GIF Gestor de Infraestructuras Ferroviarias

TIFSA

CONTRATO DE CONSULTORÍA Y ASISTENCIA PARA LA REALIZACIÓN DE PRUEBAS DE CARGA PARA LA RECEPCIÓN DE PUENTES DE LA LÍNEA DE ALTA VELOCIDAD MADRID-ZARAGOZA-BARCELONA-FRONTERA FRANCESA. TRAMO: PUENTE DE EBRO-LLEIDA. BASE DE MONTAGUT.



INFORME DE PRUEBA DE CARGA

SUBTRAMO IV
Viaducto E-2
26VI05

NORMALIZADO POR INECO

Octubre de 2001

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1.- INTRODUCCIÓN.

1.1.- INTRODUCCIÓN.

A instancias del ente público Gestor de Infraestructuras Ferroviarias (GIF) se redacta el presente informe, que forma parte del conjunto de los trabajos relativos a la prestación de los servicios de Consultaría y Asistencia en la realización de las preceptivas Pruebas de Carga para la recepción de puentes en al tramo Madrid - Lleida, de la línea de Alta Velocidad Madrid - Zaragoza - Barcelona - Frontera Francesa, previas a la recepción y puesta en servicio de los mismos, cuyos términos se incluyen en el contrato suscrito por Tecnología e Investigación Ferroviaria, S.A. (TIFSA)

Los puentes sobre los que se ha actuado se encuentran situados en el trayecto Puente de Ebro - Lleida de la línea, correspondientes al montaje de la vía a partir de la base de trabajo de Montagut. Este informe en concreto se refiere al **Viaducto E-2** con identificación **26VI05** perteneciente al **Subtramo IV.**

Para la redacción de los trabajos objeto del contrato se han tenido en cuenta todas las normas, instrucciones y recomendaciones que estableció el ente público Gestor de Infraestructuras Ferroviarias (GIF)

1.2.- ANTECEDENTES.

La "Instrucción relativa a las acciones a considerar en el proyecto de puentes de ferrocarril" de fecha 25 de junio de 1975, reglamenta en su apartado 6, la metodología a realizar en las pruebas de carga de puentes, haciendo distinción entre las diferentes tipologías, metálicos y de fábrica, y teniendo en cuenta sus luces.

En dicho apartado se indica la necesidad de realizar pruebas de cargas estáticas y dinámicas en la recepción de obra nueva y se prescriben las condiciones para las pruebas de carga de obra en servicio.

Siguiendo la instrucción actual, se contempla la obligatoriedad de la realización de pruebas estáticas y dinámicas en puentes de nueva construcción, como el que se corresponde con el presente informe, para comprobar su comportamiento antes las cargas previstas y poder efectuar su recepción.

2.- OBJETO.

El objeto del informe es presentar las actividades de prueba de carga desarrolladas en la obra de referencia, exponiendo los resultados obtenidos en la misma, al ser solicitada la estructura por un tren de cargas conocido circulando a distintas velocidades (pruebas dinámicas), así como en una posición conocida de velocidad nula (prueba estática), realizando su análisis, con el fin de emitir las conclusiones y recomendaciones oportunas, al contrastar los valores con los resultantes del cálculo teórico efectuado.

Las actividades desarrolladas consistieron en:

- Inspección preliminar de la estructura. Se realizó el día 19 de julio de 2001 con el objeto de analizar el estado actual de la estructura, y de los elementos de apoyo, en función de sus posibles defectos; así como determinar aquellas anomalías que puedan afectar al funcionamiento, durabilidad o estética de la estructura.

- Redacción del plan de pruebas. Con el objeto de definir el tren de cargas empleado y la instrumentación utilizada, así como efectuar una previsión de los resultados a obtener.

- Realización de la Prueba de Carga. Tuvo lugar el día 3 de octubre de 2001 para los tramos 1-2-3, el 5 de octubre de 2001 para los tramos 4-5-6-7, y el día 10 de octubre de 2001 para los restantes tramos 8-9-10-11.

- Análisis de Resultados y Recomendaciones. Donde se estudia la relación entre las deformaciones obtenidas y las previstas, las frecuencias de vibración, el porcentaje y rapidez de deformación; y finalmente se establece un juicio sobre el comportamiento de la obra durante la prueba.

3.- DESCRIPCIÓN DE LA OBRA.

La estructura objeto de la Prueba de Carga forma parte de las obras de construcción de la Línea de Alta Velocidad Madrid-Barcelona-F.Francesa, y pertenece al Subtramo IV del tramo Puente de Ebro-Lleida. Se encuentra situada en el PK 42+368.

Se trata de un puente continuo de hormigón pretensado de once vanos, con 28,00 metros de longitud entre ejes de apoyos para los vanos laterales y de 35,00 metros para los vanos centrales, con lo que alcanza una longitud total de 371,0 metros.

La sección del tablero del puente tiene una anchura de 13,70 metros en su cara superior que da lugar, incluyendo las impostas, a una anchura total de plataforma de 14,00 m. y está constituida por una sección cajón de 2,45 m. canto. La losa superior tiene un espesor de 0,33 m, la inferior de 0,30 m. y las almas de 0,40 m. Las alas tienen una longitud de 3,85 m. con un espesor variable desde 0,40 m. en su unión con el cajón hasta 0,20 m en el extremo.

Los estribos tienen una anchura de 13,7 m. y son de muro frontal y en vueltas de hormigón armado, con cimentación es directa. Las pilas son de fuste único constituidas por secciones cajón con una cabeza superior en forma de “Y” y tienen una altura máxima de 25,50 m. La cimentación es a base de encepados y pilotes y Los apoyos son de tipo Pot. La infraestructura viaria colocada en la actualidad, consiste en dos vías de F.C. de ancho internacional cuyos ejes distan entre sí 4,62 m.

La documentación facilitada por el GIF consistió en dos CD-Rom en los que se incluyen en uno de ellos: el Documento Nº2 - Planos del Proyecto Modificado del Subtramo IV del tramo Puente de Ebro-Lleida de la línea de Alta Velocidad Madrid-Zaragoza-Barcelona-Frontera Francesa, en formato AutoCad; y en el otro: el Proyecto Construido de la misma obra, con Memoria y Anejos incompletos, sobre todo en el correspondiente a Estructuras, en formato Word, y los Planos en formato AutoCad 2000. Se ha obtenido también posteriormente, una copia del Anejo de Cálculo en papel.

En el Anejo 2A contenido dentro del ANEJO 2 - Proyecto de Prueba de Carga, se incluye copia de algunos de los planos facilitados.

4.- INSPECCIÓN PRELIMINAR.

Durante los trabajos de Inspección Preliminar llevados a cabo el día 19 de julio de 2001, en la obra **Viaducto E-2 (26VI05)** previos a la ejecución de la Prueba de Carga, se desprende un buen estado general de la estructura y sus diversos componentes, aunque con algún defecto con riesgo de evolución patológica, y otros con incidencia en la estética de la obra.

En lo referente a los estribos, se desprende un buen estado de los mismos. Únicamente se apreciaron defectos con riesgo de evolución patológica debidos a coqueras y nidos de grava.

Por su parte en las pilas, existen tan solo defectos con incidencia estética en lo que se refiere a humedades y filtraciones. En los aparatos de apoyo se observaron defectos con riesgo de evolución patológica consistentes en el bloqueo o encastramiento de los mismos

Por su parte, el tablero presenta un buen estado general, apreciándose únicamente defectos con incidencia en la estética en relación con las juntas transversales degradadas. Es preciso mencionar que los desagües en las alas no tienen gárgolas.

Como resumen, podemos comentar que el estado general de la estructura es bueno, destacando únicamente los defectos con incidencia estética en los distintos elementos, ya que los defectos con riesgo de evolución patológica son poco importantes.

En el ANEJO 7 - Ficha de Seguimiento, del presente informe pueden seguirse las fichas detalladas con indicación de los distintos defectos e incidencias observadas durante la inspección.

Es preciso reseñar que el estado de la estructura antes y después de la prueba de carga sigue siendo el mismo, es decir, que no ha aparecido ningún defecto adicional.

5.- ANÁLISIS DEL PROYECTO DE LA ESTRUCTURA.

La documentación facilitada por el GIF consistió en dos CD-Rom en los que se incluyen en uno de ellos: el Documento Nº2 - Planos del Proyecto Modificado del Subtramo IV del tramo Puente de Ebro-Lleida de la línea de Alta Velocidad Madrid-Zaragoza-Barcelona-Frontera Francesa, en formato AutoCad; y en el otro: el Proyecto Construido de la misma obra, con Memoria y Anejos incompletos, sobre todo en el correspondiente a Estructuras, en formato Word, y los Planos en formato AutoCad 2000. Se ha obtenido también posteriormente, una copia del Anejo de Cálculo en papel.

5.1.- Definición completa de elementos.

Se trata de un puente continuo de hormigón pretensado de once vanos, con 28,00 metros de longitud entre ejes de apoyos para los vanos laterales y de 35,00 metros para los vanos centrales, con lo que alcanza una longitud total de 371,0 metros.

La sección del tablero del puente tiene una anchura de 13,70 metros en su cara superior que da lugar, incluyendo las impostas, a una anchura total de plataforma de 14,00 m. y está constituida por una sección cajón de 2,45 m. canto. La losa superior tiene un espesor de 0,33 m, la inferior de 0,30 m. y las almas de 0,40 m. Las alas tienen una longitud de 3,85 m. con un espesor variable desde 0,40 m. en su unión con el cajón hasta 0,20 m en el extremo.

Los estribos tienen una anchura de 13,7 m. y son de muro frontal y en vueltas de hormigón armado, con cimentación es directa. Las pilas son de fuste único constituidas por secciones cajón con una cabeza superior en forma de “Y” y altura máxima de 13,10 m. La cimentación es a base de encepados y pilotes, con una longitud máxima del pilote de 16,00 m.

5.2.- Acciones consideradas.

Las acciones consideradas en el cálculo de la estructura se ajustan a la Instrucción de Acciones en Puentes de Ferrocarril. Las hipótesis empleadas fueron las siguientes:

- Peso propio dovela: 19,045 t/m dovelas centro vano; 20,955 t/m dovelas de pila.
- Carga muerta debida a: balasto (8,2 ton/m), vías y traviesas (1,28 ton/m), imposta + barandillas (1,35 ton/m), conductos y paseos (0,60 ton/m), conductos evacuación (0,55 t/m)
- Sobrecarga RENFE: Tren tipo A: en cada vía 3 ejes de -30 t separados 1,50 m + los pares correspondientes a 30 cm de ripado de vías.
- Sobrecarga RENFE: Tren tipo B: Diversos trenes de cargas entre 12t/m y 1 t/m distribuidos en la dirección longitudinal.

El tren tipo A se ha usado para efectos locales y el tipo B para el cálculo global.

- Sobrecarga UIC: sobrecarga de tráfico de 8 t/m y tren de cuatro ejes con 25 toneladas por eje.
- Fuerzas de frenado y arranque de trenes.
- Acción del viento y de la temperatura.
- Efecto lazo.
- Acción sísmica: sólo se considera sismo horizontal.

Se estudiaron diversas combinaciones de estas cargas, disponiendo la sobrecarga sobre una vía o las dos, y con ripado de las vías 30 cm o vías centradas.

5.3.- Modelización empleada.

Se utilizaron dos modelos con objetivos distintos:

- Un primer modelo básico que se utiliza para la introducción de todas las cargas, excepto aquellas que actúan transversalmente a la estructura (fuerza centrífuga, viento y sismo transversal). Consta de 54 barras en el sentido longitudinal de la estructura con las características del cajón y 55 nudos.

- Un segundo modelo en el que se introducen tanto el tablero como las pilas, con objeto de obtener el reparto transversal de esfuerzos procedentes de cargas perpendiculares al plano de la estructura, y la correcta asignación de reacciones

tanto en coronación de pilas como de estribos. Consta de 84 barras longitudinales y de 10 barras verticales representando a cada una de las pilas.

La estructura modelizada es la E-2 (26VI05), y el cálculo se considera válido para las E-1 (26VI04) y E-3 (26VI06) también, ya que en la E-2 las reacciones en cabeza de pila o estribos son más importantes.

5.4.- Materiales y coeficientes de cálculo.

Hay que reseñar que el proyecto constructivo fue calculado estando vigente la EH-91, en la que se consideran hormigones como el H-125 (nomenclatura EH-91) que en la EHE no se tienen en cuenta.

En cuanto a los hormigones, se han empleado los siguientes tipos:

- Nivelación H-125 - γ=1,50
- Cimentación: H-250 - γ=1,50
- Losa: H-400 - γ=1,50
- Estribos: H-250 - γ=1,50
- Pilas: H-300 - γ=1,50
- Pilotes: H-200-γ=1,50

En cuanto a los aceros, se han empleado los siguientes tipos:

- Activo losa: $f_{max,k}$= 19.000 kg/cm^2 - γ=1,10
- Acero para armar: AEH-500N - γ=1,15

5.5.- Evaluación de la situación estructural.

El cálculo de la estructura no acorde a la normativa vigente pues se calculó cuando no estaba vigente la EHE. Por ej., el coeficiente de seguridad del acero activo, en la EHE debe ser igual a 1,15.

6.- PLAN DE PRUEBAS.

Es preciso indicar que con anterioridad a la de este informe, se efectuó otra prueba de carga con objeto de realizar una recepción provisional de la obra y un primer análisis de la respuesta de la estructura frente a acciones estáticas y dinámicas. Aquella prueba se realizó con camiones cuando la infraestructura de vía no estaba todavía colocada.

La prueba de carga de la que es objeto el presente informe se realizó, por el contrario, con trenes, según se comenta en los siguientes apartados, en los que se hablará de acciones reproducidas, puntos de medida y equipos utilizados.

6.1.-ACCIONES REPRODUCIDAS.

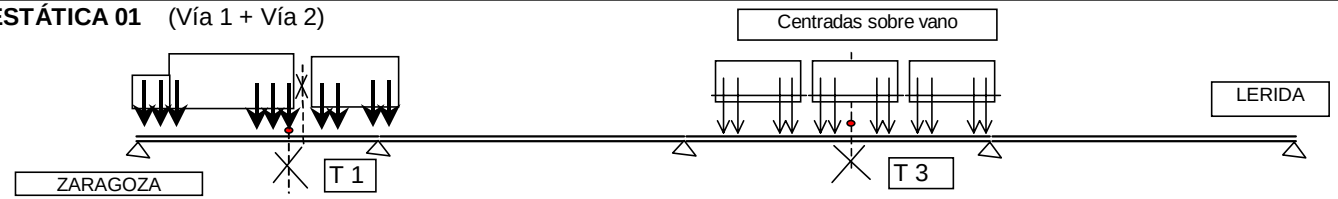
La prueba de carga contempla tanto acciones estáticas como dinámicas, con el fin de reproducir en la misma todo el abanico de posibles solicitaciones a las que pueda estar sometido el puente a lo largo del tiempo.

Las acciones que se pretenden reproducir, como se ha indicado anteriormente, son aquellas propias de la utilización de la obra y consisten en diversas posiciones de carga estática y varias pruebas dinámicas: pruebas a 5 km/h (cuasi-estáticas), pruebas a 40 km/h, pruebas a 80 km/h; así como pruebas de frenado a 80 km/h.

Se emplearon diversos trenes de carga para las diversas pruebas, combinando una locomotora GIF (con un peso total de 120 ton repartidos entre sus seis ejes según 20 ton/eje), un tractor UTE (con un peso total de 88 ton repartidos entre sus cuatro ejes según 22 ton/eje) y diversas tolvas GIF (con un peso total de 80 ton repartidos entre sus cuatro ejes según 20 ton/eje). El plan de pruebas se desarrolló según el siguiente esquema:

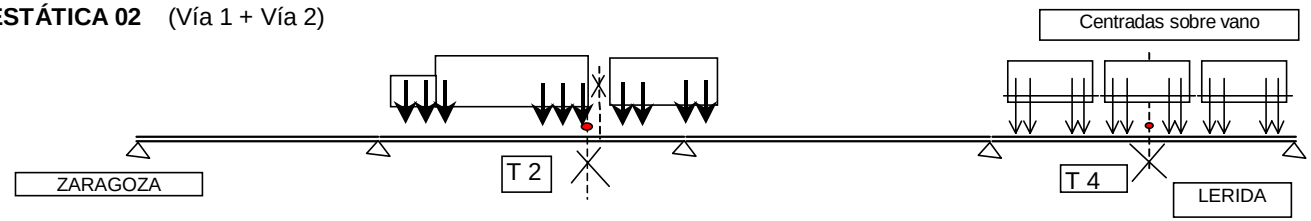
Croquis de la disposición de cargas en vanos 1-2-3

ESTÁTICA 01 (Vía 1 + Vía 2)



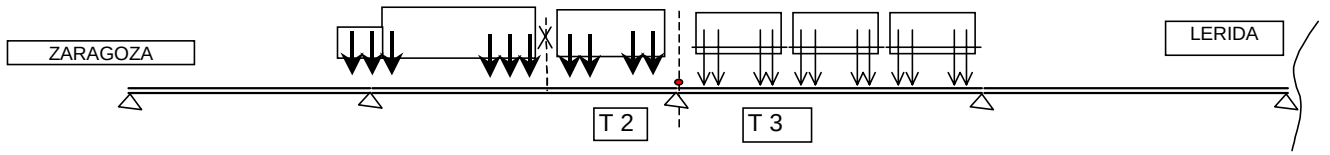
TRENES:
Loc GIF+ (1+3) tolvas Vía 1
Tractor UTE+ (1+3) tolvas Vía 2

ESTÁTICA 02 (Vía 1 + Vía 2)



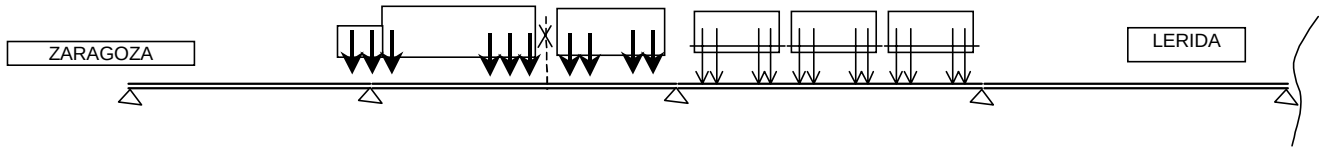
TRENES:
Loc GIF+ (1+3) tolvas Vía 1
Tractor UTE+ (1+3) tolvas Vía 2

ESTÁTICA 03 (Vía 1 + Vía 2)



TRENES:
Loc GIF+ 4 tolvas Vía 1
Trator UTE+ 4 tolvas Vía 2

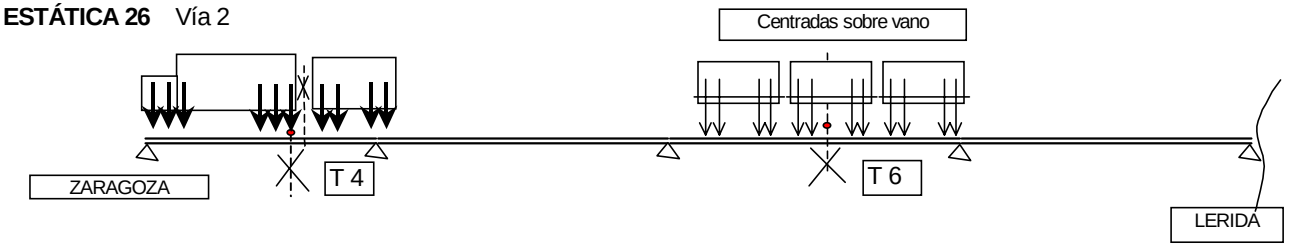
DINAMICA 11,12,13,14 Via 1
DINAMICA 21 Vía 2



TRENES:
Loc GIF+ 4 tolvas Vía 1
Trator UTE+ 4 tolvas Vía 2

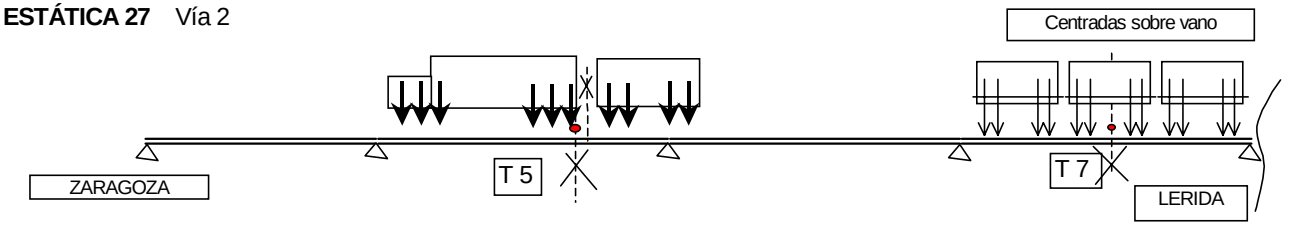
Croquis de la disposición de cargas en vanos 4-5-6-7

ESTÁTICA 14 Vía 1
ESTÁTICA 26 Vía 2



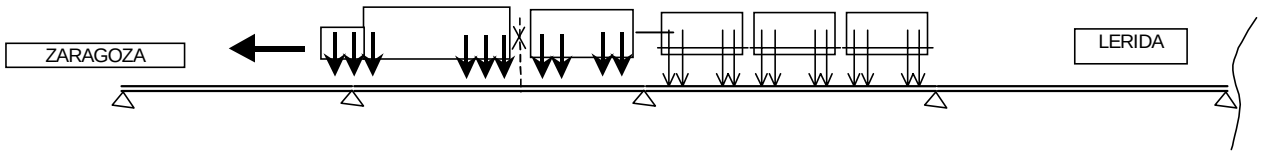
TRENES:
Loc GIF+ (1+3) tolvas Vía 1
Tractor UTE+ (1+3) tolvas Vía 2

ESTÁTICA 15 Vía 1
ESTÁTICA 27 Vía 2



TRENES:
Loc GIF+ (1+3) tolvas Vía 1
Tractor UTE+ (1+3) tolvas Vía 2

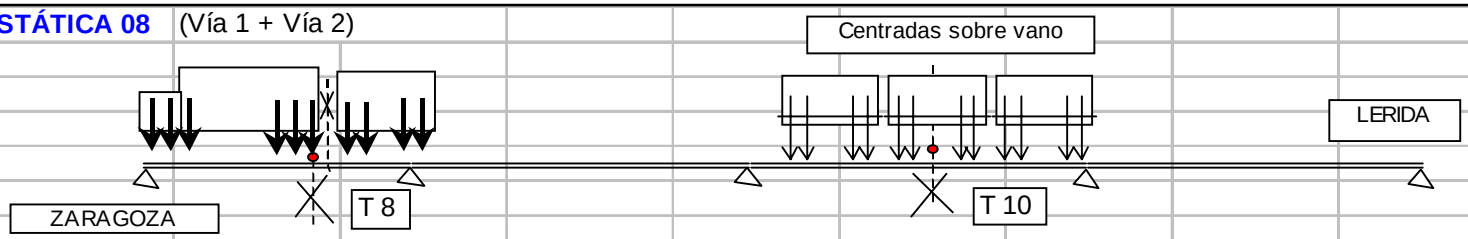
DINÁMICA 21 Vía 2
DINÁMICAS 11, 12, 13, 14 Vía 1



TRENES:
Loc GIF+ 4 tolvas Vía 1
Trator UTE+ 4 tolvas Vía 2

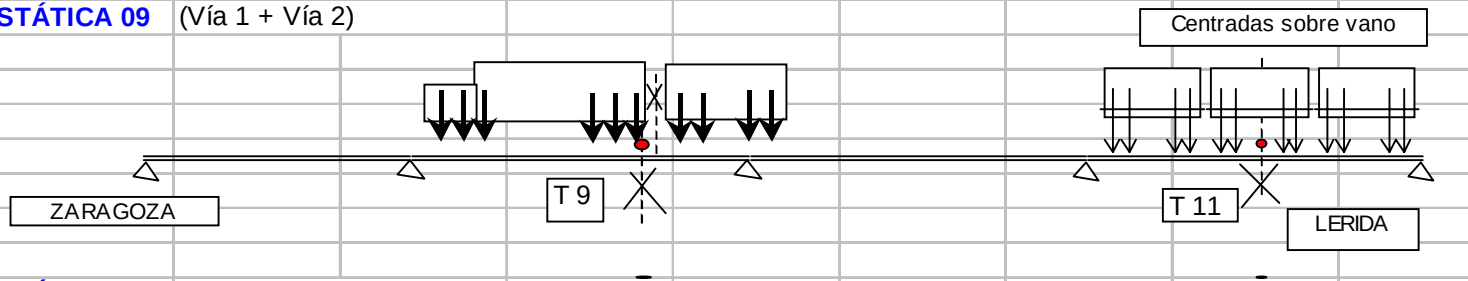
Croquis de la disposición de cargas en vanos 8-9-10-11

ESTÁTICA 08 (Vía 1 + Vía 2)



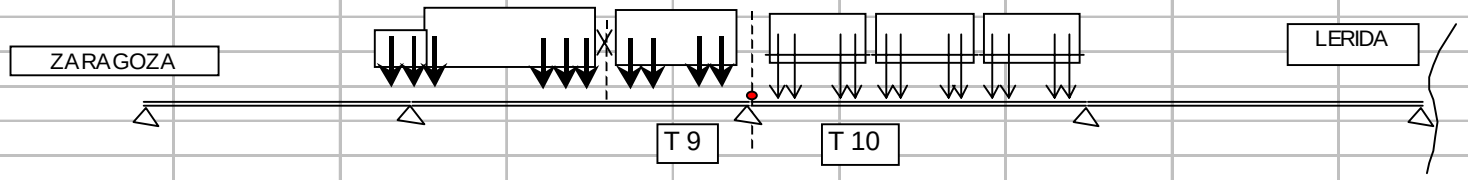
TRENES:	
Loc GIF+ (1+3) tolvas	Vía 1
Tractor UTE+ (1+3) tolvas	Vía 2

ESTÁTICA 09 (Vía 1 + Vía 2)



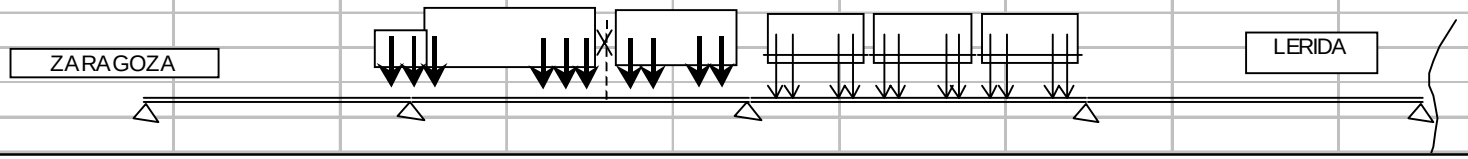
TRENES:	
Loc GIF+ (1+3) tolvas	Vía 1
Tractor UTE+ (1+3) tolvas	Vía 2

ESTÁTICA 10 (Vía 1 + Vía 2)



TRENES:	
Loc GIF+ 4 tolvas	Vía 1
Trator UTE+ 4 tolvas	Vía 2

DINAMICA 11,12,13,14 Via 1
DINAMICA 21 Vía 2



TRENES:	
Loc GIF+ 4 tolvas	Vía 1
Trator UTE+ 4 tolvas	Vía 2

6.2.- PUNTOS DE MEDIDA.

Los puntos de medida se sitúan en los elementos y secciones fundamentales del tablero que compone la obra. En el croquis adjuntado, se señalan todos los puntos instrumentados, diferenciándolos según se trate de bandas extensométricas, transductores de desplazamiento o acelerómetros.

Con esta instrumentación se han buscado las medidas siguientes:

- Descensos verticales del tablero medidos en dos puntos situados a lo largo de las secciones a L/2 de cada uno de los vanos.
- Descensos verticales junto a apoyos sobre los que descansa el tablero.
- Deformaciones unitarias del hormigón en el sentido longitudinal y consecuentemente tensiones en éste, medidas en dos puntos por cada sección a L/2 de cada vano, en la fibra inferior del tablero.
- Aceleraciones del tablero al paso del tren de carga, mediante acelerómetros situados como el resto de aparatos en la sección de centro de vano.

La prueba de carga del viaducto completo se realizó en tres fases. Para la prueba de los tramos 1-2-3 se dispusieron: para medida de desplazamientos, 7 transductores para medida de flechas en el centro de vano y 6 transductores para medida de descensos en zona de apoyos; para medida de deformaciones unitarias, 6 galgas extensométricas. Por último se han dispuesto 3 acelerómetros, con lo que el número total de puntos instrumentados en la primera fase fue de 22.

Para la prueba de los tramos 4-5-6-7 se dispusieron: para medida de desplazamientos, 8 transductores para medida de flechas en el centro de vano y 8 transductores para medida de descensos en zona de apoyos; para medida de deformaciones unitarias, 8 galgas extensométricas. Por último se dispuso 1 acelerómetro, con lo que el número total de puntos instrumentados en esta fase fue de 25.

Para la prueba de los tramos 8-9-10-11 se dispusieron: para medida de desplazamientos, 8 transductores para medida de flechas en el centro de vano y 8 transductores para medida de descensos en zona de apoyos; para medida de deformaciones unitarias, 8 galgas extensométricas. El número total de puntos instrumentados en esta fase fue de 28.

6.3.- EQUIPOS UTILIZADOS.

Para la realización de pruebas de carga, el conjunto de los equipos de campo embarcados en furgonetas laboratorio, utilizados por TIFSA para la toma de datos experimentales en cada puente ó estructura, está constituido por los elementos que se relacionan a continuación, pudiéndose ver detalle de los equipos utilizados en campo, así como de los medios auxiliares empleados en la instrumentación en las fotografías finales que se presentan.

Debemos indicar que todos los equipos que se relacionan se encuentran en periodo vigente de verificación y/o calibración.

Comenzando por los elementos sensores, se utilizan galgas extensométricas para medida de deformaciones unitarias, transductores de desplazamiento para flechas y corrimientos en apoyos y acelerómetros para obtención de acelerogramas, con las siguientes características:

- GALGAS EXTENSOMÉTRICAS (TML). Resistencia nominal 120 ohmios y factor de galga 2,13. Longitud activa de 3 y 6 mm en estructuras metálicas y de 30 a 120 mm. en estructuras de hormigón, para medida de deformaciones unitarias y, por lo tanto, de tensiones.

- TRANSDUCTORES DE DESPLAZAMIENTO (RDP Electronics, ACT2000/C – TIPO inductivo): Recorrido 100 mm. Resolución virtualmente infinita. Linealidad +/- 0,1%.

- TRANSDUCTORES DE DESPLAZAMIENTO (Penny & Giles L C P U – TIPO potenciométrico): Recorrido 50 y 100 mm . Resolución virtualmente infinita. Linealidad +/- 0,5%.

- TRANSDUCTORES DE DESPLAZAMIENTO (Penny & Giles HLP190 - TIPO potenciométrico): Recorridos 100 mm (SA1100/4k); 50 mm (SA150/2k) y 25 mm (SA125/1k). Resolución virtualmente infinita. Linealidad de 0.05 % para los de 100 y +/- 0,075% para el resto.

- TRANSDUCTORES DE DESPLAZAMIENTO (SAN-EI E08-D3-30 Y E08-D3-50 - TIPO extensométrico). Recorridos de 30 y 50 mm. Resolución virtualmente infinita. Linealidad +/- 0,2%.

- TRANSDUCTORES DE DESPLAZAMIENTO (APEK HLS 10 - TIPO extensométrico): Recorrido de 10 mm. Resolución virtualmente infinita. Linealidad +/- 0,05%.

- ACELEROMETROS PIEZORRESISTIVOS (SENSOTEC JTF-AG111): Rango 10/50 g, sensibilidad 10 mV/g, linealidad +/- 1% de F.S. Respuesta en frecuencia desde DC a 250 Hz. Alimentación a 2,5 V. (rms).

- ACELEROMETROS CAPACITIVOS (PCB PIEZOTRONICS 3701): Rango 20 g, sensibilidad 100 mV/g, linealidad +/- 1% de F.S. Respuesta en frecuencia DC a 500 Hz. Alimentación 5 A 30 VDC.

El sistema de medida continúa con los acondicionadores de señal, que realizan el tratamiento y amplificación de las señales obtenidas en los diferentes sensores, generando salidas normalizadas para su registro posterior. El equipamiento utilizado es el siguiente:

- ACONDICIONADORES DE SEÑAL (SAN-EI 6 M 47-8): Excitación del puente 2,5 V., 5 K Hz. Salida $\pm$ 2V. Balanceo automático de puente. Relación señal ruido 50 dB (rms). Filtro pasabajos de tres polos. Corriente de alimentación 12 V. DC. Frecuencia de respuesta desde DC a 2 KHz. Realizan

el acondicionamiento preciso para galgas extensométricas y transductores basados en extensometría.

- ACONDICIONADORES DE SEÑAL (SAN-EI AH 1108): Excitación del puente 2 V (rms), 5 K Hz. Salida +/- 5 V. Balanceo automático de puente. Relación señal ruido 58 dB (rms). Filtro pasabajos de tres polos. Alimentación AC/DC. Frecuencia de respuesta desde DC a 2 KHz. Acondicionamiento extensométrico.

- ACONDICIONADORES DE SEÑAL (KINOSSEL KI5000): Linealidad 0,1%. Estabilidad mayor que 0,05 % º C^{-1}. Filtros 10, 100 y 1000 Hz. Balanceo automático. Salida +/- 5 V. Alimentación en AC/DC. Acondicionamiento potenciométrico.

- ACONDICIONADORES DE SEÑAL (RDP Electronics, modular 600): Rack multicanal con, 12 tarjetas bicanal. Alimentación en AC, excitación configurable hasta 15 V DC. Display 5 dígitos, selector individual de los 24 canales, exactitud 0.1% F.S., linealidad +\- 0.05% F.S. Implementación de 11 tarjetas 611, STRAIN GAUGE & DC/DC (transductores potenciométricos y de tipo general con electrónica incorporada y extensométricos, mediante doble electrónica): 10 Rangos de señal de entrada 5mV a 10V; Salida +/- 10 V.; Ganancia x0.5 a x2000; Balanceo manual; Frecuencia de respuesta desde DC a 200 Hz. Se complementa con 1 tarjeta 621, LVDT & INDUCTIVE TANSDUCER (Transductores de tipo general LVDT): 8 rangos de señal 12 mV a 4 V; salida +/- 10 V; Ganancia x1 a x2000; Balanceo manual; Frecuencia de respuesta desde DC a 500 Hz. Flat. Temperatura de compensación en todos los canales inferior a 0.005 % FS/ºC.

Una vez realizado el tratamiento y amplificación de las señales obtenidas en los diferentes sensores, se realiza su control y registro mediante el siguiente equipamiento:

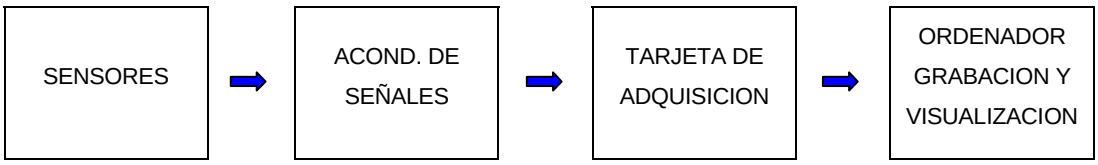
- ORDENADORES DE CONTROL:

- Microprocesadores Pentium II/III a distintas velocidades. Bus PCI (5 Zoc. PCI, 3 ISA, Green PC)
- Memoria RAM mínima de 64 Mb.
- Unidad de disco flexible de 3 ½
- Discos duro fijo primario superior 2 Gb. Controladora PCI-IDE.
- Unidad CD-ROM 24X (Mín). Controladora PCI-IDE.
- Monitor Super VGA COLOR. Tarjeta 2 Mb. PCI (1280-1024).
- Disco secundario removible superior a 2,01 Gb. (PCI-IDE).
- Tarjeta de red.

- TARJETAS DE ADQUISICIÓN DE DATOS (National Instruments):
  - Multifunción de alta velocidad AT-MIO-64 F-5 (2 Ud), con 64 canales de entrada analógica simple o 32 diferenciales.
  - Velocidad máxima de muestreo de 200.000 muestras/seg.
  - 8 líneas digitales I/O y tres relojes contadores.
  - 2 canales de transferencia DMA.
  - Ganancia programable: 0.5, 1, 2, 5,10, 20, 50,100.
  - Convertidor A/D de 12 bits.
  - Ocupación de un Slot ISA en ordenador de control.

- TARJETAS DE ADQUISICIÓN DE DATOS (National Instruments):
  - Multifunción de alta velocidad AT-MIO-64 E-3 (1 Ud), con 64 canales de entrada analógica simple o 32 diferenciales.
  - Resto de características igual que las anteriores pero con una Velocidad máxima de muestreo de 300.000 muestras/seg.

Como síntesis del sistema conjunto se puede presentar el siguiente esquema funcional explicativo:



La señal producida en cada punto instrumentado, galga extensométrica, transductor de desplazamiento o acelerómetro, es filtrada y amplificada por los acondicionadores de señal.

La estabilidad de las medidas con galgas extensométricas a largo plazo está asegurada por la disposición de puentes de Wheatstone completos en cada punto de medida, evitando así la aparición de todo problema de deriva.

Las señales amplificadas, analógicas, son captadas por las tarjetas de adquisición de datos e introducidas en el ordenador de control, que realiza registro de las mismas, así como el tratamiento y presentación de datos para la visualización y seguimiento de las pruebas realizadas.

Comentar por último que durante las pruebas se efectúa el control continuo de las condiciones de temperatura y humedad ambientales.

El software de presentación de datos en campo permite la visualización de las medidas netas correspondientes a cada punto de medida en unidades físicas escaladas, numérica y gráficamente, siendo en tiempo real para las pruebas estáticas e inmediatamente tras su finalización en las de carácter dinámico.

En gabinete, una vez recopilados los registros de calidad de los ensayos, se recomprueban sobre los formularios todos los datos, identificando los puntos de medida, los traductores empleados, las calibraciones, los parámetros de adquisición (frecuencia muestreo y filtro), etc. Una vez realizado esto, en primer lugar las señales obtenidas

mediante grabación digital en el ordenador de control son traducidas a magnitudes físicas y tiempos, y se previsualizan debidamente escaladas.

Posteriormente se hace el tratamiento y procesado completo hasta permitir dibujar en papel los registros escalados en coordenadas tiempo-magnitud para posibilitar su análisis e incorporación a los informes correspondientes.

Hay que señalar que se dispone de software específico para dicho tratamiento así como hojas de cálculo gráficas, tales como DADISP, o más generales como MATLAB.

Para tablas de presentación y como soporte informático de transmisión de resultados se utiliza un programa convencional con formato estándar de hoja de cálculo, por ejemplo como EXCEL.

En el caso de las medidas de aceleraciones se realiza además su estudio en frecuencias para la obtención de los modos fundamentales de vibración de la estructura, analizando los espectros obtenidos en cada prueba mediante la aplicación anterior.

Como equipos auxiliares se encuentran grupos electrógenos portátiles, 6.500 m de línea en bobinas de 25, 50 y 100 m de longitud, maquinaria portátil de limpieza, pulido y soldadura y pequeño herramental.

Hay que comentar que en el momento actual TIFSA dispone de la capacidad de hacer funcionar simultáneamente tres equipos de grabación (incluido personal técnico) con las tarjetas de adquisición anteriormente mencionadas, junto con un total de canales de 96, distribuidos entre 56 extensométricos, 16 potenciométricos y 22 mixtos.

El número total de transductores disponibles es de 78, de los cuales 64 son de desplazamiento (10, 25, 30, 50 y 100 mm), y 14 de aceleración (10, 20 y 50 Gs). Con ello la posibilidad de acometer pruebas de carga “especiales” por elevado número de puntos, o pruebas habituales simultáneas, vendrá en general limitada por la disponibilidad de trenes de ensayo en lugar de por el equipamiento disponible.

bandas extensométricas y transductores de desplazamiento en distintos puntos de puentes y otras estructuras ensayadas.

6.4.- RESULTADOS PREVISTOS.

En el ANEJO 2 - Proyecto de Prueba de Carga, figura la relación de las flechas que cabe esperar durante los ensayos estáticos, así como la estimación de la frecuencia fundamental de oscilación de la estructura. A continuación se expone el resumen de los valores calculados para las características de los materiales definidos en proyecto.

TRENES DE CARGAS EN AMBAS VÍAS PRÓXIMOS AL ESTRIBO ZARAGOZA					
PUNTO	**SECC**	**UD**	**Loc + 1 Tolv (Vano1) 3 Tolv (Vano 3)**	**Loc +1 Tolv (Vano2) 3 Tolv (Vano 4)**	**Loc +4 Tolv (Vanos 2 y 3)**
P011	L/2	mm	-5,09	0,87	0,66
P012	"	"	-5,02	0,94	0,73
P021	"	"	2,04	-6,80	-5,49
P022	"	"	2,07	-6,62	-5,30
P031	"	"	-7,69	2,44	-6,58
P032	"	"	-7,67	2,52	-6,49
P041	"	"	1,25	-7,77	1,25
P042	"	"	1,26	-7,74	1,28
P051	"	"	-	1,26	-
P052	"	"	-	1,28	-
G011	L/2	με	53	-17	-14
G012	"	"	52	-17	-14
G021	"	"	-28	59	44
G022	"	"	-28	59	43
G031	"	"	66	-32	48
G032	"	"	66	-32	48
G041	"	"	-21	67	-19
G042	"	"	-21	67	-19
G051	"	"	-	-21	-
G052	"	"	-	-21	-

TRENES DE CARGAS EN AMBAS VÍAS PRÓXIMOS AL ESTRIBO LÉRIDA					
PUNTO	**SECC**	**UD**	**Loc + 1 Tolv (Vano 9) 3 Tolv (Vano 11)**	**Loc +1 Tolv (Vano 8) 3 Tolv (Vano 10)**	**Loc +4 Tolv (Vanos 9 y 10)**
P111	L/2	mm	-5,22	0,97	0,08
P112	"	"	-5,18	0,86	0,12
P101	"	"	2,24	-7,45	-5,91
P102	"	"	2,30	-7,73	-5,83
P091	"	"	-6,92	2,44	-5,34
P092	"	"	-6,82	2,41	-5,23
P081	"	"	1,21	-6,49	0,80
P082	"	"	1,24	-6,29	0,94
P071	"	"	-	1,12	-
P072	"	"	-	1,19	-
G111	L/2	με	56	-19	-11
G112	"	"	56	-18	-11
G101	"	"	-28	64	49
G102	"	"	-28	64	48
G091	"	"	63	-32	40
G092	"	"	62	-32	39
G081	"	"	-19	59	-15
G082	"	"	-19	58	-15
G071	"	"	-	-18	-
G072	"	"	-	-18	-

TRENES DE CARGAS EN AMBAS VÍAS VANOS INTERMEDIOS			
PUNTO	**SECC**	**UD**	**Loc +4 Tolv (Vanos 6 y 7)**
P051	L/2	mm	0,91
P052	"	"	0,96
P061	"	"	-5,50
P062	"	"	-5,53
P071	"	"	-6,57
P072	"	"	-6,49
P081	"	"	1,25
P082	"	"	1,28
G051	L/2	με	-11
G052	"	"	-11
G061	"	"	44
G062	"	"	43
G071	"	"	48
G072	"	"	47
G081	"	"	-19
G082	"	"	-19

TRENES DE CARGAS EN VÍA 1 (para pruebas dinámicas)					
PUNTO	**SECC**	**UD**	**3 Tolv (Vano 1)**	**Loc +1 Tolv (Vano 11)**	**Loc +4 Tolv (Vanos intermedios)**
VIA 1	L/2	mm	-3,41	-3,42	-4,18
VIA 2	"	"	-1,65	-1,60	-1,93
VIA 1	L/2	με	31	29	27
VIA 2	"	"	21	20	17

TRENES DE CARGAS EN VÍA 2 (para pruebas dinámicas)					
PUNTO	**SECC**	**UD**	**3 Tolv (Vano 1)**	**Loc +1 Tolv (Vano 11)**	**Loc +4 Tolv (Vanos intermedios)**
VIA 1	L/2	mm	-1,65	-1,60	-1,93
VIA 2	"	"	-3,41	-3,42	-4,18
VIA 1	L/2	με	21	20	17
VIA 2	"	"	31	29	27

Por otra parte, el cálculo de las frecuencias de los tres primeros modos de vibración libre de la estructura, presenta los siguientes valores previstos:

Primer modo	Segundo modo	Tercer modo
4,09 Hz	4,31 Hz	4,66 Hz

7.- PRUEBA DE CARGA.

Durante los días previos a cada una de las pruebas de carga se realizaron los trabajos previos de instrumentación del puente de acuerdo con el programa ya fijado al que nos hemos referido en apartados anteriores.

Finalizada la instrumentación se procedió a la verificación de todas las conexiones, comprobación del perfecto funcionamiento de los equipos de amplificación y registro y, por último, prueba del conjunto completo de instrumentos mediante la grabación de las señales producidas por la calibración automática de los equipos.

7.1.-DESCRIPCIÓN.

La prueba de carga del puente se realizó en diferentes días, de manera que la prueba con instrumentación sobre los tramos 1-2-3, tuvo lugar el día 3 de octubre de 2001; para los tramos 4-5-6-7, el 5 de octubre de 2001, y el día 10 de octubre de 2001 para los restantes tramos 8-9-10-11; todo ello, siempre bajo la supervisión de D. Justo Carretero Pérez, Jefe de Instrumentación de la empresa TIFSA, adjudicataria de los trabajos, y de D. José Manuel Galindo Escribano, como representante del GIF.

Se emplearon diversos trenes de carga para las diversas pruebas, combinando una locomotora GIF (con un peso total de 120 ton repartidos entre sus seis ejes según 20 ton/eje), un tractor UTE (con un peso total de 88 ton repartidos entre sus cuatro ejes según 22 ton/eje) y diversas tolvas GIF (con un peso total de 80 ton repartidos entre sus cuatro ejes según 20 ton/eje). El plan de pruebas se desarrolló según tres etapas, estudiándose conjuntos de tramos consecutivos en días diferentes: de este modo, se realizaron por separado las pruebas en los tramos 1-2-3, por un lado, en los 4-5-6-7, por otro, y en los 8-9-10-11, por otro. En cada una de las etapas se realizaron las siguientes pruebas, que se aprecian en los croquis contenidos en el apartado 6.1.

Estáticas tramos 1-2-3

- Prueba ESTÁTICA 01. La prueba se realiza con la locomotora GIF + 1 tolvas situadas en el tramo 1 del viaducto y 3 tolvas en el tramo 3 del viaducto, por la Vía I. Así como, el tractor UTE + 1 tolvas en el tramo 1 del viaducto y 3 tolvas en el tramo 3 del viaducto, por la Vía II.

- Prueba ESTÁTICA 02. La prueba se realiza con la locomotora GIF + 1 tolvas situadas en el tramo 2 del viaducto y 3 tolvas en el tramo 4 del viaducto, por la Vía I. Así como, el tractor UTE + 1 tolvas en el tramo 2 del viaducto y 3 tolvas en el tramo 4 del viaducto, por la Vía II.

- Prueba ESTÁTICA 03. La prueba se realiza con la locomotora GIF + 1 tolvas situadas en el tramo 2 del viaducto y 3 tolvas en el tramo 3 del viaducto, por la Vía I. Así como, el tractor UTE + 1 tolvas en el tramo 2 del viaducto y 3 tolvas en el tramo 3 del viaducto, por la Vía II.

Estáticas tramos 4-5-6-7

- Prueba ESTÁTICA 14. La prueba se realiza con la locomotora GIF + 1 tolvas situadas en el tramo 4 del viaducto y 3 tolvas en el tramo 6 del viaducto, por la Vía I.

- Prueba ESTÁTICA 26. La prueba se realiza con el tractor UTE + 1 tolvas en el tramo 4 del viaducto y 3 tolvas en el tramo 6 del viaducto, por la Vía II.

- Prueba ESTÁTICA 15. La prueba se realiza con la locomotora GIF + 1 tolvas situadas en el tramo 5 del viaducto y 3 tolvas en el tramo 7 del viaducto, por la Vía I.

- Prueba ESTÁTICA 27. La prueba se realiza con el tractor UTE + 1 tolvas en el tramo 5 del viaducto y 3 tolvas en el tramo 7 del viaducto, por la Vía II.

Estáticas tramos 8-9-10-11

- Prueba ESTÁTICA 08. La prueba se realiza con la locomotora GIF + 1 tolvas situadas en el tramo 8 del viaducto y 3 tolvas en el tramo 10 del viaducto, por la Vía I. Así como, el tractor UTE + 1 tolvas en el tramo 8 del viaducto y 3 tolvas en el tramo 10 del viaducto, por la Vía II.

- Prueba ESTÁTICA 09. La prueba se realiza con la locomotora GIF + 1 tolvas situadas en el tramo 9 del viaducto y 3 tolvas en el tramo 11 del viaducto, por la Vía I. Así como, el tractor UTE + 1 tolvas en el tramo 9 del viaducto y 3 tolvas en el tramo 11 del viaducto, por la Vía II.

- Prueba ESTÁTICA 10. La prueba se realiza con la locomotora GIF + 1 tolvas situadas en el tramo 9 del viaducto y 3 tolvas en el tramo 10 del viaducto, por la Vía I. Así como, el tractor UTE + 1 tolvas en el tramo 9 del viaducto y 3 tolvas en el tramo 10 del viaducto, por la Vía II.

Dinámicas

- Prueba dinámica a 5 km/h (DINÁMICA 11), circulando la locomotora GIF + 4 tolvas a 5 km/h por la Vía II.

- Prueba dinámica a 5 km/h (DINÁMICA 21), circulando el tractor GIF + 4 tolvas por la Vía I.

- Prueba dinámica a 40 km/h (DINÁMICA 12), circulando la locomotora GIF + 4 tolvas a 40 km/h por la Vía I.

- Prueba dinámica a 80 km/h (DINÁMICA 13), circulando la locomotora GIF + 4 tolvas a 80 km/h por la Vía I.

- Prueba de frenado a 80 km/h (DINÁMICA 14), circulando la locomotora GIF + 4 tolvas a 80 km/h por la Vía I y efectuando un frenado completo.

El sentido de circulación fue de Lleida a Zaragoza, procediéndose antes y después a calibrar los aparatos de medida para obtener una perfecta correlación entre la señal producida y el fenómeno físico que la origina. Después de cada prueba dinámica se dejaba un tiempo mínimo de dos minutos para asegurar la recuperación total de la estructura y aprovechar para realizar un chequeo rápido de las medidas obtenidas.

En las pruebas estáticas con trenes de cargas en ambas vías, el tiempo aproximado de puesta en carga de los tableros es de unos 35 minutos y el tiempo de grabación de la recuperación en torno a los 2 minutos. El tiempo total de grabación en estos casos es del orden de 45 minutos. Por su parte, para las estáticas con un solo tren, el tiempo aproximado de puesta en carga de los tableros es de unos 22 minutos, por lo que el tiempo total de grabación es del orden de 30 minutos.

Las pruebas en los tramos 1-2-3, fueron llevadas a cabo durante el día 3 de octubre de 2001, comenzando a las 13 h 40 min., y finalizando a las 17 h 47 min, con una duración aproximada de 4 horas. La temperatura registrada osciló entre 27,7ºC y 29,5ºC y la humedad entre 35,1% y 42,6%.

Las pruebas en los tramos 4-5-6-7, fueron llevadas a cabo durante el día 5 de octubre de 2001, comenzando a las 18 h 05 min., y finalizando a las 21 h 45 min, con una duración aproximada de 3 horas y media. La temperatura registrada osciló entre 23,6ºC y 27,0ºC y la humedad entre 44,4% y 69,8%.

Las pruebas en los tramos 8-9-10-11, fueron llevadas a cabo durante el día 10 de octubre de 2001, comenzando a las 13 h 25 min., y finalizando a las 17 h 13 min, con una duración aproximada de 4 horas. La temperatura registrada osciló entre 23,4ºC y 26,8ºC, y la humedad entre 29,4% y 49,5%.

Por último, cabe señalar que al finalizar el ensayo se procedió a visualizar gráficamente los resultados para garantizar su correcta ejecución y comprobar si existía alguna anomalía en el funcionamiento resistente de la estructura.

7.2.- RESULTADOS OBTENIDOS.

En el ANEJO 4 - Registro de Medidas, se adjuntan los gráficos correspondientes a todos los puntos de medida definidos de acuerdo con la numeración establecida en los planos de instrumentación.

Las pruebas registradas se identifican de acuerdo con su carácter, estático, dinámico o de frenado, y adicionando un código que indica su orden o la velocidad a que han sido realizadas.

El correspondiente valor medido, se refiere a la flecha bruta, es decir, a la medida efectuada con transductores sin tener en cuenta los descensos de los apoyos por deformación de los neoprenos. Dado que el acceso a dichos neoprenos para la colocación de los sensores no fue posible por el reducido espacio existente entre viga y altar, estos se han dispuesto en la zona más próxima a unos 50 cm, a ras de los paramentos de estribos, lo que origina una clara separación de los mismos. Las medidas tomadas en estos puntos serán trasladadas mediante una aproximación lineal al apoyo, haciendo una corrección para contrarrestar la deformación elástica de la estructura en estos puntos. A continuación se halla un descenso medio corregido para los apoyos de cada losa. La diferencia entre el valor medido y el descenso de neoprenos se corresponderá con el valor neto.

El valor teórico de los apoyos se corresponde con la flecha teórica a la distancia real donde se disponen los transductores de apoyo. El valor neto de los mismos es precisamente el valor medido menos ese valor teórico. Este valor neto es el que se utiliza para calcular las flechas netas.

Para las flechas dinámicas se recogen los valores máximos absolutos y en las pruebas estáticas aparecen los valores estabilizados. Los valores máximos para cada transductor se presentan en las tablas comparativas que aparecen en los apartados siguientes del presente informe.

A) Resultados de las pruebas estáticas.

Los valores medidos durante la realización de las pruebas de carga estática para los transductores de desplazamiento y galgas extensométricas instrumentadas correspondientes a flechas son los que a se recogen en la tabla a continuación.

Dentro de la columna de los valores esperados, se incluyen aquellos obtenidos del cálculo teórico, teniendo en cuenta el módulo de elasticidad estática. Tanto para flechas como para galgas situadas en el centro de vano se presenta una columna complementaria de porcentajes alcanzados respecto a los esperados. También se añade para ellos una fila con los valores medios.

ESTÁTICA 01 (Vanos 1-2-3)							
PUNTO	**SECC**	**UD**	**VALOR MEDIDO**	**DESCENSO NEOPRENO**	**VALOR NETO**	**VALOR TEÓRICO**	**% MED/TEOR***
P011	L/2	mm	-2,62	-0,53	-2,09	-5,09	41,1%
P012	"	"	-3,07	-0,53	-2,54	-5,02	50,6%
P021	"	"	1,91	0,18	1,74	2,04	85,0%
P022	"	"	2,34	0,18	2,17	2,07	104,6%
P031	"	"	-4,85	-0,82	-4,04	-7,69	52,5%
P032	"	"	-5,44	-0,82	-4,63	-7,67	60,3%
P013	Apoyos	mm	-0,57				
P014	"	"	-0,49				
P023	"	"	0,12				
P024	"	"	0,23				
P033	"	"	-0,82				
P034	"	"	-0,81				
G011	L/2	με	40			53	75,7%
G012	"	"	37			52	71,2%
G021	"	"	-19			-28	67,9%
G022	"	"	-22			-28	78,6%
G031	"	"	39			66	59,1%
G032	"	"	39			66	59,1%

* La diferencia entre el valor medido y el descenso de neoprenos se corresponde con el valor neto, que es el utilizado para la relación porcentual indicada en las tablas.

ESTÁTICA 02 (Vanos 1-2-3)							
PUNTO	**SECC**	**UD**	**VALOR MEDIDO**	**DESCENSO NEOPRENO**	**VALOR NETO**	**VALOR TEÓRICO**	**% MED/TEOR***
P011	L/2	mm	0,96	0,14	0,83	0,87	94,8%
P012	"	"	1,16	0,14	1,03	0,94	109,0%
P021	"	"	-4,88	-0,74	-4,14	-6,80	60,9%
P022	"	"	-5,27	-0,74	-4,53	-6,62	68,4%
P031	"	"	2,37	0,11	2,27	2,44	92,8%
P032	"	"	3,21	0,11	3,11	2,52	123,2%
P013	Apoyos	mm	0,14				
P014	"	"	0,13				
P023	"	"	-0,83				
P024	"	"	-0,65				
P033	"	"	-0,03				
P034	"	"	0,24				
G011	L/2	με	-14			-17	82,4%
G012	"	"	-14			-17	82,4%
G021	"	"	42			59	71,2%
G022	"	"	44			59	74,6%
G031	"	"	-18			-32	56,3%
G032	"	"	-18			-32	56,3%

* La diferencia entre el valor medido y el descenso de neoprenos se corresponde con el valor neto, que es el utilizado para la relación porcentual indicada en las tablas.

ESTÁTICA 03 (Vanos 1-2-3)							
PUNTO	**SECC**	**UD**	**VALOR MEDIDO**	**DESCENSO NEOPRENO**	**VALOR NETO**	**VALOR TEÓRICO**	**% MED/TEOR***
P011	L/2	mm	0,73	0,13	0,61	0,66	91,7%
P012	"	"	0,90	0,13	0,78	0,73	106,2%
P021	"	"	-3,54	-0,59	-2,96	-5,49	53,8%
P022	"	"	-3,80	-0,59	-3,22	-5,30	60,7%
P031	"	"	-3,54	-0,58	-2,97	-6,58	45,1%
P032	"	"	-4,19	-0,58	-3,62	-6,49	55,7%
P013	Apoyos	mm	0,14				
P014	"	"	0,11				
P023	"	"	-0,68				
P024	"	"	-0,49				
P033	"	"	-0,68				
P034	"	"	-0,47				
G011	L/2	με	-12			-14	85,7%
G012	"	"	-15			-14	107,1%
G021	"	"	30			44	68,2%
G022	"	"	31			43	72,1%
G031	"	"	18			48	37,5%
G032	"	"	18			48	37,5%

* La diferencia entre el valor medido y el descenso de neoprenos se corresponde con el valor neto, que es el utilizado para la relación porcentual indicada en las tablas.

ESTÁTICA 14 (Vanos 4-5-6-7)							
PUNTO	**SECC**	**UD**	**VALOR MEDIDO**	**DESCENSO NEOPRENO**	**VALOR NETO**	**VALOR TEÓRICO**	**% MED/TEOR***
P041	L/2	mm	-2,90	-0,14	-2,76	-4,03	68,6%
P042	"	"	-1,98	-0,13	-1,85	-2,68	68,9%
P051	"	"	1,21	-0,30	1,51	1,49	101,5%
P052			1,46	0,29	1,17	0,99	117,9%
P061			-3,01	-0,58	-2,43	-4,65	52,2%
P062	"	"	-1,70	-0,10	-1,60	-3,10	51,6%
P071	"	"	0,53	0,13	0,40	0,76	52,5%
P072	"	"	0,91	0,18	0,73	0,61	120,1%
P043	Apoyos	mm	-0,14				
P044	"	"	-0,13				
P053			-0,30				
p054			0,29				
P063	"	"	-0,58				
P064	"	"	-0,10				
P073	"	"	0,13				
P074	"	"	0,18				
G041	L/2	με	32			35	91,4%
G042	"	"	28			23	121,7%
G051	"	"	-18			-19	94,7%
G052	"	"	-16			-13	123,1%
G061	"	"	43			40	107,5%
G062	"	"	26			27	96,3%
G071	"	"	-			-13	-
G072	"	"	-10			-8	125,0%

* La diferencia entre el valor medido y el descenso de neoprenos se corresponde con el valor neto, que es el utilizado para la relación porcentual indicada en las tablas.

ESTÁTICA 15 (Vanos 4-5-6-7)							
PUNTO	**SECC**	**UD**	**VALOR MEDIDO**	**DESCENSO NEOPRENO**	**VALOR NETO**	**VALOR TEÓRICO**	**% MED/TEOR***
P041	L/2	mm	0,54	-0,20	0,74	-	-
P042	"	"	1,01	0,30	0,71	-	-
P051	"	"	-3,27	-0,73	-2,54	-4,03	63,1%
P052	"	"	-2,12	-0,21	-1,91	-2,68	71,2%
P061	"	"	1,10	-0,13	1,23	1,49	82,7%
P062	"	"	1,59	0,28	1,31	1,09	120,0%
P071	"	"	-2,78	-0,65	-2,13	-4,65	45,8%
P072	"	"	-1,99	-0,15	-1,84	-3,10	59,3%
P043	Apoyos	mm	-0,20				
P044	"	"	0,30				
P053	"	"	-0,73				
p054	"	"	-0,21				
P063	"	"	-0,13				
P064	"	"	0,28				
P073	"	"	-0,65				
P074	"	"	-0,15				
G041	L/2	με	-9				-
G042	"	"	-8				-
G051	"	"	36			35	102,9%
G052	"	"	33			27	122,2%
G061	"	"	-19			-19	100,0%
G062	"	"	-17			-14	121,4%
G071	"	"	-			40	-
G072	"	"	31			29	106,8%

* La diferencia entre el valor medido y el descenso de neoprenos se corresponde con el valor neto, que es el utilizado para la relación porcentual indicada en las tablas.

ESTÁTICA 26 (Vanos 4-5-6-7)							
PUNTO	**SECC**	**UD**	**VALOR MEDIDO**	**DESCENSO NEOPRENO**	**VALOR NETO**	**VALOR TEÓRICO**	**% MED/TEOR***
P041	L/2	mm	-1,81	0,07	-1,88	-2,68	70,0%
P042	"	"	-3,15	-0,67	-2,48	-4,03	61,6%
P051	"	"	1,59	0,30	1,29	1,09	118,3%
P052	"	"	1,20	-0,11	1,31	1,49	88,0%
P061	"	"	-2,07	-0,14	-1,93	-3,10	62,2%
P062	"	"	-2,94	-0,56	-2,38	-4,65	51,1%
P071	"	"	0,75	0,19	0,56	0,51	110,2%
P072	"	"	0,59	-0,24	0,83	0,76	108,9%
P043	Apoyos	mm	0,07				
P044	"	"	-0,67				
P053	"	"	0,30				
P054	"	"	-0,11				
P063	"	"	-0,14				
P064	"	"	-0,56				
P073	"	"	0,19				
P074	"	"	-0,24				
G041	L/2	με	32			26	123,0%
G042	"	"	41			35	117,1%
G051	"	"	-17			-14	121,4%
G052	"	"	-17			-19	89,5%
G061	"	"	36			27	124,1%
G062	"	"	45			40	112,5%
G071	"	"	-			-8	-
G072	"	"	-9			-12	75,0%

* La diferencia entre el valor medido y el descenso de neoprenos se corresponde con el valor neto, que es el utilizado para la relación porcentual indicada en las tablas.

ESTÁTICA 27 (Vanos 4-5-6-7)							
PUNTO	**SECC**	**UD**	**VALOR MEDIDO**	**DESCENSO NEOPRENO**	**VALOR NETO**	**VALOR TEÓRICO**	**% MED/TEOR***
P041	L/2	mm	0,58	0,05	0,53	-	-
P042	"	"	0,54	0,01	0,53	-	-
P051	"	"	-2,00	-0,10	-1,90	-2,68	70,8%
P052	"	"	-3,00	-0,62	-2,38	-4,03	59,1%
P061	"	"	1,59	0,39	1,20	1,09	110,1%
P062	"	"	1,10	-0,14	1,24	1,49	83,3%
P071	"	"	-1,74	-0,23	-1,51	-3,10	48,7%
P072	"	"	-3,23	-0,77	-2,46	-4,65	52,9%
P043	Apoyos	mm	0,05				
P044	"	"	0,01				
P053	"	"	-0,10				
P054	"	"	-0,62				
P063	"	"	0,39				
P064	"	"	-0,14				
P073	"	"	-0,23				
P074	"	"	-0,77				
G041	L/2	με	-7			-	-
G042	"	"	-10			-	-
G051	"	"	28			24	116,7%
G052	"	"	44			35	125,7%
G061	"	"	-17			-14	121,4%
G062	"	"	-21			-19	110,5%
G071	"	"	-			27	
G072	"	"	45			40	112,5%

* La diferencia entre el valor medido y el descenso de neoprenos se corresponde con el valor neto, que es el utilizado para la relación porcentual indicada en las tablas.

ESTÁTICA 08 (Vanos 8-9-10-11)							
PUNTO	**SECC**	**UD**	**VALOR MEDIDO**	**DESCENSO NEOPRENO**	**VALOR NETO**	**VALOR TEÓRICO**	**% MED/TEOR***
P081	L/2	mm	-4,35	-0,97	-3,38	-6,49	52,1%
P082	"	"	-4,29	-0,97	-3,32	-6,29	52,8%
P091	"	"	1,99	-0,03	2,02	2,44	82,6%
P092	"	"	2,04	-0,03	2,07	2,41	85,7%
P101	"	"	-4,07	-0,73	-3,35	-7,73	43,3%
P102	"	"	-4,40	-0,73	-3,68	-7,45	49,3%
P111	"	"	0,96	0,14	0,82	0,97	84,5%
P112	"	"	1,06	0,14	0,92	0,86	107,0%
P083	Apoyos	mm	-				
P084	"	"	-0,97				
P093	"	"	-0,04				
P094	"	"	-0,01				
P103	"	"	-0,70				
P104	"	"	-0,75				
P113	"	"	0,14				
P114	"	"	0,14				
G081	L/2	με	62			59	105,1%
G082	"	"	61			58	105,2%
G091	"	"	-26			-32	81,3%
G092	"	"	-33			-32	103,1%
G101	"	"	67			64	104,7%
G102	"	"	70			64	109,4%
G111	"	"	-18			-19	94,7%
G112	"	"	-19			-18	105,6%

* La diferencia entre el valor medido y el descenso de neoprenos se corresponde con el valor neto, que es el utilizado para la relación porcentual indicada en las tablas.

ESTÁTICA 09 (Vanos 8-9-10-11)							
PUNTO	**SECC**	**UD**	**VALOR MEDIDO**	**DESCENSO NEOPRENO**	**VALOR NETO**	**VALOR TEÓRICO**	**% MED/TEOR***
P081	L/2	mm	1,00	0,34	0,66	1,21	54,5%
P082	"	"	0,99	0,34	0,65	1,29	50,4%
P091	"	"	-4,30	-0,93	-3,38	-6,92	48,8%
P092	"	"	-4,11	-0,93	-3,19	-6,82	46,7%
P101	"	"	1,71	0,11	1,61	2,24	71,7%
P102	"	"	1,92	0,11	1,82	2,30	78,9%
P111	"	"	-2,97	-0,54	-2,43	-5,22	46,6%
P112	"	"	-2,85	-0,54	-2,31	-5,18	44,6%
P083	Apoyos	mm	-				
P084	"	"	0,34				
P093	"	"	-1,02				
P094	"	"	-0,83				
P103	"	"	0,08				
P104	"	"	0,13				
P113	"	"	-0,56				
P114	"	"	-0,52				
G081	L/2	με	-13			-19	68,4%
G082	"	"	-12			-19	63,2%
G091	"	"	66			63	104,8%
G092	"	"	67			62	108,1%
G101	"	"	-28			-28	100,0%
G102	"	"	-32			-28	114,3%
G111	"	"	56			56	100,0%
G112	"	"	53			56	94,6%

* La diferencia entre el valor medido y el descenso de neoprenos se corresponde con el valor neto, que es el utilizado para la relación porcentual indicada en las tablas.

ESTÁTICA 10 (Vanos 8-9-10-11)							
PUNTO	**SECC**	**UD**	**VALOR MEDIDO**	**DESCENSO NEOPRENO**	**VALOR NETO**	**VALOR TEÓRICO**	**% MED/TEOR***
P081	L/2	mm	0,89	0,15	0,74	0,8	92,5%
P082	"	"	0,75	0,15	0,60	0,84	71,4%
P091	"	"	-2,83	-0,75	-2,09	-5,34	39,0%
P092	"	"	-3,21	-0,75	-2,47	-5,23	47,1%
P101	"	"	-2,72	-0,69	-2,03	-5,91	34,3%
P102	"	"	-2,89	-0,69	-2,20	-5,83	37,7%
P111	"	"	0,65	0,13	0,52	0,66	78,8%
P112	"	"	0,68	0,13	0,55	0,73	75,3%
P083	Apoyos	mm	-				
P084	"	"	0,15				
P093	"	"	-0,78				
P094	"	"	-0,71				
P103	"	"	-0,62				
P104	"	"	-0,76				
P113	"	"	0,16				
P114	"	"	0,10				
G081	L/2	με	-14			-15	93,3%
G082	"	"	-14			-15	93,3%
G091	"	"	51			49	104,1%
G092	"	"	53			48	110,4%
G101	"	"	44			40	110,0%
G102	"	"	36			39	92,3%
G111	"	"	-15			-12	125,0%
G112	"	"	-15			-12	125,0%

* La diferencia entre el valor medido y el descenso de neoprenos se corresponde con el valor neto, que es el utilizado para la relación porcentual indicada en las tablas.

B) Resultados de las pruebas dinámicas

En el siguiente cuadro se recogen los valores obtenidos durante las pruebas dinámicas. Los criterios son los mismos que los de la prueba estática teniendo en cuenta directamente el módulo dinámico, sin variación con la velocidad, y sin aplicar coeficiente de impacto alguno a los valores esperados.

PUNTO	SECC	UD	VALOR TEÓR.	VALOR MEDIDO				% MED/TEOR
				DIN11	DIN12	DIN13	DIN14	
P011	L/2	mm	-3,41	-1,44	-1,51	-1,52	-1,49	43,7%
P012	"	"	-1,65	-1,06	-1,11	-1,1	-1,09	66,1%
P021	"	"	-4,18	-2,55	-2,55	-2,67	-2,63	62,2%
P022	"	"	-1,93	-1,62	-1,65	-1,77	-1,64	86,5%
P031	"	"	-4,18	-2,72	-2,75	-2,81	-2,85	66,6%
P032	"	"	-1,93	-1,62	-1,69	-1,7	-1,7	86,9%
P041	L/2	mm	-4,18	-2,35	-2,45	-2,55	-2,58	59,4%
P042	"	"	-1,93	-1,3	-1,45	-1,47	-1,43	73,2%
P051	"	"	-4,18	-2,52	-2,7	-2,63	-2,66	62,9%
P052	"	"	-1,93	-1,2	-1,45	-1,42	-1,45	71,5%
P061	"	"	-4,18	-2,6	-2,84	-2,78	-2,75	65,6%
P062	"	"	-1,93	-1,24	-1,32	-1,26	-1,24	65,5%
P071	"	"	-4,18	-2,3	-2,44	-2,46	-2,45	57,7%
P072	"	"	-1,93	-1,25	-1,4	-1,38	-1,36	69,8%
G041	L/2	με	31	34	35	34	36	112,1%
G042	"	"	20	23	23	23	24	116,3%
G051	"	"	31	31	32	32	32	102,4%
G052	"	"	20	21	23	23	22	111,3%
G061	"	"	31	38	40	39	40	126,6%
G062	"	"	20	21	23	23	22	111,3%
G071	"	"	30	-	-	-	-	
G072	"	"	19	20	22	21	21	110,5%
P081	L/2	mm	-4,18	-1,88	-1,97	-2	-2,23	48,3%
P082	"	"	-1,93	-1,04	-1,12	-1,15	-1,39	60,9%
P091	"	"	-4,18	-1,97	-2,02	-2,03	-1,93	47,5%
P092	"	"	-1,93	-1,2	-1,25	-1,23	-1,2	63,2%
P101	"	"	-4,18	-2,11	-2,06	-2,19	-2,12	50,7%
P102	"	"	-1,93	-1,45	-1,41	-1,5	-1,45	75,3%
P111	"	"	-3,42	-1	-1,1	-1,04	-1,02	30,4%
P112	"	"	-1,6	-1,04	-1,13	-1,11	-1,08	68,1%
G081	L/2	με	31	20	20	21	24	68,5%
G082	"	"	20	12	13	12	14	63,8%
G091	"	"	31	30	31	30	29	96,8%
G092	"	"	20	22	24	23	22	113,8%
G101	"	"	31	33	33	33	34	107,3%
G102	"	"	20	23	24	24	24	118,8%
G111	"	"	31	39	39	39	40	126,6%
G112	"	"	20	25	26	28	27	132,5%

COEFICIENTE DE IMPACTO					
PUNTO	**5 km/h**	**40 Km/h**	**80 Km/h**	**F80 Km/h**	**MEDIA**
P011	1,00	1,05	1,06	1,03	1,03
P012	1,00	1,05	1,04	1,03	1,03
P021	1,00	1,00	1,05	1,03	1,02
P022	1,00	1,02	1,09	1,01	1,03
P031	1,00	1,01	1,03	1,05	1,02
P032	1,00	1,04	1,05	1,05	1,04
P041	1,00	1,04	1,09	1,10	1,06
P042	1,00	1,12	1,13	1,10	1,09
P051	1,00	1,07	1,04	1,06	1,04
P052	1,00	1,21	1,18	1,21	1,15
P061	1,00	1,09	1,07	1,06	1,05
P062	1,00	1,06	1,02	1,00	1,02
P071	1,00	1,06	1,07	1,07	1,05
P072	1,00	1,12	1,10	1,09	1,08
G041	1,00	1,03	1,00	1,06	1,02
G042	1,00	1,00	1,00	1,04	1,01
G051	1,00	1,03	1,03	1,03	1,02
G052	1,00	1,10	1,10	1,05	1,06
G061	1,00	1,05	1,03	1,05	1,03
G062	1,00	1,10	1,10	1,05	1,06
G071	-	-	-	-	-
G072	1,00	1,10	1,05	1,05	1,05
P081	1,00	1,05	1,06	1,19	1,07
P082	1,00	1,08	1,11	1,34	1,13
P091	1,00	1,03	1,03	0,98	1,01
P092	1,00	1,04	1,03	1,00	1,02
P101	1,00	0,98	1,04	1,00	1,00
P102	1,00	0,97	1,03	1,00	1,00
P111	1,00	1,10	1,04	1,02	1,04
P112	1,00	1,09	1,07	1,04	1,05
G081	1,00	1,00	1,05	1,20	1,06
G082	1,00	1,08	1,00	1,17	1,06
G091	1,00	1,03	1,00	0,97	1,00
G092	1,00	1,09	1,05	1,00	1,03
G101	1,00	1,00	1,00	1,03	1,01
G102	1,00	1,04	1,04	1,04	1,03
G111	1,00	1,00	1,00	1,03	1,01
G112	1,00	1,04	1,12	1,08	1,06
MEDIA	**1,00**	**1,05**	**1,05**	**1,06**	**1,04**

E) Frecuencia propia de vibración.

El valor teórico de las frecuencias propias fundamentales de vibración del tablero en flexión para los primeros modos de vibración es de 4,08 Hz, 4,31 Hz y 4,66 Hz respectivamente, obtenidas ésta en función del módulo de elasticidad estático del hormigón. Respecto al amortiguamiento de la estructura, señalar que se calculan en el mismo periodo temporal en el que se obtienen los espectros ya comentados para cálculo de las frecuencias. Se calculan directamente por el software utilizado para cálculo del espectro utilizando el método del ancho de banda.

La zona temporal de análisis se corresponde con la de vibración residual libre de la estructura, una vez abandonada ésta por el tren de cargas y tomando siempre la parte final de la señal del acelerómetro. Indicamos que los valores de amplitud que aparecen en los gráficos de los espectros, no tienen un significado físico o ingenieril, ya que corresponden solamente a los coeficientes de peso de los términos del desarrollo en serie de Fourier (FFT). Las frecuencias y amortiguamiento obtenidos de los espectros de los acelerómetros arrojan los valores que recogemos a continuación:

PUNTO	FRECUENCIA (Hz)	AMORTIGUACIÓN
A012	7,59	1,73%
A021	4,51	2,02%
A032	4,02	4,02%
A041	3,97	1,94%
A052	3,97	0,98%
A072	4,20	0,98%
A091	4,38	1,99%

El valor medio de la frecuencia de vibración obtenida para los vanos intermedios en las pruebas de carga es de 4,18 Hz, que es muy parecido a la obtenida en el modelo teórico para el modo fundamental de vibración por flexión.

8.- ANÁLISIS DE LOS RESULTADOS.

A la vista de los resultados obtenidos en la prueba de carga llevada a cabo, podemos realizar el siguiente análisis.

8.1.- PRUEBA ESTÁTICA

Los valores alcanzados en las diferentes pruebas estáticas, tanto en flechas como en deformaciones unitarias, son del orden de los habituales para este tipo de puentes y pueden considerarse admisibles, existiendo no obstante, diferencias según el tipo de carga y vanos cargados, siendo los valores porcentuales menores en flechas que en contraflechas. El comportamiento real parece ser más rígido en las secciones de apoyo lo que favorece esos resultados. El porcentaje de recuperación es igualmente correcto, obteniéndose dicha recuperación al tiempo de retirar la carga actuante.

Centrando el estudio en los valores de flechas, por ser más representativas que las contraflechas, podemos apuntar que la flecha neta máxima (es decir, descontado el descenso de los apoyos) alcanzada en la prueba, es de 4,63 mm medida en el punto P032 instrumentado en el centro de la luz del vano 3, en la estática 01 en la que los vanos 1 y 3 se encuentran cargados por ambas vías, lo que supone un valor respecto a su luz de cálculo 35,0 m, de 1/7.600 que resulta un valor algo reducido. En valores medios la flecha del tablero es del orden de un 30% menor de la esperada, lo que indica un aceptable comportamiento real del puente con relación al teórico.

En cuanto a las deformaciones unitarias, no debe extrañar que se obtengan valores porcentuales diferentes a los de las flechas. Esto se puede explicar por el hecho de que mientras la medida de flecha integra las características del hormigón a lo largo de todo el tablero (microfisuras, heterogeneidades del hormigón etc.), la medida de deformaciones es una medida puntual, a la que se añade aparte, una incertidumbre en el posicionamiento de la fibra neutra. En este caso, los valores de deformaciones medidos son de media, del orden de un 10% mayores de lo esperados, valor que se encuentra dentro de unos límites admisibles. Algunas galgas llegan a alcanzar porcentajes de deformación respecto de los teóricos del orden del 130% lo cual es algo elevado pero sigue siendo admisible.

8.2.- PRUEBAS DINÁMICAS.

Como en el apartado anterior, a partir de los registros obtenidos en campo podemos establecer un resumen respecto a los porcentajes que suponen los resultados obtenidos frente a los esperados para las pruebas dinámicas, incluida la de frenado.

Los valores son del mismo orden que en el caso de las estáticas considerándose igualmente admisibles. Cabe hacer los mismos comentarios que en las estáticas. Los porcentajes obtenidos, tanto las flechas como las deformaciones unitarias medidas en las pruebas dinámicas, presentan un orden de magnitud similar a los de las estáticas, siendo de nuevo superiores los valores obtenidos en deformaciones que en flechas. Nuevamente, las recuperaciones son prácticamente totales e instantáneas nada más abandonar el tren el puente.

En las pruebas dinámicas en que se realiza el paso del tren de cargas por una de las vías se observa, al analizar los resultados obtenidos en las distintas pruebas que junto con la flecha correspondiente a la flexión longitudinal del tablero, existe otro factor importante de flecha que es debido a los movimientos transversales de la sección fruto de la excentricidad de la carga. Analizando los resultados obtenidos puede verse como en los puntos situados bajo la vía descargada se han medido porcentajes medidos respecto a los teóricos, mayores que en los puntos situados bajo la vía cargada, lo que indica que en la realidad existe un mayor reparto (del orden de 60%-40%) que en el modelo teórico (del orden de 70%-30%)

La flecha máxima alcanzada en las pruebas dinámicas fue de 2,85 mm (punto P031 en la DINÁMICA 14, con el tren de cargas circulando a 80 km/h por la vía I), lo que supone una relación con la luz de cálculo, de 35 m del orden de 1/12.000, que resulta un valor reducido.

Definiendo el Coeficiente de Impacto como la relación entre los valores medios de flechas de cada tablero, obtenidos a cada velocidad y el de la prueba cuasi-estática, resulta de 1,04 para el conjunto de las pruebas, lo que indica que para las cargas actuantes apenas se consigue la aparición de algún efecto dinámico en la estructura.

Posteriormente, como resultado del análisis del espectro de frecuencia por el método del ancho eficaz de banda, se estiman los siguientes valores de decremento logarítmico y amortiguación. Esto se aplica de forma automatizada por el programa de dibujo de espectros, donde se sustituye la excitación armónica de la estructura por la originada por el tren de cargas en la prueba analizada.

En el análisis dinámico de la estructura lo habitual es estudiar las vibraciones residuales libres en los puntos instrumentados, una vez abandonada la estructura por el tren de cargas. En el caso de este puente en particular, en el que no llega a producirse realmente una vibración libre de la estructura dado el número de vanos, la dificultad de tratamiento de los registros obtenidos parece explicar que se hayan obtenido valores medios del decremento logarítmico y del amortiguamiento muy variables según cada uno de los acelerómetros de los distintos vanos.

En cuanto al amortiguamiento, se ha estimado un porcentaje medio de un 1,6%, respecto del amortiguamiento crítico, lo que supone un valor algo reducido en este tipo de estructuras. Las frecuencias de vibración de la estructura registradas por los distintos acelerómetros reflejan unos valores comprendidos entre 3,97 Hz. y 4,20 Hz, lo cual se encuentra perfectamente dentro de lo previsto según el modelo, en que para los tres primeros modos de vibración se han obtenido valores de 4,09 Hz, 4,31 Hz y 4,66 Hz.

En los registros no se observa ningún comportamiento que pueda considerarse anormal desde el punto de vista de los fenómenos de amplificación dinámica.

9.- CONCLUSIONES Y RECOMENDACIONES.

De acuerdo con lo expuesto en los apartados precedentes, podemos llegar a las siguientes conclusiones:

a) Los valores máximos de las flechas y deformaciones alcanzadas en el centro del vano tanto en las pruebas dinámicas como en la estática, se ajustan a los previstos, aunque con diferencia de porcentajes según se trate de flechas o contraflechas. Las variaciones, en cualquier caso se encuentran dentro de unos porcentajes admisibles.

b) En el caso de las flechas obtenemos para valores medios, medidas que están entre 53% y el 94% con respecto a los valores teóricos, lo que nos indica que la estructura se asemeja en general bien al modelo teórico adoptado, pudiéndose considerar el comportamiento correcto, aunque si bien el reparto transversal es mayor del esperado en un principio.

c) Los valores de las deformaciones unitarias en el hormigón toman valores porcentuales superiores a las flechas, siendo en ocasiones mayores a los previstos por el modelo, considerándose no obstante correctos.

d) Las recuperaciones obtenidas tanto en flechas como en deformaciones unitarias han sido siempre en valor medio superiores al 90%, y realizándose de una forma prácticamente instantánea.

e) En las pruebas dinámicas apenas se observa aumento de flechas y deformaciones en los puntos instrumentados según aumenta la velocidad, debido en parte a las bajas velocidades alcanzadas y a un fuerte grosor de la capa de balasto que minimiza la aparición del coeficiente de impacto. De acuerdo con lo anterior las pruebas dinámicas se observan flechas de magnitud casi constante con la velocidad. El valor medio del coeficiente de impacto es de 1,04.

f) El comportamiento de todos los apoyos se considera correcto.

g) Se observa un comportamiento transversal normal de la obra, aunque con ligeras variaciones de desplazamientos, y por tanto de reparto cuando se carga una vía u otra. En la realidad se ha medido un mayor reparto (del orden de 60%-40%) que en el modelo teórico (del orden de 70%-30%)

h) Durante la realización de las pruebas no se apreció la aparición de fisuras o grietas, ni la aparición de otros daños de importancia.

Por todos estos motivos puede considerarse que el comportamiento de la obra durante la realización de los ensayos de carga ha sido correcto. Como reflexión final debemos comentar que la obra muestra aspecto aceptable, aunque se observan algunas incidencias, ya comentadas en el apartado 4 del presente informe, correspondiente a la Inspección Preliminar.

Madrid, octubre de 2001

EL JEFE DE INSTRUMENTACIÓN	INGENIERO DEL DPTO DE ESTRUCTURAS DE HORMIGÓN Y FÁBRICA
Fdo.: Justo Carretero Pérez	Fdo.: Luis Miguel Pombo Blanco
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GIF
Gestor de Infraestructuras Ferroviarias

ANEJO 1: DOCUMENTACIÓN FACILITADA POR EL GIF

Madrid, Octubre de 2001

TIFSA
Grupo Renfe

La documentación facilitada por el GIF consistió en dos CD-Rom en los que se incluyen en uno de ellos: el Documento Nº2 - Planos del Proyecto Modificado del Subtramo IV del tramo Puente de Ebro-Lleida de la línea de Alta Velocidad Madrid-Zaragoza-Barcelona-Frontera Francesa, en formato AutoCad; y en el otro: el Proyecto Construido de la misma obra, con Memoria y Anejos incompletos, sobre todo en el correspondiente a Estructuras, en formato Word, y los Planos en formato AutoCad 2000. Se ha obtenido también posteriormente, una copia del Anejo de Cálculo en papel.

GIF
Gestor de Infraestructuras Ferroviarias

ANEJO 2: PROYECTO DE PRUEBA DE CARGA

Madrid, Octubre de 2001

TIFSA
Grupo Renfe

GIF Gestor de Infraestructuras Ferroviarias

TIFSA

CONTRATO DE CONSULTORÍA Y ASISTENCIA PARA LA REALIZACIÓN DE PRUEBAS DE CARGA PARA LA RECEPCIÓN DE PUENTES DE LA LÍNEA DE ALTA VELOCIDAD MADRID-ZARAGOZA-BARCELONA-FRONTERA FRANCESA. TRAMO: PUENTE DE EBRO-LLEIDA. BASE DE MONTAGUT.



PROYECTO DE PRUEBA DE CARGA

SUBTRAMO IV
Viaducto E-2
26VI05

NORMALIZADO POR INECO

Julio de 2001

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1.- INTRODUCCIÓN

El presente documento tiene por objeto la especificación de la prueba de carga del **"VIADUCTO E-2 PERTENECIENTE AL SUBTRAMO IV DEL TRAMO ZARAGOZA-LLEIDA DE LA LÍNEA DE ALTA VELOCIDAD MADRID-BARCELONA-FRONTERA FRANCESA".**

Dicha prueba se efectúa con objeto de analizar la respuesta de la estructura frente a acciones estáticas y dinámicas, y previamente a su puesta en servicio, de acuerdo con la "Instrucción relativa a las acciones a considerar en el Proyecto de Puentes de Ferrocarril".

2.- DATOS SOBRE LA ESTRUCTURA

Se trata de un puente continuo de hormigón pretensado de once vanos, con 28,00 metros de longitud entre ejes de apoyos para los vanos laterales y de 35,00 metros para los vanos centrales, con lo que alcanza una longitud total de 371,0 metros.

La sección del tablero del puente tiene una anchura de 13,70 metros en su cara superior que da lugar, incluyendo las impostas, a una anchura total de plataforma de 14,00 m. y está constituida por una sección cajón de 2,45 m. canto. La losa superior tiene un espesor de 0,33 m, la inferior de 0,30 m. y las almas de 0,40 m. Las alas tienen una longitud de 3,85 m. con un espesor variable desde 0,40 m. en su unión con el cajón hasta 0,20 m en el extremo.

Los estribos tienen una anchura de 13,7 m. y son de muro frontal y en vueltas de hormigón armado, con cimentación es directa. Las pilas son de fuste único constituidas por secciones cajón con una cabeza superior en forma de "Y" y tienen una altura máxima de 25,50 m. La cimentación es a base de encepados y pilotes y los apoyos son de tipo Pot.

La infraestructura viaria colocada en la actualidad, consiste en dos vías de F.C. de ancho internacional cuyos ejes distan entre sí 4,62 m.

3.- JUSTIFICACIÓN DE LA CARGA DE PRUEBA

Para la ejecución del ensayo se proporcionarán para la reproducción de los estados de solicitación previstos en el Proyecto de Prueba de Carga dos composiciones: la primera formada por una locomotora GIF (dos bogies de tres ejes; peso total 120 tn) y cuatro tolvas GIF (cuatro ejes; peso total 80 tn) y el segundo formado por una locomotora MAK G1206 (cuatro ejes; peso total 88 tn) y cuatro tolvas GIF. La primera de las composiciones se situará en vía 1 y la segunda en vía 2.

En el Anejo 2C se ha incluido un croquis en el que se definen las características geométricas y la distribución de pesos de las locomotoras y tolvas descritas, así como un esquema referente al posicionamiento de las mismas sobre las estructuras durante la realización de las pruebas.

Para los estados de carga definidos se han calculado los momentos flectores positivos en las secciones centrales de los vanos y los momentos flectores negativos en las secciones intermedias de apoyo en pila, comparándolos con los del proyecto de las estructuras.

Con las disposiciones de carga recogidas en el Anejo 2C se han realizado los cálculos de las estructuras (ver Anejo 2B), obteniendo a partir del mismo los valores esperados para las medidas que se realizarán durante el ensayo.

Del cálculo de las estructuras sometidas a los estados de carga definidos para la prueba, se obtiene que la zona más solicitada a momento flector positivo se encuentran en el centro del vano (salvo en los vanos laterales, donde el momento flector máximo se produce a 0,4·L del estribo) y que la zona más solicitada a momento flector negativo se encuentra en el apoyo en pilas. Considerando solamente los momentos de solicitación producidos por las sobrecargas de uso, se obtiene:

SECCIÓN	SOBRECARGA	MOMENTO DE SOBRECARGA EN PROYECTO (M TN)	MOMENTO DE SOBRECARGA EN PRUEBA (M TN)	% ALCANZADO EN PRUEBA
L/2 (L=28,0 m)	1 Loc. + 1 Tolva (Vías 1 y 2)	2.268	1.047	46,4
L/2 (L=28,0 m)	3 Tolvas (Vías 1 y 2)	2.268	1.044	46,0
L/2 (L=35,0 m)	1 Loc + 1 Tolva (Vías 1 y 2)	2.643	1.234	46,7
L/2 (L=35,0 m)	3 Tolvas (Vías 1 y 2)	2.643	1.167	44,1
Sección intermedia de apoyo en pila	1 Loc + 4 Tolvas (Vías 1 y 2)	-3.440	-1.665	48,4

Si se consideran, además, los momentos flectores producidos por las cargas permanentes, se obtendrán:

SECCIÓN	SOBRECARGA	MOM. PROYECTO (M TN)			MOM. PRUEBA (M TN)		% ALCANZADO EN PRUEBA
		MOM. CP.	MOM. SC.	MOM. TOT.	MOM. SC.	MOM. TOT.	
L/2 (L=28,0 m)	1 Loc + 1 Tolva (Vías 1 y 2)	1.226	2.268	3.494	1.047	2.273	65,0
L/2 (L=28,0 m)	3 Tolvas (Vías 1 y 2)	1.226	2.268	3.494	1.044	2.270	65,0
L/2 (L=35,0 m)	1 Loc + 1 Tolva (Vías 1 y 2)	1.168	2.643	3.811	1.234	2.402	63,0
L/2 (L=35,0 m)	3 Tolvas (Vías 1 y 2)	1.168	2.643	3.811	1.167	2.335	61,3
Sección intermedia de apoyo en pila	1 Loc + 4 Tolvas (Vías 1 y 2)	-2.315	-3.440	-5.755	-1.665	-3.980	69,2

El cálculo de los valores consignados se encuentra en el Anejo 2B del presente documento.

4.- MEDIDAS A REALIZAR

A continuación se exponen las medidas que se realizarán durante los ensayos de prueba de carga, mediante la instrumentación que se detalla en el croquis del Anejo 2C del presente documento.

4.1. FLECHAS

Se tiene previstos la medida de flechas en centro de vano en dos puntos por vano, y de desplazamiento en apoyos, también en dos puntos por vano. Los desplazamientos medidos serán los verticales, en las posiciones definidas en el Anejo 2C del presente documento.

Para la medida de flechas en los diferentes vanos y descenso de apoyos se dispondrán transductores de desplazamiento tipo ménsula, basados en bandas extensométricas de 10 mm de longitud activa. Estos elementos, colocados normalmente sobre trípodes situados en el terreno bajo la estructura, se unen con el punto cuyo desplazamiento se desea medir mediante un hilo de acero.

Mediante estos dispositivos se realizan mediciones tanto durante las pruebas estáticas como en las dinámicas.

4.2. DEFORMACIONES

Se tiene previsto la medida de deformaciones en centro de vano en dos puntos por vano. Las deformaciones unitarias, se medirán mediante bandas extensométricas de 60 mm de longitud activa, que una vez pegadas sobre la superficie de hormigón de la cara inferior del tablero, previa preparación de la misma, se dejarán convenientemente protegidas.

Mediante estos dispositivos se realizan mediciones tanto durante las pruebas estáticas como en las dinámicas.

4.3. ACELERACIONES

Durante las pruebas dinámicas, se procederá a un registro de las aceleraciones verticales con objeto de evaluar la frecuencia fundamental de oscilación de la estructura.

Con la finalidad de determinar las aceleraciones máximas que se producen en las estructuras durante las pruebas dinámicas, se instalará un acelerómetro en cada uno de los vanos de las estructuras.

4.4. OTRAS MEDIDAS

Se procederá a un registro continuo de temperatura y humedad relativa ambiente, durante la realización de los ensayos.

5.- PLAN DE CARGA Y PROGRAMACIÓN DEL ENSAYO

5.1. PRUEBAS ESTÁTICAS

Para cada prueba estática se posicionarán los trenes de cargas según las disposiciones indicadas en los croquis del Anejo 2C del presente documento.

Las medidas serán realizadas de acuerdo con los escalones siguientes:

- ESCALÓN 0: Puesta a cero de los aparatos.
- ESCALÓN 1: Situación de la carga.
- ESCALÓN 2: Estabilización de las medidas. Se realizarán medidas continuas hasta comprobar la estabilización de las mismas.
- ESCALÓN 3: Descarga total y medida de la recuperación. Las lecturas se realizarán de una forma continua hasta alcanzar una recuperación del 80% en un intervalo de tiempo no superior al de mantenimiento de la carga.

Por cada una de las estructuras serán necesarias varias jornadas de ensayos, en las cuales se realizarán tanto las pruebas estáticas como las dinámicas correspondientes a un grupo de vanos.

Se realizarán las pruebas estáticas necesarias para alcanzar la solicitación de momento flector positivo en todos los vanos de las estructuras y una prueba para alcanzar la solicitación de momento flector negativo en pila por cada grupo de vanos ensayados.

5.2. PRUEBAS DINÁMICAS

Para las pruebas dinámicas se hará uso del tren de cargas formado por una de las locomotoras y cuatro tolvas G.I.F.

- Ensayo Cuasiestático: Paso de la composición por la estructura circulando a la velocidad de 5 km/h (paso de hombre).
- Ensayo Dinámico Lento: Paso de la composición del ensayo anterior circulando en el mismo sentido y a la velocidad de 40 km/h.
- Ensayo Dinámico Rápido: Paso de la composición circulando en el mismo sentido que en la prueba cuasi-estática y a la máxima velocidad posible.
- Ensayo de Frenado: Paso de la composición circulando a la máxima velocidad posible y frenado, justo sobre la estructura.

Las pruebas se realizarán normalmente en el siguiente orden:

- ESTÁTICA
- CUASIESTÁTICA
- DINÁMICA LENTA
- DINÁMICA RÁPIDA
- FRENADO

6.- PREVISIÓN DE RESULTADOS

En el Anejo 2B se incluyen los cálculos justificativos realizados para evaluar las flechas, deformaciones unitarias y frecuencias propias de vibración previstas durante la realización de la prueba de carga. Para el cálculo de los puentes se ha empleado un programa de estructuras basado en el método de los elementos finitos.

En el proceso de cálculo existen tres fases operativas: la introducción de datos (inputs) al programa, la resolución mediante un sistema de ecuaciones y la salida (outputs) y análisis de resultados.

La operación de cálculo comienza con la discretización geométrica de la estructura. Ello lleva consigo la definición de cada uno de los elementos estructurales en cuanto a dimensiones y características mecánicas. Al mismo tiempo, se requiere la localización de cada punto o nodo de la estructura discretizada en el espacio, eligiendo para ello unos ejes de coordenadas locales para cada uno de los elementos finitos definidos, con la finalidad de conocer las direcciones y sentidos de actuación de los esfuerzos sobre cada uno de ellos.

Una vez introducida en el programa la geometría de la estructura, se definen las cargas actuantes y condiciones de contorno, de modo que mediante la resolución de un sistema de ecuaciones de la forma de Carga = Rigidez x Desplazamiento, se obtienen los movimientos en cada uno de los nodos discretizados de la estructura, y por retrosustitución se calculan los esfuerzos actuantes en los elementos definidos.

Estas operaciones son realizadas de forma automática por el programa de cálculo de estructuras por elementos finitos SAP90 (CSI, Inc., Berheley). Es un programa desarrollado en FORTRAN y diseñado para ser usado en entorno operativo MS-DOS. Todas las operaciones numéricas son desarrolladas con la precisión de 64 bits y permite llevar a cabo un análisis de comportamiento no solo estático, sino también dinámico.

En nuestro caso, para la obtención de flechas y tensiones se ha optado por discretizar el tablero mediante elementos placa bidimensionales. Para la evaluación de los

momentos de solicitación alcanzados en el estado de carga y las frecuencias propias de vibración de la estructura se ha empleado una discretización mediante elementos barra unidimensionales (modelo viga). En los cálculos se ha empleado un módulo instantáneo de deformación longitudinal de 30.891 N/mm^2. El módulo de deformación se ha determinado de acuerdo a la información de los planos del Proyecto de la estructura y a las consideraciones referidas en el Artículo 39.6 de la EHE–98 “Instrucción de Hormigón Estructural”. En los modelos se han considerado secciones resistentes no fisuradas.

En la salida impresa del cálculo mecanizado figuran las características geométricas y elásticas de la estructura discretizada, así como las acciones actuantes sobre los distintos nodos. El cálculo realizado presenta una primera parte de carácter estático para la obtención de los valores previstos en cada uno de los estados de solicitación a reproducir, y una segunda parte dinámica para la obtención de los modos propios de vibración de la estructura.

Los valores de flechas y deformaciones unitarias esperados para los puntos de medida establecidos en el Croquis de Instrumentación son los recogidos en las siguientes tablas (flechas negativas indican descenso y deformaciones unitarias positivas indican tracción):

TRENES DE CARGAS EN AMBAS VÍAS PRÓXIMOS AL ESTRIBO ZARAGOZA					
PUNTO	**SECC**	**UD**	**Loc + 1 Tolv (Vano1) 3 Tolv (Vano 3)**	**Loc +1 Tolv (Vano2) 3 Tolv (Vano 4)**	**Loc +4 Tolv (Vanos 2 y 3)**
P011	L/2	mm	-5,09	0,87	0,66
P012	"	"	-5,02	0,94	0,73
P021	"	"	2,04	-6,80	-5,49
P022	"	"	2,07	-6,62	-5,30
P031	"	"	-7,69	2,44	-6,58
P032	"	"	-7,67	2,52	-6,49
P041	"	"	1,25	-7,77	1,25
P042	"	"	1,26	-7,74	1,28
P051	"	"	-	1,26	-
P052	"	"	-	1,28	-
G011	L/2	με	53	-17	-14
G012	"	"	52	-17	-14
G021	"	"	-28	59	44
G022	"	"	-28	59	43
G031	"	"	66	-32	48
G032	"	"	66	-32	48
G041	"	"	-21	67	-19
G042	"	"	-21	67	-19
G051	"	"	-	-21	-
G052	"	"	-	-21	-

TRENES DE CARGAS EN AMBAS VÍAS PRÓXIMOS AL ESTRIBO LÉRIDA					
PUNTO	**SECC**	**UD**	**Loc + 1 Tolv (Vano 9) 3 Tolv (Vano 11)**	**Loc +1 Tolv (Vano 8) 3 Tolv (Vano 10)**	**Loc +4 Tolv (Vanos 9 y 10)**
P111	L/2	mm	-5,22	0,97	0,08
P112	"	"	-5,18	0,86	0,12
P101	"	"	2,24	-7,45	-5,91
P102	"	"	2,30	-7,73	-5,83
P091	"	"	-6,92	2,44	-5,34
P092	"	"	-6,82	2,41	-5,23
P081	"	"	1,21	-6,49	0,80
P082	"	"	1,24	-6,29	0,94
P071	"	"	-	1,12	-
P072	"	"	-	1,19	-
G111	L/2	με	56	-19	-11
G112	"	"	56	-18	-11
G101	"	"	-28	64	49
G102	"	"	-28	64	48
G091	"	"	63	-32	40
G092	"	"	62	-32	39
G081	"	"	-19	59	-15
G082	"	"	-19	58	-15
G071	"	"	-	-18	-
G072	"	"	-	-18	-

TRENES DE CARGAS EN AMBAS VÍAS VANOS INTERMEDIOS			
PUNTO	**SECC**	**UD**	**Loc +4 Tolv (Vanos 6 y 7)**
P051	L/2	mm	0,91
P052	"	"	0,96
P061	"	"	-5,50
P062	"	"	-5,53
P071	"	"	-6,57
P072	"	"	-6,49
P081	"	"	1,25
P082	"	"	1,28
G051	L/2	με	-11
G052	"	"	-11
G061	"	"	44
G062	"	"	43
G071	"	"	48
G072	"	"	47
G081	"	"	-19
G082	"	"	-19

TRENES DE CARGAS EN VÍA 1 (para pruebas dinámicas)					
PUNTO	**SECC**	**UD**	**3 Tolv (Vano 1)**	**Loc +1 Tolv (Vano 11)**	**Loc +4 Tolv (Vanos intermedios)**
VIA 1	L/2	mm	-3,41	-3,42	-4,18
VIA 2	"	"	-1,65	-1,60	-1,93
VIA 1	L/2	με	31	29	27
VIA 2	"	"	21	20	17

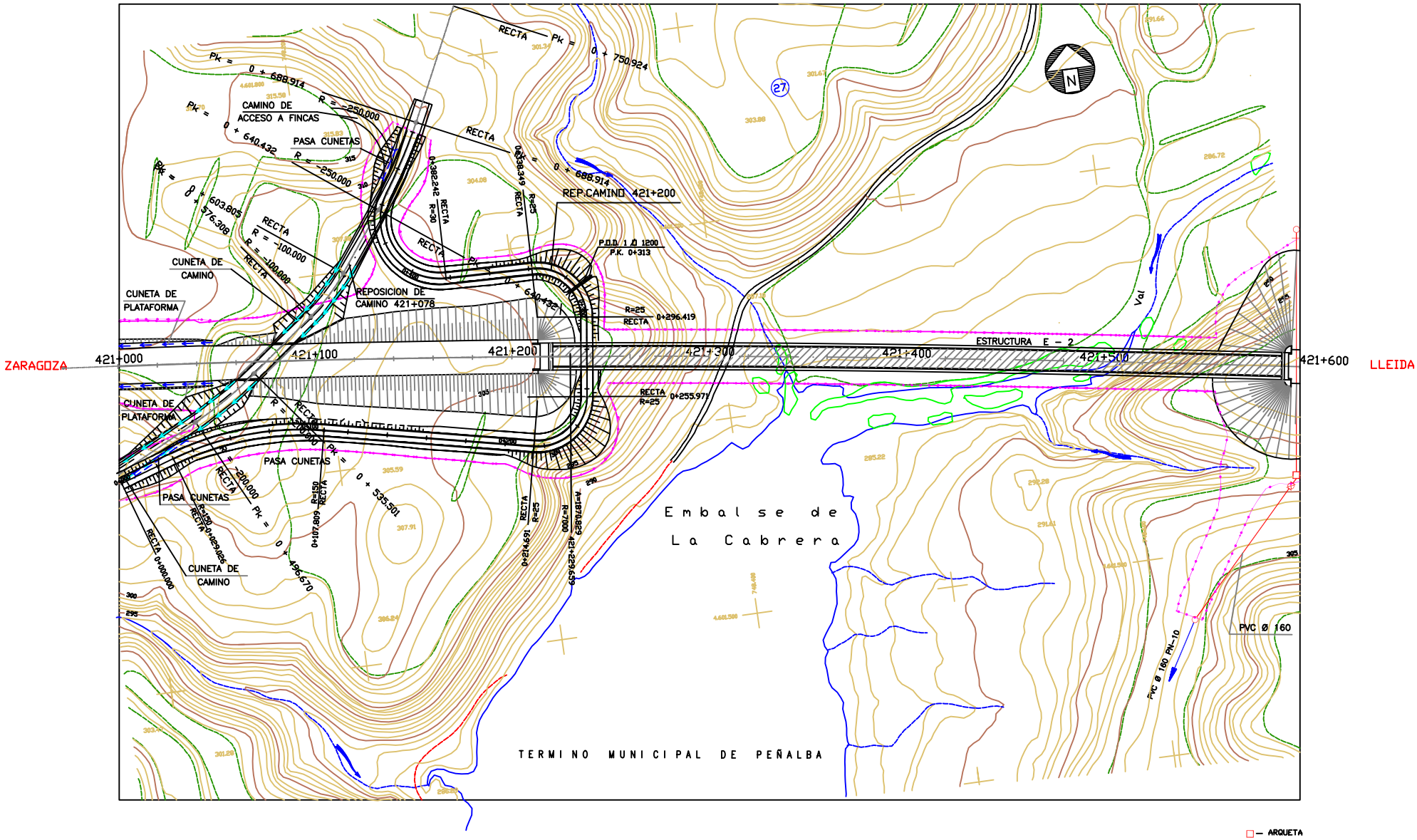
Por otra parte, el cálculo de las frecuencias de los tres primeros modos de vibración libre de la estructura, presenta los siguientes valores previstos:

Primer modo	Segundo modo	Tercer modo
4,09 Hz	4,31 Hz	4,66 Hz

Madrid, julio de 2001

EL JEFE DE ESTRUCTURAS DE HORMIGÓN Y FÁBRICA	INGENIERO DEL DPTO DE ESTRUCTURAS DE HORMIGÓN Y FÁBRICA
Fdo.: Luis S. Salas López de Lerma	Fdo.: Luis Miguel Pombo Blanco

ANEJO 2A: DOCUMENTACIÓN GRÁFICA UTILIZADA



CUNETA DE PLATAFORMA
BAJANTE
CUNETA DE GUARDA
LINEA DE EXPROPIACION
CUNETA DE CAMINOS
BADEN DE CAMINO
PASA CUNETAS

- ARQUETA
- CIERRE TABICADO
- CONEXION TUBERIA EXISTENTE
- VALVULA COMPUERTA

TUBERIA EXISTENTE
REPOSICION DE TUBERIA

GIF Gestor de Infraestructuras Ferroviarias

TITULO : PROYECTO DE LIQUIDACION " LINEA DE ALTA VELOCIDAD MADRID - BARCELONA - FRONTERA FRANCESA TRAMO : ZARAGOZA - LLEIDA SUBTRAMO - IV "

AUTOR DEL PROYECTO: D. MARIANO CORREAS PAESA

UTE AVE BUJARALOZ: JOSE L. OLIVEROS ESCAMILLA

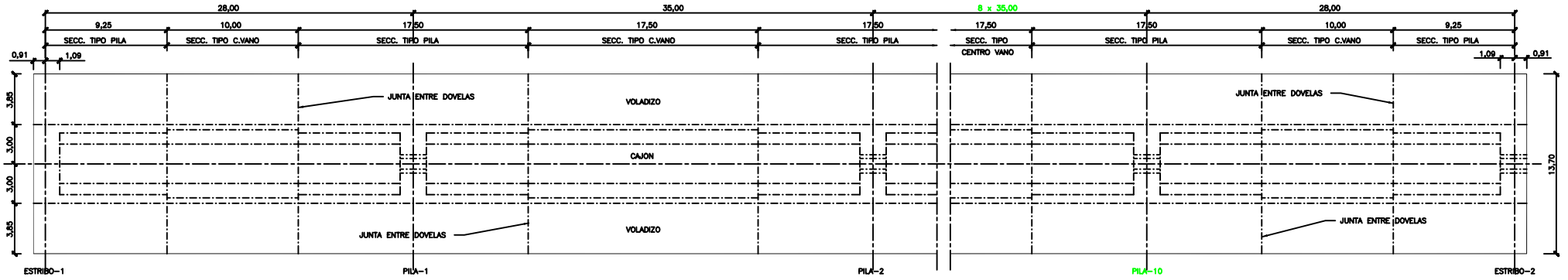
ESCALA NORMAL: 1/2000 NUMERICA | GRAFICA

FECHA: DIC - 1999

TITULO DEL PLANO: PLANTA GENERAL DEL P.K. 421+000 AL P.K. 421+600

N°DE PLANO 4L.2

Hoja 36 de 40

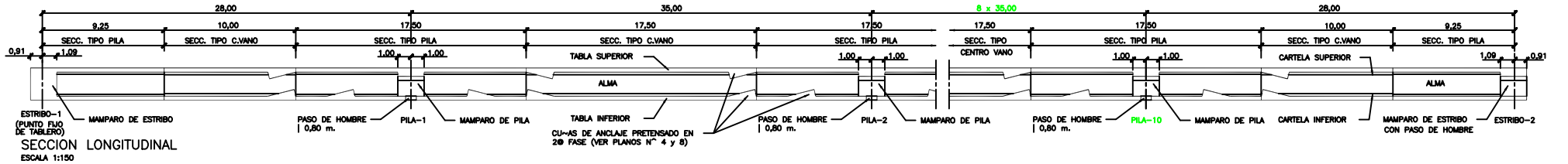


PLANTA SUPERIOR

ESCALA 1:150

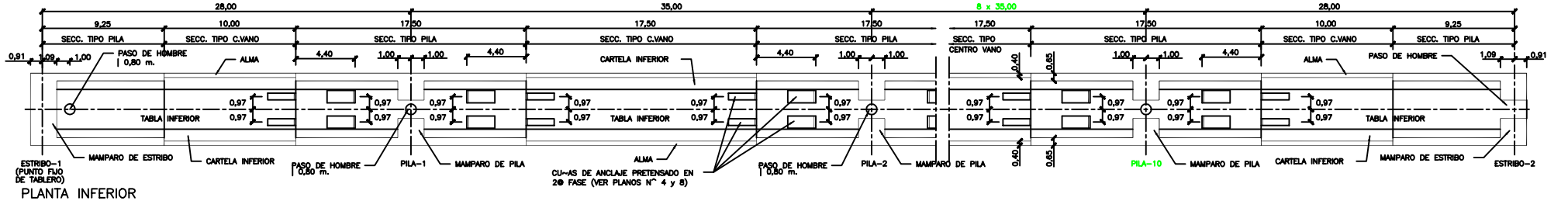
NOTA IMPORTANTE:
- POR SENCILLEZ DE DIBUJO SE HA REPRESENTADO EL PUENTE RECTO. EL TRAZADO REAL DE LA ESTRUCTURA CORRESPONDE A UN CIRCULO EN PLANTA DE RADIO 11000 m. Y UNA PENDIENTE LONGITUDINAL EN DESAROLLO DE 0,959% ASCENDENTE DESDE EL ESTRIBO 1.
- VER DEFINICION DE EJES DE TRAZADO Y DE REPLANTEO DE ESTRUCTURA EN PLANO Nº 3

RECORRIDO DE JUNTA DE DILATACION:
APERTURA = 400 mm.
CIERRE = 90 mm.



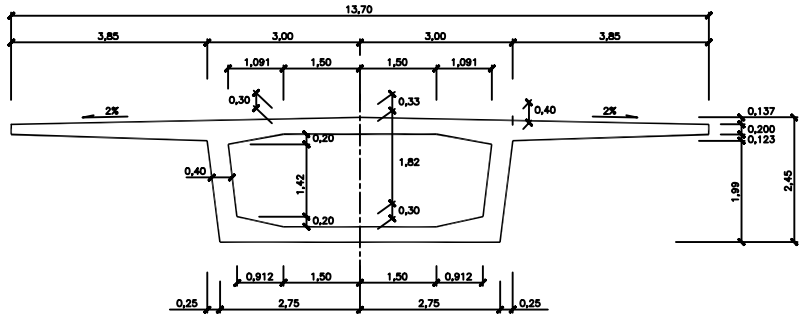
SECCION LONGITUDINAL

ESCALA 1:150



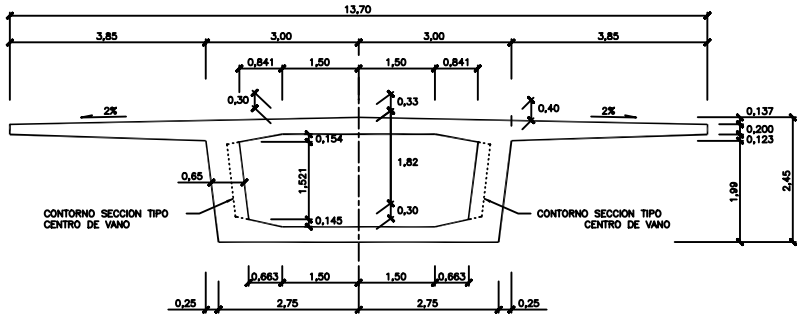
PLANTA INFERIOR

ESCALA 1:150



SECCION TRANSVERSAL DOVELA TIPO CENTRO DE VANO

ESCALA 1:50

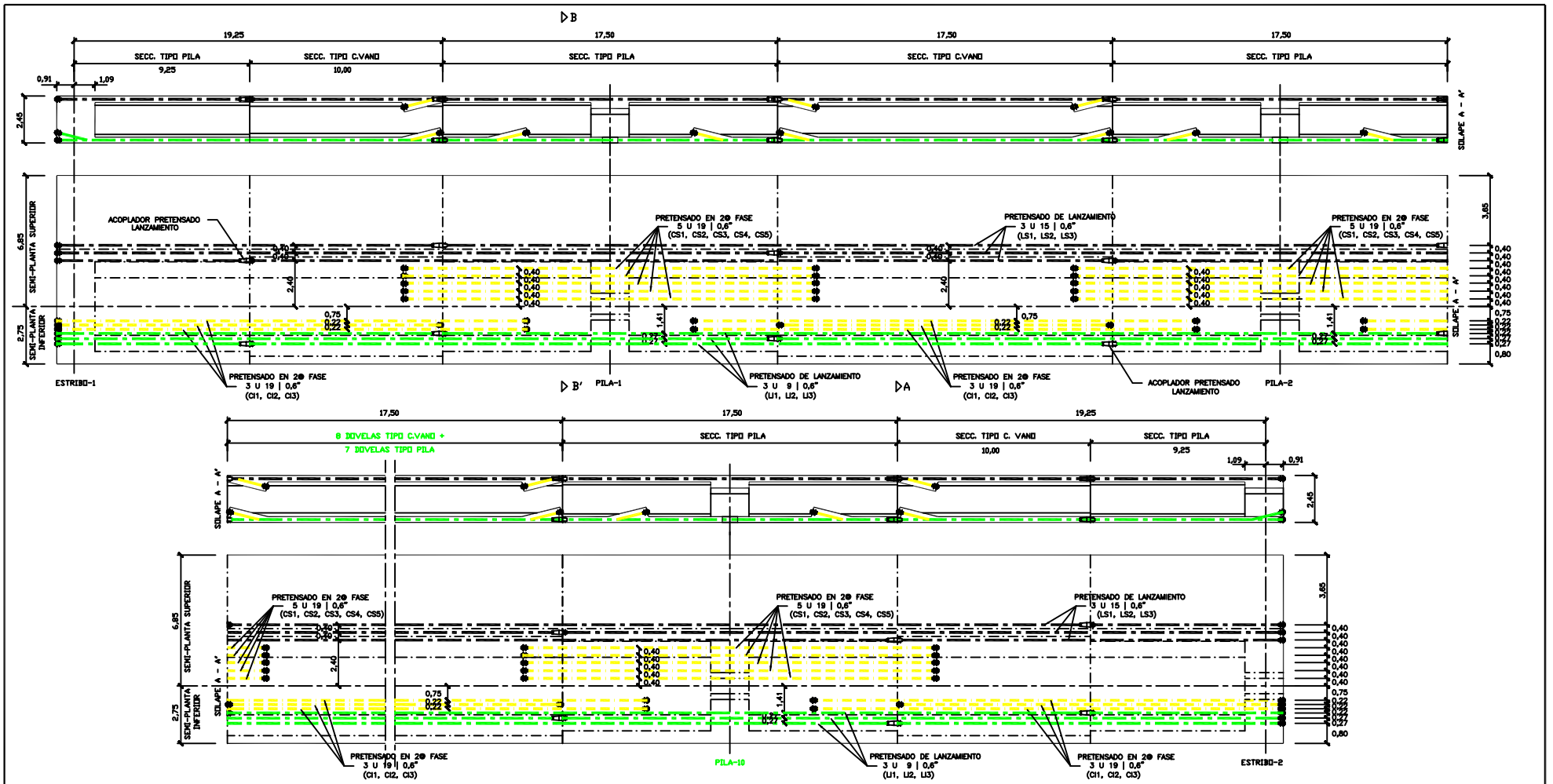


SECCION TRANSVERSAL DOVELA TIPO DE PILA Y ESTRIBOS

ESCALA 1:50

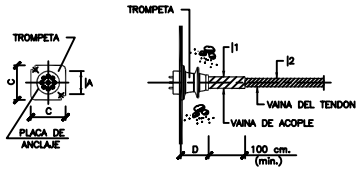
Ministerio de Obras Publicas, Transportes y Medio Ambiente / Secretaria de Estado de Politica Territorial y Obras Publicas — Secretaria General para las Infraestructuras del Transporte Terrestre / Direccion General de Infraestructuras del Transporte Ferroviario	TITULO: PROYECTO LINEA DE ALTA VELOCIDAD MADRID - BARCELONA - FRONTERA FRANCESA. TRAMO: ZARAGOZA - LLEIDA SUBTRAMO IV PROPUESTA DE SISTEMA DE EJECUCION DE VIADUCTOS.	AUTOR DEL PROYECTO	EMPRESA CONSTRUCTORA OCP TECSA	CONSULTOR DE ESTRUCTURAS IDEAM	ESCALA ORIGINAL INDICADAS ORIGINAL A1	FECHA JUNIO 1997	Nº DE PLANO / Nº DE HOJA HOJA 2 DE 22	TITULO DEL PLANO ESTRUCTURA E-2 / TABLERO, DEFINICION GEOMETRICA (I)

TITULO



PLANTA Y SECCION LONGITUDINAL

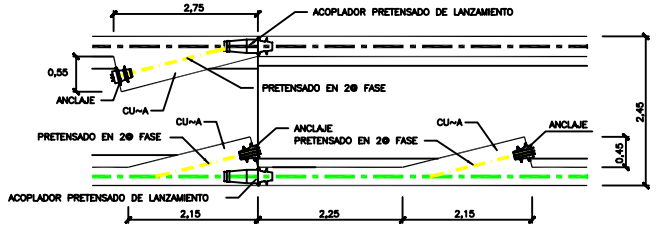
ESCALA 1:100



TIPO TENDON	A	C	D	1	2
19 Φ6"	210	310	245	110	100
15 Φ6"	190	280	235	100	90
9 Φ6"	140	220	180	75	63

DETALLE ANCLAJE

S/E



DETALLE LONGITUDINAL UBICACION DE CU~AS

ESCALA 1:40

Ministerio de Obras Publicas, Transportes y Medio Ambiente
Secretaria de Estado de Politica Territorial y Obras Publicas
Secretaria General para las Infraestructuras del Transporte Terrestre
Direccion General de Infraestructuras del Transporte Ferroviario

TITULO: PROYECTO LINEA DE ALTA VELOCIDAD MADRID - BARCELONA - FRONTERA FRANCESA. TRAMO: ZARAGOZA - LLEIDA SUBTRAMO IV PROPUESTA DE SISTEMA DE EJECUCION DE VIADUCTOS.

AUTOR DEL PROYECTO

EMPRESA CONSTRUCTORA: OCP, TECSA

CONSULTOR DE ESTRUCTURAS: IDEAM

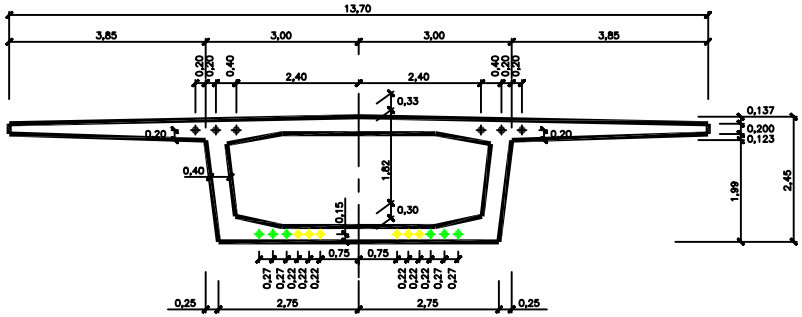
ESCALA GENERAL: INDICADAS
ORIGINAL A1

FECHA: JUNIO 1997

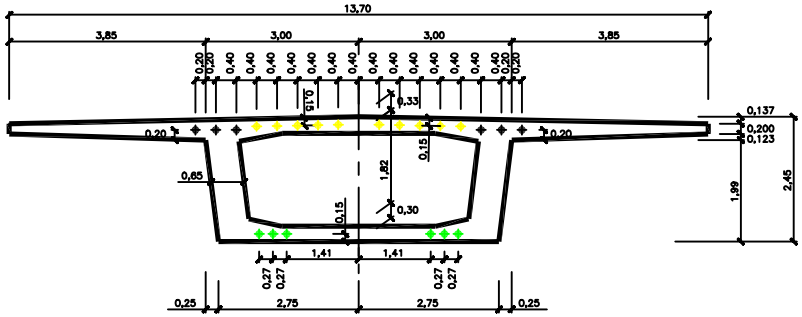
Nº DE PLANO
Nº DE HOJA: HOJA 4 DE 22

TITULO DEL PLANO: ESTRUCTURA E-2

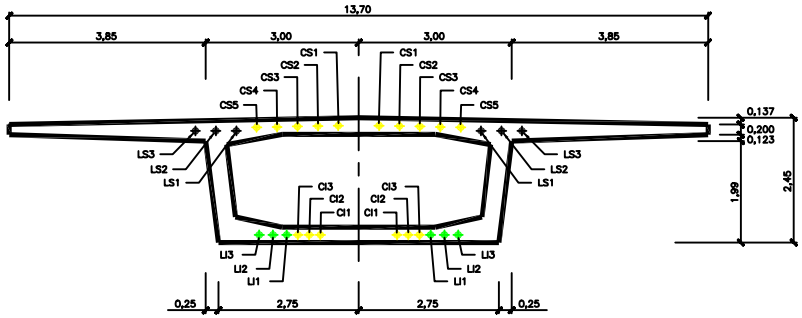
TABLERO, DEFINICION DE PRETENSADO



SECCION TRANSVERSAL A–A' (CENTRO DE VANO)
ESCALA 1:50



SECCION TRANSVERSAL B–B' (ZONA DE PILAS)
ESCALA 1:50



ESQUEMA NOMENCLATURA CABLES DE PRETENSADO
ESCALA 1:50

NOTAS RELATIVAS AL PRETENSADO

LAS ARMADURAS ACTIVAS ESTARAN FORMADAS POR CORDONES DE 7 ALAMBRES ASTM A416–85, GRADO 270, CON UNAS CARACTERISTICAS BASICAS GEOMETRICAS Y MECANICAS:

SECCION NOMINAL DEL TORON: 140 mm2
DIAMETRO NOMINAL DEL TORON: 15.2 mm
MASA: 1.102 gr/m
MINIMA CARGA DE ROTURA DEL TORON: Pu = 260,7 Kn
MINIMA CARGA CORRESPONDIENTE AL LIMITE ELASTICO CONVENCIONAL = Py 0.90 Pu
RELAJACION A LAS 1000 h AL 0.7 Pu Y 20^: 2.5%

LA PENETRACION DE CU~AS ESTIMADA EN LOS CALCULOS ES DE 5 mm. LOS PARAMETROS DE ROZAMIENTO ADOPTADOS SON:
/ß = 0.21 rad–1 Y K/ß= 0.006 rad/m, Y EL MODULO DE ELASTICIDAD DEL ACERO DE 1950000 Kg/cm2.

LOS CABLES LS1, LS2 Y LS3 DE LA TABLA SUPERIOR, Y LOS CABLES LI1, LI2 Y LI3 DE LA TABLA INFERIOR SON LOS CABLES QUE SE TESAN EN LA ZONA DE FABRICACION Y EMPUJE DE DOVELAS TRAS EL ESTRIBO 1 PREVIAMENTE A CADA FASE DE EMPUJE DEL TABLERO. LOS CABLES CS1 A CS5 Y CI1 A CI3 SE TESAN EN 2ª FASE UNA VEZ CONCLUIDO EL PROCESO DE EMPUJE Y EFECTUADA LA SUSTITUCION DE APOYOS Y EL PRETENSADO HORIZONTAL DEL ESTRIBO.

EN CADA FASE DE CONSTRUCCION Y EMPUJE DEL TABLERO SE HORMIGONA EN LA ZONA DE FABRICACION TRAS EL ESTRIBO LA TABLA INFERIOR Y ALMAS DE UNA DOVELA Di, Y LA TABLA SUPERIOR DE LA DOVELA ANTERIOR Di–1, EMPUJANDOSE POSTERIORMENTE EL CONJUNTO. PREVIAMENTE A CADA FASE DE EMPUJE SE TESARAN LOS CABLES CORRESPONDIENTES EN LA TABLA SUPERIOR E INFERIOR.

EN TODAS LAS FASES DE TESADO DE LANZAMIENTO, EL TESADO DE CADA TABLA SE REALIZARA EN TRES ETAPAS, TESANDO PRIMERO UN CABLE AL 50%, DESPUES EL SIMETRICO AL 100% DIRECTAMENTE, Y FINALMENTE EL PRIMERO HASTA COMPLETAR TAMBIEN EL 100%. LAS FUERZAS TOTALES DE TESADO SERAN:

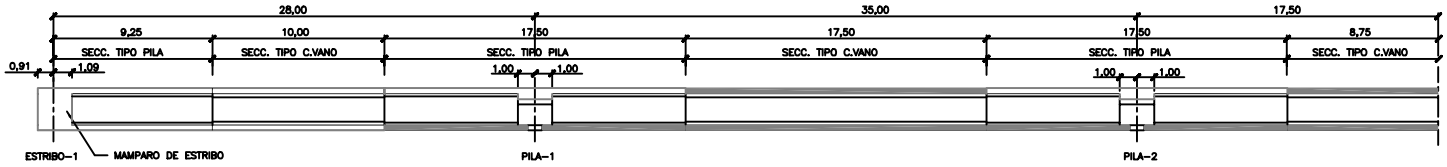
179.55 TONELADAS/Ud 9 |0.6"
299.25 TONELADAS/Ud 15 |0.6", CORRESPONDIENTES AL 75% DE LA FUERZA ULTIMA DEL CABLE

EN LA ULTIMA DOVELA HAN DE TESARSE TODOS LOS CABLES INFERIORES (LI1, LI2 Y LI3) Y LOS SUPERIORES (LS1, LS2 Y LS3). NO OBSTANTE, SOBRE LA SECCION PARCIAL TABLA INFERIOR + ALMAS SOLO SE TESARA EL CABLE CORRESPONDIENTE A SU FASE ESTANDAR DE CONSTRUCCION Y EMPUJE. EL TESADO DE LOS DEMAS CABLES SE POSPONDRA HASTA SER TESADOS SOBRE LA DOVELA COMPLETA.

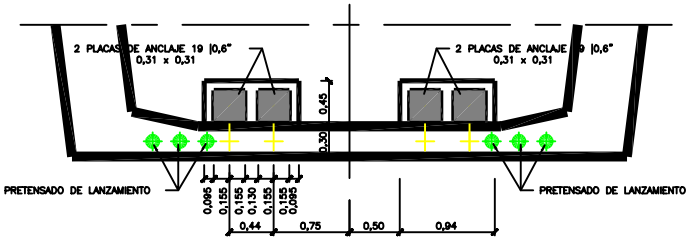
LOS CABLES EN 2ª FASE SE TESARAN UNA VEZ TERMINADO EL PROCESO DE EMPUJE DEL TABLERO Y UNA VEZ EFECTUADO EL CAMBIO DE APOYOS Y EL PRETENSADO HORIZONTAL AL ESTRIBO. PREVIAMENTE AL TESADO PODRA ESTUDIARSE LA SECUENCIA DE TESADO DE LOS CABLES QUE MINIMICE LOS MOVIMIENTOS DE GATO NECESARIOS SIN COMPROMETER EL ESTADO TENSIONAL DEL TABLERO EN LAS FASES INTERMEDIAS.
LA FUERZA DE TESADO EN LOS CABLES EN 2ª FASE SERA DE 379.05 Tm/Ud 19 |0,6" CORRESPONDIENTE AL 75% DE LA CARGA ULTIMA DEL CABLE.

EL CONTROL DE EJECUCION DE LA FUERZA DE TESADO SUMINISTRADA A LOS CABLES SE REALIZARA CON CONTROL DE PRESIONES EN GATOS Y ALARGAMIENTOS MEDIDOS EN LOS CABLES. POR TANTO, PREVIAMENTE AL TESADO DEBERAN SUMINISTRARSE A OBRA LOS ALARGAMIENTOS TEORICOS DE LOS CABLES.

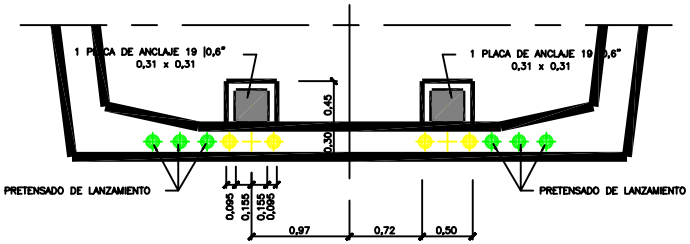
LA PROTECCION DE LOS CABLES SE REALIZARA CON LECHADA DE CEMENTO. CUANDO LA INYECCION SE REALICE SOBRE UN CABLE TESADO EN CONTINUIDAD CON OTRO NO TESADO TODAVIA, SE TOMARAN LAS PRECAUCIONES ADECUADAS PARA IMPEDIR LA ENTRADA DE LECHADA DE CEMENTO EN LA ZONA NO TESADA. SE DISPONDRAN TUBOS DE PURGA EN TODOS LOS ACOPLADORES QUE PERMITAN CONTROLAR LA COMPLETA INYECCION DE CONDUCTOS Y ACOPLADORES.


28,00
35,00
17,50
9,25
10,00
17,50
17,50
17,50
8,75
SECC. TIPO PILA
SECC. TIPO C.VANO
SECC. TIPO PILA
SECC. TIPO C.VANO
SECC. TIPO PILA
SECC. TIPO C.VANO
0,91
1,09
1,00
1,00
1,00
1,00
ESTRIBO-1
MAMPARO DE ESTRIBO
PILA-1
PILA-2

| | | |



SECCION TRANSVERSAL CU~AS INFERIORES
ESCALA 1:25 (PRETENSADO EN 2@ FASE) (CABLES CI1 y CI3)

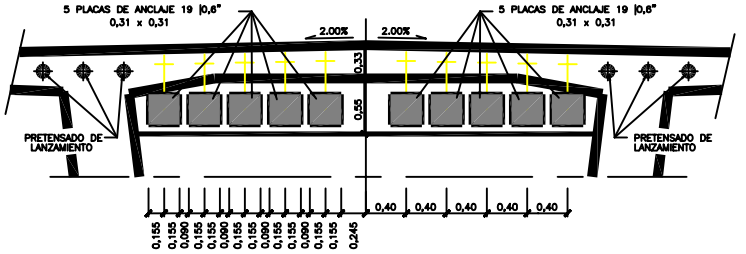


SECCION TRANSVERSAL CU~AS INFERIORES
ESCALA 1:25 (PRETENSADO EN 2@ FASE) (CABLE CI2)

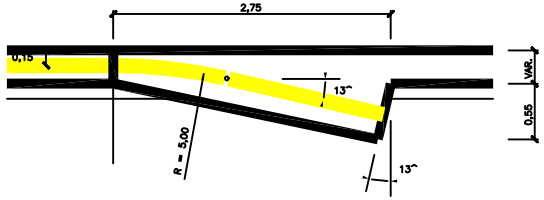
CUADRO DE ARMADURAS

	CU~A DOBLE INFERIOR	CU~A SIMPLE INFERIOR	CU~A SIMPLE SUPERIOR
1	1a 4 |25	1a 4 |25	6 |25 (por anclaje)
	1b 3 |25	1b 3 |25	
2	2a 2 |25	2a 2 |25	4 |25 (por anclaje)
	2b 2 |25	2b 2 |25	
3	11c |16 (por cable)	11c |16 (por cable)	22c |16 (por cable)
4	3c |16 (por cable)	3c |16 (por cable)	3c |16 (por cable)
5	4 |25 (por anclaje)	4 |25 (por anclaje)	4 |25 (por anclaje)
6	4 |25 + 4 |20 (por anclaje)	4 |25 + 4 |20 (por anclaje)	4 |25 + 4 |20 (por anclaje)
7	2x19 |12	19 |12	|20 a 0,10
8	1c |20	1c |20	1c |20
9a	3 |16 (por cara)	2 |12 (por cara)	5 |25 (por cara)
9b	|20 a 0,20 (por cara)	|12 a 0,20 (por cara)	|16 a 0,20 (por cara)
9c	2 |20 (por cara)	2 |12 (por cara)	4 |16 (por cara)
10	4 |20	4 |20	4 |20
11	9 |12	5 |12	|12 a 0,15
12	3x2c |12	3x2c |12	3x2c |12
13	3c |20	3c |20	1c |20
14	2c |16	2c |16	1c |16
15	2c |16	2c |16	1c |16

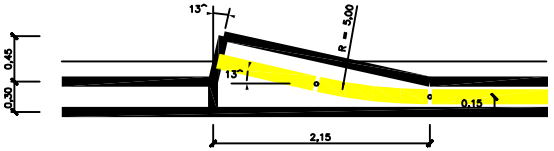
	CABLE SUPERIOR	CABLE INFERIOR
A1	2 |16	2 |16
A2	3c |20	3c |16
A3	2 |12	2 |12
A4	2 |16	2 |16
A5	2 |12	2 |12



SECCION TRANSVERSAL CU~AS SUPERIORES
ESCALA 1:25 (PRETENSADO EN 2@ FASE)



SECCION LONGITUDINAL CU~AS SUPERIORES
ESCALA 1:25 (PRETENSADO EN 2@ FASE)



SECCION LONGITUDINAL CU~AS INFERIORES
ESCALA 1:25 (PRETENSADO EN 2@ FASE)

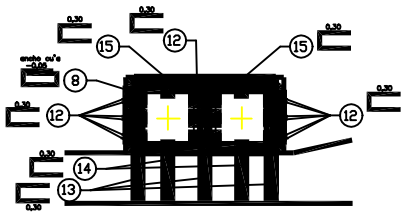
NOTAS:

1.– EL REFUERZO SUPERFICIAL QUE FIGURA EN EL PLANO PARA CU~AS INFERIORES CORRESPONDE A LA CU~A DOBLE, LA ADAPTACION A LA CU~A SIMPLE ES INMEDIATA.

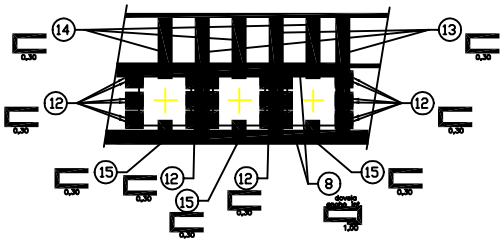
2.– LAS ARMADURAS "12" a "15" PODRAN SUPRIMIRSE SIEMPRE QUE EN SU POSICION EXISTAN ARMADURAS PRINCIPALES EN LA CUANTIA EQUIVALENTE.

3.– LAS ARMADURAS "A1" PODRAN SUPRIMIRSE SIEMPRE QUE EN SU POSICION EXISTAN ARMADURAS PRINCIPALES EN LA CUANTIA EQUIVALENTE.

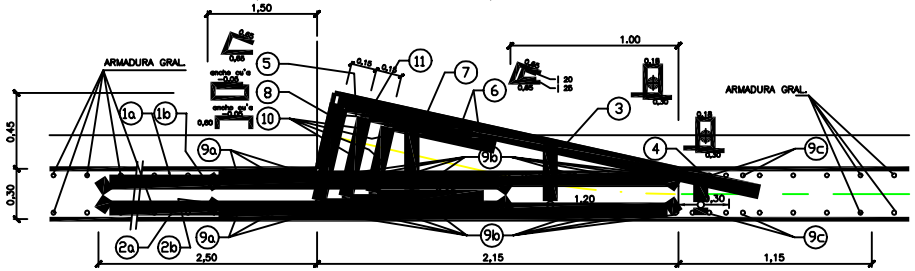
4.– LAS ARMADURAS "9" TIENEN LA MISMA GEOMETRIA QUE LAS CORRESPONDIENTES GENERALES DE TABLERO.



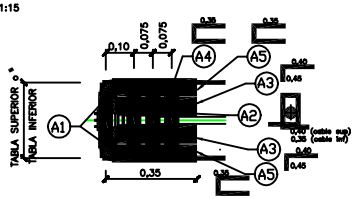
REFUERZO SUPERFICIAL CU~AS INFERIORES
ESCALA 1:15



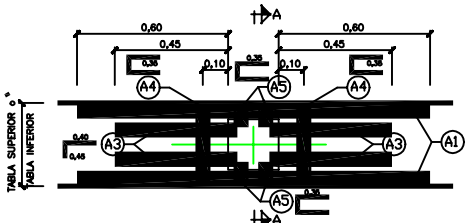
REFUERZO SUPERFICIAL CU~AS SUPERIORES
ESCALA 1:15



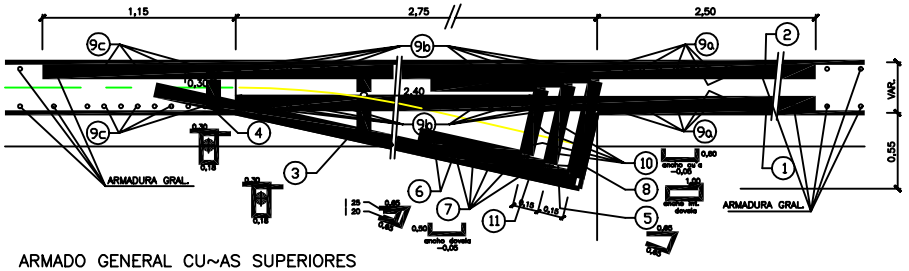
ARMADO GENERAL CU~AS INFERIORES
ESCALA 1:15



SECCION A–A
ESCALA 1:10

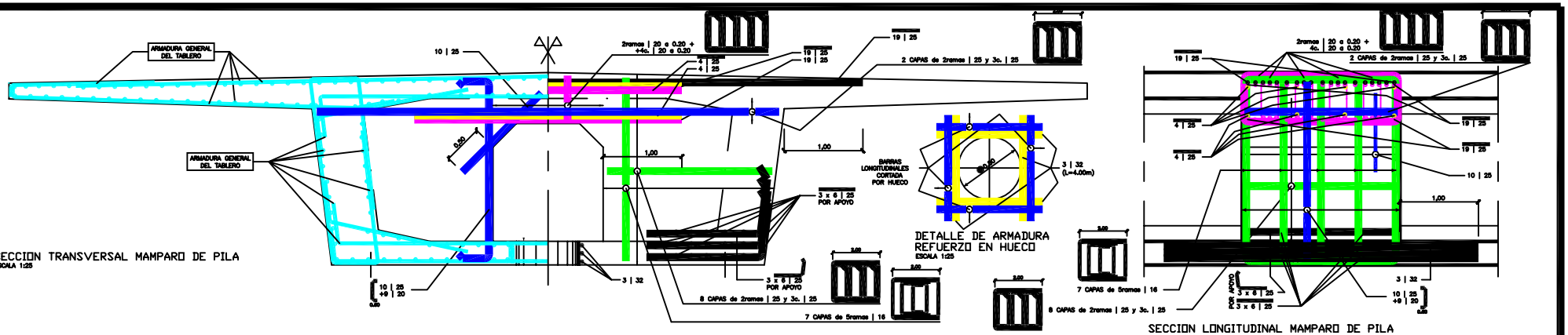


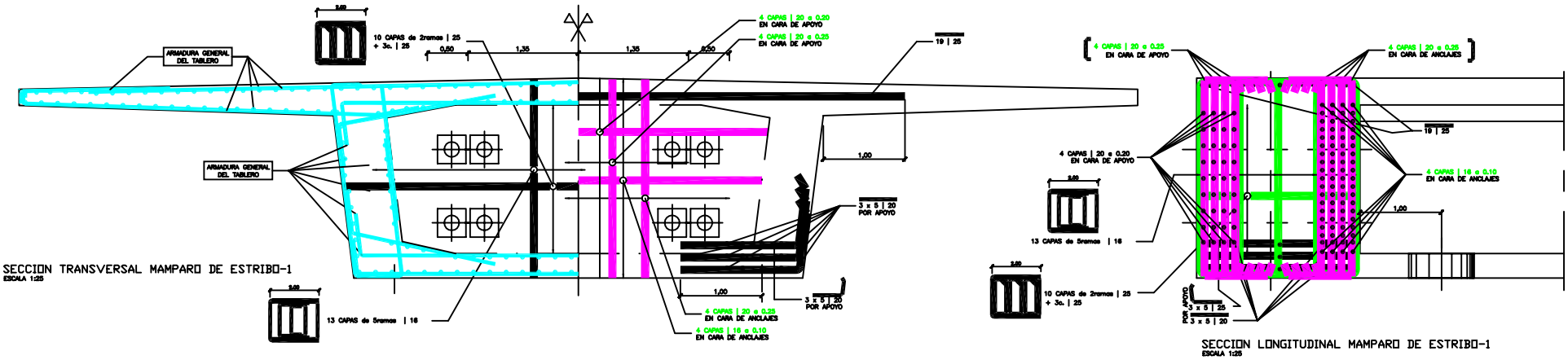
ARMADURA SUPERFICIAL CABLES DE LANZAMIENTO
ESCALA 1:10

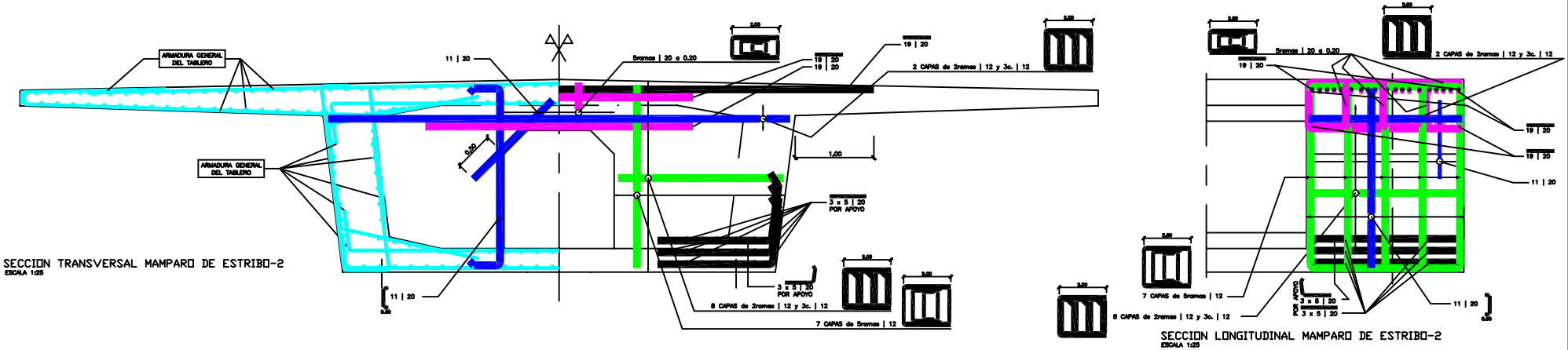


ARMADO GENERAL CU~AS SUPERIORES
ESCALA 1:15

Ministerio de Obras Publicas, Transportes y Medio Ambiente Secretaria de Estado de Politica Territorial y Obras Publicas Secretaria General para las Infraestructuras del Transporte Terrestre Direccion General de Infraestructuras del Transporte Ferroviario	TITULO: PROYECTO LINEA DE ALTA VELOCIDAD MADRID – BARCELONA – FRONTERA FRANCESA. TRAMO: ZARAGOZA – LLEIDA SUBTRAMO IV PROPUESTA DE SISTEMA DE EJECUCION DE VIADUCTOS.	AUTOR DEL PROYECTO	EMPRESA CONSTRUCTORA: OCP, TEC, TECSA	CONSULTOR DE ESTRUCTURAS: IDEAM	ESCALA ORIGINAL: INDICADAS ORIGINAL A1	FECHA: JUNIO 1997	Nº DE PLANO: HOJA 6 DE 22	TITULO DEL PLANO: ESTRUCTURA E-2 TABLERO, DETALLES LOCALES DE PRETENSADO







Ministerio de Obras Publicas, Transportes y Medio Ambiente — Secretaria General para las Infraestructuras del Transporte Terrestre
Secretaria de Estado de Politica Territorial y Obras Publicas — Direccion General de Infraestructuras del Transporte Ferroviario

TITULO: PROYECTO LINEA DE ALTA VELOCIDAD MADRID – BARCELONA – FRONTERA FRANCESA. TRAMO: ZARAGOZA – LLEIDA SUBTRAMO IV PROPUESTA DE SISTEMA DE EJECUCION DE VIADUCTOS.

