	-75.850	-0.001	-0.005	-0.215	1484.710	18.45	18.45	102.88	102.88
21	52	-4633.012	-221.514	0.001	0.005	0.217	-1023.048	30.03	30.04	88.21	88.22
22	52	4633.006	221.513	-0.001	-0.005	-0.217	1023.050	30.03	30.04	88.21	88.22
22	53	-4661.063	-192.400	0.001	0.005	0.220	-270.130	47.05	47.06	62.42	62.42
23	53	4661.072	192.401	-0.001	-0.005	-0.220	270.133	47.05	47.06	62.42	62.42
23	54	-4715.115	-196.487	0.001	0.005	0.222	500.154	64.75	64.75	36.31	36.31
24	54	4715.121	196.486	-0.001	-0.005	-0.222	-500.154	64.75	64.76	36.31	36.31
24	55	-4784.459	682.494	0.001	0.005	0.224	138.727	57.52	57.53	49.64	49.64
25	55	4841.641	440.295	0.001	-0.001	-0.224	-138.737	58.18	58.18	50.29	50.29
25	66	-4703.957	174.950	-0.001	0.001	0.221	-77.281	51.82	51.82	56.21	56.21
26	66	4703.962	-174.950	0.001	-0.001	-0.221	77.282	51.82	51.82	56.21	56.21
26	67	-4664.217	32.021	-0.001	0.001	0.218	-254.584	47.43	47.44	61.91	61.91
27	67	4407.647	64.133	0.001	-0.001	-0.218	316.467	43.14	43.14	61.14	61.14
27	68	-4483.260	212.712	-0.001	0.001	0.215	-547.870	38.87	38.87	70.03	70.03
28	68	4483.235	-212.711	0.001	-0.001	-0.215	547.871	38.87	38.87	70.03	70.03
28	69	-4586.815	76.423	-0.001	0.001	0.212	-1503.042	18.86	18.87	104.34	104.34
29	69	4586.826	-76.423	0.001	-0.001	-0.212	1503.043	18.86	18.87	104.34	104.34
29	70	-4704.408	-224.872	-0.001	0.001	0.209	-1032.831	30.63	30.63	89.37	89.37
30	70	4704.418	224.872	0.001	-0.001	-0.209	1032.829	30.63	30.63	89.37	89.37
30	71	-4739.861	-195.813	-0.001	0.001	0.206	-269.247	47.97	47.97	63.28	63.28
31	71	4739.870	195.813	0.001	-0.001	-0.206	269.246	47.97	47.97	63.28	63.28
31	72	-4791.325	-198.622	-0.001	0.001	0.203	511.478	65.87	65.87	36.78	36.78
32	72	4791.303	198.622	0.001	-0.001	-0.203	-511.477	65.87	65.87	36.78	36.78
32	73	-4856.197	681.491	-0.001	0.001	0.200	153.468	58.67	58.67	49.94	49.94
97	217	5372.376	436.211	0.005	0.001	-0.265	-173.624	64.99	64.99	55.12	55.12
97	228	-5231.375	179.578	-0.005	-0.001	0.244	-60.587	58.19	58.19	61.64	61.64
98	228	5231.350	-179.578	0.005	0.001	-0.244	60.587	58.19	58.19	61.64	61.64
98	229	-5189.269	37.079	-0.005	-0.001	0.222	-257.638	53.34	53.34	67.99	67.99
99	229	4910.823	58.379	0.005	0.001	-0.222	328.438	48.60	48.60	67.28	67.28
99	230	-4988.430	214.202	-0.005	-0.001	0.201	-574.792	44.02	44.02	76.71	76.71
100	230	4988.411	-214.203	0.005	0.001	-0.201	574.790	44.02	44.02	76.71	76.71
100	231	-5090.752	78.216	-0.005	-0.001	0.180	-1529.779	24.00	24.01	111.00	111.00
101	231	5090.733	-78.215	0.005	0.001	-0.180	1529.778	24.00	24.01	111.00	111.00
101	232	-5209.444	-219.711	-0.005	-0.001	0.159	-1075.843	35.42	35.43	96.61	96.61
102	232	5209.417	219.711	0.005	0.001	-0.159	1075.842	35.42	35.43	96.61	96.61
102	233	-5237.513	-190.539	-0.005	-0.001	0.138	-330.028	52.28	52.29	71.05	71.05
103	233	5237.497	190.539	0.005	0.001	-0.138	330.027	52.28	52.29	71.05	71.05
103	234	-5291.609	-194.461	-0.005	-0.001	0.117	432.833	69.82	69.82	45.21	45.21
104	234	5291.706	194.461	0.005	0.001	-0.117	-432.834	69.82	69.82	45.21	45.21
104	235	-5361.109	684.708	-0.005	-0.001	0.096	63.170	62.41	62.41	58.82	58.82
105	235	5419.684	455.606	0.031	-0.009	-0.096	-63.183	63.08	63.08	59.49	59.49
105	246	-5282.046	159.790	-0.031	0.009	-0.023	-93.742	58.03	58.03	63.36	63.36
106	246	5282.026	-159.790	0.031	-0.009	0.023	93.741	58.03	58.03	63.36	63.36
106	247	-5242.318	16.980	-0.031	0.009	-0.141	-212.582	54.95	54.94	67.03	67.03
107	247	5144.134	73.874	0.031	-0.009	0.141	328.092	51.27	51.26	69.92	69.92
107	248	-5224.062	204.567	-0.031	0.009	-0.260	-524.418	47.82	47.82	77.65	77.64
108	248	5224.040	-204.567	0.031	-0.009	0.260	524.419	47.82	47.82	77.65	77.64
108	249	-5327.495	75.795	-0.031	0.009	-0.378	-1458.425	28.29	28.28	111.22	111.22
109	249	5327.477	-75.796	0.031	-0.009	0.378	1458.423	28.29	28.28	111.22	111.22
109	250	-5458.979	-297.329	-0.031	0.009	-0.497	-911.046	41.92	41.92	93.73	93.73
110	250	5459.082	297.329	0.031	-0.009	0.497	911.043	41.93	41.92	93.73	93.73
110	251	-5480.263	-251.214	-0.031	0.009	-0.615	217.291	67.19	67.18	54.83	54.83
111	251	5480.294	251.214	0.031	-0.009	0.615	-217.292	67.19	67.18	54.83	54.83
111	252	-5503.671	-80.371	-0.031	0.009	-0.734	873.095	82.00	81.99	32.35	32.34
112	252	5503.645	80.372	0.031	-0.009	0.734	-873.095	82.00	81.99	32.35	32.34
112	253	-5415.182	761.055	-0.031	0.009	-0.852	-43.684	60.67	60.65	63.15	63.14
113	253	5469.960	295.390	-0.036	0.010	0.852	43.682	61.29	61.27	63.77	63.76
113	264	-5373.867	209.120	0.036	-0.010	-0.748	-204.527	56.63	56.61	68.25	68.25
114	264	5373.850	-209.120	-0.036	0.010	0.748	204.526	56.63	56.61	68.25	68.25
114	265	-5352.749	184.982	0.036	-0.010	-0.644	-750.026	44.29	44.28	86.94	86.93
115	265	5650.568	7.411	-0.036	0.010	0.644	932.901	43.62	43.61	96.67	96.67
115	266	-5660.486	60.329	0.036	-0.010	-0.539	-984.506	42.59	42.58	98.57	98.57
116	266	5660.579	-60.329	-0.036	0.010	0.539	984.506	42.59	42.58	98.57	98.57
116	267	-5659.839	264.414	0.036	-0.010	-0.435	-1388.588	33.62	33.61	112.58	112.58
117	267	5659.820	-264.413	-0.036	0.010	0.435	1388.587	33.62	33.61	112.58	112.58
117	268	-5595.305	95.149	0.036	-0.010	-0.330	-2106.195	16.97	16.96	136.74	136.74
118	268	5595.293	-95.151	-0.036	0.010	0.330	2106.195	16.97	16.96	136.74	136.74
118	269	-5479.426	-175.839	0.036	-0.010	-0.226	-1758.343	23.36	23.36	123.36	123.35
119	269	5479.397	175.840	-0.036	0.010	0.226	1758.344	23.36	23.36	123.36	123.35
119	270	-5447.401	-42.376	0.036	-0.010	-0.122	-1391.917	31.12	31.12	110.28	110.28
120	270	5447.384	42.376	-0.036	0.010	0.122	1391.919	31.12	31.12	110.28	110.28
120	271	-5408.060	127.719	0.036	-0.010	-0.017	-1515.672	27.93	27.93	114.13	114.13

ADUCTO 1 SOBRE EL RIO SEGRE

IPOTESIS 1065

arga permanente (Pret*0.9) (t=0)

ESFUERZOS EN BARRAS

TENSIONES

ARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	4401.947	-67.263	0.044	-0.012	-0.746	428.519	40.59	40.60	64.96	64.96
1	12	-4467.093	38.367	-0.044	0.012	0.616	-666.813	36.04	36.05	73.97	73.97
2	12	4467.094	-38.367	0.044	-0.012	-0.616	666.812	36.04	36.05	73.97	73.97
2	13	-4531.186	-7.235	-0.044	0.012	0.487	-676.038	36.57	36.58	75.02	75.02
3	13	4531.186	7.236	0.044	-0.012	-0.487	676.038	36.57	36.58	75.02	75.02
3	14	-4561.818	73.962	-0.044	0.012	0.357	-789.519	34.40	34.41	79.30	79.31
4	14	4561.817	-73.963	0.044	-0.012	-0.357	789.519	34.40	34.41	79.30	79.31
4	15	-4600.243	113.873	-0.044	0.012	0.227	-1105.699	27.83	27.83	90.71	90.71
5	15	4600.244	-113.874	0.044	-0.012	-0.227	1105.699	27.83	27.83	90.71	90.71
5	16	-4689.801	-118.526	-0.044	0.012	0.098	-1256.555	25.50	25.50	96.96	96.96
6	16	4689.800	118.527	0.044	-0.012	-0.098	1256.554	25.50	25.50	96.96	96.96
6	17	-4741.994	-357.482	-0.044	0.012	-0.032	-476.467	43.40	43.40	70.49	70.49
7	17	4741.998	357.481	0.044	-0.012	0.032	476.467	43.40	43.40	70.49	70.49
7	18	-4759.767	-323.171	-0.044	0.012	-0.161	529.929	65.92	65.92	35.79	35.78
8	18	4759.766	323.172	0.044	-0.012	0.161	-529.929	65.92	65.92	35.79	35.78
8	19	-4903.682	549.686	-0.044	0.012	-0.291	639.318	69.99	69.98	33.63	33.63
9	19	4959.481	565.207	-0.029	0.011	0.291	-639.330	70.62	70.62	34.26	34.26
9	30	-4803.408	233.576	0.029	-0.011	-0.197	340.065	62.21	62.21	42.87	42.87
10	30	4803.409	-233.576	-0.029	0.011	0.197	-340.065	62.21	62.21	42.87	42.87
10	31	-4756.828	32.930	0.029	-0.011	-0.103	98.123	56.31	56.31	50.73	50.73
11	31	4537.745	56.476	-0.029	0.011	0.103	-7.803	51.82	51.81	51.37	51.37
11	32	-4614.837	231.993	0.029	-0.011	-0.009	-278.276	46.35	46.35	62.17	62.17
12	32	4614.836	-231.992	-0.029	0.011	0.009	278.276	46.35	46.35	62.17	62.17
12	33	-4723.524	80.934	0.029	-0.011	0.085	-1296.739	24.99	25.00	98.74	98.74
13	33	4723.523	-80.935	-0.029	0.011	-0.085	1296.738	24.99	25.00	98.74	98.74
13	34	-4846.304	-240.938	0.029	-0.011	0.179	-795.667	37.50	37.51	82.75	82.76
14	34	4846.304	240.938	-0.029	0.011	-0.179	795.669	37.50	37.51	82.75	82.76
14	35	-4882.277	-217.097	0.029	-0.011	0.273	38.291	56.41	56.41	54.23	54.24
15	35	4882.278	217.097	-0.029	0.011	-0.273	-38.290	56.41	56.41	54.23	54.24
15	36	-4936.317	-226.588	0.029	-0.011	0.367	915.200	76.47	76.48	24.43	24.43
16	36	4936.317	226.588	-0.029	0.011	-0.367	-915.200	76.47	76.48	24.43	24.43
16	37	-5004.650	688.981	0.029	-0.011	0.461	624.660	70.81	70.81	35.28	35.29
17	37	5062.048	431.839	0.002	-0.004	-0.461	-624.656	71.46	71.47	35.94	35.94
17	48	-4914.534	206.799	-0.002	0.004	0.455	294.407	62.46	62.46	45.72	45.72
18	48	4914.534	-206.799	0.002	-0.004	-0.455	-294.405	62.46	62.46	45.72	45.72
18	49	-4870.564	50.578	-0.002	0.004	0.448	28.576	56.06	56.07	54.44	54.44
19	49	4575.204	49.374	0.002	-0.004	-0.448	47.033	51.02	51.03	53.70	53.70
19	50	-4656.414	228.566	-0.002	0.004	0.442	-335.460	45.55	45.56	64.63	64.63
20	50	4656.413	-228.566	0.002	-0.004	-0.442	335.460	45.55	45.56	64.63	64.63
20	51	-4763.570	79.660	-0.002	0.004	0.436	-1338.928	24.51	24.52	100.66	100.66
21	51	4763.569	-79.659	0.002	-0.004	-0.436	1338.926	24.51	24.52	100.66	100.66
21	52	-4887.794	-238.465	-0.002	0.004	0.430	-843.238	36.92	36.93	84.88	84.88
22	52	4887.795	238.465	0.002	-0.004	-0.430	843.240	36.92	36.93	84.88	84.88
22	53	-4917.191	-214.529	-0.002	0.004	0.424	-16.944	55.58	55.59	56.55	56.55
23	53	4917.191	214.530	0.002	-0.004	-0.424	16.946	55.58	55.59	56.55	56.55
23	54	-4973.814	-225.377	-0.002	0.004	0.418	852.993	75.52	75.53	27.01	27.02
24	54	4973.812	225.376	0.002	-0.004	-0.418	-852.992	75.52	75.53	27.01	27.02
24	55	-5046.460	688.990	-0.002	0.004	0.412	562.649	69.91	69.91	37.91	37.91
25	55	5103.663	434.456	0.000	-0.001	-0.412	-562.648	70.56	70.56	38.56	38.56
25	66	-4959.406	203.588	0.000	0.001	0.411	244.980	61.87	61.88	47.94	47.94
26	66	4959.405	-203.589	0.000	-0.001	-0.411	-244.978	61.87	61.88	47.94	47.94
26	67	-4917.763	46.923	0.000	0.001	0.411	-6.572	55.82	55.82	56.19	56.20
27	67	4648.937	53.821	0.000	-0.001	-0.411	71.410	51.32	51.33	55.38	55.39
27	68	-4728.159	229.035	0.000	0.001	0.410	-390.842	46.02	46.03	65.98	65.98
28	68	4728.157	-229.034	0.000	-0.001	-0.410	390.842	46.02	46.03	65.98	65.98
28	69	-4836.681	79.674	0.000	0.001	0.410	-1362.791	24.81	24.82	102.32	102.32
29	69	4836.682	-79.674	0.000	-0.001	-0.410	1362.791	24.81	24.82	102.32	102.32
9	70	-4959.876	-242.569	0.000	0.001	0.410	-855.873	37.46	37.47	86.13	86.14
30	70	4959.877	242.569	0.000	-0.001	-0.410	855.872	37.46	37.47	86.13	86.14
30	71	-4997.012	-218.690	0.000	0.001	0.409	-16.134	56.51	56.51	57.43	57.43
31	71	4997.011	218.690	0.000	-0.001	-0.409	16.134	56.51	56.51	57.43	57.43
31	72	-5050.923	-228.200	0.000	0.001	0.409	867.011	76.71	76.71	27.40	27.41
32	72	5050.924	228.200	0.000	-0.001	-0.409	-867.009	76.71	76.71	27.40	27.41
32	73	-5118.915	687.353	0.000	0.001	0.408	582.517	71.17	71.18	38.05	38.05
97	217	5635.115	427.118	0.009	-0.001	-0.497	-621.350	77.91	77.92	42.57	42.58
97	228	-5487.383	211.495	-0.009	0.001	0.462	272.770	68.49	68.50	52.98	52.99
98	228	5487.383	-211.495	0.009	-0.001	-0.462	-272.771	68.49	68.50	52.98	52.99
98	229	-5443.293	55.281	-0.009	0.001	0.427	-11.325	61.69	61.70	62.34	62.34
99	229	5151.452	44.733	0.009	-0.001	-0.427	85.504	56.73	56.73	61.59	61.59
99	230	-5232.763	233.655	-0.009	0.001	0.392	-392.450	50.84	50.85	73.16	73.17
100	230	5232.764	-233.656	0.009	-0.001	-0.392	392.450	50.84	50.85	73.16	73.17
100	231	-3339.989	84.611	-0.009	0.001	0.357	1416.057	29.36	29.37	109.89	109.90
101	231	5339.990	-84.609	0.009	-0.001	-0.357	1416.055	29.36	29.37	109.89	109.90
101	232	-5464.367	-234.104	-0.009	0.001	0.322	-938.043	41.38	41.38	94.73	94.73
102	232	5464.365	234.104	0.009	-0.001	-0.322	938.043	41.38	41.38	94.73	94.73
2	233	-5493.802	-210.107	-0.009	0.001	0.286	-128.773	59.66	59.67	66.99	66.99
103	233	5493.804	210.106	0.009	-0.001	-0.286	128.772	59.66	59.67	66.99	66.99
103	234	-5550.499	-220.782	-0.009	0.001	0.251	723.805	79.22	79.22	38.06	38.06
104	234	5550.495	220.783	0.009	-0.001	-0.251	-723.805	79.22	79.22	38.05	38.06
104	235	-5623.211	693.782	-0.009	0.001	0.216	415.251	73.20	73.21	49.59	49.59
105	235	5681.812	461.698	0.021	-0.005	-0.216	-415.254	73.87	73.87	50.26	50.26
105	246	-5537.605	176.504	-0.021	0.005	0.135	202.904	67.52	67.52	55.98	55.98
106	246	5537.607	-176.504	0.021	-0.005	-0.135	-202.905	67.52	67.52	55.98	55.98
106	247	-5496.003	18.963	-0.021	0.005	0.053	56.089	63.79	63.79	60.60	60.60
107	247	5393.160	75.228	0.021	-0.005	-0.053	65.015	59.93	59.94	63.63	63.63
107	248	-5476.903	209.301	-0.021	0.005	-0.028	-264.291	56.47	56.47	71.50	71.50
108	248	5476.904	-209.301	0.021	-0.005	0.028	264.292	56.47	56.47	71.50	71.50
108	249	-5585.293	67.815	-0.021	0.005	-0.109	-1210.660	36.71	36.71	105.56	105.56
109	249	5585.292	-67.815	0.021	-0.005	0.109	1210.658	36.71	36.71	105.56	105.56
109	250	-5723.072	-329.685	-0.021	0.005	-0.191	-579.489	52.28	52.28	85.23	85.23
110	250	5723.077	329.685	0.021	-0.005	0.191	579.487	52.28	52.29	85.23	85.23
110	251	-5745.268	-287.937	-0.021	0.005	-0.272	685.816	80.60	80.59	41.59	41.59
111	251	5745.269	287.937	0.021	-0.005	0.272	-685.817	80.60	80.59	41.59	41.59
111	252	-5769.813	-115.507	-0.021	0.005	-0.354	1481.482	98.52	98.52	14.27	14.27

112	252	5769.810	115.507	0.021	-0.005	0.354	-1481.481	98.52	98.52	14.27	14.27
112	253	-5677.125	759.513	-0.021	0.005	-0.435	654.953	79.14	79.13	41.89	41.89
113	253	5731.925	258.993	-0.018	0.006	0.435	-654.936	79.76	79.75	42.51	42.51
113	264	-5631.246	264.619	0.018	-0.006	-0.382	345.393	71.75	71.74	52.11	52.10
114	264	5631.245	-264.619	-0.018	0.006	0.382	-345.393	71.75	71.74	52.11	52.10
114	265	-5609.137	234.009	0.018	-0.006	-0.330	-352.435	56.02	56.01	76.06	76.06
115	265	5920.699	-32.419	-0.018	0.006	0.330	543.839	55.32	55.32	86.25	86.25
115	266	-5931.153	97.771	0.018	-0.006	-0.278	-707.155	51.82	51.81	92.03	92.03
116	266	5931.144	-97.771	-0.018	0.006	0.278	707.154	51.82	51.81	92.03	92.03
116	267	-5930.466	306.613	0.018	-0.006	-0.225	-1224.781	40.33	40.33	109.98	109.98
117	267	5930.473	-306.612	-0.018	0.006	0.225	1224.780	40.33	40.33	109.98	109.98
117	268	-5863.138	124.316	0.018	-0.006	-0.173	-2056.367	21.12	21.12	138.06	138.06
118	268	5863.141	-124.318	-0.018	0.006	0.173	2056.367	21.12	21.12	138.06	138.06
118	269	-5741.732	-169.585	0.018	-0.006	-0.120	-1756.966	26.38	26.37	126.29	126.29
119	269	5741.725	169.586	-0.018	0.006	0.120	1756.967	26.38	26.37	126.29	126.29
119	270	-5708.264	-29.730	0.018	-0.006	-0.068	-1423.518	33.39	33.39	114.34	114.34
120	270	5708.269	29.730	-0.018	0.006	0.068	1423.519	33.39	33.39	114.35	114.34
120	271	-5667.097	142.506	0.018	-0.006	-0.016	-1588.077	29.27	29.27	119.58	119.58

VIADUCTO 1 SOBRE EL RIO SEGRE

HIPOTESIS 1066

carga permanente (Pret*0.9) (t=inf.)

ESFUERZOS EN BARRAS — TENSIONES

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	3665.905	-28.818	0.074	-0.020	-0.746	203.673	37.20	37.21	48.78	48.79
1	12	-3721.866	18.703	-0.074	0.020	0.530	-349.897	34.70	34.71	54.32	54.32
2	12	3721.866	-18.703	0.074	-0.020	-0.530	349.896	34.70	34.71	54.32	54.32
2	13	-3776.921	-5.763	-0.074	0.020	0.313	-332.550	35.60	35.61	54.52	54.52
3	13	3776.921	5.763	0.074	-0.020	-0.313	332.549	35.60	35.61	54.52	54.52
3	14	-3803.234	78.692	-0.074	0.020	0.097	-452.959	33.24	33.24	59.00	59.00
4	14	3803.231	-78.693	0.074	-0.020	-0.097	452.959	33.24	33.24	59.00	59.00
4	15	-3836.239	127.683	-0.074	0.020	-0.120	-790.687	26.12	26.12	71.09	71.09
5	15	3836.242	-127.683	0.074	-0.020	0.120	790.688	26.12	26.12	71.09	71.09
5	16	-3913.173	-57.242	-0.074	0.020	-0.337	-1029.603	21.70	21.70	80.25	80.25
6	16	3913.173	57.243	0.074	-0.020	0.337	1029.602	21.70	21.70	80.25	80.25
6	17	-3958.007	-247.799	-0.074	0.020	-0.553	-512.038	33.69	33.68	62.81	62.80
7	17	3958.005	247.798	0.074	-0.020	0.553	512.038	33.69	33.68	62.81	62.80
7	18	-3973.269	-203.619	-0.074	0.020	-0.770	156.725	48.70	48.69	39.78	39.78
8	18	3973.270	203.619	0.074	-0.020	0.770	-156.725	48.70	48.69	39.78	39.78
8	19	-4096.894	560.872	-0.074	0.020	-0.986	11.759	46.89	46.88	46.22	46.21
9	19	4152.692	561.684	-0.038	0.019	0.986	-11.772	47.53	47.51	46.85	46.85
9	30	-4018.626	143.871	0.038	-0.019	-0.839	12.278	46.01	46.00	45.31	45.31
10	30	4018.626	-143.871	-0.038	0.019	0.839	-12.278	46.01	46.00	45.31	45.31
10	31	-3978.614	-8.085	0.038	-0.019	-0.691	-13.459	44.99	44.97	45.75	45.74
1	31	3790.429	84.859	-0.038	0.019	0.691	91.044	41.12	41.11	46.30	46.29
11	32	-3856.646	184.215	0.038	-0.019	-0.543	-239.782	38.58	38.57	52.21	52.21
12	32	3856.645	-184.214	-0.038	0.019	0.543	239.782	38.58	38.57	52.21	52.21
12	33	-3950.009	73.856	0.038	-0.019	-0.396	-1093.847	20.70	20.69	82.90	82.90
13	33	3950.000	-73.856	-0.038	0.019	0.396	1093.847	20.70	20.69	82.90	82.90
13	34	-4055.469	-183.232	0.038	-0.019	-0.248	-717.807	30.23	30.23	71.05	71.05
14	34	4055.478	183.232	-0.038	0.019	0.248	717.809	30.24	30.23	71.05	71.05
14	35	-4086.380	-143.352	0.038	-0.019	-0.100	-130.993	43.60	43.60	51.05	51.05
15	35	4086.373	143.352	-0.038	0.019	0.100	130.995	43.60	43.60	51.05	51.05
15	36	-4132.793	-132.105	0.038	-0.019	0.047	417.539	56.29	56.29	32.55	32.55
16	36	4132.801	132.105	-0.038	0.019	-0.047	-417.539	56.29	56.29	32.55	32.55
16	37	-4191.500	673.743	0.038	-0.019	0.195	-111.942	45.22	45.22	51.58	51.59
17	37	4248.891	451.012	-0.001	-0.005	-0.195	111.936	45.87	45.87	52.24	52.24
17	48	-4122.176	116.974	0.001	0.005	0.198	-122.951	44.18	44.19	51.18	51.18
18	48	4122.184	-116.974	-0.001	-0.005	-0.198	122.952	44.18	44.19	51.18	51.18
18	49	-4034.414	3.205	0.001	0.005	0.200	-154.113	43.06	43.07	51.83	51.83
19	49	3830.694	82.653	-0.001	-0.005	-0.200	219.061	38.73	38.74	51.19	51.19
19	50	-3900.453	177.376	0.001	0.005	0.203	-354.721	36.52	36.52	56.69	56.69
20	50	3900.445	-177.377	-0.001	-0.005	-0.203	354.721	36.52	36.52	56.69	56.69

20	51	-3992.493	68.867	0.001	0.005	0.205	-1180.811	19.25	19.25	86.40	86.40
	51	3992.501	-68.866	-0.001	-0.005	-0.205	1180.809	19.25	19.25	86.40	86.40
	52	-4099.210	-185.003	0.001	0.005	0.208	-794.298	29.03	29.04	74.20	74.21
22	52	4099.205	185.002	-0.001	-0.005	-0.208	794.300	29.03	29.04	74.20	74.21
22	53	-4124.457	-145.041	0.001	0.005	0.210	-198.974	42.52	42.53	53.84	53.84
23	53	4124.465	145.042	-0.001	-0.005	-0.210	198.976	42.52	42.53	53.84	53.84
23	54	-4173.104	-134.960	0.001	0.005	0.213	358.665	55.44	55.45	35.05	35.05
24	54	4173.110	134.960	-0.001	-0.005	-0.213	-358.664	55.44	55.45	35.05	35.05
24	55	-4235.515	669.881	0.001	0.005	0.215	-155.552	44.75	44.75	53.60	53.60
25	55	4292.695	452.847	0.001	-0.001	-0.215	155.544	45.40	45.40	54.25	54.25
25	66	-4168.780	114.633	-0.001	0.001	0.212	-157.366	43.95	43.95	52.90	52.90
26	66	4168.786	-114.633	0.001	-0.001	-0.212	157.367	43.95	43.95	52.90	52.90
26	67	-4133.015	0.483	-0.001	0.001	0.209	-177.879	43.09	43.09	53.21	53.21
27	67	3902.104	86.056	0.001	-0.001	-0.209	233.574	39.23	39.23	52.51	52.51
27	68	-3970.155	178.196	-0.001	0.001	0.206	-363.123	37.13	37.13	57.78	57.78
28	68	3970.131	-178.195	0.001	-0.001	-0.206	363.124	37.13	37.13	57.78	57.78
28	69	-4063.353	69.295	-0.001	0.001	0.203	-1198.113	19.67	19.67	87.80	87.81
29	69	4063.363	-69.295	0.001	-0.001	-0.203	1198.114	19.67	19.67	87.81	87.81
9	70	-4169.186	-188.112	-0.001	0.001	0.200	-803.574	29.62	29.63	75.32	75.32
	70	4169.196	188.112	0.001	-0.001	-0.200	803.573	29.62	29.63	75.32	75.32
	71	-4201.096	-148.200	-0.001	0.001	0.197	-198.316	43.41	43.41	54.69	54.69
31	71	4201.104	148.200	0.001	-0.001	-0.197	198.315	43.41	43.41	54.69	54.69
31	72	-4247.414	-136.968	-0.001	0.001	0.194	369.054	56.52	56.52	35.53	35.54
32	72	4247.392	136.968	0.001	-0.001	-0.194	-369.053	56.52	56.52	35.53	35.54
32	73	-4305.796	668.892	-0.001	0.001	0.191	-141.754	45.86	45.86	53.92	53.92
97	217	4821.975	448.812	0.005	0.001	-0.255	121.524	52.18	52.18	59.09	59.09
97	228	-4695.074	119.157	-0.005	-0.001	0.234	-141.111	50.30	50.30	58.33	58.33
98	228	4695.049	-119.157	0.005	0.001	-0.234	141.111	50.30	50.30	58.33	58.33
98	229	-4657.176	5.393	-0.005	-0.001	0.213	-180.789	48.99	48.99	59.27	59.27
99	229	4406.585	80.518	0.005	0.001	-0.213	244.508	44.72	44.73	58.63	58.63
99	230	-4476.431	179.896	-0.005	-0.001	0.192	-388.904	42.32	42.32	64.43	64.44
100	230	4476.412	-179.897	0.005	0.001	-0.192	388.902	42.32	42.32	64.43	64.44
100	231	-4568.519	71.268	-0.005	-0.001	0.172	-1225.119	24.82	24.82	94.49	94.49
101	231	4568.500	-71.267	0.005	0.001	-0.172	1225.118	24.82	24.82	94.49	94.49
101	232	-4675.340	-183.108	-0.005	-0.001	0.151	-846.618	34.43	34.43	82.58	82.58
102	232	4675.313	183.108	0.005	0.001	-0.151	846.617	34.43	34.43	82.58	82.58
2	233	-4700.600	-143.094	-0.005	-0.001	0.130	-258.743	47.76	47.76	62.47	62.47
	233	4700.583	143.094	0.005	0.001	-0.130	258.742	47.75	47.76	62.47	62.47
103	234	-4749.284	-132.864	-0.005	-0.001	0.109	291.158	60.51	60.51	43.95	43.95
104	234	4749.381	132.865	0.005	0.001	-0.109	-291.158	60.51	60.51	43.95	43.95
104	235	-4811.844	672.146	-0.005	-0.001	0.089	-231.529	49.63	49.63	62.79	62.79
105	235	4870.419	467.916	0.031	-0.009	-0.089	231.518	50.29	50.29	63.46	63.46
105	246	-4746.545	99.700	-0.031	0.009	-0.032	-175.161	50.13	50.13	60.09	60.09
106	246	4746.524	-99.700	0.031	-0.009	0.032	175.160	50.13	50.13	60.09	60.09
106	247	-4710.788	-14.343	-0.031	0.009	-0.152	-138.062	50.55	50.55	58.40	58.40
107	247	4622.419	96.112	0.031	-0.009	0.152	242.021	47.24	47.24	61.00	61.00
107	248	-4694.355	169.577	-0.031	0.009	-0.273	-335.004	46.00	45.99	65.05	65.04
108	248	4694.336	-169.576	0.031	-0.009	0.273	335.005	46.00	45.99	65.05	65.04
108	249	-4787.442	67.440	-0.031	0.009	-0.394	-1145.950	29.07	29.06	94.24	94.24
109	249	4787.423	-67.441	0.031	-0.009	0.394	1145.949	29.07	29.06	94.24	94.23
109	250	-4905.776	-254.612	-0.031	0.009	-0.514	-676.964	40.82	40.81	79.32	79.31
110	250	4905.879	254.612	0.031	-0.009	0.514	676.962	40.82	40.81	79.32	79.31
110	251	-4928.941	-199.350	-0.031	0.009	-0.635	261.567	61.85	61.84	46.98	46.97
111	251	4924.922	199.349	0.031	-0.009	0.635	-261.568	61.85	61.84	46.98	46.97
	252	-4946.006	-31.832	-0.031	0.009	-0.755	721.503	72.30	72.28	31.26	31.26
112	252	4945.980	31.832	0.031	-0.009	0.755	-721.503	72.30	72.28	31.26	31.26
112	253	-4866.364	739.210	-0.031	0.009	-0.876	-287.201	49.02	49.00	65.35	65.34
113	253	4921.143	319.725	-0.037	0.011	0.876	287.201	49.64	49.63	65.97	65.97
113	264	-4834.659	144.764	0.037	-0.011	-0.768	-289.026	48.62	48.60	65.05	65.04
114	264	4834.641	-144.764	-0.037	0.011	0.768	289.026	48.62	48.60	65.05	65.04
114	265	-4815.650	134.197	0.037	-0.011	-0.661	-667.897	40.00	39.99	77.98	77.97
115	265	5083.686	38.956	-0.037	0.011	0.661	832.484	39.40	39.39	86.74	86.73
115	266	-5092.612	33.768	0.037	-0.011	-0.553	-802.588	40.16	40.15	85.80	85.80
116	266	5092.706	-33.768	-0.037	0.011	0.553	802.587	40.16	40.15	85.80	85.80
116	267	-5092.040	227.879	0.037	-0.011	-0.446	-1121.292	33.08	33.08	96.85	96.85
117	267	5092.021	-227.878	-0.037	0.011	0.446	1121.291	33.08	33.08	96.85	96.85
117	268	-5033.957	85.970	0.037	-0.011	-0.338	-1752.808	18.42	18.41	118.10	118.09
118	268	5033.945	-85.973	-0.037	0.011	0.338	1752.808	18.42	18.41	118.09	118.09
118	269	-4929.664	-147.488	0.037	-0.011	-0.231	-1456.050	23.81	23.81	106.61	106.61
119	269	4929.635	147.489	-0.037	0.011	0.231	1456.050	23.81	23.81	106.61	106.61
119	270	-4900.839	-16.942	0.037	-0.011	-0.123	-1173.214	29.75	29.75	96.47	96.47
120	270	4900.822	16.942	-0.037	0.011	0.123	1173.215	29.75	29.75	96.47	96.47
120	271	-4865.430	148.652	0.037	-0.011	-0.016	-1364.102	25.12	25.12	102.69	102.69

HIPOTESIS 1067

Carga permanente (Pret*1.1) (t=0)

ESFUERZOS EN BARRAS

TENSIONES

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	5561.980	-137.381	0.042	-0.012	-0.730	783.088	45.92	45.94	90.46	90.47
1	12	-5641.603	78.885	-0.042	0.012	0.608	-1202.358	37.53	37.54	105.91	105.92
2	12	5641.604	-78.885	0.042	-0.012	-0.608	1202.357	37.53	37.54	105.91	105.92
2	13	-5719.938	-0.029	-0.042	0.012	0.485	-1273.567	36.84	36.85	109.27	109.28
3	13	5719.939	0.029	0.042	-0.012	-0.485	1273.567	36.84	36.85	109.27	109.28
3	14	-5757.377	76.034	-0.042	0.012	0.363	-1404.115	34.38	34.38	114.23	114.23
4	14	5757.376	-76.035	0.042	-0.012	-0.363	1404.115	34.38	34.38	114.23	114.23
4	15	-5804.341	101.636	-0.042	0.012	0.240	-1714.319	28.03	28.04	125.53	125.53
5	15	5804.342	-101.636	0.042	-0.012	-0.240	1714.320	28.03	28.04	125.53	125.53
5	16	-5913.802	-205.586	-0.042	0.012	0.118	-1754.376	28.39	28.39	128.16	128.16
6	16	5913.801	205.587	0.042	-0.012	-0.118	1754.375	28.39	28.39	128.16	128.16
6	17	-5977.593	-520.822	-0.042	0.012	-0.005	-588.525	54.97	54.97	88.44	88.44
7	17	5977.597	520.820	0.042	-0.012	0.005	588.526	54.97	54.97	88.44	88.44
7	18	-5999.316	-502.064	-0.042	0.012	-0.127	922.009	88.73	88.72	36.29	36.29
8	18	5999.314	502.065	0.042	-0.012	0.127	-922.009	88.73	88.72	36.29	36.29
8	19	-6175.212	541.583	-0.042	0.012	-0.250	1404.289	101.42	101.42	21.56	21.56
9	19	6231.010	563.192	-0.024	0.010	0.250	-1404.303	102.06	102.06	22.20	22.20
9	30	-6040.255	382.522	0.024	-0.010	-0.158	603.261	82.12	82.12	47.81	47.81
10	30	6040.256	-382.522	-0.024	0.010	0.158	-603.262	82.12	82.12	47.81	47.81
10	31	-5983.323	105.061	0.024	-0.010	-0.067	-8.755	67.90	67.90	68.40	68.40
11	31	5715.556	4.177	-0.024	0.010	0.067	119.146	62.40	62.40	69.18	69.18
11	32	-5809.778	314.860	0.024	-0.010	0.024	-651.006	51.68	51.68	88.70	88.70
12	32	5809.778	-314.858	-0.024	0.010	-0.024	651.006	51.68	51.68	88.70	88.70
12	33	-5942.619	99.658	0.024	-0.010	0.115	-1957.893	24.20	24.21	135.55	135.55
13	33	5942.618	-99.658	-0.024	0.010	-0.115	1957.891	24.20	24.21	135.55	135.55
13	34	-6092.683	-324.317	0.024	-0.010	0.206	-1289.090	40.74	40.75	114.06	114.06
14	34	6092.683	324.317	-0.024	0.010	-0.206	1289.092	40.74	40.75	114.06	114.06
14	35	-6136.650	-325.754	0.024	-0.010	0.297	-94.946	67.73	67.73	73.13	73.13
15	35	6136.651	325.754	-0.024	0.010	-0.297	94.948	67.73	67.73	73.13	73.13
15	36	-6202.699	-367.929	0.024	-0.010	0.389	1270.174	98.76	98.76	26.53	26.53
16	36	6202.699	367.929	-0.024	0.010	-0.389	-1270.173	98.76	98.76	26.53	26.53
16	37	-6286.217	720.487	0.024	-0.010	0.480	1326.891	100.96	100.97	25.51	25.51
17	37	6343.614	402.482	0.002	-0.004	-0.480	-1326.889	101.62	101.63	26.16	26.16
17	48	-6163.320	347.494	-0.002	0.004	0.474	496.893	81.16	81.17	52.90	52.91
18	48	6163.320	-347.494	0.002	-0.004	-0.474	-496.892	81.16	81.17	52.90	52.91
18	49	-6109.579	124.367	-0.002	0.004	0.467	-135.403	66.52	66.53	74.23	74.23
19	49	5748.583	-2.203	0.002	-0.004	-0.467	227.813	60.36	60.37	73.32	73.33
19	50	-5847.839	308.371	-0.002	0.004	0.461	-753.626	49.83	49.84	92.69	92.70
20	50	5847.839	-308.370	0.002	-0.004	-0.461	753.626	49.83	49.84	92.69	92.70
20	51	-5978.809	95.799	-0.002	0.004	0.455	-2033.268	22.94	22.95	138.57	138.58
21	51	5978.808	-95.798	0.002	-0.004	-0.455	2033.266	22.94	22.95	138.57	138.58
21	52	-6130.638	-323.596	-0.002	0.004	0.449	-1362.125	39.55	39.56	117.02	117.02
22	52	6130.639	323.596	0.002	-0.004	-0.449	1362.128	39.55	39.56	117.02	117.02
22	53	-6166.568	-324.916	-0.002	0.004	0.443	-168.432	66.44	66.45	76.02	76.02
23	53	6166.567	324.917	0.002	-0.004	-0.443	168.435	66.44	66.45	76.02	76.02
23	54	-6235.773	-368.751	-0.002	0.004	0.437	1197.083	97.51	97.52	29.44	29.44
24	54	6235.771	368.750	0.002	-0.004	-0.437	-1197.082	97.51	97.52	29.44	29.44
24	55	-6324.563	718.233	-0.002	0.004	0.431	1262.958	99.98	99.99	28.16	28.17
25	55	6381.766	405.200	0.000	-0.001	-0.431	-1262.959	100.63	100.64	28.81	28.82
25	66	-6205.453	344.057	0.000	0.001	0.430	446.455	80.52	80.53	55.13	55.13
26	66	6205.451	-344.057	0.000	-0.001	-0.430	-446.453	80.52	80.53	55.13	55.13
26	67	-6154.555	120.387	0.000	0.001	0.430	-170.277	66.26	66.27	75.95	75.95
27	67	5825.990	2.745	0.000	-0.001	-0.430	249.523	60.76	60.77	74.96	74.96
27	68	-5922.816	309.430	0.000	0.001	0.429	-766.228	50.41	50.41	93.98	93.99
28	68	5922.814	-309.429	0.000	-0.001	-0.429	766.228	50.41	50.41	93.98	93.99
28	69	-6055.456	96.302	0.000	0.001	0.429	-2058.123	23.26	23.27	140.31	140.31
29	69	6055.456	-96.303	0.000	-0.001	-0.429	2058.123	23.26	23.27	140.31	140.31
29	70	-6206.026	-328.126	0.000	0.001	0.428	-1375.145	40.12	40.13	118.33	118.33
30	70	6206.027	328.125	0.000	-0.001	-0.428	1375.143	40.12	40.13	118.33	118.33
30	71	-6251.414	-329.516	0.000	0.001	0.428	-166.906	67.44	67.45	76.93	76.94
31	71	6251.415	329.516	0.000	-0.001	-0.428	166.905	67.44	67.45	76.93	76.94
31	72	-6317.307	-371.715	0.000	0.001	0.427	1212.866	98.79	98.80	29.82	29.82
32	72	6317.308	371.715	0.000	-0.001	-0.427	-1212.865	98.79	98.80	29.82	29.82
32	73	-6400.407	716.720	0.000	0.001	0.427	1284.004	101.31	101.32	28.30	28.30
97	217	6916.608	397.663	0.009	-0.001	-0.519	-1323.612	108.07	108.07	32.80	32.80
97	228	-6736.047	352.289	-0.009	0.001	0.482	474.873	87.19	87.20	60.18	60.19
98	228	6736.046	-352.289	0.009	-0.001	-0.482	-474.874	87.19	87.20	60.18	60.19
98	229	-6682.159	129.169	-0.009	0.001	0.445	-176.086	72.14	72.14	82.15	82.16
99	229	6325.464	-6.931	0.009	-0.001	-0.445	266.749	66.07	66.07	81.24	81.24
99	230	-6424.849	313.645	-0.009	0.001	0.409	-811.536	55.12	55.12	101.27	101.27
100	230	6424.845	-313.647	0.009	-0.001	-0.409	811.535	55.12	55.12	101.27	101.27
100	231	-6555.898	100.905	-0.009	0.001	0.372	-2112.131	27.76	27.77	147.88	147.88
101	231	6555.899	-100.903	0.009	-0.001	-0.372	2112.129	27.76	27.77	147.88	147.88
101	232	-6707.915	-319.211	-0.009	0.001	0.335	-1458.933	43.98	43.98	126.95	126.95
102	232	6707.914	319.210	0.009	-0.001	-0.335	1458.933	43.98	43.98	126.95	126.95
102	233	-6743.892	-320.456	-0.009	0.001	0.299	-282.386	70.48	70.49	86.54	86.55
103	233	6743.894	320.455	0.009	-0.001	-0.299	282.385	70.48	70.49	86.54	86.55
103	234	-6813.188	-364.080	-0.009	0.001	0.262	1065.573	101.17	101.17	40.57	40.57
104	234	6813.183	364.080	0.009	-0.001	-0.262	-1065.573	101.17	101.17	40.57	40.57
104	235	-6902.059	723.145	-0.009	0.001	0.225	1112.850	103.23	103.23	39.94	39.94
105	235	6960.659	433.498	0.019	-0.005	-0.225	-1112.856	103.90	103.90	40.61	40.61
105	246	-6784.407	315.952	-0.019	0.005	0.150	405.707	86.21	86.21	63.14	63.14
106	246	6784.409	-315.951	0.019	-0.005	-0.150	-405.709	86.21	86.21	63.14	63.14
106	247	-6733.560	92.433	-0.019	0.005	0.075	-102.477	74.36	74.36	80.19	80.19
107	247	6607.862	23.911	0.019	-0.005	-0.075	250.395	69.65	69.65	83.89	83.89
107	248	-6710.215	290.309	-0.019	0.005	-0.001	-688.499	61.10	61.10	100.25	100.25
108	248	6710.216	-290.309	0.019	-0.005	0.001	688.500	61.10	61.10	100.25	100.25
108	249	-6842.691	86.806	-0.019	0.005	-0.076	-1919.607	35.30	35.30	144.46	144.46
109	249	6842.690	-86.807	0.019	-0.005	0.076	1919.605	35.30	35.30	144.46	144.46
109	250	-7011.088	-429.603	-0.019	0.005	-0.151	-1104.131	55.30	55.30	118.09	118.09
110	250	7011.094	429.603	0.019	-0.005	0.151	1104.128	55.30	55.30	118.09	118.09
110	251	-7038.217	-409.152	-0.019	0.005	-0.227	604.879	93.52	93.51	59.12	59.11
111	251	7038.218	409.152	0.019	-0.005	0.227	-604.880	93.52	93.51	59.12	59.11
111	252	-7068.216	-228.980	-0.019	0.005	-0.302	1858.365	121.66	121.65	15.97	15.97

112	252	7068.212	228.981	0.019	-0.005	0.302	-1858.364	121.66	121.65	15.97	15.97
112	253	-6954.930	809.914	-0.019	0.005	-0.377	1247.648	106.83	106.82	35.87	35.87
	253	7009.730	201.240	-0.015	0.005	0.377	-1247.639	107.95	107.94	36.49	36.49
	264	-6886.677	415.552	0.015	-0.005	-0.332	564.633	90.90	90.89	58.79	58.79
114	264	6886.677	-415.552	-0.015	0.005	0.332	-564.633	90.90	90.89	58.79	58.79
114	265	-6859.657	353.340	0.015	-0.005	-0.288	-524.370	66.44	66.43	96.26	96.26
115	265	7240.455	-106.959	-0.015	0.005	0.288	758.308	65.58	65.58	108.71	108.70
115	266	-7253.231	160.693	0.015	-0.005	-0.243	-1114.599	57.83	57.82	121.21	121.21
116	266	7253.221	-160.693	-0.015	0.005	0.243	1114.598	57.83	57.82	121.21	121.21
116	267	-7252.393	392.767	0.015	-0.005	-0.198	-1834.222	41.86	41.85	146.17	146.16
117	267	7252.401	-392.766	-0.015	0.005	0.198	1834.221	41.86	41.85	146.17	146.16
117	268	-7170.102	146.781	0.015	-0.005	-0.153	-2869.488	17.96	17.96	181.14	181.14
118	268	7170.106	-146.783	-0.015	0.005	0.153	2869.487	17.96	17.96	181.14	181.14
118	269	-7021.716	-229.498	0.015	-0.005	-0.109	-2454.350	25.48	25.47	165.05	165.05
119	269	7021.709	229.499	-0.015	0.005	0.109	2454.351	25.48	25.47	165.05	165.05
119	270	-6980.812	-87.855	0.015	-0.005	-0.064	-1929.513	36.65	36.65	146.38	146.38
120	270	6980.818	87.854	-0.015	0.005	0.064	1929.515	36.65	36.65	146.38	146.38
120	271	-6930.496	94.852	0.015	-0.005	-0.019	-1940.991	35.82	35.82	146.21	146.21

VIADUCTO 1 SOBRE EL RIO SEGRE

HIPOTESIS 1068

carga permanente (Pret*1.1) (t=inf.)