AUTOR DEL PROYECTO

EMPRESA CONSTRUCTORA: OCP TECSA

CONSULTOR DE ESTRUCTURAS: IDEAM

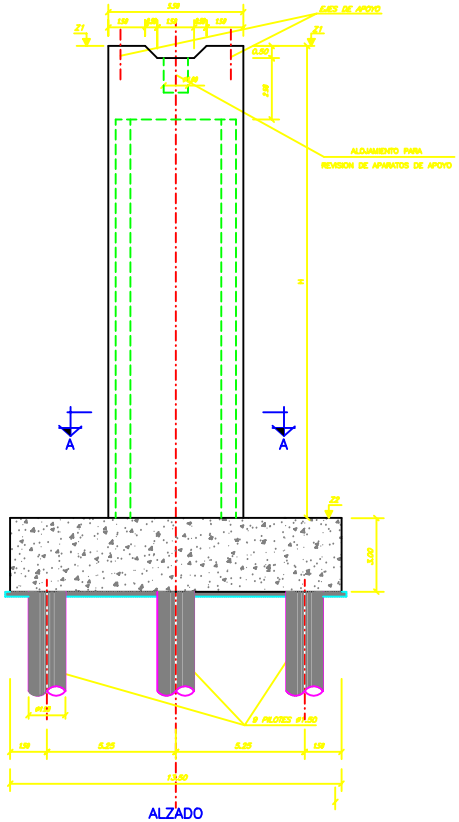
ESCALA ORIGINAL: INDICADAS
ORIGINAL A1

FECHA: JUNIO 1997

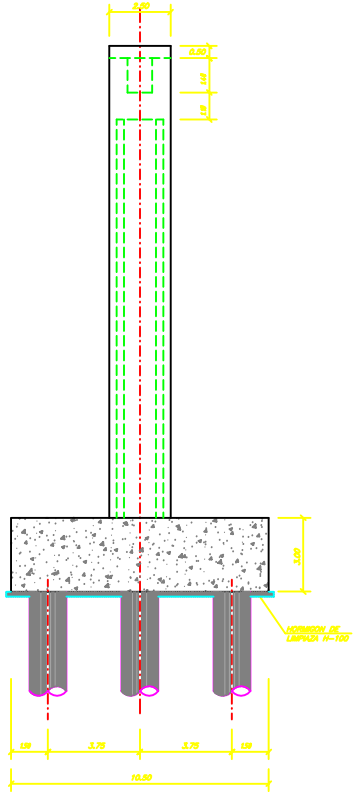
Nº DE PLANO
Nº DE HOJA
HOJA 10 DE 22

TITULO DEL PLANO: ESTRUCTURA E-2
ARMADO DE MAMPAROS

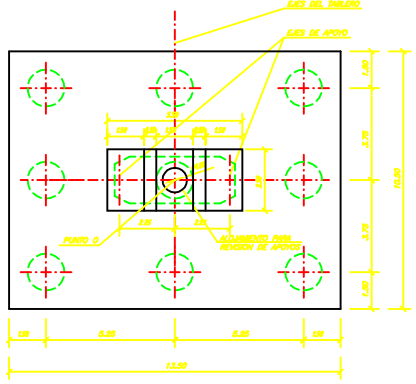
TITULO



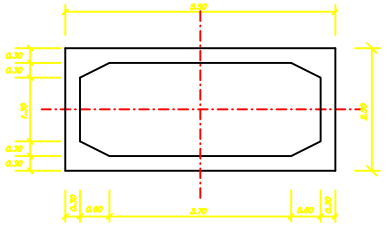
ALZADO
(DEFINICION GEOMETRICA)
ESCALA 1:100



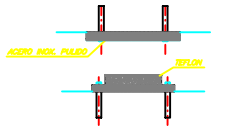
ALZADO LATERAL
(DEFINICION GEOMETRICA)
ESCALA 1:100



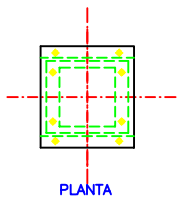
PLANTA
(DEFINICION GEOMETRICA)
ESCALA 1:100



SECCION A-A
(DEFINICION GEOMETRICA)
ESCALA 1:50

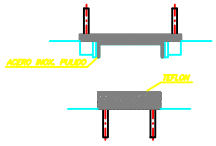


ALZADO

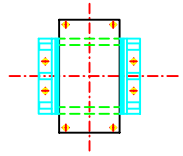


PLANTA

APOYO LIBRE
ESCALA 1:25



ALZADO



PLANTA

APOYO UNIDIRECCIONAL
ESCALA 1:25

NOTA.-

En cada pila se dispondrán dos aparatos de apoyo de neopreno-teflón de 900x900x148 (113 neto), uno de ellos libre y otro Unidireccional, capaz de soportar una fuerza transversal en servicio de 78 Tm.

	P.K.	X	Y	Az º	Z1	Z2	H	LONGITUD PILOTE
PILA-3		648.285,841	601.780,198	202,8008	299,313	276,500	29,783	13,00
PILA-4		648.270,803	601.778,581	202,8752	299,197	274,800	24,347	13,00
PILA-5		648.305,764	601.778,826	203,0485	299,080	273,500	25,530	13,00
PILA-6		648.340,729	601.779,120	203,1227	298,965	272,500	26,414	13,00
PILA-7		648.375,679	601.773,492	203,1860	298,847	271,850	26,997	13,00
PILA-8		648.410,634	601.771,715	203,2723	298,730	271,250	27,480	13,00

CARACTERISTICAS DE MATERIALES Y NIVELES DE CONTROL

MATERIAL	ELEMENTO	NIVEL DE CONTROL	COEFICIENTE DE PONDERACION	TIPO
HORMIGONES	LIMPIEZA	NORMAL	γ_c = 1,80	H - 100
	PILOTES	NORMAL	γ_c = 1,80	H - 150
	ENCEPADOS	NORMAL	γ_c = 1,50	H - 250
	ZAPATAS	NORMAL	γ_c = 1,50	H - 250
	FUSTES	INTENSO	γ_c = 1,50	H - 300
ARMADURAS	TODOS	NORMAL	γ_s = 1,15	AEH-500
EJECUCION	PILOTES Y ENCEPADOS	NORMAL	γ_f = 1,60	-----
	FUSTES	INTENSO	γ_f= 1,50	-----

NOTAS

- Los aparatos de apoyo se dispondrán con sus superficies de apoyo rigurosamente horizontales.
- Durante la fase de lanzamiento se dispondrán aparatos de apoyo provisionales, con guiaderas longitudinales.
- Se emplearán cementos sulforresistentes en todos los elementos en contacto con el terreno.
- Los pilotes tendrán unas longitudes mínimas iguales a las indicadas en el cuadro adjunto. Se garantizará una resistencia en punta de los mismos de 742 Toneladas.
- El punto 0 corresponde al centro de la pila y sus coordenadas figuran en el cuadro adjunto.

Ministerio de Obras Públicas, Transportes y Medio Ambiente
Secretaría de Estado de Política Territorial y Obras Públicas

Secretaría General para las Infraestructuras del Transporte Terrestre
Dirección General de Infraestructuras del Transporte Ferroviario

TITULO: PROYECTO LINEA DE ALTA VELOCIDAD MADRID - BARCELONA - FRONTERA FRANCESA. TRAMO:ZARAGOZA - LLEIDA SUBTRAMO IV PROPUESTA DE SISTEMA DE EJECUCION DE VIADUCTOS.

AUTOR DEL PROYECTO: D. CAMILO A. MARTINEZ ALCALA

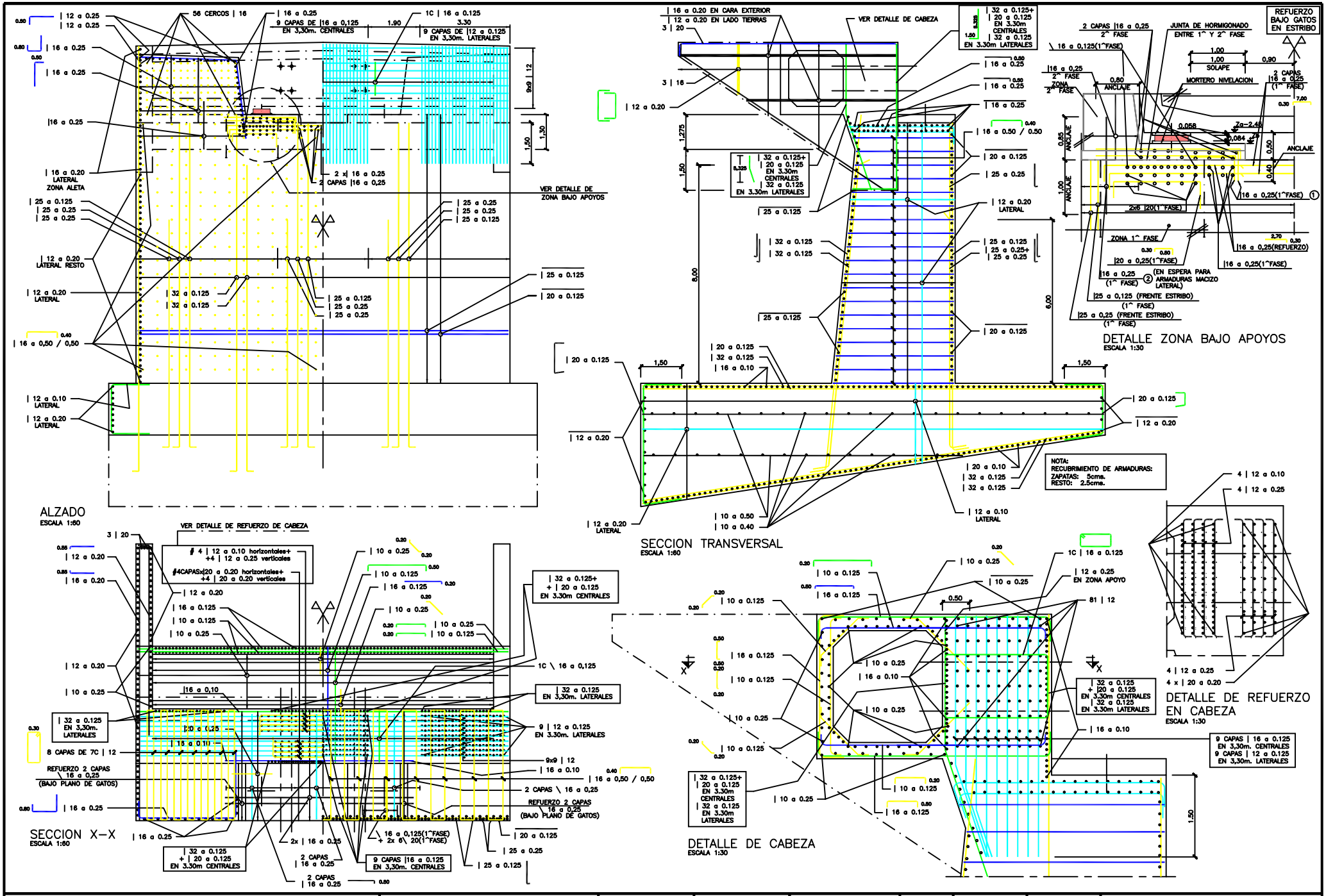
EMPRESA CONSTRUCTORA: OCP TECSA

ESCALA ORIGINAL: VARIAS | NUMERICA | GRAFICA

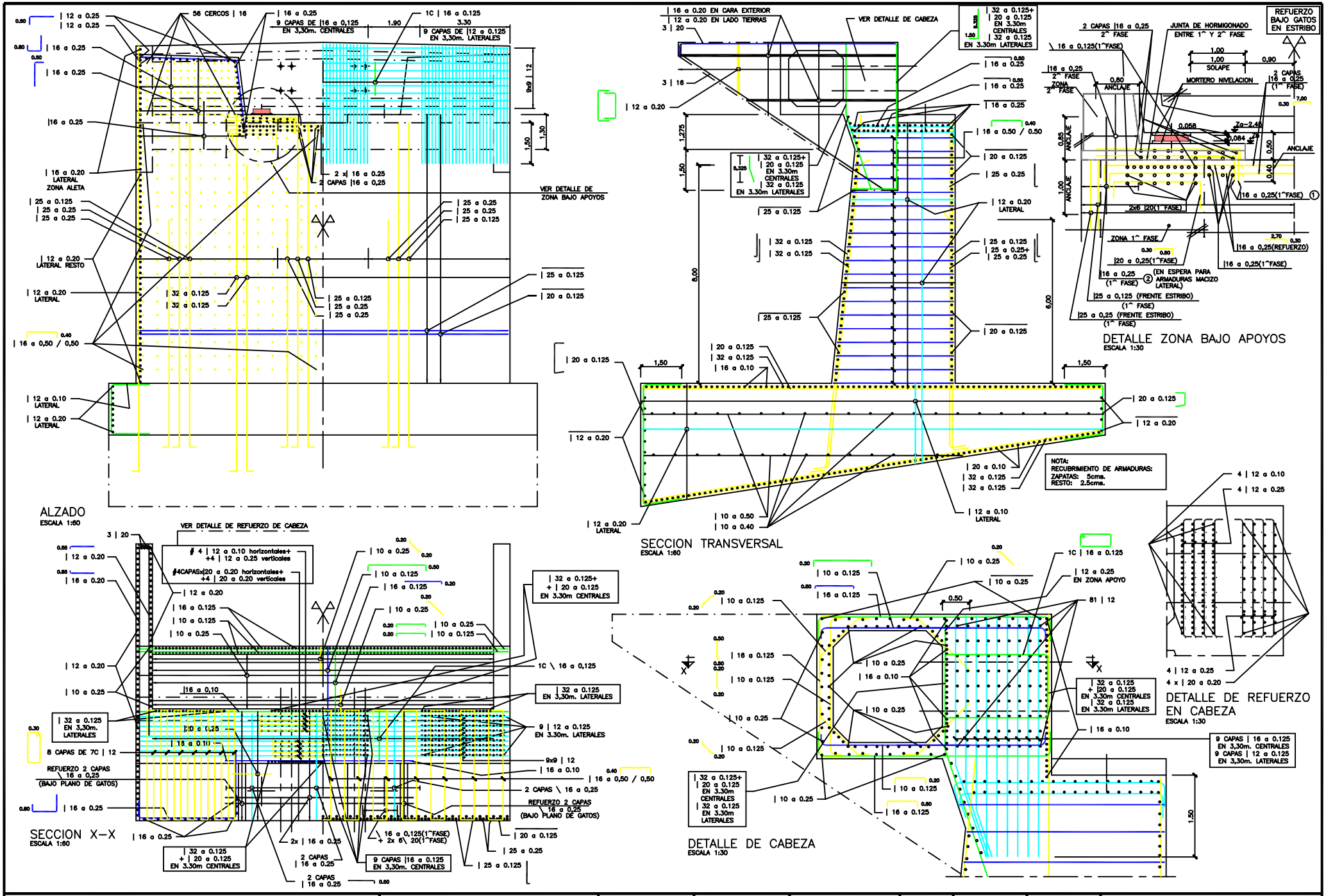
FECHA: JUNIO 1997

Nº DE PLANO: 6.22
Nº DE HOJA: 15 DE 22

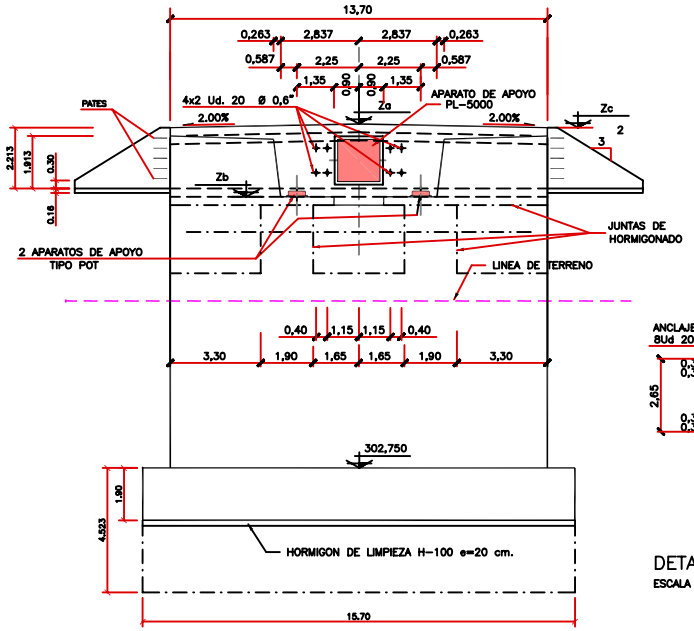
TITULO DEL PLANO: ESTRUCTURA-E1 419+074,000 PILAS 2 a 11 (DEFINICION GEOMETRICA)



Ministerio de Obras Publicas, Transportes y Medio Ambiente Secretaria de Estado de Politica Territorial y Obras Publicas Secretaria General para las Infraestructuras del Transporte Terrestre Direccion General de Infraestructuras del Transporte Ferroviario	TITULO: PROYECTO LINEA DE ALTA VELOCIDAD MADRID – BARCELONA – FRONTERA FRANCESA. TRAMO: ZARAGOZA – LLEIDA SUBTRAMO IV PROPUESTA DE SISTEMA DE EJECUCION DE VIADUCTOS.	AUTOR DEL PROYECTO	EMPRESA CONSTRUCTORA OCP TECSA	CONSULTOR DE ESTRUCTURAS IDEAM	ESCALA ORIGINAL INDICADAS ORIGINAL A1	FECHA JUNIO 1997	Nº DE PLANO Nº DE HOJA HOJA 16 DE 22	TITULO DEL PLANO ESTRUCTURA E-2 ESTRIBO ANCLADO SECCION TRANSVERSAL ARMADURAS

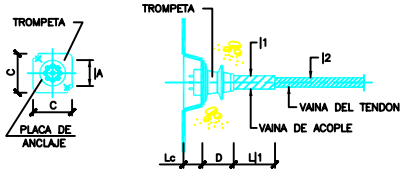


Ministerio de Obras Publicas, Transportes y Medio Ambiente Secretaria de Estado de Politica Territorial y Obras Publicas Secretaria General para las Infraestructuras del Transporte Terrestre Direccion General de Infraestructuras del Transporte Ferroviario	TITULO: PROYECTO LINEA DE ALTA VELOCIDAD MADRID – BARCELONA – FRONTERA FRANCESA. TRAMO: ZARAGOZA – LLEIDA SUBTRAMO IV PROPUESTA DE SISTEMA DE EJECUCION DE VIADUCTOS.	AUTOR DEL PROYECTO	EMPRESA CONSTRUCTORA OCP TECSA	CONSULTOR DE ESTRUCTURAS IDEAM	ESCALA ORIGINAL INDICADAS ORIGINAL A1	FECHA JUNIO 1997	Nº DE PLANO Nº DE HOJA HOJA 16 DE 22	TITULO DEL PLANO ESTRUCTURA E-2 ESTRIBO ANCLADO SECCION TRANSVERSAL ARMADURAS



ALZADO TRANSVERSAL ESTRIBO – 1

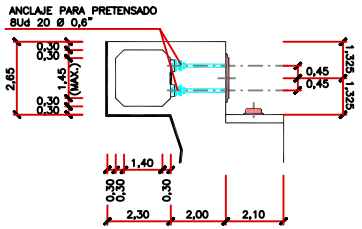
ESCALA 1:100



TIPO TENDON	A	C	D	Lc	L1	1	2
20 Ø0,6"	185	350	360	150	1000	110	110

DETALLE ANCLAJE

ESCALA S/E (COTAS EN mm.)

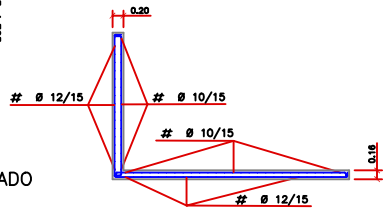


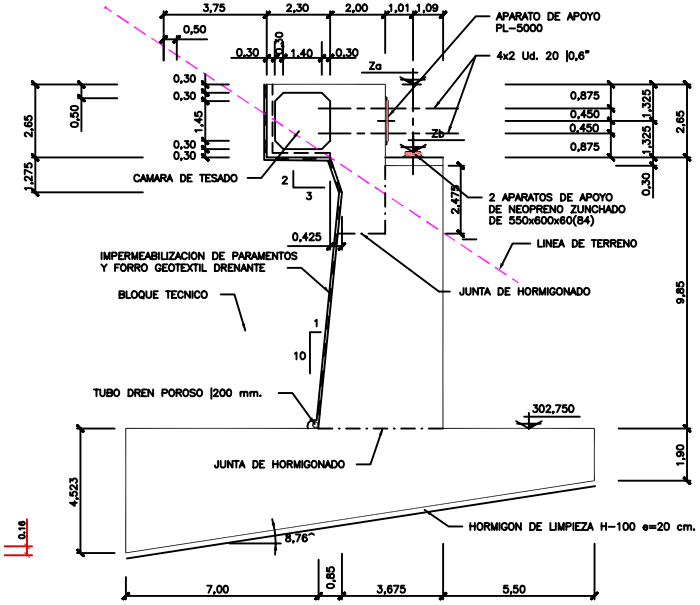
DETALLE ANCLAJES CAMARA DE TESADO

ESCALA 1:100

SECCION A–A

ESCALA 1:50

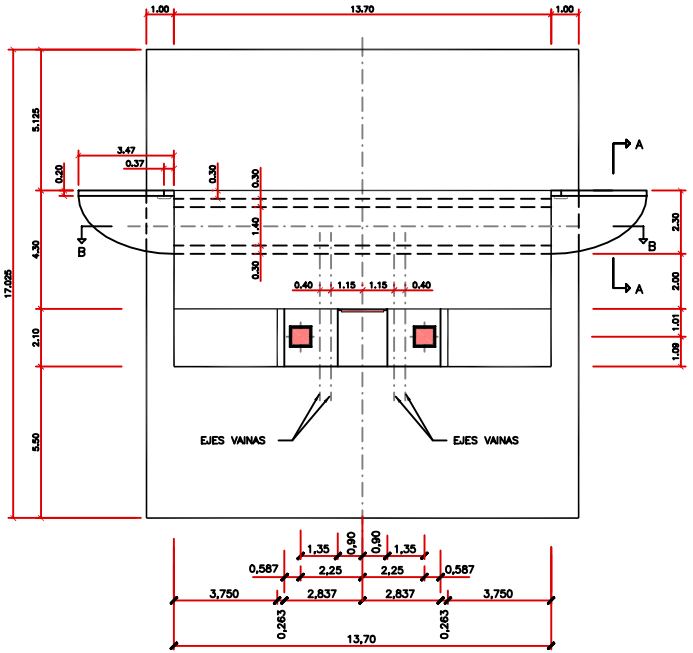




SECCION LONGITUDINAL ESTRIBO – 1

ESCALA 1:100

ESTRUCTURA E-2	CUADRO DE COTAS			
	ZR = COTA RASANTE SOBRE VIA (Za + 0,67)			
ZR	Za	Zb	Zc	
ESTRIBO-1	315.970	315.300	312.650	315.163



PLANTA ESTRIBO – 1

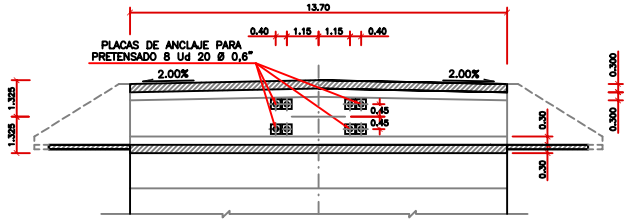
ESCALA 1:100

NOTAS:

- SE HA CONSIDERADO UNA TENSION ADMISIBLE A LA COTA DE CIMENTACION DE 5,00 Kg/cm2.
- TODAS LAS JUNTAS DE HORMIGONADO RECIBIRAN EL TRATAMIENTO ADECUADO CON EL FIN DE GARANTIZAR LA UNION ENTRE LOS HORMIGONES CORRESPONDIENTES.
- LA SALIDA DEL DRENAJE DEL TRASDOS SE FIJARA EN LA PROPIA OBRA.
- LOS TORONES QUE CONSTITUYEN LOS TENDONES DE PRETENSADO SERAN DE ACERO ASTM-A416-85 GRADO 270 DE BAJA RELAJACION, DE UNA TENSION DE ROTURA MINIMA GARANTIZADA DE 19000 Kg/cm2 Y UN RELAJAMIENTO MENOR DEL 2,5% PARA UNA TENSION DE 13300 Kg/cm2 (70% fpu) APLICADA DURANTE 1000 HORAS.
- CADA UNO DE LOS TENDONES ESTARA COMPUESTO POR 20 TORONES DE 0,6" DE DIAMETRO (20 Ø0,6") EQUIVALENTES A UN ESFUERZO DE ROTURA MINIMO GARANTIZADO DE 532 Tm. ; EL AREA DE CADA TENDON SERA DE 28 cm2 (1,4 cm2/toron) Y EL DIAMETRO DE LA VAINA DE 110 mm. (PARA TENDONES ENFILADOS EN OBRA).
- TODOS LOS TENDONES SE TESARAN AL 75% DE SU CARGA DE ROTURA, ES DECIR, A 399 Tm/TENDON (19,95 Tm/TORON) VERIFICANDOSE QUE LA PENETRACION DE CU~A NO SERA EN NINGUN CASO MAYOR DE 5 mm.
- LOS TENDONES SE TESARAN SOLO DESDE UN EXTREMO, Y POR TANTO, SOLO SERAN ACTIVOS AQUELLOS ANCLAJES DESDE LOS QUE SE EFECTUE EL TESADO, SIENDO PASIVOS EL RESTO DE LOS ANCLAJES.
- EL ALARGAMIENTO OBTENIDO EN EL ANCLAJE DESDE EL QUE SE EFECTUE EL TESADO SERA DE APROX. 29 mm., Y PARA SU OBTENCION SE HAN TENIDO EN CUENTA LAS SIGUIENTES CARACTERISTICAS DE LOS MATERIALES:

  MODULO DE ELASTICIDAD DEL ACERO DE PRETENSAR: 1950000 Kg/cm2
  COEFICIENTE DE ROZAMIENTO EN CURVA ENTRE VAINA Y TENDON: 0,21m $^{-1}$
  COEFICIENTE DE DESVIACION PARASITA K/ : μ 0,006 rad/m.

- LAS VAINAS SERAN DE POLIETILENO DE ALTA DENSIDAD, Y UNA VEZ EFECTUADO EL TESADO SE PRACTICARA LA INYECCION DE LAS MISMAS MEDIANTE GRASAS SOLUBLES CON EL FIN DE GARANTIZAR EL CARACTER SUSTITUTIVO DE LOS TENDONES.
- EL EMPUJE DE LA ESTRUCTURA SE EFECTUARA CON EL RELLENO DE TRASDOS COMPLETO HASTA COTA PROVISIONAL DE CORONACION DE ESTRIBO.
- LOS APARATOS DE APOYO SERAN DE NEOPRENO ZUNCHADO, TENIENDO UNO DE ELLOS UN TOPE TRANSVERSAL CAPAZ DE RESISTIR 35,00 Tm. EN SERVICIO.
- SE EMPLEARA CEMENTO RESISTENTE A LOS SULFATOS EN TODOS AQUELLOS ELEMENTOS QUE ESTEN EN CONTACTO CON EL TERRENO.



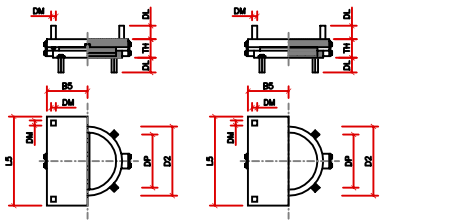
SECCION TRANSVERSAL (B–B) CAMARA DE TESADO

ESCALA 1:100

APARATOS DE APOYO

APOYO POT TIPO PU

APOYO POT TIPO PL



PL	TH	L5	B5	D2	DP	DL	DM
E-1	87.5	648	641	641	495	200	40
PU	TH	L5	B5	D2	DP	DL	DM
E-2	92.5	660	641	641	502	250	50

EDICION	FECHA	MODIFICACIONES
1	JULIO-99	ALETAS Y ENTRADA A CAMARA DE TESADO

GIF Gestor de Infraestructuras Ferroviarias

TITULO : MODIFICACION N° 1
PROYECTO LINEA DE ALTA VELOCIDAD
MADRID – BARCELONA – FRONTERA FRANCESA
TRAMO : ZARAGOZA – LLEIDA
SUBTRAMO – IV

AUTOR DEL MODIFICADO N° 1: D. MARIANO CORREAS PAESA

UTE AVE BUJARALOZ: JOSE L. OLIVEROS ESCAMILLA

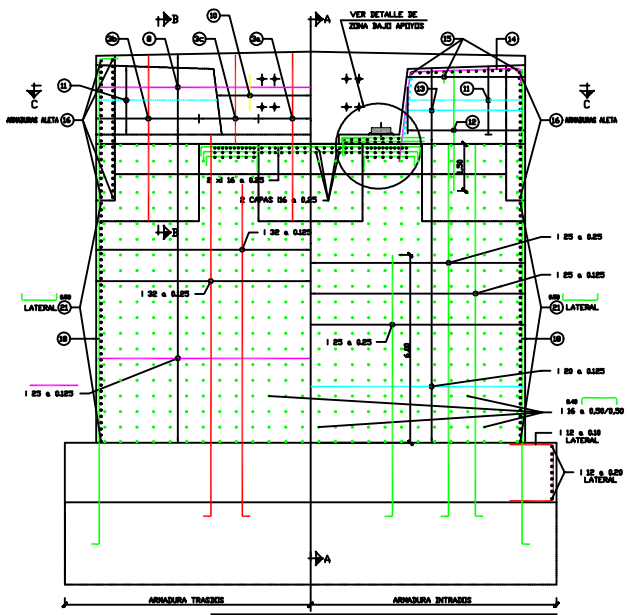
ESCALA NORMAL: VARIAS
NUMERICA GRAFICA
0 10 20 30 40 50m.

FECHA

TITULO DEL PLANO: ESTRUCTURA E-2
ESTRIBO 1 DEFINICION GEOMETRICA

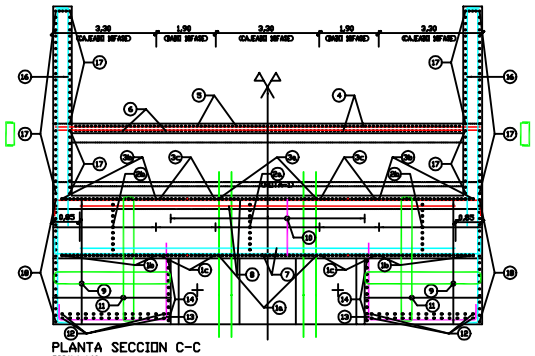
N°DE PLANO

Hoja de



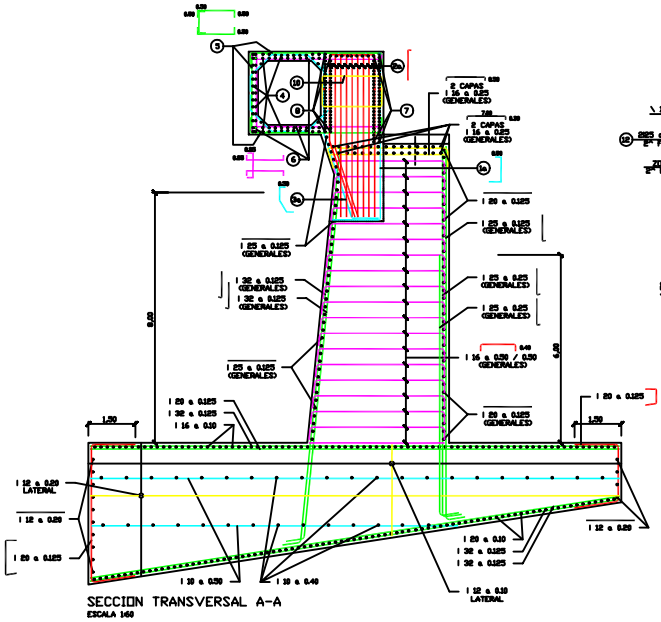
ALZADO
ESCALA 1/50

NOTA 1:
POR CLARIDAD, EN EL ALZADO DEL TRASDOS NO SE REPRESENTAN LAS ARMADURAS CORRESPONDIENTES A LA CAMARA DE TESADO.

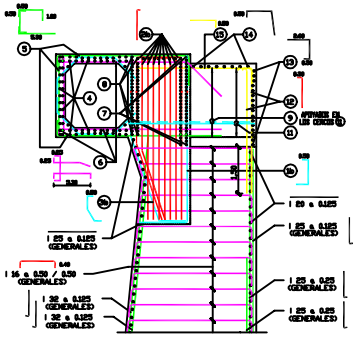


PLANTA SECCION C-C
ESCALA 1/50

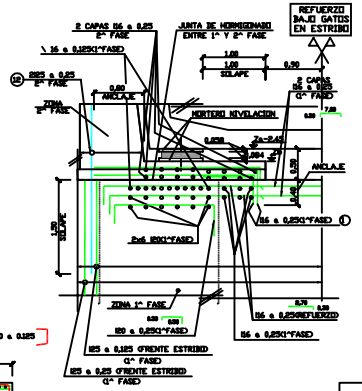
NOTA-1:
LAS ARMADURAS (2) SE PROLONGARAN A AMBOS LADOS DEL CAJEADO DE 3,30 M. DE MODO QUE POR FUERA DE LAS PLACAS DE ANCLAJE EXTREMAS EXISTAN 3 LINEAS DE ARMADURAS B6, IGUALES A LAS DE ALINEADE DOBLADAS EN PATILLA DE 0,80 M AL LLEGAR AL DADO DE HORMIGON DE 1ª FASE.



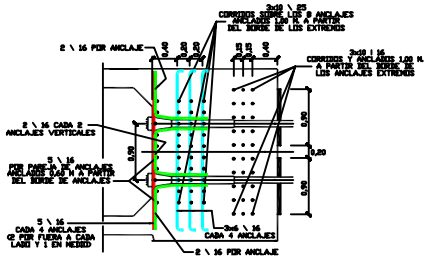
SECCION TRANSVERSAL A-A
ESCALA 1/50



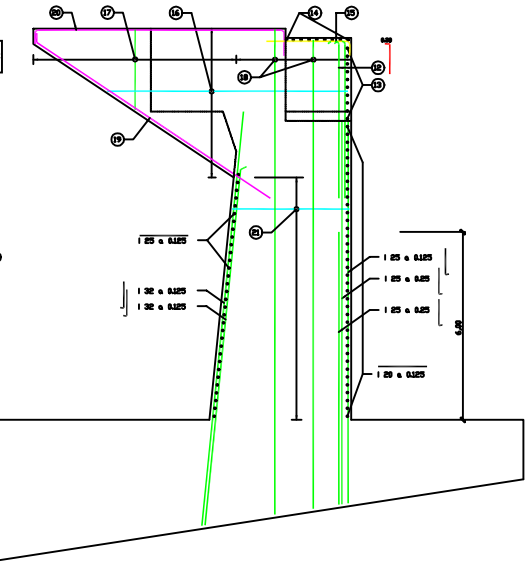
SECCION TRANSVERSAL B-B
ESCALA 1/50



DETALLE ZONA BAJO APOYOS
ESCALA 1/20



DETALLE DE REFUERZO EN ANCLAJES Y APOYOS
ESCALA 1/20



ALZADO LATERAL
ESCALA 1/50

ARMADURA DE ESTRIBO			
BARRA Nº	REPARTO	BARRA Nº	REPARTO
1a	Ø25 a 0,125 en 3,20 m centrales	9	8 CAPAS DE 7C Ø2
1b	Ø25 a 0,125 en 3,20 cajeado Ø16mm	10	1C Ø6 a 0,125
1c	Ø6 a 0,125	11	9 CAPAS CORRIDAS Ø25 EN 1ª FASE APOYADAS EL 25,125
2a	9 CAPAS Ø6 a 0,25 en 3,20 m centrales	12	2 Ø25 a 0,25 en 3,75 m laterales
2b	9 CAPAS Ø6 a 0,25 en 3,20 cajeado Ø16mm	13	16 Ø6
3a	Ø32 a 0,125 en 3,20 m centrales	14	Ø6 a 0,20
3b	Ø32 a 0,125 en 3,20 cajeado Ø16mm	15	Ø6 a 0,20
3c	Ø6 a 0,125	16	Ø6 a 0,20 grandero de dado
4	Ø6 a 0,20	17	Ø2 a 0,20
5	Ø6 a 0,125	18	Ø2 a 0,20
6	Ø2 a 0,125	19	3 Ø6
7	20 | 3C centrales +20 | 2S laterales	20	3 Ø20
8	2x20 | 3C	21	Ø2 a 0,20 lateral

RECUBRIMIENTO DE ARMADURAS
ZAPATAS 5cms.
RESTO 2,5cms.

1	02-12-99	CAMBIA DE ESTRIBO
EDICION	FECHA	MODIFICACIONES

Ministerio de Obras Públicas, Transportes y Medio Ambiente
Secretaría General del Transporte Terrestre
Secretaría de Estado de Política Territorial y Obras Públicas
General de Infraestructuras del Transporte Ferroviario

TITULO: PROYECTO LINEA DE ALTA VELOCIDAD MADRID - BARCELONA - FRONTERA FRANCESA. TRAMO: ZARAGOZA - LLEIDA SUSTRAIS IV. PROPUESTA DE SISTEMA DE EJECUCION DE VIADUCTOS.

AUTOR DEL PROYECTO

EMPRESA CONSTRUCTORA: OCP, TECSA

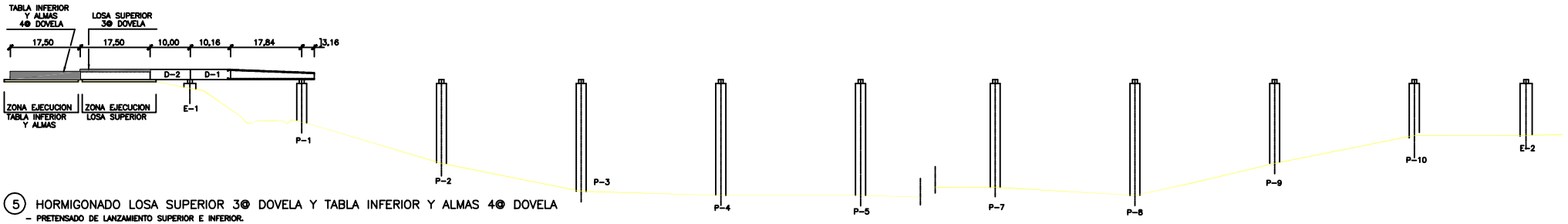
CONSULTOR DE ESTRUCTURAS: IDEAM

ESCALA ORIGINAL: INDICADAS
ORIGINAL A1

FECHA: JUNIO 1997

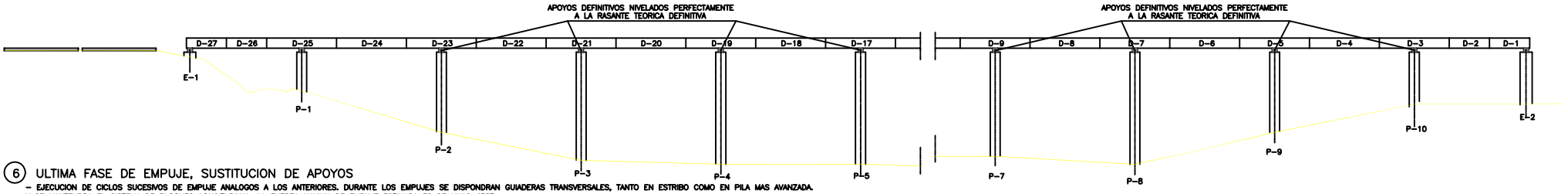
Nº DE PLANO
Nº DE HOJA: HOJA 10 DE 22

TITULO DEL PLANO:
ESTRUCTURA E-2
ESTRIBO ANCLADO
SECCION TRANSVERSAL
ARMADURAS



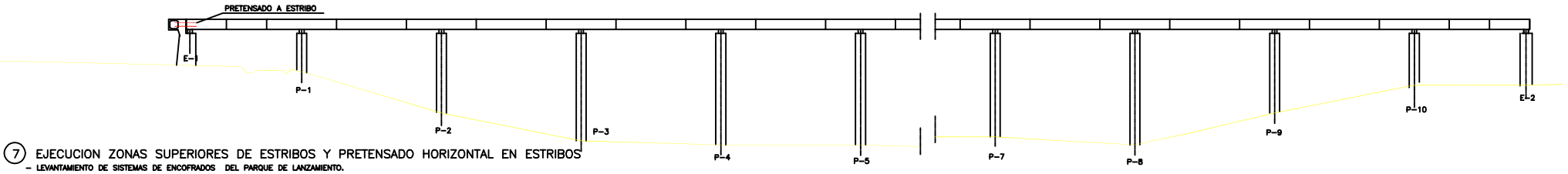
(5) HORMIGONADO LOSA SUPERIOR 3@ DOVELA Y TABLA INFERIOR Y ALMAS 4@ DOVELA

- PRETENSADO DE LANZAMIENTO SUPERIOR E INFERIOR.
- EMPUJE DE 17.50m DE LA 3@ DOVELA, TIRANDO DESDE EL ESTRIBO. ACTUACION CON GATOS A LA ENTRADA EN PILA. GUIADERAS EN ESTRIBO Y PILA 1. BLOQUEO EN ESTRIBO.
- FERRALLA Y HORMIGONADO DE LA TABLA INFERIOR Y ALMAS DE LA DOVELA D-4 Y LOSA SU PERIOR DE LA DOVELA D-3.



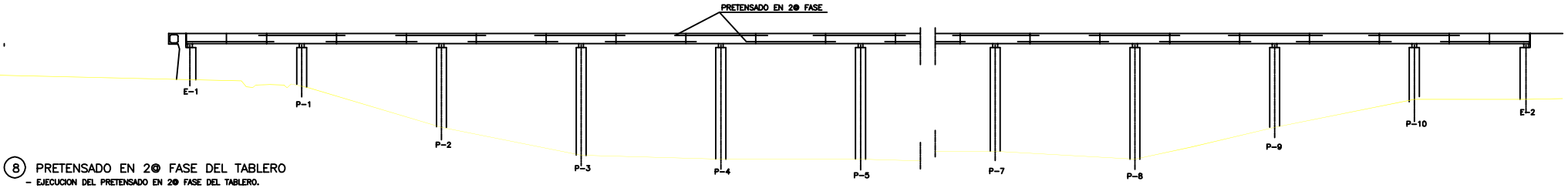
(6) ULTIMA FASE DE EMPUJE, SUSTITUCION DE APOYOS

- EJECUCION DE CICLOS SUCESIVOS DE EMPUJE ANALOGOS A LOS ANTERIORES. DURANTE LOS EMPUJES SE DISPONDRAN GUIADERAS TRANSVERSALES, TANTO EN ESTRIBO COMO EN PILA MAS AVANZADA. Y SE MANTENDRA EL SISTEMA DE BLOQUEO LONGITUDINAL. LA FUERZA MAXIMA DE EMPUJE ESTIMADA ES DE UNAS 475Tn.
- UNA VEZ FINALIZADO EL EMPUJE, SUSTITUCION DE APOYOS PROVISIONALES POR LOS DEFINITIVOS. LOS APOYOS SE NIVELARAN PERFECTAMENTE A LA RASANTE TEORICA DEFINITIVA DEL TABLERO.



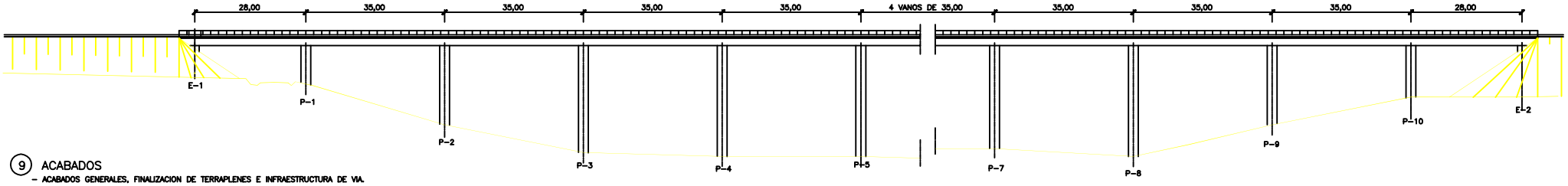
(7) EJECUCION ZONAS SUPERIORES DE ESTRIBOS Y PRETENSADO HORIZONTAL EN ESTRIBOS

- LEVANTAMIENTO DE SISTEMAS DE ENCOFRADOS DEL PARQUE DE LANZAMIENTO.
- EJECUCION DE ZONAS SUPERIORES DE ESTRIBOS Y DEL PRETENSADO LONGITUDINAL DE VINCULACION TABLERO-ESTRIBO.



(8) PRETENSADO EN 2@ FASE DEL TABLERO

- EJECUCION DEL PRETENSADO EN 2@ FASE DEL TABLERO.



(9) ACABADOS

- ACABADOS GENERALES, FINALIZACION DE TERRAPLENES E INFRAESTRUCTURA DE VIA.

Ministerio de Obras Publicas, Transportes y Medio Ambiente — Secretaria General para las Infraestructuras del Transporte Terrestre
Secretaria de Estado de Politica Territorial y Obras Publicas — Direccion General de Infraestructuras del Transporte Ferroviario

TITULO: PROYECTO LINEA DE ALTA VELOCIDAD MADRID - BARCELONA - FRONTERA FRANCESA. TRAMO: ZARAGOZA - LLEIDA SUBTRAMO IV PROPUESTA DE SISTEMA DE EJECUCION DE VIADUCTOS.

AUTOR DEL PROYECTO

EMPRESA CONSTRUCTORA: OCP, TECSA

CONSULTOR DE ESTRUCTURAS: IDEAM

ESCALA ORIGINAL: INDICADAS
ORIGINAL A1

FECHA: JUNIO 1997

Nº DE PLANO

Nº DE HOJA: HOJA 22 DE 22

TITULO DEL PLANO: ESTRUCTURA E-2
PROCESO CONSTRUCTIVO (II)

ANEJO 2B: EVALUACIÓN DE FLECHAS

MODELO UNIDIMENSIONAL PARA LA EVALUACIÓN DE PORCENTAJES DE SOLICITACIÓN Y FRECUENCIAS PROPIAS DE VIBRACIÓN

Listado Input

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: T-m

S Y S T E M D A T A

EXECUTION CODE - - - - - - - - - - - - - - - -	0
NUMBER OF LOAD CONDITIONS - - - - - - - - - -	34
STEADY STATE LOAD FREQUENCY - - - - - - - - -	.0000E+00
NUMBER OF EIGENVALUES - - - - - - - - - - - -	0
EIGEN CONVERGENCE TOLERANCE - - - - - - - - -	.1000E-03
EIGEN CUTOFF TIME PERIOD - - - - - - - - - -	.0000E+00

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
1	.000	.000	.000
2	3.500	.000	.000
3	7.000	.000	.000
4	10.500	.000	.000
5	14.000	.000	.000
6	17.500	.000	.000
7	21.000	.000	.000
8	24.500	.000	.000
9	28.000	.000	.000
10	32.375	.000	.000
11	36.750	.000	.000
12	41.125	.000	.000
13	45.500	.000	.000
14	49.875	.000	.000
15	54.250	.000	.000
16	58.625	.000	.000
17	63.000	.000	.000
18	67.375	.000	.000
19	71.750	.000	.000
20	76.125	.000	.000
21	80.500	.000	.000
22	84.875	.000	.000
23	89.250	.000	.000
24	93.625	.000	.000
25	98.000	.000	.000
26	102.375	.000	.000
27	106.750	.000	.000
28	111.125	.000	.000
29	115.500	.000	.000
30	119.875	.000	.000
31	124.250	.000	.000
32	128.625	.000	.000
33	133.000	.000	.000
34	137.375	.000	.000
35	141.750	.000	.000
36	146.125	.000	.000
37	150.500	.000	.000
38	154.875	.000	.000
39	159.250	.000	.000
40	163.625	.000	.000
41	168.000	.000	.000
42	172.375	.000	.000
43	176.750	.000	.000
44	181.125	.000	.000
45	185.500	.000	.000
46	189.875	.000	.000
47	194.250	.000	.000
48	198.625	.000	.000
49	203.000	.000	.000
50	207.375	.000	.000
51	211.750	.000	.000
52	216.125	.000	.000

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
53	220.500	.000	.000
54	224.875	.000	.000
55	229.250	.000	.000
56	233.625	.000	.000
57	238.000	.000	.000
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89	378.000	.000	.000
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91	385.000	.000	.000
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93	392.000	.000	.000
94	395.500	.000	.000
95	399.000	.000	.000
96	402.500	.000	.000
97	406.000	.000	.000

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: T-m

R E S T R A I N T D A T A

JOINT	RX	RY	RZ	RXX	RYY	RZZ
1	1	1	1	1	0	1
2	0	1	0	1	0	1
3	0	1	0	1	0	1
4	0	1	0	1	0	1
5	0	1	0	1	0	1
6	0	1	0	1	0	1
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11	0	1	0	1	0	1
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14	0	1	0	1	0	1
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49	0	1	1	1	0	1
50	0	1	0	1	0	1
51	0	1	0	1	0	1
52	0	1	0	1	0	1

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: T-m

R E S T R A I N T D A T A

JOINT	RX	RY	RZ	RXX	RYY	RZZ
53	0	1	0	1	0	1
54	0	1	0	1	0	1
55	0	1	0	1	0	1
56	0	1	0	1	0	1
57	0	1	1	1	0	1
58	0	1	0	1	0	1
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93	0	1	0	1	0	1
94	0	1	0	1	0	1
95	0	1	0	1	0	1
96	0	1	0	1	0	1
97	1	1	1	1	0	1

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: T-m

F R A M E C O N T R O L D A T A

NUMBER OF MEMBER SECTION PROPERTIES 1
NUMBER OF SPAN LOADING PATTERNS 0

LOAD COND	GRAVITATIONAL MULTIPLIERS X	Y	Z	TEMPERATURE MULTIPLIERS	PRESTRESS MULTIPLIERS
1	.000	.000	.000	.000	.000
2	.000	.000	.000	.000	.000
3	.000	.000	.000	.000	.000
4	.000	.000	.000	.000	.000
5	.000	.000	.000	.000	.000
6	.000	.000	.000	.000	.000
7	.000	.000	.000	.000	.000
8	.000	.000	.000	.000	.000
9	.000	.000	.000	.000	.000
10	.000	.000	.000	.000	.000
11	.000	.000	.000	.000	.000
12	.000	.000	.000	.000	.000
13	.000	.000	.000	.000	.000
14	.000	.000	.000	.000	.000
15	.000	.000	.000	.000	.000
16	.000	.000	.000	.000	.000
17	.000	.000	.000	.000	.000
18	.000	.000	.000	.000	.000
19	.000	.000	.000	.000	.000
20	.000	.000	.000	.000	.000
21	.000	.000	.000	.000	.000
22	.000	.000	.000	.000	.000
23	.000	.000	.000	.000	.000
24	.000	.000	.000	.000	.000
25	.000	.000	.000	.000	.000
26	.000	.000	.000	.000	.000
27	.000	.000	.000	.000	.000
28	.000	.000	.000	.000	.000
29	.000	.000	.000	.000	.000
30	.000	.000	.000	.000	.000
31	.000	.000	.000	.000	.000
32	.000	.000	.000	.000	.000
33	.000	.000	.000	.000	.000
34	.000	.000	.000	.000	.000

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: T-m

S E C T I O N P R O P E R T Y D A T A

PROP ID	AREA	TORSIONAL INERTIA	MOMENTS OF INERTIA I33	I22	SHEAR AREAS A2	A3
1	.780E+01	.00000E+00	.58994E+01	.10000E+01	.000E+00	.000E+00

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: T-m

M A T E R I A L P R O P E R T Y D A T A

PROP ID	MODULUS OF ELASTICITY	SHEAR MODULUS	WEIGHT PER UNIT LEN	MASS PER UNIT LEN	THERMAL EXPANSION
1	.3724E+07	.1432E+07	.2256E+02	.2246E+05	.0000E+00

F R A M E E L E M E N T D A T A

ELT ID	JOINT END-I	JOINT END-J	LOCAL-AXIS N1	LOCAL-AXIS N2	PROPERTY-ID END-I	PROPERTY-ID END-J	VAR	REL CODES	REF TEMP	ELEMENT LENGTH
1	1	2	2	0	1	1	0	000000	.00	3.50
2	2	3	2	0	1	1	0	000000	.00	3.50
3	3	4	2	0	1	1	0	000000	.00	3.50
4	4	5	2	0	1	1	0	000000	.00	3.50
5	5	6	2	0	1	1	0	000000	.00	3.50
6	6	7	2	0	1	1	0	000000	.00	3.50
7	7	8	2	0	1	1	0	000000	.00	3.50
8	8	9	2	0	1	1	0	000000	.00	3.50
9	9	10	2	0	1	1	0	000000	.00	4.38
10	10	11	2	0	1	1	0	000000	.00	4.38
11	11	12	2	0	1	1	0	000000	.00	4.38
12	12	13	2	0	1	1	0	000000	.00	4.38
13	13	14	2	0	1	1	0	000000	.00	4.38
14	14	15	2	0	1	1	0	000000	.00	4.38
15	15	16	2	0	1	1	0	000000	.00	4.38
16	16	17	2	0	1	1	0	000000	.00	4.38
17	17	18	2	0	1	1	0	000000	.00	4.38
18	18	19	2	0	1	1	0	000000	.00	4.38
19	19	20	2	0	1	1	0	000000	.00	4.38
20	20	21	2	0	1	1	0	000000	.00	4.38
21	21	22	2	0	1	1	0	000000	.00	4.38
22	22	23	2	0	1	1	0	000000	.00	4.38
23	23	24	2	0	1	1	0	000000	.00	4.38
24	24	25	2	0	1	1	0	000000	.00	4.38
25	25	26	2	0	1	1	0	000000	.00	4.38
26	26	27	2	0	1	1	0	000000	.00	4.38
27	27	28	2	0	1	1	0	000000	.00	4.38
28	28	29	2	0	1	1	0	000000	.00	4.37
29	29	30	2	0	1	1	0	000000	.00	4.38
30	30	31	2	0	1	1	0	000000	.00	4.38
31	31	32	2	0	1	1	0	000000	.00	4.38
32	32	33	2	0	1	1	0	000000	.00	4.38
33	33	34	2	0	1	1	0	000000	.00	4.38
34	34	35	2	0	1	1	0	000000	.00	4.38
35	35	36	2	0	1	1	0	000000	.00	4.38
36	36	37	2	0	1	1	0	000000	.00	4.38
37	37	38	2	0	1	1	0	000000	.00	4.38
38	38	39	2	0	1	1	0	000000	.00	4.38
39	39	40	2	0	1	1	0	000000	.00	4.38
40	40	41	2	0	1	1	0	000000	.00	4.38
41	41	42	2	0	1	1	0	000000	.00	4.38
42	42	43	2	0	1	1	0	000000	.00	4.38
43	43	44	2	0	1	1	0	000000	.00	4.38
44	44	45	2	0	1	1	0	000000	.00	4.38
45	45	46	2	0	1	1	0	000000	.00	4.38
46	46	47	2	0	1	1	0	000000	.00	4.38
47	47	48	2	0	1	1	0	000000	.00	4.38
48	48	49	2	0	1	1	0	000000	.00	4.38
49	49	50	2	0	1	1	0	000000	.00	4.37
50	50	51	2	0	1	1	0	000000	.00	4.38
51	51	52	2	0	1	1	0	000000	.00	4.37

F R A M E E L E M E N T D A T A

ELT ID	JOINT END-I	JOINT END-J	LOCAL-AXIS N1	LOCAL-AXIS N2	PROPERTY-ID END-I	PROPERTY-ID END-J	VAR	REL CODES	REF TEMP	ELEMENT LENGTH
52	52	53	2	0	1	1	0	000000	.00	4.38
53	53	54	2	0	1	1	0	000000	.00	4.37
54	54	55	2	0	1	1	0	000000	.00	4.37
55	55	56	2	0	1	1	0	000000	.00	4.38
56	56	57	2	0	1	1	0	000000	.00	4.37
57	57	58	2	0	1	1	0	000000	.00	4.38
58	58	59	2	0	1	1	0	000000	.00	4.37
59	59	60	2	0	1	1	0	000000	.00	4.38
60	60	61	2	0	1	1	0	000000	.00	4.37
61	61	62	2	0	1	1	0	000000	.00	4.38
62	62	63	2	0	1	1	0	000000	.00	4.38
63	63	64	2	0	1	1	0	000000	.00	4.37
64	64	65	2	0	1	1	0	000000	.00	4.38
65	65	66	2	0	1	1	0	000000	.00	4.38
66	66	67	2	0	1	1	0	000000	.00	4.37
67	67	68	2	0	1	1	0	000000	.00	4.38
68	68	69	2	0	1	1	0	000000	.00	4.38
69	69	70	2	0	1	1	0	000000	.00	4.38
70	70	71	2	0	1	1	0	000000	.00	4.37
71	71	72	2	0	1	1	0	000000	.00	4.38
72	72	73	2	0	1	1	0	000000	.00	4.38
73	73	74	2	0	1	1	0	000000	.00	4.38
74	74	75	2	0	1	1	0	000000	.00	4.37
75	75	76	2	0	1	1	0	000000	.00	4.38
76	76	77	2	0	1	1	0	000000	.00	4.38
77	77	78	2	0	1	1	0	000000	.00	4.37
78	78	79	2	0	1	1	0	000000	.00	4.38
79	79	80	2	0	1	1	0	000000	.00	4.38
80	80	81	2	0	1	1	0	000000	.00	4.38
81	81	82	2	0	1	1	0	000000	.00	4.37
82	82	83	2	0	1	1	0	000000	.00	4.38
83	83	84	2	0	1	1	0	000000	.00	4.38
84	84	85	2	0	1	1	0	000000	.00	4.38
85	85	86	2	0	1	1	0	000000	.00	4.37
86	86	87	2	0	1	1	0	000000	.00	4.38
87	87	88	2	0	1	1	0	000000	.00	4.38
88	88	89	2	0	1	1	0	000000	.00	4.38
89	89	90	2	0	1	1	0	000000	.00	3.50
90	90	91	2	0	1	1	0	000000	.00	3.50
91	91	92	2	0	1	1	0	000000	.00	3.50
92	92	93	2	0	1	1	0	000000	.00	3.50
93	93	94	2	0	1	1	0	000000	.00	3.50
94	94	95	2	0	1	1	0	000000	.00	3.50
95	95	96	2	0	1	1	0	000000	.00	3.50
96	96	97	2	0	1	1	0	000000	.00	3.50

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: T-m

T O T A L W E I G H T S A N D M A S S E S

PROP	WEIGHT	MASS
1	9160.9840	9120384.0000
TOTAL	9160.9840	9120384.0000

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: T-m

J O I N T L O A D S

JOINT	LOAD	FX	FY	FZ	MX	MY	MZ
2	1	.000E+00	.000E+00	-.175E+02	.000E+00	.000E+00	.000E+00
3	1	.000E+00	.000E+00	-.331E+01	.000E+00	.000E+00	.000E+00
4	1	.000E+00	.000E+00	-.264E+02	.000E+00	.000E+00	.000E+00
5	1	.000E+00	.000E+00	-.264E+02	.000E+00	.000E+00	.000E+00
2	2	.000E+00	.000E+00	-.289E+02	.000E+00	.000E+00	.000E+00
3	2	.000E+00	.000E+00	-.151E+02	.000E+00	.000E+00	.000E+00
4	2	.000E+00	.000E+00	-.264E+02	.000E+00	.000E+00	.000E+00
5	2	.000E+00	.000E+00	-.176E+02	.000E+00	.000E+00	.000E+00
5	3	.000E+00	.000E+00	-.860E+00	.000E+00	.000E+00	.000E+00
6	3	.000E+00	.000E+00	-.297E+02	.000E+00	.000E+00	.000E+00
7	3	.000E+00	.000E+00	-.943E+01	.000E+00	.000E+00	.000E+00
8	3	.000E+00	.000E+00	-.291E+02	.000E+00	.000E+00	.000E+00
5	4	.000E+00	.000E+00	-.860E+00	.000E+00	.000E+00	.000E+00
6	4	.000E+00	.000E+00	-.297E+02	.000E+00	.000E+00	.000E+00
7	4	.000E+00	.000E+00	-.943E+01	.000E+00	.000E+00	.000E+00
8	4	.000E+00	.000E+00	-.291E+02	.000E+00	.000E+00	.000E+00
18	5	.000E+00	.000E+00	-.142E+02	.000E+00	.000E+00	.000E+00
24	5	.000E+00	.000E+00	-.142E+02	.000E+00	.000E+00	.000E+00
19	5	.000E+00	.000E+00	-.323E+02	.000E+00	.000E+00	.000E+00
23	5	.000E+00	.000E+00	-.323E+02	.000E+00	.000E+00	.000E+00
20	5	.000E+00	.000E+00	-.357E+02	.000E+00	.000E+00	.000E+00
22	5	.000E+00	.000E+00	-.357E+02	.000E+00	.000E+00	.000E+00
21	5	.000E+00	.000E+00	-.153E+02	.000E+00	.000E+00	.000E+00
18	6	.000E+00	.000E+00	-.142E+02	.000E+00	.000E+00	.000E+00
24	6	.000E+00	.000E+00	-.142E+02	.000E+00	.000E+00	.000E+00
19	6	.000E+00	.000E+00	-.323E+02	.000E+00	.000E+00	.000E+00
23	6	.000E+00	.000E+00	-.323E+02	.000E+00	.000E+00	.000E+00
20	6	.000E+00	.000E+00	-.357E+02	.000E+00	.000E+00	.000E+00
22	6	.000E+00	.000E+00	-.357E+02	.000E+00	.000E+00	.000E+00
21	6	.000E+00	.000E+00	-.153E+02	.000E+00	.000E+00	.000E+00
10	7	.000E+00	.000E+00	-.373E+02	.000E+00	.000E+00	.000E+00
11	7	.000E+00	.000E+00	-.766E+01	.000E+00	.000E+00	.000E+00
12	7	.000E+00	.000E+00	-.264E+02	.000E+00	.000E+00	.000E+00
13	7	.000E+00	.000E+00	-.296E+02	.000E+00	.000E+00	.000E+00
10	8	.000E+00	.000E+00	-.877E+02	.000E+00	.000E+00	.000E+00
11	8	.000E+00	.000E+00	-.320E+02	.000E+00	.000E+00	.000E+00
12	8	.000E+00	.000E+00	-.244E+02	.000E+00	.000E+00	.000E+00
13	8	.000E+00	.000E+00	-.229E+02	.000E+00	.000E+00	.000E+00
13	9	.000E+00	.000E+00	-.469E+01	.000E+00	.000E+00	.000E+00
14	9	.000E+00	.000E+00	-.318E+02	.000E+00	.000E+00	.000E+00
15	9	.000E+00	.000E+00	-.189E+02	.000E+00	.000E+00	.000E+00
16	9	.000E+00	.000E+00	-.247E+02	.000E+00	.000E+00	.000E+00
13	10	.000E+00	.000E+00	-.469E+01	.000E+00	.000E+00	.000E+00
14	10	.000E+00	.000E+00	-.318E+02	.000E+00	.000E+00	.000E+00
15	10	.000E+00	.000E+00	-.189E+02	.000E+00	.000E+00	.000E+00
16	10	.000E+00	.000E+00	-.247E+02	.000E+00	.000E+00	.000E+00
26	11	.000E+00	.000E+00	-.142E+02	.000E+00	.000E+00	.000E+00
32	11	.000E+00	.000E+00	-.142E+02	.000E+00	.000E+00	.000E+00
27	11	.000E+00	.000E+00	-.323E+02	.000E+00	.000E+00	.000E+00
31	11	.000E+00	.000E+00	-.323E+02	.000E+00	.000E+00	.000E+00
28	11	.000E+00	.000E+00	-.357E+02	.000E+00	.000E+00	.000E+00
30	11	.000E+00	.000E+00	-.357E+02	.000E+00	.000E+00	.000E+00

J O I N T L O A D S

JOINT	LOAD	FX	FY	FZ	MX	MY	MZ
29	11	.000E+00	.000E+00	-.153E+02	.000E+00	.000E+00	.000E+00
26	12	.000E+00	.000E+00	-.142E+02	.000E+00	.000E+00	.000E+00
32	12	.000E+00	.000E+00	-.142E+02	.000E+00	.000E+00	.000E+00
27	12	.000E+00	.000E+00	-.323E+02	.000E+00	.000E+00	.000E+00
31	12	.000E+00	.000E+00	-.323E+02	.000E+00	.000E+00	.000E+00
28	12	.000E+00	.000E+00	-.357E+02	.000E+00	.000E+00	.000E+00
30	12	.000E+00	.000E+00	-.357E+02	.000E+00	.000E+00	.000E+00
29	12	.000E+00	.000E+00	-.153E+02	.000E+00	.000E+00	.000E+00
16	13	.000E+00	.000E+00	-.800E+01	.000E+00	.000E+00	.000E+00
18	13	.000E+00	.000E+00	-.222E+02	.000E+00	.000E+00	.000E+00
19	13	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
20	13	.000E+00	.000E+00	-.256E+02	.000E+00	.000E+00	.000E+00
21	13	.000E+00	.000E+00	-.286E+02	.000E+00	.000E+00	.000E+00
22	13	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
23	13	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
24	13	.000E+00	.000E+00	-.265E+02	.000E+00	.000E+00	.000E+00
16	14	.000E+00	.000E+00	-.800E+01	.000E+00	.000E+00	.000E+00
18	14	.000E+00	.000E+00	-.222E+02	.000E+00	.000E+00	.000E+00
19	14	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
20	14	.000E+00	.000E+00	-.256E+02	.000E+00	.000E+00	.000E+00
21	14	.000E+00	.000E+00	-.286E+02	.000E+00	.000E+00	.000E+00
22	14	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
23	14	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
24	14	.000E+00	.000E+00	-.265E+02	.000E+00	.000E+00	.000E+00
42	15	.000E+00	.000E+00	-.373E+02	.000E+00	.000E+00	.000E+00
43	15	.000E+00	.000E+00	-.766E+01	.000E+00	.000E+00	.000E+00
44	15	.000E+00	.000E+00	-.264E+02	.000E+00	.000E+00	.000E+00
45	15	.000E+00	.000E+00	-.296E+02	.000E+00	.000E+00	.000E+00
42	16	.000E+00	.000E+00	-.877E+01	.000E+00	.000E+00	.000E+00
43	16	.000E+00	.000E+00	-.320E+02	.000E+00	.000E+00	.000E+00
44	16	.000E+00	.000E+00	-.244E+02	.000E+00	.000E+00	.000E+00
45	16	.000E+00	.000E+00	-.229E+02	.000E+00	.000E+00	.000E+00
45	17	.000E+00	.000E+00	-.469E+01	.000E+00	.000E+00	.000E+00
46	17	.000E+00	.000E+00	-.318E+02	.000E+00	.000E+00	.000E+00
47	17	.000E+00	.000E+00	-.189E+02	.000E+00	.000E+00	.000E+00
48	17	.000E+00	.000E+00	-.247E+02	.000E+00	.000E+00	.000E+00
45	18	.000E+00	.000E+00	-.469E+01	.000E+00	.000E+00	.000E+00
46	18	.000E+00	.000E+00	-.318E+02	.000E+00	.000E+00	.000E+00
47	18	.000E+00	.000E+00	-.189E+02	.000E+00	.000E+00	.000E+00
48	18	.000E+00	.000E+00	-.247E+02	.000E+00	.000E+00	.000E+00
48	19	.000E+00	.000E+00	-.800E+01	.000E+00	.000E+00	.000E+00
50	19	.000E+00	.000E+00	-.222E+02	.000E+00	.000E+00	.000E+00
51	19	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
52	19	.000E+00	.000E+00	-.256E+02	.000E+00	.000E+00	.000E+00
53	19	.000E+00	.000E+00	-.286E+02	.000E+00	.000E+00	.000E+00
54	19	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
55	19	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
56	19	.000E+00	.000E+00	-.265E+02	.000E+00	.000E+00	.000E+00
48	20	.000E+00	.000E+00	-.800E+01	.000E+00	.000E+00	.000E+00
50	20	.000E+00	.000E+00	-.222E+02	.000E+00	.000E+00	.000E+00
51	20	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
52	20	.000E+00	.000E+00	-.256E+02	.000E+00	.000E+00	.000E+00

J O I N T L O A D S

JOINT	LOAD	FX	FY	FZ	MX	MY	MZ
53	20	.000E+00	.000E+00	-.286E+02	.000E+00	.000E+00	.000E+00
54	20	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
55	20	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
56	20	.000E+00	.000E+00	-.265E+02	.000E+00	.000E+00	.000E+00
2	21	.000E+00	.000E+00	-.229E+02	.000E+00	.000E+00	.000E+00
8	21	.000E+00	.000E+00	-.229E+02	.000E+00	.000E+00	.000E+00
3	21	.000E+00	.000E+00	-.229E+02	.000E+00	.000E+00	.000E+00
7	21	.000E+00	.000E+00	-.229E+02	.000E+00	.000E+00	.000E+00
4	21	.000E+00	.000E+00	-.297E+02	.000E+00	.000E+00	.000E+00
6	21	.000E+00	.000E+00	-.297E+02	.000E+00	.000E+00	.000E+00
5	21	.000E+00	.000E+00	-.914E+01	.000E+00	.000E+00	.000E+00
2	22	.000E+00	.000E+00	-.229E+02	.000E+00	.000E+00	.000E+00
8	22	.000E+00	.000E+00	-.229E+02	.000E+00	.000E+00	.000E+00
3	22	.000E+00	.000E+00	-.229E+02	.000E+00	.000E+00	.000E+00
7	22	.000E+00	.000E+00	-.229E+02	.000E+00	.000E+00	.000E+00
4	22	.000E+00	.000E+00	-.297E+02	.000E+00	.000E+00	.000E+00
6	22	.000E+00	.000E+00	-.297E+02	.000E+00	.000E+00	.000E+00
5	22	.000E+00	.000E+00	-.914E+01	.000E+00	.000E+00	.000E+00
24	23	.000E+00	.000E+00	-.373E+02	.000E+00	.000E+00	.000E+00
23	23	.000E+00	.000E+00	-.766E+01	.000E+00	.000E+00	.000E+00
22	23	.000E+00	.000E+00	-.264E+02	.000E+00	.000E+00	.000E+00
21	23	.000E+00	.000E+00	-.296E+02	.000E+00	.000E+00	.000E+00
24	24	.000E+00	.000E+00	-.877E+02	.000E+00	.000E+00	.000E+00
23	24	.000E+00	.000E+00	-.320E+02	.000E+00	.000E+00	.000E+00
22	24	.000E+00	.000E+00	-.244E+02	.000E+00	.000E+00	.000E+00
21	24	.000E+00	.000E+00	-.229E+02	.000E+00	.000E+00	.000E+00
21	25	.000E+00	.000E+00	-.469E+01	.000E+00	.000E+00	.000E+00
20	25	.000E+00	.000E+00	-.318E+02	.000E+00	.000E+00	.000E+00
19	25	.000E+00	.000E+00	-.189E+02	.000E+00	.000E+00	.000E+00
18	25	.000E+00	.000E+00	-.247E+02	.000E+00	.000E+00	.000E+00
21	26	.000E+00	.000E+00	-.469E+01	.000E+00	.000E+00	.000E+00
20	26	.000E+00	.000E+00	-.318E+02	.000E+00	.000E+00	.000E+00
19	26	.000E+00	.000E+00	-.189E+02	.000E+00	.000E+00	.000E+00
18	26	.000E+00	.000E+00	-.247E+02	.000E+00	.000E+00	.000E+00
10	27	.000E+00	.000E+00	-.142E+02	.000E+00	.000E+00	.000E+00
16	27	.000E+00	.000E+00	-.142E+02	.000E+00	.000E+00	.000E+00
11	27	.000E+00	.000E+00	-.323E+02	.000E+00	.000E+00	.000E+00
15	27	.000E+00	.000E+00	-.323E+02	.000E+00	.000E+00	.000E+00
12	27	.000E+00	.000E+00	-.357E+02	.000E+00	.000E+00	.000E+00
14	27	.000E+00	.000E+00	-.357E+02	.000E+00	.000E+00	.000E+00
13	27	.000E+00	.000E+00	-.153E+02	.000E+00	.000E+00	.000E+00
10	28	.000E+00	.000E+00	-.142E+02	.000E+00	.000E+00	.000E+00
16	28	.000E+00	.000E+00	-.142E+02	.000E+00	.000E+00	.000E+00
11	28	.000E+00	.000E+00	-.323E+02	.000E+00	.000E+00	.000E+00
15	28	.000E+00	.000E+00	-.323E+02	.000E+00	.000E+00	.000E+00
12	28	.000E+00	.000E+00	-.357E+02	.000E+00	.000E+00	.000E+00
14	28	.000E+00	.000E+00	-.357E+02	.000E+00	.000E+00	.000E+00
13	28	.000E+00	.000E+00	-.153E+02	.000E+00	.000E+00	.000E+00
32	29	.000E+00	.000E+00	-.373E+02	.000E+00	.000E+00	.000E+00
31	29	.000E+00	.000E+00	-.766E+01	.000E+00	.000E+00	.000E+00
30	29	.000E+00	.000E+00	-.264E+02	.000E+00	.000E+00	.000E+00
29	29	.000E+00	.000E+00	-.296E+02	.000E+00	.000E+00	.000E+00

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: T-m

J O I N T L O A D S

JOINT	LOAD	FX	FY	FZ	MX	MY	MZ
32	30	.000E+00	.000E+00	-.877E+02	.000E+00	.000E+00	.000E+00
31	30	.000E+00	.000E+00	-.320E+02	.000E+00	.000E+00	.000E+00
30	30	.000E+00	.000E+00	-.244E+02	.000E+00	.000E+00	.000E+00
29	30	.000E+00	.000E+00	-.229E+02	.000E+00	.000E+00	.000E+00
29	31	.000E+00	.000E+00	-.469E+01	.000E+00	.000E+00	.000E+00
28	31	.000E+00	.000E+00	-.318E+02	.000E+00	.000E+00	.000E+00
27	31	.000E+00	.000E+00	-.189E+02	.000E+00	.000E+00	.000E+00
26	31	.000E+00	.000E+00	-.247E+02	.000E+00	.000E+00	.000E+00
29	32	.000E+00	.000E+00	-.469E+01	.000E+00	.000E+00	.000E+00
28	32	.000E+00	.000E+00	-.318E+02	.000E+00	.000E+00	.000E+00
27	32	.000E+00	.000E+00	-.189E+02	.000E+00	.000E+00	.000E+00
26	32	.000E+00	.000E+00	-.247E+02	.000E+00	.000E+00	.000E+00
16	33	.000E+00	.000E+00	-.800E+01	.000E+00	.000E+00	.000E+00
15	33	.000E+00	.000E+00	-.222E+02	.000E+00	.000E+00	.000E+00
14	33	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
13	33	.000E+00	.000E+00	-.256E+02	.000E+00	.000E+00	.000E+00
12	33	.000E+00	.000E+00	-.286E+02	.000E+00	.000E+00	.000E+00
11	33	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
10	33	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
16	34	.000E+00	.000E+00	-.800E+01	.000E+00	.000E+00	.000E+00
15	34	.000E+00	.000E+00	-.222E+02	.000E+00	.000E+00	.000E+00
14	34	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
13	34	.000E+00	.000E+00	-.256E+02	.000E+00	.000E+00	.000E+00
12	34	.000E+00	.000E+00	-.286E+02	.000E+00	.000E+00	.000E+00
11	34	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00
10	34	.000E+00	.000E+00	-.325E+02	.000E+00	.000E+00	.000E+00

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: T-m

L O A D C O N D I T I O N C O M B I N A T I O N M U L T I P L I E R S

COMBINATION	CONDITION	FACTOR
1		
	1	1.000
	2	1.000
	3	1.000
	4	1.000
	5	1.000
	6	1.000
2		
	7	1.000
	8	1.000
	9	1.000
	10	1.000
	11	1.000
	12	1.000
3		
	7	1.000
	8	1.000
	9	1.000
	10	1.000
	13	1.000
	14	1.000
4		
	15	1.000
	16	1.000
	17	1.000
	18	1.000
	19	1.000
	20	1.000
5		
	21	1.000
	22	1.000
	23	1.000
	24	1.000
	25	1.000
	26	1.000
6		
	27	1.000
	28	1.000
	29	1.000
	30	1.000
	31	1.000
	32	1.000
7		
	23	1.000
	24	1.000
	25	1.000
	26	1.000
	33	1.000
	34	1.000

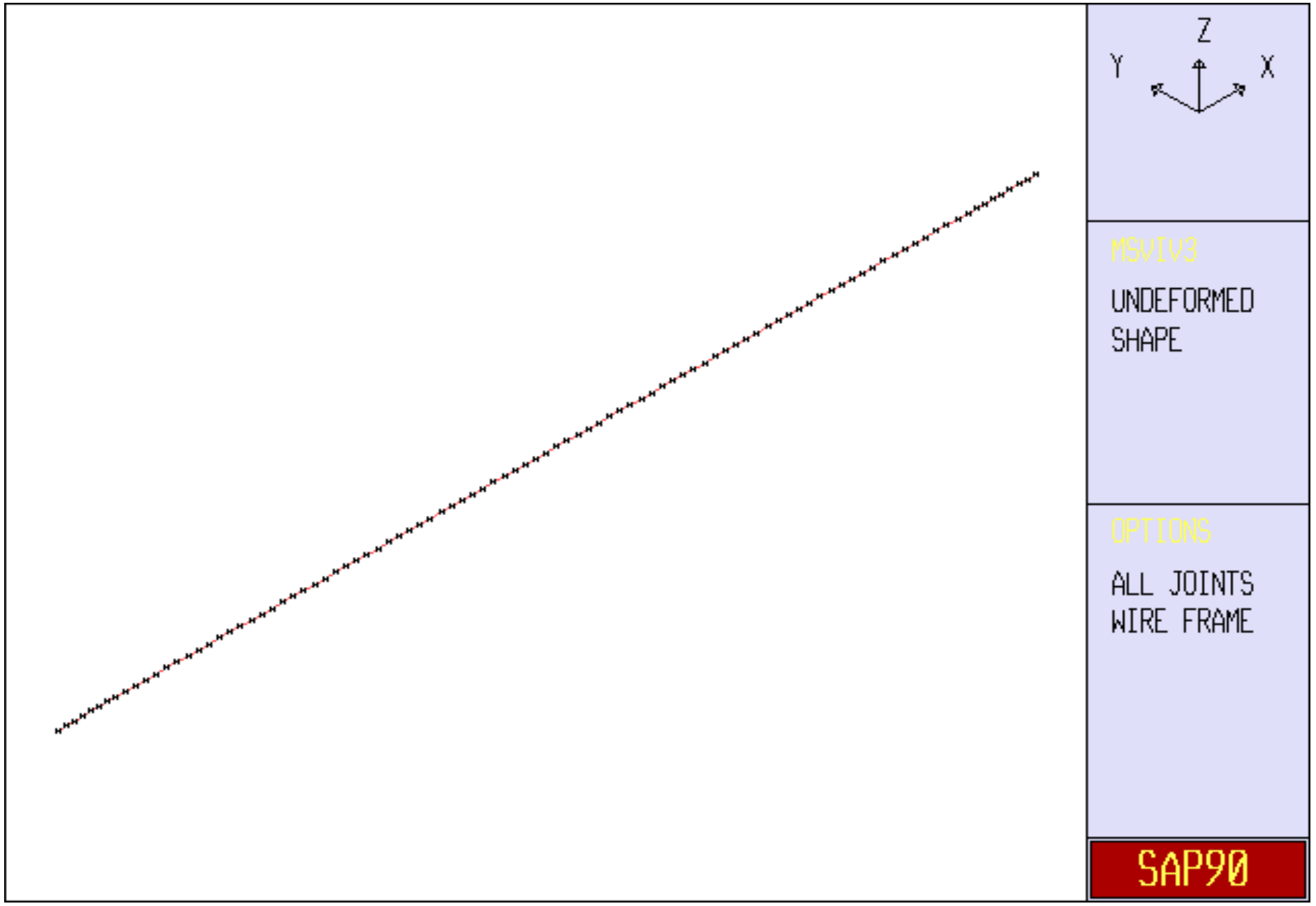
VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: T-m

J O I N T A N D E L E M E N T O U T P U T S E L E C T I O N

TYPE		FIRST ID	LAST ID	ID INC	CODE
5	(FRAME ELEMT)	4	60	8	1
5	(FRAME ELEMT)	5	61	8	1
5	(FRAME ELEMT)	16	17	1	1
5	(FRAME ELEMT)	48	49	1	1

O U T P U T F I L E S C R E A T E D B Y P R O G R A M

INPUT DATA ECHO	MSVIV3.SAP
SOLUTION ERRORS AND WARNINGS	MSVIV3.ERR
EQUATION NUMBERING	MSVIV3.EQN
DISPLACEMENTS AND REACTIONS	MSVIV3.SOL
FRAME ELEMENT FORCES	MSVIV3.F3F


Z
Y
X
MSVIV3
UNDEFORMED
SHAPE
OPTIONS
ALL JOINTS
WIRE FRAME
SAP90

Listado Output

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: T-m

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
4								
	1	.00			.00			
		.00	-14.44	-996.74				
		3.50	-14.44	-1047.30				
		3.50			.00			
	2	.00			.00			
		.00	34.69	364.28				
		3.50	34.69	485.70				
		3.50			.00			
	3	.00			.00			
		.00	24.64	258.71				
		3.50	24.64	344.95				
		3.50			.00			
	4	.00			.00			
		.00	.10	1.06				
		3.50	.10	1.41				
		3.50			.00			
	5	.00			.00			
		.00	4.30	-1058.80				
		3.50	4.30	-1043.74				
		3.50			.00			
	6	.00			.00			
		.00	31.62	331.98				
		3.50	31.62	442.64				
		3.50			.00			
	7	.00			.00			
		.00	22.44	235.58				
		3.50	22.44	314.10				
		3.50			.00			
5								
	1	.00			.00			
		.00	31.23	-1047.30				
		3.50	31.23	-938.01				
		3.50			.00			
	2	.00			.00			
		.00	34.69	485.70				
		3.50	34.69	607.13				
		3.50			.00			
	3	.00			.00			
		.00	24.64	344.95				
		3.50	24.64	431.19				

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		3.50			.00			
	4	.00			.00			
		.00	.10	1.41				
		3.50	.10	1.76				
		3.50			.00			
	5	.00			.00			
		.00	22.58	-1043.74				
		3.50	22.58	-964.70				
		3.50			.00			
	6	.00			.00			
		.00	31.62	442.64				
		3.50	31.62	553.29				
		3.50			.00			
	7	.00			.00			
		.00	22.44	314.10				
		3.50	22.44	392.63				
		3.50			.00			
12	----------							
	1	.00			.00			
		.00	8.38	459.73				
		4.38	8.38	496.39				
		4.38			.00			
	2	.00			.00			
		.00	-36.92	-1072.75				
		4.38	-36.92	-1234.30				
		4.38			.00			
	3	.00			.00			
		.00	.04	-869.07				
		4.38	.04	-868.88				
		4.38			.00			
	4	.00			.00			
		.00	-.37	-2.05				
		4.38	-.37	-3.67				
		4.38			.00			
	5	.00			.00			
		.00	7.72	477.70				
		4.38	7.72	511.48				
		4.38			.00			
	6	.00			.00			
		.00	-24.35	-1060.32				
		4.38	-24.35	-1166.85				

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		4.38			.00			
	7	.00			.00			
		.00	9.04	-855.20				
		4.38	9.04	-815.66				
		4.38			.00			
13	----------							
	1	.00			.00			
		.00	8.38	496.39				
		4.38	8.38	533.04				
		4.38			.00			
	2	.00			.00			
		.00	24.97	-1234.30				
		4.38	24.97	-1125.07				
		4.38			.00			
	3	.00			.00			
		.00	61.93	-868.88				
		4.38	61.93	-597.93				
		4.38			.00			
	4	.00			.00			
		.00	-.37	-3.67				
		4.38	-.37	-5.29				
		4.38			.00			
	5	.00			.00			
		.00	7.72	511.48				
		4.38	7.72	545.25				
		4.38			.00			
	6	.00			.00			
		.00	6.27	-1166.85				
		4.38	6.27	-1139.41				
		4.38			.00			
	7	.00			.00			
		.00	60.24	-815.66				
		4.38	60.24	-552.12				
		4.38			.00			
16	----------							
	1	.00			.00			
		.00	8.38	606.35				
		4.38	8.38	643.00				
		4.38			.00			
	2	.00			.00			
		.00	175.61	-185.63				

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: T-m

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		4.38	175.61	582.64				
		4.38			.00			
	3	.00			.00			
		.00	228.57	664.97				
		4.38	228.57	1664.98				
		4.38			.00			
	4	.00			.00			
		.00	-.37	-8.53				
		4.38	-.37	-10.15				
		4.38			.00			
	5	.00			.00			
		.00	7.72	612.80				
		4.38	7.72	646.58				
		4.38			.00			
	6	.00			.00			
		.00	170.61	-177.52				
		4.38	170.61	568.91				
		4.38			.00			
	7	.00			.00			
		.00	185.50	737.01				
		4.38	185.50	1548.56				
		4.38			.00			
17	----------							
	1	.00			.00			
		.00	-174.19	643.00				
		4.38	-174.19	-119.08				
		4.38			.00			
	2	.00			.00			
		.00	-.06	582.64				
		4.38	-.06	582.39				
		4.38			.00			
	3	.00			.00			
		.00	-224.63	1664.98				
		4.38	-224.63	682.22				
		4.38			.00			
	4	.00			.00			
		.00	1.37	-10.15				
		4.38	1.37	-4.16				
		4.38			.00			
	5	.00			.00			
		.00	-178.90	646.58				

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: T-m

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		4.38	-178.90	-136.13				
		4.38			.00			
	6	.00			.00			
		.00	.75	568.91				
		4.38	.75	572.17				
		4.38			.00			
	7	.00			.00			
		.00	-211.58	1548.56				
		4.38	-211.58	622.90				
		4.38			.00			
20	----------							
	1	.00			.00			
		.00	-9.85	-1112.29				
		4.38	-9.85	-1155.39				
		4.38			.00			
	2	.00			.00			
		.00	-.06	581.88				
		4.38	-.06	581.63				
		4.38			.00			
	3	.00			.00			
		.00	-64.17	-611.28				
		4.38	-64.17	-892.02				
		4.38			.00			
	4	.00			.00			
		.00	1.37	7.83				
		4.38	1.37	13.82				
		4.38			.00			
	5	.00			.00			
		.00	-28.26	-1104.43				
		4.38	-28.26	-1228.08				
		4.38			.00			
	6	.00			.00			
		.00	.75	578.69				
		4.38	.75	581.95				
		4.38			.00			
	7	.00			.00			
		.00	-60.94	-631.32				
		4.38	-60.94	-897.93				
		4.38			.00			
21	----------							
	1	.00			.00			

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		.00	20.77	-1155.39				
		4.38	20.77	-1064.52				
		4.38			.00			
	2	.00			.00			
		.00	-.06	581.63				
		4.38	-.06	581.37				
		4.38			.00			
	3	.00			.00			
		.00	-7.03	-892.02				
		4.38	-7.03	-922.78				
		4.38			.00			
	4	.00			.00			
		.00	1.37	13.82				
		4.38	1.37	19.82				
		4.38			.00			
	5	.00			.00			
		.00	33.63	-1228.08				
		4.38	33.63	-1080.96				
		4.38			.00			
	6	.00			.00			
		.00	.75	581.95				
		4.38	.75	585.21				
		4.38			.00			
	7	.00			.00			
		.00	.95	-897.93				
		4.38	.95	-893.77				
		4.38			.00			
28	----------							
	1	.00			.00			
		.00	-30.22	437.50				
		4.37	-30.22	305.30				
		4.37			.00			
	2	.00			.00			
		.00	-7.59	-1145.02				
		4.37	-7.59	-1178.23				
		4.37			.00			
	3	.00			.00			
		.00	-23.08	334.15				
		4.37	-23.08	233.18				
		4.37			.00			
	4	.00			.00			

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		.00	-5.11	-29.26				
		4.37	-5.11	-51.62				
		4.37			.00			
	5	.00			.00			
		.00	-33.33	482.51				
		4.37	-33.33	336.71				
		4.37			.00			
	6	.00			.00			
		.00	-26.39	-1131.49				
		4.37	-26.39	-1246.96				
		4.37			.00			
	7	.00			.00			
		.00	-24.57	355.74				
		4.37	-24.57	248.24				
		4.37			.00			
29	----------							
	1	.00			.00			
		.00	-30.22	305.30				
		4.38	-30.22	173.10				
		4.38			.00			
	2	.00			.00			
		.00	23.03	-1178.23				
		4.38	23.03	-1077.47				
		4.38			.00			
	3	.00			.00			
		.00	-23.08	233.18				
		4.38	-23.08	132.21				
		4.38			.00			
	4	.00			.00			
		.00	-5.11	-51.62				
		4.38	-5.11	-73.97				
		4.38			.00			
	5	.00			.00			
		.00	-33.33	336.71				
		4.38	-33.33	190.91				
		4.38			.00			
	6	.00			.00			
		.00	35.50	-1246.96				
		4.38	35.50	-1091.67				
		4.38			.00			
	7	.00			.00			

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		.00	-24.57	248.24				
		4.38	-24.57	140.75				
		4.38			.00			
36								
	1	.00			.00			
		.00	8.10	-117.23				
		4.38	8.10	-81.80				
		4.38			.00			
	2	.00			.00			
		.00	-30.82	446.27				
		4.38	-30.82	311.42				
		4.38			.00			
	3	.00			.00			
		.00	6.18	-89.53				
		4.38	6.18	-62.48				
		4.38			.00			
	4	.00			.00			
		.00	19.07	109.23				
		4.38	19.07	192.65				
		4.38			.00			
	5	.00			.00			
		.00	8.93	-129.29				
		4.38	8.93	-90.22				
		4.38			.00			
	6	.00			.00			
		.00	-33.83	489.76				
		4.38	-33.83	341.77				
		4.38			.00			
	7	.00			.00			
		.00	6.58	-95.32				
		4.38	6.58	-66.52				
		4.38			.00			
37								
	1	.00			.00			
		.00	8.10	-81.80				
		4.38	8.10	-46.38				
		4.38			.00			
	2	.00			.00			
		.00	-30.82	311.42				
		4.38	-30.82	176.57				
		4.38			.00			

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	3	.00			.00			
		.00	6.18	-62.48				
		4.38	6.18	-35.43				
		4.38			.00			
	4	.00			.00			
		.00	19.07	192.65				
		4.38	19.07	276.08				
		4.38			.00			
	5	.00			.00			
		.00	8.93	-90.22				
		4.38	8.93	-51.15				
		4.38			.00			
	6	.00			.00			
		.00	-33.83	341.77				
		4.38	-33.83	193.78				
		4.38			.00			
	7	.00			.00			
		.00	6.58	-66.52				
		4.38	6.58	-37.71				
		4.38			.00			
44	----------							
	1	.00			.00			
		.00	-2.17	31.41				
		4.38	-2.17	21.92				
		4.38			.00			
	2	.00			.00			
		.00	8.26	-119.58				
		4.38	8.26	-83.44				
		4.38			.00			
	3	.00			.00			
		.00	-1.66	23.99				
		4.38	-1.66	16.74				
		4.38			.00			
	4	.00			.00			
		.00	-6.50	-773.18				
		4.38	-6.50	-801.63				
		4.38			.00			
	5	.00			.00			
		.00	-2.39	34.64				
		4.38	-2.39	24.17				
		4.38			.00			

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
	6	.00			.00			
		.00	9.06	-131.23				
		4.38	9.06	-91.58				
		4.38			.00			
	7	.00			.00			
		.00	-1.76	25.54				
		4.38	-1.76	17.82				
		4.38			.00			
45	----------							
	1	.00			.00			
		.00	-2.17	21.92				
		4.38	-2.17	12.43				
		4.38			.00			
	2	.00			.00			
		.00	8.26	-83.44				
		4.38	8.26	-47.31				
		4.38			.00			
	3	.00			.00			
		.00	-1.66	16.74				
		4.38	-1.66	9.49				
		4.38			.00			
	4	.00			.00			
		.00	55.39	-801.63				
		4.38	55.39	-559.30				
		4.38			.00			
	5	.00			.00			
		.00	-2.39	24.17				
		4.38	-2.39	13.71				
		4.38			.00			
	6	.00			.00			
		.00	9.06	-91.58				
		4.38	9.06	-51.92				
		4.38			.00			
	7	.00			.00			
		.00	-1.76	17.82				
		4.38	-1.76	10.11				
		4.38			.00			
48	----------							
	1	.00			.00			
		.00	-2.17	-6.55				
		4.38	-2.17	-16.05				

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		4.38			.00			
	2	.00			.00			
		.00	8.26	24.95				
		4.38	8.26	61.09				
		4.38			.00			
	3	.00			.00			
		.00	-1.66	-5.01				
		4.38	-1.66	-12.26				
		4.38			.00			
	4	.00			.00			
		.00	222.03	646.34				
		4.38	222.03	1617.72				
		4.38			.00			
	5	.00			.00			
		.00	-2.39	-7.23				
		4.38	-2.39	-17.70				
		4.38			.00			
	6	.00			.00			
		.00	9.06	27.38				
		4.38	9.06	67.04				
		4.38			.00			
	7	.00			.00			
		.00	-1.76	-5.33				
		4.38	-1.76	-13.05				
		4.38			.00			
49	----------							
	1	.00			.00			
		.00	.58	-16.05				
		4.37	.58	-13.50				
		4.37			.00			
	2	.00			.00			
		.00	-2.21	61.09				
		4.37	-2.21	51.40				
		4.37			.00			
	3	.00			.00			
		.00	.44	-12.26				
		4.37	.44	-10.31				
		4.37			.00			
	4	.00			.00			
		.00	-222.92	1617.72				
		4.37	-222.92	642.45				

F R A M E E L E M E N T F O R C E S

ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		4.37			.00			
	5	.00			.00			
		.00	.64	-17.70				
		4.37	.64	-14.89				
		4.37			.00			
	6	.00			.00			
		.00	-2.43	67.04				
		4.37	-2.43	56.41				
		4.37			.00			
	7	.00			.00			
		.00	.47	-13.05				
		4.37	.47	-10.98				
		4.37			.00			
52	----------							
	1	.00			.00			
		.00	.58	-8.42				
		4.38	.58	-5.87				
		4.38			.00			
	2	.00			.00			
		.00	-2.21	32.04				
		4.38	-2.21	22.36				
		4.38			.00			
	3	.00			.00			
		.00	.44	-6.43				
		4.38	.44	-4.49				
		4.38			.00			
	4	.00			.00			
		.00	-62.46	-636.07				
		4.38	-62.46	-909.32				
		4.38			.00			
	5	.00			.00			
		.00	.64	-9.28				
		4.38	.64	-6.48				
		4.38			.00			
	6	.00			.00			
		.00	-2.43	35.16				
		4.38	-2.43	24.54				
		4.38			.00			
	7	.00			.00			
		.00	.47	-6.84				
		4.38	.47	-4.78				

F R A M E E L E M E N T F O R C E S

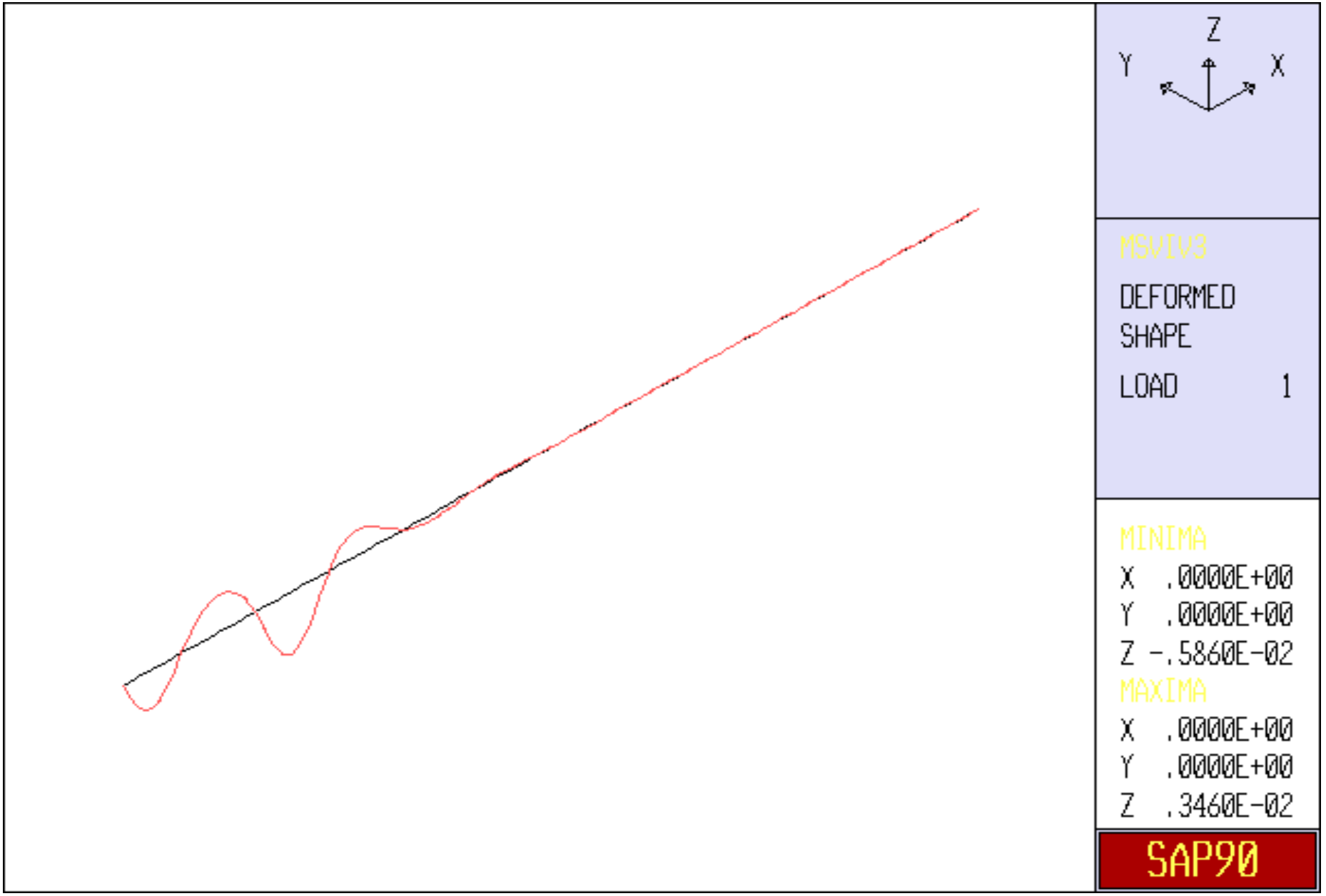
ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		4.38			.00			
53								
	1	.00			.00			
		.00	.58	-5.87				
		4.37	.58	-3.33				
		4.37			.00			
	2	.00			.00			
		.00	-2.21	22.36				
		4.37	-2.21	12.68				
		4.37			.00			
	3	.00			.00			
		.00	.44	-4.49				
		4.37	.44	-2.54				
		4.37			.00			
	4	.00			.00			
		.00	-5.32	-909.32				
		4.37	-5.32	-932.58				
		4.37			.00			
	5	.00			.00			
		.00	.64	-6.48				
		4.37	.64	-3.67				
		4.37			.00			
	6	.00			.00			
		.00	-2.43	24.54				
		4.37	-2.43	13.91				
		4.37			.00			
	7	.00			.00			
		.00	.47	-4.78				
		4.37	.47	-2.71				
		4.37			.00			
60								
	1	.00			.00			
		.00	-.16	2.26				
		4.37	-.16	1.57				
		4.37			.00			
	2	.00			.00			
		.00	.59	-8.59				
		4.37	.59	-5.99				
		4.37			.00			
	3	.00			.00			
		.00	-.12	1.72				

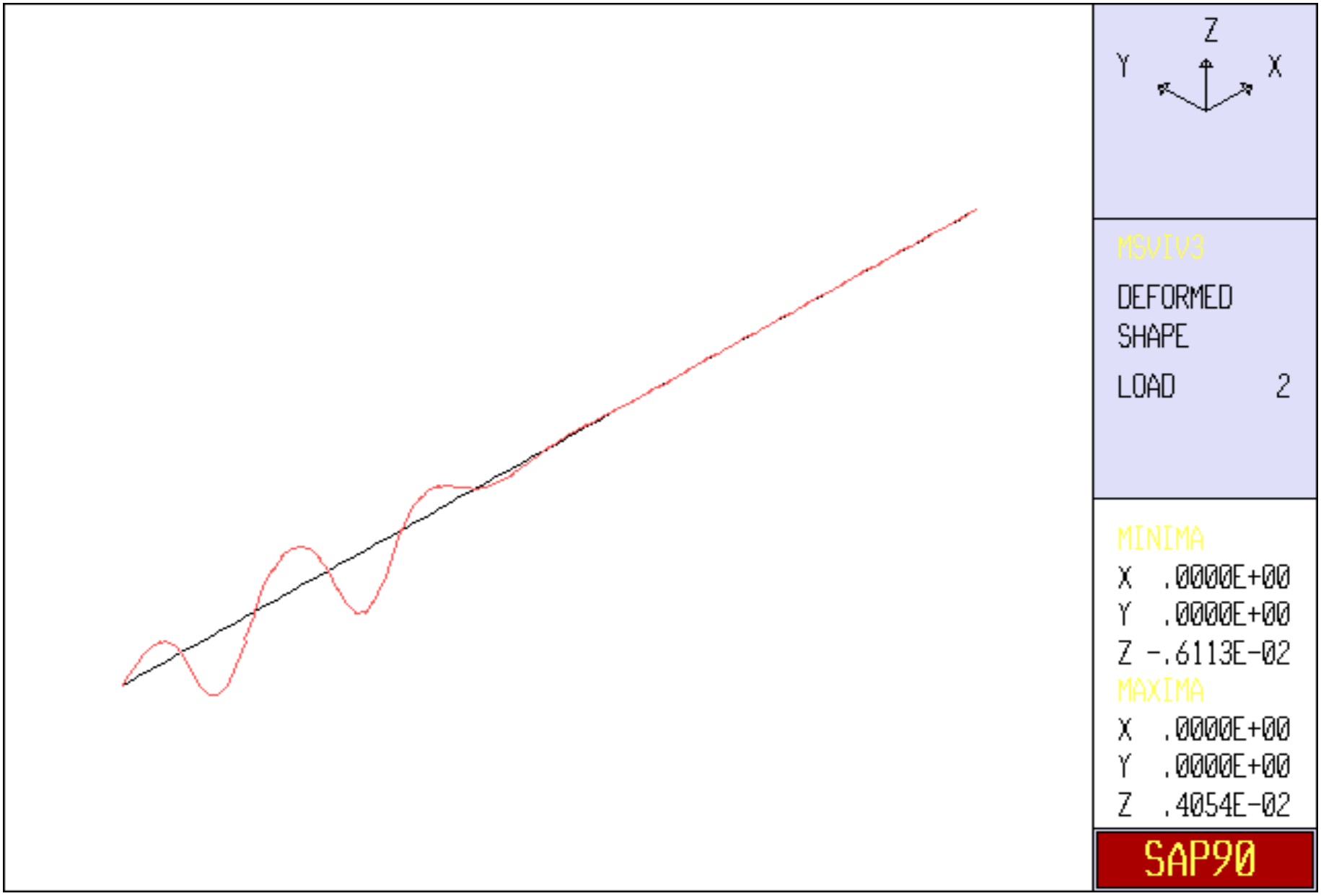
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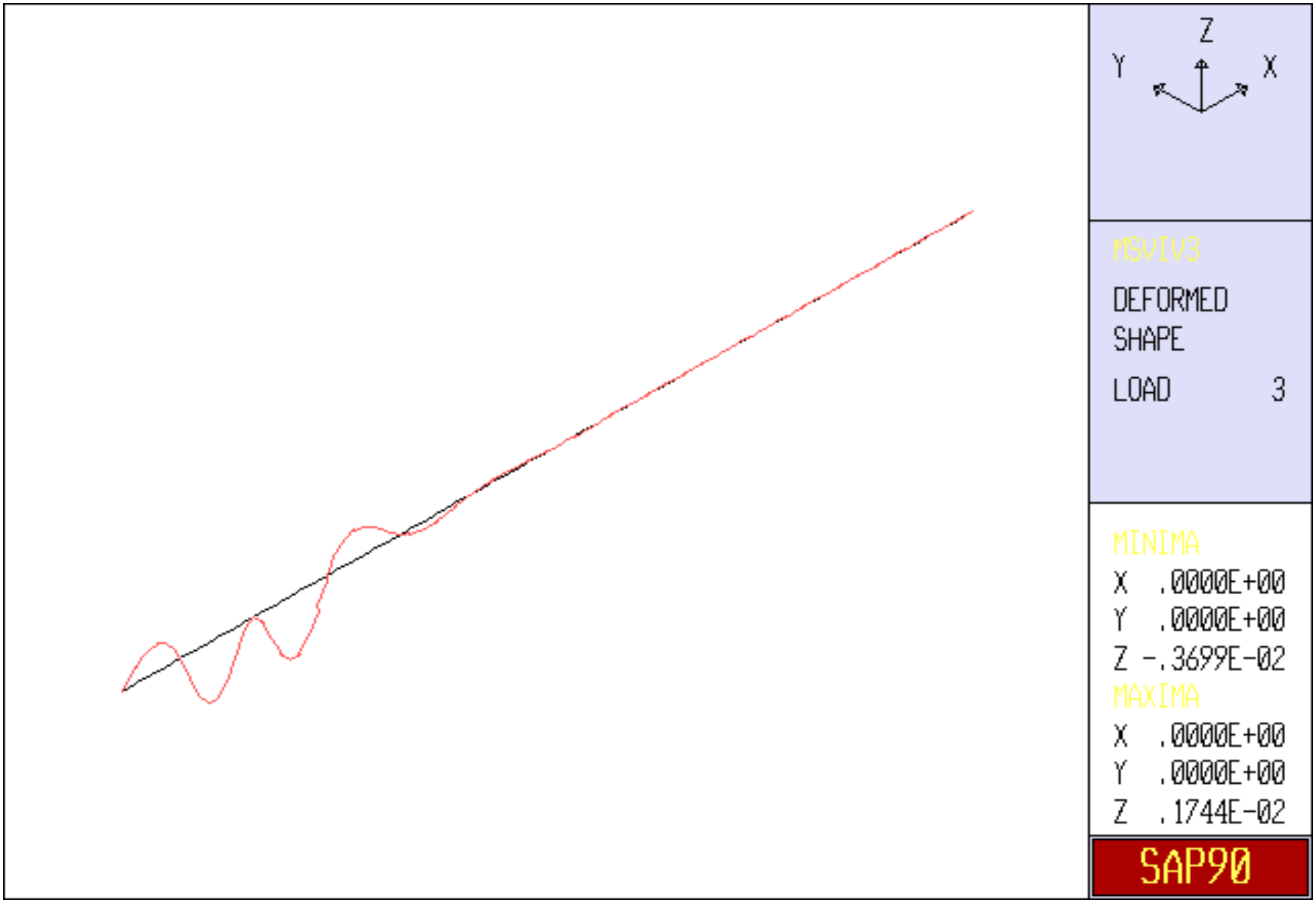
ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		4.37	-.12	1.20				
		4.37			.00			
	4	.00			.00			
		.00	-23.54	340.79				
		4.37	-23.54	237.81				
		4.37			.00			
	5	.00			.00			
		.00	-.17	2.49				
		4.37	-.17	1.74				
		4.37			.00			
	6	.00			.00			
		.00	.65	-9.42				
		4.37	.65	-6.57				
		4.37			.00			
	7	.00			.00			
		.00	-.13	1.83				
		4.37	-.13	1.28				
		4.37			.00			
61	----------							
	1	.00			.00			
		.00	-.16	1.57				
		4.38	-.16	.89				
		4.38			.00			
	2	.00			.00			
		.00	.59	-5.99				
		4.38	.59	-3.40				
		4.38			.00			
	3	.00			.00			
		.00	-.12	1.20				
		4.38	-.12	.68				
		4.38			.00			
	4	.00			.00			
		.00	-23.54	237.81				
		4.38	-23.54	134.83				
		4.38			.00			
	5	.00			.00			
		.00	-.17	1.74				
		4.38	-.17	.98				
		4.38			.00			
	6	.00			.00			
		.00	.65	-6.57				

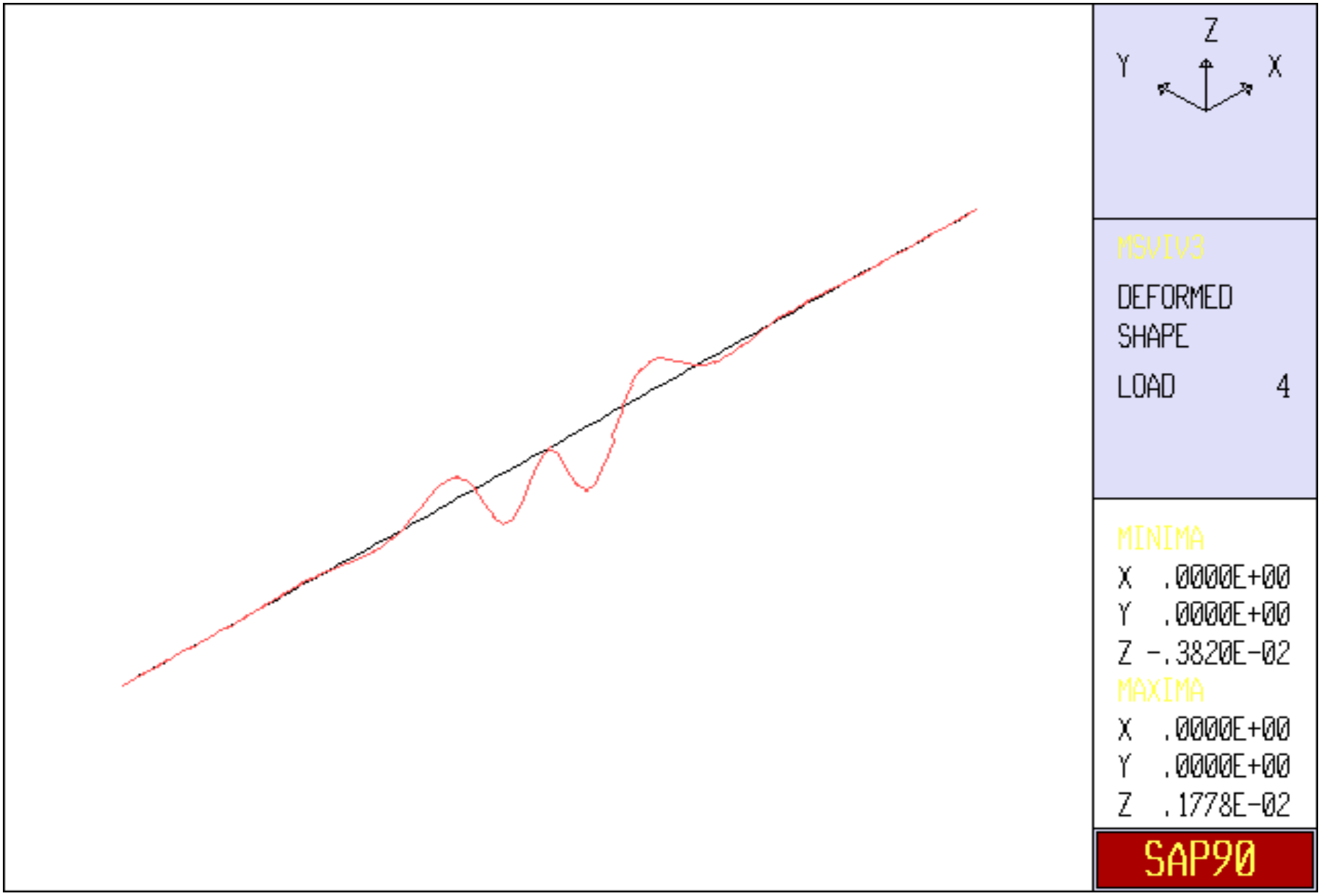
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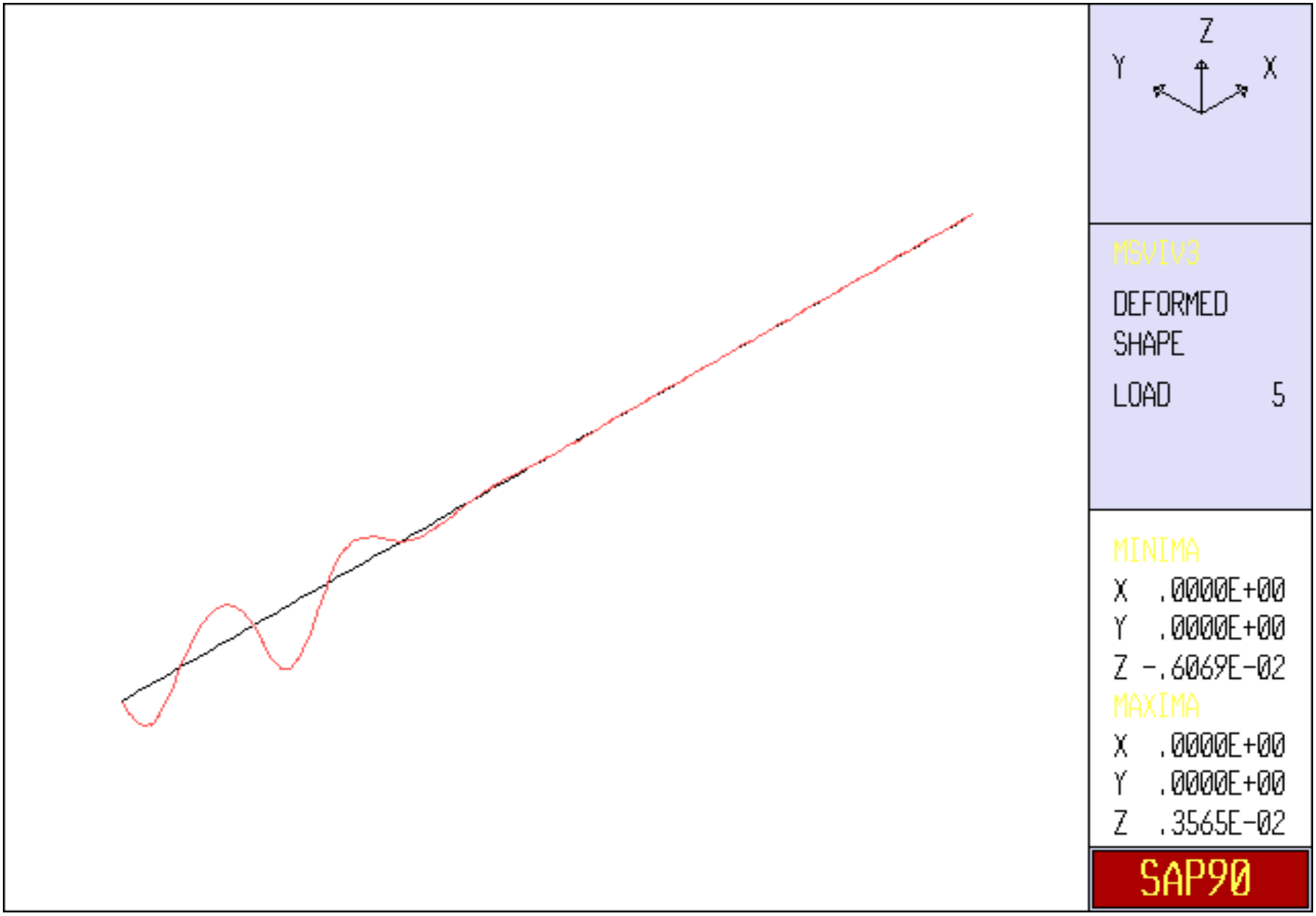
ELT ID	LOAD COMB	DIST ENDI	1-2 PLANE SHEAR	1-2 PLANE MOMENT	AXIAL FORCE	1-3 PLANE SHEAR	1-3 PLANE MOMENT	AXIAL TORQ
		4.38	.65	-3.73				
		4.38			.00			
7		.00			.00			
		.00	-.13	1.28				
		4.38	-.13	.73				
		4.38			.00			

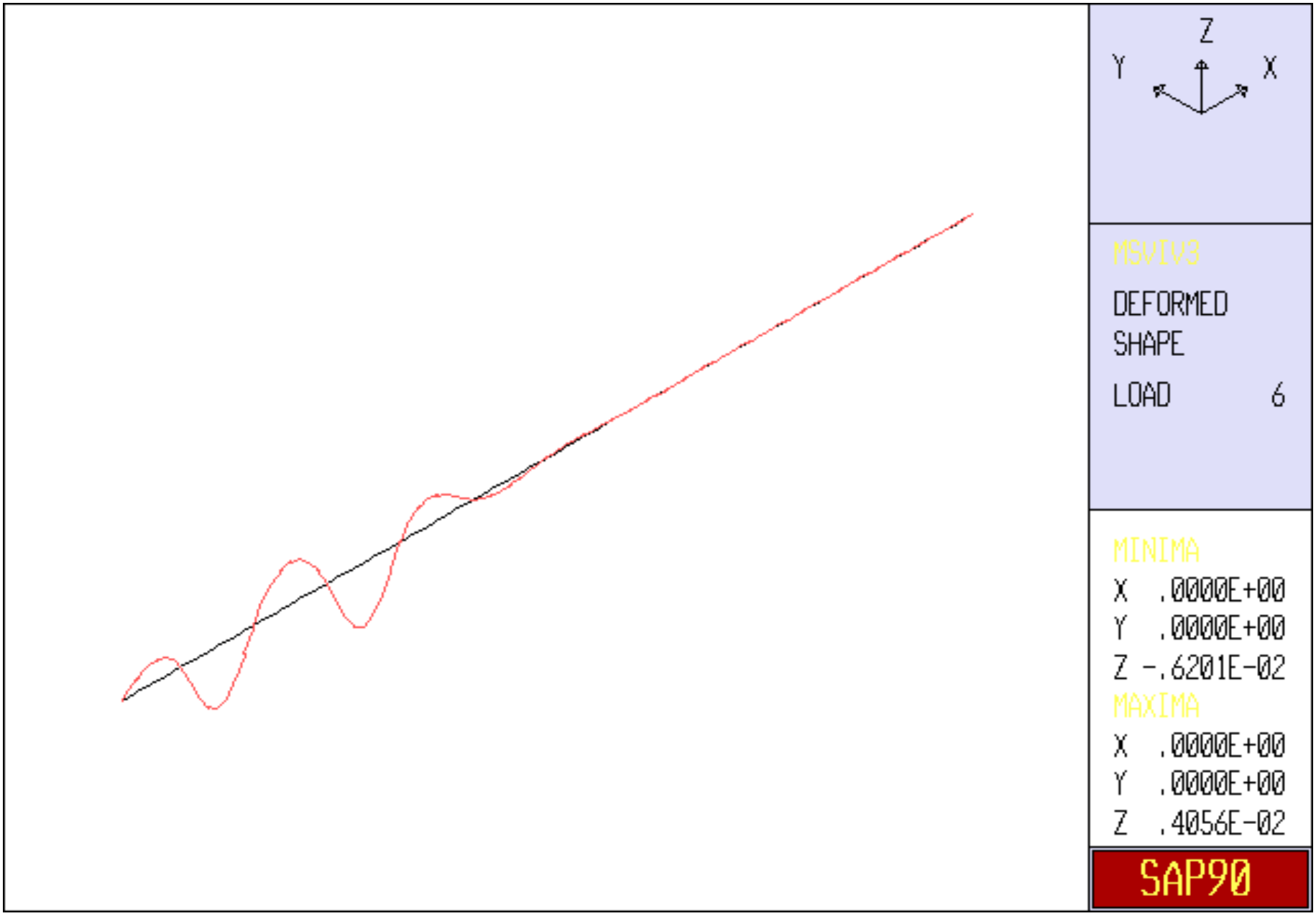

Z
Y
X
MSVIV3
DEFORMED
SHAPE
LOAD 1
MINIMA
X .0000E+00
Y .0000E+00
Z -.5860E-02
MAXIMA
X .0000E+00
Y .0000E+00
Z .3460E-02
SAP90

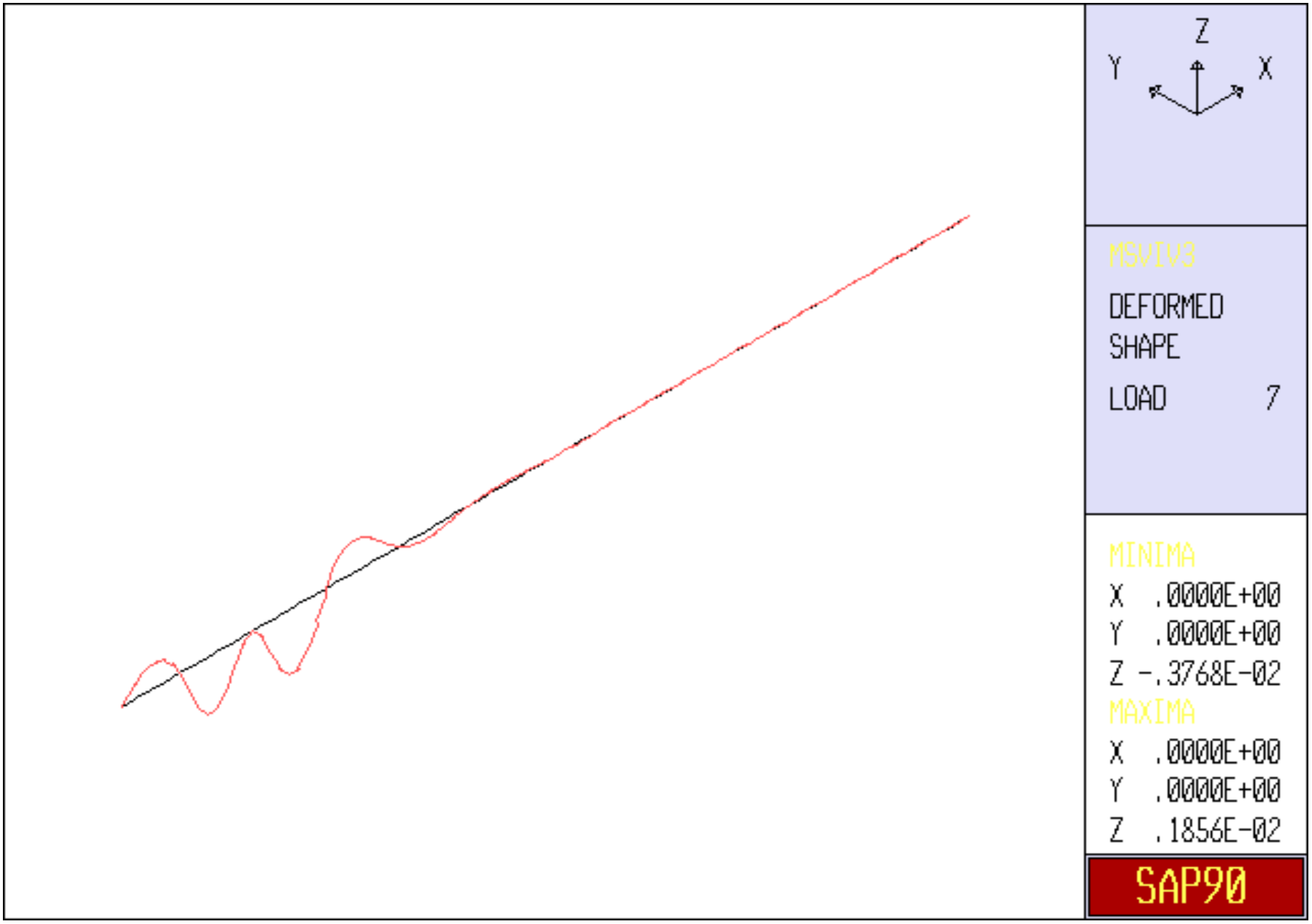

Z
Y
X
MSVIV3
DEFORMED
SHAPE
LOAD 2
MINIMA
X .0000E+00
Y .0000E+00
Z -.6113E-02
MAXIMA
X .0000E+00
Y .0000E+00
Z .4054E-02
SAP90


Z
Y
X
MSVIV3
DEFORMED
SHAPE
LOAD 3
MINIMA
X .0000E+00
Y .0000E+00
Z -.3699E-02
MAXIMA
X .0000E+00
Y .0000E+00
Z .1744E-02
SAP90


Z
Y
X
MSVIV3
DEFORMED
SHAPE
LOAD 4
MINIMA
X .0000E+00
Y .0000E+00
Z -.3820E-02
MAXIMA
X .0000E+00
Y .0000E+00
Z .1778E-02
SAP90


Z
Y
X
MSVIV3
DEFORMED
SHAPE
LOAD 5
MINIMA
X .0000E+00
Y .0000E+00
Z -.6069E-02
MAXIMA
X .0000E+00
Y .0000E+00
Z .3565E-02
SAP90


Z
Y
X
MSVIV3
DEFORMED
SHAPE
LOAD 6
MINIMA
X .0000E+00
Y .0000E+00
Z -.6201E-02
MAXIMA
X .0000E+00
Y .0000E+00
Z .4056E-02
SAP90


Z
Y
X
MSVIV3
DEFORMED
SHAPE
LOAD 7
MINIMA
X .0000E+00
Y .0000E+00
Z -.3768E-02
MAXIMA
X .0000E+00
Y .0000E+00
Z .1856E-02
SAP90

ANÁLISIS MODAL

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

E I G E N S Y S T E M P A R A M E T E R S

NUMBER OF EQUATIONS	=	181
NUMBER OF MASSES	=	84
NUMBER OF VALUES TO BE EVALUATED	=	3
SIZE OF SUBSPACE	=	7

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

E I G E N V A L U E S A N D F R E Q U E N C I E S

MODE NUMBER	EIGENVALUE (RAD/SEC)**2	CIRCULAR FREQ (RAD/SEC)	FREQUENCY (CYCLES/SEC)	PERIOD (SEC)
1	.659467E+03	.256801E+02	4.087113	.244671
2	.733792E+03	.270886E+02	4.311283	.231950
3	.858918E+03	.293073E+02	4.664403	.214390

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

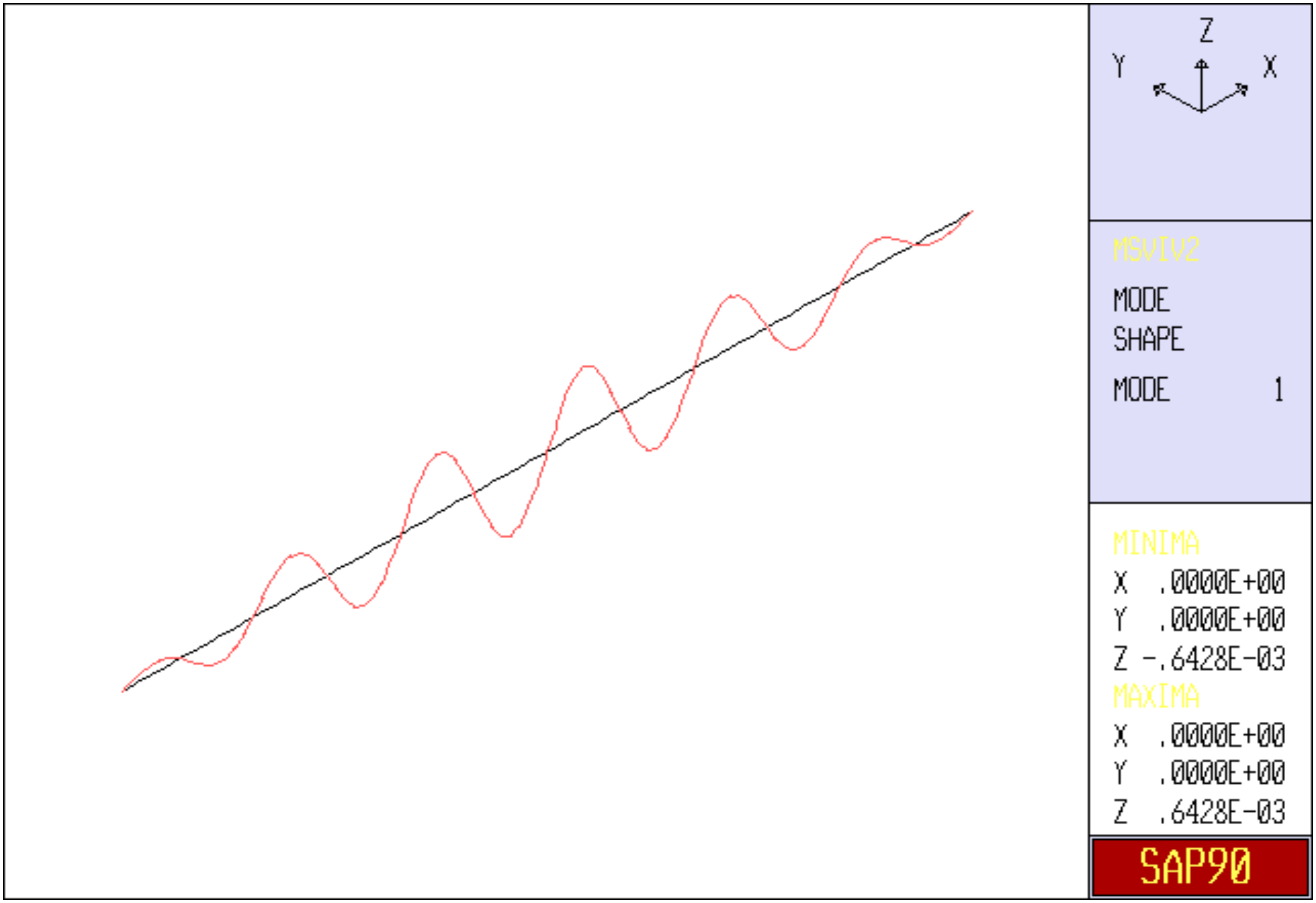
B A S E F O R C E R E A C T I O N F A C T O R S

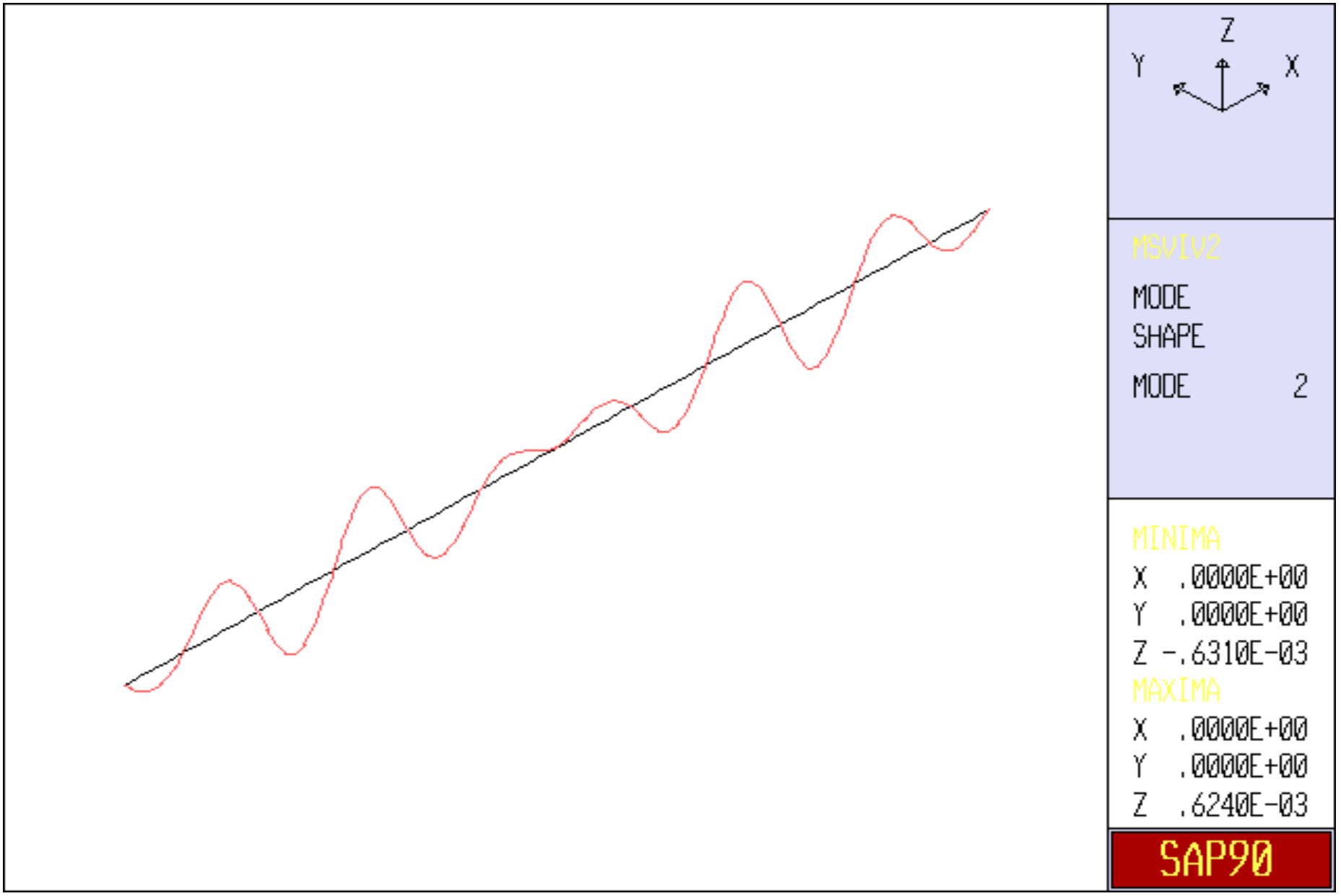
MODE #	PERIOD (sec)	X DIRECTION	Y DIRECTION	Z DIRECTION	X MOMENT	Y MOMENT	Z MOMENT
1	.245	.000E+00	.000E+00	.260E-01	.000E+00	-.563E+03	.000E+00
2	.232	.000E+00	.000E+00	.133E+02	.000E+00	-.268E+04	.000E+00
3	.214	.000E+00	.000E+00	.254E+00	.000E+00	.155E+04	.000E+00

VIADUCTOS E-1, E-2, E-3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

P A R T I C I P A T I N G M A S S - (percent)

MODE	X-DIR	Y-DIR	Z-DIR	X-SUM	Y-SUM	Z-SUM
1	00.000	00.000	.000	00.000	00.000	.000
2	00.000	00.000	.002	00.000	00.000	.002
3	00.000	00.000	.000	00.000	00.000	.002


Z
Y
X
MSVIV2
MODE
SHAPE
MODE 1
MINIMA
X .0000E+00
Y .0000E+00
Z -.6428E-03
MAXIMA
X .0000E+00
Y .0000E+00
Z .6428E-03
SAP90


Z
Y
X
MSVIV2
MODE
SHAPE
MODE 2
MINIMA
X .0000E+00
Y .0000E+00
Z -.6310E-03
MAXIMA
X .0000E+00
Y .0000E+00
Z .6240E-03
SAP90

MODELO TRIDIMENSIONAL DE EVALUACIÓN DE FLECHAS Y DEFORMACIONES UNITARIAS

Listado Input

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S Y S T E M D A T A

EXECUTION CODE - - - - - - - - - - - - - - - -	0
NUMBER OF LOAD CONDITIONS - - - - - - - - - -	38
STEADY STATE LOAD FREQUENCY - - - - - - - - -	.0000E+00
NUMBER OF EIGENVALUES - - - - - - - - - - - -	0
EIGEN CONVERGENCE TOLERANCE - - - - - - - - -	.1000E-03
EIGEN CUTOFF TIME PERIOD - - - - - - - - - -	.0000E+00

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
1	.000	.000	.000
2	3.500	.000	.000
3	7.000	.000	.000
4	10.500	.000	.000
5	14.000	.000	.000
6	17.500	.000	.000
7	21.000	.000	.000
8	24.500	.000	.000
9	28.000	.000	.000
10	32.375	.000	.000
11	36.750	.000	.000
12	41.125	.000	.000
13	45.500	.000	.000
14	49.875	.000	.000
15	54.250	.000	.000
16	58.625	.000	.000
17	63.000	.000	.000
18	67.375	.000	.000
19	71.750	.000	.000
20	76.125	.000	.000
21	80.500	.000	.000
22	84.875	.000	.000
23	89.250	.000	.000
24	93.625	.000	.000
25	98.000	.000	.000
26	102.375	.000	.000
27	106.750	.000	.000
28	111.125	.000	.000
29	115.500	.000	.000
30	119.875	.000	.000
31	124.250	.000	.000
32	128.625	.000	.000
33	133.000	.000	.000
34	137.375	.000	.000
35	141.750	.000	.000
36	146.125	.000	.000
37	150.500	.000	.000
38	154.875	.000	.000
39	159.250	.000	.000
40	163.625	.000	.000
41	168.000	.000	.000
42	172.375	.000	.000
43	176.750	.000	.000
44	181.125	.000	.000
45	185.500	.000	.000
46	189.875	.000	.000
47	194.250	.000	.000
48	198.625	.000	.000
49	203.000	.000	.000
50	207.375	.000	.000
51	211.750	.000	.000
52	216.125	.000	.000