ESFUERZOS EN BARRAS

TENSIONES

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	4662.373	-89.572	0.072	-0.020	-0.734	508.249	41.78	41.79	70.69	70.69
1	12	-4730.769	54.030	-0.072	0.020	0.523	-806.465	35.95	35.96	81.81	81.82
2	12	4730.771	-54.031	0.072	-0.020	-0.523	806.464	35.95	35.96	81.81	81.82
2	13	-4798.060	0.950	-0.072	0.020	0.312	-848.896	35.77	35.78	84.05	84.05
3	13	4798.060	-0.950	0.072	-0.020	-0.312	848.896	35.77	35.78	84.05	84.05
3	14	-4830.220	80.995	-0.072	0.020	0.101	-985.501	33.11	33.11	89.16	89.16
4	14	4830.217	-80.996	0.072	-0.020	-0.101	985.501	33.11	33.11	89.16	89.16
4	15	-4870.560	117.694	-0.072	0.020	-0.110	-1319.631	26.16	26.16	101.21	101.21
5	15	4870.563	-117.694	0.072	-0.020	0.110	1319.632	26.16	26.16	101.21	101.21
5	16	-4964.589	-131.504	-0.072	0.020	-0.321	-1464.904	24.01	24.01	107.32	107.32
6	16	4964.589	131.505	0.072	-0.020	0.321	1464.903	24.01	24.01	107.32	107.32
6	17	-5019.386	-387.585	-0.072	0.020	-0.532	-617.504	43.43	43.42	78.55	78.54
7	17	5019.385	387.584	0.072	-0.020	0.532	617.505	43.43	43.42	78.55	78.54
7	18	-5038.041	-356.765	-0.072	0.020	-0.742	482.779	68.05	68.04	40.59	40.59
8	18	5038.042	356.766	0.072	-0.020	0.742	-482.779	68.05	68.04	40.59	40.59
8	19	-5189.138	554.434	-0.072	0.020	-0.953	656.591	73.63	73.61	36.28	36.27
9	19	5244.936	560.035	-0.038	0.018	0.953	-656.606	74.26	74.24	36.91	36.91
9	30	-5081.077	271.733	0.038	-0.018	-0.807	226.405	62.85	62.84	49.97	49.97
10	30	5081.078	-271.733	-0.038	0.018	0.807	-226.406	62.85	62.84	49.97	49.97
10	31	-5032.173	53.619	0.038	-0.018	-0.661	-116.905	54.68	54.67	61.33	61.32
11	31	4802.162	40.016	-0.038	0.018	0.661	211.731	49.96	49.95	62.00	61.99
11	32	-4883.099	255.316	0.038	-0.018	-0.514	-571.276	42.91	42.90	75.39	75.39
12	32	4883.100	-255.315	-0.038	0.018	0.514	571.276	42.91	42.90	75.39	75.39
12	33	-4997.210	89.857	0.038	-0.018	-0.368	-1672.777	19.77	19.77	114.90	114.90
13	33	4997.202	-89.857	-0.038	0.018	0.368	1672.777	19.77	19.77	114.90	114.90
13	34	-5126.109	-254.938	0.038	-0.018	-0.222	-1152.338	32.78	32.78	98.31	98.31
14	34	5126.118	254.937	-0.038	0.018	0.222	1152.339	32.78	32.78	98.31	98.31
14	35	-5163.885	-236.771	0.038	-0.018	-0.075	-255.804	53.09	53.09	67.64	67.64
15	35	5163.879	236.771	-0.038	0.018	0.075	255.806	53.09	53.09	67.64	67.64
15	36	-5220.614	-253.600	0.038	-0.018	0.071	712.420	75.21	75.21	34.70	34.70
16	36	5220.623	253.599	-0.038	0.018	-0.071	-712.420	75.21	75.21	34.70	34.70
16	37	-5292.365	700.750	0.038	-0.018	0.217	481.552	70.91	70.91	43.53	43.53
17	37	5349.756	425.693	-0.001	-0.005	-0.217	-481.560	71.56	71.57	44.18	44.18
17	48	-5194.883	237.937	0.001	0.005	0.219	40.853	60.02	60.03	57.70	57.70
18	48	5194.891	-237.937	-0.001	-0.005	-0.219	-40.853	60.02	60.03	57.70	57.70
18	49	-5148.728	66.696	0.001	0.005	0.221	-305.513	51.82	51.82	69.19	69.19
19	49	4838.626	38.243	-0.001	-0.005	-0.221	384.894	46.53	46.53	68.42	68.42
19	50	-4923.887	246.034	0.001	0.005	0.223	-724.878	39.96	39.96	81.18	81.18
20	50	4923.879	-246.035	-0.001	-0.005	-0.223	724.878	39.96	39.96	81.18	81.18

20	51	-5036.382	82.836	0.001	0.005	0.225	-1788.612	17.64	17.65	119.36	119.36
21	51	5036.391	-82.835	-0.001	-0.005	-0.225	1788.611	17.64	17.65	119.36	119.36
[illegible]	52	-5166.813	-258.025	0.001	0.005	0.227	-1251.797	31.04	31.04	102.23	102.23
[illegible]	52	5166.808	258.024	-0.001	-0.005	-0.227	1251.800	31.03	31.04	102.23	102.23
22	53	-5197.670	-239.758	0.001	0.005	0.229	-341.287	51.58	51.58	70.99	70.99
23	53	5197.679	239.759	-0.001	-0.005	-0.229	341.290	51.58	51.58	70.99	70.99
23	54	-5257.126	-258.013	0.001	0.005	0.231	641.643	74.06	74.06	37.57	37.57
24	54	5257.132	258.012	-0.001	-0.005	-0.231	-641.643	74.06	74.06	37.57	37.57
24	55	-5333.404	695.107	0.001	0.005	0.233	433.007	70.30	70.30	45.67	45.68
25	55	5390.586	427.744	0.001	-0.001	-0.233	-433.018	70.95	70.95	46.33	46.33
25	66	-5239.133	235.268	-0.001	0.001	0.230	2.804	59.68	59.69	59.53	59.53
26	66	5239.139	-235.268	0.001	-0.001	-0.230	-2.803	59.68	59.69	59.53	59.53
26	67	-5195.419	63.560	-0.001	0.001	0.227	-331.289	51.78	51.78	70.62	70.62
27	67	4913.191	42.210	0.001	-0.001	-0.227	399.360	47.05	47.06	69.77	69.77
27	68	-4996.365	247.228	-0.001	0.001	0.224	-732.618	40.61	40.61	82.27	82.28
28	68	4996.340	-247.226	0.001	-0.001	-0.224	732.619	40.61	40.61	82.27	82.28
28	69	-5110.279	83.550	-0.001	0.001	0.221	-1807.972	18.06	18.06	120.88	120.88
29	69	5110.289	-83.551	0.001	-0.001	-0.221	1807.972	18.06	18.06	120.88	120.88
9	70	-5239.629	-261.633	-0.001	0.001	0.218	-1262.088	31.64	31.64	103.41	103.41
30	70	5239.640	261.633	0.001	-0.001	-0.218	1262.086	31.64	31.64	103.41	103.41
[illegible]	71	-5278.628	-243.427	-0.001	0.001	0.216	-340.178	52.53	52.53	71.87	71.87
[illegible]	71	5278.636	243.427	0.001	-0.001	-0.216	340.177	52.53	52.53	71.87	71.87
31	72	-5335.237	-260.275	-0.001	0.001	0.213	653.902	75.22	75.22	38.03	38.03
32	72	5335.215	260.275	0.001	-0.001	-0.213	-653.901	75.22	75.22	38.03	38.03
32	73	-5406.598	694.090	-0.001	0.001	0.210	448.691	71.48	71.48	45.96	45.97
97	217	5922.778	423.610	0.006	0.000	-0.275	-468.772	77.80	77.80	51.14	51.14
97	228	-5767.677	239.998	-0.006	0.000	0.253	19.937	66.08	66.08	64.95	64.95
98	228	5767.651	-239.998	0.006	0.000	-0.253	-19.938	66.08	66.08	64.95	64.95
98	229	-5721.361	68.764	-0.006	0.000	0.232	-334.488	57.69	57.70	76.71	76.72
99	229	5415.061	36.239	0.006	0.000	-0.232	412.368	52.48	52.48	75.93	75.93
99	230	-5500.428	248.508	-0.006	0.000	0.210	-760.680	45.72	45.73	88.98	88.99
100	230	5500.410	-248.509	0.006	0.000	-0.210	760.678	45.72	45.73	88.98	88.99
100	231	-5612.985	85.164	-0.006	0.000	0.189	-1834.440	23.19	23.19	127.51	127.52
101	231	5612.966	-85.163	0.006	0.000	-0.189	1834.438	23.19	23.19	127.51	127.52
101	232	-5743.548	-256.315	-0.006	0.000	0.167	-1305.067	36.42	36.42	110.64	110.64
102	232	5743.521	256.315	0.006	0.000	-0.167	1305.066	36.42	36.42	110.64	110.64
2	233	-5774.427	-237.984	-0.006	0.000	0.146	-401.313	56.81	56.82	79.64	79.64
103	233	5774.411	237.984	0.006	0.000	-0.146	401.312	56.81	56.82	79.64	79.64
[illegible]	234	-5833.934	-256.057	-0.006	0.000	0.124	574.509	79.13	79.14	46.46	46.46
104	234	5834.030	256.057	0.006	0.000	-0.124	-574.509	79.13	79.14	46.46	46.46
104	235	-5910.375	697.269	-0.006	0.000	0.103	357.870	75.28	75.28	54.85	54.85
105	235	5968.948	443.296	0.030	-0.009	-0.103	-357.884	75.87	75.87	55.51	55.51
105	246	-5817.547	219.881	-0.030	0.009	-0.014	-12.323	65.93	65.93	66.63	66.63
106	246	5817.527	-219.881	0.030	-0.009	0.014	12.322	65.93	65.93	66.63	66.63
106	247	-5773.848	48.304	-0.030	0.009	-0.130	-287.103	59.34	59.34	75.67	75.67
107	247	5665.848	51.636	0.030	-0.009	0.130	414.164	55.30	55.29	78.85	78.85
107	248	-5753.769	239.558	-0.030	0.009	-0.247	-713.831	49.65	49.65	90.24	90.24
108	248	5753.751	-239.557	0.030	-0.009	0.247	713.833	49.65	49.65	90.24	90.24
108	249	-5867.548	84.149	-0.030	0.009	-0.363	-1770.900	27.50	27.50	128.21	128.21
109	249	5867.530	-84.150	0.030	-0.009	0.363	1770.898	27.50	27.50	128.21	128.21
109	250	-6012.183	-340.046	-0.030	0.009	-0.480	-1145.127	43.03	43.02	108.15	108.14
110	250	6012.285	340.046	0.030	-0.009	0.480	1145.125	43.03	43.02	108.15	108.15
110	251	-6035.584	-303.079	-0.030	0.009	-0.596	173.015	72.53	72.52	62.69	62.68
111	251	6035.566	303.078	0.030	-0.009	0.596	-173.016	72.53	72.52	62.69	62.68
111	252	-6061.335	-128.910	-0.030	0.009	-0.712	1024.687	91.71	91.70	33.44	33.43
112	252	6061.309	128.911	0.030	-0.009	0.712	-1024.687	91.71	91.70	33.44	33.43
112	253	-5964.000	782.899	-0.030	0.009	-0.829	199.834	72.31	72.30	60.94	60.94
113	253	6018.778	271.055	-0.034	0.010	0.829	-199.838	72.94	72.92	61.57	61.56
113	264	-5913.075	273.476	0.034	-0.010	-0.728	-120.027	64.64	64.63	71.46	71.45
114	264	5913.059	-273.476	-0.034	0.010	0.728	120.027	64.64	64.62	71.46	71.45
114	265	-5889.848	235.767	0.034	-0.010	-0.626	-832.156	48.58	48.57	95.90	95.89
115	265	6217.451	-24.135	-0.034	0.010	0.626	1033.317	47.84	47.83	106.61	106.60
115	266	-6228.360	86.881	0.034	-0.010	-0.525	-1166.424	45.02	45.01	111.35	111.34
116	266	6228.453	-86.881	-0.034	0.010	0.525	1166.424	45.02	45.01	111.35	111.34
116	267	-6227.639	300.949	0.034	-0.010	-0.424	-1655.883	34.15	34.14	128.32	128.31
117	267	6227.620	-300.948	-0.034	0.010	0.424	1655.882	34.15	34.14	128.32	128.31
117	268	-6156.653	104.327	0.034	-0.010	-0.323	-2459.582	15.52	15.51	155.39	155.39
118	268	6156.642	-104.330	-0.034	0.010	0.323	2459.582	15.52	15.51	155.39	155.39
118	269	-6029.188	-204.190	0.034	-0.010	-0.221	-2060.636	22.91	22.91	140.10	140.10
119	269	6029.159	204.191	-0.034	0.010	0.221	2060.637	22.91	22.91	140.10	140.10
119	270	-5993.963	-67.811	0.034	-0.010	-0.120	-1610.621	32.49	32.49	124.09	124.09
120	270	5993.946	67.811	-0.034	0.010	0.120	1610.623	32.49	32.49	124.09	124.09
120	271	-5950.689	106.776	0.034	-0.010	-0.019	-1667.242	30.74	30.74	125.56	125.56

IPOTESIS 1591

COMB I MAX grupo I (ELS) (ipf-75) (frecuente)

ESFUERZOS EN BARRAS — TENSIONES

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	6024.805	24.311	0.063	-0.017	-0.929	1443.109	36.55	36.57	118.62	118.63
1	12	-6104.428	-24.193	-0.069	0.019	0.765	-1499.104	36.22	36.23	121.47	121.48
2	12	6104.429	24.193	0.069	-0.019	-0.765	1499.103	36.22	36.23	121.47	121.48
2	13	-5719.938	43.957	-0.086	0.024	0.556	-1507.786	31.65	31.66	117.40	117.40
13	13	5719.939	-43.956	0.086	-0.024	-0.556	1507.785	31.65	31.66	117.40	117.40
14	14	-5757.377	124.144	-0.086	0.024	0.302	-1773.599	26.18	26.19	127.05	127.05
4	14	5757.376	-124.145	0.086	-0.024	-0.302	1773.599	26.18	26.19	127.05	127.05
4	15	-5804.341	153.870	-0.086	0.024	0.049	-2231.185	16.57	16.57	143.46	143.46
5	15	5804.342	-153.871	0.086	-0.024	-0.049	2231.185	16.57	16.57	143.46	143.46
5	16	-5913.802	-149.227	-0.086	0.024	-0.205	-2430.737	13.39	13.39	151.63	151.62
6	16	5913.801	149.229	0.086	-0.024	0.205	2430.736	13.39	13.39	151.63	151.62
6	17	-5019.386	-327.102	-0.117	0.032	-0.986	-1465.476	24.63	24.61	107.96	107.96
7	17	5019.385	327.101	0.117	-0.032	0.986	1465.477	24.63	24.61	107.96	107.96
7	18	-3973.269	-139.012	-0.118	0.033	-1.356	-874.973	25.82	25.80	75.57	75.57
8	18	3973.270	139.012	0.118	-0.033	1.356	874.973	25.82	25.80	75.57	75.57
8	19	-4096.894	831.178	-0.094	0.089	-1.472	-1637.025	10.33	10.30	103.42	103.41
9	19	4152.692	863.794	-0.071	0.030	1.472	1637.005	10.97	10.94	104.05	104.04
9	30	-4018.625	-68.846	0.086	-0.040	-1.669	-631.758	31.74	31.71	67.65	67.64
10	30	4018.626	68.846	-0.086	0.040	1.669	631.758	31.74	31.71	67.65	67.64
10	31	-5032.173	43.889	0.081	-0.020	-0.751	-585.595	44.29	44.27	77.59	77.58
1	31	4802.162	49.946	-0.041	0.020	0.751	680.421	39.57	39.55	78.26	78.25
11	32	-5809.778	310.371	0.026	-0.012	-0.055	-1091.760	41.90	41.90	103.99	103.99
11	32	5809.778	-310.369	-0.026	0.012	0.055	1091.761	41.90	41.90	103.99	103.99
12	33	-5942.619	119.195	0.014	-0.006	0.059	-2439.313	13.53	13.53	152.25	152.25
13	33	5942.618	-119.196	-0.014	0.006	-0.059	2439.312	13.53	13.53	152.25	152.25
13	34	-6092.683	-299.339	0.014	-0.006	0.111	-1856.760	28.16	28.16	133.75	133.75
14	34	6092.683	299.339	-0.014	0.006	-0.111	1856.762	28.16	28.16	133.75	133.75
14	35	-5163.885	-196.811	0.024	-0.013	-0.232	-967.497	37.31	37.31	92.33	92.33
15	35	5163.879	196.811	-0.024	0.013	0.232	967.499	37.31	37.31	92.33	92.33
15	36	-4132.793	78.744	0.007	-0.007	-0.672	-477.192	36.46	36.44	63.59	63.58
16	36	4132.801	-78.749	-0.007	0.007	0.672	477.193	36.46	36.44	63.59	63.58
16	37	-4191.500	978.195	0.695	0.699	13.839	-1983.012	3.60	3.84	116.45	116.54
17	37	4248.891	762.155	-5.359	-8.521	-13.839	1983.005	4.25	4.49	117.10	117.19
17	48	-4122.176	-100.144	0.048	-0.013	-0.459	-989.709	24.97	24.96	81.25	81.24
18	48	4122.184	100.144	-0.048	0.013	0.459	989.710	24.97	24.96	81.25	81.24
18	49	-5148.728	43.715	0.007	0.005	0.173	-994.427	36.54	36.54	93.09	93.09
19	49	4838.626	61.224	-0.007	-0.005	-0.173	1073.808	31.25	31.25	92.32	92.32
19	50	-5847.839	290.831	0.005	0.003	0.438	-1264.032	36.29	36.30	113.87	113.87
20	50	5847.839	-290.831	-0.005	-0.003	-0.439	1364.032	36.29	36.30	113.87	113.87
20	51	-5978.809	103.975	-0.008	0.008	0.451	-2618.299	9.97	9.97	158.87	158.87
21	51	5978.808	-103.974	0.008	-0.008	-0.451	2618.297	9.97	9.97	158.87	158.87
21	52	-6130.638	-301.005	-0.012	0.010	0.412	-1992.069	25.58	25.59	138.87	138.88
22	52	6130.639	301.005	0.012	-0.010	-0.412	1992.072	25.58	25.59	138.87	138.88
22	53	-5197.670	-211.727	-0.010	0.011	0.152	-1069.311	35.43	35.44	96.25	96.25
23	53	5197.679	211.728	0.010	-0.011	-0.152	1069.313	35.43	35.44	96.25	96.25
23	54	-4173.104	81.122	-0.044	0.023	-0.482	-548.629	35.33	35.32	66.53	66.52
24	54	4173.110	-81.123	0.044	-0.023	0.482	548.630	35.33	35.32	66.53	66.52
24	55	-4235.515	979.315	0.690	0.765	14.796	-2061.039	2.36	2.62	119.65	119.75
25	55	4292.695	765.377	-5.312	-8.491	-14.796	2061.030	3.01	3.27	120.30	120.40
25	66	-4168.780	-103.949	0.047	-0.018	-0.468	-1054.739	24.05	24.05	84.03	84.03
26	66	4168.786	103.949	-0.047	0.018	0.468	1054.739	24.05	24.05	84.03	84.03
26	67	-5195.419	38.950	0.007	-0.001	0.159	-1047.790	35.89	35.89	95.47	95.47
27	67	4913.191	66.820	-0.007	0.001	-0.159	1115.863	31.16	31.17	99.62	99.62
27	68	-5922.816	290.261	0.007	-0.002	0.390	-1397.910	36.40	36.40	115.90	115.90
28	68	5922.814	-290.260	-0.007	0.002	-0.390	1397.910	36.40	36.40	115.90	115.90
28	69	-6055.456	102.916	-0.006	0.003	0.411	-2657.497	9.97	9.98	161.10	161.10
29	69	6055.456	-102.916	0.006	-0.003	-0.411	2657.497	9.97	9.98	161.10	161.10
29	70	-6206.026	-307.168	-0.010	0.005	0.380	-2013.749	25.96	25.97	140.48	140.49
30	70	6206.027	307.167	0.010	-0.005	-0.380	2013.748	25.96	25.97	140.48	140.49
30	71	-5278.628	-217.029	-0.010	0.005	0.130	-1070.536	36.33	36.33	97.21	97.21
31	71	5278.636	217.028	0.010	-0.005	-0.130	1070.535	36.33	36.33	97.21	97.21
31	72	-4247.414	81.895	-0.050	0.021	-0.519	-545.311	36.25	36.24	67.26	67.25
32	72	4247.392	-81.895	0.050	-0.021	0.519	545.312	36.25	36.24	67.26	67.25
32	73	-4305.796	981.626	0.640	0.730	13.889	-2065.245	3.08	3.32	120.60	120.69
97	217	4821.975	758.914	-5.468	-8.616	-11.162	2028.704	9.78	9.98	125.22	125.29
97	228	-4695.074	-97.016	-0.535	-0.635	9.202	-1049.630	30.07	30.23	89.81	89.87
98	228	4695.049	97.016	0.535	0.635	-9.202	1049.629	30.07	30.23	89.81	89.87
98	229	-5721.361	40.706	0.008	-0.006	0.150	-1062.738	41.54	41.54	101.98	101.98
99	229	5415.061	64.297	-0.007	0.006	-0.150	1140.617	36.33	36.33	101.19	101.19
99	230	-6424.844	291.028	0.004	-0.004	0.377	-1441.601	41.14	41.15	123.13	123.13
100	230	6424.845	-291.029	-0.004	0.004	-0.377	1441.600	41.14	41.15	123.13	123.13
100	231	-6555.898	92.709	-0.001	-0.003	0.382	-2697.191	14.78	14.79	168.17	168.18
101	231	6555.899	-92.708	0.001	0.003	-0.382	2697.189	14.78	14.79	168.17	168.18
101	232	-6707.915	-301.668	-0.015	0.001	0.332	-2069.366	30.44	30.45	148.12	148.13
102	232	6707.914	301.667	0.015	-0.001	-0.332	2069.367	30.44	30.45	148.12	148.13
102	233	-5774.427	-215.000	-0.011	0.000	0.120	-1090.266	41.53	41.54	103.54	103.54
103	233	5774.411	215.000	0.011	0.000	-0.120	1090.266	41.53	41.54	103.54	103.54
103	234	-4749.284	84.333	0.474	0.596	8.343	-576.695	41.19	41.33	74.03	74.08
104	234	4749.381	-84.333	-0.474	-0.596	-8.343	576.694	41.19	41.33	74.03	74.08
104	235	-4811.844	983.300	0.471	0.598	10.068	-2104.161	8.01	8.18	127.72	127.79
105	235	4870.419	772.514	-5.477	-8.679	-10.068	2104.151	8.67	8.85	128.39	128.45
105	246	-4746.545	-111.214	-0.525	-0.572	8.144	-1071.026	30.19	30.33	91.15	91.20
106	246	4746.524	111.214	0.525	0.572	-8.144	1071.025	30.19	30.33	91.15	91.20
106	247	-5773.848	8.346	-0.014	0.004	-0.302	-999.111	43.55	43.55	100.37	100.37
107	247	5665.848	91.595	0.014	-0.004	0.302	1126.172	39.51	39.50	103.55	103.55
107	248	-5753.769	214.587	-0.019	0.006	-0.347	-1281.794	37.05	37.05	109.95	109.95
108	248	5753.751	-214.587	0.019	-0.006	0.347	1281.795	37.05	37.05	109.95	109.94
108	249	-6842.691	67.276	-0.008	0.002	-0.133	-2401.350	24.61	24.61	161.18	161.18
109	249	6842.690	-67.277	0.008	-0.002	0.133	2401.348	24.61	24.61	161.18	161.18
109	250	-6012.183	-335.523	-0.033	0.010	-0.559	-1586.385	33.24	33.23	123.46	123.45
110	250	6012.285	335.524	0.033	-0.010	0.559	1586.382	33.24	33.23	123.46	123.45
110	251	-6035.584	-293.116	-0.033	0.010	-0.688	-296.308	62.12	62.11	78.97	78.96
111	251	6035.566	293.115	0.033	-0.010	0.688	296.306	62.12	62.11	78.97	78.96
111	252	-4946.006	180.986	0.624	0.658	10.993	75.849	57.87	58.07	53.62	53.69

112	252	4945.980	-180.985	-0.623	-0.658	-10.993	-75.849	57.67	58.07	53.62	53.69
112	253	-4866.364	1041.238	0.620	0.659	13.297	-1935.299	12.34	12.57	122.47	122.56
	253	4921.143	589.500	-5.433	-8.325	-13.297	1935.305	12.97	13.20	123.10	123.18
113	264	-4834.659	80.128	-0.585	-0.920	12.023	-1321.313	25.61	25.82	100.82	100.90
114	264	4834.641	-80.128	0.585	0.920	-12.023	1321.313	25.61	25.82	100.82	100.90
114	265	-5989.848	175.255	0.068	-0.020	-1.213	-1680.630	29.76	29.74	125.33	125.33
115	265	6217.451	36.378	-0.068	0.020	1.213	1881.792	29.03	29.01	136.04	136.03
115	266	-6228.360	30.493	0.068	-0.020	-1.014	-1843.201	30.01	29.99	134.83	134.82
116	266	6228.453	-30.492	-0.068	0.020	1.014	1843.201	30.01	29.99	134.83	134.82
116	267	-7252.393	340.503	0.049	-0.016	-0.589	-2351.417	30.39	30.38	164.11	164.10
117	267	7252.401	-340.502	-0.049	0.016	0.589	2351.416	30.39	30.38	164.11	164.10
117	268	-7170.102	98.641	0.049	-0.016	-0.447	-3239.216	9.76	9.75	193.97	193.97
118	268	7170.106	-98.644	-0.049	0.016	0.447	3239.215	9.76	9.75	193.97	193.97
118	269	-7021.716	-273.514	0.049	-0.016	-0.304	-2688.725	20.28	20.27	173.18	173.18
119	269	7021.709	273.515	-0.049	0.016	0.304	2688.726	20.28	20.27	173.18	173.18
119	270	-6980.812	-127.745	0.049	-0.016	-0.162	-2040.650	34.19	34.18	150.24	150.23
120	270	6980.818	127.745	-0.049	0.016	0.162	2040.651	34.19	34.18	150.24	150.23
120	271	-6930.496	76.530	0.044	-0.014	-0.019	-1941.012	35.82	35.82	146.21	146.21

VIADUCTO 1 SOBRE EL RIO SEGRE

HIPOTESIS 1592

NOME Z MIN grupo I (ELS) (ipf-75) (frecuente)

ESFUERZOS EN BARRAS

TENSIONES

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	3203.081	70.868	0.110	-0.029	-1.053	-456.379	46.57	46.58	20.62	20.62
1	12	-3259.041	-55.680	-0.104	0.027	0.716	596.444	50.31	50.32	16.40	16.40
2	12	3259.042	55.680	0.104	-0.027	-0.716	-596.444	50.31	50.32	16.40	16.40
2	13	-3314.096	-37.387	-0.104	0.027	0.412	764.490	54.67	54.68	11.19	11.20
3	13	3314.097	37.387	0.104	-0.027	-0.412	-764.490	54.67	54.68	11.19	11.20
3	14	-3803.235	20.172	-0.068	0.017	0.143	737.041	59.63	59.63	17.71	17.71
4	14	3803.232	-20.174	0.068	-0.017	-0.143	-737.041	59.63	59.63	17.71	17.71
4	15	-3836.240	120.179	-0.068	0.017	-0.057	496.299	54.67	54.67	26.44	26.44
5	15	3836.243	-120.170	0.068	-0.017	0.057	-496.299	54.67	54.67	26.44	26.44
5	16	-3913.173	-13.748	-0.068	0.017	-0.257	204.539	49.07	49.07	37.44	37.44
6	16	3913.173	13.749	0.068	-0.017	0.257	-204.539	49.07	49.07	37.44	37.44
6	17	-4741.994	-262.982	-0.038	0.009	0.064	554.997	66.27	66.28	34.71	34.71
7	17	4741.998	262.981	0.038	-0.009	-0.065	-554.996	66.27	66.28	34.71	34.71
7	18	-5999.316	-386.699	-0.029	0.006	0.116	1627.116	104.36	104.36	11.83	11.83
8	18	5999.315	386.700	0.029	-0.006	-0.116	-1627.115	104.36	104.36	11.83	11.83
8	19	-6175.212	516.251	-0.074	-0.041	-0.690	1999.610	114.63	114.62	0.91	0.91
9	19	6231.010	545.013	-0.031	0.017	0.689	-1999.626	115.27	115.26	1.55	1.54
9	30	-6040.255	270.222	-0.011	0.003	-0.100	1182.666	94.97	94.97	27.71	27.71
10	30	6040.256	-270.222	0.011	-0.003	0.100	-1182.667	94.97	94.97	27.71	27.71
10	31	-4756.828	-99.970	0.037	-0.018	-0.477	1186.215	80.45	80.44	12.99	12.98
11	31	4537.745	189.346	-0.037	0.018	0.477	-1095.895	75.95	75.94	13.63	13.62
11	32	-3856.646	118.631	0.051	-0.025	-0.867	1232.815	71.24	71.23	1.13	1.12
12	32	3856.645	-118.630	-0.051	0.025	0.867	-1232.815	71.24	71.23	1.13	1.12
12	33	-3950.009	66.365	0.055	-0.027	-0.666	531.241	56.74	56.73	26.53	26.52
13	33	3950.000	-66.365	-0.055	0.027	0.666	-531.242	56.74	56.73	26.53	26.52
13	34	-4055.469	-123.438	0.055	-0.027	-0.452	805.941	64.03	64.02	18.20	18.19
14	34	4055.478	123.437	-0.055	0.027	0.452	-805.940	64.03	64.02	18.20	18.19
14	35	-4882.277	-99.559	0.046	-0.021	0.158	1236.662	82.99	82.99	12.66	12.66
15	35	4882.278	99.558	-0.046	0.021	-0.158	-1236.660	82.99	82.99	12.66	12.66
15	36	-6202.699	-239.494	0.068	-0.030	0.664	1934.422	113.49	113.50	3.48	3.49
16	36	6202.699	239.494	-0.068	0.030	-0.664	-1934.422	113.49	113.50	3.48	3.49
16	37	-6286.217	707.962	-0.661	-0.717	-13.983	1850.279	112.70	112.46	7.40	7.31
17	37	6343.614	387.222	5.319	8.527	13.983	-1850.277	113.35	113.11	8.05	7.96
17	48	-6163.320	230.721	-0.045	0.022	0.774	1115.371	94.87	94.89	31.45	31.45
18	48	6163.320	-230.721	0.045	-0.022	-0.774	-1115.370	94.87	94.89	31.45	31.45
18	49	-4870.564	-79.279	0.000	0.003	0.344	1167.974	81.33	81.34	14.91	14.91
19	49	4575.204	179.222	0.000	-0.003	-0.344	-1092.365	76.29	76.30	14.17	14.17
19	50	-4656.414	166.003	0.000	0.003	0.344	1176.734	79.09	79.09	12.17	12.17
20	50	4656.413	-166.003	0.000	-0.003	-0.344	-1176.735	79.09	79.09	12.17	12.17

20	51	-3992.493	64.672	0.006	0.002	0.120	474.665	55.96	55.97	28.97	28.97
21	51	3992.501	-64.670	-0.006	-0.002	-0.120	-474.666	55.96	55.97	28.97	28.97
21	52	-4099.210	-130.087	0.010	0.001	0.151	749.759	63.28	63.28	20.64	20.64
22	52	4099.205	130.086	-0.010	-0.001	-0.151	-749.757	63.28	63.28	20.64	20.64
22	53	-4917.191	-93.129	0.008	0.000	0.404	1187.052	82.28	82.29	14.78	14.78
23	53	4917.191	93.129	-0.008	0.000	-0.404	-1187.048	82.28	82.29	14.78	14.78
23	54	-6235.773	-254.425	0.046	-0.014	0.857	1896.573	113.02	113.04	5.17	5.18
24	54	6235.771	254.424	-0.046	0.014	-0.857	-1896.572	113.02	113.04	5.17	5.18
24	55	-6324.563	701.543	-0.728	-0.742	-14.958	1812.740	112.31	112.05	9.14	9.04
25	55	6381.766	388.871	5.272	8.505	14.958	-1812.741	112.96	112.70	9.79	9.69
25	66	-6205.453	230.951	-0.049	0.021	0.845	1140.919	95.92	95.93	31.04	31.04
26	66	6205.451	-230.951	0.049	-0.021	-0.845	-1140.918	95.92	95.93	31.04	31.04
26	67	-4917.763	-79.183	-0.004	0.002	0.402	1195.850	82.49	82.49	14.48	14.48
27	67	4648.937	179.928	0.004	-0.002	-0.402	-1131.013	77.99	78.00	13.67	13.67
27	68	-4728.159	170.213	-0.004	0.002	0.386	1209.880	80.64	80.65	11.84	11.84
28	68	4728.157	-170.212	0.004	-0.002	-0.386	-1209.880	80.64	80.65	11.84	11.84
28	69	-4063.353	68.859	-0.001	0.001	0.172	491.553	57.14	57.15	29.19	29.19
29	69	4063.363	-68.860	0.001	-0.001	-0.172	-491.553	57.14	57.15	29.19	29.19
29	70	-4169.186	-130.165	0.003	-0.001	0.177	760.475	64.31	64.32	21.07	21.07
30	70	4169.196	130.165	-0.003	0.001	-0.177	-760.475	64.31	64.32	21.07	21.07
30	71	-4997.012	-93.458	0.004	-0.001	0.402	1193.006	83.32	83.33	15.48	15.48
31	71	4997.011	93.458	-0.004	0.001	-0.402	-1193.008	83.32	83.33	15.48	15.48
31	72	-6317.307	-257.966	0.048	-0.018	0.850	1913.581	114.33	114.34	5.51	5.51
32	72	6317.308	257.967	-0.048	0.018	-0.850	-1913.580	114.33	114.34	5.51	5.51
32	73	-6400.407	700.762	-0.683	-0.711	-14.118	1829.069	113.53	113.28	9.43	9.34
97	217	6916.608	380.953	5.441	8.627	11.281	-1873.689	120.37	120.17	13.75	13.69
97	228	-6736.047	238.045	0.517	0.635	-8.770	1175.127	102.80	102.65	35.92	35.87
98	228	6736.046	-238.046	-0.517	-0.635	8.770	-1175.128	102.80	102.65	35.92	35.87
98	229	-5443.293	-66.111	-0.020	0.004	0.413	1192.649	88.40	88.40	20.57	20.58
99	229	5151.452	166.124	0.020	-0.004	-0.413	-1118.471	83.43	83.44	19.82	19.83
99	230	-4476.431	125.790	-0.016	0.003	0.137	1155.096	76.56	76.56	10.87	10.87
100	230	4476.412	-125.791	0.016	-0.003	-0.137	-1155.099	76.56	76.56	10.87	10.87
100	231	-4568.519	75.465	-0.012	0.001	0.083	430.274	61.53	61.54	37.07	37.07
101	231	4568.500	-75.464	0.012	-0.001	-0.083	-430.275	61.53	61.54	37.06	37.07
101	232	-4675.340	-120.550	-0.007	0.000	0.049	665.508	67.97	67.97	30.12	30.12
102	232	4675.313	120.550	0.007	0.000	-0.049	-665.509	67.97	67.97	30.12	30.12
102	233	-5493.802	-80.264	-0.011	0.001	0.177	1010.577	84.93	84.94	27.46	27.47
103	233	5493.804	80.262	0.011	-0.001	-0.177	-1010.578	84.93	84.94	27.46	27.47
103	234	-6813.188	-247.394	-0.491	-0.597	-8.318	1684.859	114.98	114.83	19.12	19.06
104	234	6813.183	247.395	0.491	0.597	8.318	-1684.860	114.98	114.83	19.12	19.06
104	235	-6982.059	707.869	-0.531	-0.585	-10.641	1636.480	114.94	114.75	21.81	21.74
105	235	6960.659	420.959	5.497	8.674	10.641	-1636.487	115.60	115.42	22.48	22.41
105	246	-6784.407	187.616	0.458	0.592	-8.453	1070.660	101.03	100.88	40.10	40.04
106	246	6784.409	-187.616	-0.458	-0.592	8.453	-1070.662	101.03	100.88	40.10	40.04
106	247	-5496.003	-97.548	-0.046	0.013	-0.036	1254.394	90.37	90.37	19.03	19.03
107	247	5393.160	192.739	0.036	-0.013	0.036	-1133.371	86.51	86.51	22.06	22.06
107	248	-5476.903	149.528	-0.041	0.012	-0.223	1259.336	90.26	90.26	18.64	18.64
108	248	5476.904	-149.528	0.041	-0.012	0.223	-1259.335	90.26	90.26	18.64	18.64
108	249	-4787.442	74.953	-0.051	0.016	-0.666	478.932	65.11	65.10	37.87	37.87
109	249	4787.423	-74.953	0.051	-0.016	0.666	-478.935	65.11	65.10	37.87	37.87
109	250	-5723.072	-264.087	-0.036	0.010	-0.526	892.828	84.94	84.93	34.16	34.16
110	250	5723.077	264.087	0.036	-0.010	0.526	-892.831	84.94	84.93	34.16	34.16
110	251	-5745.268	-155.052	-0.036	0.010	-0.667	1773.571	104.73	104.71	3.86	3.86
111	251	5745.269	155.052	0.036	-0.010	0.667	-1773.572	104.73	104.71	3.86	3.80
111	252	-7068.216	-116.748	-0.691	-0.639	-12.860	2438.186	134.63	134.40	-4.10	-4.19
112	252	7068.212	116.749	0.691	0.639	12.860	-2438.185	134.63	134.40	-4.10	-4.18
112	253	-6954.930	791.719	-0.716	-0.631	-15.554	1843.176	120.17	119.89	15.26	15.16
113	253	7009.730	175.899	5.339	8.354	15.554	-1843.160	120.79	120.52	15.88	15.78
113	264	-6886.678	300.175	0.657	0.899	-13.531	1269.467	106.65	106.41	34.38	34.29
114	264	6886.678	-300.175	-0.657	-0.899	13.531	-1269.467	106.65	106.41	34.38	34.29
114	265	-5609.137	139.477	0.011	-0.003	-0.214	678.524	78.89	78.88	40.30	40.30
115	265	5920.699	62.108	-0.011	0.003	0.214	-487.121	78.19	78.18	50.48	50.48
115	266	-5931.153	54.250	0.011	-0.003	-0.181	526.563	79.18	79.18	49.23	49.23
116	266	5931.144	-54.250	-0.011	0.003	0.181	-526.563	79.18	79.18	49.23	49.23
116	267	-5092.040	235.365	0.030	-0.008	-0.368	165.350	61.62	61.61	52.21	52.21
117	267	5092.021	-235.364	-0.030	0.008	0.369	-165.351	61.62	61.61	52.21	52.21
117	268	-5033.957	144.463	0.030	-0.008	-0.280	-563.073	44.80	44.80	76.82	76.82
118	268	5033.945	-144.466	-0.030	0.008	0.280	563.072	44.80	44.80	76.82	76.82
118	269	-4929.664	-37.989	0.030	-0.008	-0.192	-513.052	44.72	44.72	73.90	73.90
119	269	4929.635	37.990	-0.030	0.008	0.192	513.052	44.72	44.72	73.90	73.90
119	270	-4900.839	143.564	0.030	-0.008	-0.104	-626.787	41.87	41.87	77.52	77.52
120	270	4900.822	-143.565	-0.030	0.008	0.104	626.789	41.87	41.87	77.52	77.52
120	271	-4865.430	337.083	0.035	-0.010	-0.016	-1364.078	25.12	25.12	102.69	102.69

[redacted]

TADUCTO 1 SOBRE EL RIO SEGRE

IPOTESIS 1611

ONE Z MAX grupo I (ELS) (ec-1) (frecuente)

ESFUERZOS EN BARRAS

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z
1	1	5984.875	-142.422	0.068	-0.016	-0.955	1386.198
1	12	-6064.497	94.919	-0.072	0.018	0.770	-1852.562
2	12	6064.499	-94.919	0.072	-0.018	-0.770	1852.561
2	13	-6142.833	16.006	-0.072	0.018	0.559	-1970.874
3	13	6142.833	-16.005	0.070	-0.018	-0.565	1970.874
3	14	-6180.272	92.069	-0.072	0.018	0.348	-2148.523
4	14	6180.271	-92.070	0.072	-0.018	-0.348	2148.523
4	15	-6227.236	117.671	-0.070	0.018	0.151	-2305.829
5	15	6227.237	-117.671	0.072	-0.018	-0.136	2505.830
5	16	-6336.697	-189.551	-0.070	0.018	-0.056	-2592.987
6	16	6336.695	189.553	0.072	-0.018	0.075	2592.986
6	17	-5442.281	-371.550	-0.101	0.029	-0.790	-1503.217
7	17	5442.279	371.549	0.101	-0.026	0.790	1502.218
7	18	-3380.374	57.281	-0.132	0.036	-1.618	-859.080
8	18	3550.375	-57.281	0.131	-0.036	1.591	859.080
8	19	-3673.999	828.839	-0.090	0.026	-1.384	-1787.387
9	19	3729.797	835.466	-0.055	0.024	1.353	1787.370
9	30	-3595.730	-120.893	0.074	-0.036	-1.702	-731.362
10	30	3595.731	120.893	-0.074	0.036	1.702	731.361
10	31	-4609.278	20.137	0.074	-0.035	-1.008	-691.873
11	31	4379.267	73.699	0.071	0.031	1.066	786.699
11	32	-5386.883	281.178	0.060	-0.027	-0.182	-1095.458
12	32	5386.883	-281.177	-0.060	0.027	0.182	1095.456
12	33	-5519.724	132.088	0.001	-0.001	0.057	-2396.241
13	33	5519.723	-132.089	-0.001	0.001	-0.057	2396.240
13	34	-5669.788	-291.887	0.004	-0.005	0.158	-1853.106
14	34	5669.788	291.887	-0.001	0.001	-0.059	1853.109
14	35	-4740.990	-198.616	0.016	-0.012	-0.213	-967.503
15	35	4740.983	198.616	-0.016	0.012	0.213	967.505
15	36	-4555.688	-80.130	0.001	-0.006	-0.245	-476.109
16	36	4555.696	80.130	-0.001	0.006	0.245	476.110
16	37	-4614.395	957.297	0.699	0.694	14.015	-2094.352
17	37	4671.786	732.249	-5.325	-8.526	-14.015	2094.347
17	48	-4545.071	-148.957	0.016	-0.008	-0.487	-1022.102
18	48	4545.079	148.957	-0.016	0.008	0.487	1022.103
18	49	-5571.623	24.576	0.015	-0.007	-0.058	-1022.525
19	49	5261.521	80.362	-0.045	0.002	-0.032	1101.906
19	50	-6270.734	266.252	0.043	-0.003	0.445	-1307.427
20	50	6270.734	-266.252	-0.013	0.009	-0.239	1307.428

TENSIONES

SIGMA I	SIGMAZ	SIGMA3	SIGMA4
37.36	37.37	116.19	116.20
27.92	27.94	133.28	133.28
27.92	27.94	133.28	133.28
26.19	26.20	138.28	138.28
26.19	26.20	138.28	138.28
22.68	22.69	144.87	144.87
22.68	22.69	144.87	144.87
15.29	15.29	157.80	157.80
15.29	15.29	157.80	157.80
14.61	14.60	162.07	162.07
14.61	14.60	162.07	162.07
28.60	28.59	114.09	114.09
28.60	28.59	114.09	114.09
21.37	21.34	70.21	70.20
21.37	21.34	70.21	70.20
2.16	2.16	103.82	103.81
2.92	2.79	104.46	104.45
24.71	24.69	66.30	66.29
24.71	24.69	66.30	66.29
37.12	37.10	76.46	76.45
32.48	32.38	77.13	77.13
37.01	37.01	99.31	99.31
37.01	37.01	99.31	99.31
9.67	9.67	145.94	145.94
9.67	9.67	145.94	145.94
23.42	23.43	128.81	128.81
23.42	23.43	128.81	128.81
32.50	32.49	87.52	87.52
32.50	32.49	87.52	87.52
41.29	41.28	68.36	68.36
41.29	41.28	68.36	68.36
5.94	6.19	125.12	125.21
6.59	6.84	125.78	125.87
29.06	29.05	87.18	87.18
29.06	29.05	87.18	87.18
40.73	40.73	96.88	96.89
35.44	35.44	98.10	98.10
42.36	42.37	116.72	116.72
42.36	42.37	116.72	116.72

20	51	-6401.709	130.801	-0.011	0.014	0.606	-2447.792	18.56	18.57	157.77	157.77
21	51	6401.703	-130.800	0.011	-0.014	-0.606	2447.791	18.56	18.57	157.77	157.77
21	52	-6553.533	-283.209	-0.013	0.015	0.559	-1913.897	32.13	32.14	140.97	140.98
22	52	6553.534	283.209	0.013	-0.015	-0.559	1913.900	32.13	32.14	140.97	140.98
22	53	-5620.565	-199.372	-0.011	0.016	0.294	-1049.558	40.68	40.69	100.37	100.37
23	53	5620.574	199.373	0.011	-0.016	-0.294	1049.560	40.68	40.69	100.37	100.38
23	54	-3750.208	131.216	-0.015	0.019	-0.116	-526.609	31.00	31.00	60.95	60.95
24	54	3750.215	-131.217	0.015	-0.018	0.116	526.609	31.00	31.00	60.95	60.95
24	55	-3812.619	951.536	0.721	0.759	15.356	-2125.603	-3.89	-3.62	117.08	117.18
25	55	3869.800	733.569	-5.357	-8.432	-15.356	2125.595	-3.24	-2.97	117.73	117.83
25	66	-3745.885	-150.793	0.095	-0.078	0.194	-1046.236	19.42	19.43	78.92	78.92
26	66	3745.891	150.793	-0.095	0.078	-0.194	1046.237	19.42	19.43	78.92	78.92
26	67	-4772.529	21.771	0.095	-0.077	0.929	-1042.658	31.18	31.20	90.48	90.49
27	67	4890.296	83.999	-0.095	0.077	-0.929	1110.730	26.46	26.47	89.63	89.64
27	68	-5499.921	267.641	0.095	-0.078	1.500	-1315.665	33.40	33.42	108.23	108.24
28	68	5499.919	-267.640	-0.095	0.078	-1.500	1315.666	33.40	33.42	108.23	108.24
28	69	-5632.561	132.165	0.041	-0.060	1.863	-2864.709	9.42	9.45	149.60	149.61
29	69	5632.561	-132.165	-0.041	0.060	-1.863	2864.709	9.42	9.45	149.60	149.61
29	70	-5783.131	-286.921	0.039	-0.059	2.017	-1922.536	23.16	23.19	132.50	132.51
30	70	5783.132	286.920	-0.039	0.059	-2.017	1922.534	23.16	23.19	132.50	132.51
30	71	-4855.732	-202.222	0.038	-0.059	1.955	-1047.238	32.02	32.05	91.58	91.60
31	71	4855.741	202.222	-0.038	0.059	-1.955	1047.237	32.02	32.05	91.58	91.60
31	72	-4670.309	128.468	0.037	-0.058	1.732	-814.624	41.72	41.75	71.00	71.01
32	72	4670.287	-128.468	-0.037	0.058	-1.732	514.625	41.72	41.75	71.00	71.01
32	73	-4728.691	949.812	0.729	0.650	16.560	-2107.378	6.93	7.22	126.87	126.97
97	217	4821.975	728.982	-5.446	-8.624	-11.393	2083.875	8.56	8.76	127.13	127.20
97	228	-4695.074	-145.722	-0.554	-0.628	9.267	-1024.428	30.63	30.79	88.94	89.00
98	228	4695.049	145.722	0.554	0.628	-9.267	1024.427	30.63	30.79	88.94	89.00
98	229	-5721.361	26.924	0.026	-0.008	0.015	-1041.398	42.01	42.01	101.24	101.24
99	229	5415.061	78.079	-0.026	0.008	-0.015	1119.278	36.80	36.90	100.45	100.45
99	230	-6424.844	271.805	0.022	-0.007	0.313	-1356.315	43.03	43.04	120.17	120.17
100	230	6424.845	-271.806	-0.022	0.007	-0.313	1356.314	43.03	43.04	120.17	120.17
100	231	-6639.898	62.603	-3.318	-0.010	0.413	-2514.039	19.80	19.81	162.78	162.78
101	231	6639.899	-62.602	3.318	0.010	-0.413	2514.037	19.80	19.81	162.78	162.78
101	232	-6787.265	-280.301	-3.376	0.003	0.270	-1994.628	33.00	33.01	146.44	146.44
102	232	6787.264	280.300	3.376	-0.003	-0.270	1994.628	33.00	33.01	146.44	146.44
102	233	-5849.127	-199.074	-3.373	0.002	-0.039	-1094.954	42.28	42.28	104.55	104.55
103	233	5849.111	199.073	3.373	-0.002	0.039	1094.958	42.28	42.28	104.55	104.55
103	234	-4819.334	129.826	-2.843	0.585	8.372	-579.478	41.92	42.07	74.92	74.98
104	234	4819.431	-129.826	2.843	-0.585	-8.372	579.479	41.92	42.07	74.92	74.98
104	235	-4877.244	950.326	-2.843	0.585	10.269	-2180.781	7.05	7.23	131.12	131.19
105	235	4935.819	747.821	-2.068	-8.708	-10.269	2180.770	7.72	7.89	131.79	131.86
105	246	-4807.295	51.231	-3.923	-0.546	8.323	-1056.157	31.21	31.36	91.32	91.37
106	246	4807.274	-51.231	3.923	0.546	-8.323	1056.156	31.21	31.36	91.32	91.37
106	247	-5773.848	4.684	0.003	0.000	-0.344	-991.612	43.72	43.71	100.11	100.11
107	247	5665.848	95.256	-0.003	0.000	0.344	1118.672	39.67	39.67	103.29	103.29
107	248	-5702.319	203.517	3.398	-0.024	0.395	-1249.466	37.18	37.19	108.24	108.24
108	248	5702.301	-203.516	-3.398	0.024	-0.395	1249.467	37.18	37.19	108.24	108.24
108	249	-6795.891	50.765	3.409	-0.029	0.923	-2308.412	26.13	26.15	157.42	157.42
109	249	6795.890	-50.766	-3.409	0.029	-0.923	2308.410	26.13	26.15	157.42	157.42
109	250	-5963.078	-309.542	2.776	-0.003	0.351	-1519.694	34.15	34.16	120.58	120.58
110	250	5963.180	309.543	-2.776	0.003	-0.351	1519.692	34.16	34.16	120.58	120.58
110	251	-5991.896	-272.574	2.776	-0.003	0.314	-311.398	61.28	61.29	78.99	78.99
111	251	5991.878	272.574	-2.776	0.003	-0.314	311.397	61.28	61.29	78.99	78.99
111	252	-4907.736	229.874	3.485	0.629	12.483	95.640	57.66	57.80	52.84	52.91

112	252	4907.710	-229.874	-3.484	-0.629	-12.483	-85.640	57.64	57.86	52.84	52.92
112	253	-4833.511	1010.123	3.484	0.629	15.191	-1959.091	11.42	11.69	122.92	123.02
113	253	4888.288	557.682	-8.138	-8.164	-15.191	1959.098	12.05	12.31	123.54	123.64
113	264	-4805.911	99.520	2.126	-1.082	13.560	-1263.701	26.55	26.78	98.49	98.58
114	264	4805.893	-99.520	-2.126	1.083	-13.560	1263.701	26.55	26.78	98.49	98.58
114	265	-5865.206	190.523	2.779	-0.183	0.104	-1667.593	29.76	29.76	124.60	124.60
115	265	6192.809	21.109	-2.779	0.183	-0.104	1868.755	29.03	29.03	135.30	135.30
115	266	-6207.825	41.637	2.779	-0.183	0.083	-1862.625	29.34	29.34	135.26	135.26
116	266	6207.918	-41.636	-2.779	0.183	-0.083	1862.624	29.34	29.34	135.26	135.26
116	267	-7235.964	347.522	2.760	-0.178	0.289	-2391.185	29.31	29.32	165.30	165.30
117	267	7235.972	-347.522	-2.760	0.178	-0.289	2391.184	29.31	29.32	165.30	165.30
117	268	-7159.525	101.232	3.296	-0.211	0.330	-3287.214	8.57	8.57	195.51	195.51
118	268	7159.529	-101.234	-3.296	0.211	-0.330	3287.213	8.57	8.57	195.51	195.51
118	269	-7014.665	-275.048	3.296	-0.211	0.214	-2732.839	19.22	19.22	174.63	174.63
119	269	7014.657	275.049	-3.296	0.211	-0.214	2732.839	19.22	19.22	174.63	174.63
119	270	-6977.285	-133.403	3.296	-0.211	0.097	-2068.764	33.52	33.52	151.17	151.17
120	270	6977.291	133.403	-3.296	0.211	-0.097	2068.765	33.52	33.52	151.17	151.17
120	271	-6930.496	61.355	0.037	-0.010	-0.019	-1981.008	35.82	35.82	146.21	146.21

VIADUCTO 1 SOBRE EL RIO SEGRE

HIPOTESIS 1612

NOME Z MIN grupo I (ELS) (ec-1) (frecuente)