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
53	220.500	.000	.000
54	224.875	.000	.000
55	229.250	.000	.000
56	233.625	.000	.000
57	238.000	.000	.000
58	242.375	.000	.000
59	246.750	.000	.000
60	251.125	.000	.000
61	255.500	.000	.000
62	259.875	.000	.000
63	264.250	.000	.000
64	268.625	.000	.000
65	273.000	.000	.000
66	277.375	.000	.000
67	281.750	.000	.000
68	286.125	.000	.000
69	290.500	.000	.000
70	294.875	.000	.000
71	299.250	.000	.000
72	303.625	.000	.000
73	308.000	.000	.000
74	312.375	.000	.000
75	316.750	.000	.000
76	321.125	.000	.000
77	325.500	.000	.000
78	329.875	.000	.000
79	334.250	.000	.000
80	338.625	.000	.000
81	343.000	.000	.000
82	347.375	.000	.000
83	351.750	.000	.000
84	356.125	.000	.000
85	360.500	.000	.000
86	364.875	.000	.000
87	369.250	.000	.000
88	373.625	.000	.000
89	378.000	.000	.000
90	382.375	.000	.000
91	386.750	.000	.000
92	391.125	.000	.000
93	395.500	.000	.000
94	399.875	.000	.000
95	404.250	.000	.000
96	408.625	.000	.000
97	413.000	.000	.000
98	416.500	.000	.000
99	420.000	.000	.000
100	423.500	.000	.000
101	427.000	.000	.000
102	430.500	.000	.000
103	434.000	.000	.000
104	437.500	.000	.000

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
105	441.000	.000	.000
106	.000	4.050	.000
107	3.500	4.050	.000
108	7.000	4.050	.000
109	10.500	4.050	.000
110	14.000	4.050	.000
111	17.500	4.050	.000
112	21.000	4.050	.000
113	24.500	4.050	.000
114	28.000	4.050	.000
115	32.375	4.050	.000
116	36.750	4.050	.000
117	41.125	4.050	.000
118	45.500	4.050	.000
119	49.875	4.050	.000
120	54.250	4.050	.000
121	58.625	4.050	.000
122	63.000	4.050	.000
123	67.375	4.050	.000
124	71.750	4.050	.000
125	76.125	4.050	.000
126	80.500	4.050	.000
127	84.875	4.050	.000
128	89.250	4.050	.000
129	93.625	4.050	.000
130	98.000	4.050	.000
131	102.375	4.050	.000
132	106.750	4.050	.000
133	111.125	4.050	.000
134	115.500	4.050	.000
135	119.875	4.050	.000
136	124.250	4.050	.000
137	128.625	4.050	.000
138	133.000	4.050	.000
139	137.375	4.050	.000
140	141.750	4.050	.000
141	146.125	4.050	.000
142	150.500	4.050	.000
143	154.875	4.050	.000
144	159.250	4.050	.000
145	163.625	4.050	.000
146	168.000	4.050	.000
147	172.375	4.050	.000
148	176.750	4.050	.000
149	181.125	4.050	.000
150	185.500	4.050	.000
151	189.875	4.050	.000
152	194.250	4.050	.000
153	198.625	4.050	.000
154	203.000	4.050	.000
155	207.375	4.050	.000
156	211.750	4.050	.000

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
157	216.125	4.050	.000
158	220.500	4.050	.000
159	224.875	4.050	.000
160	229.250	4.050	.000
161	233.625	4.050	.000
162	238.000	4.050	.000
163	242.375	4.050	.000
164	246.750	4.050	.000
165	251.125	4.050	.000
166	255.500	4.050	.000
167	259.875	4.050	.000
168	264.250	4.050	.000
169	268.625	4.050	.000
170	273.000	4.050	.000
171	277.375	4.050	.000
172	281.750	4.050	.000
173	286.125	4.050	.000
174	290.500	4.050	.000
175	294.875	4.050	.000
176	299.250	4.050	.000
177	303.625	4.050	.000
178	308.000	4.050	.000
179	312.375	4.050	.000
180	316.750	4.050	.000
181	321.125	4.050	.000
182	325.500	4.050	.000
183	329.875	4.050	.000
184	334.250	4.050	.000
185	338.625	4.050	.000
186	343.000	4.050	.000
187	347.375	4.050	.000
188	351.750	4.050	.000
189	356.125	4.050	.000
190	360.500	4.050	.000
191	364.875	4.050	.000
192	369.250	4.050	.000
193	373.625	4.050	.000
194	378.000	4.050	.000
195	382.375	4.050	.000
196	386.750	4.050	.000
197	391.125	4.050	.000
198	395.500	4.050	.000
199	399.875	4.050	.000
200	404.250	4.050	.000
201	408.625	4.050	.000
202	413.000	4.050	.000
203	416.500	4.050	.000
204	420.000	4.050	.000
205	423.500	4.050	.000
206	427.000	4.050	.000
207	430.500	4.050	.000
208	434.000	4.050	.000

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
209	437.500	4.050	.000
210	441.000	4.050	.000
211	.000	5.350	.000
212	3.500	5.350	.000
213	7.000	5.350	.000
214	10.500	5.350	.000
215	14.000	5.350	.000
216	17.500	5.350	.000
217	21.000	5.350	.000
218	24.500	5.350	.000
219	28.000	5.350	.000
220	32.375	5.350	.000
221	36.750	5.350	.000
222	41.125	5.350	.000
223	45.500	5.350	.000
224	49.875	5.350	.000
225	54.250	5.350	.000
226	58.625	5.350	.000
227	63.000	5.350	.000
228	67.375	5.350	.000
229	71.750	5.350	.000
230	76.125	5.350	.000
231	80.500	5.350	.000
232	84.875	5.350	.000
233	89.250	5.350	.000
234	93.625	5.350	.000
235	98.000	5.350	.000
236	102.375	5.350	.000
237	106.750	5.350	.000
238	111.125	5.350	.000
239	115.500	5.350	.000
240	119.875	5.350	.000
241	124.250	5.350	.000
242	128.625	5.350	.000
243	133.000	5.350	.000
244	137.375	5.350	.000
245	141.750	5.350	.000
246	146.125	5.350	.000
247	150.500	5.350	.000
248	154.875	5.350	.000
249	159.250	5.350	.000
250	163.625	5.350	.000
251	168.000	5.350	.000
252	172.375	5.350	.000
253	176.750	5.350	.000
254	181.125	5.350	.000
255	185.500	5.350	.000
256	189.875	5.350	.000
257	194.250	5.350	.000
258	198.625	5.350	.000
259	203.000	5.350	.000
260	207.375	5.350	.000

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
261	211.750	5.350	.000
262	216.125	5.350	.000
263	220.500	5.350	.000
264	224.875	5.350	.000
265	229.250	5.350	.000
266	233.625	5.350	.000
267	238.000	5.350	.000
268	242.375	5.350	.000
269	246.750	5.350	.000
270	251.125	5.350	.000
271	255.500	5.350	.000
272	259.875	5.350	.000
273	264.250	5.350	.000
274	268.625	5.350	.000
275	273.000	5.350	.000
276	277.375	5.350	.000
277	281.750	5.350	.000
278	286.125	5.350	.000
279	290.500	5.350	.000
280	294.875	5.350	.000
281	299.250	5.350	.000
282	303.625	5.350	.000
283	308.000	5.350	.000
284	312.375	5.350	.000
285	316.750	5.350	.000
286	321.125	5.350	.000
287	325.500	5.350	.000
288	329.875	5.350	.000
289	334.250	5.350	.000
290	338.625	5.350	.000
291	343.000	5.350	.000
292	347.375	5.350	.000
293	351.750	5.350	.000
294	356.125	5.350	.000
295	360.500	5.350	.000
296	364.875	5.350	.000
297	369.250	5.350	.000
298	373.625	5.350	.000
299	378.000	5.350	.000
300	382.375	5.350	.000
301	386.750	5.350	.000
302	391.125	5.350	.000
303	395.500	5.350	.000
304	399.875	5.350	.000
305	404.250	5.350	.000
306	408.625	5.350	.000
307	413.000	5.350	.000
308	416.500	5.350	.000
309	420.000	5.350	.000
310	423.500	5.350	.000
311	427.000	5.350	.000
312	430.500	5.350	.000

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
313	434.000	5.350	.000
314	437.500	5.350	.000
315	441.000	5.350	.000
316	.000	6.850	.000
317	3.500	6.850	.000
318	7.000	6.850	.000
319	10.500	6.850	.000
320	14.000	6.850	.000
321	17.500	6.850	.000
322	21.000	6.850	.000
323	24.500	6.850	.000
324	28.000	6.850	.000
325	32.375	6.850	.000
326	36.750	6.850	.000
327	41.125	6.850	.000
328	45.500	6.850	.000
329	49.875	6.850	.000
330	54.250	6.850	.000
331	58.625	6.850	.000
332	63.000	6.850	.000
333	67.375	6.850	.000
334	71.750	6.850	.000
335	76.125	6.850	.000
336	80.500	6.850	.000
337	84.875	6.850	.000
338	89.250	6.850	.000
339	93.625	6.850	.000
340	98.000	6.850	.000
341	102.375	6.850	.000
342	106.750	6.850	.000
343	111.125	6.850	.000
344	115.500	6.850	.000
345	119.875	6.850	.000
346	124.250	6.850	.000
347	128.625	6.850	.000
348	133.000	6.850	.000
349	137.375	6.850	.000
350	141.750	6.850	.000
351	146.125	6.850	.000
352	150.500	6.850	.000
353	154.875	6.850	.000
354	159.250	6.850	.000
355	163.625	6.850	.000
356	168.000	6.850	.000
357	172.375	6.850	.000
358	176.750	6.850	.000
359	181.125	6.850	.000
360	185.500	6.850	.000
361	189.875	6.850	.000
362	194.250	6.850	.000
363	198.625	6.850	.000
364	203.000	6.850	.000

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
365	207.375	6.850	.000
366	211.750	6.850	.000
367	216.125	6.850	.000
368	220.500	6.850	.000
369	224.875	6.850	.000
370	229.250	6.850	.000
371	233.625	6.850	.000
372	238.000	6.850	.000
373	242.375	6.850	.000
374	246.750	6.850	.000
375	251.125	6.850	.000
376	255.500	6.850	.000
377	259.875	6.850	.000
378	264.250	6.850	.000
379	268.625	6.850	.000
380	273.000	6.850	.000
381	277.375	6.850	.000
382	281.750	6.850	.000
383	286.125	6.850	.000
384	290.500	6.850	.000
385	294.875	6.850	.000
386	299.250	6.850	.000
387	303.625	6.850	.000
388	308.000	6.850	.000
389	312.375	6.850	.000
390	316.750	6.850	.000
391	321.125	6.850	.000
392	325.500	6.850	.000
393	329.875	6.850	.000
394	334.250	6.850	.000
395	338.625	6.850	.000
396	343.000	6.850	.000
397	347.375	6.850	.000
398	351.750	6.850	.000
399	356.125	6.850	.000
400	360.500	6.850	.000
401	364.875	6.850	.000
402	369.250	6.850	.000
403	373.625	6.850	.000
404	378.000	6.850	.000
405	382.375	6.850	.000
406	386.750	6.850	.000
407	391.125	6.850	.000
408	395.500	6.850	.000
409	399.875	6.850	.000
410	404.250	6.850	.000
411	408.625	6.850	.000
412	413.000	6.850	.000
413	416.500	6.850	.000
414	420.000	6.850	.000
415	423.500	6.850	.000
416	427.000	6.850	.000

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
417	430.500	6.850	.000
418	434.000	6.850	.000
419	437.500	6.850	.000
420	441.000	6.850	.000
421	.000	8.350	.000
422	3.500	8.350	.000
423	7.000	8.350	.000
424	10.500	8.350	.000
425	14.000	8.350	.000
426	17.500	8.350	.000
427	21.000	8.350	.000
428	24.500	8.350	.000
429	28.000	8.350	.000
430	32.375	8.350	.000
431	36.750	8.350	.000
432	41.125	8.350	.000
433	45.500	8.350	.000
434	49.875	8.350	.000
435	54.250	8.350	.000
436	58.625	8.350	.000
437	63.000	8.350	.000
438	67.375	8.350	.000
439	71.750	8.350	.000
440	76.125	8.350	.000
441	80.500	8.350	.000
442	84.875	8.350	.000
443	89.250	8.350	.000
444	93.625	8.350	.000
445	98.000	8.350	.000
446	102.375	8.350	.000
447	106.750	8.350	.000
448	111.125	8.350	.000
449	115.500	8.350	.000
450	119.875	8.350	.000
451	124.250	8.350	.000
452	128.625	8.350	.000
453	133.000	8.350	.000
454	137.375	8.350	.000
455	141.750	8.350	.000
456	146.125	8.350	.000
457	150.500	8.350	.000
458	154.875	8.350	.000
459	159.250	8.350	.000
460	163.625	8.350	.000
461	168.000	8.350	.000
462	172.375	8.350	.000
463	176.750	8.350	.000
464	181.125	8.350	.000
465	185.500	8.350	.000
466	189.875	8.350	.000
467	194.250	8.350	.000
468	198.625	8.350	.000

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
469	203.000	8.350	.000
470	207.375	8.350	.000
471	211.750	8.350	.000
472	216.125	8.350	.000
473	220.500	8.350	.000
474	224.875	8.350	.000
475	229.250	8.350	.000
476	233.625	8.350	.000
477	238.000	8.350	.000
478	242.375	8.350	.000
479	246.750	8.350	.000
480	251.125	8.350	.000
481	255.500	8.350	.000
482	259.875	8.350	.000
483	264.250	8.350	.000
484	268.625	8.350	.000
485	273.000	8.350	.000
486	277.375	8.350	.000
487	281.750	8.350	.000
488	286.125	8.350	.000
489	290.500	8.350	.000
490	294.875	8.350	.000
491	299.250	8.350	.000
492	303.625	8.350	.000
493	308.000	8.350	.000
494	312.375	8.350	.000
495	316.750	8.350	.000
496	321.125	8.350	.000
497	325.500	8.350	.000
498	329.875	8.350	.000
499	334.250	8.350	.000
500	338.625	8.350	.000
501	343.000	8.350	.000
502	347.375	8.350	.000
503	351.750	8.350	.000
504	356.125	8.350	.000
505	360.500	8.350	.000
506	364.875	8.350	.000
507	369.250	8.350	.000
508	373.625	8.350	.000
509	378.000	8.350	.000
510	382.375	8.350	.000
511	386.750	8.350	.000
512	391.125	8.350	.000
513	395.500	8.350	.000
514	399.875	8.350	.000
515	404.250	8.350	.000
516	408.625	8.350	.000
517	413.000	8.350	.000
518	416.500	8.350	.000
519	420.000	8.350	.000
520	423.500	8.350	.000

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
521	427.000	8.350	.000
522	430.500	8.350	.000
523	434.000	8.350	.000
524	437.500	8.350	.000
525	441.000	8.350	.000
526	.000	9.650	.000
527	3.500	9.650	.000
528	7.000	9.650	.000
529	10.500	9.650	.000
530	14.000	9.650	.000
531	17.500	9.650	.000
532	21.000	9.650	.000
533	24.500	9.650	.000
534	28.000	9.650	.000
535	32.375	9.650	.000
536	36.750	9.650	.000
537	41.125	9.650	.000
538	45.500	9.650	.000
539	49.875	9.650	.000
540	54.250	9.650	.000
541	58.625	9.650	.000
542	63.000	9.650	.000
543	67.375	9.650	.000
544	71.750	9.650	.000
545	76.125	9.650	.000
546	80.500	9.650	.000
547	84.875	9.650	.000
548	89.250	9.650	.000
549	93.625	9.650	.000
550	98.000	9.650	.000
551	102.375	9.650	.000
552	106.750	9.650	.000
553	111.125	9.650	.000
554	115.500	9.650	.000
555	119.875	9.650	.000
556	124.250	9.650	.000
557	128.625	9.650	.000
558	133.000	9.650	.000
559	137.375	9.650	.000
560	141.750	9.650	.000
561	146.125	9.650	.000
562	150.500	9.650	.000
563	154.875	9.650	.000
564	159.250	9.650	.000
565	163.625	9.650	.000
566	168.000	9.650	.000
567	172.375	9.650	.000
568	176.750	9.650	.000
569	181.125	9.650	.000
570	185.500	9.650	.000
571	189.875	9.650	.000
572	194.250	9.650	.000

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
573	198.625	9.650	.000
574	203.000	9.650	.000
575	207.375	9.650	.000
576	211.750	9.650	.000
577	216.125	9.650	.000
578	220.500	9.650	.000
579	224.875	9.650	.000
580	229.250	9.650	.000
581	233.625	9.650	.000
582	238.000	9.650	.000
583	242.375	9.650	.000
584	246.750	9.650	.000
585	251.125	9.650	.000
586	255.500	9.650	.000
587	259.875	9.650	.000
588	264.250	9.650	.000
589	268.625	9.650	.000
590	273.000	9.650	.000
591	277.375	9.650	.000
592	281.750	9.650	.000
593	286.125	9.650	.000
594	290.500	9.650	.000
595	294.875	9.650	.000
596	299.250	9.650	.000
597	303.625	9.650	.000
598	308.000	9.650	.000
599	312.375	9.650	.000
600	316.750	9.650	.000
601	321.125	9.650	.000
602	325.500	9.650	.000
603	329.875	9.650	.000
604	334.250	9.650	.000
605	338.625	9.650	.000
606	343.000	9.650	.000
607	347.375	9.650	.000
608	351.750	9.650	.000
609	356.125	9.650	.000
610	360.500	9.650	.000
611	364.875	9.650	.000
612	369.250	9.650	.000
613	373.625	9.650	.000
614	378.000	9.650	.000
615	382.375	9.650	.000
616	386.750	9.650	.000
617	391.125	9.650	.000
618	395.500	9.650	.000
619	399.875	9.650	.000
620	404.250	9.650	.000
621	408.625	9.650	.000
622	413.000	9.650	.000
623	416.500	9.650	.000
624	420.000	9.650	.000

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
625	423.500	9.650	.000
626	427.000	9.650	.000
627	430.500	9.650	.000
628	434.000	9.650	.000
629	437.500	9.650	.000
630	441.000	9.650	.000
631	.000	13.700	.000
632	3.500	13.700	.000
633	7.000	13.700	.000
634	10.500	13.700	.000
635	14.000	13.700	.000
636	17.500	13.700	.000
637	21.000	13.700	.000
638	24.500	13.700	.000
639	28.000	13.700	.000
640	32.375	13.700	.000
641	36.750	13.700	.000
642	41.125	13.700	.000
643	45.500	13.700	.000
644	49.875	13.700	.000
645	54.250	13.700	.000
646	58.625	13.700	.000
647	63.000	13.700	.000
648	67.375	13.700	.000
649	71.750	13.700	.000
650	76.125	13.700	.000
651	80.500	13.700	.000
652	84.875	13.700	.000
653	89.250	13.700	.000
654	93.625	13.700	.000
655	98.000	13.700	.000
656	102.375	13.700	.000
657	106.750	13.700	.000
658	111.125	13.700	.000
659	115.500	13.700	.000
660	119.875	13.700	.000
661	124.250	13.700	.000
662	128.625	13.700	.000
663	133.000	13.700	.000
664	137.375	13.700	.000
665	141.750	13.700	.000
666	146.125	13.700	.000
667	150.500	13.700	.000
668	154.875	13.700	.000
669	159.250	13.700	.000
670	163.625	13.700	.000
671	168.000	13.700	.000
672	172.375	13.700	.000
673	176.750	13.700	.000
674	181.125	13.700	.000
675	185.500	13.700	.000
676	189.875	13.700	.000

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
677	194.250	13.700	.000
678	198.625	13.700	.000
679	203.000	13.700	.000
680	207.375	13.700	.000
681	211.750	13.700	.000
682	216.125	13.700	.000
683	220.500	13.700	.000
684	224.875	13.700	.000
685	229.250	13.700	.000
686	233.625	13.700	.000
687	238.000	13.700	.000
688	242.375	13.700	.000
689	246.750	13.700	.000
690	251.125	13.700	.000
691	255.500	13.700	.000
692	259.875	13.700	.000
693	264.250	13.700	.000
694	268.625	13.700	.000
695	273.000	13.700	.000
696	277.375	13.700	.000
697	281.750	13.700	.000
698	286.125	13.700	.000
699	290.500	13.700	.000
700	294.875	13.700	.000
701	299.250	13.700	.000
702	303.625	13.700	.000
703	308.000	13.700	.000
704	312.375	13.700	.000
705	316.750	13.700	.000
706	321.125	13.700	.000
707	325.500	13.700	.000
708	329.875	13.700	.000
709	334.250	13.700	.000
710	338.625	13.700	.000
711	343.000	13.700	.000
712	347.375	13.700	.000
713	351.750	13.700	.000
714	356.125	13.700	.000
715	360.500	13.700	.000
716	364.875	13.700	.000
717	369.250	13.700	.000
718	373.625	13.700	.000
719	378.000	13.700	.000
720	382.375	13.700	.000
721	386.750	13.700	.000
722	391.125	13.700	.000
723	395.500	13.700	.000
724	399.875	13.700	.000
725	404.250	13.700	.000
726	408.625	13.700	.000
727	413.000	13.700	.000
728	416.500	13.700	.000

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
729	420.000	13.700	.000
730	423.500	13.700	.000
731	427.000	13.700	.000
732	430.500	13.700	.000
733	434.000	13.700	.000
734	437.500	13.700	.000
735	441.000	13.700	.000
736	.000	4.250	-2.100
737	3.500	4.250	-2.100
738	7.000	4.250	-2.100
739	10.500	4.250	-2.100
740	14.000	4.250	-2.100
741	17.500	4.250	-2.100
742	21.000	4.250	-2.100
743	24.500	4.250	-2.100
744	28.000	4.250	-2.100
745	32.375	4.250	-2.100
746	36.750	4.250	-2.100
747	41.125	4.250	-2.100
748	45.500	4.250	-2.100
749	49.875	4.250	-2.100
750	54.250	4.250	-2.100
751	58.625	4.250	-2.100
752	63.000	4.250	-2.100
753	67.375	4.250	-2.100
754	71.750	4.250	-2.100
755	76.125	4.250	-2.100
756	80.500	4.250	-2.100
757	84.875	4.250	-2.100
758	89.250	4.250	-2.100
759	93.625	4.250	-2.100
760	98.000	4.250	-2.100
761	102.375	4.250	-2.100
762	106.750	4.250	-2.100
763	111.125	4.250	-2.100
764	115.500	4.250	-2.100
765	119.875	4.250	-2.100
766	124.250	4.250	-2.100
767	128.625	4.250	-2.100
768	133.000	4.250	-2.100
769	137.375	4.250	-2.100
770	141.750	4.250	-2.100
771	146.125	4.250	-2.100
772	150.500	4.250	-2.100
773	154.875	4.250	-2.100
774	159.250	4.250	-2.100
775	163.625	4.250	-2.100
776	168.000	4.250	-2.100
777	172.375	4.250	-2.100
778	176.750	4.250	-2.100
779	181.125	4.250	-2.100
780	185.500	4.250	-2.100

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
781	189.875	4.250	-2.100
782	194.250	4.250	-2.100
783	198.625	4.250	-2.100
784	203.000	4.250	-2.100
785	207.375	4.250	-2.100
786	211.750	4.250	-2.100
787	216.125	4.250	-2.100
788	220.500	4.250	-2.100
789	224.875	4.250	-2.100
790	229.250	4.250	-2.100
791	233.625	4.250	-2.100
792	238.000	4.250	-2.100
793	242.375	4.250	-2.100
794	246.750	4.250	-2.100
795	251.125	4.250	-2.100
796	255.500	4.250	-2.100
797	259.875	4.250	-2.100
798	264.250	4.250	-2.100
799	268.625	4.250	-2.100
800	273.000	4.250	-2.100
801	277.375	4.250	-2.100
802	281.750	4.250	-2.100
803	286.125	4.250	-2.100
804	290.500	4.250	-2.100
805	294.875	4.250	-2.100
806	299.250	4.250	-2.100
807	303.625	4.250	-2.100
808	308.000	4.250	-2.100
809	312.375	4.250	-2.100
810	316.750	4.250	-2.100
811	321.125	4.250	-2.100
812	325.500	4.250	-2.100
813	329.875	4.250	-2.100
814	334.250	4.250	-2.100
815	338.625	4.250	-2.100
816	343.000	4.250	-2.100
817	347.375	4.250	-2.100
818	351.750	4.250	-2.100
819	356.125	4.250	-2.100
820	360.500	4.250	-2.100
821	364.875	4.250	-2.100
822	369.250	4.250	-2.100
823	373.625	4.250	-2.100
824	378.000	4.250	-2.100
825	382.375	4.250	-2.100
826	386.750	4.250	-2.100
827	391.125	4.250	-2.100
828	395.500	4.250	-2.100
829	399.875	4.250	-2.100
830	404.250	4.250	-2.100
831	408.625	4.250	-2.100
832	413.000	4.250	-2.100

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
833	416.500	4.250	-2.100
834	420.000	4.250	-2.100
835	423.500	4.250	-2.100
836	427.000	4.250	-2.100
837	430.500	4.250	-2.100
838	434.000	4.250	-2.100
839	437.500	4.250	-2.100
840	441.000	4.250	-2.100
841	.000	5.350	-2.100
842	3.500	5.350	-2.100
843	7.000	5.350	-2.100
844	10.500	5.350	-2.100
845	14.000	5.350	-2.100
846	17.500	5.350	-2.100
847	21.000	5.350	-2.100
848	24.500	5.350	-2.100
849	28.000	5.350	-2.100
850	32.375	5.350	-2.100
851	36.750	5.350	-2.100
852	41.125	5.350	-2.100
853	45.500	5.350	-2.100
854	49.875	5.350	-2.100
855	54.250	5.350	-2.100
856	58.625	5.350	-2.100
857	63.000	5.350	-2.100
858	67.375	5.350	-2.100
859	71.750	5.350	-2.100
860	76.125	5.350	-2.100
861	80.500	5.350	-2.100
862	84.875	5.350	-2.100
863	89.250	5.350	-2.100
864	93.625	5.350	-2.100
865	98.000	5.350	-2.100
866	102.375	5.350	-2.100
867	106.750	5.350	-2.100
868	111.125	5.350	-2.100
869	115.500	5.350	-2.100
870	119.875	5.350	-2.100
871	124.250	5.350	-2.100
872	128.625	5.350	-2.100
873	133.000	5.350	-2.100
874	137.375	5.350	-2.100
875	141.750	5.350	-2.100
876	146.125	5.350	-2.100
877	150.500	5.350	-2.100
878	154.875	5.350	-2.100
879	159.250	5.350	-2.100
880	163.625	5.350	-2.100
881	168.000	5.350	-2.100
882	172.375	5.350	-2.100
883	176.750	5.350	-2.100
884	181.125	5.350	-2.100

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
885	185.500	5.350	-2.100
886	189.875	5.350	-2.100
887	194.250	5.350	-2.100
888	198.625	5.350	-2.100
889	203.000	5.350	-2.100
890	207.375	5.350	-2.100
891	211.750	5.350	-2.100
892	216.125	5.350	-2.100
893	220.500	5.350	-2.100
894	224.875	5.350	-2.100
895	229.250	5.350	-2.100
896	233.625	5.350	-2.100
897	238.000	5.350	-2.100
898	242.375	5.350	-2.100
899	246.750	5.350	-2.100
900	251.125	5.350	-2.100
901	255.500	5.350	-2.100
902	259.875	5.350	-2.100
903	264.250	5.350	-2.100
904	268.625	5.350	-2.100
905	273.000	5.350	-2.100
906	277.375	5.350	-2.100
907	281.750	5.350	-2.100
908	286.125	5.350	-2.100
909	290.500	5.350	-2.100
910	294.875	5.350	-2.100
911	299.250	5.350	-2.100
912	303.625	5.350	-2.100
913	308.000	5.350	-2.100
914	312.375	5.350	-2.100
915	316.750	5.350	-2.100
916	321.125	5.350	-2.100
917	325.500	5.350	-2.100
918	329.875	5.350	-2.100
919	334.250	5.350	-2.100
920	338.625	5.350	-2.100
921	343.000	5.350	-2.100
922	347.375	5.350	-2.100
923	351.750	5.350	-2.100
924	356.125	5.350	-2.100
925	360.500	5.350	-2.100
926	364.875	5.350	-2.100
927	369.250	5.350	-2.100
928	373.625	5.350	-2.100
929	378.000	5.350	-2.100
930	382.375	5.350	-2.100
931	386.750	5.350	-2.100
932	391.125	5.350	-2.100
933	395.500	5.350	-2.100
934	399.875	5.350	-2.100
935	404.250	5.350	-2.100
936	408.625	5.350	-2.100

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
937	413.000	5.350	-2.100
938	416.500	5.350	-2.100
939	420.000	5.350	-2.100
940	423.500	5.350	-2.100
941	427.000	5.350	-2.100
942	430.500	5.350	-2.100
943	434.000	5.350	-2.100
944	437.500	5.350	-2.100
945	441.000	5.350	-2.100
946	.000	6.850	-2.100
947	3.500	6.850	-2.100
948	7.000	6.850	-2.100
949	10.500	6.850	-2.100
950	14.000	6.850	-2.100
951	17.500	6.850	-2.100
952	21.000	6.850	-2.100
953	24.500	6.850	-2.100
954	28.000	6.850	-2.100
955	32.375	6.850	-2.100
956	36.750	6.850	-2.100
957	41.125	6.850	-2.100
958	45.500	6.850	-2.100
959	49.875	6.850	-2.100
960	54.250	6.850	-2.100
961	58.625	6.850	-2.100
962	63.000	6.850	-2.100
963	67.375	6.850	-2.100
964	71.750	6.850	-2.100
965	76.125	6.850	-2.100
966	80.500	6.850	-2.100
967	84.875	6.850	-2.100
968	89.250	6.850	-2.100
969	93.625	6.850	-2.100
970	98.000	6.850	-2.100
971	102.375	6.850	-2.100
972	106.750	6.850	-2.100
973	111.125	6.850	-2.100
974	115.500	6.850	-2.100
975	119.875	6.850	-2.100
976	124.250	6.850	-2.100
977	128.625	6.850	-2.100
978	133.000	6.850	-2.100
979	137.375	6.850	-2.100
980	141.750	6.850	-2.100
981	146.125	6.850	-2.100
982	150.500	6.850	-2.100
983	154.875	6.850	-2.100
984	159.250	6.850	-2.100
985	163.625	6.850	-2.100
986	168.000	6.850	-2.100
987	172.375	6.850	-2.100
988	176.750	6.850	-2.100

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
989	181.125	6.850	-2.100
990	185.500	6.850	-2.100
991	189.875	6.850	-2.100
992	194.250	6.850	-2.100
993	198.625	6.850	-2.100
994	203.000	6.850	-2.100
995	207.375	6.850	-2.100
996	211.750	6.850	-2.100
997	216.125	6.850	-2.100
998	220.500	6.850	-2.100
999	224.875	6.850	-2.100
1000	229.250	6.850	-2.100
1001	233.625	6.850	-2.100
1002	238.000	6.850	-2.100
1003	242.375	6.850	-2.100
1004	246.750	6.850	-2.100
1005	251.125	6.850	-2.100
1006	255.500	6.850	-2.100
1007	259.875	6.850	-2.100
1008	264.250	6.850	-2.100
1009	268.625	6.850	-2.100
1010	273.000	6.850	-2.100
1011	277.375	6.850	-2.100
1012	281.750	6.850	-2.100
1013	286.125	6.850	-2.100
1014	290.500	6.850	-2.100
1015	294.875	6.850	-2.100
1016	299.250	6.850	-2.100
1017	303.625	6.850	-2.100
1018	308.000	6.850	-2.100
1019	312.375	6.850	-2.100
1020	316.750	6.850	-2.100
1021	321.125	6.850	-2.100
1022	325.500	6.850	-2.100
1023	329.875	6.850	-2.100
1024	334.250	6.850	-2.100
1025	338.625	6.850	-2.100
1026	343.000	6.850	-2.100
1027	347.375	6.850	-2.100
1028	351.750	6.850	-2.100
1029	356.125	6.850	-2.100
1030	360.500	6.850	-2.100
1031	364.875	6.850	-2.100
1032	369.250	6.850	-2.100
1033	373.625	6.850	-2.100
1034	378.000	6.850	-2.100
1035	382.375	6.850	-2.100
1036	386.750	6.850	-2.100
1037	391.125	6.850	-2.100
1038	395.500	6.850	-2.100
1039	399.875	6.850	-2.100
1040	404.250	6.850	-2.100

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
1041	408.625	6.850	-2.100
1042	413.000	6.850	-2.100
1043	416.500	6.850	-2.100
1044	420.000	6.850	-2.100
1045	423.500	6.850	-2.100
1046	427.000	6.850	-2.100
1047	430.500	6.850	-2.100
1048	434.000	6.850	-2.100
1049	437.500	6.850	-2.100
1050	441.000	6.850	-2.100
1051	.000	8.350	-2.100
1052	3.500	8.350	-2.100
1053	7.000	8.350	-2.100
1054	10.500	8.350	-2.100
1055	14.000	8.350	-2.100
1056	17.500	8.350	-2.100
1057	21.000	8.350	-2.100
1058	24.500	8.350	-2.100
1059	28.000	8.350	-2.100
1060	32.375	8.350	-2.100
1061	36.750	8.350	-2.100
1062	41.125	8.350	-2.100
1063	45.500	8.350	-2.100
1064	49.875	8.350	-2.100
1065	54.250	8.350	-2.100
1066	58.625	8.350	-2.100
1067	63.000	8.350	-2.100
1068	67.375	8.350	-2.100
1069	71.750	8.350	-2.100
1070	76.125	8.350	-2.100
1071	80.500	8.350	-2.100
1072	84.875	8.350	-2.100
1073	89.250	8.350	-2.100
1074	93.625	8.350	-2.100
1075	98.000	8.350	-2.100
1076	102.375	8.350	-2.100
1077	106.750	8.350	-2.100
1078	111.125	8.350	-2.100
1079	115.500	8.350	-2.100
1080	119.875	8.350	-2.100
1081	124.250	8.350	-2.100
1082	128.625	8.350	-2.100
1083	133.000	8.350	-2.100
1084	137.375	8.350	-2.100
1085	141.750	8.350	-2.100
1086	146.125	8.350	-2.100
1087	150.500	8.350	-2.100
1088	154.875	8.350	-2.100
1089	159.250	8.350	-2.100
1090	163.625	8.350	-2.100
1091	168.000	8.350	-2.100
1092	172.375	8.350	-2.100

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
1093	176.750	8.350	-2.100
1094	181.125	8.350	-2.100
1095	185.500	8.350	-2.100
1096	189.875	8.350	-2.100
1097	194.250	8.350	-2.100
1098	198.625	8.350	-2.100
1099	203.000	8.350	-2.100
1100	207.375	8.350	-2.100
1101	211.750	8.350	-2.100
1102	216.125	8.350	-2.100
1103	220.500	8.350	-2.100
1104	224.875	8.350	-2.100
1105	229.250	8.350	-2.100
1106	233.625	8.350	-2.100
1107	238.000	8.350	-2.100
1108	242.375	8.350	-2.100
1109	246.750	8.350	-2.100
1110	251.125	8.350	-2.100
1111	255.500	8.350	-2.100
1112	259.875	8.350	-2.100
1113	264.250	8.350	-2.100
1114	268.625	8.350	-2.100
1115	273.000	8.350	-2.100
1116	277.375	8.350	-2.100
1117	281.750	8.350	-2.100
1118	286.125	8.350	-2.100
1119	290.500	8.350	-2.100
1120	294.875	8.350	-2.100
1121	299.250	8.350	-2.100
1122	303.625	8.350	-2.100
1123	308.000	8.350	-2.100
1124	312.375	8.350	-2.100
1125	316.750	8.350	-2.100
1126	321.125	8.350	-2.100
1127	325.500	8.350	-2.100
1128	329.875	8.350	-2.100
1129	334.250	8.350	-2.100
1130	338.625	8.350	-2.100
1131	343.000	8.350	-2.100
1132	347.375	8.350	-2.100
1133	351.750	8.350	-2.100
1134	356.125	8.350	-2.100
1135	360.500	8.350	-2.100
1136	364.875	8.350	-2.100
1137	369.250	8.350	-2.100
1138	373.625	8.350	-2.100
1139	378.000	8.350	-2.100
1140	382.375	8.350	-2.100
1141	386.750	8.350	-2.100
1142	391.125	8.350	-2.100
1143	395.500	8.350	-2.100
1144	399.875	8.350	-2.100

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
1145	404.250	8.350	-2.100
1146	408.625	8.350	-2.100
1147	413.000	8.350	-2.100
1148	416.500	8.350	-2.100
1149	420.000	8.350	-2.100
1150	423.500	8.350	-2.100
1151	427.000	8.350	-2.100
1152	430.500	8.350	-2.100
1153	434.000	8.350	-2.100
1154	437.500	8.350	-2.100
1155	441.000	8.350	-2.100
1156	.000	9.450	-2.100
1157	3.500	9.450	-2.100
1158	7.000	9.450	-2.100
1159	10.500	9.450	-2.100
1160	14.000	9.450	-2.100
1161	17.500	9.450	-2.100
1162	21.000	9.450	-2.100
1163	24.500	9.450	-2.100
1164	28.000	9.450	-2.100
1165	32.375	9.450	-2.100
1166	36.750	9.450	-2.100
1167	41.125	9.450	-2.100
1168	45.500	9.450	-2.100
1169	49.875	9.450	-2.100
1170	54.250	9.450	-2.100
1171	58.625	9.450	-2.100
1172	63.000	9.450	-2.100
1173	67.375	9.450	-2.100
1174	71.750	9.450	-2.100
1175	76.125	9.450	-2.100
1176	80.500	9.450	-2.100
1177	84.875	9.450	-2.100
1178	89.250	9.450	-2.100
1179	93.625	9.450	-2.100
1180	98.000	9.450	-2.100
1181	102.375	9.450	-2.100
1182	106.750	9.450	-2.100
1183	111.125	9.450	-2.100
1184	115.500	9.450	-2.100
1185	119.875	9.450	-2.100
1186	124.250	9.450	-2.100
1187	128.625	9.450	-2.100
1188	133.000	9.450	-2.100
1189	137.375	9.450	-2.100
1190	141.750	9.450	-2.100
1191	146.125	9.450	-2.100
1192	150.500	9.450	-2.100
1193	154.875	9.450	-2.100
1194	159.250	9.450	-2.100
1195	163.625	9.450	-2.100
1196	168.000	9.450	-2.100

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
1197	172.375	9.450	-2.100
1198	176.750	9.450	-2.100
1199	181.125	9.450	-2.100
1200	185.500	9.450	-2.100
1201	189.875	9.450	-2.100
1202	194.250	9.450	-2.100
1203	198.625	9.450	-2.100
1204	203.000	9.450	-2.100
1205	207.375	9.450	-2.100
1206	211.750	9.450	-2.100
1207	216.125	9.450	-2.100
1208	220.500	9.450	-2.100
1209	224.875	9.450	-2.100
1210	229.250	9.450	-2.100
1211	233.625	9.450	-2.100
1212	238.000	9.450	-2.100
1213	242.375	9.450	-2.100
1214	246.750	9.450	-2.100
1215	251.125	9.450	-2.100
1216	255.500	9.450	-2.100
1217	259.875	9.450	-2.100
1218	264.250	9.450	-2.100
1219	268.625	9.450	-2.100
1220	273.000	9.450	-2.100
1221	277.375	9.450	-2.100
1222	281.750	9.450	-2.100
1223	286.125	9.450	-2.100
1224	290.500	9.450	-2.100
1225	294.875	9.450	-2.100
1226	299.250	9.450	-2.100
1227	303.625	9.450	-2.100
1228	308.000	9.450	-2.100
1229	312.375	9.450	-2.100
1230	316.750	9.450	-2.100
1231	321.125	9.450	-2.100
1232	325.500	9.450	-2.100
1233	329.875	9.450	-2.100
1234	334.250	9.450	-2.100
1235	338.625	9.450	-2.100
1236	343.000	9.450	-2.100
1237	347.375	9.450	-2.100
1238	351.750	9.450	-2.100
1239	356.125	9.450	-2.100
1240	360.500	9.450	-2.100
1241	364.875	9.450	-2.100
1242	369.250	9.450	-2.100
1243	373.625	9.450	-2.100
1244	378.000	9.450	-2.100
1245	382.375	9.450	-2.100
1246	386.750	9.450	-2.100
1247	391.125	9.450	-2.100
1248	395.500	9.450	-2.100

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

G E N E R A T E D J O I N T C O O R D I N A T E S

JOINT	X	Y	Z
1249	399.875	9.450	-2.100
1250	404.250	9.450	-2.100
1251	408.625	9.450	-2.100
1252	413.000	9.450	-2.100
1253	416.500	9.450	-2.100
1254	420.000	9.450	-2.100
1255	423.500	9.450	-2.100
1256	427.000	9.450	-2.100
1257	430.500	9.450	-2.100
1258	434.000	9.450	-2.100
1259	437.500	9.450	-2.100
1260	441.000	9.450	-2.100

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

R E S T R A I N T D A T A

JOINT	RX	RY	RZ	RXX	RYY	RZZ
841	1	1	1	0	0	0
849	0	1	1	0	0	0
857	0	1	1	0	0	0
865	0	1	1	0	0	0
873	0	1	1	0	0	0
881	0	1	1	0	0	0
889	0	1	1	0	0	0
897	0	1	1	0	0	0
905	0	1	1	0	0	0
913	0	1	1	0	0	0
921	0	1	1	0	0	0
929	0	1	1	0	0	0
937	0	1	1	0	0	0
945	0	1	1	0	0	0
1051	1	1	1	0	0	0
1059	0	1	1	0	0	0
1067	0	1	1	0	0	0
1075	0	1	1	0	0	0
1083	0	1	1	0	0	0
1091	0	1	1	0	0	0
1099	0	1	1	0	0	0
1107	0	1	1	0	0	0
1115	0	1	1	0	0	0
1123	0	1	1	0	0	0
1131	0	1	1	0	0	0
1139	0	1	1	0	0	0
1147	0	1	1	0	0	0
1155	0	1	1	0	0	0

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L C O N T R O L D A T A

NUMBER OF ELEMENT MATERIAL TYPES 1
TYPE OF OUTPUT RESULTANTS

LOAD COND	GRAVITATIONAL MULTIPLIERS X	Y	Z	TEMPERATURE MULTIPLIERS	PRESSURE MULTIPLIERS
1	.000	.000	.000	.000	.000
2	.000	.000	.000	.000	.000
3	.000	.000	.000	.000	.000
4	.000	.000	.000	.000	.000
5	.000	.000	.000	.000	.000
6	.000	.000	.000	.000	.000
7	.000	.000	.000	.000	.000
8	.000	.000	.000	.000	.000
9	.000	.000	.000	.000	.000
10	.000	.000	.000	.000	.000
11	.000	.000	.000	.000	.000
12	.000	.000	.000	.000	.000
13	.000	.000	.000	.000	.000
14	.000	.000	.000	.000	.000
15	.000	.000	.000	.000	.000
16	.000	.000	.000	.000	.000
17	.000	.000	.000	.000	.000
18	.000	.000	.000	.000	.000
19	.000	.000	.000	.000	.000
20	.000	.000	.000	.000	.000
21	.000	.000	.000	.000	.000
22	.000	.000	.000	.000	.000
23	.000	.000	.000	.000	.000
24	.000	.000	.000	.000	.000
25	.000	.000	.000	.000	.000
26	.000	.000	.000	.000	.000
27	.000	.000	.000	.000	.000
28	.000	.000	.000	.000	.000
29	.000	.000	.000	.000	.000
30	.000	.000	.000	.000	.000
31	.000	.000	.000	.000	.000
32	.000	.000	.000	.000	.000
33	.000	.000	.000	.000	.000
34	.000	.000	.000	.000	.000
35	.000	.000	.000	.000	.000
36	.000	.000	.000	.000	.000
37	.000	.000	.000	.000	.000
38	.000	.000	.000	.000	.000

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

M A T E R I A L P R O P E R T Y D A T A

MAT ID	MODULUS OF ELASTICITY	POISSONS RATIO	WEIGHT PER UNIT VOL	MASS PER UNIT VOL	THERMAL EXPANSION
1	.3800E+11	.2000E+00	.2495E+05	.2500E+04	.0000E+00

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
1	1	2	106	107	0	1	.3000E+00	.3000E+00	.00	2
2	2	3	107	108	0	1	.3000E+00	.3000E+00	.00	2
3	3	4	108	109	0	1	.3000E+00	.3000E+00	.00	2
4	4	5	109	110	0	1	.3000E+00	.3000E+00	.00	2
5	5	6	110	111	0	1	.3000E+00	.3000E+00	.00	2
6	6	7	111	112	0	1	.3000E+00	.3000E+00	.00	2
7	7	8	112	113	0	1	.3000E+00	.3000E+00	.00	2
8	8	9	113	114	0	1	.3000E+00	.3000E+00	.00	2
9	9	10	114	115	0	1	.3000E+00	.3000E+00	.00	2
10	10	11	115	116	0	1	.3000E+00	.3000E+00	.00	2
11	11	12	116	117	0	1	.3000E+00	.3000E+00	.00	2
12	12	13	117	118	0	1	.3000E+00	.3000E+00	.00	2
13	13	14	118	119	0	1	.3000E+00	.3000E+00	.00	2
14	14	15	119	120	0	1	.3000E+00	.3000E+00	.00	2
15	15	16	120	121	0	1	.3000E+00	.3000E+00	.00	2
16	16	17	121	122	0	1	.3000E+00	.3000E+00	.00	2
17	17	18	122	123	0	1	.3000E+00	.3000E+00	.00	2
18	18	19	123	124	0	1	.3000E+00	.3000E+00	.00	2
19	19	20	124	125	0	1	.3000E+00	.3000E+00	.00	2
20	20	21	125	126	0	1	.3000E+00	.3000E+00	.00	2
21	21	22	126	127	0	1	.3000E+00	.3000E+00	.00	2
22	22	23	127	128	0	1	.3000E+00	.3000E+00	.00	2
23	23	24	128	129	0	1	.3000E+00	.3000E+00	.00	2
24	24	25	129	130	0	1	.3000E+00	.3000E+00	.00	2
25	25	26	130	131	0	1	.3000E+00	.3000E+00	.00	2
26	26	27	131	132	0	1	.3000E+00	.3000E+00	.00	2
27	27	28	132	133	0	1	.3000E+00	.3000E+00	.00	2
28	28	29	133	134	0	1	.3000E+00	.3000E+00	.00	2
29	29	30	134	135	0	1	.3000E+00	.3000E+00	.00	2
30	30	31	135	136	0	1	.3000E+00	.3000E+00	.00	2
31	31	32	136	137	0	1	.3000E+00	.3000E+00	.00	2
32	32	33	137	138	0	1	.3000E+00	.3000E+00	.00	2
33	33	34	138	139	0	1	.3000E+00	.3000E+00	.00	2
34	34	35	139	140	0	1	.3000E+00	.3000E+00	.00	2
35	35	36	140	141	0	1	.3000E+00	.3000E+00	.00	2
36	36	37	141	142	0	1	.3000E+00	.3000E+00	.00	2
37	37	38	142	143	0	1	.3000E+00	.3000E+00	.00	2
38	38	39	143	144	0	1	.3000E+00	.3000E+00	.00	2
39	39	40	144	145	0	1	.3000E+00	.3000E+00	.00	2
40	40	41	145	146	0	1	.3000E+00	.3000E+00	.00	2
41	41	42	146	147	0	1	.3000E+00	.3000E+00	.00	2
42	42	43	147	148	0	1	.3000E+00	.3000E+00	.00	2
43	43	44	148	149	0	1	.3000E+00	.3000E+00	.00	2
44	44	45	149	150	0	1	.3000E+00	.3000E+00	.00	2
45	45	46	150	151	0	1	.3000E+00	.3000E+00	.00	2
46	46	47	151	152	0	1	.3000E+00	.3000E+00	.00	2
47	47	48	152	153	0	1	.3000E+00	.3000E+00	.00	2
48	48	49	153	154	0	1	.3000E+00	.3000E+00	.00	2
49	49	50	154	155	0	1	.3000E+00	.3000E+00	.00	2
50	50	51	155	156	0	1	.3000E+00	.3000E+00	.00	2
51	51	52	156	157	0	1	.3000E+00	.3000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
52	52	53	157	158	0	1	.3000E+00	.3000E+00	.00	2
53	53	54	158	159	0	1	.3000E+00	.3000E+00	.00	2
54	54	55	159	160	0	1	.3000E+00	.3000E+00	.00	2
55	55	56	160	161	0	1	.3000E+00	.3000E+00	.00	2
56	56	57	161	162	0	1	.3000E+00	.3000E+00	.00	2
57	57	58	162	163	0	1	.3000E+00	.3000E+00	.00	2
58	58	59	163	164	0	1	.3000E+00	.3000E+00	.00	2
59	59	60	164	165	0	1	.3000E+00	.3000E+00	.00	2
60	60	61	165	166	0	1	.3000E+00	.3000E+00	.00	2
61	61	62	166	167	0	1	.3000E+00	.3000E+00	.00	2
62	62	63	167	168	0	1	.3000E+00	.3000E+00	.00	2
63	63	64	168	169	0	1	.3000E+00	.3000E+00	.00	2
64	64	65	169	170	0	1	.3000E+00	.3000E+00	.00	2
65	65	66	170	171	0	1	.3000E+00	.3000E+00	.00	2
66	66	67	171	172	0	1	.3000E+00	.3000E+00	.00	2
67	67	68	172	173	0	1	.3000E+00	.3000E+00	.00	2
68	68	69	173	174	0	1	.3000E+00	.3000E+00	.00	2
69	69	70	174	175	0	1	.3000E+00	.3000E+00	.00	2
70	70	71	175	176	0	1	.3000E+00	.3000E+00	.00	2
71	71	72	176	177	0	1	.3000E+00	.3000E+00	.00	2
72	72	73	177	178	0	1	.3000E+00	.3000E+00	.00	2
73	73	74	178	179	0	1	.3000E+00	.3000E+00	.00	2
74	74	75	179	180	0	1	.3000E+00	.3000E+00	.00	2
75	75	76	180	181	0	1	.3000E+00	.3000E+00	.00	2
76	76	77	181	182	0	1	.3000E+00	.3000E+00	.00	2
77	77	78	182	183	0	1	.3000E+00	.3000E+00	.00	2
78	78	79	183	184	0	1	.3000E+00	.3000E+00	.00	2
79	79	80	184	185	0	1	.3000E+00	.3000E+00	.00	2
80	80	81	185	186	0	1	.3000E+00	.3000E+00	.00	2
81	81	82	186	187	0	1	.3000E+00	.3000E+00	.00	2
82	82	83	187	188	0	1	.3000E+00	.3000E+00	.00	2
83	83	84	188	189	0	1	.3000E+00	.3000E+00	.00	2
84	84	85	189	190	0	1	.3000E+00	.3000E+00	.00	2
85	85	86	190	191	0	1	.3000E+00	.3000E+00	.00	2
86	86	87	191	192	0	1	.3000E+00	.3000E+00	.00	2
87	87	88	192	193	0	1	.3000E+00	.3000E+00	.00	2
88	88	89	193	194	0	1	.3000E+00	.3000E+00	.00	2
89	89	90	194	195	0	1	.3000E+00	.3000E+00	.00	2
90	90	91	195	196	0	1	.3000E+00	.3000E+00	.00	2
91	91	92	196	197	0	1	.3000E+00	.3000E+00	.00	2
92	92	93	197	198	0	1	.3000E+00	.3000E+00	.00	2
93	93	94	198	199	0	1	.3000E+00	.3000E+00	.00	2
94	94	95	199	200	0	1	.3000E+00	.3000E+00	.00	2
95	95	96	200	201	0	1	.3000E+00	.3000E+00	.00	2
96	96	97	201	202	0	1	.3000E+00	.3000E+00	.00	2
97	97	98	202	203	0	1	.3000E+00	.3000E+00	.00	2
98	98	99	203	204	0	1	.3000E+00	.3000E+00	.00	2
99	99	100	204	205	0	1	.3000E+00	.3000E+00	.00	2
100	100	101	205	206	0	1	.3000E+00	.3000E+00	.00	2
101	101	102	206	207	0	1	.3000E+00	.3000E+00	.00	2
102	102	103	207	208	0	1	.3000E+00	.3000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
103	103	104	208	209	0	1	.3000E+00	.3000E+00	.00	2
104	104	105	209	210	0	1	.3000E+00	.3000E+00	.00	2
105	106	107	211	212	0	1	.4000E+00	.4000E+00	.00	2
106	107	108	212	213	0	1	.4000E+00	.4000E+00	.00	2
107	108	109	213	214	0	1	.4000E+00	.4000E+00	.00	2
108	109	110	214	215	0	1	.4000E+00	.4000E+00	.00	2
109	110	111	215	216	0	1	.4000E+00	.4000E+00	.00	2
110	111	112	216	217	0	1	.4000E+00	.4000E+00	.00	2
111	112	113	217	218	0	1	.4000E+00	.4000E+00	.00	2
112	113	114	218	219	0	1	.4000E+00	.4000E+00	.00	2
113	114	115	219	220	0	1	.4000E+00	.4000E+00	.00	2
114	115	116	220	221	0	1	.4000E+00	.4000E+00	.00	2
115	116	117	221	222	0	1	.4000E+00	.4000E+00	.00	2
116	117	118	222	223	0	1	.4000E+00	.4000E+00	.00	2
117	118	119	223	224	0	1	.4000E+00	.4000E+00	.00	2
118	119	120	224	225	0	1	.4000E+00	.4000E+00	.00	2
119	120	121	225	226	0	1	.4000E+00	.4000E+00	.00	2
120	121	122	226	227	0	1	.4000E+00	.4000E+00	.00	2
121	122	123	227	228	0	1	.4000E+00	.4000E+00	.00	2
122	123	124	228	229	0	1	.4000E+00	.4000E+00	.00	2
123	124	125	229	230	0	1	.4000E+00	.4000E+00	.00	2
124	125	126	230	231	0	1	.4000E+00	.4000E+00	.00	2
125	126	127	231	232	0	1	.4000E+00	.4000E+00	.00	2
126	127	128	232	233	0	1	.4000E+00	.4000E+00	.00	2
127	128	129	233	234	0	1	.4000E+00	.4000E+00	.00	2
128	129	130	234	235	0	1	.4000E+00	.4000E+00	.00	2
129	130	131	235	236	0	1	.4000E+00	.4000E+00	.00	2
130	131	132	236	237	0	1	.4000E+00	.4000E+00	.00	2
131	132	133	237	238	0	1	.4000E+00	.4000E+00	.00	2
132	133	134	238	239	0	1	.4000E+00	.4000E+00	.00	2
133	134	135	239	240	0	1	.4000E+00	.4000E+00	.00	2
134	135	136	240	241	0	1	.4000E+00	.4000E+00	.00	2
135	136	137	241	242	0	1	.4000E+00	.4000E+00	.00	2
136	137	138	242	243	0	1	.4000E+00	.4000E+00	.00	2
137	138	139	243	244	0	1	.4000E+00	.4000E+00	.00	2
138	139	140	244	245	0	1	.4000E+00	.4000E+00	.00	2
139	140	141	245	246	0	1	.4000E+00	.4000E+00	.00	2
140	141	142	246	247	0	1	.4000E+00	.4000E+00	.00	2
141	142	143	247	248	0	1	.4000E+00	.4000E+00	.00	2
142	143	144	248	249	0	1	.4000E+00	.4000E+00	.00	2
143	144	145	249	250	0	1	.4000E+00	.4000E+00	.00	2
144	145	146	250	251	0	1	.4000E+00	.4000E+00	.00	2
145	146	147	251	252	0	1	.4000E+00	.4000E+00	.00	2
146	147	148	252	253	0	1	.4000E+00	.4000E+00	.00	2
147	148	149	253	254	0	1	.4000E+00	.4000E+00	.00	2
148	149	150	254	255	0	1	.4000E+00	.4000E+00	.00	2
149	150	151	255	256	0	1	.4000E+00	.4000E+00	.00	2
150	151	152	256	257	0	1	.4000E+00	.4000E+00	.00	2
151	152	153	257	258	0	1	.4000E+00	.4000E+00	.00	2
152	153	154	258	259	0	1	.4000E+00	.4000E+00	.00	2
153	154	155	259	260	0	1	.4000E+00	.4000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
154	155	156	260	261	0	1	.4000E+00	.4000E+00	.00	2
155	156	157	261	262	0	1	.4000E+00	.4000E+00	.00	2
156	157	158	262	263	0	1	.4000E+00	.4000E+00	.00	2
157	158	159	263	264	0	1	.4000E+00	.4000E+00	.00	2
158	159	160	264	265	0	1	.4000E+00	.4000E+00	.00	2
159	160	161	265	266	0	1	.4000E+00	.4000E+00	.00	2
160	161	162	266	267	0	1	.4000E+00	.4000E+00	.00	2
161	162	163	267	268	0	1	.4000E+00	.4000E+00	.00	2
162	163	164	268	269	0	1	.4000E+00	.4000E+00	.00	2
163	164	165	269	270	0	1	.4000E+00	.4000E+00	.00	2
164	165	166	270	271	0	1	.4000E+00	.4000E+00	.00	2
165	166	167	271	272	0	1	.4000E+00	.4000E+00	.00	2
166	167	168	272	273	0	1	.4000E+00	.4000E+00	.00	2
167	168	169	273	274	0	1	.4000E+00	.4000E+00	.00	2
168	169	170	274	275	0	1	.4000E+00	.4000E+00	.00	2
169	170	171	275	276	0	1	.4000E+00	.4000E+00	.00	2
170	171	172	276	277	0	1	.4000E+00	.4000E+00	.00	2
171	172	173	277	278	0	1	.4000E+00	.4000E+00	.00	2
172	173	174	278	279	0	1	.4000E+00	.4000E+00	.00	2
173	174	175	279	280	0	1	.4000E+00	.4000E+00	.00	2
174	175	176	280	281	0	1	.4000E+00	.4000E+00	.00	2
175	176	177	281	282	0	1	.4000E+00	.4000E+00	.00	2
176	177	178	282	283	0	1	.4000E+00	.4000E+00	.00	2
177	178	179	283	284	0	1	.4000E+00	.4000E+00	.00	2
178	179	180	284	285	0	1	.4000E+00	.4000E+00	.00	2
179	180	181	285	286	0	1	.4000E+00	.4000E+00	.00	2
180	181	182	286	287	0	1	.4000E+00	.4000E+00	.00	2
181	182	183	287	288	0	1	.4000E+00	.4000E+00	.00	2
182	183	184	288	289	0	1	.4000E+00	.4000E+00	.00	2
183	184	185	289	290	0	1	.4000E+00	.4000E+00	.00	2
184	185	186	290	291	0	1	.4000E+00	.4000E+00	.00	2
185	186	187	291	292	0	1	.4000E+00	.4000E+00	.00	2
186	187	188	292	293	0	1	.4000E+00	.4000E+00	.00	2
187	188	189	293	294	0	1	.4000E+00	.4000E+00	.00	2
188	189	190	294	295	0	1	.4000E+00	.4000E+00	.00	2
189	190	191	295	296	0	1	.4000E+00	.4000E+00	.00	2
190	191	192	296	297	0	1	.4000E+00	.4000E+00	.00	2
191	192	193	297	298	0	1	.4000E+00	.4000E+00	.00	2
192	193	194	298	299	0	1	.4000E+00	.4000E+00	.00	2
193	194	195	299	300	0	1	.4000E+00	.4000E+00	.00	2
194	195	196	300	301	0	1	.4000E+00	.4000E+00	.00	2
195	196	197	301	302	0	1	.4000E+00	.4000E+00	.00	2
196	197	198	302	303	0	1	.4000E+00	.4000E+00	.00	2
197	198	199	303	304	0	1	.4000E+00	.4000E+00	.00	2
198	199	200	304	305	0	1	.4000E+00	.4000E+00	.00	2
199	200	201	305	306	0	1	.4000E+00	.4000E+00	.00	2
200	201	202	306	307	0	1	.4000E+00	.4000E+00	.00	2
201	202	203	307	308	0	1	.4000E+00	.4000E+00	.00	2
202	203	204	308	309	0	1	.4000E+00	.4000E+00	.00	2
203	204	205	309	310	0	1	.4000E+00	.4000E+00	.00	2
204	205	206	310	311	0	1	.4000E+00	.4000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
205	206	207	311	312	0	1	.4000E+00	.4000E+00	.00	2
206	207	208	312	313	0	1	.4000E+00	.4000E+00	.00	2
207	208	209	313	314	0	1	.4000E+00	.4000E+00	.00	2
208	209	210	314	315	0	1	.4000E+00	.4000E+00	.00	2
209	211	212	316	317	0	1	.3300E+00	.3300E+00	.00	2
210	212	213	317	318	0	1	.3300E+00	.3300E+00	.00	2
211	213	214	318	319	0	1	.3300E+00	.3300E+00	.00	2
212	214	215	319	320	0	1	.3300E+00	.3300E+00	.00	2
213	215	216	320	321	0	1	.3300E+00	.3300E+00	.00	2
214	216	217	321	322	0	1	.3300E+00	.3300E+00	.00	2
215	217	218	322	323	0	1	.3300E+00	.3300E+00	.00	2
216	218	219	323	324	0	1	.3300E+00	.3300E+00	.00	2
217	219	220	324	325	0	1	.3300E+00	.3300E+00	.00	2
218	220	221	325	326	0	1	.3300E+00	.3300E+00	.00	2
219	221	222	326	327	0	1	.3300E+00	.3300E+00	.00	2
220	222	223	327	328	0	1	.3300E+00	.3300E+00	.00	2
221	223	224	328	329	0	1	.3300E+00	.3300E+00	.00	2
222	224	225	329	330	0	1	.3300E+00	.3300E+00	.00	2
223	225	226	330	331	0	1	.3300E+00	.3300E+00	.00	2
224	226	227	331	332	0	1	.3300E+00	.3300E+00	.00	2
225	227	228	332	333	0	1	.3300E+00	.3300E+00	.00	2
226	228	229	333	334	0	1	.3300E+00	.3300E+00	.00	2
227	229	230	334	335	0	1	.3300E+00	.3300E+00	.00	2
228	230	231	335	336	0	1	.3300E+00	.3300E+00	.00	2
229	231	232	336	337	0	1	.3300E+00	.3300E+00	.00	2
230	232	233	337	338	0	1	.3300E+00	.3300E+00	.00	2
231	233	234	338	339	0	1	.3300E+00	.3300E+00	.00	2
232	234	235	339	340	0	1	.3300E+00	.3300E+00	.00	2
233	235	236	340	341	0	1	.3300E+00	.3300E+00	.00	2
234	236	237	341	342	0	1	.3300E+00	.3300E+00	.00	2
235	237	238	342	343	0	1	.3300E+00	.3300E+00	.00	2
236	238	239	343	344	0	1	.3300E+00	.3300E+00	.00	2
237	239	240	344	345	0	1	.3300E+00	.3300E+00	.00	2
238	240	241	345	346	0	1	.3300E+00	.3300E+00	.00	2
239	241	242	346	347	0	1	.3300E+00	.3300E+00	.00	2
240	242	243	347	348	0	1	.3300E+00	.3300E+00	.00	2
241	243	244	348	349	0	1	.3300E+00	.3300E+00	.00	2
242	244	245	349	350	0	1	.3300E+00	.3300E+00	.00	2
243	245	246	350	351	0	1	.3300E+00	.3300E+00	.00	2
244	246	247	351	352	0	1	.3300E+00	.3300E+00	.00	2
245	247	248	352	353	0	1	.3300E+00	.3300E+00	.00	2
246	248	249	353	354	0	1	.3300E+00	.3300E+00	.00	2
247	249	250	354	355	0	1	.3300E+00	.3300E+00	.00	2
248	250	251	355	356	0	1	.3300E+00	.3300E+00	.00	2
249	251	252	356	357	0	1	.3300E+00	.3300E+00	.00	2
250	252	253	357	358	0	1	.3300E+00	.3300E+00	.00	2
251	253	254	358	359	0	1	.3300E+00	.3300E+00	.00	2
252	254	255	359	360	0	1	.3300E+00	.3300E+00	.00	2
253	255	256	360	361	0	1	.3300E+00	.3300E+00	.00	2
254	256	257	361	362	0	1	.3300E+00	.3300E+00	.00	2
255	257	258	362	363	0	1	.3300E+00	.3300E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
256	258	259	363	364	0	1	.3300E+00	.3300E+00	.00	2
257	259	260	364	365	0	1	.3300E+00	.3300E+00	.00	2
258	260	261	365	366	0	1	.3300E+00	.3300E+00	.00	2
259	261	262	366	367	0	1	.3300E+00	.3300E+00	.00	2
260	262	263	367	368	0	1	.3300E+00	.3300E+00	.00	2
261	263	264	368	369	0	1	.3300E+00	.3300E+00	.00	2
262	264	265	369	370	0	1	.3300E+00	.3300E+00	.00	2
263	265	266	370	371	0	1	.3300E+00	.3300E+00	.00	2
264	266	267	371	372	0	1	.3300E+00	.3300E+00	.00	2
265	267	268	372	373	0	1	.3300E+00	.3300E+00	.00	2
266	268	269	373	374	0	1	.3300E+00	.3300E+00	.00	2
267	269	270	374	375	0	1	.3300E+00	.3300E+00	.00	2
268	270	271	375	376	0	1	.3300E+00	.3300E+00	.00	2
269	271	272	376	377	0	1	.3300E+00	.3300E+00	.00	2
270	272	273	377	378	0	1	.3300E+00	.3300E+00	.00	2
271	273	274	378	379	0	1	.3300E+00	.3300E+00	.00	2
272	274	275	379	380	0	1	.3300E+00	.3300E+00	.00	2
273	275	276	380	381	0	1	.3300E+00	.3300E+00	.00	2
274	276	277	381	382	0	1	.3300E+00	.3300E+00	.00	2
275	277	278	382	383	0	1	.3300E+00	.3300E+00	.00	2
276	278	279	383	384	0	1	.3300E+00	.3300E+00	.00	2
277	279	280	384	385	0	1	.3300E+00	.3300E+00	.00	2
278	280	281	385	386	0	1	.3300E+00	.3300E+00	.00	2
279	281	282	386	387	0	1	.3300E+00	.3300E+00	.00	2
280	282	283	387	388	0	1	.3300E+00	.3300E+00	.00	2
281	283	284	388	389	0	1	.3300E+00	.3300E+00	.00	2
282	284	285	389	390	0	1	.3300E+00	.3300E+00	.00	2
283	285	286	390	391	0	1	.3300E+00	.3300E+00	.00	2
284	286	287	391	392	0	1	.3300E+00	.3300E+00	.00	2
285	287	288	392	393	0	1	.3300E+00	.3300E+00	.00	2
286	288	289	393	394	0	1	.3300E+00	.3300E+00	.00	2
287	289	290	394	395	0	1	.3300E+00	.3300E+00	.00	2
288	290	291	395	396	0	1	.3300E+00	.3300E+00	.00	2
289	291	292	396	397	0	1	.3300E+00	.3300E+00	.00	2
290	292	293	397	398	0	1	.3300E+00	.3300E+00	.00	2
291	293	294	398	399	0	1	.3300E+00	.3300E+00	.00	2
292	294	295	399	400	0	1	.3300E+00	.3300E+00	.00	2
293	295	296	400	401	0	1	.3300E+00	.3300E+00	.00	2
294	296	297	401	402	0	1	.3300E+00	.3300E+00	.00	2
295	297	298	402	403	0	1	.3300E+00	.3300E+00	.00	2
296	298	299	403	404	0	1	.3300E+00	.3300E+00	.00	2
297	299	300	404	405	0	1	.3300E+00	.3300E+00	.00	2
298	300	301	405	406	0	1	.3300E+00	.3300E+00	.00	2
299	301	302	406	407	0	1	.3300E+00	.3300E+00	.00	2
300	302	303	407	408	0	1	.3300E+00	.3300E+00	.00	2
301	303	304	408	409	0	1	.3300E+00	.3300E+00	.00	2
302	304	305	409	410	0	1	.3300E+00	.3300E+00	.00	2
303	305	306	410	411	0	1	.3300E+00	.3300E+00	.00	2
304	306	307	411	412	0	1	.3300E+00	.3300E+00	.00	2
305	307	308	412	413	0	1	.3300E+00	.3300E+00	.00	2
306	308	309	413	414	0	1	.3300E+00	.3300E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
307	309	310	414	415	0	1	.3300E+00	.3300E+00	.00	2
308	310	311	415	416	0	1	.3300E+00	.3300E+00	.00	2
309	311	312	416	417	0	1	.3300E+00	.3300E+00	.00	2
310	312	313	417	418	0	1	.3300E+00	.3300E+00	.00	2
311	313	314	418	419	0	1	.3300E+00	.3300E+00	.00	2
312	314	315	419	420	0	1	.3300E+00	.3300E+00	.00	2
313	316	317	421	422	0	1	.3300E+00	.3300E+00	.00	2
314	317	318	422	423	0	1	.3300E+00	.3300E+00	.00	2
315	318	319	423	424	0	1	.3300E+00	.3300E+00	.00	2
316	319	320	424	425	0	1	.3300E+00	.3300E+00	.00	2
317	320	321	425	426	0	1	.3300E+00	.3300E+00	.00	2
318	321	322	426	427	0	1	.3300E+00	.3300E+00	.00	2
319	322	323	427	428	0	1	.3300E+00	.3300E+00	.00	2
320	323	324	428	429	0	1	.3300E+00	.3300E+00	.00	2
321	324	325	429	430	0	1	.3300E+00	.3300E+00	.00	2
322	325	326	430	431	0	1	.3300E+00	.3300E+00	.00	2
323	326	327	431	432	0	1	.3300E+00	.3300E+00	.00	2
324	327	328	432	433	0	1	.3300E+00	.3300E+00	.00	2
325	328	329	433	434	0	1	.3300E+00	.3300E+00	.00	2
326	329	330	434	435	0	1	.3300E+00	.3300E+00	.00	2
327	330	331	435	436	0	1	.3300E+00	.3300E+00	.00	2
328	331	332	436	437	0	1	.3300E+00	.3300E+00	.00	2
329	332	333	437	438	0	1	.3300E+00	.3300E+00	.00	2
330	333	334	438	439	0	1	.3300E+00	.3300E+00	.00	2
331	334	335	439	440	0	1	.3300E+00	.3300E+00	.00	2
332	335	336	440	441	0	1	.3300E+00	.3300E+00	.00	2
333	336	337	441	442	0	1	.3300E+00	.3300E+00	.00	2
334	337	338	442	443	0	1	.3300E+00	.3300E+00	.00	2
335	338	339	443	444	0	1	.3300E+00	.3300E+00	.00	2
336	339	340	444	445	0	1	.3300E+00	.3300E+00	.00	2
337	340	341	445	446	0	1	.3300E+00	.3300E+00	.00	2
338	341	342	446	447	0	1	.3300E+00	.3300E+00	.00	2
339	342	343	447	448	0	1	.3300E+00	.3300E+00	.00	2
340	343	344	448	449	0	1	.3300E+00	.3300E+00	.00	2
341	344	345	449	450	0	1	.3300E+00	.3300E+00	.00	2
342	345	346	450	451	0	1	.3300E+00	.3300E+00	.00	2
343	346	347	451	452	0	1	.3300E+00	.3300E+00	.00	2
344	347	348	452	453	0	1	.3300E+00	.3300E+00	.00	2
345	348	349	453	454	0	1	.3300E+00	.3300E+00	.00	2
346	349	350	454	455	0	1	.3300E+00	.3300E+00	.00	2
347	350	351	455	456	0	1	.3300E+00	.3300E+00	.00	2
348	351	352	456	457	0	1	.3300E+00	.3300E+00	.00	2
349	352	353	457	458	0	1	.3300E+00	.3300E+00	.00	2
350	353	354	458	459	0	1	.3300E+00	.3300E+00	.00	2
351	354	355	459	460	0	1	.3300E+00	.3300E+00	.00	2
352	355	356	460	461	0	1	.3300E+00	.3300E+00	.00	2
353	356	357	461	462	0	1	.3300E+00	.3300E+00	.00	2
354	357	358	462	463	0	1	.3300E+00	.3300E+00	.00	2
355	358	359	463	464	0	1	.3300E+00	.3300E+00	.00	2
356	359	360	464	465	0	1	.3300E+00	.3300E+00	.00	2
357	360	361	465	466	0	1	.3300E+00	.3300E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
358	361	362	466	467	0	1	.3300E+00	.3300E+00	.00	2
359	362	363	467	468	0	1	.3300E+00	.3300E+00	.00	2
360	363	364	468	469	0	1	.3300E+00	.3300E+00	.00	2
361	364	365	469	470	0	1	.3300E+00	.3300E+00	.00	2
362	365	366	470	471	0	1	.3300E+00	.3300E+00	.00	2
363	366	367	471	472	0	1	.3300E+00	.3300E+00	.00	2
364	367	368	472	473	0	1	.3300E+00	.3300E+00	.00	2
365	368	369	473	474	0	1	.3300E+00	.3300E+00	.00	2
366	369	370	474	475	0	1	.3300E+00	.3300E+00	.00	2
367	370	371	475	476	0	1	.3300E+00	.3300E+00	.00	2
368	371	372	476	477	0	1	.3300E+00	.3300E+00	.00	2
369	372	373	477	478	0	1	.3300E+00	.3300E+00	.00	2
370	373	374	478	479	0	1	.3300E+00	.3300E+00	.00	2
371	374	375	479	480	0	1	.3300E+00	.3300E+00	.00	2
372	375	376	480	481	0	1	.3300E+00	.3300E+00	.00	2
373	376	377	481	482	0	1	.3300E+00	.3300E+00	.00	2
374	377	378	482	483	0	1	.3300E+00	.3300E+00	.00	2
375	378	379	483	484	0	1	.3300E+00	.3300E+00	.00	2
376	379	380	484	485	0	1	.3300E+00	.3300E+00	.00	2
377	380	381	485	486	0	1	.3300E+00	.3300E+00	.00	2
378	381	382	486	487	0	1	.3300E+00	.3300E+00	.00	2
379	382	383	487	488	0	1	.3300E+00	.3300E+00	.00	2
380	383	384	488	489	0	1	.3300E+00	.3300E+00	.00	2
381	384	385	489	490	0	1	.3300E+00	.3300E+00	.00	2
382	385	386	490	491	0	1	.3300E+00	.3300E+00	.00	2
383	386	387	491	492	0	1	.3300E+00	.3300E+00	.00	2
384	387	388	492	493	0	1	.3300E+00	.3300E+00	.00	2
385	388	389	493	494	0	1	.3300E+00	.3300E+00	.00	2
386	389	390	494	495	0	1	.3300E+00	.3300E+00	.00	2
387	390	391	495	496	0	1	.3300E+00	.3300E+00	.00	2
388	391	392	496	497	0	1	.3300E+00	.3300E+00	.00	2
389	392	393	497	498	0	1	.3300E+00	.3300E+00	.00	2
390	393	394	498	499	0	1	.3300E+00	.3300E+00	.00	2
391	394	395	499	500	0	1	.3300E+00	.3300E+00	.00	2
392	395	396	500	501	0	1	.3300E+00	.3300E+00	.00	2
393	396	397	501	502	0	1	.3300E+00	.3300E+00	.00	2
394	397	398	502	503	0	1	.3300E+00	.3300E+00	.00	2
395	398	399	503	504	0	1	.3300E+00	.3300E+00	.00	2
396	399	400	504	505	0	1	.3300E+00	.3300E+00	.00	2
397	400	401	505	506	0	1	.3300E+00	.3300E+00	.00	2
398	401	402	506	507	0	1	.3300E+00	.3300E+00	.00	2
399	402	403	507	508	0	1	.3300E+00	.3300E+00	.00	2
400	403	404	508	509	0	1	.3300E+00	.3300E+00	.00	2
401	404	405	509	510	0	1	.3300E+00	.3300E+00	.00	2
402	405	406	510	511	0	1	.3300E+00	.3300E+00	.00	2
403	406	407	511	512	0	1	.3300E+00	.3300E+00	.00	2
404	407	408	512	513	0	1	.3300E+00	.3300E+00	.00	2
405	408	409	513	514	0	1	.3300E+00	.3300E+00	.00	2
406	409	410	514	515	0	1	.3300E+00	.3300E+00	.00	2
407	410	411	515	516	0	1	.3300E+00	.3300E+00	.00	2
408	411	412	516	517	0	1	.3300E+00	.3300E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
409	412	413	517	518	0	1	.3300E+00	.3300E+00	.00	2
410	413	414	518	519	0	1	.3300E+00	.3300E+00	.00	2
411	414	415	519	520	0	1	.3300E+00	.3300E+00	.00	2
412	415	416	520	521	0	1	.3300E+00	.3300E+00	.00	2
413	416	417	521	522	0	1	.3300E+00	.3300E+00	.00	2
414	417	418	522	523	0	1	.3300E+00	.3300E+00	.00	2
415	418	419	523	524	0	1	.3300E+00	.3300E+00	.00	2
416	419	420	524	525	0	1	.3300E+00	.3300E+00	.00	2
417	421	422	526	527	0	1	.4000E+00	.4000E+00	.00	2
418	422	423	527	528	0	1	.4000E+00	.4000E+00	.00	2
419	423	424	528	529	0	1	.4000E+00	.4000E+00	.00	2
420	424	425	529	530	0	1	.4000E+00	.4000E+00	.00	2
421	425	426	530	531	0	1	.4000E+00	.4000E+00	.00	2
422	426	427	531	532	0	1	.4000E+00	.4000E+00	.00	2
423	427	428	532	533	0	1	.4000E+00	.4000E+00	.00	2
424	428	429	533	534	0	1	.4000E+00	.4000E+00	.00	2
425	429	430	534	535	0	1	.4000E+00	.4000E+00	.00	2
426	430	431	535	536	0	1	.4000E+00	.4000E+00	.00	2
427	431	432	536	537	0	1	.4000E+00	.4000E+00	.00	2
428	432	433	537	538	0	1	.4000E+00	.4000E+00	.00	2
429	433	434	538	539	0	1	.4000E+00	.4000E+00	.00	2
430	434	435	539	540	0	1	.4000E+00	.4000E+00	.00	2
431	435	436	540	541	0	1	.4000E+00	.4000E+00	.00	2
432	436	437	541	542	0	1	.4000E+00	.4000E+00	.00	2
433	437	438	542	543	0	1	.4000E+00	.4000E+00	.00	2
434	438	439	543	544	0	1	.4000E+00	.4000E+00	.00	2
435	439	440	544	545	0	1	.4000E+00	.4000E+00	.00	2
436	440	441	545	546	0	1	.4000E+00	.4000E+00	.00	2
437	441	442	546	547	0	1	.4000E+00	.4000E+00	.00	2
438	442	443	547	548	0	1	.4000E+00	.4000E+00	.00	2
439	443	444	548	549	0	1	.4000E+00	.4000E+00	.00	2
440	444	445	549	550	0	1	.4000E+00	.4000E+00	.00	2
441	445	446	550	551	0	1	.4000E+00	.4000E+00	.00	2
442	446	447	551	552	0	1	.4000E+00	.4000E+00	.00	2
443	447	448	552	553	0	1	.4000E+00	.4000E+00	.00	2
444	448	449	553	554	0	1	.4000E+00	.4000E+00	.00	2
445	449	450	554	555	0	1	.4000E+00	.4000E+00	.00	2
446	450	451	555	556	0	1	.4000E+00	.4000E+00	.00	2
447	451	452	556	557	0	1	.4000E+00	.4000E+00	.00	2
448	452	453	557	558	0	1	.4000E+00	.4000E+00	.00	2
449	453	454	558	559	0	1	.4000E+00	.4000E+00	.00	2
450	454	455	559	560	0	1	.4000E+00	.4000E+00	.00	2
451	455	456	560	561	0	1	.4000E+00	.4000E+00	.00	2
452	456	457	561	562	0	1	.4000E+00	.4000E+00	.00	2
453	457	458	562	563	0	1	.4000E+00	.4000E+00	.00	2
454	458	459	563	564	0	1	.4000E+00	.4000E+00	.00	2
455	459	460	564	565	0	1	.4000E+00	.4000E+00	.00	2
456	460	461	565	566	0	1	.4000E+00	.4000E+00	.00	2
457	461	462	566	567	0	1	.4000E+00	.4000E+00	.00	2
458	462	463	567	568	0	1	.4000E+00	.4000E+00	.00	2
459	463	464	568	569	0	1	.4000E+00	.4000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
460	464	465	569	570	0	1	.4000E+00	.4000E+00	.00	2
461	465	466	570	571	0	1	.4000E+00	.4000E+00	.00	2
462	466	467	571	572	0	1	.4000E+00	.4000E+00	.00	2
463	467	468	572	573	0	1	.4000E+00	.4000E+00	.00	2
464	468	469	573	574	0	1	.4000E+00	.4000E+00	.00	2
465	469	470	574	575	0	1	.4000E+00	.4000E+00	.00	2
466	470	471	575	576	0	1	.4000E+00	.4000E+00	.00	2
467	471	472	576	577	0	1	.4000E+00	.4000E+00	.00	2
468	472	473	577	578	0	1	.4000E+00	.4000E+00	.00	2
469	473	474	578	579	0	1	.4000E+00	.4000E+00	.00	2
470	474	475	579	580	0	1	.4000E+00	.4000E+00	.00	2
471	475	476	580	581	0	1	.4000E+00	.4000E+00	.00	2
472	476	477	581	582	0	1	.4000E+00	.4000E+00	.00	2
473	477	478	582	583	0	1	.4000E+00	.4000E+00	.00	2
474	478	479	583	584	0	1	.4000E+00	.4000E+00	.00	2
475	479	480	584	585	0	1	.4000E+00	.4000E+00	.00	2
476	480	481	585	586	0	1	.4000E+00	.4000E+00	.00	2
477	481	482	586	587	0	1	.4000E+00	.4000E+00	.00	2
478	482	483	587	588	0	1	.4000E+00	.4000E+00	.00	2
479	483	484	588	589	0	1	.4000E+00	.4000E+00	.00	2
480	484	485	589	590	0	1	.4000E+00	.4000E+00	.00	2
481	485	486	590	591	0	1	.4000E+00	.4000E+00	.00	2
482	486	487	591	592	0	1	.4000E+00	.4000E+00	.00	2
483	487	488	592	593	0	1	.4000E+00	.4000E+00	.00	2
484	488	489	593	594	0	1	.4000E+00	.4000E+00	.00	2
485	489	490	594	595	0	1	.4000E+00	.4000E+00	.00	2
486	490	491	595	596	0	1	.4000E+00	.4000E+00	.00	2
487	491	492	596	597	0	1	.4000E+00	.4000E+00	.00	2
488	492	493	597	598	0	1	.4000E+00	.4000E+00	.00	2
489	493	494	598	599	0	1	.4000E+00	.4000E+00	.00	2
490	494	495	599	600	0	1	.4000E+00	.4000E+00	.00	2
491	495	496	600	601	0	1	.4000E+00	.4000E+00	.00	2
492	496	497	601	602	0	1	.4000E+00	.4000E+00	.00	2
493	497	498	602	603	0	1	.4000E+00	.4000E+00	.00	2
494	498	499	603	604	0	1	.4000E+00	.4000E+00	.00	2
495	499	500	604	605	0	1	.4000E+00	.4000E+00	.00	2
496	500	501	605	606	0	1	.4000E+00	.4000E+00	.00	2
497	501	502	606	607	0	1	.4000E+00	.4000E+00	.00	2
498	502	503	607	608	0	1	.4000E+00	.4000E+00	.00	2
499	503	504	608	609	0	1	.4000E+00	.4000E+00	.00	2
500	504	505	609	610	0	1	.4000E+00	.4000E+00	.00	2
501	505	506	610	611	0	1	.4000E+00	.4000E+00	.00	2
502	506	507	611	612	0	1	.4000E+00	.4000E+00	.00	2
503	507	508	612	613	0	1	.4000E+00	.4000E+00	.00	2
504	508	509	613	614	0	1	.4000E+00	.4000E+00	.00	2
505	509	510	614	615	0	1	.4000E+00	.4000E+00	.00	2
506	510	511	615	616	0	1	.4000E+00	.4000E+00	.00	2
507	511	512	616	617	0	1	.4000E+00	.4000E+00	.00	2
508	512	513	617	618	0	1	.4000E+00	.4000E+00	.00	2
509	513	514	618	619	0	1	.4000E+00	.4000E+00	.00	2
510	514	515	619	620	0	1	.4000E+00	.4000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
511	515	516	620	621	0	1	.4000E+00	.4000E+00	.00	2
512	516	517	621	622	0	1	.4000E+00	.4000E+00	.00	2
513	517	518	622	623	0	1	.4000E+00	.4000E+00	.00	2
514	518	519	623	624	0	1	.4000E+00	.4000E+00	.00	2
515	519	520	624	625	0	1	.4000E+00	.4000E+00	.00	2
516	520	521	625	626	0	1	.4000E+00	.4000E+00	.00	2
517	521	522	626	627	0	1	.4000E+00	.4000E+00	.00	2
518	522	523	627	628	0	1	.4000E+00	.4000E+00	.00	2
519	523	524	628	629	0	1	.4000E+00	.4000E+00	.00	2
520	524	525	629	630	0	1	.4000E+00	.4000E+00	.00	2
521	526	527	631	632	0	1	.3000E+00	.3000E+00	.00	2
522	527	528	632	633	0	1	.3000E+00	.3000E+00	.00	2
523	528	529	633	634	0	1	.3000E+00	.3000E+00	.00	2
524	529	530	634	635	0	1	.3000E+00	.3000E+00	.00	2
525	530	531	635	636	0	1	.3000E+00	.3000E+00	.00	2
526	531	532	636	637	0	1	.3000E+00	.3000E+00	.00	2
527	532	533	637	638	0	1	.3000E+00	.3000E+00	.00	2
528	533	534	638	639	0	1	.3000E+00	.3000E+00	.00	2
529	534	535	639	640	0	1	.3000E+00	.3000E+00	.00	2
530	535	536	640	641	0	1	.3000E+00	.3000E+00	.00	2
531	536	537	641	642	0	1	.3000E+00	.3000E+00	.00	2
532	537	538	642	643	0	1	.3000E+00	.3000E+00	.00	2
533	538	539	643	644	0	1	.3000E+00	.3000E+00	.00	2
534	539	540	644	645	0	1	.3000E+00	.3000E+00	.00	2
535	540	541	645	646	0	1	.3000E+00	.3000E+00	.00	2
536	541	542	646	647	0	1	.3000E+00	.3000E+00	.00	2
537	542	543	647	648	0	1	.3000E+00	.3000E+00	.00	2
538	543	544	648	649	0	1	.3000E+00	.3000E+00	.00	2
539	544	545	649	650	0	1	.3000E+00	.3000E+00	.00	2
540	545	546	650	651	0	1	.3000E+00	.3000E+00	.00	2
541	546	547	651	652	0	1	.3000E+00	.3000E+00	.00	2
542	547	548	652	653	0	1	.3000E+00	.3000E+00	.00	2
543	548	549	653	654	0	1	.3000E+00	.3000E+00	.00	2
544	549	550	654	655	0	1	.3000E+00	.3000E+00	.00	2
545	550	551	655	656	0	1	.3000E+00	.3000E+00	.00	2
546	551	552	656	657	0	1	.3000E+00	.3000E+00	.00	2
547	552	553	657	658	0	1	.3000E+00	.3000E+00	.00	2
548	553	554	658	659	0	1	.3000E+00	.3000E+00	.00	2
549	554	555	659	660	0	1	.3000E+00	.3000E+00	.00	2
550	555	556	660	661	0	1	.3000E+00	.3000E+00	.00	2
551	556	557	661	662	0	1	.3000E+00	.3000E+00	.00	2
552	557	558	662	663	0	1	.3000E+00	.3000E+00	.00	2
553	558	559	663	664	0	1	.3000E+00	.3000E+00	.00	2
554	559	560	664	665	0	1	.3000E+00	.3000E+00	.00	2
555	560	561	665	666	0	1	.3000E+00	.3000E+00	.00	2
556	561	562	666	667	0	1	.3000E+00	.3000E+00	.00	2
557	562	563	667	668	0	1	.3000E+00	.3000E+00	.00	2
558	563	564	668	669	0	1	.3000E+00	.3000E+00	.00	2
559	564	565	669	670	0	1	.3000E+00	.3000E+00	.00	2
560	565	566	670	671	0	1	.3000E+00	.3000E+00	.00	2
561	566	567	671	672	0	1	.3000E+00	.3000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
562	567	568	672	673	0	1	.3000E+00	.3000E+00	.00	2
563	568	569	673	674	0	1	.3000E+00	.3000E+00	.00	2
564	569	570	674	675	0	1	.3000E+00	.3000E+00	.00	2
565	570	571	675	676	0	1	.3000E+00	.3000E+00	.00	2
566	571	572	676	677	0	1	.3000E+00	.3000E+00	.00	2
567	572	573	677	678	0	1	.3000E+00	.3000E+00	.00	2
568	573	574	678	679	0	1	.3000E+00	.3000E+00	.00	2
569	574	575	679	680	0	1	.3000E+00	.3000E+00	.00	2
570	575	576	680	681	0	1	.3000E+00	.3000E+00	.00	2
571	576	577	681	682	0	1	.3000E+00	.3000E+00	.00	2
572	577	578	682	683	0	1	.3000E+00	.3000E+00	.00	2
573	578	579	683	684	0	1	.3000E+00	.3000E+00	.00	2
574	579	580	684	685	0	1	.3000E+00	.3000E+00	.00	2
575	580	581	685	686	0	1	.3000E+00	.3000E+00	.00	2
576	581	582	686	687	0	1	.3000E+00	.3000E+00	.00	2
577	582	583	687	688	0	1	.3000E+00	.3000E+00	.00	2
578	583	584	688	689	0	1	.3000E+00	.3000E+00	.00	2
579	584	585	689	690	0	1	.3000E+00	.3000E+00	.00	2
580	585	586	690	691	0	1	.3000E+00	.3000E+00	.00	2
581	586	587	691	692	0	1	.3000E+00	.3000E+00	.00	2
582	587	588	692	693	0	1	.3000E+00	.3000E+00	.00	2
583	588	589	693	694	0	1	.3000E+00	.3000E+00	.00	2
584	589	590	694	695	0	1	.3000E+00	.3000E+00	.00	2
585	590	591	695	696	0	1	.3000E+00	.3000E+00	.00	2
586	591	592	696	697	0	1	.3000E+00	.3000E+00	.00	2
587	592	593	697	698	0	1	.3000E+00	.3000E+00	.00	2
588	593	594	698	699	0	1	.3000E+00	.3000E+00	.00	2
589	594	595	699	700	0	1	.3000E+00	.3000E+00	.00	2
590	595	596	700	701	0	1	.3000E+00	.3000E+00	.00	2
591	596	597	701	702	0	1	.3000E+00	.3000E+00	.00	2
592	597	598	702	703	0	1	.3000E+00	.3000E+00	.00	2
593	598	599	703	704	0	1	.3000E+00	.3000E+00	.00	2
594	599	600	704	705	0	1	.3000E+00	.3000E+00	.00	2
595	600	601	705	706	0	1	.3000E+00	.3000E+00	.00	2
596	601	602	706	707	0	1	.3000E+00	.3000E+00	.00	2
597	602	603	707	708	0	1	.3000E+00	.3000E+00	.00	2
598	603	604	708	709	0	1	.3000E+00	.3000E+00	.00	2
599	604	605	709	710	0	1	.3000E+00	.3000E+00	.00	2
600	605	606	710	711	0	1	.3000E+00	.3000E+00	.00	2
601	606	607	711	712	0	1	.3000E+00	.3000E+00	.00	2
602	607	608	712	713	0	1	.3000E+00	.3000E+00	.00	2
603	608	609	713	714	0	1	.3000E+00	.3000E+00	.00	2
604	609	610	714	715	0	1	.3000E+00	.3000E+00	.00	2
605	610	611	715	716	0	1	.3000E+00	.3000E+00	.00	2
606	611	612	716	717	0	1	.3000E+00	.3000E+00	.00	2
607	612	613	717	718	0	1	.3000E+00	.3000E+00	.00	2
608	613	614	718	719	0	1	.3000E+00	.3000E+00	.00	2
609	614	615	719	720	0	1	.3000E+00	.3000E+00	.00	2
610	615	616	720	721	0	1	.3000E+00	.3000E+00	.00	2
611	616	617	721	722	0	1	.3000E+00	.3000E+00	.00	2
612	617	618	722	723	0	1	.3000E+00	.3000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
613	618	619	723	724	0	1	.3000E+00	.3000E+00	.00	2
614	619	620	724	725	0	1	.3000E+00	.3000E+00	.00	2
615	620	621	725	726	0	1	.3000E+00	.3000E+00	.00	2
616	621	622	726	727	0	1	.3000E+00	.3000E+00	.00	2
617	622	623	727	728	0	1	.3000E+00	.3000E+00	.00	2
618	623	624	728	729	0	1	.3000E+00	.3000E+00	.00	2
619	624	625	729	730	0	1	.3000E+00	.3000E+00	.00	2
620	625	626	730	731	0	1	.3000E+00	.3000E+00	.00	2
621	626	627	731	732	0	1	.3000E+00	.3000E+00	.00	2
622	627	628	732	733	0	1	.3000E+00	.3000E+00	.00	2
623	628	629	733	734	0	1	.3000E+00	.3000E+00	.00	2
624	629	630	734	735	0	1	.3000E+00	.3000E+00	.00	2
625	106	107	736	737	0	1	.4000E+00	.4000E+00	.00	1
626	107	108	737	738	0	1	.4000E+00	.4000E+00	.00	1
627	108	109	738	739	0	1	.4000E+00	.4000E+00	.00	1
628	109	110	739	740	0	1	.4000E+00	.4000E+00	.00	1
629	110	111	740	741	0	1	.4000E+00	.4000E+00	.00	1
630	111	112	741	742	0	1	.4000E+00	.4000E+00	.00	1
631	112	113	742	743	0	1	.4000E+00	.4000E+00	.00	1
632	113	114	743	744	0	1	.4000E+00	.4000E+00	.00	1
633	114	115	744	745	0	1	.4000E+00	.4000E+00	.00	1
634	115	116	745	746	0	1	.4000E+00	.4000E+00	.00	1
635	116	117	746	747	0	1	.4000E+00	.4000E+00	.00	1
636	117	118	747	748	0	1	.4000E+00	.4000E+00	.00	1
637	118	119	748	749	0	1	.4000E+00	.4000E+00	.00	1
638	119	120	749	750	0	1	.4000E+00	.4000E+00	.00	1
639	120	121	750	751	0	1	.4000E+00	.4000E+00	.00	1
640	121	122	751	752	0	1	.4000E+00	.4000E+00	.00	1
641	122	123	752	753	0	1	.4000E+00	.4000E+00	.00	1
642	123	124	753	754	0	1	.4000E+00	.4000E+00	.00	1
643	124	125	754	755	0	1	.4000E+00	.4000E+00	.00	1
644	125	126	755	756	0	1	.4000E+00	.4000E+00	.00	1
645	126	127	756	757	0	1	.4000E+00	.4000E+00	.00	1
646	127	128	757	758	0	1	.4000E+00	.4000E+00	.00	1
647	128	129	758	759	0	1	.4000E+00	.4000E+00	.00	1
648	129	130	759	760	0	1	.4000E+00	.4000E+00	.00	1
649	130	131	760	761	0	1	.4000E+00	.4000E+00	.00	1
650	131	132	761	762	0	1	.4000E+00	.4000E+00	.00	1
651	132	133	762	763	0	1	.4000E+00	.4000E+00	.00	1
652	133	134	763	764	0	1	.4000E+00	.4000E+00	.00	1
653	134	135	764	765	0	1	.4000E+00	.4000E+00	.00	1
654	135	136	765	766	0	1	.4000E+00	.4000E+00	.00	1
655	136	137	766	767	0	1	.4000E+00	.4000E+00	.00	1
656	137	138	767	768	0	1	.4000E+00	.4000E+00	.00	1
657	138	139	768	769	0	1	.4000E+00	.4000E+00	.00	1
658	139	140	769	770	0	1	.4000E+00	.4000E+00	.00	1
659	140	141	770	771	0	1	.4000E+00	.4000E+00	.00	1
660	141	142	771	772	0	1	.4000E+00	.4000E+00	.00	1
661	142	143	772	773	0	1	.4000E+00	.4000E+00	.00	1
662	143	144	773	774	0	1	.4000E+00	.4000E+00	.00	1
663	144	145	774	775	0	1	.4000E+00	.4000E+00	.00	1

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
664	145	146	775	776	0	1	.4000E+00	.4000E+00	.00	1
665	146	147	776	777	0	1	.4000E+00	.4000E+00	.00	1
666	147	148	777	778	0	1	.4000E+00	.4000E+00	.00	1
667	148	149	778	779	0	1	.4000E+00	.4000E+00	.00	1
668	149	150	779	780	0	1	.4000E+00	.4000E+00	.00	1
669	150	151	780	781	0	1	.4000E+00	.4000E+00	.00	1
670	151	152	781	782	0	1	.4000E+00	.4000E+00	.00	1
671	152	153	782	783	0	1	.4000E+00	.4000E+00	.00	1
672	153	154	783	784	0	1	.4000E+00	.4000E+00	.00	1
673	154	155	784	785	0	1	.4000E+00	.4000E+00	.00	1
674	155	156	785	786	0	1	.4000E+00	.4000E+00	.00	1
675	156	157	786	787	0	1	.4000E+00	.4000E+00	.00	1
676	157	158	787	788	0	1	.4000E+00	.4000E+00	.00	1
677	158	159	788	789	0	1	.4000E+00	.4000E+00	.00	1
678	159	160	789	790	0	1	.4000E+00	.4000E+00	.00	1
679	160	161	790	791	0	1	.4000E+00	.4000E+00	.00	1
680	161	162	791	792	0	1	.4000E+00	.4000E+00	.00	1
681	162	163	792	793	0	1	.4000E+00	.4000E+00	.00	1
682	163	164	793	794	0	1	.4000E+00	.4000E+00	.00	1
683	164	165	794	795	0	1	.4000E+00	.4000E+00	.00	1
684	165	166	795	796	0	1	.4000E+00	.4000E+00	.00	1
685	166	167	796	797	0	1	.4000E+00	.4000E+00	.00	1
686	167	168	797	798	0	1	.4000E+00	.4000E+00	.00	1
687	168	169	798	799	0	1	.4000E+00	.4000E+00	.00	1
688	169	170	799	800	0	1	.4000E+00	.4000E+00	.00	1
689	170	171	800	801	0	1	.4000E+00	.4000E+00	.00	1
690	171	172	801	802	0	1	.4000E+00	.4000E+00	.00	1
691	172	173	802	803	0	1	.4000E+00	.4000E+00	.00	1
692	173	174	803	804	0	1	.4000E+00	.4000E+00	.00	1
693	174	175	804	805	0	1	.4000E+00	.4000E+00	.00	1
694	175	176	805	806	0	1	.4000E+00	.4000E+00	.00	1
695	176	177	806	807	0	1	.4000E+00	.4000E+00	.00	1
696	177	178	807	808	0	1	.4000E+00	.4000E+00	.00	1
697	178	179	808	809	0	1	.4000E+00	.4000E+00	.00	1
698	179	180	809	810	0	1	.4000E+00	.4000E+00	.00	1
699	180	181	810	811	0	1	.4000E+00	.4000E+00	.00	1
700	181	182	811	812	0	1	.4000E+00	.4000E+00	.00	1
701	182	183	812	813	0	1	.4000E+00	.4000E+00	.00	1
702	183	184	813	814	0	1	.4000E+00	.4000E+00	.00	1
703	184	185	814	815	0	1	.4000E+00	.4000E+00	.00	1
704	185	186	815	816	0	1	.4000E+00	.4000E+00	.00	1
705	186	187	816	817	0	1	.4000E+00	.4000E+00	.00	1
706	187	188	817	818	0	1	.4000E+00	.4000E+00	.00	1
707	188	189	818	819	0	1	.4000E+00	.4000E+00	.00	1
708	189	190	819	820	0	1	.4000E+00	.4000E+00	.00	1
709	190	191	820	821	0	1	.4000E+00	.4000E+00	.00	1
710	191	192	821	822	0	1	.4000E+00	.4000E+00	.00	1
711	192	193	822	823	0	1	.4000E+00	.4000E+00	.00	1
712	193	194	823	824	0	1	.4000E+00	.4000E+00	.00	1
713	194	195	824	825	0	1	.4000E+00	.4000E+00	.00	1
714	195	196	825	826	0	1	.4000E+00	.4000E+00	.00	1

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
715	196	197	826	827	0	1	.4000E+00	.4000E+00	.00	1
716	197	198	827	828	0	1	.4000E+00	.4000E+00	.00	1
717	198	199	828	829	0	1	.4000E+00	.4000E+00	.00	1
718	199	200	829	830	0	1	.4000E+00	.4000E+00	.00	1
719	200	201	830	831	0	1	.4000E+00	.4000E+00	.00	1
720	201	202	831	832	0	1	.4000E+00	.4000E+00	.00	1
721	202	203	832	833	0	1	.4000E+00	.4000E+00	.00	1
722	203	204	833	834	0	1	.4000E+00	.4000E+00	.00	1
723	204	205	834	835	0	1	.4000E+00	.4000E+00	.00	1
724	205	206	835	836	0	1	.4000E+00	.4000E+00	.00	1
725	206	207	836	837	0	1	.4000E+00	.4000E+00	.00	1
726	207	208	837	838	0	1	.4000E+00	.4000E+00	.00	1
727	208	209	838	839	0	1	.4000E+00	.4000E+00	.00	1
728	209	210	839	840	0	1	.4000E+00	.4000E+00	.00	1
729	526	527	1156	1157	0	1	.4000E+00	.4000E+00	.00	1
730	527	528	1157	1158	0	1	.4000E+00	.4000E+00	.00	1
731	528	529	1158	1159	0	1	.4000E+00	.4000E+00	.00	1
732	529	530	1159	1160	0	1	.4000E+00	.4000E+00	.00	1
733	530	531	1160	1161	0	1	.4000E+00	.4000E+00	.00	1
734	531	532	1161	1162	0	1	.4000E+00	.4000E+00	.00	1
735	532	533	1162	1163	0	1	.4000E+00	.4000E+00	.00	1
736	533	534	1163	1164	0	1	.4000E+00	.4000E+00	.00	1
737	534	535	1164	1165	0	1	.4000E+00	.4000E+00	.00	1
738	535	536	1165	1166	0	1	.4000E+00	.4000E+00	.00	1
739	536	537	1166	1167	0	1	.4000E+00	.4000E+00	.00	1
740	537	538	1167	1168	0	1	.4000E+00	.4000E+00	.00	1
741	538	539	1168	1169	0	1	.4000E+00	.4000E+00	.00	1
742	539	540	1169	1170	0	1	.4000E+00	.4000E+00	.00	1
743	540	541	1170	1171	0	1	.4000E+00	.4000E+00	.00	1
744	541	542	1171	1172	0	1	.4000E+00	.4000E+00	.00	1
745	542	543	1172	1173	0	1	.4000E+00	.4000E+00	.00	1
746	543	544	1173	1174	0	1	.4000E+00	.4000E+00	.00	1
747	544	545	1174	1175	0	1	.4000E+00	.4000E+00	.00	1
748	545	546	1175	1176	0	1	.4000E+00	.4000E+00	.00	1
749	546	547	1176	1177	0	1	.4000E+00	.4000E+00	.00	1
750	547	548	1177	1178	0	1	.4000E+00	.4000E+00	.00	1
751	548	549	1178	1179	0	1	.4000E+00	.4000E+00	.00	1
752	549	550	1179	1180	0	1	.4000E+00	.4000E+00	.00	1
753	550	551	1180	1181	0	1	.4000E+00	.4000E+00	.00	1
754	551	552	1181	1182	0	1	.4000E+00	.4000E+00	.00	1
755	552	553	1182	1183	0	1	.4000E+00	.4000E+00	.00	1
756	553	554	1183	1184	0	1	.4000E+00	.4000E+00	.00	1
757	554	555	1184	1185	0	1	.4000E+00	.4000E+00	.00	1
758	555	556	1185	1186	0	1	.4000E+00	.4000E+00	.00	1
759	556	557	1186	1187	0	1	.4000E+00	.4000E+00	.00	1
760	557	558	1187	1188	0	1	.4000E+00	.4000E+00	.00	1
761	558	559	1188	1189	0	1	.4000E+00	.4000E+00	.00	1
762	559	560	1189	1190	0	1	.4000E+00	.4000E+00	.00	1
763	560	561	1190	1191	0	1	.4000E+00	.4000E+00	.00	1
764	561	562	1191	1192	0	1	.4000E+00	.4000E+00	.00	1
765	562	563	1192	1193	0	1	.4000E+00	.4000E+00	.00	1

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
766	563	564	1193	1194	0	1	.4000E+00	.4000E+00	.00	1
767	564	565	1194	1195	0	1	.4000E+00	.4000E+00	.00	1
768	565	566	1195	1196	0	1	.4000E+00	.4000E+00	.00	1
769	566	567	1196	1197	0	1	.4000E+00	.4000E+00	.00	1
770	567	568	1197	1198	0	1	.4000E+00	.4000E+00	.00	1
771	568	569	1198	1199	0	1	.4000E+00	.4000E+00	.00	1
772	569	570	1199	1200	0	1	.4000E+00	.4000E+00	.00	1
773	570	571	1200	1201	0	1	.4000E+00	.4000E+00	.00	1
774	571	572	1201	1202	0	1	.4000E+00	.4000E+00	.00	1
775	572	573	1202	1203	0	1	.4000E+00	.4000E+00	.00	1
776	573	574	1203	1204	0	1	.4000E+00	.4000E+00	.00	1
777	574	575	1204	1205	0	1	.4000E+00	.4000E+00	.00	1
778	575	576	1205	1206	0	1	.4000E+00	.4000E+00	.00	1
779	576	577	1206	1207	0	1	.4000E+00	.4000E+00	.00	1
780	577	578	1207	1208	0	1	.4000E+00	.4000E+00	.00	1
781	578	579	1208	1209	0	1	.4000E+00	.4000E+00	.00	1
782	579	580	1209	1210	0	1	.4000E+00	.4000E+00	.00	1
783	580	581	1210	1211	0	1	.4000E+00	.4000E+00	.00	1
784	581	582	1211	1212	0	1	.4000E+00	.4000E+00	.00	1
785	582	583	1212	1213	0	1	.4000E+00	.4000E+00	.00	1
786	583	584	1213	1214	0	1	.4000E+00	.4000E+00	.00	1
787	584	585	1214	1215	0	1	.4000E+00	.4000E+00	.00	1
788	585	586	1215	1216	0	1	.4000E+00	.4000E+00	.00	1
789	586	587	1216	1217	0	1	.4000E+00	.4000E+00	.00	1
790	587	588	1217	1218	0	1	.4000E+00	.4000E+00	.00	1
791	588	589	1218	1219	0	1	.4000E+00	.4000E+00	.00	1
792	589	590	1219	1220	0	1	.4000E+00	.4000E+00	.00	1
793	590	591	1220	1221	0	1	.4000E+00	.4000E+00	.00	1
794	591	592	1221	1222	0	1	.4000E+00	.4000E+00	.00	1
795	592	593	1222	1223	0	1	.4000E+00	.4000E+00	.00	1
796	593	594	1223	1224	0	1	.4000E+00	.4000E+00	.00	1
797	594	595	1224	1225	0	1	.4000E+00	.4000E+00	.00	1
798	595	596	1225	1226	0	1	.4000E+00	.4000E+00	.00	1
799	596	597	1226	1227	0	1	.4000E+00	.4000E+00	.00	1
800	597	598	1227	1228	0	1	.4000E+00	.4000E+00	.00	1
801	598	599	1228	1229	0	1	.4000E+00	.4000E+00	.00	1
802	599	600	1229	1230	0	1	.4000E+00	.4000E+00	.00	1
803	600	601	1230	1231	0	1	.4000E+00	.4000E+00	.00	1
804	601	602	1231	1232	0	1	.4000E+00	.4000E+00	.00	1
805	602	603	1232	1233	0	1	.4000E+00	.4000E+00	.00	1
806	603	604	1233	1234	0	1	.4000E+00	.4000E+00	.00	1
807	604	605	1234	1235	0	1	.4000E+00	.4000E+00	.00	1
808	605	606	1235	1236	0	1	.4000E+00	.4000E+00	.00	1
809	606	607	1236	1237	0	1	.4000E+00	.4000E+00	.00	1
810	607	608	1237	1238	0	1	.4000E+00	.4000E+00	.00	1
811	608	609	1238	1239	0	1	.4000E+00	.4000E+00	.00	1
812	609	610	1239	1240	0	1	.4000E+00	.4000E+00	.00	1
813	610	611	1240	1241	0	1	.4000E+00	.4000E+00	.00	1
814	611	612	1241	1242	0	1	.4000E+00	.4000E+00	.00	1
815	612	613	1242	1243	0	1	.4000E+00	.4000E+00	.00	1
816	613	614	1243	1244	0	1	.4000E+00	.4000E+00	.00	1

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
817	614	615	1244	1245	0	1	.4000E+00	.4000E+00	.00	1
818	615	616	1245	1246	0	1	.4000E+00	.4000E+00	.00	1
819	616	617	1246	1247	0	1	.4000E+00	.4000E+00	.00	1
820	617	618	1247	1248	0	1	.4000E+00	.4000E+00	.00	1
821	618	619	1248	1249	0	1	.4000E+00	.4000E+00	.00	1
822	619	620	1249	1250	0	1	.4000E+00	.4000E+00	.00	1
823	620	621	1250	1251	0	1	.4000E+00	.4000E+00	.00	1
824	621	622	1251	1252	0	1	.4000E+00	.4000E+00	.00	1
825	622	623	1252	1253	0	1	.4000E+00	.4000E+00	.00	1
826	623	624	1253	1254	0	1	.4000E+00	.4000E+00	.00	1
827	624	625	1254	1255	0	1	.4000E+00	.4000E+00	.00	1
828	625	626	1255	1256	0	1	.4000E+00	.4000E+00	.00	1
829	626	627	1256	1257	0	1	.4000E+00	.4000E+00	.00	1
830	627	628	1257	1258	0	1	.4000E+00	.4000E+00	.00	1
831	628	629	1258	1259	0	1	.4000E+00	.4000E+00	.00	1
832	629	630	1259	1260	0	1	.4000E+00	.4000E+00	.00	1
833	736	737	841	842	0	1	.4000E+00	.4000E+00	.00	2
834	737	738	842	843	0	1	.4000E+00	.4000E+00	.00	2
835	738	739	843	844	0	1	.4000E+00	.4000E+00	.00	2
836	739	740	844	845	0	1	.4000E+00	.4000E+00	.00	2
837	740	741	845	846	0	1	.4000E+00	.4000E+00	.00	2
838	741	742	846	847	0	1	.4000E+00	.4000E+00	.00	2
839	742	743	847	848	0	1	.4000E+00	.4000E+00	.00	2
840	743	744	848	849	0	1	.4000E+00	.4000E+00	.00	2
841	744	745	849	850	0	1	.4000E+00	.4000E+00	.00	2
842	745	746	850	851	0	1	.4000E+00	.4000E+00	.00	2
843	746	747	851	852	0	1	.4000E+00	.4000E+00	.00	2
844	747	748	852	853	0	1	.4000E+00	.4000E+00	.00	2
845	748	749	853	854	0	1	.4000E+00	.4000E+00	.00	2
846	749	750	854	855	0	1	.4000E+00	.4000E+00	.00	2
847	750	751	855	856	0	1	.4000E+00	.4000E+00	.00	2
848	751	752	856	857	0	1	.4000E+00	.4000E+00	.00	2
849	752	753	857	858	0	1	.4000E+00	.4000E+00	.00	2
850	753	754	858	859	0	1	.4000E+00	.4000E+00	.00	2
851	754	755	859	860	0	1	.4000E+00	.4000E+00	.00	2
852	755	756	860	861	0	1	.4000E+00	.4000E+00	.00	2
853	756	757	861	862	0	1	.4000E+00	.4000E+00	.00	2
854	757	758	862	863	0	1	.4000E+00	.4000E+00	.00	2
855	758	759	863	864	0	1	.4000E+00	.4000E+00	.00	2
856	759	760	864	865	0	1	.4000E+00	.4000E+00	.00	2
857	760	761	865	866	0	1	.4000E+00	.4000E+00	.00	2
858	761	762	866	867	0	1	.4000E+00	.4000E+00	.00	2
859	762	763	867	868	0	1	.4000E+00	.4000E+00	.00	2
860	763	764	868	869	0	1	.4000E+00	.4000E+00	.00	2
861	764	765	869	870	0	1	.4000E+00	.4000E+00	.00	2
862	765	766	870	871	0	1	.4000E+00	.4000E+00	.00	2
863	766	767	871	872	0	1	.4000E+00	.4000E+00	.00	2
864	767	768	872	873	0	1	.4000E+00	.4000E+00	.00	2
865	768	769	873	874	0	1	.4000E+00	.4000E+00	.00	2
866	769	770	874	875	0	1	.4000E+00	.4000E+00	.00	2
867	770	771	875	876	0	1	.4000E+00	.4000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
868	771	772	876	877	0	1	.4000E+00	.4000E+00	.00	2
869	772	773	877	878	0	1	.4000E+00	.4000E+00	.00	2
870	773	774	878	879	0	1	.4000E+00	.4000E+00	.00	2
871	774	775	879	880	0	1	.4000E+00	.4000E+00	.00	2
872	775	776	880	881	0	1	.4000E+00	.4000E+00	.00	2
873	776	777	881	882	0	1	.4000E+00	.4000E+00	.00	2
874	777	778	882	883	0	1	.4000E+00	.4000E+00	.00	2
875	778	779	883	884	0	1	.4000E+00	.4000E+00	.00	2
876	779	780	884	885	0	1	.4000E+00	.4000E+00	.00	2
877	780	781	885	886	0	1	.4000E+00	.4000E+00	.00	2
878	781	782	886	887	0	1	.4000E+00	.4000E+00	.00	2
879	782	783	887	888	0	1	.4000E+00	.4000E+00	.00	2
880	783	784	888	889	0	1	.4000E+00	.4000E+00	.00	2
881	784	785	889	890	0	1	.4000E+00	.4000E+00	.00	2
882	785	786	890	891	0	1	.4000E+00	.4000E+00	.00	2
883	786	787	891	892	0	1	.4000E+00	.4000E+00	.00	2
884	787	788	892	893	0	1	.4000E+00	.4000E+00	.00	2
885	788	789	893	894	0	1	.4000E+00	.4000E+00	.00	2
886	789	790	894	895	0	1	.4000E+00	.4000E+00	.00	2
887	790	791	895	896	0	1	.4000E+00	.4000E+00	.00	2
888	791	792	896	897	0	1	.4000E+00	.4000E+00	.00	2
889	792	793	897	898	0	1	.4000E+00	.4000E+00	.00	2
890	793	794	898	899	0	1	.4000E+00	.4000E+00	.00	2
891	794	795	899	900	0	1	.4000E+00	.4000E+00	.00	2
892	795	796	900	901	0	1	.4000E+00	.4000E+00	.00	2
893	796	797	901	902	0	1	.4000E+00	.4000E+00	.00	2
894	797	798	902	903	0	1	.4000E+00	.4000E+00	.00	2
895	798	799	903	904	0	1	.4000E+00	.4000E+00	.00	2
896	799	800	904	905	0	1	.4000E+00	.4000E+00	.00	2
897	800	801	905	906	0	1	.4000E+00	.4000E+00	.00	2
898	801	802	906	907	0	1	.4000E+00	.4000E+00	.00	2
899	802	803	907	908	0	1	.4000E+00	.4000E+00	.00	2
900	803	804	908	909	0	1	.4000E+00	.4000E+00	.00	2
901	804	805	909	910	0	1	.4000E+00	.4000E+00	.00	2
902	805	806	910	911	0	1	.4000E+00	.4000E+00	.00	2
903	806	807	911	912	0	1	.4000E+00	.4000E+00	.00	2
904	807	808	912	913	0	1	.4000E+00	.4000E+00	.00	2
905	808	809	913	914	0	1	.4000E+00	.4000E+00	.00	2
906	809	810	914	915	0	1	.4000E+00	.4000E+00	.00	2
907	810	811	915	916	0	1	.4000E+00	.4000E+00	.00	2
908	811	812	916	917	0	1	.4000E+00	.4000E+00	.00	2
909	812	813	917	918	0	1	.4000E+00	.4000E+00	.00	2
910	813	814	918	919	0	1	.4000E+00	.4000E+00	.00	2
911	814	815	919	920	0	1	.4000E+00	.4000E+00	.00	2
912	815	816	920	921	0	1	.4000E+00	.4000E+00	.00	2
913	816	817	921	922	0	1	.4000E+00	.4000E+00	.00	2
914	817	818	922	923	0	1	.4000E+00	.4000E+00	.00	2
915	818	819	923	924	0	1	.4000E+00	.4000E+00	.00	2
916	819	820	924	925	0	1	.4000E+00	.4000E+00	.00	2
917	820	821	925	926	0	1	.4000E+00	.4000E+00	.00	2
918	821	822	926	927	0	1	.4000E+00	.4000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
919	822	823	927	928	0	1	.4000E+00	.4000E+00	.00	2
920	823	824	928	929	0	1	.4000E+00	.4000E+00	.00	2
921	824	825	929	930	0	1	.4000E+00	.4000E+00	.00	2
922	825	826	930	931	0	1	.4000E+00	.4000E+00	.00	2
923	826	827	931	932	0	1	.4000E+00	.4000E+00	.00	2
924	827	828	932	933	0	1	.4000E+00	.4000E+00	.00	2
925	828	829	933	934	0	1	.4000E+00	.4000E+00	.00	2
926	829	830	934	935	0	1	.4000E+00	.4000E+00	.00	2
927	830	831	935	936	0	1	.4000E+00	.4000E+00	.00	2
928	831	832	936	937	0	1	.4000E+00	.4000E+00	.00	2
929	832	833	937	938	0	1	.4000E+00	.4000E+00	.00	2
930	833	834	938	939	0	1	.4000E+00	.4000E+00	.00	2
931	834	835	939	940	0	1	.4000E+00	.4000E+00	.00	2
932	835	836	940	941	0	1	.4000E+00	.4000E+00	.00	2
933	836	837	941	942	0	1	.4000E+00	.4000E+00	.00	2
934	837	838	942	943	0	1	.4000E+00	.4000E+00	.00	2
935	838	839	943	944	0	1	.4000E+00	.4000E+00	.00	2
936	839	840	944	945	0	1	.4000E+00	.4000E+00	.00	2
937	841	842	946	947	0	1	.3000E+00	.3000E+00	.00	2
938	842	843	947	948	0	1	.3000E+00	.3000E+00	.00	2
939	843	844	948	949	0	1	.3000E+00	.3000E+00	.00	2
940	844	845	949	950	0	1	.3000E+00	.3000E+00	.00	2
941	845	846	950	951	0	1	.3000E+00	.3000E+00	.00	2
942	846	847	951	952	0	1	.3000E+00	.3000E+00	.00	2
943	847	848	952	953	0	1	.3000E+00	.3000E+00	.00	2
944	848	849	953	954	0	1	.3000E+00	.3000E+00	.00	2
945	849	850	954	955	0	1	.3000E+00	.3000E+00	.00	2
946	850	851	955	956	0	1	.3000E+00	.3000E+00	.00	2
947	851	852	956	957	0	1	.3000E+00	.3000E+00	.00	2
948	852	853	957	958	0	1	.3000E+00	.3000E+00	.00	2
949	853	854	958	959	0	1	.3000E+00	.3000E+00	.00	2
950	854	855	959	960	0	1	.3000E+00	.3000E+00	.00	2
951	855	856	960	961	0	1	.3000E+00	.3000E+00	.00	2
952	856	857	961	962	0	1	.3000E+00	.3000E+00	.00	2
953	857	858	962	963	0	1	.3000E+00	.3000E+00	.00	2
954	858	859	963	964	0	1	.3000E+00	.3000E+00	.00	2
955	859	860	964	965	0	1	.3000E+00	.3000E+00	.00	2
956	860	861	965	966	0	1	.3000E+00	.3000E+00	.00	2
957	861	862	966	967	0	1	.3000E+00	.3000E+00	.00	2
958	862	863	967	968	0	1	.3000E+00	.3000E+00	.00	2
959	863	864	968	969	0	1	.3000E+00	.3000E+00	.00	2
960	864	865	969	970	0	1	.3000E+00	.3000E+00	.00	2
961	865	866	970	971	0	1	.3000E+00	.3000E+00	.00	2
962	866	867	971	972	0	1	.3000E+00	.3000E+00	.00	2
963	867	868	972	973	0	1	.3000E+00	.3000E+00	.00	2
964	868	869	973	974	0	1	.3000E+00	.3000E+00	.00	2
965	869	870	974	975	0	1	.3000E+00	.3000E+00	.00	2
966	870	871	975	976	0	1	.3000E+00	.3000E+00	.00	2
967	871	872	976	977	0	1	.3000E+00	.3000E+00	.00	2
968	872	873	977	978	0	1	.3000E+00	.3000E+00	.00	2
969	873	874	978	979	0	1	.3000E+00	.3000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
970	874	875	979	980	0	1	.3000E+00	.3000E+00	.00	2
971	875	876	980	981	0	1	.3000E+00	.3000E+00	.00	2
972	876	877	981	982	0	1	.3000E+00	.3000E+00	.00	2
973	877	878	982	983	0	1	.3000E+00	.3000E+00	.00	2
974	878	879	983	984	0	1	.3000E+00	.3000E+00	.00	2
975	879	880	984	985	0	1	.3000E+00	.3000E+00	.00	2
976	880	881	985	986	0	1	.3000E+00	.3000E+00	.00	2
977	881	882	986	987	0	1	.3000E+00	.3000E+00	.00	2
978	882	883	987	988	0	1	.3000E+00	.3000E+00	.00	2
979	883	884	988	989	0	1	.3000E+00	.3000E+00	.00	2
980	884	885	989	990	0	1	.3000E+00	.3000E+00	.00	2
981	885	886	990	991	0	1	.3000E+00	.3000E+00	.00	2
982	886	887	991	992	0	1	.3000E+00	.3000E+00	.00	2
983	887	888	992	993	0	1	.3000E+00	.3000E+00	.00	2
984	888	889	993	994	0	1	.3000E+00	.3000E+00	.00	2
985	889	890	994	995	0	1	.3000E+00	.3000E+00	.00	2
986	890	891	995	996	0	1	.3000E+00	.3000E+00	.00	2
987	891	892	996	997	0	1	.3000E+00	.3000E+00	.00	2
988	892	893	997	998	0	1	.3000E+00	.3000E+00	.00	2
989	893	894	998	999	0	1	.3000E+00	.3000E+00	.00	2
990	894	895	999	1000	0	1	.3000E+00	.3000E+00	.00	2
991	895	896	1000	1001	0	1	.3000E+00	.3000E+00	.00	2
992	896	897	1001	1002	0	1	.3000E+00	.3000E+00	.00	2
993	897	898	1002	1003	0	1	.3000E+00	.3000E+00	.00	2
994	898	899	1003	1004	0	1	.3000E+00	.3000E+00	.00	2
995	899	900	1004	1005	0	1	.3000E+00	.3000E+00	.00	2
996	900	901	1005	1006	0	1	.3000E+00	.3000E+00	.00	2
997	901	902	1006	1007	0	1	.3000E+00	.3000E+00	.00	2
998	902	903	1007	1008	0	1	.3000E+00	.3000E+00	.00	2
999	903	904	1008	1009	0	1	.3000E+00	.3000E+00	.00	2
1000	904	905	1009	1010	0	1	.3000E+00	.3000E+00	.00	2
1001	905	906	1010	1011	0	1	.3000E+00	.3000E+00	.00	2
1002	906	907	1011	1012	0	1	.3000E+00	.3000E+00	.00	2
1003	907	908	1012	1013	0	1	.3000E+00	.3000E+00	.00	2
1004	908	909	1013	1014	0	1	.3000E+00	.3000E+00	.00	2
1005	909	910	1014	1015	0	1	.3000E+00	.3000E+00	.00	2
1006	910	911	1015	1016	0	1	.3000E+00	.3000E+00	.00	2
1007	911	912	1016	1017	0	1	.3000E+00	.3000E+00	.00	2
1008	912	913	1017	1018	0	1	.3000E+00	.3000E+00	.00	2
1009	913	914	1018	1019	0	1	.3000E+00	.3000E+00	.00	2
1010	914	915	1019	1020	0	1	.3000E+00	.3000E+00	.00	2
1011	915	916	1020	1021	0	1	.3000E+00	.3000E+00	.00	2
1012	916	917	1021	1022	0	1	.3000E+00	.3000E+00	.00	2
1013	917	918	1022	1023	0	1	.3000E+00	.3000E+00	.00	2
1014	918	919	1023	1024	0	1	.3000E+00	.3000E+00	.00	2
1015	919	920	1024	1025	0	1	.3000E+00	.3000E+00	.00	2
1016	920	921	1025	1026	0	1	.3000E+00	.3000E+00	.00	2
1017	921	922	1026	1027	0	1	.3000E+00	.3000E+00	.00	2
1018	922	923	1027	1028	0	1	.3000E+00	.3000E+00	.00	2
1019	923	924	1028	1029	0	1	.3000E+00	.3000E+00	.00	2
1020	924	925	1029	1030	0	1	.3000E+00	.3000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
1021	925	926	1030	1031	0	1	.3000E+00	.3000E+00	.00	2
1022	926	927	1031	1032	0	1	.3000E+00	.3000E+00	.00	2
1023	927	928	1032	1033	0	1	.3000E+00	.3000E+00	.00	2
1024	928	929	1033	1034	0	1	.3000E+00	.3000E+00	.00	2
1025	929	930	1034	1035	0	1	.3000E+00	.3000E+00	.00	2
1026	930	931	1035	1036	0	1	.3000E+00	.3000E+00	.00	2
1027	931	932	1036	1037	0	1	.3000E+00	.3000E+00	.00	2
1028	932	933	1037	1038	0	1	.3000E+00	.3000E+00	.00	2
1029	933	934	1038	1039	0	1	.3000E+00	.3000E+00	.00	2
1030	934	935	1039	1040	0	1	.3000E+00	.3000E+00	.00	2
1031	935	936	1040	1041	0	1	.3000E+00	.3000E+00	.00	2
1032	936	937	1041	1042	0	1	.3000E+00	.3000E+00	.00	2
1033	937	938	1042	1043	0	1	.3000E+00	.3000E+00	.00	2
1034	938	939	1043	1044	0	1	.3000E+00	.3000E+00	.00	2
1035	939	940	1044	1045	0	1	.3000E+00	.3000E+00	.00	2
1036	940	941	1045	1046	0	1	.3000E+00	.3000E+00	.00	2
1037	941	942	1046	1047	0	1	.3000E+00	.3000E+00	.00	2
1038	942	943	1047	1048	0	1	.3000E+00	.3000E+00	.00	2
1039	943	944	1048	1049	0	1	.3000E+00	.3000E+00	.00	2
1040	944	945	1049	1050	0	1	.3000E+00	.3000E+00	.00	2
1041	946	947	1051	1052	0	1	.3000E+00	.3000E+00	.00	2
1042	947	948	1052	1053	0	1	.3000E+00	.3000E+00	.00	2
1043	948	949	1053	1054	0	1	.3000E+00	.3000E+00	.00	2
1044	949	950	1054	1055	0	1	.3000E+00	.3000E+00	.00	2
1045	950	951	1055	1056	0	1	.3000E+00	.3000E+00	.00	2
1046	951	952	1056	1057	0	1	.3000E+00	.3000E+00	.00	2
1047	952	953	1057	1058	0	1	.3000E+00	.3000E+00	.00	2
1048	953	954	1058	1059	0	1	.3000E+00	.3000E+00	.00	2
1049	954	955	1059	1060	0	1	.3000E+00	.3000E+00	.00	2
1050	955	956	1060	1061	0	1	.3000E+00	.3000E+00	.00	2
1051	956	957	1061	1062	0	1	.3000E+00	.3000E+00	.00	2
1052	957	958	1062	1063	0	1	.3000E+00	.3000E+00	.00	2
1053	958	959	1063	1064	0	1	.3000E+00	.3000E+00	.00	2
1054	959	960	1064	1065	0	1	.3000E+00	.3000E+00	.00	2
1055	960	961	1065	1066	0	1	.3000E+00	.3000E+00	.00	2
1056	961	962	1066	1067	0	1	.3000E+00	.3000E+00	.00	2
1057	962	963	1067	1068	0	1	.3000E+00	.3000E+00	.00	2
1058	963	964	1068	1069	0	1	.3000E+00	.3000E+00	.00	2
1059	964	965	1069	1070	0	1	.3000E+00	.3000E+00	.00	2
1060	965	966	1070	1071	0	1	.3000E+00	.3000E+00	.00	2
1061	966	967	1071	1072	0	1	.3000E+00	.3000E+00	.00	2
1062	967	968	1072	1073	0	1	.3000E+00	.3000E+00	.00	2
1063	968	969	1073	1074	0	1	.3000E+00	.3000E+00	.00	2
1064	969	970	1074	1075	0	1	.3000E+00	.3000E+00	.00	2
1065	970	971	1075	1076	0	1	.3000E+00	.3000E+00	.00	2
1066	971	972	1076	1077	0	1	.3000E+00	.3000E+00	.00	2
1067	972	973	1077	1078	0	1	.3000E+00	.3000E+00	.00	2
1068	973	974	1078	1079	0	1	.3000E+00	.3000E+00	.00	2
1069	974	975	1079	1080	0	1	.3000E+00	.3000E+00	.00	2
1070	975	976	1080	1081	0	1	.3000E+00	.3000E+00	.00	2
1071	976	977	1081	1082	0	1	.3000E+00	.3000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
1072	977	978	1082	1083	0	1	.3000E+00	.3000E+00	.00	2
1073	978	979	1083	1084	0	1	.3000E+00	.3000E+00	.00	2
1074	979	980	1084	1085	0	1	.3000E+00	.3000E+00	.00	2
1075	980	981	1085	1086	0	1	.3000E+00	.3000E+00	.00	2
1076	981	982	1086	1087	0	1	.3000E+00	.3000E+00	.00	2
1077	982	983	1087	1088	0	1	.3000E+00	.3000E+00	.00	2
1078	983	984	1088	1089	0	1	.3000E+00	.3000E+00	.00	2
1079	984	985	1089	1090	0	1	.3000E+00	.3000E+00	.00	2
1080	985	986	1090	1091	0	1	.3000E+00	.3000E+00	.00	2
1081	986	987	1091	1092	0	1	.3000E+00	.3000E+00	.00	2
1082	987	988	1092	1093	0	1	.3000E+00	.3000E+00	.00	2
1083	988	989	1093	1094	0	1	.3000E+00	.3000E+00	.00	2
1084	989	990	1094	1095	0	1	.3000E+00	.3000E+00	.00	2
1085	990	991	1095	1096	0	1	.3000E+00	.3000E+00	.00	2
1086	991	992	1096	1097	0	1	.3000E+00	.3000E+00	.00	2
1087	992	993	1097	1098	0	1	.3000E+00	.3000E+00	.00	2
1088	993	994	1098	1099	0	1	.3000E+00	.3000E+00	.00	2
1089	994	995	1099	1100	0	1	.3000E+00	.3000E+00	.00	2
1090	995	996	1100	1101	0	1	.3000E+00	.3000E+00	.00	2
1091	996	997	1101	1102	0	1	.3000E+00	.3000E+00	.00	2
1092	997	998	1102	1103	0	1	.3000E+00	.3000E+00	.00	2
1093	998	999	1103	1104	0	1	.3000E+00	.3000E+00	.00	2
1094	999	1000	1104	1105	0	1	.3000E+00	.3000E+00	.00	2
1095	1000	1001	1105	1106	0	1	.3000E+00	.3000E+00	.00	2
1096	1001	1002	1106	1107	0	1	.3000E+00	.3000E+00	.00	2
1097	1002	1003	1107	1108	0	1	.3000E+00	.3000E+00	.00	2
1098	1003	1004	1108	1109	0	1	.3000E+00	.3000E+00	.00	2
1099	1004	1005	1109	1110	0	1	.3000E+00	.3000E+00	.00	2
1100	1005	1006	1110	1111	0	1	.3000E+00	.3000E+00	.00	2
1101	1006	1007	1111	1112	0	1	.3000E+00	.3000E+00	.00	2
1102	1007	1008	1112	1113	0	1	.3000E+00	.3000E+00	.00	2
1103	1008	1009	1113	1114	0	1	.3000E+00	.3000E+00	.00	2
1104	1009	1010	1114	1115	0	1	.3000E+00	.3000E+00	.00	2
1105	1010	1011	1115	1116	0	1	.3000E+00	.3000E+00	.00	2
1106	1011	1012	1116	1117	0	1	.3000E+00	.3000E+00	.00	2
1107	1012	1013	1117	1118	0	1	.3000E+00	.3000E+00	.00	2
1108	1013	1014	1118	1119	0	1	.3000E+00	.3000E+00	.00	2
1109	1014	1015	1119	1120	0	1	.3000E+00	.3000E+00	.00	2
1110	1015	1016	1120	1121	0	1	.3000E+00	.3000E+00	.00	2
1111	1016	1017	1121	1122	0	1	.3000E+00	.3000E+00	.00	2
1112	1017	1018	1122	1123	0	1	.3000E+00	.3000E+00	.00	2
1113	1018	1019	1123	1124	0	1	.3000E+00	.3000E+00	.00	2
1114	1019	1020	1124	1125	0	1	.3000E+00	.3000E+00	.00	2
1115	1020	1021	1125	1126	0	1	.3000E+00	.3000E+00	.00	2
1116	1021	1022	1126	1127	0	1	.3000E+00	.3000E+00	.00	2
1117	1022	1023	1127	1128	0	1	.3000E+00	.3000E+00	.00	2
1118	1023	1024	1128	1129	0	1	.3000E+00	.3000E+00	.00	2
1119	1024	1025	1129	1130	0	1	.3000E+00	.3000E+00	.00	2
1120	1025	1026	1130	1131	0	1	.3000E+00	.3000E+00	.00	2
1121	1026	1027	1131	1132	0	1	.3000E+00	.3000E+00	.00	2
1122	1027	1028	1132	1133	0	1	.3000E+00	.3000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
1123	1028	1029	1133	1134	0	1	.3000E+00	.3000E+00	.00	2
1124	1029	1030	1134	1135	0	1	.3000E+00	.3000E+00	.00	2
1125	1030	1031	1135	1136	0	1	.3000E+00	.3000E+00	.00	2
1126	1031	1032	1136	1137	0	1	.3000E+00	.3000E+00	.00	2
1127	1032	1033	1137	1138	0	1	.3000E+00	.3000E+00	.00	2
1128	1033	1034	1138	1139	0	1	.3000E+00	.3000E+00	.00	2
1129	1034	1035	1139	1140	0	1	.3000E+00	.3000E+00	.00	2
1130	1035	1036	1140	1141	0	1	.3000E+00	.3000E+00	.00	2
1131	1036	1037	1141	1142	0	1	.3000E+00	.3000E+00	.00	2
1132	1037	1038	1142	1143	0	1	.3000E+00	.3000E+00	.00	2
1133	1038	1039	1143	1144	0	1	.3000E+00	.3000E+00	.00	2
1134	1039	1040	1144	1145	0	1	.3000E+00	.3000E+00	.00	2
1135	1040	1041	1145	1146	0	1	.3000E+00	.3000E+00	.00	2
1136	1041	1042	1146	1147	0	1	.3000E+00	.3000E+00	.00	2
1137	1042	1043	1147	1148	0	1	.3000E+00	.3000E+00	.00	2
1138	1043	1044	1148	1149	0	1	.3000E+00	.3000E+00	.00	2
1139	1044	1045	1149	1150	0	1	.3000E+00	.3000E+00	.00	2
1140	1045	1046	1150	1151	0	1	.3000E+00	.3000E+00	.00	2
1141	1046	1047	1151	1152	0	1	.3000E+00	.3000E+00	.00	2
1142	1047	1048	1152	1153	0	1	.3000E+00	.3000E+00	.00	2
1143	1048	1049	1153	1154	0	1	.3000E+00	.3000E+00	.00	2
1144	1049	1050	1154	1155	0	1	.3000E+00	.3000E+00	.00	2
1145	1051	1052	1156	1157	0	1	.4000E+00	.4000E+00	.00	2
1146	1052	1053	1157	1158	0	1	.4000E+00	.4000E+00	.00	2
1147	1053	1054	1158	1159	0	1	.4000E+00	.4000E+00	.00	2
1148	1054	1055	1159	1160	0	1	.4000E+00	.4000E+00	.00	2
1149	1055	1056	1160	1161	0	1	.4000E+00	.4000E+00	.00	2
1150	1056	1057	1161	1162	0	1	.4000E+00	.4000E+00	.00	2
1151	1057	1058	1162	1163	0	1	.4000E+00	.4000E+00	.00	2
1152	1058	1059	1163	1164	0	1	.4000E+00	.4000E+00	.00	2
1153	1059	1060	1164	1165	0	1	.4000E+00	.4000E+00	.00	2
1154	1060	1061	1165	1166	0	1	.4000E+00	.4000E+00	.00	2
1155	1061	1062	1166	1167	0	1	.4000E+00	.4000E+00	.00	2
1156	1062	1063	1167	1168	0	1	.4000E+00	.4000E+00	.00	2
1157	1063	1064	1168	1169	0	1	.4000E+00	.4000E+00	.00	2
1158	1064	1065	1169	1170	0	1	.4000E+00	.4000E+00	.00	2
1159	1065	1066	1170	1171	0	1	.4000E+00	.4000E+00	.00	2
1160	1066	1067	1171	1172	0	1	.4000E+00	.4000E+00	.00	2
1161	1067	1068	1172	1173	0	1	.4000E+00	.4000E+00	.00	2
1162	1068	1069	1173	1174	0	1	.4000E+00	.4000E+00	.00	2
1163	1069	1070	1174	1175	0	1	.4000E+00	.4000E+00	.00	2
1164	1070	1071	1175	1176	0	1	.4000E+00	.4000E+00	.00	2
1165	1071	1072	1176	1177	0	1	.4000E+00	.4000E+00	.00	2
1166	1072	1073	1177	1178	0	1	.4000E+00	.4000E+00	.00	2
1167	1073	1074	1178	1179	0	1	.4000E+00	.4000E+00	.00	2
1168	1074	1075	1179	1180	0	1	.4000E+00	.4000E+00	.00	2
1169	1075	1076	1180	1181	0	1	.4000E+00	.4000E+00	.00	2
1170	1076	1077	1181	1182	0	1	.4000E+00	.4000E+00	.00	2
1171	1077	1078	1182	1183	0	1	.4000E+00	.4000E+00	.00	2
1172	1078	1079	1183	1184	0	1	.4000E+00	.4000E+00	.00	2
1173	1079	1080	1184	1185	0	1	.4000E+00	.4000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
1174	1080	1081	1185	1186	0	1	.4000E+00	.4000E+00	.00	2
1175	1081	1082	1186	1187	0	1	.4000E+00	.4000E+00	.00	2
1176	1082	1083	1187	1188	0	1	.4000E+00	.4000E+00	.00	2
1177	1083	1084	1188	1189	0	1	.4000E+00	.4000E+00	.00	2
1178	1084	1085	1189	1190	0	1	.4000E+00	.4000E+00	.00	2
1179	1085	1086	1190	1191	0	1	.4000E+00	.4000E+00	.00	2
1180	1086	1087	1191	1192	0	1	.4000E+00	.4000E+00	.00	2
1181	1087	1088	1192	1193	0	1	.4000E+00	.4000E+00	.00	2
1182	1088	1089	1193	1194	0	1	.4000E+00	.4000E+00	.00	2
1183	1089	1090	1194	1195	0	1	.4000E+00	.4000E+00	.00	2
1184	1090	1091	1195	1196	0	1	.4000E+00	.4000E+00	.00	2
1185	1091	1092	1196	1197	0	1	.4000E+00	.4000E+00	.00	2
1186	1092	1093	1197	1198	0	1	.4000E+00	.4000E+00	.00	2
1187	1093	1094	1198	1199	0	1	.4000E+00	.4000E+00	.00	2
1188	1094	1095	1199	1200	0	1	.4000E+00	.4000E+00	.00	2
1189	1095	1096	1200	1201	0	1	.4000E+00	.4000E+00	.00	2
1190	1096	1097	1201	1202	0	1	.4000E+00	.4000E+00	.00	2
1191	1097	1098	1202	1203	0	1	.4000E+00	.4000E+00	.00	2
1192	1098	1099	1203	1204	0	1	.4000E+00	.4000E+00	.00	2
1193	1099	1100	1204	1205	0	1	.4000E+00	.4000E+00	.00	2
1194	1100	1101	1205	1206	0	1	.4000E+00	.4000E+00	.00	2
1195	1101	1102	1206	1207	0	1	.4000E+00	.4000E+00	.00	2
1196	1102	1103	1207	1208	0	1	.4000E+00	.4000E+00	.00	2
1197	1103	1104	1208	1209	0	1	.4000E+00	.4000E+00	.00	2
1198	1104	1105	1209	1210	0	1	.4000E+00	.4000E+00	.00	2
1199	1105	1106	1210	1211	0	1	.4000E+00	.4000E+00	.00	2
1200	1106	1107	1211	1212	0	1	.4000E+00	.4000E+00	.00	2
1201	1107	1108	1212	1213	0	1	.4000E+00	.4000E+00	.00	2
1202	1108	1109	1213	1214	0	1	.4000E+00	.4000E+00	.00	2
1203	1109	1110	1214	1215	0	1	.4000E+00	.4000E+00	.00	2
1204	1110	1111	1215	1216	0	1	.4000E+00	.4000E+00	.00	2
1205	1111	1112	1216	1217	0	1	.4000E+00	.4000E+00	.00	2
1206	1112	1113	1217	1218	0	1	.4000E+00	.4000E+00	.00	2
1207	1113	1114	1218	1219	0	1	.4000E+00	.4000E+00	.00	2
1208	1114	1115	1219	1220	0	1	.4000E+00	.4000E+00	.00	2
1209	1115	1116	1220	1221	0	1	.4000E+00	.4000E+00	.00	2
1210	1116	1117	1221	1222	0	1	.4000E+00	.4000E+00	.00	2
1211	1117	1118	1222	1223	0	1	.4000E+00	.4000E+00	.00	2
1212	1118	1119	1223	1224	0	1	.4000E+00	.4000E+00	.00	2
1213	1119	1120	1224	1225	0	1	.4000E+00	.4000E+00	.00	2
1214	1120	1121	1225	1226	0	1	.4000E+00	.4000E+00	.00	2
1215	1121	1122	1226	1227	0	1	.4000E+00	.4000E+00	.00	2
1216	1122	1123	1227	1228	0	1	.4000E+00	.4000E+00	.00	2
1217	1123	1124	1228	1229	0	1	.4000E+00	.4000E+00	.00	2
1218	1124	1125	1229	1230	0	1	.4000E+00	.4000E+00	.00	2
1219	1125	1126	1230	1231	0	1	.4000E+00	.4000E+00	.00	2
1220	1126	1127	1231	1232	0	1	.4000E+00	.4000E+00	.00	2
1221	1127	1128	1232	1233	0	1	.4000E+00	.4000E+00	.00	2
1222	1128	1129	1233	1234	0	1	.4000E+00	.4000E+00	.00	2
1223	1129	1130	1234	1235	0	1	.4000E+00	.4000E+00	.00	2
1224	1130	1131	1235	1236	0	1	.4000E+00	.4000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T D A T A