ESFUERZOS EN BARRAS

TENSIONES

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	3243.011	144.993	0.101	-0.031	-0.834	-399.456	45.76	45.77	23.05	23.05
1	12	-3298.971	-109.327	-0.097	0.029	0.529	716.860	53.44	53.45	12.67	12.68
2	12	3298.972	109.327	0.097	-0.029	-0.529	-716.861	53.44	53.45	12.67	12.68
2	13	-3354.027	-77.217	-0.097	0.029	0.244	1022.201	60.84	60.84	2.71	2.71
3	13	3354.027	77.217	0.099	-0.029	-0.238	-1022.201	60.84	60.84	2.71	2.71
3	14	-3380.340	63.815	-0.097	0.029	-0.042	1028.591	61.28	61.28	2.79	2.79
4	14	3380.337	-63.816	0.097	-0.029	0.042	-1028.591	61.28	61.28	2.79	2.79
4	15	-3413.345	169.381	-0.099	0.029	-0.342	651.470	53.30	53.29	16.25	16.24
5	15	3413.348	-169.382	0.097	-0.029	0.328	-651.469	53.30	53.29	16.25	16.24
5	16	-3490.278	41.033	-0.099	0.029	-0.632	206.969	44.32	44.31	32.54	32.54
6	16	3490.279	-41.032	0.097	-0.029	0.613	-206.969	44.32	44.31	32.54	32.54
6	17	-4319.100	-202.631	-0.069	0.021	-0.401	388.327	57.77	57.76	35.68	35.68
7	17	4319.104	202.630	0.069	-0.021	0.401	-389.326	57.77	57.76	35.68	35.68
7	18	-6422.211	-553.677	-0.005	-0.001	0.507	1494.392	106.23	106.24	21.25	21.25
8	18	6422.209	553.677	0.007	0.002	-0.480	-1494.392	106.23	106.24	21.25	21.25
8	19	-6598.107	484.491	-0.048	-0.051	-0.131	2142.900	122.62	122.62	0.75	0.75
9	19	6653.905	509.583	0.000	0.004	0.163	-2142.914	123.25	123.25	1.39	1.39
9	30	-6463.150	436.131	-0.019	0.008	0.400	1134.133	98.70	98.71	34.21	34.21
10	30	6463.151	-436.131	0.019	-0.008	-0.400	-1134.134	98.70	98.71	34.21	34.21
10	31	-5179.723	-107.166	0.018	-0.007	-0.467	1155.824	84.59	84.58	18.85	18.85
1	31	4960.640	196.542	-0.021	0.011	0.409	-1065.504	80.09	80.08	19.49	19.49
11	32	-4279.541	118.782	0.032	-0.015	-0.933	1216.079	75.68	75.67	6.52	6.51
12	32	4279.541	-118.781	-0.032	0.015	0.933	-1216.079	75.68	75.67	6.52	6.51
12	33	-4372.904	77.540	0.038	-0.020	-0.724	488.193	60.60	60.59	32.83	32.83
13	33	4372.896	-77.541	-0.038	0.020	0.724	-488.193	60.60	60.59	32.83	32.83
13	34	-4478.365	-104.915	0.034	-0.016	-0.677	705.355	66.62	66.60	26.50	26.49
14	34	4478.374	104.915	-0.038	0.020	0.578	-705.354	66.61	66.60	26.50	26.50
14	35	-5305.172	-69.873	0.023	-0.009	-0.158	1035.392	83.34	83.34	24.46	24.46
15	35	5305.174	69.873	-0.023	0.009	0.158	-1035.390	83.34	83.34	24.46	24.46
15	36	-5779.804	-384.509	0.048	-0.020	0.774	1766.519	104.95	104.96	4.49	4.50
16	36	5779.804	384.509	-0.048	0.020	-0.774	-1766.518	104.95	104.96	4.49	4.50
16	37	-5863.322	697.704	-0.642	-0.724	-13.606	1910.123	109.21	108.97	0.51	0.42
17	37	5920.719	355.181	5.329	8.516	13.605	-1910.116	109.86	109.63	1.16	1.07
17	48	-5740.425	358.391	-0.007	0.016	0.869	934.592	86.05	86.06	32.90	32.91
18	48	5740.425	-358.391	0.007	-0.016	-0.869	-934.591	86.05	86.06	32.90	32.91
18	49	-4447.669	-92.778	0.010	0.008	0.179	1030.729	73.48	73.48	14.86	14.86
19	49	4152.309	192.730	0.020	-0.003	-0.089	-955.121	68.44	68.44	14.12	14.12
19	50	-4233.519	159.843	-0.020	0.003	0.012	1077.600	72.08	72.08	10.80	10.80
20	50	4233.518	-159.842	-0.010	-0.008	-0.217	-1077.600	72.08	72.08	10.80	10.80

20	51	-3569.598	69.425	-0.015	0.003	-0.292	372.683	48.89	48.89	27.70	27.69
21	51	3569.606	-69.423	0.015	-0.003	0.292	-372.685	48.89	48.89	27.70	27.69
	52	-3676.315	-115.197	-0.013	0.002	-0.346	614.047	55.46	55.45	20.54	20.54
	52	3676.310	115.197	0.013	-0.002	0.346	-614.046	55.46	55.45	20.54	20.54
22	53	-4494.296	-70.091	-0.015	0.001	-0.182	976.306	72.80	72.80	17.28	17.28
23	53	4494.296	70.092	0.015	-0.001	0.182	-976.304	72.80	72.80	17.28	17.28
23	54	-6658.668	-383.749	0.008	-0.010	0.539	1689.620	113.25	113.26	17.16	17.17
24	54	6658.666	383.748	-0.008	0.010	-0.539	-1689.619	113.25	113.26	17.16	17.17
24	55	-6747.458	696.963	-0.728	-0.751	-14.962	1836.685	117.65	117.39	13.12	13.02
25	55	6804.661	358.282	5.362	8.429	14.962	-1836.681	118.31	118.05	13.77	13.68
25	66	-6628.348	357.663	-0.089	0.081	0.222	940.390	96.29	96.29	42.81	42.81
26	66	6628.346	-357.663	0.089	-0.081	-0.222	-940.388	96.29	96.29	42.81	42.81
26	67	-5340.658	-96.597	-0.070	0.071	-0.829	992.523	82.80	82.79	26.35	26.35
27	67	5071.832	197.340	0.070	-0.071	0.829	-927.686	78.30	78.29	25.54	25.53
27	68	-5151.054	160.147	-0.070	0.071	-1.100	1059.796	82.14	82.12	21.86	21.85
28	68	5151.052	-160.146	0.070	-0.071	1.100	-1059.795	82.14	82.12	21.86	21.85
28	69	-4486.248	69.700	-0.068	0.071	-1.574	353.688	58.91	58.89	38.79	38.78
29	69	4486.258	-69.701	0.068	-0.071	1.574	-353.688	58.91	58.89	38.79	38.78
29	70	-4592.081	-118.416	-0.066	0.070	-1.833	603.894	65.67	65.64	31.32	31.30
30	70	4592.092	118.416	0.066	-0.070	1.833	-603.894	65.67	65.64	31.32	31.30
	71	-5419.907	-74.362	-0.065	0.069	-1.876	976.662	83.36	83.33	27.81	27.79
	71	5419.906	74.362	0.065	-0.069	1.876	-976.664	83.36	83.33	27.81	27.79
31	72	-5894.412	-385.257	-0.045	0.060	-1.339	1701.883	104.84	104.82	8.05	8.04
32	72	5894.412	385.257	0.045	-0.060	1.339	-1701.882	104.84	104.82	8.05	8.04
32	73	-5977.512	696.899	-0.737	-0.648	-16.197	1848.612	109.17	108.89	3.95	3.85
97	217	6916.608	377.745	5.455	8.623	10.867	-1889.258	120.71	120.52	13.21	13.14
97	228	-6736.047	365.934	0.544	0.629	-8.777	964.558	98.13	97.98	43.23	43.17
98	228	6736.046	-365.935	-0.544	-0.629	8.777	-964.559	98.13	97.98	43.23	43.17
98	229	-5443.293	-87.804	-0.013	0.002	0.072	979.266	83.67	83.67	27.98	27.98
99	229	5151.452	182.818	0.013	-0.002	-0.072	-905.087	78.70	78.70	27.23	27.23
99	230	-4476.431	111.444	-0.009	0.001	-0.179	1011.540	73.38	73.38	15.85	15.85
100	230	4476.412	-111.445	0.009	-0.001	0.179	-1011.542	73.38	73.38	15.85	15.85
100	231	-4484.519	73.909	3.331	0.004	-0.231	315.236	58.03	58.03	40.10	40.10
101	231	4484.500	-73.908	-3.331	-0.004	0.231	-315.236	58.03	58.03	40.10	40.10
101	232	-4595.990	-111.189	3.333	0.003	-0.245	548.088	64.46	64.46	33.29	33.29
102	232	4595.963	111.189	-3.333	-0.003	0.245	-548.091	64.46	64.46	33.29	33.29
2	233	-5419.102	-63.559	3.330	0.005	-0.099	849.819	80.52	80.52	32.19	32.19
103	233	5419.104	63.559	-3.330	-0.005	0.099	-849.820	80.52	80.52	32.19	32.19
	234	-6743.137	-371.780	2.819	-0.585	-8.271	1475.158	109.53	109.39	25.59	25.54
104	234	6743.133	371.781	-2.819	0.585	8.271	-1475.159	109.53	109.39	25.59	25.54
104	235	-6836.658	679.022	2.831	-0.586	-10.203	1662.708	114.77	114.59	20.16	20.09
105	235	6895.259	414.232	2.115	8.694	10.203	-1662.720	115.44	115.26	20.82	20.76
105	246	-6723.657	329.014	3.884	0.558	-8.097	889.466	96.32	96.18	45.69	45.64
106	246	6723.659	-329.013	-3.884	-0.558	8.097	-889.467	96.32	96.18	45.69	45.64
106	247	-5496.003	-121.905	-0.029	0.007	-0.326	1044.675	85.72	85.71	26.31	26.31
107	247	5393.160	217.096	0.029	-0.007	0.326	-923.652	81.87	81.86	29.34	29.33
107	248	-5528.353	134.485	-3.424	0.032	-1.164	1129.667	87.98	87.96	23.73	23.72
108	248	5528.354	-134.486	3.424	-0.032	1.164	-1129.667	87.98	87.96	23.73	23.72
108	249	-4834.243	67.258	-3.434	0.036	-1.788	386.148	63.60	63.56	41.63	41.61
109	249	4834.224	-67.259	3.434	-0.036	1.788	-386.149	63.60	63.56	41.63	41.61
109	250	-5772.177	-261.060	-2.860	0.027	-1.638	805.693	83.57	83.55	37.75	37.74
110	250	5772.182	261.061	2.860	-0.027	1.638	-805.696	83.57	83.55	37.75	37.73
110	251	-5788.956	-144.679	-2.860	0.027	-1.927	1652.122	102.54	102.51	8.57	8.56
111	251	5788.956	144.679	2.860	-0.027	1.927	-1652.123	102.54	102.51	8.57	8.56
111	252	-7106.486	-279.390	-3.529	-0.616	-13.854	2277.372	131.51	131.26	1.92	1.83
112	252	7106.483	279.391	3.529	0.616	13.854	-2277.371	131.51	131.26	1.92	1.83
112	253	-6987.783	759.503	-3.529	-0.616	-16.733	1853.642	120.78	120.49	15.27	15.17
113	253	7042.585	177.609	8.074	8.182	16.733	-1853.633	121.40	121.11	15.90	15.79
113	264	-6915.426	433.702	-2.074	1.070	-14.662	1096.323	103.14	102.89	40.72	40.62
114	264	6915.426	-433.701	2.074	-1.070	14.662	-1096.323	103.14	102.89	40.72	40.62
114	265	-5633.778	108.233	-2.684	0.154	-1.812	460.345	74.34	74.31	48.15	48.14
115	265	5945.341	93.352	2.684	-0.154	1.812	-268.941	73.64	73.61	58.34	58.33
115	266	-5951.688	28.576	-2.684	0.154	-1.513	385.648	76.30	76.27	54.36	54.35
116	266	5951.679	-28.577	2.684	-0.154	1.513	-385.649	76.30	76.27	54.36	54.35
116	267	-5108.468	215.261	-2.665	0.150	-1.434	85.339	60.04	60.02	55.18	55.17
117	267	5108.449	-215.259	2.665	-0.149	1.434	-85.341	60.04	60.02	55.18	55.17
117	268	-5044.534	130.233	-3.202	0.182	-1.198	-598.540	44.14	44.12	78.18	78.17
118	268	5044.522	-130.236	3.202	-0.182	1.198	598.541	44.14	44.12	78.18	78.17
118	269	-4936.716	-46.649	-3.202	0.182	-0.803	-520.337	44.65	44.63	74.24	74.23
119	269	4936.688	46.650	3.202	-0.182	0.803	520.338	44.65	44.63	74.23	74.23
119	270	-4904.366	140.474	-3.202	0.182	-0.409	-622.250	42.02	42.01	77.40	77.40
120	270	4904.349	-140.474	3.202	-0.182	0.409	622.251	42.02	42.01	77.40	77.40
120	271	-4865.430	348.260	0.056	-0.018	-0.016	-1364.076	25.12	25.12	102.69	102.69

IADUCTO 1 SOBRE EL RIO SEGRE

IPOTESIS 1631

ÚME Z MAX envolvente G-I (ELS) (total) (frecuente)

ESFUERZOS EN BARRAS

TENSIONES

ARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	6024.805	24.311	0.063	-0.017	-0.929	1443.109	36.55	36.57	118.62	118.63
1	12	-6064.497	94.919	-0.072	0.018	0.770	-1852.562	27.92	27.94	133.28	133.28
2	12	6064.499	-94.919	0.072	-0.018	-0.770	1852.561	27.92	27.94	133.28	133.28
2	13	-6142.833	16.006	-0.072	0.018	0.559	-1970.874	26.19	26.20	138.28	138.28
3	13	6142.833	-16.005	0.070	-0.018	-0.565	1970.874	26.19	26.20	138.28	138.28
3	14	-6180.272	92.069	-0.072	0.018	0.348	-2148.523	22.68	22.69	144.87	144.87
4	14	6180.271	-92.070	0.072	-0.018	-0.348	2148.523	22.68	22.69	144.87	144.87
4	15	-6227.236	117.671	-0.070	0.018	0.151	-2505.829	15.29	15.29	157.80	157.80
5	15	6227.237	-117.671	0.072	-0.018	-0.136	2505.830	15.29	15.29	157.80	157.80
5	16	-6336.697	-189.551	-0.070	0.018	-0.056	-2592.987	14.61	14.60	162.07	162.07
6	16	6336.695	189.553	0.072	-0.018	0.075	2592.986	14.61	14.60	162.07	162.07
6	17	-5442.281	-371.550	-0.101	0.026	-0.790	-1503.217	28.60	28.59	114.09	114.08
7	17	5442.279	371.549	0.101	-0.026	0.790	1503.218	28.60	28.59	114.09	114.08
7	18	-3973.269	-139.012	-0.118	0.033	-1.356	-874.973	25.82	25.80	75.57	75.57
8	18	3973.270	139.012	0.118	-0.033	1.356	874.972	25.82	25.80	75.57	75.57
8	19	-3673.999	828.839	-0.090	0.086	-1.384	-1787.387	2.18	2.16	103.82	103.81
9	19	3729.797	835.466	-0.055	0.024	1.353	1787.370	2.82	2.79	104.46	104.45
9	30	-3595.730	-120.893	0.074	-0.036	-1.702	-731.362	24.71	24.69	66.30	66.29
10	30	3595.731	120.893	-0.074	0.036	1.702	731.361	24.71	24.69	66.30	66.29
10	31	-4609.278	20.137	0.074	-0.035	-1.008	-691.873	37.12	37.10	76.46	76.45
11	31	4379.267	73.699	-0.071	0.031	1.066	786.699	32.40	32.38	77.13	77.13
11	32	-5386.883	281.178	0.060	-0.027	-0.182	-1095.458	37.01	37.01	99.31	99.31
12	32	5386.883	-281.177	-0.060	0.027	0.182	1095.458	37.01	37.01	99.31	99.31
12	33	-5942.619	119.195	0.014	-0.006	0.059	-2439.313	13.53	13.53	152.25	152.25
13	33	5942.618	-119.196	-0.014	0.006	-0.059	2439.312	13.53	13.53	152.25	152.25
13	34	-6092.683	-299.339	0.014	-0.006	0.111	-1856.760	28.16	28.16	133.75	133.75
14	34	6092.683	299.339	-0.014	0.006	-0.111	1856.762	28.16	28.16	133.75	133.75
14	35	-4740.990	-198.616	0.016	-0.012	-0.213	-967.503	32.50	32.49	87.52	87.52
15	35	4740.983	198.616	-0.016	0.012	0.213	967.505	32.50	32.49	87.52	87.52
15	36	-4132.793	78.744	0.007	-0.007	-0.672	-477.192	36.46	36.44	63.59	63.58
16	36	4132.801	-78.744	-0.007	0.007	0.672	477.193	36.46	36.44	63.59	63.58
16	37	-4614.395	957.297	0.699	0.694	14.015	-2094.352	5.94	6.19	125.12	125.21
17	37	4671.786	732.244	-5.325	-8.526	-14.015	2094.347	6.59	6.84	125.78	125.87
17	48	-4545.071	-148.957	0.016	-0.008	-0.487	-1022.102	29.06	29.05	87.18	87.18
18	48	4545.079	148.957	-0.016	0.008	0.487	1022.103	29.06	29.05	87.18	87.18
18	49	-5571.623	24.576	0.015	-0.007	-0.058	-1022.525	40.73	40.73	98.88	98.88
19	49	5261.521	80.362	-0.045	0.002	-0.032	1101.906	35.44	35.44	98.10	98.10
19	50	-5847.839	290.831	0.005	0.003	0.438	-1364.032	36.29	36.30	113.87	113.87
20	50	5847.839	-290.831	-0.005	-0.003	-0.439	1364.032	36.29	36.30	113.87	113.87
20	51	-5978.809	103.975	-0.008	0.008	0.451	-2618.299	9.97	9.97	158.87	158.87
21	51	5978.808	-103.974	0.008	-0.008	-0.451	2618.297	9.97	9.97	158.87	158.87
21	52	-6130.638	-301.005	-0.012	0.010	0.412	-1992.069	25.58	25.59	138.87	138.88
22	52	6130.639	301.005	0.012	-0.010	-0.412	1992.072	25.58	25.59	138.87	138.88
22	53	-5197.670	-211.727	-0.010	0.011	0.152	-1069.311	35.43	35.44	96.25	96.25
23	53	5197.679	211.728	0.010	-0.011	-0.152	1069.313	35.43	35.44	96.25	96.25
23	54	-4173.104	81.122	-0.044	0.023	-0.482	-548.629	35.33	35.32	66.53	66.52
24	54	4173.110	-81.123	0.044	-0.023	0.482	548.630	35.33	35.32	66.53	66.52
24	55	-3812.619	951.536	0.721	0.759	15.356	-2125.602	-3.89	-3.62	117.08	117.18
25	55	3869.800	733.569	-5.357	-8.432	-15.356	2125.595	-3.24	-2.97	117.73	117.83
25	66	-4168.780	-103.949	0.047	-0.018	-0.468	-1054.739	24.05	24.05	84.03	84.03
26	66	4168.786	103.949	-0.047	0.018	0.468	1054.739	24.05	24.05	84.03	84.03
26	67	-5195.419	38.950	0.007	-0.001	0.159	-1047.790	35.89	35.89	95.47	95.47
27	67	4913.191	66.820	-0.007	0.001	-0.159	1115.863	31.16	31.17	94.62	94.62
27	68	-5922.816	290.261	0.007	-0.002	0.390	-1397.910	36.40	36.40	115.90	115.90
28	68	5922.814	-290.260	-0.007	0.002	-0.390	1397.910	36.40	36.40	115.90	115.90
28	69	-6055.456	102.916	-0.006	0.003	0.411	-2657.497	9.97	9.98	161.10	161.10
29	69	6055.456	-102.916	0.006	-0.003	-0.411	2657.497	9.97	9.98	161.10	161.10
29	70	-6206.026	-307.168	-0.010	0.005	0.380	-2013.749	25.96	25.97	140.48	140.49
30	70	6206.027	307.167	0.010	-0.005	-0.380	2013.748	25.96	25.97	140.48	140.49
30	71	-5278.628	-217.029	-0.010	0.005	0.130	-1070.536	36.33	36.33	97.21	97.21
31	71	5278.636	217.028	0.010	-0.005	-0.130	1070.535	36.33	36.33	97.21	97.21
31	72	-4247.414	81.895	-0.050	0.021	-0.519	-545.311	36.25	36.24	67.26	67.25
32	72	4247.392	-81.895	0.050	-0.021	0.519	545.312	36.25	36.24	67.26	67.25
32	73	-4728.691	949.812	0.729	0.650	16.560	-2107.378	6.93	7.22	126.87	126.97
97	217	4821.975	728.982	-5.446	-8.624	-11.393	2083.875	8.56	8.76	127.13	127.20
97	228	-4695.074	-97.016	-0.535	-0.635	9.202	-1049.630	30.07	30.23	89.81	89.87
98	228	4695.049	97.016	0.535	0.635	-9.202	1049.629	30.07	30.23	89.81	89.87
98	229	-5721.361	40.706	0.008	-0.006	0.150	-1062.738	41.54	41.54	101.98	101.98
99	229	5415.061	64.297	-0.007	0.006	-0.150	1140.617	36.33	36.33	101.19	101.19
99	230	-6424.849	291.028	0.004	-0.004	0.377	-1441.601	41.14	41.15	123.13	123.13
100	230	6424.845	-291.029	-0.004	0.004	-0.377	1441.600	41.14	41.15	123.13	123.13
100	231	-6555.898	92.709	-0.001	-0.003	0.382	-2697.191	14.78	14.79	168.17	168.18
101	231	6555.899	-92.708	0.001	0.003	-0.382	2697.189	14.78	14.79	168.17	168.18
101	232	-6707.915	-301.668	-0.015	0.001	0.332	-2069.366	30.44	30.45	148.12	148.13
102	232	6707.914	301.667	0.015	-0.001	-0.332	2069.367	30.44	30.45	148.12	148.13
102	233	-5849.127	-199.074	-3.373	0.002	-0.039	-1094.954	42.28	42.28	104.55	104.55
103	233	5849.111	199.073	3.373	-0.002	0.039	1094.954	42.28	42.28	104.55	104.55
103	234	-4819.334	129.826	-2.843	0.585	8.372	-579.478	41.92	42.07	74.92	74.98
104	234	4819.431	-129.826	2.843	-0.585	-8.372	579.479	41.92	42.07	74.92	74.98
104	235	-4877.244	950.326	-2.843	0.585	10.269	-2180.781	7.05	7.23	131.12	131.19
105	235	4935.819	747.821	-2.068	-8.708	-10.269	2180.770	7.72	7.89	131.79	131.86
105	246	-4746.545	-111.214	-0.525	-0.572	8.144	-1071.026	30.19	30.33	91.15	91.20
106	246	4746.524	111.214	0.525	0.572	-8.144	1071.025	30.19	30.33	91.15	91.20
106	247	-5773.848	8.346	-0.014	0.004	-0.302	-999.111	43.55	43.55	100.37	100.37
107	247	5665.848	91.595	0.014	-0.004	0.302	1126.172	39.51	39.50	103.55	103.55
107	248	-5753.769	214.587	-0.019	0.006	-0.347	-1281.794	37.05	37.05	109.95	109.95
108	248	5753.751	-214.587	0.019	-0.006	0.347	1281.795	37.05	37.05	109.95	109.96
108	249	-6842.691	67.276	-0.008	0.002	-0.133	-2401.350	24.61	24.61	161.18	161.18
109	249	6842.690	-67.277	0.008	-0.002	0.133	2401.348	24.61	24.61	161.18	161.18
109	250	-6012.183	-335.523	-0.033	0.010	-0.559	-1586.385	33.24	33.23	123.46	123.45
110	250	6012.285	335.524	0.033	-0.010	0.559	1586.382	33.24	33.23	123.46	123.45
110	251	-5991.896	-272.574	2.776	-0.003	0.314	-311.398	61.28	61.29	78.99	78.99
111	251	5991.878	272.574	-2.776	0.003	-0.314	311.397	61.28	61.29	78.99	78.99
111	252	-4986.006	180.986	0.624	0.658	10.993	75.849	57.87	58.07	53.62	53.69

112	252	4945.980	-180.985	-0.623	-0.658	-10.993	-75.849	57.87	58.07	53.62	53.69
112	253	-4833.511	1010.123	3.484	0.629	15.191	-1959.091	11.42	11.69	122.92	123.02
113	253	4888.288	557.692	-8.138	-8.164	-15.191	1959.098	12.05	12.31	123.59	123.64
113	264	-4834.659	80.128	-0.585	-0.920	12.023	-1321.313	25.61	25.82	100.82	100.90
114	264	4834.641	-80.128	0.585	0.920	-12.023	1321.313	25.61	25.82	100.82	100.90
114	265	-5889.848	175.255	0.068	-0.020	-1.213	-1680.630	29.76	29.74	125.33	125.33
115	265	6217.451	36.378	-0.068	0.020	1.213	1881.792	29.83	29.81	136.04	136.03
115	266	-6207.825	41.637	2.779	-0.183	0.083	-1862.625	29.34	29.34	135.26	135.26
116	266	6207.918	-41.636	-2.779	0.183	-0.083	1862.624	29.34	29.34	135.26	135.26
116	267	-7235.964	347.522	2.760	-0.178	0.289	-2391.185	29.31	29.32	165.30	165.30
117	267	7235.972	-347.522	-2.760	0.178	-0.289	2391.184	29.31	29.32	165.30	165.30
117	268	-7159.525	101.232	3.296	-0.211	0.330	-3287.214	8.57	8.57	195.51	195.51
118	268	7159.529	-101.234	-3.296	0.211	-0.330	3287.213	8.57	8.57	195.51	195.51
118	269	-7010.665	-275.048	3.296	-0.211	0.214	-2732.839	19.22	19.22	174.63	174.63
119	269	7014.657	275.049	-3.296	0.211	-0.214	2732.839	19.22	19.22	174.63	174.63
119	270	-6977.285	-133.403	3.296	-0.211	0.097	-2068.764	33.52	33.52	151.17	151.17
120	270	6977.291	133.403	-3.296	0.211	-0.097	2068.765	33.52	33.52	151.17	151.17
120	271	-6930.496	76.530	0.044	-0.014	-0.019	-1941.012	35.82	35.82	146.21	146.21

VIADUCTO 1 SOBRE EL RIO SEGRE

HIPOTESIS 1632

NOME Z MIN envolvente G-I (ELS) (total) (frecuente)

ESFUERZOS EN BARRAS

TENSIONES

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	3203.081	70.868	0.110	-0.029	-1.053	-456.379	46.57	46.58	20.62	20.62
1	12	-3298.971	-109.327	-0.097	0.029	0.529	716.860	53.44	53.45	12.67	12.68
2	12	3298.972	109.327	0.097	-0.029	-0.529	-716.861	53.44	53.45	12.67	12.68
2	13	-3354.027	-77.217	-0.097	0.029	0.244	1022.201	60.84	60.84	2.71	2.71
3	13	3354.027	77.217	0.099	-0.029	-0.238	-1022.201	60.84	60.84	2.71	2.71
3	14	-3380.340	63.815	-0.097	0.029	-0.042	1028.591	61.28	61.28	2.79	2.79
4	14	3380.337	-63.816	0.097	-0.029	0.042	-1028.591	61.28	61.28	2.79	2.79
4	15	-3413.345	169.381	-0.099	0.029	-0.342	651.470	53.30	53.29	16.25	16.24
5	15	3413.348	-169.382	0.097	-0.029	0.328	-651.469	53.30	53.29	16.25	16.24
5	16	-3490.278	41.033	-0.099	0.029	-0.632	206.969	44.32	44.31	32.54	32.54
6	16	3490.279	-41.032	0.097	-0.029	0.613	-206.969	44.32	44.31	32.54	32.54
6	17	-4741.994	-262.982	-0.038	0.009	0.064	554.997	66.27	66.28	34.71	34.71
7	17	4741.998	262.981	0.038	-0.009	-0.065	-554.996	66.27	66.28	34.71	34.71
7	18	-5999.316	-386.699	-0.029	0.006	0.116	1627.116	104.36	104.36	11.83	11.83
8	18	5999.315	386.700	0.029	-0.006	-0.116	-1627.115	104.36	104.36	11.83	11.83
8	19	-6598.107	484.491	-0.048	-0.051	-0.131	2142.900	122.62	122.62	0.75	0.75
9	19	6653.905	509.583	0.000	0.004	0.163	-2142.914	123.25	123.25	1.39	1.39
9	30	-6040.255	270.222	-0.011	0.003	-0.100	1182.666	94.97	94.97	27.71	27.71
10	30	6040.256	-270.222	0.011	-0.003	0.100	-1182.667	94.97	94.97	27.71	27.71
10	31	-4756.828	-99.970	0.037	-0.018	-0.477	1186.215	80.45	80.44	12.99	12.98
11	31	4537.745	189.346	-0.037	0.018	0.477	-1095.895	75.95	75.94	13.63	13.62
11	32	-3856.646	118.631	0.051	-0.025	-0.867	1232.815	71.24	71.23	1.13	1.12
12	32	3856.645	-118.630	-0.051	0.025	0.867	-1232.815	71.24	71.23	1.13	1.12
12	33	-3950.009	66.365	0.055	-0.027	-0.666	531.241	56.74	56.73	26.53	26.52
13	33	3950.000	-66.365	-0.055	0.027	0.666	-531.242	56.74	56.73	26.53	26.52
13	34	-4055.469	-123.438	0.055	-0.027	-0.452	805.941	64.03	64.02	18.20	18.19
14	34	4055.478	123.437	-0.055	0.027	0.452	-805.940	64.03	64.02	18.20	18.19
14	35	-4882.277	-99.559	0.046	-0.021	0.158	1236.662	82.99	82.99	12.66	12.66
15	35	4882.278	99.558	-0.046	0.021	-0.158	-1236.660	82.99	82.99	12.66	12.66
15	36	-6202.699	-239.494	0.068	-0.030	0.664	1934.422	113.49	113.50	3.48	3.49
16	36	6202.699	239.494	-0.068	0.030	-0.664	-1934.422	113.49	113.50	3.48	3.49
16	37	-5863.322	697.704	-0.642	-0.724	-13.606	1910.123	109.21	108.97	0.51	0.42
17	37	5920.719	355.181	5.329	8.516	13.605	-1910.116	109.86	109.63	1.16	1.07
17	48	-6163.320	230.721	-0.045	0.022	0.774	1115.371	94.87	94.89	31.45	31.45
18	48	6163.320	-230.721	0.045	-0.022	-0.774	-1115.370	94.87	94.89	31.45	31.45
18	49	-4870.564	-79.270	0.000	0.003	0.344	1167.974	81.33	81.34	14.91	14.91
19	49	4575.204	179.222	0.000	-0.003	-0.344	-1092.365	76.29	76.30	14.17	14.17
19	50	-4656.414	166.003	0.000	0.003	0.344	1176.734	79.09	79.09	12.17	12.17
20	50	4656.413	-166.003	0.000	-0.003	-0.344	-1176.735	79.09	79.09	12.17	12.17

20	51	-3992.493	64.672	0.006	0.002	0.120	474.665	55.96	55.97	28.97	28.97
21	51	3992.501	-64.670	-0.006	-0.002	-0.120	-474.666	55.96	55.97	28.97	28.97
21	52	-4099.210	-130.887	0.010	0.001	0.151	749.759	63.28	63.28	20.64	20.64
22	52	4099.205	130.886	-0.010	-0.001	-0.151	-749.757	63.28	63.28	20.64	20.64
22	53	-4917.191	-93.128	0.008	0.000	0.404	1187.052	82.26	82.29	14.78	14.78
23	53	4917.191	93.129	-0.008	0.000	-0.404	-1187.048	82.26	82.29	14.78	14.78
23	54	-6235.773	-254.425	0.046	-0.014	0.857	1896.573	113.02	113.04	5.17	5.18
24	54	6235.771	254.424	-0.046	0.014	-0.857	-1896.572	113.02	113.04	5.17	5.18
24	55	-6747.458	696.963	-0.728	-0.751	-14.962	1836.685	117.65	117.39	13.12	13.03
25	55	6304.661	358.282	5.362	8.429	14.962	-1836.681	118.31	118.05	13.77	13.68
25	66	-6205.453	230.961	-0.049	0.021	0.845	1140.919	95.92	95.93	31.04	31.04
26	66	6205.451	-230.951	0.049	-0.021	-0.845	-1140.918	95.92	95.93	31.04	31.04
26	67	-4917.763	-79.183	-0.004	0.002	0.402	1195.850	82.49	82.89	14.48	14.48
27	67	4648.937	179.928	0.004	-0.002	-0.402	-1131.013	77.99	78.00	13.67	13.67
27	68	-4728.159	170.213	0.004	0.002	0.386	1209.880	80.64	80.65	11.84	11.84
28	68	4728.157	-170.212	0.004	-0.002	-0.386	-1209.880	80.64	80.65	11.84	11.84
28	69	-4063.353	68.859	-0.001	0.001	0.172	491.553	57.14	57.15	29.19	29.19
29	69	4063.363	-68.860	0.001	-0.001	-0.172	-491.553	57.14	57.15	29.19	29.19
29	70	-4169.186	-130.165	0.003	-0.001	0.177	760.475	64.31	64.32	21.07	21.07
30	70	4169.196	130.165	-0.003	0.001	-0.177	-760.475	64.31	64.32	21.07	21.07
30	71	-4997.012	-93.458	0.004	-0.001	0.402	1193.006	83.32	83.33	15.48	15.48
31	71	4997.011	93.458	-0.004	0.001	-0.402	-1193.008	83.32	83.33	15.48	15.48
31	72	-6317.307	-257.966	0.048	-0.018	0.850	1913.581	114.33	114.34	5.51	5.51
32	72	6317.308	257.967	-0.048	0.018	-0.850	-1913.580	114.33	114.34	5.51	5.51
32	73	-5977.512	696.899	-0.737	-0.648	-16.197	1848.612	109.17	108.89	3.95	3.95
97	217	6916.608	377.745	5.455	8.623	10.867	-1889.258	120.71	120.52	13.21	13.14
97	228	-6736.047	238.045	0.517	0.635	-8.770	1175.127	102.80	102.65	35.92	35.87
98	228	6736.046	-238.046	-0.517	-0.635	8.770	-1175.128	102.80	102.65	35.92	35.87
98	229	-5443.293	-66.111	-0.020	0.004	0.413	1192.649	88.40	88.40	20.57	20.58
99	229	5151.452	166.124	0.020	-0.004	-0.413	-1118.471	83.43	83.44	19.82	19.83
99	230	-4476.431	125.790	-0.016	0.003	0.137	1155.096	76.56	76.56	10.87	10.87
100	230	4476.412	-125.791	0.016	-0.003	-0.137	-1155.099	76.56	76.56	10.87	10.87
100	231	-4568.519	75.465	-0.012	0.001	0.083	430.274	61.53	61.54	37.07	37.07
101	231	4568.500	-75.464	0.012	-0.001	-0.083	-430.275	61.53	61.54	37.06	37.07
101	232	-4675.340	-120.550	-0.007	0.000	0.049	685.508	67.97	67.97	30.12	30.12
102	232	4675.313	120.550	0.007	0.000	-0.049	-685.509	67.97	67.97	30.12	30.12
102	233	-5493.802	-80.264	-0.011	0.001	0.177	1010.577	84.93	84.94	27.46	27.47
103	233	5493.804	80.262	0.011	-0.001	-0.177	-1010.578	84.93	84.94	27.46	27.47
103	234	-6813.188	-247.394	-0.491	-0.597	-8.318	1684.859	114.98	114.83	19.12	19.06
104	234	6813.183	247.395	0.491	0.597	8.318	-1684.860	114.98	114.83	19.12	19.06
104	235	-6836.658	679.022	2.931	-0.586	-10.203	1662.708	114.77	114.59	20.16	20.09
105	235	6895.259	414.232	2.115	8.694	10.203	-1662.720	115.48	115.26	20.82	20.76
105	246	-6784.407	187.616	-0.458	0.592	-8.453	1070.660	101.03	100.88	40.10	40.04
106	246	6784.409	-187.616	-0.458	-0.592	8.453	-1070.662	101.03	100.88	40.10	40.04
106	247	-5496.903	-97.548	-0.046	0.013	-0.036	1254.394	90.37	90.37	19.03	19.03
107	247	5393.160	192.739	0.046	-0.013	0.036	-1133.371	86.51	86.51	22.06	22.06
107	248	-5476.903	149.528	-0.041	0.012	-0.223	1259.336	90.26	90.26	18.64	18.64
108	248	5476.904	-149.528	0.041	-0.012	0.223	-1259.335	90.26	90.26	18.64	18.64
108	249	-4787.442	74.953	-0.051	0.016	-0.666	478.932	65.11	65.10	37.87	37.87
109	249	4787.423	-74.953	0.051	-0.016	0.666	-478.935	65.11	65.10	37.87	37.87
109	250	-5723.072	-264.087	-0.036	0.010	-0.526	892.828	84.94	84.93	34.16	34.16
110	250	5723.077	264.087	0.036	-0.010	0.526	-892.831	84.94	84.93	34.16	34.16
110	251	-5745.268	-155.052	-0.036	0.010	-0.667	1773.571	104.73	104.71	3.86	3.86
111	251	5745.269	155.052	0.036	-0.010	0.667	-1773.572	104.72	104.71	3.86	3.86
111	252	-7068.216	-116.748	-0.691	-0.639	-12.860	2438.186	134.62	134.40	-4.10	-4.18
112	252	7068.212	116.749	0.691	0.639	12.860	-2438.185	134.63	134.40	-4.10	-4.18
112	253	-6987.783	759.503	-3.529	-0.616	-16.733	1853.642	120.78	120.49	15.27	15.17
113	253	7042.585	177.609	8.074	8.182	16.733	-1853.633	121.40	121.11	15.90	15.79
113	264	-6866.678	300.175	0.657	0.899	-13.531	1269.467	106.65	106.41	34.38	34.29
114	264	6886.678	-300.175	-0.657	-0.899	13.531	-1269.467	106.65	106.41	34.38	34.29
114	265	-5609.137	139.477	0.011	-0.003	-0.214	678.524	78.89	78.68	40.30	40.30
115	265	5920.699	62.108	-0.011	0.003	0.214	-487.121	78.19	78.18	50.48	50.48
115	266	-5931.153	54.259	0.011	-0.003	-0.181	526.563	79.18	79.18	49.23	49.23
116	266	5931.144	-54.259	-0.011	0.003	0.181	-526.563	79.18	79.18	49.23	49.23
116	267	-5092.040	235.365	0.030	-0.008	-0.368	165.350	61.62	61.61	52.21	52.21
117	267	5092.021	-235.364	-0.030	0.008	0.369	-165.351	61.62	61.61	52.21	52.21
117	268	-5033.957	144.463	0.030	-0.008	-0.280	-563.073	44.80	44.80	76.82	76.82
118	268	5033.945	-144.466	-0.030	0.008	0.280	563.072	44.80	44.80	76.82	76.82
118	269	-4929.664	-37.989	0.030	-0.008	-0.192	-513.052	44.72	44.72	73.90	73.90
119	269	4929.635	37.990	-0.030	0.008	0.192	513.052	44.72	44.72	73.90	73.90
119	270	-4904.366	140.474	-3.202	0.182	-0.409	-622.250	42.02	42.01	77.40	77.40
120	270	4904.349	-140.474	3.202	-0.182	0.409	622.251	42.02	42.01	77.40	77.40
120	271	-4865.430	337.083	0.035	-0.010	-0.016	-1364.074	25.12	25.12	102.69	102.69

IPOTESIS 1141

ENE Z MAX grupo I (ELS) (ipf-75)

		ESFUERZOS EN BARRAS						TENSIONES			
BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	6333.355	127.503	0.076	-0.020	-1.065	1883.105	30.30	30.32	137.40	137.41
1	12	-6412.978	-99.057	-0.083	0.022	0.865	-1678.875	35.74	35.75	131.22	131.23
2	12	6412.979	99.057	0.083	-0.022	-0.865	1678.874	35.74	35.75	131.22	131.23
2	13	-5719.938	67.136	-0.113	0.031	0.610	-1627.821	28.99	29.00	121.56	121.57
3	13	5719.939	-67.135	0.113	-0.031	-0.610	1627.821	28.99	29.00	121.56	121.57
3	14	-5757.377	150.073	-0.113	0.031	0.279	-1965.762	21.92	21.93	133.71	133.72
4	14	5757.376	-150.074	0.113	-0.031	-0.278	1965.761	21.92	21.93	133.71	133.72
4	15	-5804.341	182.549	-0.113	0.031	-0.052	-2503.351	10.53	10.53	152.90	152.90
5	15	5804.342	-182.549	0.113	-0.031	0.052	2503.352	10.53	10.53	152.90	152.90
5	16	-5913.802	-117.799	-0.113	0.031	-0.383	-2791.383	5.39	5.39	164.14	164.13
6	16	5913.801	117.801	0.113	-0.031	0.383	2791.383	5.40	5.39	164.14	164.13
6	17	-5019.386	-292.925	-0.143	0.039	-1.241	-1922.480	14.50	14.47	123.82	123.81
7	17	5019.385	292.924	0.143	-0.039	1.241	1922.480	14.49	14.47	123.82	123.81
7	18	-3973.269	-102.085	-0.145	0.040	-1.688	-1436.410	13.37	13.34	95.05	95.04
8	18	3973.270	102.086	0.145	-0.040	1.688	1436.410	13.37	13.34	95.05	95.04
8	19	-4096.894	1005.238	-0.104	0.134	-1.727	-2591.802	-10.84	-10.87	136.54	136.53
9	19	4152.692	1055.698	-0.088	0.035	1.727	2591.778	-10.21	-10.24	137.17	137.16
9	30	-4018.625	-201.154	0.114	-0.053	-2.172	-953.529	24.60	24.57	78.82	78.80
10	30	4018.626	201.154	-0.114	0.052	2.172	953.529	24.60	24.57	78.82	78.80
10	31	-5032.173	42.820	0.041	-0.020	-0.785	-823.037	39.02	39.01	85.82	85.82
1	31	4802.162	51.015	-0.041	0.020	0.785	917.869	34.30	34.29	86.49	86.49
11	32	-5809.778	312.929	0.027	-0.012	-0.088	-1332.087	36.57	36.57	112.33	112.33
12	32	5809.778	-312.927	-0.027	0.012	0.088	1332.087	36.57	36.57	112.33	112.33
12	33	-5942.619	131.643	0.008	-0.004	0.035	-2709.114	7.54	7.54	161.61	161.61
13	33	5942.618	-131.644	-0.008	0.004	-0.035	2709.114	7.54	7.54	161.61	161.61
13	34	-6092.683	-283.264	0.008	-0.004	0.065	-2181.823	20.95	20.95	145.03	145.03
14	34	6092.683	283.264	-0.008	0.004	-0.065	2181.826	20.95	20.95	145.03	145.03
14	35	-5163.885	-177.109	0.018	-0.011	-0.300	-1361.877	28.56	28.56	106.01	106.01
15	35	5163.879	177.109	-0.018	0.011	0.300	1361.879	28.56	28.56	106.01	106.01
15	36	-4132.793	209.806	-0.008	-0.001	-1.093	-960.318	25.74	25.72	80.35	80.34
16	36	4132.801	-209.806	0.008	0.001	1.093	960.319	25.74	25.72	80.35	80.34
16	37	-4191.500	1171.659	1.138	1.174	23.012	-3080.206	-20.81	-20.41	154.48	154.63
17	37	4248.891	959.047	-8.926	-14.200	-23.012	3080.197	-20.16	-19.76	155.13	155.28
17	48	-4122.176	-235.153	0.074	-0.022	-0.840	-1455.091	14.65	14.63	97.39	97.39
18	48	4122.184	235.153	-0.074	0.022	0.840	1455.092	14.65	14.63	97.39	97.39
18	49	-5148.727	34.243	0.009	0.005	0.175	-1373.649	28.13	28.13	106.25	106.25
19	49	4838.625	70.696	-0.009	-0.005	-0.175	1453.030	22.84	22.84	105.47	105.47
19	50	-5847.839	284.986	0.007	0.004	0.448	-1713.578	28.54	28.55	125.99	126.00
20	50	5847.838	-284.986	-0.007	-0.004	-0.448	1713.579	28.54	28.55	125.99	126.00
20	51	-5978.809	109.329	-0.012	0.011	0.468	-2952.780	2.55	2.56	170.47	170.48
21	51	5978.808	-109.328	0.012	-0.011	-0.468	2952.778	2.55	2.56	170.47	170.48
21	52	-6130.638	-292.024	-0.016	0.012	0.413	-2354.323	17.55	17.56	151.44	151.44
22	52	6130.639	292.024	0.016	-0.012	-0.413	2354.325	17.55	17.56	151.44	151.44
22	53	-5197.670	-199.119	-0.014	0.013	0.138	-1473.391	26.47	26.47	110.26	110.26
23	53	5197.679	199.120	0.014	-0.013	-0.137	1473.393	26.47	26.47	110.26	110.26
23	54	-4173.104	215.441	-0.068	0.033	-0.883	-1039.576	24.44	24.43	83.56	83.55
24	54	4173.110	-215.442	0.068	-0.033	0.883	1039.576	24.44	24.43	83.56	83.55
24	55	-4235.515	1176.701	1.155	1.270	24.599	-3179.718	-22.53	-22.11	158.43	158.59
25	55	4292.695	963.937	-8.848	-14.154	-24.599	3179.708	-21.88	-21.46	159.08	159.24
25	66	-4168.780	-239.876	0.074	-0.029	-0.861	-1539.293	13.31	13.30	100.84	100.84
26	66	4168.786	239.876	-0.074	0.029	0.861	1539.294	13.31	13.30	100.84	100.84
26	67	-5195.419	28.458	0.009	-0.002	0.152	-1444.327	27.09	27.09	109.23	109.23
27	67	4913.191	77.312	-0.009	0.002	-0.152	1512.400	22.37	22.37	108.38	108.38
27	68	-5922.816	283.396	0.010	-0.002	0.392	-1760.818	28.35	28.35	128.49	128.49
28	68	5922.814	-283.395	-0.010	0.002	-0.392	1760.818	28.35	28.35	128.49	128.49
28	69	-6055.456	107.306	-0.009	0.005	0.422	-3000.866	2.35	2.36	173.01	173.02
29	69	6055.456	-107.307	0.009	-0.005	-0.422	3000.866	2.35	2.36	173.01	173.02
29	70	-6206.026	-299.150	-0.013	0.006	0.377	-2381.158	17.81	17.82	153.23	153.23
30	70	6206.027	299.150	0.013	-0.006	-0.377	2381.157	17.81	17.82	153.23	153.23
30	71	-5278.628	-205.384	-0.014	0.007	0.113	-1476.040	27.34	27.34	111.28	111.28
31	71	5278.636	205.384	0.014	-0.007	-0.113	1476.039	27.34	27.34	111.28	111.28
31	72	-4247.414	218.010	-0.077	0.032	-0.931	-1040.874	25.26	25.24	84.45	84.44
32	72	4247.392	-218.010	0.077	-0.032	0.931	1040.875	25.26	25.24	84.45	84.44
32	73	-4305.796	1180.321	1.073	1.214	23.104	-3195.608	-22.07	-21.67	159.78	159.93
97	217	4821.975	955.902	-9.111	-14.362	-18.528	3148.356	-15.11	-14.79	164.03	164.15
97	228	-4695.074	-231.384	0.894	-1.056	15.253	-1541.275	19.12	19.38	106.85	106.95
98	228	4695.049	231.384	0.894	1.056	-15.253	1541.275	19.12	19.38	106.85	106.95
98	229	-5721.361	28.086	0.013	-0.008	0.137	-1466.909	32.58	32.58	116.00	116.00
99	229	5415.061	76.917	-0.013	0.008	-0.137	1544.789	27.36	27.37	115.21	115.22
99	230	-6424.844	282.034	0.009	-0.006	0.386	-1803.897	33.11	33.11	135.69	135.70
100	230	6424.845	-282.036	-0.009	0.006	-0.386	1803.896	33.11	33.11	135.69	135.70
100	231	-6555.898	87.343	0.005	-0.005	0.413	-3031.667	7.37	7.37	179.78	179.78
101	231	6555.899	-87.342	-0.005	0.005	-0.413	3031.665	7.37	7.37	179.78	179.78
101	232	-6707.915	-295.825	-0.016	0.000	0.359	-2418.893	22.69	22.69	160.25	160.25
102	232	6707.914	295.824	0.016	0.000	-0.359	2418.893	22.69	22.69	160.25	160.25
2	233	-5774.427	-205.530	-0.012	-0.001	0.143	-1469.459	33.12	33.13	116.69	116.69
103	233	5774.411	205.530	0.012	0.001	-0.143	1469.459	33.12	33.13	116.69	116.69
103	234	-4749.284	219.386	0.799	0.993	13.901	-1042.689	30.80	31.04	90.18	90.26
104	234	4749.381	-219.385	-0.799	-0.993	-13.901	1042.689	30.80	31.05	90.18	90.27
104	235	-4811.844	1180.989	0.794	0.994	16.812	-3202.241	-16.41	-16.12	165.79	165.90
105	235	4870.419	966.068	-9.143	-14.460	-16.812	3202.232	-15.74	-15.45	166.46	166.57
105	246	-4746.545	-242.312	-0.861	-0.959	13.664	-1554.785	19.42	19.65	107.91	108.00
106	246	4746.524	242.312	0.860	0.959	-13.664	1554.783	19.42	19.65	107.91	108.00
106	247	-5773.848	-11.348	-0.008	0.003	-0.374	-1393.623	34.60	34.80	114.06	114.05
107	247	5665.848	111.288	0.008	-0.003	0.374	1520.685	30.76	30.75	117.23	117.23
107	248	-5753.769	198.521	-0.012	0.004	-0.394	-1607.022	29.84	29.83	121.23	121.23
108	248	5753.751	-198.520	0.012	-0.004	0.394	1607.023	29.84	29.83	121.23	121.23
108	249	-6842.691	54.837	-0.002	0.000	-0.155	-2671.348	18.63	18.62	170.54	170.54
109	249	6842.690	-54.838	0.002	0.000	0.155	2671.345	18.63	18.62	170.54	170.54
109	250	-6012.183	-338.060	-0.033	0.010	-0.590	-1827.034	27.90	27.89	131.80	131.80
110	250	6012.285	338.061	0.033	-0.010	0.590	1827.031	27.91	27.90	131.80	131.80
110	251	-6035.584	-292.026	-0.033	0.010	-0.719	-534.153	56.85	56.83	87.22	87.22
111	251	6035.566	292.025	0.033	-0.010	0.719	534.151	56.85	56.83	87.22	87.21
111	252	-4946.006	313.353	1.065	1.089	18.882	-246.931	30.65	30.98	64.79	64.91

112	252	4945.980	-313.352	-1.065	-1.089	-18.882	246.931	50.65	50.97	64.79	64.91
112	253	-4866.364	1233.078	1.059	1.091	22.823	-2889.518	-8.90	-8.51	155.55	155.69
	253	4921.143	763.200	-9.028	-13.883	-22.824	2889.529	-8.28	-7.88	156.17	156.32
113	264	-4834.659	43.186	-1.004	-1.525	20.619	-1883.055	13.08	13.44	120.28	120.41
114	264	4834.641	-43.186	1.004	1.525	-20.619	1883.054	13.06	13.44	120.28	120.41
114	265	-5889.848	141.063	0.087	-0.026	-1.546	-2137.893	19.63	19.60	141.20	141.19
115	265	6217.451	70.570	-0.087	0.026	1.546	2339.055	18.89	18.87	151.90	151.99
115	266	-6228.360	-0.950	0.087	-0.026	-1.291	-2204.063	22.01	21.99	147.35	147.34
116	266	6228.453	0.950	-0.087	0.026	1.291	2204.063	22.01	21.99	147.35	147.34
116	267	-7252.393	311.809	0.067	-0.021	-0.811	-2623.954	24.35	24.33	173.56	173.56
117	267	7252.401	-311.809	-0.067	0.021	0.811	2623.953	24.35	24.33	173.56	173.56
117	268	-7170.102	72.698	0.067	-0.021	-0.613	-3431.506	5.50	5.49	200.64	200.64
118	268	7170.106	-72.700	-0.067	0.021	0.613	3431.504	5.50	5.49	200.64	200.64
118	269	-7021.716	-296.708	0.067	-0.021	-0.415	-2808.844	17.62	17.61	177.35	177.35
119	269	7021.709	296.709	-0.067	0.021	0.415	2808.844	17.62	17.61	177.35	177.35
119	270	-6980.812	-148.189	0.067	-0.021	-0.217	-2096.673	32.94	32.94	152.18	152.18
120	270	6980.818	148.190	-0.067	0.021	0.217	2096.674	32.94	32.94	152.18	152.18
120	271	-6930.496	59.716	0.062	-0.019	-0.019	-1941.018	35.82	35.82	146.21	146.21

VIADUCTO 1 SOBRE EL RIO SEGRE

HIPOTESIS 1142

NOME Z MIN grupo I (ELS) (ipf-75)

ESFUERZOS EN BARRAS

TENSIONES

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	2894.531	132.074	0.137	-0.037	-1.269	-896.404	52.81	52.83	1.84	1.85
1	12	-2950.491	-88.606	-0.130	0.034	0.855	1175.058	39.63	59.65	-7.19	-7.18
2	12	2950.492	88.606	0.130	-0.034	-0.855	-1175.058	59.63	59.65	-7.19	-7.18
2	13	-3005.546	-41.808	-0.130	0.034	0.474	1397.952	65.21	65.21	-14.29	-14.29
3	13	3005.547	41.808	0.130	-0.034	-0.474	-1397.957	65.21	65.21	-14.29	-14.29
3	14	-3803.235	-2.178	-0.071	0.018	0.150	1383.536	73.97	73.97	-4.71	-4.71
4	14	3803.232	2.177	0.071	-0.018	-0.150	-1383.537	73.97	73.97	-4.71	-4.71
4	15	-3836.240	131.824	-0.071	0.018	-0.058	1158.506	69.35	69.35	3.47	3.47
5	15	3836.243	-131.823	0.071	-0.018	0.058	-1158.505	69.35	69.35	3.47	3.47
5	16	-3913.173	31.910	-0.071	0.018	-0.266	782.570	61.89	61.89	17.39	17.39
6	16	3913.173	-31.908	0.071	-0.018	0.266	-782.571	61.89	61.89	17.39	17.39
6	17	-4741.994	-183.320	-0.041	0.010	0.047	948.963	75.01	75.01	21.05	21.05
7	17	4741.998	183.318	0.041	-0.010	-0.047	-948.963	75.01	75.01	21.05	21.05
7	18	-5999.316	-293.127	-0.027	0.005	0.177	1754.565	107.19	107.19	7.41	7.41
8	18	5999.315	293.127	0.027	-0.005	-0.177	-1754.565	107.19	107.19	7.41	7.41
8	19	-6175.212	516.025	-0.102	-0.074	-1.103	2004.924	114.75	114.73	0.73	0.72
9	19	6231.010	544.213	-0.093	0.025	1.103	-2004.940	115.39	115.37	1.36	1.36
9	30	-6040.255	184.036	-0.026	0.009	-0.153	1221.230	95.83	95.83	26.38	26.38
10	30	6040.256	-184.036	0.026	-0.009	0.153	-1221.231	95.83	95.83	26.38	26.38
10	31	-4756.828	-195.917	0.050	-0.024	-0.787	1603.510	89.71	89.69	-1.49	-1.49
11	31	4537.745	285.293	-0.050	0.024	0.787	-1513.190	85.21	85.20	-0.85	-0.85
11	32	-3856.645	67.541	0.064	-0.032	-1.127	1934.994	86.82	86.80	-23.23	-23.24
12	32	3856.645	-67.540	-0.064	0.032	1.127	-1934.994	86.82	86.80	-23.23	-23.24
12	33	-3950.008	60.133	0.068	-0.034	-0.877	1344.481	74.78	74.76	-1.68	-1.69
13	33	3950.000	-60.133	-0.068	0.034	0.877	-1344.482	74.78	74.76	-1.68	-1.69
13	34	-4055.469	-84.813	0.068	-0.034	-0.613	1556.422	80.68	80.67	-7.84	-7.84
14	34	4055.478	84.812	-0.068	0.034	0.613	-1556.421	80.68	80.67	-7.84	-7.84
14	35	-4882.277	-16.077	0.058	-0.028	0.046	1750.563	94.39	94.39	-5.17	-5.16
15	35	4882.278	16.077	-0.058	0.028	-0.046	-1750.561	94.39	94.39	-5.16	-5.16
15	36	-6202.699	-146.184	0.096	-0.043	0.797	2066.000	116.40	116.42	-1.08	-1.08
16	36	6202.699	146.184	-0.096	0.043	-0.797	-2065.999	116.40	116.42	-1.08	-1.08
16	37	-6286.217	707.299	-1.120	-1.187	-23.685	1858.163	112.96	112.55	7.16	7.00
17	37	6343.614	386.318	8.859	14.216	23.685	-1858.161	113.61	113.20	7.81	7.66
17	48	-6163.320	143.603	-0.069	0.032	0.932	1222.567	97.25	97.26	27.73	27.73
18	48	6163.320	-143.603	0.069	-0.032	-0.932	-1222.565	97.25	97.26	27.73	27.73
18	49	-4870.564	-171.217	0.003	0.002	0.253	1653.044	92.09	92.09	-1.92	-1.91
19	49	4575.204	271.169	-0.003	-0.002	-0.253	-1577.435	87.05	87.06	-2.65	-2.65
19	50	-4656.414	118.913	0.003	0.002	0.264	1931.189	95.82	95.83	-14.00	-14.00
20	50	4656.413	-118.914	-0.003	-0.002	-0.264	-1931.189	95.82	95.83	-14.00	-14.00

20	51	-3992.493	62.439	0.009	0.001	0.050	1324.682	74.82	74.82	-0.52	-0.52
21	51	3992.501	-62.438	-0.009	-0.001	-0.050	-1324.683	74.82	74.82	-0.52	-0.52
	52	-4099.210	-88.263	0.013	0.000	0.092	1521.518	80.40	80.40	-6.13	-6.13
	52	4099.205	88.262	-0.013	0.000	-0.092	-1521.515	80.40	80.40	-6.13	-6.13
22	53	-4917.191	-5.646	0.011	-0.001	0.356	1706.732	93.81	93.82	-3.25	-3.25
23	53	4917.191	5.647	-0.011	0.002	-0.356	-1706.728	93.81	93.82	-3.25	-3.25
23	54	-6235.773	-168.005	0.072	-0.023	1.075	2045.461	116.32	116.34	0.00	0.01
24	54	6235.771	168.004	-0.072	0.023	-1.075	-2045.460	116.32	116.34	0.00	0.01
24	55	-6324.563	700.619	-1.218	-1.236	-25.302	1822.283	112.61	112.17	8.84	8.68
25	55	6381.766	387.900	8.781	14.179	25.302	-1822.285	113.26	112.82	9.49	9.33
25	66	-6205.453	145.633	-0.076	0.032	1.058	1285.335	99.12	99.14	26.03	26.04
26	66	6205.451	-145.633	0.076	-0.032	-1.058	-1285.334	99.12	99.14	26.03	26.04
26	67	-4917.763	-169.289	-0.004	0.002	0.356	1711.934	93.93	93.94	-3.42	-3.42
27	67	4648.937	270.033	0.004	-0.002	-0.356	-1647.097	89.43	89.44	-4.23	-4.23
27	68	-4728.159	124.964	-0.004	0.002	0.341	1988.214	97.90	97.91	-15.16	-15.16
28	68	4728.157	-124.964	0.004	-0.002	-0.341	-1988.214	97.90	97.91	-15.16	-15.16
28	69	-4063.353	68.467	-0.001	0.001	0.127	1358.316	76.37	76.37	-0.88	-0.88
29	69	4063.363	-68.468	0.001	-0.001	-0.127	-1358.316	76.37	76.37	-0.88	-0.88
9	70	-4169.186	-85.700	0.003	-0.001	0.133	1541.845	81.64	81.64	-6.04	-6.04
30	70	4169.196	85.699	-0.003	0.001	-0.133	-1541.845	81.64	81.65	-6.04	-6.04
	71	-4997.012	-4.136	0.004	-0.001	0.359	1715.164	94.91	94.91	-2.63	-2.63
31	71	4997.011	4.136	-0.004	0.001	-0.359	-1715.166	94.91	94.91	-2.63	-2.63
31	72	-6317.307	-172.461	0.074	-0.029	1.069	2064.642	117.68	117.69	0.27	0.27
32	72	6317.308	172.461	-0.074	0.029	-1.069	-2064.641	117.68	117.69	0.27	0.27
32	73	-6400.407	699.796	-1.143	-1.184	-23.898	1838.880	113.83	113.42	9.13	8.97
97	217	6916.608	380.028	9.056	14.382	19.246	-1883.261	120.65	120.32	13.45	13.32
97	228	-6736.047	151.668	0.875	1.056	-15.009	1324.399	106.16	105.90	30.76	30.67
98	228	6736.046	-151.668	-0.875	-1.055	15.009	-1324.400	106.16	105.90	30.76	30.67
98	229	-5443.293	-153.592	-0.023	0.005	0.365	1712.256	99.92	99.93	2.55	2.55
99	229	5151.452	253.606	0.023	-0.005	-0.365	-1638.078	94.95	94.96	1.80	1.80
99	230	-4476.431	83.166	-0.019	0.004	0.077	1926.782	93.68	93.68	-15.90	-15.90
100	230	4476.412	-83.167	0.019	-0.004	-0.077	-1926.785	93.68	93.68	-15.90	-15.90
100	231	-4568.519	77.698	-0.015	0.002	0.011	1280.219	80.39	80.39	7.58	7.58
101	231	4568.500	-77.697	0.015	-0.002	-0.011	-1280.221	80.39	80.39	7.58	7.58
101	232	-4675.340	-73.461	-0.010	0.001	-0.036	1419.891	84.70	84.70	3.95	3.95
102	232	4675.313	73.461	0.010	-0.001	0.036	-1419.893	84.70	84.70	3.95	3.95
2	233	-5493.802	11.683	-0.014	0.002	0.081	1495.577	95.69	95.69	10.64	10.64
	233	5493.804	-11.684	0.014	-0.002	-0.081	-1495.578	95.69	95.69	10.64	10.64
	234	-6813.188	-160.326	-0.817	-0.994	-14.087	1792.501	117.42	117.17	15.40	15.31
104	234	6813.183	160.326	0.817	0.994	14.087	-1792.502	117.42	117.17	15.40	15.31
104	235	-6902.059	706.964	-0.884	-0.974	-17.955	1644.397	115.18	114.86	21.56	21.45
105	235	6960.659	420.294	9.145	14.461	17.955	-1644.404	115.84	115.53	22.23	22.11
105	246	-6784.407	94.365	0.780	0.982	-14.246	1202.606	104.01	103.76	35.54	35.44
106	246	6784.409	-94.365	-0.780	-0.982	14.246	-1202.608	104.01	103.76	35.54	35.44
106	247	-5496.003	-181.016	-0.061	0.018	-0.136	1768.244	101.77	101.76	1.21	1.21
107	247	5393.160	276.207	0.060	-0.018	0.136	-1647.221	97.91	97.91	4.23	4.23
107	248	-5476.903	110.916	-0.056	0.016	-0.380	2009.716	106.91	106.90	-7.39	-7.39
108	248	5476.904	-110.916	0.056	-0.016	0.380	-2009.715	106.91	106.90	-7.39	-7.39
108	249	-4787.442	81.198	-0.066	0.020	-0.880	1292.022	83.15	83.13	9.67	9.66
109	249	4787.423	-81.199	0.066	-0.020	0.880	-1292.025	83.15	83.13	9.67	9.66
109	250	-5723.072	-212.984	-0.051	0.015	-0.798	1594.806	100.51	100.50	9.81	9.80
110	250	5723.073	212.984	0.051	-0.015	0.798	-1594.809	100.51	100.50	9.81	9.80
110	251	-5745.268	-59.093	-0.051	0.015	-0.995	2190.617	113.98	113.96	-10.61	-10.61
111	251	5745.269	59.093	0.051	-0.015	0.995	-2190.618	113.98	113.96	-10.61	-10.61
111	252	-7068.216	-30.598	-1.146	-1.066	-21.336	2476.946	135.56	135.19	-5.42	-5.56
112	252	7068.212	30.599	1.146	1.066	21.336	-2476.945	135.56	135.19	-5.42	-5.56
112	253	-6954.930	790.918	-1.188	-1.053	-25.806	1848.507	120.37	119.92	15.11	14.94
113	253	7009.730	175.672	8.902	13.923	25.806	-1848.491	121.00	120.55	15.73	15.57
113	264	-6886.678	206.589	1.091	1.500	-22.447	1396.631	109.54	109.15	30.00	29.85
114	264	6886.678	-206.589	-1.091	-1.500	22.447	-1396.631	109.54	109.15	30.00	29.85
114	265	-5609.137	59.791	0.013	-0.003	-0.238	1072.065	87.61	87.61	26.65	26.64
115	265	5920.699	141.794	-0.013	0.003	0.238	-880.662	86.91	86.91	36.83	36.83
115	266	-5931.153	8.569	0.013	-0.003	-0.201	1104.236	91.99	91.99	29.19	29.19
116	266	5931.144	-8.569	-0.013	0.003	0.201	-1104.237	91.99	91.99	29.19	29.19
116	267	-5092.040	223.688	0.031	-0.008	-0.384	827.268	76.30	76.29	29.25	29.25
117	267	5092.021	-223.687	-0.031	0.008	0.384	-827.269	76.30	76.29	29.25	29.25
117	268	-5033.957	166.791	0.031	-0.008	-0.292	83.202	59.14	59.13	54.40	54.40
118	268	5033.945	-166.793	-0.031	0.008	0.292	-83.202	59.14	59.13	54.40	54.40
118	269	-4929.664	18.344	0.031	-0.008	-0.200	17.691	56.50	56.49	55.49	55.49
119	269	4929.635	-18.342	-0.031	0.008	0.200	-17.691	56.50	56.49	55.49	55.49
119	270	-4900.839	233.901	0.031	-0.008	-0.108	-311.464	48.87	48.86	66.58	66.58
120	270	4900.822	-233.901	-0.031	0.008	0.108	311.466	48.87	48.86	66.58	66.58
120	271	-4865.430	457.450	0.037	-0.010	-0.016	-1364.059	25.12	25.12	102.69	102.69

ACUEDUCTO 1 SOBRE EL RIO SEGRE

HIPOTESIS 1161

ONE Z MAX grupo II (ELS) (ipf-75)

ESFUERZOS EN BARRAS

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z
1	1	5766.556	120.146	-12.154	-42.726	40.151	1789.680
1	12	-5837.742	-96.526	9.495	33.858	-8.336	-1585.594
2	12	5837.743	96.526	-9.495	-33.858	8.336	1585.593
2	13	-5560.654	-51.457	-7.608	-189.967	41.191	-1255.295
3	13	5560.654	51.458	7.608	189.967	-41.191	1255.294
3	14	-5222.848	73.523	-0.041	0.012	0.307	-1369.372
4	14	5222.847	-73.524	0.041	-0.012	-0.307	1369.372
4	15	-5264.821	96.565	-0.041	0.012	0.185	-1663.758
5	15	5264.822	-96.566	0.041	-0.012	-0.185	1663.758
5	16	-5363.044	-179.934	-0.041	0.012	0.063	-1715.008
6	16	5363.042	179.936	0.041	-0.012	-0.063	1715.008
6	17	-5275.422	-207.559	-3.804	-10.484	33.184	-873.207
7	17	5275.421	207.558	3.804	10.484	-33.184	873.208
7	18	-2818.422	133.461	-6.491	-19.344	17.635	-832.394
8	18	2818.423	-133.461	6.491	19.344	-17.635	832.394
8	19	-2930.136	883.261	-9.146	-28.214	-5.332	-1982.613
9	19	2980.355	848.398	-11.854	-48.100	5.333	1982.604
9	30	-2860.287	-131.931	8.352	36.400	33.816	-809.592
10	30	2860.288	131.931	-8.352	-36.400	-33.816	809.591
10	31	-4489.946	40.484	0.037	-0.018	-0.642	-215.603
11	31	4282.936	43.968	-0.037	0.018	0.642	300.947
11	32	-5190.164	275.421	0.024	-0.011	-0.013	-665.168
12	32	5190.163	-275.419	-0.024	0.011	0.013	665.168
12	33	-5310.093	90.011	0.021	-0.009	0.079	-1836.085
13	33	5310.092	-90.012	-0.021	0.009	-0.079	1836.084
13	34	-5445.522	-291.566	0.021	-0.009	0.159	-1235.094
14	34	5445.522	291.566	-0.021	0.009	-0.159	1235.096
14	35	-4609.974	-204.187	0.030	-0.014	-0.116	-339.091
15	35	4609.968	204.187	-0.030	0.014	0.116	339.093
15	36	-4472.464	152.748	-12.693	-33.787	-16.473	-393.135
16	36	4472.472	-152.748	12.693	33.787	16.473	393.136
16	37	-4524.717	959.480	-16.194	-45.488	-72.441	-2081.831
17	37	4576.370	749.221	-14.132	-46.787	72.441	2081.828
17	48	-4461.744	-156.565	10.631	35.086	-24.463	-920.962
18	48	4461.751	156.565	-10.631	-35.086	24.463	920.963
18	49	-4669.900	51.914	0.004	0.003	0.149	-385.373
19	49	4390.809	42.531	-0.004	-0.003	-0.149	456.816
19	50	-5298.732	269.421	0.002	0.002	0.378	-757.543
20	50	5298.731	-269.421	-0.002	-0.002	-0.378	757.543

TENSIONES

BARRA	NUDO	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	26.28	25.58	127.84	127.58
1	12	31.34	31.20	121.47	121.41
2	12	31.34	31.20	121.47	121.41
2	13	35.08	35.80	106.70	106.96
3	13	35.08	35.80	106.70	106.96
3	14	29.06	29.07	106.94	106.94
4	14	29.06	29.07	106.94	106.94
4	15	23.01	23.02	117.63	117.63
5	15	23.01	23.02	117.63	117.63
5	16	23.00	23.00	120.53	120.53
6	16	23.00	23.00	120.53	120.53
6	17	40.38	40.96	90.22	90.44
7	17	40.38	40.96	90.22	90.44
7	18	13.46	13.77	60.89	61.01
8	18	13.46	13.77	60.89	61.01
8	19	-10.58	-10.67	102.14	102.11
9	19	-10.01	-10.10	102.71	102.68
9	30	14.30	14.89	60.53	60.75
10	30	14.30	14.89	60.53	60.75
10	31	46.32	46.31	58.58	58.57
11	31	42.07	42.06	59.18	59.18
11	32	44.31	44.31	82.14	82.14
12	32	44.31	44.31	82.14	82.14
12	33	19.71	19.71	124.13	124.13
13	33	19.71	19.71	124.13	124.13
13	34	34.58	34.58	104.82	104.82
14	34	34.58	34.58	104.82	104.82
14	35	44.94	44.94	64.23	64.23
15	35	44.94	44.94	64.23	64.23
15	36	42.32	42.04	64.59	64.48
16	36	42.32	42.04	64.59	64.48
16	37	5.95	4.69	123.95	123.48
17	37	6.54	5.28	124.53	124.07
17	48	30.56	30.14	82.80	82.65
18	48	30.56	30.14	82.80	82.65
18	49	44.60	44.60	66.51	66.51
19	49	39.84	39.84	65.82	65.82
19	50	43.50	43.50	86.58	86.58
20	50	43.50	43.50	86.58	86.58

20	51	-5416.234	86.133	-0.001	0.004	0.380	-1906.184	19.36	19.37	127.76	127.77
21	51	5416.233	-86.132	0.001	-0.004	-0.380	1906.183	19.36	19.37	127.76	127.77
21	52	-5552.510	-283.245	-0.005	0.005	0.367	-1304.548	34.25	34.26	108.44	108.45
22	52	5552.511	283.245	0.005	-0.005	-0.367	1304.551	34.25	34.26	108.44	108.45
22	53	-4712.469	-207.791	-0.003	0.006	0.156	-417.064	44.38	44.38	68.10	68.10
23	53	4712.476	207.792	0.003	-0.006	-0.156	417.066	44.38	44.38	68.10	68.10
23	54	-3007.517	137.683	-10.399	-35.106	-21.687	-412.393	25.27	24.89	48.60	48.46
24	54	3007.523	-137.684	10.399	35.106	21.687	412.394	25.27	24.89	48.60	48.46
24	55	-3064.275	943.509	-13.900	-46.807	-68.766	-2035.516	-9.68	-10.87	105.71	105.26
25	55	3115.738	746.508	-13.895	-46.518	68.766	2035.508	-9.09	-10.28	106.29	105.85
25	66	-3004.801	-154.308	10.394	34.818	-21.706	-879.861	14.87	14.49	64.79	64.65
26	66	3004.807	154.309	-10.394	-34.818	21.706	879.862	14.87	14.49	64.79	64.65
26	67	-4642.798	49.262	0.003	0.000	0.153	-408.288	43.78	43.78	67.00	67.00
27	67	4388.793	45.930	-0.003	0.000	-0.153	469.553	39.53	39.53	66.23	66.24
27	68	-5297.826	270.546	0.003	-0.001	0.349	-768.656	43.24	43.25	86.96	86.96
28	68	5297.824	-270.545	-0.003	0.001	-0.349	768.656	43.24	43.25	86.96	86.96
28	69	-5417.571	86.740	0.000	0.001	0.355	-1928.523	18.88	18.88	128.55	128.56
29	69	5417.572	-86.741	0.000	-0.001	-0.355	1928.523	18.88	18.88	128.55	128.56
29	70	-5553.454	-287.232	-0.004	0.002	0.347	-1316.559	34.00	34.00	108.87	108.87
30	70	5553.455	287.231	0.004	-0.002	-0.347	1316.557	34.00	34.00	108.87	108.87
30	71	-4719.165	-211.003	-0.004	0.003	0.142	-416.102	44.48	44.48	68.14	68.14
31	71	4719.172	211.003	0.004	-0.003	-0.142	416.101	44.48	44.48	68.14	68.14
31	72	-4566.266	134.924	-10.630	-35.378	-24.444	-403.187	43.24	42.81	66.03	65.87
32	72	4566.246	-134.924	10.630	35.378	24.444	403.188	43.24	42.81	66.03	65.87
32	73	-4618.229	941.667	-14.132	-47.079	-72.420	-2022.966	8.32	7.06	122.97	122.50
97	217	4131.292	739.052	-13.704	-46.704	73.171	1998.221	3.33	2.06	116.57	116.10
97	228	-4026.535	-146.412	10.202	35.003	-26.853	-859.750	26.99	26.52	75.74	75.56
98	228	4026.514	146.412	-10.202	-35.003	26.853	859.750	26.99	26.52	75.74	75.56
98	229	-5156.276	53.598	-0.001	-0.002	0.152	-410.833	49.57	49.57	72.93	72.93
99	229	4880.606	40.904	0.001	0.002	-0.152	480.925	44.88	44.88	72.23	72.23
99	230	-5789.060	273.992	-0.004	0.000	0.328	-808.345	47.95	47.96	93.92	93.92
100	230	5789.061	-273.993	0.004	0.000	-0.328	808.344	47.95	47.96	93.92	93.92
100	231	-5906.659	90.609	-0.008	0.001	0.304	-1975.935	23.39	23.40	135.77	135.77
101	231	5906.659	-90.607	0.008	-0.001	-0.304	1975.933	23.39	23.40	135.76	135.77
101	232	-6043.125	-279.462	-0.012	0.002	0.262	-1390.576	37.93	37.93	117.01	117.01
102	232	6043.124	279.462	0.012	-0.002	-0.262	1390.576	37.93	37.93	117.01	117.01
102	233	-5202.638	-206.358	-0.009	0.001	0.077	-469.335	48.80	48.80	75.49	75.49
103	233	5202.624	206.358	0.009	-0.001	-0.077	469.334	48.80	48.80	75.49	75.49
103	234	-4416.715	133.986	-10.823	-35.195	-34.064	-467.707	40.19	39.59	66.60	66.38
104	234	4416.803	-133.985	10.823	35.195	34.064	467.707	40.19	39.60	66.60	66.38
104	235	-4463.583	939.963	-14.324	-46.895	-82.786	-2093.831	5.08	3.64	123.70	123.17
105	235	4516.302	763.490	-16.042	-46.809	82.786	2093.821	5.68	4.24	124.30	123.77
105	246	-4148.403	-163.258	12.541	35.108	-27.405	-889.610	27.72	27.24	78.16	77.98
106	246	4148.389	163.258	-12.541	-35.108	27.405	889.608	27.72	27.24	78.16	77.98
106	247	-5192.188	34.171	-0.021	0.006	-0.175	-366.613	50.96	50.96	71.81	71.81
107	247	5094.988	55.775	0.021	-0.006	0.175	480.968	47.32	47.31	74.67	74.67
107	248	-5174.465	214.892	-0.026	0.008	-0.249	-714.563	43.04	43.04	83.68	83.68
108	248	5174.449	-214.892	0.026	-0.008	0.249	714.565	43.04	43.04	83.68	83.68
108	249	-6154.843	77.416	-0.016	0.004	-0.090	-1796.725	30.20	30.19	132.37	132.37
109	249	6154.843	-77.416	0.016	-0.004	0.090	1796.723	30.20	30.19	132.37	132.37
109	250	-5407.736	-298.472	-0.030	0.009	-0.460	-1102.875	37.09	37.08	99.80	99.80
110	250	5407.828	298.472	0.030	-0.009	0.460	1102.872	37.09	37.08	99.80	99.80
110	251	-5429.149	-265.202	-0.030	0.009	-0.576	-54.411	63.00	62.99	59.90	59.90
111	251	5429.133	265.201	0.030	-0.009	0.576	-54.412	63.00	62.99	59.90	59.90
111	252	-4384.596	232.852	-8.482	-35.090	19.798	-81.744	47.91	48.26	52.67	52.80

112	252	4384.568	-232.851	8.482	35.090	-19.798	81.744	47.91	48.26	52.67	52.80
112	253	-4437.088	1000.348	-11.984	-46.791	-19.868	-2145.419	3.09	2.74	124.99	124.86
113	253	4406.388	668.452	-13.683	-37.756	19.867	2145.418	3.65	3.30	125.55	125.42
113	264	-4401.385	-176.302	10.473	27.030	15.612	-1149.246	24.46	24.74	89.91	90.01
114	264	4401.368	176.302	-10.473	-27.030	-15.612	1149.246	24.46	24.74	89.91	90.01
114	265	-5303.437	195.333	4.041	-4.740	13.612	-898.750	40.30	40.54	91.49	91.58
115	265	5598.280	-4.864	-4.041	4.740	-13.612	1079.795	39.64	39.88	101.13	101.21
115	266	-5606.882	69.815	0.036	-0.011	-0.539	-1171.718	37.83	37.82	104.46	104.45
116	266	5606.966	-69.815	-0.036	0.011	0.539	1171.718	37.83	37.82	104.46	104.46
116	267	-6527.153	345.188	0.018	-0.006	-0.231	-1748.349	35.51	35.50	134.93	134.93
117	267	6527.161	-345.188	-0.018	0.006	0.231	1748.348	35.51	35.50	134.93	134.93
117	268	-6453.091	123.801	0.018	-0.006	-0.178	-2655.703	14.54	14.54	165.57	165.57
118	268	6453.095	-123.803	-0.018	0.006	0.178	2655.702	14.54	14.54	165.57	165.57
118	269	-6319.544	-214.850	0.018	-0.006	-0.124	-2257.693	21.85	21.84	150.24	150.24
119	269	6319.538	214.851	-0.018	0.006	0.124	2257.693	21.85	21.84	150.24	150.24
119	270	-6282.730	-87.370	0.018	-0.006	-0.071	-1760.954	32.44	32.44	132.59	132.59
120	270	6282.736	87.371	-0.018	0.006	0.071	1760.955	32.44	32.44	132.59	132.59
120	271	-6237.446	91.576	0.015	-0.005	-0.017	-1746.904	32.24	32.24	131.59	131.59

VIADUCTO 1 SOBRE EL RIO SEGRE

HIPOTESIS 1162

NOME Z MIN grupo II (ELS) (ipf-75)

ESFUERZOS EN BARRAS — TENSIONES

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	2538.541	105.037	-12.097	-42.742	39.952	-901.647	49.23	48.54	-2.26	-2.32
1	12	-2589.380	-67.786	9.448	33.870	-8.327	1115.196	54.27	54.13	-9.19	-9.24
2	12	2589.381	67.786	-9.448	-33.870	8.327	-1115.197	54.27	54.13	-9.19	-9.24
2	13	-2639.401	-28.047	6.794	25.000	15.528	1285.548	58.41	58.68	-14.61	-14.51
3	13	2639.402	28.048	-6.794	-25.000	-15.528	-1285.548	58.41	58.68	-14.61	-14.51
3	14	-2663.551	109.720	4.140	16.130	31.587	1154.995	55.65	56.20	-9.86	-9.65
4	14	2663.549	-109.721	-4.140	-16.130	-31.587	-1154.995	55.65	56.20	-9.86	-9.65
4	15	-2693.721	215.569	1.485	7.261	39.848	647.431	44.67	45.36	8.07	8.32
5	15	2693.724	-215.570	-1.485	-7.261	-39.848	-647.430	44.67	45.36	8.07	8.32
5	16	-2763.423	110.895	-1.169	-1.609	40.312	47.374	32.15	32.85	29.68	29.98
6	16	2763.423	-110.895	1.169	1.609	-40.312	-47.375	32.15	32.85	29.68	29.98
6	17	-3509.819	-97.563	-3.797	-10.486	33.449	-21.259	39.18	39.76	40.57	40.79
7	17	3509.823	97.562	3.797	10.486	-33.449	21.260	39.19	39.76	40.57	40.79
7	18	-5439.429	-477.554	-0.028	0.007	0.034	1296.470	90.66	90.66	16.93	16.93
8	18	5439.427	477.555	0.028	-0.007	-0.034	-1296.470	90.66	90.66	16.93	16.93
8	19	-5597.449	461.728	-0.028	0.007	-0.048	1805.772	103.75	103.75	1.06	1.06
9	19	5647.668	491.131	-0.011	0.005	0.048	-1805.787	104.32	104.32	1.63	1.63
9	30	-5475.613	360.011	0.011	-0.005	-0.004	1023.543	85.02	85.02	26.81	26.81
10	30	5475.614	-360.011	-0.011	0.005	0.004	-1023.544	85.02	85.02	26.81	26.81
10	31	-5037.030	-108.972	4.803	24.722	60.415	965.337	78.21	79.26	23.64	24.03
11	31	4839.855	189.411	-4.803	-24.722	-60.415	-884.049	74.16	75.21	24.22	24.61
11	32	-4226.276	108.680	1.314	13.015	71.761	1038.660	70.51	71.76	11.83	12.30
12	32	4226.277	-108.679	-1.314	-13.015	-71.761	-1038.660	70.51	71.76	11.83	12.30
12	33	-4309.715	82.552	-2.184	1.312	70.071	357.599	56.37	57.59	36.42	36.87
13	33	4309.708	-82.552	2.184	-1.312	-70.071	-357.600	56.37	57.59	36.42	36.87
13	34	-4404.043	-67.359	-5.685	-10.388	54.829	474.159	60.16	61.11	33.49	33.85
14	34	4404.051	67.359	5.685	10.388	-54.825	-474.158	60.16	61.11	33.49	33.85
14	35	-5147.584	-24.957	-9.196	-22.083	26.366	650.111	72.77	73.23	35.94	36.11
15	35	5147.585	24.957	9.196	22.083	-26.366	-650.108	72.77	73.23	35.94	36.11
15	36	-5545.276	-341.974	0.025	-0.011	0.420	1564.680	97.81	97.81	8.83	8.83
16	36	5545.276	341.974	-0.025	0.011	-0.420	-1564.679	97.81	97.81	8.83	8.83
16	37	-5620.812	637.601	0.025	-0.011	0.518	1658.023	100.74	100.75	6.45	6.45
17	37	5672.469	349.503	0.008	-0.006	-0.518	-1658.022	101.32	101.33	7.04	7.04
17	48	-5510.573	325.475	-0.008	0.006	0.488	861.997	81.83	81.84	32.81	32.81
18	48	5510.573	-325.475	0.008	-0.006	-0.488	-861.996	81.83	81.84	32.81	32.81
18	49	-3632.305	-108.551	7.111	23.393	10.386	626.589	55.14	55.32	19.57	19.63
19	49	3366.481	198.508	-7.111	-23.393	-10.386	-558.541	50.61	50.79	18.90	18.97
19	50	-3440.154	133.106	3.610	11.693	31.158	739.847	55.29	55.83	13.38	13.59
20	50	3440.153	-133.106	-3.610	-11.693	-31.158	-739.847	55.29	55.83	13.38	13.59

20	51	-2843.210	62.818	0.114	-0.008	38.160	132.328	34.96	35.62	27.64	27.89
21	51	2843.217	-62.817	-0.114	0.008	-38.160	-132.329	34.96	35.62	27.64	27.89
	52	-2939.841	-92.274	-3.384	-11.710	31.824	323.229	40.35	40.90	22.14	22.35
	52	2939.836	92.273	3.384	11.710	-31.829	-323.227	40.35	40.90	22.14	22.35
22	53	-3676.610	-37.379	-6.888	-23.412	12.119	579.078	54.58	54.79	21.71	21.79
23	53	3676.610	37.380	6.888	23.412	-12.119	-579.075	54.58	54.79	21.71	21.79
23	54	-5646.390	-345.868	0.007	0.000	0.476	1506.261	97.66	97.67	12.00	12.01
24	54	5646.388	345.867	-0.007	0.000	-0.476	-1506.260	97.66	97.67	12.00	12.01
24	55	-5725.928	632.418	0.007	0.000	0.502	1619.461	101.08	101.09	8.98	8.99
25	55	5777.412	351.338	0.007	-0.004	-0.502	-1619.462	101.66	101.67	9.57	9.57
25	66	-5618.358	322.993	-0.007	0.004	0.473	832.606	82.40	82.41	35.05	35.06
26	66	5618.356	-322.993	0.007	-0.004	-0.473	-832.604	82.40	82.41	35.05	35.06
26	67	-5172.501	-111.988	6.881	23.122	12.094	606.929	72.22	72.43	37.77	37.85
27	67	4930.557	202.658	-6.881	-23.122	-12.094	-548.576	68.17	68.30	37.04	37.12
27	68	-5001.271	133.380	3.380	11.422	31.975	735.132	72.94	73.50	31.31	31.52
28	68	5001.270	-133.379	-3.380	-11.422	-31.975	-735.133	72.94	73.50	31.31	31.52
28	69	-4402.360	63.072	-0.119	-0.280	38.108	123.186	52.50	53.16	45.70	45.95
29	69	4402.369	-63.073	0.119	0.280	-38.108	-123.186	52.50	53.16	45.70	45.95
9	70	-4497.027	-95.138	-3.617	-11.982	30.872	318.736	57.98	58.52	40.02	40.22
30	70	4497.036	95.138	3.617	11.982	-30.872	-318.737	57.98	58.52	40.02	40.22
	71	-5241.487	-41.191	-7.117	-23.683	10.264	580.507	72.44	72.61	39.48	39.55
31	71	5241.486	41.191	7.117	23.683	-10.264	-580.508	72.44	72.61	39.48	39.55
31	72	-5654.344	-347.559	0.007	-0.003	0.469	1518.376	98.02	98.03	11.67	11.68
32	72	5654.345	347.560	-0.007	0.003	-0.469	-1518.375	98.02	98.03	11.67	11.68
32	73	-5729.502	632.031	0.007	-0.003	0.496	1633.142	101.42	101.43	8.55	8.55
97	217	6232.706	344.180	0.018	-0.004	-0.600	-1673.405	108.04	108.05	12.88	12.88
97	228	-6069.847	330.776	-0.018	0.004	0.531	856.099	88.06	88.07	39.38	39.38
98	228	6069.846	-330.777	0.018	-0.004	-0.531	-856.100	88.06	88.07	39.38	39.38
98	229	-4709.384	-100.427	6.684	23.308	6.206	582.529	66.46	66.57	33.37	33.41
99	229	4446.727	190.440	-6.684	-23.308	-6.206	-515.768	61.99	62.10	32.69	32.73
99	230	-3848.656	93.194	3.186	11.607	25.143	682.147	58.71	59.15	20.05	20.22
100	230	3848.638	-93.195	-3.186	-11.607	-25.143	-682.148	58.71	59.15	20.05	20.22
100	231	-3940.980	68.813	-0.312	-0.095	30.711	82.185	46.41	46.94	41.90	42.10
101	231	3940.968	-68.812	0.312	0.095	-30.711	-82.186	46.41	46.94	41.90	42.10
101	232	-4046.567	-86.690	-3.809	-11.797	22.728	265.236	51.74	52.13	36.78	36.92
102	232	4046.540	86.690	3.809	11.797	-22.728	-265.237	51.74	52.13	36.78	36.92
.2	233	-4792.621	-29.521	-7.314	-23.496	1.325	466.102	64.87	64.89	38.37	38.38
	233	4792.625	29.520	7.314	23.496	-1.325	-466.103	64.87	64.89	38.37	38.38
	234	-6126.560	-340.123	-0.002	-0.001	0.302	1371.060	100.13	100.13	22.16	22.16
104	234	6126.556	340.124	0.002	0.001	-0.302	-1371.061	100.13	100.13	22.16	22.16
104	235	-6211.853	638.305	-0.002	-0.001	0.296	1462.143	103.12	103.13	19.97	19.97
105	235	6264.593	379.761	0.021	-0.006	-0.296	-1462.149	103.72	103.73	20.57	20.57
105	246	-6110.586	294.669	-0.021	0.006	0.213	785.470	86.96	86.96	42.29	42.29
106	246	6110.588	-294.669	0.021	-0.006	-0.213	-785.471	86.96	86.96	42.29	42.29
106	247	-5060.447	-141.700	9.039	23.408	14.711	644.599	71.76	72.01	35.18	35.28
107	247	4967.893	227.372	-9.039	-23.408	-14.711	-535.679	68.29	68.55	37.91	38.00
107	248	-5033.819	101.579	5.542	11.706	42.943	802.106	74.70	75.45	29.32	29.60
108	248	5033.818	-101.579	-5.542	-11.706	-42.943	-802.105	74.70	75.45	29.32	29.60
108	249	-4403.859	55.373	2.031	0.009	57.377	171.764	53.43	54.43	43.97	44.34
109	249	4403.841	-55.373	-2.031	-0.009	-57.377	-171.766	53.43	54.43	43.97	44.34
109	250	-5236.479	-228.852	-1.457	-11.697	58.767	535.253	70.95	71.98	40.84	41.22
110	250	5236.484	228.851	1.457	11.697	-58.767	-535.255	70.95	71.98	40.84	41.22
110	251	-5247.007	-109.810	-4.958	-23.397	46.337	1237.868	86.77	87.57	16.62	16.92
111	251	5247.003	109.809	4.958	23.397	-46.337	-1237.869	86.77	87.57	16.62	16.92
111	252	-6361.395	-221.376	-0.007	0.001	-0.132	2142.042	119.90	119.90	-1.91	-1.91
112	252	6361.391	221.377	0.007	-0.001	0.132	-2142.041	119.90	119.90	-1.91	-1.91
112	253	-6257.269	713.702	-0.007	0.001	-0.158	1651.667	107.84	107.84	13.91	13.91
113	253	6306.589	158.539	-0.006	0.002	0.158	-1651.653	108.41	108.40	14.48	14.48
113	264	-6196.111	396.574	0.006	-0.002	-0.141	970.853	92.05	92.05	36.84	36.83
114	264	6196.110	-396.574	-0.006	0.002	0.141	-970.853	92.05	92.05	36.84	36.83
114	265	-5005.200	16.857	7.234	16.313	42.186	116.707	59.18	59.92	52.78	53.05
115	265	5285.605	164.569	-7.234	-16.313	-42.186	55.556	58.55	59.29	61.94	62.22
115	266	-5373.894	-39.574	4.025	5.587	58.714	269.392	66.62	67.64	51.62	52.00
116	266	5373.881	39.574	-4.025	-5.587	-58.714	-269.392	66.62	67.64	51.62	52.00
116	267	-4611.517	151.633	0.833	-5.142	65.625	150.903	55.26	56.40	47.03	47.46
117	267	4611.505	-151.632	-0.833	5.142	-65.625	-150.905	55.26	56.40	47.03	47.46
117	268	-4552.077	98.025	-2.377	-15.868	63.357	-380.924	42.81	43.91	64.81	65.22
118	268	4552.064	-98.027	2.377	15.868	-63.357	380.924	42.81	43.91	64.81	65.22
118	269	-4451.041	-37.978	-5.586	-26.594	51.661	-295.003	43.66	44.56	60.72	61.06
119	269	4451.015	37.979	5.586	26.594	-51.661	295.004	43.66	44.56	60.72	61.06
119	270	-4417.927	153.623	-8.796	-37.319	30.536	-439.312	40.27	40.80	65.42	65.62
120	270	4417.912	-153.623	8.796	37.319	-30.536	439.313	40.27	40.80	65.42	65.62
120	271	-4378.888	361.360	-12.001	-48.047	-0.016	-1227.665	22.61	22.61	92.42	92.42

INDUCTO 1 SOBRE EL RIO SEGRE

IPOTESIS 1181

OME 2 MAX envolvente (ELS) (ipf-75)

ESFUERZOS EN BARRAS

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z
1	1	6333.355	127.503	0.076	-0.020	-1.065	1883.105
1	12	-6412.978	-99.057	-0.083	0.022	0.865	-1678.875
2	12	6412.979	99.057	0.083	-0.022	-0.865	1678.874
2	13	-5719.938	67.136	-0.113	0.031	0.610	-1627.821
3	13	5719.939	-67.135	0.113	-0.031	-0.610	1627.821
3	14	-5757.377	150.073	-0.113	0.031	0.279	-1965.762
4	14	5757.376	-150.074	0.113	-0.031	-0.278	1965.761
4	15	-5804.341	182.549	-0.113	0.031	-0.052	-2503.551
5	15	5804.342	-182.549	0.113	-0.031	0.052	2503.552
5	16	-5913.802	-117.799	-0.113	0.031	-0.383	-2791.383
6	16	5913.801	117.801	0.113	-0.031	0.383	2791.383
6	17	-5019.386	-292.925	-0.143	0.039	-1.241	-1922.480
7	17	5019.385	292.924	0.143	-0.039	1.241	1922.480
7	18	-3973.269	-102.085	-0.145	0.040	-1.688	-1436.410
8	18	3973.270	102.086	0.145	-0.040	1.688	1436.410
8	19	-4096.894	1005.238	-0.104	0.134	-1.727	-2591.802
9	19	4152.692	1055.698	-0.088	0.035	1.727	2591.778
9	30	-4018.625	-201.154	0.114	-0.053	-2.172	-953.529
10	30	4018.626	201.154	-0.114	0.052	2.172	953.529
10	31	-5032.173	42.820	0.041	-0.020	-0.785	-823.037
1	31	4802.162	51.015	-0.041	0.020	0.785	917.869
11	32	-5809.778	312.929	0.027	-0.012	-0.088	-1332.087
11	32	5809.778	-312.927	-0.027	0.012	0.088	1332.087
12	33	-5942.619	131.643	0.008	-0.004	0.035	-2709.114
13	33	5942.618	-131.644	-0.008	0.004	-0.035	2709.114
13	34	-6092.683	-283.264	0.008	-0.004	0.065	-2181.823
14	34	6092.683	283.264	-0.008	0.004	-0.065	2181.826
14	35	-5163.885	-177.109	0.018	-0.011	-0.300	-1361.877
15	35	5163.879	177.109	-0.018	0.011	0.300	1361.879
15	36	-4132.793	209.806	-0.008	-0.001	-1.093	-960.318
16	36	4132.801	-209.806	0.008	0.001	1.093	960.319
16	37	-4191.500	1171.659	1.138	1.174	23.012	-3080.206
17	37	4248.891	959.847	-8.926	-14.200	-23.012	3080.197
17	48	-4122.176	-235.153	0.074	-0.022	-0.840	-1455.091
18	48	4122.184	235.153	-0.074	0.022	0.840	1455.092
18	49	-5148.727	34.243	0.009	0.005	0.175	-1373.649
19	49	4838.625	70.696	-0.009	-0.005	-0.175	1453.030
19	50	-5847.839	284.986	0.007	0.004	0.448	-1713.578
20	50	5847.838	-284.986	-0.007	-0.004	-0.448	1713.579

TENSIONES

BARRA	NUDO	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	30.30	30.32	137.40	137.41
1	12	35.74	35.75	131.22	131.23
2	12	35.74	35.75	131.22	131.23
2	13	28.99	29.00	121.56	121.57
3	13	28.99	29.00	121.56	121.57
3	14	21.92	21.93	133.71	133.72
4	14	21.92	21.93	133.71	133.72
4	15	10.53	10.53	152.90	152.90
5	15	10.53	10.53	152.90	152.90
5	16	5.39	5.39	164.14	164.13
6	16	5.40	5.39	164.14	164.13
6	17	14.50	14.47	123.82	123.81
7	17	14.49	14.47	123.82	123.81
7	18	13.37	13.34	95.05	95.04
8	18	13.37	13.34	95.05	95.04
8	19	-10.94	-10.97	136.54	136.53
9	19	-10.21	-10.24	137.17	137.16
9	30	24.60	24.57	78.82	78.80
10	30	24.60	24.57	78.82	78.80
10	31	39.02	39.01	85.82	85.82
1	31	34.30	34.29	86.49	86.49
11	32	36.57	36.57	112.33	112.33
11	32	36.57	36.57	112.33	112.33
12	33	7.54	7.54	161.61	161.61
13	33	7.54	7.54	161.61	161.61
13	34	20.95	20.95	145.03	145.03
14	34	20.95	20.95	145.03	145.03
14	35	28.56	28.56	106.01	106.01
15	35	28.56	28.56	106.01	106.01
15	36	25.74	25.72	80.35	80.34
16	36	25.74	25.72	80.35	80.34
16	37	-20.81	-20.41	154.48	154.63
17	37	-20.16	-19.76	155.13	155.28
17	48	14.65	14.63	97.39	97.39
18	48	14.65	14.63	97.39	97.39
18	49	28.13	28.13	106.25	106.25
19	49	22.84	22.84	105.47	105.47
19	50	28.54	28.55	125.99	126.00
20	50	28.54	28.55	125.99	126.00

20	51	-5978.809	109.329	-0.012	0.011	0.468	-2952.780	2.55	2.56	170.47	170.48
21	51	5978.808	-109.328	0.012	-0.011	-0.468	2952.778	2.55	2.56	170.47	170.48
21	52	-6130.638	-292.024	-0.016	0.012	0.413	-2354.323	17.55	17.56	151.44	151.44
22	52	6130.639	292.024	0.016	-0.012	-0.413	2354.325	17.55	17.56	151.44	151.44
22	53	-5197.670	-199.119	-0.014	0.013	0.138	-1473.391	26.47	26.47	110.26	110.26
23	53	5197.679	199.120	0.014	-0.013	-0.137	1473.393	26.47	26.47	110.26	110.26
23	54	-4173.104	215.441	-0.068	0.033	-0.883	-1039.576	24.44	24.43	83.56	83.55
24	54	4173.110	-215.442	0.068	-0.033	0.883	1039.576	24.44	24.43	83.56	83.55
24	55	-4235.515	1176.701	1.155	1.270	24.599	-3179.718	-22.53	-22.11	158.43	158.99
25	55	4292.695	963.937	-8.848	-14.154	-24.599	3179.708	-21.88	-21.46	159.08	159.24
25	66	-4168.780	-239.876	0.074	-0.029	-0.861	-1539.293	13.31	13.30	100.84	100.84
26	66	4168.786	239.876	-0.074	0.029	0.861	1539.294	13.31	13.30	100.84	100.84
26	67	-5195.419	28.458	0.009	-0.002	0.152	-1444.327	27.09	27.09	109.23	109.23
27	67	4913.191	77.312	-0.009	0.002	-0.152	1512.400	22.37	22.37	108.38	108.38
27	68	-5922.816	283.396	0.010	-0.002	0.392	-1760.818	28.35	28.35	128.49	128.49
28	68	5922.814	-283.395	-0.010	0.002	-0.392	1760.818	28.35	28.35	128.49	128.49
28	69	-6055.456	107.306	-0.009	0.005	0.422	-3000.866	2.35	2.36	173.01	173.02
29	69	6055.456	-107.307	0.009	-0.005	-0.422	3000.866	2.35	2.36	173.01	173.02
29	70	-6206.026	-299.150	-0.013	0.006	0.377	-2381.158	17.81	17.82	153.23	153.23
30	70	6206.027	299.150	0.013	-0.006	-0.377	2381.157	17.81	17.82	153.23	153.23
30	71	-5278.628	-205.384	-0.014	0.007	0.113	-1476.040	27.34	27.34	111.28	111.28
31	71	5278.636	205.384	0.014	-0.007	-0.113	1476.039	27.34	27.34	111.28	111.28
31	72	-4247.414	218.010	-0.077	0.032	-0.931	-1040.874	25.26	25.24	84.45	84.44
32	72	4247.392	-218.010	0.077	-0.032	0.931	1040.875	25.26	25.24	84.45	84.44
32	73	-4305.796	1180.321	1.073	1.214	23.104	-3195.608	-22.07	-21.67	159.78	159.93
97	212	4821.975	955.902	-9.111	-14.362	-18.528	3148.356	-15.11	-14.79	164.03	164.15
97	228	-4695.074	-231.384	0.894	1.056	15.253	-1541.275	19.12	19.38	106.85	106.95
98	228	4695.049	231.384	0.894	1.056	-15.253	1541.275	19.12	19.38	106.85	106.95
98	229	-5721.361	28.086	0.013	-0.008	0.137	-1466.909	32.58	32.58	116.00	116.00
99	229	5415.061	76.917	-0.013	0.008	-0.137	1544.789	27.36	27.37	115.21	115.22
99	230	-6424.844	282.034	0.009	-0.006	0.386	-1803.897	33.11	33.11	135.69	135.70
100	230	6424.845	-282.036	-0.009	0.006	-0.386	1803.896	33.11	33.11	135.69	135.70
100	231	-6555.898	87.343	0.005	-0.005	0.413	-3031.667	7.37	7.37	179.78	179.78
101	231	6555.899	-87.342	-0.005	0.005	-0.413	3031.665	7.37	7.37	179.78	179.78
101	232	-6707.915	-295.825	-0.016	0.000	0.359	-2418.893	22.69	22.69	160.25	160.25
102	232	6707.914	295.824	0.016	0.000	-0.359	2418.893	22.69	22.69	160.25	160.25
102	233	-5774.427	-205.530	-0.012	-0.001	0.143	-1469.459	33.12	33.13	116.69	116.69
103	233	5774.411	205.530	0.012	0.001	-0.143	1469.459	33.12	33.13	116.69	116.69
103	234	-4749.284	219.386	0.799	0.993	13.901	-1042.689	30.80	31.04	90.18	90.26
104	234	4749.381	-219.385	-0.799	-0.993	-13.901	1042.689	30.80	31.05	90.18	90.27
104	235	-4811.844	1180.989	0.794	0.994	16.812	-3202.241	-16.41	-16.12	165.79	165.90
105	235	4870.419	966.068	-9.143	-14.460	-16.812	3202.232	-15.74	-15.45	166.46	166.57
105	246	-4746.545	-242.312	0.861	0.959	13.664	-1554.785	19.42	19.65	107.91	108.00
106	246	4746.524	242.312	0.860	0.959	-13.664	1554.783	19.42	19.65	107.91	108.00
106	247	-5773.848	-11.348	-0.008	0.003	0.374	-1393.623	34.80	34.80	114.06	114.05
107	247	5665.848	111.288	0.008	-0.003	-0.374	1520.685	30.76	30.75	117.23	117.23
107	248	-5753.769	198.521	-0.012	0.004	-0.394	-1607.022	29.84	29.83	121.23	121.23
108	248	5753.751	-198.520	0.012	-0.004	0.394	1607.023	29.84	29.83	121.23	121.23
108	249	-6842.691	54.837	-0.002	0.000	-0.155	-2671.348	18.63	18.62	170.54	170.54
109	249	6842.690	-54.838	0.002	0.000	0.155	2671.345	18.63	18.62	170.54	170.54
109	250	-6012.183	-338.060	-0.033	0.010	-0.590	-1827.034	27.90	27.89	131.80	131.80
110	250	6012.285	338.061	0.033	-0.010	0.590	1827.031	27.91	27.90	131.80	131.80
110	251	-6035.584	-292.026	-0.033	0.010	-0.719	-534.153	56.85	56.83	87.22	87.22
111	251	6035.566	292.025	0.033	-0.010	0.719	534.151	56.85	56.83	87.22	87.21
111	252	-4946.006	313.353	1.065	1.089	18.882	-246.931	50.65	50.98	64.79	64.91