ELT ID	JOINT I	JOINT J	JOINT K	JOINT L	ELT TYPE	MAT ID	MEMBRANE THICKNESS	BENDING THICKNESS	REF TEMP	LOC AXIS
1225	1131	1132	1236	1237	0	1	.4000E+00	.4000E+00	.00	2
1226	1132	1133	1237	1238	0	1	.4000E+00	.4000E+00	.00	2
1227	1133	1134	1238	1239	0	1	.4000E+00	.4000E+00	.00	2
1228	1134	1135	1239	1240	0	1	.4000E+00	.4000E+00	.00	2
1229	1135	1136	1240	1241	0	1	.4000E+00	.4000E+00	.00	2
1230	1136	1137	1241	1242	0	1	.4000E+00	.4000E+00	.00	2
1231	1137	1138	1242	1243	0	1	.4000E+00	.4000E+00	.00	2
1232	1138	1139	1243	1244	0	1	.4000E+00	.4000E+00	.00	2
1233	1139	1140	1244	1245	0	1	.4000E+00	.4000E+00	.00	2
1234	1140	1141	1245	1246	0	1	.4000E+00	.4000E+00	.00	2
1235	1141	1142	1246	1247	0	1	.4000E+00	.4000E+00	.00	2
1236	1142	1143	1247	1248	0	1	.4000E+00	.4000E+00	.00	2
1237	1143	1144	1248	1249	0	1	.4000E+00	.4000E+00	.00	2
1238	1144	1145	1249	1250	0	1	.4000E+00	.4000E+00	.00	2
1239	1145	1146	1250	1251	0	1	.4000E+00	.4000E+00	.00	2
1240	1146	1147	1251	1252	0	1	.4000E+00	.4000E+00	.00	2
1241	1147	1148	1252	1253	0	1	.4000E+00	.4000E+00	.00	2
1242	1148	1149	1253	1254	0	1	.4000E+00	.4000E+00	.00	2
1243	1149	1150	1254	1255	0	1	.4000E+00	.4000E+00	.00	2
1244	1150	1151	1255	1256	0	1	.4000E+00	.4000E+00	.00	2
1245	1151	1152	1256	1257	0	1	.4000E+00	.4000E+00	.00	2
1246	1152	1153	1257	1258	0	1	.4000E+00	.4000E+00	.00	2
1247	1153	1154	1258	1259	0	1	.4000E+00	.4000E+00	.00	2
1248	1154	1155	1259	1260	0	1	.4000E+00	.4000E+00	.00	2

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

T O T A L W E I G H T S A N D M A S S E S

PROP	WEIGHT	MASS
1	87227006.7620	8740181.0383
TOTAL	87227006.7620	8740181.0383

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T L O A D S

JOINT	LOAD	FX	FY	FZ	MX	MY	MZ
106	1	.000E+00	.000E+00	-.129E+06	.000E+00	.000E+00	.000E+00
107	1	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
108	1	.000E+00	.000E+00	-.215E+05	.000E+00	.000E+00	.000E+00
109	1	.000E+00	.000E+00	-.171E+06	.000E+00	.000E+00	.000E+00
110	1	.000E+00	.000E+00	-.171E+06	.000E+00	.000E+00	.000E+00
211	1	.000E+00	.000E+00	-.694E+05	.000E+00	.000E+00	.000E+00
212	1	.000E+00	.000E+00	-.612E+05	.000E+00	.000E+00	.000E+00
213	1	.000E+00	.000E+00	-.116E+05	.000E+00	.000E+00	.000E+00
214	1	.000E+00	.000E+00	-.922E+05	.000E+00	.000E+00	.000E+00
215	1	.000E+00	.000E+00	-.922E+05	.000E+00	.000E+00	.000E+00
110	3	.000E+00	.000E+00	-.557E+04	.000E+00	.000E+00	.000E+00
111	3	.000E+00	.000E+00	-.193E+06	.000E+00	.000E+00	.000E+00
112	3	.000E+00	.000E+00	-.613E+05	.000E+00	.000E+00	.000E+00
113	3	.000E+00	.000E+00	-.189E+06	.000E+00	.000E+00	.000E+00
114	3	.000E+00	.000E+00	-.706E+05	.000E+00	.000E+00	.000E+00
215	3	.000E+00	.000E+00	-.300E+04	.000E+00	.000E+00	.000E+00
216	3	.000E+00	.000E+00	-.104E+06	.000E+00	.000E+00	.000E+00
217	3	.000E+00	.000E+00	-.330E+05	.000E+00	.000E+00	.000E+00
218	3	.000E+00	.000E+00	-.102E+06	.000E+00	.000E+00	.000E+00
219	3	.000E+00	.000E+00	-.380E+05	.000E+00	.000E+00	.000E+00
421	2	.000E+00	.000E+00	-.101E+06	.000E+00	.000E+00	.000E+00
422	2	.000E+00	.000E+00	-.528E+05	.000E+00	.000E+00	.000E+00
423	2	.000E+00	.000E+00	-.924E+05	.000E+00	.000E+00	.000E+00
424	2	.000E+00	.000E+00	-.616E+05	.000E+00	.000E+00	.000E+00
526	2	.000E+00	.000E+00	-.188E+06	.000E+00	.000E+00	.000E+00
527	2	.000E+00	.000E+00	-.981E+05	.000E+00	.000E+00	.000E+00
528	2	.000E+00	.000E+00	-.172E+06	.000E+00	.000E+00	.000E+00
529	2	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
529	4	.000E+00	.000E+00	-.557E+04	.000E+00	.000E+00	.000E+00
530	4	.000E+00	.000E+00	-.193E+06	.000E+00	.000E+00	.000E+00
531	4	.000E+00	.000E+00	-.613E+05	.000E+00	.000E+00	.000E+00
532	4	.000E+00	.000E+00	-.189E+06	.000E+00	.000E+00	.000E+00
533	4	.000E+00	.000E+00	-.706E+05	.000E+00	.000E+00	.000E+00
425	4	.000E+00	.000E+00	-.300E+04	.000E+00	.000E+00	.000E+00
426	4	.000E+00	.000E+00	-.104E+06	.000E+00	.000E+00	.000E+00
427	4	.000E+00	.000E+00	-.330E+05	.000E+00	.000E+00	.000E+00
428	4	.000E+00	.000E+00	-.102E+06	.000E+00	.000E+00	.000E+00
429	4	.000E+00	.000E+00	-.380E+05	.000E+00	.000E+00	.000E+00
122	5	.000E+00	.000E+00	-.196E+06	.000E+00	.000E+00	.000E+00
130	5	.000E+00	.000E+00	-.196E+06	.000E+00	.000E+00	.000E+00
123	5	.000E+00	.000E+00	-.921E+05	.000E+00	.000E+00	.000E+00
129	5	.000E+00	.000E+00	-.921E+05	.000E+00	.000E+00	.000E+00
124	5	.000E+00	.000E+00	-.210E+06	.000E+00	.000E+00	.000E+00
128	5	.000E+00	.000E+00	-.210E+06	.000E+00	.000E+00	.000E+00
125	5	.000E+00	.000E+00	-.232E+06	.000E+00	.000E+00	.000E+00
127	5	.000E+00	.000E+00	-.232E+06	.000E+00	.000E+00	.000E+00
126	5	.000E+00	.000E+00	-.996E+05	.000E+00	.000E+00	.000E+00
227	5	.000E+00	.000E+00	-.106E+06	.000E+00	.000E+00	.000E+00
235	5	.000E+00	.000E+00	-.106E+06	.000E+00	.000E+00	.000E+00
228	5	.000E+00	.000E+00	-.496E+05	.000E+00	.000E+00	.000E+00
234	5	.000E+00	.000E+00	-.496E+05	.000E+00	.000E+00	.000E+00
229	5	.000E+00	.000E+00	-.113E+06	.000E+00	.000E+00	.000E+00

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T L O A D S

JOINT	LOAD	FX	FY	FZ	MX	MY	MZ
233	5	.000E+00	.000E+00	-.113E+06	.000E+00	.000E+00	.000E+00
230	5	.000E+00	.000E+00	-.125E+06	.000E+00	.000E+00	.000E+00
232	5	.000E+00	.000E+00	-.125E+06	.000E+00	.000E+00	.000E+00
231	5	.000E+00	.000E+00	-.536E+05	.000E+00	.000E+00	.000E+00
542	6	.000E+00	.000E+00	-.196E+06	.000E+00	.000E+00	.000E+00
550	6	.000E+00	.000E+00	-.196E+06	.000E+00	.000E+00	.000E+00
543	6	.000E+00	.000E+00	-.921E+05	.000E+00	.000E+00	.000E+00
549	6	.000E+00	.000E+00	-.921E+05	.000E+00	.000E+00	.000E+00
544	6	.000E+00	.000E+00	-.210E+06	.000E+00	.000E+00	.000E+00
548	6	.000E+00	.000E+00	-.210E+06	.000E+00	.000E+00	.000E+00
545	6	.000E+00	.000E+00	-.232E+06	.000E+00	.000E+00	.000E+00
547	6	.000E+00	.000E+00	-.232E+06	.000E+00	.000E+00	.000E+00
546	6	.000E+00	.000E+00	-.996E+05	.000E+00	.000E+00	.000E+00
437	6	.000E+00	.000E+00	-.106E+06	.000E+00	.000E+00	.000E+00
445	6	.000E+00	.000E+00	-.106E+06	.000E+00	.000E+00	.000E+00
438	6	.000E+00	.000E+00	-.496E+05	.000E+00	.000E+00	.000E+00
444	6	.000E+00	.000E+00	-.496E+05	.000E+00	.000E+00	.000E+00
439	6	.000E+00	.000E+00	-.113E+06	.000E+00	.000E+00	.000E+00
443	6	.000E+00	.000E+00	-.113E+06	.000E+00	.000E+00	.000E+00
440	6	.000E+00	.000E+00	-.125E+06	.000E+00	.000E+00	.000E+00
442	6	.000E+00	.000E+00	-.125E+06	.000E+00	.000E+00	.000E+00
441	6	.000E+00	.000E+00	-.536E+05	.000E+00	.000E+00	.000E+00
114	7	.000E+00	.000E+00	-.718E+05	.000E+00	.000E+00	.000E+00
115	7	.000E+00	.000E+00	-.242E+06	.000E+00	.000E+00	.000E+00
116	7	.000E+00	.000E+00	-.498E+05	.000E+00	.000E+00	.000E+00
117	7	.000E+00	.000E+00	-.171E+06	.000E+00	.000E+00	.000E+00
118	7	.000E+00	.000E+00	-.193E+06	.000E+00	.000E+00	.000E+00
219	7	.000E+00	.000E+00	-.387E+05	.000E+00	.000E+00	.000E+00
220	7	.000E+00	.000E+00	-.131E+06	.000E+00	.000E+00	.000E+00
221	7	.000E+00	.000E+00	-.268E+05	.000E+00	.000E+00	.000E+00
222	7	.000E+00	.000E+00	-.923E+05	.000E+00	.000E+00	.000E+00
223	7	.000E+00	.000E+00	-.104E+06	.000E+00	.000E+00	.000E+00
429	8	.000E+00	.000E+00	-.307E+05	.000E+00	.000E+00	.000E+00
430	8	.000E+00	.000E+00	-.112E+06	.000E+00	.000E+00	.000E+00
431	8	.000E+00	.000E+00	-.853E+05	.000E+00	.000E+00	.000E+00
432	8	.000E+00	.000E+00	-.801E+05	.000E+00	.000E+00	.000E+00
534	8	.000E+00	.000E+00	-.570E+05	.000E+00	.000E+00	.000E+00
535	8	.000E+00	.000E+00	-.208E+06	.000E+00	.000E+00	.000E+00
536	8	.000E+00	.000E+00	-.158E+06	.000E+00	.000E+00	.000E+00
537	8	.000E+00	.000E+00	-.149E+06	.000E+00	.000E+00	.000E+00
118	9	.000E+00	.000E+00	-.305E+05	.000E+00	.000E+00	.000E+00
119	9	.000E+00	.000E+00	-.207E+06	.000E+00	.000E+00	.000E+00
120	9	.000E+00	.000E+00	-.123E+06	.000E+00	.000E+00	.000E+00
121	9	.000E+00	.000E+00	-.160E+06	.000E+00	.000E+00	.000E+00
223	9	.000E+00	.000E+00	-.164E+05	.000E+00	.000E+00	.000E+00
224	9	.000E+00	.000E+00	-.111E+06	.000E+00	.000E+00	.000E+00
225	9	.000E+00	.000E+00	-.660E+05	.000E+00	.000E+00	.000E+00
226	9	.000E+00	.000E+00	-.864E+05	.000E+00	.000E+00	.000E+00
433	10	.000E+00	.000E+00	-.164E+05	.000E+00	.000E+00	.000E+00
434	10	.000E+00	.000E+00	-.111E+06	.000E+00	.000E+00	.000E+00
435	10	.000E+00	.000E+00	-.660E+05	.000E+00	.000E+00	.000E+00
436	10	.000E+00	.000E+00	-.864E+05	.000E+00	.000E+00	.000E+00

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T L O A D S

JOINT	LOAD	FX	FY	FZ	MX	MY	MZ
537	10	.000E+00	.000E+00	-.305E+05	.000E+00	.000E+00	.000E+00
538	10	.000E+00	.000E+00	-.207E+06	.000E+00	.000E+00	.000E+00
539	10	.000E+00	.000E+00	-.123E+06	.000E+00	.000E+00	.000E+00
540	10	.000E+00	.000E+00	-.160E+06	.000E+00	.000E+00	.000E+00
130	11	.000E+00	.000E+00	-.196E+06	.000E+00	.000E+00	.000E+00
138	11	.000E+00	.000E+00	-.196E+06	.000E+00	.000E+00	.000E+00
131	11	.000E+00	.000E+00	-.921E+05	.000E+00	.000E+00	.000E+00
137	11	.000E+00	.000E+00	-.921E+05	.000E+00	.000E+00	.000E+00
132	11	.000E+00	.000E+00	-.210E+06	.000E+00	.000E+00	.000E+00
136	11	.000E+00	.000E+00	-.210E+06	.000E+00	.000E+00	.000E+00
133	11	.000E+00	.000E+00	-.232E+06	.000E+00	.000E+00	.000E+00
135	11	.000E+00	.000E+00	-.232E+06	.000E+00	.000E+00	.000E+00
134	11	.000E+00	.000E+00	-.996E+05	.000E+00	.000E+00	.000E+00
235	11	.000E+00	.000E+00	-.106E+06	.000E+00	.000E+00	.000E+00
243	11	.000E+00	.000E+00	-.106E+06	.000E+00	.000E+00	.000E+00
236	11	.000E+00	.000E+00	-.496E+05	.000E+00	.000E+00	.000E+00
242	11	.000E+00	.000E+00	-.496E+05	.000E+00	.000E+00	.000E+00
237	11	.000E+00	.000E+00	-.113E+06	.000E+00	.000E+00	.000E+00
241	11	.000E+00	.000E+00	-.113E+06	.000E+00	.000E+00	.000E+00
238	11	.000E+00	.000E+00	-.125E+06	.000E+00	.000E+00	.000E+00
240	11	.000E+00	.000E+00	-.125E+06	.000E+00	.000E+00	.000E+00
239	11	.000E+00	.000E+00	-.536E+05	.000E+00	.000E+00	.000E+00
550	12	.000E+00	.000E+00	-.196E+06	.000E+00	.000E+00	.000E+00
558	12	.000E+00	.000E+00	-.196E+06	.000E+00	.000E+00	.000E+00
551	12	.000E+00	.000E+00	-.921E+05	.000E+00	.000E+00	.000E+00
557	12	.000E+00	.000E+00	-.921E+05	.000E+00	.000E+00	.000E+00
552	12	.000E+00	.000E+00	-.210E+06	.000E+00	.000E+00	.000E+00
556	12	.000E+00	.000E+00	-.210E+06	.000E+00	.000E+00	.000E+00
553	12	.000E+00	.000E+00	-.232E+06	.000E+00	.000E+00	.000E+00
555	12	.000E+00	.000E+00	-.232E+06	.000E+00	.000E+00	.000E+00
554	12	.000E+00	.000E+00	-.996E+05	.000E+00	.000E+00	.000E+00
445	12	.000E+00	.000E+00	-.106E+06	.000E+00	.000E+00	.000E+00
453	12	.000E+00	.000E+00	-.106E+06	.000E+00	.000E+00	.000E+00
446	12	.000E+00	.000E+00	-.496E+05	.000E+00	.000E+00	.000E+00
452	12	.000E+00	.000E+00	-.496E+05	.000E+00	.000E+00	.000E+00
447	12	.000E+00	.000E+00	-.113E+06	.000E+00	.000E+00	.000E+00
451	12	.000E+00	.000E+00	-.113E+06	.000E+00	.000E+00	.000E+00
448	12	.000E+00	.000E+00	-.125E+06	.000E+00	.000E+00	.000E+00
450	12	.000E+00	.000E+00	-.125E+06	.000E+00	.000E+00	.000E+00
449	12	.000E+00	.000E+00	-.536E+05	.000E+00	.000E+00	.000E+00
121	13	.000E+00	.000E+00	-.520E+05	.000E+00	.000E+00	.000E+00
122	13	.000E+00	.000E+00	-.207E+06	.000E+00	.000E+00	.000E+00
123	13	.000E+00	.000E+00	-.144E+06	.000E+00	.000E+00	.000E+00
124	13	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
125	13	.000E+00	.000E+00	-.166E+06	.000E+00	.000E+00	.000E+00
126	13	.000E+00	.000E+00	-.186E+06	.000E+00	.000E+00	.000E+00
127	13	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
128	13	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
129	13	.000E+00	.000E+00	-.172E+06	.000E+00	.000E+00	.000E+00
226	13	.000E+00	.000E+00	-.280E+05	.000E+00	.000E+00	.000E+00
227	13	.000E+00	.000E+00	-.111E+06	.000E+00	.000E+00	.000E+00
228	13	.000E+00	.000E+00	-.776E+05	.000E+00	.000E+00	.000E+00

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T L O A D S

JOINT	LOAD	FX	FY	FZ	MX	MY	MZ
229	13	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
230	13	.000E+00	.000E+00	-.896E+05	.000E+00	.000E+00	.000E+00
231	13	.000E+00	.000E+00	-.100E+06	.000E+00	.000E+00	.000E+00
232	13	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
233	13	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
234	13	.000E+00	.000E+00	-.928E+05	.000E+00	.000E+00	.000E+00
541	14	.000E+00	.000E+00	-.520E+05	.000E+00	.000E+00	.000E+00
542	14	.000E+00	.000E+00	-.207E+06	.000E+00	.000E+00	.000E+00
543	14	.000E+00	.000E+00	-.144E+06	.000E+00	.000E+00	.000E+00
544	14	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
545	14	.000E+00	.000E+00	-.166E+06	.000E+00	.000E+00	.000E+00
546	14	.000E+00	.000E+00	-.186E+06	.000E+00	.000E+00	.000E+00
547	14	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
548	14	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
549	14	.000E+00	.000E+00	-.172E+06	.000E+00	.000E+00	.000E+00
436	14	.000E+00	.000E+00	-.280E+05	.000E+00	.000E+00	.000E+00
437	14	.000E+00	.000E+00	-.111E+06	.000E+00	.000E+00	.000E+00
438	14	.000E+00	.000E+00	-.776E+05	.000E+00	.000E+00	.000E+00
439	14	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
440	14	.000E+00	.000E+00	-.896E+05	.000E+00	.000E+00	.000E+00
441	14	.000E+00	.000E+00	-.100E+06	.000E+00	.000E+00	.000E+00
442	14	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
443	14	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
444	14	.000E+00	.000E+00	-.928E+05	.000E+00	.000E+00	.000E+00
146	15	.000E+00	.000E+00	-.718E+05	.000E+00	.000E+00	.000E+00
147	15	.000E+00	.000E+00	-.242E+06	.000E+00	.000E+00	.000E+00
148	15	.000E+00	.000E+00	-.498E+05	.000E+00	.000E+00	.000E+00
149	15	.000E+00	.000E+00	-.171E+06	.000E+00	.000E+00	.000E+00
150	15	.000E+00	.000E+00	-.193E+06	.000E+00	.000E+00	.000E+00
251	15	.000E+00	.000E+00	-.387E+05	.000E+00	.000E+00	.000E+00
252	15	.000E+00	.000E+00	-.131E+06	.000E+00	.000E+00	.000E+00
253	15	.000E+00	.000E+00	-.268E+05	.000E+00	.000E+00	.000E+00
254	15	.000E+00	.000E+00	-.923E+05	.000E+00	.000E+00	.000E+00
255	15	.000E+00	.000E+00	-.104E+06	.000E+00	.000E+00	.000E+00
461	16	.000E+00	.000E+00	-.307E+05	.000E+00	.000E+00	.000E+00
462	16	.000E+00	.000E+00	-.112E+06	.000E+00	.000E+00	.000E+00
463	16	.000E+00	.000E+00	-.853E+05	.000E+00	.000E+00	.000E+00
464	16	.000E+00	.000E+00	-.801E+05	.000E+00	.000E+00	.000E+00
566	16	.000E+00	.000E+00	-.570E+05	.000E+00	.000E+00	.000E+00
567	16	.000E+00	.000E+00	-.208E+06	.000E+00	.000E+00	.000E+00
568	16	.000E+00	.000E+00	-.158E+06	.000E+00	.000E+00	.000E+00
569	16	.000E+00	.000E+00	-.149E+06	.000E+00	.000E+00	.000E+00
150	17	.000E+00	.000E+00	-.305E+05	.000E+00	.000E+00	.000E+00
151	17	.000E+00	.000E+00	-.207E+06	.000E+00	.000E+00	.000E+00
152	17	.000E+00	.000E+00	-.123E+06	.000E+00	.000E+00	.000E+00
153	17	.000E+00	.000E+00	-.160E+06	.000E+00	.000E+00	.000E+00
255	17	.000E+00	.000E+00	-.164E+05	.000E+00	.000E+00	.000E+00
256	17	.000E+00	.000E+00	-.111E+06	.000E+00	.000E+00	.000E+00
257	17	.000E+00	.000E+00	-.660E+05	.000E+00	.000E+00	.000E+00
258	17	.000E+00	.000E+00	-.864E+05	.000E+00	.000E+00	.000E+00
465	18	.000E+00	.000E+00	-.164E+05	.000E+00	.000E+00	.000E+00
466	18	.000E+00	.000E+00	-.111E+06	.000E+00	.000E+00	.000E+00

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T L O A D S

JOINT	LOAD	FX	FY	FZ	MX	MY	MZ
467	18	.000E+00	.000E+00	-.660E+05	.000E+00	.000E+00	.000E+00
468	18	.000E+00	.000E+00	-.864E+05	.000E+00	.000E+00	.000E+00
569	18	.000E+00	.000E+00	-.305E+05	.000E+00	.000E+00	.000E+00
570	18	.000E+00	.000E+00	-.207E+06	.000E+00	.000E+00	.000E+00
571	18	.000E+00	.000E+00	-.123E+06	.000E+00	.000E+00	.000E+00
572	18	.000E+00	.000E+00	-.160E+06	.000E+00	.000E+00	.000E+00
153	19	.000E+00	.000E+00	-.520E+05	.000E+00	.000E+00	.000E+00
154	19	.000E+00	.000E+00	-.207E+06	.000E+00	.000E+00	.000E+00
155	19	.000E+00	.000E+00	-.144E+06	.000E+00	.000E+00	.000E+00
156	19	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
157	19	.000E+00	.000E+00	-.166E+06	.000E+00	.000E+00	.000E+00
158	19	.000E+00	.000E+00	-.186E+06	.000E+00	.000E+00	.000E+00
159	19	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
160	19	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
161	19	.000E+00	.000E+00	-.172E+06	.000E+00	.000E+00	.000E+00
258	19	.000E+00	.000E+00	-.280E+05	.000E+00	.000E+00	.000E+00
259	19	.000E+00	.000E+00	-.111E+06	.000E+00	.000E+00	.000E+00
260	19	.000E+00	.000E+00	-.776E+05	.000E+00	.000E+00	.000E+00
261	19	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
262	19	.000E+00	.000E+00	-.896E+05	.000E+00	.000E+00	.000E+00
263	19	.000E+00	.000E+00	-.100E+06	.000E+00	.000E+00	.000E+00
264	19	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
265	19	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
266	19	.000E+00	.000E+00	-.928E+05	.000E+00	.000E+00	.000E+00
573	20	.000E+00	.000E+00	-.520E+05	.000E+00	.000E+00	.000E+00
574	20	.000E+00	.000E+00	-.207E+06	.000E+00	.000E+00	.000E+00
575	20	.000E+00	.000E+00	-.144E+06	.000E+00	.000E+00	.000E+00
576	20	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
577	20	.000E+00	.000E+00	-.166E+06	.000E+00	.000E+00	.000E+00
578	20	.000E+00	.000E+00	-.186E+06	.000E+00	.000E+00	.000E+00
579	20	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
580	20	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
581	20	.000E+00	.000E+00	-.172E+06	.000E+00	.000E+00	.000E+00
468	20	.000E+00	.000E+00	-.280E+05	.000E+00	.000E+00	.000E+00
469	20	.000E+00	.000E+00	-.111E+06	.000E+00	.000E+00	.000E+00
470	20	.000E+00	.000E+00	-.776E+05	.000E+00	.000E+00	.000E+00
471	20	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
472	20	.000E+00	.000E+00	-.896E+05	.000E+00	.000E+00	.000E+00
473	20	.000E+00	.000E+00	-.100E+06	.000E+00	.000E+00	.000E+00
474	20	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
475	20	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
476	20	.000E+00	.000E+00	-.928E+05	.000E+00	.000E+00	.000E+00
107	21	.000E+00	.000E+00	-.149E+06	.000E+00	.000E+00	.000E+00
113	21	.000E+00	.000E+00	-.149E+06	.000E+00	.000E+00	.000E+00
108	21	.000E+00	.000E+00	-.149E+06	.000E+00	.000E+00	.000E+00
112	21	.000E+00	.000E+00	-.149E+06	.000E+00	.000E+00	.000E+00
109	21	.000E+00	.000E+00	-.193E+06	.000E+00	.000E+00	.000E+00
111	21	.000E+00	.000E+00	-.193E+06	.000E+00	.000E+00	.000E+00
110	21	.000E+00	.000E+00	-.594E+05	.000E+00	.000E+00	.000E+00
212	21	.000E+00	.000E+00	-.800E+05	.000E+00	.000E+00	.000E+00
218	21	.000E+00	.000E+00	-.800E+05	.000E+00	.000E+00	.000E+00
213	21	.000E+00	.000E+00	-.800E+05	.000E+00	.000E+00	.000E+00

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T L O A D S

JOINT	LOAD	FX	FY	FZ	MX	MY	MZ
217	21	.000E+00	.000E+00	-.800E+05	.000E+00	.000E+00	.000E+00
214	21	.000E+00	.000E+00	-.104E+06	.000E+00	.000E+00	.000E+00
216	21	.000E+00	.000E+00	-.104E+06	.000E+00	.000E+00	.000E+00
215	21	.000E+00	.000E+00	-.320E+05	.000E+00	.000E+00	.000E+00
526	22	.000E+00	.000E+00	-.149E+06	.000E+00	.000E+00	.000E+00
532	22	.000E+00	.000E+00	-.149E+06	.000E+00	.000E+00	.000E+00
527	22	.000E+00	.000E+00	-.149E+06	.000E+00	.000E+00	.000E+00
531	22	.000E+00	.000E+00	-.149E+06	.000E+00	.000E+00	.000E+00
528	22	.000E+00	.000E+00	-.193E+06	.000E+00	.000E+00	.000E+00
530	22	.000E+00	.000E+00	-.193E+06	.000E+00	.000E+00	.000E+00
529	22	.000E+00	.000E+00	-.594E+05	.000E+00	.000E+00	.000E+00
421	22	.000E+00	.000E+00	-.800E+05	.000E+00	.000E+00	.000E+00
427	22	.000E+00	.000E+00	-.800E+05	.000E+00	.000E+00	.000E+00
422	22	.000E+00	.000E+00	-.800E+05	.000E+00	.000E+00	.000E+00
426	22	.000E+00	.000E+00	-.800E+05	.000E+00	.000E+00	.000E+00
423	22	.000E+00	.000E+00	-.104E+06	.000E+00	.000E+00	.000E+00
425	22	.000E+00	.000E+00	-.104E+06	.000E+00	.000E+00	.000E+00
424	22	.000E+00	.000E+00	-.320E+05	.000E+00	.000E+00	.000E+00
550	23	.000E+00	.000E+00	-.718E+05	.000E+00	.000E+00	.000E+00
549	23	.000E+00	.000E+00	-.242E+06	.000E+00	.000E+00	.000E+00
548	23	.000E+00	.000E+00	-.498E+05	.000E+00	.000E+00	.000E+00
547	23	.000E+00	.000E+00	-.171E+06	.000E+00	.000E+00	.000E+00
546	23	.000E+00	.000E+00	-.193E+06	.000E+00	.000E+00	.000E+00
445	23	.000E+00	.000E+00	-.387E+05	.000E+00	.000E+00	.000E+00
444	23	.000E+00	.000E+00	-.131E+06	.000E+00	.000E+00	.000E+00
443	23	.000E+00	.000E+00	-.268E+05	.000E+00	.000E+00	.000E+00
442	23	.000E+00	.000E+00	-.923E+05	.000E+00	.000E+00	.000E+00
441	23	.000E+00	.000E+00	-.104E+06	.000E+00	.000E+00	.000E+00
235	24	.000E+00	.000E+00	-.307E+05	.000E+00	.000E+00	.000E+00
234	24	.000E+00	.000E+00	-.112E+06	.000E+00	.000E+00	.000E+00
232	24	.000E+00	.000E+00	-.853E+05	.000E+00	.000E+00	.000E+00
231	24	.000E+00	.000E+00	-.801E+05	.000E+00	.000E+00	.000E+00
130	24	.000E+00	.000E+00	-.570E+05	.000E+00	.000E+00	.000E+00
129	24	.000E+00	.000E+00	-.208E+06	.000E+00	.000E+00	.000E+00
128	24	.000E+00	.000E+00	-.158E+06	.000E+00	.000E+00	.000E+00
127	24	.000E+00	.000E+00	-.149E+06	.000E+00	.000E+00	.000E+00
546	25	.000E+00	.000E+00	-.305E+05	.000E+00	.000E+00	.000E+00
545	25	.000E+00	.000E+00	-.207E+06	.000E+00	.000E+00	.000E+00
544	25	.000E+00	.000E+00	-.123E+06	.000E+00	.000E+00	.000E+00
543	25	.000E+00	.000E+00	-.160E+06	.000E+00	.000E+00	.000E+00
441	25	.000E+00	.000E+00	-.164E+05	.000E+00	.000E+00	.000E+00
440	25	.000E+00	.000E+00	-.111E+06	.000E+00	.000E+00	.000E+00
439	25	.000E+00	.000E+00	-.660E+05	.000E+00	.000E+00	.000E+00
438	25	.000E+00	.000E+00	-.864E+05	.000E+00	.000E+00	.000E+00
232	26	.000E+00	.000E+00	-.164E+05	.000E+00	.000E+00	.000E+00
231	26	.000E+00	.000E+00	-.111E+06	.000E+00	.000E+00	.000E+00
230	26	.000E+00	.000E+00	-.660E+05	.000E+00	.000E+00	.000E+00
229	26	.000E+00	.000E+00	-.864E+05	.000E+00	.000E+00	.000E+00
127	26	.000E+00	.000E+00	-.305E+05	.000E+00	.000E+00	.000E+00
126	26	.000E+00	.000E+00	-.207E+06	.000E+00	.000E+00	.000E+00
125	26	.000E+00	.000E+00	-.123E+06	.000E+00	.000E+00	.000E+00
124	26	.000E+00	.000E+00	-.160E+06	.000E+00	.000E+00	.000E+00

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T L O A D S

JOINT	LOAD	FX	FY	FZ	MX	MY	MZ
114	27	.000E+00	.000E+00	-.196E+06	.000E+00	.000E+00	.000E+00
122	27	.000E+00	.000E+00	-.196E+06	.000E+00	.000E+00	.000E+00
115	27	.000E+00	.000E+00	-.921E+05	.000E+00	.000E+00	.000E+00
121	27	.000E+00	.000E+00	-.921E+05	.000E+00	.000E+00	.000E+00
116	27	.000E+00	.000E+00	-.210E+06	.000E+00	.000E+00	.000E+00
120	27	.000E+00	.000E+00	-.210E+06	.000E+00	.000E+00	.000E+00
117	27	.000E+00	.000E+00	-.232E+06	.000E+00	.000E+00	.000E+00
119	27	.000E+00	.000E+00	-.232E+06	.000E+00	.000E+00	.000E+00
118	27	.000E+00	.000E+00	-.996E+05	.000E+00	.000E+00	.000E+00
219	27	.000E+00	.000E+00	-.106E+06	.000E+00	.000E+00	.000E+00
227	27	.000E+00	.000E+00	-.106E+06	.000E+00	.000E+00	.000E+00
220	27	.000E+00	.000E+00	-.496E+05	.000E+00	.000E+00	.000E+00
226	27	.000E+00	.000E+00	-.496E+05	.000E+00	.000E+00	.000E+00
221	27	.000E+00	.000E+00	-.113E+06	.000E+00	.000E+00	.000E+00
225	27	.000E+00	.000E+00	-.113E+06	.000E+00	.000E+00	.000E+00
222	27	.000E+00	.000E+00	-.125E+06	.000E+00	.000E+00	.000E+00
224	27	.000E+00	.000E+00	-.125E+06	.000E+00	.000E+00	.000E+00
223	27	.000E+00	.000E+00	-.536E+05	.000E+00	.000E+00	.000E+00
534	28	.000E+00	.000E+00	-.196E+06	.000E+00	.000E+00	.000E+00
542	28	.000E+00	.000E+00	-.196E+06	.000E+00	.000E+00	.000E+00
535	28	.000E+00	.000E+00	-.921E+05	.000E+00	.000E+00	.000E+00
541	28	.000E+00	.000E+00	-.921E+05	.000E+00	.000E+00	.000E+00
536	28	.000E+00	.000E+00	-.210E+06	.000E+00	.000E+00	.000E+00
540	28	.000E+00	.000E+00	-.210E+06	.000E+00	.000E+00	.000E+00
537	28	.000E+00	.000E+00	-.232E+06	.000E+00	.000E+00	.000E+00
539	28	.000E+00	.000E+00	-.232E+06	.000E+00	.000E+00	.000E+00
538	28	.000E+00	.000E+00	-.996E+05	.000E+00	.000E+00	.000E+00
429	28	.000E+00	.000E+00	-.106E+06	.000E+00	.000E+00	.000E+00
430	28	.000E+00	.000E+00	-.496E+05	.000E+00	.000E+00	.000E+00
431	28	.000E+00	.000E+00	-.113E+06	.000E+00	.000E+00	.000E+00
432	28	.000E+00	.000E+00	-.125E+06	.000E+00	.000E+00	.000E+00
432	28	.000E+00	.000E+00	-.536E+05	.000E+00	.000E+00	.000E+00
558	29	.000E+00	.000E+00	-.718E+05	.000E+00	.000E+00	.000E+00
557	29	.000E+00	.000E+00	-.242E+06	.000E+00	.000E+00	.000E+00
556	29	.000E+00	.000E+00	-.498E+05	.000E+00	.000E+00	.000E+00
555	29	.000E+00	.000E+00	-.171E+06	.000E+00	.000E+00	.000E+00
554	29	.000E+00	.000E+00	-.193E+06	.000E+00	.000E+00	.000E+00
453	29	.000E+00	.000E+00	-.387E+05	.000E+00	.000E+00	.000E+00
452	29	.000E+00	.000E+00	-.131E+06	.000E+00	.000E+00	.000E+00
451	29	.000E+00	.000E+00	-.268E+05	.000E+00	.000E+00	.000E+00
450	29	.000E+00	.000E+00	-.923E+05	.000E+00	.000E+00	.000E+00
449	29	.000E+00	.000E+00	-.104E+06	.000E+00	.000E+00	.000E+00
227	30	.000E+00	.000E+00	-.307E+05	.000E+00	.000E+00	.000E+00
226	30	.000E+00	.000E+00	-.112E+06	.000E+00	.000E+00	.000E+00
225	30	.000E+00	.000E+00	-.853E+05	.000E+00	.000E+00	.000E+00
224	30	.000E+00	.000E+00	-.801E+05	.000E+00	.000E+00	.000E+00
138	30	.000E+00	.000E+00	-.570E+05	.000E+00	.000E+00	.000E+00
137	30	.000E+00	.000E+00	-.208E+06	.000E+00	.000E+00	.000E+00
136	30	.000E+00	.000E+00	-.158E+06	.000E+00	.000E+00	.000E+00
135	30	.000E+00	.000E+00	-.149E+06	.000E+00	.000E+00	.000E+00
554	31	.000E+00	.000E+00	-.305E+05	.000E+00	.000E+00	.000E+00
553	31	.000E+00	.000E+00	-.207E+06	.000E+00	.000E+00	.000E+00

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T L O A D S

JOINT	LOAD	FX	FY	FZ	MX	MY	MZ
552	31	.000E+00	.000E+00	-.123E+06	.000E+00	.000E+00	.000E+00
551	31	.000E+00	.000E+00	-.160E+06	.000E+00	.000E+00	.000E+00
449	31	.000E+00	.000E+00	-.164E+05	.000E+00	.000E+00	.000E+00
448	31	.000E+00	.000E+00	-.111E+06	.000E+00	.000E+00	.000E+00
447	31	.000E+00	.000E+00	-.660E+05	.000E+00	.000E+00	.000E+00
446	31	.000E+00	.000E+00	-.864E+05	.000E+00	.000E+00	.000E+00
240	32	.000E+00	.000E+00	-.164E+05	.000E+00	.000E+00	.000E+00
239	32	.000E+00	.000E+00	-.111E+06	.000E+00	.000E+00	.000E+00
238	32	.000E+00	.000E+00	-.660E+05	.000E+00	.000E+00	.000E+00
237	32	.000E+00	.000E+00	-.864E+05	.000E+00	.000E+00	.000E+00
135	32	.000E+00	.000E+00	-.305E+05	.000E+00	.000E+00	.000E+00
134	32	.000E+00	.000E+00	-.207E+06	.000E+00	.000E+00	.000E+00
133	32	.000E+00	.000E+00	-.123E+06	.000E+00	.000E+00	.000E+00
132	32	.000E+00	.000E+00	-.160E+06	.000E+00	.000E+00	.000E+00
121	33	.000E+00	.000E+00	-.520E+05	.000E+00	.000E+00	.000E+00
120	33	.000E+00	.000E+00	-.207E+06	.000E+00	.000E+00	.000E+00
119	33	.000E+00	.000E+00	-.144E+06	.000E+00	.000E+00	.000E+00
118	33	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
117	33	.000E+00	.000E+00	-.166E+06	.000E+00	.000E+00	.000E+00
116	33	.000E+00	.000E+00	-.186E+06	.000E+00	.000E+00	.000E+00
115	33	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
114	33	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
113	33	.000E+00	.000E+00	-.172E+06	.000E+00	.000E+00	.000E+00
226	33	.000E+00	.000E+00	-.280E+05	.000E+00	.000E+00	.000E+00
225	33	.000E+00	.000E+00	-.111E+06	.000E+00	.000E+00	.000E+00
224	33	.000E+00	.000E+00	-.776E+05	.000E+00	.000E+00	.000E+00
223	33	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
222	33	.000E+00	.000E+00	-.896E+05	.000E+00	.000E+00	.000E+00
221	33	.000E+00	.000E+00	-.100E+06	.000E+00	.000E+00	.000E+00
220	33	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
219	33	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
218	33	.000E+00	.000E+00	-.928E+05	.000E+00	.000E+00	.000E+00
541	34	.000E+00	.000E+00	-.520E+05	.000E+00	.000E+00	.000E+00
540	34	.000E+00	.000E+00	-.207E+06	.000E+00	.000E+00	.000E+00
539	34	.000E+00	.000E+00	-.144E+06	.000E+00	.000E+00	.000E+00
538	34	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
537	34	.000E+00	.000E+00	-.166E+06	.000E+00	.000E+00	.000E+00
536	34	.000E+00	.000E+00	-.186E+06	.000E+00	.000E+00	.000E+00
535	34	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
534	34	.000E+00	.000E+00	-.211E+06	.000E+00	.000E+00	.000E+00
533	34	.000E+00	.000E+00	-.172E+06	.000E+00	.000E+00	.000E+00
436	34	.000E+00	.000E+00	-.280E+05	.000E+00	.000E+00	.000E+00
435	34	.000E+00	.000E+00	-.111E+06	.000E+00	.000E+00	.000E+00
434	34	.000E+00	.000E+00	-.776E+05	.000E+00	.000E+00	.000E+00
433	34	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
432	34	.000E+00	.000E+00	-.896E+05	.000E+00	.000E+00	.000E+00
431	34	.000E+00	.000E+00	-.100E+06	.000E+00	.000E+00	.000E+00
430	34	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
429	34	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
428	34	.000E+00	.000E+00	-.928E+05	.000E+00	.000E+00	.000E+00
534	35	.000E+00	.000E+00	-.129E+06	.000E+00	.000E+00	.000E+00
533	35	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T L O A D S

JOINT	LOAD	FX	FY	FZ	MX	MY	MZ
532	35	.000E+00	.000E+00	-.215E+05	.000E+00	.000E+00	.000E+00
531	35	.000E+00	.000E+00	-.171E+06	.000E+00	.000E+00	.000E+00
530	35	.000E+00	.000E+00	-.171E+06	.000E+00	.000E+00	.000E+00
429	35	.000E+00	.000E+00	-.694E+05	.000E+00	.000E+00	.000E+00
428	35	.000E+00	.000E+00	-.612E+05	.000E+00	.000E+00	.000E+00
427	35	.000E+00	.000E+00	-.116E+05	.000E+00	.000E+00	.000E+00
426	35	.000E+00	.000E+00	-.922E+05	.000E+00	.000E+00	.000E+00
425	35	.000E+00	.000E+00	-.922E+05	.000E+00	.000E+00	.000E+00
218	36	.000E+00	.000E+00	-.101E+06	.000E+00	.000E+00	.000E+00
217	36	.000E+00	.000E+00	-.528E+05	.000E+00	.000E+00	.000E+00
216	36	.000E+00	.000E+00	-.924E+05	.000E+00	.000E+00	.000E+00
215	36	.000E+00	.000E+00	-.616E+05	.000E+00	.000E+00	.000E+00
115	36	.000E+00	.000E+00	-.188E+06	.000E+00	.000E+00	.000E+00
114	36	.000E+00	.000E+00	-.981E+05	.000E+00	.000E+00	.000E+00
113	36	.000E+00	.000E+00	-.172E+06	.000E+00	.000E+00	.000E+00
112	36	.000E+00	.000E+00	-.114E+06	.000E+00	.000E+00	.000E+00
530	35	.000E+00	.000E+00	-.557E+04	.000E+00	.000E+00	.000E+00
529	35	.000E+00	.000E+00	-.193E+06	.000E+00	.000E+00	.000E+00
528	35	.000E+00	.000E+00	-.613E+05	.000E+00	.000E+00	.000E+00
527	35	.000E+00	.000E+00	-.189E+06	.000E+00	.000E+00	.000E+00
526	35	.000E+00	.000E+00	-.706E+05	.000E+00	.000E+00	.000E+00
425	35	.000E+00	.000E+00	-.300E+04	.000E+00	.000E+00	.000E+00
424	35	.000E+00	.000E+00	-.104E+06	.000E+00	.000E+00	.000E+00
423	35	.000E+00	.000E+00	-.330E+05	.000E+00	.000E+00	.000E+00
422	35	.000E+00	.000E+00	-.102E+06	.000E+00	.000E+00	.000E+00
421	35	.000E+00	.000E+00	-.380E+05	.000E+00	.000E+00	.000E+00
110	36	.000E+00	.000E+00	-.557E+04	.000E+00	.000E+00	.000E+00
109	36	.000E+00	.000E+00	-.193E+06	.000E+00	.000E+00	.000E+00
108	36	.000E+00	.000E+00	-.613E+05	.000E+00	.000E+00	.000E+00
107	36	.000E+00	.000E+00	-.189E+06	.000E+00	.000E+00	.000E+00
106	36	.000E+00	.000E+00	-.706E+05	.000E+00	.000E+00	.000E+00
215	36	.000E+00	.000E+00	-.300E+04	.000E+00	.000E+00	.000E+00
214	36	.000E+00	.000E+00	-.104E+06	.000E+00	.000E+00	.000E+00
213	36	.000E+00	.000E+00	-.330E+05	.000E+00	.000E+00	.000E+00
212	36	.000E+00	.000E+00	-.102E+06	.000E+00	.000E+00	.000E+00
211	36	.000E+00	.000E+00	-.380E+05	.000E+00	.000E+00	.000E+00
122	37	.000E+00	.000E+00	-.196E+06	.000E+00	.000E+00	.000E+00
130	37	.000E+00	.000E+00	-.196E+06	.000E+00	.000E+00	.000E+00
123	37	.000E+00	.000E+00	-.921E+05	.000E+00	.000E+00	.000E+00
129	37	.000E+00	.000E+00	-.921E+05	.000E+00	.000E+00	.000E+00
124	37	.000E+00	.000E+00	-.210E+06	.000E+00	.000E+00	.000E+00
128	37	.000E+00	.000E+00	-.210E+06	.000E+00	.000E+00	.000E+00
125	37	.000E+00	.000E+00	-.232E+06	.000E+00	.000E+00	.000E+00
127	37	.000E+00	.000E+00	-.232E+06	.000E+00	.000E+00	.000E+00
126	37	.000E+00	.000E+00	-.996E+05	.000E+00	.000E+00	.000E+00
227	37	.000E+00	.000E+00	-.106E+06	.000E+00	.000E+00	.000E+00
235	37	.000E+00	.000E+00	-.106E+06	.000E+00	.000E+00	.000E+00
228	37	.000E+00	.000E+00	-.496E+05	.000E+00	.000E+00	.000E+00
234	37	.000E+00	.000E+00	-.496E+05	.000E+00	.000E+00	.000E+00
229	37	.000E+00	.000E+00	-.113E+06	.000E+00	.000E+00	.000E+00
233	37	.000E+00	.000E+00	-.113E+06	.000E+00	.000E+00	.000E+00
230	37	.000E+00	.000E+00	-.125E+06	.000E+00	.000E+00	.000E+00

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T L O A D S

JOINT	LOAD	FX	FY	FZ	MX	MY	MZ
232	37	.000E+00	.000E+00	-.125E+06	.000E+00	.000E+00	.000E+00
231	37	.000E+00	.000E+00	-.536E+05	.000E+00	.000E+00	.000E+00
117	37	.000E+00	.000E+00	-.718E+05	.000E+00	.000E+00	.000E+00
118	37	.000E+00	.000E+00	-.242E+06	.000E+00	.000E+00	.000E+00
119	37	.000E+00	.000E+00	-.498E+05	.000E+00	.000E+00	.000E+00
120	37	.000E+00	.000E+00	-.171E+06	.000E+00	.000E+00	.000E+00
121	37	.000E+00	.000E+00	-.193E+06	.000E+00	.000E+00	.000E+00
222	37	.000E+00	.000E+00	-.387E+05	.000E+00	.000E+00	.000E+00
223	37	.000E+00	.000E+00	-.131E+06	.000E+00	.000E+00	.000E+00
224	37	.000E+00	.000E+00	-.268E+05	.000E+00	.000E+00	.000E+00
225	37	.000E+00	.000E+00	-.923E+05	.000E+00	.000E+00	.000E+00
226	37	.000E+00	.000E+00	-.104E+06	.000E+00	.000E+00	.000E+00
239	37	.000E+00	.000E+00	-.305E+05	.000E+00	.000E+00	.000E+00
238	37	.000E+00	.000E+00	-.207E+06	.000E+00	.000E+00	.000E+00
237	37	.000E+00	.000E+00	-.123E+06	.000E+00	.000E+00	.000E+00
236	37	.000E+00	.000E+00	-.160E+06	.000E+00	.000E+00	.000E+00
134	37	.000E+00	.000E+00	-.164E+05	.000E+00	.000E+00	.000E+00
133	37	.000E+00	.000E+00	-.111E+06	.000E+00	.000E+00	.000E+00
132	37	.000E+00	.000E+00	-.660E+05	.000E+00	.000E+00	.000E+00
131	37	.000E+00	.000E+00	-.864E+05	.000E+00	.000E+00	.000E+00
542	38	.000E+00	.000E+00	-.196E+06	.000E+00	.000E+00	.000E+00
550	38	.000E+00	.000E+00	-.196E+06	.000E+00	.000E+00	.000E+00
543	38	.000E+00	.000E+00	-.921E+05	.000E+00	.000E+00	.000E+00
549	38	.000E+00	.000E+00	-.921E+05	.000E+00	.000E+00	.000E+00
544	38	.000E+00	.000E+00	-.210E+06	.000E+00	.000E+00	.000E+00
548	38	.000E+00	.000E+00	-.210E+06	.000E+00	.000E+00	.000E+00
545	38	.000E+00	.000E+00	-.232E+06	.000E+00	.000E+00	.000E+00
547	38	.000E+00	.000E+00	-.232E+06	.000E+00	.000E+00	.000E+00
546	38	.000E+00	.000E+00	-.996E+05	.000E+00	.000E+00	.000E+00
437	38	.000E+00	.000E+00	-.106E+06	.000E+00	.000E+00	.000E+00
445	38	.000E+00	.000E+00	-.106E+06	.000E+00	.000E+00	.000E+00
438	38	.000E+00	.000E+00	-.496E+05	.000E+00	.000E+00	.000E+00
444	38	.000E+00	.000E+00	-.496E+05	.000E+00	.000E+00	.000E+00
439	38	.000E+00	.000E+00	-.113E+06	.000E+00	.000E+00	.000E+00
443	38	.000E+00	.000E+00	-.113E+06	.000E+00	.000E+00	.000E+00
440	38	.000E+00	.000E+00	-.125E+06	.000E+00	.000E+00	.000E+00
442	38	.000E+00	.000E+00	-.125E+06	.000E+00	.000E+00	.000E+00
441	38	.000E+00	.000E+00	-.536E+05	.000E+00	.000E+00	.000E+00
449	38	.000E+00	.000E+00	-.305E+05	.000E+00	.000E+00	.000E+00
448	38	.000E+00	.000E+00	-.207E+06	.000E+00	.000E+00	.000E+00
447	38	.000E+00	.000E+00	-.123E+06	.000E+00	.000E+00	.000E+00
446	38	.000E+00	.000E+00	-.160E+06	.000E+00	.000E+00	.000E+00
554	38	.000E+00	.000E+00	-.164E+05	.000E+00	.000E+00	.000E+00
553	38	.000E+00	.000E+00	-.111E+06	.000E+00	.000E+00	.000E+00
552	38	.000E+00	.000E+00	-.660E+05	.000E+00	.000E+00	.000E+00
551	38	.000E+00	.000E+00	-.864E+05	.000E+00	.000E+00	.000E+00
433	38	.000E+00	.000E+00	-.307E+05	.000E+00	.000E+00	.000E+00
434	38	.000E+00	.000E+00	-.112E+06	.000E+00	.000E+00	.000E+00
435	38	.000E+00	.000E+00	-.853E+05	.000E+00	.000E+00	.000E+00
436	38	.000E+00	.000E+00	-.801E+05	.000E+00	.000E+00	.000E+00
538	38	.000E+00	.000E+00	-.570E+05	.000E+00	.000E+00	.000E+00
539	38	.000E+00	.000E+00	-.208E+06	.000E+00	.000E+00	.000E+00

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T L O A D S

JOINT	LOAD	FX	FY	FZ	MX	MY	MZ
540	38	.000E+00	.000E+00	-.158E+06	.000E+00	.000E+00	.000E+00
541	38	.000E+00	.000E+00	-.149E+06	.000E+00	.000E+00	.000E+00

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

L O A D C O N D I T I O N C O M B I N A T I O N M U L T I P L I E R S

COMBINATION	CONDITION	FACTOR
1		
	1	1.000
	2	1.000
	3	1.000
	4	1.000
	5	1.000
	6	1.000
2		
	7	1.000
	8	1.000
	9	1.000
	10	1.000
	11	1.000
	12	1.000
3		
	7	1.000
	8	1.000
	9	1.000
	10	1.000
	13	1.000
	14	1.000
4		
	15	1.000
	16	1.000
	17	1.000
	18	1.000
	19	1.000
	20	1.000
5		
	21	1.000
	22	1.000
	23	1.000
	24	1.000
	25	1.000
	26	1.000
6		
	27	1.000
	28	1.000
	29	1.000
	30	1.000
	31	1.000
	32	1.000
7		
	23	1.000
	24	1.000
	25	1.000
	26	1.000
	33	1.000
	34	1.000
8		
	21	1.000

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

L O A D C O N D I T I O N C O M B I N A T I O N M U L T I P L I E R S

COMBINATION	CONDITION	FACTOR
9		
	22	1.000
10		
	35	1.000
11		
	36	1.000
12		
	37	1.000
13		
	38	1.000

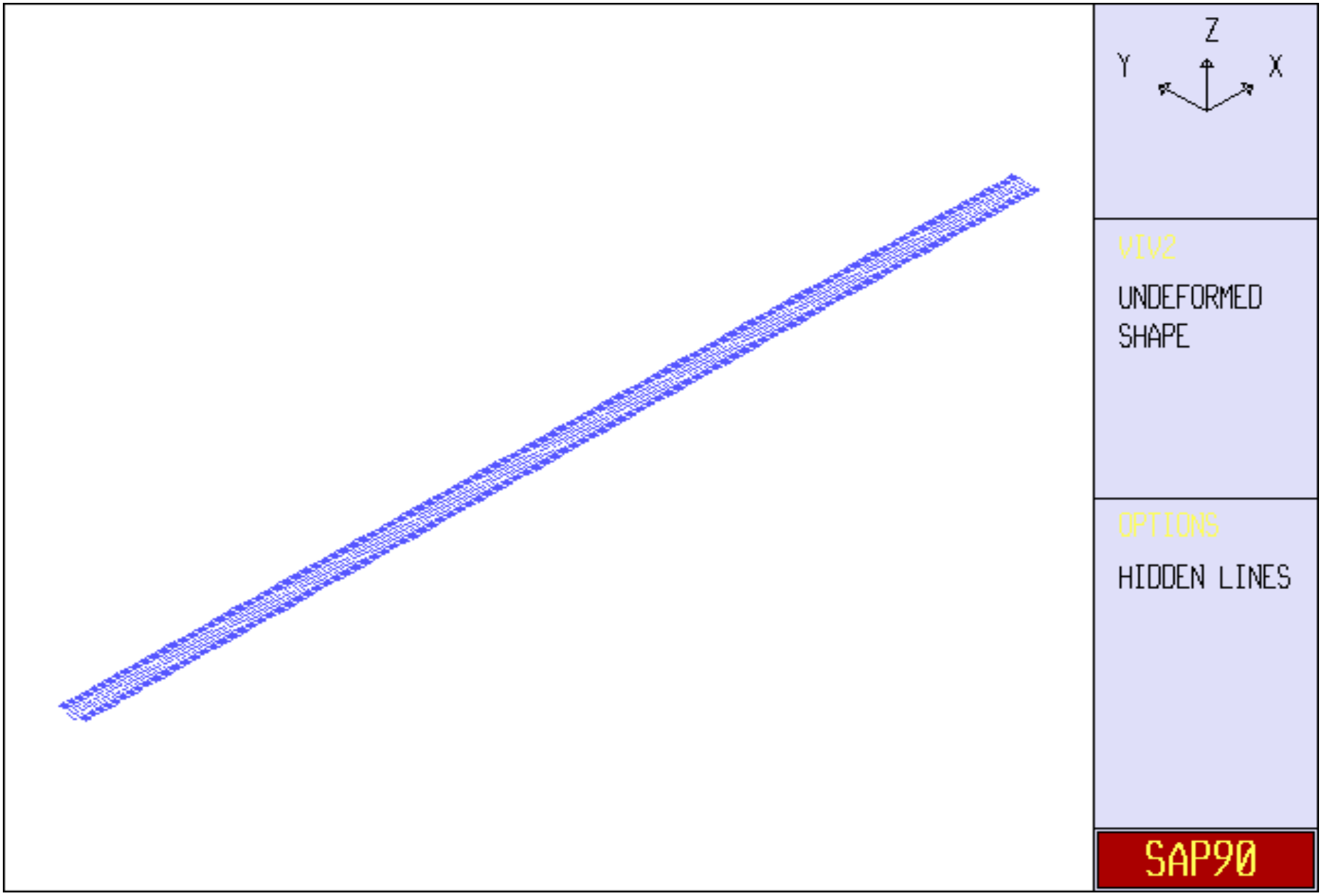
VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

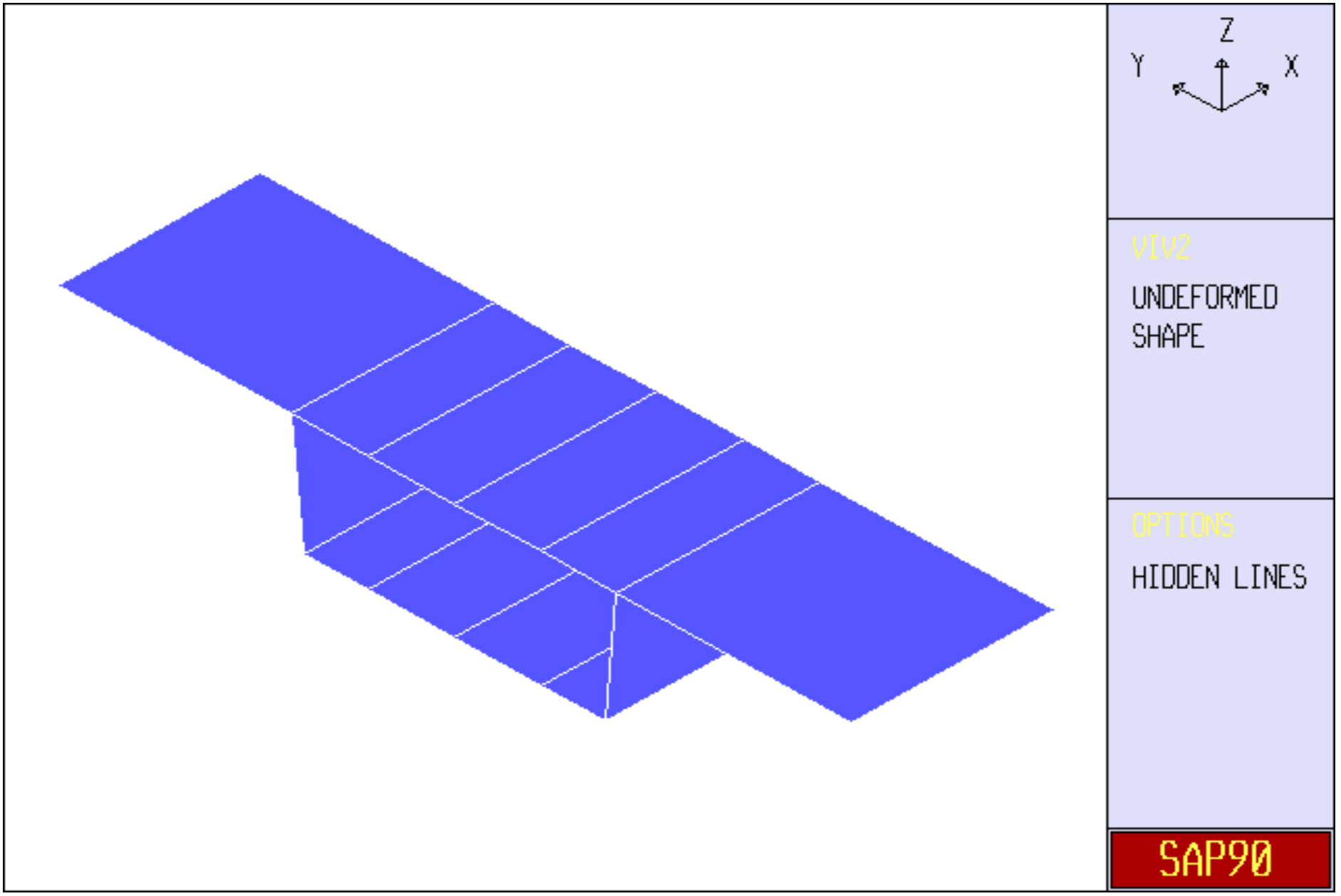
J O I N T A N D E L E M E N T O U T P U T S E L E C T I O N

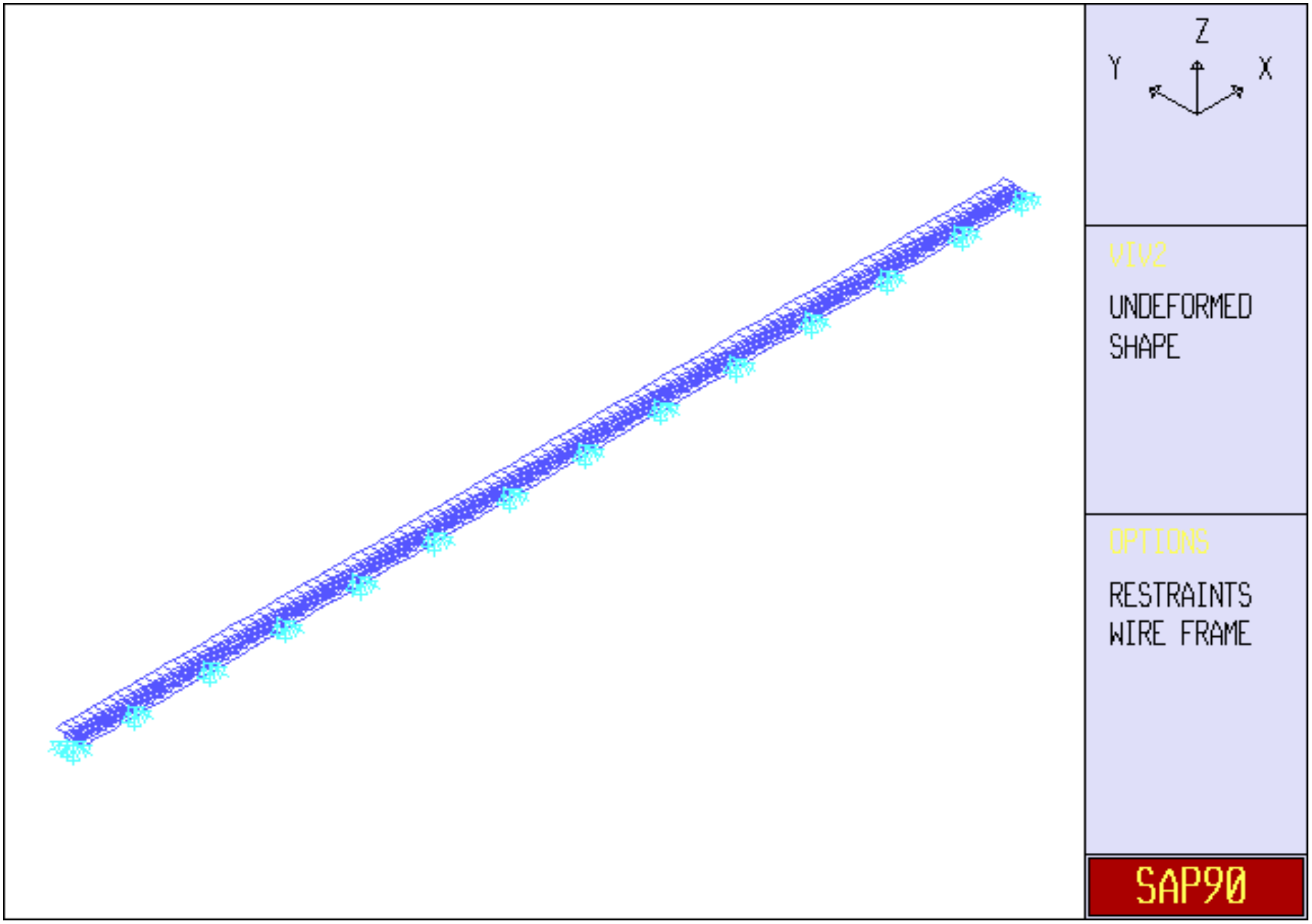
TYPE		FIRST ID	LAST ID	ID INC	CODE
1	(JOINT DISPL)	845	901	8	1
1	(JOINT DISPL)	1055	1111	8	1
6	(SHELL ELEMT)	940	996	8	1
6	(SHELL ELEMT)	941	997	8	1
6	(SHELL ELEMT)	1044	1100	8	1
6	(SHELL ELEMT)	1045	1101	8	1

O U T P U T F I L E S C R E A T E D B Y P R O G R A M

INPUT DATA ECHO	VIV2.SAP
SOLUTION ERRORS AND WARNINGS	VIV2.ERR
EQUATION NUMBERING	VIV2.EQN
DISPLACEMENTS AND REACTIONS	VIV2.SOL
ELEMENT FORCES	VIV2.FEF
SHELL ELEMENT FORCES	VIV2.F4F


Z
Y
X
VIV2
UNDEFORMED
SHAPE
OPTIONS
HIDDEN LINES
SAP90


Z
Y
X
VIV2
UNDEFORMED
SHAPE
OPTIONS
HIDDEN LINES
SAP90


Z
Y
X
VIV2
UNDEFORMED
SHAPE
OPTIONS
RESTRAINTS
WIRE FRAME
SAP90

Listado Output

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

MEMBRANE FORCES ARE IN FORCE PER UNIT LENGTH
BENDING MOMENTS ARE IN MOMENTS PER UNIT LENGTH

ELEMENT ID 940 ----------

LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
844	6.0689E+05	4.0397E+04	2.0257E+04	6.0761E+05	3.9674E+04	2.05
845	6.0602E+05	3.6061E+04	7.1990E+03	6.0611E+05	3.5970E+04	.72
949	5.8695E+05	3.6410E+04	1.8483E+04	5.8757E+05	3.5790E+04	1.92
950	5.8608E+05	3.2074E+04	5.4251E+03	5.8614E+05	3.2021E+04	.56
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
844	3.9529E+03	-2.2870E+02	5.0270E+02	4.0125E+03	-2.8828E+02	6.76
845	4.0215E+03	-8.9380E+01	2.4119E+02	4.0356E+03	-1.0348E+02	3.35
949	2.6456E+03	-2.5265E+03	6.3678E+02	2.7228E+03	-2.6037E+03	6.92
950	4.1804E+03	-8.4342E+02	3.7527E+02	4.2083E+03	-8.7130E+02	4.25

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
844	-1.9459E+05	-4.7588E+03	-1.7004E+04	-3.2477E+03	-1.9610E+05	-84.92
845	-1.9266E+05	4.9009E+03	-1.5307E+04	6.0799E+03	-1.9384E+05	-85.60
949	-1.9952E+05	-5.7451E+03	-4.8633E+03	-5.6232E+03	-1.9964E+05	-88.56
950	-1.9759E+05	3.9144E+03	-3.1669E+03	3.9641E+03	-1.9764E+05	-89.10
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
844	-1.1184E+03	-1.8443E+02	-3.7857E+01	-1.8290E+02	-1.1199E+03	-87.68
845	-1.0539E+03	-4.2915E+01	2.0507E+01	-4.2499E+01	-1.0543E+03	88.84
949	-7.6497E+02	2.2240E+02	-3.3687E+01	2.2355E+02	-7.6611E+02	-88.05
950	-1.1860E+03	5.6270E+01	2.4676E+01	5.6760E+01	-1.1865E+03	88.86

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
844	-1.5645E+05	-3.7100E+03	-1.3529E+04	-2.5209E+03	-1.5764E+05	-84.98
845	-1.5493E+05	3.9061E+03	-1.2077E+04	4.8192E+03	-1.5584E+05	-85.68
949	-1.6091E+05	-4.6014E+03	-3.5742E+03	-4.5197E+03	-1.6099E+05	-88.69
950	-1.5938E+05	3.0146E+03	-2.1226E+03	3.0424E+03	-1.5941E+05	-89.25
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
844	-8.9748E+02	-1.5404E+02	-2.4943E+01	-1.5321E+02	-8.9831E+02	-88.08
845	-8.5149E+02	-3.7155E+01	2.2265E+01	-3.6546E+01	-8.5210E+02	88.44
949	-6.2004E+02	1.7733E+02	-2.0747E+01	1.7787E+02	-6.2058E+02	-88.51
950	-9.4790E+02	5.1059E+01	2.6461E+01	5.1759E+01	-9.4860E+02	88.48

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
844	-1.1658E+02	1.1061E+01	2.4299E+01	1.5530E+01	-1.2105E+02	79.58
845	-1.1686E+02	9.6560E+00	3.1544E+01	1.7085E+01	-1.2429E+02	76.75
949	-1.8192E+02	-2.0097E+00	5.6290E+01	1.4151E+01	-1.9808E+02	73.98
950	-1.8220E+02	-3.4147E+00	6.3535E+01	1.6864E+01	-2.0248E+02	72.30
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
844	-3.5259E-01	-1.5332E+00	7.7149E-01	2.8537E-02	-1.9143E+00	26.29
845	-1.0299E+00	-1.0736E+00	2.8334E-01	-7.6757E-01	-1.3359E+00	42.79
949	-7.0940E-01	7.8158E-02	8.3091E-01	6.0388E-01	-1.2351E+00	57.68
950	-1.1272E+00	6.5141E-02	3.4276E-01	1.5665E-01	-1.2187E+00	75.05

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 940 ----------
LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
844	6.3764E+05	3.7295E+04	1.8869E+04	6.3823E+05	3.6702E+04	1.80
845	6.3606E+05	2.9398E+04	4.4249E+03	6.3609E+05	2.9365E+04	.42
949	6.3178E+05	3.6122E+04	2.6977E+04	6.3300E+05	3.4902E+04	2.59
950	6.3020E+05	2.8225E+04	1.2533E+04	6.3046E+05	2.7964E+04	1.19

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
844	4.1932E+03	-2.1676E+02	1.4778E+02	4.1982E+03	-2.2171E+02	1.92
845	3.6768E+03	-7.7060E+02	1.8058E+01	3.6768E+03	-7.7067E+02	.23
949	2.9572E+03	-2.6800E+03	2.4269E+02	2.9676E+03	-2.6905E+03	2.46
950	4.1206E+03	-9.3381E+02	1.1297E+02	4.1231E+03	-9.3634E+02	1.28

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
844	-2.0982E+05	-4.7800E+03	-1.8604E+04	-3.1056E+03	-2.1150E+05	-84.86
845	-2.0777E+05	5.4795E+03	-1.6693E+04	6.7782E+03	-2.0907E+05	-85.55
949	-2.1670E+05	-6.1554E+03	-5.0731E+03	-6.0332E+03	-2.1682E+05	-88.62
950	-2.1465E+05	4.1039E+03	-3.1615E+03	4.1496E+03	-2.1469E+05	-89.17

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
844	-1.2126E+03	-2.4667E+02	-3.6378E+01	-2.4530E+02	-1.2140E+03	-87.85
845	-1.1598E+03	-1.1653E+02	2.5283E+01	-1.1592E+02	-1.1604E+03	88.61
949	-8.3771E+02	2.3739E+02	-3.2863E+01	2.3839E+02	-8.3871E+02	-88.25
950	-1.2737E+03	6.9955E+01	2.8797E+01	7.0572E+01	-1.2744E+03	88.77

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
844	-1.3019E+05	-3.5085E+03	-1.3558E+04	-2.0739E+03	-1.3163E+05	-83.96
845	-1.2898E+05	2.5528E+03	-1.2282E+04	3.6897E+03	-1.3012E+05	-84.71
949	-1.3156E+05	-3.7813E+03	-5.9513E+03	-3.5047E+03	-1.3184E+05	-87.34
950	-1.3035E+05	2.2800E+03	-4.6754E+03	2.4446E+03	-1.3051E+05	-87.98

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
844	-7.6800E+02	-6.0344E+01	-6.9055E+01	-5.3669E+01	-7.7468E+02	-84.48
845	-7.1885E+02	-1.1010E+02	3.2554E+01	-1.0836E+02	-7.2059E+02	86.95
949	-5.3555E+02	1.3574E+02	-7.5690E+01	1.4416E+02	-5.4397E+02	-83.65
950	-6.6191E+02	9.5720E+01	2.5917E+01	9.6606E+01	-6.6279E+02	88.04

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
844	3.7825E+05	2.9375E+04	-3.0581E+04	3.8091E+05	2.6715E+04	-4.97
845	3.7480E+05	1.2108E+04	-4.6209E+04	3.8059E+05	6.3132E+03	-7.15
949	3.0680E+05	1.5084E+04	-1.1429E+04	3.0725E+05	1.4637E+04	-2.24
950	3.0335E+05	-2.1838E+03	-2.7056E+04	3.0572E+05	-4.5613E+03	-5.02

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
844	4.6725E+03	9.7831E+03	1.7478E+02	9.7890E+03	4.6666E+03	88.04
845	4.5159E+03	1.0921E+04	-4.1498E+02	1.0948E+04	4.4891E+03	-86.31
949	1.4595E+03	-1.3866E+03	3.5680E+02	1.5035E+03	-1.4307E+03	7.04
950	2.0166E+03	-4.0548E+02	-2.3295E+02	2.0388E+03	-4.2768E+02	-5.44

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
844	2.2486E+05	7.3131E+03	4.7058E+04	2.3460E+05	-2.4297E+03	11.70
845	2.2707E+05	1.8369E+04	4.8609E+04	2.3784E+05	7.6030E+03	12.49
949	2.8845E+05	2.0033E+04	3.8580E+04	2.9389E+05	1.4598E+04	8.02
950	2.9066E+05	3.1089E+04	4.0131E+04	2.9672E+05	2.5026E+04	8.59

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 940 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
844	-6.7224E+02	-1.0062E+04	-1.9936E+01	-6.7220E+02	-1.0062E+04	-.12
845	-1.0316E+03	-1.1721E+04	4.3729E+02	-1.0138E+03	-1.1739E+04	2.34
949	1.3605E+03	-1.2537E+03	-1.0569E+02	1.3647E+03	-1.2580E+03	-2.31
950	1.8772E+03	-5.2362E+02	3.5153E+02	1.9276E+03	-5.7403E+02	8.16

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
844	2.3022E+05	1.1324E+04	4.0837E+04	2.3759E+05	3.9537E+03	10.23
845	2.3260E+05	2.3224E+04	3.9403E+04	2.3977E+05	1.6055E+04	10.31
949	2.9837E+05	2.4956E+04	3.0258E+04	3.0168E+05	2.1648E+04	6.24
950	3.0075E+05	3.6856E+04	2.8824E+04	3.0386E+05	3.3745E+04	6.16
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
844	-7.9279E+02	-1.0505E+04	-1.6796E+02	-7.8989E+02	-1.0508E+04	-.99
845	-1.0666E+03	-1.2290E+04	3.9283E+02	-1.0528E+03	-1.2304E+04	2.00
949	1.4452E+03	-1.2694E+03	-2.7518E+02	1.4729E+03	-1.2970E+03	-5.73
950	2.0295E+03	-6.2347E+02	2.8560E+02	2.0599E+03	-6.5387E+02	6.08

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
844	2.7166E+05	2.5084E+04	-3.5887E+04	2.7677E+05	1.9967E+04	-8.11
845	2.6949E+05	1.4259E+04	-4.4512E+04	2.7703E+05	6.7192E+03	-9.61
949	2.1518E+05	1.3787E+04	-1.4915E+04	2.1628E+05	1.2688E+04	-4.21
950	2.1302E+05	2.9626E+03	-2.3540E+04	2.1562E+05	3.5679E+02	-6.32
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
844	3.6141E+03	7.0536E+03	6.6987E+00	7.0536E+03	3.6141E+03	89.89
845	2.9656E+03	6.7666E+03	-5.2264E+02	6.8372E+03	2.8951E+03	-82.31
949	1.0222E+03	-1.3462E+03	6.3554E+01	1.0239E+03	-1.3479E+03	1.54
950	1.3375E+03	-4.8908E+02	-4.6578E+02	1.4494E+03	-6.0099E+02	-13.51

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
844	-1.4150E+04	6.4698E+03	1.0856E+04	1.1132E+04	-1.8812E+04	66.76
845	-1.4727E+04	3.5842E+03	1.4008E+04	1.1163E+04	-2.2306E+04	61.58
949	-4.5597E+04	1.7936E+02	2.3131E+04	9.8325E+03	-5.5250E+04	67.35
950	-4.6174E+04	-2.7062E+03	2.6283E+04	9.6650E+03	-5.8545E+04	64.79
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
844	3.2598E+01	-7.0930E+02	3.4308E+02	1.6693E+02	-8.4364E+02	21.38
845	-2.6695E+02	-5.2372E+02	1.0898E+02	-2.2694E+02	-5.6373E+02	20.16
949	-1.8366E+02	-6.1440E+00	3.6949E+02	2.8510E+02	-4.7490E+02	51.75
950	-2.8203E+02	2.4415E+01	1.3538E+02	7.5657E+01	-3.3327E+02	69.27

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
844	-5.4815E+04	-7.4298E+03	-1.6342E+04	-2.3404E+03	-5.9904E+04	-72.70
845	-5.3571E+04	-1.2096E+03	-1.8659E+04	4.7593E+03	-5.9540E+04	-72.26
949	-2.8693E+04	-2.2045E+03	-2.3202E+04	1.1267E+04	-4.2164E+04	-59.86
950	-2.7449E+04	4.0157E+03	-2.5519E+04	1.8262E+04	-4.1695E+04	-60.83
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
844	-4.2909E+02	5.3408E+02	-3.2841E+02	6.3540E+02	-5.3041E+02	-72.85
845	-1.3030E+02	4.1371E+02	-1.0620E+02	4.3371E+02	-1.5030E+02	-79.34
949	-9.4860E+01	8.6779E+01	-3.5226E+02	3.5974E+02	-3.6782E+02	-52.23
950	-1.8320E+02	-1.7919E+01	-1.3005E+02	5.3525E+01	-2.5465E+02	-61.22

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 941 ----------

LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
845	5.9015E+05	3.2887E+04	-5.0878E+03	5.9020E+05	3.2841E+04	-.52
846	5.9328E+05	4.8537E+04	-1.3880E+04	5.9364E+05	4.8184E+04	-1.46
950	5.5136E+05	2.5129E+04	9.7879E+03	5.5154E+05	2.4947E+04	1.07
951	5.5449E+05	4.0778E+04	9.9624E+02	5.5449E+05	4.0776E+04	.11

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
845	3.9111E+03	-1.1145E+02	1.8551E+02	3.9197E+03	-1.1998E+02	2.63
846	3.9078E+03	1.0506E+03	-9.2587E+01	3.9108E+03	1.0476E+03	-1.85
950	4.2334E+03	-8.3283E+02	2.3180E+02	4.2439E+03	-8.4342E+02	2.61
951	2.2858E+03	-1.8666E+03	-4.6286E+01	2.2863E+03	-1.8671E+03	-.64

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
845	-2.5301E+05	-7.1692E+03	-1.3621E+04	-6.4168E+03	-2.5376E+05	-86.84
846	-2.5012E+05	7.2795E+03	-1.5529E+04	8.2130E+03	-2.5105E+05	-86.56
950	-2.5025E+05	-6.6184E+03	-3.6527E+03	-6.5636E+03	-2.5031E+05	-89.14
951	-2.4736E+05	7.8301E+03	-5.5607E+03	7.9512E+03	-2.4749E+05	-88.75

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
845	-1.3569E+03	-1.0353E+02	2.0300E+01	-1.0320E+02	-1.3573E+03	89.07
846	-1.1684E+03	5.9140E+02	-1.3755E+02	6.0208E+02	-1.1791E+03	-85.56
950	-9.0321E+02	1.1282E+02	4.0618E+00	1.1284E+02	-9.0323E+02	89.77
951	-2.2197E+03	-9.8959E+02	-1.5379E+02	-9.7065E+02	-2.2387E+03	-82.98

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
845	-2.0370E+05	-5.8488E+03	-1.0495E+04	-5.2937E+03	-2.0426E+05	-86.97
846	-2.0133E+05	6.0291E+03	-1.2170E+04	6.7409E+03	-2.0204E+05	-86.65
950	-2.0164E+05	-5.4371E+03	-2.6084E+03	-5.4025E+03	-2.0168E+05	-89.24
951	-1.9927E+05	6.4406E+03	-4.2834E+03	6.5297E+03	-1.9936E+05	-88.81

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
845	-1.0899E+03	-8.4827E+01	2.1728E+01	-8.4357E+01	-1.0903E+03	88.76
846	-9.3173E+02	4.9569E+02	-1.1666E+02	5.0516E+02	-9.4121E+02	-85.36
950	-7.1535E+02	9.7565E+01	5.8463E+00	9.7607E+01	-7.1539E+02	89.59
951	-1.8238E+03	-8.5090E+02	-1.3254E+02	-8.3317E+02	-1.8415E+03	-82.38

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
845	-1.8361E+02	-3.6972E+00	4.5671E+01	7.2320E+00	-1.9454E+02	76.54
846	-1.8046E+02	1.2074E+01	4.4632E+01	2.1917E+01	-1.9030E+02	77.56
950	-2.3165E+02	-1.3302E+01	4.9563E+01	-2.5781E+00	-2.4237E+02	77.79
951	-2.2849E+02	2.4690E+00	4.8524E+01	1.2250E+01	-2.3827E+02	78.60

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
845	-9.2316E-01	-1.0523E+00	8.3194E-02	-8.8242E-01	-1.0930E+00	26.09
846	-1.4776E+00	-4.8557E+00	-6.0133E-01	-1.3737E+00	-4.9596E+00	-9.80
950	-8.9587E-01	1.1141E-01	-3.0473E-01	1.9642E-01	-9.8088E-01	-74.41
951	-1.8557E+00	-7.3269E-01	-9.8924E-01	-1.5670E-01	-2.4317E+00	-59.79

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
845	5.9903E+05	2.1991E+04	-6.2348E+03	5.9910E+05	2.1924E+04	-.62
846	6.0529E+05	5.3297E+04	-1.9505E+04	6.0598E+05	5.2609E+04	-2.02
950	5.7978E+05	1.8141E+04	7.8152E+03	5.7989E+05	1.8033E+04	.80
951	5.8604E+05	4.9447E+04	-5.4551E+03	5.8609E+05	4.9392E+04	-.58

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 941 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
845	3.4882E+03	-8.0830E+02	1.4796E+02	3.4933E+03	-8.1339E+02	1.97
846	3.8499E+03	3.0799E+02	1.3810E+02	3.8553E+03	3.0261E+02	2.23
950	4.2159E+03	-9.1476E+02	1.7588E+02	4.2219E+03	-9.2078E+02	1.96
951	2.6263E+03	-1.9639E+03	1.6603E+02	2.6323E+03	-1.9699E+03	2.07

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
845	-2.7327E+05	-7.6211E+03	-1.4763E+04	-6.8032E+03	-2.7409E+05	-86.83
846	-2.7007E+05	8.3987E+03	-1.6685E+04	9.3948E+03	-2.7106E+05	-86.58
950	-2.7243E+05	-7.4533E+03	-4.0126E+03	-7.3925E+03	-2.7249E+05	-89.13
951	-2.6923E+05	8.5663E+03	-5.9343E+03	8.6930E+03	-2.6936E+05	-88.78

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
845	-1.4741E+03	-1.7938E+02	2.3348E+01	-1.7896E+02	-1.4745E+03	88.97
846	-1.2641E+03	5.2808E+02	-1.7573E+02	5.4515E+02	-1.2812E+03	-84.45
950	-9.5835E+02	1.3303E+02	-6.6871E+00	1.3307E+02	-9.5839E+02	-89.65
951	-2.4666E+03	-1.1705E+03	-2.0576E+02	-1.1386E+03	-2.4985E+03	-81.19

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
845	-1.6881E+05	-5.4117E+03	-9.4218E+03	-4.8702E+03	-1.6935E+05	-86.71
846	-1.6739E+05	1.6541E+03	-1.0323E+04	2.2822E+03	-1.6802E+05	-86.52
950	-1.6039E+05	-3.7281E+03	-4.3520E+03	-3.6072E+03	-1.6051E+05	-88.41
951	-1.5897E+05	3.3377E+03	-5.2533E+03	3.5075E+03	-1.5914E+05	-88.15

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
845	-9.0828E+02	-1.4798E+02	5.4457E+01	-1.4410E+02	-9.1216E+02	85.92
846	-6.7195E+02	9.7101E+02	-1.0359E+02	9.7752E+02	-6.7845E+02	-86.41
950	-4.1961E+02	1.4417E+02	4.1480E+01	1.4721E+02	-4.2264E+02	85.81
951	-1.8951E+03	-1.3680E+03	-1.1657E+02	-1.3434E+03	-1.9197E+03	-78.07

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
845	3.4149E+05	5.4454E+03	-5.1607E+04	3.4924E+05	-2.3014E+03	-8.54
846	3.4590E+05	2.7516E+04	-7.0810E+04	3.6094E+05	1.2478E+04	-11.99
950	2.7701E+05	-7.4494E+03	-5.5615E+04	2.8750E+05	-1.7936E+04	-10.68
951	2.8142E+05	1.4621E+04	-7.4818E+04	3.0097E+05	-4.9271E+03	-14.64

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
845	4.0652E+03	1.0831E+04	-5.5236E+02	1.0875E+04	4.0204E+03	-85.36
846	4.5047E+03	8.9465E+03	-1.0799E+03	9.1951E+03	4.2560E+03	-77.03
950	2.0873E+03	-3.9132E+02	-7.7930E+02	2.3120E+03	-6.1598E+02	-16.08
951	1.1331E+03	-1.1519E+03	-1.3069E+03	1.7265E+03	-1.7453E+03	-24.42

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
845	2.1212E+05	1.5381E+04	4.3737E+04	2.2141E+05	6.0962E+03	11.99
846	2.1446E+05	2.7085E+04	4.9477E+04	2.2673E+05	1.4824E+04	13.92
950	2.5669E+05	2.4294E+04	6.3648E+04	2.7298E+05	8.0040E+03	14.36
951	2.5903E+05	3.5998E+04	6.9388E+04	2.7886E+05	1.6173E+04	15.95

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
845	-8.2129E+02	-1.1679E+04	6.9988E+02	-7.7636E+02	-1.1724E+04	3.67
846	-8.8902E+02	-8.6836E+03	1.1860E+03	-7.1254E+02	-8.8600E+03	8.46
950	1.9483E+03	-5.0940E+02	9.4524E+02	2.2698E+03	-8.3088E+02	18.78
951	1.1251E+03	-9.3470E+02	1.4314E+03	1.8586E+03	-1.6682E+03	27.13

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 941 ----------
LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
845	2.2044E+05	2.0794E+04	3.1367E+04	2.2525E+05	1.5982E+04	8.72
846	2.2088E+05	2.2986E+04	3.7027E+04	2.2758E+05	1.6285E+04	10.26
950	2.6676E+05	3.0057E+04	5.0432E+04	2.7706E+05	1.9760E+04	11.54
951	2.6720E+05	3.2249E+04	5.6091E+04	2.7990E+05	1.9545E+04	12.76
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
845	-9.1814E+02	-1.2260E+04	6.8125E+02	-8.7737E+02	-1.2301E+04	3.42
846	-8.2439E+02	-8.6067E+03	1.1738E+03	-6.5120E+02	-8.7799E+03	8.39
950	2.1135E+03	-6.0666E+02	9.9460E+02	2.4384E+03	-9.3153E+02	18.09
951	1.0190E+03	-9.5106E+02	1.4871E+03	1.8178E+03	-1.7498E+03	28.24

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
845	2.2474E+05	5.3079E+03	-4.3117E+04	2.3291E+05	-2.8600E+03	-10.73
846	2.2660E+05	1.4603E+04	-5.6109E+04	2.4054E+05	6.6871E+02	-13.95
950	1.8632E+05	-2.3749E+03	-4.3766E+04	1.9598E+05	-1.2032E+04	-12.44
951	1.8818E+05	6.9200E+03	-5.6758E+04	2.0449E+05	-9.3856E+03	-16.03
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
845	2.5225E+03	6.6780E+03	-6.4733E+02	6.7765E+03	2.4240E+03	-81.35
846	2.5914E+03	4.8981E+03	-9.6502E+02	5.2486E+03	2.2409E+03	-70.04
950	1.4078E+03	-4.7502E+02	-8.4974E+02	1.7346E+03	-8.0180E+02	-21.03
951	4.1283E+02	-1.1474E+03	-1.1674E+03	1.0368E+03	-1.7714E+03	-28.12

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
845	-3.3725E+04	-2.1623E+02	2.0398E+04	9.4260E+03	-4.3367E+04	64.70
846	-3.2747E+04	4.6727E+03	2.0243E+04	1.3528E+04	-4.1602E+04	66.37
950	-5.8626E+04	-5.1957E+03	1.9972E+04	1.4447E+03	-6.5267E+04	71.61
951	-5.7649E+04	-3.0683E+02	1.9818E+04	5.8756E+03	-6.3831E+04	72.67
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
845	-1.7632E+02	-5.0559E+02	1.6706E+01	-1.7547E+02	-5.0643E+02	2.90
846	-4.5297E+02	-2.3621E+03	-2.7680E+02	-4.1364E+02	-2.4014E+03	-8.09
950	-2.2408E+02	3.6004E+01	-1.6144E+02	1.1326E+02	-3.0134E+02	-64.43
951	-4.6969E+02	-2.0719E+02	-4.5494E+02	1.3506E+02	-8.1194E+02	-53.05

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
845	-5.7675E+04	-2.0295E+03	-2.4114E+04	6.9662E+03	-6.6671E+04	-69.54
846	-5.7656E+04	-1.9350E+03	-2.4190E+04	7.1012E+03	-6.6692E+04	-69.52
950	-3.5197E+04	2.4653E+03	-1.9972E+04	1.1084E+04	-4.3815E+04	-66.66
951	-3.5178E+04	2.5598E+03	-2.0048E+04	1.1222E+04	-4.3840E+04	-66.63
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
845	-3.2740E+02	3.7430E+02	-2.5642E+01	3.7523E+02	-3.2833E+02	-87.91
846	-3.9067E+01	2.1411E+03	2.0020E+02	2.1593E+03	-5.7299E+01	84.80
950	-1.4861E+02	-1.1000E+01	1.2883E+02	6.6252E+01	-2.2586E+02	59.05
951	-2.6104E+02	-1.2508E+01	3.5468E+02	2.3904E+02	-5.1259E+02	54.65

ELEMENT ID 948 ----------
LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
852	-3.2423E+05	-4.9900E+03	-1.0937E+04	-4.6157E+03	-3.2460E+05	-88.04
853	-3.2282E+05	2.0752E+03	-1.0343E+04	2.4041E+03	-3.2315E+05	-88.18
957	-3.2245E+05	-4.6346E+03	-5.4986E+03	-4.5395E+03	-3.2255E+05	-89.01
958	-3.2104E+05	2.4305E+03	-4.9045E+03	2.5048E+03	-3.2112E+05	-89.13

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 948 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
852	-1.3736E+03	6.7518E+02	-1.0427E+02	6.8048E+02	-1.3789E+03	-87.09
853	-1.8903E+03	-3.7907E+02	-6.2144E+01	-3.7652E+02	-1.8929E+03	-87.65
957	-1.7901E+03	-1.0735E+03	-6.5259E+01	-1.0676E+03	-1.7960E+03	-84.84
958	-1.5855E+03	4.6454E+02	-2.3132E+01	4.6480E+02	-1.5857E+03	-89.35

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
852	6.7926E+05	3.7090E+04	3.2639E+04	6.8091E+05	3.5436E+04	2.90
853	6.7830E+05	3.2297E+04	2.2479E+04	6.7908E+05	3.1516E+04	1.99
957	6.5665E+05	3.2570E+04	1.6858E+04	6.5711E+05	3.2115E+04	1.55
958	6.5570E+05	2.7777E+04	6.6981E+03	6.5577E+05	2.7705E+04	.61

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
852	4.2386E+03	-2.2573E-01	3.9240E+02	4.2746E+03	-3.6246E+01	5.24
853	4.4609E+03	1.8674E+02	2.6620E+02	4.4774E+03	1.7022E+02	3.55
957	3.3170E+03	-2.3993E+03	5.1505E+02	3.3630E+03	-2.4453E+03	5.11
958	4.5416E+03	-5.7977E+02	3.8885E+02	4.5710E+03	-6.0912E+02	4.32

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
852	4.9467E+05	3.0264E+04	1.1871E+04	4.9497E+05	2.9961E+04	1.46
853	4.9680E+05	4.0903E+04	1.7323E+03	4.9681E+05	4.0896E+04	.22
957	4.6880E+05	2.5091E+04	1.0173E+04	4.6904E+05	2.4858E+04	1.31
958	4.7093E+05	3.5730E+04	3.4753E+01	4.7093E+05	3.5730E+04	.00

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
852	3.2555E+03	-1.1221E+02	3.1432E+02	3.2846E+03	-1.4130E+02	5.29
853	3.2777E+03	-3.5462E+01	2.6045E+02	3.2980E+03	-5.5811E+01	4.47
957	2.5442E+03	-2.2626E+03	4.4884E+02	2.5858E+03	-2.3042E+03	5.29
958	3.4221E+03	-2.7615E+02	3.9496E+02	3.4638E+03	-3.1786E+02	6.03

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
852	7.4231E+02	2.9037E+01	2.8670E+02	8.4326E+02	-7.1917E+01	19.40
853	7.3104E+02	-2.7306E+01	2.8298E+02	8.2500E+02	-1.2126E+02	18.37
957	6.9828E+02	2.0231E+01	2.3124E+02	7.6963E+02	-5.1121E+01	17.15
958	6.8702E+02	-3.6112E+01	2.2751E+02	7.5264E+02	-1.0174E+02	16.09

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
852	5.3037E+00	1.7296E+00	2.7302E+00	6.7797E+00	2.5362E-01	28.40
853	4.3195E+00	2.5686E+00	1.9248E+00	5.5586E+00	1.3295E+00	32.77
957	2.6277E+00	-8.8269E-01	2.8077E+00	4.1837E+00	-2.4387E+00	28.99
958	4.5440E+00	-4.4964E-01	2.0024E+00	5.2477E+00	-1.1534E+00	19.36

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
852	-3.2135E+05	-4.5003E+03	-1.2404E+04	-4.0155E+03	-3.2183E+05	-87.76
853	-3.2022E+05	1.1142E+03	-1.1913E+04	1.5552E+03	-3.2067E+05	-87.88
957	-3.1697E+05	-3.6243E+03	-8.2804E+03	-3.4056E+03	-3.1719E+05	-88.49
958	-3.1584E+05	1.9902E+03	-7.7888E+03	2.1810E+03	-3.1604E+05	-88.60

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
852	-1.4280E+03	5.4332E+02	-1.2379E+02	5.5106E+02	-1.4358E+03	-86.42
853	-1.8048E+03	-2.9301E+02	-8.2888E+01	-2.8848E+02	-1.8093E+03	-86.87
957	-1.7554E+03	-9.5139E+02	-8.7701E+01	-9.4194E+02	-1.7649E+03	-83.85
958	-1.5805E+03	3.4985E+02	-4.6795E+01	3.5099E+02	-1.5816E+03	-88.61

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 948 ----------
LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
852	7.3521E+05	5.2704E+04	3.1252E+04	7.3664E+05	5.1276E+04	2.62
853	7.2733E+05	1.3311E+04	1.4847E+04	7.2764E+05	1.3003E+04	1.19
957	7.2205E+05	5.0072E+04	2.0581E+04	7.2268E+05	4.9442E+04	1.75
958	7.1417E+05	1.0680E+04	4.1761E+03	7.1420E+05	1.0655E+04	.34

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
852	4.8004E+03	4.5133E+02	1.9869E+02	4.8095E+03	4.4227E+02	2.61
853	4.7173E+03	1.7226E+03	1.9175E+02	4.7295E+03	1.7103E+03	3.65
957	3.5719E+03	-3.2117E+03	4.8237E+02	3.6060E+03	-3.2458E+03	4.05
958	4.8008E+03	-2.8228E+02	4.7543E+02	4.8449E+03	-3.2636E+02	5.30

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
852	5.4772E+05	3.3142E+04	-3.7123E+03	5.4775E+05	3.3116E+04	-.41
853	5.4939E+05	4.1447E+04	-1.5474E+04	5.4986E+05	4.0976E+04	-1.74
957	5.3147E+05	2.9892E+04	1.3329E+03	5.3147E+05	2.9889E+04	.15
958	5.3313E+05	3.8197E+04	-1.0429E+04	5.3335E+05	3.7977E+04	-1.21

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
852	3.8900E+03	2.1495E+02	-1.1016E+02	3.8933E+03	2.1165E+02	-1.72
853	3.0556E+03	-1.8378E+03	-1.3391E+02	3.0593E+03	-1.8414E+03	-1.57
957	2.9783E+03	-3.2059E+03	-5.9606E+01	2.9789E+03	-3.2065E+03	-.55
958	3.5105E+03	-5.0581E+02	-8.3353E+01	3.5122E+03	-5.0754E+02	-1.19

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
852	-7.2621E+04	9.7339E+02	-3.6979E+04	1.6344E+04	-8.7991E+04	-67.43
853	-7.2915E+04	-4.9768E+02	-3.6813E+04	1.4930E+04	-8.8343E+04	-67.26
957	-8.5923E+04	-1.6867E+03	-4.4569E+04	1.7517E+04	-1.0513E+05	-66.69
958	-8.6217E+04	-3.1577E+03	-4.4404E+04	1.6111E+04	-1.0549E+05	-66.54

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
852	-2.8502E+02	-4.8990E+02	-1.1520E+02	-2.3330E+02	-5.4162E+02	-24.18
853	-2.5514E+02	1.2359E+02	-3.3240E+02	3.1678E+02	-4.4833E+02	-59.84
957	-6.1535E+02	-6.7526E+02	-1.8463E+01	-6.1012E+02	-6.8049E+02	-15.82
958	-3.1783E+02	1.3108E+02	-2.3566E+02	2.3207E+02	-4.1882E+02	-66.80

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
852	-9.9951E+04	3.9291E+02	4.5830E+04	1.8174E+04	-1.1773E+05	68.80
853	-1.0102E+05	-4.9531E+03	4.6269E+04	1.3707E+04	-1.1968E+05	68.04
957	-8.2160E+04	3.9508E+03	4.5666E+04	2.3658E+04	-1.0187E+05	66.66
958	-8.3229E+04	-1.3951E+03	4.6105E+04	1.9331E+04	-1.0396E+05	65.79

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
852	-3.3456E+02	1.1248E+03	9.6335E+01	1.1311E+03	-3.4089E+02	86.24
853	-6.5557E+02	-3.5678E+02	2.9784E+02	-1.7297E+02	-8.3938E+02	58.32
957	-5.6119E+02	-4.1978E+02	2.6536E+01	-4.1496E+02	-5.6601E+02	79.72
958	-3.2121E+02	6.8364E+01	2.2804E+02	1.7348E+02	-4.2632E+02	65.25

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
852	-9.5571E+04	3.2470E+02	4.9734E+04	2.1460E+04	-1.1671E+05	66.98
853	-9.6596E+04	-4.7970E+03	5.0216E+04	1.7336E+04	-1.1873E+05	66.21
957	-7.8041E+04	3.8305E+03	5.0749E+04	2.8096E+04	-1.0231E+05	64.45
958	-7.9065E+04	-1.2912E+03	5.1231E+04	2.4140E+04	-1.0450E+05	63.60

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 948 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
852	-2.9023E+02	1.1227E+03	1.2774E+02	1.1341E+03	-3.0168E+02	84.88
853	-6.4127E+02	-3.6069E+02	3.3460E+02	-1.3816E+02	-8.6380E+02	56.37
957	-5.4064E+02	-5.5358E+02	6.9523E+01	-4.7729E+02	-6.1693E+02	42.34
958	-2.9483E+02	9.3630E+01	2.7637E+02	2.3720E+02	-4.3840E+02	62.55

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
852	-3.9915E+04	-3.0338E+03	-4.1173E+04	2.3640E+04	-6.6589E+04	-57.06
853	-3.9143E+04	8.2789E+02	-4.1727E+04	2.7108E+04	-6.5423E+04	-57.80
957	-4.8906E+04	-4.8316E+03	-4.7259E+04	2.5276E+04	-7.9013E+04	-57.50
958	-4.8133E+04	-9.6994E+02	-4.7812E+04	2.8760E+04	-7.7863E+04	-58.13

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
852	8.6709E+01	5.0396E+02	-2.4187E+02	6.1474E+02	-2.4078E+01	-65.39
853	-4.1582E+01	3.5103E+02	-4.2284E+02	6.2091E+02	-3.1146E+02	-57.45
957	-3.9092E+02	-7.1654E+02	-1.9306E+02	-3.0118E+02	-8.0627E+02	-24.93
958	-1.4755E+02	1.4266E+02	-3.7403E+02	3.9875E+02	-4.0364E+02	-55.60

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
852	1.8696E+05	1.5207E+04	7.2504E+04	2.1347E+05	-1.1307E+04	20.09
853	1.8851E+05	2.2956E+04	6.0769E+04	2.0842E+05	3.0450E+03	18.14
957	1.2799E+05	3.4147E+03	6.5116E+04	1.5581E+05	-2.4407E+04	23.14
958	1.2954E+05	1.1164E+04	5.3381E+04	1.5006E+05	-9.3520E+03	21.02

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
852	2.6539E+03	5.5557E+03	1.3787E+03	6.1063E+03	2.1033E+03	68.23
853	2.7423E+03	7.6317E+03	8.5250E+02	7.7761E+03	2.5979E+03	80.39
957	6.7321E+02	-6.3676E+02	1.5475E+03	1.6987E+03	-1.6622E+03	33.53
958	1.0405E+03	-2.5835E+02	1.0213E+03	1.6013E+03	-8.1923E+02	28.77

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
852	4.1626E+04	2.3565E+03	-5.7964E+04	8.3191E+04	-3.9208E+04	-35.64
853	4.2081E+04	4.6334E+03	-5.1785E+04	7.8423E+04	-3.1708E+04	-35.06
957	6.4297E+04	6.8908E+03	-6.0772E+04	1.0280E+05	-3.1615E+04	-32.36
958	6.4752E+04	9.1677E+03	-5.4592E+04	9.8219E+04	-2.4299E+04	-31.51

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
852	-5.6739E+02	-2.4010E+03	-1.1828E+03	1.2298E+01	-2.9807E+03	-26.11
853	-7.5147E+02	-6.4302E+03	-9.3872E+02	-6.0032E+02	-6.5814E+03	-9.15
957	1.9340E+02	-1.3173E+02	-1.4690E+03	1.5088E+03	-1.4472E+03	-41.84
958	6.1690E+02	-6.1994E+01	-1.2250E+03	1.5486E+03	-9.9367E+02	-37.26

ELEMENT ID 949 ----------

LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
853	-3.4390E+05	-2.1416E+03	-5.3482E+03	-2.0579E+03	-3.4399E+05	-89.10
854	-3.4381E+05	-1.6615E+03	-4.5483E+03	-1.6010E+03	-3.4387E+05	-89.24
958	-3.4161E+05	-1.6832E+03	-4.4769E+03	-1.6243E+03	-3.4167E+05	-89.25
959	-3.4151E+05	-1.2031E+03	-3.6771E+03	-1.1634E+03	-3.4155E+05	-89.38

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
853	-1.9632E+03	-3.9365E+02	1.6676E+01	-3.9347E+02	-1.9634E+03	89.39
854	-1.3788E+03	9.3399E+02	5.5804E+01	9.3534E+02	-1.3802E+03	88.62
958	-1.5516E+03	4.7131E+02	-2.6215E+01	4.7165E+02	-1.5519E+03	-89.26
959	-2.0268E+03	-1.4350E+03	1.2913E+01	-1.4347E+03	-2.0271E+03	88.75

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 949 ----------
LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
853	6.9715E+05	3.6067E+04	-1.0383E+03	6.9716E+05	3.6066E+04	-.09
854	6.9853E+05	4.2946E+04	-1.4971E+04	6.9887E+05	4.2604E+04	-1.31
958	6.6276E+05	2.9190E+04	1.0728E+04	6.6295E+05	2.9009E+04	.97
959	6.6414E+05	3.6069E+04	-3.2043E+03	6.6416E+05	3.6052E+04	-.29

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
853	4.4985E+03	1.9426E+02	2.4131E+02	4.5120E+03	1.8078E+02	3.20
854	4.6700E+03	1.7951E+03	4.1499E+01	4.6706E+03	1.7945E+03	.83
958	4.5212E+03	-5.8385E+02	2.6150E+02	4.5346E+03	-5.9721E+02	2.92
959	3.3848E+03	-2.0949E+03	6.1697E+01	3.3855E+03	-2.0956E+03	.64

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
853	4.3306E+05	2.8155E+04	-1.8211E+04	4.3388E+05	2.7338E+04	-2.57
854	4.3615E+05	4.3575E+04	-3.0893E+04	4.3856E+05	4.1159E+04	-4.47
958	4.0528E+05	2.2600E+04	4.0647E+03	4.0532E+05	2.2557E+04	.61
959	4.0836E+05	3.8019E+04	-8.6168E+03	4.0856E+05	3.7819E+04	-1.33

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
853	3.1244E+03	-6.6120E+01	2.9128E+02	3.1508E+03	-9.2494E+01	5.17
854	3.8167E+03	3.0501E+03	8.7317E+01	3.8265E+03	3.0403E+03	6.42
958	3.5529E+03	-2.5000E+02	2.6762E+02	3.5716E+03	-2.6874E+02	4.01
959	1.6165E+03	-3.9463E+03	6.3661E+01	1.6172E+03	-3.9470E+03	.66

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
853	1.0777E+03	4.2023E+01	2.6674E+02	1.1424E+03	-2.2638E+01	13.63
854	1.0664E+03	-1.4639E+01	2.5983E+02	1.1256E+03	-7.3848E+01	12.84
958	9.9381E+02	2.5247E+01	2.3722E+02	1.0488E+03	-2.9734E+01	13.05
959	9.8248E+02	-3.1414E+01	2.3031E+02	1.0323E+03	-8.1280E+01	12.22

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
853	6.3782E+00	2.9804E+00	1.4708E+00	6.9265E+00	2.4322E+00	20.44
854	4.8327E+00	-5.0767E+00	4.5298E-01	4.8533E+00	-5.0974E+00	2.61
958	3.9648E+00	-5.6545E-01	1.1823E+00	4.2548E+00	-8.5545E-01	13.78
959	6.6119E+00	3.6733E+00	1.6451E-01	6.6211E+00	3.6641E+00	3.19

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
853	-3.3319E+05	-1.4782E+03	-7.4046E+03	-1.3130E+03	-3.3335E+05	-88.72
854	-3.3328E+05	-1.9529E+03	-6.4673E+03	-1.8267E+03	-3.3341E+05	-88.88
958	-3.2984E+05	-8.0811E+02	-8.0716E+03	-6.1022E+02	-3.3003E+05	-88.60
959	-3.2993E+05	-1.2828E+03	-7.1344E+03	-1.1280E+03	-3.3009E+05	-88.76

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
853	-1.8891E+03	-3.0987E+02	-1.5884E+01	-3.0971E+02	-1.8892E+03	-89.42
854	-1.4720E+03	7.8339E+02	4.3531E+01	7.8423E+02	-1.4729E+03	88.90
958	-1.5623E+03	3.5349E+02	-3.0824E+01	3.5398E+02	-1.5628E+03	-89.08
959	-1.9121E+03	-9.3549E+02	2.8591E+01	-9.3465E+02	-1.9130E+03	88.32

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
853	7.4697E+05	1.7238E+04	-4.8956E+03	7.4700E+05	1.7205E+04	-.38
854	7.5204E+05	4.2601E+04	-1.9669E+04	7.5258E+05	4.2056E+04	-1.59
958	7.2111E+05	1.2068E+04	5.8156E+02	7.2111E+05	1.2068E+04	.05
959	7.2619E+05	3.7431E+04	-1.4192E+04	7.2648E+05	3.7139E+04	-1.18

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 949 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
853	4.7212E+03	1.7234E+03	4.1319E+02	4.7771E+03	1.6675E+03	7.71
854	5.7168E+03	4.2020E+03	3.3225E+02	5.7865E+03	4.1323E+03	11.84
958	4.7552E+03	-2.9140E+02	4.3373E+02	4.7922E+03	-3.2841E+02	4.88
959	3.8119E+03	-2.4720E+03	3.5279E+02	3.8317E+03	-2.4917E+03	3.20

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
853	4.6740E+05	2.5049E+04	-3.2038E+04	4.6970E+05	2.2741E+04	-4.12
854	4.7172E+05	4.6656E+04	-4.4536E+04	4.7633E+05	4.2039E+04	-5.92
958	4.5354E+05	2.2277E+04	-1.1402E+04	4.5384E+05	2.1976E+04	-1.51
959	4.5786E+05	4.3884E+04	-2.3900E+04	4.5923E+05	4.2508E+04	-3.29
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
853	2.7409E+03	-1.9007E+03	-5.5548E+01	2.7416E+03	-1.9014E+03	-.69
854	3.3832E+03	6.3990E+02	-2.9484E+01	3.3835E+03	6.3958E+02	-.62
958	3.6253E+03	-4.8284E+02	-6.5159E+01	3.6264E+03	-4.8387E+02	-.91
959	2.0274E+03	-3.3492E+03	-3.9095E+01	2.0277E+03	-3.3495E+03	-.42

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
853	-4.7131E+04	4.6592E+03	-3.6915E+04	2.3856E+04	-6.6328E+04	-62.52
854	-4.8403E+04	-1.7008E+03	-3.7264E+04	1.8924E+04	-6.9028E+04	-61.04
958	-6.1915E+04	1.7025E+03	-4.1629E+04	2.2285E+04	-8.2497E+04	-63.69
959	-6.3187E+04	-4.6575E+03	-4.1978E+04	1.7250E+04	-8.5094E+04	-62.44
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
853	-4.4526E+02	8.5567E+01	-3.8442E+02	2.8730E+02	-6.4699E+02	-62.31
854	-1.4533E+01	1.2203E+02	-4.8195E+02	5.4051E+02	-4.3301E+02	-49.03
958	-3.7044E+02	1.2056E+02	-3.9718E+02	3.4199E+02	-5.9187E+02	-60.86
959	-2.6473E+02	1.2656E+01	-4.9471E+02	3.8775E+02	-6.3982E+02	-52.83

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
853	-7.1138E+04	1.0232E+03	4.8444E+04	2.5346E+04	-9.5461E+04	63.34
854	-7.1910E+04	-2.8354E+03	4.9030E+04	2.2600E+04	-9.7345E+04	62.58
958	-5.8702E+04	3.5104E+03	4.4021E+04	2.6307E+04	-8.1498E+04	62.62
959	-5.9473E+04	-3.4809E+02	4.4607E+04	2.3603E+04	-8.3425E+04	61.77
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
853	-3.4744E+02	-2.9516E+02	3.7957E+02	5.9170E+01	-7.0177E+02	46.97
854	-6.1955E+02	-2.2759E+02	5.1773E+02	1.3001E+02	-9.7716E+02	55.37
958	-3.7299E+02	5.8009E+01	3.8735E+02	2.8577E+02	-6.0075E+02	59.54
959	-2.3602E+02	7.2293E+01	5.2551E+02	4.6579E+02	-6.2952E+02	53.17

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
853	-6.9610E+04	5.9994E+02	5.2804E+04	2.8903E+04	-9.7913E+04	61.81
854	-7.0246E+04	-2.5809E+03	5.3364E+04	2.6771E+04	-9.9598E+04	61.19
958	-5.7005E+04	3.1209E+03	4.8783E+04	3.0360E+04	-8.4245E+04	60.82
959	-5.7641E+04	-5.9846E+01	4.9343E+04	2.8278E+04	-8.5979E+04	60.13
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
853	-3.2080E+02	-2.9660E+02	4.2251E+02	1.1398E+02	-7.3138E+02	45.82
854	-6.2469E+02	-1.6992E+02	5.6767E+02	2.1421E+02	-1.0088E+03	55.91
958	-3.4447E+02	8.3707E+01	4.3294E+02	3.5260E+02	-6.1336E+02	58.16
959	-2.3941E+02	6.3391E+01	5.7810E+02	5.0959E+02	-6.8561E+02	52.34

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 949 ----------
LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
853	-2.4641E+04	3.7284E+03	-4.2133E+04	3.4000E+04	-5.4913E+04	-54.30
854	-2.5579E+04	-9.5891E+02	-4.2561E+04	3.1037E+04	-5.7575E+04	-53.07
958	-3.7190E+04	1.2186E+03	-4.4868E+04	3.0820E+04	-6.6791E+04	-56.59
959	-3.8127E+04	-3.4686E+03	-4.5297E+04	2.7701E+04	-6.9296E+04	-55.47

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
853	-2.9120E+02	3.0111E+02	-4.5820E+02	5.5053E+02	-5.4063E+02	-61.44
854	9.3346E+01	7.9845E+01	-5.2565E+02	6.1229E+02	-4.3910E+02	-44.63
958	-1.7962E+02	1.3625E+02	-4.9075E+02	4.9385E+02	-5.3722E+02	-53.92
959	-1.8254E+02	-2.1804E+01	-5.5820E+02	4.6178E+02	-6.6613E+02	-49.10

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
853	1.8808E+05	2.2871E+04	3.9824E+04	1.9718E+05	1.3772E+04	12.87
854	1.8503E+05	7.6215E+03	2.3657E+04	1.8813E+05	4.5210E+03	7.47
958	1.2947E+05	1.1148E+04	5.3525E+04	1.5009E+05	-9.4718E+03	21.07
959	1.2642E+05	-4.1009E+03	3.7358E+04	1.3635E+05	-1.4038E+04	14.89

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
853	2.9948E+03	7.6822E+03	4.7325E+02	7.7295E+03	2.9475E+03	84.29
854	3.3248E+03	8.5960E+03	-1.4103E+02	8.5997E+03	3.3210E+03	-88.47
958	1.0560E+03	-2.5524E+02	4.3700E+02	1.1883E+03	-3.8753E+02	16.84
959	6.0594E+02	-1.7005E+03	-1.7728E+02	6.1948E+02	-1.7141E+03	-4.37

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
853	3.6763E+04	3.5700E+03	-4.5737E+04	6.8821E+04	-2.8488E+04	-35.03
854	3.9677E+04	1.8138E+04	-4.1053E+04	7.1349E+04	-1.3535E+04	-37.65
958	8.1273E+04	1.2472E+04	-4.9843E+04	1.0743E+05	-1.3690E+04	-27.69
959	8.4187E+04	2.7039E+04	-4.5160E+04	1.0905E+05	2.1726E+03	-28.84

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
853	-1.0002E+03	-6.4800E+03	-7.1414E+02	-9.0869E+02	-6.5715E+03	-7.30
854	-1.1314E+03	-7.2148E+03	-1.9542E+02	-1.1251E+03	-7.2211E+03	-1.84
958	6.4247E+02	-5.6889E+01	-8.7075E+02	1.2311E+03	-6.4555E+02	-34.06
959	4.9302E+02	-1.5707E+03	-3.5204E+02	5.5142E+02	-1.6291E+03	-9.42

ELEMENT ID 956 ----------
LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
860	7.5468E+05	4.9468E+04	1.8793E+04	7.5519E+05	4.8968E+04	1.53
861	7.4886E+05	2.0345E+04	5.9303E+03	7.4891E+05	2.0297E+04	.47
965	7.3897E+05	4.6326E+04	1.1146E+04	7.3915E+05	4.6147E+04	.92
966	7.3315E+05	1.7203E+04	-1.7165E+03	7.3315E+05	1.7199E+04	-.14

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
860	4.7478E+03	-4.3437E+02	-1.0578E+02	4.7500E+03	-4.3653E+02	-1.17
861	4.1804E+03	-1.2922E+03	-1.0917E+02	4.1826E+03	-1.2944E+03	-1.14
965	3.8607E+03	-2.8246E+03	-4.4273E+00	3.8607E+03	-2.8246E+03	-.04
966	4.7455E+03	-4.8440E+02	-7.8182E+00	4.7455E+03	-4.8441E+02	-.09

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
860	-3.6668E+05	-3.8495E+03	-9.2458E+03	-3.6141E+03	-3.6692E+05	-88.54
861	-3.6573E+05	9.1870E+02	-8.4219E+03	1.1120E+03	-3.6592E+05	-88.69
965	-3.6677E+05	-3.8670E+03	-6.8348E+03	-3.7383E+03	-3.6690E+05	-88.92
966	-3.6582E+05	9.0115E+02	-6.0109E+03	9.9965E+02	-3.6592E+05	-89.06

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 956 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
860	-1.6925E+03	4.4362E+02	-8.7168E+01	4.4717E+02	-1.6961E+03	-87.67
861	-2.0893E+03	-3.3878E+02	-5.3903E+01	-3.3712E+02	-2.0909E+03	-88.24
965	-2.0559E+03	-9.2868E+02	-4.4058E+01	-9.2696E+02	-2.0576E+03	-87.77
966	-1.7918E+03	4.3073E+02	-1.0794E+01	4.3079E+02	-1.7918E+03	-89.72

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
860	5.4981E+05	4.4648E+04	3.4361E+04	5.5214E+05	4.2321E+04	3.87
861	5.4566E+05	2.3906E+04	2.2221E+04	5.4661E+05	2.2961E+04	2.43
965	5.3602E+05	4.1891E+04	1.2804E+04	5.3636E+05	4.1559E+04	1.48
966	5.3188E+05	2.1149E+04	6.6431E+02	5.3188E+05	2.1148E+04	.07
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
860	3.9740E+03	5.8577E+02	-2.5168E+01	3.9742E+03	5.8558E+02	-.43
861	3.2201E+03	-1.8582E+03	-7.2155E+01	3.2211E+03	-1.8593E+03	-.81
965	2.4220E+03	-4.0231E+03	3.9861E+01	2.4223E+03	-4.0234E+03	.35
966	4.0456E+03	-4.9475E+02	-7.1250E+00	4.0456E+03	-4.9476E+02	-.09

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
860	-3.5469E+03	-1.4513E+02	1.1385E+02	-1.4133E+02	-3.5507E+03	88.09
861	-3.4791E+03	1.9350E+02	1.0250E+02	1.9635E+02	-3.4820E+03	88.40
965	-3.7169E+03	-1.7914E+02	4.0282E+02	-1.3385E+02	-3.7622E+03	83.59
966	-3.6492E+03	1.5949E+02	3.9146E+02	1.9931E+02	-3.6890E+03	84.19
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
860	-1.5376E+01	5.4063E-01	4.8648E+00	1.9098E+00	-1.6745E+01	74.28
861	-2.2233E+01	2.9930E+00	4.2003E+00	3.6740E+00	-2.2914E+01	80.79
965	-1.4361E+01	3.0631E+00	5.2809E+00	4.5387E+00	-1.5836E+01	74.39
966	-2.3801E+01	3.1758E+00	4.6163E+00	3.9439E+00	-2.4569E+01	80.55

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
860	7.1002E+05	4.5087E+04	3.2771E+04	7.1163E+05	4.3476E+04	2.81
861	7.1040E+05	4.6991E+04	1.8643E+04	7.1092E+05	4.6468E+04	1.61
965	6.8897E+05	4.0878E+04	2.0438E+04	6.8961E+05	4.0234E+04	1.80
966	6.8935E+05	4.2782E+04	6.3104E+03	6.8941E+05	4.2721E+04	.56
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
860	4.0375E+03	-1.8139E+03	3.3568E+02	4.0567E+03	-1.8330E+03	3.27
861	3.8835E+03	-2.6122E+03	3.2006E+02	3.8993E+03	-2.6279E+03	2.81
965	3.6798E+03	-2.2367E+03	3.4379E+02	3.6997E+03	-2.2566E+03	3.31
966	4.4115E+03	-1.2092E+03	3.2817E+02	4.4306E+03	-1.2283E+03	3.33

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
860	-3.6383E+05	-2.9452E+03	-1.7854E+04	-2.0641E+03	-3.6471E+05	-87.18
861	-3.6342E+05	-8.7682E+02	-1.7118E+04	-7.0397E+01	-3.6423E+05	-87.30
965	-3.6056E+05	-2.2906E+03	-1.7338E+04	-1.4535E+03	-3.6140E+05	-87.24
966	-3.6015E+05	-2.2225E+02	-1.6602E+04	5.4189E+02	-3.6091E+05	-87.36
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
860	-1.5702E+03	6.1906E+02	-1.9128E+02	6.3565E+02	-1.5868E+03	-85.04
861	-2.0050E+03	-3.4782E+02	-1.7458E+02	-3.2963E+02	-2.0232E+03	-84.05
965	-2.0642E+03	-1.3548E+03	-1.3261E+02	-1.3309E+03	-2.0882E+03	-79.75
966	-1.7259E+03	4.1403E+02	-1.1592E+02	4.2029E+02	-1.7322E+03	-86.91

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 956 ----------
LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
860	4.5535E+05	4.8245E+04	5.0574E+04	4.6154E+05	4.2056E+04	6.98
861	4.5347E+05	3.8811E+04	3.7302E+04	4.5679E+05	3.5482E+04	5.10
965	4.3927E+05	4.5028E+04	2.6822E+04	4.4108E+05	4.3212E+04	3.87
966	4.3738E+05	3.5594E+04	1.3550E+04	4.3784E+05	3.5138E+04	1.93
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
860	2.9953E+03	-9.9801E+02	3.2969E+02	3.0223E+03	-1.0250E+03	4.69
861	2.5670E+03	-2.7857E+03	3.1280E+02	2.5853E+03	-2.8040E+03	3.33
965	1.9841E+03	-3.4205E+03	3.6026E+02	2.0080E+03	-3.4444E+03	3.80
966	3.4225E+03	-1.0027E+03	3.4337E+02	3.4490E+03	-1.0292E+03	4.41

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
860	1.9683E+04	-2.0610E+02	-1.9526E+04	3.1651E+04	-1.2174E+04	-31.51
861	1.9979E+04	1.2751E+03	-1.9851E+04	3.2571E+04	-1.1316E+04	-32.39
965	1.3716E+04	-1.3995E+03	-2.0513E+04	2.8019E+04	-1.5703E+04	-34.89
966	1.4012E+04	8.1697E+01	-2.0839E+04	2.9018E+04	-1.4925E+04	-35.76
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
860	8.6993E+01	-2.6981E+02	-5.6931E+01	9.5857E+01	-2.7867E+02	-8.85
861	1.8828E+02	2.1739E+02	-1.4545E+02	3.4901E+02	5.6662E+01	-47.86
965	8.9812E+01	3.7804E+01	-2.6058E+01	1.0062E+02	2.6994E+01	-22.53
966	5.7142E+01	-3.4507E+00	-1.1458E+02	1.4536E+02	-9.1668E+01	-37.59

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
860	9.5473E+03	-1.7429E+02	1.7050E+04	2.2416E+04	-1.3042E+04	37.04
861	9.5205E+03	-3.0841E+02	1.7268E+04	2.2560E+04	-1.3348E+04	37.06
965	1.4706E+04	8.5726E+02	1.9323E+04	2.8307E+04	-1.2744E+04	35.14
966	1.4679E+04	7.2314E+02	1.9541E+04	2.8451E+04	-1.3049E+04	35.17
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
860	3.8678E+01	1.8110E+02	5.5905E+01	2.0043E+02	1.9356E+01	70.93
861	-3.5798E+01	-1.9358E+02	1.4132E+02	4.7164E+01	-2.7654E+02	30.41
965	1.0264E+02	8.3839E+01	2.3644E+01	1.1868E+02	6.7796E+01	34.16
966	5.6630E+01	-1.7236E+01	1.0906E+02	1.3484E+02	-9.5450E+01	35.65

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
860	6.3866E+03	-1.4458E+02	1.8703E+04	2.2106E+04	-1.5865E+04	40.05
861	6.3190E+03	-4.8231E+02	1.8959E+04	2.2180E+04	-1.6343E+04	39.92
965	1.2281E+04	1.0343E+03	2.0985E+04	2.8383E+04	-1.5067E+04	37.50
966	1.2214E+04	6.9655E+02	2.1242E+04	2.8463E+04	-1.5553E+04	37.42
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
860	2.3070E+01	2.0099E+02	6.1094E+01	2.1995E+02	4.1120E+00	72.76
861	-5.8082E+01	-2.1326E+02	1.5412E+02	3.6879E+01	-3.0822E+02	31.64
965	8.6687E+01	8.0268E+01	2.6290E+01	1.0996E+02	5.6992E+01	41.52
966	4.6501E+01	-1.7018E+01	1.1932E+02	1.3821E+02	-1.0873E+02	37.55

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
860	1.0761E+04	-3.7887E+01	-1.9047E+04	2.5159E+04	-1.4436E+04	-37.09
861	1.0975E+04	1.0317E+03	-1.9355E+04	2.5987E+04	-1.3980E+04	-37.80
965	4.4610E+03	-1.2978E+03	-2.0520E+04	2.2302E+04	-1.9139E+04	-41.01
966	4.6750E+03	-2.2826E+02	-2.0828E+04	2.3195E+04	-1.8748E+04	-41.64

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 956 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
860	4.7038E+01	-2.4669E+02	-5.7480E+01	5.7886E+01	-2.5753E+02	-10.69
861	1.4342E+02	2.2112E+02	-1.4847E+02	3.3574E+02	2.8799E+01	-52.33
965	2.7413E+01	5.3556E+00	-2.5575E+01	4.4236E+01	-1.1468E+01	-33.34
966	1.9881E+01	1.9961E+00	-1.1656E+02	1.2785E+02	-1.0597E+02	-42.81

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
860	3.0644E+05	2.2578E+04	2.5573E+04	3.0873E+05	2.0293E+04	5.11
861	3.0391E+05	9.8807E+03	2.3660E+03	3.0392E+05	9.8616E+03	.46
965	2.4166E+05	9.6210E+03	1.9751E+04	2.4333E+05	7.9519E+03	4.83
966	2.3912E+05	-3.0762E+03	-3.4560E+03	2.3917E+05	-3.1255E+03	-.82
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
860	4.7987E+03	1.0938E+04	5.0446E+02	1.0979E+04	4.7576E+03	85.33
861	4.0061E+03	1.1689E+04	-4.1168E+01	1.1689E+04	4.0058E+03	-89.69
965	1.1553E+03	-2.0238E+03	7.0153E+02	1.3033E+03	-2.1717E+03	11.91
966	1.8129E+03	-4.2698E+01	1.5591E+02	1.8259E+03	-5.5707E+01	4.77

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
860	2.1072E+05	2.5303E+04	-8.7309E+03	2.1113E+05	2.4893E+04	-2.69
861	2.0744E+05	8.8880E+03	2.2383E+03	2.0747E+05	8.8628E+03	.65
965	2.6098E+05	3.5354E+04	-1.1445E+04	2.6156E+05	3.4775E+04	-2.90
966	2.5770E+05	1.8939E+04	-4.7605E+02	2.5770E+05	1.8938E+04	-.11
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
860	-1.0406E+03	-1.0791E+04	-6.7160E+02	-9.9457E+02	-1.0837E+04	-3.92
861	-1.1387E+03	-1.3179E+04	-1.1996E+02	-1.1375E+03	-1.3180E+04	-.57
965	1.2969E+03	-1.7295E+03	-7.3540E+02	1.4662E+03	-1.8988E+03	-12.96
966	1.8508E+03	-1.4354E+02	-1.8377E+02	1.8676E+03	-1.6033E+02	-5.22

ELEMENT ID 957 ----------

LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
861	7.4047E+05	1.8666E+04	-1.1774E+04	7.4066E+05	1.8474E+04	-.93
862	7.4683E+05	5.0508E+04	-2.4552E+04	7.4770E+05	4.9643E+04	-2.02
966	7.2554E+05	1.5682E+04	-1.6698E+03	7.2555E+05	1.5678E+04	-.13
967	7.3191E+05	4.7523E+04	-1.4448E+04	7.3222E+05	4.7219E+04	-1.21
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
861	4.1509E+03	-1.2981E+03	8.9679E+01	4.1524E+03	-1.2996E+03	.94
862	4.7386E+03	-3.2806E+02	8.5152E+01	4.7400E+03	-3.2949E+02	.96
966	4.7596E+03	-4.8157E+02	-1.1611E+01	4.7597E+03	-4.8160E+02	-.13
967	3.7609E+03	-2.9519E+03	-1.6139E+01	3.7610E+03	-2.9519E+03	-.14

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
861	-3.7114E+05	-1.6409E+02	-3.7794E+03	-1.2559E+02	-3.7118E+05	-89.42
862	-3.7171E+05	-3.0009E+03	-3.1229E+03	-2.9745E+03	-3.7174E+05	-89.52
966	-3.7063E+05	-6.1032E+01	-5.2716E+03	1.3945E+01	-3.7070E+05	-89.19
967	-3.7120E+05	-2.8978E+03	-4.6151E+03	-2.8400E+03	-3.7125E+05	-89.28
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
861	-2.1090E+03	-3.4273E+02	1.2478E+01	-3.4264E+02	-2.1091E+03	89.60
862	-1.5066E+03	9.2669E+02	2.9581E+01	9.2705E+02	-1.5070E+03	89.30
966	-1.7769E+03	4.3370E+02	-3.0801E+01	4.3413E+02	-1.7774E+03	-89.20
967	-2.1185E+03	-1.3895E+03	-1.3698E+01	-1.3892E+03	-2.1187E+03	-88.92

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 957 ----------
LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
861	6.2492E+05	3.9756E+04	4.5136E+03	6.2495E+05	3.9722E+04	.44
862	6.2556E+05	4.2968E+04	-8.5119E+03	6.2568E+05	4.2843E+04	-.84
966	6.0085E+05	3.4943E+04	1.4031E+03	6.0085E+05	3.4939E+04	.14
967	6.0149E+05	3.8154E+04	-1.1622E+04	6.0173E+05	3.7914E+04	-1.18

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
861	3.3926E+03	-1.8237E+03	3.6056E+01	3.3929E+03	-1.8240E+03	.40
862	4.1075E+03	-5.0502E+02	2.6017E+01	4.1077E+03	-5.0517E+02	.32
966	3.9256E+03	-5.1875E+02	-2.7127E+01	3.9258E+03	-5.1891E+02	-.35
967	3.3825E+03	-2.6877E+03	-3.7166E+01	3.3827E+03	-2.6879E+03	-.35

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
861	-5.1801E+03	-1.4670E+02	1.2166E+02	-1.4376E+02	-5.1831E+03	88.62
862	-5.1359E+03	7.4297E+01	1.3194E+02	7.7636E+01	-5.1393E+03	88.55
966	-5.2521E+03	-1.6108E+02	4.1383E+02	-1.2766E+02	-5.2855E+03	85.38
967	-5.2079E+03	5.9910E+01	4.2411E+02	9.3836E+01	-5.2418E+03	85.43

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
861	-2.4104E+01	2.6187E+00	3.9693E+00	3.1958E+00	-2.4681E+01	81.73
862	-2.2200E+01	8.5263E+00	1.5380E+00	8.6031E+00	-2.2277E+01	87.14
966	-2.0805E+01	3.7748E+00	2.7503E+00	4.0788E+00	-2.1109E+01	83.69
967	-3.5319E+01	-2.1722E+01	3.1896E-01	-2.1714E+01	-3.5327E+01	88.66

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
861	7.1094E+05	4.7100E+04	-5.9817E+03	7.1100E+05	4.7046E+04	-.52
862	7.0974E+05	4.1062E+04	-1.7376E+04	7.1019E+05	4.0610E+04	-1.49
966	6.8467E+05	4.1847E+04	6.8015E+03	6.8475E+05	4.1775E+04	.61
967	6.8347E+05	3.5808E+04	-4.5927E+03	6.8350E+05	3.5776E+04	-.41

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
861	3.9665E+03	-2.5956E+03	2.1021E+02	3.9732E+03	-2.6023E+03	1.83
862	4.6213E+03	6.3474E+02	4.1912E+01	4.6217E+03	6.3430E+02	.60
966	4.4328E+03	-1.2050E+03	3.5242E+02	4.4547E+03	-1.2269E+03	3.56
967	3.5304E+03	-2.4938E+03	1.8413E+02	3.5360E+03	-2.4994E+03	1.75

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
861	-3.5510E+05	7.8725E+02	-1.2155E+04	1.2019E+03	-3.5551E+05	-88.05
862	-3.5595E+05	-3.4894E+03	-1.1297E+04	-3.1277E+03	-3.5632E+05	-88.17
966	-3.5389E+05	1.0287E+03	-1.6797E+04	1.8219E+03	-3.5468E+05	-87.30
967	-3.5475E+05	-3.2479E+03	-1.5939E+04	-2.5266E+03	-3.5547E+05	-87.41

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
861	-2.0923E+03	-3.6528E+02	-1.0342E+02	-3.5911E+02	-2.0985E+03	-86.59
862	-1.5627E+03	7.7226E+02	-3.7826E+01	7.7287E+02	-1.5633E+03	-89.07
966	-1.7416E+03	4.1089E+02	-1.1675E+02	4.1720E+02	-1.7480E+03	-86.90
967	-1.9754E+03	-8.5404E+02	-5.1151E+01	-8.5171E+02	-1.9778E+03	-87.39

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
861	5.3671E+05	5.5460E+04	1.5014E+04	5.3718E+05	5.4992E+04	1.79
862	5.3244E+05	3.4084E+04	3.6045E+03	5.3246E+05	3.4058E+04	.41
966	5.0824E+05	4.9767E+04	1.4013E+04	5.0867E+05	4.9339E+04	1.75
967	5.0397E+05	2.8391E+04	2.6036E+03	5.0398E+05	2.8377E+04	.31

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 957 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
861	2.8730E+03	-2.7246E+03	2.3725E+02	2.8830E+03	-2.7346E+03	2.42
862	3.6842E+03	5.1166E+02	1.1516E+02	3.6884E+03	5.0749E+02	2.08
966	3.2984E+03	-1.0275E+03	3.6973E+02	3.3298E+03	-1.0589E+03	4.85
967	2.8267E+03	-2.3412E+03	2.4764E+02	2.8385E+03	-2.3530E+03	2.74

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
861	1.3976E+04	7.4528E+01	-2.0731E+04	2.8890E+04	-1.4840E+04	-35.73
862	1.4056E+04	4.7362E+02	-2.1079E+04	2.9411E+04	-1.4881E+04	-36.07
966	9.7567E+03	-7.6939E+02	-2.0006E+04	2.5181E+04	-1.6193E+04	-37.63
967	9.8365E+03	-3.7031E+02	-2.0355E+04	2.5718E+04	-1.6251E+04	-37.96
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
861	6.3084E+01	1.9235E+02	-1.7602E+02	3.1523E+02	-5.9791E+01	-55.08
862	1.9431E+02	1.3403E+02	-2.2838E+02	3.9453E+02	-6.6182E+01	-41.24
966	6.5064E+01	-1.8666E+00	-1.8296E+02	2.1760E+02	-1.5440E+02	-39.82
967	3.6461E+01	-2.0281E+01	-2.3532E+02	2.4512E+02	-2.2894E+02	-41.56

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
861	5.9935E+03	-1.0138E+03	1.7886E+04	2.0716E+04	-1.5736E+04	39.46
862	6.2647E+03	3.4187E+02	1.8230E+04	2.1772E+04	-1.5166E+04	40.39
966	1.0238E+04	-1.6502E+02	1.8737E+04	2.4482E+04	-1.4409E+04	37.24
967	1.0509E+04	1.1907E+03	1.9082E+04	2.5492E+04	-1.3792E+04	38.14
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
861	5.9410E+01	-1.7454E+02	1.6767E+02	1.4688E+02	-2.6201E+02	27.55
862	-8.4749E+01	-1.1787E+02	2.1429E+02	1.1362E+02	-3.1623E+02	42.79
966	6.4885E+01	-1.5585E+01	1.7534E+02	2.0455E+02	-1.5525E+02	38.54
967	4.2214E+01	1.7826E+00	2.2196E+02	2.4488E+02	-2.0088E+02	42.40

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
861	3.7887E+03	-9.8843E+02	1.9654E+04	2.1198E+04	-1.8398E+04	41.54
862	4.0353E+03	2.4454E+02	2.0026E+04	2.2255E+04	-1.7976E+04	42.30
966	8.5616E+03	-3.3834E+01	2.0365E+04	2.5078E+04	-1.6550E+04	39.04
967	8.8082E+03	1.1991E+03	2.0738E+04	2.6088E+04	-1.6080E+04	39.80
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
861	4.8611E+01	-1.9192E+02	1.8317E+02	1.4747E+02	-2.9078E+02	28.36
862	-1.0578E+02	-1.2814E+02	2.3463E+02	1.1794E+02	-3.5186E+02	43.64
966	5.3281E+01	-1.5662E+01	1.9163E+02	2.1351E+02	-1.7590E+02	39.90
967	3.6043E+01	4.6404E+00	2.4309E+02	2.6394E+02	-2.2326E+02	43.15

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
861	7.9678E+03	4.3025E+02	-2.0205E+04	2.4752E+04	-1.6354E+04	-39.72
862	7.9289E+03	2.3603E+02	-2.0570E+04	2.5009E+04	-1.6844E+04	-39.70
966	3.3109E+03	-5.0113E+02	-1.9974E+04	2.1469E+04	-1.8659E+04	-42.27
967	3.2721E+03	-6.9536E+02	-2.0339E+04	2.1723E+04	-1.9147E+04	-42.21
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
861	2.5243E+01	1.9749E+02	-1.7901E+02	3.1001E+02	-8.7285E+01	-57.85
862	1.6330E+02	1.3002E+02	-2.3175E+02	3.7900E+02	-8.5685E+01	-42.95
966	2.2413E+01	2.5025E+00	-1.8684E+02	1.9957E+02	-1.7465E+02	-43.48
967	1.1479E+01	-1.4276E+01	-2.3958E+02	2.3853E+02	-2.4133E+02	-43.46

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 957 ----------
LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
861	3.0970E+05	1.1040E+04	-2.1928E+04	3.1130E+05	9.4382E+03	-4.18
862	3.1184E+05	2.1760E+04	-4.5316E+04	3.1876E+05	1.4845E+04	-8.68
966	2.4543E+05	-1.8145E+03	-1.9177E+04	2.4691E+05	-3.2931E+03	-4.41
967	2.4757E+05	8.9055E+03	-4.2566E+04	2.5494E+05	1.5412E+03	-9.82

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
861	3.9526E+03	1.1678E+04	-1.5847E+02	1.1681E+04	3.9493E+03	-88.83
862	4.8752E+03	1.1092E+04	-6.7148E+02	1.1164E+04	4.8035E+03	-83.91
966	1.8000E+03	-4.5276E+01	-3.3834E+02	1.8601E+03	-1.0536E+02	-10.07
967	1.2395E+03	-1.9050E+03	-8.5135E+02	1.4552E+03	-2.1207E+03	-14.22

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
861	2.1025E+05	9.4505E+03	1.2806E+04	2.1107E+05	8.6372E+03	3.63
862	2.1337E+05	2.5013E+04	2.3821E+04	2.1633E+05	2.2047E+04	7.10
966	2.5973E+05	1.9346E+04	1.5441E+04	2.6072E+05	1.8359E+04	3.66
967	2.6285E+05	3.4909E+04	2.6457E+04	2.6588E+05	3.1878E+04	6.53

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
861	-1.0923E+03	-1.3169E+04	2.4104E+02	-1.0874E+03	-1.3174E+04	1.14
862	-1.0861E+03	-1.0972E+04	7.8021E+02	-1.0249E+03	-1.1034E+04	4.48
966	1.8464E+03	-1.4442E+02	2.9420E+02	1.8890E+03	-1.8699E+02	8.23
967	1.3219E+03	-1.7008E+03	8.3337E+02	1.5364E+03	-1.9154E+03	14.44