112	252	4945.980	-313.352	-1.065	-1.089	-18.882	246.931	50.65	50.97	64.79	64.91
112	253	-4866.364	1233.078	1.059	1.091	22.823	-2889.518	-8.90	-8.51	155.55	155.69
	253	4921.143	763.200	-9.029	-13.883	-22.824	2889.529	-8.28	-7.88	156.17	156.32
113	264	-4834.659	43.186	-1.004	-1.525	20.619	-1883.055	13.08	13.44	120.28	120.41
114	264	4834.641	-43.186	1.004	1.525	-20.619	1883.054	13.08	13.44	120.28	120.41
114	265	-5889.848	141.063	0.087	-0.026	-1.546	-2137.893	19.63	19.60	141.20	141.19
115	265	6217.451	70.570	-0.087	0.026	1.546	2339.055	18.89	18.87	151.90	151.89
115	266	-6228.360	-0.950	0.087	-0.026	-1.291	-2204.063	22.01	21.99	147.35	147.34
116	266	6228.453	0.950	-0.087	0.026	1.291	2204.063	22.01	21.99	147.35	147.34
116	267	-7252.393	311.809	0.067	-0.021	-0.811	-2623.954	24.35	24.33	173.56	173.56
117	267	7252.401	-311.809	-0.067	0.021	0.811	2623.953	24.35	24.33	173.56	173.56
117	268	-7170.102	72.698	0.067	-0.021	-0.613	-3431.506	5.50	5.49	200.64	200.64
118	268	7170.106	-72.700	-0.067	0.021	0.613	3431.504	5.50	5.49	200.64	200.64
118	269	-7021.716	-296.708	0.067	-0.021	-0.415	-2808.844	17.62	17.61	177.35	177.35
119	269	7021.709	296.709	-0.067	0.021	0.415	2808.844	17.62	17.61	177.35	177.35
119	270	-6980.812	-148.189	0.067	-0.021	-0.217	-2096.673	32.94	32.94	152.18	152.18
120	270	6980.818	148.190	-0.067	0.021	0.217	2096.674	32.94	32.94	152.18	152.18
120	271	-6930.496	59.716	0.062	-0.019	-0.019	-1941.018	35.82	35.82	146.21	146.21

VIADUCTO I SOBRE EL RIO SEGRE

HIPOTESIS 1182

NOME Z MIM envolvente (ELS) (ipf-75)

ESFUERZOS EN BARRAS

TENSIONES

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	2538.541	105.037	-12.097	-42.742	39.952	-901.647	49.23	48.54	-2.26	-2.52
1	12	-2950.491	-88.606	-0.130	0.034	0.855	1175.058	59.63	59.65	-7.19	-7.18
2	12	2950.492	88.606	0.130	-0.034	-0.855	-1175.058	59.63	59.65	-7.19	-7.18
2	13	-3005.546	-41.808	-0.130	0.034	0.474	1397.957	65.21	65.21	-14.29	-14.29
3	13	3005.547	41.808	0.130	-0.034	-0.474	-1397.957	65.21	65.21	-14.29	-14.29
3	14	-3803.235	-2.178	-0.071	0.018	0.150	1383.536	73.97	73.97	-4.71	-4.71
4	14	3803.232	2.177	0.071	-0.018	-0.150	-1383.537	73.97	73.97	-4.71	-4.71
4	15	-3836.240	131.824	-0.071	0.018	-0.058	1158.506	69.35	69.35	3.47	3.47
5	15	3836.243	-131.823	0.071	-0.018	0.058	-1158.505	69.35	69.35	3.47	3.47
5	16	-3913.173	31.910	-0.071	0.018	-0.266	782.570	61.89	61.89	17.39	17.39
6	16	3913.173	-31.908	0.071	-0.018	0.266	-782.571	61.89	61.89	17.39	17.39
6	17	-4741.994	-183.320	-0.041	0.010	0.047	948.963	75.01	75.01	21.05	21.05
7	17	4741.998	183.318	0.041	-0.010	-0.047	-948.963	75.01	75.01	21.05	21.05
7	18	-5999.316	-293.127	-0.027	0.005	0.177	1754.565	107.19	107.19	7.41	7.41
8	18	5999.315	293.127	0.027	-0.005	-0.177	-1754.565	107.19	107.19	7.41	7.41
8	19	-6175.212	516.025	-0.102	-0.074	-1.103	2004.924	114.75	114.73	0.73	0.72
9	19	6231.010	544.213	-0.043	0.025	1.103	-2004.940	115.39	115.37	1.36	1.36
9	30	-6040.255	184.036	-0.026	0.009	-0.153	1221.230	95.83	95.83	26.38	26.38
10	30	6040.256	-184.036	0.026	-0.009	0.153	-1221.231	95.83	95.83	26.38	26.38
10	31	-4756.828	-195.917	0.050	-0.024	-0.787	1603.510	89.71	89.69	-1.49	-1.49
1	31	4537.745	285.293	-0.050	0.024	0.787	-1513.190	85.21	85.20	-0.85	-0.85
11	32	-3856.645	67.541	0.064	-0.032	-1.127	1934.994	86.82	86.80	-23.23	-23.24
12	32	3856.645	-67.540	-0.064	0.032	1.127	-1934.994	86.82	86.80	-23.23	-23.24
12	33	-3950.008	60.133	0.068	-0.034	-0.877	1344.481	74.78	74.76	-1.68	-1.69
13	33	3950.000	-60.133	-0.068	0.034	0.877	-1344.482	74.78	74.76	-1.68	-1.69
13	34	-4055.469	-84.813	0.068	-0.034	-0.613	1556.422	80.68	80.67	-7.84	-7.84
14	34	4055.478	84.812	-0.068	0.034	0.613	-1556.421	80.68	80.67	-7.84	-7.84
14	35	-4882.277	-16.077	0.058	-0.028	0.046	1750.563	94.39	94.39	-5.17	-5.16
15	35	4882.278	16.077	-0.058	0.028	-0.046	-1750.561	94.39	94.39	-5.16	-5.16
15	36	-6202.699	-146.184	0.096	-0.043	0.797	2066.000	116.40	116.42	-1.08	-1.08
16	36	6202.699	146.184	-0.096	0.043	-0.797	-2065.999	116.40	116.42	-1.08	-1.08
16	37	-6286.217	707.299	-1.120	-1.187	-23.685	1858.163	112.96	112.55	7.16	7.00
17	37	6343.614	386.318	8.859	14.216	23.685	-1858.161	113.61	113.20	7.81	7.66
17	48	-6163.320	143.603	-0.069	0.032	0.932	1222.567	97.25	97.26	27.73	27.73
18	48	6163.320	-143.603	0.069	-0.032	-0.932	-1222.565	97.25	97.26	27.73	27.73
18	49	-4870.564	-171.217	0.003	0.002	0.253	1653.044	92.09	92.09	-1.92	-1.91
19	49	4575.204	271.169	-0.003	-0.002	-0.253	-1577.435	87.05	87.06	-2.65	-2.65
19	50	-4656.414	118.913	0.003	0.002	0.264	1931.189	95.82	95.83	-14.00	-14.00
20	50	4656.413	-118.914	-0.003	-0.002	-0.264	-1931.189	95.82	95.83	-14.00	-14.00

20	51	-3992.493	62.439	0.009	0.001	0.050	1324.682	74.82	74.82	-0.52	-0.52
21	51	3992.501	-62.438	-0.009	-0.001	-0.050	-1324.683	74.82	74.82	-0.52	-0.52
	52	-4099.210	-88.263	0.013	0.000	0.092	1521.519	80.40	80.40	-6.13	-6.13
	52	4099.205	88.262	-0.013	0.000	-0.092	-1521.519	80.40	80.40	-6.13	-6.13
22	53	-4917.191	-5.646	0.011	-0.001	0.356	1706.732	93.81	93.82	-3.25	-3.25
23	53	4917.191	5.647	-0.011	0.002	-0.356	-1706.728	93.81	93.82	-3.25	-3.25
23	54	-6235.773	-168.005	0.072	-0.023	1.075	2045.461	116.32	116.34	0.00	0.01
24	54	6235.771	168.004	-0.072	0.023	-1.075	-2045.460	116.32	116.34	0.00	0.01
24	55	-6324.563	700.619	-1.218	-1.236	-25.302	1822.283	112.61	112.17	8.84	8.68
25	55	6381.766	387.900	8.781	14.179	25.302	-1822.285	113.26	112.82	9.49	9.33
25	66	-6205.453	145.633	-0.076	0.032	1.058	1285.335	99.12	99.14	26.03	26.04
26	66	6205.451	-145.633	0.076	-0.032	-1.058	-1285.334	99.12	99.14	26.03	26.04
26	67	-4917.763	-169.289	-0.004	0.002	0.356	1711.934	93.93	93.94	-3.42	-3.42
27	67	4648.937	270.033	0.004	-0.002	-0.356	-1647.097	89.43	89.44	-4.23	-4.23
27	68	-4728.159	124.964	-0.004	0.002	0.341	1988.214	97.90	97.91	-15.16	-15.16
28	68	4728.157	-124.964	0.004	-0.002	-0.341	-1988.214	97.90	97.91	-15.16	-15.16
28	69	-4063.353	68.467	-0.001	0.001	0.127	1358.316	76.37	76.37	-0.88	-0.88
29	69	4063.363	-68.468	0.001	-0.001	-0.127	-1358.316	76.37	76.37	-0.88	-0.88
29	70	-4169.186	-85.700	0.003	-0.001	0.133	1541.845	81.64	81.64	-6.04	-6.04
30	70	4169.196	85.699	-0.003	0.001	-0.133	-1541.845	81.64	81.65	-6.04	-6.04
	71	-4997.012	-4.136	0.004	-0.001	0.359	1715.164	94.91	94.91	-2.63	-2.63
	71	4997.011	4.136	-0.004	0.001	-0.359	-1715.166	94.91	94.91	-2.63	-2.63
31	72	-6317.307	-172.461	0.074	-0.029	1.069	2064.642	117.68	117.69	0.27	0.27
32	72	6317.308	172.461	-0.074	0.029	-1.069	-2064.641	117.68	117.69	0.27	0.27
32	73	-6400.407	699.796	-1.143	-1.184	-23.898	1838.880	113.83	113.42	9.13	8.97
97	217	6916.608	380.028	9.056	14.382	19.246	-1883.261	120.68	120.32	13.45	13.32
97	228	-6736.047	151.668	0.875	1.056	-15.009	1324.399	106.16	105.90	30.76	30.67
98	228	6736.046	-151.668	-0.875	-1.055	15.009	-1324.400	106.16	105.90	30.76	30.67
98	229	-5443.293	-153.592	-0.023	0.005	0.365	1712.256	99.92	99.93	2.55	2.55
99	229	5151.452	253.606	0.023	-0.005	-0.365	-1638.078	94.95	94.96	1.80	1.80
99	230	-4476.431	83.166	-0.019	0.004	0.077	1926.782	93.68	93.68	-15.90	-15.90
100	230	4476.412	-83.167	0.019	-0.004	-0.077	-1926.785	93.68	93.68	-15.90	-15.90
100	231	-4568.519	77.698	-0.015	0.002	0.011	1280.219	80.39	80.39	7.58	7.58
101	231	4568.500	-77.697	0.015	-0.002	-0.011	-1280.221	80.39	80.39	7.58	7.58
101	232	-4675.340	-73.461	-0.010	0.001	-0.036	1419.891	84.70	84.70	3.95	3.95
102	232	4675.313	73.461	0.010	-0.001	0.036	-1419.893	84.70	84.70	3.95	3.95
102	233	-5493.802	11.683	-0.014	0.002	0.081	1495.577	95.69	95.69	10.64	10.64
103	233	5493.804	-11.684	0.014	-0.002	-0.081	-1495.578	95.69	95.69	10.64	10.64
103	234	-6813.183	-160.326	-0.817	-0.994	-14.087	1792.501	117.42	117.17	15.40	15.31
104	234	6813.183	160.326	0.817	0.994	14.087	-1792.502	117.42	117.17	15.40	15.31
104	235	-6902.059	706.964	-0.884	-0.974	-17.955	1644.397	115.18	114.86	21.56	21.45
105	235	6960.659	420.294	9.145	14.461	17.955	-1644.404	115.94	115.58	22.23	22.11
105	246	-6784.407	94.365	0.780	0.982	-14.246	1202.606	104.01	103.76	35.54	35.44
106	246	6784.409	-94.365	-0.780	-0.982	14.246	-1202.608	104.01	103.76	35.54	35.40
106	247	-5496.003	-181.016	-0.061	0.018	-0.136	1768.294	101.77	101.76	1.21	1.21
107	247	5393.160	276.207	0.060	-0.018	0.136	-1647.221	97.91	97.91	8.23	8.23
107	248	-5476.903	110.916	-0.056	0.016	-0.380	2009.716	106.91	106.90	-7.39	-7.39
108	248	5476.904	-110.916	0.056	-0.016	0.380	-2009.715	106.91	106.90	-7.39	-7.39
108	249	-4787.442	81.199	-0.066	0.020	-0.880	1292.022	83.15	83.13	9.67	9.66
109	249	4787.423	-81.199	0.066	-0.020	0.880	-1292.025	83.15	83.13	9.67	9.66
109	250	-5723.072	-212.984	-0.051	0.015	-0.798	1594.806	100.51	100.50	9.81	9.80
110	250	5723.077	212.984	0.051	-0.015	0.798	-1594.809	100.51	100.50	9.81	9.80
110	251	-5745.268	-59.093	-0.051	0.015	-0.995	2190.617	113.98	113.96	-10.61	-10.61
111	251	5745.269	59.093	0.051	-0.015	0.995	-2190.618	113.98	113.96	-10.61	-10.61
111	252	-7068.216	-30.598	-1.146	-1.066	-21.336	2476.946	135.56	135.19	-5.42	-5.56
112	252	7068.212	30.599	1.146	1.066	21.336	-2476.945	135.56	135.19	-5.42	-5.56
112	253	-6954.930	790.918	-1.188	-1.053	-25.806	1848.507	120.37	119.92	15.11	14.94
113	253	7009.730	175.672	8.902	13.923	25.806	-1848.491	121.00	120.55	15.73	15.57
113	264	-6886.678	206.589	1.091	1.500	-22.447	1396.631	109.54	109.15	30.00	29.85
114	264	6886.678	-206.589	-1.091	-1.500	22.447	-1396.631	109.54	109.15	30.00	29.85
114	265	-5609.137	59.791	0.013	-0.003	-0.238	1072.065	87.61	87.61	26.65	26.64
115	265	5920.699	141.794	-0.013	0.003	0.238	-880.662	86.91	86.91	36.83	36.83
115	266	-5931.153	8.569	0.013	-0.003	-0.201	1104.236	91.99	91.99	29.19	29.19
116	266	5931.149	-8.569	-0.013	0.003	0.201	-1104.237	91.99	91.99	29.19	29.19
116	267	-5092.040	223.688	0.031	-0.008	-0.384	827.268	76.30	76.29	29.25	29.25
117	267	5092.021	-223.687	-0.031	0.008	0.384	-827.269	76.30	76.29	29.25	29.25
117	268	-5033.957	166.791	0.031	-0.008	-0.292	83.202	59.14	59.13	54.40	54.40
118	268	5033.945	-166.793	-0.031	0.008	0.292	-83.202	59.14	59.13	54.40	54.40
118	269	-4929.664	18.344	0.031	-0.008	-0.200	17.691	56.50	56.49	55.49	55.49
119	269	4929.635	-18.342	-0.031	0.008	0.200	-17.691	56.50	56.49	55.49	55.49
119	270	-4900.839	233.901	0.031	-0.008	-0.108	-311.464	48.87	48.86	66.58	66.58
120	270	4900.822	-233.901	-0.031	0.008	0.108	311.466	48.87	48.86	66.58	66.58
120	271	-4378.888	361.360	-12.001	-48.047	-0.016	-1227.665	22.61	22.61	92.42	92.42

ACUEDUCTO 1 SOBRE EL RIO SEGRE

IPOTESIS 1221

OMI Z MAX grupo II (ELS) (ec-1)

ESFUERZOS EN BARRAS

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z
1	1	6340.734	68.035	-13.516	-47.470	44.726	1893.629
1	12	-6320.004	-13.498	-3.446	-209.384	47.446	-1864.817
2	12	6320.006	13.498	3.446	209.384	-47.446	1864.815
2	13	-6397.817	-67.972	-4.921	-146.367	35.157	-1702.076
3	13	6397.817	67.973	4.921	146.367	-35.157	1702.076
3	14	-6434.735	32.531	-6.395	-83.351	18.537	-1670.457
4	14	6434.734	-32.532	6.395	83.351	-18.537	1670.457
4	15	-6481.183	82.573	-7.870	-20.334	-2.415	-1890.276
5	15	6481.184	-82.573	7.870	20.334	2.415	1890.277
5	16	-6590.130	-200.209	-9.345	42.683	-27.699	-1911.729
6	16	6590.129	200.210	9.345	-42.683	27.699	1911.729
6	17	-5795.030	-290.048	-4.212	-11.653	36.993	-871.678
7	17	5795.029	290.047	4.212	11.653	-36.993	871.679
7	18	-3198.130	59.259	-7.194	-21.498	19.842	-609.738
8	18	3198.131	-59.258	7.193	21.498	-19.842	609.738
8	19	-3322.256	872.630	-10.143	-31.353	-5.621	-1597.236
9	19	3378.055	833.585	-13.164	-53.446	5.622	1597.226
9	30	-3244.646	-63.551	9.273	40.445	37.850	-666.108
10	30	3244.647	63.551	-9.273	-40.445	-37.850	666.108
10	31	-4358.675	-21.832	-1.101	197.414	130.522	-214.069
11	31	4128.664	115.667	1.101	-197.414	-130.522	308.896
11	32	-5766.849	309.353	0.026	-0.011	-0.002	-706.970
12	32	5766.849	-309.352	-0.026	0.011	0.002	706.970
12	33	-5900.104	99.666	0.023	-0.010	0.097	-2009.407
13	33	5900.102	-99.666	-0.023	0.010	-0.097	2009.406
13	34	-6050.580	-324.309	0.023	-0.010	0.188	-1340.297
14	34	6050.580	324.309	-0.023	0.010	-0.188	1340.299
14	35	-5122.194	-231.038	0.035	-0.017	-0.108	-328.719
15	35	5122.188	231.038	-0.035	0.017	0.108	328.721
15	36	-4902.854	83.412	-14.108	-37.536	-18.321	-177.516
16	36	4902.863	-83.412	14.108	37.536	18.321	177.517
16	37	-4960.914	953.740	-17.999	-50.537	-80.528	-1668.948
17	37	5018.305	721.816	-15.723	-51.991	80.528	1668.944
17	48	-4890.942	-89.350	11.832	38.991	-27.140	-757.415
18	48	4890.951	89.350	-11.832	-38.991	27.140	757.416
18	49	-5188.779	61.191	0.003	0.004	0.186	-380.161
19	49	4878.677	43.747	-0.003	-0.004	-0.186	459.541
19	50	-5887.480	302.866	0.001	0.003	0.435	-807.280
20	50	5887.479	-302.866	-0.001	-0.003	-0.435	807.280

TENSIONES

SIGMA 1	SIGMA2	SIGMA3	SIGMA4
30.55	29.77	138.00	137.71
30.15	30.98	136.46	136.77
30.15	30.98	136.46	136.77
34.75	35.37	131.74	131.97
34.75	35.37	131.74	131.97
36.02	36.34	131.12	131.24
36.02	36.34	131.12	131.24
31.86	31.81	139.34	139.33
31.86	31.81	139.34	139.33
32.84	32.36	141.41	141.23
32.84	32.36	141.41	141.23
46.30	46.94	96.07	96.31
46.30	46.94	96.07	96.31
22.70	23.05	57.48	57.61
22.70	23.05	57.48	57.61
2.43	2.33	93.24	93.20
3.07	2.97	93.87	93.83
21.82	22.48	59.91	60.16
21.82	22.48	59.91	60.16
43.72	45.99	56.61	57.45
39.00	41.27	57.28	58.12
49.95	49.95	90.15	90.15
49.95	49.95	90.15	90.15
22.58	22.58	136.85	136.85
22.58	22.58	136.85	136.85
39.13	39.13	115.35	115.35
39.13	39.13	115.35	115.35
51.00	51.00	69.70	69.70
51.00	51.00	69.70	69.70
52.02	51.70	62.01	61.90
52.02	51.70	62.01	61.90
20.14	18.74	114.61	114.09
20.79	19.40	115.27	114.75
39.10	38.63	82.02	81.85
39.10	38.63	82.02	81.85
50.62	50.62	72.24	72.24
45.33	45.33	71.46	71.46
49.09	49.10	95.01	95.01
49.09	49.10	95.01	95.01

20	51	-6018.038	95.645	-0.002	0.004	0.434	-2084.659	22.25	22.26	140.80	140.81
21	51	6018.037	-95.644	0.002	-0.004	-0.434	2084.657	22.25	22.26	140.80	140.81
21	52	-6169.456	-318.365	-0.004	0.005	0.424	-1414.873	38.83	38.83	119.29	119.29
22	52	6169.457	318.365	0.004	-0.005	-0.424	1414.875	38.83	38.83	119.29	119.29
22	53	-5236.076	-234.527	-0.002	0.006	0.195	-414.642	50.39	50.39	73.97	73.97
23	53	5236.085	234.528	0.002	-0.006	-0.195	414.645	50.39	50.39	73.97	73.97
23	54	-3408.236	69.231	-11.576	-39.013	-24.619	-205.477	34.44	34.02	45.99	45.84
24	54	3408.242	-69.232	11.576	39.013	24.619	205.478	34.44	34.02	45.99	45.84
24	55	-3471.300	938.552	-15.467	-52.014	-77.016	-1633.960	3.93	2.60	96.44	95.99
25	55	3528.480	719.475	-15.324	-51.804	77.016	1633.952	4.59	3.25	97.09	96.59
25	66	-3405.218	-87.515	11.434	38.803	-25.171	-725.615	22.88	22.44	64.01	63.84
26	66	3405.224	87.514	-11.434	-38.803	25.171	725.616	22.88	22.44	64.01	63.84
26	67	-5158.665	58.285	0.002	0.000	0.193	-404.975	49.72	49.73	72.76	72.76
27	67	4876.437	47.485	-0.002	0.000	-0.193	473.047	45.00	45.01	71.91	71.91
27	68	-5886.473	304.155	0.002	0.000	0.404	-819.134	48.82	48.83	95.41	95.41
28	68	5886.472	-304.154	-0.002	0.000	-0.404	819.134	48.82	48.83	95.41	95.41
28	69	-6019.524	96.367	0.000	0.001	0.408	-2109.075	21.72	21.73	141.67	141.67
29	69	6019.524	-96.367	0.000	-0.001	-0.408	2109.075	21.72	21.73	141.67	141.67
9	70	-6170.505	-322.719	-0.002	0.002	0.403	-1427.847	38.55	38.56	119.75	119.76
30	70	6170.506	322.719	0.002	-0.002	-0.403	1427.845	38.55	38.56	119.75	119.76
30	71	-5243.517	-238.020	-0.003	0.002	0.181	-413.495	50.50	50.50	74.02	74.02
31	71	5243.524	238.020	0.003	-0.002	-0.181	413.494	50.50	50.50	74.02	74.02
31	72	-5007.079	65.747	-11.696	-39.426	-23.447	-194.138	52.88	52.47	63.79	63.64
32	72	5007.057	-65.748	11.696	39.426	23.447	194.139	52.88	52.47	63.79	63.64
32	73	-5064.815	936.088	-15.587	-52.427	-76.308	-1617.288	22.43	21.11	113.99	113.50
97	217	4609.136	710.396	-19.864	-51.902	81.297	1584.011	18.03	16.62	107.67	107.19
97	228	-4491.886	-77.948	15.974	38.901	-29.852	-699.148	35.87	35.35	75.47	75.28
98	228	4491.860	77.948	-15.974	-38.901	29.852	699.148	35.87	35.35	75.47	75.28
98	229	-5729.196	63.205	-0.003	-0.001	0.194	-407.685	56.16	56.16	79.34	79.34
99	229	5422.896	41.798	0.003	0.001	-0.194	485.565	50.94	50.95	78.56	78.56
99	230	-6432.289	308.086	-0.007	0.000	0.382	-863.513	54.05	54.05	103.16	103.16
100	230	6432.290	-308.088	0.007	0.000	-0.382	863.512	54.05	54.05	103.16	103.16
100	231	-6562.954	100.735	-0.009	0.001	0.351	-2162.145	26.73	26.74	149.69	149.70
101	231	6562.955	-100.733	0.009	-0.001	-0.351	2162.143	26.73	26.74	149.69	149.70
101	232	-6714.583	-314.026	-0.012	0.002	0.309	-1510.627	42.91	42.91	128.82	128.82
102	232	6714.582	314.025	0.012	-0.002	-0.309	1510.627	42.91	42.91	128.82	128.82
102	233	-5780.709	-232.799	-0.008	0.000	0.110	-473.417	55.29	55.29	82.21	82.21
103	233	5780.694	232.798	0.008	0.000	-0.110	473.417	55.29	55.29	82.21	82.21
103	234	-4894.620	66.348	-16.670	-39.111	-37.885	-290.079	49.60	48.94	65.89	65.64
104	234	4894.717	-66.347	16.670	39.111	37.885	290.079	49.60	48.94	65.89	65.64
104	235	-4947.548	935.838	-20.560	-52.112	-92.027	-1725.332	18.84	17.24	116.45	115.96
105	235	5006.122	742.456	-13.107	-52.042	92.027	1725.320	19.51	17.91	117.12	116.63
105	246	-4620.476	-102.250	18.675	38.971	-30.112	-745.771	36.30	35.78	78.55	78.36
106	246	4620.454	102.250	-18.675	-38.971	30.112	745.770	36.30	35.78	78.55	78.36
106	247	-5769.099	42.135	-0.026	0.008	-0.169	-359.252	57.69	57.69	78.12	78.12
107	247	5661.099	57.805	0.026	-0.008	0.169	486.314	53.64	53.64	81.30	81.30
107	248	-5749.405	239.118	-0.029	0.009	-0.265	-761.911	48.53	48.53	91.86	91.86
108	248	5749.388	-239.117	0.029	-0.009	0.265	761.913	48.53	48.53	91.86	91.86
108	249	-6838.715	86.366	-0.018	0.005	-0.090	-1965.662	34.23	34.23	146.02	146.02
109	249	6838.714	-86.366	0.018	-0.005	0.090	1965.660	34.23	34.23	146.02	146.02
109	250	-6008.596	-334.967	-0.032	0.010	-0.499	-1193.303	41.92	41.91	109.78	109.77
110	250	6008.698	334.967	0.032	-0.010	0.499	1193.301	41.92	41.91	109.78	109.78
110	251	-6032.388	-297.999	-0.032	0.010	-0.623	105.480	71.00	70.99	64.99	64.99
111	251	6032.370	297.999	0.032	-0.010	0.623	-105.481	71.00	70.99	64.99	64.99
111	252	-4877.792	170.218	-4.678	-39.030	24.661	249.269	60.83	61.25	46.78	46.94

112	252	4877.765	-170.218	4.678	39.030	-24.661	-249.269	60.83	61.25	46.78	46.94
112	253	-4924.927	997.630	-18.027	-51.960	-24.342	-1651.606	19.63	19.21	113.42	113.26
113	253	4979.709	577.372	-10.657	-42.233	24.342	1651.608	20.25	19.83	114.04	113.89
113	264	-4885.908	-64.002	7.090	30.316	15.363	-980.326	33.73	33.99	89.56	89.66
114	264	4885.889	64.002	-7.090	-30.316	-15.363	980.326	33.73	33.99	89.56	89.66
114	265	-5933.777	75.881	3.522	18.399	44.627	-993.937	45.10	45.67	101.86	102.15
115	265	6261.380	135.752	-3.522	-18.399	-44.627	1195.099	44.36	45.14	112.57	112.86
115	266	-6229.869	81.262	0.037	-0.011	-0.569	-1247.716	43.23	43.22	114.18	114.18
116	266	6229.962	-81.262	-0.037	0.011	0.569	1247.715	43.23	43.22	114.19	114.18
116	267	-7252.393	387.232	0.018	-0.006	-0.233	-1899.255	40.41	40.41	148.42	148.42
117	267	7252.401	-387.231	-0.018	0.006	0.233	1899.254	40.41	40.41	148.42	148.42
117	268	-7170.102	141.247	0.018	-0.006	-0.180	-2918.264	16.88	16.87	182.83	182.83
118	268	7170.106	-141.249	-0.018	0.006	0.180	2918.263	16.88	16.87	182.83	182.83
118	269	-7021.716	-235.033	0.018	-0.006	-0.126	-2486.869	24.76	24.75	166.18	166.18
119	269	7021.709	235.034	-0.018	0.006	0.126	2486.869	24.76	24.75	166.18	166.18
119	270	-6980.812	-93.389	0.018	-0.006	-0.073	-1945.774	36.29	36.29	146.94	146.94
120	270	6980.818	93.389	-0.018	0.006	0.073	1945.776	36.29	36.29	146.94	146.94
120	271	-6930.496	101.898	0.014	-0.005	-0.019	-1940.998	35.82	35.82	146.21	146.21

VIADUCTO 1 SOBRE EL RIO SEGRE

HIPOTESIS 1222

NOME Z MIN grupo II (ELS) (ec-1)

ESFUERZOS EN BARRAS — TENSIONES

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	2887.151	60.721	-13.457	-47.487	44.520	-906.911	53.36	52.58	1.54	1.25
1	12	-2943.639	-32.226	10.511	37.631	-9.331	988.615	55.51	55.35	-0.77	-0.83
2	12	2943.640	32.226	-10.511	-37.631	9.331	-988.615	55.51	55.35	-0.77	-0.83
2	13	-2999.218	-7.811	7.562	27.775	17.213	1080.303	57.94	58.24	-3.40	-3.29
3	13	2999.218	7.811	-7.562	-27.775	-17.213	-1080.303	57.94	58.24	-3.40	-3.29
3	14	-3026.052	125.524	4.613	17.920	35.095	895.638	54.00	54.61	3.25	3.48
4	14	3026.049	-125.525	-4.613	-17.920	-35.094	-895.639	54.00	54.61	3.25	3.48
4	15	-3059.573	223.394	1.663	8.065	44.312	350.061	42.20	42.97	22.53	22.82
5	15	3059.576	-223.394	-1.663	-8.065	-44.312	-350.059	42.20	42.97	22.53	22.82
5	16	-3137.020	87.350	-1.286	-1.791	44.867	-240.302	29.98	30.76	43.89	44.18
6	16	3137.020	-87.348	1.286	1.791	-44.867	240.301	29.98	30.76	43.89	44.18
6	17	-4066.175	-246.528	6.587	-117.345	94.757	-162.478	41.85	43.49	51.61	52.22
7	17	4066.179	246.527	-6.587	117.345	-94.757	162.478	41.85	43.49	51.61	52.22
7	18	-6043.810	-520.619	-0.035	0.009	-0.023	1234.950	96.17	96.17	25.94	25.94
8	18	6043.808	520.619	0.035	-0.009	0.023	-1234.949	96.17	96.17	25.94	25.94
8	19	-6219.388	523.029	-0.035	0.009	-0.125	1771.473	110.07	110.07	9.33	9.33
9	19	6275.187	552.493	-0.017	0.007	0.125	-1771.489	110.71	110.70	9.96	9.96
9	30	-6084.015	393.221	0.017	-0.007	-0.061	928.647	89.84	89.83	37.02	37.02
10	30	6084.016	-393.221	-0.017	0.007	0.061	-928.648	89.84	89.83	37.02	37.02
10	31	-5530.150	-75.906	5.331	27.475	67.192	778.586	79.62	80.79	35.71	36.14
11	31	5311.067	165.283	-5.331	-27.475	-67.192	-688.266	75.12	76.29	36.35	36.78
11	32	-4629.313	139.889	1.454	14.466	79.778	735.461	68.30	69.69	26.91	27.43
12	32	4629.313	-139.888	-1.454	-14.466	-79.778	-735.461	68.30	69.69	26.91	27.43
12	33	-4722.022	88.495	-2.434	1.464	77.877	-56.451	51.81	53.16	55.45	55.95
13	33	4722.014	-88.495	2.434	-1.464	-77.877	56.450	51.81	53.16	55.45	55.95
13	34	-4826.831	-104.113	-6.324	-11.536	60.909	136.029	57.42	58.48	50.02	50.41
14	34	4826.840	104.113	6.324	11.536	-60.909	-136.026	57.42	58.48	50.02	50.41
14	35	-5652.988	-79.223	-10.226	-24.530	29.252	480.725	74.74	75.25	47.56	47.75
15	35	5652.989	79.223	10.226	24.530	-29.252	-480.723	74.74	75.25	47.56	47.75
15	36	-6161.418	-375.359	0.027	-0.012	0.437	1551.780	104.53	104.54	16.29	16.29
16	36	6161.418	375.359	-0.027	0.012	-0.437	-1551.779	104.53	104.54	16.29	16.29
16	37	-6245.346	713.057	0.027	-0.012	0.539	1637.623	107.39	107.40	14.26	14.27
17	37	6302.744	393.898	0.006	-0.006	-0.539	-1637.622	108.04	108.05	14.92	14.92
17	48	-6122.858	356.077	-0.006	0.006	0.517	774.701	86.86	86.87	42.80	42.81
18	48	6122.858	-356.077	0.006	-0.006	-0.517	-774.700	86.86	86.87	42.80	42.81
18	49	-4102.445	-71.550	7.877	25.987	11.461	467.713	56.96	57.16	30.43	30.50
19	49	3807.084	171.502	-7.877	-25.987	-11.461	-392.105	51.92	52.12	29.69	29.76
19	50	-3888.943	170.918	3.986	12.987	34.447	453.890	54.03	54.62	28.40	28.62
20	50	3888.943	-170.918	-3.986	-12.987	-34.447	-453.890	54.03	54.62	28.40	28.62

20	51	-3225.672	70.348	0.100	-0.014	42.129	-272.378	30.30	31.03	46.02	46.29
21	51	3225.680	-70.346	-0.100	0.014	-42.129	272.376	30.30	31.03	46.02	46.29
	52	-3333.040	-124.427	-3.788	-13.016	34.985	-13.019	37.34	37.95	38.27	38.50
	52	3333.034	124.426	3.788	13.016	-34.985	13.021	37.34	37.95	38.27	38.50
22	53	-4151.672	-89.473	-7.680	-26.017	12.984	406.574	56.15	56.38	33.10	33.19
23	53	4151.672	89.473	7.680	26.017	-12.984	-406.572	56.15	56.38	33.10	33.19
23	54	-6273.767	-378.175	0.004	0.001	0.492	1483.161	104.29	104.30	19.95	19.95
24	54	6273.765	378.174	-0.004	-0.001	-0.492	-1483.159	104.29	104.30	19.95	19.95
24	55	-6362.143	708.809	0.004	0.001	0.507	1585.215	107.56	107.57	17.41	17.41
25	55	6419.347	396.324	0.005	-0.003	-0.507	-1585.216	108.21	108.22	18.06	18.07
25	66	-6242.621	352.932	-0.005	0.003	0.488	733.981	87.32	87.33	45.58	45.58
26	66	6242.619	-352.932	0.005	-0.003	-0.488	-733.979	87.32	87.33	45.58	45.58
26	67	-5680.673	-76.144	7.759	25.575	14.921	432.895	74.12	74.38	49.58	49.68
27	67	5411.847	176.888	-7.759	-25.575	-14.921	-368.057	69.62	69.88	48.77	48.87
27	68	-5490.417	170.447	3.869	12.575	37.450	438.681	71.89	72.54	47.19	47.39
28	68	5490.417	-170.447	-3.869	-12.575	-37.450	-438.681	71.89	72.54	47.19	47.39
28	69	-4824.962	69.848	-0.020	-0.427	44.702	-289.567	48.10	48.88	64.81	65.10
29	69	4824.972	-69.848	0.020	0.427	-44.702	289.567	48.10	48.88	64.81	65.10
9	70	-4930.146	-128.421	-3.908	-13.428	37.092	-22.158	55.29	55.94	56.76	57.00
30	70	4930.157	128.421	3.908	13.428	-37.092	22.157	55.29	55.94	56.76	57.00
	71	-5757.324	-94.520	-7.798	-26.429	14.623	407.157	74.42	74.68	51.35	51.44
31	71	5757.324	94.520	7.798	26.429	-14.623	-407.157	74.42	74.68	51.35	51.44
31	72	-6282.605	-380.373	0.005	-0.001	0.484	1497.436	104.71	104.71	19.55	19.55
32	72	6282.606	380.373	-0.005	0.001	-0.484	-1497.435	104.71	104.71	19.55	19.55
32	73	-6366.114	708.061	0.005	-0.001	0.502	1602.462	107.99	107.99	16.86	16.86
97	217	6925.229	388.551	0.016	-0.003	-0.607	-1645.051	115.29	115.30	21.74	21.75
97	228	-6744.275	361.400	-0.016	0.003	0.547	760.683	93.62	93.63	50.36	50.37
98	228	6744.274	-361.401	0.016	-0.003	-0.547	-760.684	93.62	93.63	50.36	50.37
98	229	-5249.753	-62.674	12.071	25.905	6.809	408.598	68.75	68.87	45.55	45.59
99	229	4957.912	162.687	-12.071	-25.905	-6.809	-334.420	63.78	63.90	44.80	44.84
99	230	-4292.537	126.422	8.184	12.903	27.854	378.889	57.01	57.50	35.62	35.80
100	230	4292.518	-126.423	-8.184	-12.903	-27.854	-378.890	57.01	57.50	35.62	35.80
100	231	-4394.268	76.884	4.296	-0.098	34.042	-340.067	42.17	42.76	61.70	61.92
101	231	4394.250	-76.883	-4.296	0.098	-34.042	340.066	42.17	42.76	61.70	61.92
101	232	-4510.729	-118.367	0.408	-13.100	25.165	-90.530	49.11	49.54	54.39	54.56
102	232	4510.703	118.367	-0.408	13.100	-25.165	90.529	49.11	49.54	54.39	54.56
02	233	-5338.830	-80.885	-3.486	-26.099	1.374	267.216	66.67	66.70	51.48	51.49
	233	5338.832	80.884	3.486	26.099	-1.374	-267.217	66.67	66.70	51.48	51.49
	234	-6807.289	-372.348	-0.005	0.000	0.306	1340.271	107.19	107.20	30.97	30.98
104	234	6807.284	372.349	0.005	0.000	-0.306	-1340.272	107.19	107.20	30.97	30.98
104	235	-6902.059	714.795	-0.005	0.000	0.287	1419.902	110.04	110.04	29.29	29.29
105	235	6960.659	426.573	0.022	-0.006	-0.288	-1419.908	110.71	110.71	29.96	29.96
105	246	-6789.541	322.794	-0.022	0.006	0.202	685.931	92.48	92.48	53.47	53.47
106	246	6789.542	-322.794	0.022	-0.006	-0.202	-685.932	92.48	92.48	53.47	53.47
106	247	-5612.438	-112.442	5.330	26.039	15.670	484.326	74.48	74.75	47.02	47.12
107	247	5509.595	207.633	-5.330	-26.039	-15.670	-363.302	70.62	70.90	50.05	50.15
107	248	-5583.699	135.647	1.442	13.038	46.770	536.613	75.04	75.85	44.78	45.08
108	248	5583.700	-135.647	-1.442	-13.038	-46.770	-536.613	75.04	75.85	44.78	45.08
108	249	-4884.598	58.266	-2.459	0.041	62.527	-200.277	50.60	51.69	62.33	62.74
109	249	4884.578	-58.267	2.459	-0.041	-62.527	200.276	50.60	51.69	62.33	62.74
109	250	-5810.583	-279.899	-6.336	-12.965	63.785	265.230	71.46	72.56	56.72	57.13
110	250	5810.587	279.899	6.336	12.965	-63.785	-265.232	71.46	72.56	56.72	57.13
110	251	-5823.132	-173.670	-10.227	-25.965	49.686	1196.954	92.39	93.25	24.59	24.91
111	251	5823.133	173.670	10.227	25.965	-49.686	-1196.955	92.39	93.25	24.59	24.91
111	252	-7065.413	-239.094	-0.012	0.003	-0.209	2171.375	128.57	128.56	5.08	5.08
112	252	7065.409	239.095	0.012	-0.003	0.209	-2171.374	128.57	128.56	5.08	5.08
112	253	-6952.521	799.800	-0.012	0.003	-0.256	1600.173	114.62	114.61	23.61	23.61
113	253	7007.321	186.155	-0.010	0.003	0.256	-1600.158	115.29	115.23	24.29	24.24
113	264	-6884.568	430.637	0.010	-0.003	-0.227	873.090	97.72	97.71	48.06	48.06
114	264	6884.567	-430.637	-0.010	0.003	0.227	-873.090	97.72	97.71	48.06	48.06
114	265	-5607.327	249.089	0.013	-0.004	-0.239	-88.044	61.86	61.86	66.87	66.87
115	265	5918.890	-47.504	-0.013	0.004	0.239	279.448	61.16	61.16	77.05	77.05
115	266	-5967.764	7.299	-0.069	6.489	63.741	-181.389	63.34	64.45	74.00	74.41
116	266	5967.753	-7.300	0.069	-6.489	-63.741	181.389	63.34	64.45	74.00	74.41
116	267	-5121.330	186.287	-3.616	-5.433	71.720	-413.504	48.49	49.74	72.40	72.86
117	267	5121.312	-186.286	3.616	5.433	-71.720	413.503	48.49	49.74	72.40	72.86
117	268	-5055.927	93.259	-7.182	-17.351	69.499	-1006.583	34.61	35.82	92.23	92.68
118	268	5055.914	-93.261	7.182	17.351	-69.499	1006.583	34.61	35.82	92.23	92.68
118	269	-4944.312	-91.320	-10.748	-29.268	56.802	-814.974	37.70	38.69	84.36	84.72
119	269	4944.284	91.321	10.748	29.268	-56.802	814.975	37.70	38.69	84.36	84.72
119	270	-4908.165	88.107	-14.314	-41.186	33.630	-780.877	38.25	38.83	82.84	83.05
120	270	4908.148	-88.107	14.314	41.186	-33.630	780.878	38.25	38.83	82.84	83.05
120	271	-4865.433	292.309	-17.877	-53.104	-0.017	-1364.085	25.12	25.12	102.69	102.69

CONDUCTO 1 SOBRE EL RIO SEGRE

IPOTESIS 1241

ENVE Z MAX envolvente (ELS) (ec-1)

ESFUERZOS EN BARRAS

TENSIONES

ARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	6340.734	68.035	-13.516	-47.470	44.726	1893.629	30.55	29.77	138.00	137.71
1	12	-6346.427	101.922	-0.090	0.021	0.875	-2275.195	21.76	21.77	151.15	151.16
2	12	6346.429	-101.922	0.090	-0.021	-0.875	2275.194	21.76	21.77	151.15	151.15
2	13	-6424.763	23.009	-0.090	0.021	0.611	-2414.079	19.57	19.58	156.86	156.86
3	13	6424.763	-23.008	0.087	-0.021	-0.621	2414.079	19.57	19.58	156.86	156.86
3	14	-6462.202	99.071	-0.090	0.021	0.347	-2612.299	15.60	15.61	164.16	164.17
4	14	6462.201	-99.073	0.090	-0.021	-0.347	2612.299	15.60	15.61	164.16	164.17
4	15	-6509.166	124.674	-0.087	0.021	0.107	-2990.176	7.76	7.76	177.81	177.81
5	15	6509.167	-124.674	0.090	-0.021	-0.083	2990.176	7.76	7.76	177.81	177.81
5	16	-6618.626	-182.548	-0.087	0.021	-0.150	-3097.905	6.62	6.61	182.79	182.79
6	16	6618.625	182.550	0.090	-0.021	0.181	3097.904	6.62	6.61	182.79	182.79
6	17	-5724.211	-364.547	-0.118	0.029	-0.934	-2028.706	20.16	20.14	135.52	135.52
7	17	5724.209	364.546	0.118	-0.029	0.934	2028.707	20.16	20.14	135.52	135.52
7	18	-3268.445	227.528	-0.169	0.046	-2.149	-1460.467	4.82	4.79	87.87	87.85
8	18	3268.445	-227.528	0.166	-0.046	2.104	1460.467	4.82	4.79	87.87	87.85
8	19	-3392.069	1003.796	-0.098	0.128	-1.608	-2900.171	-25.71	-25.73	139.22	139.21
9	19	3447.867	1012.285	-0.063	0.026	1.556	2900.151	-25.07	-25.10	139.85	139.84
9	30	-3313.800	-291.700	0.095	-0.046	-2.247	-1162.569	11.95	11.91	78.05	78.04
10	30	3313.801	291.700	-0.095	0.046	2.247	1162.568	11.95	11.91	78.05	78.04
10	31	-4027.348	1.012	0.097	-0.046	-1.223	-1030.175	26.41	26.39	84.99	84.98
11	31	4097.336	92.824	-0.092	0.038	1.320	1125.001	21.69	21.67	85.66	85.65
11	32	-5104.953	262.054	0.083	-0.038	-0.307	-1359.654	27.94	27.94	105.26	105.26
12	32	5104.953	-262.052	-0.083	0.038	0.307	1359.654	27.94	27.94	105.26	105.26
12	33	-5237.794	153.362	-0.014	0.005	0.026	-2657.786	0.66	0.66	151.81	151.81
13	33	5237.792	-153.363	0.014	-0.005	-0.026	2657.784	0.66	0.66	151.81	151.81
13	34	-5387.858	-270.613	-0.009	-0.003	0.136	-2197.087	12.59	12.59	137.53	137.53
14	34	5387.858	270.613	0.014	-0.005	0.029	2197.090	12.59	12.59	137.53	137.53
14	35	-4459.060	-177.342	0.003	-0.009	-0.284	-1393.920	19.83	19.83	99.10	99.10
15	35	4459.054	177.342	-0.003	0.009	0.284	1393.922	19.83	19.83	99.10	99.10
15	36	-4837.618	-51.182	-0.021	0.001	-0.404	-1003.858	32.79	32.79	89.88	89.88
16	36	4837.626	51.182	0.021	-0.001	0.404	1003.859	32.79	32.79	89.88	89.88
16	37	-4896.325	1140.631	1.143	1.168	23.275	-3325.847	-18.24	-17.84	171.02	171.17
17	37	4953.716	913.891	-8.872	-14.209	-23.275	3325.842	-17.59	-17.19	171.67	171.82
17	48	-4827.001	-320.402	0.024	-0.015	-0.909	-1554.062	20.47	20.46	108.85	108.84
18	48	4827.009	320.402	-0.024	0.015	0.909	1554.062	20.47	20.46	108.85	108.84
18	49	-5853.553	0.006	0.024	-0.015	-0.223	-1452.502	34.40	34.40	117.00	117.00
19	49	5543.451	104.933	-0.073	0.006	0.073	1531.882	29.11	29.11	116.23	116.23
19	50	-6552.665	241.681	0.071	-0.007	0.449	-1642.194	38.15	38.15	131.54	131.54
20	50	6552.664	-241.681	-0.022	0.016	-0.107	1642.195	38.15	38.15	131.54	131.54
20	51	-6683.634	154.078	-0.017	0.020	0.719	-2690.818	16.38	16.39	169.41	169.41
21	51	6683.633	-154.077	0.017	-0.020	-0.719	2690.816	16.38	16.39	169.41	169.41
21	52	-6835.463	-259.932	-0.019	0.021	0.648	-2247.120	27.95	27.96	155.74	155.75
22	52	6835.464	259.932	0.019	-0.021	-0.648	2247.123	27.95	27.96	155.74	155.75
22	53	-5902.496	-176.095	-0.017	0.022	0.359	-1472.977	34.50	34.51	118.27	118.27
23	53	5902.504	176.096	0.017	-0.022	-0.359	1472.979	34.50	34.51	118.27	118.27
23	54	-3468.278	302.826	-0.023	0.026	-0.299	-1048.442	16.22	16.21	75.84	75.84
24	54	3468.285	-302.827	0.023	-0.026	0.299	1048.442	16.22	16.21	75.84	75.84
24	55	-3530.689	1133.465	1.204	1.261	25.499	-3347.983	-34.30	-33.85	156.24	156.41
25	55	3587.870	914.841	-8.926	-14.055	-25.499	3347.975	-33.64	-33.20	156.89	157.06
25	66	-3463.954	-321.867	0.156	-0.130	0.218	-1570.599	4.59	4.59	93.91	93.91
26	66	3463.961	321.867	-0.156	0.130	-0.218	1570.600	4.59	4.59	93.91	93.91
26	67	-4490.594	-2.540	0.157	-0.129	1.419	-1468.225	18.53	18.55	102.03	102.04
27	67	4208.366	108.310	-0.157	0.129	-1.419	1536.297	13.81	13.83	101.18	101.19
27	68	-5217.991	243.330	0.157	-0.130	2.231	-1647.029	22.83	22.87	116.51	116.53
28	68	5217.989	-243.329	-0.157	0.130	-2.231	1647.030	22.83	22.87	116.51	116.53
28	69	-5350.630	156.062	0.069	-0.101	2.832	-2702.039	0.98	0.99	154.62	154.64
29	69	5350.631	-156.062	-0.069	0.101	-2.832	2702.039	0.98	0.99	154.62	154.64
9	70	-5501.201	-263.024	0.066	-0.100	3.093	-2252.467	12.62	12.68	140.73	140.75
30	70	5501.202	263.023	-0.066	0.100	-3.093	2252.466	12.62	12.68	140.73	140.75
30	71	-4573.803	-178.325	0.066	-0.100	3.138	-1469.770	19.43	19.48	103.03	103.05
31	71	4573.811	178.325	-0.066	0.100	-3.138	1469.769	19.43	19.48	103.03	103.05
31	72	-4952.239	299.549	0.065	-0.099	2.795	-1035.334	33.37	33.42	92.27	92.28
32	72	4952.217	-299.549	-0.065	0.099	-2.795	1035.335	33.37	33.42	92.27	92.28
32	73	-5010.622	1131.216	1.218	1.081	27.523	-3326.616	-17.00	-16.52	172.34	172.51
97	217	4821.975	909.914	-9.077	-14.375	-18.876	3301.029	-18.50	-18.17	169.33	169.45
97	228	-4695.074	-316.460	-0.923	-1.045	15.331	-1544.886	19.03	19.30	106.97	107.07
98	228	4695.049	316.460	0.923	1.045	-15.331	1544.885	19.03	19.30	106.97	107.07
98	229	-5721.361	2.681	0.045	-0.013	-0.105	-1463.875	32.65	32.64	115.89	115.89
99	229	5415.061	102.321	-0.045	0.013	0.105	1541.755	27.43	27.43	115.11	115.11
99	230	-6424.949	247.563	0.041	-0.011	0.267	-1684.854	35.75	35.75	131.56	131.57
100	230	6424.845	-247.564	-0.041	0.011	-0.267	1684.853	35.75	35.75	131.56	131.57
100	231	-6595.899	37.127	-5.524	-0.018	0.458	-2748.640	15.24	15.24	171.55	171.55
101	231	6595.899	-37.126	5.524	0.018	-0.458	2748.638	15.24	15.24	171.55	171.55
101	232	-6840.165	-257.873	-5.619	0.004	0.244	-2317.301	26.45	26.45	158.23	158.23
102	232	6840.164	257.872	5.619	-0.004	-0.244	2317.301	26.45	26.45	158.23	158.23
2	233	-5898.927	-176.645	-5.615	0.003	-0.139	-1509.317	33.66	33.66	119.49	119.49
103	233	5898.912	176.645	5.615	-0.003	0.139	1509.316	33.66	33.66	119.49	119.49
103	234	-4866.034	299.105	-4.731	0.975	13.921	-1092.358	31.03	31.27	93.23	93.32
104	234	4866.131	-299.105	4.731	-0.974	-13.921	1092.359	31.03	31.27	93.23	93.32
104	235	-4920.845	1129.931	-4.731	0.974	17.111	-3390.078	-19.38	-19.04	173.55	173.66
105	235	4979.419	928.718	-3.965	-14.509	-17.111	3390.067	-18.67	-18.37	174.21	174.33
105	246	-4847.796	24.625	-6.520	-0.915	13.934	-1575.397	20.11	20.35	109.78	109.87
106	246	4847.775	-24.625	6.520	0.915	-13.935	1575.396	20.11	20.35	109.78	109.87
106	247	-5773.848	-20.229	0.023	-0.005	-0.460	-1413.189	34.37	34.36	114.73	114.73
107	247	5665.848	120.169	-0.023	0.005	0.460	1540.251	30.32	30.31	117.91	117.91
107	248	-5668.019	179.838	5.683	-0.046	0.835	-1574.507	29.58	29.59	119.12	119.13
108	248	5668.001	-179.837	-5.683	0.046	-0.835	1574.509	29.58	29.59	119.12	119.13
108	249	-6764.691	27.086	5.694	-0.051	1.598	-2536.916	20.71	20.73	164.99	165.00
109	249	6764.690	-27.087	-5.694	0.051	-1.598	2536.915	20.71	20.73	164.99	165.00
109	250	-5930.341	-292.538	4.648	-0.011	0.917	-1737.292	28.95	28.97	127.75	127.76
110	250	5930.444	292.538	-4.648	0.011	-0.917	1737.290	28.95	28.97	127.76	127.76
110	251	-5962.771	-255.570	4.648	-0.011	0.938	-589.319	54.78	54.80	88.30	88.31
111	251	5962.753	255.569	-4.648	0.011	-0.938	589.318	54.78	54.80	88.30	88.31
111	252	-4882.223	398.638	5.832	1.041	21.343	-273.675	49.31	49.68	64.99	65.12