ELEMENT ID 964 ----------
LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
868	-2.3468E+05	2.5391E+03	1.4607E+04	3.4352E+03	-2.3558E+05	86.49
869	-2.3668E+05	-7.4400E+03	1.5215E+04	-6.4346E+03	-2.3769E+05	86.22
973	-2.2986E+05	3.5047E+03	4.8160E+03	3.6041E+03	-2.2996E+05	88.82
974	-2.3185E+05	-6.4743E+03	5.4238E+03	-6.3439E+03	-2.3198E+05	88.62

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
868	-8.0400E+02	1.0280E+03	-3.5066E+01	1.0287E+03	-8.0467E+02	-88.90
869	-1.2287E+03	-2.1014E+02	-4.1227E+01	-2.0848E+02	-1.2304E+03	-87.69
973	-1.5733E+03	-1.5248E+03	1.3539E+00	-1.5248E+03	-1.5733E+03	88.40
974	-8.8280E+02	2.7640E+02	-4.8073E+00	2.7642E+02	-8.8282E+02	-89.76

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
868	7.6649E+05	4.9279E+04	1.6607E+04	7.6688E+05	4.8894E+04	1.33
869	7.6079E+05	2.0761E+04	3.6844E+03	7.6081E+05	2.0742E+04	.29
973	7.5031E+05	4.6042E+04	9.3998E+03	7.5043E+05	4.5917E+04	.76
974	7.4461E+05	1.7525E+04	-3.5225E+03	7.4462E+05	1.7508E+04	-.28

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
868	4.8012E+03	-4.7904E+02	-1.1040E+02	4.8035E+03	-4.8135E+02	-1.20
869	4.2474E+03	-1.2720E+03	-1.1954E+02	4.2500E+03	-1.2746E+03	-1.24
973	3.9368E+03	-2.7878E+03	-7.2290E+00	3.9368E+03	-2.7879E+03	-.06
974	4.7914E+03	-4.9028E+02	-1.6368E+01	4.7914E+03	-4.9033E+02	-.18

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
868	-2.1482E+05	1.9574E+03	1.1632E+04	2.5797E+03	-2.1544E+05	86.94
869	-2.1656E+05	-6.7772E+03	1.2342E+04	-6.0536E+03	-2.1729E+05	86.65
973	-2.1064E+05	2.7913E+03	2.3193E+03	2.8165E+03	-2.1067E+05	89.38
974	-2.1239E+05	-5.9431E+03	3.0290E+03	-5.8987E+03	-2.1244E+05	89.16

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 964 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
868	-8.2212E+02	7.7361E+02	-2.5068E+01	7.7400E+02	-8.2251E+02	-89.10
869	-1.1051E+03	-1.4033E+02	-3.6896E+01	-1.3892E+02	-1.1066E+03	-87.81
973	-1.4425E+03	-1.1777E+03	3.9743E+00	-1.1777E+03	-1.4425E+03	89.14
974	-8.2449E+02	2.0982E+02	-7.8537E+00	2.0988E+02	-8.2455E+02	-89.57

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
868	1.9950E+04	7.8738E+02	3.6355E+03	2.0617E+04	1.2084E+02	10.39
869	1.9611E+04	-9.0779E+02	3.6170E+03	2.0230E+04	-1.5267E+03	9.71
973	1.9929E+04	7.8313E+02	2.1018E+03	2.0157E+04	5.5513E+02	6.19
974	1.9590E+04	-9.1202E+02	2.0833E+03	1.9800E+04	-1.1216E+03	5.74

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
868	1.1301E+02	2.2310E+01	2.2229E+01	1.1816E+02	1.7155E+01	13.06
869	1.2024E+02	2.4846E+01	1.4711E+01	1.2246E+02	2.2629E+01	8.57
973	7.7150E+01	-1.8391E+01	2.1672E+01	8.1836E+01	-2.3077E+01	12.20
974	1.2717E+02	-1.7269E+01	1.4154E+01	1.2854E+02	-1.8643E+01	5.54

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
868	-2.1831E+05	1.8633E+03	1.5863E+04	3.0004E+03	-2.1944E+05	85.90
869	-2.2008E+05	-7.0190E+03	1.6713E+04	-5.7160E+03	-2.2139E+05	85.54
973	-2.1254E+05	3.0174E+03	7.2710E+03	3.2624E+03	-2.1278E+05	88.07
974	-2.1431E+05	-5.8648E+03	8.1205E+03	-5.5489E+03	-2.1463E+05	87.77

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
868	-8.1086E+02	8.6011E+02	-1.3640E+01	8.6022E+02	-8.1097E+02	-89.53
869	-1.1500E+03	-2.1549E+02	-3.9987E+00	-2.1547E+02	-1.1500E+03	-89.76
973	-1.4599E+03	-1.2935E+03	1.4238E+01	-1.2923E+03	-1.4611E+03	85.14
974	-8.2649E+02	2.3126E+02	2.3879E+01	2.3180E+02	-8.2702E+02	88.71

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
868	6.6442E+05	4.2836E+04	1.9141E+04	6.6501E+05	4.2247E+04	1.76
869	6.6390E+05	4.0235E+04	7.3972E+03	6.6398E+05	4.0147E+04	.68
973	6.4869E+05	3.9691E+04	1.1411E+04	6.4890E+05	3.9477E+04	1.07
974	6.4817E+05	3.7089E+04	-3.3225E+02	6.4817E+05	3.7089E+04	-.03

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
868	3.5201E+03	-2.9167E+03	6.9457E+01	3.5208E+03	-2.9175E+03	.62
869	3.3875E+03	-3.6247E+03	8.4560E+01	3.3885E+03	-3.6257E+03	.69
973	3.4873E+03	-2.0223E+03	9.5617E+01	3.4890E+03	-2.0239E+03	.99
974	4.1818E+03	-8.3570E+02	1.1072E+02	4.1842E+03	-8.3814E+02	1.26

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
868	-1.7183E+05	1.2125E+03	1.2879E+04	2.1658E+03	-1.7278E+05	85.77
869	-1.7318E+05	-5.5404E+03	1.3575E+04	-4.4483E+03	-1.7427E+05	85.40
973	-1.6675E+05	2.2284E+03	6.4840E+03	2.4768E+03	-1.6700E+05	87.81
974	-1.6810E+05	-4.5245E+03	7.1794E+03	-4.2100E+03	-1.6842E+05	87.49

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
868	-6.0881E+02	7.3542E+02	-1.2732E+01	7.3554E+02	-6.0893E+02	-89.46
869	-9.1231E+02	-1.9212E+02	-1.8441E+00	-1.9211E+02	-9.1232E+02	-89.85
973	-1.1501E+03	-1.1058E+03	1.1327E+01	-1.1030E+03	-1.1528E+03	76.47
974	-6.4305E+02	1.9932E+02	2.2215E+01	1.9991E+02	-6.4364E+02	88.49

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

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LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
868	-4.2590E+02	3.0589E+01	-7.4315E+03	7.2373E+03	-7.6326E+03	-45.88
869	-3.8277E+02	2.4624E+02	-7.5368E+03	7.4751E+03	-7.6116E+03	-46.19
973	-2.6971E+03	-4.2360E+02	-8.2203E+03	6.7382E+03	-9.8589E+03	-48.94
974	-2.6539E+03	-2.0796E+02	-8.3256E+03	6.9840E+03	-9.8459E+03	-49.18
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
868	1.1389E-01	-8.1666E+01	-2.4390E+01	6.8354E+00	-8.8387E+01	-15.41
869	3.2293E+01	8.1004E+01	-6.0137E+01	1.2153E+02	-8.2334E+00	-56.02
973	-1.9598E+01	-2.0492E+01	-1.1565E+01	-8.4718E+00	-3.1618E+01	-43.89
974	-9.8334E+00	4.7839E+00	-4.7311E+01	4.5348E+01	-5.0397E+01	-49.39

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
868	-4.9250E+03	4.4869E+01	7.5342E+03	5.4934E+03	-1.0374E+04	54.13
869	-5.0157E+03	-4.0863E+02	7.6542E+03	5.2811E+03	-1.0705E+04	53.37
973	-2.6404E+03	5.0176E+02	8.0445E+03	7.1272E+03	-9.2658E+03	50.53
974	-2.7311E+03	4.8267E+01	8.1645E+03	6.9405E+03	-9.6233E+03	49.83
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
868	-2.3473E+01	9.2702E+01	2.3606E+01	9.7315E+01	-2.8086E+01	78.94
869	-5.8389E+01	-8.0813E+01	5.8026E+01	-1.0501E+01	-1.2870E+02	39.53
973	-1.6544E+01	-1.3611E+00	1.1662E+01	4.9629E+00	-2.2868E+01	61.53
974	-1.1529E+01	-1.0361E+00	4.6083E+01	4.0098E+01	-5.2663E+01	48.25

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
868	-4.6087E+03	3.9432E+01	8.2311E+03	6.2682E+03	-1.0838E+04	52.88
869	-4.7011E+03	-4.2240E+02	8.3599E+03	6.0676E+03	-1.1191E+04	52.18
973	-2.1253E+03	5.3606E+02	8.8301E+03	8.1352E+03	-9.7245E+03	49.29
974	-2.2177E+03	7.4233E+01	8.9590E+03	7.9602E+03	-1.0104E+04	48.64
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
868	-2.2104E+01	1.0063E+02	2.5813E+01	1.0584E+02	-2.7312E+01	78.59
869	-6.0310E+01	-8.8804E+01	6.3683E+01	-9.3004E+00	-1.3981E+02	38.69
973	-1.2945E+01	1.4643E+00	1.2559E+01	8.7383E+00	-2.0219E+01	59.92
974	-9.5465E+00	-1.6284E+00	5.0427E+01	4.4995E+01	-5.6170E+01	47.24

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
868	1.4710E+03	1.3533E+00	-7.8484E+03	8.6189E+03	-7.1466E+03	-42.33
869	1.5336E+03	3.1467E+02	-7.9638E+03	8.9112E+03	-7.0629E+03	-42.81
973	-8.8831E+02	-4.7046E+02	-8.5760E+03	7.8991E+03	-9.2579E+03	-45.70
974	-8.2563E+02	-1.5714E+02	-8.6913E+03	8.2064E+03	-9.1892E+03	-46.10
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
868	8.3084E+00	-9.0942E+01	-2.5133E+01	1.4310E+01	-9.6943E+01	-13.43
869	4.3670E+01	8.5556E+01	-6.2207E+01	1.3025E+02	-1.0245E+00	-54.30
973	-7.4107E+00	-1.3657E+01	-1.1864E+01	1.7341E+00	-2.2802E+01	-37.63
974	-2.5448E+00	3.6639E+00	-4.8937E+01	4.9595E+01	-4.8476E+01	-46.82

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
868	1.0951E+05	2.0414E+04	-5.3199E+04	1.3435E+05	-4.4252E+03	-25.03
869	1.0763E+05	1.0993E+04	-6.2509E+04	1.3832E+05	-1.9696E+04	-26.15
973	6.3254E+04	1.1164E+04	-5.3598E+04	9.6800E+04	-2.2382E+04	-32.04
974	6.1370E+04	1.7419E+03	-6.2908E+04	1.0117E+05	-3.8059E+04	-32.32

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

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JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
868	2.3256E+03	5.2217E+03	-5.6280E+02	5.3272E+03	2.2201E+03	-79.38
869	1.6723E+03	4.5621E+03	-1.0948E+03	4.9301E+03	1.3043E+03	-71.42
973	1.3545E+02	-2.1341E+03	-4.6494E+02	2.2701E+02	-2.2257E+03	-11.14
974	5.7377E+02	-1.4747E+02	-9.9698E+02	1.2733E+03	-8.4705E+02	-35.06

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
868	2.6221E+04	2.0406E+04	5.1089E+04	7.4486E+04	-2.7858E+04	43.37
869	2.2795E+04	3.2758E+03	5.3846E+04	6.7759E+04	-4.1688E+04	39.86
973	6.4013E+04	2.7964E+04	5.4949E+04	1.0382E+05	-1.1841E+04	35.92
974	6.0587E+04	1.0834E+04	5.7705E+04	9.8550E+04	-2.7129E+04	33.34

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
868	-9.9527E+02	-6.0648E+03	2.3795E+02	-9.8413E+02	-6.0759E+03	2.68
869	-8.7943E+02	-5.4434E+03	6.7085E+02	-7.8287E+02	-5.5400E+03	8.19
973	1.5788E+02	-1.9449E+03	3.9953E+02	2.3123E+02	-2.0182E+03	10.40
974	5.5210E+02	-2.0210E+02	8.3243E+02	1.0889E+03	-7.3886E+02	32.81

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LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
869	-1.6285E+05	7.3268E+03	1.7929E+04	9.1952E+03	-1.6471E+05	84.05
870	-1.6554E+05	-6.1499E+03	1.8024E+04	-4.1371E+03	-1.6755E+05	83.63
974	-1.6535E+05	6.8261E+03	5.4435E+03	6.9980E+03	-1.6552E+05	88.19
975	-1.6804E+05	-6.6505E+03	5.5388E+03	-6.4606E+03	-1.6823E+05	88.04

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
869	-1.0564E+03	-1.7568E+02	4.5554E+00	-1.7566E+02	-1.0564E+03	89.70
870	-8.7198E+02	-9.1817E+01	6.2805E+01	-8.6793E+01	-8.7700E+02	85.43
974	-1.0166E+03	2.4965E+02	-6.4257E+00	2.4969E+02	-1.0166E+03	-89.71
975	-6.8966E+02	1.1433E+02	5.1823E+01	1.1766E+02	-6.9299E+02	86.33

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
869	7.4850E+05	1.8303E+04	-1.4141E+04	7.4877E+05	1.8029E+04	-1.11
870	7.5501E+05	5.0833E+04	-2.6937E+04	7.5603E+05	4.9804E+04	-2.19
974	7.3344E+05	1.5291E+04	-3.4142E+03	7.3346E+05	1.5275E+04	-.27
975	7.3995E+05	4.7821E+04	-1.6210E+04	7.4033E+05	4.7441E+04	-1.34

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
869	4.1993E+03	-1.2816E+03	7.6283E+01	4.2004E+03	-1.2827E+03	.80
870	4.7907E+03	-3.1143E+02	6.6726E+01	4.7916E+03	-3.1230E+02	.75
974	4.8122E+03	-4.8610E+02	-2.5019E+01	4.8123E+03	-4.8622E+02	-.27
975	3.7914E+03	-2.9605E+03	-3.4575E+01	3.7915E+03	-2.9606E+03	-.29

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
869	-1.4746E+05	7.0439E+03	1.4848E+04	8.4580E+03	-1.4887E+05	84.56
870	-1.5001E+05	-5.7364E+03	1.4861E+04	-4.2216E+03	-1.5153E+05	84.18
974	-1.5043E+05	6.4491E+03	3.1377E+03	6.5118E+03	-1.5049E+05	88.85
975	-1.5299E+05	-6.3311E+03	3.1500E+03	-6.2634E+03	-1.5305E+05	88.77

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
869	-9.3921E+02	-1.0714E+02	-6.5592E+00	-1.0709E+02	-9.3926E+02	-89.55
870	-7.7599E+02	-7.8683E+01	3.0125E+01	-7.7384E+01	-7.7729E+02	87.53
974	-9.4633E+02	1.8546E+02	-1.6511E+01	1.8570E+02	-9.4657E+02	-89.16
975	-6.1075E+02	1.1744E+02	2.0173E+01	1.1800E+02	-6.1131E+02	88.41

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

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LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
869	2.8956E+04	9.6117E+02	3.3302E+03	2.9347E+04	5.7048E+02	6.69
870	2.8688E+04	-3.8056E+02	3.2172E+03	2.9040E+04	-7.3238E+02	6.24
974	2.8089E+04	7.8785E+02	2.1392E+03	2.8256E+04	6.2126E+02	4.45
975	2.7821E+04	-5.5386E+02	2.0263E+03	2.7965E+04	-6.9782E+02	4.06

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
869	1.5399E+02	3.1596E+01	9.4462E+00	1.5472E+02	3.0871E+01	4.39
870	1.2249E+02	-9.8637E+01	3.2031E+00	1.2254E+02	-9.8683E+01	.83
974	1.1129E+02	-2.0444E+01	9.5531E+00	1.1198E+02	-2.1133E+01	4.13
975	1.8832E+02	1.2039E+02	3.3101E+00	1.8848E+02	1.2023E+02	2.78

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
869	-1.5059E+05	6.8805E+03	1.9761E+04	9.3225E+03	-1.5303E+05	82.96
870	-1.5311E+05	-5.7284E+03	1.9875E+04	-3.0952E+03	-1.5574E+05	82.45
974	-1.5270E+05	6.4577E+03	7.9104E+03	6.8499E+03	-1.5309E+05	87.16
975	-1.5522E+05	-6.1509E+03	8.0242E+03	-5.7202E+03	-1.5565E+05	86.93

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
869	-9.5850E+02	-1.7719E+02	3.6773E+01	-1.7546E+02	-9.6023E+02	87.31
870	-8.2013E+02	-9.8644E+01	8.7957E+01	-8.8076E+01	-8.3070E+02	83.15
974	-9.4847E+02	2.0687E+02	2.9258E+01	2.0761E+02	-9.4921E+02	88.55
975	-6.2635E+02	1.1522E+02	8.0441E+01	1.2384E+02	-6.3497E+02	83.88

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
869	6.4827E+05	3.7108E+04	-1.3355E+04	6.4856E+05	3.6817E+04	-1.25
870	6.4764E+05	3.3998E+04	-2.3074E+04	6.4851E+05	3.3131E+04	-2.15
974	6.3224E+05	3.3903E+04	-3.0337E+02	6.3224E+05	3.3903E+04	-.03
975	6.3161E+05	3.0792E+04	-1.0022E+04	6.3178E+05	3.0625E+04	-.96

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
869	3.3591E+03	-3.6303E+03	6.2791E+01	3.3597E+03	-3.6309E+03	.51
870	3.9155E+03	-7.8425E+02	1.1821E+01	3.9155E+03	-7.8428E+02	.14
974	4.2050E+03	-8.3105E+02	1.9189E+02	4.2123E+03	-8.3835E+02	2.18
975	3.3151E+03	-1.9364E+03	1.4092E+02	3.3189E+03	-1.9402E+03	1.54

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
869	-1.1894E+05	5.3081E+03	1.6278E+04	7.4054E+03	-1.2104E+05	82.66
870	-1.2089E+05	-4.4319E+03	1.6412E+04	-2.1631E+03	-1.2316E+05	82.13
974	-1.2057E+05	4.9811E+03	6.9567E+03	5.3654E+03	-1.2096E+05	86.84
975	-1.2252E+05	-4.7588E+03	7.0909E+03	-4.3333E+03	-1.2295E+05	86.57

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
869	-7.6236E+02	-1.6213E+02	3.4320E+01	-1.6017E+02	-7.6431E+02	86.74
870	-6.5262E+02	-7.7704E+01	7.9764E+01	-6.6843E+01	-6.6349E+02	82.25
974	-7.3875E+02	1.8019E+02	2.8626E+01	1.8108E+02	-7.3964E+02	88.22
975	-5.0030E+02	8.5690E+01	7.4069E+01	9.4908E+01	-5.0952E+02	82.91

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
869	-5.6304E+01	3.1155E+02	-7.8200E+03	7.9498E+03	-7.6946E+03	-45.67
870	-1.2647E+02	-3.9287E+01	-7.9606E+03	7.8779E+03	-8.0436E+03	-45.16
974	-1.8521E+03	-4.7608E+01	-7.9966E+03	7.0975E+03	-8.9972E+03	-48.22
975	-1.9222E+03	-3.9844E+02	-8.1372E+03	7.0125E+03	-9.3331E+03	-47.67

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

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JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
869	-1.1037E+01	7.2338E+01	-7.1540E+01	1.1345E+02	-5.2150E+01	-60.12
870	4.8189E+01	4.7703E+01	-9.1513E+01	1.3946E+02	-4.3568E+01	-44.92
974	-1.1333E+01	4.4841E+00	-7.4729E+01	7.1722E+01	-7.8571E+01	-48.02
975	-8.1021E+00	-3.0309E+00	-9.4702E+01	8.9169E+01	-1.0030E+02	-45.77

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
869	-3.5804E+03	-1.2159E+02	7.9666E+03	6.3011E+03	-1.0003E+04	51.12
870	-3.5785E+03	-1.1184E+02	8.0998E+03	6.4380E+03	-1.0128E+04	51.04
974	-1.8892E+03	2.1666E+02	7.8482E+03	7.0822E+03	-8.7548E+03	48.82
975	-1.8872E+03	2.2642E+02	7.9814E+03	7.2206E+03	-8.8815E+03	48.77
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
869	-1.1712E+01	-7.1478E+01	6.9578E+01	3.4129E+01	-1.1732E+02	33.38
870	-6.5810E+01	-4.8238E+01	8.9563E+01	3.2969E+01	-1.4702E+02	47.80
974	-1.3102E+01	-1.3508E+00	7.2468E+01	6.5479E+01	-7.9932E+01	47.32
975	-6.5907E+00	6.3419E+00	9.2452E+01	9.2553E+01	-9.2802E+01	47.00

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
869	-3.3844E+03	-1.5910E+02	8.6985E+03	7.0749E+03	-1.0618E+04	50.25
870	-3.3724E+03	-9.9026E+01	8.8458E+03	7.2602E+03	-1.0732E+04	50.24
974	-1.5328E+03	2.1124E+02	8.6100E+03	7.9933E+03	-9.3149E+03	47.89
975	-1.5208E+03	2.7131E+02	8.7574E+03	8.1784E+03	-9.4279E+03	47.92
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
869	-9.7042E+00	-7.8683E+01	7.6311E+01	3.9549E+01	-1.2794E+02	32.84
870	-6.9545E+01	-5.3272E+01	9.8184E+01	3.7112E+01	-1.5993E+02	47.37
974	-1.0827E+01	-1.8846E+00	7.9494E+01	7.3264E+01	-8.5976E+01	46.61
975	-5.1214E+00	6.4477E+00	1.0137E+02	1.0220E+02	-1.0087E+02	46.63

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
869	1.2371E+03	2.5540E+02	-8.2725E+03	9.0333E+03	-7.5408E+03	-43.30
870	1.1882E+03	1.0700E+01	-8.4183E+03	9.0383E+03	-7.8394E+03	-43.00
974	-5.8362E+02	-1.0876E+02	-8.3487E+03	8.0059E+03	-8.6983E+03	-45.81
975	-6.3256E+02	-3.5346E+02	-8.4944E+03	8.0026E+03	-8.9886E+03	-45.47
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
869	-3.0901E+00	7.6204E+01	-7.4238E+01	1.2072E+02	-4.7605E+01	-59.05
870	5.7117E+01	5.1354E+01	-9.5217E+01	1.4950E+02	-4.1025E+01	-44.13
974	-2.9987E+00	3.5732E+00	-7.7439E+01	7.7796E+01	-7.7221E+01	-46.22
975	-3.1723E+00	-4.3789E+00	-9.8418E+01	9.4644E+01	-1.0220E+02	-44.82

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
869	6.9945E+04	3.4567E+03	-7.2836E+04	1.1677E+05	-4.3363E+04	-32.73
870	6.9464E+04	1.0503E+03	-8.0624E+04	1.2284E+05	-5.2324E+04	-33.51
974	4.8457E+04	-8.4119E+02	-6.6529E+04	9.4757E+04	-4.7141E+04	-34.84
975	4.7975E+04	-3.2476E+03	-7.4318E+04	1.0097E+05	-5.6243E+04	-35.49
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
869	1.1891E+03	4.4655E+03	-1.1448E+03	4.8259E+03	8.2874E+02	-72.53
870	9.7541E+02	2.1160E+03	-1.2190E+03	2.8915E+03	1.9989E+02	-57.54
974	5.3627E+02	-1.5496E+02	-1.3066E+03	1.5422E+03	-1.1609E+03	-37.59
975	1.1973E+02	-1.9598E+02	-1.3807E+03	1.3516E+03	-1.4279E+03	-41.74

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 965 ----------
LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
869	2.9548E+04	4.6260E+03	5.8693E+04	7.7089E+04	-4.2915E+04	39.01
870	2.8827E+04	1.0226E+03	6.3869E+04	8.0289E+04	-5.0440E+04	38.86
974	4.8472E+04	8.4110E+03	6.1416E+04	9.3041E+04	-3.6159E+04	35.97
975	4.7751E+04	4.8076E+03	6.6591E+04	9.6247E+04	-4.3688E+04	36.06
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
869	-5.9252E+02	-5.3860E+03	8.7912E+02	-4.3638E+02	-5.5422E+03	10.07
870	-5.1860E+02	-1.9718E+03	1.0894E+03	6.4307E+01	-2.5547E+03	28.15
974	5.1311E+02	-2.0988E+02	1.1347E+03	1.3425E+03	-1.0393E+03	36.16
975	1.2984E+02	-1.0805E+02	1.3450E+03	1.3611E+03	-1.3393E+03	42.47

ELEMENT ID 972 ----------
LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
876	3.8130E+04	-5.0510E+02	-2.8102E+03	3.8333E+04	-7.0844E+02	-4.14
877	3.8476E+04	1.2270E+03	-2.9382E+03	3.8706E+04	9.9664E+02	-4.48
981	3.7408E+04	-6.4945E+02	-1.0802E+03	3.7438E+04	-6.8008E+02	-1.62
982	3.7754E+04	1.0826E+03	-1.2081E+03	3.7794E+04	1.0428E+03	-1.88
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
876	1.6240E+02	-1.1501E+02	5.1431E-01	1.6240E+02	-1.1501E+02	.11
877	1.9772E+02	2.5534E+01	-8.8994E-01	1.9772E+02	2.5530E+01	-.30
981	2.5356E+02	1.6470E+02	-2.2437E+00	2.5362E+02	1.6464E+02	-1.45
982	1.4944E+02	-2.8226E+01	-3.6479E+00	1.4951E+02	-2.8301E+01	-1.18

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
876	-2.3680E+05	2.5719E+03	1.4268E+04	3.4194E+03	-2.3765E+05	86.60
877	-2.3882E+05	-7.4904E+03	1.4876E+04	-6.5377E+03	-2.3977E+05	86.34
981	-2.3209E+05	3.5133E+03	4.3261E+03	3.5927E+03	-2.3217E+05	88.95
982	-2.3411E+05	-6.5489E+03	4.9341E+03	-6.4420E+03	-2.3421E+05	88.76
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
876	-8.1313E+02	1.0285E+03	-3.6700E+01	1.0292E+03	-8.1386E+02	-88.86
877	-1.2374E+03	-2.0614E+02	-4.5207E+01	-2.0416E+02	-1.2394E+03	-87.50
981	-1.5885E+03	-1.5342E+03	6.6915E-01	-1.5342E+03	-1.5885E+03	89.29
982	-8.9172E+02	2.7809E+02	-7.8377E+00	2.7814E+02	-8.9177E+02	-89.62

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
876	3.7836E+04	-5.1728E+02	-3.5655E+03	3.8165E+04	-8.4593E+02	-5.27
877	3.8188E+04	1.2432E+03	-3.7059E+03	3.8556E+04	8.7511E+02	-5.67
981	3.6921E+04	-7.0029E+02	-1.9053E+03	3.7017E+04	-7.9654E+02	-2.89
982	3.7273E+04	1.0601E+03	-2.0457E+03	3.7388E+04	9.4494E+02	-3.22
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
876	1.6335E+02	-1.1762E+02	-2.6037E+00	1.6337E+02	-1.1765E+02	-.53
877	1.9921E+02	3.2360E+01	-7.2152E+00	1.9952E+02	3.2048E+01	-2.47
981	2.4978E+02	1.5435E+02	-3.8411E+00	2.4993E+02	1.5419E+02	-2.30
982	1.4788E+02	-2.6171E+01	-8.4525E+00	1.4828E+02	-2.6581E+01	-2.77

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
876	-1.2116E+05	-4.4988E+03	-1.0769E+04	-3.5130E+03	-1.2215E+05	-84.77
877	-1.1914E+05	5.5795E+03	-1.0721E+04	6.4943E+03	-1.2006E+05	-85.12
981	-1.2399E+05	-5.0639E+03	-1.4343E+03	-5.0467E+03	-1.2400E+05	-89.31
982	-1.2197E+05	5.0142E+03	-1.3860E+03	5.0293E+03	-1.2199E+05	-89.38

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 972 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
876	-6.2206E+02	-5.3111E+01	-1.1388E+01	-5.2883E+01	-6.2229E+02	-88.85
877	-7.6815E+02	-8.1409E+01	2.2422E+01	-8.0678E+01	-7.6888E+02	88.13
981	-5.0610E+02	8.4026E+01	-8.4332E-01	8.4027E+01	-5.0610E+02	-89.92
982	-7.4830E+02	1.8229E+02	3.2967E+01	1.8345E+02	-7.4946E+02	87.97

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
876	3.6386E+04	-4.9644E+02	-1.6131E+03	3.6456E+04	-5.6686E+02	-2.50
877	3.6711E+04	1.1311E+03	-1.7207E+03	3.6794E+04	1.0480E+03	-2.76
981	3.6064E+04	-5.6081E+02	1.6366E+02	3.6065E+04	-5.6154E+02	.26
982	3.6389E+04	1.0667E+03	5.6077E+01	3.6389E+04	1.0666E+03	.09

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
876	1.5561E+02	-9.5226E+01	3.6270E+00	1.5567E+02	-9.5279E+01	.83
877	1.8333E+02	1.1470E+01	7.8275E+00	1.8368E+02	1.1114E+01	2.60
981	2.4444E+02	1.5633E+02	-8.0177E-01	2.4445E+02	1.5632E+02	-.52
982	1.4405E+02	-2.6908E+01	3.3987E+00	1.4412E+02	-2.6975E+01	1.14

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
876	-2.0244E+05	1.8533E+03	1.7173E+04	3.2869E+03	-2.0387E+05	85.23
877	-2.0414E+05	-6.6497E+03	1.7902E+04	-5.0400E+03	-2.0575E+05	84.86
981	-1.9650E+05	3.0403E+03	9.5677E+03	3.4980E+03	-1.9696E+05	87.26
982	-1.9820E+05	-5.4626E+03	1.0297E+04	-4.9141E+03	-1.9875E+05	86.95

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
876	-7.4954E+02	8.6931E+02	-5.1601E+00	8.6933E+02	-7.4956E+02	-89.82
877	-1.0621E+03	-1.6347E+02	1.3230E+01	-1.6327E+02	-1.0623E+03	89.16
981	-1.3461E+03	-1.1561E+03	1.4532E+01	-1.1550E+03	-1.3472E+03	85.65
982	-7.6651E+02	2.0579E+02	3.2922E+01	2.0690E+02	-7.6762E+02	88.06

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
876	2.7527E+04	-3.7105E+02	-8.8417E+02	2.7555E+04	-3.9904E+02	-1.81
877	2.7770E+04	8.4388E+02	-9.5983E+02	2.7804E+04	8.0971E+02	-2.04
981	2.7381E+04	-4.0024E+02	4.8797E+02	2.7389E+04	-4.0881E+02	1.01
982	2.7624E+04	8.1467E+02	4.1231E+02	2.7630E+04	8.0833E+02	.88

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
876	1.1686E+02	-7.0154E+01	4.0291E+00	1.1695E+02	-7.0241E+01	1.23
877	1.3733E+02	5.3999E+00	8.7041E+00	1.3790E+02	4.8281E+00	3.76
981	1.8574E+02	1.2166E+02	3.2871E-02	1.8574E+02	1.2166E+02	.03
982	1.0922E+02	-2.1053E+01	4.7078E+00	1.0939E+02	-2.1223E+01	2.07

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
876	1.4216E+03	-9.3926E+00	-3.1581E+03	3.9442E+03	-2.5320E+03	-38.62
877	1.4540E+03	1.5277E+02	-3.2069E+03	4.0756E+03	-2.4688E+03	-39.27
981	4.5623E+02	-2.0245E+02	-3.4072E+03	3.5500E+03	-3.2962E+03	-42.24
982	4.8866E+02	-4.0287E+01	-3.4560E+03	3.6903E+03	-3.2419E+03	-42.81

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
876	7.0029E+00	-3.7816E+01	-9.9979E+00	9.1320E+00	-3.9945E+01	-12.02
877	2.1447E+01	3.4238E+01	-2.4681E+01	5.3338E+01	2.3469E+00	-52.26
981	2.5299E+00	-2.1033E+00	-4.8393E+00	5.5785E+00	-5.1519E+00	-32.21
982	2.2309E+00	8.9362E-01	-1.9522E+01	2.1096E+01	-1.7971E+01	-44.02

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 972 ----------
LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
876	-3.5826E+02	-5.3284E+00	2.9775E+03	2.8009E+03	-3.1645E+03	46.70
877	-3.8021E+02	-1.1505E+02	3.0211E+03	2.7764E+03	-3.2717E+03	46.26
981	5.5735E+02	1.7778E+02	3.2656E+03	3.6387E+03	-2.9036E+03	43.34
982	5.3540E+02	6.8054E+01	3.3093E+03	3.6192E+03	-3.0158E+03	42.98
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
876	-2.3189E+00	3.3811E+01	9.6386E+00	3.6222E+01	-4.7294E+00	75.96
877	-1.5507E+01	-3.2519E+01	2.3821E+01	1.2811E+00	-4.9306E+01	35.17
981	4.3037E+00	6.0201E+00	4.5844E+00	9.8259E+00	4.9780E-01	50.30
982	1.8481E+00	-1.5380E+00	1.8766E+01	1.8998E+01	-1.8687E+01	42.42

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
876	-5.4299E+02	-3.7507E+00	3.2753E+03	3.0130E+03	-3.5598E+03	47.35
877	-5.6843E+02	-1.3094E+02	3.3237E+03	2.9812E+03	-3.6806E+03	46.88
981	4.6347E+02	1.9752E+02	3.5842E+03	3.9171E+03	-3.2562E+03	43.94
982	4.3803E+02	7.0336E+01	3.6325E+03	3.8914E+03	-3.3830E+03	43.55
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
876	-3.2131E+00	3.7412E+01	1.0582E+01	4.0003E+01	-5.8043E+00	76.24
877	-1.7754E+01	-3.5690E+01	2.6126E+01	9.0044E-01	-5.4345E+01	35.53
981	3.7216E+00	6.0175E+00	5.0577E+00	1.0056E+01	-3.1685E-01	51.39
982	1.4338E+00	-1.5884E+00	2.0602E+01	2.0580E+01	-2.0734E+01	42.90

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
876	1.0994E+03	-4.3516E+00	-3.2342E+03	3.8285E+03	-2.7334E+03	-40.16
877	1.1295E+03	1.4592E+02	-3.2833E+03	3.9576E+03	-2.6822E+03	-40.74
981	1.0838E+02	-2.0254E+02	-3.5086E+03	3.4649E+03	-3.5591E+03	-43.73
982	1.3844E+02	-5.2269E+01	-3.5577E+03	3.6021E+03	-3.5159E+03	-44.23
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
876	5.6390E+00	-3.7946E+01	-1.0338E+01	7.9668E+00	-4.0274E+01	-12.69
877	2.0218E+01	3.5066E+01	-2.5489E+01	5.4190E+01	1.0936E+00	-53.12
981	1.5867E-01	-3.6245E+00	-4.9987E+00	3.6118E+00	-7.0776E+00	-34.64
982	8.4911E-01	1.1698E+00	-2.0149E+01	2.1159E+01	-1.9141E+01	-45.23

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
876	-1.4064E+04	4.8008E+02	-2.9235E+04	2.3334E+04	-3.6918E+04	-51.98
877	-1.4008E+04	7.6009E+02	-2.9638E+04	2.3920E+04	-3.7168E+04	-52.00
981	-2.4827E+04	-1.6724E+03	-3.3225E+04	2.1934E+04	-4.8434E+04	-54.61
982	-2.4771E+04	-1.3923E+03	-3.3627E+04	2.2519E+04	-4.8683E+04	-54.58
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
876	-6.6691E+01	-3.3792E+02	-9.2873E+01	-3.7938E+01	-3.6667E+02	-17.20
877	7.4326E+01	3.6006E+02	-2.4703E+02	5.0256E+02	-6.8172E+01	-60.02
981	-1.7218E+02	-1.1466E+02	-3.6204E+01	-9.7181E+01	-1.8965E+02	-64.23
982	-9.6426E+01	2.4091E+01	-1.9036E+02	1.6350E+02	-2.3583E+02	-53.78

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
876	-3.4665E+04	3.2231E+02	3.2008E+04	1.9305E+04	-5.3648E+04	59.33
877	-3.5188E+04	-2.2900E+03	3.2579E+04	1.7757E+04	-5.5235E+04	58.39
981	-2.3488E+04	2.5576E+03	3.3517E+04	2.5493E+04	-4.6424E+04	55.62
982	-2.4010E+04	-5.4705E+01	3.4088E+04	2.4099E+04	-4.8164E+04	54.68

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 972 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
876	-1.6022E+02	4.2884E+02	9.4434E+01	4.4361E+02	-1.7499E+02	81.11
877	-3.1800E+02	-3.7126E+02	2.4283E+02	-1.0035E+02	-5.8892E+02	41.87
981	-1.5284E+02	-3.2632E+01	4.1091E+01	-1.9929E+01	-1.6555E+02	72.82
982	-9.9242E+01	-1.7535E-01	1.8948E+02	1.4614E+02	-2.4556E+02	52.33

ELEMENT ID 973 ----------

LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
877	2.6025E+04	-1.2632E+03	-3.2667E+03	2.6411E+04	-1.6488E+03	-6.73
878	2.6488E+04	1.0521E+03	-3.2636E+03	2.6900E+04	6.4009E+02	-7.20
982	2.6343E+04	-1.1996E+03	-1.2004E+03	2.6395E+04	-1.2518E+03	-2.49
983	2.6806E+04	1.1157E+03	-1.1973E+03	2.6862E+04	1.0600E+03	-2.66

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
877	1.6126E+02	1.8244E+01	-5.6458E+00	1.6149E+02	1.8021E+01	-2.26
878	1.4029E+02	1.9489E+01	-1.1604E+01	1.4139E+02	1.8385E+01	-5.44
982	1.7071E+02	-2.3972E+01	-4.2867E+00	1.7081E+02	-2.4066E+01	-1.26
983	1.0395E+02	-2.3740E+01	-1.0245E+01	1.0477E+02	-2.4557E+01	-4.56

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
877	-1.6427E+05	7.4186E+03	1.7586E+04	9.2014E+03	-1.6605E+05	84.21
878	-1.6700E+05	-6.2105E+03	1.7672E+04	-4.2911E+03	-1.6891E+05	83.80
982	-1.6692E+05	6.8895E+03	4.9750E+03	7.0318E+03	-1.6706E+05	88.36
983	-1.6964E+05	-6.7394E+03	5.0604E+03	-6.5823E+03	-1.6980E+05	88.22

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
877	-1.0660E+03	-1.7186E+02	4.5789E-02	-1.7186E+02	-1.0660E+03	90.00
878	-8.7647E+02	-9.0006E+01	5.7274E+01	-8.5857E+01	-8.8062E+02	85.86
982	-1.0268E+03	2.5108E+02	-1.1229E+01	2.5118E+02	-1.0269E+03	-89.50
983	-6.9583E+02	1.1549E+02	4.5998E+01	1.1809E+02	-6.9843E+02	86.77

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
877	2.5818E+04	-1.2308E+03	-4.0404E+03	2.6409E+04	-1.8214E+03	-8.32
878	2.6274E+04	1.0470E+03	-4.0477E+03	2.6907E+04	4.1350E+02	-8.90
982	2.5946E+04	-1.2054E+03	-2.0049E+03	2.6093E+04	-1.3526E+03	-4.20
983	2.6401E+04	1.0725E+03	-2.0122E+03	2.6560E+04	9.1359E+02	-4.51

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
877	1.5873E+02	2.4264E+01	-1.2865E+01	1.5995E+02	2.3044E+01	-5.42
878	1.4415E+02	2.4541E+01	-2.0719E+01	1.4764E+02	2.1053E+01	-9.55
982	1.6903E+02	-2.1941E+01	-1.1847E+01	1.6976E+02	-2.2673E+01	-3.54
983	1.0191E+02	-2.4297E+01	-1.9701E+01	1.0492E+02	-2.7300E+01	-8.67

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
877	-1.7388E+05	-5.3681E+03	-8.4331E+03	-4.9472E+03	-1.7430E+05	-87.14
878	-1.7260E+05	1.0587E+03	-7.9949E+03	1.4260E+03	-1.7296E+05	-87.37
982	-1.7022E+05	-4.6362E+03	-1.1788E+03	-4.6278E+03	-1.7023E+05	-89.59
983	-1.6894E+05	1.7905E+03	-7.4061E+02	1.7938E+03	-1.6894E+05	-89.75

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
877	-8.8796E+02	-1.0537E+02	5.1819E+01	-1.0196E+02	-8.9138E+02	86.23
878	-5.9243E+02	7.8813E+02	4.1577E+01	7.8938E+02	-5.9368E+02	88.28
982	-6.5116E+02	2.0171E+02	2.4798E+01	2.0243E+02	-6.5188E+02	88.34
983	-1.1651E+03	-1.1138E+03	1.4556E+01	-1.1099E+03	-1.1689E+03	75.21

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 973 ----------
LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
877	2.4786E+04	-1.2540E+03	-1.9791E+03	2.4936E+04	-1.4035E+03	-4.32
878	2.5239E+04	1.0105E+03	-1.9530E+03	2.5396E+04	8.5409E+02	-4.58
982	2.5358E+04	-1.1396E+03	1.3772E+01	2.5358E+04	-1.1396E+03	.03
983	2.5811E+04	1.1249E+03	3.9864E+01	2.5811E+04	1.1248E+03	.09

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
877	1.5506E+02	5.8172E+00	5.0900E+00	1.5524E+02	5.6439E+00	1.95
878	1.2659E+02	1.1627E+01	2.3741E+00	1.2663E+02	1.1578E+01	1.18
982	1.6466E+02	-2.2786E+01	6.8647E+00	1.6491E+02	-2.3037E+01	2.09
983	9.9998E+01	-2.2380E+01	4.1488E+00	1.0014E+02	-2.2520E+01	1.94

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
877	-1.4005E+05	6.1668E+03	2.0714E+04	9.0445E+03	-1.4293E+05	82.09
878	-1.4236E+05	-5.3732E+03	2.0749E+04	-2.2994E+03	-1.4543E+05	81.57
982	-1.4089E+05	5.9999E+03	9.6853E+03	6.6357E+03	-1.4152E+05	86.24
983	-1.4319E+05	-5.5400E+03	9.7205E+03	-4.8569E+03	-1.4388E+05	85.98

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
877	-8.7222E+02	-1.2549E+02	5.3584E+01	-1.2167E+02	-8.7605E+02	85.92
878	-7.7102E+02	-7.9303E+01	1.0732E+02	-6.3036E+01	-7.8728E+02	81.38
982	-8.7969E+02	1.8316E+02	4.5874E+01	1.8513E+02	-8.8166E+02	87.53
983	-5.7551E+02	1.1011E+02	9.9607E+01	1.2429E+02	-5.8968E+02	81.90

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
877	1.8752E+04	-9.5954E+02	-1.1484E+03	1.8819E+04	-1.0262E+03	-3.32
878	1.9097E+04	7.6345E+02	-1.1236E+03	1.9166E+04	6.9485E+02	-3.49
982	1.9271E+04	-8.5592E+02	3.6541E+02	1.9277E+04	-8.6255E+02	1.04
983	1.9615E+04	8.6704E+02	3.9019E+02	1.9623E+04	8.5892E+02	1.19

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
877	1.1789E+02	1.5129E+00	7.0645E+00	1.1832E+02	1.0856E+00	3.46
878	9.3602E+01	6.5431E+00	5.8595E+00	9.3995E+01	6.1505E+00	3.83
982	1.2482E+02	-1.7933E+01	8.5583E+00	1.2533E+02	-1.8444E+01	3.42
983	7.6166E+01	-1.6640E+01	7.3534E+00	7.6745E+01	-1.7219E+01	4.50

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
877	1.0642E+03	7.4822E+01	-3.3352E+03	3.9412E+03	-2.8021E+03	-40.78
878	1.0550E+03	2.8750E+01	-3.3924E+03	3.9729E+03	-2.8891E+03	-40.70
982	3.3600E+02	-7.0829E+01	-3.3209E+03	3.4597E+03	-3.1945E+03	-43.25
983	3.2679E+02	-1.1690E+02	-3.3781E+03	3.4904E+03	-3.2805E+03	-43.12

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
877	2.2020E+00	3.0389E+01	-2.9537E+01	4.9022E+01	-1.6431E+01	-57.75
878	2.5580E+01	2.0376E+01	-3.7971E+01	6.1038E+01	-1.5081E+01	-43.04
982	2.5160E+00	9.5065E-01	-3.0793E+01	3.2536E+01	-2.9070E+01	-44.27
983	9.7067E-01	-2.2641E+00	-3.9227E+01	3.8614E+01	-3.9907E+01	-43.82

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
877	-3.3701E+02	-1.0642E+02	3.1375E+03	2.9179E+03	-3.3614E+03	46.05
878	-3.1561E+02	6.0583E-01	3.1932E+03	3.0396E+03	-3.3546E+03	46.42
982	3.7503E+02	3.5990E+01	3.1787E+03	3.3888E+03	-2.9777E+03	43.47
983	3.9643E+02	1.4302E+02	3.2344E+03	3.5066E+03	-2.9672E+03	43.88

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 973 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
877	2.1345E+00	-2.8990E+01	2.8403E+01	1.8959E+01	-4.5815E+01	30.64
878	-2.1006E+01	-1.9196E+01	3.6407E+01	1.6318E+01	-5.6519E+01	45.71
982	2.1478E+00	-1.4780E+00	2.9653E+01	3.0043E+01	-2.9374E+01	43.25
983	1.8017E+00	1.5334E+00	3.7657E+01	3.9325E+01	-3.5990E+01	44.90

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
877	-4.7194E+02	-1.1165E+02	3.4523E+03	3.1653E+03	-3.7488E+03	46.49
878	-4.5033E+02	-3.5932E+00	3.5133E+03	3.2934E+03	-3.7473E+03	46.82
982	3.0775E+02	4.4290E+01	3.4895E+03	3.6681E+03	-3.3160E+03	43.92
983	3.2936E+02	1.5235E+02	3.5505E+03	3.7924E+03	-3.3107E+03	44.29
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
877	1.7261E+00	-3.1794E+01	3.1165E+01	2.0351E+01	-5.0420E+01	30.86
878	-2.3570E+01	-2.1069E+01	3.9958E+01	1.7658E+01	-6.2297E+01	45.90
982	1.6774E+00	-1.5397E+00	3.2531E+01	3.2639E+01	-3.2501E+01	43.58
983	1.5706E+00	1.7785E+00	4.1324E+01	4.2999E+01	-3.9650E+01	45.07

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
877	8.4847E+02	8.9730E+01	-3.4129E+03	3.9030E+03	-2.9648E+03	-41.83
878	8.3443E+02	1.9501E+01	-3.4720E+03	3.9228E+03	-3.0689E+03	-41.65
982	9.2721E+01	-6.1424E+01	-3.4184E+03	3.4349E+03	-3.4036E+03	-44.35
983	7.8675E+01	-1.3165E+02	-3.4775E+03	3.4526E+03	-3.5056E+03	-44.13
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
877	6.9507E-01	3.1161E+01	-3.0460E+01	4.9985E+01	-1.8129E+01	-58.29
878	2.5051E+01	2.0764E+01	-3.9111E+01	6.2077E+01	-1.6262E+01	-43.43
982	9.3448E-01	1.1868E+00	-3.1772E+01	3.2833E+01	-3.0712E+01	-45.11
983	6.9463E-03	-2.1010E+00	-4.0423E+01	3.9390E+01	-4.1484E+01	-44.25

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
877	-8.4427E+03	1.8732E+03	-3.0839E+04	2.7982E+04	-3.4552E+04	-49.75
878	-8.9120E+03	-4.7283E+02	-3.1478E+04	2.7067E+04	-3.6452E+04	-48.82
982	-1.7060E+04	1.4986E+02	-3.2199E+04	2.4874E+04	-4.1783E+04	-52.48
983	-1.7529E+04	-2.1962E+03	-3.2838E+04	2.3859E+04	-4.3584E+04	-51.57
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
877	-9.1692E+01	3.2686E+02	-2.9565E+02	4.7981E+02	-2.4464E+02	-62.65
878	1.5542E+02	2.0296E+02	-3.8152E+02	5.6145E+02	-2.0307E+02	-46.78
982	-1.1086E+02	2.1205E+01	-3.1033E+02	2.7245E+02	-3.6211E+02	-51.01
983	-6.8966E+01	-2.6195E+00	-3.9620E+02	3.6179E+02	-4.3338E+02	-47.39

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
877	-2.4477E+04	-1.4790E+02	3.4011E+04	2.3808E+04	-4.8433E+04	54.84
878	-2.4633E+04	-9.2802E+02	3.4596E+04	2.3789E+04	-4.9350E+04	54.46
982	-1.6450E+04	1.4574E+03	3.2694E+04	2.6402E+04	-4.1395E+04	52.66
983	-1.6606E+04	6.7730E+02	3.3279E+04	2.6419E+04	-4.2348E+04	52.28
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
877	-1.1117E+02	-3.2990E+02	2.9392E+02	9.3074E+01	-5.3414E+02	34.80
878	-3.2702E+02	-2.2452E+02	3.8353E+02	1.1117E+02	-6.6271E+02	48.81
982	-1.1339E+02	-3.0044E+00	3.0657E+02	2.5330E+02	-3.6969E+02	50.10
983	-5.9779E+01	3.6258E+01	3.9618E+02	3.8732E+02	-4.1084E+02	48.46

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 980 ----------
LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
884	-7.0761E+03	1.0004E+02	4.2512E+02	1.2513E+02	-7.1012E+03	86.62
885	-7.1409E+03	-2.2390E+02	4.4832E+02	-1.9496E+02	-7.1699E+03	86.31
989	-6.9829E+03	1.1868E+02	8.6539E+01	1.1974E+02	-6.9840E+03	89.30
990	-7.0477E+03	-2.0525E+02	1.0973E+02	-2.0349E+02	-7.0494E+03	89.08
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
884	-3.0813E+01	1.8508E+01	-2.1518E-01	1.8509E+01	-3.0814E+01	-89.75
885	-3.6041E+01	-3.2040E+00	-5.7810E-01	-3.1938E+00	-3.6052E+01	-88.99
989	-4.7244E+01	-2.8366E+01	4.0421E-01	-2.8358E+01	-4.7253E+01	88.77
990	-2.7976E+01	4.8259E+00	4.1299E-02	4.8260E+00	-2.7976E+01	89.93

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
884	3.8625E+04	-5.1145E+02	-3.0491E+03	3.8861E+04	-7.4757E+02	-4.43
885	3.8978E+04	1.2500E+03	-3.1816E+03	3.9244E+04	9.8357E+02	-4.79
989	3.7832E+04	-6.6998E+02	-1.3168E+03	3.7877E+04	-7.1497E+02	-1.96
990	3.8185E+04	1.0914E+03	-1.4494E+03	3.8241E+04	1.0349E+03	-2.23
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
884	1.6462E+02	-1.1863E+02	-1.5111E-01	1.6462E+02	-1.1863E+02	-.03
885	2.0122E+02	2.8059E+01	-2.5355E+00	2.0125E+02	2.8022E+01	-.84
989	2.5640E+02	1.6613E+02	-2.5897E+00	2.5647E+02	1.6605E+02	-1.64
990	1.5117E+02	-2.8433E+01	-4.9741E+00	1.5131E+02	-2.8570E+01	-1.59

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
884	-6.9643E+03	9.9963E+01	1.1135E+02	1.0172E+02	-6.9660E+03	89.10
885	-7.0262E+03	-2.0955E+02	1.2980E+02	-2.0708E+02	-7.0287E+03	88.91
989	-6.9680E+03	9.9220E+01	-2.5408E+02	1.0834E+02	-6.9771E+03	-87.94
990	-7.0299E+03	-2.1029E+02	-2.3564E+02	-2.0216E+02	-7.0380E+03	-88.02
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
884	-3.0304E+01	1.4690E+01	-1.2066E+00	1.4723E+01	-3.0336E+01	-88.47
885	-3.4043E+01	2.3199E-01	-3.0431E+00	5.0006E-01	-3.4311E+01	-84.97
989	-4.7192E+01	-2.8522E+01	-7.4402E-02	-2.8522E+01	-4.7192E+01	-89.77
990	-2.7886E+01	4.9013E+00	-1.9108E+00	5.0123E+00	-2.7997E+01	-86.68

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
884	4.9925E+05	3.0208E+04	1.2328E+04	4.9957E+05	2.9884E+04	1.50
885	5.0141E+05	4.1030E+04	2.1776E+03	5.0142E+05	4.1019E+04	.27
989	4.7344E+05	2.5046E+04	1.0843E+04	4.7370E+05	2.4784E+04	1.38
990	4.7560E+05	3.5868E+04	6.9310E+02	4.7560E+05	3.5867E+04	.09
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
884	3.2389E+03	-1.7931E+02	3.0995E+02	3.2668E+03	-2.0719E+02	5.14
885	3.2966E+03	-2.8386E+01	2.7385E+02	3.3190E+03	-5.0790E+01	4.68
989	2.6011E+03	-2.1615E+03	4.4133E+02	2.6416E+03	-2.2020E+03	5.25
990	3.4248E+03	-2.9687E+02	4.0522E+02	3.4684E+03	-3.4048E+02	6.14

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
884	-6.9911E+03	9.7621E+01	8.7610E+02	2.0429E+02	-7.0978E+03	83.06
885	-7.0581E+03	-2.3705E+02	9.0555E+02	-1.1887E+02	-7.1762E+03	82.57
989	-6.7607E+03	1.4370E+02	5.8833E+02	1.9348E+02	-6.8105E+03	85.16
990	-6.8276E+03	-1.9096E+02	6.1778E+02	-1.3394E+02	-6.8846E+03	84.73

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 980 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
884	-3.0587E+01	2.3331E+01	1.2738E+00	2.3361E+01	-3.0618E+01	88.65
885	-3.7726E+01	-8.1448E+00	3.1008E+00	-7.8233E+00	-3.8047E+01	84.08
989	-4.5656E+01	-2.6790E+01	1.0965E+00	-2.6726E+01	-4.5719E+01	86.69
990	-2.7151E+01	4.4763E+00	2.9235E+00	4.7443E+00	-2.7419E+01	84.76

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
884	3.3667E+04	-4.6803E+02	-4.6707E+02	3.3674E+04	-4.7442E+02	-.78
885	3.3962E+04	1.0053E+03	-5.5130E+02	3.3971E+04	9.9605E+02	-.96
989	3.3739E+04	-4.5360E+02	1.2930E+03	3.3788E+04	-5.0242E+02	2.16
990	3.4034E+04	1.0197E+03	1.2087E+03	3.4078E+04	9.7548E+02	2.09

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
884	1.4431E+02	-7.4785E+01	6.4301E+00	1.4450E+02	-7.4974E+01	1.68
885	1.6453E+02	-2.1165E+00	1.5569E+01	1.6597E+02	-3.5584E+00	5.29
989	2.2881E+02	1.4648E+02	4.0254E-01	2.2882E+02	1.4648E+02	.28
990	1.3468E+02	-2.5357E+01	9.5410E+00	1.3524E+02	-2.5923E+01	3.40

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
884	-5.3224E+03	7.3724E+01	8.0225E+02	1.9047E+02	-5.4392E+03	81.72
885	-5.3742E+03	-1.8518E+02	8.2660E+02	-5.6690E+01	-5.5027E+03	81.16
989	-5.1054E+03	1.1711E+02	5.9730E+02	1.8456E+02	-5.1729E+03	83.56
990	-5.1572E+03	-1.4179E+02	6.2165E+02	-6.5885E+01	-5.2331E+03	83.04

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
884	-2.3300E+01	1.9320E+01	1.4053E+00	1.9367E+01	-2.3347E+01	88.11
885	-2.9354E+01	-7.6949E+00	3.4480E+00	-7.1592E+00	-2.9890E+01	81.17
989	-3.4456E+01	-2.0117E+01	1.0384E+00	-2.0042E+01	-3.4531E+01	85.88
990	-2.0518E+01	3.3387E+00	3.0811E+00	3.7302E+00	-2.0909E+01	82.76

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
884	2.8120E+02	3.8715E-01	-1.2774E+03	1.4259E+03	-1.1443E+03	-41.86
885	2.9173E+02	5.3067E+01	-1.2964E+03	1.4743E+03	-1.1295E+03	-42.37
989	-1.1025E+02	-7.7894E+01	-1.3941E+03	1.3001E+03	-1.4883E+03	-45.33
990	-9.9708E+01	-2.5215E+01	-1.4131E+03	1.3511E+03	-1.4761E+03	-45.76

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
884	1.5491E+00	-1.4756E+01	-4.1059E+00	2.5247E+00	-1.5731E+01	-13.37
885	7.2677E+00	1.3918E+01	-1.0145E+01	2.1269E+01	-8.2647E-02	-54.07
989	-9.7336E-01	-2.0548E+00	-1.9621E+00	5.2112E-01	-3.5493E+00	-37.30
990	-2.7734E-01	5.6872E-01	-8.0006E+00	8.1574E+00	-7.8661E+00	-46.51

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
884	-4.6469E+02	2.3795E+00	1.2467E+03	1.0373E+03	-1.4996E+03	50.30
885	-4.7665E+02	-5.7404E+01	1.2658E+03	1.0160E+03	-1.5500E+03	49.70
989	-8.3753E+01	7.8559E+01	1.3503E+03	1.3501E+03	-1.3553E+03	46.72
990	-9.5711E+01	1.8775E+01	1.3693E+03	1.3321E+03	-1.4090E+03	46.20

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
884	-2.3408E+00	1.4764E+01	3.9651E+00	1.5638E+01	-3.2152E+00	77.56
885	-8.0082E+00	-1.3542E+01	9.7933E+00	-5.9832E-01	-2.0952E+01	37.11
989	-3.4623E-01	1.2236E+00	1.9089E+00	2.5027E+00	-1.6253E+00	56.18
990	-4.9501E-01	-4.2031E-01	7.7371E+00	7.2795E+00	-8.1949E+00	45.14

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 980 ----------
LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
884	-4.8105E+02	2.1972E+00	1.3652E+03	1.1470E+03	-1.6259E+03	50.02
885	-4.9390E+02	-6.2049E+01	1.3860E+03	1.1248E+03	-1.6807E+03	49.43
989	-6.3658E+01	8.5667E+01	1.4802E+03	1.4930E+03	-1.4710E+03	46.44
990	-7.6509E+01	2.1422E+01	1.5009E+03	1.4742E+03	-1.5293E+03	45.93
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
884	-2.4417E+00	1.6116E+01	4.3477E+00	1.7084E+01	-3.4098E+00	77.45
885	-8.6362E+00	-1.4838E+01	1.0740E+01	-5.5831E-01	-2.2916E+01	36.95
989	-1.8912E-01	1.4544E+00	2.0906E+00	2.8789E+00	-1.6136E+00	55.73
990	-4.2979E-01	-4.7997E-01	8.4827E+00	8.0279E+00	-8.9377E+00	44.92

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
884	3.6085E+02	-5.9566E-01	-1.3241E+03	1.5165E+03	-1.1563E+03	-41.11
885	3.7238E+02	5.7069E+01	-1.3440E+03	1.5680E+03	-1.1385E+03	-41.66
989	-4.4663E+01	-8.1689E+01	-1.4413E+03	1.3783E+03	-1.5046E+03	-44.63
990	-3.3128E+01	-2.4025E+01	-1.4612E+03	1.4326E+03	-1.4898E+03	-45.09
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
884	1.9071E+00	-1.5432E+01	-4.2398E+00	2.8883E+00	-1.6413E+01	-13.03
885	7.8684E+00	1.4417E+01	-1.0476E+01	2.2119E+01	1.6670E-01	-53.68
989	-5.3732E-01	-1.8454E+00	-2.0301E+00	9.4148E-01	-3.3242E+00	-36.07
990	-8.9055E-03	5.4044E-01	-8.2666E+00	8.5369E+00	-8.0054E+00	-45.95

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
884	8.7743E+03	-9.3339E+01	-1.3818E+04	1.8852E+04	-1.0171E+04	-36.11
885	8.9393E+03	7.3177E+02	-1.4035E+04	1.9458E+04	-9.7870E+03	-36.85
989	4.7178E+03	-9.0455E+02	-1.4760E+04	1.6932E+04	-1.3119E+04	-39.61
990	4.8828E+03	-7.9446E+01	-1.4977E+04	1.7583E+04	-1.2779E+04	-40.30
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
884	4.1220E+01	-1.7378E+02	-4.2535E+01	4.9329E+01	-1.8189E+02	-10.79
885	1.0719E+02	1.4979E+02	-1.0559E+02	2.3620E+02	2.0768E+01	-50.70
989	2.9522E+01	1.6791E+00	-2.0216E+01	4.0147E+01	-8.9455E+00	-27.72
990	2.0645E+01	1.9934E+00	-8.3272E+01	9.5111E+01	-7.2473E+01	-41.81

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
884	1.1465E+03	-4.9544E+01	1.2792E+04	1.3354E+04	-1.2257E+04	43.66
885	1.0758E+03	-4.0291E+02	1.2970E+04	1.3327E+04	-1.2654E+04	43.37
989	4.9468E+03	7.1043E+02	1.4169E+04	1.7155E+04	-1.1498E+04	40.75
990	4.8761E+03	3.5706E+02	1.4347E+04	1.7140E+04	-1.1907E+04	40.53
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
884	2.5985E+00	1.4420E+02	4.1327E+01	1.5537E+02	-8.5806E+00	74.86
885	-5.4770E+01	-1.4088E+02	1.0289E+02	1.3712E+01	-2.0936E+02	33.65
989	3.5707E+01	3.5399E+01	1.8921E+01	5.4474E+01	1.6631E+01	44.77
990	1.8220E+01	-8.1861E+00	8.0485E+01	8.6578E+01	-7.6544E+01	40.34

ELEMENT ID 981 ----------
LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
885	-4.8156E+03	2.4116E+02	4.9882E+02	2.8990E+02	-4.8643E+03	84.42
886	-4.9034E+03	-1.9765E+02	4.9497E+02	-1.4615E+02	-4.9549E+03	84.06
990	-4.8970E+03	2.2490E+02	1.1291E+02	2.2738E+02	-4.8994E+03	88.74
991	-4.9847E+03	-2.1391E+02	1.0906E+02	-2.1142E+02	-4.9872E+03	88.69

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 981 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
885	-2.9913E+01	-1.9782E+00	6.8738E-02	-1.9781E+00	-2.9913E+01	89.86
886	-2.5313E+01	-3.0683E+00	8.6432E-01	-3.0348E+00	-2.5347E+01	87.78
990	-3.1998E+01	4.0218E+00	-2.2354E-01	4.0232E+00	-3.1999E+01	-89.64
991	-1.9205E+01	4.4986E+00	5.7204E-01	4.5124E+00	-1.9219E+01	88.62

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
885	2.6369E+04	-1.2717E+03	-3.5218E+03	2.6811E+04	-1.7134E+03	-7.15
886	2.6836E+04	1.0652E+03	-3.5223E+03	2.7309E+04	5.9250E+02	-7.64
990	2.6642E+04	-1.2171E+03	-1.4327E+03	2.6715E+04	-1.2906E+03	-2.94
991	2.7109E+04	1.1198E+03	-1.4332E+03	2.7188E+04	1.0410E+03	-3.15
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
885	1.6311E+02	2.0437E+01	-7.6582E+00	1.6352E+02	2.0027E+01	-3.06
886	1.4346E+02	2.1068E+01	-1.4236E+01	1.4509E+02	1.9434E+01	-6.55
990	1.7269E+02	-2.4129E+01	-6.3681E+00	1.7289E+02	-2.4335E+01	-1.85
991	1.0509E+02	-2.4149E+01	-1.2945E+01	1.0638E+02	-2.5433E+01	-5.66

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
885	-4.7289E+03	2.4990E+02	1.6728E+02	2.5552E+02	-4.7345E+03	88.08
886	-4.8180E+03	-1.9575E+02	1.5761E+02	-1.9038E+02	-4.8234E+03	88.05
990	-4.8835E+03	2.1898E+02	-2.1893E+02	2.2835E+02	-4.8929E+03	-87.55
991	-4.9727E+03	-2.2667E+02	-2.2860E+02	-2.1568E+02	-4.9836E+03	-87.25
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
885	-2.9807E+01	1.0793E+00	-2.8855E+00	1.3466E+00	-3.0074E+01	-84.71
886	-2.2858E+01	-1.0566E+00	-2.9368E+00	-6.6791E-01	-2.3247E+01	-82.46
990	-3.1897E+01	4.0992E+00	-3.3046E+00	4.4001E+00	-3.2198E+01	-84.80
991	-1.9177E+01	4.3019E+00	-3.3559E+00	4.7721E+00	-1.9647E+01	-82.02

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
885	4.3633E+05	2.8013E+04	-1.7823E+04	4.3710E+05	2.7237E+04	-2.49
886	4.3946E+05	4.3696E+04	-3.0488E+04	4.4180E+05	4.1361E+04	-4.38
990	4.0868E+05	2.2484E+04	4.7066E+03	4.0874E+05	2.2427E+04	.70
991	4.1182E+05	3.8167E+04	-7.9579E+03	4.1199E+05	3.7997E+04	-1.22
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
885	3.1606E+03	-5.5573E+01	3.0293E+02	3.1889E+03	-8.3857E+01	5.33
886	3.8326E+03	3.0479E+03	9.0882E+01	3.8430E+03	3.0376E+03	6.52
990	3.5668E+03	-2.6849E+02	2.8003E+02	3.5871E+03	-2.8883E+02	4.15
991	1.6365E+03	-3.9443E+03	6.7979E+01	1.6373E+03	-3.9452E+03	.70

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
885	-4.7714E+03	2.2029E+02	9.7281E+02	4.0318E+02	-4.9542E+03	79.35
886	-4.8541E+03	-1.9361E+02	9.7758E+02	3.1414E+00	-5.0509E+03	78.62
990	-4.7428E+03	2.2600E+02	6.0075E+02	2.9760E+02	-4.8144E+03	83.20
991	-4.8256E+03	-1.8790E+02	6.0552E+02	-1.1014E+02	-4.9034E+03	82.68
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
885	-2.8992E+01	-6.3982E+00	4.4369E+00	-5.5581E+00	-2.9832E+01	79.28
886	-2.8052E+01	-6.0030E+00	6.4442E+00	-4.2577E+00	-2.9797E+01	74.85
990	-3.1047E+01	3.6972E+00	4.3413E+00	4.2314E+00	-3.1581E+01	82.98
991	-1.8544E+01	4.6518E+00	6.3485E+00	6.2756E+00	-2.0168E+01	75.65

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 981 ----------
LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
885	2.2894E+04	-1.2082E+03	-7.4403E+02	2.2917E+04	-1.2311E+03	-1.77
886	2.3324E+04	9.3829E+02	-6.9826E+02	2.3346E+04	9.1653E+02	-1.78
990	2.3710E+04	-1.0451E+03	1.1177E+03	2.3760E+04	-1.0955E+03	2.58
991	2.4139E+04	1.1014E+03	1.1635E+03	2.4198E+04	1.0427E+03	2.88

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
885	1.4445E+02	-6.1327E+00	1.4754E+01	1.4588E+02	-7.5646E+00	5.54
886	1.1005E+02	3.3350E+00	1.5252E+01	1.1218E+02	1.1980E+00	7.98
990	1.5396E+02	-2.1501E+01	1.6869E+01	1.5557E+02	-2.3108E+01	5.44
991	9.3553E+01	-2.0322E+01	1.7367E+01	9.6143E+01	-2.2912E+01	8.48

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
885	-3.6369E+03	1.6227E+02	8.8318E+02	3.5754E+02	-3.8322E+03	77.53
886	-3.6987E+03	-1.4684E+02	8.8940E+02	6.3422E+01	-3.9090E+03	76.70
990	-3.5828E+03	1.7309E+02	6.0269E+02	2.6743E+02	-3.6772E+03	81.10
991	-3.6446E+03	-1.3601E+02	6.0891E+02	-3.3343E+01	-3.7473E+03	80.43

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
885	-2.1912E+01	-6.2065E+00	4.6755E+00	-4.9201E+00	-2.3199E+01	74.62
886	-2.2263E+01	-5.4486E+00	6.5695E+00	-3.1862E+00	-2.4525E+01	71.00
990	-2.3460E+01	2.7502E+00	4.6600E+00	3.5541E+00	-2.4264E+01	80.21
991	-1.3997E+01	3.5977E+00	6.5540E+00	5.7707E+00	-1.6170E+01	71.66

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
885	2.3101E+02	4.0926E+01	-1.3470E+03	1.4863E+03	-1.2144E+03	-42.98
886	2.2349E+02	3.3034E+00	-1.3706E+03	1.4885E+03	-1.2617E+03	-42.70
990	-7.0612E+01	-1.9400E+01	-1.3575E+03	1.3128E+03	-1.4028E+03	-45.54
991	-7.8136E+01	-5.7022E+01	-1.3812E+03	1.3137E+03	-1.4488E+03	-45.22

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
885	-3.6591E-01	1.2392E+01	-1.2109E+01	1.9699E+01	-7.6738E+00	-58.89
886	9.4169E+00	8.2447E+00	-1.5535E+01	2.4377E+01	-6.7156E+00	-43.92
990	-3.3174E-01	5.5784E-01	-1.2636E+01	1.2757E+01	-1.2531E+01	-46.01
991	-4.1839E-01	-7.3595E-01	-1.6062E+01	1.5486E+01	-1.6640E+01	-44.72

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
885	-3.5453E+02	-3.2985E+01	1.3160E+03	1.1320E+03	-1.5195E+03	48.48
886	-3.4965E+02	-8.5856E+00	1.3387E+03	1.1705E+03	-1.5287E+03	48.63
990	-6.5137E+01	2.4894E+01	1.3157E+03	1.2963E+03	-1.3366E+03	45.98
991	-6.0257E+01	4.9293E+01	1.3384E+03	1.3341E+03	-1.3450E+03	46.17

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
885	-4.6016E-01	-1.2032E+01	1.1710E+01	6.8156E+00	-1.9308E+01	31.85
886	-9.7943E+00	-8.0548E+00	1.5044E+01	6.1446E+00	-2.3994E+01	46.65
990	-5.5209E-01	-4.3173E-01	1.2212E+01	1.1720E+01	-1.2704E+01	45.14
991	-1.1807E-01	8.3475E-01	1.5546E+01	1.5911E+01	-1.5195E+01	45.88

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
885	-3.6936E+02	-3.7145E+01	1.4409E+03	1.2472E+03	-1.6537E+03	48.29
886	-3.6365E+02	-8.6195E+00	1.4659E+03	1.2904E+03	-1.6627E+03	48.45
990	-5.1674E+01	2.6393E+01	1.4421E+03	1.4300E+03	-1.4552E+03	45.78
991	-4.5969E+01	5.4919E+01	1.4671E+03	1.4724E+03	-1.4634E+03	45.98

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 981 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
885	-3.8490E-01	-1.3187E+01	1.2839E+01	7.5606E+00	-2.1133E+01	31.75
886	-1.0637E+01	-8.8209E+00	1.6492E+01	6.7877E+00	-2.6246E+01	46.58
990	-4.7615E-01	-4.8925E-01	1.3391E+01	1.2908E+01	-1.3873E+01	44.99
991	-5.2120E-02	8.9704E-01	1.7043E+01	1.7472E+01	-1.6627E+01	45.80

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
885	2.8651E+02	3.9900E+01	-1.3967E+03	1.5654E+03	-1.2390E+03	-42.48
886	2.7961E+02	5.3811E+00	-1.4212E+03	1.5703E+03	-1.2853E+03	-42.24
990	-2.4424E+01	-2.2289E+01	-1.4038E+03	1.3804E+03	-1.4272E+03	-45.02
991	-3.1328E+01	-5.6808E+01	-1.4282E+03	1.3842E+03	-1.4723E+03	-44.74

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
885	-8.0231E-02	1.2828E+01	-1.2513E+01	2.0453E+01	-7.7058E+00	-58.64
886	9.9821E+00	8.5530E+00	-1.6062E+01	2.5345E+01	-6.8099E+00	-43.73
990	-2.5209E-02	5.3718E-01	-1.3055E+01	1.3314E+01	-1.2802E+01	-45.62
991	-2.4218E-01	-8.0528E-01	-1.6603E+01	1.6082E+01	-1.7129E+01	-44.51

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
885	6.3621E+03	2.1638E+02	-1.4608E+04	1.8217E+04	-1.1638E+04	-39.06
886	6.3567E+03	1.8925E+02	-1.4855E+04	1.8444E+04	-1.1898E+04	-39.14
990	3.3725E+03	-3.8156E+02	-1.4392E+04	1.6009E+04	-1.3018E+04	-41.28
991	3.3670E+03	-4.0869E+02	-1.4638E+04	1.6239E+04	-1.3281E+04	-41.33

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
885	2.1684E+01	1.3269E+02	-1.2673E+02	2.1553E+02	-6.1163E+01	-56.83
886	1.2039E+02	9.2172E+01	-1.6329E+02	2.7018E+02	-5.7612E+01	-42.53
990	2.3464E+01	2.5572E+00	-1.3187E+02	1.4529E+02	-1.1927E+02	-42.73
991	1.1690E+01	-1.1496E+01	-1.6843E+02	1.6892E+02	-1.6873E+02	-43.03

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
885	3.9589E+02	-5.3894E+02	1.3460E+04	1.3396E+04	-1.3539E+04	44.01
886	5.2119E+02	8.7577E+01	1.3704E+04	1.4010E+04	-1.3402E+04	44.55
990	3.3946E+03	6.0821E+01	1.3776E+04	1.5604E+04	-1.2149E+04	41.55
991	3.5199E+03	6.8733E+02	1.4021E+04	1.6196E+04	-1.1988E+04	42.12

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
885	1.9611E+01	-1.2601E+02	1.2252E+02	8.9324E+01	-1.9572E+02	29.64
886	-8.2104E+01	-8.5064E+01	1.5686E+02	7.3283E+01	-2.4045E+02	44.73
990	2.0986E+01	-7.6330E+00	1.2788E+02	1.3536E+02	-1.2201E+02	41.81
991	1.4701E+01	4.9074E+00	1.6222E+02	1.7210E+02	-1.5249E+02	44.14

ELEMENT ID 988 ----------

LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
892	1.3582E+03	-1.9205E+01	-1.2508E+02	1.3694E+03	-3.0471E+01	-5.15
893	1.3709E+03	4.4493E+01	-1.3016E+02	1.3836E+03	3.1841E+01	-5.55
997	1.3272E+03	-2.5407E+01	-6.4404E+01	1.3302E+03	-2.8467E+01	-2.72
998	1.3399E+03	3.8290E+01	-6.9486E+01	1.3436E+03	3.4591E+01	-3.05

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
892	5.9450E+00	-3.9929E+00	-1.0440E-01	5.9461E+00	-3.9940E+00	-.60
893	7.1151E+00	1.0797E+00	-2.4139E-01	7.1248E+00	1.0701E+00	-2.29
997	8.9683E+00	5.2742E+00	-1.4692E-01	8.9741E+00	5.2684E+00	-2.27
998	5.3263E+00	-8.8816E-01	-2.8391E-01	5.3392E+00	-9.0111E-01	-2.61

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 988 ----------

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
892	-7.1339E+03	1.0115E+02	3.4531E+02	1.1759E+02	-7.1503E+03	87.27
893	-7.1987E+03	-2.2281E+02	3.6750E+02	-2.0350E+02	-7.2180E+03	86.99
997	-7.0655E+03	1.1483E+02	-4.6415E+00	1.1483E+02	-7.0655E+03	-89.96
998	-7.1303E+03	-2.0913E+02	1.7550E+01	-2.0908E+02	-7.1303E+03	89.86
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
892	-3.1044E+01	1.7731E+01	-4.8858E-01	1.7735E+01	-3.1049E+01	-89.43
893	-3.5950E+01	-2.3192E+00	-1.2543E+00	-2.2724E+00	-3.5997E+01	-87.87
997	-4.7818E+01	-2.8804E+01	2.7894E-01	-2.8800E+01	-4.7822E+01	89.16
998	-2.8297E+01	4.9147E+00	-4.8679E-01	4.9219E+00	-2.8304E+01	-89.16

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
892	1.3941E+03	-1.9287E+01	-2.5376E+02	1.4383E+03	-6.3467E+01	-9.88
893	1.4080E+03	5.0064E+01	-2.6078E+02	1.4563E+03	1.7044E+00	-10.51
997	1.3237E+03	-3.3363E+01	-2.0442E+02	1.3538E+03	-6.3485E+01	-8.38
998	1.3376E+03	3.5987E+01	-2.1143E+02	1.3711E+03	2.5027E+00	-9.00
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
892	6.1353E+00	-5.4916E+00	-5.1647E-01	6.1582E+00	-5.5145E+00	-2.54
893	7.8838E+00	2.4800E+00	-1.2590E+00	8.1627E+00	2.2010E+00	-12.49
997	8.9220E+00	5.0943E+00	-3.4429E-01	8.9527E+00	5.0636E+00	-5.10
998	5.3292E+00	-8.3547E-01	-1.0868E+00	5.5152E+00	-1.0215E+00	-9.71

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
892	5.4912E+05	4.4654E+04	3.4662E+04	5.5149E+05	4.2284E+04	3.91
893	5.4497E+05	2.3874E+04	2.2528E+04	5.4594E+05	2.2902E+04	2.47
997	5.3544E+05	4.1917E+04	1.3102E+04	5.3578E+05	4.1570E+04	1.52
998	5.3128E+05	2.1137E+04	9.6801E+02	5.3128E+05	2.1135E+04	.11
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
892	3.9708E+03	5.9077E+02	-2.4461E+01	3.9710E+03	5.9059E+02	-.41
893	3.2152E+03	-1.8616E+03	-7.0005E+01	3.2162E+03	-1.8625E+03	-.79
997	2.4180E+03	-4.0258E+03	4.0195E+01	2.4183E+03	-4.0261E+03	.36
998	4.0432E+03	-4.9434E+02	-5.3486E+00	4.0432E+03	-4.9435E+02	-.07

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
892	1.2612E+03	-1.8492E+01	6.8470E+01	1.2649E+03	-2.2145E+01	3.05
893	1.2719E+03	3.4844E+01	6.6402E+01	1.2754E+03	3.1289E+01	3.06
997	1.2893E+03	-1.2878E+01	1.4388E+02	1.3050E+03	-2.8587E+01	6.23
998	1.2999E+03	4.0457E+01	1.4182E+02	1.3157E+03	2.4686E+01	6.35
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
892	5.4730E+00	-1.6576E+00	5.0652E-01	5.5088E+00	-1.6934E+00	4.04
893	5.7541E+00	-1.0143E+00	1.2658E+00	5.9831E+00	-1.2433E+00	10.25
997	8.7460E+00	5.3605E+00	1.5012E-01	8.7526E+00	5.3538E+00	2.53
998	5.1500E+00	-9.3557E-01	9.0939E-01	5.2830E+00	-1.0686E+00	8.32

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
892	-6.6754E+03	9.2232E+01	1.2713E+03	3.2317E+02	-6.9064E+03	79.70
893	-6.7421E+03	-2.4115E+02	1.3056E+03	1.1249E+01	-6.9945E+03	79.06
997	-6.3269E+03	1.6192E+02	1.0411E+03	3.2486E+02	-6.4899E+03	81.11
998	-6.3936E+03	-1.7146E+02	1.0753E+03	9.1466E+00	-6.5742E+03	80.47

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 988 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
892	-2.9306E+01	2.7202E+01	2.6191E+00	2.7323E+01	-2.9427E+01	87.35
893	-3.8062E+01	-1.2530E+01	6.4376E+00	-1.0999E+01	-3.9594E+01	76.62
997	-4.2646E+01	-2.4489E+01	1.6966E+00	-2.4332E+01	-4.2804E+01	84.71
998	-2.5467E+01	4.0140E+00	5.5151E+00	5.0120E+00	-2.6465E+01	79.74

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
892	9.3521E+02	-1.3916E+01	1.0936E+02	9.4764E+02	-2.6352E+01	6.49
893	9.4275E+02	2.3784E+01	1.0866E+02	9.5542E+02	1.1110E+01	6.65
997	9.7405E+02	-6.1464E+00	1.7132E+02	1.0031E+03	-3.5228E+01	9.63
998	9.8159E+02	3.1553E+01	1.7063E+02	1.0113E+03	1.8363E+00	9.88
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
892	4.0426E+00	-5.7971E-01	5.6715E-01	4.1111E+00	-6.4828E-01	6.89
893	3.9961E+00	-1.3919E+00	1.4114E+00	4.3434E+00	-1.7392E+00	13.83
997	6.6179E+00	4.1238E+00	2.0222E-01	6.6342E+00	4.1075E+00	4.61
998	3.8834E+00	-7.2931E-01	1.0465E+00	4.1097E+00	-9.5561E-01	12.20

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
892	1.7326E+02	-6.5903E-01	-5.2901E+02	6.2241E+02	-4.4981E+02	-40.33
893	1.7812E+02	2.3654E+01	-5.3702E+02	6.4343E+02	-4.4166E+02	-40.91
997	1.1445E+01	-3.3018E+01	-5.7424E+02	5.6389E+02	-5.8546E+02	-43.89
998	1.6308E+01	-8.7050E+00	-5.8226E+02	5.8619E+02	-5.7859E+02	-44.38
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
892	8.8943E-01	-6.2169E+00	-1.6881E+00	1.2700E+00	-6.5975E+00	-12.71
893	3.2823E+00	5.7503E+00	-4.1692E+00	8.8643E+00	1.6829E-01	-53.24
997	-1.6323E-02	-6.1779E-01	-8.1123E-01	5.4812E-01	-1.1822E+00	-34.83
998	1.1365E-01	1.9536E-01	-3.2924E+00	3.4471E+00	-3.1381E+00	-45.36

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
892	-1.3040E+02	1.1131E-01	5.0805E+02	4.4708E+02	-5.7737E+02	48.66
893	-1.3475E+02	-2.1655E+01	5.1566E+02	4.4055E+02	-5.9695E+02	48.13
997	2.5208E+01	3.1230E+01	5.5345E+02	5.8167E+02	-5.2524E+02	45.16
998	2.0854E+01	9.4635E+00	5.6105E+02	5.7624E+02	-5.4592E+02	44.71
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
892	-6.9743E-01	5.9017E+00	1.6292E+00	6.2821E+00	-1.0777E+00	76.86
893	-2.9791E+00	-5.5301E+00	4.0244E+00	-3.2861E-02	-8.4763E+00	36.21
997	2.6090E-01	7.4123E-01	7.8034E-01	1.3175E+00	-3.1539E-01	53.55
998	3.5708E-02	-2.1312E-01	3.1755E+00	3.0892E+00	-3.2667E+00	43.88

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
892	-1.4847E+02	2.0059E-01	5.5758E+02	4.8838E+02	-6.3665E+02	48.80
893	-1.5329E+02	-2.3923E+01	5.6595E+02	4.8102E+02	-6.5824E+02	48.26
997	2.2271E+01	3.4345E+01	6.0712E+02	6.3545E+02	-5.7884E+02	45.29
998	1.7445E+01	1.0221E+01	6.1548E+02	6.2932E+02	-6.0166E+02	44.83
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
892	-7.8872E-01	6.4876E+00	1.7869E+00	6.9027E+00	-1.2038E+00	76.92
893	-3.2954E+00	-6.0682E+00	4.4137E+00	-5.5402E-02	-9.3081E+00	36.28
997	2.4978E-01	7.9144E-01	8.5620E-01	1.4186E+00	-3.7740E-01	53.78
998	1.7602E-02	-2.3009E-01	3.4830E+00	3.3790E+00	-3.5915E+00	43.98

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 988 ----------
LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
892	1.6551E+02	-4.9094E-01	-5.4541E+02	6.3420E+02	-4.6918E+02	-40.67
893	1.7041E+02	2.3999E+01	-5.5364E+02	6.5566E+02	-4.6125E+02	-41.23
997	-1.3739E+00	-3.3865E+01	-5.9276E+02	5.7536E+02	-6.1060E+02	-44.22
998	3.5250E+00	-9.3749E+00	-6.0099E+02	5.9810E+02	-6.0395E+02	-44.69

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
892	8.5983E-01	-6.3849E+00	-1.7433E+00	1.2575E+00	-6.7825E+00	-12.85
893	3.3211E+00	5.9313E+00	-4.3058E+00	9.1255E+00	1.2690E-01	-53.43
997	-1.0606E-01	-6.9074E-01	-8.3678E-01	4.8798E-01	-1.2848E+00	-35.37
998	6.4453E-02	2.1069E-01	-3.3993E+00	3.5377E+00	-3.2625E+00	-45.62

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
892	6.5594E+02	1.0074E+01	-5.3885E+03	5.7311E+03	-5.0651E+03	-43.29
893	6.9563E+02	2.0849E+02	-5.4675E+03	5.9250E+03	-5.0209E+03	-43.72
997	-1.0038E+03	-3.2184E+02	-5.9094E+03	5.2564E+03	-6.5820E+03	-46.65
998	-9.6408E+02	-1.2342E+02	-5.9884E+03	5.4594E+03	-6.5469E+03	-47.01

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
892	4.3169E+00	-6.0755E+01	-1.7529E+01	8.7384E+00	-6.5176E+01	-14.16
893	2.7958E+01	5.8532E+01	-4.3162E+01	8.9034E+01	-2.5438E+00	-54.75
997	-7.7616E+00	-1.0891E+01	-8.4328E+00	-7.4960E-01	-1.7903E+01	-39.74
998	-3.3233E+00	2.7879E+00	-3.4065E+01	3.3934E+01	-3.4470E+01	-47.56

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
892	-2.5006E+03	1.6694E+01	5.3849E+03	4.2881E+03	-6.7720E+03	51.58
893	-2.5565E+03	-2.6284E+02	5.4684E+03	4.1777E+03	-6.9970E+03	50.92
997	-8.5222E+02	3.4634E+02	5.8054E+03	5.5833E+03	-6.0892E+03	47.95
998	-9.0813E+02	6.6807E+01	5.8889E+03	5.4884E+03	-6.3297E+03	47.37

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
892	-1.2361E+01	6.4220E+01	1.7107E+01	6.7868E+01	-1.6008E+01	77.96
893	-3.6816E+01	-5.8094E+01	4.2092E+01	-4.0392E+00	-9.0871E+01	37.91
997	-4.8110E+00	3.3305E+00	8.3661E+00	8.5636E+00	-1.0044E+01	57.97
998	-4.1041E+00	-1.4849E+00	3.3351E+01	3.0582E+01	-3.6171E+01	46.12

ELEMENT ID 989 ----------
LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
893	9.2539E+02	-4.4611E+01	-1.4137E+02	9.4557E+02	-6.4796E+01	-8.13
894	9.4187E+02	3.7827E+01	-1.4143E+02	9.6348E+02	1.6217E+01	-8.69
998	9.3046E+02	-4.3596E+01	-6.8182E+01	9.3521E+02	-4.8346E+01	-3.98
999	9.4694E+02	3.8840E+01	-6.8238E+01	9.5204E+02	3.3741E+01	-4.27

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
893	5.6831E+00	7.9331E-01	-4.3011E-01	5.7207E+00	7.5577E-01	-4.99
894	5.1460E+00	8.7045E-01	-6.9768E-01	5.2569E+00	7.5948E-01	-9.04
998	6.0913E+00	-7.3518E-01	-3.9269E-01	6.1138E+00	-7.5770E-01	-3.28
999	3.6404E+00	-8.8615E-01	-6.6026E-01	3.7348E+00	-9.8050E-01	-8.13

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
893	-4.8523E+03	2.4647E+02	4.1520E+02	2.8006E+02	-4.8859E+03	85.38
894	-4.9415E+03	-1.9957E+02	4.0974E+02	-1.6442E+02	-4.9766E+03	85.10
998	-4.9544E+03	2.2605E+02	2.4432E+01	2.2616E+02	-4.9545E+03	89.73
999	-5.0436E+03	-2.1999E+02	1.8975E+01	-2.1991E+02	-5.0437E+03	89.77

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 989 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
893	-3.0259E+01	-1.1810E+00	-7.3041E-01	-1.1627E+00	-3.0277E+01	-88.56
894	-2.4964E+01	-2.5571E+00	-1.5261E-01	-2.5561E+00	-2.4965E+01	-89.61
998	-3.2365E+01	4.1012E+00	-1.0606E+00	4.1321E+00	-3.2395E+01	-88.34
999	-1.9440E+01	4.4988E+00	-4.8282E-01	4.5085E+00	-1.9450E+01	-88.85

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
893	9.5380E+02	-4.0771E+01	-2.7711E+02	1.0258E+03	-1.1277E+02	-14.56
894	9.6963E+02	3.8377E+01	-2.7953E+02	1.0471E+03	-3.9087E+01	-15.49
998	9.2869E+02	-4.5794E+01	-2.0455E+02	9.6988E+02	-8.6989E+01	-11.39
999	9.4451E+02	3.3353E+01	-2.0698E+02	9.8933E+02	-1.1460E+01	-12.22
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
893	5.6790E+00	2.0390E+00	-1.6455E+00	6.3126E+00	1.4054E+00	-21.06
894	6.1187E+00	1.7021E+00	-2.2578E+00	7.0686E+00	7.5220E-01	-22.82
998	6.0933E+00	-6.8269E-01	-1.6607E+00	6.4784E+00	-1.0678E+00	-13.06
999	3.6190E+00	-9.6518E-01	-2.2729E+00	4.5549E+00	-1.9011E+00	-22.38

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
893	6.2444E+05	3.9768E+04	4.8381E+03	6.2448E+05	3.9728E+04	.47
894	6.2507E+05	4.2950E+04	-8.1822E+03	6.2519E+05	4.2835E+04	-.81
998	6.0043E+05	3.4966E+04	1.6956E+03	6.0043E+05	3.4961E+04	.17
999	6.0106E+05	3.8148E+04	-1.1325E+04	6.0129E+05	3.7920E+04	-1.15
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
893	3.3902E+03	-1.8266E+03	3.8685E+01	3.3905E+03	-1.8269E+03	.42
894	4.1034E+03	-5.0684E+02	2.9350E+01	4.1036E+03	-5.0702E+02	.36
998	3.9229E+03	-5.1840E+02	-2.4402E+01	3.9230E+03	-5.1853E+02	-.31
999	3.3809E+03	-2.6871E+03	-3.3737E+01	3.3811E+03	-2.6873E+03	-.32

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
893	8.5347E+02	-4.8837E+01	6.3101E+01	8.5786E+02	-5.3228E+01	3.98
894	8.7040E+02	3.5788E+01	6.6534E+01	8.7567E+02	3.0517E+01	4.53
998	9.0290E+02	-3.8950E+01	1.3488E+02	9.2184E+02	-5.7884E+01	7.99
999	9.1983E+02	4.5673E+01	1.3831E+02	9.4119E+02	2.4312E+01	8.78
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
893	5.5066E+00	-1.0638E+00	1.3746E+00	5.7826E+00	-1.3398E+00	11.35
894	3.5473E+00	-3.7628E-01	1.6232E+00	4.1318E+00	-9.6076E-01	19.80
998	5.8919E+00	-7.8722E-01	1.4884E+00	6.2085E+00	-1.1039E+00	12.01
999	3.5535E+00	-7.4146E-01	1.7370E+00	4.1680E+00	-1.3560E+00	19.48

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
893	-4.5687E+03	1.9352E+02	1.3865E+03	5.6777E+02	-4.9430E+03	74.89
894	-4.6440E+03	-1.8303E+02	1.3992E+03	2.1953E+02	-5.0466E+03	73.95
998	-4.4407E+03	2.1913E+02	1.0398E+03	4.4063E+02	-4.6622E+03	77.97
999	-4.5160E+03	-1.5742E+02	1.0526E+03	8.3466E+01	-4.7569E+03	77.11
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
893	-2.7177E+01	-1.0353E+01	8.3777E+00	-6.8930E+00	-3.0637E+01	67.56
894	-2.9695E+01	-8.6110E+00	1.1456E+01	-3.5842E+00	-3.4721E+01	66.31
998	-2.9116E+01	3.2841E+00	8.4660E+00	5.3628E+00	-3.1195E+01	76.20
999	-1.7312E+01	4.6353E+00	1.1545E+01	9.5897E+00	-2.2266E+01	66.77

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 989 ----------
LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
893	6.3102E+02	-3.8561E+01	1.0847E+02	6.4815E+02	-5.5694E+01	8.98
894	6.4408E+02	2.6746E+01	1.1212E+02	6.6381E+02	7.0146E+00	9.98
998	6.8186E+02	-2.8393E+01	1.6290E+02	7.1744E+02	-6.3972E+01	12.32
999	6.9492E+02	3.6913E+01	1.6655E+02	7.3467E+02	-2.8400E+00	13.42
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
893	4.1560E+00	-1.3599E+00	1.5821E+00	4.5776E+00	-1.7815E+00	14.92
894	2.2397E+00	-6.5531E-01	1.9242E+00	3.2001E+00	-1.6156E+00	26.52
998	4.4435E+00	-6.1731E-01	1.6916E+00	4.9568E+00	-1.1306E+00	16.88
999	2.6900E+00	-5.2385E-01	2.0336E+00	3.6749E+00	-1.5088E+00	25.84

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
893	1.3422E+02	1.4875E+01	-5.5821E+02	6.3594E+02	-4.8685E+02	-41.95
894	1.3183E+02	2.9720E+00	-5.6791E+02	6.3896E+02	-5.0415E+02	-41.76
998	1.0760E+01	-9.8164E+00	-5.5942E+02	5.5998E+02	-5.5904E+02	-44.47
999	8.3791E+00	-2.1719E+01	-5.6912E+02	5.6265E+02	-5.7599E+02	-44.24
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
893	9.1978E-02	5.1122E+00	-4.9827E+00	8.1813E+00	-2.9772E+00	-58.37
894	4.0797E+00	3.4151E+00	-6.3985E+00	1.0155E+01	-2.6598E+00	-43.51
998	1.2400E-01	1.9744E-01	-5.1973E+00	5.3581E+00	-5.0367E+00	-45.20
999	-1.6188E-02	-3.3957E-01	-6.6131E+00	6.4372E+00	-6.7929E+00	-44.30

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
893	-1.0448E+02	-1.5602E+01	5.3584E+02	4.7764E+02	-5.9772E+02	47.37
894	-1.0173E+02	-1.8399E+00	5.4522E+02	4.9572E+02	-5.9929E+02	47.62
998	1.5026E+01	8.2996E+00	5.3901E+02	5.5068E+02	-5.2735E+02	44.82
999	1.7779E+01	2.2062E+01	5.4839E+02	5.6831E+02	-5.2847E+02	45.11
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
893	6.6391E-02	-4.9210E+00	4.8058E+00	2.9869E+00	-7.8416E+00	31.29
894	-3.8038E+00	-3.2780E+00	6.1674E+00	2.6321E+00	-9.7139E+00	46.22
998	4.6613E-02	-2.1094E-01	5.0143E+00	4.9337E+00	-5.0981E+00	44.26
999	1.1513E-01	3.0408E-01	6.3758E+00	6.5861E+00	-6.1669E+00	45.42

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
893	-1.1830E+02	-1.6926E+01	5.8812E+02	5.2269E+02	-6.5791E+02	47.46
894	-1.1535E+02	-2.1697E+00	5.9841E+02	5.4232E+02	-6.5983E+02	47.70
998	1.2712E+01	9.2761E+00	5.9130E+02	6.0229E+02	-5.8031E+02	44.92
999	1.5663E+01	2.4033E+01	6.0158E+02	6.2144E+02	-5.8175E+02	45.20
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
893	4.9791E-02	-5.3991E+00	5.2713E+00	3.2590E+00	-8.6084E+00	31.33
894	-4.1917E+00	-3.5980E+00	6.7653E+00	2.8770E+00	-1.0667E+01	46.26
998	2.6464E-02	-2.2832E-01	5.4997E+00	5.4002E+00	-5.6021E+00	44.34
999	1.1151E-01	3.3701E-01	6.9937E+00	7.2189E+00	-6.7704E+00	45.46

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
893	1.2948E+02	1.5814E+01	-5.7543E+02	6.5087E+02	-5.0558E+02	-42.18
894	1.2685E+02	2.6936E+00	-5.8545E+02	6.5351E+02	-5.2396E+02	-41.97
998	1.8647E+00	-9.7087E+00	-5.7740E+02	5.7351E+02	-5.8135E+02	-44.71
999	-7.5935E-01	-2.2829E+01	-5.8742E+02	5.7573E+02	-5.9932E+02	-44.46

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

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JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
893	3.8533E-02	5.2748E+00	-5.1446E+00	8.4291E+00	-3.1158E+00	-58.49
894	4.1646E+00	3.5205E+00	-6.6049E+00	1.0455E+01	-2.7702E+00	-43.60
998	6.7538E-02	2.1131E-01	-5.3666E+00	5.5065E+00	-5.2277E+00	-45.38
999	-5.2928E-02	-3.4207E-01	-6.8270E+00	6.6310E+00	-7.0260E+00	-44.39

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
893	6.1687E+02	1.9276E+02	-5.6776E+03	6.0864E+03	-5.2767E+03	-43.93
894	5.7824E+02	-3.8555E-01	-5.7779E+03	6.0741E+03	-5.4962E+03	-43.57
998	-6.7523E+02	-6.5669E+01	-5.7530E+03	5.3906E+03	-6.1315E+03	-46.52
999	-7.1385E+02	-2.5881E+02	-5.8533E+03	5.3714E+03	-6.3441E+03	-46.11

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
893	-3.9565E+00	5.2149E+01	-5.1444E+01	8.2692E+01	-3.4499E+01	-59.30
894	3.7975E+01	3.4353E+01	-6.5910E+01	1.0210E+02	-2.9771E+01	-44.21
998	-3.8631E+00	2.6800E+00	-5.3713E+01	5.3221E+01	-5.4404E+01	-46.74
999	-3.2468E+00	-2.7821E+00	-6.8179E+01	6.5165E+01	-7.1193E+01	-45.10

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
893	-1.8681E+03	-1.2517E+02	5.6870E+03	4.7567E+03	-6.7500E+03	49.36
894	-1.8534E+03	-5.1651E+01	5.7841E+03	4.9013E+03	-6.8063E+03	49.43
998	-6.2477E+02	1.2350E+02	5.6594E+03	5.4211E+03	-5.9224E+03	46.89
999	-6.1007E+02	1.9701E+02	5.7565E+03	5.5641E+03	-5.9772E+03	47.01

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
893	-3.9721E+00	-5.1525E+01	5.0362E+01	2.7944E+01	-8.3441E+01	32.36
894	-4.3805E+01	-3.4419E+01	6.4723E+01	2.5781E+01	-1.0401E+02	47.07
998	-4.6332E+00	-1.5908E+00	5.2506E+01	4.9416E+01	-5.5640E+01	45.83
999	-1.8571E+00	3.9113E+00	6.6867E+01	6.7956E+01	-6.5902E+01	46.24

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LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
900	-2.5352E+02	3.6495E+00	5.7171E+00	3.7765E+00	-2.5365E+02	88.73
901	-2.5579E+02	-7.6872E+00	6.4132E+00	-7.5215E+00	-2.5596E+02	88.52
1005	-2.5316E+02	3.7213E+00	-7.4338E+00	3.9363E+00	-2.5338E+02	-88.34
1006	-2.5543E+02	-7.6151E+00	-6.7376E+00	-7.4321E+00	-2.5561E+02	-88.44

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
900	-1.1057E+00	5.4812E-01	-3.7964E-02	5.4899E-01	-1.1066E+00	-88.69
901	-1.2464E+00	-8.3766E-03	-9.7114E-02	-8.0513E-04	-1.2540E+00	-85.54
1005	-1.7139E+00	-1.0274E+00	2.5811E-04	-1.0274E+00	-1.7139E+00	89.98
1006	-1.0138E+00	1.7611E-01	-5.8892E-02	1.7902E-01	-1.0167E+00	-87.17

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
900	1.3843E+03	-1.9456E+01	-1.6136E+02	1.4026E+03	-3.7766E+01	-6.47
901	1.3975E+03	4.6537E+01	-1.6703E+02	1.4178E+03	2.6192E+01	-6.94
1005	1.3423E+03	-2.7863E+01	-1.0302E+02	1.3500E+03	-3.5565E+01	-4.28
1006	1.3555E+03	3.8129E+01	-1.0868E+02	1.3644E+03	2.9222E+01	-4.68

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
900	6.0681E+00	-4.4464E+00	-2.1697E-01	6.0726E+00	-4.4509E+00	-1.18
901	7.4088E+00	1.4711E+00	-5.1931E-01	7.4539E+00	1.4260E+00	-4.96
1005	9.0641E+00	5.2903E+00	-2.0206E-01	9.0749E+00	5.2795E+00	-3.06
1006	5.3914E+00	-8.8484E-01	-5.0439E-01	5.4316E+00	-9.2512E-01	-4.57

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 996 ----------
LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
900	-2.3767E+02	3.6052E+00	-4.7230E+01	1.2521E+01	-2.4658E+02	-79.31
901	-2.3946E+02	-5.3634E+00	-4.7332E+01	3.8444E+00	-2.4867E+02	-78.99
1005	-2.5351E+02	4.3643E-01	-6.4989E+01	1.6102E+01	-2.6918E+02	-76.45
1006	-2.5530E+02	-8.5320E+00	-6.5091E+01	7.5847E+00	-2.7142E+02	-76.09
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
900	-1.0232E+00	-7.1348E-02	-2.0722E-01	-2.8193E-02	-1.0663E+00	-78.24
901	-9.2503E-01	5.6753E-01	-5.1523E-01	7.2811E-01	-1.0856E+00	-72.69
1005	-1.7257E+00	-1.0952E+00	-8.0953E-02	-1.0850E+00	-1.7359E+00	-82.80
1006	-1.0084E+00	1.9670E-01	-3.8896E-01	3.1134E-01	-1.1230E+00	-73.58

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
900	-2.1474E+05	1.9560E+03	1.1736E+04	2.5897E+03	-2.1537E+05	86.91
901	-2.1649E+05	-6.7786E+03	1.2447E+04	-6.0424E+03	-2.1722E+05	86.62
1005	-2.1054E+05	2.7964E+03	2.4382E+03	2.8242E+03	-2.1056E+05	89.35
1006	-2.1228E+05	-5.9381E+03	3.1491E+03	-5.8900E+03	-2.1233E+05	89.13
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
900	-8.2182E+02	7.7464E+02	-2.4715E+01	7.7502E+02	-8.2220E+02	-89.11
901	-1.1053E+03	-1.4149E+02	-3.6016E+01	-1.4015E+02	-1.1066E+03	-87.86
1005	-1.4417E+03	-1.1771E+03	4.1317E+00	-1.1771E+03	-1.4418E+03	89.11
1006	-8.2408E+02	2.0970E+02	-7.1690E+00	2.0975E+02	-8.2413E+02	-89.60

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
900	-2.6878E+02	3.5982E+00	8.3573E+01	2.7196E+01	-2.9238E+02	74.23
901	-2.7168E+02	-1.0867E+01	8.5423E+01	1.4621E+01	-2.9716E+02	73.39
1005	-2.4455E+02	8.4452E+00	7.7636E+01	3.0369E+01	-2.6647E+02	74.23
1006	-2.4744E+02	-6.0197E+00	7.9486E+01	1.7801E+01	-2.7126E+02	73.32
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
900	-1.1920E+00	1.4438E+00	2.1265E-01	1.4609E+00	-1.2091E+00	85.42
901	-1.6804E+00	-8.5728E-01	5.2225E-01	-6.0390E-01	-1.9337E+00	64.12
1005	-1.6418E+00	-8.9434E-01	1.1983E-01	-8.7559E-01	-1.6605E+00	81.11
1006	-9.8926E-01	1.4009E-01	4.2943E-01	2.8483E-01	-1.1340E+00	71.37

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
900	1.1278E+03	-1.7212E+01	2.4650E+02	1.1786E+03	-6.8026E+01	11.65
901	1.1361E+03	2.4648E+01	2.4731E+02	1.1887E+03	-2.7897E+01	12.00
1005	1.2101E+03	-7.4212E-01	3.3307E+02	1.2957E+03	-8.6314E+01	14.41
1006	1.2185E+03	4.1118E+01	3.3389E+02	1.3066E+03	-4.6977E+01	14.78
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
900	4.8434E+00	5.6322E-01	1.0606E+00	5.0918E+00	3.1484E-01	13.18
901	4.2925E+00	-2.9252E+00	2.6289E+00	5.1485E+00	-3.7812E+00	18.04
1005	8.2415E+00	5.2609E+00	4.2477E-01	8.3008E+00	5.2015E+00	7.95
1006	4.8103E+00	-9.4851E-01	1.9931E+00	5.4328E+00	-1.5710E+00	17.35

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
900	-2.0987E+02	2.7340E+00	8.6795E+01	3.3668E+01	-2.4080E+02	70.38
901	-2.1226E+02	-9.2400E+00	8.8550E+01	2.3954E+01	-2.4546E+02	69.45
1005	-1.8431E+02	7.8445E+00	8.4384E+01	3.9640E+01	-2.1611E+02	69.35
1006	-1.8671E+02	-4.1294E+00	8.6139E+01	3.0095E+01	-2.2093E+02	68.33

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

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JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
900	-9.3620E-01	1.3671E+00	2.3633E-01	1.3911E+00	-9.6019E-01	84.20
901	-1.4118E+00	-9.0513E-01	5.8153E-01	-5.2413E-01	-1.7928E+00	56.77
1005	-1.2331E+00	-6.4418E-01	1.2680E-01	-6.1804E-01	-1.2593E+00	78.35
1006	-7.4864E-01	9.6439E-02	4.7200E-01	3.0740E-01	-9.5960E-01	65.92

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
900	6.0212E+01	-1.1421E-01	-2.1662E+02	2.4876E+02	-1.8866E+02	-41.04
901	6.2109E+01	9.3702E+00	-2.1987E+02	2.5719E+02	-1.8571E+02	-41.58
1005	-6.1165E+00	-1.3379E+01	-2.3573E+02	2.2601E+02	-2.4550E+02	-44.56
1006	-4.2193E+00	-3.8943E+00	-2.3898E+02	2.3493E+02	-2.4304E+02	-45.02
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
900	3.1753E-01	-2.5254E+00	-6.9348E-01	4.7767E-01	-2.6855E+00	-13.00
901	1.2925E+00	2.3573E+00	-1.7133E+00	3.6190E+00	3.0821E-02	-53.63
1005	-7.9865E-02	-2.9713E-01	-3.3236E-01	1.6116E-01	-5.3816E-01	-35.95
1006	3.3116E-03	8.7615E-02	-1.3521E+00	1.3983E+00	-1.3073E+00	-45.89

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
900	-6.5148E+01	2.1025E-01	2.0960E+02	1.7966E+02	-2.4460E+02	49.43
901	-6.7044E+01	-9.2698E+00	2.1276E+02	1.7656E+02	-2.5287E+02	48.87
1005	-1.0080E+00	1.3037E+01	2.2771E+02	2.3383E+02	-2.2181E+02	45.88
1006	-2.9043E+00	3.5570E+00	2.3088E+02	2.3123E+02	-2.3057E+02	45.40
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
900	-3.3723E-01	2.4567E+00	6.6946E-01	2.6088E+00	-4.8936E-01	77.20
901	-1.2838E+00	-2.2795E+00	1.6538E+00	-5.4452E-02	-3.5088E+00	36.62
1005	3.0358E-02	2.5920E-01	3.2134E-01	4.8589E-01	-1.9633E-01	54.80
1006	-3.0919E-02	-7.9897E-02	1.3057E+00	1.2505E+00	-1.3614E+00	44.46

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
900	-7.0408E+01	2.1572E-01	2.2979E+02	1.9740E+02	-2.6759E+02	49.37
901	-7.2478E+01	-1.0133E+01	2.3326E+02	1.9403E+02	-2.7664E+02	48.81
1005	-8.0556E-02	1.4280E+01	2.4971E+02	2.5691E+02	-2.4271E+02	45.82
1006	-2.1507E+00	3.9311E+00	2.5318E+02	2.5409E+02	-2.5231E+02	45.34
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
900	-3.6530E-01	2.6915E+00	7.3421E-01	2.8587E+00	-5.3251E-01	77.17
901	-1.4026E+00	-2.4993E+00	1.8138E+00	-5.6051E-02	-3.8458E+00	36.59
1005	4.0224E-02	2.8837E-01	3.5236E-01	5.3786E-01	-2.0927E-01	54.70
1006	-2.9800E-02	-8.8318E-02	1.4319E+00	1.3732E+00	-1.4913E+00	44.41

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
900	6.4742E+01	-1.5425E-01	-2.2389E+02	2.5853E+02	-1.9394E+02	-40.88
901	6.6725E+01	9.7590E+00	-2.2726E+02	2.6728E+02	-1.9080E+02	-41.43
1005	-3.8015E+00	-1.3862E+01	-2.4351E+02	2.3473E+02	-2.5239E+02	-44.41
1006	-1.8185E+00	-3.9484E+00	-2.4688E+02	2.4400E+02	-2.4976E+02	-44.88
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
900	3.3912E-01	-2.6149E+00	-7.1622E-01	5.0361E-01	-2.7794E+00	-12.93
901	1.3480E+00	2.4360E+00	-1.7694E+00	3.7431E+00	4.0810E-02	-53.55
1005	-6.5475E-02	-2.9682E-01	-3.4345E-01	1.8126E-01	-5.4355E-01	-35.69
1006	1.3509E-02	8.8783E-02	-1.3966E+00	1.4483E+00	-1.3460E+00	-45.77

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 996 ----------
LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
900	8.4145E+02	-4.2776E+00	-2.2585E+03	2.7163E+03	-1.8792E+03	-39.70
901	8.6312E+02	1.0405E+02	-2.2930E+03	2.8078E+03	-1.8406E+03	-40.30
1005	1.5075E+02	-1.4240E+02	-2.4462E+03	2.4548E+03	-2.4464E+03	-43.29
1006	1.7242E+02	-3.4082E+01	-2.4807E+03	2.5520E+03	-2.4136E+03	-43.81
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
900	4.2360E+00	-2.6764E+01	-7.1775E+00	5.8172E+00	-2.8345E+01	-12.42
901	1.4512E+01	2.4558E+01	-1.7741E+01	3.7973E+01	1.0968E+00	-52.90
1005	6.2087E-01	-2.2202E+00	-3.4495E+00	2.9309E+00	-4.5302E+00	-33.81
1006	8.9291E-01	7.6193E-01	-1.4013E+01	1.4840E+01	-1.3185E+01	-44.87

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
900	-4.6542E+02	-8.8372E-01	2.1772E+03	1.9564E+03	-2.4227E+03	48.04
901	-4.8326E+02	-9.0092E+01	2.2096E+03	1.9317E+03	-2.5050E+03	47.54
1005	2.0235E+02	1.3266E+02	2.3769E+03	2.5446E+03	-2.2096E+03	44.58
1006	1.8450E+02	4.3449E+01	2.4093E+03	2.5243E+03	-2.2963E+03	44.16
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
900	-2.5772E+00	2.5141E+01	6.9961E+00	2.6807E+01	-4.2429E+00	76.61
901	-1.2327E+01	-2.3749E+01	1.7298E+01	1.7838E-01	-3.6254E+01	35.86
1005	1.7566E+00	3.5601E+00	3.3366E+00	6.1147E+00	-7.9800E-01	52.56
1006	5.3048E-01	-9.7918E-01	1.3638E+01	1.3434E+01	-1.3883E+01	43.42

ELEMENT ID 997 ----------
LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
901	-1.7217E+02	9.0360E+00	7.8236E+00	9.3732E+00	-1.7251E+02	87.53
902	-1.7541E+02	-7.1259E+00	7.5000E+00	-6.7923E+00	-1.7574E+02	87.45
1006	-1.7739E+02	7.9937E+00	-6.2016E+00	8.2009E+00	-1.7759E+02	-88.09
1007	-1.8062E+02	-8.1680E+00	-6.5252E+00	-7.9215E+00	-1.8087E+02	-87.84
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
901	-1.0825E+00	2.4418E-02	-8.9070E-02	3.1540E-02	-1.0896E+00	-85.43
902	-8.4287E-01	-4.8981E-02	-8.6666E-02	-3.9631E-02	-8.5223E-01	-83.84
1006	-1.1596E+00	1.4695E-01	-1.0359E-01	1.5511E-01	-1.1677E+00	-85.50
1007	-6.9595E-01	1.5771E-01	-1.0119E-01	1.6954E-01	-7.0778E-01	-83.33

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
901	9.4426E+02	-4.4110E+01	-1.7976E+02	9.7594E+02	-7.5789E+01	-9.99
902	9.6077E+02	3.8432E+01	-1.8046E+02	9.9482E+02	4.3817E+00	-10.69
1006	9.4123E+02	-4.4716E+01	-1.0586E+02	9.5247E+02	-5.5954E+01	-6.06
1007	9.5773E+02	3.7825E+01	-1.0655E+02	9.6992E+02	2.5644E+01	-6.52
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
901	5.7507E+00	1.1395E+00	-7.6380E-01	5.8739E+00	1.0163E+00	-9.16
902	5.4710E+00	1.1053E+00	-1.1278E+00	5.7451E+00	8.3114E-01	-13.66
1006	6.1653E+00	-7.3007E-01	-7.4016E-01	6.2439E+00	-8.0862E-01	-6.06
1007	3.6787E+00	-9.1817E-01	-1.1041E+00	3.9302E+00	-1.1696E+00	-12.83

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
901	-1.5975E+02	1.0579E+01	-4.8036E+01	2.3193E+01	-1.7236E+02	-75.29
902	-1.6324E+02	-6.8704E+00	-4.9333E+01	7.3930E+00	-1.7750E+02	-73.87
1006	-1.7735E+02	7.0578E+00	-6.2264E+01	2.6112E+01	-1.9641E+02	-72.99
1007	-1.8084E+02	-1.0392E+01	-6.3562E+01	1.0700E+01	-2.0194E+02	-71.64

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 997 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
901	-1.0796E+00	5.3661E-01	-5.8862E-01	7.2826E-01	-1.2713E+00	-71.97
902	-4.3923E-01	2.9271E-01	-7.2803E-01	7.4158E-01	-8.8809E-01	-58.34
1006	-1.1540E+00	1.6757E-01	-6.2472E-01	4.1614E-01	-1.4026E+00	-68.30
1007	-7.0167E-01	1.2463E-01	-7.6412E-01	5.8015E-01	-1.1572E+00	-59.20

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
901	-1.4741E+05	7.0371E+03	1.4958E+04	8.4723E+03	-1.4884E+05	84.52
902	-1.4996E+05	-5.7339E+03	1.4972E+04	-4.1961E+03	-1.5150E+05	84.14
1006	-1.5036E+05	6.4476E+03	3.2531E+03	6.5150E+03	-1.5042E+05	88.81
1007	-1.5291E+05	-6.3232E+03	3.2675E+03	-6.2504E+03	-1.5298E+05	88.72
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
901	-9.3875E+02	-1.0819E+02	-5.5195E+00	-1.0815E+02	-9.3879E+02	-89.62
902	-7.7644E+02	-7.9370E+01	3.1446E+01	-7.7954E+01	-7.7786E+02	87.42
1006	-9.4585E+02	1.8536E+02	-1.5423E+01	1.8557E+02	-9.4606E+02	-89.22
1007	-6.1044E+02	1.1744E+02	2.1542E+01	1.1808E+02	-6.1108E+02	88.31

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
901	-1.8498E+02	6.4718E+00	8.9905E+01	4.2071E+01	-2.2058E+02	68.40
902	-1.8773E+02	-7.2745E+00	9.1028E+01	3.0666E+01	-2.2567E+02	67.37
1006	-1.7175E+02	9.1177E+00	7.6628E+01	3.7217E+01	-1.9985E+02	69.86
1007	-1.7450E+02	-4.6284E+00	7.7750E+01	2.5584E+01	-2.0471E+02	68.76
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
901	-1.0521E+00	-7.3162E-01	6.5008E-01	-2.2232E-01	-1.5614E+00	51.92
902	-1.4109E+00	-5.5136E-01	8.6145E-01	-1.8429E-02	-1.9438E+00	58.26
1006	-1.1307E+00	1.1182E-01	6.6783E-01	4.0268E-01	-1.4215E+00	66.47
1007	-6.6522E-01	2.0143E-01	8.7920E-01	7.4829E-01	-1.2121E+00	58.12

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
901	7.5725E+02	-5.1129E+01	2.5148E+02	8.2910E+02	-1.2298E+02	15.94
902	7.7400E+02	3.2648E+01	2.5804E+02	8.5497E+02	-4.8324E+01	17.42
1006	8.4652E+02	-3.3274E+01	3.1952E+02	9.5031E+02	-1.3707E+02	18.00
1007	8.6327E+02	5.0501E+01	3.2607E+02	9.7792E+02	-6.4145E+01	19.37
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
901	5.1569E+00	-2.7523E+00	3.0111E+00	6.1728E+00	-3.7682E+00	18.64
902	1.9377E+00	-1.5162E+00	3.7323E+00	4.3232E+00	-3.9017E+00	32.58
1006	5.5053E+00	-8.0952E-01	3.1925E+00	6.8381E+00	-2.1422E+00	22.66
1007	3.3517E+00	-5.8112E-01	3.9136E+00	5.7652E+00	-2.9946E+00	31.66

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
901	-1.4511E+02	4.1893E+00	9.2879E+01	4.8699E+01	-1.8962E+02	64.40
902	-1.4707E+02	-5.6021E+00	9.4163E+01	4.1434E+01	-1.9411E+02	63.46
1006	-1.2957E+02	7.2977E+00	8.2954E+01	4.6403E+01	-1.6868E+02	64.76
1007	-1.3153E+02	-2.4935E+00	8.4238E+01	3.9095E+01	-1.7312E+02	63.72
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
901	-7.9492E-01	-7.8176E-01	7.1450E-01	-7.3813E-02	-1.5029E+00	45.26
902	-1.2454E+00	-5.6928E-01	9.3757E-01	8.9320E-02	-1.9040E+00	54.91
1006	-8.5539E-01	7.5093E-02	7.3757E-01	4.8189E-01	-1.2622E+00	61.12
1007	-4.9923E-01	1.6678E-01	9.6064E-01	8.5050E-01	-1.1829E+00	54.56

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 997 ----------
LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
901	4.7679E+01	6.4850E+00	-2.2850E+02	2.5651E+02	-2.0235E+02	-42.42
902	4.6565E+01	9.1425E-01	-2.3249E+02	2.5735E+02	-2.0987E+02	-42.20
1006	-3.1620E+00	-3.6835E+00	-2.2959E+02	2.2617E+02	-2.3302E+02	-44.97
1007	-4.2761E+00	-9.2542E+00	-2.3359E+02	2.2683E+02	-2.4036E+02	-44.69

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
901	-8.3810E-03	2.0972E+00	-2.0465E+00	3.3458E+00	-1.2570E+00	-58.61
902	1.6366E+00	1.3979E+00	-2.6269E+00	4.1469E+00	-1.1123E+00	-43.70
1006	1.3290E-03	8.7219E-02	-2.1351E+00	2.1798E+00	-2.0912E+00	-45.58
1007	-3.6352E-02	-1.3250E-01	-2.7155E+00	2.6315E+00	-2.8003E+00	-44.49

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
901	-5.0807E+01	-6.0230E+00	2.2114E+02	1.9386E+02	-2.5069E+02	47.89
902	-4.9818E+01	-1.0788E+00	2.2500E+02	2.0086E+02	-2.5176E+02	48.09
1006	-1.7927E+00	3.7800E+00	2.2182E+02	2.2283E+02	-2.2084E+02	45.36
1007	-8.0390E-01	8.7242E+00	2.2567E+02	2.2968E+02	-2.2176E+02	45.60

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
901	-2.1496E-02	-2.0270E+00	1.9762E+00	1.1918E+00	-3.2403E+00	31.55
902	-1.6055E+00	-1.3530E+00	2.5375E+00	1.0614E+00	-4.0198E+00	46.42
1006	-3.2990E-02	-8.0311E-02	2.0615E+00	2.0050E+00	-2.1183E+00	44.67
1007	1.6119E-02	1.3242E-01	2.6227E+00	2.6976E+00	-2.5491E+00	45.64

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
901	-5.5012E+01	-6.6407E+00	2.4245E+02	2.1283E+02	-2.7448E+02	47.85
902	-5.3915E+01	-1.1540E+00	2.4667E+02	2.2054E+02	-2.7561E+02	48.05
1006	-1.2477E+00	4.1124E+00	2.4324E+02	2.4469E+02	-2.4182E+02	45.32
1007	-1.5043E-01	9.5990E+00	2.4747E+02	2.5224E+02	-2.4279E+02	45.56

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
901	-1.9182E-02	-2.2227E+00	2.1672E+00	1.3103E+00	-3.5521E+00	31.53
902	-1.7569E+00	-1.4833E+00	2.7826E+00	1.1659E+00	-4.4061E+00	46.41
1006	-3.1479E-02	-8.8655E-02	2.2608E+00	2.2009E+00	-2.3210E+00	44.64
1007	2.0491E-02	1.4456E-01	2.8762E+00	2.9594E+00	-2.7943E+00	45.62

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
901	5.0982E+01	6.6112E+00	-2.3619E+02	2.6603E+02	-2.0844E+02	-42.32
902	4.9863E+01	1.0157E+00	-2.4032E+02	2.6699E+02	-2.1611E+02	-42.10
1006	-1.5025E+00	-3.8859E+00	-2.3718E+02	2.3449E+02	-2.3988E+02	-44.86
1007	-2.6215E+00	-9.4814E+00	-2.4130E+02	2.3528E+02	-2.4738E+02	-44.59

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
901	2.0997E-03	2.1668E+00	-2.1138E+00	3.4592E+00	-1.2903E+00	-58.56
902	1.6996E+00	1.4450E+00	-2.7136E+00	4.2888E+00	-1.1443E+00	-43.66
1006	1.2911E-02	8.8665E-02	-2.2052E+00	2.2563E+00	-2.1547E+00	-45.49
1007	-3.0639E-02	-1.3848E-01	-2.8050E+00	2.7209E+00	-2.8901E+00	-44.45

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
901	6.4201E+02	5.9832E+01	-2.3840E+03	2.7526E+03	-2.0508E+03	-41.52
902	6.3316E+02	1.5545E+01	-2.4253E+03	2.7692E+03	-2.1205E+03	-41.37
1006	1.1732E+02	-4.5109E+01	-2.3834E+03	2.4209E+03	-2.3487E+03	-44.02
1007	1.0846E+02	-8.9395E+01	-2.4247E+03	2.4362E+03	-2.4172E+03	-43.83

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 997 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
901	8.3780E-01	2.1823E+01	-2.1215E+01	3.4998E+01	-1.2338E+01	-58.16
902	1.7746E+01	1.4608E+01	-2.7259E+01	4.3481E+01	-1.1127E+01	-43.35
1006	9.9579E-01	7.8251E-01	-2.2125E+01	2.3014E+01	-2.1236E+01	-44.86
1007	2.1116E-01	-1.5120E+00	-2.8168E+01	2.7531E+01	-2.8832E+01	-44.12

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
901	-3.8434E+02	-7.0315E+01	2.2957E+03	2.0738E+03	-2.5284E+03	46.96
902	-3.7133E+02	-5.2378E+00	2.3361E+03	2.1550E+03	-2.5316E+03	47.24
1006	1.3046E+02	3.2648E+01	2.3144E+03	2.3965E+03	-2.2334E+03	44.39
1007	1.4347E+02	9.7724E+01	2.3548E+03	2.4755E+03	-2.2343E+03	44.72

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
901	6.7791E-01	-2.1148E+01	2.0648E+01	1.3120E+01	-3.3590E+01	31.07
902	-1.6010E+01	-1.4066E+01	2.6492E+01	1.1471E+01	-4.1548E+01	46.05
1006	6.3153E-01	-9.5898E-01	2.1548E+01	2.1399E+01	-2.1727E+01	43.94
1007	7.5282E-01	1.2459E+00	2.7392E+01	2.8392E+01	-2.6393E+01	45.26

ELEMENT ID 1044 ----------

LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
949	5.8678E+05	3.5547E+04	-3.5596E+03	5.8680E+05	3.5524E+04	-.37
950	5.8625E+05	3.2900E+04	1.3299E+04	5.8657E+05	3.2581E+04	1.38
1054	5.8816E+05	3.5824E+04	3.0238E+02	5.8817E+05	3.5824E+04	.03
1055	5.8764E+05	3.3178E+04	1.7161E+04	5.8817E+05	3.2647E+04	1.77

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
949	2.6414E+03	-2.5474E+03	3.7370E+02	2.6682E+03	-2.5742E+03	4.10
950	4.1815E+03	-8.3825E+02	4.6565E+02	4.2243E+03	-8.8108E+02	5.26
1054	3.8352E+03	9.4816E+00	2.9967E+02	3.8585E+03	-1.3850E+01	4.45
1055	3.3941E+03	-2.3090E+03	3.9162E+02	3.4209E+03	-2.3358E+03	3.91

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
949	-1.9957E+05	-5.9866E+03	8.5646E+03	-5.6085E+03	-1.9995E+05	87.47
950	-1.9747E+05	4.5108E+03	7.2286E+03	4.7692E+03	-1.9773E+05	87.95
1054	-1.9908E+05	-5.8881E+03	1.9351E+04	-3.9689E+03	-2.0100E+05	84.34
1055	-1.9698E+05	4.6092E+03	1.8015E+04	6.2065E+03	-1.9858E+05	84.93

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
949	-7.6312E+02	2.3163E+02	1.0918E+02	2.4347E+02	-7.7496E+02	83.81
950	-1.1867E+03	5.2854E+01	1.6044E+01	5.3062E+01	-1.1869E+03	89.26
1054	-1.1695E+03	-1.2445E+02	1.0264E+02	-1.1446E+02	-1.1795E+03	84.44
1055	-1.0704E+03	-8.3714E+01	9.5108E+00	-8.3623E+01	-1.0705E+03	89.45

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
949	-1.6096E+05	-4.8429E+03	7.2755E+03	-4.5046E+03	-1.6129E+05	87.34
950	-1.5926E+05	3.6111E+03	6.1843E+03	3.8456E+03	-1.5950E+05	87.83
1054	-1.6094E+05	-4.8394E+03	1.5876E+04	-3.2410E+03	-1.6254E+05	84.25
1055	-1.5925E+05	3.6144E+03	1.4785E+04	4.9458E+03	-1.6058E+05	84.85

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
949	-6.1819E+02	1.8656E+02	9.6237E+01	1.9791E+02	-6.2954E+02	83.27
950	-9.4858E+02	4.7643E+01	1.4259E+01	4.7847E+01	-9.4879E+02	89.18
1054	-9.4863E+02	-9.4054E+01	8.9730E+01	-8.4734E+01	-9.5795E+02	84.07
1055	-8.6802E+02	-7.7954E+01	7.7528E+00	-7.7878E+01	-8.6810E+02	89.44

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1044 ----------

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
949	-1.8329E+02	-8.8513E+00	6.8451E+01	1.4803E+01	-2.0694E+02	70.94
950	-1.7908E+02	1.2191E+01	7.3530E+01	3.7190E+01	-2.0408E+02	71.22
1054	-2.4419E+02	-2.1030E+01	5.7057E+01	-7.2879E+00	-2.5794E+02	76.46
1055	-2.3999E+02	1.1951E-02	6.2136E+01	1.5145E+01	-2.5512E+02	76.31
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
949	-6.5470E-01	3.5168E-01	9.5228E-01	9.2555E-01	-1.2286E+00	58.93
950	-1.1469E+00	-3.3084E-02	3.6466E-01	7.5684E-02	-1.2556E+00	73.39
1054	-1.7387E+00	1.2421E+00	8.9334E-01	1.4894E+00	-1.9859E+00	74.53
1055	-8.7892E-01	1.0404E+00	3.0573E-01	1.0879E+00	-9.2644E-01	81.16

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
949	6.3095E+05	3.1992E+04	8.3402E+03	6.3107E+05	3.1876E+04	.80
950	6.3087E+05	3.1593E+04	2.2984E+04	6.3175E+05	3.0713E+04	2.19
1054	6.3612E+05	3.3026E+04	9.4373E+03	6.3627E+05	3.2878E+04	.90
1055	6.3604E+05	3.2627E+04	2.4081E+04	6.3700E+05	3.1668E+04	2.28
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
949	2.9477E+03	-2.7274E+03	5.2875E+01	2.9482E+03	-2.7279E+03	.53
950	4.1233E+03	-9.2022E+02	2.1723E+02	4.1327E+03	-9.2956E+02	2.46
1054	4.0183E+03	-2.3805E+02	4.6844E+01	4.0188E+03	-2.3857E+02	.63
1055	3.6839E+03	-1.9445E+03	2.1119E+02	3.6918E+03	-1.9525E+03	2.15

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
949	-2.1678E+05	-6.5479E+03	9.4665E+03	-6.1225E+03	-2.1720E+05	87.43
950	-2.1443E+05	5.2015E+03	8.2253E+03	5.5091E+03	-2.1474E+05	87.86
1054	-2.1822E+05	-6.8360E+03	2.0682E+04	-4.8314E+03	-2.2022E+05	84.46
1055	-2.1587E+05	4.9133E+03	1.9441E+04	6.6121E+03	-2.1757E+05	85.01
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
949	-8.3493E+02	2.5127E+02	1.2771E+02	2.6609E+02	-8.4974E+02	83.38
950	-1.2747E+03	6.5268E+01	6.8217E+00	6.5303E+01	-1.2747E+03	89.71
1054	-1.2798E+03	-8.9890E+01	1.2098E+02	-7.7715E+01	-1.2920E+03	84.25
1055	-1.1687E+03	-4.4894E+01	9.9348E-02	-4.4894E+01	-1.1687E+03	90.00

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
949	-1.3153E+05	-3.6208E+03	3.1691E+03	-3.5423E+03	-1.3161E+05	88.58
950	-1.3042E+05	1.8966E+03	1.5976E+03	1.9158E+03	-1.3044E+05	89.31
1054	-1.2706E+05	-2.7271E+03	1.1783E+04	-1.6203E+03	-1.2817E+05	84.63
1055	-1.2596E+05	2.7901E+03	1.0211E+04	3.5950E+03	-1.2676E+05	85.49
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
949	-5.3682E+02	1.2935E+02	3.4514E+01	1.3114E+02	-5.3860E+02	87.04
950	-6.6147E+02	9.7932E+01	-4.1293E+01	1.0017E+02	-6.6371E+02	-86.90
1054	-7.3548E+02	-1.2569E+02	3.0531E+01	-1.2417E+02	-7.3701E+02	87.14
1055	-7.2155E+02	-1.6101E+02	-4.5275E+01	-1.5738E+02	-7.2518E+02	-85.41

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
949	3.0854E+05	2.3769E+04	-1.9484E+04	3.0986E+05	2.2442E+04	-3.90
950	3.0911E+05	2.6646E+04	-2.1458E+04	3.1073E+05	2.5026E+04	-4.32
1054	2.4475E+05	1.1014E+04	-3.2781E+04	2.4926E+05	6.5035E+03	-7.83
1055	2.4533E+05	1.3891E+04	-3.4755E+04	2.5043E+05	8.7849E+03	-8.36

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1044 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
949	1.5021E+03	-1.1735E+03	2.9469E+02	1.5342E+03	-1.2056E+03	6.21
950	2.0054E+03	-4.6130E+02	-1.8053E+02	2.0186E+03	-4.7444E+02	-4.16
1054	-7.1388E+02	-1.0351E+04	1.9961E+02	-7.0975E+02	-1.0355E+04	1.19
1055	-9.1289E+02	-1.2067E+04	-2.7561E+02	-9.0609E+02	-1.2074E+04	-1.41

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
949	2.8586E+05	7.0574E+03	3.0433E+04	2.8914E+05	3.7741E+03	6.16
950	2.8565E+05	6.0108E+03	4.6979E+04	2.9333E+05	-1.6707E+03	9.29
1054	3.5370E+05	2.0625E+04	4.6386E+04	3.6004E+05	1.4286E+04	7.78
1055	3.5349E+05	1.9578E+04	6.2931E+04	3.6496E+05	8.1116E+03	10.33

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
949	1.3097E+03	-1.5078E+03	-2.0906E+02	1.3251E+03	-1.5232E+03	-4.22
950	1.8906E+03	-4.5641E+02	4.0753E+02	1.9594E+03	-5.2516E+02	9.58
1054	4.5067E+03	1.0117E+04	-1.2131E+02	1.0119E+04	4.5041E+03	-88.76
1055	4.4070E+03	1.0144E+04	4.9527E+02	1.0187E+04	4.3645E+03	85.10

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
949	2.9617E+05	1.3934E+04	2.1627E+04	2.9781E+05	1.2287E+04	4.36
950	2.9549E+05	1.0555E+04	3.6248E+04	3.0003E+05	6.0165E+03	7.14
1054	3.8108E+05	3.0915E+04	3.7941E+04	3.8514E+05	2.6851E+04	6.11
1055	3.8040E+05	2.7536E+04	5.2562E+04	3.8807E+05	1.9873E+04	8.29

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
949	1.3972E+03	-1.5094E+03	-4.1067E+02	1.4542E+03	-1.5663E+03	-7.89
950	2.0414E+03	-5.6419E+02	3.6326E+02	2.0911E+03	-6.1389E+02	7.79
1054	4.7747E+03	1.0001E+04	-2.8415E+02	1.0016E+04	4.7593E+03	-86.90
1055	4.7919E+03	1.0605E+04	4.8977E+02	1.0646E+04	4.7509E+03	85.22

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
949	2.1628E+05	1.9258E+04	-1.8272E+04	2.1796E+05	1.7578E+04	-5.25
950	2.1676E+05	2.1688E+04	-1.7495E+04	2.1832E+05	2.0131E+04	-5.08
1054	1.6704E+05	9.4117E+03	-2.8155E+04	1.7191E+05	4.5336E+03	-9.83
1055	1.6752E+05	1.1842E+04	-2.7379E+04	1.7220E+05	7.1670E+03	-9.69

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
949	1.0655E+03	-1.1293E+03	-1.5652E+01	1.0657E+03	-1.1294E+03	-.41
950	1.3241E+03	-5.5631E+02	-4.0046E+02	1.4058E+03	-6.3804E+02	-11.54
1054	-6.0900E+02	-7.5940E+03	-2.5248E+01	-6.0891E+02	-7.5941E+03	-.21
1055	-6.1960E+02	-8.2248E+03	-4.1005E+02	-5.9755E+02	-8.2469E+03	-3.08

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
949	-4.6215E+04	-2.9131E+03	2.6185E+04	9.4123E+03	-5.8541E+04	64.79
950	-4.4646E+04	4.9320E+03	2.8808E+04	1.8148E+04	-5.7862E+04	65.36
1054	-7.6557E+04	-8.9801E+03	1.9080E+04	-3.9652E+03	-8.1572E+04	75.27
1055	-7.4988E+04	-1.1350E+03	2.1703E+04	4.7706E+03	-8.0893E+04	74.78

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
949	-1.5954E+02	1.1443E+02	4.0044E+02	4.0067E+02	-4.4578E+02	54.44
950	-2.9043E+02	-1.7576E+01	1.4039E+02	4.1753E+01	-3.4976E+02	67.09
1054	-5.5961E+02	6.3526E+02	3.7428E+02	7.4282E+02	-6.6717E+02	73.97
1055	-2.1421E+02	5.1717E+02	1.1423E+02	5.3460E+02	-2.3164E+02	81.33

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1044 ----------
LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
949	-2.8151E+04	5.0458E+02	-2.1316E+04	1.1860E+04	-3.9507E+04	-61.95
950	-2.8769E+04	-2.5853E+03	-2.3937E+04	1.1606E+04	-4.2960E+04	-59.34
1054	-1.3456E+03	5.8646E+03	-1.1265E+04	1.4087E+04	-9.5683E+03	-53.87
1055	-1.9638E+03	2.7747E+03	-1.3886E+04	1.4492E+04	-1.3681E+04	-49.84

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
949	-1.1602E+02	-1.9027E+01	-3.3353E+02	2.6952E+02	-4.0456E+02	-49.14
950	-1.7585E+02	1.8827E+01	-1.2559E+02	8.0383E+01	-2.3741E+02	-63.89
1054	1.0290E+02	-5.8033E+02	-3.0942E+02	2.2219E+02	-6.9962E+02	-21.08
1055	-1.6579E+02	-4.1380E+02	-1.0148E+02	-1.2956E+02	-4.5003E+02	-19.65

ELEMENT ID 1045 ----------
LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
950	5.5152E+05	2.5955E+04	1.7662E+04	5.5211E+05	2.5362E+04	1.92
951	5.5526E+05	4.4649E+04	2.7598E+04	5.5675E+05	4.3162E+04	3.08
1055	5.6064E+05	2.7779E+04	2.7942E+04	5.6210E+05	2.6318E+04	2.99
1056	5.6438E+05	4.6473E+04	3.7878E+04	5.6714E+05	4.3718E+04	4.16

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
950	4.2344E+03	-8.2767E+02	3.2217E+02	4.2548E+03	-8.4809E+02	3.63
951	2.2900E+03	-1.8452E+03	2.5713E+02	2.3060E+03	-1.8611E+03	3.54
1055	3.1289E+03	-2.3621E+03	2.5871E+02	3.1411E+03	-2.3742E+03	2.69
1056	2.8228E+03	-2.5054E+03	1.9367E+02	2.8299E+03	-2.5124E+03	2.08

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
950	-2.5013E+05	-6.0218E+03	6.7427E+03	-5.8357E+03	-2.5032E+05	88.42
951	-2.4725E+05	8.4111E+03	8.3274E+03	8.6821E+03	-2.4752E+05	88.14
1055	-2.5679E+05	-7.3540E+03	1.7011E+04	-6.1992E+03	-2.5795E+05	86.12
1056	-2.5391E+05	7.0787E+03	1.8596E+04	8.3971E+03	-2.5523E+05	85.95

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
950	-9.0388E+02	1.0941E+02	-4.5728E+00	1.0943E+02	-9.0391E+02	-89.74
951	-2.2176E+03	-9.7908E+02	1.1478E+02	-9.6853E+02	-2.2282E+03	84.75
1055	-1.3983E+03	-1.4929E+02	-3.1006E+00	-1.4928E+02	-1.3983E+03	-89.86
1056	-1.1866E+03	7.3529E+02	1.1625E+02	7.4230E+02	-1.1936E+03	86.55

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
950	-2.0152E+05	-4.8406E+03	5.6984E+03	-4.6756E+03	-2.0169E+05	88.34
951	-1.9915E+05	7.0215E+03	7.0501E+03	7.2623E+03	-1.9939E+05	88.04
1055	-2.0749E+05	-6.0336E+03	1.3885E+04	-5.0811E+03	-2.0844E+05	86.08
1056	-2.0512E+05	5.8283E+03	1.5237E+04	6.9232E+03	-2.0621E+05	85.89

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
950	-7.1602E+02	9.4155E+01	-6.3578E+00	9.4205E+01	-7.1607E+02	-89.55
951	-1.8217E+03	-8.4039E+02	9.3522E+01	-8.3156E+02	-1.8305E+03	84.60
1055	-1.1312E+03	-1.3059E+02	-4.5281E+00	-1.3057E+02	-1.1312E+03	-89.74
1056	-9.4995E+02	6.3959E+02	9.5351E+01	6.4529E+02	-9.5565E+02	86.58

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
950	-2.2853E+02	2.3034E+00	5.9558E+01	1.6764E+01	-2.4299E+02	76.35
951	-2.2697E+02	1.0065E+01	6.0371E+01	2.4555E+01	-2.4146E+02	76.50
1055	-2.8268E+02	-8.5283E+00	7.5674E+01	1.0973E+01	-3.0218E+02	75.55
1056	-2.8112E+02	-7.6670E-01	7.6487E+01	1.8743E+01	-3.0063E+02	75.69

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1045 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
950	-9.1551E-01	1.3190E-02	-2.8283E-01	9.2542E-02	-9.9486E-01	-74.33
951	-1.7935E+00	-4.2181E-01	-7.9776E-01	-5.5610E-02	-2.1597E+00	-65.34
1055	-1.5972E+00	8.9675E-01	1.0434E-01	9.0111E-01	-1.6016E+00	87.61
1056	-7.7881E-01	5.6561E+00	-4.1059E-01	5.6822E+00	-8.0490E-01	-86.36

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
950	5.8045E+05	2.1509E+04	1.8267E+04	5.8105E+05	2.0913E+04	1.87
951	5.8631E+05	5.0777E+04	2.4501E+04	5.8742E+05	4.9658E+04	2.61
1055	6.0932E+05	2.7282E+04	3.1844E+04	6.1105E+05	2.5545E+04	3.12
1056	6.1517E+05	5.6550E+04	3.8078E+04	6.1775E+05	5.3966E+04	3.88
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
950	4.2186E+03	-9.0116E+02	2.8013E+02	4.2339E+03	-9.1645E+02	3.12
951	2.6253E+03	-1.9686E+03	4.6052E+02	2.6710E+03	-2.0143E+03	5.67
1055	3.3702E+03	-2.0073E+03	2.1838E+02	3.3790E+03	-2.0161E+03	2.32
1056	3.6380E+03	-1.8966E+03	3.9877E+02	3.6666E+03	-1.9252E+03	4.10

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
950	-2.7221E+05	-6.3556E+03	7.3742E+03	-6.1512E+03	-2.7242E+05	88.41
951	-2.6911E+05	9.1829E+03	9.1973E+03	9.4866E+03	-2.6941E+05	88.11
1055	-2.8045E+05	-8.0029E+03	1.9019E+04	-6.6817E+03	-2.8177E+05	86.03
1056	-2.7734E+05	7.5354E+03	2.0842E+04	9.0521E+03	-2.7886E+05	85.84
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
950	-9.5927E+02	1.2835E+02	-2.8665E+01	1.2910E+02	-9.6003E+02	-88.49
951	-2.4635E+03	-1.1552E+03	1.0583E+02	-1.1467E+03	-2.4720E+03	85.41
1055	-1.5139E+03	-1.1394E+02	-2.0189E+01	-1.1364E+02	-1.5142E+03	-89.17
1056	-1.2462E+03	1.0173E+03	1.1430E+02	1.0230E+03	-1.2519E+03	87.12

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
950	-1.6046E+05	-4.1112E+03	1.9210E+03	-4.0876E+03	-1.6049E+05	89.30
951	-1.5901E+05	3.1461E+03	2.8223E+03	3.1952E+03	-1.5906E+05	89.00
1055	-1.6632E+05	-5.2827E+03	6.7060E+03	-5.0039E+03	-1.6660E+05	87.62
1056	-1.6487E+05	1.9746E+03	7.6072E+03	2.3207E+03	-1.6521E+05	87.40
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
950	-4.1916E+02	1.4639E+02	-2.5733E+01	1.4756E+02	-4.2033E+02	-87.40
951	-1.8965E+03	-1.3751E+03	1.6090E+02	-1.3294E+03	-1.9422E+03	74.16
1055	-8.9224E+02	-1.9514E+02	-5.7483E+01	-1.9043E+02	-8.9695E+02	-85.32
1056	-6.8967E+02	7.1578E+02	1.2915E+02	7.2755E+02	-7.0144E+02	84.79

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
950	2.8277E+05	2.1381E+04	-5.0017E+04	2.9202E+05	1.2137E+04	-10.47
951	2.8529E+05	3.3966E+04	-5.9265E+04	2.9857E+05	2.0691E+04	-12.62
1055	2.3676E+05	1.2177E+04	-3.0961E+04	2.4095E+05	7.9872E+03	-7.71
1056	2.3928E+05	2.4762E+04	-4.0209E+04	2.4657E+05	1.7473E+04	-10.28
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
950	2.0762E+03	-4.4714E+02	-7.2689E+02	2.2706E+03	-6.4155E+02	-14.97
951	1.1645E+03	-9.9470E+02	-1.1553E+03	1.6662E+03	-1.4963E+03	-23.47
1055	-7.6315E+02	-1.2037E+04	-5.4305E+02	-7.3706E+02	-1.2063E+04	-2.75
1056	-9.2562E+02	-9.6455E+03	-9.7147E+02	-8.1870E+02	-9.7524E+03	-6.28

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1045 ----------
LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
950	2.5168E+05	-7.8500E+02	7.0497E+04	2.7003E+05	-1.9136E+04	14.59
951	2.5547E+05	1.8175E+04	8.6172E+04	2.8346E+05	-9.8156E+03	18.00
1055	3.2465E+05	1.3811E+04	6.7156E+04	3.3854E+05	-7.7113E+01	11.68
1056	3.2844E+05	3.2771E+04	8.2831E+04	3.5007E+05	1.1148E+04	14.63
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
950	1.9617E+03	-4.4220E+02	1.0012E+03	2.3241E+03	-8.0457E+02	19.90
951	1.0941E+03	-1.0895E+03	1.6130E+03	1.9501E+03	-1.9455E+03	27.95
1055	3.8729E+03	1.0037E+04	7.6488E+02	1.0131E+04	3.7795E+03	83.03
1056	4.3471E+03	7.9590E+03	1.3767E+03	8.4239E+03	3.8822E+03	71.34

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
950	2.6150E+05	3.7557E+03	5.7856E+04	2.7389E+05	-8.6358E+03	12.09
951	2.6358E+05	1.4157E+04	7.4381E+04	2.8408E+05	-6.3405E+03	15.41
1055	3.3643E+05	1.8743E+04	6.0654E+04	3.4762E+05	7.5570E+03	10.45
1056	3.3851E+05	2.9144E+04	7.7179E+04	3.5670E+05	1.0959E+04	13.26
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
950	2.1254E+03	-5.4738E+02	1.0722E+03	2.5024E+03	-9.2437E+02	19.37
951	9.8562E+02	-1.1180E+03	1.7347E+03	1.9625E+03	-2.0949E+03	29.39
1055	4.2570E+03	1.0498E+04	8.2524E+02	1.0605E+04	4.1497E+03	82.59
1056	4.2647E+03	8.0756E+03	1.4877E+03	8.5876E+03	3.7527E+03	71.01

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
950	1.9007E+05	1.6350E+04	-3.7721E+04	1.9790E+05	8.5129E+03	-11.74
951	1.9100E+05	2.1000E+04	-4.4949E+04	2.0215E+05	9.8464E+03	-13.94
1055	1.5914E+05	1.0164E+04	-2.3570E+04	1.6278E+05	6.5240E+03	-8.78
1056	1.6007E+05	1.4814E+04	-3.0798E+04	1.6633E+05	8.5535E+03	-11.49
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
950	1.3944E+03	-5.4224E+02	-7.8442E+02	1.6723E+03	-8.2010E+02	-19.51
951	4.4380E+02	-9.9246E+02	-1.0132E+03	9.6753E+02	-1.5162E+03	-27.34
1055	-5.2258E+02	-8.2054E+03	-5.7202E+02	-4.8023E+02	-8.2478E+03	-4.23
1056	-5.5863E+02	-5.5737E+03	-8.0076E+02	-4.3388E+02	-5.6984E+03	-8.86

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
950	-5.7099E+04	2.4425E+03	2.2497E+04	9.9869E+03	-6.4643E+04	71.46
951	-5.6905E+04	3.4124E+03	2.2772E+04	1.1044E+04	-6.4537E+04	71.47
1055	-8.3498E+04	-2.8381E+03	2.7979E+04	5.9171E+03	-9.2253E+04	72.62
1056	-8.3304E+04	-1.8682E+03	2.8254E+04	6.9745E+03	-9.2147E+04	72.62
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
950	-2.3247E+02	-5.9857E+00	-1.5644E+02	7.3894E+01	-3.1235E+02	-62.95
951	-4.4269E+02	-7.2192E+01	-4.0600E+02	1.8883E+02	-7.0371E+02	-57.26
1055	-4.5512E+02	4.6900E+02	2.1599E+01	4.6951E+02	-4.5563E+02	88.66
1056	-1.1288E+02	2.5556E+03	-2.2797E+02	2.5750E+03	-1.3222E+02	-85.15

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
950	-3.6517E+04	-4.1357E+03	-1.8390E+04	4.1749E+03	-4.4827E+04	-65.68
951	-3.5840E+04	-7.5333E+02	-1.8257E+04	7.0228E+03	-4.3617E+04	-66.93
1055	-1.4896E+04	1.8916E+02	-1.9348E+04	1.3413E+04	-2.8119E+04	-55.65
1056	-1.4219E+04	3.5715E+03	-1.9215E+04	1.5850E+04	-2.6498E+04	-57.42

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1045 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
950	-1.4126E+02	2.5746E+01	1.3329E+02	9.9531E+01	-2.1504E+02	61.03
951	-2.8456E+02	-1.3009E+02	3.8246E+02	1.8286E+02	-5.9751E+02	50.71
1055	-6.3226E+01	-3.9330E+02	-2.0696E+01	-6.1933E+01	-3.9459E+02	-3.57
1056	-3.1607E+02	-2.0414E+03	2.2847E+02	-2.8633E+02	-2.0711E+03	7.42

ELEMENT ID 1052 ----------

LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
957	-3.2241E+05	-4.4090E+03	-7.6504E+02	-4.4072E+03	-3.2241E+05	-89.86
958	-3.2106E+05	2.3136E+03	-1.3546E+03	2.3192E+03	-3.2107E+05	-89.76
1062	-3.2436E+05	-4.7986E+03	5.6935E+03	-4.6972E+03	-3.2446E+05	88.98
1063	-3.2301E+05	1.9239E+03	5.1039E+03	2.0040E+03	-3.2309E+05	89.10

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
957	-1.7875E+03	-1.0606E+03	3.9540E+01	-1.0584E+03	-1.7897E+03	86.90
958	-1.5863E+03	4.6049E+02	-1.5925E+01	4.6061E+02	-1.5864E+03	-89.55
1062	-1.3736E+03	7.4821E+02	7.6882E+01	7.5099E+02	-1.3764E+03	87.93
1063	-1.8842E+03	-3.1191E+02	2.1418E+01	-3.1162E+02	-1.8845E+03	89.22

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
957	6.5667E+05	3.2645E+04	-7.5483E+03	6.5676E+05	3.2554E+04	-.69
958	6.5580E+05	2.8313E+04	4.4093E+03	6.5583E+05	2.8282E+04	.40
1062	6.6829E+05	3.4970E+04	-1.7183E+04	6.6876E+05	3.4504E+04	-1.55
1063	6.6743E+05	3.0638E+04	-5.2259E+03	6.6747E+05	3.0595E+04	-.47

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
957	3.3189E+03	-2.3899E+03	3.9659E+02	3.3463E+03	-2.4173E+03	3.96
958	4.5404E+03	-5.8589E+02	3.9329E+02	4.5704E+03	-6.1589E+02	4.36
1062	4.1938E+03	4.2535E+01	3.2200E+02	4.2186E+03	1.7706E+01	4.41
1063	3.7330E+03	-2.6536E+03	3.1871E+02	3.7489E+03	-2.6694E+03	2.85

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
957	4.6882E+05	2.5166E+04	-8.6377E+02	4.6882E+05	2.5164E+04	-.11
958	4.7104E+05	3.6266E+04	1.1072E+04	4.7132E+05	3.5984E+04	1.46
1062	4.8371E+05	2.8144E+04	3.5843E+03	4.8373E+05	2.8115E+04	.45
1063	4.8593E+05	3.9244E+04	1.5520E+04	4.8646E+05	3.8705E+04	1.99

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
957	2.5461E+03	-2.2532E+03	4.6280E+02	2.5903E+03	-2.2975E+03	5.46
958	3.4208E+03	-2.8227E+02	3.8718E+02	3.4609E+03	-3.2232E+02	5.91
1062	3.2107E+03	-6.9450E+01	4.0008E+02	3.2588E+03	-1.1754E+02	6.85
1063	2.5498E+03	-2.8758E+03	3.2446E+02	2.5692E+03	-2.8951E+03	3.41

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
957	7.0218E+02	3.9735E+01	1.7769E+02	7.4684E+02	-4.9184E+00	14.11
958	6.8856E+02	-2.8406E+01	1.7316E+02	7.2819E+02	-6.8036E+01	12.89
1062	6.3992E+02	2.7283E+01	1.2338E+02	6.6384E+02	3.3668E+00	10.97
1063	6.2630E+02	-4.0857E+01	1.1885E+02	6.4684E+02	-6.1398E+01	9.81

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
957	2.6932E+00	-5.5501E-01	2.3731E+00	3.9448E+00	-1.8066E+00	27.81
958	4.5070E+00	-6.3475E-01	1.8662E+00	5.1129E+00	-1.2407E+00	17.99
1062	2.0189E+00	-6.1602E-01	2.2245E+00	3.2868E+00	-1.8839E+00	29.68
1063	4.0939E+00	-1.8395E+00	1.7175E+00	4.5552E+00	-2.3008E+00	15.03

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1052 ----------
LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
957	-3.1707E+05	-4.1372E+03	-4.7640E+03	-4.0647E+03	-3.1714E+05	-89.13
958	-3.1590E+05	1.7378E+03	-5.3359E+03	1.8274E+03	-3.1598E+05	-89.04
1062	-3.1625E+05	-3.9728E+03	7.0341E+01	-3.9728E+03	-3.1625E+05	89.99
1063	-3.1507E+05	1.9021E+03	-5.0158E+02	1.9029E+03	-3.1507E+05	-89.91

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
957	-1.7546E+03	-9.4716E+02	-1.1379E+01	-9.4700E+02	-1.7547E+03	-89.19
958	-1.5800E+03	3.5227E+02	-2.5179E+01	3.5260E+02	-1.5803E+03	-89.25
1062	-1.3302E+03	7.3303E+02	1.6978E+01	7.3317E+02	-1.3303E+03	89.53
1063	-1.8075E+03	-2.2996E+02	3.1778E+00	-2.2995E+02	-1.8075E+03	89.88

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
957	7.2237E+05	5.1687E+04	-5.4106E+03	7.2242E+05	5.1644E+04	-.46
958	7.1482E+05	1.3902E+04	3.4635E+03	7.1483E+05	1.3885E+04	.28
1062	7.3890E+05	5.4992E+04	-1.2708E+04	7.3913E+05	5.4756E+04	-1.06
1063	7.3134E+05	1.7207E+04	-3.8341E+03	7.3136E+05	1.7187E+04	-.31

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
957	3.5747E+03	-3.1978E+03	4.7403E+02	3.6077E+03	-3.2308E+03	3.98
958	4.7989E+03	-2.9186E+02	5.4734E+02	4.8570E+03	-3.5004E+02	6.07
1062	4.4909E+03	-1.4101E+03	5.0460E+02	4.5337E+03	-1.4529E+03	4.85
1063	3.6572E+03	-3.8099E+03	5.7791E+02	3.7017E+03	-3.8544E+03	4.40

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
957	5.3134E+05	2.9220E+04	-8.8943E+03	5.3149E+05	2.9062E+04	-1.01
958	5.3315E+05	3.8269E+04	2.6551E+03	5.3316E+05	3.8255E+04	.31
1062	5.5173E+05	3.3299E+04	-4.4532E+03	5.5177E+05	3.3261E+04	-.49
1063	5.5354E+05	4.2349E+04	7.0960E+03	5.5364E+05	4.2250E+04	.80

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
957	2.9767E+03	-3.2140E+03	-3.5135E+01	2.9769E+03	-3.2142E+03	-.33
958	3.5117E+03	-4.9966E+02	2.1711E+01	3.5118E+03	-4.9977E+02	.31
1062	3.9488E+03	1.7792E+02	1.3535E+01	3.9489E+03	1.7787E+02	.21
1063	3.0249E+03	-1.9328E+03	7.0381E+01	3.0259E+03	-1.9338E+03	.81

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
957	-8.4824E+04	3.8084E+03	-4.8405E+04	2.5120E+04	-1.0613E+05	-66.24
958	-8.5892E+04	-1.5351E+03	-4.8789E+04	2.0780E+04	-1.0821E+05	-65.42
1062	-1.0270E+05	2.3325E+02	-4.7699E+04	1.8938E+04	-1.2140E+05	-68.59
1063	-1.0377E+05	-5.1102E+03	-4.8084E+04	1.4448E+04	-1.2332E+05	-67.87

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
957	-5.8782E+02	-5.3762E+02	-2.4235E+01	-5.2783E+02	-5.9761E+02	-68.00
958	-3.2597E+02	9.0343E+01	-2.3143E+02	1.9346E+02	-4.2909E+02	-65.98
1062	-2.9637E+02	1.3224E+03	-9.3502E+01	1.3277E+03	-3.0175E+02	-86.71
1063	-6.6377E+02	-2.9643E+02	-3.0070E+02	-1.2775E+02	-8.3245E+02	-60.71

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
957	-8.3227E+04	-1.3849E+03	4.1825E+04	1.6208E+04	-1.0082E+05	67.19
958	-8.3619E+04	-3.3428E+03	4.1737E+04	1.4425E+04	-1.0139E+05	66.94
1062	-6.8784E+04	1.5037E+03	3.4680E+04	1.5734E+04	-8.3014E+04	67.69
1063	-6.9176E+04	-4.5419E+02	3.4592E+04	1.3942E+04	-8.3572E+04	67.40

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1052 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
957	-5.8626E+02	-5.4512E+02	1.1821E+01	-5.4196E+02	-5.8942E+02	75.06
958	-3.1380E+02	1.0539E+02	2.2872E+02	2.0602E+02	-4.1444E+02	66.25
1062	-2.8417E+02	-4.6078E+02	1.0219E+02	-2.3742E+02	-5.0753E+02	24.58
1063	-2.1888E+02	2.2136E+02	3.1908E+02	3.8888E+02	-3.8640E+02	62.30

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
957	-7.9144E+04	-1.6845E+03	4.7202E+04	2.0643E+04	-1.0147E+05	64.68
958	-7.9413E+04	-3.0308E+03	4.7275E+04	1.9552E+04	-1.0200E+05	64.47
1062	-6.5635E+04	1.0173E+03	3.9957E+04	1.9722E+04	-8.4340E+04	64.92
1063	-6.5904E+04	-3.2889E+02	4.0030E+04	1.8628E+04	-8.4860E+04	64.66
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
957	-5.6993E+02	-7.0003E+02	6.4578E+01	-5.4332E+02	-7.2664E+02	22.40
958	-2.8602E+02	1.3770E+02	2.8633E+02	2.8203E+02	-4.3035E+02	63.25
1062	-1.8705E+02	-2.6769E+02	1.5292E+02	-6.9229E+01	-3.8552E+02	37.61
1063	-2.0825E+02	1.8387E+02	3.7467E+02	4.1068E+02	-4.3506E+02	58.81

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
957	-4.7582E+04	1.7852E+03	-4.8274E+04	3.1321E+04	-7.7118E+04	-58.54
958	-4.7982E+04	-2.1265E+02	-5.0207E+04	3.1502E+04	-7.9696E+04	-57.72
1062	-6.1763E+04	-1.0513E+03	-4.4686E+04	2.2614E+04	-8.5429E+04	-62.09
1063	-6.2163E+04	-3.0492E+03	-4.6618E+04	2.2593E+04	-8.7805E+04	-61.19
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
957	-3.6228E+02	-5.7332E+02	-1.8526E+02	-2.5460E+02	-6.8101E+02	-30.17
958	-1.5655E+02	9.7673E+01	-3.5288E+02	3.4564E+02	-4.0452E+02	-54.90
1062	-2.4553E+02	3.4753E+02	-1.9927E+02	4.0827E+02	-3.0627E+02	-73.05
1063	-4.8997E+02	-5.2729E+02	-3.6689E+02	-1.4127E+02	-8.7599E+02	-43.54

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
957	1.3125E+05	1.9709E+04	5.6816E+04	1.5509E+05	-4.1344E+03	22.77
958	1.3203E+05	2.3603E+04	5.3710E+04	1.5413E+05	1.5025E+03	22.37
1062	9.5536E+04	1.2566E+04	5.6771E+04	1.2436E+05	-1.6262E+04	26.92
1063	9.6315E+04	1.6460E+04	5.3664E+04	1.2328E+05	-1.0501E+04	26.68
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
957	7.0210E+02	-4.9225E+02	1.4733E+03	1.6947E+03	-1.4848E+03	33.97
958	1.0260E+03	-3.3038E+02	9.9180E+02	1.5493E+03	-8.5368E+02	27.82
1062	-8.8339E+02	-5.7466E+03	1.2240E+03	-5.9270E+02	-6.0373E+03	13.36
1063	-1.0387E+03	-9.3652E+03	7.4248E+02	-9.7305E+02	-9.4309E+03	5.06

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
957	6.2346E+04	-2.8644E+03	-6.7422E+04	1.0463E+05	-4.5151E+04	-32.10
958	6.2563E+04	-1.7780E+03	-5.8413E+04	9.7079E+04	-3.6294E+04	-30.58
1062	8.8790E+04	2.4242E+03	-7.5380E+04	1.3248E+05	-4.1266E+04	-30.10
1063	8.9008E+04	3.5106E+03	-6.6372E+04	1.2521E+05	-3.2688E+04	-28.61
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
957	1.7007E+02	-2.4835E+02	-1.4843E+03	1.4598E+03	-1.5381E+03	-40.99
958	6.3053E+02	6.1125E+00	-1.3373E+03	1.6915E+03	-1.0549E+03	-38.43
1062	1.1885E+03	2.5570E+03	-1.2599E+03	3.3065E+03	4.3901E+02	-59.25
1063	1.5348E+03	5.6046E+03	-1.1129E+03	5.8890E+03	1.2504E+03	-75.66

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1053 ----------

LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
958	-3.4163E+05	-1.8001E+03	-9.2711E+02	-1.7976E+03	-3.4164E+05	-89.84
959	-3.4147E+05	-9.7588E+02	-1.5697E+03	-9.6864E+02	-3.4147E+05	-89.74
1063	-3.4517E+05	-2.5068E+03	-1.2874E+02	-2.5067E+03	-3.4517E+05	-89.98
1064	-3.4500E+05	-1.6825E+03	-7.7131E+02	-1.6808E+03	-3.4500E+05	-89.87
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
958	-1.5524E+03	4.6726E+02	-1.9012E+01	4.6744E+02	-1.5526E+03	-89.46
959	-2.0261E+03	-1.4314E+03	-6.6631E+01	-1.4240E+03	-2.0335E+03	-83.69
1063	-1.9309E+03	-3.2124E+02	-6.2141E+01	-3.1885E+02	-1.9332E+03	-87.79
1064	-1.4005E+03	9.8495E+02	-1.0976E+02	9.8999E+02	-1.4055E+03	-87.37

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
958	6.6287E+05	2.9726E+04	8.4398E+03	6.6298E+05	2.9614E+04	.76
959	6.6526E+05	4.1683E+04	2.0725E+04	6.6595E+05	4.0995E+04	1.90
1063	6.7062E+05	3.1277E+04	1.5850E+04	6.7101E+05	3.0884E+04	1.42
1064	6.7301E+05	4.3233E+04	2.8135E+04	6.7427E+05	4.1978E+04	2.55
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
958	4.5200E+03	-5.8997E+02	2.6594E+02	4.5338E+03	-6.0377E+02	2.97
959	3.3901E+03	-2.0684E+03	1.3629E+02	3.3935E+03	-2.0718E+03	1.43
1063	3.7001E+03	-2.6602E+03	1.5539E+02	3.7039E+03	-2.6640E+03	1.40
1064	3.3929E+03	-3.0169E+03	2.5739E+01	3.3930E+03	-3.0170E+03	.23

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
958	4.0539E+05	2.3136E+04	1.5103E+04	4.0598E+05	2.2540E+04	2.26
959	4.0949E+05	4.3634E+04	2.6137E+04	4.1134E+05	4.1776E+04	4.07
1063	4.0653E+05	2.3364E+04	3.3023E+04	4.0936E+05	2.0539E+04	4.89
1064	4.1063E+05	4.3862E+04	4.4057E+04	4.1585E+05	3.8644E+04	6.75
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
958	3.5517E+03	-2.5611E+02	2.5983E+02	3.5693E+03	-2.7375E+02	3.89
959	1.6218E+03	-3.9198E+03	1.3433E+02	1.6250E+03	-3.9231E+03	1.39
1063	2.3260E+03	-2.9205E+03	1.0541E+02	2.3281E+03	-2.9227E+03	1.15
1064	2.5396E+03	-1.7618E+03	-2.0082E+01	2.5397E+03	-1.7619E+03	-.27

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
958	9.9535E+02	3.2953E+01	1.8287E+02	1.0289E+03	-6.2424E-01	10.40
959	9.8796E+02	-3.9973E+00	1.8288E+02	1.0206E+03	-3.6639E+01	10.12
1063	9.4400E+02	2.2683E+01	1.1743E+02	9.5873E+02	7.9514E+00	7.15
1064	9.3661E+02	-1.4266E+01	1.1744E+02	9.5090E+02	-2.8555E+01	6.94
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
958	3.9278E+00	-7.5058E-01	1.0461E+00	4.1511E+00	-9.7386E-01	12.05
959	6.7267E+00	4.2473E+00	7.9839E-03	6.7267E+00	4.2472E+00	.18
1063	3.8870E+00	-1.8809E+00	1.4719E+00	4.2409E+00	-2.2348E+00	13.52
1064	3.9128E+00	-3.5329E-01	4.3375E-01	3.9564E+00	-3.9694E-01	5.75

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
958	-3.2989E+05	-1.0606E+03	-5.6189E+03	-9.6460E+02	-3.2998E+05	-89.02
959	-3.3006E+05	-1.9422E+03	-6.2744E+03	-1.8223E+03	-3.3018E+05	-88.91
1063	-3.3113E+05	-1.3089E+03	-4.6082E+03	-1.2446E+03	-3.3119E+05	-89.20
1064	-3.3130E+05	-2.1906E+03	-5.2637E+03	-2.1064E+03	-3.3139E+05	-89.08

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1053 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
958	-1.5618E+03	3.5591E+02	-9.2114E+00	3.5595E+02	-1.5619E+03	-89.73
959	-1.9156E+03	-9.5266E+02	-3.3140E+01	-9.5152E+02	-1.9167E+03	-88.03
1063	-1.8377E+03	-2.3599E+02	-5.0927E+01	-2.3438E+02	-1.8393E+03	-88.18
1064	-1.5103E+03	4.8329E+02	-7.4855E+01	4.8610E+02	-1.5131E+03	-87.85

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
958	7.2176E+05	1.5291E+04	-1.3048E+02	7.2176E+05	1.5291E+04	-.01
959	7.2738E+05	4.3390E+04	8.8654E+03	7.2749E+05	4.3275E+04	.74
1063	7.2151E+05	1.5241E+04	9.7877E+03	7.2164E+05	1.5105E+04	.79
1064	7.2713E+05	4.3339E+04	1.8783E+04	7.2764E+05	4.2823E+04	1.57

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
958	4.7532E+03	-3.0098E+02	5.0563E+02	4.8033E+03	-3.5107E+02	5.66
959	3.8182E+03	-2.4407E+03	3.1659E+02	3.8342E+03	-2.4567E+03	2.89
1063	3.5611E+03	-3.8292E+03	3.1338E+02	3.5744E+03	-3.8424E+03	2.42
1064	3.5684E+03	-4.5665E+03	1.2434E+02	3.5703E+03	-4.5684E+03	.88

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
958	4.5355E+05	2.2349E+04	1.6819E+03	4.5356E+05	2.2343E+04	.22
959	4.5768E+05	4.3022E+04	1.4135E+04	4.5817E+05	4.2541E+04	1.95
1063	4.7041E+05	2.5722E+04	2.4287E+04	4.7173E+05	2.4399E+04	3.12
1064	4.7454E+05	4.6394E+04	3.6741E+04	4.7767E+05	4.3264E+04	4.87

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
958	3.6266E+03	-4.7668E+02	3.9896E+01	3.6270E+03	-4.7707E+02	.56
959	2.0235E+03	-3.3690E+03	5.8116E+01	2.0241E+03	-3.3696E+03	.62
1063	2.7511E+03	-1.9876E+03	8.9990E+00	2.7511E+03	-1.9876E+03	.11
1064	3.3550E+03	2.7238E+02	2.7219E+01	3.3553E+03	2.7214E+02	.51

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
958	-6.1590E+04	3.3250E+03	-4.6015E+04	2.7178E+04	-8.5443E+04	-62.60
959	-6.2314E+04	-2.9505E+02	-4.6487E+04	2.4576E+04	-8.7186E+04	-61.85
1063	-7.4229E+04	7.9739E+02	-5.0779E+04	2.6417E+04	-9.9849E+04	-63.23
1064	-7.4953E+04	-2.8226E+03	-5.1252E+04	2.3781E+04	-1.0156E+05	-62.57

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
958	-3.7859E+02	7.9820E+01	-3.9296E+02	3.0554E+02	-6.0430E+02	-60.13
959	-2.5337E+02	6.9434E+01	-5.3853E+02	4.7023E+02	-6.5417E+02	-53.34
1063	-3.4785E+02	-2.3325E+02	-3.8830E+02	1.0195E+02	-6.8305E+02	-49.20
1064	-6.3832E+02	-1.9066E+02	-5.3387E+02	1.6440E+02	-9.9338E+02	-56.37

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
958	-5.9091E+04	1.5627E+03	3.9653E+04	2.1156E+04	-7.8685E+04	63.70
959	-6.0306E+04	-4.5090E+03	4.0214E+04	1.6537E+04	-8.1351E+04	62.38
1063	-4.4994E+04	4.3820E+03	3.4989E+04	2.2516E+04	-6.3128E+04	62.60
1064	-4.6209E+04	-1.6897E+03	3.5550E+04	1.7995E+04	-6.5893E+04	61.03

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
958	-3.6559E+02	9.5028E+01	3.8803E+02	3.1595E+02	-5.8651E+02	60.35
959	-2.4684E+02	1.8171E+01	4.8417E+02	3.8764E+02	-6.1631E+02	52.65
1063	-4.0360E+02	1.8441E+02	3.7288E+02	3.6526E+02	-5.8444E+02	64.13
1064	-5.8741E+00	1.5250E+02	4.6902E+02	5.4897E+02	-4.0235E+02	49.79

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1053 ----------
LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
958	-5.7353E+04	1.3812E+03	4.4827E+04	2.5604E+04	-8.1576E+04	61.62
959	-5.8512E+04	-4.4134E+03	4.5258E+04	2.1262E+04	-8.4188E+04	60.43
1063	-4.2896E+04	4.2725E+03	4.0282E+04	2.7366E+04	-6.5990E+04	60.17
1064	-4.4055E+04	-1.5220E+03	4.0712E+04	2.3144E+04	-6.8721E+04	58.79
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
958	-3.3566E+02	1.2777E+02	4.4290E+02	3.9591E+02	-6.0379E+02	58.81
959	-2.5138E+02	3.4967E+00	5.3492E+02	4.2595E+02	-6.7384E+02	51.70
1063	-4.2940E+02	1.3964E+02	4.2441E+02	3.6608E+02	-6.5584E+02	61.92
1064	1.7760E+01	1.1139E+02	5.1643E+02	5.8313E+02	-4.5398E+02	47.59

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
958	-3.7038E+04	1.9758E+03	-4.7263E+04	3.3599E+04	-6.8661E+04	-56.21
959	-3.7302E+04	6.5753E+02	-4.7631E+04	3.2951E+04	-6.9596E+04	-55.86
1063	-4.7124E+04	-4.1234E+01	-4.9967E+04	3.1653E+04	-7.8818E+04	-57.61
1064	-4.7388E+04	-1.3595E+03	-5.0336E+04	3.0974E+04	-7.9721E+04	-57.29
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
958	-1.8862E+02	9.1259E+01	-4.6960E+02	4.4133E+02	-5.3868E+02	-53.30
959	-1.7102E+02	3.5832E+01	-5.9012E+02	5.3152E+02	-6.6671E+02	-49.97
1063	-2.0895E+02	-4.7108E+02	-4.4307E+02	1.2203E+02	-8.0207E+02	-36.76
1064	-4.8797E+02	-9.6539E+01	-5.6359E+02	3.0435E+02	-8.8887E+02	-54.58

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
958	1.3195E+05	2.3588E+04	5.3854E+04	1.5416E+05	1.3767E+03	22.41
959	1.3154E+05	2.1548E+04	4.7176E+04	1.4901E+05	4.0866E+03	20.31
1063	8.3213E+04	1.3840E+04	4.9284E+04	1.0879E+05	-1.1740E+04	27.43
1064	8.2805E+04	1.1800E+04	4.2605E+04	1.0276E+05	-8.1562E+03	25.10
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
958	1.0416E+03	-3.2727E+02	4.0750E+02	1.1537E+03	-4.3939E+02	15.38
959	6.5198E+02	-1.4703E+03	-1.4970E+02	6.6249E+02	-1.4808E+03	-4.02
1063	-1.3354E+03	-9.4246E+03	4.5990E+02	-1.3094E+03	-9.4506E+03	3.24
1064	-9.2201E+02	-7.5432E+03	-9.7291E+01	-9.2058E+02	-7.5446E+03	-.84

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
958	7.9085E+04	1.5260E+03	-5.3665E+04	1.0652E+05	-2.5905E+04	-27.07
959	7.9901E+04	5.6098E+03	-4.0938E+04	9.8034E+04	-1.2523E+04	-23.89
1063	1.3289E+05	1.2288E+04	-5.3848E+04	1.5344E+05	-8.2549E+03	-20.88
1064	1.3371E+05	1.6372E+04	-4.1121E+04	1.4669E+05	3.3958E+03	-17.51
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
958	6.5609E+02	1.1225E+01	-9.8304E+02	1.3682E+03	-7.0091E+02	-35.92
959	4.4932E+02	-1.7893E+03	-3.9354E+02	5.1648E+02	-1.8565E+03	-9.69
1063	1.9261E+03	5.6829E+03	-9.9600E+02	5.9306E+03	1.6784E+03	-76.03
1064	3.1424E+03	7.5038E+03	-4.0651E+02	7.5414E+03	3.1048E+03	-84.72

ELEMENT ID 1060 ----------
LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
965	7.3900E+05	4.6477E+04	-1.3197E+04	7.3925E+05	4.6226E+04	-1.09
966	7.3316E+05	1.7255E+04	-3.6775E+02	7.3316E+05	1.7255E+04	-.03
1070	7.5390E+05	4.9455E+04	-2.0668E+04	7.5450E+05	4.8849E+04	-1.68
1071	7.4805E+05	2.0233E+04	-7.8391E+03	7.4814E+05	2.0149E+04	-.62

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1060 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
965	3.8612E+03	-2.8220E+03	1.8839E+00	3.8612E+03	-2.8220E+03	.02
966	4.7453E+03	-4.8518E+02	-4.4499E+00	4.7453E+03	-4.8518E+02	-.05
1070	4.7440E+03	-4.1212E+02	9.9851E+01	4.7459E+03	-4.1405E+02	1.11
1071	4.1680E+03	-1.3158E+03	9.3517E+01	4.1696E+03	-1.3174E+03	.98

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
965	-3.6660E+05	-2.9979E+03	-4.4135E+03	-2.9443E+03	-3.6665E+05	-89.31
966	-3.6580E+05	9.9540E+02	-5.2080E+03	1.0693E+03	-3.6587E+05	-89.19
1070	-3.7056E+05	-3.7896E+03	-3.5421E+02	-3.7893E+03	-3.7056E+05	-89.95
1071	-3.6976E+05	2.0359E+02	-1.1487E+03	2.0716E+02	-3.6976E+05	-89.82

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
965	-2.0521E+03	-9.1008E+02	5.1652E+01	-9.0775E+02	-2.0545E+03	87.42
966	-1.7928E+03	4.2528E+02	-3.3089E+01	4.2577E+02	-1.7933E+03	-89.15
1070	-1.6727E+03	7.8026E+02	7.1800E+01	7.8236E+02	-1.6748E+03	88.33
1071	-2.1209E+03	-3.1080E+02	-1.2939E+01	-3.1071E+02	-2.1210E+03	-89.59

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
965	5.3620E+05	4.2760E+04	-2.4052E+04	5.3737E+05	4.1590E+04	-2.78
966	5.3190E+05	2.1242E+04	-1.1883E+04	5.3217E+05	2.0966E+04	-1.33
1070	5.4594E+05	4.4708E+04	-4.3960E+04	5.4977E+05	4.0881E+04	-4.97
1071	5.4164E+05	2.3191E+04	-3.1792E+04	5.4358E+05	2.1248E+04	-3.50

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
965	2.4257E+03	-4.0046E+03	-3.2272E+01	2.4259E+03	-4.0047E+03	-.29
966	4.0446E+03	-5.0019E+02	-3.6761E+01	4.0448E+03	-5.0049E+02	-.46
1070	3.9939E+03	9.2238E+02	9.8054E+00	3.9939E+03	9.2235E+02	.18
1071	3.1884E+03	-1.8302E+03	5.3159E+00	3.1884E+03	-1.8302E+03	.06

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
965	-3.7081E+03	-1.3509E+02	6.8307E+02	-8.9568E+00	-3.8342E+03	79.54
966	-3.6456E+03	1.7767E+02	6.7547E+02	2.9350E+02	-3.7614E+03	80.27
1070	-3.7825E+03	-1.4996E+02	9.6883E+02	9.2284E+01	-4.0247E+03	75.96
1071	-3.7199E+03	1.6279E+02	9.6124E+02	3.8773E+02	-3.9449E+03	76.83

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
965	-1.4229E+01	3.7191E+00	7.5003E+00	6.4407E+00	-1.6951E+01	70.06
966	-2.3883E+01	2.7657E+00	5.3614E+00	3.8039E+00	-2.4921E+01	79.04
1070	-2.3166E+01	-5.8265E+00	7.4748E+00	-3.0491E+00	-2.5943E+01	69.62
1071	-2.2327E+01	-6.9917E+00	5.3360E+00	-5.3178E+00	-2.4001E+01	72.58

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
965	6.8855E+05	3.8795E+04	-7.6526E+03	6.8864E+05	3.8705E+04	-.67
966	6.8921E+05	4.2069E+04	8.4170E+03	6.8932E+05	4.1959E+04	.75
1070	7.1632E+05	4.4350E+04	-1.9533E+04	7.1689E+05	4.3783E+04	-1.66
1071	7.1698E+05	4.7624E+04	-3.4636E+03	7.1700E+05	4.7606E+04	-.30

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
965	3.6770E+03	-2.2510E+03	1.6462E+02	3.6815E+03	-2.2556E+03	1.59
966	4.4117E+03	-1.2081E+03	3.0825E+02	4.4286E+03	-1.2250E+03	3.13
1070	4.6981E+03	8.6055E+02	5.9557E+01	4.6990E+03	8.5963E+02	.89
1071	4.1685E+03	-1.6121E+03	2.0319E+02	4.1757E+03	-1.6192E+03	2.01

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1060 ----------

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
965	-3.6060E+05	-2.4789E+03	-1.7228E+04	-1.6520E+03	-3.6142E+05	-87.25
966	-3.6013E+05	-1.4841E+02	-1.7690E+04	7.1883E+02	-3.6100E+05	-87.19
1070	-3.6310E+05	-2.9801E+03	-1.5079E+04	-2.3499E+03	-3.6373E+05	-87.61
1071	-3.6264E+05	-6.4966E+02	-1.5541E+04	1.6330E+01	-3.6330E+05	-87.55
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
965	-2.0592E+03	-1.3299E+03	-4.5319E+01	-1.3271E+03	-2.0620E+03	-86.46
966	-1.7265E+03	4.1130E+02	-9.8693E+01	4.1585E+02	-1.7310E+03	-87.36
1070	-1.4379E+03	1.1788E+03	-2.0363E+01	1.1790E+03	-1.4380E+03	-89.55
1071	-2.0708E+03	-2.7300E+02	-7.3736E+01	-2.6998E+02	-2.0738E+03	-87.66

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
965	4.3883E+05	4.2842E+04	-1.3005E+04	4.3926E+05	4.2415E+04	-1.88
966	4.3723E+05	3.4837E+04	2.2301E+03	4.3724E+05	3.4825E+04	.32
1070	4.6226E+05	4.7528E+04	-3.6402E+04	4.6543E+05	4.4358E+04	-4.98
1071	4.6066E+05	3.9524E+04	-2.1167E+04	4.6172E+05	3.8463E+04	-2.87
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
965	1.9809E+03	-3.4365E+03	1.4979E+02	1.9850E+03	-3.4406E+03	1.58
966	3.4228E+03	-1.0011E+03	3.0009E+02	3.4431E+03	-1.0214E+03	3.86
1070	3.6589E+03	1.6668E+03	6.8882E+01	3.6612E+03	1.6644E+03	1.98
1071	2.8585E+03	-1.7731E+03	2.1918E+02	2.8688E+03	-1.7834E+03	2.70

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
965	1.4180E+04	9.2326E+02	-1.9852E+04	2.8481E+04	-1.3378E+04	-35.77
966	1.4141E+04	7.2841E+02	-2.0084E+04	2.8609E+04	-1.3739E+04	-35.77
1070	8.7084E+03	-1.7116E+02	-1.7562E+04	2.2383E+04	-1.3846E+04	-37.91
1071	8.6694E+03	-3.6601E+02	-1.7794E+04	2.2510E+04	-1.4207E+04	-37.88
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
965	9.9280E+01	8.5149E+01	-2.4622E+01	1.1783E+02	6.6599E+01	-36.99
966	5.4304E+01	-1.7638E+01	-1.1267E+02	1.3661E+02	-9.9943E+01	-36.15
1070	3.3958E+01	1.8558E+02	-5.7767E+01	2.0508E+02	1.4457E+01	-71.35
1071	-4.1619E+01	-1.9976E+02	-1.4582E+02	4.5186E+01	-2.8657E+02	-30.77

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
965	1.4262E+04	-1.3613E+03	2.0011E+04	2.7932E+04	-1.5032E+04	34.34
966	1.4558E+04	1.2036E+02	2.0328E+04	2.8911E+04	-1.4233E+04	35.22
1070	1.9919E+04	-2.2990E+02	1.9104E+04	3.1442E+04	-1.1753E+04	31.10
1071	2.0215E+04	1.2518E+03	1.9421E+04	3.2345E+04	-1.0879E+04	31.99
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
965	9.3504E+01	3.8146E+01	2.5385E+01	1.0338E+02	2.8268E+01	21.26
966	5.9367E+01	-3.5487E+00	1.1115E+02	1.4343E+02	-8.7608E+01	37.10
1070	8.8687E+01	-2.6467E+02	5.5457E+01	9.7186E+01	-2.7317E+02	8.71
1071	1.8768E+02	2.1100E+02	1.4122E+02	3.4104E+02	5.7635E+01	47.36

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
965	1.1787E+04	-1.4381E+03	2.1554E+04	2.7720E+04	-1.7371E+04	36.47
966	1.2075E+04	-4.9225E-01	2.1890E+04	2.8744E+04	-1.6670E+04	37.29
1070	1.8127E+04	-1.7003E+02	2.0384E+04	3.1321E+04	-1.3364E+04	32.91
1071	1.8414E+04	1.2676E+03	2.0719E+04	3.2264E+04	-1.2582E+04	33.76

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1060 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
965	7.6677E+01	3.0214E+01	2.7230E+01	8.9239E+01	1.7652E+01	24.77
966	4.9501E+01	-2.0183E+00	1.2094E+02	1.4739E+02	-9.9908E+01	38.99
1070	8.0234E+01	-2.7665E+02	5.9950E+01	9.0036E+01	-2.8645E+02	9.29
1071	1.8502E+02	2.2918E+02	1.5366E+02	3.6234E+02	5.1871E+01	49.09

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
965	4.9539E+03	1.1666E+03	-2.0303E+04	2.3451E+04	-1.7331E+04	-42.34
966	4.8192E+03	4.9320E+02	-2.0584E+04	2.3354E+04	-1.8042E+04	-42.00
1070	-1.1239E+03	-4.8997E+01	-1.8433E+04	1.7854E+04	-1.9027E+04	-45.84
1071	-1.2587E+03	-7.2244E+02	-1.8714E+04	1.7726E+04	-1.9707E+04	-45.41

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
965	3.7133E+01	5.3960E+01	-2.6038E+01	7.2910E+01	1.8183E+01	-53.95
966	1.6968E+01	-1.2571E+01	-1.1618E+02	1.1931E+02	-1.1491E+02	-41.38
1070	-1.1276E+01	2.0609E+02	-5.9231E+01	2.2118E+02	-2.6368E+01	-75.71
1071	-9.2493E+01	-2.1235E+02	-1.4937E+02	8.5195E+00	-3.1336E+02	-34.07

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
965	2.4691E+05	3.5879E+04	6.5079E+03	2.4711E+05	3.5678E+04	1.76
966	2.4346E+05	1.8640E+04	-4.5772E+03	2.4355E+05	1.8547E+04	-1.17
1070	1.9461E+05	2.5420E+04	3.4921E+03	1.9469E+05	2.5348E+04	1.18
1071	1.9117E+05	8.1819E+03	-7.5929E+03	1.9148E+05	7.8673E+03	-2.37

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
965	1.2021E+03	-1.7899E+03	7.2800E+02	1.3698E+03	-1.9576E+03	12.97
966	1.7947E+03	-1.3369E+02	1.5532E+02	1.8071E+03	-1.4612E+02	4.58
1070	-1.1074E+03	-1.0690E+04	6.5830E+02	-1.0624E+03	-1.0735E+04	3.91
1071	-1.2376E+03	-1.3230E+04	8.5624E+01	-1.2370E+03	-1.3231E+04	.41

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
965	2.5586E+05	9.7415E+03	-2.4050E+04	2.5819E+05	7.4134E+03	-5.53
966	2.5340E+05	-2.5616E+03	-8.3221E+02	2.5340E+05	-2.5643E+03	-.19
1070	3.1912E+05	2.2393E+04	-2.8862E+04	3.2190E+05	1.9612E+04	-5.50
1071	3.1666E+05	1.0090E+04	-5.6448E+03	3.1676E+05	9.9862E+03	-1.05

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
965	1.2528E+03	-1.9504E+03	-7.0646E+02	1.4017E+03	-2.0993E+03	-11.90
966	1.8682E+03	-5.6452E+01	-1.8341E+02	1.8856E+03	-7.3774E+01	-5.40
1070	4.8484E+03	1.0946E+04	-5.1793E+02	1.0990E+04	4.8047E+03	-85.18
1071	4.0552E+03	1.1656E+04	5.1089E+00	1.1656E+04	4.0552E+03	89.96

ELEMENT ID 1061 ----------

LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
966	7.2555E+05	1.5734E+04	-3.2051E+02	7.2555E+05	1.5734E+04	-.03
967	7.3193E+05	4.7624E+04	1.2420E+04	7.3216E+05	4.7399E+04	1.04
1071	7.3985E+05	1.8593E+04	9.7773E+03	7.3998E+05	1.8460E+04	.78
1072	7.4622E+05	5.0483E+04	2.2517E+04	7.4695E+05	4.9755E+04	1.85

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
966	4.7595E+03	-4.8235E+02	-8.2514E+00	4.7595E+03	-4.8236E+02	-.09
967	3.7612E+03	-2.9506E+03	-9.4288E+00	3.7612E+03	-2.9506E+03	-.08
1071	4.1501E+03	-1.3194E+03	-1.0855E+02	4.1522E+03	-1.3215E+03	-1.14
1072	4.7233E+03	-3.4029E+02	-1.0973E+02	4.7257E+03	-3.4267E+02	-1.24

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1061 ----------
LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
966	-3.7061E+05	3.3248E+01	-4.4687E+03	8.7118E+01	-3.7066E+05	-89.31
967	-3.7106E+05	-2.2337E+03	-5.0453E+03	-2.1647E+03	-3.7113E+05	-89.22
1071	-3.7546E+05	-9.3757E+02	-6.3368E+03	-8.3038E+02	-3.7557E+05	-89.03
1072	-3.7592E+05	-3.2045E+03	-6.9134E+03	-3.0763E+03	-3.7605E+05	-88.94
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
966	-1.7780E+03	4.2824E+02	-5.3100E+01	4.2952E+02	-1.7793E+03	-88.62
967	-2.1171E+03	-1.3824E+03	-1.0168E+02	-1.3686E+03	-2.1309E+03	-82.26
1071	-2.0842E+03	-3.0346E+02	-9.7103E+01	-2.9818E+02	-2.0895E+03	-86.89
1072	-1.5757E+03	9.2504E+02	-1.4568E+02	9.3350E+02	-1.5841E+03	-86.68

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
966	6.0087E+05	3.5036E+04	-1.1144E+04	6.0108E+05	3.4817E+04	-1.13
967	6.0162E+05	3.8817E+04	1.9618E+03	6.0163E+05	3.8811E+04	.20
1071	6.2060E+05	3.8983E+04	-1.4630E+04	6.2097E+05	3.8616E+04	-1.44
1072	6.2135E+05	4.2764E+04	-1.5245E+03	6.2136E+05	4.2760E+04	-.15
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
966	3.9245E+03	-5.2420E+02	-5.6773E+01	3.9252E+03	-5.2492E+02	-.73
967	3.3839E+03	-2.6806E+03	-7.8211E+01	3.3849E+03	-2.6816E+03	-.74
1071	3.4174E+03	-1.7844E+03	-1.2068E+02	3.4202E+03	-1.7872E+03	-1.33
1072	4.0385E+03	-5.0667E+02	-1.4212E+02	4.0429E+03	-5.1111E+02	-1.79

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
966	-5.2484E+03	-1.4290E+02	6.9784E+02	-4.9236E+01	-5.3421E+03	82.36
967	-5.1951E+03	1.2382E+02	6.7188E+02	2.0738E+02	-5.2786E+03	82.91
1071	-5.4928E+03	-1.9178E+02	9.0082E+02	-4.2884E+01	-5.6417E+03	80.61
1072	-5.4395E+03	7.4938E+01	8.7487E+02	2.1041E+02	-5.5749E+03	81.20
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
966	-2.0887E+01	3.3649E+00	3.4953E+00	3.8586E+00	-2.1380E+01	81.96
967	-3.5049E+01	-2.0371E+01	1.0876E+00	-2.0291E+01	-3.5130E+01	85.79
1071	-3.0255E+01	-8.5772E+00	3.9745E+00	-7.8714E+00	-3.0960E+01	79.93
1072	-2.3897E+01	2.0307E+01	1.5668E+00	2.0363E+01	-2.3952E+01	87.97

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
966	6.8453E+05	4.1134E+04	8.9088E+03	6.8465E+05	4.1010E+04	.79
967	6.8375E+05	3.7228E+04	2.1750E+04	6.8448E+05	3.6497E+04	1.92
1071	7.0267E+05	4.4761E+04	2.4166E+04	7.0355E+05	4.3874E+04	2.10
1072	7.0188E+05	4.0855E+04	3.7008E+04	7.0395E+05	3.8789E+04	3.19
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
966	4.4330E+03	-1.2039E+03	3.3250E+02	4.4526E+03	-1.2234E+03	3.36
967	3.5300E+03	-2.4959E+03	4.1320E+02	3.5582E+03	-2.5241E+03	3.90
1071	4.1313E+03	-1.6195E+03	2.9094E+02	4.1460E+03	-1.6342E+03	2.89
1072	4.1639E+03	-1.0833E+03	3.7164E+02	4.1901E+03	-1.1095E+03	4.03

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
966	-3.5388E+05	1.1025E+03	-1.7885E+04	2.0014E+03	-3.5478E+05	-87.12
967	-3.5481E+05	-3.5734E+03	-1.8587E+04	-2.5925E+03	-3.5579E+05	-86.98
1071	-3.5582E+05	7.1423E+02	-2.0067E+04	1.8402E+03	-3.5694E+05	-86.79
1072	-3.5675E+05	-3.9616E+03	-2.0769E+04	-2.7431E+03	-3.5797E+05	-86.64

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

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JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
966	-1.7422E+03	4.0816E+02	-9.9528E+01	4.1276E+02	-1.7468E+03	-87.36
967	-1.9782E+03	-8.6803E+02	-1.4104E+02	-8.5040E+02	-1.9959E+03	-82.87
1071	-1.9746E+03	-2.5377E+02	-1.4637E+02	-2.4141E+02	-1.9870E+03	-85.17
1072	-1.6980E+03	3.7474E+02	-1.8788E+02	3.9163E+02	-1.7149E+03	-84.86

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
966	5.0809E+05	4.9010E+04	2.6938E+03	5.0811E+05	4.8994E+04	.34
967	5.0424E+05	2.9741E+04	1.5571E+04	5.0475E+05	2.9231E+04	1.88
1071	5.2891E+05	5.3174E+04	4.1772E+03	5.2895E+05	5.3138E+04	.50
1072	5.2506E+05	3.3906E+04	1.7054E+04	5.2565E+05	3.3315E+04	1.99

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
966	3.2987E+03	-1.0259E+03	3.2644E+02	3.3232E+03	-1.0504E+03	4.29
967	2.8261E+03	-2.3441E+03	3.6429E+02	2.8516E+03	-2.3696E+03	4.01
1071	3.0383E+03	-1.7371E+03	2.7444E+02	3.0540E+03	-1.7528E+03	3.28
1072	3.2350E+03	-1.2022E+03	3.1229E+02	3.2568E+03	-1.2241E+03	4.01

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
966	9.8860E+03	-1.2266E+02	-1.9252E+04	2.4773E+04	-1.5010E+04	-37.71
967	1.0152E+04	1.2076E+03	-1.9605E+04	2.5788E+04	-1.4429E+04	-38.57
1071	5.3992E+03	-1.0200E+03	-1.8435E+04	2.0902E+04	-1.6523E+04	-40.06
1072	5.6652E+03	3.1029E+02	-1.8788E+04	2.1966E+04	-1.5990E+04	-40.94

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
966	6.2227E+01	-1.6053E+01	-1.8106E+02	2.0833E+02	-1.6216E+02	-38.90
967	4.1048E+01	2.6580E+00	-2.2936E+02	2.5201E+02	-2.0830E+02	-42.61
1071	5.7133E+01	-1.8001E+02	-1.7305E+02	1.4833E+02	-2.7122E+02	-27.79
1072	-9.0729E+01	-1.2035E+02	-2.2134E+02	1.1630E+02	-3.2738E+02	-43.09

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
966	1.0117E+04	-7.6780E+02	1.9524E+04	2.4943E+04	-1.5594E+04	37.21
967	1.0207E+04	-3.1811E+02	1.9861E+04	2.5491E+04	-1.5602E+04	37.58
1071	1.4088E+04	2.6375E+01	2.0274E+04	2.8515E+04	-1.4401E+04	35.44
1072	1.4178E+04	4.7606E+02	2.0611E+04	2.9046E+04	-1.4392E+04	35.81

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
966	6.7622E+01	-1.8977E+00	1.7743E+02	2.1367E+02	-1.4794E+02	39.46
967	3.7777E+01	-2.0402E+01	2.2811E+02	2.3865E+02	-2.2127E+02	41.37
1071	6.4874E+01	1.8644E+02	1.7085E+02	3.0700E+02	-5.5685E+01	54.79
1072	1.9214E+02	1.3232E+02	2.2153E+02	3.8577E+02	-6.1313E+01	41.16

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
966	8.4222E+03	-7.3088E+02	2.1014E+04	2.5352E+04	-1.7661E+04	38.86
967	8.4727E+03	-4.7848E+02	2.1384E+04	2.5845E+04	-1.7850E+04	39.09
1071	1.2958E+04	1.7623E+02	2.1632E+04	2.9124E+04	-1.5989E+04	36.77
1072	1.3008E+04	4.2863E+02	2.2003E+04	2.9603E+04	-1.6165E+04	37.02

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
966	5.6281E+01	-6.6238E-01	1.9325E+02	2.2314E+02	-1.6753E+02	40.81
967	3.1192E+01	-1.9618E+01	2.4824E+02	2.5532E+02	-2.4375E+02	42.08
1071	5.5367E+01	2.0325E+02	1.8572E+02	3.2921E+02	-7.0587E+01	55.86
1072	1.9525E+02	1.3974E+02	2.4070E+02	4.0980E+02	-7.4802E+01	41.71

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

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LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
966	3.4552E+03	2.2034E+02	-1.9730E+04	2.1634E+04	-1.7959E+04	-42.66
967	3.6049E+03	9.6893E+02	-2.0089E+04	2.2419E+04	-1.7845E+04	-43.12
1071	-1.3095E+03	-7.3254E+02	-1.9442E+04	1.8423E+04	-2.0465E+04	-45.43
1072	-1.1597E+03	1.6037E+01	-1.9800E+04	1.9237E+04	-2.0381E+04	-45.85
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
966	1.9500E+01	-1.2064E+01	-1.8645E+02	1.9084E+02	-1.8340E+02	-42.58
967	1.6193E+01	9.2986E+00	-2.3749E+02	2.5026E+02	-2.2477E+02	-44.58
1071	1.6787E+01	-1.9050E+02	-1.7822E+02	1.1931E+02	-2.9302E+02	-29.91
1072	-1.2787E+02	-1.2618E+02	-2.2925E+02	1.0223E+02	-3.5628E+02	-45.11

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
966	2.4977E+05	1.9902E+04	-2.0298E+04	2.5155E+05	1.8124E+04	-5.01
967	2.5273E+05	3.4720E+04	-3.1380E+04	2.5716E+05	3.0293E+04	-8.03
1071	1.9897E+05	9.7420E+03	-1.8418E+04	2.0074E+05	7.9659E+03	-5.51
1072	2.0193E+05	2.4559E+04	-2.9500E+04	2.0671E+05	1.9782E+04	-9.20
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
966	1.7818E+03	-1.3627E+02	-3.3893E+02	1.8399E+03	-1.9440E+02	-9.73
967	1.2826E+03	-1.6893E+03	-8.9314E+02	1.5303E+03	-1.9370E+03	-15.50
1071	-1.1532E+03	-1.3213E+04	-2.8435E+02	-1.1465E+03	-1.3220E+04	-1.35
1072	-1.1719E+03	-1.0999E+04	-8.3855E+02	-1.1008E+03	-1.1071E+04	-4.84

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
966	2.5543E+05	-2.1547E+03	1.5085E+04	2.5631E+05	-3.0351E+03	3.34
967	2.5778E+05	9.5545E+03	3.8399E+04	2.6358E+05	3.7499E+03	8.60
1071	3.1812E+05	1.0383E+04	1.8633E+04	3.1925E+05	9.2586E+03	3.45
1072	3.2046E+05	2.2092E+04	4.1948E+04	3.2625E+05	1.6307E+04	7.85
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
966	1.8638E+03	-5.7336E+01	2.9455E+02	1.9080E+03	-1.0148E+02	8.52
967	1.2799E+03	-1.9107E+03	7.9817E+02	1.4685E+03	-2.0992E+03	13.29
1071	4.0163E+03	1.1648E+04	1.1727E+02	1.1650E+04	4.0145E+03	89.12
1072	4.8953E+03	1.1079E+04	6.2089E+02	1.1140E+04	4.8335E+03	84.32

ELEMENT ID 1068 ----------
LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
973	-2.2985E+05	3.5582E+03	-5.7852E+03	3.7015E+03	-2.2999E+05	-88.58
974	-2.3185E+05	-6.4603E+03	-6.4060E+03	-6.2784E+03	-2.3203E+05	-88.37
1078	-2.3493E+05	2.5411E+03	-1.5498E+04	3.5483E+03	-2.3594E+05	-86.28
1079	-2.3693E+05	-7.4772E+03	-1.6119E+04	-6.3504E+03	-2.3806E+05	-86.00
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
973	-1.5731E+03	-1.5237E+03	-2.5588E+00	-1.5236E+03	-1.5732E+03	-87.04
974	-8.8286E+02	2.7608E+02	-5.7709E-01	2.7608E+02	-8.8286E+02	-89.97
1078	-8.0517E+02	1.0390E+03	3.2332E+01	1.0396E+03	-8.0573E+02	89.00
1079	-1.2342E+03	-2.2006E+02	3.4314E+01	-2.1890E+02	-1.2354E+03	88.06

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
973	7.5037E+05	4.6335E+04	-1.4397E+04	7.5066E+05	4.6041E+04	-1.17
974	7.4462E+05	1.7605E+04	-1.5442E+03	7.4463E+05	1.7602E+04	-.12
1078	7.6511E+05	4.9283E+04	-2.1189E+04	7.6574E+05	4.8657E+04	-1.69
1079	7.5936E+05	2.0554E+04	-8.3365E+03	7.5946E+05	2.0459E+04	-.65

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

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JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
973	3.9379E+03	-2.7821E+03	1.7312E+00	3.9379E+03	-2.7821E+03	.01
974	4.7910E+03	-4.9197E+02	-1.1258E+01	4.7911E+03	-4.9199E+02	-.12
1078	4.7951E+03	-4.1999E+02	9.6697E+01	4.7969E+03	-4.2178E+02	1.06
1079	4.2182E+03	-1.3254E+03	8.3707E+01	4.2195E+03	-1.3267E+03	.86

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
973	-2.1059E+05	3.0845E+03	-7.3167E+03	3.3348E+03	-2.1084E+05	-88.04
974	-2.1237E+05	-5.8622E+03	-8.0957E+03	-5.5453E+03	-2.1269E+05	-87.76
1078	-2.1620E+05	1.9619E+03	-1.6215E+04	3.1605E+03	-2.1740E+05	-85.77
1079	-2.1799E+05	-6.9847E+03	-1.6994E+04	-5.6248E+03	-2.1935E+05	-85.43
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
973	-1.4413E+03	-1.1720E+03	-9.4703E+00	-1.1717E+03	-1.4417E+03	-87.99
974	-8.2483E+02	2.0812E+02	-1.9770E+01	2.0850E+02	-8.2521E+02	-88.90
1078	-8.2822E+02	8.3266E+02	1.1362E+01	8.3274E+02	-8.2830E+02	89.61
1079	-1.1343E+03	-1.9373E+02	1.0627E+00	-1.9373E+02	-1.1343E+03	89.94

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
973	1.9950E+04	8.8829E+02	6.0524E+02	1.9969E+04	8.6909E+02	1.82
974	1.9599E+04	-8.6989E+02	5.7621E+02	1.9615E+04	-8.8610E+02	1.61
1078	1.9399E+04	7.7809E+02	-9.3544E+02	1.9446E+04	7.3122E+02	-2.87
1079	1.9048E+04	-9.8006E+02	-9.6447E+02	1.9094E+04	-1.0264E+03	-2.75
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
973	7.7460E+01	-1.6837E+01	9.7112E+00	7.8450E+01	-1.7826E+01	5.82
974	1.2697E+02	-1.8230E+01	1.0433E+01	1.2772E+02	-1.8976E+01	4.09
1078	9.3741E+01	5.1030E+00	8.1362E+00	9.4482E+01	4.3624E+00	5.20
1079	1.1983E+02	-4.3475E-01	8.8584E+00	1.2048E+02	-1.0837E+00	4.19

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
973	-2.1261E+05	2.6181E+03	-2.3408E+03	2.6436E+03	-2.1264E+05	-89.38
974	-2.1431E+05	-5.8739E+03	-2.9777E+03	-5.8314E+03	-2.1436E+05	-89.18
1078	-2.1742E+05	1.6561E+03	-1.1606E+04	2.2693E+03	-2.1804E+05	-86.98
1079	-2.1912E+05	-6.8358E+03	-1.2243E+04	-6.1320E+03	-2.1983E+05	-86.71
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
973	-1.4612E+03	-1.3002E+03	1.0116E+01	-1.2996E+03	-1.4619E+03	86.42
974	-8.2605E+02	2.3341E+02	1.6531E+01	2.3367E+02	-8.2631E+02	89.11
1078	-7.8844E+02	9.0549E+02	3.9712E+01	9.0642E+02	-7.8937E+02	88.66
1079	-1.1246E+03	-1.5398E+02	4.6127E+01	-1.5179E+02	-1.1268E+03	87.29

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
973	6.4793E+05	3.5877E+04	-1.2298E+04	6.4817E+05	3.5630E+04	-1.15
974	6.4779E+05	3.5204E+04	3.7586E+03	6.4781E+05	3.5180E+04	.35
1078	6.7769E+05	4.1830E+04	-2.1838E+04	6.7844E+05	4.1080E+04	-1.96
1079	6.7755E+05	4.1156E+04	-5.7814E+03	6.7761E+05	4.1104E+04	-.52
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
973	3.4843E+03	-2.0373E+03	-2.4932E+01	3.4844E+03	-2.0374E+03	-.26
974	4.1822E+03	-8.3325E+02	1.4230E+02	4.1863E+03	-8.3728E+02	1.62
1078	4.6566E+03	1.9070E+03	-4.9904E+01	4.6575E+03	1.9061E+03	-1.04
1079	4.3261E+03	4.2680E+02	1.1733E+02	4.3296E+03	4.2327E+02	1.72

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

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LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
973	-1.6684E+05	1.7968E+03	-9.4831E+02	1.8022E+03	-1.6684E+05	-89.68
974	-1.6810E+05	-4.5412E+03	-1.4232E+03	-4.5289E+03	-1.6812E+05	-89.50
1078	-1.7081E+05	1.0030E+03	-8.0655E+03	1.3809E+03	-1.7118E+05	-87.32
1079	-1.7207E+05	-5.3349E+03	-8.5404E+03	-4.8986E+03	-1.7251E+05	-87.08
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
973	-1.1516E+03	-1.1131E+03	1.3628E+01	-1.1088E+03	-1.1559E+03	72.34
974	-6.4258E+02	2.0167E+02	2.1416E+01	2.0221E+02	-6.4312E+02	88.55
1078	-5.8581E+02	7.7338E+02	4.0413E+01	7.7458E+02	-5.8701E+02	88.30
1079	-8.8338E+02	-1.2413E+02	4.8200E+01	-1.2108E+02	-8.8643E+02	86.38

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
973	-2.5093E+03	5.1554E+02	-8.3442E+03	7.4833E+03	-9.4771E+03	-50.14
974	-2.6012E+03	5.5918E+01	-8.4677E+03	7.2987E+03	-9.8439E+03	-49.46
1078	-4.8667E+03	4.4005E+01	-7.8031E+03	5.7690E+03	-1.0592E+04	-53.73
1079	-4.9587E+03	-4.1561E+02	-7.9266E+03	5.5585E+03	-1.0933E+04	-53.00
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
973	-1.5618E+01	-5.8865E-01	-1.1950E+01	6.0128E+00	-2.2219E+01	-61.08
974	-1.1032E+01	-1.2065E+00	-4.7683E+01	4.1816E+01	-5.4055E+01	-47.94
1078	-2.3175E+01	9.6105E+01	-2.4404E+01	1.0090E+02	-2.7975E+01	-78.87
1079	-5.9498E+01	-8.3987E+01	-6.0137E+01	-1.0371E+01	-1.3311E+02	-39.25

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
973	-2.8217E+03	-4.0516E+02	7.9144E+03	6.3927E+03	-9.6196E+03	49.34
974	-2.7823E+03	-2.0796E+02	8.0154E+03	6.6229E+03	-9.6132E+03	49.56
1078	-6.2709E+02	3.3798E+01	7.1439E+03	6.8549E+03	-7.4482E+03	46.32
1079	-5.8764E+02	2.3100E+02	7.2448E+03	7.0781E+03	-7.4347E+03	46.62
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
973	-2.0394E+01	-2.0615E+01	1.1251E+01	-9.2534E+00	-3.1756E+01	44.72
974	-1.0369E+01	4.7615E+00	4.5691E+01	4.3509E+01	-4.9117E+01	49.70
1078	-7.5882E-01	-7.7645E+01	2.3579E+01	5.8963E+00	-8.4301E+01	15.76
1079	2.9856E+01	7.7702E+01	5.8019E+01	1.1654E+02	-8.9785E+00	56.20

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
973	-2.3241E+03	-4.5777E+02	8.7242E+03	7.3831E+03	-1.0165E+04	48.05
974	-2.2734E+03	-2.0420E+02	8.8376E+03	7.6592E+03	-1.0137E+04	48.34
1078	8.5234E+01	2.4126E+01	7.9138E+03	7.9685E+03	-7.8591E+03	44.89
1079	1.3596E+02	2.7769E+02	8.0271E+03	8.2343E+03	-7.8206E+03	45.25
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
973	-1.7155E+01	-1.9588E+01	1.2233E+01	-6.0780E+00	-3.0665E+01	42.16
974	-8.2793E+00	4.7065E+00	5.0113E+01	4.8745E+01	-5.2318E+01	48.69
1078	2.4326E+00	-8.8217E+01	2.5808E+01	9.2652E+00	-9.5050E+01	14.83
1079	3.7053E+01	8.6237E+01	6.3688E+01	1.2992E+02	-6.6262E+00	55.56

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
973	-6.9469E+02	4.9768E+02	-8.6135E+03	8.5356E+03	-8.7326E+03	-46.98
974	-7.7198E+02	1.1120E+02	-8.7343E+03	8.4151E+03	-9.0758E+03	-46.45
1078	-3.0817E+03	2.0244E+01	-7.9602E+03	6.5791E+03	-9.6406E+03	-50.51
1079	-3.1590E+03	-3.6623E+02	-8.0810E+03	6.4381E+03	-9.9633E+03	-49.90

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JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
973	-3.3175E+00	6.8101E+00	-1.1961E+01	1.4735E+01	-1.1243E+01	-56.47
974	-3.7758E+00	-2.4905E+00	-4.9042E+01	4.5913E+01	-5.2180E+01	-45.38
1078	-1.5190E+01	9.5627E+01	-2.5105E+01	1.0105E+02	-2.0612E+01	-77.81
1079	-5.1972E+01	-8.6528E+01	-6.2186E+01	-4.7087E+00	-1.3379E+02	-37.24

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
973	6.6629E+04	2.8041E+04	-5.7061E+04	1.0757E+05	-1.2899E+04	-35.66
974	6.3210E+04	1.0942E+04	-5.9838E+04	1.0237E+05	-2.8220E+04	-33.20
1078	2.8292E+04	2.0373E+04	-5.2903E+04	7.7383E+04	-2.8718E+04	-42.86
1079	2.4872E+04	3.2747E+03	-5.5680E+04	7.0791E+04	-4.2644E+04	-39.51
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
973	1.7592E+02	-1.9318E+03	-4.0198E+02	2.4998E+02	-2.0058E+03	-10.44
974	5.6234E+02	-2.0461E+02	-8.4433E+02	1.1062E+03	-7.4847E+02	-32.79
1078	-9.8646E+02	-6.0471E+03	-2.4406E+02	-9.7472E+02	-6.0589E+03	-2.75
1079	-8.7829E+02	-5.4644E+03	-6.8640E+02	-7.7776E+02	-5.5650E+03	-8.33

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
973	6.0687E+04	1.1330E+04	5.1362E+04	9.2992E+04	-2.0975E+04	32.17
974	5.8760E+04	1.6981E+03	6.0634E+04	9.7240E+04	-3.6782E+04	32.40
1078	1.0631E+05	2.0455E+04	5.1016E+04	1.3006E+05	-3.2912E+03	24.96
1079	1.0438E+05	1.0823E+04	6.0288E+04	1.3391E+05	-1.8705E+04	26.10
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
973	1.1840E+02	-2.1423E+03	4.6213E+02	2.0922E+02	-2.2331E+03	11.12
974	5.6323E+02	-1.4643E+02	9.8471E+02	1.2551E+03	-8.3829E+02	35.09
1078	2.3115E+03	5.2538E+03	5.5671E+02	5.3556E+03	2.2097E+03	79.64
1079	1.6463E+03	4.5380E+03	1.0793E+03	4.8964E+03	1.2879E+03	71.63

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LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
974	-1.6535E+05	6.8399E+03	-6.3864E+03	7.0765E+03	-1.6558E+05	-87.88
975	-1.6804E+05	-6.6145E+03	-6.4984E+03	-6.3533E+03	-1.6830E+05	-87.70
1079	-1.6304E+05	7.3021E+03	-1.8869E+04	9.3672E+03	-1.6510E+05	-83.75
1080	-1.6573E+05	-6.1521E+03	-1.8981E+04	-3.9255E+03	-1.6795E+05	-83.31
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
974	-1.0167E+03	2.4932E+02	-2.1980E+00	2.4933E+02	-1.0167E+03	-89.90
975	-6.8955E+02	1.1487E+02	-6.2823E+01	1.1975E+02	-6.9443E+02	-85.56
1079	-1.0566E+03	-1.8454E+02	-1.2838E+01	-1.8435E+02	-1.0567E+03	-89.16
1080	-8.7877E+02	-9.8075E+01	-7.3463E+01	-9.1222E+01	-8.8563E+02	-84.67

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
974	7.3346E+05	1.5372E+04	-1.4355E+03	7.3346E+05	1.5369E+04	-.11
975	7.3999E+05	4.8019E+04	1.1272E+04	7.4017E+05	4.7835E+04	.93
1079	7.4742E+05	1.8165E+04	9.2919E+03	7.4754E+05	1.8047E+04	.73
1080	7.5395E+05	5.0812E+04	2.1999E+04	7.5464E+05	5.0125E+04	1.79
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
974	4.8119E+03	-4.8780E+02	-1.9917E+01	4.8120E+03	-4.8787E+02	-.22
975	3.7919E+03	-2.9576E+03	-2.3030E+01	3.7920E+03	-2.9577E+03	-.20
1079	4.1979E+03	-1.3295E+03	-1.1938E+02	4.2005E+03	-1.3321E+03	-1.24
1080	4.7550E+03	-3.4471E+02	-1.2250E+02	4.7580E+03	-3.4765E+02	-1.38

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LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
974	-1.5041E+05	6.5298E+03	-7.9870E+03	6.9353E+03	-1.5082E+05	-87.09
975	-1.5295E+05	-6.1330E+03	-8.0882E+03	-5.6887E+03	-1.5339E+05	-86.86
1079	-1.4853E+05	6.9063E+03	-1.9697E+04	9.3634E+03	-1.5099E+05	-82.89
1080	-1.5106E+05	-5.7563E+03	-1.9798E+04	-3.1071E+03	-1.5371E+05	-82.38
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
974	-9.4667E+02	1.8375E+02	-2.8430E+01	1.8447E+02	-9.4739E+02	-88.56
975	-6.1018E+02	1.2028E+02	-7.7783E+01	1.2847E+02	-6.1837E+02	-83.99
1079	-9.4061E+02	-1.5499E+02	-3.6538E+01	-1.5329E+02	-9.4230E+02	-87.34
1080	-8.1166E+02	-1.1195E+02	-8.5890E+01	-1.0156E+02	-8.2205E+02	-83.10

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
974	2.8098E+04	8.2997E+02	6.3213E+02	2.8113E+04	8.1533E+02	1.33
975	2.7852E+04	-3.9898E+02	7.0665E+02	2.7870E+04	-4.1665E+02	1.43
1079	2.8212E+04	8.5279E+02	-7.8102E+02	2.8234E+04	8.3051E+02	-1.63
1080	2.7966E+04	-3.7615E+02	-7.0651E+02	2.7984E+04	-3.9375E+02	-1.43
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
974	1.1110E+02	-2.1406E+01	5.8325E+00	1.1135E+02	-2.1662E+01	2.52
975	1.8896E+02	1.2359E+02	2.0409E-01	1.8896E+02	1.2359E+02	.18
1079	1.3847E+02	3.2929E+00	1.0230E+01	1.3924E+02	2.5232E+00	4.30
1080	1.1885E+02	-6.8497E+01	4.6013E+00	1.1896E+02	-6.8610E+01	1.41

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
974	-1.5270E+05	6.4485E+03	-3.1878E+03	6.5123E+03	-1.5276E+05	-88.85
975	-1.5526E+05	-6.3464E+03	-3.2571E+03	-6.2751E+03	-1.5533E+05	-88.75
1079	-1.4965E+05	7.0582E+03	-1.4948E+04	8.4713E+03	-1.5107E+05	-84.60
1080	-1.5221E+05	-5.7364E+03	-1.5017E+04	-4.2126E+03	-1.5373E+05	-84.21
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
974	-9.4805E+02	2.0902E+02	2.1907E+01	2.0943E+02	-9.4846E+02	88.92
975	-6.2691E+02	1.1237E+02	-2.0114E+01	1.1292E+02	-6.2746E+02	-88.44
1079	-9.5936E+02	-1.2093E+02	1.0606E+01	-1.2080E+02	-9.5949E+02	89.28
1080	-7.9011E+02	-8.4445E+01	-3.1415E+01	-8.3049E+01	-7.9150E+02	-87.46

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
974	6.3186E+05	3.2017E+04	3.7880E+03	6.3188E+05	3.1993E+04	.36
975	6.3144E+05	2.9913E+04	1.6047E+04	6.3187E+05	2.9485E+04	1.53
1079	6.5350E+05	3.6347E+04	2.0450E+04	6.5418E+05	3.5670E+04	1.90
1080	6.5308E+05	3.4243E+04	3.2709E+04	6.5481E+05	3.2518E+04	3.02
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
974	4.2055E+03	-8.2859E+02	2.2347E+02	4.2154E+03	-8.3849E+02	2.54
975	3.3129E+03	-1.9475E+03	3.3671E+02	3.3344E+03	-1.9690E+03	3.65
1079	4.2790E+03	4.1738E+02	2.0614E+02	4.2899E+03	4.0641E+02	3.05
1080	4.2879E+03	1.1169E+03	3.1938E+02	4.3197E+03	1.0851E+03	5.69

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
974	-1.2058E+05	4.9642E+03	-1.6460E+03	4.9858E+03	-1.2060E+05	-89.25
975	-1.2257E+05	-4.9760E+03	-1.7248E+03	-4.9507E+03	-1.2259E+05	-89.16
1079	-1.1790E+05	5.5005E+03	-1.0878E+04	6.4521E+03	-1.1885E+05	-85.00
1080	-1.1988E+05	-4.4396E+03	-1.0957E+04	-3.4089E+03	-1.2091E+05	-84.63

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

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JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
974	-7.3828E+02	1.8253E+02	2.7825E+01	1.8337E+02	-7.3912E+02	88.27
975	-5.0094E+02	8.2517E+01	-6.9650E+00	8.2600E+01	-5.0102E+02	-89.32
1079	-7.6301E+02	-1.0006E+02	1.8145E+01	-9.9566E+01	-7.6351E+02	88.43
1080	-6.1832E+02	-5.9156E+01	-1.6644E+01	-5.8661E+01	-6.1881E+02	-88.30

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
974	-1.7993E+03	2.1627E+02	-8.1387E+03	7.4094E+03	-8.9924E+03	-48.53
975	-1.7943E+03	2.4123E+02	-8.2774E+03	7.5632E+03	-9.1163E+03	-48.51
1079	-3.5472E+03	-1.3330E+02	-8.2497E+03	6.5842E+03	-1.0265E+04	-50.85
1080	-3.5422E+03	-1.0834E+02	-8.3884E+03	6.7370E+03	-1.0388E+04	-50.78
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
974	-1.2531E+01	-1.5064E+00	-7.5100E+01	6.8284E+01	-8.2321E+01	-47.10
975	-6.2122E+00	6.4197E+00	-9.5813E+01	9.6125E+01	-9.5918E+01	-46.89
1079	-1.1270E+01	-7.4342E+01	-7.2107E+01	3.5896E+01	-1.2151E+02	-33.19
1080	-6.7480E+01	-5.0344E+01	-9.2820E+01	3.4302E+01	-1.5213E+02	-47.64

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
974	-1.9404E+03	-3.9563E+01	7.6990E+03	6.7675E+03	-8.7475E+03	48.52
975	-2.0108E+03	-3.9140E+02	7.8342E+03	6.6749E+03	-9.0771E+03	47.95
1079	-1.9921E+02	3.0866E+02	7.5158E+03	7.5748E+03	-7.4653E+03	45.97
1080	-2.6957E+02	-4.3168E+01	7.6510E+03	7.4954E+03	-7.8082E+03	45.42
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
974	-1.1943E+01	4.4467E+00	7.2076E+01	6.8792E+01	-7.6288E+01	48.24
975	-8.4147E+00	-2.7796E+00	9.1287E+01	8.5733E+01	-9.6927E+01	45.88
1079	-1.1680E+01	6.9396E+01	6.8982E+01	1.0887E+02	-5.1153E+01	60.22
1080	4.5575E+01	4.5460E+01	8.8192E+01	1.3371E+02	-4.2675E+01	44.98

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
974	-1.5885E+03	-6.7206E+01	8.4887E+03	7.6948E+03	-9.3506E+03	47.56
975	-1.6562E+03	-4.0560E+02	8.6376E+03	7.6293E+03	-9.6911E+03	47.07
1079	3.0409E+02	3.1129E+02	8.3314E+03	8.6391E+03	-8.0237E+03	45.01
1080	2.3642E+02	-2.7096E+01	8.4803E+03	8.5860E+03	-8.3766E+03	44.56
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
974	-9.5606E+00	4.4502E+00	7.9180E+01	7.6934E+01	-8.2044E+01	47.53
975	-7.1223E+00	-3.5582E+00	1.0042E+02	9.5092E+01	-1.0577E+02	45.51
1079	-9.3712E+00	7.6953E+01	7.5828E+01	1.2104E+02	-5.3461E+01	59.82
1080	5.3054E+01	5.1018E+01	9.7065E+01	1.4911E+02	-4.5035E+01	44.70

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
974	-5.2996E+02	1.5958E+02	-8.3916E+03	8.2135E+03	-8.5839E+03	-46.18
975	-5.0071E+02	3.0584E+02	-8.5370E+03	8.4491E+03	-8.6439E+03	-46.35
1079	-2.3357E+03	-2.0154E+02	-8.4029E+03	7.2018E+03	-9.7390E+03	-48.62
1080	-2.3064E+03	-5.5278E+01	-8.5483E+03	7.4412E+03	-9.8029E+03	-48.75
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
974	-4.2295E+00	-2.5813E+00	-7.7544E+01	7.4143E+01	-8.0953E+01	-45.30
975	-1.2197E+00	5.3854E+00	-9.8759E+01	1.0090E+02	-9.6731E+01	-45.96
1079	-3.7313E+00	-7.6880E+01	-7.4404E+01	4.2601E+01	-1.2321E+02	-31.91
1080	-6.2997E+01	-5.2140E+01	-9.5619E+01	3.8204E+01	-1.5334E+02	-46.62

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1069 ----------
LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
974	5.0297E+04	8.3595E+03	-6.3460E+04	9.6162E+04	-3.7506E+04	-35.86
975	4.9618E+04	4.9683E+03	-6.8674E+04	9.9505E+04	-4.4918E+04	-36.00
1079	3.0903E+04	4.4810E+03	-6.0589E+04	7.9704E+04	-4.4320E+04	-38.85
1080	3.0225E+04	1.0899E+03	-6.5803E+04	8.3053E+04	-5.1739E+04	-38.76
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
974	5.2484E+02	-2.1211E+02	-1.1539E+03	1.3677E+03	-1.0550E+03	-36.15
975	1.3722E+02	-1.0851E+02	-1.3692E+03	1.3891E+03	-1.3604E+03	-42.44
1079	-5.8180E+02	-5.4051E+03	-8.9749E+02	-4.2021E+02	-5.5667E+03	-10.21
1080	-5.2431E+02	-1.9846E+03	-1.1128E+03	7.6495E+01	-2.5854E+03	-28.36

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
974	4.6644E+04	-7.2471E+02	6.4344E+04	9.1525E+04	-4.5605E+04	34.90
975	4.6141E+04	-3.2430E+03	7.2096E+04	9.7656E+04	-5.4758E+04	35.55
1079	6.7711E+04	3.4882E+03	7.0513E+04	1.1308E+05	-4.1881E+04	32.76
1080	6.7207E+04	9.6996E+02	7.8264E+04	1.1907E+05	-5.0895E+04	33.53
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
974	5.2425E+02	-1.5423E+02	1.2870E+03	1.5159E+03	-1.1459E+03	37.62
975	1.1283E+02	-1.9309E+02	1.3554E+03	1.3239E+03	-1.4041E+03	41.78
1079	1.1776E+03	4.4443E+03	1.1259E+03	4.7947E+03	8.2718E+02	72.71
1080	9.5048E+02	2.1005E+03	1.1943E+03	2.8510E+03	1.9996E+02	57.85

ELEMENT ID 1076 ----------
LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
981	3.7412E+04	-6.2743E+02	6.9324E+02	3.7425E+04	-6.4006E+02	1.04
982	3.7755E+04	1.0889E+03	8.1581E+02	3.7774E+04	1.0707E+03	1.27
1086	3.8025E+04	-5.0486E+02	2.4543E+03	3.8181E+04	-6.6057E+02	3.63
1087	3.8368E+04	1.2114E+03	2.5769E+03	3.8546E+04	1.0335E+03	3.95
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
981	2.5366E+02	1.6517E+02	1.6792E+00	2.5369E+02	1.6514E+02	1.09
982	1.4941E+02	-2.8369E+01	1.4147E+00	1.4942E+02	-2.8380E+01	.46
1086	1.6184E+02	-1.1091E+02	-1.6649E+00	1.6185E+02	-1.1092E+02	-.35
1087	1.9559E+02	2.1707E+01	-1.9294E+00	1.9561E+02	2.1685E+01	-.64

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
981	-2.3207E+05	3.6294E+03	-6.3815E+03	3.8020E+03	-2.3224E+05	-88.45
982	-2.3410E+05	-6.5165E+03	-7.0178E+03	-6.3003E+03	-2.3432E+05	-88.24
1086	-2.3735E+05	2.5737E+03	-1.6158E+04	3.6570E+03	-2.3843E+05	-86.16
1087	-2.3938E+05	-7.5720E+03	-1.6795E+04	-6.3615E+03	-2.4059E+05	-85.88
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
981	-1.5880E+03	-1.5318E+03	-3.5953E+00	-1.5316E+03	-1.5883E+03	-86.36
982	-8.9186E+02	2.7735E+02	-3.9394E+00	2.7737E+02	-8.9188E+02	-89.81
1086	-8.1600E+02	1.0505E+03	3.0647E+01	1.0511E+03	-8.1650E+02	89.06
1087	-1.2488E+03	-2.2653E+02	3.0303E+01	-2.2564E+02	-1.2497E+03	88.30

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
981	3.6944E+04	-5.8451E+02	-1.5020E+02	3.6945E+04	-5.8511E+02	-.23
982	3.7280E+04	1.0924E+03	-3.8144E+01	3.7280E+04	1.0924E+03	-.06
1086	3.7290E+04	-5.1524E+02	1.6750E+03	3.7364E+04	-5.8931E+02	2.53
1087	3.7626E+04	1.1617E+03	1.7870E+03	3.7713E+04	1.0743E+03	2.80

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1076 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
981	2.5027E+02	1.5681E+02	9.1800E-01	2.5028E+02	1.5681E+02	.56
982	1.4773E+02	-2.6914E+01	-3.3215E+00	1.4779E+02	-2.6977E+01	-1.09
1086	1.6048E+02	-9.5554E+01	-3.4522E+00	1.6053E+02	-9.5601E+01	-.77
1087	1.8784E+02	1.1955E+01	-7.6917E+00	1.8817E+02	1.1620E+01	-2.50

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
981	-1.2393E+05	-4.8008E+03	7.4947E+03	-4.3312E+03	-1.2440E+05	86.41
982	-1.2196E+05	5.0812E+03	7.3396E+03	5.5038E+03	-1.2238E+05	86.70
1086	-1.2244E+05	-4.5026E+03	1.6934E+04	-2.1193E+03	-1.2483E+05	81.99
1087	-1.2047E+05	5.3793E+03	1.6779E+04	7.5780E+03	-1.2267E+05	82.53

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
981	-5.0538E+02	8.7645E+01	8.1154E+01	9.8551E+01	-5.1628E+02	82.35
982	-7.4878E+02	1.7990E+02	3.4058E+01	1.8114E+02	-7.5002E+02	87.90
1086	-6.6403E+02	-8.6641E+01	8.6133E+01	-7.4066E+01	-6.7660E+02	81.69
1087	-7.7446E+02	-1.7995E+02	3.9036E+01	-1.7740E+02	-7.7701E+02	86.26

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
981	3.6040E+04	-6.8249E+02	1.8745E+03	3.6135E+04	-7.7792E+02	2.91
982	3.6382E+04	1.0313E+03	2.0117E+03	3.6496E+04	9.1715E+02	3.25
1086	3.6970E+04	-4.9645E+02	3.4843E+03	3.7291E+04	-8.1773E+02	5.27
1087	3.7312E+04	1.2173E+03	3.6215E+03	3.7672E+04	8.5752E+02	5.67

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
981	2.4395E+02	1.5389E+02	3.5358E+00	2.4409E+02	1.5375E+02	2.24
982	1.4420E+02	-2.6175E+01	8.2952E+00	1.4460E+02	-2.6578E+01	2.78
1086	1.5858E+02	-1.1728E+02	2.2986E+00	1.5860E+02	-1.1730E+02	.48
1087	1.9497E+02	3.2791E+01	7.0579E+00	1.9527E+02	3.2484E+01	2.49

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
981	-1.9664E+05	2.3461E+03	6.2519E+02	2.3481E+03	-1.9664E+05	89.82
982	-1.9820E+05	-5.4666E+03	-5.6054E+00	-5.4666E+03	-1.9820E+05	-90.00
1086	-2.0015E+05	1.6427E+03	-8.4859E+03	1.9989E+03	-2.0051E+05	-87.60
1087	-2.0172E+05	-6.1699E+03	-9.1167E+03	-5.7458E+03	-2.0214E+05	-87.34

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
981	-1.3495E+03	-1.1729E+03	7.4875E+00	-1.1726E+03	-1.3498E+03	87.58
982	-7.6547E+02	2.1095E+02	2.4916E+01	2.1158E+02	-7.6611E+02	88.54
1086	-7.4685E+02	7.1969E+02	3.8715E+01	7.2071E+02	-7.4787E+02	88.49
1087	-1.0367E+03	-1.6814E+02	5.6143E+01	-1.6453E+02	-1.0403E+03	86.32

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
981	2.7354E+04	-5.3526E+02	1.7850E+03	2.7467E+04	-6.4904E+02	3.65
982	2.7616E+04	7.7546E+02	1.8935E+03	2.7749E+04	6.4254E+02	4.02
1086	2.8174E+04	-3.7116E+02	2.9713E+03	2.8480E+04	-6.7718E+02	5.88
1087	2.8436E+04	9.3953E+02	3.0798E+03	2.8777E+04	5.9879E+02	6.31

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
981	1.8520E+02	1.1893E+02	3.0568E+00	1.8534E+02	1.1879E+02	2.64
982	1.0938E+02	-2.0234E+01	8.3502E+00	1.0991E+02	-2.0770E+01	3.67
1086	1.2017E+02	-9.4653E+01	2.6028E+00	1.2021E+02	-9.4685E+01	.69
1087	1.5025E+02	2.9009E+01	7.8961E+00	1.5076E+02	2.8497E+01	3.71

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1076 ----------
LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
981	5.3370E+02	1.8491E+02	-3.3836E+03	3.7474E+03	-3.0288E+03	-43.52
982	5.1056E+02	6.9251E+01	-3.4290E+03	3.7260E+03	-3.1462E+03	-43.16
1086	-4.1542E+02	-4.9227E+00	-3.0873E+03	2.8839E+03	-3.3043E+03	-46.90
1087	-4.3856E+02	-1.2058E+02	-3.1326E+03	2.8571E+03	-3.4162E+03	-46.45

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
981	4.1635E+00	6.0654E+00	-4.7641E+00	9.9726E+00	2.5638E-01	-50.64
982	1.7392E+00	-1.5646E+00	-1.9450E+01	1.9608E+01	-1.9433E+01	-42.57
1086	-2.6044E+00	3.5101E+01	-9.9920E+00	3.7585E+01	-5.0886E+00	-76.04
1087	-1.6277E+01	-3.3677E+01	-2.4678E+01	1.1896E+00	-5.1143E+01	-35.29

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
981	4.8255E+02	-1.9624E+02	3.2904E+03	3.4510E+03	-3.1647E+03	42.06
982	5.1426E+02	-3.7665E+01	3.3377E+03	3.5874E+03	-3.1108E+03	42.64
1086	1.4152E+03	-9.6928E+00	3.0519E+03	3.8367E+03	-2.4312E+03	38.43
1087	1.4469E+03	1.4888E+02	3.0991E+03	3.9643E+03	-2.3684E+03	39.09

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
981	2.7275E+00	-1.8610E+00	4.6634E+00	5.6304E+00	-4.7639E+00	31.90
982	2.3224E+00	8.3346E-01	1.8842E+01	2.0434E+01	-1.7278E+01	43.87
1086	6.9408E+00	-3.6660E+01	9.6451E+00	8.9792E+00	-3.8699E+01	11.93
1087	2.0937E+01	3.3107E+01	2.3823E+01	5.1610E+01	2.4339E+00	52.16

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
981	3.8146E+02	-2.1252E+02	3.6043E+03	3.7010E+03	-3.5321E+03	42.64
982	4.1484E+02	-4.5651E+01	3.6556E+03	3.8475E+03	-3.4783E+03	43.20
1086	1.4018E+03	-8.4398E+00	3.3358E+03	4.1061E+03	-2.7128E+03	39.03
1087	1.4352E+03	1.5843E+02	3.3871E+03	4.2435E+03	-2.6499E+03	39.66

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
981	1.9916E+00	-2.6328E+00	5.1216E+00	5.2988E+00	-5.9399E+00	32.85
982	1.9545E+00	1.0149E+00	2.0663E+01	2.2153E+01	-1.9184E+01	44.35
1086	6.9669E+00	-3.9731E+01	1.0587E+01	9.2550E+00	-4.2019E+01	12.20
1087	2.2167E+01	3.6169E+01	2.6128E+01	5.6218E+01	2.1180E+00	52.50

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
981	1.8835E+02	1.9732E+02	-3.5015E+03	3.6944E+03	-3.3087E+03	-45.04
982	1.6108E+02	6.0961E+01	-3.5496E+03	3.6610E+03	-3.4389E+03	-44.60
1086	-7.9780E+02	7.4263E-02	-3.2130E+03	2.8388E+03	-3.6365E+03	-48.54
1087	-8.2507E+02	-1.3628E+02	-3.2611E+03	2.7985E+03	-3.7599E+03	-48.01

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
981	1.8480E+00	4.8226E+00	-4.9766E+00	8.5294E+00	-1.8588E+00	-53.32
982	3.4053E-01	-1.3729E+00	-2.0128E+01	1.9630E+01	-2.0663E+01	-43.78
1086	-4.3239E+00	3.7124E+01	-1.0337E+01	3.9559E+01	-6.7589E+00	-76.75
1087	-1.8667E+01	-3.4896E+01	-2.5489E+01	-3.2201E-02	-5.3530E+01	-36.17

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
981	-2.3969E+04	2.6163E+03	-3.4406E+04	2.6208E+04	-4.7561E+04	-55.56
982	-2.4504E+04	-5.4783E+01	-3.4990E+04	2.4785E+04	-4.9344E+04	-54.63
1086	-3.5401E+04	3.2985E+02	-3.2850E+04	1.9858E+04	-5.4929E+04	-59.27
1087	-3.5935E+04	-2.3412E+03	-3.3434E+04	1.8278E+04	-5.6555E+04	-58.34

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1076 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
981	-1.5595E+02	-3.3546E+01	-4.2396E+01	-2.0296E+01	-1.6920E+02	-72.65
982	-1.0128E+02	-1.5857E-01	-1.9457E+02	1.5031E+02	-2.5175E+02	-52.28
1086	-1.6366E+02	4.3951E+02	-9.7035E+01	4.5473E+02	-1.7888E+02	-81.08
1087	-3.2541E+02	-3.8022E+02	-2.4921E+02	-1.0211E+02	-6.0352E+02	-41.86

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
981	-2.4326E+04	-1.6315E+03	3.2360E+04	2.1313E+04	-4.7270E+04	54.66
982	-2.4272E+04	-1.3641E+03	3.2752E+04	2.1879E+04	-4.7515E+04	54.64
1086	-1.3800E+04	4.7367E+02	2.8464E+04	2.2682E+04	-3.6009E+04	52.04
1087	-1.3747E+04	7.4107E+02	2.8856E+04	2.3249E+04	-3.6255E+04	52.05

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
981	-1.6864E+02	-1.1163E+02	3.4972E+01	-9.5016E+01	-1.8525E+02	64.59
982	-9.4518E+01	2.3437E+01	1.8535E+02	1.5896E+02	-2.3004E+02	53.83
1086	-6.5761E+01	-3.2994E+02	9.0278E+01	-3.7858E+01	-3.5784E+02	17.18
1087	7.2055E+01	3.5165E+02	2.4065E+02	4.9016E+02	-6.6455E+01	60.08

ELEMENT ID 1077 ----------

LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
982	2.6344E+04	-1.1933E+03	8.2346E+02	2.6369E+04	-1.2179E+03	1.71
983	2.6809E+04	1.1308E+03	8.1380E+02	2.6835E+04	1.1050E+03	1.81
1087	2.5943E+04	-1.2737E+03	2.8914E+03	2.6246E+04	-1.5774E+03	6.00
1088	2.6407E+04	1.0504E+03	2.8817E+03	2.6731E+04	7.2701E+02	6.40

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
982	1.7068E+02	-2.4114E+01	7.7616E-01	1.7069E+02	-2.4117E+01	.23
983	1.0399E+02	-2.3519E+01	5.7839E+00	1.0425E+02	-2.3781E+01	2.59
1087	1.6127E+02	1.4844E+01	2.2810E+00	1.6131E+02	1.4809E+01	.89
1088	1.3759E+02	1.7245E+01	7.2887E+00	1.3803E+02	1.6805E+01	3.45

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
982	-1.6691E+05	6.9218E+03	-6.9771E+03	7.2014E+03	-1.6719E+05	-87.71
983	-1.6963E+05	-6.6607E+03	-7.0971E+03	-6.3522E+03	-1.6993E+05	-87.51
1087	-1.6470E+05	7.3637E+03	-1.9580E+04	9.5637E+03	-1.6690E+05	-83.59
1088	-1.6742E+05	-6.2185E+03	-1.9700E+04	-3.8459E+03	-1.6979E+05	-83.13

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
982	-1.0269E+03	2.5034E+02	-7.3333E+00	2.5038E+02	-1.0270E+03	-89.67
983	-6.9560E+02	1.1666E+02	-6.9596E+01	1.2258E+02	-7.0152E+02	-85.14
1087	-1.0660E+03	-1.8999E+02	-1.7846E+01	-1.8963E+02	-1.0664E+03	-88.83
1088	-8.9080E+02	-1.0217E+02	-8.0108E+01	-9.4118E+01	-8.9886E+02	-84.26

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
982	2.5952E+04	-1.1731E+03	2.6318E+00	2.5952E+04	-1.1731E+03	.01
983	2.6417E+04	1.1514E+03	-2.4634E+01	2.6417E+04	1.1514E+03	-.06
1087	2.5389E+04	-1.2857E+03	2.0464E+03	2.5545E+04	-1.4417E+03	4.36
1088	2.5854E+04	1.0388E+03	2.0191E+03	2.6017E+04	8.7558E+02	4.62

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
982	1.6888E+02	-2.2683E+01	-6.7154E+00	1.6912E+02	-2.2918E+01	-2.01
983	1.0215E+02	-2.3126E+01	-3.8966E+00	1.0227E+02	-2.3247E+01	-1.78
1087	1.5871E+02	6.1312E+00	-4.9351E+00	1.5887E+02	5.9718E+00	-1.85
1088	1.2982E+02	1.2373E+01	-2.1164E+00	1.2985E+02	1.2335E+01	-1.03

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LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
982	-1.7021E+05	-4.5690E+03	7.5467E+03	-4.2259E+03	-1.7055E+05	87.40
983	-1.6882E+05	2.3567E+03	6.8056E+03	2.6268E+03	-1.6909E+05	87.73
1087	-1.7557E+05	-5.6415E+03	1.4054E+04	-4.4870E+03	-1.7673E+05	85.30
1088	-1.7419E+05	1.2841E+03	1.3313E+04	2.2884E+03	-1.7519E+05	85.69

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
982	-6.5163E+02	1.9933E+02	2.5887E+01	2.0011E+02	-6.5242E+02	88.26
983	-1.1636E+03	-1.1063E+03	1.3768E+01	-1.1032E+03	-1.1667E+03	77.16
1087	-9.2797E+02	-2.1065E+02	2.2120E+00	-2.1064E+02	-9.2797E+02	89.82
1088	-6.2349E+02	7.2206E+02	-9.9063E+00	7.2213E+02	-6.2356E+02	-89.58

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
982	2.5351E+04	-1.1749E+03	1.9694E+03	2.5497E+04	-1.3204E+03	4.22
983	2.5795E+04	1.0428E+03	1.9789E+03	2.5952E+04	8.8556E+02	4.54
1087	2.5243E+04	-1.1966E+03	3.9583E+03	2.5823E+04	-1.7765E+03	8.33
1088	2.5686E+04	1.0211E+03	3.9679E+03	2.6309E+04	3.9849E+02	8.92

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
982	1.6481E+02	-2.2053E+01	1.1761E+01	1.6554E+02	-2.2790E+01	3.59
983	9.9763E+01	-2.3556E+01	1.9616E+01	1.0281E+02	-2.6601E+01	8.82
1087	1.5538E+02	2.4875E+01	1.2735E+01	1.5661E+02	2.3644E+01	5.52
1088	1.4104E+02	2.4135E+01	2.0590E+01	1.4456E+02	2.0614E+01	9.70

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
982	-1.4089E+05	5.9957E+03	-6.1739E+02	5.9983E+03	-1.4089E+05	-89.76
983	-1.4329E+05	-6.0371E+03	-7.2612E+02	-6.0332E+03	-1.4330E+05	-89.70
1087	-1.3708E+05	6.7576E+03	-1.1406E+04	7.6565E+03	-1.3798E+05	-85.49
1088	-1.3948E+05	-5.2750E+03	-1.1515E+04	-4.2942E+03	-1.4047E+05	-85.13

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
982	-8.7866E+02	1.8831E+02	3.7866E+01	1.8965E+02	-8.8000E+02	87.97
983	-5.7673E+02	1.0398E+02	6.9717E+00	1.0405E+02	-5.7680E+02	89.41
1087	-8.9586E+02	-1.3997E+02	2.8311E+01	-1.3892E+02	-8.9692E+02	87.86
1088	-7.1541E+02	-9.2934E+01	-2.5823E+00	-9.2923E+01	-7.1542E+02	-89.76

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
982	1.9263E+04	-8.9512E+02	1.8466E+03	1.9430E+04	-1.0629E+03	5.19
983	1.9597E+04	7.7582E+02	1.8613E+03	1.9779E+04	5.9351E+02	5.59
1087	1.9259E+04	-8.9581E+02	3.3553E+03	1.9803E+04	-1.4397E+03	9.21
1088	1.9593E+04	7.7511E+02	3.3700E+03	2.0179E+04	1.8979E+02	9.85

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
982	1.2499E+02	-1.7113E+01	1.2201E+01	1.2603E+02	-1.8153E+01	4.87
983	7.5904E+01	-1.7951E+01	1.9119E+01	7.9649E+01	-2.1696E+01	11.08
1087	1.1820E+02	2.2600E+01	1.2805E+01	1.1988E+02	2.0915E+01	7.50
1088	1.0969E+02	2.0378E+01	1.9723E+01	1.1385E+02	1.6217E+01	11.92

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
982	3.5791E+02	3.8710E+01	-3.2938E+03	3.4960E+03	-3.0994E+03	-43.61
983	3.7953E+02	1.4681E+02	-3.3515E+03	3.6167E+03	-3.0903E+03	-44.01
1087	-3.7937E+02	-1.0874E+02	-3.2535E+03	3.0122E+03	-3.5003E+03	-46.19
1088	-3.5775E+02	-6.4002E-01	-3.3111E+03	3.1367E+03	-3.4951E+03	-46.54

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JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
982	2.0244E+00	-1.5076E+00	-3.0722E+01	3.1031E+01	-3.0514E+01	-43.36
983	1.7469E+00	1.6174E+00	-3.9016E+01	4.0698E+01	-3.7334E+01	-44.95
1087	2.0352E+00	-3.0014E+01	-2.9428E+01	1.9518E+01	-4.7498E+01	-30.72
1088	-2.1914E+01	-1.9872E+01	-3.7722E+01	1.6843E+01	-5.8629E+01	-45.78

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
982	3.5389E+02	-6.9730E+01	3.2071E+03	3.3562E+03	-3.0721E+03	43.11
983	3.4551E+02	-1.1159E+02	3.2624E+03	3.3874E+03	-3.1535E+03	43.00
1087	1.0564E+03	7.0771E+01	3.2234E+03	3.8244E+03	-2.6972E+03	40.65
1088	1.0481E+03	2.8910E+01	3.2787E+03	3.8565E+03	-2.7796E+03	40.58
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
982	2.6221E+00	8.9340E-01	2.9728E+01	3.1499E+01	-2.7983E+01	44.17
983	1.0525E+00	-2.2132E+00	3.7879E+01	3.7334E+01	-3.8494E+01	43.77
1087	2.3163E+00	2.9383E+01	2.8517E+01	4.7415E+01	-1.5716E+01	57.69
1088	2.4857E+01	1.9725E+01	3.6667E+01	5.9048E+01	-1.4466E+01	43.00

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
982	2.8455E+02	-7.1697E+01	3.5126E+03	3.6236E+03	-3.4107E+03	43.55
983	2.7353E+02	-1.2682E+02	3.5732E+03	3.6522E+03	-3.5055E+03	43.40
1087	1.0565E+03	8.2687E+01	3.5221E+03	4.1252E+03	-2.9860E+03	41.06
1088	1.0455E+03	2.7569E+01	3.5827E+03	4.1552E+03	-3.0822E+03	40.96
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
982	2.1980E+00	1.0636E+00	3.2592E+01	3.4227E+01	-3.0966E+01	44.50
983	7.4889E-01	-2.3306E+00	4.1504E+01	4.0742E+01	-4.2324E+01	43.94
1087	1.8909E+00	3.2114E+01	3.1257E+01	5.1721E+01	-1.7716E+01	57.90
1088	2.6699E+01	2.1499E+01	4.0170E+01	6.4353E+01	-1.6155E+01	43.15

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
982	1.1536E+02	5.1807E+01	-3.4103E+03	3.4940E+03	-3.3269E+03	-44.73
983	1.3312E+02	1.4061E+02	-3.4695E+03	3.6064E+03	-3.3327E+03	-45.03
1087	-6.4311E+02	-9.9879E+01	-3.3884E+03	3.0278E+03	-3.7708E+03	-47.29
1088	-6.2535E+02	-1.1077E+01	-3.4476E+03	3.1431E+03	-3.7795E+03	-47.55
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
982	4.2599E-01	-1.3558E+00	-3.1751E+01	3.1299E+01	-3.2229E+01	-44.20
983	8.0861E-01	1.9078E+00	-4.0360E+01	4.1722E+01	-3.9005E+01	-45.39
1087	5.7605E-01	-3.1047E+01	-3.0428E+01	1.9055E+01	-4.9526E+01	-31.27
1088	-2.3951E+01	-2.0613E+01	-3.9036E+01	1.6790E+01	-6.1354E+01	-46.22

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
982	-1.6792E+04	1.4874E+03	-3.3562E+04	2.7132E+04	-4.2436E+04	-52.62
983	-1.6950E+04	6.9635E+02	-3.4161E+04	2.7155E+04	-4.3409E+04	-52.24
1087	-2.5003E+04	-1.5461E+02	-3.4901E+04	2.4468E+04	-4.9625E+04	-54.80
1088	-2.5161E+04	-9.4567E+02	-3.5501E+04	2.4456E+04	-5.0562E+04	-54.42
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
982	-1.1571E+02	-3.0449E+00	-3.1454E+02	2.6017E+02	-3.7892E+02	-50.08
983	-6.1027E+01	3.7082E+01	-4.0638E+02	3.9736E+02	-4.2130E+02	-48.44
1087	-1.1326E+02	-3.3779E+02	-3.0158E+02	9.6272E+01	-5.4733E+02	-34.79
1088	-3.3495E+02	-2.2989E+02	-3.9342E+02	1.1449E+02	-6.7933E+02	-48.80

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

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LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
982	-1.6712E+04	1.4802E+02	3.1358E+04	2.4189E+04	-4.0753E+04	52.52
983	-1.7171E+04	-2.1474E+03	3.1983E+04	2.3194E+04	-4.2513E+04	51.61
1087	-8.2885E+03	1.8327E+03	3.0029E+04	2.7224E+04	-3.3680E+04	49.78
1088	-8.7475E+03	-4.6275E+02	3.0654E+04	2.6327E+04	-3.5537E+04	48.85

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
982	-1.0867E+02	2.0607E+01	3.0243E+02	2.6523E+02	-3.5329E+02	51.03
983	-6.7517E+01	-2.4405E+00	3.8621E+02	3.5260E+02	-4.2256E+02	47.41
1087	-8.9580E+01	3.1933E+02	2.8809E+02	4.6815E+02	-2.3839E+02	62.68
1088	1.5113E+02	1.9809E+02	3.7188E+02	5.4723E+02	-1.9801E+02	46.81

ELEMENT ID 1084 ----------
LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
989	-6.9811E+03	1.2778E+02	-2.4593E+02	1.3628E+02	-6.9896E+03	-88.02
990	-7.0472E+03	-2.0268E+02	-2.7134E+02	-1.9194E+02	-7.0579E+03	-87.73
1094	-7.1193E+03	1.0014E+02	-5.7171E+02	1.4513E+02	-7.1643E+03	-85.50
1095	-7.1854E+03	-2.3032E+02	-5.9712E+02	-1.7943E+02	-7.2363E+03	-85.13

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
989	-4.7206E+01	-2.8175E+01	-6.2831E-01	-2.8154E+01	-4.7227E+01	-88.11
990	-2.7988E+01	4.7685E+00	-9.5515E-01	4.7964E+00	-2.8016E+01	-88.33
1094	-3.1038E+01	2.0224E+01	-2.5310E-01	2.0225E+01	-3.1039E+01	-89.72
1095	-3.6928E+01	-4.8015E+00	-5.7993E-01	-4.7910E+00	-3.6939E+01	-88.97

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
989	3.7842E+04	-6.2207E+02	4.7693E+02	3.7848E+04	-6.2798E+02	.71
990	3.8187E+04	1.1050E+03	5.9784E+02	3.8197E+04	1.0954E+03	.92
1094	3.8398E+04	-5.1089E+02	2.2766E+03	3.8531E+04	-6.4365E+02	3.34
1095	3.8743E+04	1.2162E+03	2.3975E+03	3.8896E+04	1.0636E+03	3.64

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
989	2.5660E+02	1.6714E+02	1.3987E+00	2.5662E+02	1.6712E+02	.90
990	1.5111E+02	-2.8738E+01	1.5054E-01	1.5111E+02	-2.8739E+01	.05
1094	1.6343E+02	-1.0963E+02	-2.3241E+00	1.6345E+02	-1.0965E+02	-.49
1095	1.9655E+02	1.9664E+01	-3.5722E+00	1.9662E+02	1.9592E+01	-1.16

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
989	-6.9584E+03	1.4718E+02	-5.8580E+02	1.9515E+02	-7.0064E+03	-85.32
990	-7.0272E+03	-1.9670E+02	-6.1590E+02	-1.4161E+02	-7.0823E+03	-84.89
1094	-7.1919E+03	1.0048E+02	-8.8377E+02	2.0605E+02	-7.2974E+03	-83.19
1095	-7.2606E+03	-2.4340E+02	-9.1387E+02	-1.2634E+02	-7.3777E+03	-82.70

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
989	-4.6990E+01	-2.7511E+01	-1.1170E+00	-2.7447E+01	-4.7054E+01	-86.73
990	-2.7947E+01	4.5971E+00	-2.9131E+00	4.8558E+00	-2.8205E+01	-84.93
1094	-3.1497E+01	2.3695E+01	-1.2682E+00	2.3724E+01	-3.1526E+01	-88.68
1095	-3.8707E+01	-8.1624E+00	-3.0643E+00	-7.8580E+00	-3.9011E+01	-84.33

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
989	4.7344E+05	2.5058E+04	-8.8823E-03	4.7344E+05	2.5058E+04	.00
990	4.7570E+05	3.6391E+04	1.1965E+04	4.7603E+05	3.6065E+04	1.56
1094	4.8855E+05	2.8081E+04	4.5711E+03	4.8859E+05	2.8036E+04	.57
1095	4.9082E+05	3.9414E+04	1.6536E+04	4.9142E+05	3.8809E+04	2.10

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JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
989	2.6025E+03	-2.1544E+03	4.7327E+02	2.6491E+03	-2.2010E+03	5.63
990	3.4237E+03	-3.0229E+02	3.8637E+02	3.4634E+03	-3.4194E+02	5.86
1094	3.1971E+03	-1.4977E+02	4.0933E+02	3.2464E+03	-1.9910E+02	6.87
1095	2.5761E+03	-2.8570E+03	3.2243E+02	2.5952E+03	-2.8761E+03	3.38

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
989	-6.7703E+03	9.5428E+01	2.6609E+02	1.0573E+02	-6.7806E+03	87.78
990	-6.8303E+03	-2.0440E+02	2.4841E+02	-1.9510E+02	-6.8396E+03	87.86
1094	-6.7637E+03	9.6760E+01	-9.0326E+01	9.7949E+01	-6.7649E+03	-89.25
1095	-6.8236E+03	-2.0306E+02	-1.0801E+02	-2.0130E+02	-6.8254E+03	-89.07

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
989	-4.5860E+01	-2.7810E+01	9.0687E-02	-2.7809E+01	-4.5860E+01	89.71
990	-2.7089E+01	4.7830E+00	1.9524E+00	4.9022E+00	-2.7208E+01	86.51
1094	-2.9412E+01	1.4072E+01	1.2260E+00	1.4106E+01	-2.9447E+01	88.39
1095	-3.2970E+01	4.1536E-01	3.0877E+00	6.9852E-01	-3.3253E+01	84.76

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
989	3.3687E+04	-7.1252E+02	2.8937E+03	3.3929E+04	-9.5423E+02	4.77
990	3.4019E+04	9.4311E+02	3.0388E+03	3.4295E+04	6.6624E+02	5.21
1094	3.4924E+04	-4.6513E+02	4.3054E+03	3.5440E+04	-9.8138E+02	6.84
1095	3.5255E+04	1.1905E+03	4.4505E+03	3.5827E+04	6.1862E+02	7.32

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
989	2.2782E+02	1.4152E+02	4.5470E+00	2.2806E+02	1.4128E+02	3.01
990	1.3497E+02	-2.3873E+01	1.4163E+01	1.3623E+02	-2.5126E+01	5.06
1094	1.5015E+02	-1.2251E+02	5.3387E+00	1.5026E+02	-1.2261E+02	1.12
1095	1.8907E+02	4.3185E+01	1.4955E+01	1.9059E+02	4.1668E+01	5.79

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
989	-5.1162E+03	6.3303E+01	3.5393E+02	8.7376E+01	-5.1403E+03	86.11
990	-5.1602E+03	-1.5680E+02	3.4269E+02	-1.3343E+02	-5.1836E+03	86.10
1094	-5.0687E+03	7.2803E+01	7.2555E+01	7.3827E+01	-5.0697E+03	89.19
1095	-5.1127E+03	-1.4729E+02	6.1316E+01	-1.4654E+02	-5.1134E+03	89.29

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
989	-3.4683E+01	-2.1253E+01	2.8445E-01	-2.1247E+01	-3.4689E+01	88.79
990	-2.0449E+01	3.6803E+00	2.3497E+00	3.9070E+00	-2.0676E+01	84.49
1094	-2.1989E+01	9.0182E+00	1.3787E+00	9.0794E+00	-2.2050E+01	87.46
1095	-2.4059E+01	1.8373E+00	3.4440E+00	2.2874E+00	-2.4510E+01	82.55

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
989	-7.8418E+01	8.1250E+01	-1.3986E+03	1.4023E+03	-1.3995E+03	-46.63
990	-9.0727E+01	1.9706E+01	-1.4183E+03	1.3838E+03	-1.4549E+03	-46.11
1094	-4.7296E+02	2.3363E+00	-1.2909E+03	1.0773E+03	-1.5479E+03	-50.22
1095	-4.8527E+02	-5.9207E+01	-1.3106E+03	1.0556E+03	-1.6000E+03	-49.62

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
989	-3.0228E-01	1.3007E+00	-1.9764E+00	2.6319E+00	-1.6335E+00	-56.04
990	-4.7930E-01	-4.4097E-01	-8.0143E+00	7.5542E+00	-8.4744E+00	-45.07
1094	-2.3878E+00	1.5272E+01	-4.1072E+00	1.6181E+01	-3.2962E+00	-77.53
1095	-8.2528E+00	-1.4025E+01	-1.0145E+01	-5.9130E-01	-2.1686E+01	-37.06

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1084 ----------
LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
989	-1.1447E+02	-7.5050E+01	1.3456E+03	1.2510E+03	-1.4405E+03	45.42
990	-1.0438E+02	-2.4580E+01	1.3639E+03	1.3000E+03	-1.4290E+03	45.84
1094	2.6321E+02	4.9175E-01	1.2326E+03	1.3714E+03	-1.1077E+03	41.96
1095	2.7331E+02	5.0962E+01	1.2509E+03	1.4180E+03	-1.0937E+03	42.46
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
989	-9.9406E-01	-2.0157E+00	1.8938E+00	4.5662E-01	-3.4664E+00	37.45
990	-3.0004E-01	5.5440E-01	7.7228E+00	7.8618E+00	-7.6074E+00	46.58
1094	1.4596E+00	-1.4221E+01	3.9638E+00	2.4046E+00	-1.5166E+01	13.41
1095	6.9730E+00	1.3429E+01	9.7927E+00	2.0512E+01	-1.0988E-01	54.12

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
989	-9.7354E+01	-8.2819E+01	1.4763E+03	1.3863E+03	-1.5664E+03	45.14
990	-8.6018E+01	-2.6138E+01	1.4965E+03	1.4407E+03	-1.5529E+03	45.57
1094	3.1739E+02	1.3599E-01	1.3537E+03	1.5218E+03	-1.2042E+03	41.66
1095	3.2873E+02	5.6817E+01	1.3739E+03	1.5734E+03	-1.1879E+03	42.17
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
989	-8.9955E-01	-2.0979E+00	2.0783E+00	6.6419E-01	-3.6616E+00	36.96
990	-2.1599E-01	5.8890E-01	8.4711E+00	8.6671E+00	-8.2942E+00	46.36
1094	1.7260E+00	-1.5675E+01	4.3467E+00	2.7513E+00	-1.6700E+01	13.27
1095	7.7953E+00	1.4746E+01	1.0739E+01	2.2559E+01	-1.7003E-02	53.97

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
989	-1.1786E+01	8.2699E+01	-1.4427E+03	1.4789E+03	-1.4080E+03	-45.94
990	-2.3849E+01	2.2383E+01	-1.4628E+03	1.4622E+03	-1.4637E+03	-45.45
1094	-4.1822E+02	1.4063E+00	-1.3282E+03	1.1362E+03	-1.5531E+03	-49.49
1095	-4.3029E+02	-5.8910E+01	-1.3483E+03	1.1164E+03	-1.6056E+03	-48.92
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
989	1.5563E-01	1.6195E+00	-2.0343E+00	3.0496E+00	-1.2744E+00	-54.89
990	-2.1744E-01	-5.0213E-01	-8.2707E+00	7.9122E+00	-8.6317E+00	-44.51
1094	-2.1580E+00	1.5586E+01	-4.2402E+00	1.6547E+01	-3.1191E+00	-77.23
1095	-8.1632E+00	-1.4449E+01	-1.0476E+01	-3.6835E-01	-2.2244E+01	-36.65

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
989	5.0446E+03	7.2941E+02	-1.4527E+04	1.7573E+04	-1.1799E+04	-40.78
990	4.9718E+03	3.6569E+02	-1.4710E+04	1.7558E+04	-1.2220E+04	-40.55
1094	1.1443E+03	-5.0708E+01	-1.3116E+04	1.3677E+04	-1.2583E+04	-43.70
1095	1.0715E+03	-4.1442E+02	-1.3299E+04	1.3648E+04	-1.2991E+04	-43.40
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
989	3.6427E+01	3.6206E+01	-1.9421E+01	5.5738E+01	1.6895E+01	-44.84
990	1.8570E+01	-8.3793E+00	-8.2545E+01	8.8733E+01	-7.8542E+01	-40.36
1094	2.5060E+00	1.4781E+02	-4.2386E+01	1.5927E+02	-8.9541E+00	-74.87
1095	-5.6283E+01	-1.4443E+02	-1.0551E+02	1.3987E+01	-2.1470E+02	-33.66

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
989	4.6282E+03	-8.8242E+02	1.4398E+04	1.6532E+04	-1.2786E+04	39.58
990	4.7894E+03	-7.6457E+01	1.4609E+04	1.7167E+04	-1.2454E+04	40.27
1094	8.5815E+03	-9.1692E+01	1.3480E+04	1.8405E+04	-9.9155E+03	36.08
1095	8.7428E+03	7.1427E+02	1.3692E+04	1.8996E+04	-9.5394E+03	36.83

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

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JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
989	2.8975E+01	1.7385E+00	1.9701E+01	3.9307E+01	-8.5930E+00	27.67
990	2.0243E+01	1.9258E+00	8.1199E+01	9.2798E+01	-7.0630E+01	41.78
1094	4.0295E+01	-1.6965E+02	4.1475E+01	4.8191E+01	-1.7755E+02	10.78
1095	1.0469E+02	1.4612E+02	1.0297E+02	2.3044E+02	2.0373E+01	50.69

ELEMENT ID 1085 ----------

LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
990	-4.8964E+03	2.2747E+02	-2.6816E+02	2.4146E+02	-4.9104E+03	-87.01
991	-4.9835E+03	-2.0773E+02	-2.6701E+02	-1.9285E+02	-4.9984E+03	-86.81
1095	-4.8495E+03	2.3686E+02	-6.5347E+02	3.1947E+02	-4.9321E+03	-82.80
1096	-4.9365E+03	-1.9833E+02	-6.5232E+02	-1.1017E+02	-5.0247E+03	-82.30

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
990	-3.2009E+01	3.9643E+00	-1.2200E+00	4.0056E+00	-3.2050E+01	-88.06
991	-1.9187E+01	4.5898E+00	-2.4085E+00	4.8313E+00	-1.9429E+01	-84.27
1095	-2.9918E+01	-3.3995E+00	-1.4524E+00	-3.3202E+00	-2.9997E+01	-86.87
1096	-2.6429E+01	-4.0167E+00	-2.6409E+00	-3.7097E+00	-2.6736E+01	-83.37

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
990	2.6645E+04	-1.2035E+03	6.1455E+02	2.6658E+04	-1.2171E+03	1.26
991	2.7116E+04	1.1525E+03	6.0087E+02	2.7130E+04	1.1386E+03	1.33
1095	2.6190E+04	-1.2944E+03	2.7069E+03	2.6454E+04	-1.5585E+03	5.57
1096	2.6661E+04	1.0615E+03	2.6932E+03	2.6942E+04	7.8128E+02	5.94

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
990	1.7263E+02	-2.4434E+01	-1.2432E+00	1.7264E+02	-2.4442E+01	-.36
991	1.0519E+02	-2.3669E+01	3.2650E+00	1.0527E+02	-2.3752E+01	1.45
1095	1.6309E+02	1.2971E+01	3.6257E-01	1.6309E+02	1.2971E+01	.14
1096	1.3759E+02	1.6101E+01	4.8707E+00	1.3778E+02	1.5906E+01	2.29

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
990	-4.8808E+03	2.3256E+02	-5.9920E+02	3.0184E+02	-4.9501E+03	-83.41
991	-4.9661E+03	-1.9402E+02	-6.0373E+02	-1.1883E+02	-5.0413E+03	-82.90
1095	-4.9078E+03	2.2717E+02	-9.8216E+02	4.0861E+02	-5.0892E+03	-79.53
1096	-4.9931E+03	-1.9941E+02	-9.8669E+02	-4.2683E+00	-5.1882E+03	-78.81

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
990	-3.1958E+01	3.7948E+00	-4.3069E+00	4.3063E+00	-3.2469E+01	-83.23
991	-1.9080E+01	4.7822E+00	-6.3248E+00	6.3550E+00	-2.0653E+01	-76.04
1095	-2.9825E+01	-6.3862E+00	-4.4100E+00	-5.5839E+00	-3.0627E+01	-79.69
1096	-2.8732E+01	-6.0233E+00	-6.4279E+00	-4.3301E+00	-3.0425E+01	-75.24

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
990	4.0879E+05	2.3007E+04	1.5979E+04	4.0945E+05	2.2347E+04	2.37
991	4.1293E+05	4.3734E+04	2.7016E+04	4.1490E+05	4.1767E+04	4.16
1095	4.1002E+05	2.3255E+04	3.4119E+04	4.1301E+05	2.0269E+04	5.00
1096	4.1417E+05	4.3981E+04	4.5156E+04	4.1960E+05	3.8553E+04	6.86

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
990	3.5657E+03	-2.7391E+02	2.6117E+02	3.5834E+03	-2.9159E+02	3.87
991	1.6416E+03	-3.9188E+03	1.4659E+02	1.6454E+03	-3.9226E+03	1.51
1095	2.3605E+03	-2.9002E+03	1.0700E+02	2.3627E+03	-2.9023E+03	1.16
1096	2.5652E+03	-1.7575E+03	-7.5784E+00	2.5652E+03	-1.7575E+03	-.10

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1085 ----------
LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
990	-4.7455E+03	2.1255E+02	2.3137E+02	2.2333E+02	-4.7563E+03	87.33
991	-4.8322E+03	-2.2078E+02	2.4107E+02	-2.0821E+02	-4.8448E+03	87.02
1095	-4.5928E+03	2.4310E+02	-1.4390E+02	2.4737E+02	-4.5971E+03	-88.30
1096	-4.6795E+03	-1.9023E+02	-1.3420E+02	-1.8622E+02	-4.6835E+03	-88.29

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
990	-3.0986E+01	4.0037E+00	3.3702E+00	4.3254E+00	-3.1307E+01	84.55
991	-1.8641E+01	4.1658E+00	3.4629E+00	4.6800E+00	-1.9155E+01	81.55
1095	-2.8960E+01	1.2174E+00	2.9580E+00	1.5046E+00	-2.9247E+01	84.45
1096	-2.2079E+01	-8.6953E-01	3.0508E+00	-4.3942E-01	-2.2509E+01	81.98

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
990	2.3695E+04	-1.1216E+03	2.9478E+03	2.4040E+04	-1.4670E+03	6.68
991	2.4104E+04	9.2680E+02	2.9771E+03	2.4481E+04	5.5050E+02	7.20
1095	2.3876E+04	-1.0854E+03	4.8098E+03	2.4770E+04	-1.9802E+03	10.54
1096	2.4285E+04	9.6298E+02	4.8391E+03	2.5250E+04	-1.2100E+00	11.27

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
990	1.5426E+02	-2.0016E+01	2.1491E+01	1.5687E+02	-2.2627E+01	6.93
991	9.3067E+01	-2.2751E+01	3.1813E+01	1.0123E+02	-3.0914E+01	14.39
1095	1.4565E+02	3.4501E+01	2.1941E+01	1.4982E+02	3.0327E+01	10.77
1096	1.4015E+02	3.0194E+01	3.2263E+01	1.4892E+02	2.1426E+01	15.20

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
990	-3.5858E+03	1.5808E+02	3.2372E+02	1.8586E+02	-3.6136E+03	85.09
991	-3.6520E+03	-1.7266E+02	3.3362E+02	-1.4096E+02	-3.6837E+03	84.57
1095	-3.4378E+03	1.8769E+02	3.9660E+01	1.8812E+02	-3.4382E+03	89.37
1096	-3.5039E+03	-1.4304E+02	4.9558E+01	-1.4231E+02	-3.5046E+03	89.16

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
990	-2.3392E+01	3.0917E+00	3.9285E+00	3.6622E+00	-2.3963E+01	81.74
991	-1.4105E+01	3.0564E+00	4.3734E+00	4.1067E+00	-1.5155E+01	76.50
1095	-2.1876E+01	2.2739E+00	3.5601E+00	2.7878E+00	-2.2390E+01	81.79
1096	-1.5611E+01	2.6175E-01	4.0050E+00	1.2150E+00	-1.6565E+01	76.61

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
990	-6.1629E+01	2.5521E+01	-1.3627E+03	1.3453E+03	-1.3814E+03	-45.92
991	-5.6469E+01	5.1320E+01	-1.3863E+03	1.3847E+03	-1.3899E+03	-46.11
1095	-3.6153E+02	-3.4455E+01	-1.3626E+03	1.1743E+03	-1.5703E+03	-48.42
1096	-3.5637E+02	-8.6570E+00	-1.3861E+03	1.2145E+03	-1.5795E+03	-48.57

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
990	-5.3367E-01	-4.5184E-01	-1.2650E+01	1.2157E+01	-1.3143E+01	-45.09
991	-9.9373E-02	8.5934E-01	-1.6103E+01	1.6490E+01	-1.5730E+01	-45.85
1095	-4.4158E-01	-1.2463E+01	-1.2130E+01	7.0855E+00	-1.9990E+01	-31.82
1096	-1.0115E+01	-8.3408E+00	-1.5583E+01	6.3797E+00	-2.4836E+01	-46.63

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
990	-7.3806E+01	-1.8461E+01	1.3102E+03	1.2644E+03	-1.3567E+03	45.61
991	-8.1171E+01	-5.5283E+01	1.3331E+03	1.2649E+03	-1.4014E+03	45.28
1095	2.1739E+02	3.9776E+01	1.2996E+03	1.4312E+03	-1.1741E+03	43.05
1096	2.1003E+02	2.9544E+00	1.3225E+03	1.4330E+03	-1.2200E+03	42.76

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

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JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
990	-3.5716E-01	5.4298E-01	1.2198E+01	1.2299E+01	-1.2113E+01	46.06
991	-4.2602E-01	-7.0521E-01	1.5503E+01	1.4939E+01	-1.6070E+01	44.74
1095	-3.8813E-01	1.1957E+01	1.1688E+01	1.9003E+01	-7.4337E+00	58.92
1096	9.0601E+00	7.9538E+00	1.4994E+01	2.3512E+01	-6.4976E+00	43.94

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
990	-6.1185E+01	-2.1167E+01	1.4377E+03	1.3966E+03	-1.4790E+03	45.40
991	-6.8908E+01	-5.9783E+01	1.4627E+03	1.3984E+03	-1.5271E+03	45.09
1095	2.5797E+02	4.2661E+01	1.4276E+03	1.5819E+03	-1.2813E+03	42.84
1096	2.5025E+02	4.0447E+00	1.4526E+03	1.5850E+03	-1.3307E+03	42.58
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
990	-2.6239E-01	5.7962E-01	1.3379E+01	1.3544E+01	-1.3227E+01	45.90
991	-3.8985E-01	-7.9183E-01	1.7009E+01	1.6419E+01	-1.7601E+01	44.66
1095	-3.0413E-01	1.3127E+01	1.2822E+01	2.0885E+01	-8.0627E+00	58.82
1096	1.0041E+01	8.7389E+00	1.6452E+01	2.5854E+01	-7.0745E+00	43.87

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
990	-1.5144E+01	2.4119E+01	-1.4053E+03	1.4100E+03	-1.4010E+03	-45.40
991	-8.9478E+00	5.5101E+01	-1.4297E+03	1.4532E+03	-1.4070E+03	-45.64
1095	-3.2557E+02	-3.7962E+01	-1.4014E+03	1.2270E+03	-1.5905E+03	-47.93
1096	-3.1937E+02	-6.9805E+00	-1.4258E+03	1.2712E+03	-1.5975E+03	-48.13
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
990	-2.3371E-01	-5.0538E-01	-1.3059E+01	1.2690E+01	-1.3429E+01	-44.70
991	8.7277E-02	8.4222E-01	-1.6615E+01	1.7084E+01	-1.6155E+01	-45.65
1095	-1.6142E-01	-1.2849E+01	-1.2519E+01	7.5297E+00	-2.0540E+01	-31.56
1096	-1.0191E+01	-8.5817E+00	-1.6076E+01	6.7094E+00	-2.5482E+01	-46.43

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
990	3.4615E+03	6.3582E+01	-1.4124E+04	1.5989E+04	-1.2464E+04	-41.57
991	3.5896E+03	7.0415E+02	-1.4375E+04	1.6594E+04	-1.2301E+04	-42.13
1095	3.8412E+02	-5.5185E+02	-1.3801E+04	1.3725E+04	-1.3893E+04	-44.03
1096	5.1223E+02	8.8709E+01	-1.4052E+04	1.4354E+04	-1.3753E+04	-44.57
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
990	2.1390E+01	-7.8154E+00	-1.3114E+02	1.3874E+02	-1.2516E+02	-41.82
991	1.5000E+01	5.0526E+00	-1.6635E+02	1.7645E+02	-1.5640E+02	-44.14
1095	2.0001E+01	-1.2918E+02	-1.2564E+02	9.1523E+01	-2.0070E+02	-29.65
1096	-8.4276E+01	-8.7155E+01	-1.6085E+02	7.5142E+01	-2.4657E+02	-44.74

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
990	3.3079E+03	-3.7270E+02	1.4038E+04	1.5626E+04	-1.2691E+04	41.27
991	3.3030E+03	-3.9751E+02	1.4279E+04	1.5851E+04	-1.2946E+04	41.31
1095	6.2207E+03	2.0981E+02	1.4251E+04	1.7779E+04	-1.1349E+04	39.05
1096	6.2157E+03	1.8500E+02	1.4491E+04	1.8002E+04	-1.1601E+04	39.12
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
990	2.3008E+01	2.4790E+00	1.2860E+02	1.4175E+02	-1.1626E+02	42.72
991	1.1474E+01	-1.1230E+01	1.6426E+02	1.6477E+02	-1.6453E+02	43.02
1095	2.1274E+01	1.2944E+02	1.2359E+02	2.1026E+02	-5.9548E+01	56.82
1096	1.1753E+02	8.9985E+01	1.5925E+02	2.6360E+02	-5.6086E+01	42.53

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1092 ----------

LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
997	1.3279E+03	-2.1675E+01	-1.1338E+00	1.3279E+03	-2.1676E+01	-.05
998	1.3401E+03	3.9343E+01	3.0405E+00	1.3401E+03	3.9336E+01	.13
1102	1.3405E+03	-1.9157E+01	6.4807E+01	1.3436E+03	-2.2239E+01	2.72
1103	1.3527E+03	4.1859E+01	6.8981E+01	1.3563E+03	3.8239E+01	3.00
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
997	8.9841E+00	5.3530E+00	5.4466E-02	8.9849E+00	5.3522E+00	.86
998	5.3215E+00	-9.1190E-01	-9.1910E-02	5.3228E+00	-9.1325E-01	-.84
1102	5.8526E+00	-3.2883E+00	-8.8375E-02	5.8535E+00	-3.2891E+00	-.55
1103	6.7510E+00	4.2412E-01	-2.3475E-01	6.7597E+00	4.1542E-01	-2.12

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
997	-7.0615E+03	1.3453E+02	-3.4100E+02	1.5065E+02	-7.0776E+03	-87.29
998	-7.1291E+03	-2.0357E+02	-3.6798E+02	-1.8407E+02	-7.1486E+03	-86.97
1102	-7.2272E+03	1.0139E+02	-6.6318E+02	1.6091E+02	-7.2868E+03	-84.87
1103	-7.2948E+03	-2.3671E+02	-6.9016E+02	-1.6985E+02	-7.3617E+03	-84.47
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
997	-4.7735E+01	-2.8389E+01	-7.6601E-01	-2.8359E+01	-4.7765E+01	-87.74
998	-2.8321E+01	4.7900E+00	-1.4951E+00	4.8574E+00	-2.8389E+01	-87.42
1102	-3.1531E+01	2.1448E+01	-5.2758E-01	2.1453E+01	-3.1536E+01	-89.43
1103	-3.7871E+01	-5.7784E+00	-1.2566E+00	-5.7293E+00	-3.7920E+01	-87.76

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
997	1.3277E+03	-1.3667E+01	-1.4123E+02	1.3424E+03	-2.8376E+01	-5.95
998	1.3387E+03	4.1545E+01	-1.3900E+02	1.3534E+03	2.6817E+01	-6.05
1102	1.3008E+03	-1.9043E+01	-6.4114E+01	1.3039E+03	-2.2151E+01	-2.77
1103	1.3118E+03	3.6168E+01	-6.1886E+01	1.3148E+03	3.3173E+01	-2.77
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
997	9.0051E+00	5.5096E+00	-1.4271E-01	9.0109E+00	5.5038E+00	-2.33
998	5.3042E+00	-9.6044E-01	-8.9496E-01	5.4295E+00	-1.0858E+00	-7.97
1102	5.6483E+00	-1.7737E+00	-4.9976E-01	5.6818E+00	-1.8072E+00	-3.83
1103	5.9625E+00	-9.7951E-01	-1.2520E+00	6.1814E+00	-1.1984E+00	-9.92

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
997	5.3560E+05	4.2752E+04	-2.3782E+04	5.3675E+05	4.1607E+04	-2.76
998	5.3130E+05	2.1220E+04	-1.1610E+04	5.3156E+05	2.0956E+04	-1.30
1102	5.4542E+05	4.4715E+04	-4.3739E+04	5.4921E+05	4.0923E+04	-4.96
1103	5.4111E+05	2.3183E+04	-3.1568E+04	5.4303E+05	2.1266E+04	-3.48
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
997	2.4216E+03	-4.0080E+03	-3.1743E+01	2.4217E+03	-4.0081E+03	-.28
998	4.0422E+03	-4.9957E+02	-3.5176E+01	4.0424E+03	-4.9985E+02	-.44
1102	3.9916E+03	9.2156E+02	1.0814E+01	3.9916E+03	9.2153E+02	.20
1103	3.1867E+03	-1.8279E+03	7.3813E+00	3.1868E+03	-1.8279E+03	.08

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
997	1.2853E+03	-3.2786E+01	2.0524E+02	1.3165E+03	-6.4005E+01	8.65
998	1.2988E+03	3.4825E+01	2.1215E+02	1.3335E+03	1.6806E-01	9.28
1102	1.3556E+03	-1.8718E+01	2.5262E+02	1.4006E+03	-6.3680E+01	10.09
1103	1.3691E+03	4.8892E+01	2.5952E+02	1.4183E+03	-2.9070E-01	10.73

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1092 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
997	8.6619E+00	4.9401E+00	3.4568E-01	8.6938E+00	4.9083E+00	5.26
998	5.1753E+00	-8.0907E-01	1.0956E+00	5.3695E+00	-1.0034E+00	10.06
1102	5.9682E+00	-5.3998E+00	5.2247E-01	5.9921E+00	-5.4238E+00	2.63
1103	7.6914E+00	2.4718E+00	1.2724E+00	7.9851E+00	2.1782E+00	13.00

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
997	-6.3469E+03	6.2149E+01	7.3923E+02	1.4631E+02	-6.4310E+03	83.51
998	-6.3991E+03	-1.9889E+02	7.2934E+02	-1.1425E+02	-6.4837E+03	83.38
1102	-6.2078E+03	8.9963E+01	3.6597E+02	1.1116E+02	-6.2290E+03	86.69
1103	-6.2600E+03	-1.7107E+02	3.5608E+02	-1.5032E+02	-6.2808E+03	86.66
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
997	-4.3069E+01	-2.6601E+01	7.5189E-01	-2.6566E+01	-4.3103E+01	87.39
998	-2.5339E+01	4.6489E+00	4.6049E+00	5.3401E+00	-2.6031E+01	81.46
1102	-2.6907E+01	7.7967E+00	2.5701E+00	7.9860E+00	-2.7096E+01	85.79
1103	-2.8151E+01	5.2983E+00	6.4231E+00	6.4893E+00	-2.9342E+01	79.50

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
997	9.6962E+02	-2.8324E+01	2.1764E+02	1.0150E+03	-7.3724E+01	11.78
998	9.8034E+02	2.5280E+01	2.2373E+02	1.0301E+03	-2.4530E+01	12.55
1102	1.0404E+03	-1.4170E+01	2.4837E+02	1.0959E+03	-6.9739E+01	12.61
1103	1.0511E+03	3.9433E+01	2.5445E+02	1.1115E+03	-2.0961E+01	13.35
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
997	6.5243E+00	3.6556E+00	3.4975E-01	6.5663E+00	3.6136E+00	6.85
998	3.9115E+00	-5.8840E-01	1.1870E+00	4.2054E+00	-8.8230E-01	13.91
1102	4.5939E+00	-4.7503E+00	5.7900E-01	4.6296E+00	-4.7861E+00	3.53
1103	6.1548E+00	2.4927E+00	1.4162E+00	6.6386E+00	2.0090E+00	18.86

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
997	2.4525E+01	3.2383E+01	-5.7339E+02	6.0186E+02	-5.4495E+02	-45.20
998	2.0000E+01	9.7600E+00	-5.8128E+02	5.9618E+02	-5.6642E+02	-44.75
1102	-1.3670E+02	1.3687E-01	-5.2643E+02	4.6258E+02	-5.9914E+02	-48.70
1103	-1.4122E+02	-2.2486E+01	-5.3432E+02	4.5576E+02	-6.1946E+02	-48.17
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
997	2.5952E-01	7.6150E-01	-8.0848E-01	1.3571E+00	-3.3603E-01	-53.62
998	3.0626E-02	-2.1968E-01	-3.2898E+00	3.1976E+00	-3.3867E+00	-43.91
1102	-7.2954E-01	6.1184E+00	-1.6878E+00	6.5118E+00	-1.1229E+00	-76.88
1103	-3.0945E+00	-5.7298E+00	-4.1691E+00	-3.9773E-02	-8.7846E+00	-36.23

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
997	1.2582E+01	-3.1903E+01	5.5435E+02	5.4513E+02	-5.6445E+02	43.85
998	1.7291E+01	-8.3615E+00	5.6209E+02	5.6670E+02	-5.5777E+02	44.35
1102	1.6881E+02	-6.5600E-01	5.1075E+02	6.0181E+02	-4.3366E+02	40.29
1103	1.7352E+02	2.2886E+01	5.1849E+02	6.2214E+02	-4.2573E+02	40.87
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
997	-5.3802E-03	-5.9020E-01	7.8320E-01	5.3822E-01	-1.1338E+00	34.76
998	1.1585E-01	1.8752E-01	3.1783E+00	3.3301E+00	-3.0268E+00	45.32
1102	8.6544E-01	-6.0051E+00	1.6295E+00	1.2323E+00	-6.3720E+00	12.69
1103	3.1764E+00	5.5514E+00	4.0245E+00	8.5600E+00	1.6783E-01	53.22