112	252	4882.196	-398.638	-5.832	-1.041	-21.343	273.675	49.31	49.68	64.99	65.12
112	253	-4811.608	1185.024	5.832	1.041	25.948	-2986.976	-11.72	-11.26	158.29	158.46
	253	4866.385	712.630	-13.538	-13.615	-25.949	2986.988	-11.09	-10.64	158.92	159.08
113	264	-4786.745	73.047	3.516	-1.796	23.153	-1837.615	13.52	13.92	118.15	118.30
114	264	4786.727	-73.047	-3.516	1.796	-23.153	1837.615	13.52	13.92	118.15	118.30
114	265	-5848.778	164.050	4.606	-0.297	0.626	-2159.520	18.66	18.67	141.47	141.48
115	265	6176.381	47.582	-4.606	0.297	-0.626	2360.682	17.93	17.94	152.18	152.18
115	266	-6194.135	15.164	4.606	-0.297	0.518	-2272.565	20.08	20.09	149.33	149.33
116	266	6194.228	-15.163	-4.606	0.297	-0.518	2272.564	20.09	20.09	149.33	149.33
116	267	-7225.012	321.049	4.587	-0.292	0.637	-2719.139	21.91	21.92	176.55	176.55
117	267	7225.020	-321.049	-4.587	0.292	-0.637	2719.138	21.91	21.92	176.55	176.55
117	268	-7152.473	74.555	5.482	-0.347	0.670	-3533.181	3.03	3.04	203.96	203.97
118	268	7152.478	-74.557	-5.482	0.347	-0.670	3533.180	3.03	3.04	203.96	203.97
118	269	-7009.963	-301.724	5.482	-0.347	0.440	-2896.819	15.52	15.53	180.27	180.27
119	269	7009.956	301.725	-5.482	0.347	-0.440	2896.819	15.52	15.53	180.27	180.27
119	270	-6974.934	-160.060	5.482	-0.347	0.210	-2150.756	31.67	31.68	153.99	153.99
120	270	6974.939	160.080	-5.482	0.347	-0.210	2150.758	31.67	31.68	153.99	153.99
120	271	-6930.496	34.326	0.052	-0.013	-0.019	-1941.015	35.82	35.82	146.21	146.21

VIADUCTO 1 SOBRE EL RIO SEGRE

HIPOTESIS 1242

MOMI Z MIN envolvente (ELS) (ec-1)

ESFUERZOS EN BARRAS — TENSIONES

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	2887.151	60.721	-13.457	-47.487	44.520	-906.911	53.36	52.58	1.54	1.25
1	12	-3017.042	-184.683	-0.117	0.036	0.538	1395.331	65.28	65.29	-14.07	-14.07
2	12	3017.043	184.683	0.117	-0.036	-0.537	-1395.332	65.28	65.29	-14.07	-14.07
2	13	-3072.097	-114.855	-0.117	0.036	0.194	1866.632	76.36	76.36	-29.79	-29.79
3	13	3072.098	114.855	0.119	-0.036	-0.184	-1866.633	76.36	76.36	-29.79	-29.79
3	14	-3098.411	63.894	-0.117	0.036	-0.149	1928.188	78.03	78.03	-31.63	-31.63
4	14	3098.408	-63.895	0.117	-0.036	0.149	-1928.188	78.03	78.03	-31.63	-31.63
4	15	-3131.416	207.179	-0.119	0.036	-0.516	1495.437	68.81	68.80	-16.24	-16.24
5	15	3131.419	-207.178	0.117	-0.036	0.492	-1495.436	68.81	68.80	-16.24	-16.24
5	16	-3208.349	116.547	-0.119	0.036	-0.867	884.513	56.14	56.12	5.83	5.83
6	16	3208.349	-116.546	0.117	-0.037	0.835	-884.513	56.14	56.12	5.83	5.83
6	17	-4037.170	-89.400	-0.090	0.029	-0.695	788.651	63.44	63.43	18.59	18.58
7	17	4037.174	89.399	0.090	-0.028	0.695	-788.650	63.44	63.43	18.59	18.58
7	18	-6704.141	-578.088	0.015	-0.009	0.869	1670.408	113.34	113.35	18.35	18.35
8	18	6704.139	578.089	-0.012	0.009	-0.824	-1670.408	113.34	113.35	18.35	18.35
8	19	-6880.037	456.426	-0.056	-0.091	-0.124	2400.368	131.54	131.53	-4.97	-4.97
9	19	6935.835	480.635	0.011	0.002	0.176	-2400.379	132.17	132.17	-4.34	-4.34
9	30	-6745.080	465.079	-0.043	0.018	0.716	1279.425	105.13	105.14	32.38	32.38
10	30	6745.081	-465.079	0.043	-0.018	-0.716	-1279.425	105.13	105.14	32.38	32.38
10	31	-5461.653	-204.963	0.016	-0.005	-0.746	1676.098	99.34	99.32	4.01	4.01
1	31	5242.570	294.339	-0.022	0.013	0.649	-1585.778	94.84	94.83	4.65	4.65
11	32	-4561.471	70.740	0.030	-0.013	-1.220	2018.912	96.70	96.68	-18.12	-18.13
12	32	4561.470	-70.739	-0.030	0.013	1.220	-2018.912	96.70	96.68	-18.12	-18.13
12	33	-4654.834	79.253	0.038	-0.022	-0.961	1380.794	83.61	83.59	5.08	5.07
13	33	4654.826	-79.254	-0.038	0.022	0.961	-1380.795	83.61	83.59	5.08	5.07
13	34	-4760.295	-53.447	0.032	-0.019	-0.979	1494.919	87.34	87.32	2.32	2.31
14	34	4760.304	53.447	-0.038	0.022	0.814	-1494.918	87.34	87.32	2.32	2.31
14	35	-5587.103	31.350	0.021	-0.008	-0.467	1529.118	97.50	97.49	10.54	10.54
15	35	5587.104	-31.349	-0.021	0.008	0.467	-1529.116	97.50	97.49	10.54	10.54
15	36	-5497.874	-390.949	0.063	-0.026	1.000	1910.662	104.94	104.95	-3.72	-3.71
16	36	5497.874	390.950	-0.063	0.026	-1.000	-1910.661	104.94	104.95	-3.72	-3.71
16	37	-5581.392	687.128	-1.087	-1.200	-23.032	2094.319	110.17	109.77	-9.06	-9.21
17	37	5638.789	329.209	8.878	14.198	23.032	-2094.309	110.82	110.42	-8.41	-8.55
17	48	-5458.495	360.094	-0.008	0.024	1.107	1043.318	85.25	85.27	25.92	25.93
18	48	5458.495	-360.094	0.008	-0.024	-1.107	-1043.317	85.25	85.27	25.92	25.93
18	49	-4165.739	-191.578	0.019	0.011	-0.014	1534.115	81.43	81.43	-5.81	-5.81
19	49	3870.378	291.530	0.031	-0.002	0.164	-1458.506	76.40	76.39	-6.55	-6.55
19	50	-3951.588	110.798	-0.031	0.002	-0.284	1867.434	86.39	86.39	-19.81	-19.81
20	50	3951.588	-110.798	-0.018	-0.011	-0.058	-1867.434	86.39	86.39	-19.81	-19.81

20	51	-3287.667	70.135	-0.026	0.002	-0.631	1256.166	65.28	65.27	-6.16	-6.16
21	51	3287.676	-70.134	0.026	-0.002	0.631	-1256.168	65.28	65.27	-6.16	-6.16
	52	-3394.385	-64.732	-0.024	0.001	-0.728	1398.377	69.65	69.64	-9.88	-9.88
	52	3394.380	64.731	0.024	-0.001	0.728	-1398.376	69.65	69.64	-9.88	-9.88
22	53	-4212.366	30.129	-0.026	0.000	-0.607	1468.683	80.52	80.51	-3.01	-3.01
23	53	4212.366	-30.129	0.026	0.000	0.607	-1468.681	80.52	80.51	-3.01	-3.01
23	54	-6940.598	-387.626	0.011	-0.018	0.570	1827.515	119.51	119.52	15.59	15.59
24	54	6940.596	387.625	-0.011	0.018	-0.570	-1827.514	119.51	119.52	15.59	15.59
24	55	-7029.388	688.905	-1.216	-1.253	-25.274	2004.984	124.69	124.25	10.53	10.36
25	55	7086.591	332.953	8.933	14.051	25.274	-2004.976	125.34	124.90	11.18	11.01
25	66	-6910.278	360.785	-0.146	0.132	0.045	1078.564	102.56	102.56	41.23	41.23
26	66	6910.276	-360.785	0.146	-0.132	-0.045	-1078.562	102.56	102.56	41.23	41.23
26	67	-5622.588	-195.897	-0.115	0.118	-1.680	1487.269	96.99	96.96	12.40	12.39
27	67	5353.762	296.641	0.115	-0.117	1.680	-1422.432	92.49	92.46	11.59	11.58
27	68	-5432.984	110.602	-0.115	0.117	-2.125	1842.932	102.72	102.69	-2.10	-2.11
28	68	5432.982	-110.600	0.115	-0.118	2.125	-1842.931	102.72	102.69	-2.10	-2.11
28	69	-4768.178	69.909	-0.113	0.117	-2.773	1232.413	81.62	81.57	11.52	11.50
29	69	4768.188	-69.910	0.113	-0.117	2.773	-1232.413	81.62	81.57	11.52	11.50
9	70	-4874.011	-68.451	-0.111	0.116	-3.206	1385.408	86.22	86.17	7.42	7.40
30	70	4874.021	68.451	0.111	-0.116	3.206	-1385.409	86.22	86.17	7.42	7.40
	71	-5701.837	25.357	-0.110	0.116	-3.424	1468.165	97.48	97.42	13.97	13.95
31	71	5701.836	-25.357	0.110	-0.115	3.424	-1468.167	97.48	97.42	13.97	13.95
31	72	-5612.481	-388.481	-0.077	0.101	-2.554	1838.245	104.67	104.62	0.11	0.10
32	72	5612.482	388.482	0.077	-0.101	2.554	-1838.244	104.67	104.62	0.11	0.10
32	73	-5695.582	689.490	-1.231	-1.079	-27.330	2012.878	109.70	109.22	-4.92	-5.10
97	217	6916.608	370.596	9.082	14.374	18.517	-2052.067	124.39	124.07	7.59	7.47
97	228	-6736.047	368.902	0.918	1.046	-14.992	1100.477	101.20	100.94	38.53	38.44
98	228	6736.046	-368.902	-0.918	-1.046	14.992	-1100.478	101.20	100.94	38.53	38.44
98	229	-5443.293	-187.126	-0.014	0.002	-0.189	1469.835	94.55	94.54	10.96	10.96
99	229	5151.452	287.139	0.014	-0.002	0.189	-1395.656	89.58	89.58	10.21	10.21
99	230	-4476.431	61.877	-0.010	0.001	-0.440	1790.581	90.66	90.65	-11.17	-11.17
100	230	4476.412	-61.878	0.010	-0.001	0.440	-1790.582	90.66	90.65	-11.17	-11.17
100	231	-4428.519	75.330	5.555	0.007	-0.507	1189.948	76.79	76.79	9.12	9.12
101	231	4428.500	-75.330	-5.555	-0.007	0.507	-1189.949	76.79	76.79	9.12	9.12
101	232	-4543.089	-60.013	5.558	0.006	-0.519	1325.674	81.11	81.10	5.72	5.71
102	232	4543.063	60.013	-5.558	-0.006	0.519	-1325.676	81.11	81.10	5.72	5.71
2	233	-5369.302	37.376	5.559	0.008	-0.371	1337.474	90.77	90.77	14.71	14.71
	233	5369.304	-37.377	-5.559	-0.008	0.371	-1337.474	90.77	90.77	14.71	14.71
104	234	-6696.437	-371.347	4.701	-0.974	-13.989	1565.086	111.04	110.80	21.96	21.87
104	234	6696.433	371.347	-4.701	0.974	13.989	-1565.087	111.04	110.80	21.96	21.87
104	235	-6793.058	655.173	4.722	-0.977	-17.197	1824.578	117.92	117.63	14.07	13.96
105	235	6851.659	406.004	3.511	14.494	17.196	-1824.595	118.59	118.29	14.73	14.62
105	246	-6683.156	333.105	6.489	0.926	-13.629	1025.158	98.91	98.68	40.54	40.45
106	246	6683.158	-333.105	-6.489	-0.926	13.629	-1025.160	98.91	98.68	40.54	40.45
106	247	-5496.003	-219.561	-0.033	0.008	-0.603	1532.741	96.55	96.54	9.38	9.37
107	247	5393.160	314.752	0.033	-0.008	0.603	-1411.719	92.69	92.68	12.41	12.40
107	248	-5562.653	85.350	-5.693	0.050	-1.937	1899.750	105.46	105.42	-2.59	-2.60
108	248	5562.654	-85.351	5.693	-0.050	1.937	-1899.750	105.46	105.42	-2.59	-2.60
108	249	-4865.443	67.878	-5.703	0.054	-2.737	1245.448	83.02	82.97	12.17	12.16
109	249	4865.424	-67.879	5.703	-0.054	2.737	-1245.449	83.02	82.97	12.17	12.16
109	250	-5804.913	-210.889	-4.756	0.042	-2.631	1561.408	100.72	100.67	11.91	11.89
110	250	5804.918	210.889	4.756	-0.042	2.631	-1561.412	100.72	100.67	11.91	11.89
110	251	-5818.081	-44.753	-4.756	0.042	-3.070	2111.451	113.07	113.02	-7.02	-7.04
111	251	5818.081	44.753	4.756	-0.042	3.070	-2111.453	113.07	113.02	-7.02	-7.04
111	252	-7132.000	-306.199	-5.873	-1.028	-22.951	2348.037	133.44	133.04	-0.21	-0.36
112	252	7131.997	306.200	5.873	1.028	22.951	-2348.036	133.44	133.04	-0.21	-0.36
112	253	-7009.686	732.694	-5.873	-1.028	-27.718	2022.625	124.87	124.39	9.70	- 9.52
113	253	7064.489	171.855	13.464	13.634	27.718	-2022.620	125.50	125.02	10.32	10.14
113	264	-6934.591	435.801	-3.463	1.786	-24.285	1245.148	106.75	106.32	35.80	35.65
114	264	6934.591	-435.800	3.463	-1.786	24.285	-1245.148	106.75	106.32	35.80	35.65
114	265	-5650.206	14.386	-4.482	0.260	-2.861	825.939	82.65	82.60	35.66	35.64
115	265	5961.769	187.199	4.482	-0.260	2.861	-634.536	81.95	81.90	45.84	45.83
115	266	-5965.379	-27.554	-4.482	0.260	-2.387	967.301	89.36	89.32	34.34	34.33
116	266	5965.369	27.553	4.482	-0.260	2.387	-967.301	89.36	89.32	34.34	34.32
116	267	-5119.420	196.848	-4.463	0.255	-2.133	772.254	75.41	75.37	31.48	31.46
117	267	5119.402	-196.847	4.463	-0.255	2.133	-772.255	75.41	75.37	31.48	31.46
117	268	-5051.585	149.742	-5.357	0.310	-1.801	82.842	59.34	59.31	54.62	54.61
118	268	5051.573	-149.748	5.357	-0.310	1.801	-82.842	59.34	59.31	54.62	54.61
118	269	-4941.417	10.577	-5.357	0.310	-1.205	44.718	57.24	57.22	54.69	54.68
119	269	4941.389	-10.576	5.357	-0.310	1.205	-44.718	57.24	57.22	54.69	54.68
119	270	-4906.717	235.417	-5.357	0.310	-0.610	-284.317	49.54	49.53	65.71	65.70
120	270	4906.700	-235.417	5.357	-0.310	0.610	284.318	49.54	49.53	65.71	65.70
120	271	-4865.430	478.180	0.070	-0.023	-0.016	-1364.061	25.12	25.12	102.69	102.69

IPOTESIS 1261

GME Z MAX envolvente (ELS) (total)

ESFUERZOS EN BARRAS

TENSIONES

ARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	6340.734	68.035	-13.516	-47.470	44.726	1893.629	30.55	29.77	138.00	137.71
1	12	-6346.427	101.922	-0.090	0.021	0.875	-2275.195	21.76	21.77	151.15	151.16
2	12	6346.429	-101.922	0.090	-0.021	-0.875	2275.194	21.76	21.77	151.15	151.15
2	13	-6424.763	23.009	-0.090	0.021	0.611	-2414.079	19.57	19.58	156.86	156.86
3	13	6424.763	-23.008	0.087	-0.021	-0.621	2414.079	19.57	19.58	156.86	156.86
3	14	-6462.202	99.071	-0.090	0.021	0.347	-2612.299	15.60	15.61	164.16	164.17
4	14	6462.201	-99.073	0.090	-0.021	-0.347	2612.299	15.60	15.61	164.16	164.17
4	15	-6509.166	124.674	-0.087	0.021	0.107	-2990.176	7.76	7.76	177.81	177.81
5	15	6509.167	-124.674	0.090	-0.021	-0.083	2990.176	7.76	7.76	177.81	177.81
5	16	-6618.626	-182.548	-0.087	0.021	-0.150	-3097.905	6.62	6.61	182.79	182.79
6	16	6618.625	182.550	0.090	-0.021	0.181	3097.904	6.62	6.61	182.79	182.79
6	17	-5724.211	-364.547	-0.118	0.029	-0.934	-2028.706	20.16	20.14	135.52	135.52
7	17	5724.209	364.546	0.118	-0.029	0.934	2028.707	20.16	20.14	135.52	135.52
7	18	-3268.445	227.528	-0.169	0.046	-2.149	-1460.467	4.82	4.79	87.87	87.85
8	18	3268.445	-227.528	0.166	-0.046	2.104	1460.467	4.82	4.79	87.87	87.85
8	19	-3392.069	1003.796	-0.098	0.128	-1.608	-2900.171	-25.71	-25.73	139.22	139.21
9	19	3447.867	1012.285	-0.063	0.026	1.556	2900.151	-25.07	-25.10	139.85	139.84
9	30	-3313.800	-291.700	0.095	-0.046	-2.247	-1162.569	11.95	11.91	78.05	78.04
10	30	3313.801	291.700	-0.095	0.046	2.247	1162.568	11.95	11.91	78.05	78.04
10	31	-4327.348	1.012	0.097	-0.046	-1.223	-1030.175	26.41	26.39	84.99	84.98
11	31	4097.336	92.824	-0.092	0.038	1.320	1125.001	21.69	21.67	85.66	85.65
11	32	-5104.953	262.054	0.083	-0.038	-0.307	-1359.654	27.94	27.94	105.26	105.26
12	32	5104.953	-262.052	-0.083	0.038	0.307	1359.654	27.94	27.94	105.26	105.26
12	33	-5942.619	131.643	0.008	-0.004	0.035	-2709.114	7.54	7.54	161.61	161.61
13	33	5942.618	-131.644	-0.008	0.004	-0.035	2709.114	7.54	7.54	161.61	161.61
13	34	-5387.858	-270.613	-0.009	-0.003	0.136	-2197.087	12.59	12.59	137.53	137.53
14	34	5387.858	270.613	0.019	-0.005	0.029	2197.090	12.59	12.59	137.53	137.53
14	35	-4459.060	-177.342	0.003	-0.009	-0.284	-1393.920	19.83	19.83	99.10	99.10
15	35	4459.054	177.342	-0.003	0.009	0.284	1393.922	19.83	19.83	99.10	99.10
15	36	-4837.618	-51.182	-0.021	0.001	-0.404	-1003.858	32.79	32.79	89.88	89.88
16	36	4837.626	51.182	0.021	-0.001	0.404	1003.859	32.79	32.79	89.88	89.88
16	37	-4896.325	1140.631	1.143	1.168	23.275	-3325.847	-18.24	-17.84	171.02	171.17
17	37	4953.716	913.891	-8.872	-14.209	-23.275	3325.842	-17.59	-17.19	171.67	171.82
17	48	-4827.001	-320.402	0.024	-0.015	-0.909	-1554.062	20.47	20.46	108.85	108.84
18	48	4827.009	320.402	-0.024	0.015	0.909	1554.062	20.47	20.46	108.85	108.84
18	49	-5853.553	0.006	0.024	-0.015	-0.223	-1452.502	34.40	34.40	117.00	117.00
19	49	5543.451	104.933	-0.073	0.006	0.073	1531.882	29.11	29.11	116.23	116.23
19	50	-5847.839	284.986	0.007	0.004	0.448	-1713.578	28.54	28.55	125.99	126.00
20	50	5847.838	-284.986	-0.007	-0.004	-0.448	1713.579	28.54	28.55	125.99	126.00
20	51	-5978.809	109.329	-0.012	0.011	0.468	-2952.780	2.55	2.56	170.47	170.48
21	51	5978.808	-109.328	0.012	-0.011	-0.468	2952.778	2.55	2.56	170.47	170.48
21	52	-6130.638	-292.024	-0.016	0.012	0.413	-2354.323	17.55	17.56	151.44	151.44
22	52	6130.639	292.024	0.016	-0.012	-0.413	2354.325	17.55	17.56	151.44	151.44
22	53	-5197.670	-199.119	-0.014	0.013	0.138	-1473.391	26.47	26.47	110.26	110.26
23	53	5197.679	199.120	0.014	-0.013	-0.137	1473.393	26.47	26.47	110.26	110.26
23	54	-3468.278	302.826	-0.023	0.026	-0.299	-1048.442	16.22	16.21	75.84	75.84
24	54	3468.285	-302.827	0.023	-0.026	0.299	1048.442	16.22	16.21	75.84	75.84
24	55	-3530.689	1133.465	1.204	1.261	25.499	-3347.983	-34.30	-33.85	156.24	156.41
25	55	3587.870	914.841	-8.926	-14.055	-25.499	3347.975	-33.64	-33.20	156.89	157.06
25	66	-3463.954	-321.867	0.156	-0.130	0.218	-1570.599	4.59	4.59	93.91	93.91
26	66	3463.961	321.867	-0.156	0.130	-0.218	1570.600	4.59	4.59	93.91	93.91
26	67	-4490.594	-2.540	0.157	-0.129	1.419	-1468.225	18.53	18.55	102.03	102.04
27	67	4208.366	108.310	-0.157	0.129	-1.419	1536.297	13.81	13.83	101.18	101.19
27	68	-5922.816	283.396	0.010	-0.002	0.392	-1760.818	28.35	28.35	128.49	128.49
28	68	5922.814	-283.395	-0.010	0.002	-0.392	1760.818	28.35	28.35	128.49	128.49
28	69	-6055.456	107.306	-0.009	0.005	0.422	-3000.866	2.35	2.36	173.01	173.02
29	69	6055.456	-107.307	0.009	-0.005	-0.422	3000.866	2.35	2.36	173.01	173.02
29	70	-6206.026	-299.150	-0.013	0.006	0.377	-2381.158	17.81	17.82	153.23	153.23
30	70	6206.027	299.150	0.013	-0.006	-0.377	2381.157	17.81	17.82	153.23	153.23
30	71	-5278.628	-205.384	-0.014	0.007	0.113	-1476.040	27.34	27.34	111.28	111.28
31	71	5278.636	205.384	0.014	-0.007	-0.113	1476.039	27.34	27.34	111.28	111.28
31	72	-4247.414	218.010	-0.077	0.032	-0.931	-1040.874	25.26	25.24	84.45	84.44
32	72	4247.392	-218.010	0.077	-0.032	0.931	1040.875	25.26	25.24	84.45	84.44
32	73	-5010.622	1131.216	1.218	1.081	27.523	-3326.616	-17.00	-16.52	172.34	172.51
97	217	4821.975	909.914	-9.077	-14.375	-18.876	3301.029	-18.50	-18.17	169.33	169.45
97	228	-4695.074	-316.460	-0.923	-1.045	15.331	-1544.886	19.03	19.30	106.97	107.07
98	228	4695.049	316.460	0.923	1.045	-15.331	1544.885	19.03	19.30	106.97	107.07
98	229	-5721.361	28.086	0.013	-0.008	0.137	-1466.909	32.58	32.58	116.00	116.00
99	229	5415.061	76.917	-0.013	0.008	-0.137	1544.789	27.36	27.37	115.21	115.22
99	230	-6424.844	282.034	0.009	-0.006	0.386	-1803.897	33.11	33.11	135.69	135.70
100	230	6424.845	-282.036	-0.009	0.006	-0.386	1803.896	33.11	33.11	135.69	135.70
100	231	-6555.898	87.343	0.005	-0.005	0.413	-3031.667	7.37	7.37	179.78	179.78
101	231	6555.899	-87.342	-0.005	0.005	-0.413	3031.665	7.37	7.37	179.78	179.78
101	232	-6707.915	-295.825	-0.016	0.000	0.359	-2418.893	22.69	22.69	160.25	160.25
102	232	6707.914	295.824	0.016	0.000	-0.359	2418.893	22.69	22.69	160.25	160.25
2	233	-5898.927	-176.645	-5.615	0.003	-0.139	-1509.317	33.66	33.66	119.49	119.49
103	233	5898.912	176.645	5.615	-0.003	0.139	1509.316	33.66	33.66	119.49	119.49
103	234	-4866.034	299.105	-4.731	0.975	13.921	-1092.358	31.03	31.27	93.23	93.32
104	234	4866.131	-299.105	4.731	-0.974	-13.921	1092.359	31.03	31.27	93.23	93.32
104	235	-4920.845	1129.931	-4.731	0.974	17.111	-3390.078	-19.34	-19.04	173.55	173.66
105	235	4979.419	928.718	-3.465	-14.509	-17.111	3390.067	-18.67	-18.37	174.21	174.33
105	246	-4847.796	24.625	-6.520	-0.915	13.934	-1575.397	20.11	20.35	109.78	109.87
106	246	4847.775	-24.625	6.520	0.915	-13.935	1575.396	20.11	20.35	109.78	109.87
106	247	-5773.848	-20.229	0.023	-0.005	-0.460	-1413.189	34.37	34.36	114.73	114.73
107	247	5665.848	120.169	-0.023	0.005	0.460	1540.251	30.32	30.31	117.91	117.91
107	248	-5753.769	198.521	-0.012	0.004	-0.394	-1607.022	29.84	29.83	121.23	121.23
108	248	5753.751	-198.520	0.012	-0.004	0.394	1607.023	29.84	29.83	121.23	121.23
108	249	-6842.691	54.837	-0.002	0.000	-0.155	-2671.348	18.63	18.62	170.54	170.54
109	249	6842.690	-54.838	0.002	0.000	0.155	2671.345	18.63	18.62	170.54	170.54
109	250	-6012.183	-338.060	-0.033	0.010	-0.590	-1827.034	27.90	27.89	131.80	131.80
110	250	6012.285	338.061	0.033	-0.010	0.590	1827.031	27.91	27.90	131.80	131.80
110	251	-5962.771	-255.570	4.648	-0.011	0.938	-589.319	54.78	54.80	88.30	88.31
111	251	5962.753	255.569	-4.648	0.011	-0.938	589.318	54.78	54.80	88.30	88.31
111	252	-4882.223	398.638	5.832	1.041	21.343	-273.675	49.31	49.68	64.99	65.12

112	252	4882.196	-398.638	-5.832	-1.041	-21.343	273.675	49.31	49.68	64.99	65.12
112	253	-4811.608	1185.024	5.832	1.041	25.948	-2986.976	-11.72	-11.26	158.29	158.46
113	253	4866.385	712.630	-13.538	-13.615	-25.949	2986.988	-11.09	-10.64	158.92	159.08
113	264	-4834.659	43.186	-1.004	-1.525	20.619	-1883.055	13.08	13.44	120.28	120.41
114	264	4834.641	-43.186	1.004	1.525	-20.619	1883.054	13.08	13.44	120.28	120.41
114	265	-5848.778	164.050	4.606	-0.297	0.626	-2159.520	18.66	18.67	141.47	141.48
115	265	6176.381	47.582	-4.606	0.297	-0.626	2360.682	17.93	17.94	152.18	152.18
115	266	-6194.135	15.164	4.606	-0.297	0.518	-2272.565	20.08	20.09	149.33	149.33
116	266	6194.228	-15.163	-4.606	0.297	-0.518	2272.564	20.09	20.09	149.33	149.33
116	267	-7225.012	321.049	4.587	-0.292	0.637	-2719.139	21.91	21.92	176.55	176.55
117	267	7225.020	-321.049	-4.587	0.292	-0.637	2719.138	21.91	21.92	176.55	176.55
117	268	-7152.473	74.555	5.482	-0.347	0.670	-3533.181	3.03	3.04	203.96	203.97
118	268	7152.478	-74.557	-5.482	0.347	-0.670	3533.180	3.03	3.04	203.96	203.97
118	269	-7009.963	-301.724	5.482	-0.347	0.440	-2896.819	15.52	15.53	180.27	180.27
119	269	7009.956	301.725	-5.482	0.347	-0.440	2896.819	15.52	15.53	180.27	180.27
119	270	-6974.934	-160.080	5.482	-0.347	0.210	-2150.756	31.67	31.68	153.99	153.99
120	270	6974.939	160.080	-5.482	0.347	-0.210	2150.758	31.67	31.68	153.99	153.99
120	271	-6930.496	59.716	0.062	-0.019	-0.019	-1941.018	35.82	35.82	146.21	146.21

VIADUCTO 1 SOBRE EL RIO SEGRE

HIPOTESIS 1262

NOME Z MIN envolvente (ELS) (total)

ESFUERZOS EN BARRAS

TENSIONES

BARRA	NUDO	AXIL	CORT. Y	CORT. Z	TORSOR	MOM. Y	MOM. Z	SIGMA 1	SIGMA2	SIGMA3	SIGMA4
1	1	2887.151	60.721	-13.457	-47.487	44.520	-906.911	53.36	52.58	1.54	1.25
1	12	-3017.042	-184.683	-0.117	0.036	0.538	1395.331	65.28	65.29	-14.07	-14.07
2	12	3017.043	184.683	0.117	-0.036	-0.537	-1395.332	65.28	65.29	-14.07	-14.07
2	13	-3072.097	-114.855	-0.117	0.036	0.194	1866.632	76.36	76.36	-29.79	-29.79
3	13	3072.098	114.855	0.119	-0.036	-0.184	-1866.633	76.36	76.36	-29.79	-29.79
3	14	-3098.411	63.894	-0.117	0.036	-0.149	1928.188	78.03	78.03	-31.63	-31.63
4	14	3098.408	-63.895	0.117	-0.036	0.149	-1928.188	78.03	78.03	-31.63	-31.63
4	15	-3131.416	207.178	-0.119	0.036	-0.516	1495.437	68.81	68.80	-16.24	-16.24
5	15	3131.419	-207.178	0.117	-0.036	0.492	-1495.436	68.81	68.80	-16.24	-16.24
5	16	-3208.349	116.547	-0.119	0.036	-0.867	884.513	56.14	56.12	5.83	5.83
6	16	3208.349	-116.546	0.117	-0.037	0.835	-884.513	56.14	56.12	5.83	5.83
6	17	-4741.994	-183.320	-0.041	0.010	0.047	948.963	75.01	75.01	21.05	21.05
7	17	4741.998	183.318	0.041	-0.010	-0.047	-948.963	75.01	75.01	21.05	21.05
7	18	-5999.316	-293.127	-0.027	0.005	0.177	1754.565	107.19	107.19	7.41	7.41
8	18	5999.315	293.127	0.027	-0.005	-0.177	-1754.565	107.19	107.19	7.41	7.41
8	19	-6880.037	456.426	-0.056	-0.091	-0.124	2400.368	131.54	131.53	-4.97	-4.97
9	19	6935.835	460.635	0.011	0.002	0.176	-2400.379	132.17	132.17	-4.34	-4.34
9	30	-6745.080	465.079	-0.043	0.018	0.716	1279.425	105.13	105.14	32.38	32.38
10	30	6745.081	-465.079	0.043	-0.018	-0.716	-1279.425	105.13	105.14	32.38	32.38
10	31	-5461.653	-204.963	0.016	-0.005	-0.746	1676.098	99.34	99.32	4.01	4.01
1	31	5242.570	294.339	-0.022	0.013	0.689	-1585.778	94.84	94.83	4.65	4.65
11	32	-4561.471	70.740	0.030	-0.013	-1.220	2018.912	96.70	96.68	-18.12	-18.13
12	32	4561.470	-70.739	-0.030	0.013	1.220	-2018.912	96.70	96.68	-18.12	-18.13
12	33	-4654.834	79.253	0.038	-0.022	-0.961	1380.794	83.61	83.59	5.08	5.07
13	33	4654.826	-79.254	-0.038	0.022	0.961	-1380.795	83.61	83.59	5.08	5.07
13	34	-4055.469	-84.813	0.068	-0.034	-0.613	1556.422	80.68	80.67	-7.84	-7.84
14	34	4055.478	84.812	-0.068	0.034	0.613	-1556.421	80.68	80.67	-7.84	-7.84
14	35	-4882.277	-16.077	0.058	-0.028	0.046	1750.563	94.39	94.39	-5.17	-5.16
15	35	4882.278	16.077	-0.058	0.028	-0.046	-1750.561	94.39	94.39	-5.16	-5.16
15	36	-6202.699	-146.184	0.096	-0.043	0.797	2066.000	116.40	116.42	-1.08	-1.08
16	36	6202.699	146.184	-0.096	0.043	-0.797	-2065.999	116.40	116.42	-1.08	-1.08
16	37	-5581.392	687.128	-1.087	-1.200	-23.032	2094.319	110.17	109.77	-9.06	-9.21
17	37	5628.789	329.209	8.878	10.198	23.032	-2094.309	110.82	110.42	-8.41	-8.55
17	48	-6163.320	143.603	-0.069	0.032	0.932	1222.567	97.25	97.26	27.73	27.73
18	48	6163.320	-143.603	0.069	-0.032	-0.932	-1222.565	97.25	97.26	27.73	27.73
18	49	-4870.564	-171.217	0.003	0.002	0.253	1653.044	92.09	92.09	-1.92	-1.91
19	49	4575.204	271.169	-0.003	-0.002	-0.253	-1577.435	87.05	87.06	-2.65	-2.65
19	50	-4656.414	118.913	0.003	0.002	0.264	1931.189	95.82	95.83	-14.00	-14.00
20	50	4656.413	-118.914	-0.003	-0.002	-0.264	-1931.189	95.82	95.83	-14.00	-14.00

20	51	-3992.493	62.439	0.009	0.001	0.050	1324.682	74.82	74.82	-0.52	-0.52
21	51	3992.501	-62.438	-0.009	-0.001	-0.050	-1324.683	74.82	74.82	-0.52	-0.52
	52	-4099.210	-88.263	0.013	0.000	0.092	1521.518	80.40	80.40	-6.13	-6.13
	52	4099.205	88.262	-0.013	0.000	-0.092	-1521.515	80.40	80.40	-6.13	-6.13
22	53	-4917.191	-5.646	0.011	-0.001	0.356	1706.732	93.81	93.82	-3.25	-3.25
23	53	4917.191	5.647	-0.011	0.002	-0.356	-1706.728	93.81	93.82	-3.25	-3.25
23	54	-6235.773	-168.005	0.072	-0.023	1.075	2045.461	116.32	116.34	0.00	0.01
24	54	6235.771	168.004	-0.072	0.023	-1.075	-2045.460	116.32	116.34	0.00	0.01
24	55	-7029.388	688.905	-1.216	-1.253	-25.274	2004.984	124.69	124.25	10.53	10.36
25	55	7086.591	332.953	8.933	14.051	25.274	-2004.976	125.34	124.90	11.18	11.01
25	66	-6205.453	145.633	-0.076	0.032	1.058	1285.335	99.12	99.14	26.03	26.04
26	66	6205.451	-145.633	0.076	-0.032	-1.058	-1285.334	99.12	99.14	26.03	26.04
26	67	-4917.763	-169.289	-0.009	0.002	0.356	1711.934	93.93	93.94	-3.42	-3.42
27	67	4648.937	270.033	0.004	-0.002	-0.356	-1647.097	89.43	89.44	-4.23	-4.23
27	68	-4728.159	124.964	-0.004	0.002	0.341	1988.214	97.90	97.91	-15.16	-15.16
28	68	4728.157	-124.964	0.004	-0.002	-0.341	-1988.214	97.90	97.91	-15.16	-15.16
28	69	-4063.353	68.467	-0.001	0.001	0.127	1358.316	76.37	76.37	-0.88	-0.88
29	69	4063.363	-68.468	0.001	-0.001	-0.127	-1358.316	76.37	76.37	-0.88	-0.88
9	70	-4169.186	-85.700	0.003	-0.001	0.133	1541.845	81.64	81.64	-6.04	-6.04
30	70	4169.196	85.699	-0.003	0.001	-0.133	-1541.845	81.64	81.65	-6.04	-6.04
	71	-4997.012	-4.136	0.004	-0.001	0.359	1715.164	94.91	94.91	-2.63	-2.63
31	71	4997.011	4.136	-0.004	0.001	-0.359	-1715.166	94.91	94.91	-2.63	-2.63
31	72	-6317.307	-172.461	0.074	-0.029	1.069	2064.642	117.68	117.69	0.27	0.27
32	72	6317.308	172.461	-0.074	0.029	-1.069	-2064.641	117.68	117.69	0.27	0.27
32	73	-5695.582	689.490	-1.231	-1.079	-27.330	2012.978	109.70	109.22	-4.92	-5.10
97	217	6916.608	370.596	9.082	14.374	18.517	-2052.067	124.39	124.07	7.59	7.47
97	228	-6736.047	151.668	0.875	1.056	-15.009	1324.399	106.16	105.90	30.76	30.67
98	228	6736.046	-151.668	-0.875	-1.055	15.009	-1324.400	106.16	105.90	30.76	30.67
98	229	-5443.293	-153.592	-0.023	0.005	0.365	1712.256	99.92	99.93	2.55	2.55
99	229	5151.452	253.606	0.023	-0.005	-0.365	-1638.078	94.95	94.96	1.80	1.80
99	230	-4476.431	83.166	-0.019	0.004	0.077	1926.782	93.68	93.68	-15.90	-15.90
100	230	4476.412	-83.167	0.019	-0.004	-0.077	-1926.785	93.68	93.68	-15.90	-15.90
100	231	-4568.519	77.698	-0.015	0.002	0.011	1280.219	80.39	80.39	7.58	7.58
101	231	4568.500	-77.697	0.015	-0.002	-0.011	-1280.221	80.39	80.39	7.58	7.58
101	232	-4675.340	-73.461	-0.010	0.001	-0.036	1419.891	84.70	84.70	3.95	3.95
102	232	4675.313	73.461	0.010	-0.001	0.036	-1419.893	84.70	84.70	3.95	3.95
2	233	-5493.802	11.683	-0.014	0.002	0.081	1495.577	95.69	95.69	10.64	10.64
1	233	5493.804	-11.684	0.014	-0.002	-0.081	-1495.578	95.69	95.69	10.64	10.64
	234	-6813.188	-160.326	-0.817	-0.994	-14.087	1792.501	117.42	117.17	15.40	15.31
104	234	6813.183	160.326	0.817	0.994	14.087	-1792.502	117.42	117.17	15.40	15.31
104	235	-6793.058	655.173	4.722	-0.977	-17.197	1824.578	117.92	117.63	14.07	13.96
105	235	6851.659	406.004	3.511	14.494	17.196	-1824.595	118.59	118.29	14.73	14.62
105	246	-6784.407	94.365	0.780	0.982	-14.246	1202.606	104.01	103.76	35.54	35.44
106	246	6784.409	-94.365	-0.780	-0.982	14.246	-1202.608	104.01	103.76	35.54	35.44
106	247	-5496.003	-181.016	-0.061	0.018	-0.136	1768.244	101.77	101.76	1.21	1.21
107	247	5393.160	276.207	0.060	-0.018	0.136	-1647.221	97.91	97.91	4.23	4.23
107	248	-5476.903	110.916	-0.056	0.016	-0.380	2009.716	106.91	106.90	-7.39	-7.39
108	248	5476.904	-110.916	0.056	-0.016	0.380	-2009.715	106.91	106.90	-7.39	-7.39
108	249	-4787.442	81.198	-0.066	0.020	-0.880	1292.022	83.15	83.13	9.67	9.66
109	249	4787.423	-81.199	0.066	-0.020	0.880	-1292.025	83.15	83.13	9.67	9.66
109	250	-5723.072	-212.984	-0.051	0.015	-0.798	1594.806	100.51	100.50	9.81	9.80
110	250	5723.077	212.984	0.051	-0.015	0.798	-1594.809	100.51	100.50	9.81	9.80
110	251	-5745.268	-59.093	-0.051	0.015	-0.995	2190.617	113.98	113.96	-10.61	-10.61
111	251	5745.269	59.093	0.051	-0.015	0.995	-2190.618	113.98	113.96	-10.61	-10.61
111	252	-7068.216	-30.598	-1.146	-1.066	-21.336	2476.946	135.56	135.19	-5.42	-5.56
112	252	7068.212	30.599	1.146	1.066	21.336	-2476.945	135.56	135.19	-5.42	-5.56
112	253	-7009.686	732.694	-5.873	-1.028	-27.718	2022.625	124.87	124.39	9.70	9.52
113	253	7064.489	171.855	13.464	13.634	27.718	-2022.620	125.50	125.02	10.32	10.14
113	264	-6886.678	206.589	1.091	1.500	-22.447	1396.631	109.54	109.15	30.00	29.85
114	264	6886.678	-206.589	-1.091	-1.500	22.447	-1396.631	109.54	109.15	30.00	29.85
114	265	-5609.137	59.791	0.013	-0.003	-0.238	1072.065	87.61	87.61	26.65	26.64
115	265	5920.699	141.794	-0.013	0.003	0.238	-880.662	86.91	86.91	36.83	36.83
115	266	-5931.153	8.569	0.013	-0.003	-0.201	1104.236	91.99	91.99	29.19	29.19
116	266	5931.144	-8.569	-0.013	0.003	0.201	-1104.237	91.99	91.99	29.19	29.19
116	267	-5092.040	223.688	0.031	-0.008	-0.384	827.268	76.30	76.29	29.25	29.25
117	267	5092.021	-223.687	-0.031	0.008	0.384	-827.269	76.30	76.29	29.25	29.25
117	268	-5033.957	166.791	0.031	-0.008	-0.292	83.202	59.14	59.13	54.40	54.40
118	268	5033.945	-166.793	-0.031	0.008	0.292	-83.202	59.14	59.13	54.40	54.40
118	269	-4941.417	10.577	-5.357	0.310	-1.205	44.718	57.24	57.22	54.69	54.68
119	269	4941.389	-10.576	5.357	-0.310	1.205	-44.718	57.24	57.22	54.69	54.68
119	270	-4906.717	235.417	-5.357	0.310	-0.610	-284.317	49.54	49.53	65.71	65.70
120	270	4906.700	-235.417	5.357	-0.310	0.610	284.318	49.54	49.53	65.71	65.70
120	271	-4378.888	361.360	-12.001	-48.047	-0.016	-1227.665	22.61	22.61	92.42	92.42

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estr  VIADUCTO 1 SOBRE EL RIO SEGRE - SIC-modos
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nume de barr  296
nume de modo 45
nume de apoy   16
tipo port espa
list norm
coor de nudo
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    3      0.0000      0.000      1.9000
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    5      0.0000     -1.426     -1.9000
    6      0.0000     -1.426      1.9000
    7      0.0000    -10.426      0.0000 s
    8      0.0000     -8.426      0.0000
    9      0.0000     -6.676      0.0000
   10      0.0000     -4.926      0.0000
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   12      2.9375      0.000      0.0000
   13      5.8750      0.000      0.0000
   14      8.8125      0.000      0.0000
   15     11.7500      0.000      0.0000
   16     14.6875      0.000      0.0000
   17     17.6250      0.000      0.0000
   18     20.5625      0.000      0.0000
   19     23.5000      0.000      0.0000
   20     23.5000      0.000     -1.9000
   21     23.5000      0.000      1.9000
   22     23.5000     -1.458      0.0000
   23     23.5000     -1.458     -1.9000
   24     23.5000     -1.458      1.9000
   25     23.5000     -9.542      0.0000 s
   26     23.5000     -7.192      0.0000
   27     23.5000     -5.759      0.0000
   28     23.5000     -4.325      0.0000
   29     23.5000     -2.892      0.0000
   30     27.3750      0.000      0.0000
   31     31.2500      0.000      0.0000
   32     35.1250      0.000      0.0000
   33     39.0000      0.000      0.0000
   34     42.8750      0.000      0.0000
   35     46.7500      0.000      0.0000
   36     50.6250      0.000      0.0000
   37     54.5000      0.000      0.0000
   38     54.5000      0.000     -1.9000
   39     54.5000      0.000      1.9000
   40     54.5000     -1.458      0.0000
   41     54.5000     -1.458     -1.9000
   42     54.5000     -1.458      1.9000
   43     54.5000     -9.198      0.0000 s
   44     54.5000     -6.848      0.0000
   45     54.5000     -5.500      0.0000
   46     54.5000     -4.152      0.0000
   47     54.5000     -2.804      0.0000
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60	85.5000	-1.458	1.9000
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64	85.5000	-4.241	0.0000
65	85.5000	-2.849	0.0000
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69	101.0000	0.000	0.0000
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71	108.7500	0.000	0.0000
72	112.6250	0.000	0.0000
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82	116.5000	-4.136	0.0000
83	116.5000	-2.797	0.0000
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88	135.8750	0.000	0.0000
89	139.7500	0.000	0.0000
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100	147.5000	-4.035	0.0000
101	147.5000	-2.746	0.0000
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107	170.7500	0.000	0.0000
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inci de barr