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1092 ----------
LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
997	8.4236E+00	-3.4893E+01	6.0785E+02	5.9500E+02	-6.2147E+02	43.98
998	1.3537E+01	-9.3268E+00	6.1632E+02	6.1853E+02	-6.1432E+02	44.47
1102	1.7966E+02	-6.4247E-01	5.5978E+02	6.5651E+02	-4.7748E+02	40.43
1103	1.8478E+02	2.4924E+01	5.6825E+02	6.7870E+02	-4.6899E+02	41.00
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
997	-4.2247E-02	-6.6876E-01	8.5852E-01	5.5838E-01	-1.2694E+00	34.98
998	1.0549E-01	2.0930E-01	3.4853E+00	3.6431E+00	-3.3283E+00	45.43
1102	9.2519E-01	-6.5715E+00	1.7871E+00	1.3294E+00	-6.9757E+00	12.75
1103	3.4556E+00	6.0854E+00	4.4138E+00	9.3760E+00	1.6502E-01	53.29

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
997	1.2134E+01	3.3677E+01	-5.9251E+02	6.1551E+02	-5.6970E+02	-45.52
998	7.3373E+00	9.6928E+00	-6.0070E+02	6.0921E+02	-5.9218E+02	-45.06
1102	-1.5457E+02	3.3331E-01	-5.4464E+02	4.7300E+02	-6.2724E+02	-49.05
1103	-1.5937E+02	-2.3651E+01	-5.5283E+02	4.6547E+02	-6.4849E+02	-48.50
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
997	1.7882E-01	7.3372E-01	-8.3595E-01	1.3371E+00	-4.2452E-01	-54.18
998	-2.1285E-02	-2.1795E-01	-3.3985E+00	3.2804E+00	-3.5196E+00	-44.17
1102	-8.1201E-01	6.3553E+00	-1.7432E+00	6.7568E+00	-1.2135E+00	-77.03
1103	-3.2649E+00	-5.9251E+00	-4.3058E+00	-8.8429E-02	-9.1016E+00	-36.42

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
997	-8.6838E+02	3.5513E+02	-5.9540E+03	5.7287E+03	-6.2420E+03	-47.93
998	-9.2567E+02	6.8700E+01	-6.0396E+03	5.6315E+03	-6.4885E+03	-47.35
1102	-2.5587E+03	1.7036E+01	-5.5225E+03	4.3998E+03	-6.9415E+03	-51.56
1103	-2.6160E+03	-2.6939E+02	-5.6080E+03	4.2868E+03	-7.1722E+03	-50.91
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
997	-4.8961E+00	3.4368E+00	-8.5763E+00	8.8051E+00	-1.0264E+01	-57.96
998	-4.1862E+00	-1.5262E+00	-3.4202E+01	3.1371E+01	-3.7084E+01	-46.11
1102	-1.2649E+01	6.5861E+01	-1.7543E+01	6.9602E+01	-1.6391E+01	-77.96
1103	-3.7732E+01	-5.9585E+01	-4.3168E+01	-4.1292E+00	-9.3189E+01	-37.90

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
997	-9.8423E+02	-3.1375E+02	5.7616E+03	5.1224E+03	-6.4204E+03	46.67
998	-9.4559E+02	-1.2055E+02	5.8387E+03	5.3202E+03	-6.3863E+03	47.02
1102	6.3409E+02	9.9391E+00	5.2535E+03	5.5848E+03	-4.9407E+03	43.30
1103	6.7274E+02	2.0314E+02	5.3306E+03	5.7737E+03	-4.8978E+03	43.74
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
997	-7.6053E+00	-1.0642E+01	8.2251E+00	-7.5943E-01	-1.7487E+01	39.77
998	-3.2626E+00	2.7220E+00	3.3217E+01	3.3081E+01	-3.3622E+01	47.57
1102	4.1875E+00	-5.9210E+01	1.7094E+01	8.5027E+00	-6.3525E+01	14.17
1103	2.7228E+01	5.7059E+01	4.2085E+01	8.6794E+01	-2.5067E+00	54.76

ELEMENT ID 1093 ----------
LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
998	9.3067E+02	-4.2543E+01	4.3449E+00	9.3069E+02	-4.2562E+01	.26
999	9.4745E+02	4.1383E+01	3.2923E+00	9.4747E+02	4.1371E+01	.21
1103	9.1149E+02	-4.6379E+01	7.7789E+01	9.1776E+02	-5.2655E+01	4.61
1104	9.2827E+02	3.7545E+01	7.6736E+01	9.3483E+02	3.0983E+01	4.89

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1093 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
998	6.0866E+00	-7.5888E-01	-2.0068E-01	6.0925E+00	-7.6476E-01	-1.68
999	3.6479E+00	-8.4872E-01	-9.4512E-02	3.6499E+00	-8.5071E-01	-1.20
1103	5.6814E+00	2.1023E-01	-1.3871E-01	5.6849E+00	2.0671E-01	-1.45
1104	4.6876E+00	4.8134E-01	-3.2534E-02	4.6879E+00	4.8109E-01	-.44

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
998	-4.9533E+03	2.3161E+02	-3.6110E+02	2.5663E+02	-4.9783E+03	-86.04
999	-5.0409E+03	-2.0658E+02	-3.6149E+02	-1.7970E+02	-5.0678E+03	-85.75
1103	-4.9256E+03	2.3714E+02	-7.5055E+02	3.4404E+02	-5.0325E+03	-81.89
1104	-5.0132E+03	-2.0104E+02	-7.5094E+02	-8.6580E+01	-5.1277E+03	-81.33

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
998	-3.2390E+01	3.9763E+00	-2.0689E+00	4.0937E+00	-3.2507E+01	-86.75
999	-1.9400E+01	4.6962E+00	-3.4981E+00	5.1938E+00	-1.9898E+01	-81.91
1103	-3.0269E+01	-4.2581E+00	-2.2695E+00	-4.0616E+00	-3.0465E+01	-85.05
1104	-2.7381E+01	-4.6109E+00	-3.6987E+00	-4.0252E+00	-2.7967E+01	-81.00

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
998	9.2980E+02	-4.0235E+01	-1.3212E+02	9.4747E+02	-5.7908E+01	-7.62
999	9.4720E+02	4.6763E+01	-1.3554E+02	9.6716E+02	2.6802E+01	-8.38
1103	8.8047E+02	-5.0100E+01	-5.8244E+01	8.8410E+02	-5.3731E+01	-3.57
1104	8.9787E+02	3.6897E+01	-6.1668E+01	9.0227E+02	3.2502E+01	-4.08

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
998	6.0683E+00	-8.0763E-01	-1.4688E+00	6.3689E+00	-1.1083E+00	-11.57
999	3.6585E+00	-7.6775E-01	-1.7080E+00	4.2409E+00	-1.3502E+00	-18.83
1103	5.6692E+00	-1.0382E+00	-1.3544E+00	5.9324E+00	-1.3013E+00	-11.00
1104	3.7010E+00	-3.5179E-01	-1.5936E+00	4.2526E+00	-9.0333E-01	-19.09

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
998	6.0044E+05	3.5049E+04	-1.0882E+04	6.0065E+05	3.4840E+04	-1.10
999	6.0119E+05	3.8788E+04	2.2275E+03	6.0120E+05	3.8779E+04	.23
1103	6.2025E+05	3.9011E+04	-1.4403E+04	6.2061E+05	3.8655E+04	-1.42
1104	6.2100E+05	4.2750E+04	-1.2931E+03	6.2100E+05	4.2747E+04	-.13

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
998	3.9219E+03	-5.2363E+02	-5.4238E+01	3.9225E+03	-5.2430E+02	-.70
999	3.3822E+03	-2.6804E+03	-7.4966E+01	3.3832E+03	-2.6813E+03	-.71
1103	3.4150E+03	-1.7823E+03	-1.1828E+02	3.4177E+03	-1.7849E+03	-1.30
1104	4.0383E+03	-5.0534E+02	-1.3901E+02	4.0426E+03	-5.0959E+02	-1.75

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
998	9.0178E+02	-4.4582E+01	2.0521E+02	9.4436E+02	-8.7164E+01	11.72
999	9.1712E+02	3.2120E+01	2.0767E+02	9.6343E+02	-1.4189E+01	12.57
1103	9.2770E+02	-3.9399E+01	2.7562E+02	1.0007E+03	-1.1244E+02	14.84
1104	9.4304E+02	3.7302E+01	2.7809E+02	1.0216E+03	-4.1264E+01	15.78

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
998	5.9172E+00	-6.6069E-01	1.6746E+00	6.3190E+00	-1.0625E+00	13.49
999	3.5135E+00	-9.4107E-01	2.2856E+00	4.4776E+00	-1.9052E+00	22.87
1103	5.5133E+00	2.0362E+00	1.6572E+00	6.1766E+00	1.3729E+00	21.81
1104	5.9881E+00	1.6873E+00	2.2682E+00	6.9632E+00	7.1214E-01	23.26

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LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
998	-4.4462E+03	1.9170E+02	6.9382E+02	2.9327E+02	-4.5477E+03	81.67
999	-4.5296E+03	-2.2538E+02	7.1122E+02	-1.1091E+02	-4.6441E+03	80.86
1103	-4.2019E+03	2.4055E+02	3.4049E+02	2.6649E+02	-4.2278E+03	85.64
1104	-4.2853E+03	-1.7653E+02	3.5789E+02	-1.4559E+02	-4.3162E+03	85.06
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
998	-2.8990E+01	3.9189E+00	7.5557E+00	5.5707E+00	-3.0641E+01	77.67
999	-1.7513E+01	3.6264E+00	8.8421E+00	6.8371E+00	-2.0724E+01	70.04
1103	-2.7100E+01	5.5084E+00	6.9919E+00	6.9444E+00	-2.8536E+01	78.39
1104	-1.7258E+01	2.1717E+00	8.2783E+00	5.2204E+00	-2.0307E+01	69.78

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
998	6.8060E+02	-3.4666E+01	2.1599E+02	7.4077E+02	-9.4829E+01	15.56
999	6.9190E+02	2.1815E+01	2.1891E+02	7.5708E+02	-4.3363E+01	16.58
1103	7.1369E+02	-2.8049E+01	2.6891E+02	8.0092E+02	-1.1528E+02	17.97
1104	7.2499E+02	2.8431E+01	2.7183E+02	8.1851E+02	-6.5094E+01	18.99
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
998	4.4717E+00	-4.7638E-01	1.8321E+00	5.0762E+00	-1.0809E+00	18.26
999	2.6455E+00	-7.4621E-01	2.4478E+00	3.9275E+00	-2.0282E+00	27.64
1103	4.1638E+00	2.0946E+00	1.7954E+00	5.2014E+00	1.0570E+00	30.02
1104	4.9591E+00	1.6449E+00	2.4111E+00	6.2276E+00	3.7634E-01	27.75

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
998	1.4452E+01	8.6488E+00	-5.5843E+02	5.6999E+02	-5.4689E+02	-44.85
999	1.7284E+01	2.2806E+01	-5.6815E+02	5.8820E+02	-5.4811E+02	-45.14
1103	-1.0933E+02	-1.6107E+01	-5.5524E+02	4.9448E+02	-6.1991E+02	-47.40
1104	-1.0650E+02	-1.9494E+00	-5.6496E+02	5.1315E+02	-6.2160E+02	-47.64
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
998	4.0992E-02	-2.1761E-01	-5.1947E+00	5.1080E+00	-5.2846E+00	-44.29
999	1.1492E-01	3.1608E-01	-6.6054E+00	6.8217E+00	-6.3907E+00	-45.44
1103	6.1935E-02	-5.0986E+00	-4.9788E+00	3.0893E+00	-8.1260E+00	-31.30
1104	-3.9465E+00	-3.3967E+00	-6.3895E+00	2.7238E+00	-1.0067E+01	-46.23

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
998	1.1462E+01	-9.5256E+00	5.4004E+02	5.4111E+02	-5.3917E+02	44.44
999	9.1832E+00	-2.0919E+01	5.4940E+02	5.4374E+02	-5.5548E+02	44.22
1103	1.3062E+02	1.4305E+01	5.3896E+02	6.1455E+02	-4.6962E+02	41.92
1104	1.2834E+02	2.9117E+00	5.4832E+02	6.1753E+02	-4.8627E+02	41.74
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
998	1.2674E-01	1.8970E-01	5.0170E+00	5.1753E+00	-4.8589E+00	45.18
999	-1.1432E-02	-3.2881E-01	6.3839E+00	6.2158E+00	-6.5560E+00	44.29
1103	9.5364E-02	4.9353E+00	4.8100E+00	7.8997E+00	-2.8691E+00	58.35
1104	3.9438E+00	3.2972E+00	6.1768E+00	9.8058E+00	-2.5648E+00	43.50

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
998	8.8028E+00	-1.0272E+01	5.9214E+02	5.9148E+02	-5.9295E+02	44.54
999	6.2362E+00	-2.3105E+01	6.0241E+02	5.9415E+02	-6.1102E+02	44.30
1103	1.3953E+02	1.5873E+01	5.9066E+02	6.7159E+02	-5.1618E+02	42.01
1104	1.3697E+02	3.0399E+00	6.0093E+02	6.7465E+02	-5.3465E+02	41.82

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JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
998	1.1434E-01	2.1107E-01	5.5019E+00	5.6648E+00	-5.3394E+00	45.25
999	-2.7291E-02	-3.5710E-01	7.0003E+00	6.8100E+00	-7.1944E+00	44.33
1103	8.1597E-02	5.4107E+00	5.2746E+00	8.6556E+00	-3.1633E+00	58.40
1104	4.3054E+00	3.6136E+00	6.7730E+00	1.0741E+01	-2.8223E+00	43.54

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
998	5.6777E+00	9.3592E+00	-5.7711E+02	5.8463E+02	-5.6959E+02	-45.09
999	8.4366E+00	2.3154E+01	-5.8714E+02	6.0298E+02	-5.7139E+02	-45.36
1103	-1.2203E+02	-1.6181E+01	-5.7454E+02	5.0786E+02	-6.4608E+02	-47.63
1104	-1.1927E+02	-2.3867E+00	-5.8457E+02	5.2665E+02	-6.4831E+02	-47.85
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
998	-1.8184E-02	-2.1733E-01	-5.3659E+00	5.2490E+00	-5.4845E+00	-44.47
999	8.2480E-02	3.3506E-01	-6.8247E+00	7.0346E+00	-6.6171E+00	-45.53
1103	7.4952E-03	-5.2707E+00	-5.1434E+00	3.1493E+00	-8.4126E+00	-31.42
1104	-4.1247E+00	-3.5150E+00	-6.6022E+00	2.7894E+00	-1.0429E+01	-46.32

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
998	-6.3681E+02	1.2645E+02	-5.8042E+03	5.5615E+03	-6.0719E+03	-46.88
999	-6.2166E+02	2.0221E+02	-5.9038E+03	5.7084E+03	-6.1279E+03	-47.00
1103	-1.9118E+03	-1.2854E+02	-5.8322E+03	4.8798E+03	-6.9201E+03	-49.35
1104	-1.8967E+03	-5.2778E+01	-5.9318E+03	5.0283E+03	-6.9777E+03	-49.42
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
998	-4.7259E+00	-1.6341E+00	-5.3849E+01	5.0691E+01	-5.7051E+01	-45.82
999	-1.8890E+00	4.0078E+00	-6.8577E+01	6.9700E+01	-6.7581E+01	-46.23
1103	-4.0528E+00	-5.2850E+01	-5.1650E+01	2.8671E+01	-8.5574E+01	-32.36
1104	-4.4907E+01	-3.5308E+01	-6.6378E+01	2.6444E+01	-1.0666E+02	-47.07

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
998	-6.6224E+02	-6.3863E+01	5.6092E+03	5.2541E+03	-5.9802E+03	46.53
999	-6.9997E+02	-2.5252E+02	5.7070E+03	5.2352E+03	-6.1876E+03	46.12
1103	5.9779E+02	1.8813E+02	5.5353E+03	5.9321E+03	-5.1462E+03	43.94
1104	5.6006E+02	-5.2462E-01	5.6332E+03	5.9199E+03	-5.3604E+03	43.58
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
998	-3.7919E+00	2.6162E+00	5.2373E+01	5.1883E+01	-5.3058E+01	46.75
999	-3.1810E+00	-2.7093E+00	6.6476E+01	6.3532E+01	-6.9422E+01	45.10
1103	-3.8838E+00	5.0837E+01	5.0160E+01	8.0613E+01	-3.3660E+01	59.31
1104	3.7004E+01	3.3482E+01	6.4263E+01	9.9531E+01	-2.9044E+01	44.22

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LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1005	-2.5286E+02	5.2564E+00	-1.9493E+01	6.7202E+00	-2.5432E+02	-85.71
1006	-2.5534E+02	-7.1817E+00	-2.0562E+01	-5.4895E+00	-2.5704E+02	-85.30
1110	-2.6080E+02	3.6679E+00	-3.0481E+01	7.1354E+00	-2.6427E+02	-83.51
1111	-2.6329E+02	-8.7700E+00	-3.1550E+01	-4.9174E+00	-2.6714E+02	-83.04
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1005	-1.7075E+00	-9.9505E-01	-3.8250E-02	-9.9300E-01	-1.7095E+00	-86.94
1006	-1.0157E+00	1.6638E-01	-9.5548E-02	1.7405E-01	-1.0234E+00	-85.41
1110	-1.1437E+00	8.3753E-01	-4.1231E-02	8.3839E-01	-1.1446E+00	-88.81
1111	-1.3961E+00	-2.7776E-01	-9.8529E-02	-2.6915E-01	-1.4047E+00	-85.00

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LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1005	1.3439E+03	-1.9770E+01	-3.9006E+01	1.3450E+03	-2.0885E+01	-1.64
1006	1.3559E+03	4.0414E+01	-3.5308E+01	1.3569E+03	3.9467E+01	-1.54
1110	1.3459E+03	-1.9356E+01	3.0748E+01	1.3466E+03	-2.0048E+01	1.29
1111	1.3580E+03	4.0826E+01	3.4446E+01	1.3589E+03	3.9926E+01	1.50
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1005	9.0983E+00	5.4611E+00	1.6980E-03	9.0983E+00	5.4611E+00	.03
1006	5.3811E+00	-9.3625E-01	-3.1014E-01	5.3962E+00	-9.5144E-01	-2.80
1110	5.8677E+00	-2.9198E+00	-2.0075E-01	5.8723E+00	-2.9244E+00	-1.31
1111	6.6196E+00	5.0288E-02	-5.1258E-01	6.6594E+00	1.0534E-02	-4.43

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1005	-2.5189E+02	8.5310E+00	-7.7034E+01	2.9611E+01	-2.7297E+02	-74.70
1006	-2.5485E+02	-6.2466E+00	-7.8900E+01	1.6680E+01	-2.7777E+02	-73.80
1110	-2.7603E+02	3.7035E+00	-8.3384E+01	2.6673E+01	-2.9900E+02	-74.60
1111	-2.7898E+02	-1.1074E+01	-8.5250E+01	1.3752E+01	-3.0381E+02	-73.76
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1005	-1.6916E+00	-9.2455E-01	-1.1942E-01	-9.0638E-01	-1.7097E+00	-81.35
1006	-1.0186E+00	1.4533E-01	-4.2558E-01	2.8434E-01	-1.1576E+00	-71.91
1110	-1.2236E+00	1.4552E+00	-2.1049E-01	1.4716E+00	-1.2400E+00	-85.53
1111	-1.7142E+00	-8.5328E-01	-5.1665E-01	-6.1126E-01	-1.9562E+00	-64.90

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1005	-2.1048E+05	3.0758E+03	-7.1928E+03	3.3178E+03	-2.1072E+05	-88.07
1006	-2.1227E+05	-5.8610E+03	-7.9698E+03	-5.5537E+03	-2.1258E+05	-87.79
1110	-2.1606E+05	1.9603E+03	-1.6095E+04	3.1421E+03	-2.1724E+05	-85.80
1111	-2.1784E+05	-6.9764E+03	-1.6872E+04	-5.6349E+03	-2.1919E+05	-85.45
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1005	-1.4406E+03	-1.1717E+03	-9.2951E+00	-1.1714E+03	-1.4410E+03	-88.02
1006	-8.2440E+02	2.0809E+02	-1.9073E+01	2.0844E+02	-8.2475E+02	-88.94
1110	-8.2760E+02	8.3103E+02	1.1717E+01	8.3111E+02	-8.2768E+02	89.60
1111	-1.1331E+03	-1.9244E+02	1.9399E+00	-1.9244E+02	-1.1331E+03	89.88

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1005	-2.4618E+02	2.6083E-01	6.5941E+01	1.6795E+01	-2.6272E+02	75.92
1006	-2.4790E+02	-8.3304E+00	6.6079E+01	8.6872E+00	-2.6492E+02	75.56
1110	-2.2999E+02	3.4985E+00	4.8469E+01	1.3160E+01	-2.3966E+02	78.73
1111	-2.3171E+02	-5.0926E+00	4.8607E+01	4.8931E+00	-2.4170E+02	78.39
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1005	-1.6763E+00	-1.0669E+00	8.2483E-02	-1.0559E+00	-1.6872E+00	82.43
1006	-9.7887E-01	1.9202E-01	3.9388E-01	3.1218E-01	-1.0990E+00	73.03
1110	-9.8950E-01	-1.0013E-01	2.0948E-01	-5.3257E-02	-1.0364E+00	77.39
1111	-8.8226E-01	5.7979E-01	5.2087E-01	7.4637E-01	-1.0488E+00	72.27

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1005	1.2019E+03	-4.2041E+01	3.9055E+02	1.3143E+03	-1.5450E+02	16.06
1006	1.2161E+03	2.9409E+01	3.9978E+02	1.3383E+03	-9.2701E+01	16.99
1110	1.3238E+03	-1.7650E+01	4.1902E+02	1.4439E+03	-1.3778E+02	16.00
1111	1.3381E+03	5.3799E+01	4.2824E+02	1.4678E+03	-7.5900E+01	16.85

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JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1005	8.0669E+00	4.3879E+00	6.0802E-01	8.1648E+00	4.2900E+00	9.15
1006	4.8628E+00	-6.8571E-01	2.1676E+00	5.6092E+00	-1.4321E+00	19.00
1110	5.8755E+00	-7.1740E+00	1.0756E+00	5.9635E+00	-7.2621E+00	4.68
1111	8.3037E+00	4.2905E+00	2.6351E+00	9.6092E+00	2.9849E+00	26.36

LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1005	-1.8613E+02	-1.2727E+00	7.5556E+01	2.5679E+01	-2.1309E+02	70.37
1006	-1.8722E+02	-6.7035E+00	7.6018E+01	2.1044E+01	-2.1497E+02	69.95
1110	-1.6666E+02	2.6231E+00	6.0296E+01	2.1904E+01	-1.8594E+02	72.27
1111	-1.6774E+02	-2.8076E+00	6.0758E+01	1.7157E+01	-1.8771E+02	71.81

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1005	-1.2716E+00	-8.3639E-01	9.8609E-02	-8.1509E-01	-1.2929E+00	77.81
1006	-7.3707E-01	1.5428E-01	4.4517E-01	3.3853E-01	-9.2131E-01	67.52
1110	-7.1058E-01	-3.5271E-01	2.3394E-01	-2.3712E-01	-8.2617E-01	63.71
1111	-5.2274E-01	6.9564E-01	5.8049E-01	9.2793E-01	-7.5503E-01	68.19

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1005	-7.4062E-01	1.3502E+01	-2.3589E+02	2.4238E+02	-2.2962E+02	-45.86
1006	-2.7019E+00	3.6951E+00	-2.3917E+02	2.3969E+02	-2.3869E+02	-45.38
1110	-6.7182E+01	2.1259E-01	-2.1711E+02	1.8622E+02	-2.5319E+02	-49.41
1111	-6.9143E+01	-9.5940E+00	-2.2039E+02	1.8302E+02	-2.6176E+02	-48.85

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1005	3.3502E-02	2.6972E-01	-3.3287E-01	5.0482E-01	-2.0159E-01	-54.77
1006	-3.0808E-02	-8.2965E-02	-1.3526E+00	1.2960E+00	-1.4098E+00	-44.45
1110	-3.4802E-01	2.5441E+00	-6.9353E-01	2.7018E+00	-5.0572E-01	-77.19
1111	-1.3283E+00	-2.3612E+00	-1.7133E+00	-5.5307E-02	-3.6342E+00	-36.61

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1005	-6.1973E+00	-1.2911E+01	2.2754E+02	2.1801E+02	-2.3712E+02	44.58
1006	-4.3690E+00	-3.7690E+00	2.3068E+02	2.2661E+02	-2.3475E+02	45.04
1110	5.7825E+01	-1.0527E-01	2.0908E+02	2.3994E+02	-1.8222E+02	41.06
1111	5.9653E+01	9.0363E+00	2.1222E+02	2.4807E+02	-1.7938E+02	41.60

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1005	-7.9076E-02	-2.8798E-01	3.2079E-01	1.5384E-01	-5.2090E-01	35.98
1006	2.0166E-03	8.4763E-02	1.3052E+00	1.3493E+00	-1.2625E+00	45.91
1110	3.0521E-01	-2.4369E+00	6.6941E-01	4.5990E-01	-2.5916E+00	13.01
1111	1.2461E+00	2.2754E+00	1.6538E+00	3.4928E+00	2.8701E-02	53.64

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1005	-5.7719E+00	-1.4177E+01	2.4957E+02	2.3963E+02	-2.5958E+02	44.52
1006	-3.7571E+00	-4.1036E+00	2.5302E+02	2.4909E+02	-2.5695E+02	44.98
1110	6.4459E+01	-1.3023E-01	2.2938E+02	2.6380E+02	-1.9947E+02	40.99
1111	6.6475E+01	9.9436E+00	2.3283E+02	2.7274E+02	-1.9633E+02	41.54

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1005	-7.9794E-02	-3.1174E-01	3.5190E-01	1.7475E-01	-5.6629E-01	35.88
1006	6.3223E-03	9.2268E-02	1.4315E+00	1.4815E+00	-1.3829E+00	45.86
1110	3.3929E-01	-2.6754E+00	7.3417E-01	5.0858E-01	-2.8447E+00	12.98
1111	1.3720E+00	2.4960E+00	1.8138E+00	3.8328E+00	3.5132E-02	53.61

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1100 ----------
LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1005	1.7505E+00	1.3899E+01	-2.4356E+02	2.5146E+02	-2.3581E+02	-45.71
1006	-2.5139E-01	3.8898E+00	-2.4693E+02	2.4876E+02	-2.4512E+02	-45.24
1110	-6.6826E+01	1.8309E-01	-2.2404E+02	1.9321E+02	-2.5985E+02	-49.25
1111	-6.8829E+01	-9.8265E+00	-2.2742E+02	1.9000E+02	-2.6865E+02	-48.70

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1005	5.1607E-02	2.8861E-01	-3.4360E-01	5.3357E-01	-1.9335E-01	-54.51
1006	-2.1729E-02	-8.7386E-02	-1.3968E+00	1.3426E+00	-1.4517E+00	-44.33
1110	-3.4825E-01	2.6205E+00	-7.1624E-01	2.7843E+00	-5.1201E-01	-77.12
1111	-1.3587E+00	-2.4371E+00	-1.7694E+00	-4.8125E-02	-3.7476E+00	-36.53

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1005	2.0645E+02	1.3608E+02	-2.4377E+03	2.6092E+03	-2.2667E+03	-44.59
1006	1.8814E+02	4.4541E+01	-2.4709E+03	2.5883E+03	-2.3556E+03	-44.17
1110	-4.7840E+02	-8.9891E-01	-2.2330E+03	2.0060E+03	-2.4853E+03	-48.05
1111	-4.9671E+02	-9.2436E+01	-2.2662E+03	1.9806E+03	-2.5697E+03	-47.55

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1005	1.7942E+00	3.6468E+00	-3.4222E+00	6.2658E+00	-8.2480E-01	-52.57
1006	5.3979E-01	-1.0034E+00	-1.3987E+01	1.3776E+01	-1.4240E+01	-43.42
1110	-2.6480E+00	2.5786E+01	-7.1752E+00	2.7494E+01	-4.3560E+00	-76.61
1111	-1.2647E+01	-2.4355E+01	-1.7740E+01	1.7963E-01	-3.7182E+01	-35.87

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1005	1.4804E+02	-1.3889E+02	2.3852E+03	2.3941E+03	-2.3850E+03	43.28
1006	1.6917E+02	-3.3215E+01	2.4189E+03	2.4890E+03	-2.3530E+03	43.80
1110	8.2155E+02	-4.1779E+00	2.2023E+03	2.6493E+03	-1.8320E+03	39.69
1111	8.4268E+02	1.0150E+02	2.2359E+03	2.7385E+03	-1.7943E+03	40.29

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1005	6.1247E-01	-2.1605E+00	3.3633E+00	2.8638E+00	-4.4119E+00	33.80
1006	8.7478E-01	7.4211E-01	1.3663E+01	1.4472E+01	-1.2855E+01	44.86
1110	4.1350E+00	-2.6100E+01	6.9985E+00	5.6764E+00	-2.7641E+01	12.42
1111	1.4156E+01	2.3946E+01	1.7298E+01	3.7029E+01	1.0734E+00	52.90

ELEMENT ID 1101 ----------
LOAD COMBO 1 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1006	-1.7730E+02	8.4270E+00	-2.0026E+01	1.0562E+01	-1.7943E+02	-83.92
1007	-1.8041E+02	-7.1233E+00	-2.0158E+01	-4.8092E+00	-1.8272E+02	-83.45
1111	-1.7789E+02	8.3089E+00	-3.3949E+01	1.4305E+01	-1.8389E+02	-79.98
1112	-1.8100E+02	-7.2413E+00	-3.4081E+01	-7.9586E-01	-1.8745E+02	-79.29

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1006	-1.1615E+00	1.3721E-01	-1.4025E-01	1.5219E-01	-1.1765E+00	-83.91
1007	-6.9287E-01	1.7310E-01	-2.0899E-01	2.2090E-01	-7.4067E-01	-77.12
1111	-1.0832E+00	-2.1519E-01	-1.4466E-01	-1.9171E-01	-1.1066E+00	-80.78
1112	-1.0312E+00	-2.0879E-01	-2.1340E-01	-1.5671E-01	-1.0833E+00	-76.29

LOAD COMBO 2 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1006	9.4168E+02	-4.2431E+01	-3.2481E+01	9.4276E+02	-4.3502E+01	-1.89
1007	9.5884E+02	4.3337E+01	-3.4187E+01	9.6011E+02	4.2062E+01	-2.14
1111	9.1412E+02	-4.7945E+01	4.1967E+01	9.1594E+02	-4.9772E+01	2.49
1112	9.3127E+02	3.7822E+01	4.0262E+01	9.3308E+02	3.6012E+01	2.58

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1101 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1006	6.1551E+00	-7.8144E-01	-5.4590E-01	6.1978E+00	-8.2414E-01	-4.47
1007	3.6949E+00	-8.3703E-01	-5.3177E-01	3.7565E+00	-8.9859E-01	-6.60
1111	5.7469E+00	-1.2424E-01	-4.6898E-01	5.7841E+00	-1.6146E-01	-4.54
1112	4.4777E+00	2.6236E-01	-4.5485E-01	4.5262E+00	2.1384E-01	-6.09

LOAD COMBO 3 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1006	-1.7690E+02	9.3431E+00	-7.6073E+01	3.6466E+01	-2.0402E+02	-70.38
1007	-1.7974E+02	-4.8810E+00	-7.7178E+01	2.4310E+01	-2.0893E+02	-69.28
1111	-1.8989E+02	6.7447E+00	-8.9757E+01	4.1554E+01	-2.2470E+02	-68.80
1112	-1.9273E+02	-7.4792E+00	-9.0863E+01	2.9647E+01	-2.2986E+02	-67.78
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1006	-1.1643E+00	1.1620E-01	-6.6134E-01	3.9644E-01	-1.4445E+00	-67.04
1007	-6.8544E-01	2.0579E-01	-8.7179E-01	7.3925E-01	-1.2189E+00	-58.54
1111	-1.0834E+00	-7.2711E-01	-6.4415E-01	-2.3691E-01	-1.5736E+00	-52.73
1112	-1.4326E+00	-5.5017E-01	-8.5460E-01	-2.9601E-02	-1.9531E+00	-58.65

LOAD COMBO 4 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1006	-1.5034E+05	6.5245E+03	-7.8659E+03	6.9179E+03	-1.5073E+05	-87.14
1007	-1.5287E+05	-6.1344E+03	-7.9651E+03	-5.7033E+03	-1.5330E+05	-86.90
1111	-1.4843E+05	6.9059E+03	-1.9571E+04	9.3336E+03	-1.5086E+05	-82.93
1112	-1.5096E+05	-5.7529E+03	-1.9670E+04	-3.1357E+03	-1.5358E+05	-82.42
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1006	-9.4618E+02	1.8373E+02	-2.7328E+01	1.8439E+02	-9.4684E+02	-88.62
1007	-6.0990E+02	1.2014E+02	-7.6366E+01	1.2804E+02	-6.1781E+02	-84.09
1111	-9.4014E+02	-1.5386E+02	-3.5477E+01	-1.5226E+02	-9.4174E+02	-87.42
1112	-8.1042E+02	-1.1115E+02	-8.4514E+01	-1.0108E+02	-8.2049E+02	-83.21

LOAD COMBO 5 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1006	-1.7221E+02	6.8069E+00	6.3221E+01	2.6882E+01	-1.9229E+02	72.38
1007	-1.7562E+02	-1.0201E+01	6.4529E+01	1.1994E+01	-1.9781E+02	71.02
1111	-1.5450E+02	1.0349E+01	4.9396E+01	2.4016E+01	-1.6817E+02	74.53
1112	-1.5790E+02	-6.6587E+00	5.0704E+01	8.7661E+00	-1.7333E+02	73.08
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1006	-1.1203E+00	1.6373E-01	6.3228E-01	4.2281E-01	-1.3794E+00	67.72
1007	-6.8162E-01	1.1939E-01	7.7466E-01	5.9095E-01	-1.1532E+00	58.67
1111	-1.0481E+00	5.4663E-01	5.9616E-01	7.4486E-01	-1.2463E+00	71.61
1112	-4.0655E-01	3.0138E-01	7.3854E-01	7.6640E-01	-8.7157E-01	57.80

LOAD COMBO 6 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1006	8.4417E+02	-4.4984E+01	3.8541E+02	9.8797E+02	-1.8878E+02	20.46
1007	8.5765E+02	2.2380E+01	3.9106E+02	1.0122E+03	-1.3213E+02	21.56
1111	9.1142E+02	-3.1536E+01	4.5058E+02	1.0921E+03	-2.1222E+02	21.85
1112	9.2489E+02	3.5826E+01	4.5624E+02	1.1173E+03	-1.5663E+02	22.87
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1006	5.5579E+00	-5.4670E-01	3.3670E+00	7.0502E+00	-2.0390E+00	23.90
1007	3.2689E+00	-9.9523E-01	4.4276E+00	6.0510E+00	-3.7774E+00	32.14
1111	5.1668E+00	3.6631E+00	3.2759E+00	7.7760E+00	1.0539E+00	38.54
1112	6.9954E+00	2.7445E+00	4.3365E+00	9.6993E+00	4.0542E-02	31.94

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1101 ----------
LOAD COMBO 7 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1006	-1.3009E+02	4.7236E+00	7.2834E+01	3.6557E+01	-1.6192E+02	66.39
1007	-1.3277E+02	-8.7009E+00	7.4257E+01	2.6024E+01	-1.6750E+02	64.94
1111	-1.1116E+02	8.5083E+00	6.2299E+01	3.5053E+01	-1.3771E+02	66.92
1112	-1.1385E+02	-4.9160E+00	6.3723E+01	2.4446E+01	-1.4321E+02	65.26
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1006	-8.4382E-01	1.3293E-01	7.1073E-01	5.0691E-01	-1.2178E+00	62.25
1007	-5.1750E-01	7.5394E-02	8.8173E-01	7.0917E-01	-1.1513E+00	54.29
1111	-7.9046E-01	6.4210E-01	6.7380E-01	9.0921E-01	-1.0576E+00	68.38
1112	-1.2659E-01	3.8057E-01	8.4479E-01	1.0090E+00	-7.5503E-01	53.35

LOAD COMBO 8 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1006	-1.6443E+00	3.9059E+00	-2.2978E+02	2.3093E+02	-2.2867E+02	-45.35
1007	-6.1614E-01	9.0469E+00	-2.3377E+02	2.3804E+02	-2.2961E+02	-45.59
1111	-5.2423E+01	-6.2493E+00	-2.2907E+02	2.0089E+02	-2.5957E+02	-47.88
1112	-5.1395E+01	-1.1084E+00	-2.3306E+02	2.0816E+02	-2.6066E+02	-48.08
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1006	-3.2785E-02	-8.3360E-02	-2.1356E+00	2.0776E+00	-2.1938E+00	-44.66
1007	1.7540E-02	1.3699E-01	-2.7170E+00	2.7949E+00	-2.6403E+00	-45.63
1111	-2.0975E-02	-2.0997E+00	-2.0472E+00	1.2356E+00	-3.3563E+00	-31.54
1112	-1.6620E+00	-1.4014E+00	-2.6286E+00	1.1001E+00	-4.1635E+00	-46.42

LOAD COMBO 9 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1006	-3.2577E+00	-3.5460E+00	2.2162E+02	2.1822E+02	-2.2502E+02	44.98
1007	-4.3369E+00	-8.9418E+00	2.2547E+02	2.1885E+02	-2.3212E+02	44.71
1111	4.5822E+01	6.2694E+00	2.2055E+02	2.4748E+02	-1.9539E+02	42.44
1112	4.4743E+01	8.7367E-01	2.2440E+02	2.4828E+02	-2.0266E+02	42.21
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1006	-5.9851E-05	8.4348E-02	2.0610E+00	2.1035E+00	-2.0193E+00	45.59
1007	-3.5902E-02	-1.2772E-01	2.6212E+00	2.5398E+00	-2.7034E+00	44.50
1111	-9.3309E-03	2.0243E+00	1.9754E+00	3.2292E+00	-1.2143E+00	58.62
1112	1.5788E+00	1.3493E+00	2.5357E+00	4.0023E+00	-1.0742E+00	43.70

LOAD COMBO 10 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1006	-2.8544E+00	-3.9223E+00	2.4308E+02	2.3969E+02	-2.4647E+02	44.94
1007	-4.0251E+00	-9.7757E+00	2.4731E+02	2.4042E+02	-2.5422E+02	44.67
1111	5.0963E+01	6.8406E+00	2.4197E+02	2.7187E+02	-2.1407E+02	42.40
1112	4.9793E+01	9.8732E-01	2.4619E+02	2.7279E+02	-2.2201E+02	42.17
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1006	4.6357E-03	9.1931E-02	2.2604E+00	2.3091E+00	-2.2125E+00	45.55
1007	-3.6562E-02	-1.4074E-01	2.8749E+00	2.7868E+00	-2.9641E+00	44.48
1111	-5.8540E-03	2.2204E+00	2.1666E+00	3.5431E+00	-1.3285E+00	58.60
1112	1.7352E+00	1.4803E+00	2.7812E+00	4.3918E+00	-1.1763E+00	43.69

LOAD COMBO 11 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1006	6.4929E-02	3.9523E+00	-2.3724E+02	2.3926E+02	-2.3524E+02	-45.23
1007	1.1583E+00	9.4193E+00	-2.4136E+02	2.4668E+02	-2.3611E+02	-45.49
1111	-5.2401E+01	-6.5403E+00	-2.3636E+02	2.0800E+02	-2.6694E+02	-47.77
1112	-5.1307E+01	-1.0734E+00	-2.4048E+02	2.1560E+02	-2.6798E+02	-47.98

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

S H E L L E L E M E N T F O R C E S

ELEMENT ID 1101 ----------

JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1006	-2.2321E-02	-8.7504E-02	-2.2053E+00	2.1507E+00	-2.2605E+00	-44.58
1007	2.5018E-02	1.3983E-01	-2.8054E+00	2.8884E+00	-2.7236E+00	-45.59
1111	-1.0887E-02	-2.1675E+00	-2.1140E+00	1.2839E+00	-3.4624E+00	-31.49
1112	-1.7071E+00	-1.4460E+00	-2.7141E+00	1.1407E+00	-4.2938E+00	-46.38

LOAD COMBO 12 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1006	1.3304E+02	3.3515E+01	-2.3736E+03	2.4574E+03	-2.2909E+03	-44.40
1007	1.4638E+02	1.0019E+02	-2.4150E+03	2.5384E+03	-2.2919E+03	-44.73
1111	-3.9491E+02	-7.2070E+01	-2.3545E+03	2.1265E+03	-2.5935E+03	-46.96
1112	-3.8157E+02	-5.3969E+00	-2.3959E+03	2.2098E+03	-2.5968E+03	-47.24
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1006	6.4275E-01	-9.8282E-01	-2.2099E+01	2.1944E+01	-2.2284E+01	-43.95
1007	7.6920E-01	1.2785E+00	-2.8092E+01	2.9117E+01	-2.7069E+01	-45.26
1111	6.9079E-01	-2.1688E+01	-2.1176E+01	1.3452E+01	-3.4449E+01	-31.07
1112	-1.6423E+01	-1.4426E+01	-2.7169E+01	1.1763E+01	-4.2612E+01	-46.05

LOAD COMBO 13 ----------

JOINT	F11	F22	F12	FMAX	FMIN	ANGLE
1006	1.1513E+02	-4.4017E+01	2.3240E+03	2.3609E+03	-2.2898E+03	44.02
1007	1.0651E+02	-8.7135E+01	2.3643E+03	2.3759E+03	-2.3566E+03	43.83
1111	6.2673E+02	5.8299E+01	2.3246E+03	2.6845E+03	-1.9994E+03	41.51
1112	6.1811E+02	1.5181E+01	2.3649E+03	2.7007E+03	-2.0674E+03	41.37
JOINT	M11	M22	M12	MMAX	MMIN	ANGLE
1006	9.7577E-01	7.6231E-01	2.1574E+01	2.2443E+01	-2.0705E+01	44.86
1007	2.0868E-01	-1.4751E+00	2.7466E+01	2.6846E+01	-2.8112E+01	44.12
1111	8.2170E-01	2.1280E+01	2.0687E+01	3.4128E+01	-1.2027E+01	58.16
1112	1.7308E+01	1.4245E+01	2.6579E+01	4.2400E+01	-1.0847E+01	43.35

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 1 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(X)	U(Y)	U(Z)	R(X)	R(Y)	R(Z)
845	.000494	-.000011	-.005087	.000049	-.000057	-.000003
853	.000422	-.000010	.002036	.000006	-.000004	.000001
861	.000426	.000014	-.007685	.000037	-.000002	.000000
869	.000439	-.000006	.001252	-.000002	.000004	-.000003
877	.4286E-03	.4955E-06	-.2451E-03	.1599E-05	-.3451E-05	.4827E-06
885	.4264E-03	-.3046E-06	.4596E-04	.2712E-06	.6975E-06	-.7241E-07
893	.4269E-03	-.2974E-07	-.9123E-05	.1836E-06	-.1430E-06	.2058E-07
901	.4268E-03	-.3037E-07	.1593E-05	.6175E-07	.2379E-07	-.1110E-08
1055	.000505	-.000033	-.005018	-.000015	-.000072	-.000002
1063	.000421	.000008	.002074	.000020	-.000003	-.000001
1071	.000425	-.000020	-.007668	-.000026	-.000002	-.000000
1079	.000438	.000004	.001259	.000007	.000004	.000003
1087	.4284E-03	-.1206E-05	-.2422E-03	.3030E-06	-.3382E-05	-.4278E-06
1095	.4263E-03	.1260E-07	.4715E-04	.5114E-06	.7258E-06	.9518E-07
1103	.4269E-03	-.9005E-07	-.8635E-05	.1380E-06	-.1313E-06	-.1123E-07
1111	.4268E-03	-.1888E-07	.1793E-05	.7044E-07	.2858E-07	.4953E-08

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 2 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(X)	U(Y)	U(Z)	R(X)	R(Y)	R(Z)
845	-.1398E-03	-.1706E-04	.8684E-03	.2074E-04	.2400E-04	.2486E-05
853	-.000075	-.000009	-.006804	.000084	-.000003	-.000004
861	-.000096	-.000022	.002437	.000020	.000010	.000001
869	-.000077	.000013	-.007774	.000044	-.000004	.000001
877	-.000066	-.000007	.001263	.000001	.000004	-.000003
885	-.7559E-04	.8953E-07	-.2496E-03	.2719E-05	-.3535E-05	.5203E-06
893	-.7786E-04	-.4765E-06	.4582E-04	.7267E-06	.6894E-06	-.6010E-07
901	-.7739E-04	-.9937E-07	-.9511E-05	.3717E-06	-.1514E-06	.2623E-07
1055	-.1389E-03	-.5555E-05	.9426E-03	.2848E-04	.2350E-04	-.3318E-05
1063	-.000064	-.000036	-.006620	.000022	-.000016	-.000003
1071	-.000099	-.000003	.002522	.000036	.000011	.000000
1079	-.000079	-.000022	-.007737	-.000019	-.000003	.000000
1087	-.000066	.000003	.001278	.000009	.000004	.000003
1095	-.7590E-04	-.1631E-05	-.2434E-03	.1408E-05	-.3386E-05	-.4004E-06
1103	-.7799E-04	-.1555E-06	.4839E-04	.9697E-06	.7508E-06	.1094E-06
1111	-.7744E-04	-.1604E-06	-.8454E-05	.3255E-06	-.1261E-06	-.5959E-08

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 3 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(X)	U(Y)	U(Z)	R(X)	R(Y)	R(Z)
845	-.1128E-03	-.1594E-04	.6586E-03	.2151E-04	.2190E-04	.1954E-05
853	-.000075	-.000015	-.005486	.000080	-.000002	-.000001
861	-.000053	-.000001	-.006577	.000061	.000009	-.000003
869	-.000056	-.000010	.001248	.000008	.000011	-.000002
877	-.5516E-04	-.1004E-05	-.2513E-03	.5663E-05	-.3768E-05	.5914E-06
885	-.5780E-04	-.9290E-06	.4338E-04	.1943E-05	.6404E-06	-.2357E-07
893	-.5738E-04	-.2859E-06	-.1015E-04	.8710E-06	-.1678E-06	.4055E-07
901	-.5752E-04	-.1356E-06	.1162E-05	.3443E-06	.1353E-07	.7107E-08
1055	-.1119E-03	-.6679E-05	.7327E-03	.2771E-04	.2140E-04	-.2787E-05
1063	-.000064	-.000030	-.005302	.000027	-.000016	-.000006
1071	-.000056	-.000024	-.006492	-.000005	.000011	.000004
1079	-.000058	.000000	.001285	.000016	.000012	.000003
1087	-.5591E-04	-.2683E-05	-.2360E-03	.4388E-05	-.3403E-05	-.2998E-06
1095	-.5811E-04	-.6127E-06	.4964E-04	.2183E-05	.7898E-06	.1434E-06
1103	-.5751E-04	-.3461E-06	-.7582E-05	.8254E-06	-.1064E-06	.8787E-08
1111	-.5757E-04	-.1241E-06	.2219E-05	.3529E-06	.3878E-07	.1316E-07

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 4 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(X)	U(Y)	U(Z)	R(X)	R(Y)	R(Z)
845	-.1389E-06	-.2861E-06	.3411E-09	.6972E-06	.9058E-08	-.5979E-08
853	-.2370E-06	-.4203E-06	-.8438E-05	.1239E-05	.1388E-06	-.4197E-07
861	.1766E-07	-.1150E-05	.3049E-04	.2680E-05	-.4335E-06	-.1548E-07
869	-.1908E-05	-.1807E-05	-.1917E-03	.7166E-05	.2802E-05	-.5349E-06
877	-.8764E-05	-.1120E-04	.9123E-03	.1291E-04	-.3226E-05	.1680E-05
885	-.000011	-.000014	-.005499	.000076	-.000001	-.000001
893	.000012	-.000001	-.006571	.000060	.000009	-.000003
901	.000009	-.000009	.001248	.000008	.000011	-.000002
1055	-.1164E-06	-.2754E-06	.2085E-05	.7045E-06	.3696E-08	-.1093E-07
1063	-.8608E-07	-.4650E-06	-.4732E-05	.1205E-05	.6564E-07	-.1814E-07
1071	.4135E-06	-.9132E-06	.3889E-04	.2859E-05	-.6284E-06	-.1404E-06
1079	-.9155E-06	-.3072E-05	-.1715E-03	.6202E-05	.2321E-05	.1406E-06
1087	-.6266E-05	-.3455E-05	.9612E-03	.1913E-04	-.4559E-05	-.2799E-05
1095	.000001	-.000029	-.005326	.000023	-.000015	-.000006
1103	.000010	-.000023	-.006491	-.000006	.000011	.000004
1111	.000007	.000000	.001283	.000015	.000012	.000003

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 5 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(X)	U(Y)	U(Z)	R(X)	R(Y)	R(Z)
845	.000551	.000007	-.005180	.000016	-.000070	-.000001
853	.000476	.000005	.002296	-.000026	-.000010	.000001
861	.000447	.000015	-.006823	.000014	.000017	-.000003
869	.000473	-.000000	.001243	-.000016	.000009	-.000003
877	.4706E-03	.2816E-05	-.2288E-03	-.4444E-05	-.3221E-05	.2864E-06
885	.4686E-03	.6149E-06	.4832E-04	-.2205E-05	.7681E-06	-.1421E-06
893	.4692E-03	.3490E-06	-.7311E-05	-.8351E-06	-.1020E-06	-.9472E-08
901	.4691E-03	.1258E-06	.2176E-05	-.3566E-06	.3815E-07	-.1319E-07
1055	.000557	-.000019	-.005223	-.000052	-.000077	.000001
1063	.000474	.000022	.002237	-.000013	-.000009	-.000000
1071	.000459	-.000010	-.006922	-.000074	.000003	-.000004
1079	.000475	.000009	.001205	-.000008	.000008	.000002
1087	.4714E-03	.1177E-05	-.2441E-03	-.5691E-05	-.3586E-05	-.5861E-06
1095	.4689E-03	.9223E-06	.4199E-04	-.1972E-05	.6168E-06	.2027E-07
1103	.4693E-03	.2905E-06	-.9910E-05	-.8794E-06	-.1641E-06	-.4032E-07
1111	.4692E-03	.1369E-06	.1107E-05	-.3482E-06	.1264E-07	-.7308E-08

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 6 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(X)	U(Y)	U(Z)	R(X)	R(Y)	R(Z)
845	-.1518E-03	-.2644E-04	.8608E-03	.3279E-04	.3088E-04	.2632E-05
853	-.000087	-.000009	-.007728	.000103	.000008	-.000005
861	-.000063	-.000007	.002410	.000001	-.000012	.000001
869	-.000086	.000027	-.006287	-.000020	.000004	-.000000
877	-.000077	.000004	.001185	-.000028	.000009	-.000003
885	-.7754E-04	.5084E-05	-.2056E-03	-.9920E-05	-.2840E-05	.9188E-07
893	-.7921E-04	.1433E-05	.4888E-04	-.4446E-05	.8066E-06	-.2027E-06
901	-.7856E-04	.6914E-06	-.5371E-05	-.1757E-05	-.6029E-07	-.3713E-07
1055	-.1511E-03	-.1393E-04	.9710E-03	.4112E-04	.3071E-04	-.3515E-05
1063	-.000071	-.000043	-.007454	.000048	-.000012	-.000006
1071	-.000072	.000012	.002435	.000016	-.000007	.000002
1079	-.000082	.000003	-.006489	-.000091	-.000003	-.000002
1087	-.000074	.000013	.001112	-.000021	.000008	.000002
1095	-.7598E-04	.3552E-05	-.2375E-03	-.1109E-04	-.3588E-05	-.7233E-06
1103	-.7857E-04	.1721E-05	.3573E-04	-.4228E-05	.4921E-06	-.5065E-07
1111	-.7830E-04	.6366E-06	-.1076E-04	-.1799E-05	-.1891E-06	-.6603E-07

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 7 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(X)	U(Y)	U(Z)	R(X)	R(Y)	R(Z)
845	-.9097E-04	.3292E-05	.1243E-03	-.1849E-04	.5072E-04	.2578E-05
853	.000051	.000018	-.005828	.000005	-.000055	.000003
861	-.000029	.000011	-.005228	.000006	.000037	-.000007
869	.8426E-05	.1083E-05	.9403E-03	-.1669E-04	.4028E-05	-.2641E-05
877	.2425E-05	.2834E-05	-.1698E-03	-.5171E-05	-.2304E-05	.1657E-06
885	.1085E-05	.7414E-06	.3761E-04	-.2414E-05	.6055E-06	-.1292E-06
893	.1557E-05	.3782E-06	-.5052E-05	-.9383E-06	-.6582E-07	-.1609E-07
901	.1527E-05	.1421E-06	.1835E-05	-.3958E-06	.3338E-07	-.1364E-07
1055	-.9149E-04	.1070E-04	.7548E-04	-.1432E-04	.5082E-04	-.2165E-05
1063	.000050	.000000	-.005908	-.000060	-.000054	-.000003
1071	-.000017	-.000002	-.005336	-.000073	.000023	-.000001
1079	.1041E-04	.8737E-05	.8989E-03	-.1054E-04	.2890E-05	.1802E-05
1087	.3259E-05	.1589E-05	-.1870E-03	-.6119E-05	-.2711E-05	-.4986E-06
1095	.1429E-05	.9736E-06	.3056E-04	-.2239E-05	.4369E-06	-.6485E-08
1103	.1698E-05	.3340E-06	-.7948E-05	-.9717E-06	-.1350E-06	-.3938E-07
1111	.1584E-05	.1505E-06	.6440E-06	-.3894E-06	.4956E-08	-.9197E-08

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 8 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(X)	U(Y)	U(Z)	R(X)	R(Y)	R(Z)
845	.000292	-.000201	-.003406	.000536	-.000038	.000004
853	.2615E-03	-.9938E-04	.1152E-03	.2326E-03	-.6223E-05	.4470E-05
861	.2502E-03	-.3684E-04	-.2409E-03	.9916E-04	-.4838E-05	.3102E-05
869	.2451E-03	-.1508E-04	-.4418E-04	.4054E-04	-.1206E-05	.1147E-05
877	.2435E-03	-.6210E-05	-.2859E-04	.1668E-04	-.6549E-06	.4906E-06
885	.2427E-03	-.2555E-05	-.9760E-05	.6852E-05	-.2384E-06	.1982E-06
893	.2424E-03	-.1049E-05	-.4391E-05	.2817E-05	-.1039E-06	.8211E-07
901	.2423E-03	-.4314E-06	-.1732E-05	.1158E-05	-.4156E-07	.3361E-07
1055	.000251	-.000214	-.001654	.000505	-.000017	.000004
1063	.2315E-03	-.9547E-04	.8209E-03	.2358E-03	.9224E-05	.6730E-05
1071	.2355E-03	-.3748E-04	.5919E-04	.9868E-04	.2289E-05	.2763E-05
1079	.2391E-03	-.1496E-04	.7889E-04	.4063E-04	.1736E-05	.1210E-05
1087	.2410E-03	-.6232E-05	.2197E-04	.1666E-04	.5526E-06	.4787E-06
1095	.2417E-03	-.2551E-05	.1102E-04	.6855E-05	.2579E-06	.2004E-06
1103	.2420E-03	-.1050E-05	.4150E-05	.2816E-05	.1001E-06	.8168E-07
1111	.2421E-03	-.4312E-06	.1778E-05	.1158E-05	.4227E-07	.3370E-07

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 9 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(X)	U(Y)	U(Z)	R(X)	R(Y)	R(Z)
845	.000233	.000200	-.001591	-.000504	-.000030	-.000004
853	.1885E-03	.1001E-03	.8387E-03	-.2280E-03	.1203E-04	-.6826E-05
861	.1973E-03	.3529E-04	.4955E-04	-.9542E-04	.2047E-05	-.2663E-05
869	.2006E-03	.1448E-04	.7761E-04	-.3920E-04	.1700E-05	-.1167E-05
877	.2025E-03	.6017E-05	.2093E-04	-.1609E-04	.5290E-06	-.4619E-06
885	.2031E-03	.2462E-05	.1069E-04	-.6617E-05	.2498E-06	-.1936E-06
893	.2034E-03	.1013E-05	.3996E-05	-.2718E-05	.9650E-07	-.7883E-07
901	.2036E-03	.4163E-06	.1718E-05	-.1117E-05	.4083E-07	-.3253E-07
1055	.000280	.000190	-.003339	-.000539	-.000059	-.000003
1063	.2189E-03	.1039E-03	.1546E-03	-.2250E-03	-.3091E-05	-.4786E-05
1071	.2116E-03	.3463E-04	-.2407E-03	-.9592E-04	-.4864E-05	-.3013E-05
1079	.2063E-03	.1461E-04	-.4112E-04	-.3911E-04	-.1139E-05	-.1102E-05
1087	.2049E-03	.5994E-05	-.2788E-04	-.1610E-04	-.6366E-06	-.4743E-06
1095	.2041E-03	.2467E-05	-.9367E-05	-.6614E-05	-.2293E-06	-.1912E-06
1103	.2038E-03	.1013E-05	-.4249E-05	-.2719E-05	-.1004E-06	-.7928E-07
1111	.2037E-03	.4164E-06	-.1670E-05	-.1117E-05	-.4009E-07	-.3244E-07

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 10 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(X)	U(Y)	U(Z)	R(X)	R(Y)	R(Z)
845	.000239	.000213	-.001603	-.000524	-.000022	-.000005
853	.2144E-03	.9878E-04	.7696E-03	-.2494E-03	.7615E-05	-.6956E-05
861	.2162E-03	.4012E-04	.8128E-04	-.1044E-03	.2731E-05	-.2957E-05
869	.2202E-03	.1582E-04	.7997E-04	-.4302E-04	.1783E-05	-.1276E-05
877	.2222E-03	.6596E-05	.2394E-04	-.1764E-04	.5956E-06	-.5079E-06
885	.2229E-03	.2701E-05	.1154E-04	-.7257E-05	.2711E-06	-.2120E-06
893	.2233E-03	.1111E-05	.4418E-05	-.2981E-05	.1064E-06	-.8652E-07
901	.2234E-03	.4565E-06	.1878E-05	-.1226E-05	.4468E-07	-.3566E-07
1055	.000286	.000204	-.003422	-.000562	-.000051	-.000006
1063	.2467E-03	.1024E-03	.2169E-04	-.2464E-03	-.9742E-05	-.4930E-05
1071	.2317E-03	.3957E-04	-.2362E-03	-.1048E-03	-.4802E-05	-.3252E-05
1079	.2265E-03	.1592E-04	-.5035E-04	-.4294E-04	-.1333E-05	-.1223E-05
1087	.2248E-03	.6576E-05	-.2959E-04	-.1766E-04	-.6828E-06	-.5180E-06
1095	.2240E-03	.2705E-05	-.1046E-04	-.7254E-05	-.2544E-06	-.2100E-06
1103	.2237E-03	.1111E-05	-.4624E-05	-.2982E-05	-.1096E-06	-.8688E-07
1111	.2236E-03	.4567E-06	-.1839E-05	-.1225E-05	-.4407E-07	-.3559E-07

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 11 - DISPLACEMENTS "U" AND ROTATIONS "R"

JOINT	U(X)	U(Y)	U(Z)	R(X)	R(Y)	R(Z)
845	.000220	-.000163	-.002745	.000481	-.000043	.000006
853	.2028E-03	-.9015E-04	-.2415E-03	.2406E-03	-.1847E-04	.5266E-05
861	.1792E-03	-.4057E-04	-.1812E-03	.1019E-03	-.3813E-05	.3092E-05
869	.1749E-03	-.1539E-04	-.5845E-04	.4195E-04	-.1447E-05	.1214E-05
877	.1731E-03	-.6422E-05	-.2709E-04	.1722E-04	-.6387E-06	.5016E-06
885	.1724E-03	-.2638E-05	-.1054E-04	.7077E-05	-.2534E-06	.2055E-06
893	.1721E-03	-.1084E-05	-.4446E-05	.2909E-05	-.1059E-06	.8464E-07
901	.1719E-03	-.4455E-06	-.1806E-05	.1195E-05	-.4318E-07	.3475E-07
1055	.000181	-.000171	-.001224	.000450	-.000016	.000004
1063	.1711E-03	-.8778E-04	.4906E-03	.2427E-03	.9728E-06	.6830E-05
1071	.1642E-03	-.4079E-04	.1276E-03	.1017E-03	.3482E-05	.2970E-05
1079	.1687E-03	-.1535E-04	.6882E-04	.4198E-04	.1595E-05	.1234E-05
1087	.1706E-03	-.6429E-05	.2511E-04	.1721E-04	.6084E-06	.4981E-06
1095	.1713E-03	-.2637E-05	.1092E-04	.7078E-05	.2592E-06	.2062E-06
1103	.1716E-03	-.1084E-05	.4374E-05	.2909E-05	.1048E-06	.8452E-07
1111	.1718E-03	-.4454E-06	.1820E-05	.1196E-05	.4339E-07	.3477E-07

VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

J O I N T D I S P L A C E M E N T S

LOAD COMBINATION 12 - DISPLACEMENTS "U" AND ROTATIONS "R"

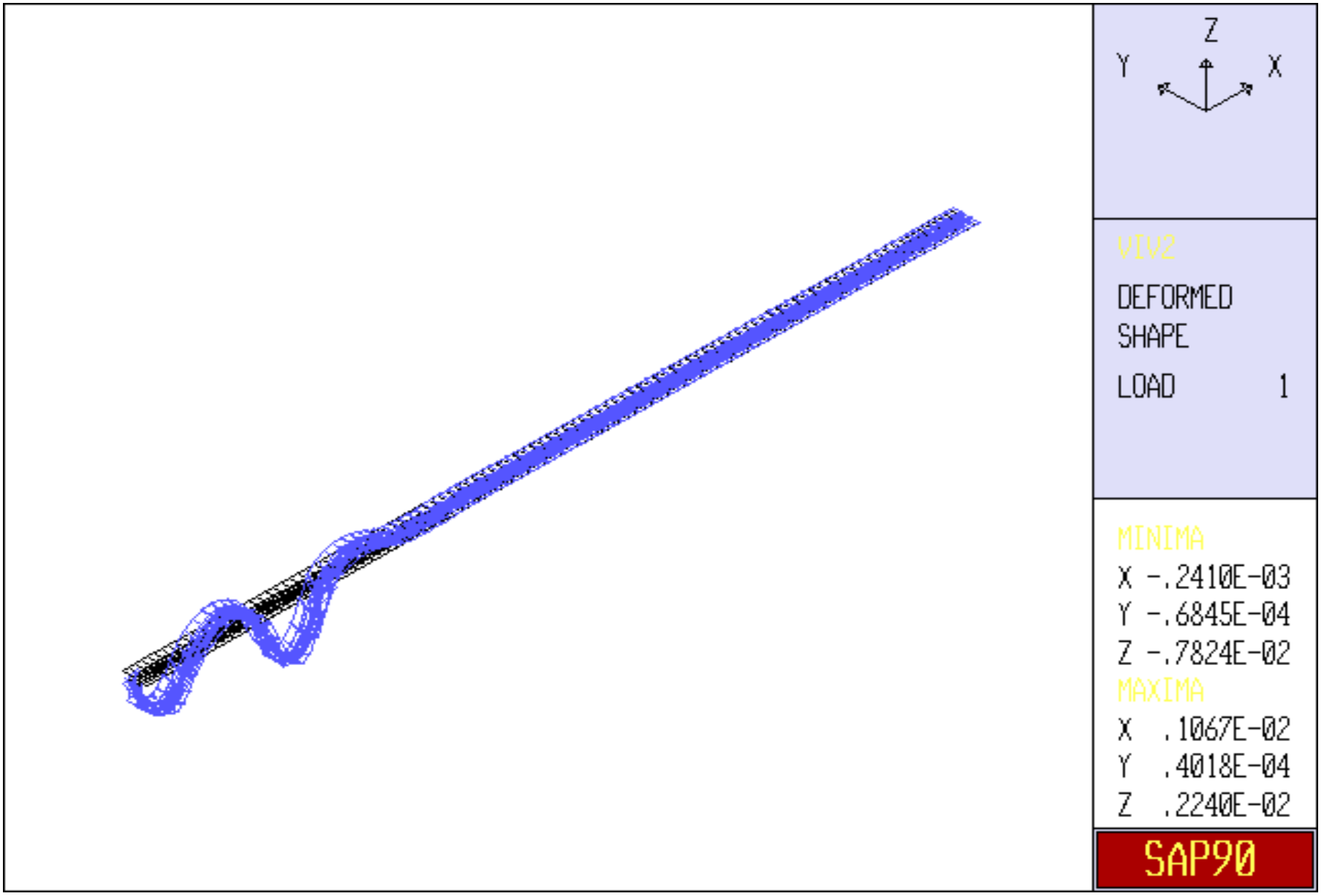
JOINT	U(X)	U(Y)	U(Z)	R(X)	R(Y)	R(Z)
845	-.3627E-04	-.1412E-03	-.1975E-03	.3108E-03	.2046E-05	-.2967E-05
853	-.000081	-.000223	-.002545	.000569	.000039	-.000008
861	-.000019	-.000251	-.004175	.000693	-.000001	.000002
869	.000053	-.000179	-.001616	.000432	-.000058	.000016
877	-.1101E-04	-.7392E-04	-.8723E-04	.1714E-03	-.2857E-05	.4874E-05
885	-.1563E-04	-.2558E-04	-.1408E-03	.7127E-04	-.3103E-05	.2143E-05
893	-.1916E-04	-.1091E-04	-.3793E-04	.2913E-04	-.9587E-06	.8338E-06
901	-.2035E-04	-.4465E-05	-.1937E-04	.1199E-04	-.4525E-06	.3509E-06
1055	-.2790E-04	-.1385E-03	.7287E-03	.3126E-03	.7047E-06	-.4204E-05
1063	-.3805E-04	-.2250E-03	-.7359E-03	.5419E-03	.8404E-05	-.9719E-05
1071	-.000028	-.000262	-.001927	.000666	.000004	.000002
1079	-.8251E-05	-.1804E-03	-.2584E-03	.4173E-03	-.1016E-04	.1370E-04
1087	-.3641E-04	-.7281E-04	.4340E-03	.1722E-03	.9301E-05	.5444E-05
1095	-.2620E-04	-.2580E-04	.7504E-04	.7110E-04	.2059E-05	.2026E-05
1103	-.2345E-04	-.1087E-04	.5046E-04	.2917E-04	.1153E-05	.8563E-06
1111	-.2211E-04	-.4473E-05	.1698E-04	.1199E-04	.4155E-06	.3466E-06

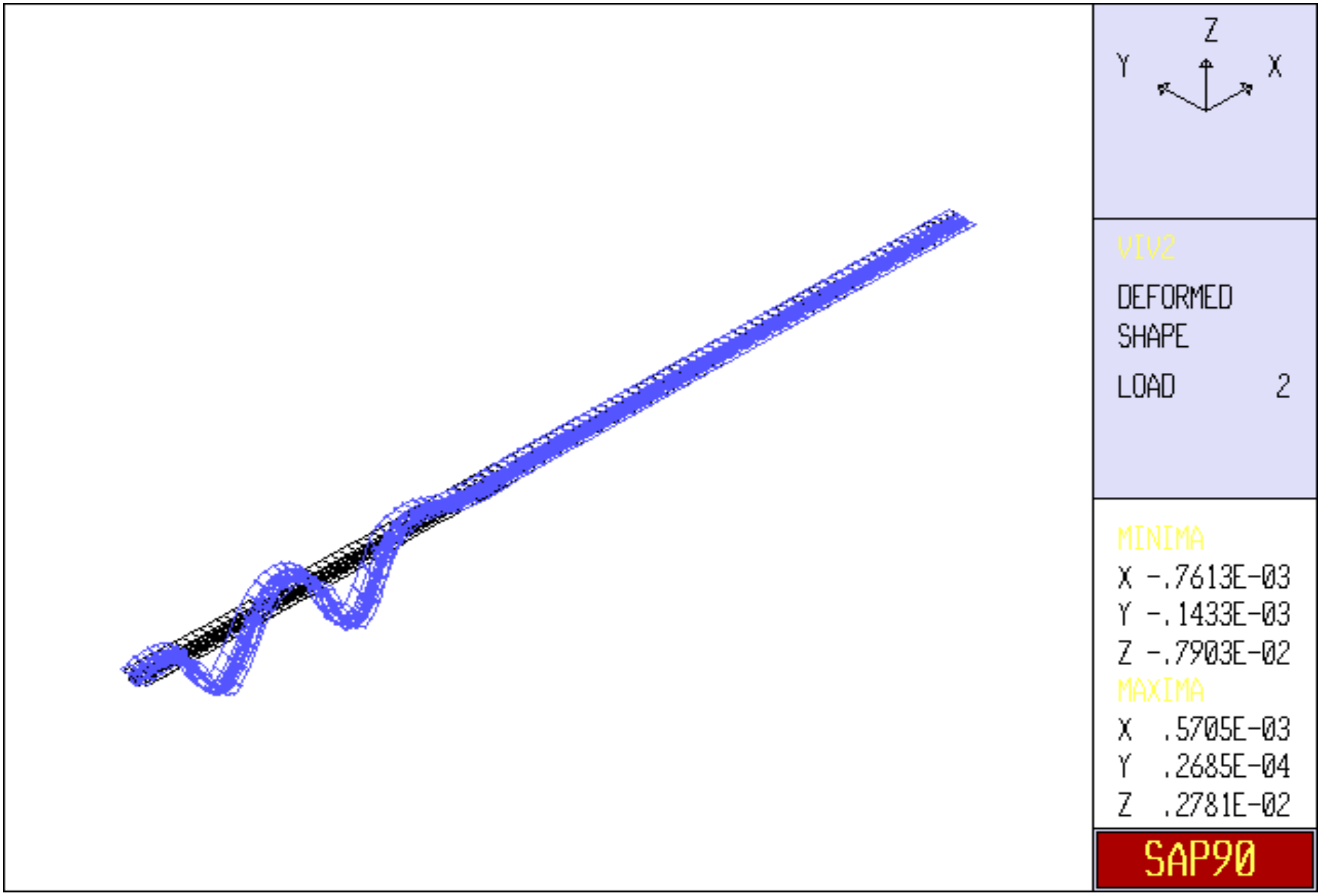
VIADUCTOS E1, E2, E3 L.A.V. ZARAGOZA-LLEIDA. UD: N-m

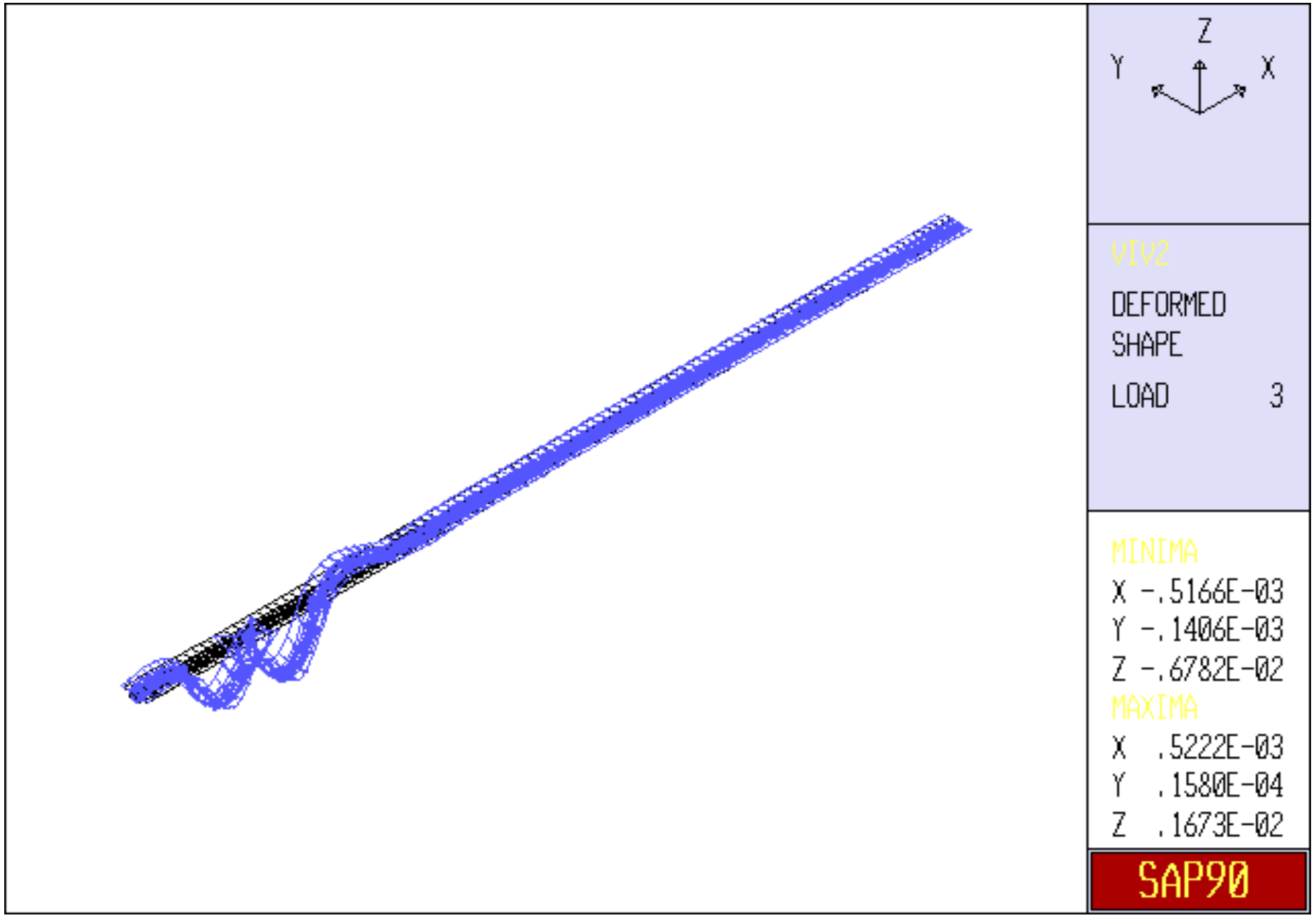
J O I N T D I S P L A C E M E N T S

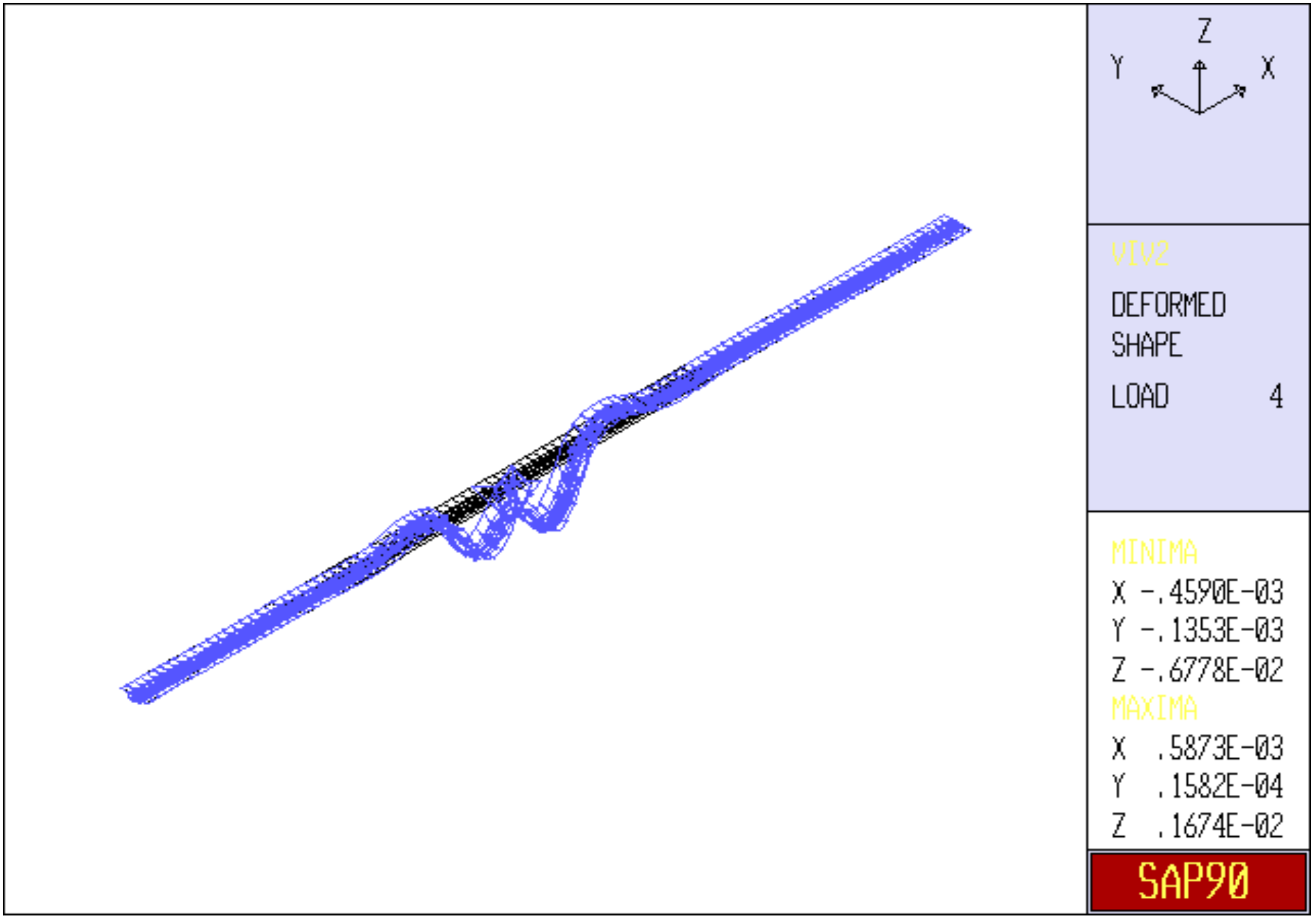
LOAD COMBINATION 13 - DISPLACEMENTS "U" AND ROTATIONS "R"

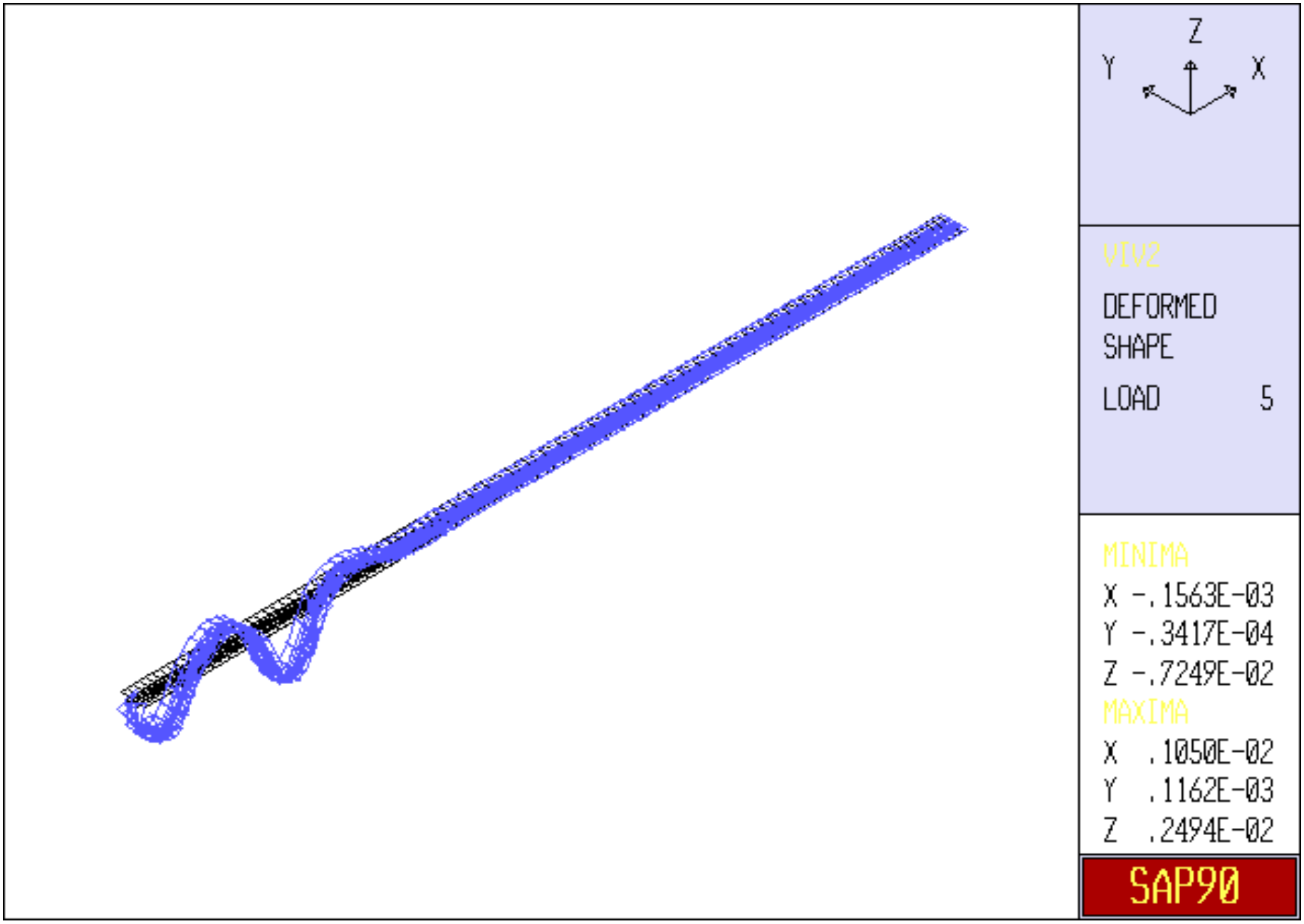
JOINT	U(X)	U(Y)	U(Z)	R(X)	R(Y)	R(Z)
845	-.1584E-04	.1196E-03	.5804E-03	-.2737E-03	-.5989E-06	.3710E-05
853	-.3485E-04	.1951E-03	-.3248E-03	-.4786E-03	.1355E-04	.1278E-04
861	-.000018	.000250	-.002055	-.000641	.000002	-.000001
869	.8804E-06	.1765E-03	-.2572E-03	-.4068E-03	-.1028E-04	-.1342E-04
877	-.2757E-04	.7123E-04	.4242E-03	-.1679E-03	.9095E-05	-.5313E-05
885	-.1758E-04	.2514E-04	.7298E-04	-.6933E-04	.2005E-05	-.1976E-05
893	-.1490E-04	.1060E-04	.4924E-04	-.2844E-04	.1125E-05	-.8349E-06
901	-.1360E-04	.4361E-05	.1655E-04	-.1169E-04	.4050E-06	-.3379E-06
1055	-.2389E-04	.1212E-03	-.2321E-03	-.2726E-03	.8985E-06	.2953E-05
1063	-.000091	.000193	-.001879	-.000490	.000062	.000015
1071	-.000012	.000239	-.004228	-.000668	-.000001	-.000001
1079	.000061	.000175	-.001582	-.000421	-.000057	-.000015
1087	-.2805E-05	.7231E-04	-.8399E-04	-.1671E-03	-.2752E-05	-.4756E-05
1095	-.7273E-05	.2493E-04	-.1375E-03	-.6949E-04	-.3029E-05	-.2090E-05
1103	-.1072E-04	.1064E-04	-.3694E-04	-.2841E-04	-.9342E-06	-.8129E-06
1111	-.1188E-04	.4354E-05	-.1890E-04	-.1169E-04	-.4413E-06	-.3421E-06

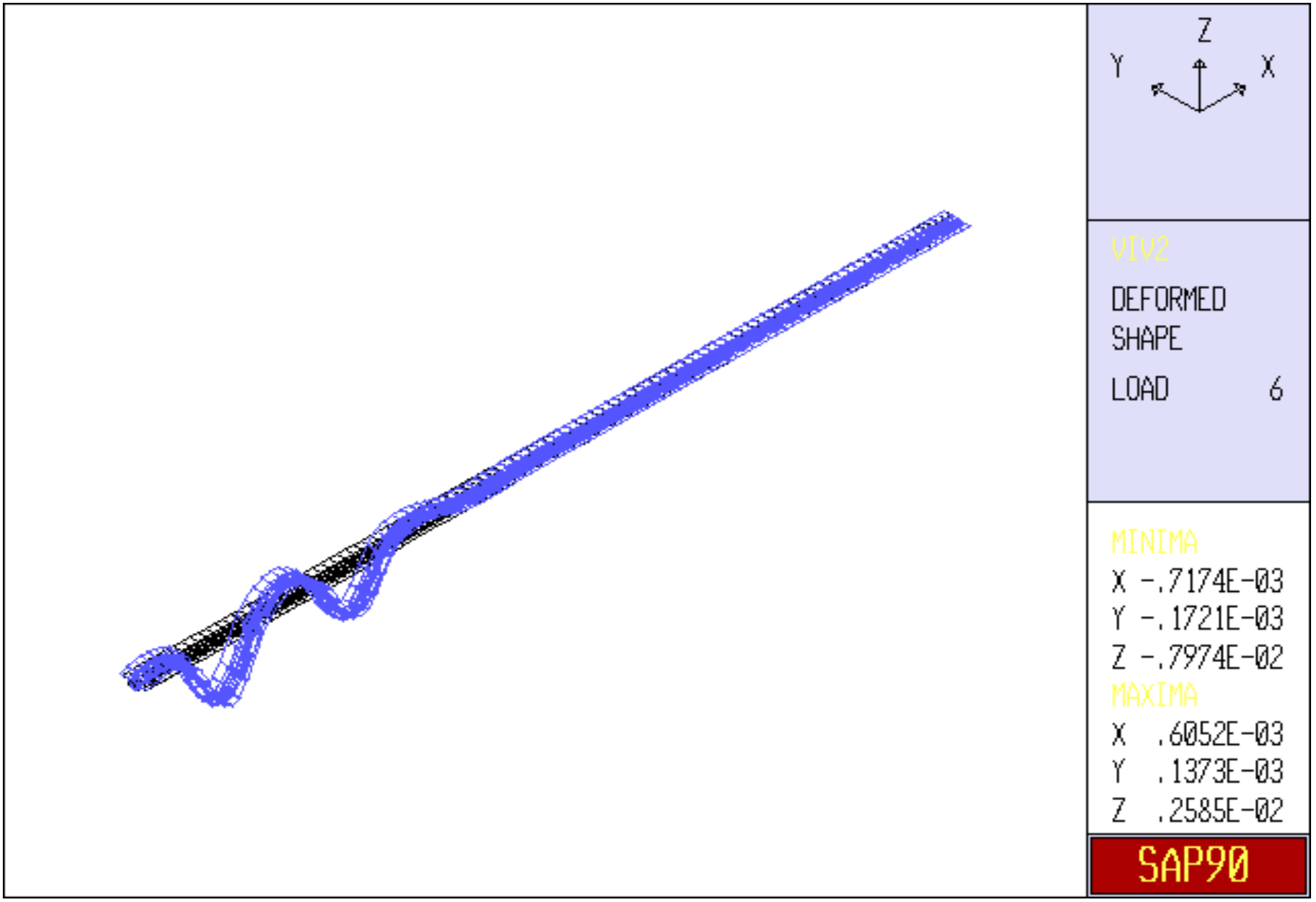

Z
Y
X
VIV2
DEFORMED
SHAPE
LOAD 1
MINIMA
X -.2410E-03
Y -.6845E-04
Z -.7824E-02
MAXIMA
X .1067E-02
Y .4018E-04
Z .2240E-02
SAP90

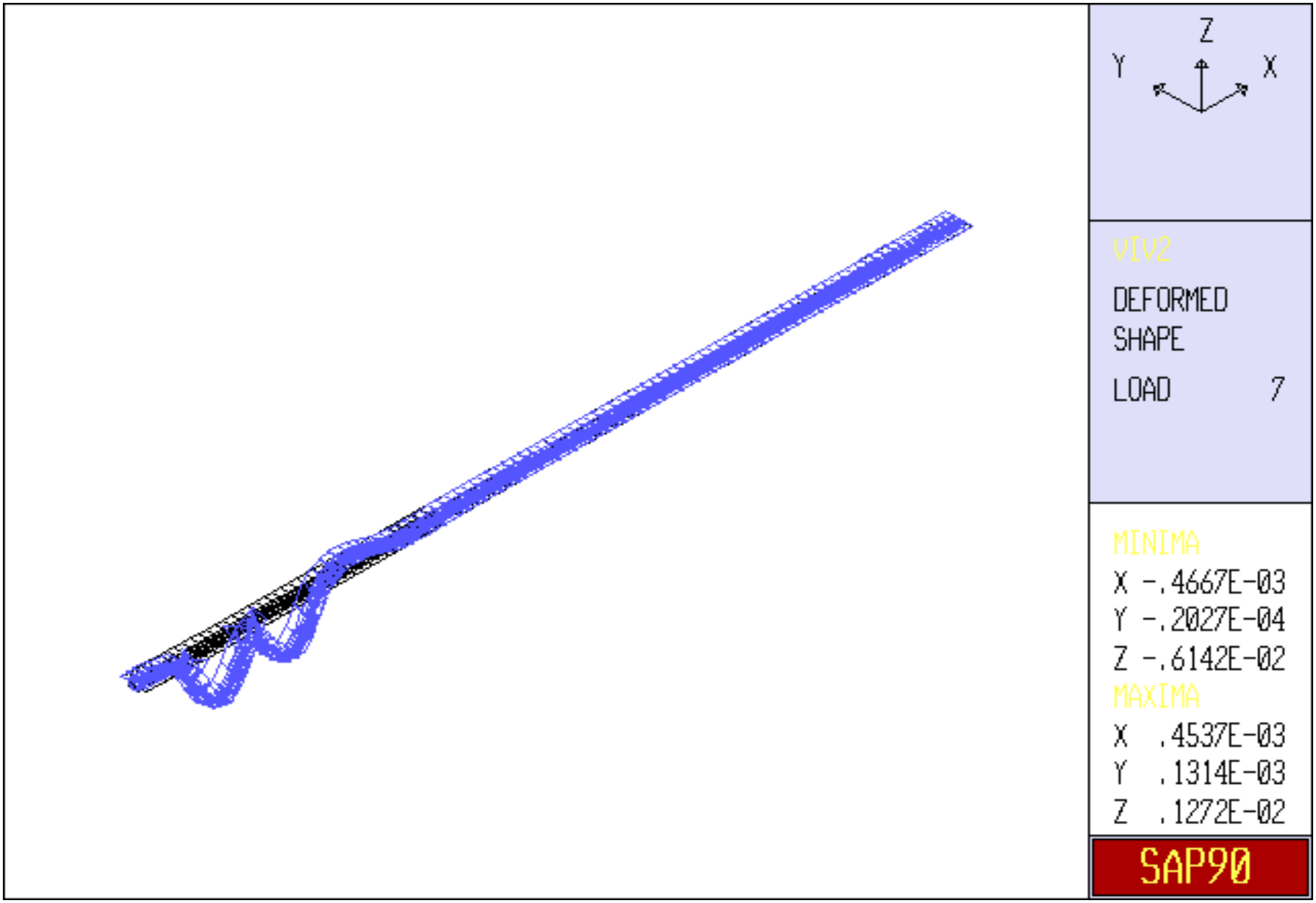

Z
Y
X
VIV2
DEFORMED
SHAPE
LOAD 2
MINIMA
X -.7613E-03
Y -.1433E-03
Z -.7903E-02
MAXIMA
X .5705E-03
Y .2685E-04
Z .2781E-02
SAP90


Z
Y
X
VIV2
DEFORMED
SHAPE
LOAD 3
MINIMA
X -.5166E-03
Y -.1406E-03
Z -.6782E-02
MAXIMA
X .5222E-03
Y .1580E-04
Z .1673E-02
SAP90


Z
Y
X
VIV2
DEFORMED
SHAPE
LOAD 4
MINIMA
X -.4590E-03
Y -.1353E-03
Z -.6778E-02
MAXIMA
X .5873E-03
Y .1582E-04
Z .1674E-02
SAP90


Z
Y
X
VIV2
DEFORMED
SHAPE
LOAD 5
MINIMA
X -.1563E-03
Y -.3417E-04
Z -.7249E-02
MAXIMA
X .1050E-02
Y .1162E-03
Z .2494E-02
SAP90


Z
Y
X
VIV2
DEFORMED
SHAPE
LOAD 6
MINIMA
X -.7174E-03
Y -.1721E-03
Z -.7974E-02
MAXIMA
X .6052E-03
Y .1373E-03
Z .2585E-02
SAP90


Z
Y
X
VIV2
DEFORMED
SHAPE
LOAD 7
MINIMA
X -.4667E-03
Y -.2027E-04
Z -.6142E-02
MAXIMA
X .4537E-03
Y .1314E-03
Z .1272E-02
SAP90

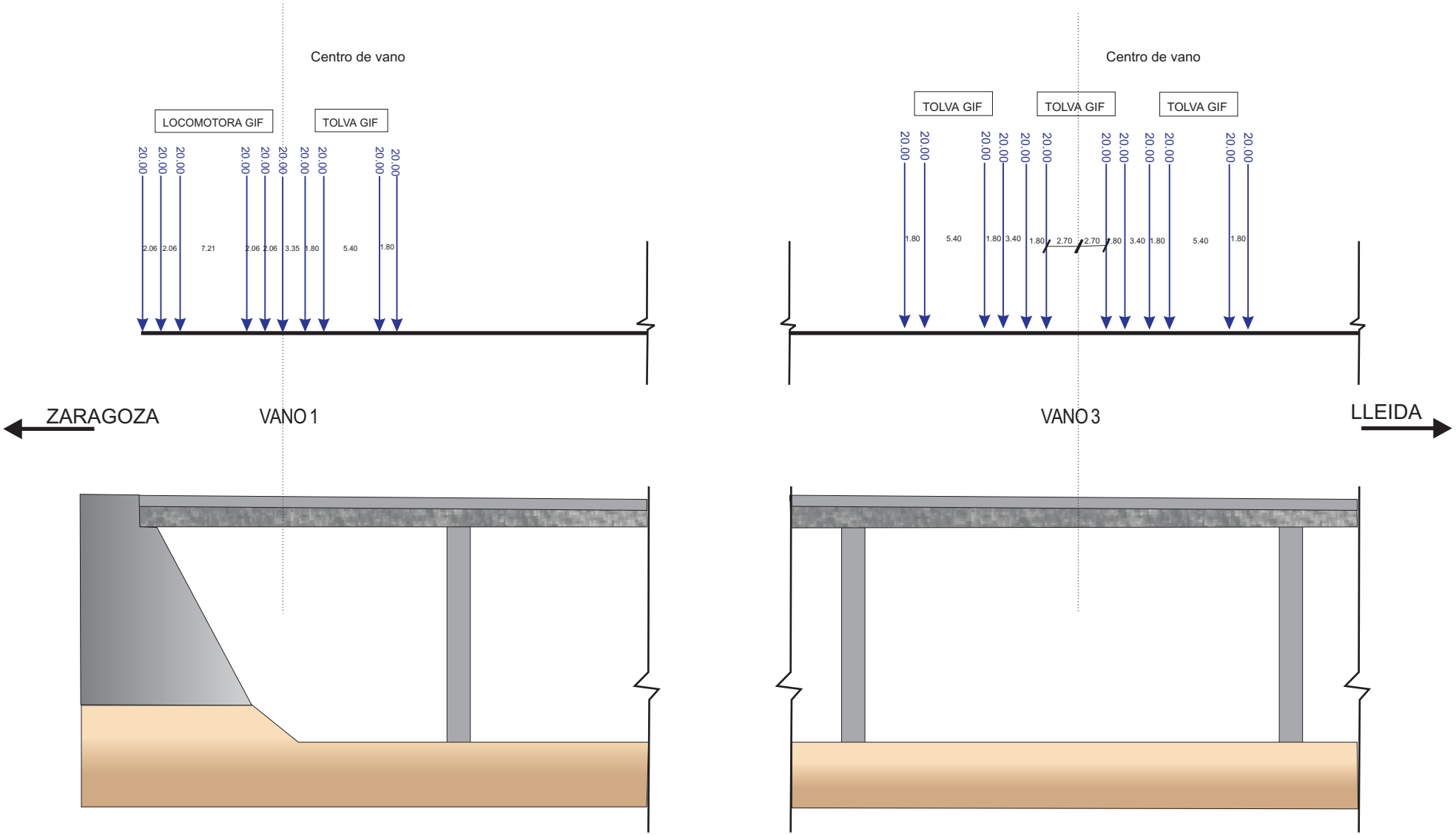
ANEJO 2C: TREN DE CARGAS Y SITUACIÓN DE LOS APARATOS DE MEDIDA

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ESTRUCTURA 26VI05 P.K.42,368

L.A.V. MADRID-BARCELONA-FRONTERA FRANCESA
TRAMO ZARAGOZA-LLEIDA.

HIPÓTESIS I. VÍA 1



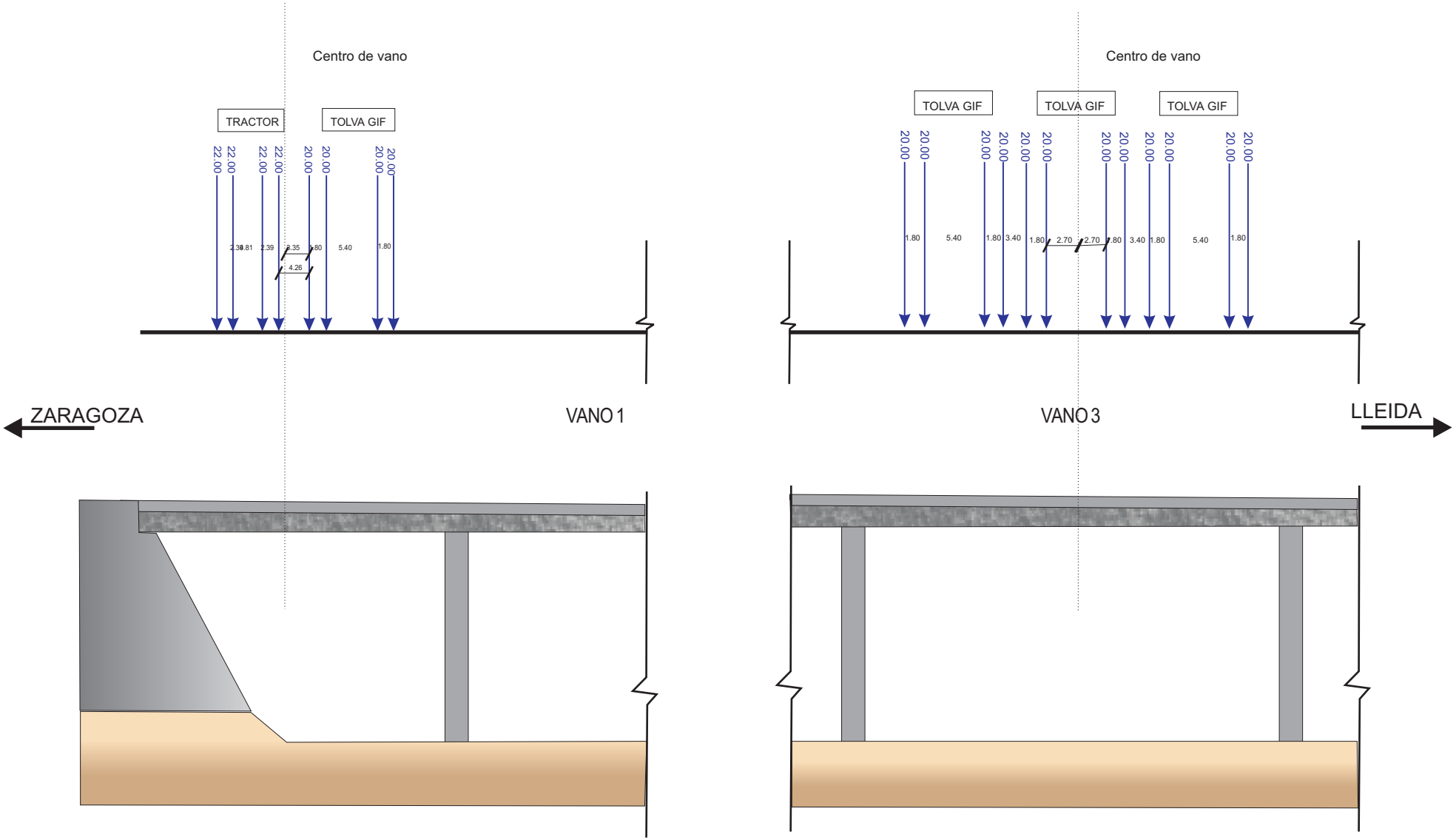
NOTA: Distancias en metros
Cargas en Tn/eje

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HIPÓTESIS I. VÍA 2



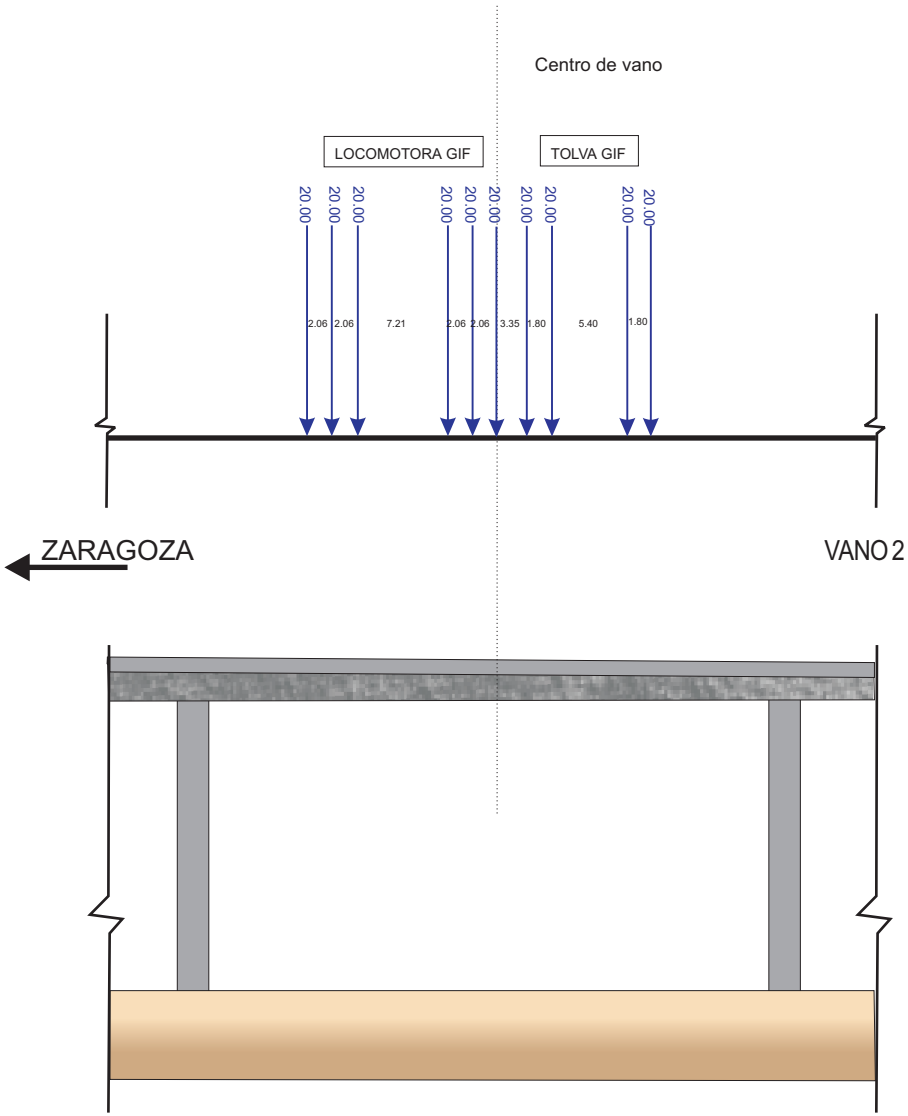
NOTA: Distancias en metros
Cargas en Tn/eje

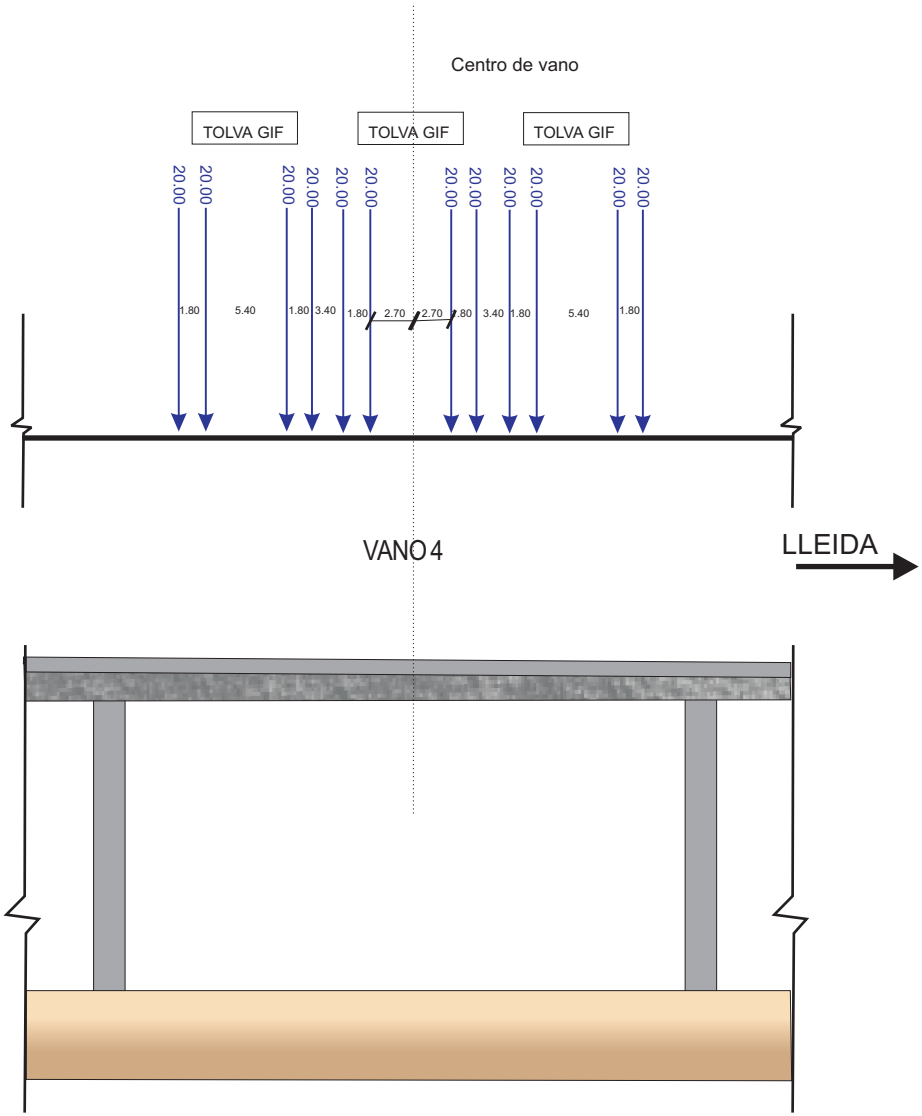
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HIPÓTESIS II. VÍA 1





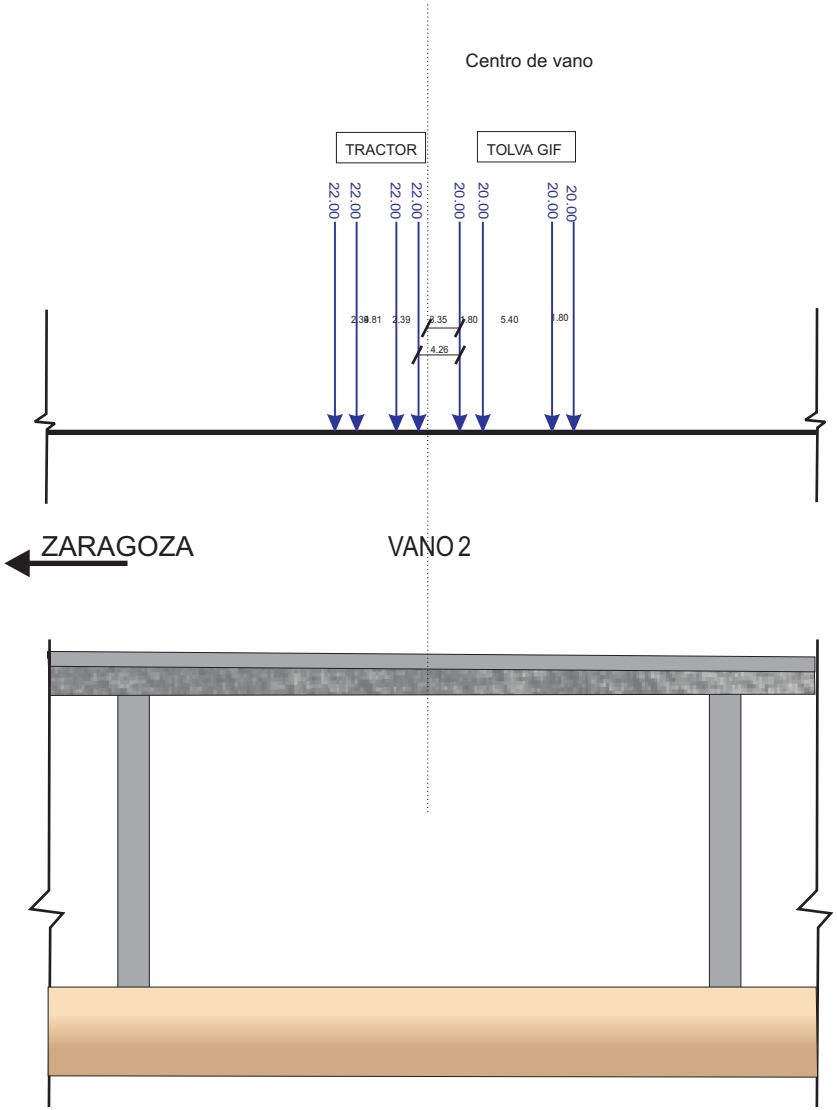
NOTA: Distancias en metros
Cargas en Tn/eje

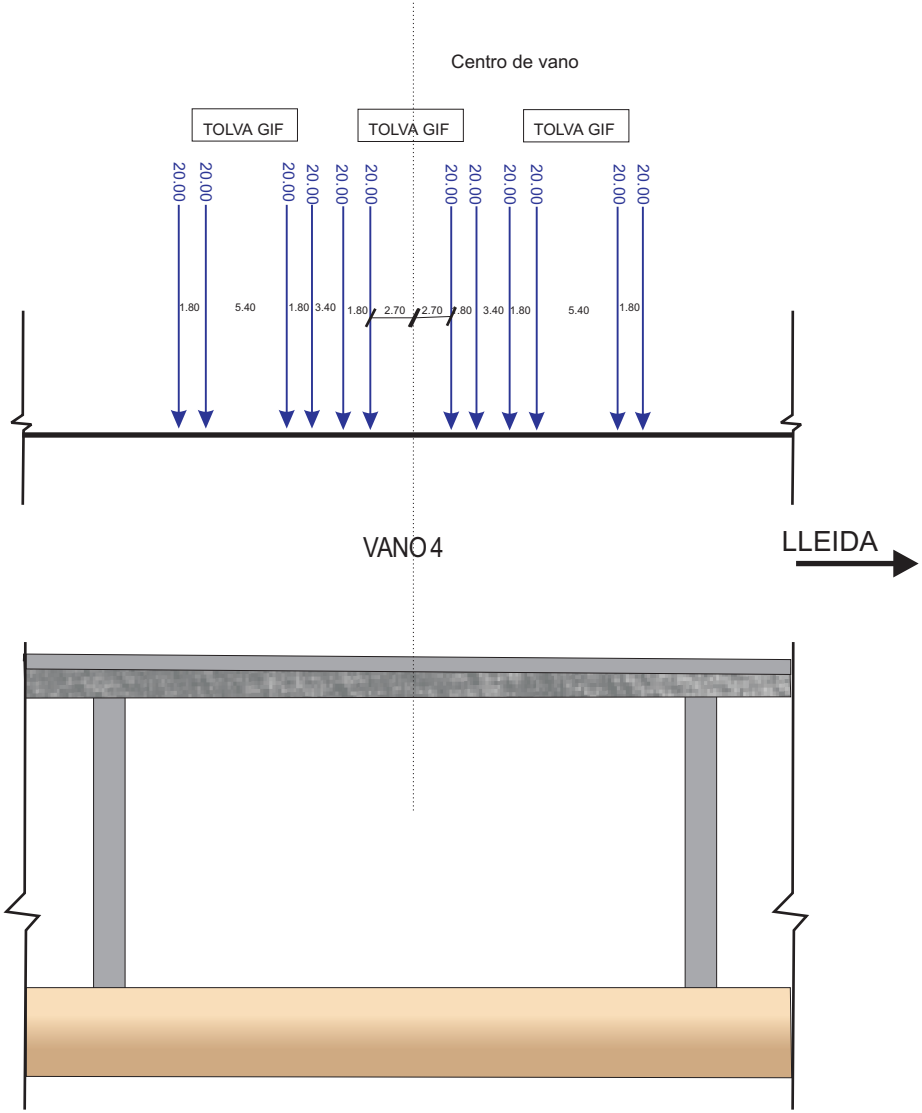
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HIPÓTESIS II. VÍA 2





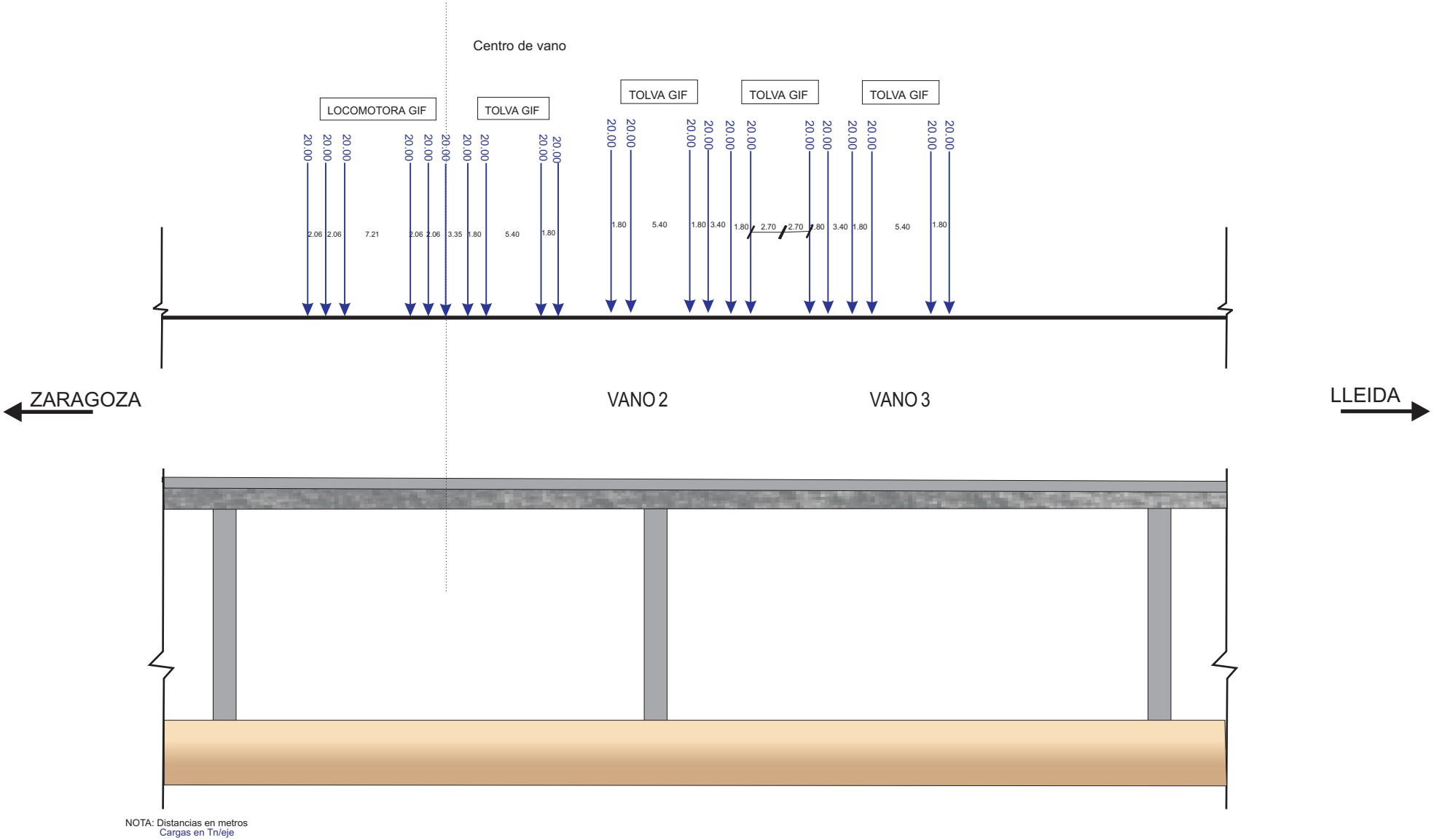
NOTA: Distancias en metros
Cargas en Tn/eje

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HIPÓTESIS III. VÍA 1



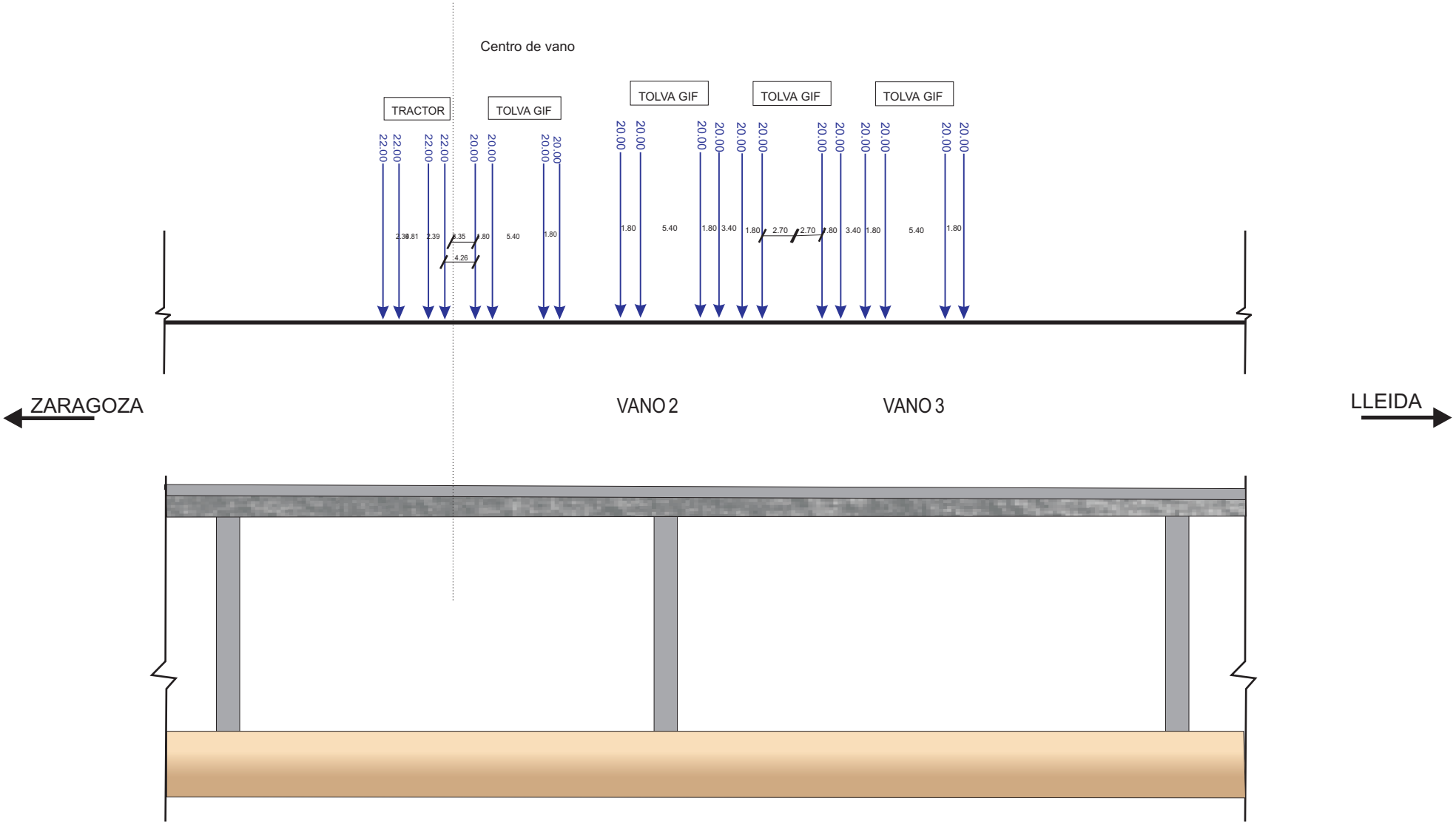
NOTA: Distancias en metros
Cargas en Tn/eje

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HIPÓTESIS III. VÍA 2



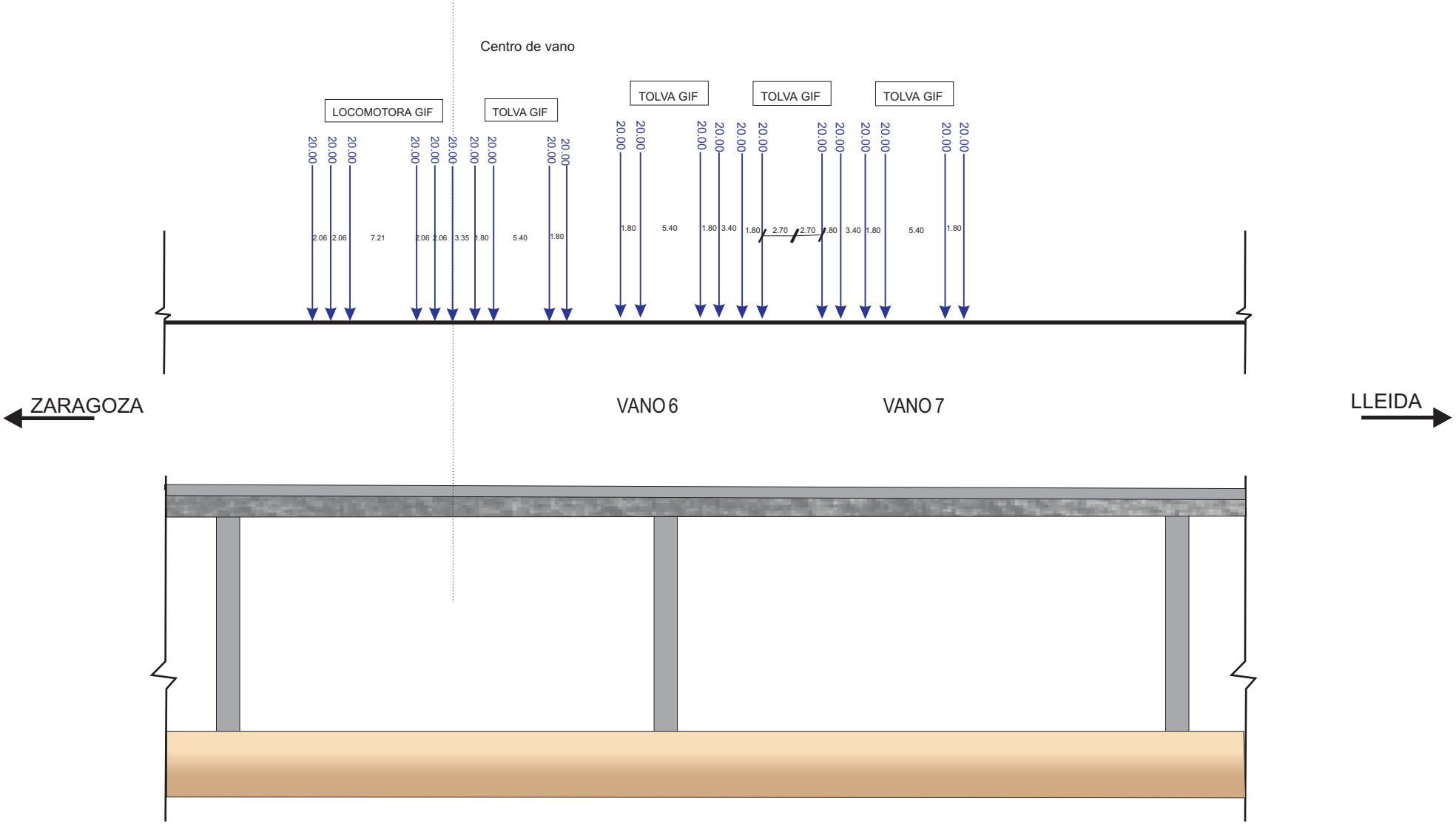
NOTA: Distancias en metros
Cargas en Tn/eje

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TRAMO ZARAGOZA-LLEIDA.

HIPÓTESIS IV. VÍA 1



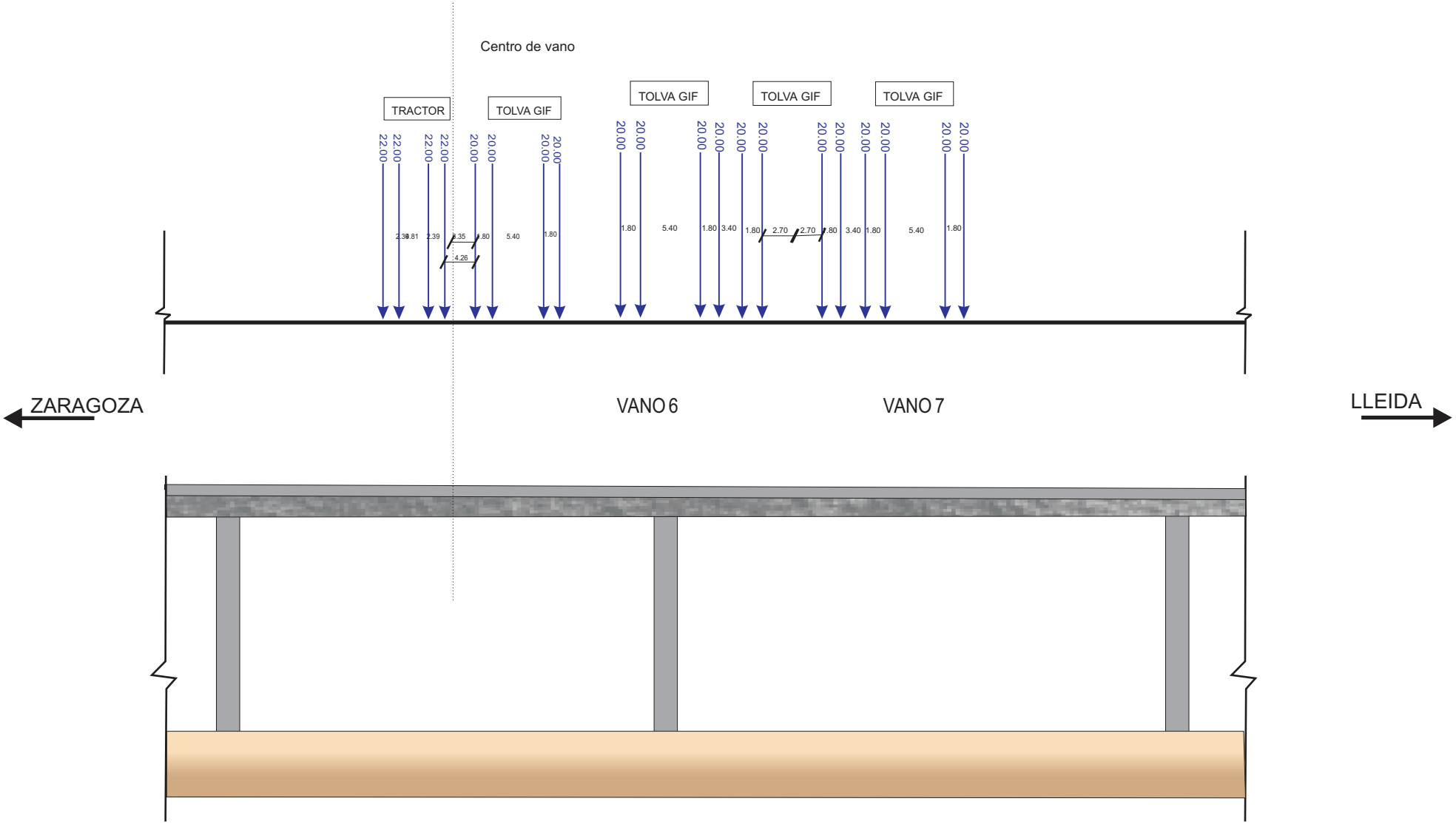
NOTA: Distancias en metros
Cargas en Tn/eje

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HIPÓTESIS IV. VÍA 2



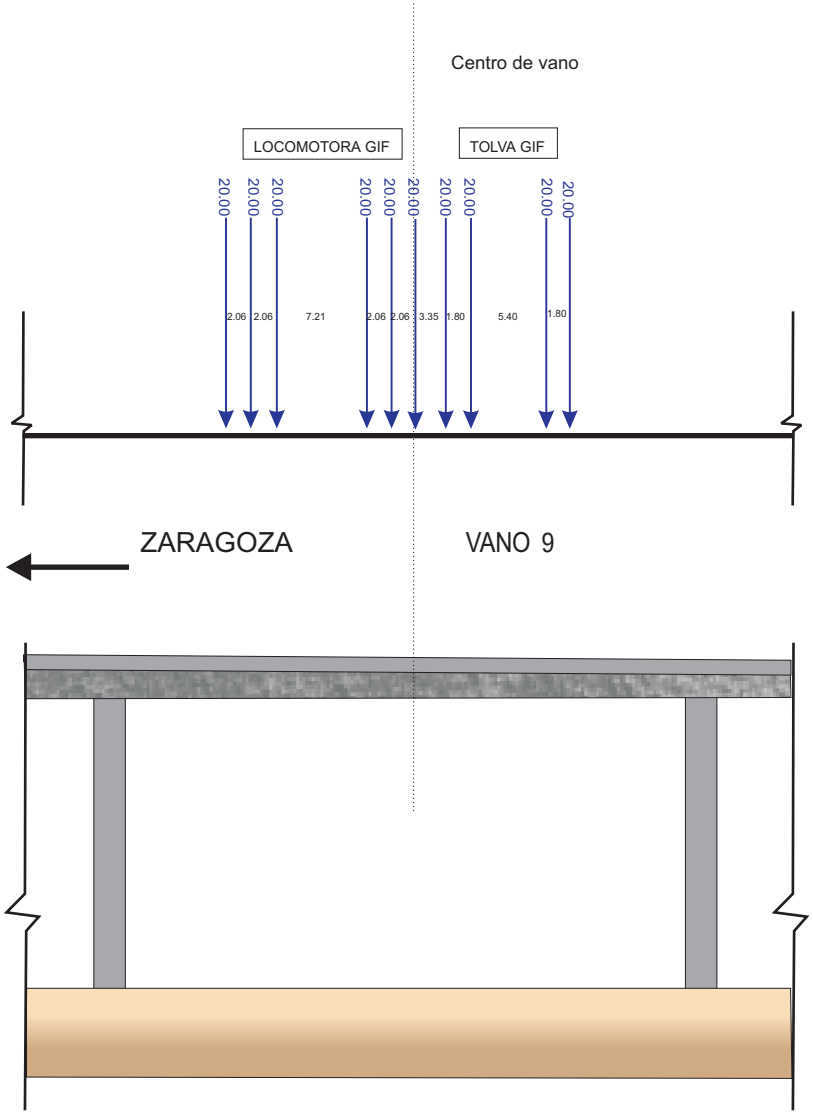
NOTA: Distancias en metros
Cargas en Tn/eje

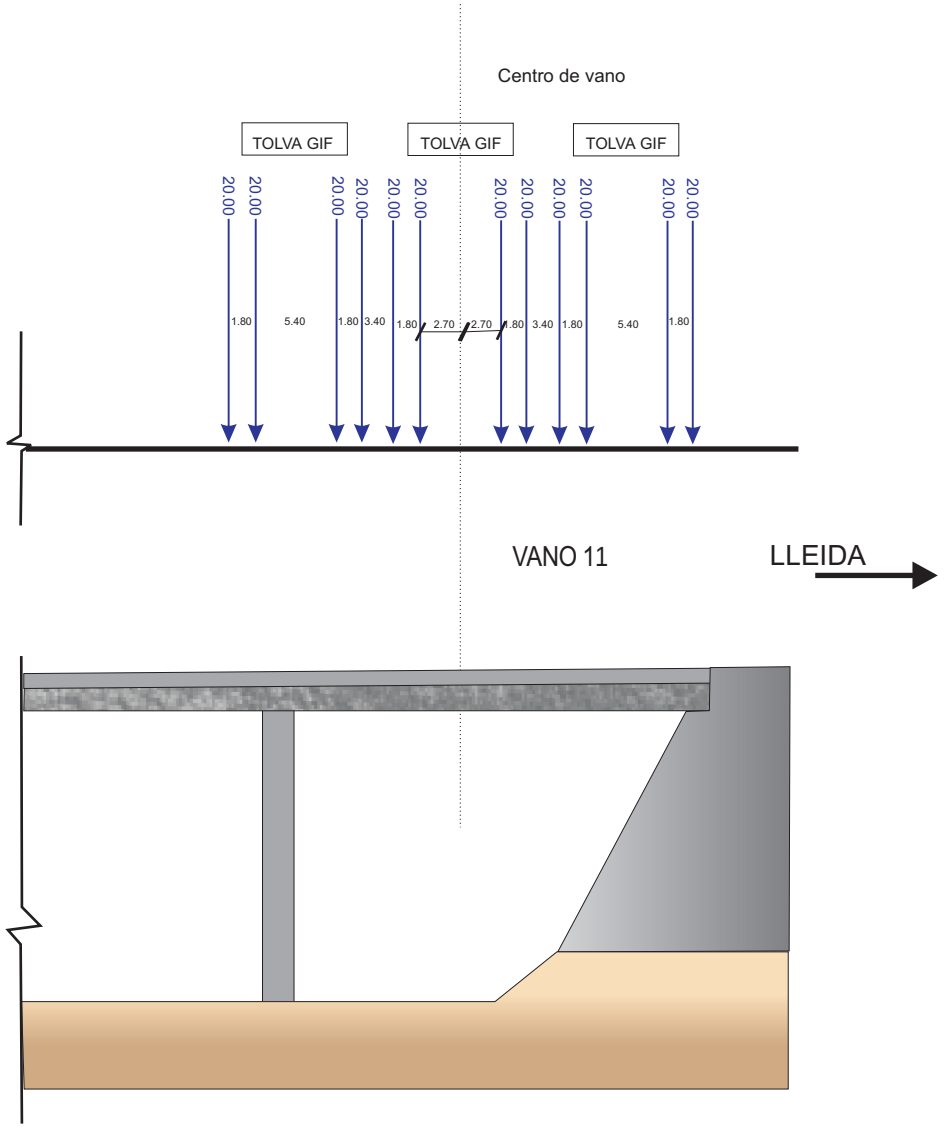
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L.A.V. MADRID-BARCELONA-FRONTERA FRANCESA
TRAMO ZARAGOZA-LLEIDA.

HIPÓTESIS V. VÍA 1





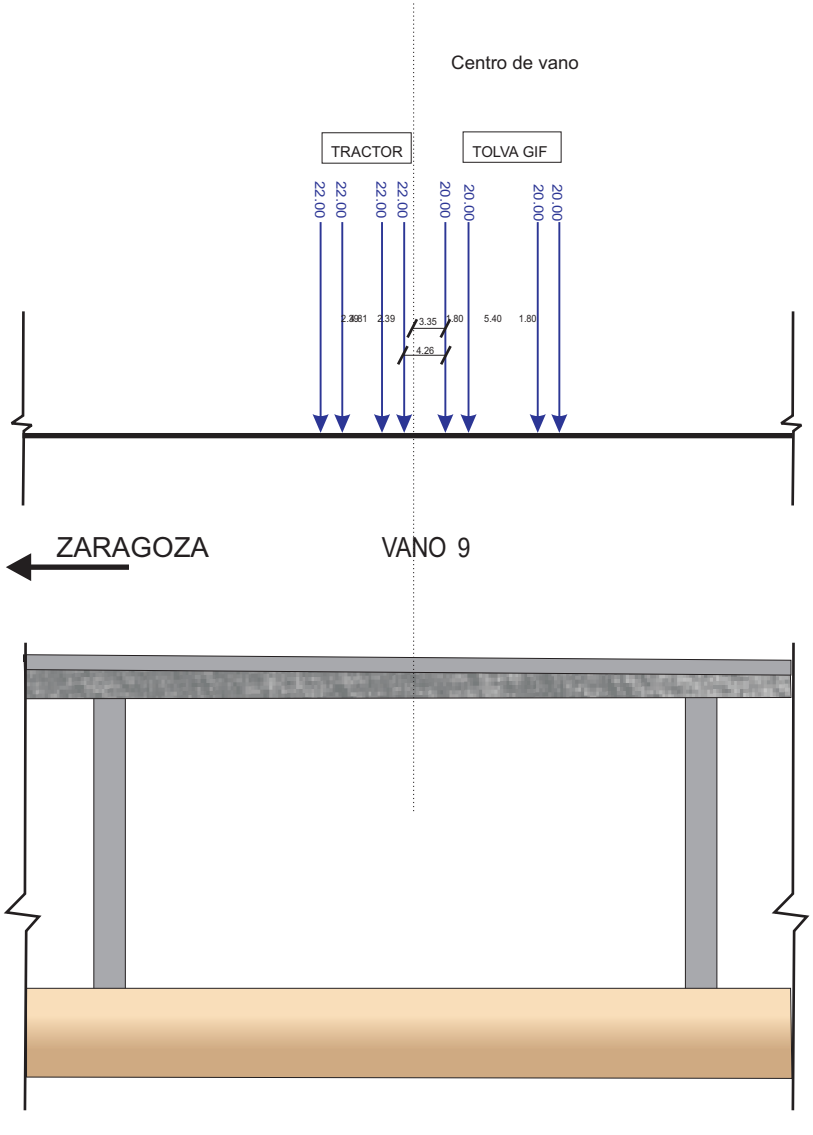
NOTA: Distancias en metros
Cargas en Tn/eje

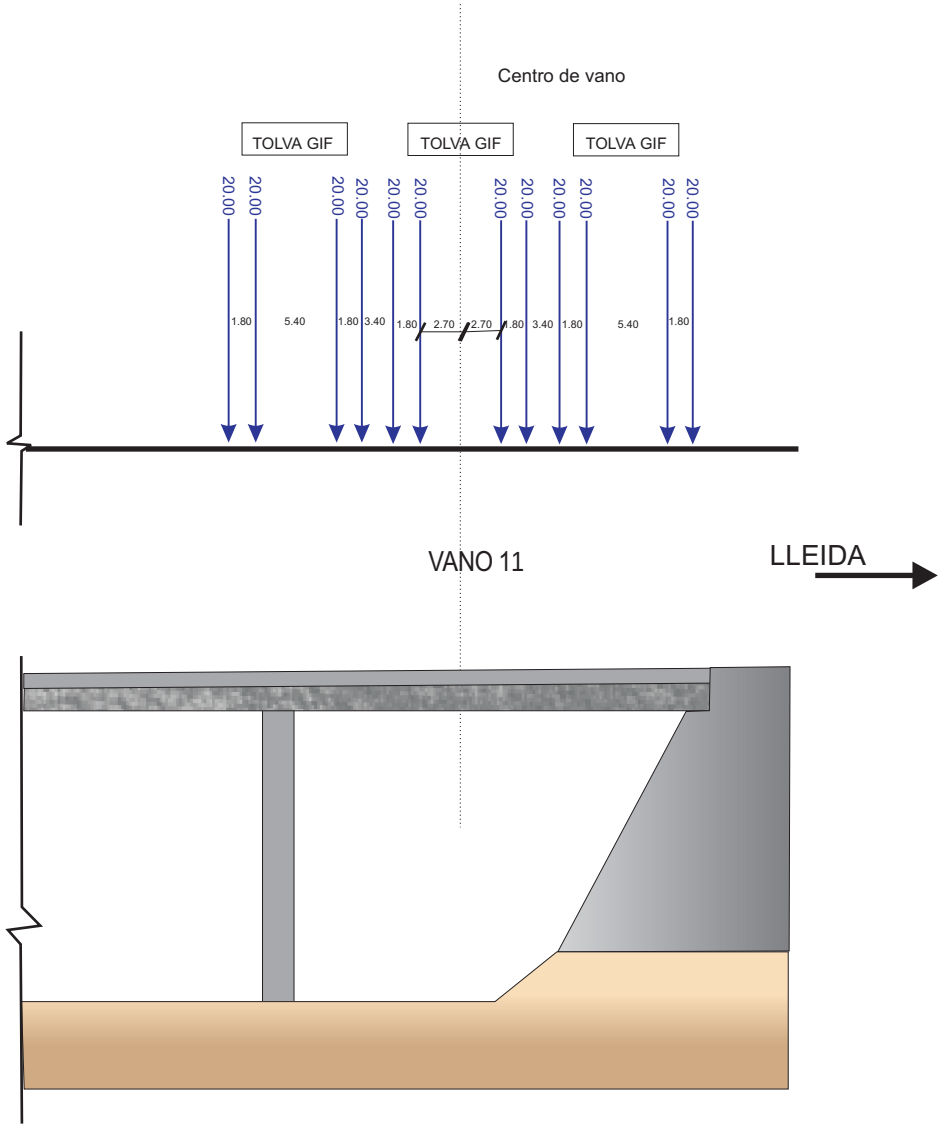
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TRAMO ZARAGOZA-LLEIDA.