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293	278	279
294	279	280
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```
libe de barr
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  186 inic fuer   z mome x y z
* P01
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  188 inic fuer y z mome x y z
* P02
  189 inic fuer y   mome x y z
  190 inic fuer y z mome x y z
* P03
  191 inic fuer y   mome x y z
  192 inic fuer y z mome x y z
* P04
  193 inic fuer y   mome x y z
  194 inic fuer y z mome x y z
* P05
  195 inic fuer y   mome x y z
  196 inic fuer y z mome x y z
* P06
  197 inic fuer y   mome x y z
  198 inic fuer y z mome x y z
* P07
  199 inic fuer y   mome x y z
  200 inic fuer y z mome x y z
* P08
  201 inic fuer y   mome x y z
  202 inic fuer y z mome x y z
* P09
```

```
  203 inic fuer y   mome x y z
  204 inic fuer y z mome x y z
* P10
  205 inic fuer y   mome x y z
  206 inic fuer y z mome x y z
* P11
  207 inic fuer y   mome x y z
  208 inic fuer y z mome x y z
* P12
  209 inic fuer y   mome x y z
  210 inic fuer y z mome x y z
* P13
  211 inic fuer y   mome x y z
  212 inic fuer y z mome x y z
* P14
  213 inic fuer y   mome x y z
  214 inic fuer y z mome x y z
* P15
  215 inic fuer y   mome x y z
  216 inic fuer y z mome x y z
mate de barr
    1 a  120    1
  121 a  216    4
         217    3
  218 a  221    3
         222    3
  223 a  226    2
         227    3
  228 a  231    2
         232    3
  233 a  236    2
         237    3
  238 a  241    2
         242    3
  243 a  246    2
         247    3
  248 a  251    2
         252    3
  253 a  261    2
         262    3
  263 a  266    2
         267    3
  268 a  271    2
         272    3
  273 a  276    2
         277    3
  278 a  281    2
         282    3
  283 a  286    2
         287    3
  288 a  291    2
         292    3
  293 a  296    3
prop de barr pris
* TABLERO
    1 a  120 8.787 2.972 3.860  5.447 80.54 3.341
* BARRAS DE GRAN RIGIDEZ
  121 a  184 100. 100. 100.  100. 1000. 100.
* APARATOS DE APOYO
* E1
  185 a  186 100. 100. 100.  100.  500. 100.
* P01
  187 a  188 100. 100. 100.  100.  500. 100.
* P02
  189 a  190 100. 100. 100.  100.  500. 100.
* P03
  191 a  192 100. 100. 100.  100.  500. 100.
* P04
  193 a  194 100. 100. 100.  100.  500. 100.
* P05
  195 a  196 100. 100. 100.  100.  500. 100.
* P06
  197 a  198 100. 100. 100.  100.  500. 100.
* P07
  199 a  200 100. 100. 100.  100.  500. 100.
* P08
  201 a  202 100. 100. 100.  100.  500. 100.
* P09
  203 a  204 100. 100. 100.  100.  500. 100.
* P10
  205 a  206 100. 100. 100.  100.  500. 100.
* P11
  207 a  208 100. 100. 100.  100.  500. 100.
* P12
  209 a  210 100. 100. 100.  100.  500. 100.
* P13
  211 a  212 100. 100. 100.  100.  500. 100.
* P14
  213 a  214 100. 100. 100.  100.  500. 100.
* P15
  215 a  216 100. 100. 100.  100.  500. 100.
* FUSTES DE ESTRIBOS Y PILAS
* E1
        217 158.4  132.   132.   3182.3  3379.2 1293.7
  218 a  221  54.17  45.14  45.14   44.19 1129.3  337.3
*
* 3 ULTIMOS METROS SIN TABIQUE DE UNION
*
* P01
        222 65.61 54.68 54.68  606.24 358.72 358.72
  223 a 225  5.16  4.30  4.30    1.166 14.31   0.722
        226  3.60  3.00  3.00    0.887 13.43   0.675
*
* P02
        227 65.61 54.68 54.68  606.24 358.72 358.72
  228 a 230  5.16  4.30  4.30    1.166 14.31   0.722
        231  3.60  3.00  3.00    0.887 13.43   0.675
*
* P03
        232 65.61 54.68 54.68  606.24 358.72 358.72
  233 a 235  5.16  4.30  4.30    1.166 14.31   0.722
        236  3.60  3.00  3.00    0.887 13.43   0.675
```

```
*
* P04
        237 65.61 54.68 54.68  606.24 358.72 358.72
  238 a 240  5.16  4.30  4.30    1.166 14.31   0.722
        241  3.60  3.00  3.00    0.887 13.43   0.675
*
* P05
        242 65.61 54.68 54.68  606.24 358.72 358.72
  243 a 245  5.16  4.30  4.30    1.166 14.31   0.722
        246  3.60  3.00  3.00    0.887 13.43   0.675
*
* P06
        247 65.61 54.68 54.68  606.24 358.72 358.72
  248 a 250  5.16  4.30  4.30    1.166 14.31   0.722
        251  3.60  3.00  3.00    0.887 13.43   0.675
*
* P07
        252 65.61 54.68 54.68  606.24 358.72 358.72
  253 a 255  5.16  4.30  4.30    1.166 14.31   0.722
        256  3.60  3.00  3.00    0.887 13.43   0.675
*
* P08
        257 65.61 54.68 54.68  606.24 358.72 358.72
  258 a 260  5.16  4.30  4.30    1.166 14.31   0.722
        261  3.60  3.00  3.00    0.887 13.43   0.675
*
* P09
        262 65.61 54.68 54.68  606.24 358.72 358.72
  263 a 265  5.16  4.30  4.30    1.166 14.31   0.722
        266  3.60  3.00  3.00    0.887 13.43   0.675
*
* P10
        267 65.61 54.68 54.68  606.24 358.72 358.72
  268 a 270  5.16  4.30  4.30    1.166 14.31   0.722
        271  3.60  3.00  3.00    0.887 13.43   0.675
*
* P11
        272 65.61 54.68 54.68  606.24 358.72 358.72
  273 a 275  5.16  4.30  4.30    1.166 14.31   0.722
        276  3.60  3.00  3.00    0.887 13.43   0.675
*
* P12
        277 65.61 54.68 54.68  606.24 358.72 358.72
  278 a 280  5.16  4.30  4.30    1.166 14.31   0.722
        281  3.60  3.00  3.00    0.887 13.43   0.675
*
* P13
        282 65.61 54.68 54.68  606.24 358.72 358.72
  283 a 285  5.16  4.30  4.30    1.166 14.31   0.722
        286  3.60  3.00  3.00    0.887 13.43   0.675
*
* P14
        287 65.61 54.68 54.68  606.24 358.72 358.72
  288 a 290  5.16  4.30  4.30    1.166 14.31   0.722
        291  3.60  3.00  3.00    0.887 13.43   0.675
*
```

```
* PILA 15 (PILA DOBLE)
        292 65.61 54.68 54.68  606.24 358.72 358.72
  293 a 295 13.40 11.16 11.16    7.335 31.86   8.860
        296  7.68  6.40  6.40    2.815 28.65   6.554
*
cons de mate
* HORMIGON TABLERO fck=40 MPa
* E=100000*[9.50*(40.00+8)**1/3]=3452529.
* G=E/2(1+nu=0.2)=1438554.
    1 3452529. 1438554. 2.5
* HORMIGON PILAS fck=3000 t/m2
* E=100000*[9.50*(30.00+8)**1/3]=3193877.
* G=E/2(1+nu=0.2)=1330782.
    2 3193877. 1330782. 2.5
* HORMIGON ZAPATAS Y ESTRIBOS fck=2500 t/m2
* E=950000*[9.50*(25.00+8)**1/3]=3047158.
* G=E/2(1+nu=0.2)=1269649.
    3 3047158. 1269649. 2.5
* BARRAS DE GRAN RIGIDEZ
    4 3452529. 1438554. 0.00001
dato de masa PESO PROPIO DE UNA SOLA VEZ
masa en nudo
*
* RIOSTRAS CONTINUIDAD
*
     30 fuer x y z  +0.563  +0.563  +0.563
     31 fuer x y z  +6.706  +6.706  +6.706
     31 fuer x y z +11.435 +11.435 +11.435
     32 fuer x y z  +1.892  +1.892  +1.892
*
     48 fuer x y z  +0.563  +0.563  +0.563
     49 fuer x y z  +6.706  +6.706  +6.706
     49 fuer x y z +11.435 +11.435 +11.435
     50 fuer x y z  +1.892  +1.892  +1.892
*
     66 fuer x y z  +0.563  +0.563  +0.563
     67 fuer x y z  +6.706  +6.706  +6.706
     67 fuer x y z +11.435 +11.435 +11.435
     68 fuer x y z  +1.892  +1.892  +1.892
*
     84 fuer x y z  +0.563  +0.563  +0.563
     85 fuer x y z  +6.706  +6.706  +6.706
     85 fuer x y z +11.435 +11.435 +11.435
     86 fuer x y z  +1.892  +1.892  +1.892
*
    102 fuer x y z  +0.563  +0.563  +0.563
    103 fuer x y z  +6.706  +6.706  +6.706
    103 fuer x y z +11.435 +11.435 +11.435
    104 fuer x y z  +1.892  +1.892  +1.892
*
    120 fuer x y z  +0.563  +0.563  +0.563
    121 fuer x y z  +6.706  +6.706  +6.706
    121 fuer x y z +11.435 +11.435 +11.435
    122 fuer x y z  +1.892  +1.892  +1.892
*
    138 fuer x y z  +0.563  +0.563  +0.563
```

```
  139 fuer x y z  +6.706  +6.706  +6.706
  139 fuer x y z +11.435 +11.435 +11.435
  140 fuer x y z  +1.892  +1.892  +1.892
*
  156 fuer x y z  +0.563  +0.563  +0.563
  157 fuer x y z  +6.706  +6.706  +6.706
  157 fuer x y z +11.435 +11.435 +11.435
  158 fuer x y z  +1.892  +1.892  +1.892
*
  174 fuer x y z  +0.563  +0.563  +0.563
  175 fuer x y z  +6.706  +6.706  +6.706
  175 fuer x y z +11.435 +11.435 +11.435
  176 fuer x y z  +1.892  +1.892  +1.892
*
  192 fuer x y z  +0.563  +0.563  +0.563
  193 fuer x y z  +6.706  +6.706  +6.706
  193 fuer x y z +11.435 +11.435 +11.435
  194 fuer x y z  +1.892  +1.892  +1.892
*
  210 fuer x y z  +0.563  +0.563  +0.563
  211 fuer x y z  +6.706  +6.706  +6.706
  211 fuer x y z +11.435 +11.435 +11.435
  212 fuer x y z  +1.892  +1.892  +1.892
*
  228 fuer x y z  +0.563  +0.563  +0.563
  229 fuer x y z  +6.706  +6.706  +6.706
  229 fuer x y z +11.435 +11.435 +11.435
  230 fuer x y z  +1.892  +1.892  +1.892
*
  246 fuer x y z  +0.563  +0.563  +0.563
  247 fuer x y z  +6.706  +6.706  +6.706
  247 fuer x y z +11.435 +11.435 +11.435
  248 fuer x y z  +1.892  +1.892  +1.892
*
  264 fuer x y z  +0.563  +0.563  +0.563
  265 fuer x y z  +6.706  +6.706  +6.706
  265 fuer x y z +11.435 +11.435 +11.435
  266 fuer x y z  +1.892  +1.892  +1.892
*
* RIOSTRAS EN APOYOS
* E01
    1 fuer x y z  +24.373 +24.373 +24.373
* P01
   19 fuer x y z  +24.230 +24.230 +24.230
* P02
   37 fuer x y z  +24.230 +24.230 +24.230
* P03
   55 fuer x y z  +24.230 +24.230 +24.230
* P04
   73 fuer x y z  +24.230 +24.230 +24.230
* P05
   91 fuer x y z  +24.230 +24.230 +24.230
* P06
  109 fuer x y z  +24.230 +24.230 +24.230
* P07
  127 fuer x y z  +24.230 +24.230 +24.230
* P08
  145 fuer x y z  +24.230 +24.230 +24.230
* P09
  163 fuer x y z  +24.230 +24.230 +24.230
* P10
  181 fuer x y z  +24.230 +24.230 +24.230
* P11
  199 fuer x y z  +24.230 +24.230 +24.230
* P12
  217 fuer x y z  +24.230 +24.230 +24.230
* P13
  235 fuer x y z  +24.230 +24.230 +24.230
* P14
  253 fuer x y z  +24.230 +24.230 +24.230
* P15
  271 fuer x y z  +14.538 +14.538 +14.538
*
* CARGA MUERTA
*
        1 fuer x y z +19.838 +19.838 +19.838
 12 a  18 fuer x y z +39.677 +39.677 +39.677
       19 fuer x y z +46.008 +46.008 +46.008
 31 a  37 fuer x y z +52.340 +52.340 +52.340
 48 a  55 fuer x y z +52.340 +52.340 +52.340
 66 a  73 fuer x y z +52.340 +52.340 +52.340
 84 a  91 fuer x y z +52.340 +52.340 +52.340
102 a 109 fuer x y z +52.340 +52.340 +52.340
120 a 127 fuer x y z +52.340 +52.340 +52.340
138 a 145 fuer x y z +52.340 +52.340 +52.340
156 a 163 fuer x y z +52.340 +52.340 +52.340
175 a 181 fuer x y z +52.340 +52.340 +52.340
192 a 199 fuer x y z +52.340 +52.340 +52.340
210 a 217 fuer x y z +52.340 +52.340 +52.340
228 a 235 fuer x y z +52.340 +52.340 +52.340
246 a 252 fuer x y z +52.340 +52.340 +52.340
253       fuer x y z +46.726 +46.726 +46.726
264 a 270 fuer x y z +41.113 +41.113 +41.113
      271 fuer x y z +20.556 +20.556 +20.556
calcula y almacena
2 2 2
```

AUTOVALORES

N	AUTOVALOR	FRECUENCIA(HZ)	PERIODO(SEG.)
1	0.80112E+02	1.4245	0.70199
2	0.32930E+03	2.8881	0.34624
3	0.35254E+03	2.9883	0.33464
4	0.39139E+03	3.1487	0.31760
5	0.44623E+03	3.3620	0.29744
6	0.51413E+03	3.6088	0.27710
7	0.59487E+03	3.8818	0.25761
8	0.67381E+03	4.1313	0.24205
9	0.73619E+03	4.3183	0.23157
10	0.82911E+03	4.5828	0.21821
11	0.94671E+03	4.8970	0.20421
12	0.10711E+04	5.2087	0.19199
13	0.11954E+04	5.5026	0.18173
14	0.13090E+04	5.7583	0.17366
15	0.13960E+04	5.9466	0.16816
16	0.16500E+04	6.4649	0.15468
17	0.16522E+04	6.4692	0.15458
18	0.17473E+04	6.6529	0.15031
19	0.19183E+04	6.9707	0.14346
20	0.21191E+04	7.3265	0.13649
21	0.21244E+04	7.3357	0.13632
22	0.22903E+04	7.6167	0.13129
23	0.23251E+04	7.6743	0.13031
24	0.24866E+04	7.9364	0.12600
25	0.24873E+04	7.9375	0.12598
26	0.26292E+04	8.1608	0.12254
27	0.29381E+04	8.6269	0.11592
28	0.32284E+04	9.0431	0.11058
29	0.35143E+04	9.4349	0.10599
30	0.36595E+04	9.6279	0.10386
31	0.37045E+04	9.6869	0.10323
32	0.37519E+04	9.7487	0.10258
33	0.37628E+04	9.7628	0.10243
34	0.37914E+04	9.7999	0.10204
35	0.38354E+04	9.8565	0.10146
36	0.38498E+04	9.8751	0.10127
37	0.38633E+04	9.8924	0.10109
38	0.39022E+04	9.9420	0.10058
39	0.39179E+04	9.9620	0.10038
40	0.39610E+04	10.0166	0.09983
41	0.39969E+04	10.0619	0.09938
42	0.41195E+04	10.2152	0.09789
43	0.44294E+04	10.5923	0.09441
44	0.45321E+04	10.7145	0.09333
45	0.47335E+04	10.9500	0.09132

MASA TOTAL DE CALCULO DE LA ESTRUCTURA: 21729.2

PROPORCION DE MASA MOVILIZADA ACUMULADA
PARA CADA MODO Y DIRECCION EN ACCIONES SISMICAS

MODO	TANTO POR CIENTO PARA CADA DIRECCION		
1	66.6	0.0	0.0
2	66.6	0.0	0.0
3	66.6	0.0	0.0
4	66.6	0.0	0.0
5	66.6	0.0	0.0
6	66.6	0.0	0.0
7	66.9	0.0	0.0
8	68.8	0.0	0.0
9	71.1	0.2	0.0
10	71.8	0.2	0.0
11	72.0	0.7	0.0
12	72.1	0.7	0.0
13	72.1	2.8	0.0
14	72.1	2.9	0.0
15	72.1	34.3	0.0
16	72.2	40.6	0.0
17	72.2	53.1	0.0
18	72.2	53.1	17.6
19	72.2	53.1	18.7
20	72.2	53.1	29.4
21	72.2	53.1	41.6
22	72.2	53.1	42.0
23	72.2	53.1	46.9
24	72.2	53.2	49.4
25	74.0	54.8	49.5
26	74.0	54.8	49.5
27	74.0	54.8	49.7
28	74.0	54.8	49.7
29	74.0	54.8	49.9
30	74.0	54.8	49.9
31	74.0	54.8	49.9
32	74.0	54.8	52.2
33	74.0	54.8	52.4
34	74.0	54.8	55.0
35	74.0	54.8	56.1
36	74.0	54.8	57.0
37	74.0	54.8	57.0
38	74.0	54.8	59.4
39	74.0	54.8	62.3
40	74.0	54.8	62.5
41	74.0	54.8	71.7
42	74.0	54.8	72.5
43	75.1	55.0	72.5
44	75.1	55.0	72.5
45	75.1	55.0	72.5

ERROR CUADRATICO MEDIO EN CADA AUTOVECTOR

MODO	ERROR(T.POR UNO)
1	0.0000
2	0.0000
3	0.0000
4	0.0000
5	0.0000
6	0.0000
7	0.0000
8	0.0000
9	0.0000
10	0.0000
11	0.0000
12	0.0000
13	0.0000
14	0.0000
15	0.0000
16	0.0000
17	0.0000
18	0.0000
19	0.0000
20	0.0000
21	0.0000
22	0.0000
23	0.0000
24	0.0000
25	0.0000
26	0.0000
27	0.0000
28	0.0000
29	0.0001
30	0.0002
31	0.0001
32	0.0000
33	0.0000
34	0.0000
35	0.0002
36	0.0022
37	0.0045
38	0.0007
39	0.0035
40	0.0018
41	0.0006
42	0.0007
43	0.0143
44	0.0033
45	0.0217

VIADUCTO 1 SOBRE EL RIO SEGRE

1251	FUER X MAX envolvente (ELS) (total)
1252	FUER X MIN envolvente (ELS) (total)
1253	FUER Y MAX envolvente (ELS) (total)
1254	FUER Y MIN envolvente (ELS) (total)
1255	FUER Z MAX envolvente (ELS) (total)
1256	FUER Z MIN envolvente (ELS) (total)
1257	MOME X MAX envolvente (ELS) (total)
1258	MOME X MIN envolvente (ELS) (total)
1259	MOME Y MAX envolvente (ELS) (total)
1260	MOME Y MIN envolvente (ELS) (total)
1261	MOME Z MAX envolvente (ELS) (total)
1262	MOME Z MIN envolvente (ELS) (total)

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 221 EXTREMO 2 (NUDO 4)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-751.696	-96.579	-0.057	0.662	0.063	0.000	1.00
1252	-203.373	-1506.229	-0.150	1.329	0.175	0.000	1.00
1253	-421.984	-1580.160	13.455	-44.521	-66.675	0.000	1.00
1254	-545.308	39.511	12.153	-40.151	-60.056	0.000	1.00
1255	-497.735	-1187.092	-41.368	236.680	976.900	0.000	1.00
1256	-607.653	-415.717	47.899	-257.077	-1010.012	0.000	1.00
1257	-607.653	-415.717	39.272	-268.564	-984.556	0.000	1.00
1258	-497.735	-1187.092	-32.741	248.167	951.443	0.000	1.00
1259	-625.790	-415.717	46.660	-249.234	-1048.980	0.000	1.00
1260	-515.872	-1187.092	-40.119	228.762	1015.855	0.000	1.00
1261	-341.925	-801.403	-0.043	0.721	0.049	0.000	1.00
1262	-341.925	-801.403	-0.043	0.721	0.049	0.000	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 187 EXTREMO 2 (NUDO 21)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1531.031	0.000	-29.702	0.000	-43.325	0.009	1.00
1252	-426.638	0.000	15.026	0.000	21.924	0.015	1.00
1253	-575.804	0.000	0.067	0.000	0.098	0.006	1.00
1254	-575.804	0.000	0.067	0.000	0.098	0.006	1.00
1255	-1414.938	0.000	-55.739	0.000	-81.287	0.013	1.00
1256	-562.968	0.000	67.701	0.000	98.725	0.009	1.00
1257	-575.804	0.000	0.067	0.000	0.098	0.006	1.00
1258	-575.804	0.000	0.067	0.000	0.098	0.006	1.00
1259	-1414.935	0.000	-55.740	0.000	-81.288	0.013	1.00
1260	-562.965	0.000	67.701	0.000	98.726	0.009	1.00
1261	-826.055	0.000	0.172	0.000	0.251	-0.010	1.00
1262	-792.469	0.000	0.153	0.000	0.224	0.028	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 188 EXTREMO 2 (NUDO 20)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1515.279	0.000	0.000	0.000	0.020	0.009	1.00
1252	-410.955	0.000	0.000	0.000	-0.018	0.015	1.00
1253	-575.761	0.000	0.000	0.000	0.000	0.006	1.00
1254	-575.761	0.000	0.000	0.000	0.000	0.006	1.00
1255	-575.761	0.000	0.000	0.000	0.000	0.006	1.00
1256	-575.761	0.000	0.000	0.000	0.000	0.006	1.00
1257	-575.761	0.000	0.000	0.000	0.000	0.006	1.00
1258	-575.761	0.000	0.000	0.000	0.000	0.006	1.00
1259	-508.461	0.000	0.000	0.000	-0.020	0.008	1.00
1260	-1422.261	0.000	0.000	0.000	0.018	0.011	1.00
1261	-825.954	0.000	0.000	0.000	0.000	-0.010	1.00
1262	-792.369	0.000	0.000	0.000	0.000	0.028	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 189 EXTREMO 2 (NUDO 39)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1634.064	0.000	19.151	0.000	27.894	0.003	1.00
1252	-387.020	0.000	-23.307	0.000	-33.961	-0.011	1.00
1253	-578.785	0.000	-0.026	0.000	-0.037	-0.002	1.00
1254	-578.785	0.000	-0.026	0.000	-0.037	-0.002	1.00
1255	-1047.777	0.000	-33.630	0.000	-49.041	-0.005	1.00
1256	-913.909	0.000	56.265	0.000	82.030	-0.002	1.00
1257	-578.785	0.000	-0.026	0.000	-0.037	-0.002	1.00
1258	-578.785	0.000	-0.026	0.000	-0.037	-0.002	1.00
1259	-1047.777	0.000	-33.630	0.000	-49.041	-0.005	1.00
1260	-914.332	0.000	56.266	0.000	82.032	-0.002	1.00
1261	-816.623	0.000	-0.046	0.000	-0.063	-0.024	1.00
1262	-841.567	0.000	-0.012	0.000	-0.017	0.025	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 190 EXTREMO 2 (NUDO 38)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1614.081	0.000	0.000	0.000	0.024	0.003	1.00
1252	-367.110	0.000	0.000	0.000	-0.022	-0.011	1.00
1253	-578.796	0.000	0.000	0.000	0.000	-0.002	1.00
1254	-578.796	0.000	0.000	0.000	0.000	-0.002	1.00
1255	-578.796	0.000	0.000	0.000	0.000	-0.002	1.00
1256	-578.796	0.000	0.000	0.000	0.000	-0.002	1.00
1257	-578.796	0.000	0.000	0.000	0.000	-0.002	1.00
1258	-578.796	0.000	0.000	0.000	0.000	-0.002	1.00
1259	-423.458	0.000	0.000	0.000	-0.025	-0.002	1.00
1260	-1552.698	0.000	0.000	0.000	0.022	-0.001	1.00
1261	-816.643	0.000	0.000	0.000	0.000	-0.024	1.00
1262	-841.566	0.000	0.000	0.000	0.000	0.025	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 191 EXTREMO 2 (NUDO 57)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1625.650	0.000	5.659	0.000	8.229	-0.001	1.00
1252	-384.820	0.000	-12.427	0.000	-18.097	-0.004	1.00
1253	-580.120	0.000	0.001	0.000	0.002	-0.001	1.00
1254	-580.120	0.000	0.001	0.000	0.002	-0.001	1.00
1255	-1043.011	0.000	-34.884	0.000	-50.867	0.008	1.00
1256	-908.331	0.000	51.504	0.000	75.089	-0.001	1.00
1257	-580.120	0.000	0.001	0.000	0.002	-0.001	1.00
1258	-580.120	0.000	0.001	0.000	0.002	-0.001	1.00
1259	-1043.011	0.000	-34.884	0.000	-50.867	0.008	1.00
1260	-909.128	0.000	51.506	0.000	75.091	-0.001	1.00
1261	-823.621	0.000	0.006	0.000	0.012	-0.023	1.00
1262	-828.950	0.000	0.017	0.000	0.026	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 192 EXTREMO 2 (NUDO 56)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1606.035	0.000	0.000	0.000	0.024	-0.001	1.00
1252	-365.273	0.000	0.000	0.000	-0.022	-0.004	1.00
1253	-580.120	0.000	0.000	0.000	0.000	-0.001	1.00
1254	-580.120	0.000	0.000	0.000	0.000	-0.001	1.00
1255	-580.120	0.000	0.000	0.000	0.000	-0.001	1.00
1256	-580.120	0.000	0.000	0.000	0.000	-0.001	1.00
1257	-580.120	0.000	0.000	0.000	0.000	-0.001	1.00
1258	-580.120	0.000	0.000	0.000	0.000	-0.001	1.00
1259	-424.482	0.000	0.000	0.000	-0.025	0.000	1.00
1260	-1553.713	0.000	0.000	0.000	0.023	0.000	1.00
1261	-823.616	0.000	0.000	0.000	0.000	-0.023	1.00
1262	-828.951	0.000	0.000	0.000	0.000	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 193 EXTREMO 2 (NUDO 75)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1627.741	0.000	8.923	0.000	12.986	0.004	1.00
1252	-382.895	0.000	-15.705	0.000	-22.876	-0.009	1.00
1253	-578.841	0.000	0.000	0.000	0.000	-0.001	1.00
1254	-578.841	0.000	0.000	0.000	0.000	-0.001	1.00
1255	-1042.963	0.000	-35.320	0.000	-51.503	-0.008	1.00
1256	-908.072	0.000	52.101	0.000	75.960	-0.001	1.00
1257	-578.841	0.000	0.000	0.000	0.000	-0.001	1.00
1258	-578.841	0.000	0.000	0.000	0.000	-0.001	1.00
1259	-1042.963	0.000	-35.320	0.000	-51.503	-0.008	1.00
1260	-909.027	0.000	52.103	0.000	75.963	0.004	1.00
1261	-825.089	0.000	0.014	0.000	0.019	-0.024	1.00
1262	-826.619	0.000	0.017	0.000	0.025	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 194 EXTREMO 2 (NUDO 74)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1608.012	0.000	0.000	0.000	0.023	0.004	1.00
1252	-363.264	0.000	0.000	0.000	-0.021	-0.009	1.00
1253	-578.842	0.000	0.000	0.000	0.000	-0.001	1.00
1254	-578.842	0.000	0.000	0.000	0.000	-0.001	1.00
1255	-578.842	0.000	0.000	0.000	0.000	-0.001	1.00
1256	-578.842	0.000	0.000	0.000	0.000	-0.001	1.00
1257	-578.842	0.000	0.000	0.000	0.000	-0.001	1.00
1258	-578.842	0.000	0.000	0.000	0.000	-0.001	1.00
1259	-423.866	0.000	0.000	0.000	-0.024	-0.001	1.00
1260	-1556.771	0.000	0.000	0.000	0.022	-0.001	1.00
1261	-825.082	0.000	0.000	0.000	0.000	-0.024	1.00
1262	-826.610	0.000	0.000	0.000	0.000	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 195 EXTREMO 2 (NUDO 93)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1627.430	0.000	4.692	0.000	6.818	-0.001	1.00
1252	-382.020	0.000	-15.911	0.000	-23.175	-0.003	1.00
1253	-579.054	0.000	0.000	0.000	0.000	-0.001	1.00
1254	-579.054	0.000	0.000	0.000	0.000	-0.001	1.00
1255	-1043.585	0.000	-34.519	0.000	-50.334	-0.008	1.00
1256	-907.656	0.000	51.427	0.000	74.977	-0.001	1.00
1257	-579.054	0.000	0.000	0.000	0.000	-0.001	1.00
1258	-579.054	0.000	0.000	0.000	0.000	-0.001	1.00
1259	-1043.585	0.000	-34.519	0.000	-50.334	-0.008	1.00
1260	-908.502	0.000	51.428	0.000	74.979	-0.001	1.00
1261	-825.657	0.000	0.016	0.000	0.022	-0.024	1.00
1262	-826.017	0.000	0.014	0.000	0.021	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 196 EXTREMO 2 (NUDO 92)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1607.761	0.000	0.000	0.000	0.022	-0.001	1.00
1252	-362.409	0.000	0.000	0.000	-0.021	-0.003	1.00
1253	-579.054	0.000	0.000	0.000	0.000	-0.001	1.00
1254	-579.054	0.000	0.000	0.000	0.000	-0.001	1.00
1255	-579.054	0.000	0.000	0.000	0.000	-0.001	1.00
1256	-579.054	0.000	0.000	0.000	0.000	-0.001	1.00
1257	-579.054	0.000	0.000	0.000	0.000	-0.001	1.00
1258	-579.054	0.000	0.000	0.000	0.000	-0.001	1.00
1259	-423.252	0.000	0.000	0.000	-0.023	-0.001	1.00
1260	-1556.540	0.000	0.000	0.000	0.021	-0.001	1.00
1261	-825.647	0.000	0.000	0.000	0.000	-0.024	1.00
1262	-826.007	0.000	0.000	0.000	0.000	0.029	1.00

ESFUERZOS EN LA BARRA 197 EXTREMO 2 (NUDO 111)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1629.097	0.000	9.850	0.000	14.342	0.001	1.00
1252	-382.993	0.000	-15.013	0.000	-21.874	-0.004	1.00
1253	-579.104	0.000	0.000	0.000	0.000	-0.001	1.00
1254	-579.104	0.000	0.000	0.000	0.000	-0.001	1.00
1255	-1044.399	0.000	-33.442	0.000	-48.760	-0.008	1.00
1256	-907.864	0.000	51.709	0.000	75.390	-0.001	1.00
1257	-579.104	0.000	0.000	0.000	0.000	-0.001	1.00
1258	-579.104	0.000	0.000	0.000	0.000	-0.001	1.00
1259	-1044.397	0.000	-33.443	0.000	-48.761	-0.008	1.00
1260	-908.701	0.000	51.711	0.000	75.393	-0.001	1.00
1261	-825.726	0.000	0.015	0.000	0.023	-0.024	1.00
1262	-825.995	0.000	0.015	0.000	0.023	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 198 EXTREMO 2 (NUDO 110)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1609.370	0.000	0.000	0.000	0.021	0.001	1.00
1252	-363.359	0.000	0.000	0.000	-0.019	-0.004	1.00
1253	-579.102	0.000	0.000	0.000	0.000	-0.001	1.00
1254	-579.102	0.000	0.000	0.000	0.000	-0.001	1.00
1255	-579.102	0.000	0.000	0.000	0.000	-0.001	1.00
1256	-579.102	0.000	0.000	0.000	0.000	-0.001	1.00
1257	-579.102	0.000	0.000	0.000	0.000	-0.001	1.00
1258	-579.102	0.000	0.000	0.000	0.000	-0.001	1.00
1259	-423.664	0.000	0.000	0.000	-0.022	-0.001	1.00
1260	-1558.254	0.000	0.000	0.000	0.020	-0.001	1.00
1261	-825.716	0.000	0.000	0.000	0.000	-0.024	1.00
1262	-825.984	0.000	0.000	0.000	0.000	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 200 EXTREMO 2 (NUDO 128)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1609.516	0.000	0.000	0.000	0.020	0.004	1.00
1252	-363.741	0.000	0.000	0.000	-0.018	-0.008	1.00
1253	-579.007	0.000	0.000	0.000	0.000	-0.001	1.00
1254	-579.007	0.000	0.000	0.000	0.000	-0.001	1.00
1255	-579.007	0.000	0.000	0.000	0.000	-0.001	1.00
1256	-579.007	0.000	0.000	0.000	0.000	-0.001	1.00
1257	-579.007	0.000	0.000	0.000	0.000	-0.001	1.00
1258	-579.007	0.000	0.000	0.000	0.000	-0.001	1.00
1259	-422.834	0.000	0.000	0.000	-0.021	-0.001	1.00
1260	-1558.949	0.000	0.000	0.000	0.019	-0.001	1.00
1261	-825.838	0.000	0.000	0.000	0.000	-0.024	1.00
1262	-825.861	0.000	0.000	0.000	0.000	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 199 EXTREMO 2 (NUDO 129)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1629.279	0.000	10.944	0.000	15.932	0.004	1.00
1252	-383.451	0.000	-14.817	0.000	-21.589	-0.008	1.00
1253	-579.004	0.000	0.000	0.000	0.000	-0.001	1.00
1254	-579.004	0.000	0.000	0.000	0.000	-0.001	1.00
1255	-1045.842	0.000	-32.052	0.000	-46.739	-0.008	1.00
1256	-907.676	0.000	51.591	0.000	75.218	-0.001	1.00
1257	-579.004	0.000	0.000	0.000	0.000	-0.001	1.00
1258	-579.004	0.000	0.000	0.000	0.000	-0.001	1.00
1259	-1045.839	0.000	-32.053	0.000	-46.740	-0.008	1.00
1260	-907.676	0.000	51.591	0.000	75.218	-0.001	1.00
1261	-825.847	0.000	0.017	0.000	0.024	-0.024	1.00
1262	-825.869	0.000	0.016	0.000	0.024	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 201 EXTREMO 2 (NUDO 147)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1628.261	0.000	7.948	0.000	11.570	0.001	1.00
1252	-384.907	0.000	-11.347	0.000	-16.527	-0.004	1.00
1253	-579.068	0.000	0.000	0.000	0.000	-0.001	1.00
1254	-579.068	0.000	0.000	0.000	0.000	-0.001	1.00
1255	-1046.440	0.000	-31.176	0.000	-45.457	-0.008	1.00
1256	-906.842	0.000	50.108	0.000	73.054	-0.001	1.00
1257	-579.068	0.000	0.000	0.000	0.000	-0.001	1.00
1258	-579.068	0.000	0.000	0.000	0.000	-0.001	1.00
1259	-1046.440	0.000	-31.176	0.000	-45.457	-0.008	1.00
1260	-907.156	0.000	50.108	0.000	73.055	-0.001	1.00
1261	-825.904	0.000	0.016	0.000	0.023	-0.024	1.00
1262	-825.870	0.000	0.015	0.000	0.024	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 202 EXTREMO 2 (NUDO 146)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1608.618	0.000	0.000	0.000	0.019	0.001	1.00
1252	-365.320	0.000	0.000	0.000	-0.018	-0.004	1.00
1253	-579.068	0.000	0.000	0.000	0.000	-0.001	1.00
1254	-579.068	0.000	0.000	0.000	0.000	-0.001	1.00
1255	-579.068	0.000	0.000	0.000	0.000	-0.001	1.00
1256	-579.068	0.000	0.000	0.000	0.000	-0.001	1.00
1257	-579.068	0.000	0.000	0.000	0.000	-0.001	1.00
1258	-579.068	0.000	0.000	0.000	0.000	-0.001	1.00
1259	-443.554	0.000	0.000	0.000	-0.019	-0.001	1.00
1260	-1558.017	0.000	0.000	0.000	0.018	-0.001	1.00
1261	-825.893	0.000	0.000	0.000	0.000	-0.024	1.00
1262	-825.861	0.000	0.000	0.000	0.000	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 203 EXTREMO 2 (NUDO 165)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1634.728	0.000	18.266	0.000	26.610	0.005	1.00
1252	-379.113	0.000	-20.941	0.000	-30.516	0.009	1.00
1253	-579.115	0.000	0.000	0.000	0.000	-0.001	1.00
1254	-579.115	0.000	0.000	0.000	0.000	-0.001	1.00
1255	-1045.875	0.000	-31.325	0.000	-45.677	0.007	1.00
1256	-908.779	0.000	53.064	0.000	77.364	-0.001	1.00
1257	-579.115	0.000	0.000	0.000	0.000	-0.001	1.00
1258	-579.115	0.000	0.000	0.000	0.000	-0.001	1.00
1259	-1045.875	0.000	-31.325	0.000	-45.677	0.007	1.00
1260	-909.195	0.000	53.065	0.000	77.366	-0.001	1.00
1261	-826.051	0.000	0.017	0.000	0.024	-0.024	1.00
1262	-825.781	0.000	0.015	0.000	0.023	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 204 EXTREMO 2 (NUDO 164)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1614.641	0.000	0.000	0.000	0.019	0.005	1.00
1252	-359.131	0.000	0.000	0.000	-0.017	0.009	1.00
1253	-579.115	0.000	0.000	0.000	0.000	-0.001	1.00
1254	-579.115	0.000	0.000	0.000	0.000	-0.001	1.00
1255	-579.115	0.000	0.000	0.000	0.000	-0.001	1.00
1256	-579.115	0.000	0.000	0.000	0.000	-0.001	1.00
1257	-579.115	0.000	0.000	0.000	0.000	-0.001	1.00
1258	-579.115	0.000	0.000	0.000	0.000	-0.001	1.00
1259	-438.699	0.000	0.000	0.000	-0.019	-0.001	1.00
1260	-1563.106	0.000	0.000	0.000	0.018	-0.001	1.00
1261	-826.042	0.000	0.000	0.000	0.000	-0.024	1.00
1262	-825.772	0.000	0.000	0.000	0.000	0.029	1.00

ESFUERZOS EN LA BARRA 205 EXTREMO 2 (NUDO 183)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1623.909	0.000	1.724	0.000	2.493	0.006	1.00
1252	-387.273	0.000	-7.228	0.000	-10.521	0.008	1.00
1253	-578.808	0.000	0.000	0.000	0.000	-0.001	1.00
1254	-578.808	0.000	0.000	0.000	0.000	-0.001	1.00
1255	-1044.162	0.000	-33.120	0.000	-48.291	0.007	1.00
1256	-906.707	0.000	49.606	0.000	72.323	-0.001	1.00
1257	-578.808	0.000	0.000	0.000	0.000	-0.001	1.00
1258	-578.808	0.000	0.000	0.000	0.000	-0.001	1.00
1259	-1044.162	0.000	-33.120	0.000	-48.291	0.007	1.00
1260	-907.131	0.000	49.607	0.000	72.324	-0.001	1.00
1261	-825.762	0.000	0.014	0.000	0.022	-0.024	1.00
1262	-825.463	0.000	0.014	0.000	0.021	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 206 EXTREMO 2 (NUDO 182)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1604.562	0.000	0.000	0.000	0.021	0.006	1.00
1252	-368.032	0.000	0.000	0.000	-0.019	0.008	1.00
1253	-578.808	0.000	0.000	0.000	0.000	-0.001	1.00
1254	-578.808	0.000	0.000	0.000	0.000	-0.001	1.00
1255	-578.808	0.000	0.000	0.000	0.000	-0.001	1.00
1256	-578.808	0.000	0.000	0.000	0.000	-0.001	1.00
1257	-578.808	0.000	0.000	0.000	0.000	-0.001	1.00
1258	-578.808	0.000	0.000	0.000	0.000	-0.001	1.00
1259	-428.074	0.000	0.000	0.000	-0.022	-0.001	1.00
1260	-1553.397	0.000	0.000	0.000	0.020	-0.001	1.00
1261	-825.753	0.000	0.000	0.000	0.000	-0.024	1.00
1262	-825.451	0.000	0.000	0.000	0.000	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 207 EXTREMO 2 (NUDO 201)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1630.390	0.000	11.317	0.000	16.480	0.001	1.00
1252	-383.834	0.000	-15.769	0.000	-22.972	-0.002	1.00
1253	-580.062	0.000	0.004	0.000	0.006	0.000	1.00
1254	-580.062	0.000	0.004	0.000	0.006	0.000	1.00
1255	-1045.390	0.000	-32.827	0.000	-47.868	-0.003	1.00
1256	-909.540	0.000	52.210	0.000	76.119	0.001	1.00
1257	-580.062	0.000	0.004	0.000	0.006	0.000	1.00
1258	-580.062	0.000	0.004	0.000	0.006	0.000	1.00
1259	-1045.390	0.000	-32.827	0.000	-47.868	-0.003	1.00
1260	-909.963	0.000	52.211	0.000	76.121	0.001	1.00
1261	-827.775	0.000	0.023	0.000	0.032	-0.023	1.00
1262	-825.850	0.000	0.017	0.000	0.025	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 208 EXTREMO 2 (NUDO 200)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1610.633	0.000	0.000	0.000	0.021	0.001	1.00
1252	-364.192	0.000	0.000	0.000	-0.019	-0.002	1.00
1253	-580.061	0.000	0.000	0.000	0.000	0.000	1.00
1254	-580.061	0.000	0.000	0.000	0.000	0.000	1.00
1255	-580.061	0.000	0.000	0.000	0.000	0.000	1.00
1256	-580.061	0.000	0.000	0.000	0.000	0.000	1.00
1257	-580.061	0.000	0.000	0.000	0.000	0.000	1.00
1258	-580.061	0.000	0.000	0.000	0.000	0.000	1.00
1259	-424.155	0.000	0.000	0.000	-0.022	-0.001	1.00
1260	-1559.179	0.000	0.000	0.000	0.020	-0.001	1.00
1261	-827.763	0.000	0.000	0.000	0.000	-0.023	1.00
1262	-825.839	0.000	0.000	0.000	0.000	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 209 EXTREMO 2 (NUDO 219)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1625.544	0.000	9.340	0.000	13.599	0.005	1.00
1252	-380.104	0.000	-12.955	0.000	-18.870	-0.008	1.00
1253	-574.999	0.000	-0.012	0.000	-0.018	-0.001	1.00
1254	-574.999	0.000	-0.012	0.000	-0.018	-0.001	1.00
1255	-1040.111	0.000	-31.482	0.000	-45.902	-0.007	1.00
1256	-904.369	0.000	50.617	0.000	73.798	0.004	1.00
1257	-574.999	0.000	-0.012	0.000	-0.018	-0.001	1.00
1258	-574.999	0.000	-0.012	0.000	-0.018	-0.001	1.00
1259	-1040.111	0.000	-31.482	0.000	-45.902	-0.007	1.00
1260	-905.167	0.000	50.619	0.000	73.800	0.004	1.00
1261	-824.170	0.000	0.009	0.000	0.015	-0.024	1.00
1262	-820.443	0.000	-0.001	0.000	-0.003	0.028	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 210 EXTREMO 2 (NUDO 218)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1605.864	0.000	0.000	0.000	0.020	0.005	1.00
1252	-360.554	0.000	0.000	0.000	-0.018	-0.008	1.00
1253	-575.007	0.000	0.000	0.000	0.000	-0.001	1.00
1254	-575.007	0.000	0.000	0.000	0.000	-0.001	1.00
1255	-575.007	0.000	0.000	0.000	0.000	-0.001	1.00
1256	-575.007	0.000	0.000	0.000	0.000	-0.001	1.00
1257	-575.007	0.000	0.000	0.000	0.000	-0.001	1.00
1258	-575.007	0.000	0.000	0.000	0.000	-0.001	1.00
1259	-437.541	0.000	0.000	0.000	-0.020	-0.001	1.00
1260	-1552.680	0.000	0.000	0.000	0.019	-0.001	1.00
1261	-824.166	0.000	0.000	0.000	0.000	-0.024	1.00
1262	-820.446	0.000	0.000	0.000	0.000	0.028	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 211 EXTREMO 2 (NUDO 237)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1649.355	0.000	23.480	0.000	34.213	0.002	1.00
1252	-395.346	0.000	-23.423	0.000	-34.137	0.015	1.00
1253	-596.202	0.000	-0.011	0.000	-0.016	0.001	1.00
1254	-596.202	0.000	-0.011	0.000	-0.016	0.001	1.00
1255	-1058.193	0.000	-28.866	0.000	-42.089	0.013	1.00
1256	-930.318	0.000	54.811	0.000	79.912	0.003	1.00
1257	-596.202	0.000	-0.011	0.000	-0.016	0.001	1.00
1258	-596.202	0.000	-0.011	0.000	-0.016	0.001	1.00
1259	-1058.193	0.000	-28.866	0.000	-42.089	0.013	1.00
1260	-930.318	0.000	54.811	0.000	79.912	0.003	1.00
1261	-856.125	0.000	0.020	0.000	0.029	-0.020	1.00
1262	-826.564	0.000	-0.047	0.000	-0.071	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 212 EXTREMO 2 (NUDO 236)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1629.144	0.000	0.000	0.000	0.019	0.002	1.00
1252	-375.202	0.000	0.000	0.000	-0.018	0.015	1.00
1253	-596.211	0.000	0.000	0.000	0.000	0.001	1.00
1254	-596.211	0.000	0.000	0.000	0.000	0.001	1.00
1255	-596.211	0.000	0.000	0.000	0.000	0.001	1.00
1256	-596.211	0.000	0.000	0.000	0.000	0.001	1.00
1257	-596.211	0.000	0.000	0.000	0.000	0.001	1.00
1258	-596.211	0.000	0.000	0.000	0.000	0.001	1.00
1259	-451.518	0.000	0.000	0.000	-0.019	0.001	1.00
1260	-1575.766	0.000	0.000	0.000	0.018	0.001	1.00
1261	-856.114	0.000	0.000	0.000	0.000	-0.020	1.00
1262	-826.594	0.000	0.000	0.000	0.000	0.029	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 213 EXTREMO 2 (NUDO 255)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1519.507	0.000	-8.332	0.000	-12.165	-0.003	1.00
1252	-387.111	0.000	4.198	0.000	6.137	-0.013	1.00
1253	-527.286	0.000	0.036	0.000	0.053	-0.009	1.00
1254	-527.286	0.000	0.036	0.000	0.053	-0.009	1.00
1255	-1431.065	0.000	-39.011	0.000	-56.895	-0.011	1.00
1256	-490.367	0.000	53.513	0.000	78.042	-0.003	1.00
1257	-527.286	0.000	0.036	0.000	0.053	-0.009	1.00
1258	-527.286	0.000	0.036	0.000	0.053	-0.009	1.00
1259	-1431.065	0.000	-39.011	0.000	-56.895	-0.011	1.00
1260	-490.367	0.000	53.513	0.000	78.042	-0.003	1.00
1261	-807.647	0.000	0.125	0.000	0.182	-0.027	1.00
1262	-738.832	0.000	0.070	0.000	0.100	0.017	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 214 EXTREMO 2 (NUDO 254)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-1501.583	0.000	0.000	0.000	0.018	-0.003	1.00
1252	-369.266	0.000	0.000	0.000	-0.017	-0.013	1.00
1253	-527.266	0.000	0.000	0.000	0.000	-0.009	1.00
1254	-527.266	0.000	0.000	0.000	0.000	-0.009	1.00
1255	-527.266	0.000	0.000	0.000	0.000	-0.009	1.00
1256	-527.266	0.000	0.000	0.000	0.000	-0.009	1.00
1257	-527.266	0.000	0.000	0.000	0.000	-0.009	1.00
1258	-527.266	0.000	0.000	0.000	0.000	-0.009	1.00
1259	-445.258	0.000	0.000	0.000	-0.018	-0.011	1.00
1260	-1437.166	0.000	0.000	0.000	0.017	-0.011	1.00
1261	-807.572	0.000	0.000	0.000	0.000	-0.027	1.00
1262	-738.790	0.000	0.000	0.000	0.000	0.017	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 215 EXTREMO 2 (NUDO 273)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-636.167	-0.019	28.839	0.000	42.042	0.008	1.00
1252	-28.574	-0.016	-28.068	0.000	-40.917	0.006	1.00
1253	-204.767	-0.019	-0.014	0.000	-0.020	0.023	1.00
1254	-181.456	-0.014	-0.015	0.000	-0.022	0.014	1.00
1255	-30.335	-0.016	-29.170	0.000	-42.525	0.007	1.00
1256	-605.413	-0.019	35.712	0.000	52.063	0.013	1.00
1257	-201.618	-0.016	-0.016	0.000	-0.024	0.016	1.00
1258	-201.618	-0.016	-0.016	0.000	-0.024	0.016	1.00
1259	-30.335	-0.016	-29.170	0.000	-42.525	0.007	1.00
1260	-605.413	-0.019	35.712	0.000	52.063	0.013	1.00
1261	-341.969	-0.016	-0.035	0.000	-0.052	-0.008	1.00
1262	-189.591	-0.019	-0.058	0.000	-0.084	0.036	1.00

VIADUCTO 1 SOBRE EL RIO SEGRE

ESFUERZOS EN LA BARRA 216 EXTREMO 2 (NUDO 272)

HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-626.591	-0.006	0.000	0.000	0.005	0.005	1.00
1252	-19.045	-0.005	0.000	0.000	-0.006	0.003	1.00
1253	-204.775	-0.006	0.000	0.000	0.000	0.020	1.00
1254	-181.465	-0.005	0.000	0.000	0.000	0.012	1.00
1255	-201.628	-0.005	0.000	0.000	0.000	0.013	1.00
1256	-201.628	-0.005	0.000	0.000	0.000	0.013	1.00
1257	-201.628	-0.005	0.000	0.000	0.000	0.013	1.00
1258	-201.628	-0.005	0.000	0.000	0.000	0.013	1.00
1259	-61.855	-0.005	0.000	0.000	-0.005	0.003	1.00
1260	-582.270	-0.005	0.000	0.000	0.005	0.003	1.00
1261	-341.990	-0.005	0.000	0.000	0.000	-0.011	1.00
1262	-189.633	-0.006	0.000	0.000	0.000	0.033	1.00

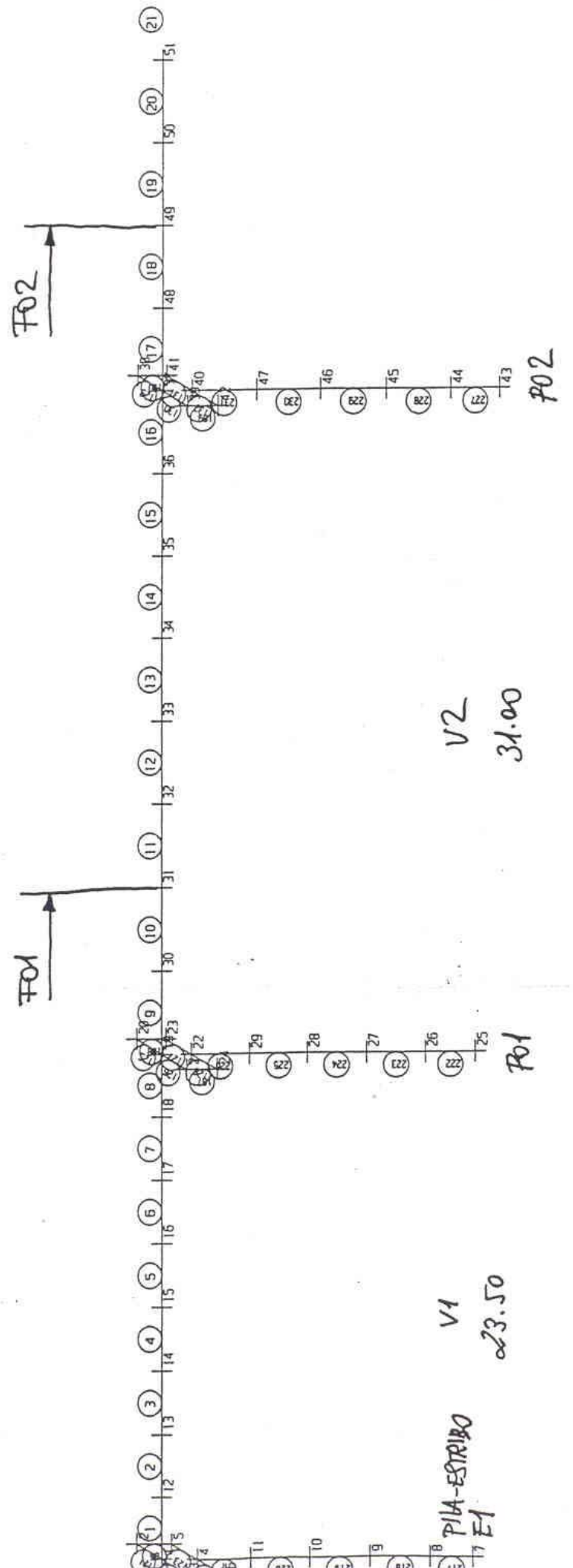
VIADUCTO 1 SOBRE EL RIO SEGRE

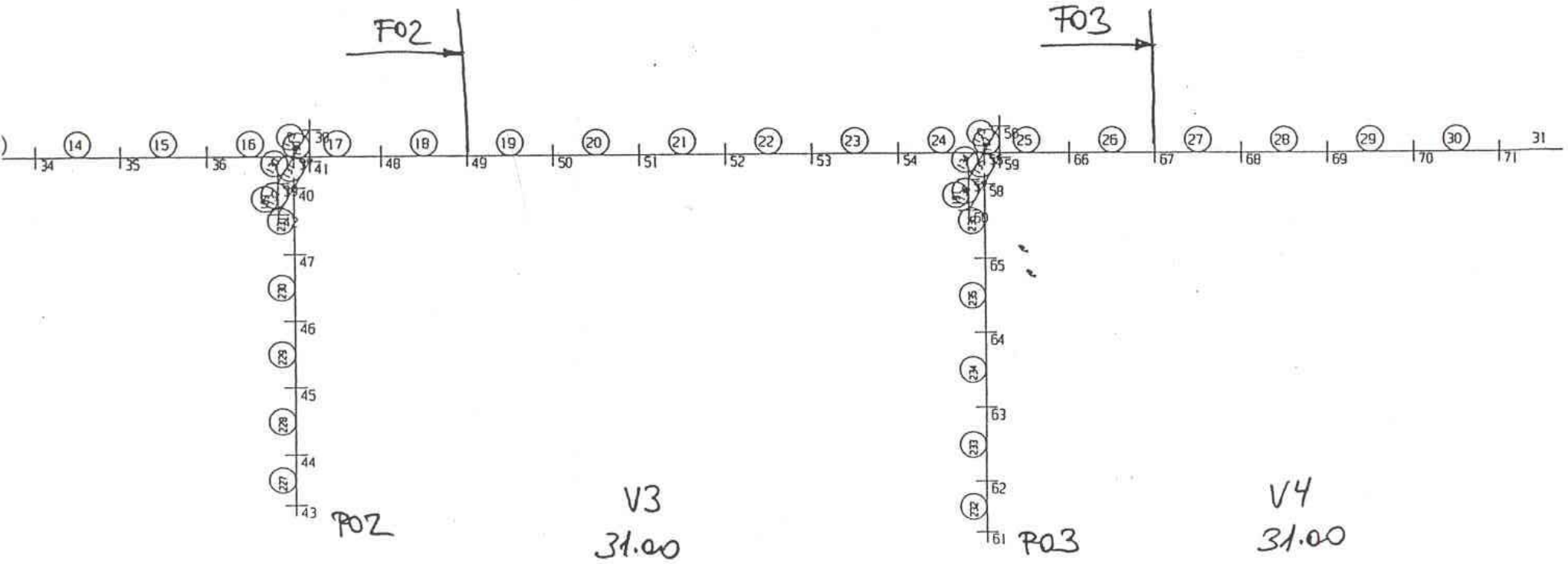
ESFUERZOS EN LA BARRA 296 EXTREMO 2 (NUDO 274)

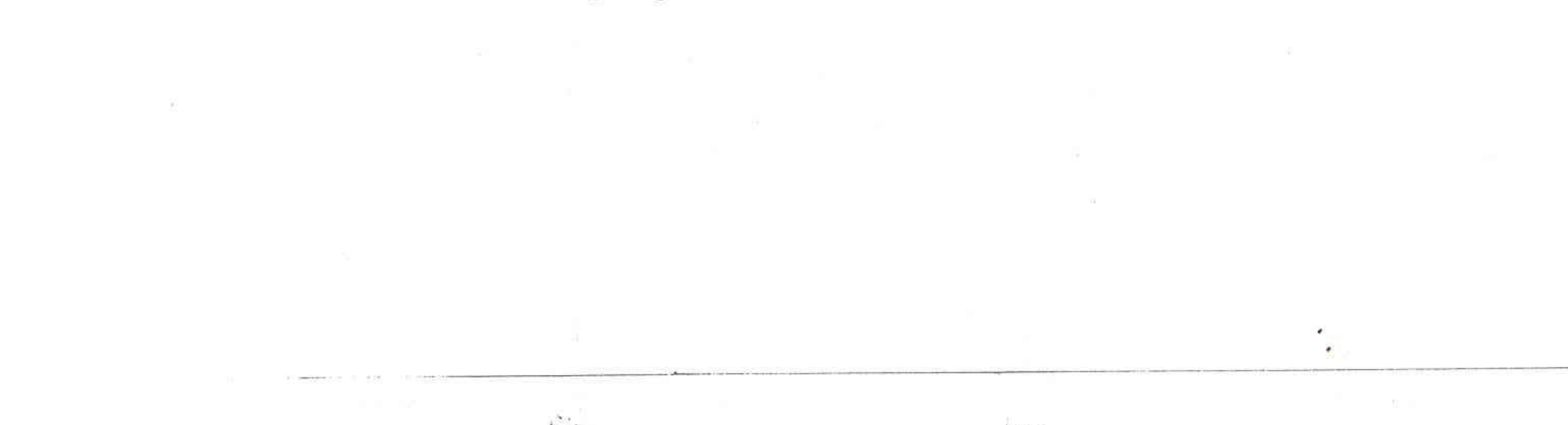
HIPO	AXIL	CORT. Y	CORT. Z	TORSOR	FLEC. Y	FLEC. Z	COEF
	1.00	1.00	1.00	1.00	1.00	1.00	
1251	-762.869	18.200	4.486	0.019	-6.279	0.000	1.00
1252	-296.262	18.200	-4.608	0.016	6.420	0.000	1.00
1253	-362.920	16.380	-0.015	0.014	0.017	0.000	1.00
1254	-409.541	18.200	-0.014	0.019	0.016	0.000	1.00
1255	-592.135	18.200	-29.170	0.016	1009.718	0.000	1.00
1256	-660.303	18.200	35.712	0.019	-1045.988	0.000	1.00
1257	-362.920	16.380	-0.015	0.014	0.017	0.000	1.00
1258	-409.541	18.200	-0.014	0.019	0.016	0.000	1.00
1259	-679.161	18.200	34.832	0.019	-1087.390	0.000	1.00
1260	-610.992	18.200	-28.282	0.016	1051.110	0.000	1.00
1261	-403.245	18.200	-0.016	0.016	0.019	0.000	1.00
1262	-403.245	18.200	-0.016	0.016	0.019	0.000	1.00

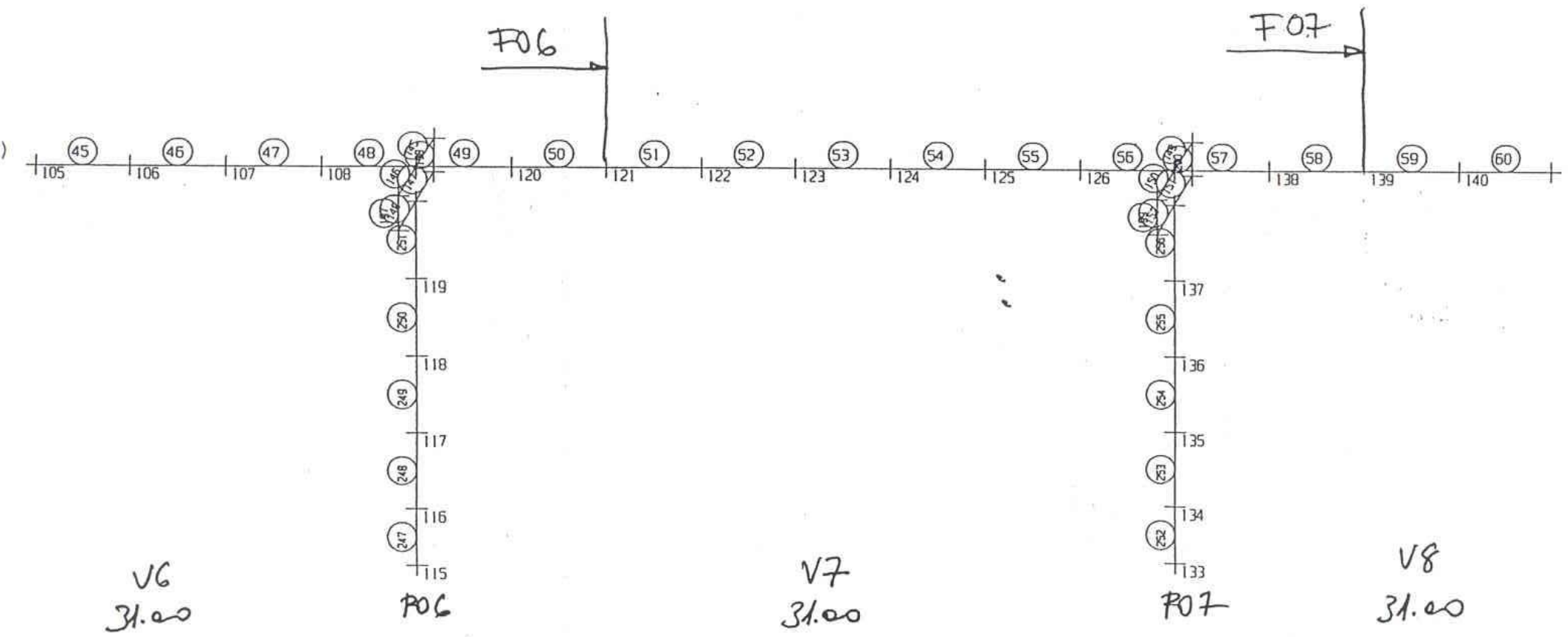
MODELO ESTRUCTURAL CÁLCULO 2

FASES DE CONSTRUCCION




F02
F03
P02
V3
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P03
V4
31.00


F04
F05
F06
P04
V5
31.00
P05
V6
31.00
P06



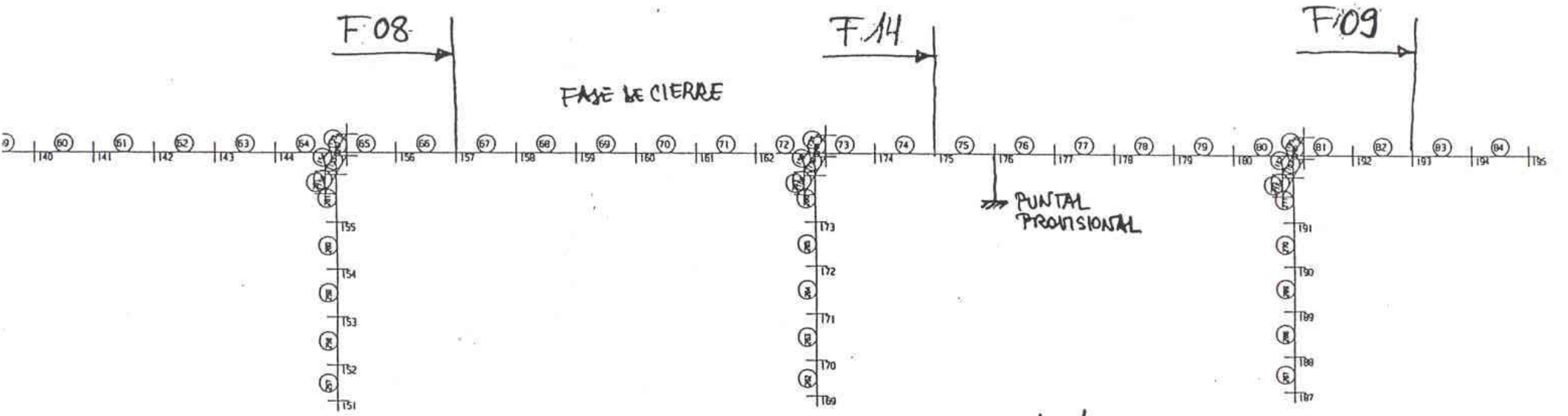
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P06

V7
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P07

V8
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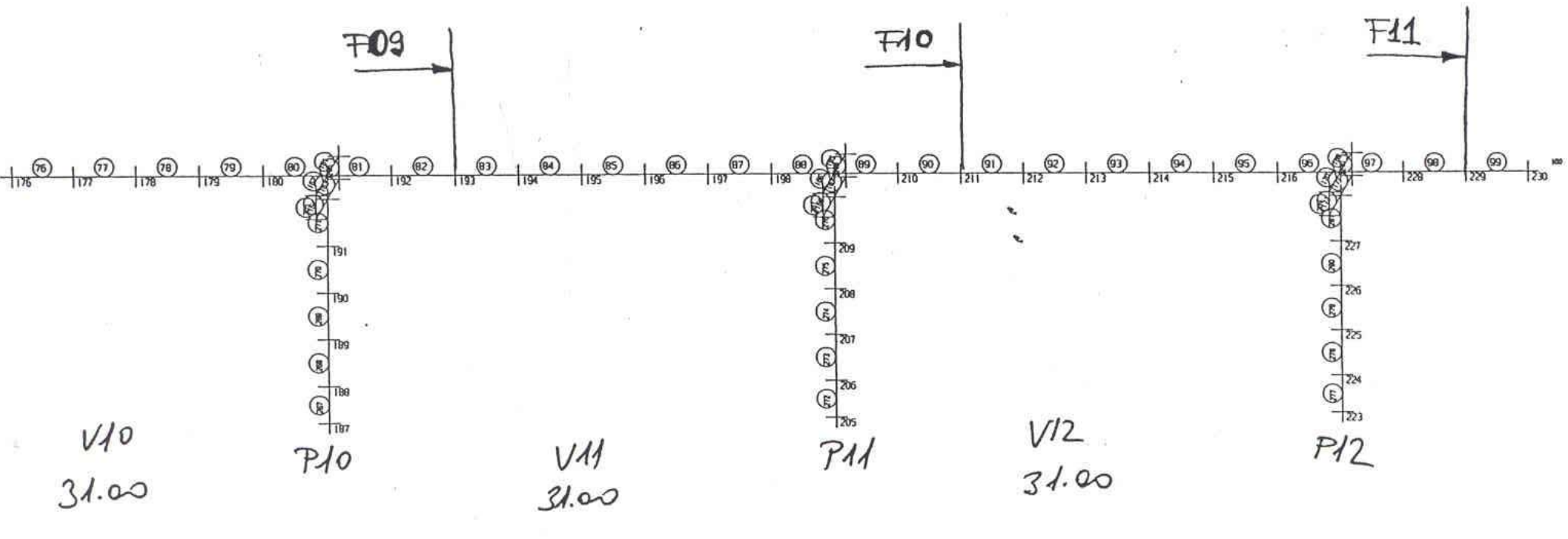
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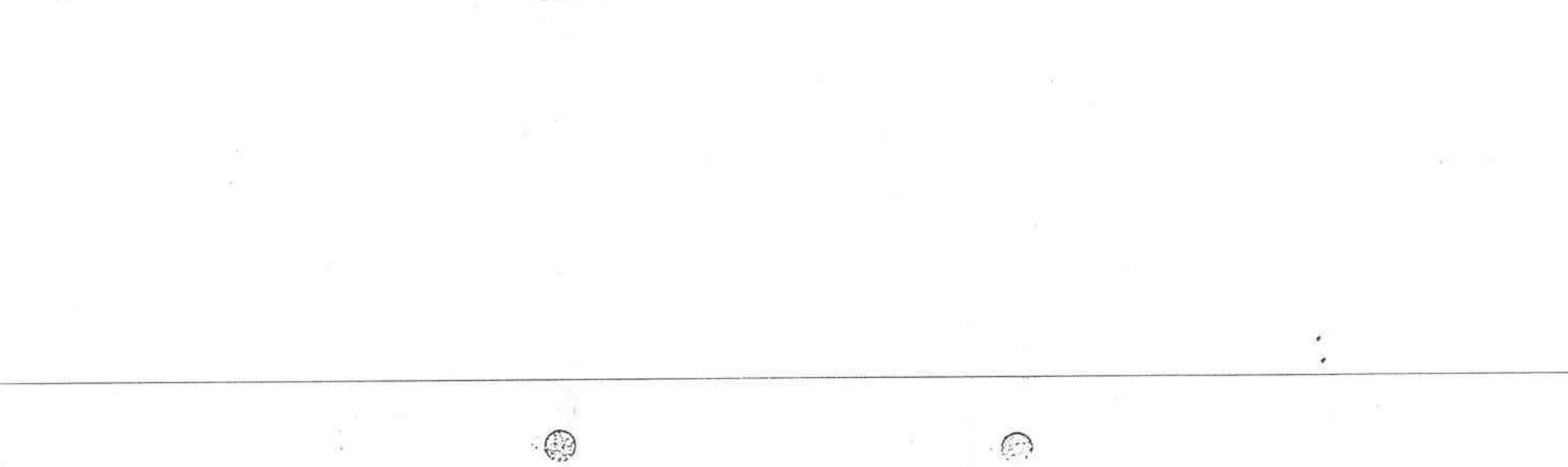
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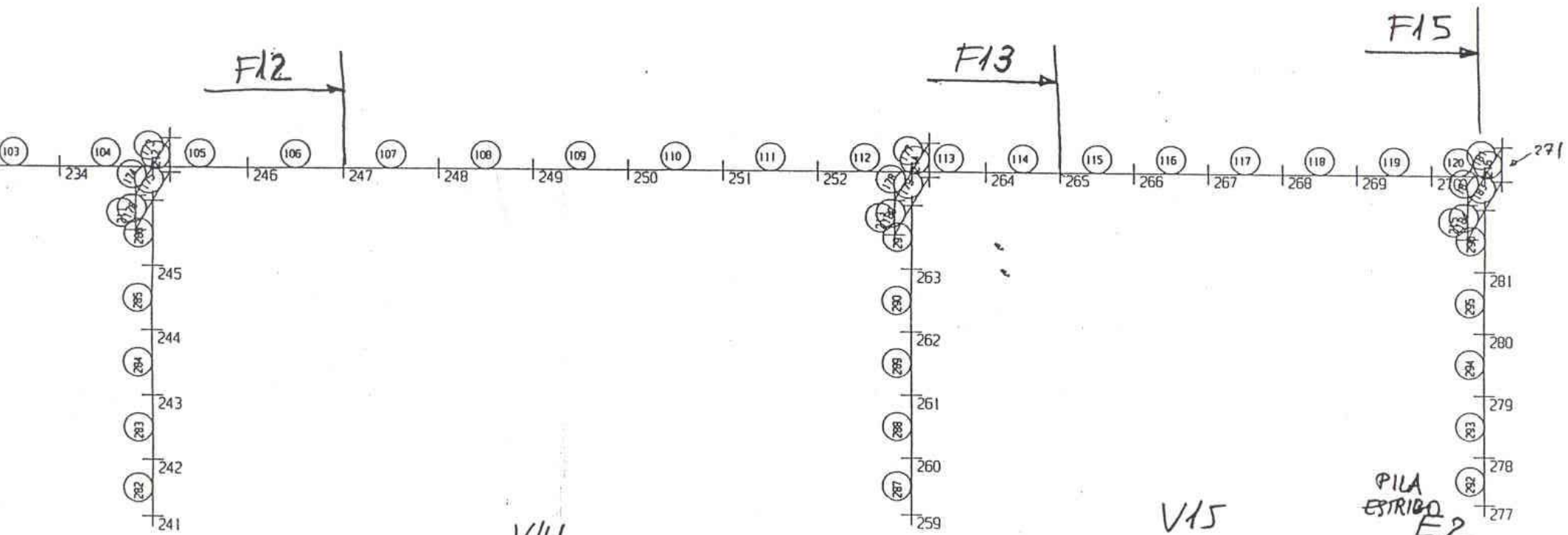
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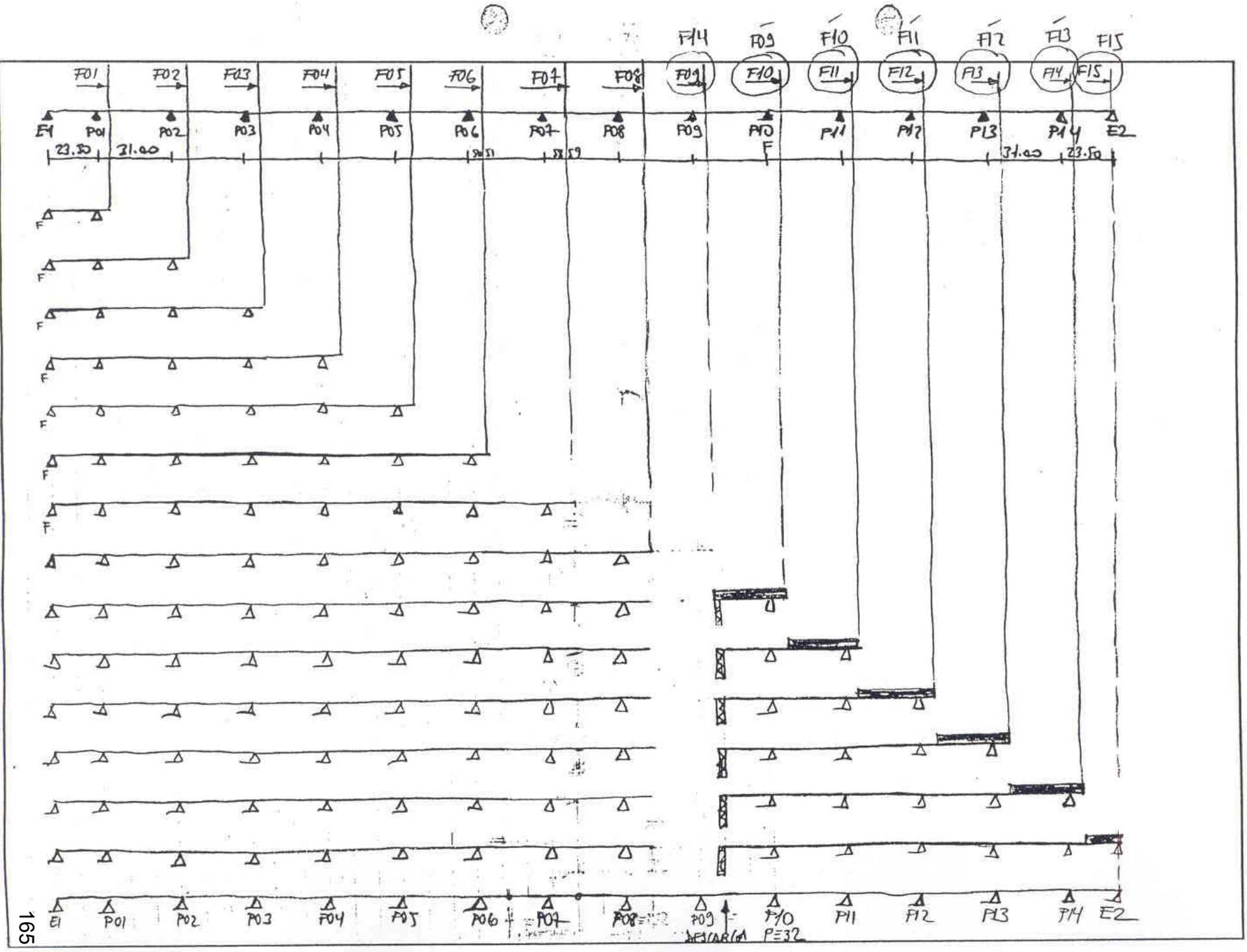
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P12


F10
F11
F12
V11
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P11
V12
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P13
V14
31.00





CARLOS FERNANDEZ CASADO, S.L.
OFICINA DE PROYECTOS

PROYECTO

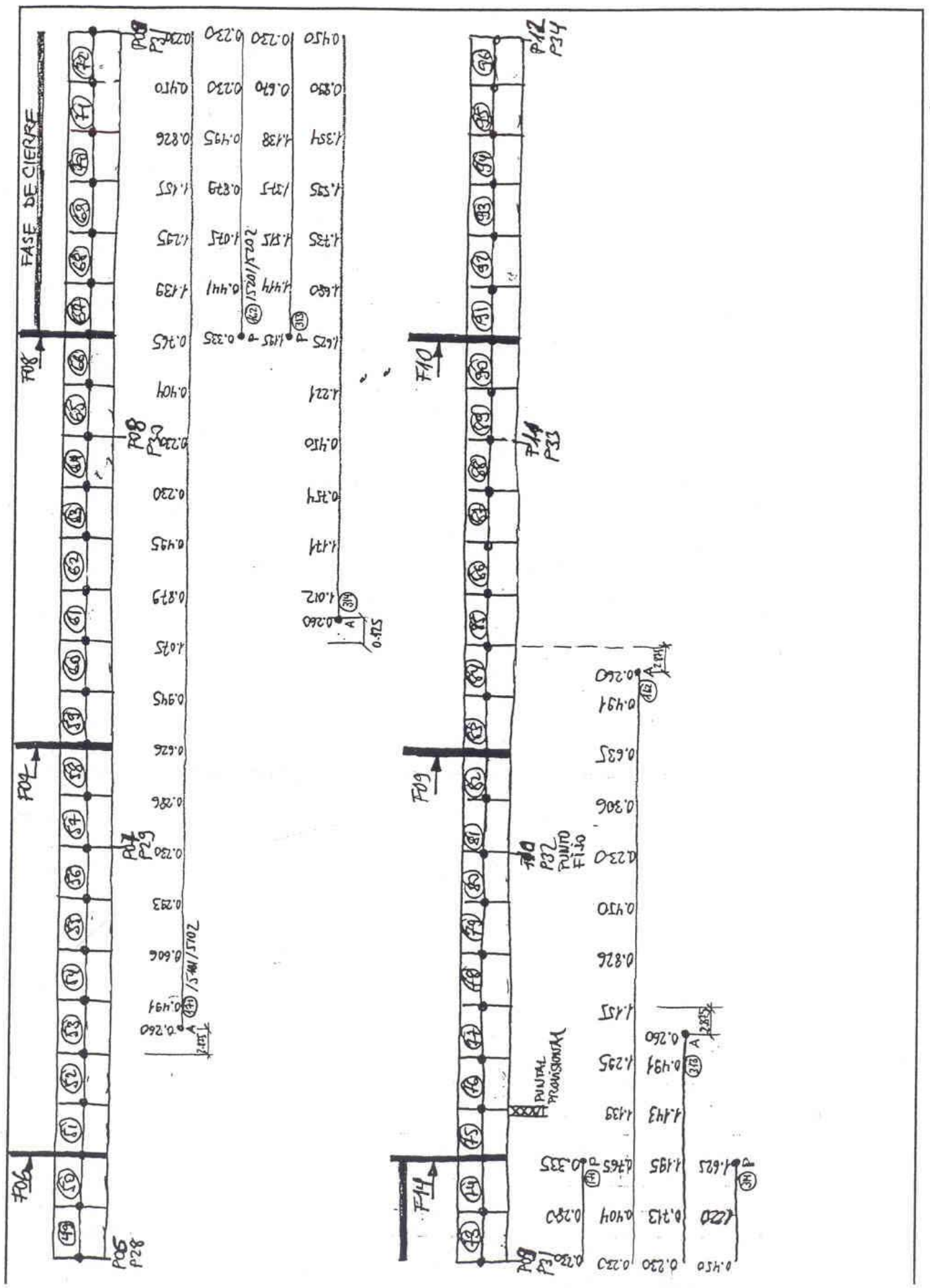
HOJA ____ DE ____

FECHA

CARLOS FERNANDEZ CASADO, S.L.
OFICINA DE PROYECTOS

PROYECTO

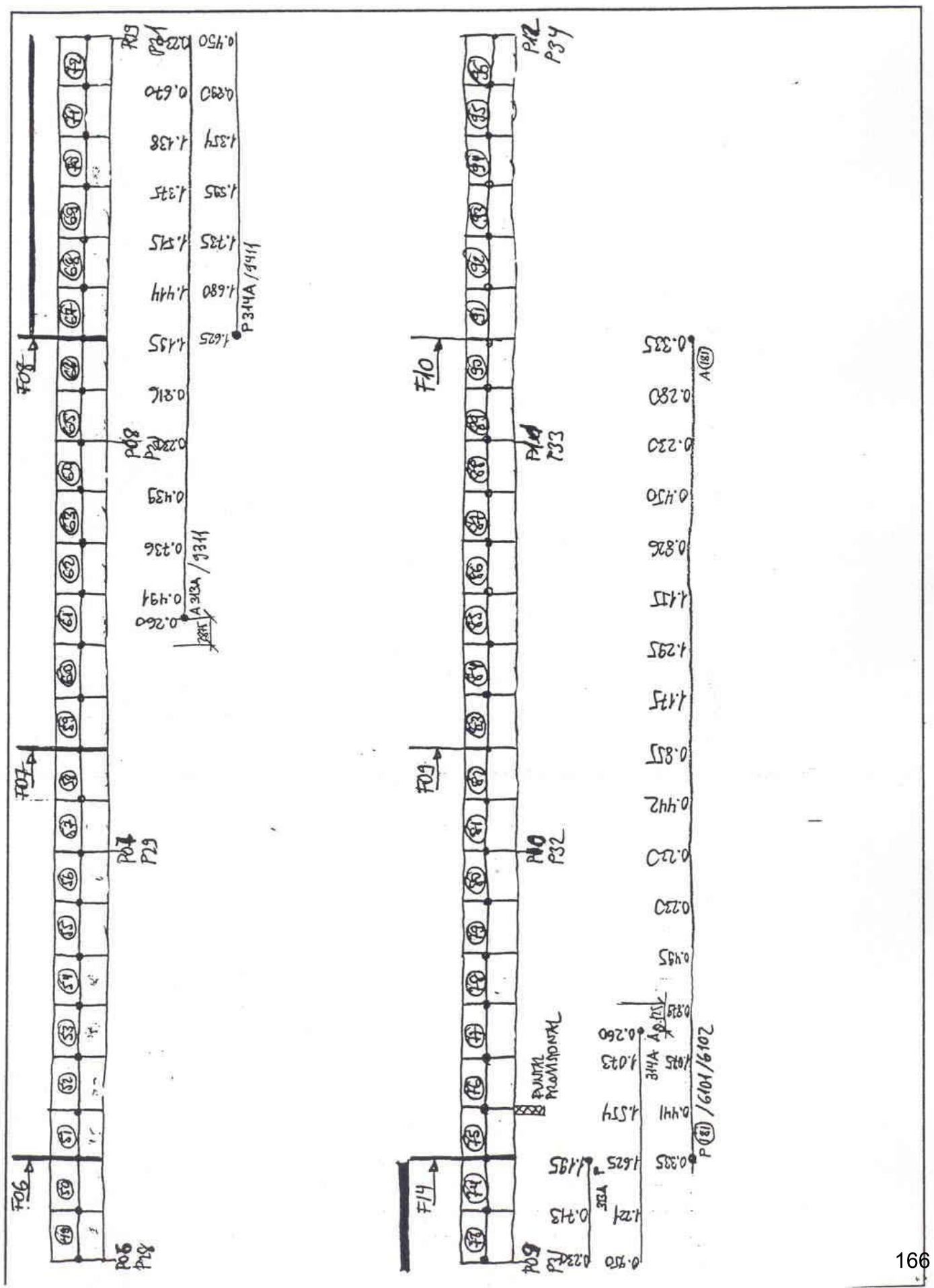
HOJA ____ DE ____
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CARLOS FERNANDEZ CASADO, S.L.
OFICINA DE PROYECTOS

PROYECTO

HOJA ____ DE ____
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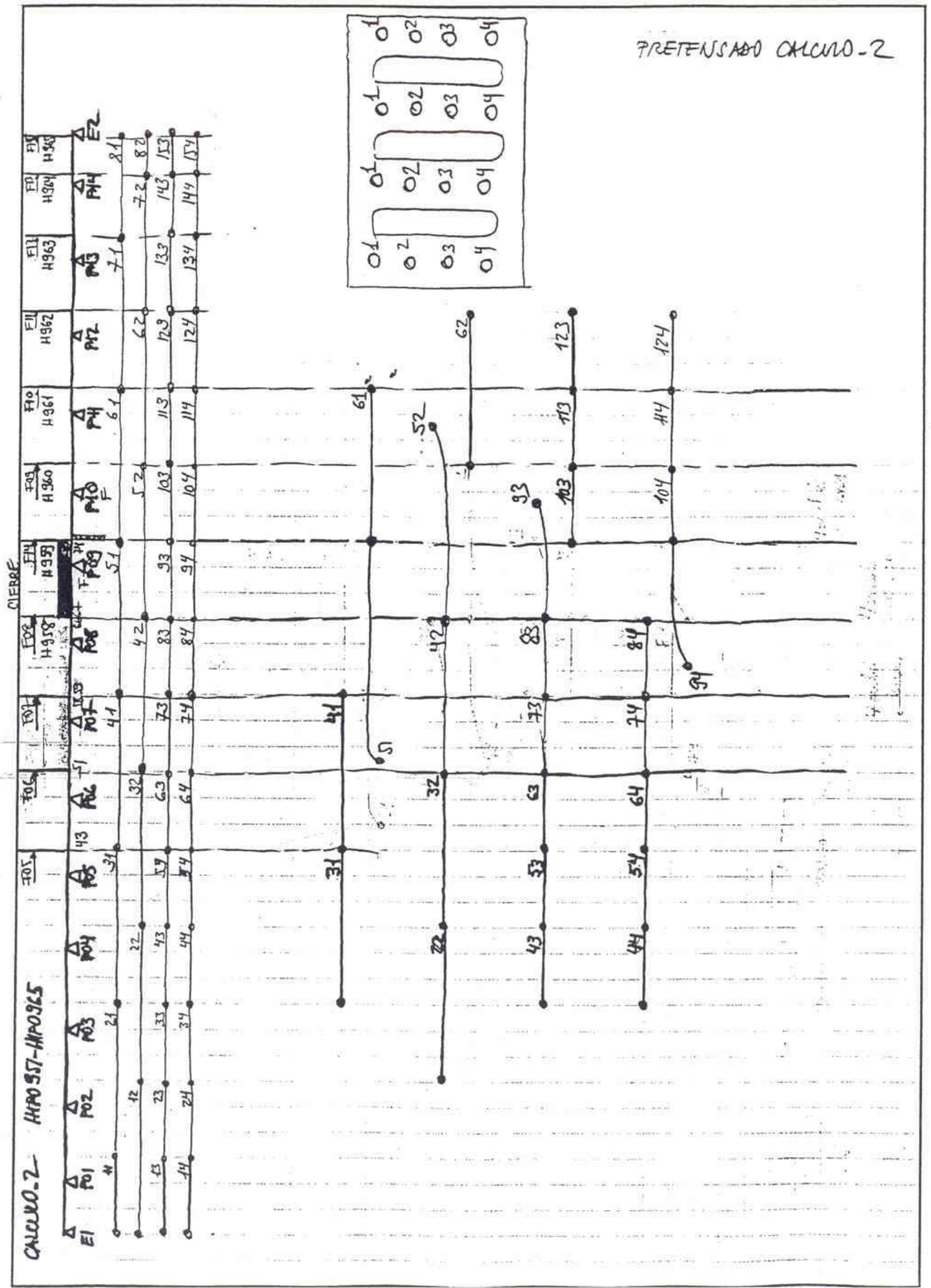


CARLOS FERNANDEZ CASADO, S.L.
OFICINA DE PROYECTOS

HOJA ____ DE ____

PROYECTO ____

FECHA ____




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nume de barr  296
nume de hipo **
nume de apoy   16
tipo port espa
list nada
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220   10   11
221   11    4
222   25   26
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243   98   99
244   99  100
245  100  101
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288  260  261
289  261  262
290  262  263
291  263  256
292  277  278
293  278  279
294  279  280
295  280  281
296  281  274
libe de barr
* E1
  185 inic          mome x y z
  186 inic fuer   z mome x y z
* P01
  187 inic fuer y   mome x y z
  188 inic fuer y z mome x y z
* P02
  189 inic fuer y   mome x y z
  190 inic fuer y z mome x y z
* P03
  191 inic fuer y   mome x y z
  192 inic fuer y z mome x y z
* P04
  193 inic fuer y   mome x y z
  194 inic fuer y z mome x y z
* P05
  195 inic fuer y   mome x y z
  196 inic fuer y z mome x y z
* P06
  197 inic fuer y   mome x y z
  198 inic fuer y z mome x y z
* P07
  199 inic fuer y   mome x y z
  200 inic fuer y z mome x y z
* P08
  201 inic fuer y   mome x y z
  202 inic fuer y z mome x y z
* P09
```

```
*
* P04
        237 65.61 54.68 54.68  606.24 358.72 358.72
  238 a 240  5.16  4.30  4.30    1.166 14.31   0.722
        241  3.60  3.00  3.00    0.887 13.43   0.675
*
* P05
        242 65.61 54.68 54.68  606.24 358.72 358.72
  243 a 245  5.16  4.30  4.30    1.166 14.31   0.722
        246  3.60  3.00  3.00    0.887 13.43   0.675
*
* P06
        247 65.61 54.68 54.68  606.24 358.72 358.72
  248 a 250  5.16  4.30  4.30    1.166 14.31   0.722
        251  3.60  3.00  3.00    0.887 13.43   0.675
*
* P07
        252 65.61 54.68 54.68  606.24 358.72 358.72
  253 a 255  5.16  4.30  4.30    1.166 14.31   0.722
        256  3.60  3.00  3.00    0.887 13.43   0.675
*
* P08
        257 65.61 54.68 54.68  606.24 358.72 358.72
  258 a 260  5.16  4.30  4.30    1.166 14.31   0.722
        261  3.60  3.00  3.00    0.887 13.43   0.675
*
* P09
        262 65.61 54.68 54.68  606.24 358.72 358.72
  263 a 265  5.16  4.30  4.30    1.166 14.31   0.722
        266  3.60  3.00  3.00    0.887 13.43   0.675
*
* P10
        267 65.61 54.68 54.68  606.24 358.72 358.72
  268 a 270  5.16  4.30  4.30    1.166 14.31   0.722
        271  3.60  3.00  3.00    0.887 13.43   0.675
*
* P11
        272 65.61 54.68 54.68  606.24 358.72 358.72
  273 a 275  5.16  4.30  4.30    1.166 14.31   0.722
        276  3.60  3.00  3.00    0.887 13.43   0.675
*
* P12
        277 65.61 54.68 54.68  606.24 358.72 358.72
  278 a 280  5.16  4.30  4.30    1.166 14.31   0.722
        281  3.60  3.00  3.00    0.887 13.43   0.675
*
* P13
        282 65.61 54.68 54.68  606.24 358.72 358.72
  283 a 285  5.16  4.30  4.30    1.166 14.31   0.722
        286  3.60  3.00  3.00    0.887 13.43   0.675
*
* P14
        287 65.61 54.68 54.68  606.24 358.72 358.72
  288 a 290  5.16  4.30  4.30    1.166 14.31   0.722
        291  3.60  3.00  3.00    0.887 13.43   0.675
*
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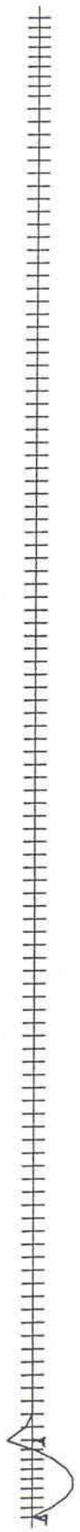
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* PILA 15 (PILA DOBLE)
        292 65.61 54.68 54.68  606.24 358.72 358.72
  293 a 295 13.40 11.16 11.16    7.335 31.86   8.860
        296  7.68  6.40  6.40    2.815 28.65   6.554
*
cons de mate
* HORMIGON TABLERO fck=40 MPa
* E=100000*[9.50*(40.00+8)**1/3]=3452529.
* G=E/2(1+nu=0.2)=1438554.
    1 3452529. 1438554. 2.5
* HORMIGON PILAS fck=3000 t/m2
* E=100000*[9.50*(30.00+8)**1/3]=3193877.
* G=E/2(1+nu=0.2)=1330782.
    2 3193877. 1330782. 2.5
* HORMIGON ZAPATAS Y ESTRIBOS fck=2500 t/m2
* E=950000*[9.50*(25.00+8)**1/3]=3047158.
* G=E/2(1+nu=0.2)=1269649.
    3 3047158. 1269649. 2.5
* HIPOTESIS DE CARGA
* ==================


.../...


calcula y almacena
2 2 2
```

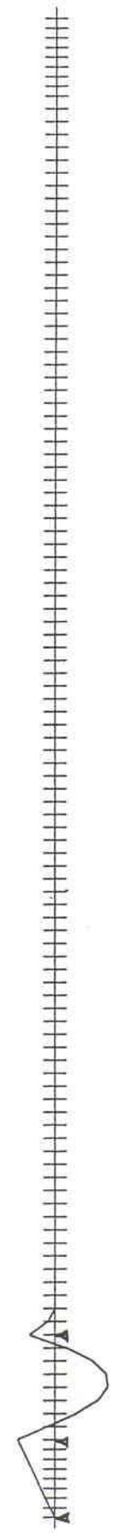
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M. Z 2000.0



VIADUCTO 1 SOBRE EL RIO SEGRE
hipo 986 PESO PROPIO FASE 2

M. Z 2000.0



VIADUCTO I SOBRE EL RIO SEGRE
hipo 987 PESO PROPIO FASE 3

M. Z 2000.0



VIADUCTO I SOBRE EL RIO SEGRE
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M. Z 2000.0



VIADUCTO I SOBRE EL RIO SEGRE
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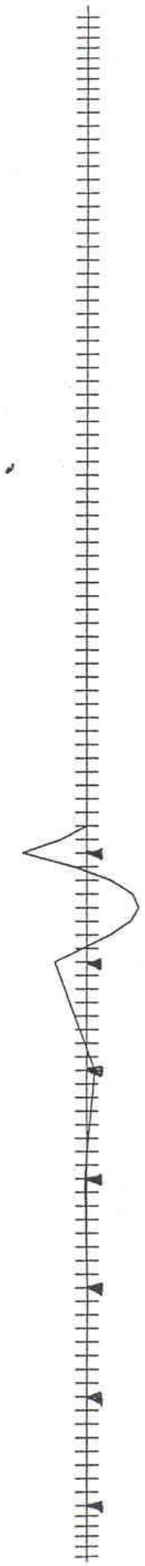
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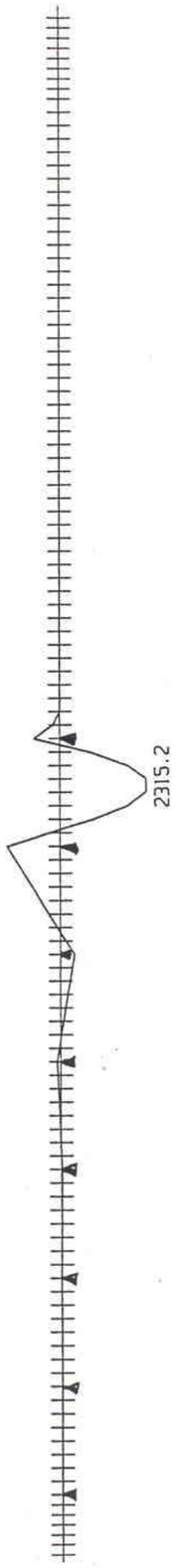
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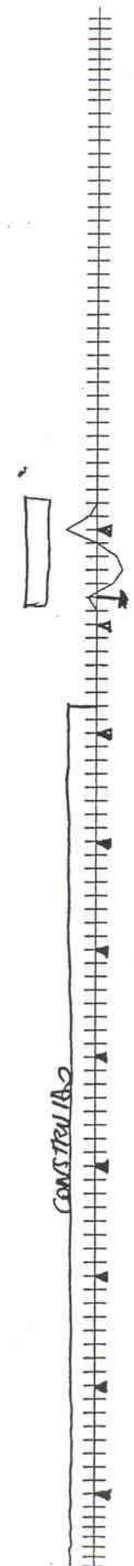
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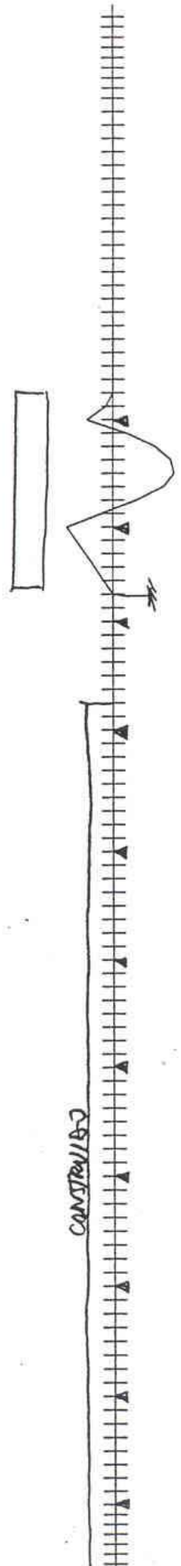
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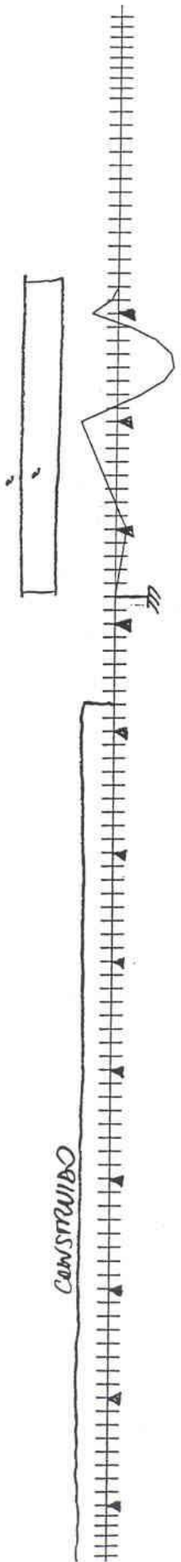
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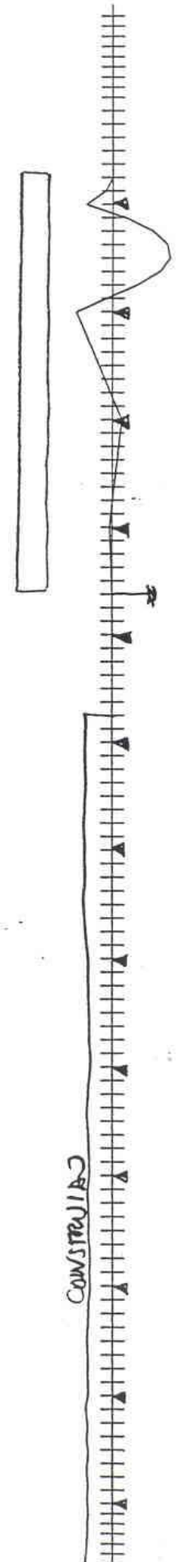
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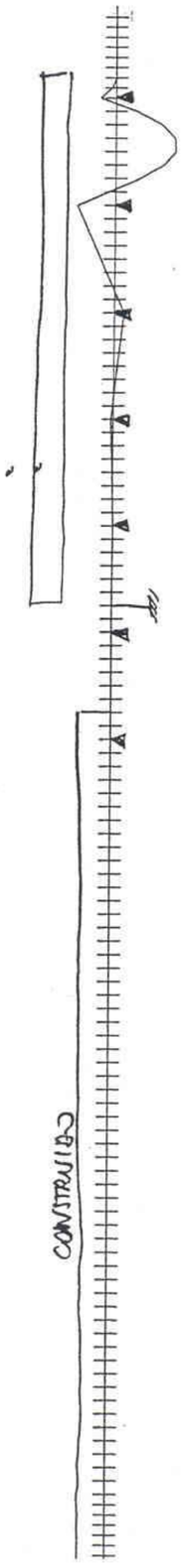
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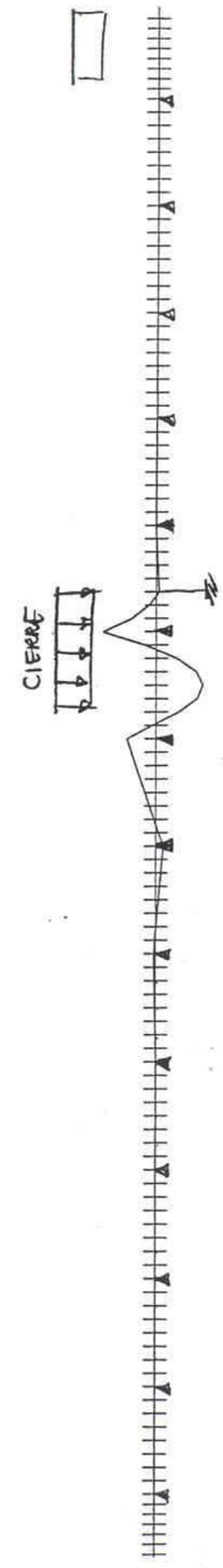
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VIADUCTO 1 SOBRE EL RIO SEGRE
hipo 993 PESO PROPIO FASE 14

M. Z 2000.0



VIADUCTO I SOBRE EL RIO SEGRE
hipo 999 PESO PROPIO FASE 15

M. Z 2000.0



VIADUCTO I SOBRE EL RIO SEGRE
hipo 1000 PESO PROPIO DE UNA SOLA VEZ

M. Z 2000.0