HIPÓTESIS V. VÍA 2





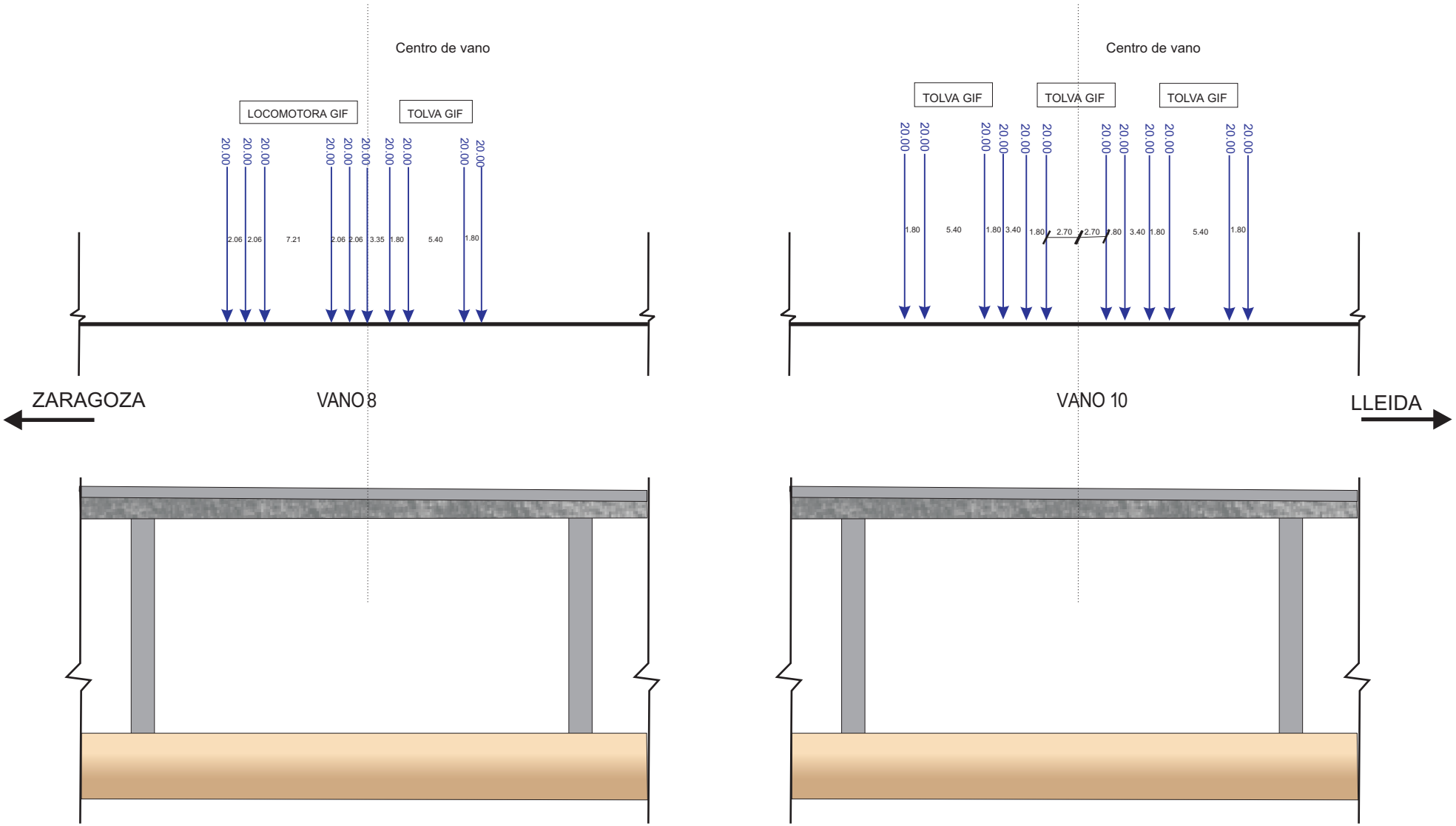
NOTA: Distancias en metros
Cargas en Tn/eje

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L.A.V. MADRID-BARCELONA-FRONTERA FRANCESA
TRAMO ZARAGOZA-LLEIDA.

HIPÓTESIS VI. VÍA 1



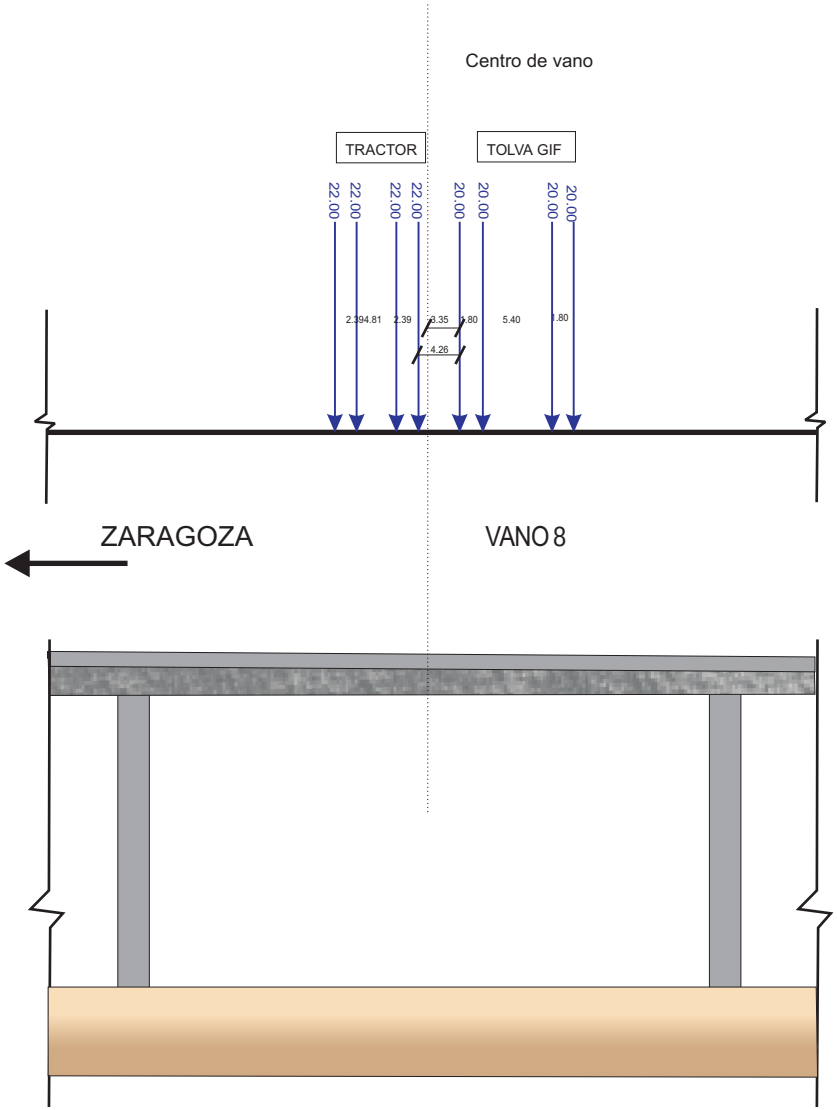
NOTA: Distancias en metros
Cargas en Tn/eje

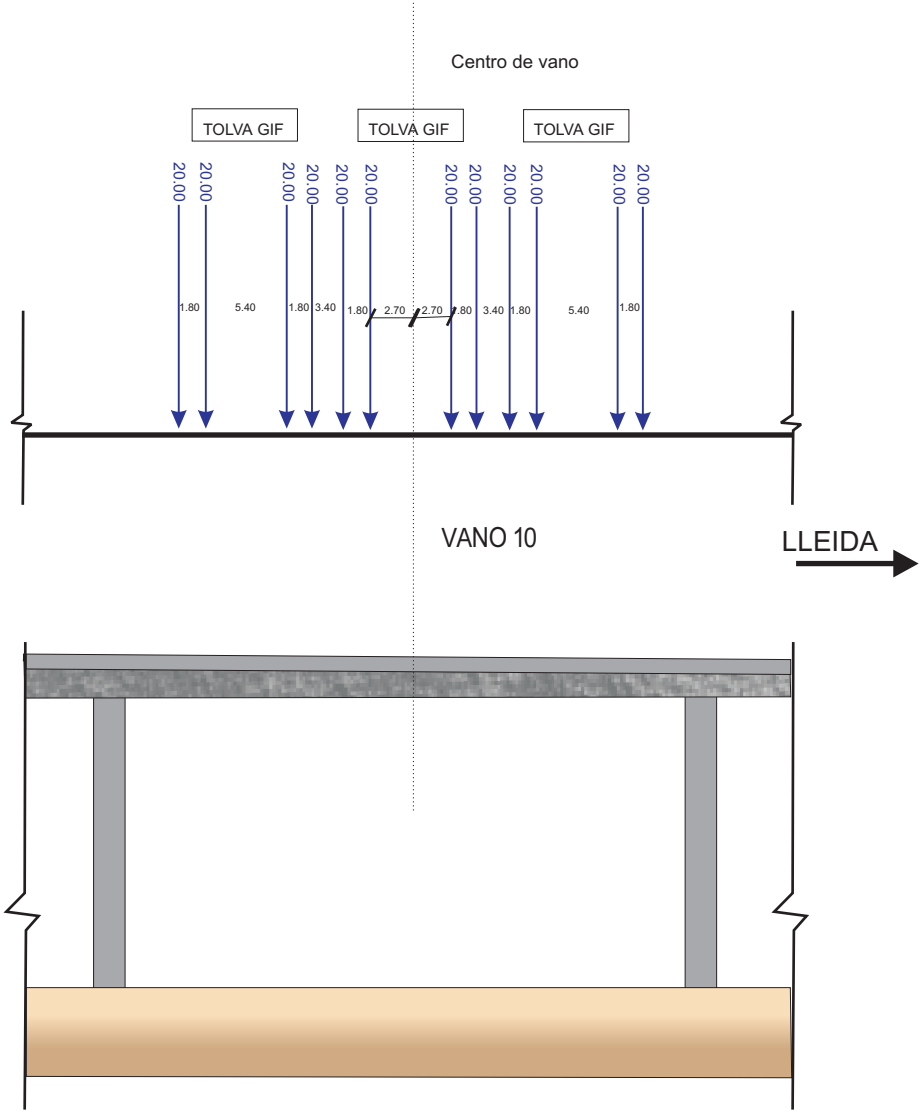
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TRAMO ZARAGOZA-LLEIDA.

HIPÓTESIS VI. VÍA 2





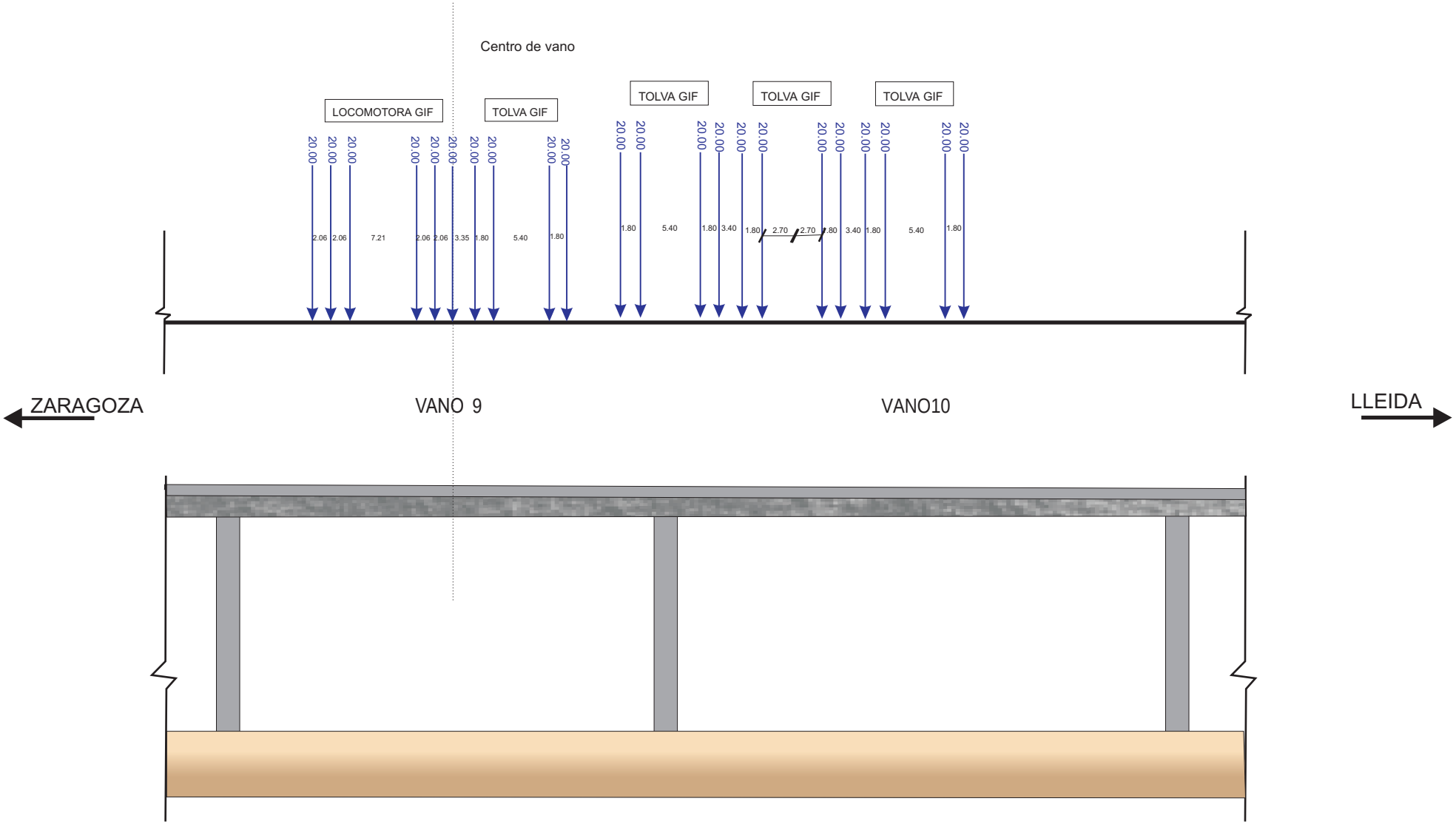
NOTA: Distancias en metros
Cargas en Tn/eje

TIFSA
Grupo Renfe

ESTRUCTURA 26VI05 P.K.42,368

L.A.V. MADRID-BARCELONA-FRONTERA FRANCESA
TRAMO ZARAGOZA-LLEIDA.

HIPÓTESIS VII. VÍA 2



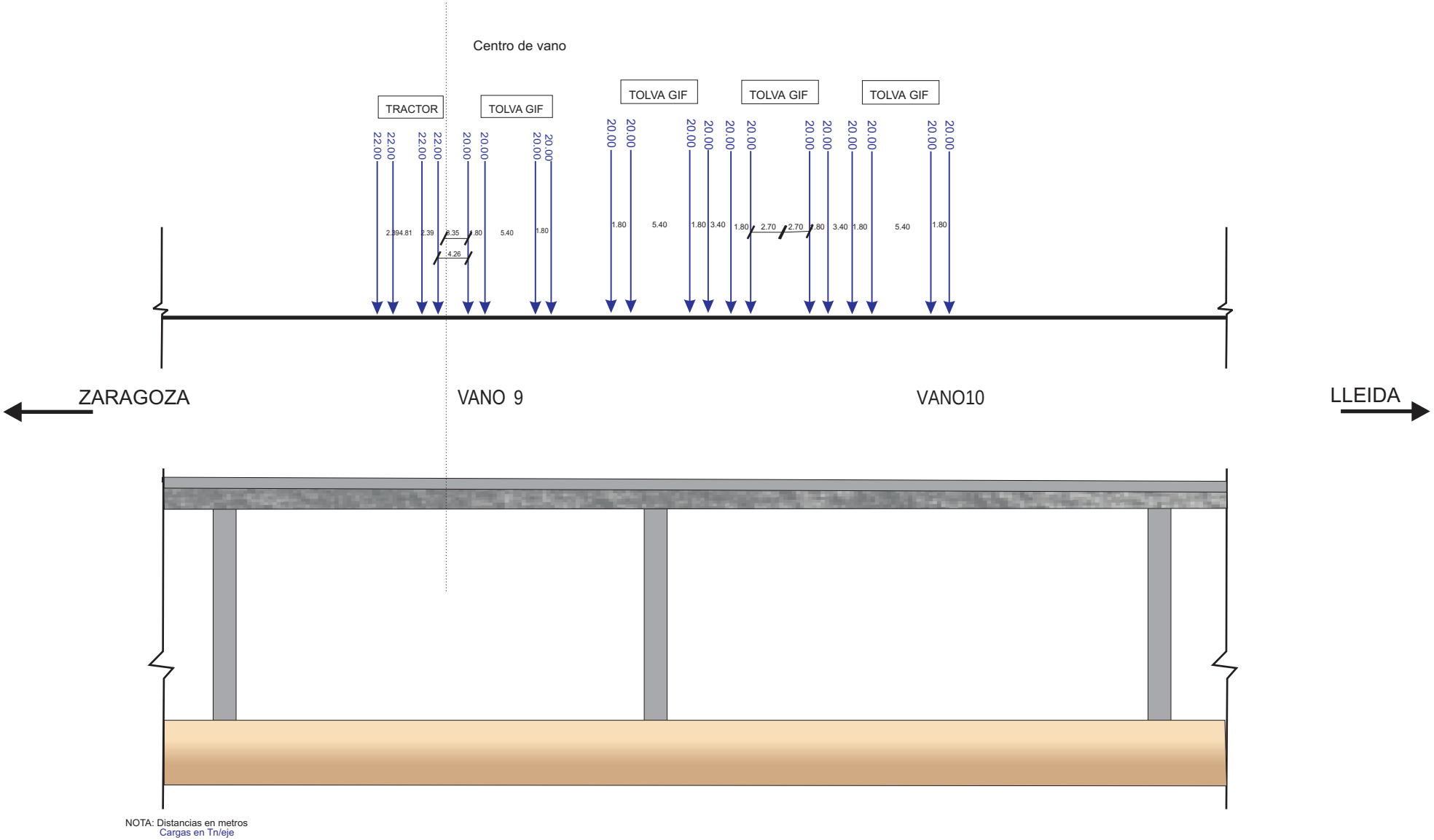
NOTA: Distancias en metros
Cargas en Tn/eje

TIFSA
Grupo Renfe

ESTRUCTURA 26VI05 P.K.42,368

L.A.V. MADRID-BARCELONA-FRONTERA FRANCESA
TRAMO ZARAGOZA-LLEIDA.

HIPÓTESIS VII. VÍA 2

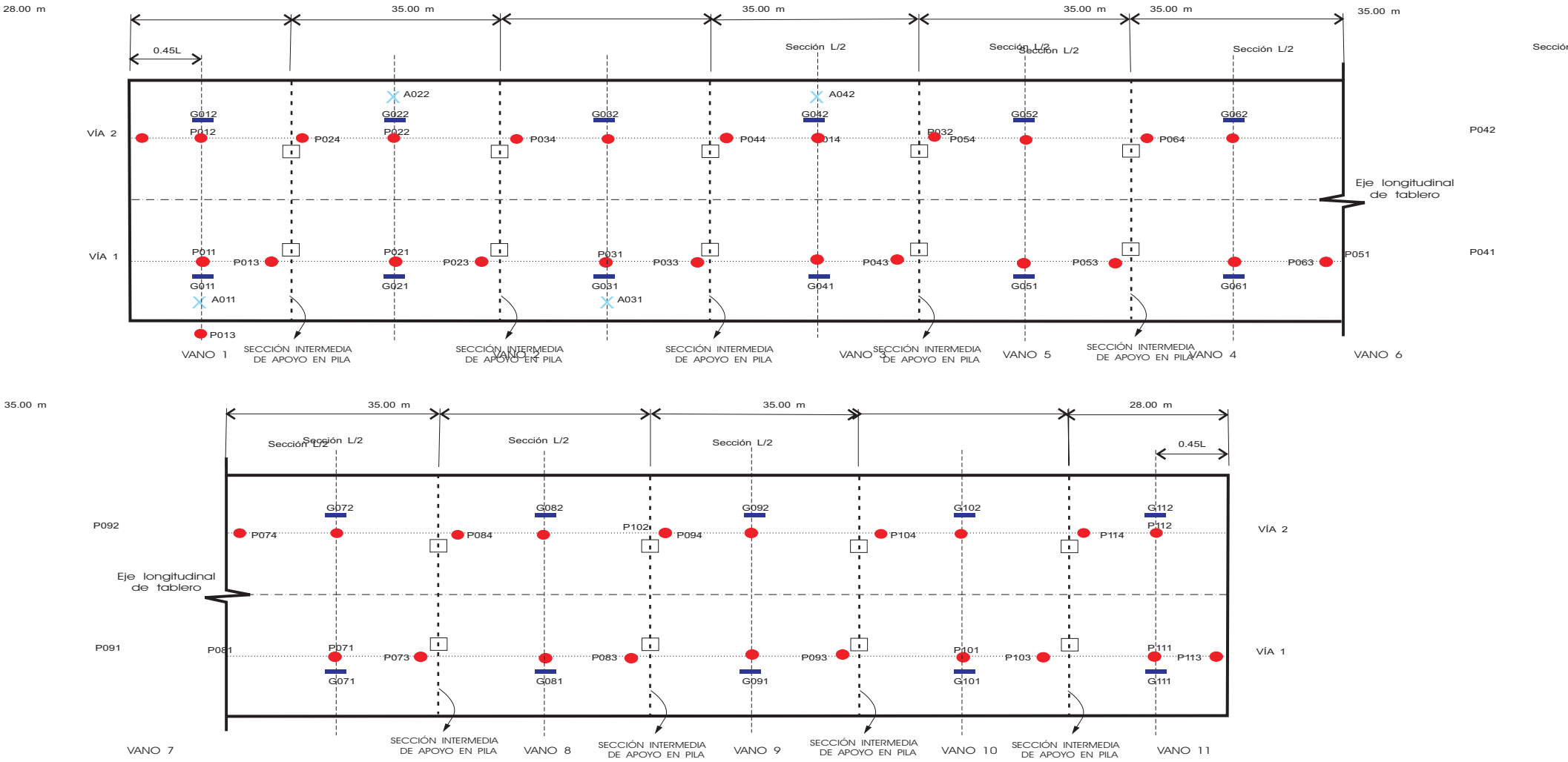


NOTA: Distancias en metros
Cargas en Tn/eje

TIFSA
Grupo Renfe

26VI05

L.A.V. MADRID-BARCELONA-FRONTERA FRANCESA
TRAMO ZARAGOZA-LLEIDA
CROQUIS DE INSTRUMENTACIÓN



Flecha
Banda extensométrica
Acelerómetro

ZARAGOZA

LLEIDA

GIF
Gestor de Infraestructuras Ferroviarias

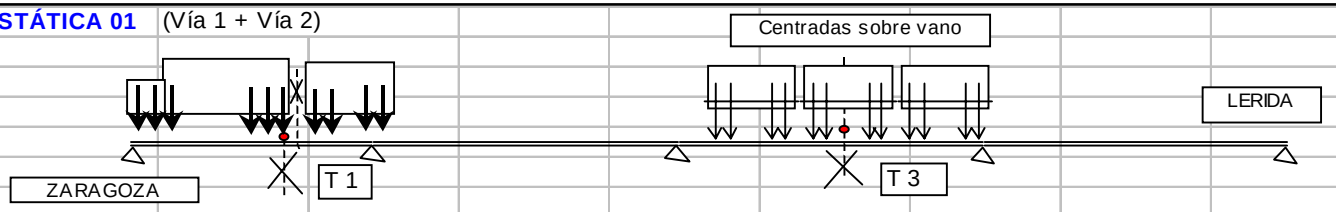
ANEJO 3: ESQUEMA DE INSTRUMENTACIÓN Y TREN DE CARGA

Madrid, Octubre de 2001

TIFSA
Grupo Renfe

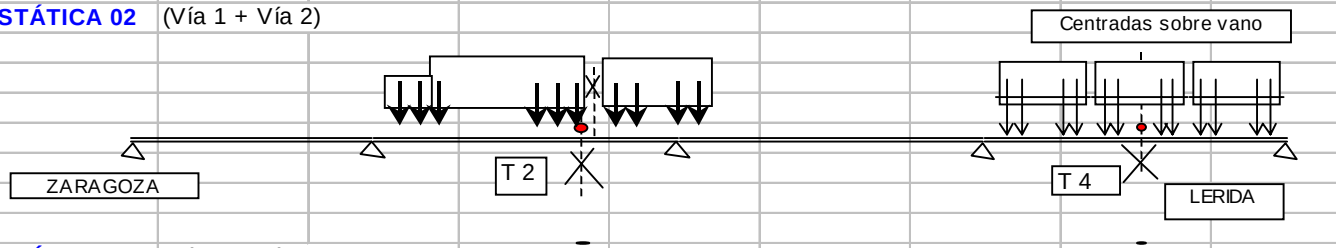
Croquis de la disposición de cargas en vanos 1-2-3

ESTÁTICA 01 (Vía 1 + Vía 2)



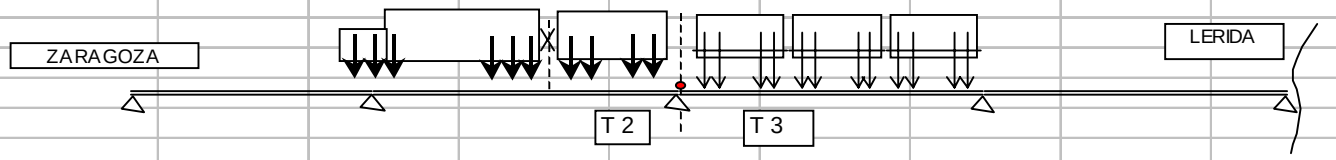
TRENES:	
Loc GIF+ (1+3) tolvas	Vía 1
Tractor UTE+ (1+3) tolvas	Vía 2

ESTÁTICA 02 (Vía 1 + Vía 2)



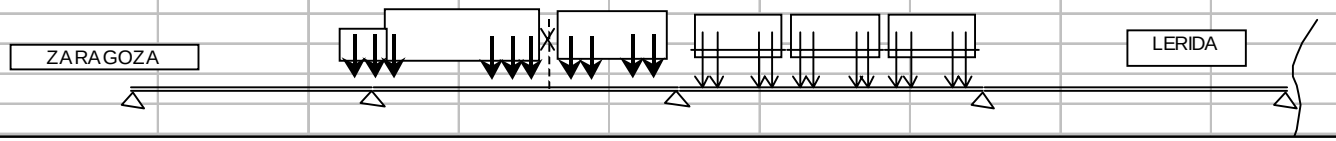
TRENES:	
Loc GIF+ (1+3) tolvas	Vía 1
Tractor UTE+ (1+3) tolvas	Vía 2

ESTÁTICA 03 (Vía 1 + Vía 2)



TRENES:	
Loc GIF+ 4 tolvas	Vía 1
Trator UTE+ 4 tolvas	Vía 2

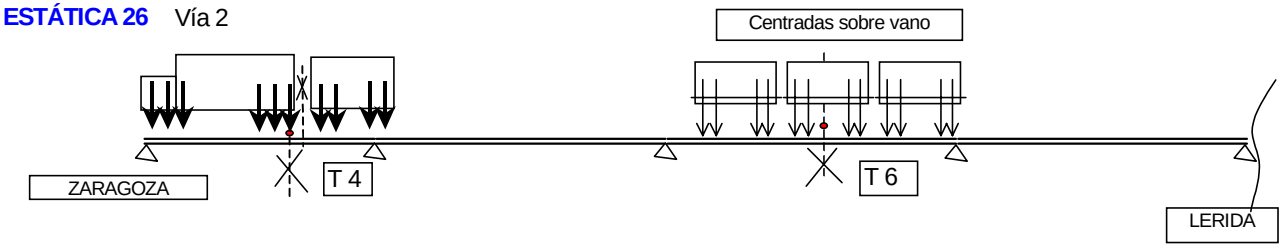
DINAMICA 11,12,13,14 Via 1
DINAMICA 21 Vía 2



TRENES:	
Loc GIF+ 4 tolvas	Vía 1
Trator UTE+ 4 tolvas	Vía 2

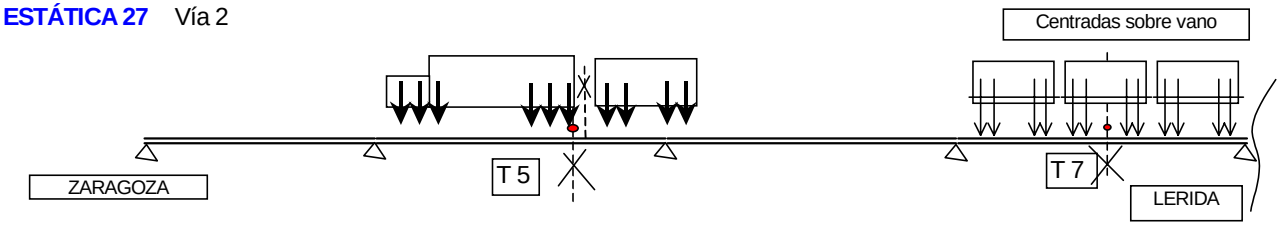
Croquis de la disposición de cargas en vanos 4-5-6-7

ESTÁTICA 14 Vía 1
ESTÁTICA 26 Vía 2



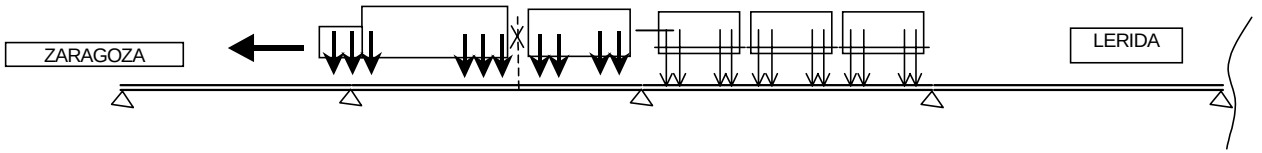
TRENES:
Loc GIF+ (1+3) tolvas Vía 1
Tractor UTE+ (1+3) tolvas Vía 2

ESTÁTICA 15 Vía 1
ESTÁTICA 27 Vía 2



TRENES:
Loc GIF+ (1+3) tolvas Vía 1
Tractor UTE+ (1+3) tolvas Vía 2

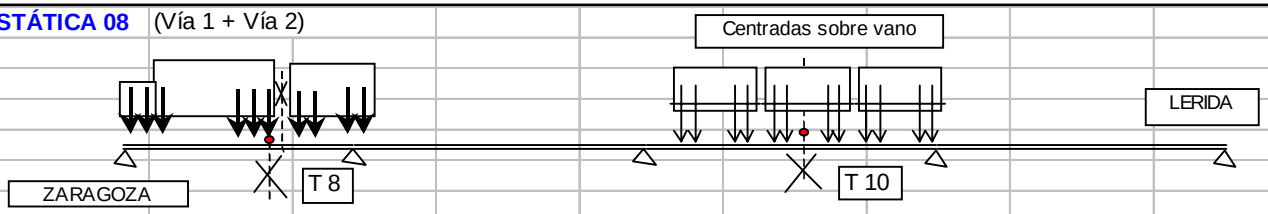
DINÁMICA 21 Vía 2
DINÁMICAS 11, 12, 13, 14 Vía 1



TRENES:
Loc GIF+ 4 tolvas Vía 1
Trator UTE+ 4 tolvas Vía 2

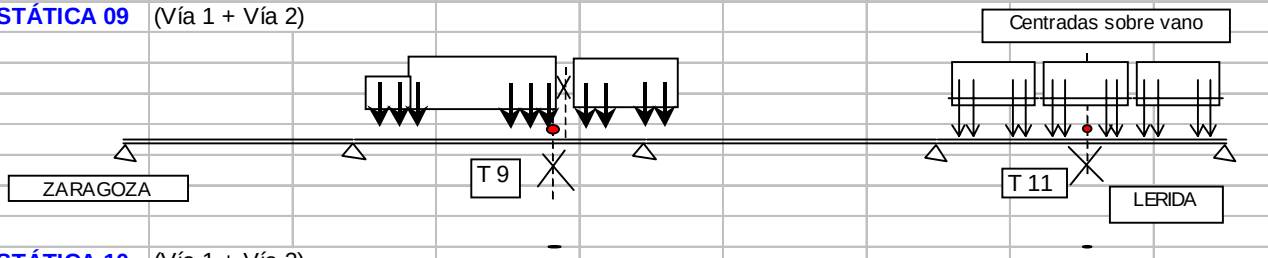
Croquis de la disposición de cargas en vanos 8-9-10-11

ESTÁTICA 08 (Vía 1 + Vía 2)



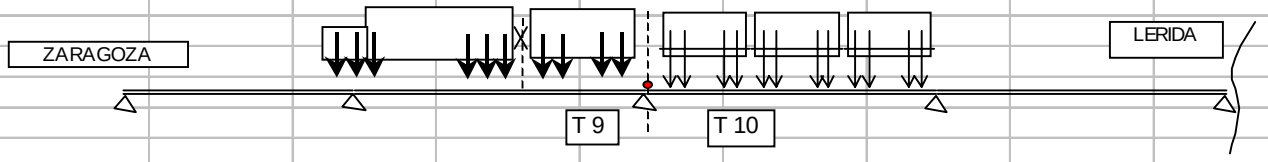
TRENES:	
Loc GIF+ (1+3) tolvas	Vía 1
Tractor UTE+ (1+3) tolvas	Vía 2

ESTÁTICA 09 (Vía 1 + Vía 2)



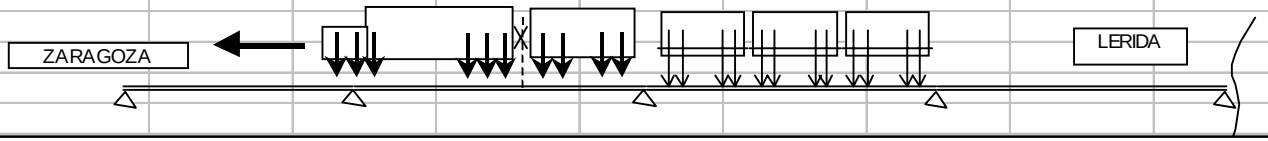
TRENES:	
Loc GIF+ (1+3) tolvas	Vía 1
Tractor UTE+ (1+3) tolvas	Vía 2

ESTÁTICA 10 (Vía 1 + Vía 2)



TRENES:	
Loc GIF+ 4 tolvas	Vía 1
Trator UTE+ 4 tolvas	Vía 2

DINAMICA 11,12,13,14 Via 1
DINAMICA 21 Vía 2

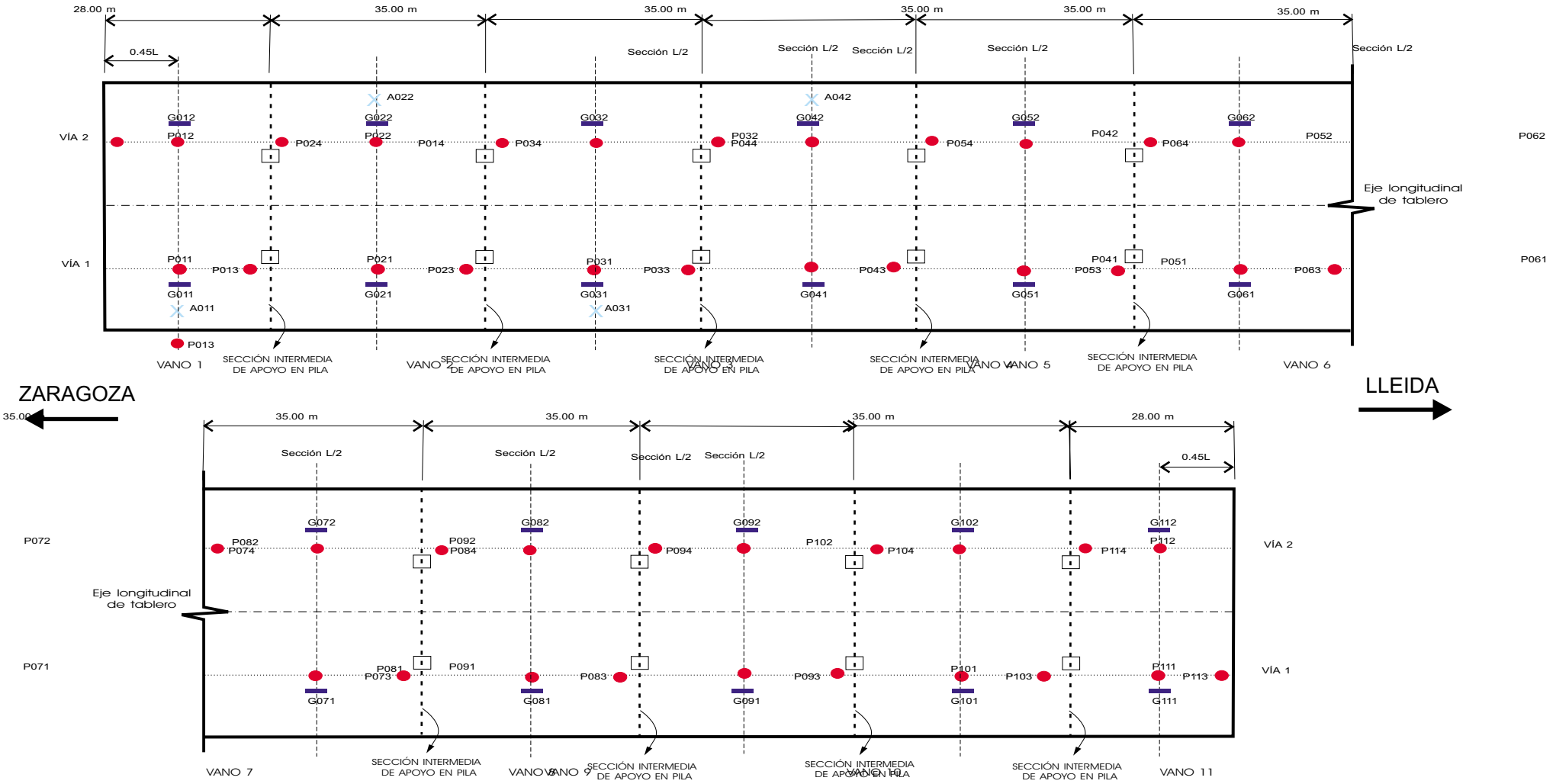


TRENES:	
Loc GIF+ 4 tolvas	Vía 1
Trator UTE+ 4 tolvas	Vía 2

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L.A.V. MADRID-BARCELONA-FRONTERA FRANCESA
TRAMO ZARAGOZA-LLEIDA
CROQUIS DE INSTRUMENTACIÓN



- Flecha
- Banda extensométrica
- Acelerómetro

GIF
Gestor de Infraestructuras Ferroviarias

ANEJO 4: REGISTRO DE MEDIDAS

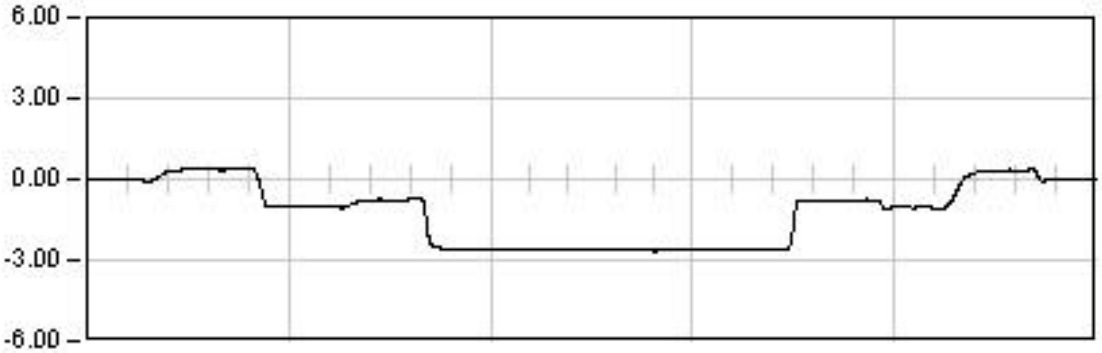
Madrid, Octubre de 2001

TIFSA
Grupo Renfe

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 1

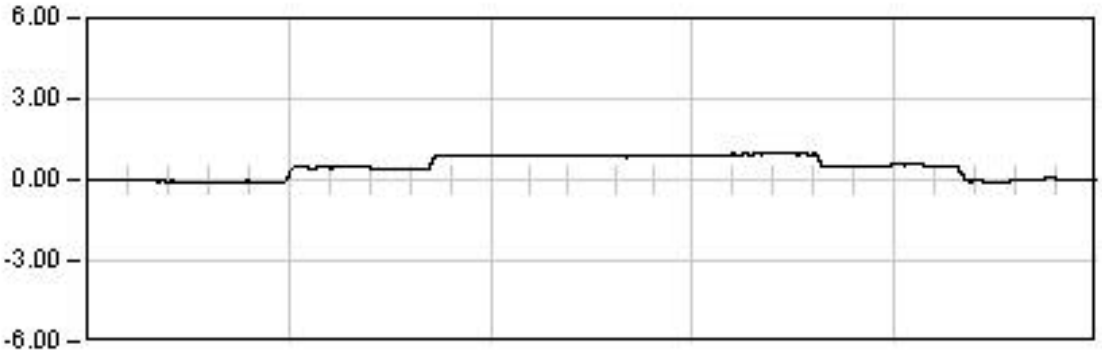
Punto : P011 Canal : 01 Unidades : mm



ESTATICA 01

2580.0 Seg

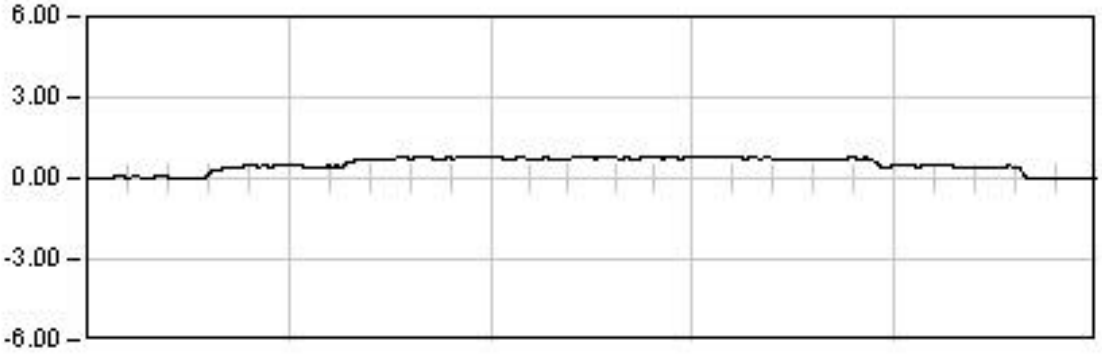
Est: -2.62
Max: -2.65
Min: 0.43
Rem: -0.03



ESTATICA 02

2577.0 Seg

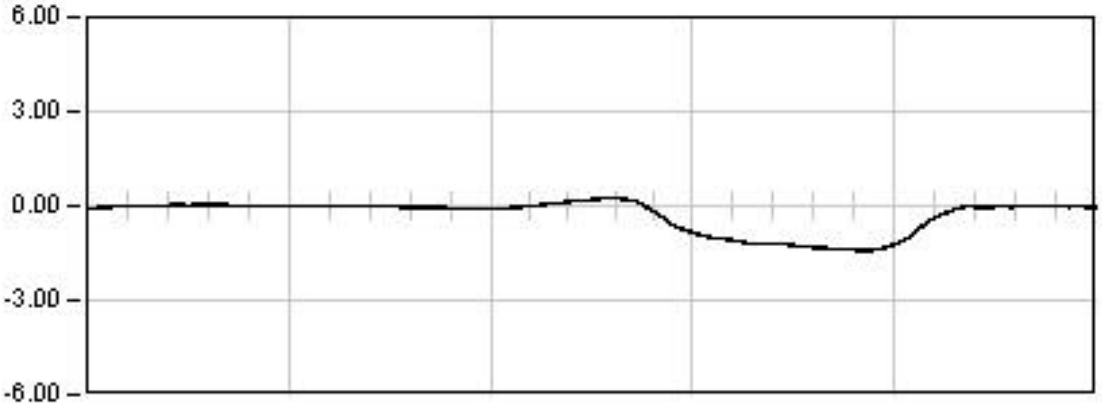
Est: 0.96
Max: 0.98
Min: -0.13
Rem: 0.02



ESTATICA 03

1670.0 Seg

Est: 0.73
Max: 0.78
Min: 0.00
Rem: 0.01



DINAMICA 11

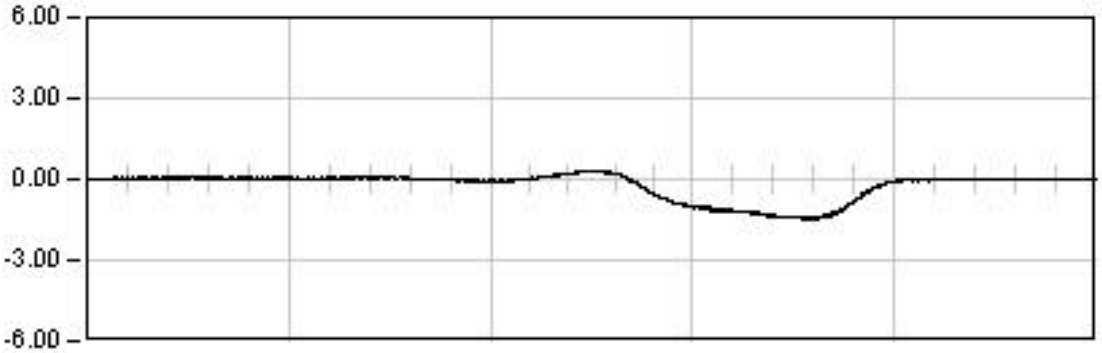
151.0 Seg

Max: -1.44
Min: 0.26
Rem: -0.04

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 1

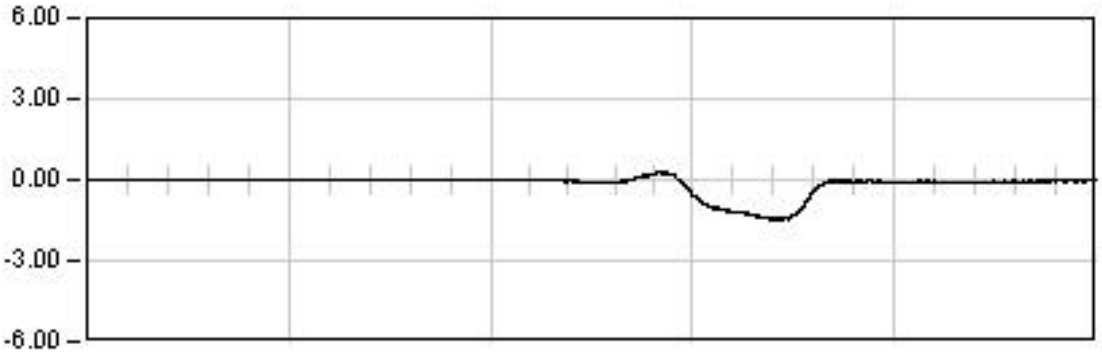
Punto : P011 **Canal : 01** **Unidades : mm**



DINAMICA 12

28.5 Seg

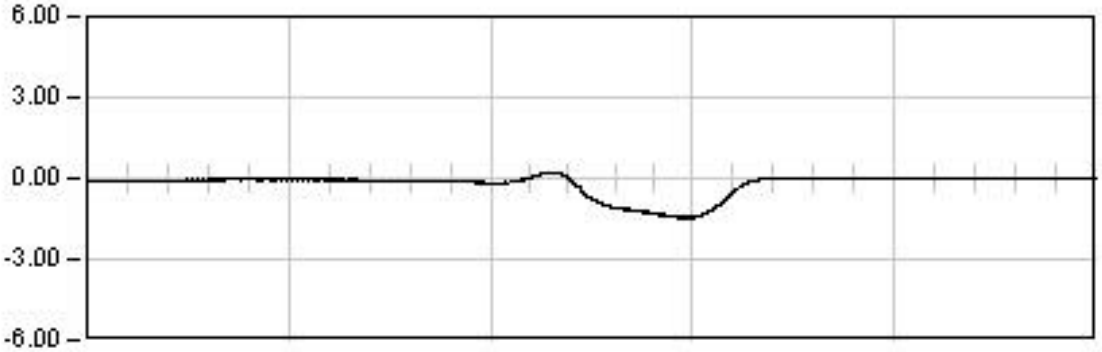
Max: -1.51
Min: 0.35
Rem: -0.02



DINAMICA 13

27.5 Seg

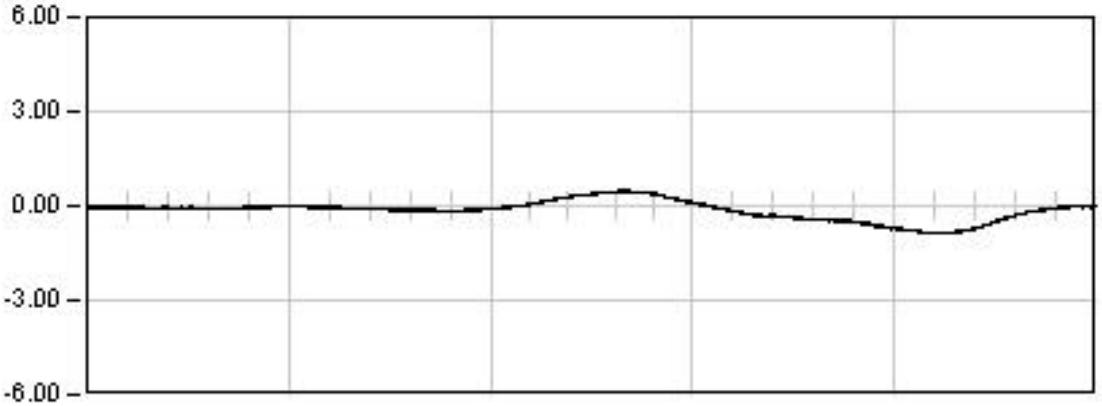
Max: -1.52
Min: 0.29
Rem: -0.05



DINAMICA 14

37.5 Seg

Max: -1.49
Min: 0.23
Rem: -0.01



DINAMICA 21

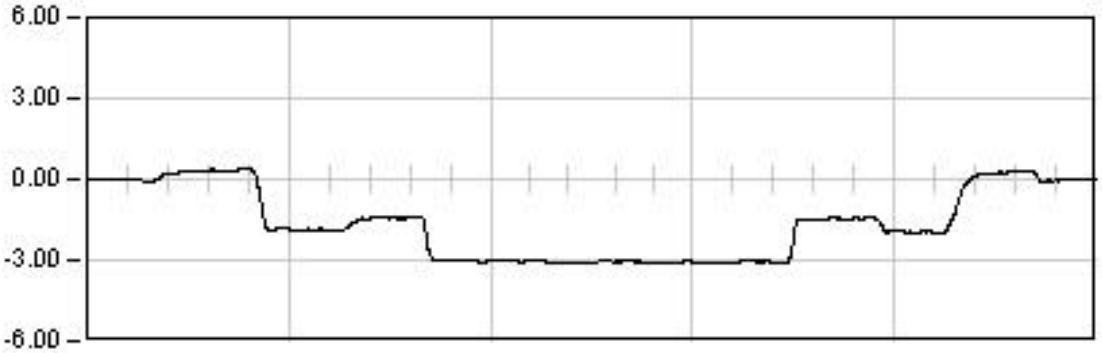
133.5 Seg

Max: -0.88
Min: 0.48
Rem: -0.03

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 1

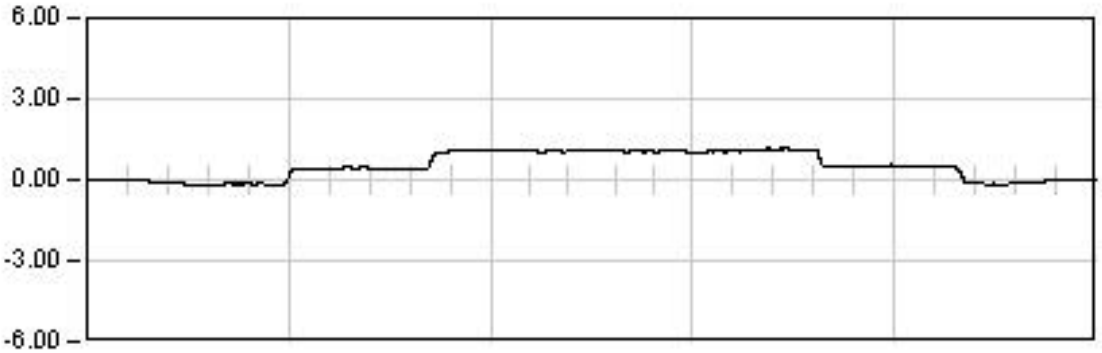
Punto : P012 Canal : 02 Unidades : mm



ESTATICA 01

2580.0 Seg

Est: -3.07
Max: -3.10
Min: 0.38
Rem: -0.02



ESTATICA 02

2577.0 Seg

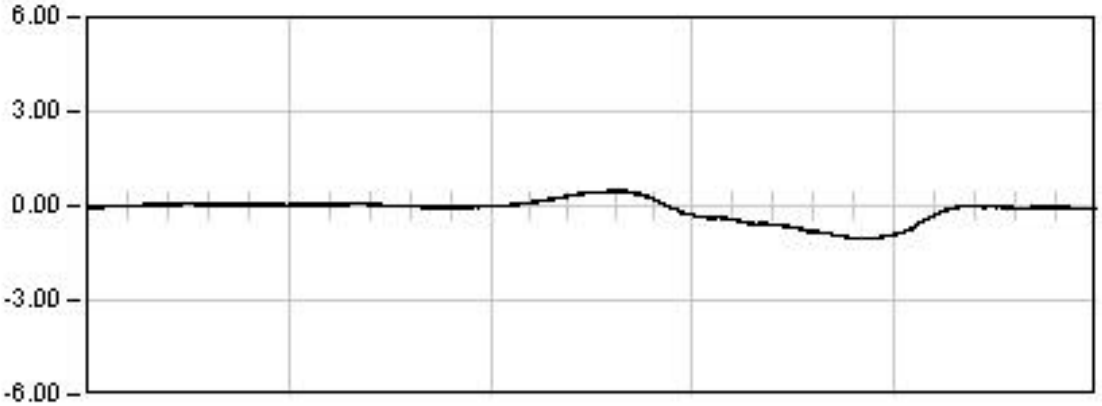
Est: 1.16
Max: 1.16
Min: -0.22
Rem: 0.00



ESTATICA 03

1670.0 Seg

Est: 0.90
Max: 0.95
Min: -0.02
Rem: 0.03



DINAMICA 11

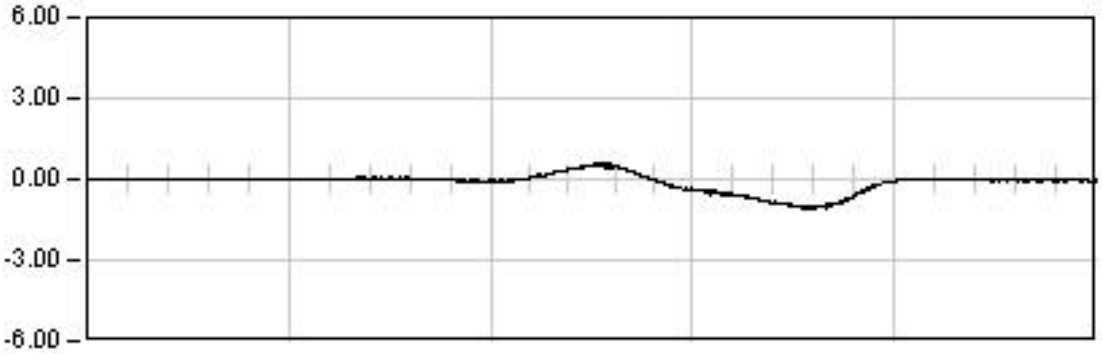
151.0 Seg

Max: -1.06
Min: 0.49
Rem: -0.09

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 1

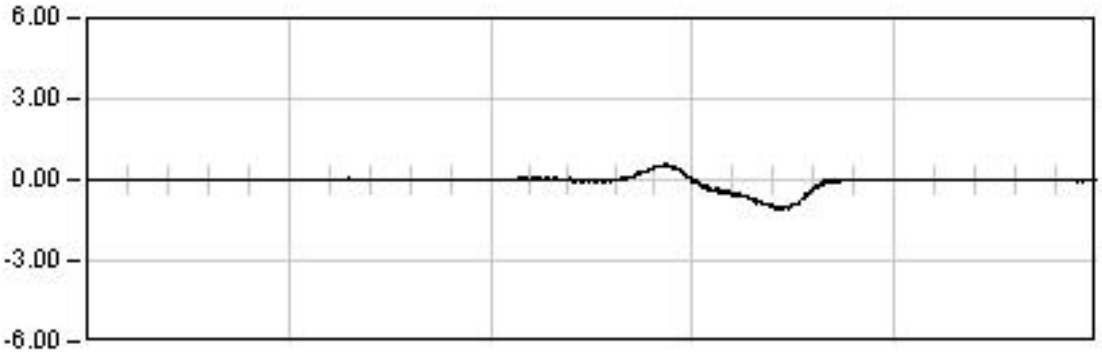
Punto : P012 **Canal : 02** **Unidades : mm**



DINAMICA 12

28.5 Seg

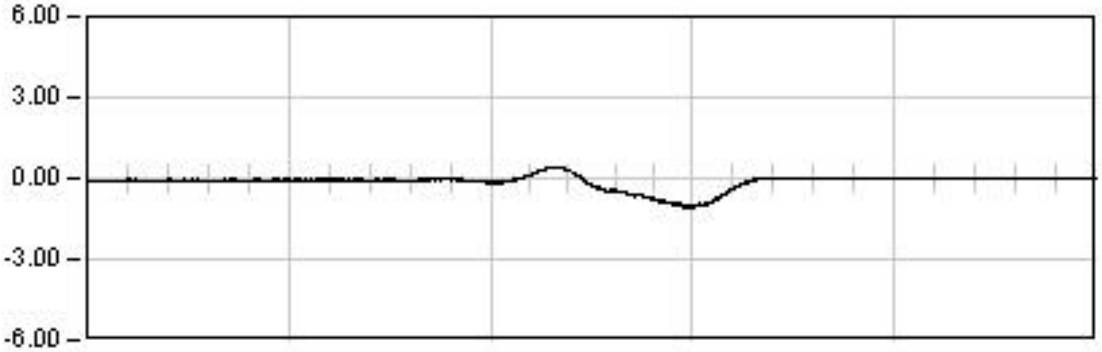
Max: -1.11
Min: 0.58
Rem: -0.05



DINAMICA 13

27.5 Seg

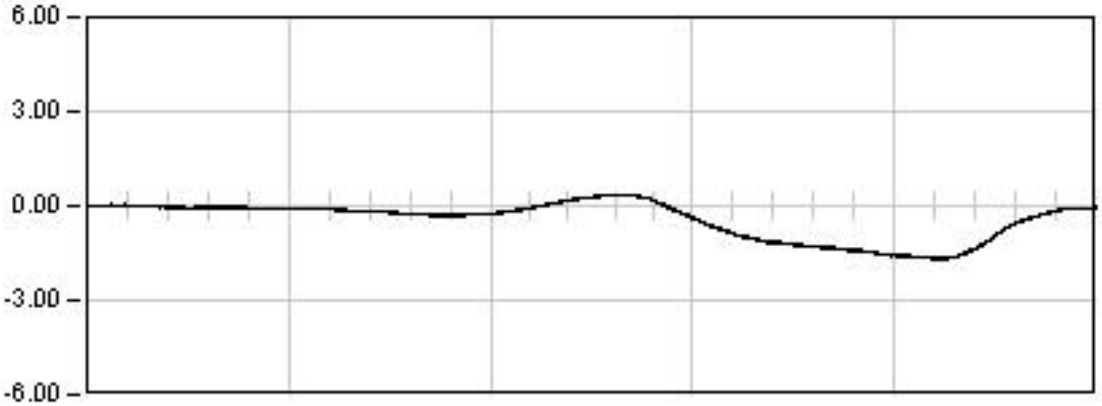
Max: -1.10
Min: 0.57
Rem: -0.04



DINAMICA 14

37.5 Seg

Max: -1.09
Min: 0.42
Rem: 0.01



DINAMICA 21

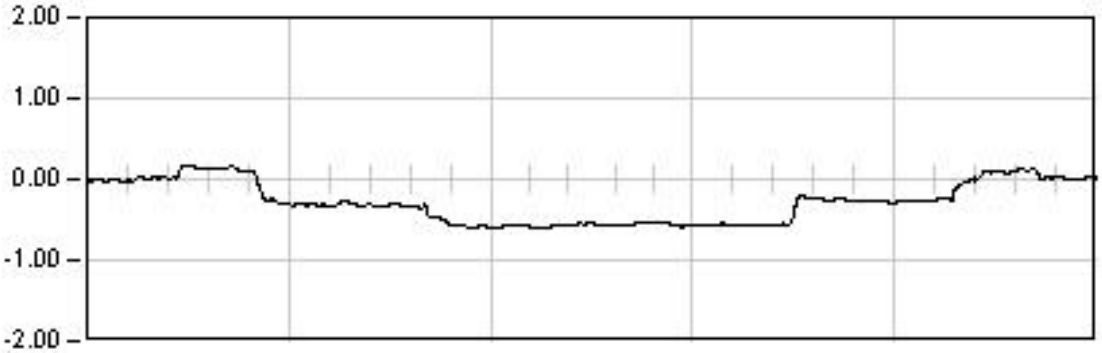
133.5 Seg

Max: -1.69
Min: 0.37
Rem: -0.07

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 1

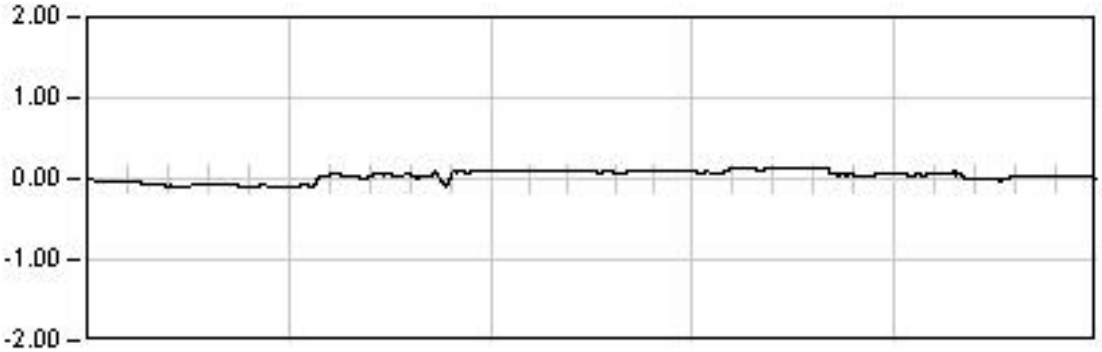
Punto : P013 Canal : 03 Unidades : mm



ESTATICA 01

2580.0 Seg

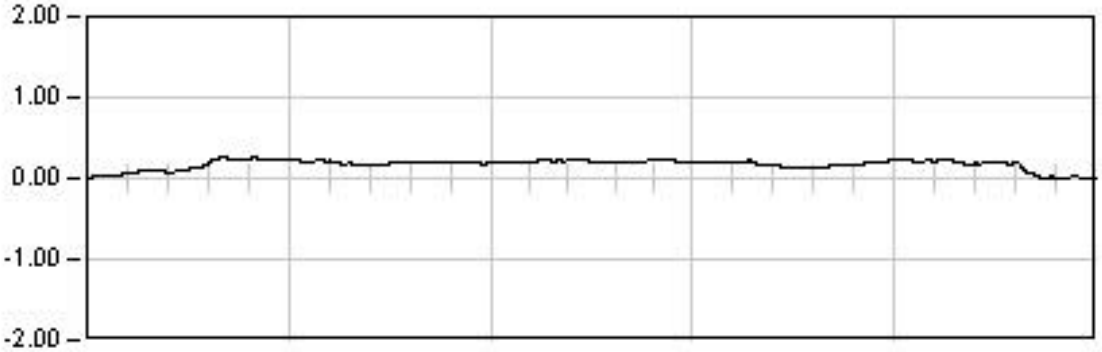
Est: -0.57
Max: -0.60
Min: 0.17
Rem: 0.02



ESTATICA 02

2577.0 Seg

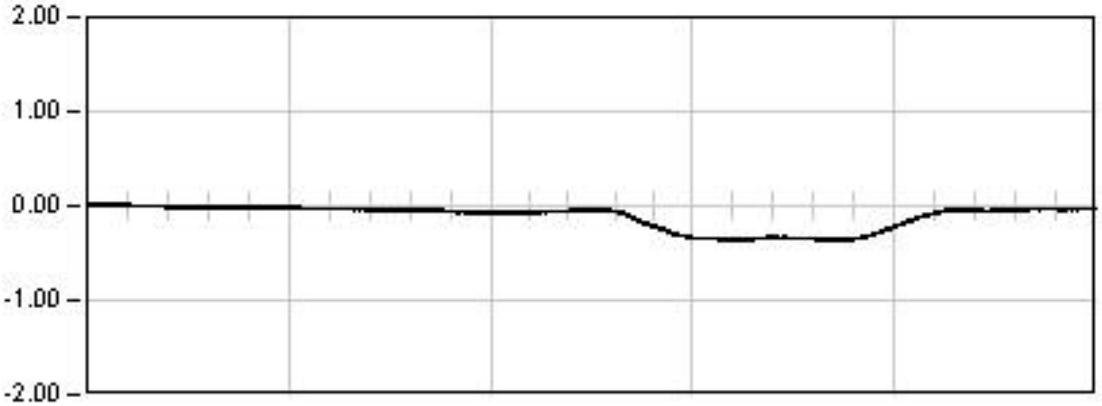
Est: 0.14
Max: 0.14
Min: -0.10
Rem: 0.02



ESTATICA 03

1670.0 Seg

Est: 0.14
Max: 0.26
Min: 0.00
Rem: 0.01



DINAMICA 11

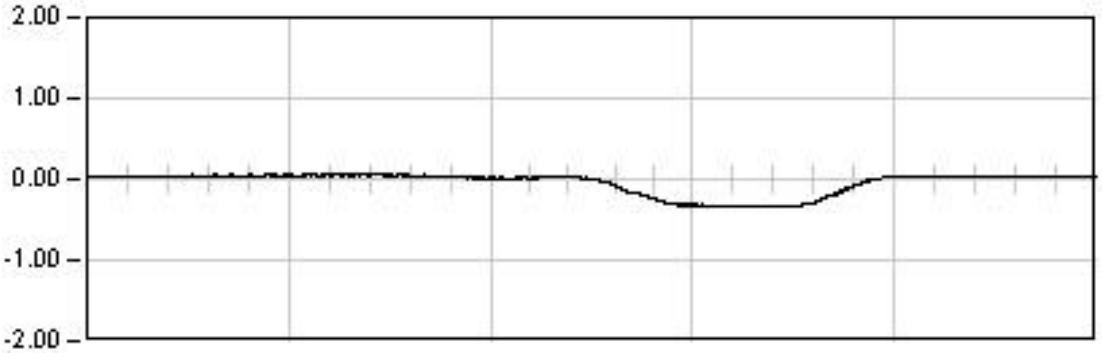
151.0 Seg

Max: -0.37
Min: 0.03
Rem: -0.03

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 1

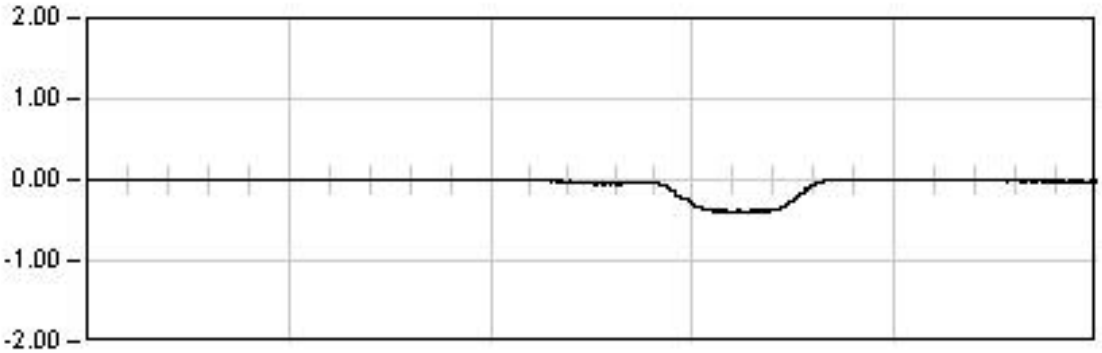
Punto : P013 **Canal : 03** **Unidades : mm**



DINAMICA 12

28.5 Seg

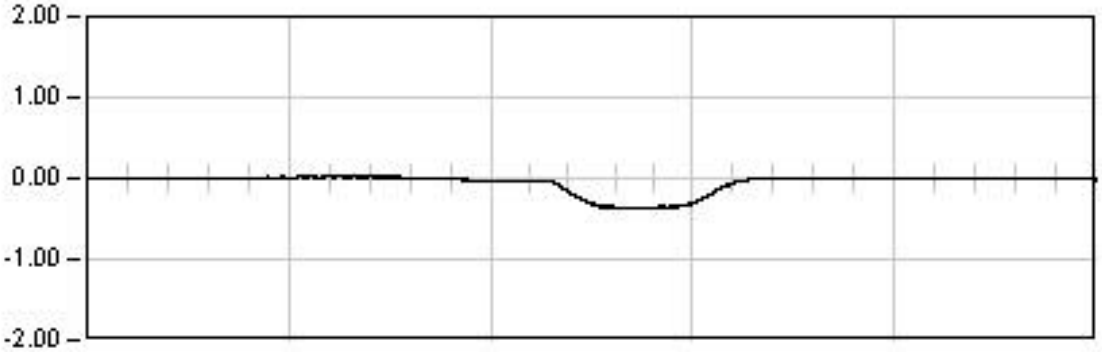
Max: -0.35
Min: 0.06
Rem: 0.03



DINAMICA 13

27.5 Seg

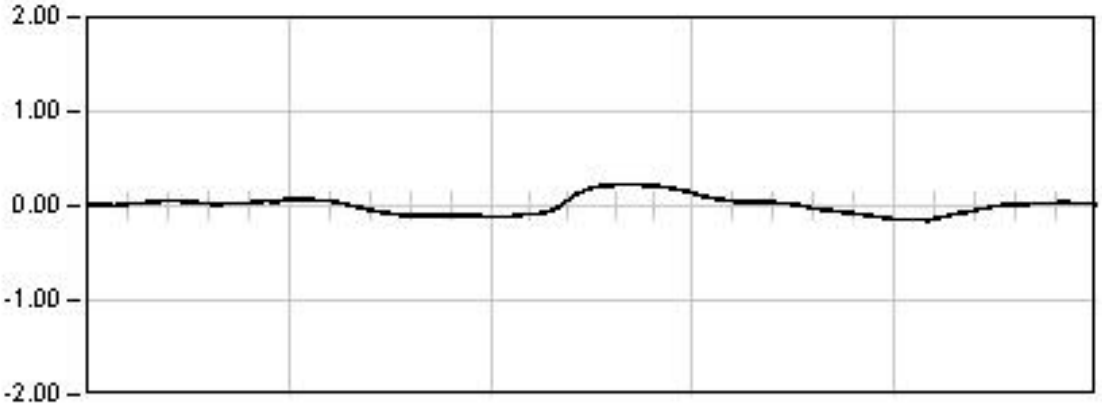
Max: -0.40
Min: 0.01
Rem: -0.02



DINAMICA 14

37.5 Seg

Max: -0.38
Min: 0.02
Rem: -0.00



DINAMICA 21

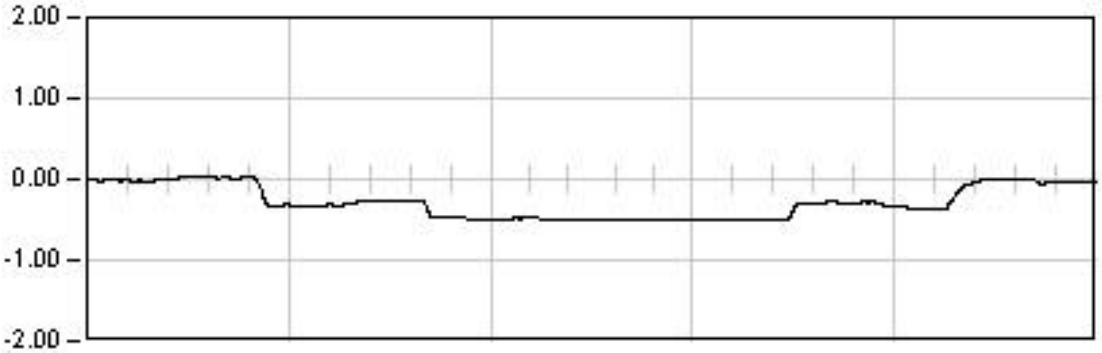
133.5 Seg

Max: 0.24
Min: -0.16
Rem: 0.03

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 1

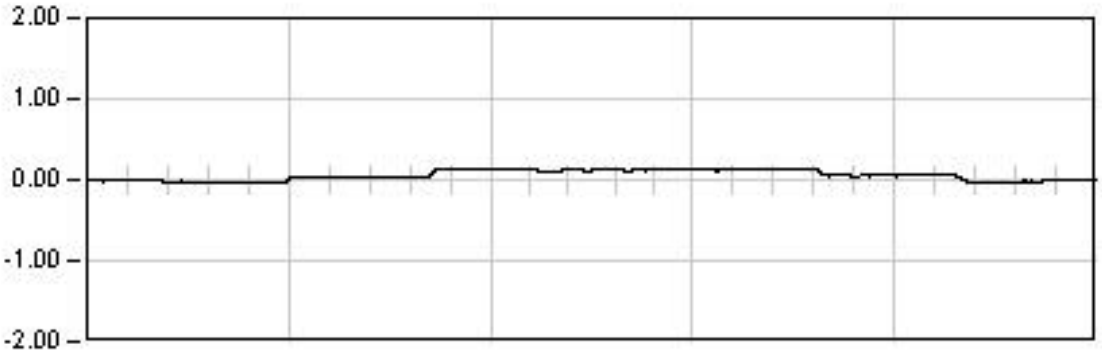
Punto : P014 **Canal : 00** **Unidades : mm**



ESTATICA 01

2580.0 Seg

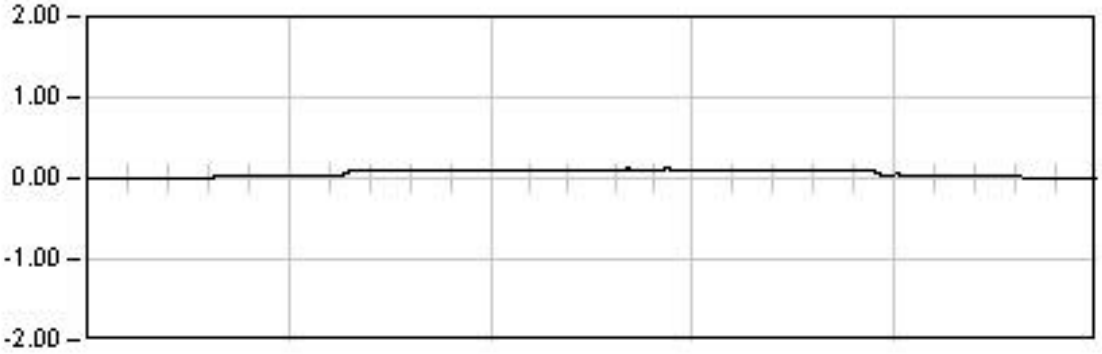
Est: -0.49
Max: -0.51
Min: 0.03
Rem: -0.04



ESTATICA 02

2577.0 Seg

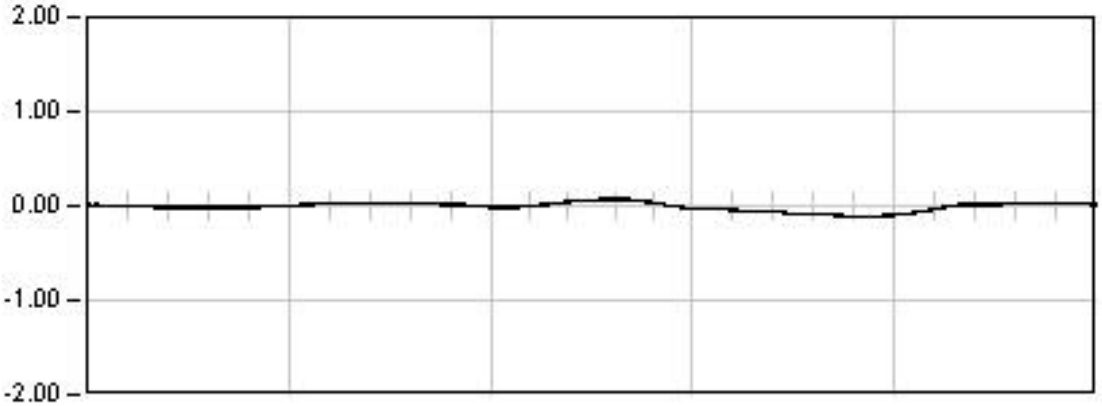
Est: 0.13
Max: 0.15
Min: -0.04
Rem: -0.00



ESTATICA 03

1670.0 Seg

Est: 0.11
Max: 0.12
Min: -0.01
Rem: 0.00



DINAMICA 11

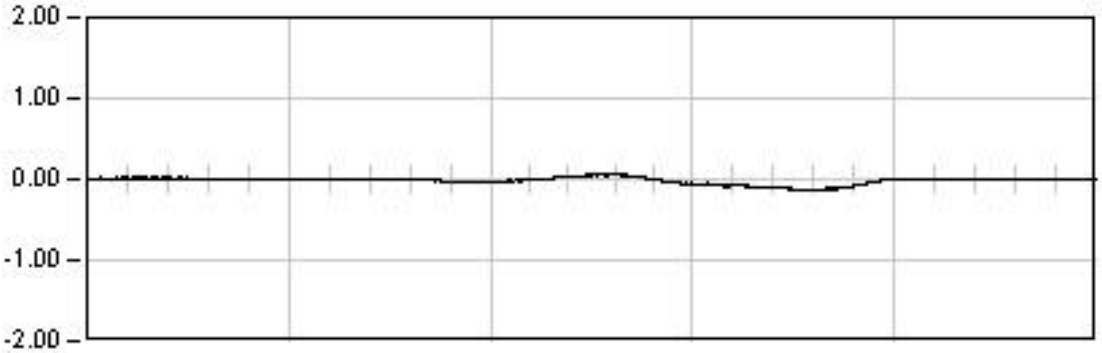
151.0 Seg

Max: -0.12
Min: 0.08
Rem: 0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 1

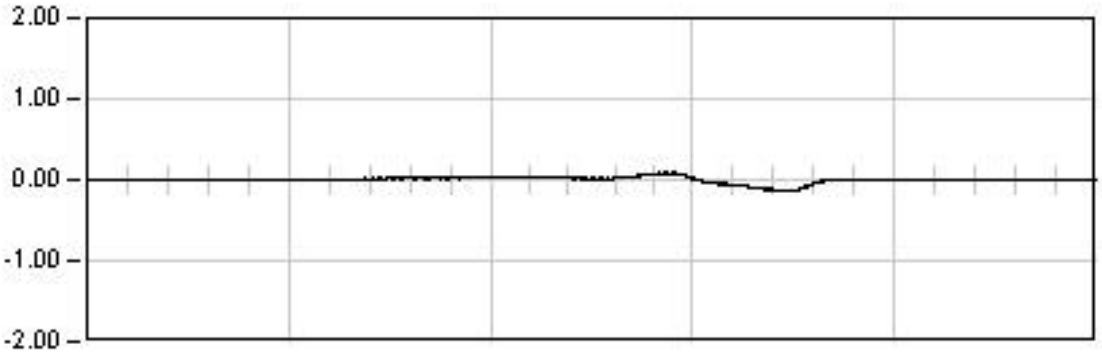
Punto : P014 **Canal : 00** **Unidades : mm**



DINAMICA 12

28.5 Seg

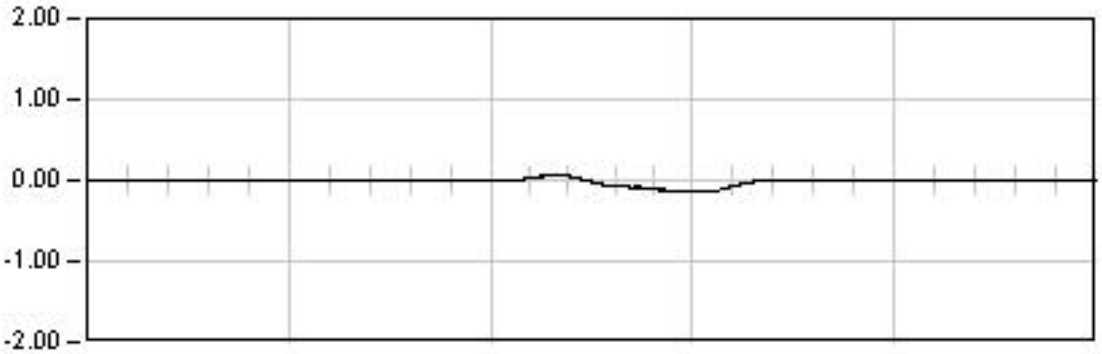
Max: -0.14
Min: 0.07
Rem: 0.01



DINAMICA 13

27.5 Seg

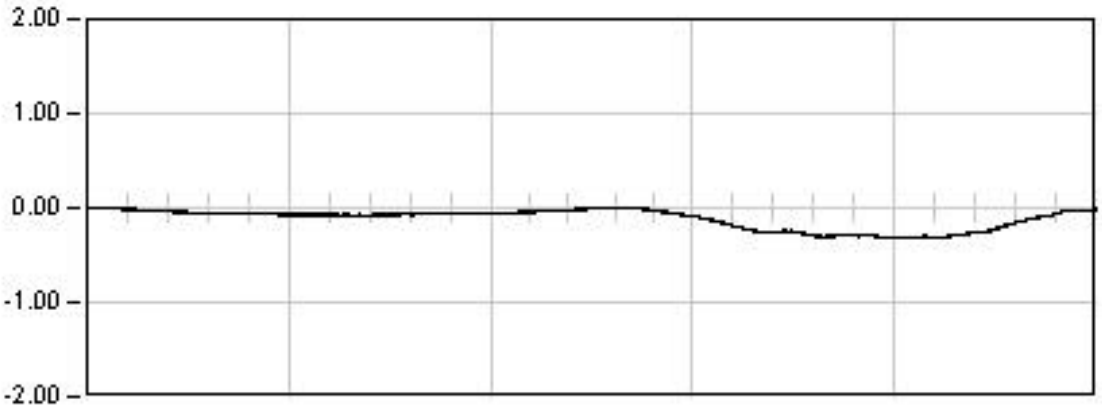
Max: -0.14
Min: 0.09
Rem: -0.00



DINAMICA 14

37.5 Seg

Max: -0.15
Min: 0.07
Rem: -0.01



DINAMICA 21

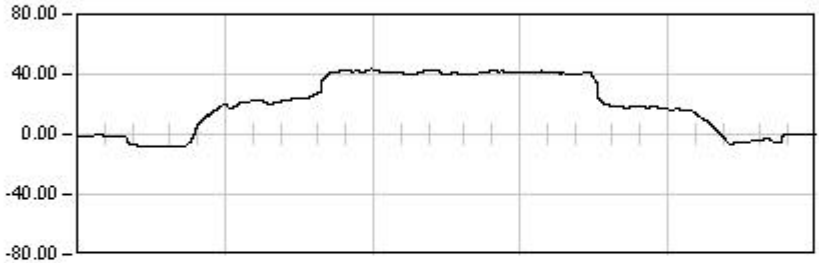
133.5 Seg

Max: -0.32
Min: 0.00
Rem: -0.02

26VI05. L.A.V. MADRID - BARCELONA. BASE MONTAGUT

VANO 1

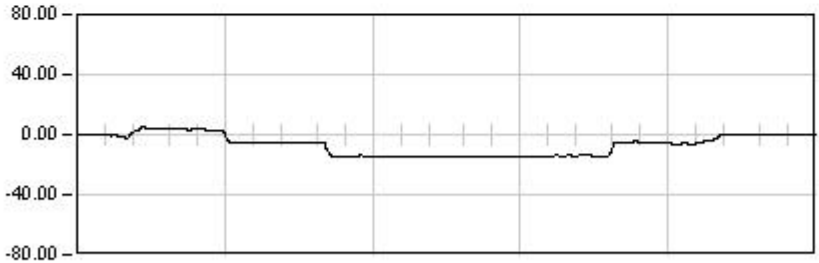
Punto : G011 Canal : 13 Unidades : µE



ESTATICA 01

2580.0 Seg

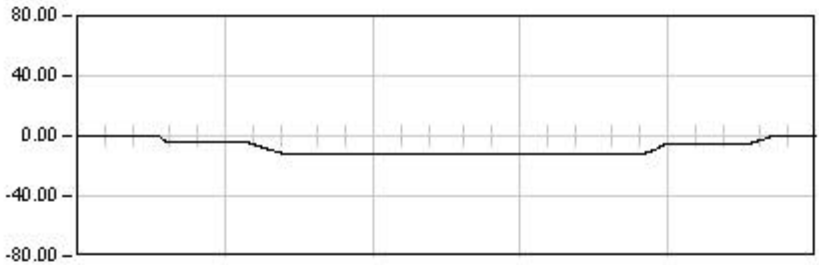
Est: 40.13
Max: 43.40
Min: -8.21
Rem: -0.19



ESTATICA 02

2577.0 Seg

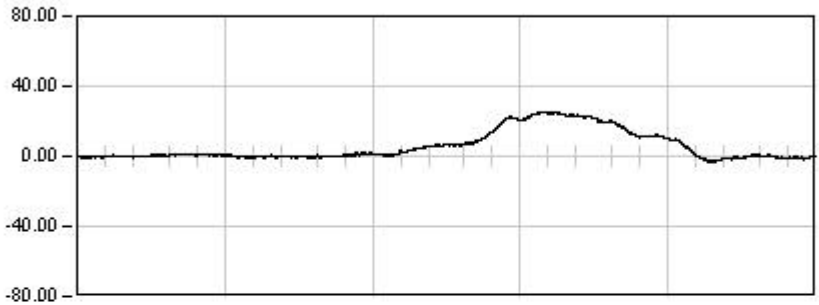
Est: -14.18
Max: -15.00
Min: 5.03
Rem: -0.36



ESTATICA 03

1670.0 Seg

Est: -11.87
Max: -12.08
Min: 0.29
Rem: 0.03



DINAMICA 11

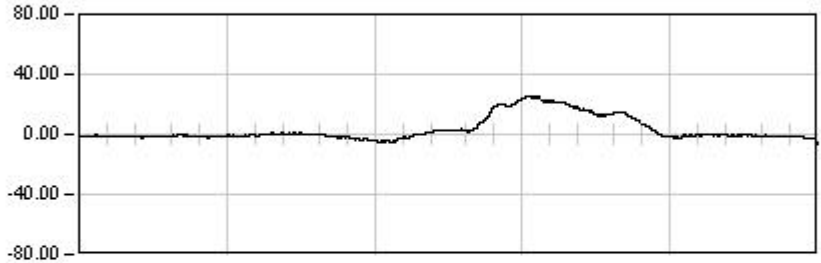
151.0 Seg

Max: 25.46
Min: -3.25
Rem: -0.22

26VI05. L.A.V. MADRID - BARCELONA. BASE MONTAGUT

VANO 1

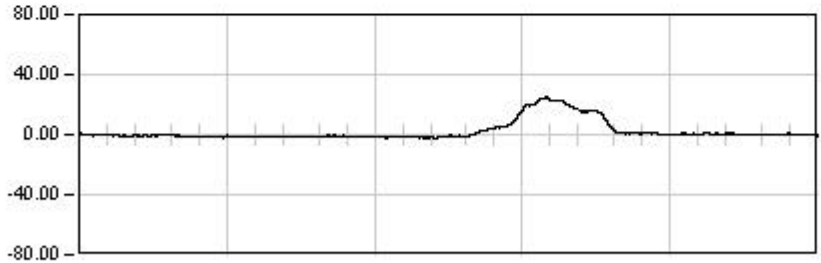
Punto : G011 Canal : 13 Unidades : µE



DINAMICA 12

28.5 Seg

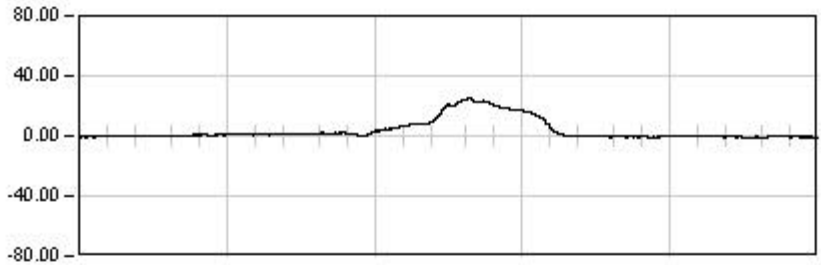
Max: 25.08
Min: -6.22
Rem: -3.38



DINAMICA 13

27.5 Seg

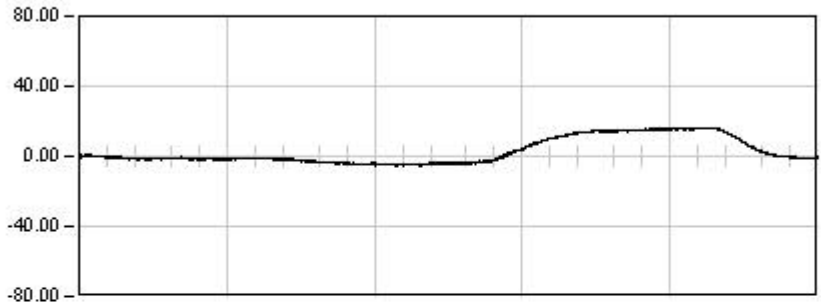
Max: 24.99
Min: -3.05
Rem: 0.11



DINAMICA 14

37.5 Seg

Max: 25.14
Min: -1.74
Rem: -0.86



DINAMICA 21

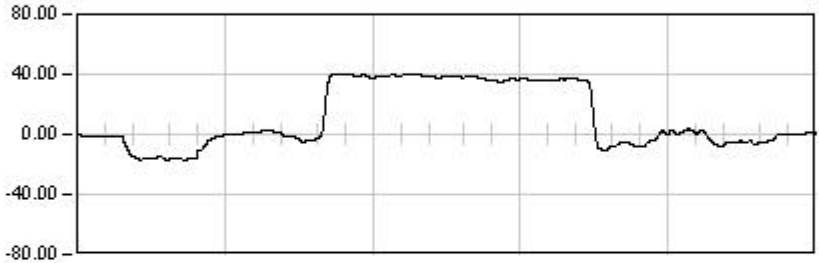
133.5 Seg

Max: 16.42
Min: -5.33
Rem: -1.04

26VI05. L.A.V. MADRID - BARCELONA. BASE MONTAGUT

VANO 1

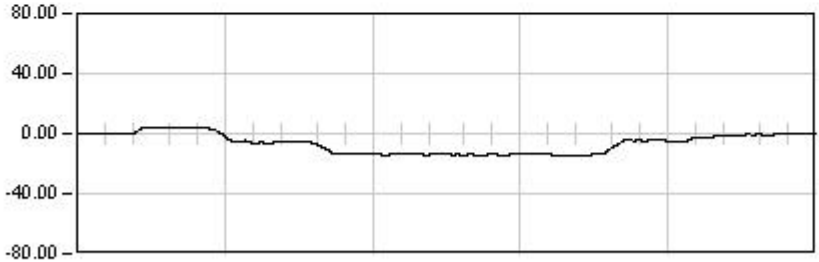
Punto : G012 Canal : 14 Unidades : µE



ESTATICA 01

2580.0 Seg

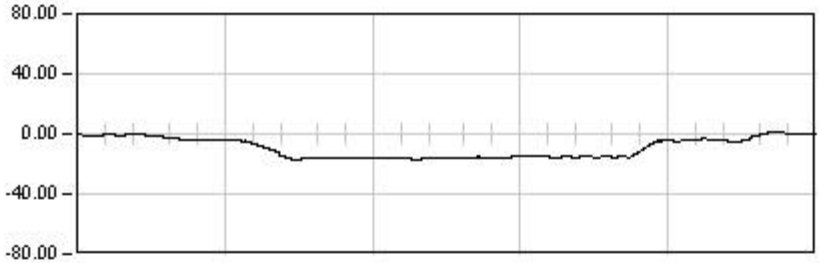
Est: 37.34
Max: 40.66
Min: -17.06
Rem: 0.63



ESTATICA 02

2577.0 Seg

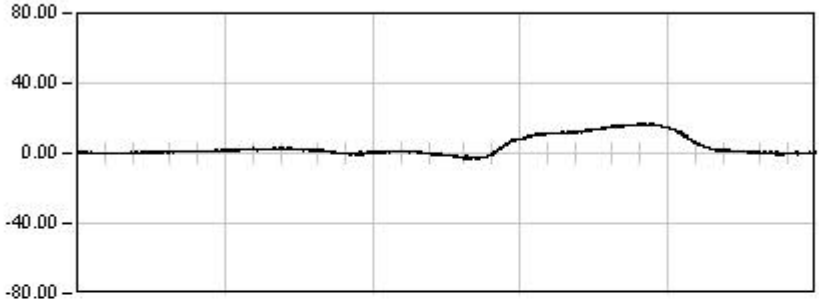
Est: -13.94
Max: -15.08
Min: 3.86
Rem: 0.13



ESTATICA 03

1670.0 Seg

Est: -15.17
Max: -17.00
Min: 1.49
Rem: 0.16



DINAMICA 11

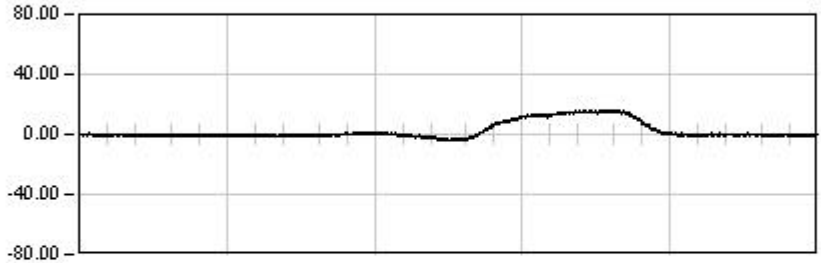
151.0 Seg

Max: 16.93
Min: -3.23
Rem: 0.20

26VI05. L.A.V. MADRID - BARCELONA. BASE MONTAGUT

VANO 1

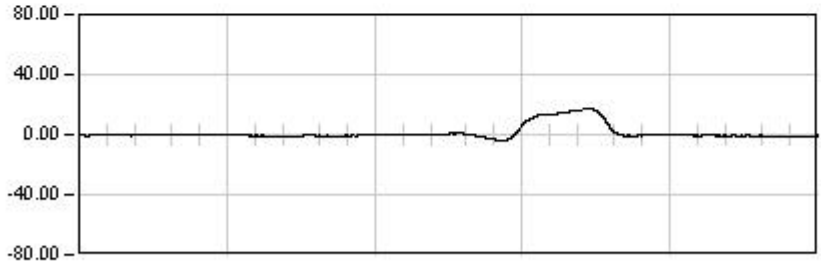
Punto : G012 Canal : 14 Unidades : µE



DINAMICA 12

28.5 Seg

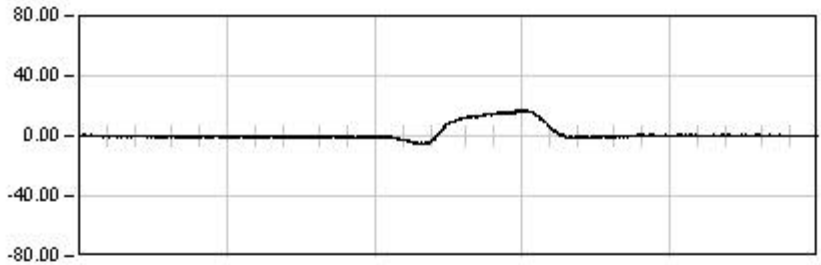
Max: 16.65
Min: -4.56
Rem: -0.71



DINAMICA 13

27.5 Seg

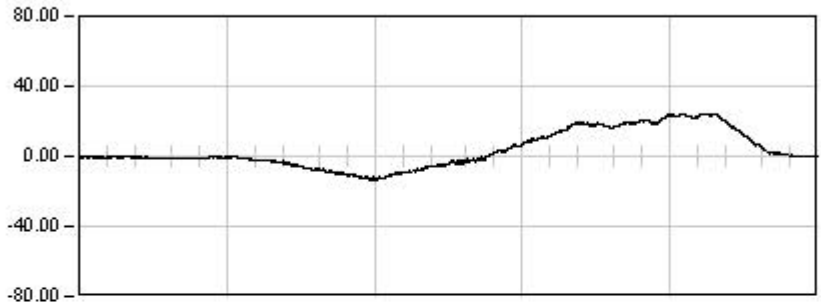
Max: 17.41
Min: -4.26
Rem: -0.96



DINAMICA 14

37.5 Seg

Max: 17.40
Min: -5.66
Rem: -0.35



DINAMICA 21

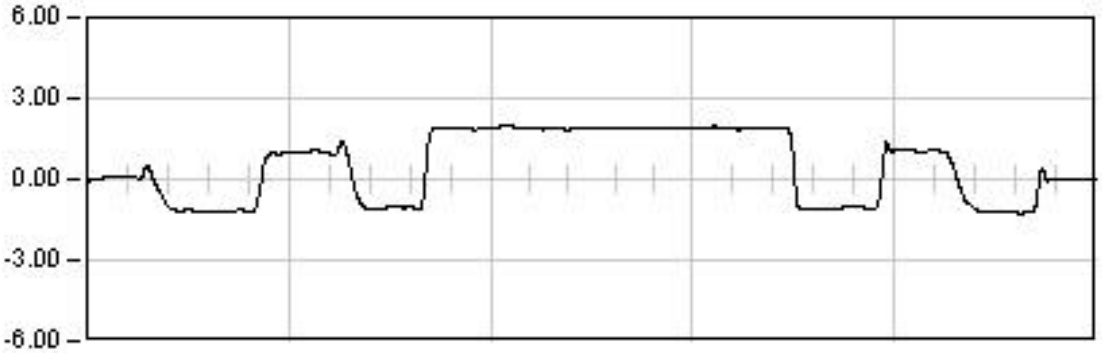
133.5 Seg

Max: 24.05
Min: -13.86
Rem: -0.22

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 2

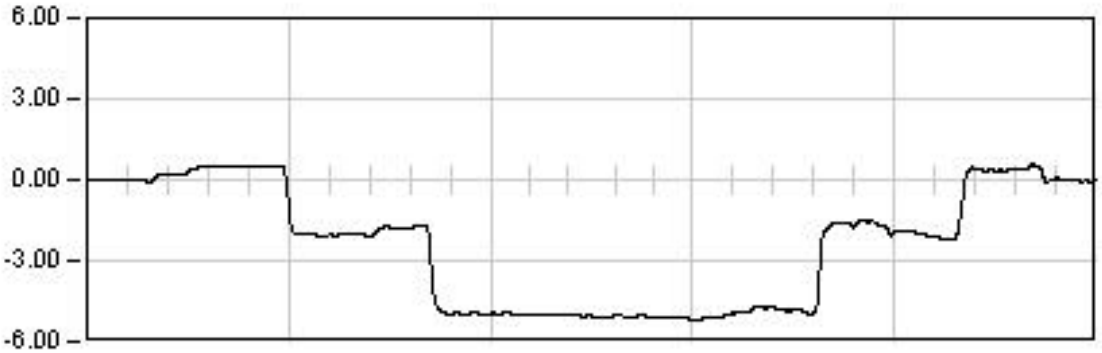
Punto : P021 **Canal : 06** **Unidades : mm**



ESTATICA 01

2580.0 Seg

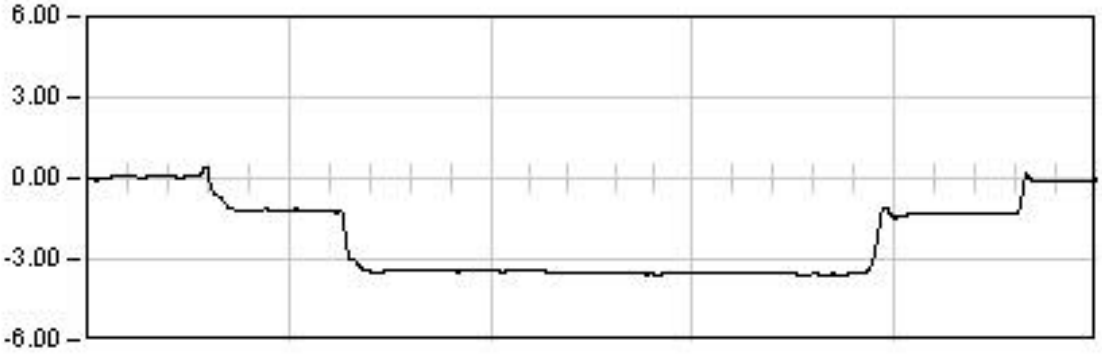
Est: 1.91
Max: 2.00
Min: -1.26
Rem: -0.02



ESTATICA 02

2577.0 Seg

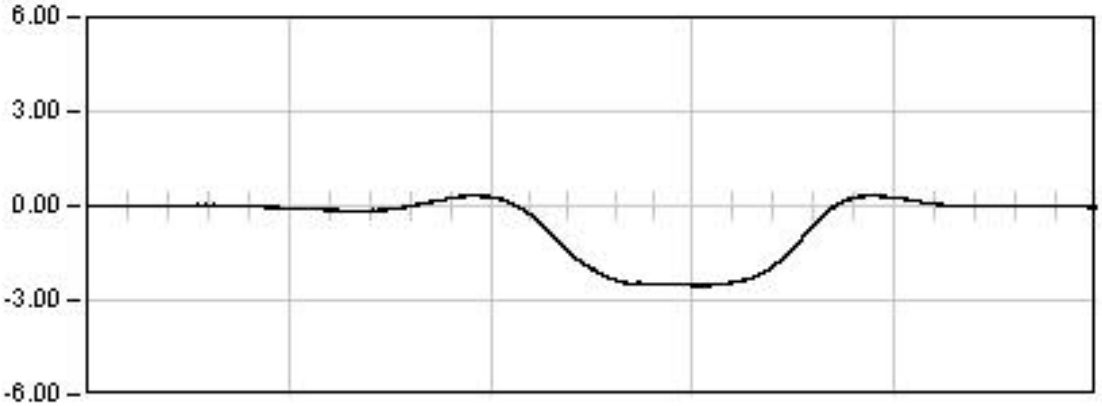
Est: -4.88
Max: -5.16
Min: 0.57
Rem: -0.05



ESTATICA 03

1670.0 Seg

Est: -3.54
Max: -3.58
Min: 0.44
Rem: -0.11



DINAMICA 11

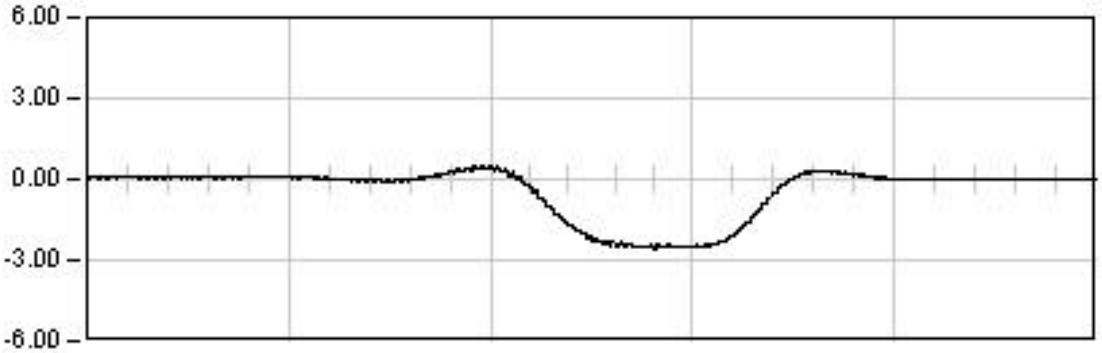
151.0 Seg

Max: -2.55
Min: 0.34
Rem: -0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 2

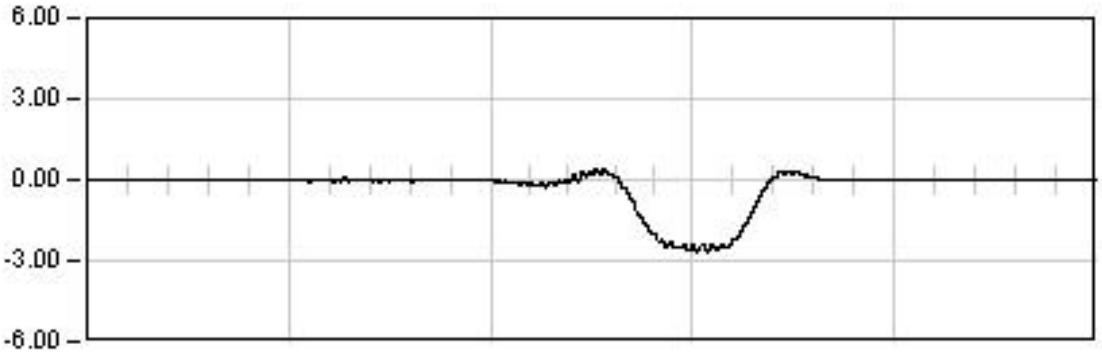
Punto : P021 Canal : 06 Unidades : mm



DINAMICA 12

28.5 Seg

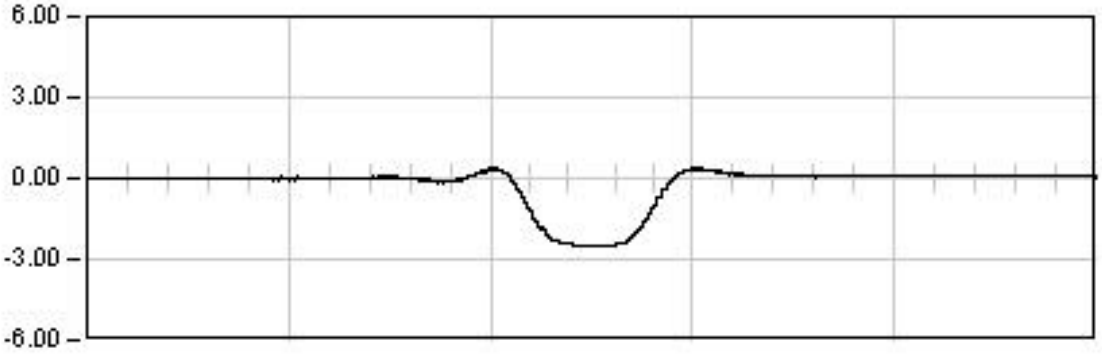
Max: -2.55
Min: 0.47
Rem: 0.01



DINAMICA 13

27.5 Seg

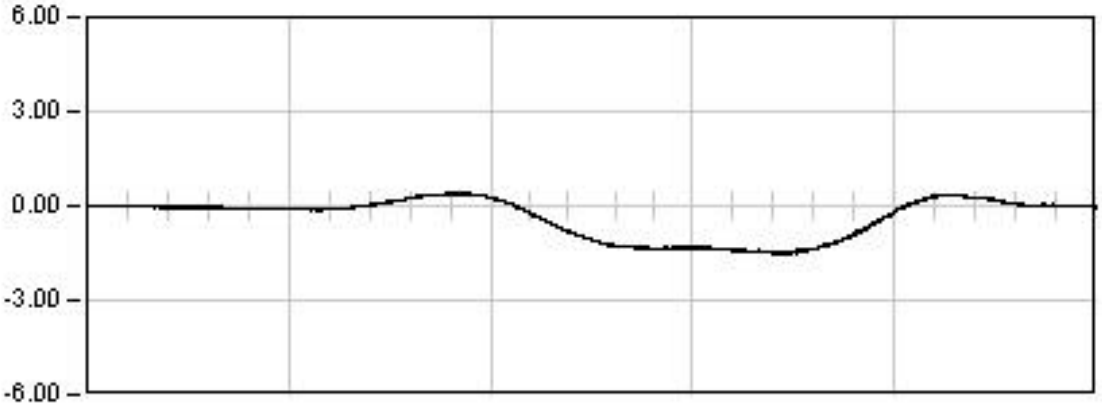
Max: -2.67
Min: 0.40
Rem: -0.00



DINAMICA 14

37.5 Seg

Max: -2.53
Min: 0.38
Rem: 0.09



DINAMICA 21

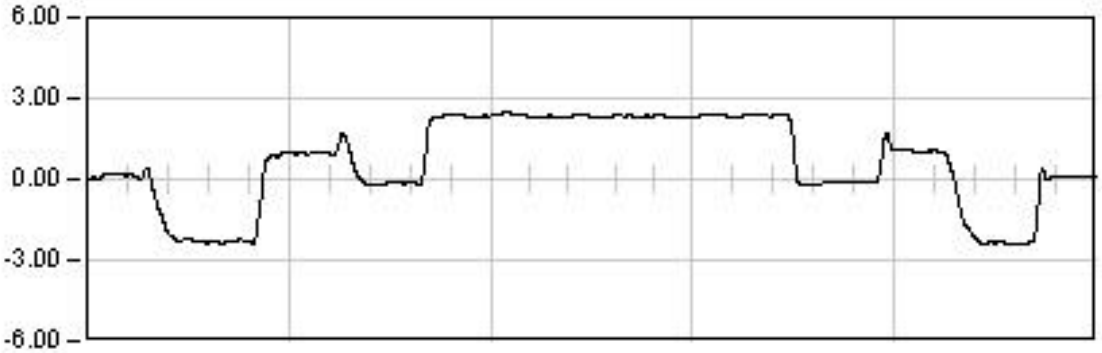
133.5 Seg

Max: -1.52
Min: 0.40
Rem: 0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 2

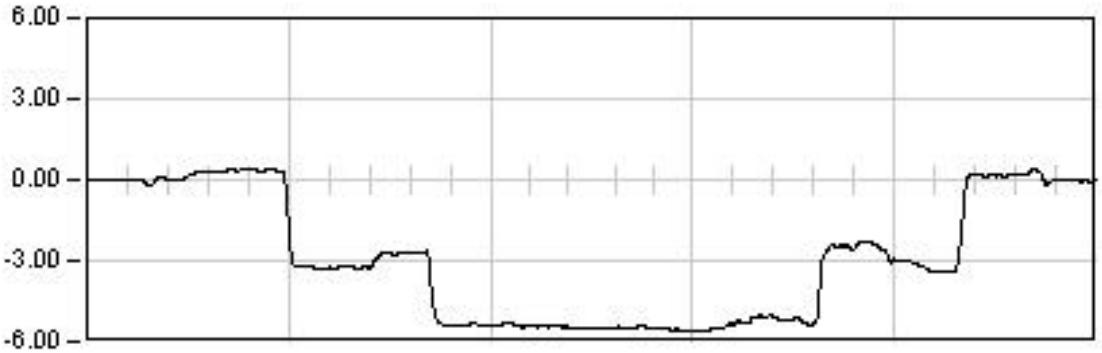
Punto : P022 **Canal : 07** **Unidades : mm**



ESTATICA 01

2580.0 Seg

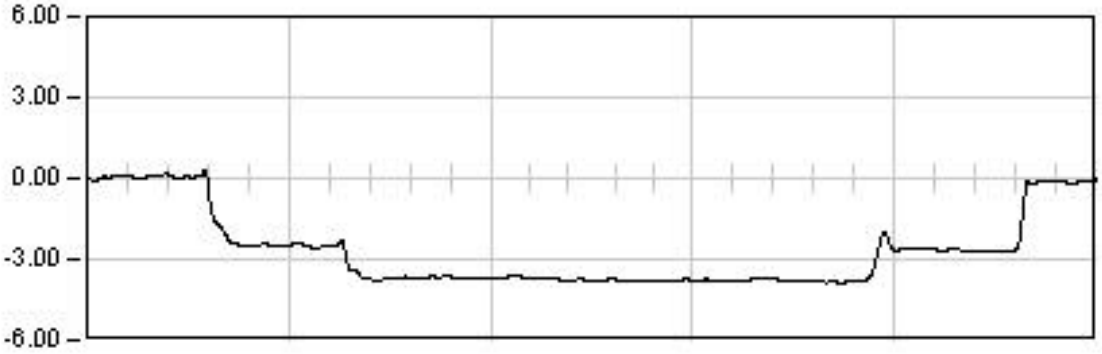
Est: 2.34
Max: 2.47
Min: -2.40
Rem: 0.13



ESTATICA 02

2577.0 Seg

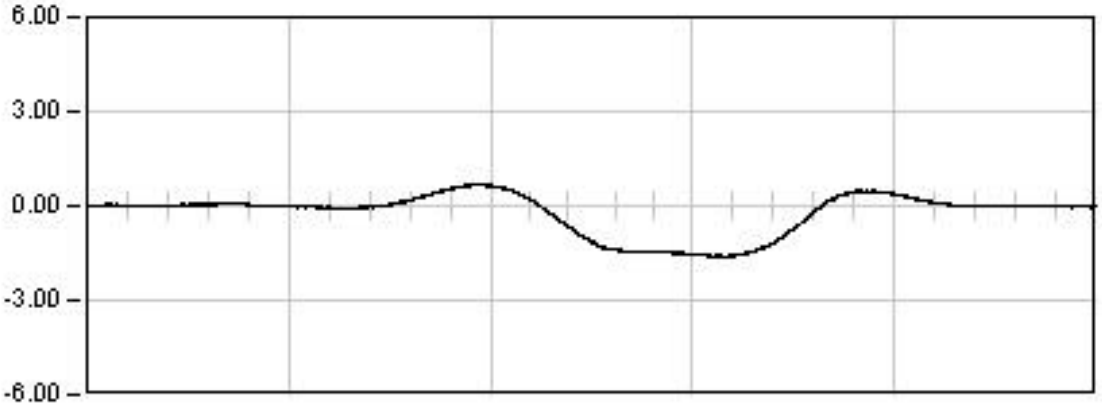
Est: -5.27
Max: -5.59
Min: 0.42
Rem: -0.03



ESTATICA 03

1670.0 Seg

Est: -3.80
Max: -3.85
Min: 0.26
Rem: -0.13



DINAMICA 11

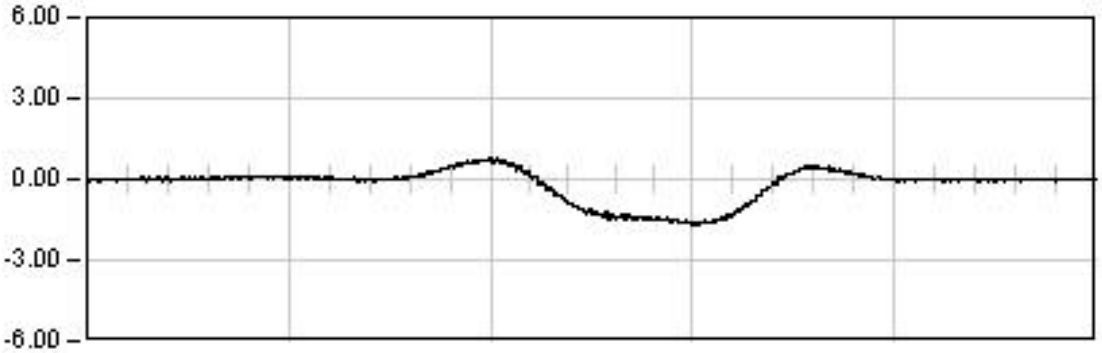
151.0 Seg

Max: -1.62
Min: 0.68
Rem: -0.03

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 2

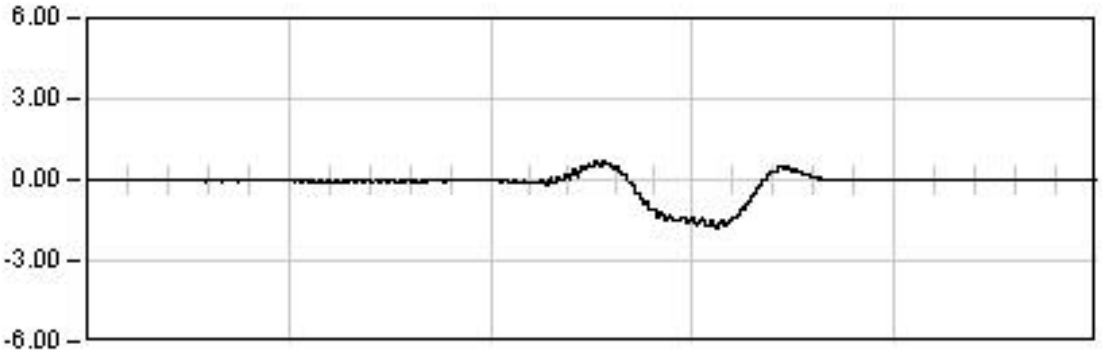
Punto : P022 **Canal : 07** **Unidades : mm**



DINAMICA 12

28.5 Seg

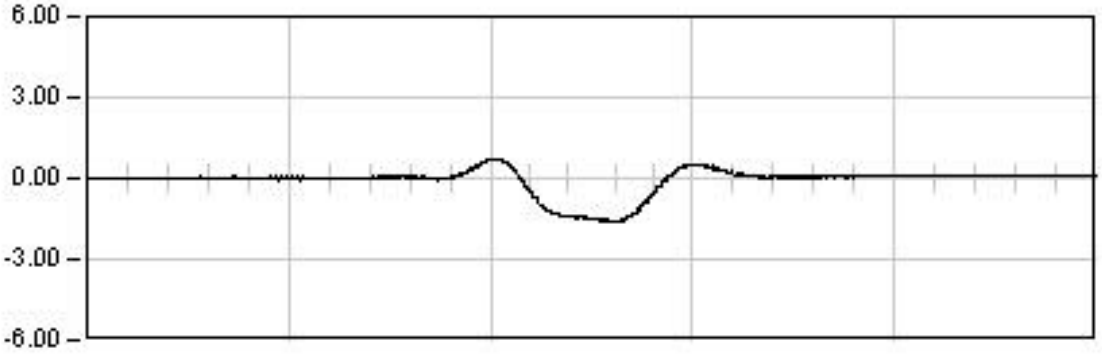
Max: -1.66
Min: 0.77
Rem: -0.03



DINAMICA 13

27.5 Seg

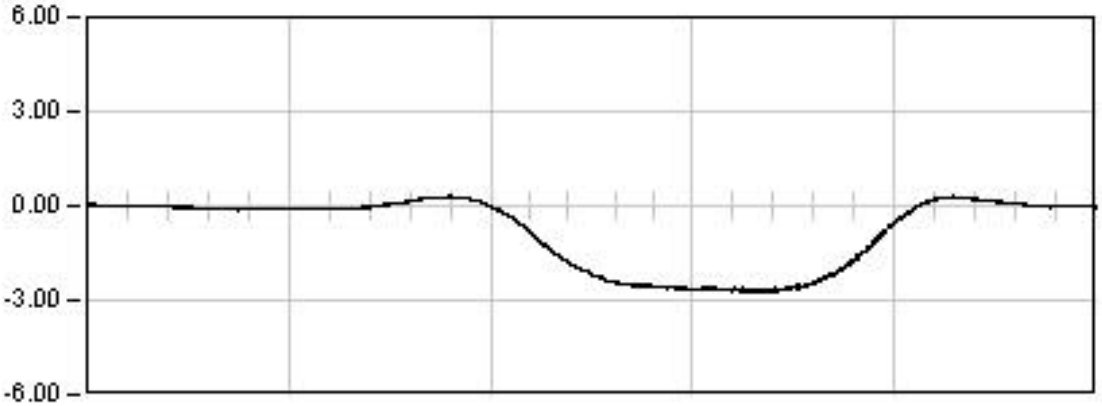
Max: -1.77
Min: 0.74
Rem: -0.00



DINAMICA 14

37.5 Seg

Max: -1.64
Min: 0.74
Rem: 0.13



DINAMICA 21

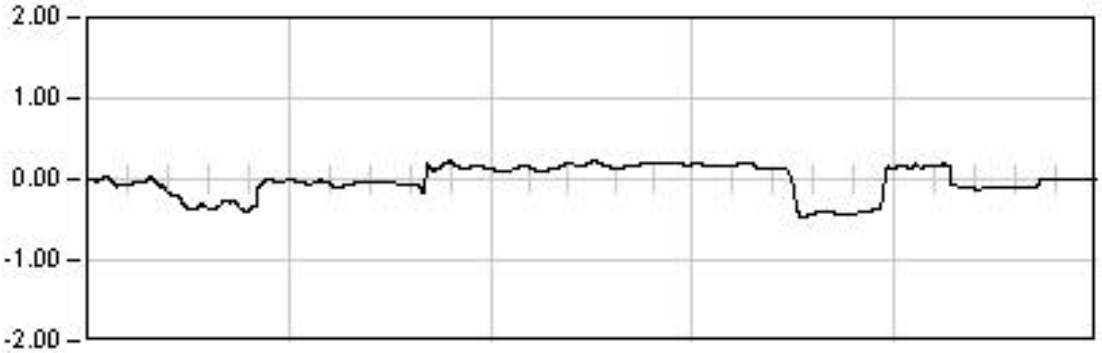
133.5 Seg

Max: -2.74
Min: 0.30
Rem: -0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 2

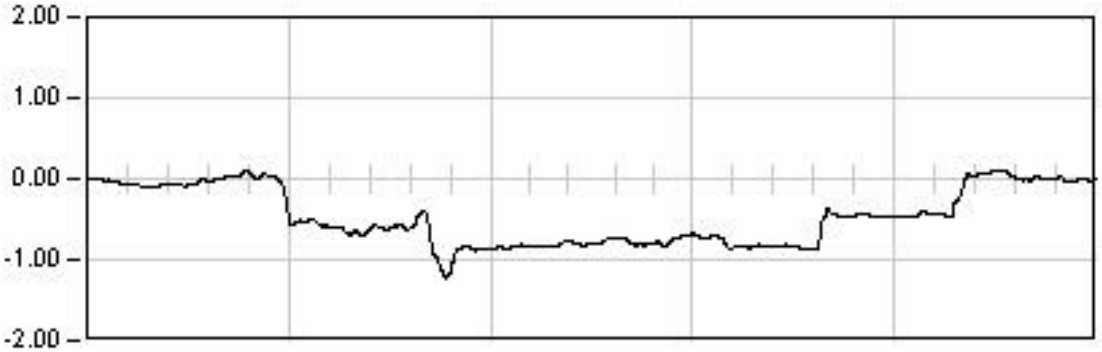
Punto : P023 Canal : 08 Unidades : mm



ESTATICA 01

2580.0 Seg

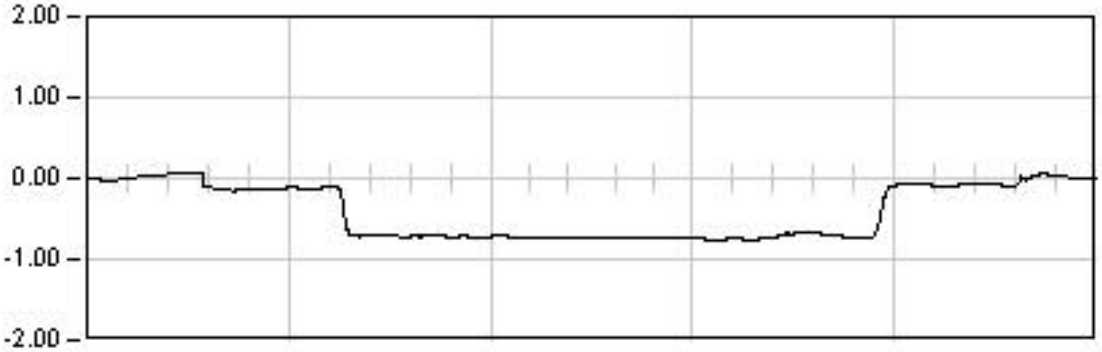
Est: 0.12
Max: -0.48
Min: 0.23
Rem: 0.00



ESTATICA 02

2577.0 Seg

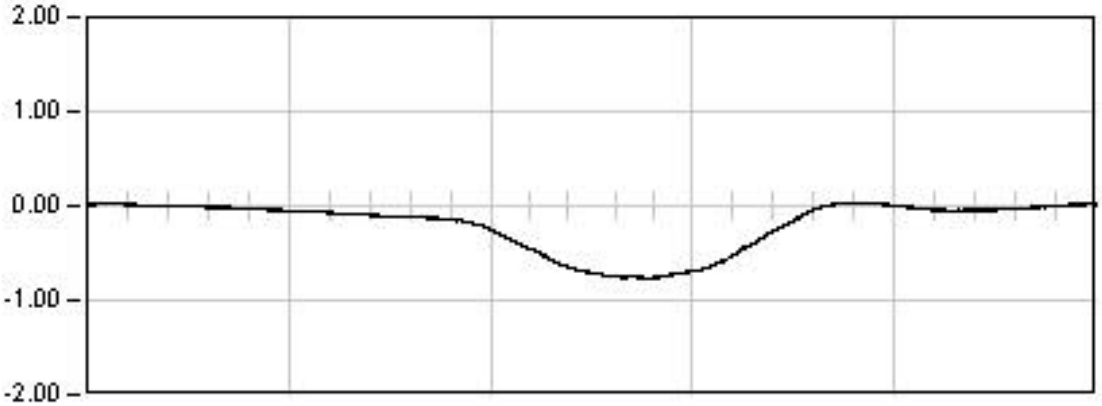
Est: -0.83
Max: -1.22
Min: 0.10
Rem: -0.02



ESTATICA 03

1670.0 Seg

Est: -0.68
Max: -0.76
Min: 0.08
Rem: 0.00



DINAMICA 11

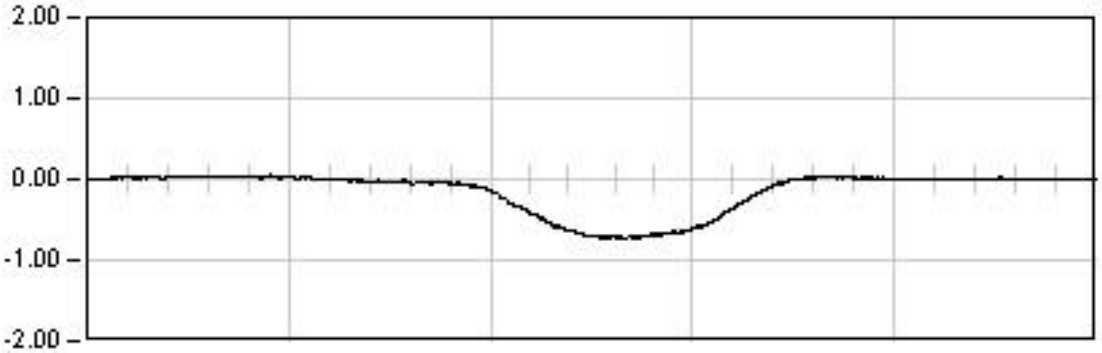
151.0 Seg

Max: -0.76
Min: 0.04
Rem: 0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 2

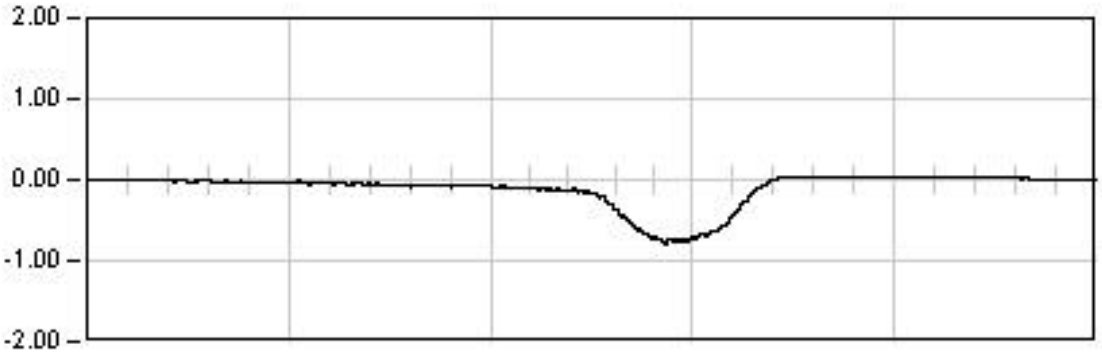
Punto : P023 Canal : 08 Unidades : mm



DINAMICA 12

28.5 Seg

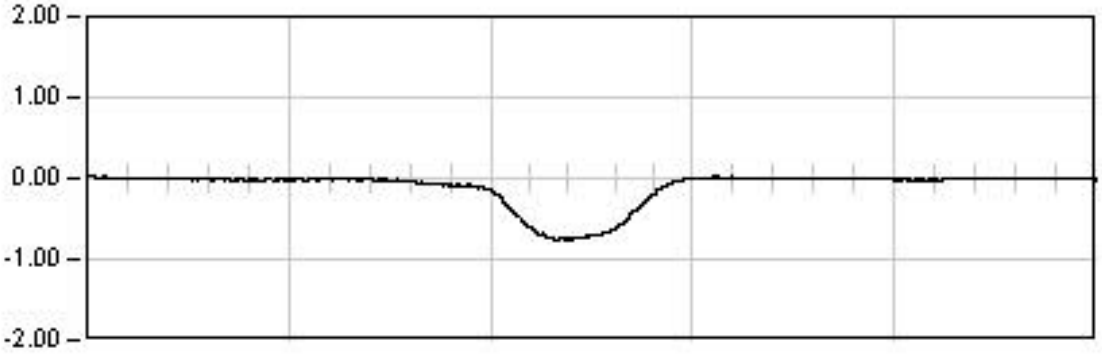
Max: -0.73
Min: 0.05
Rem: 0.01



DINAMICA 13

27.5 Seg

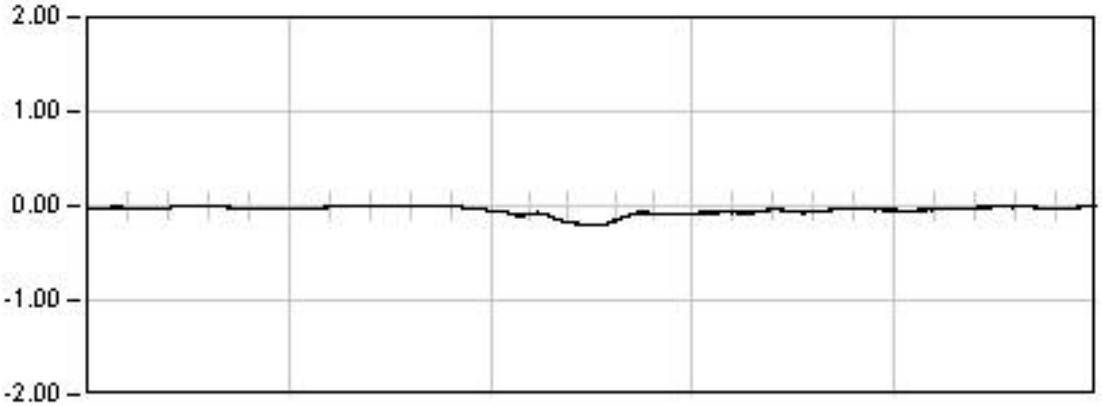
Max: -0.79
Min: 0.04
Rem: -0.00



DINAMICA 14

37.5 Seg

Max: -0.76
Min: 0.02
Rem: -0.01



DINAMICA 21

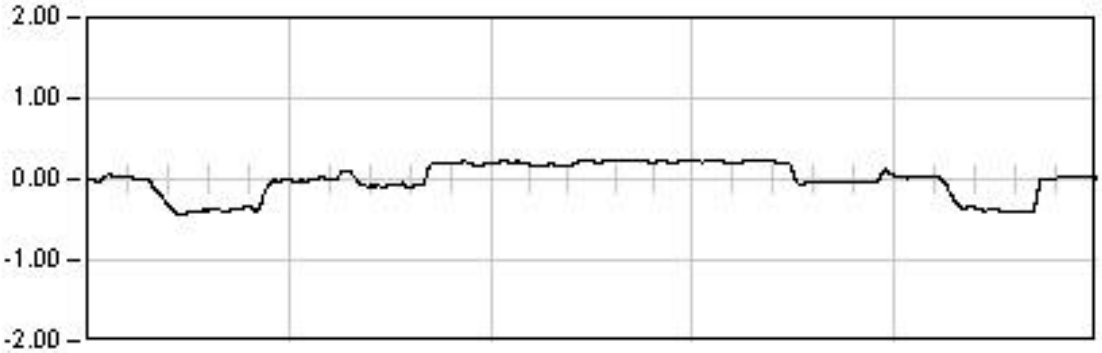
133.5 Seg

Max: -0.20
Min: 0.01
Rem: -0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 2

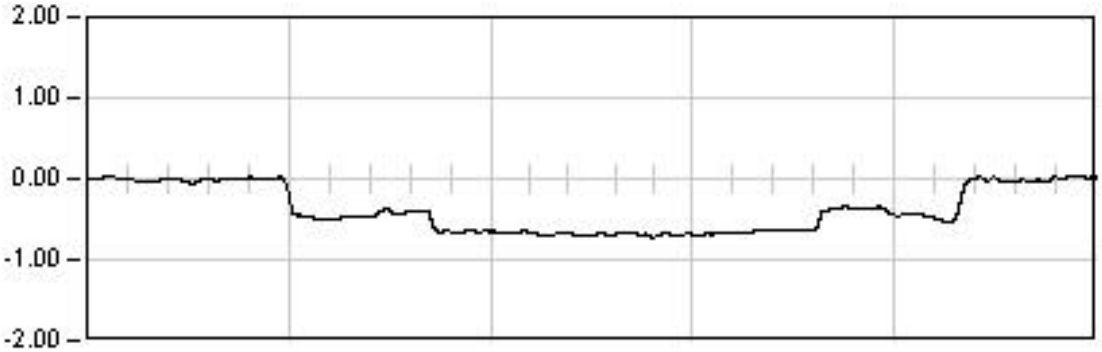
Punto : P024 **Canal : 05** **Unidades : mm**



ESTATICA 01

2580.0 Seg

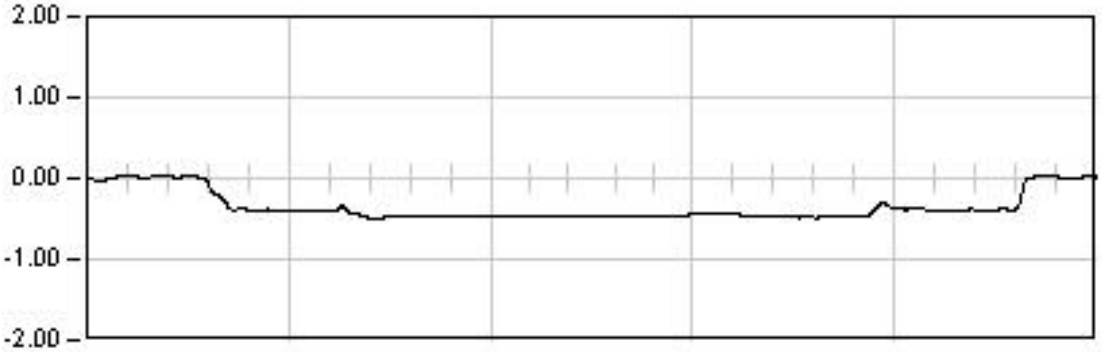
Est: 0.23
Max: -0.43
Min: 0.25
Rem: 0.02



ESTATICA 02

2577.0 Seg

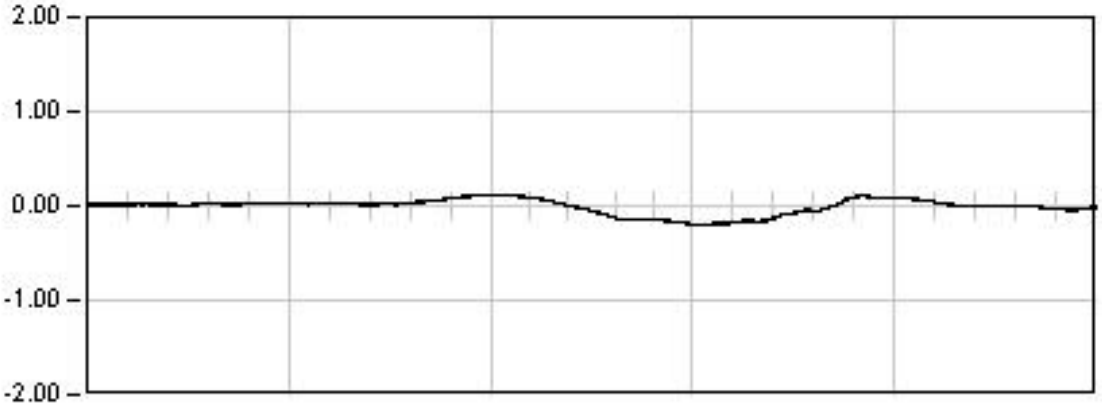
Est: -0.65
Max: -0.72
Min: 0.05
Rem: 0.02



ESTATICA 03

1670.0 Seg

Est: -0.49
Max: -0.49
Min: 0.03
Rem: 0.01



DINAMICA 11

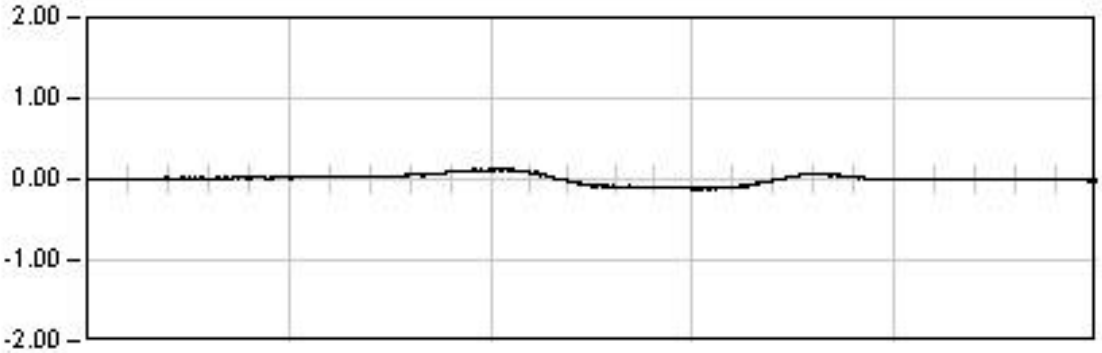
151.0 Seg

Max: -0.20
Min: 0.12
Rem: -0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 2

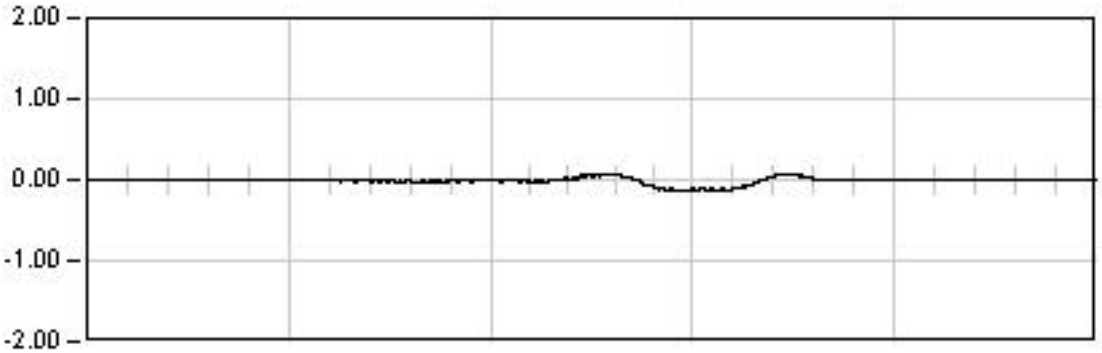
Punto : P024 Canal : 05 Unidades : mm



DINAMICA 12

28.5 Seg

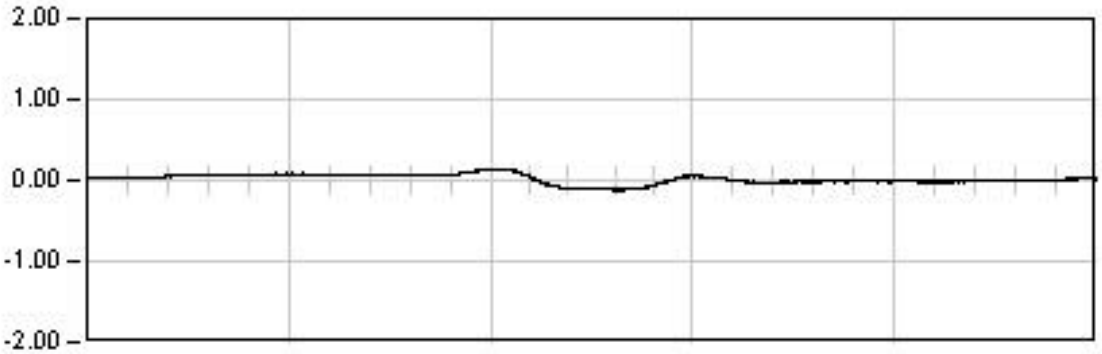
Max: 0.13
Min: -0.12
Rem: -0.02



DINAMICA 13

27.5 Seg

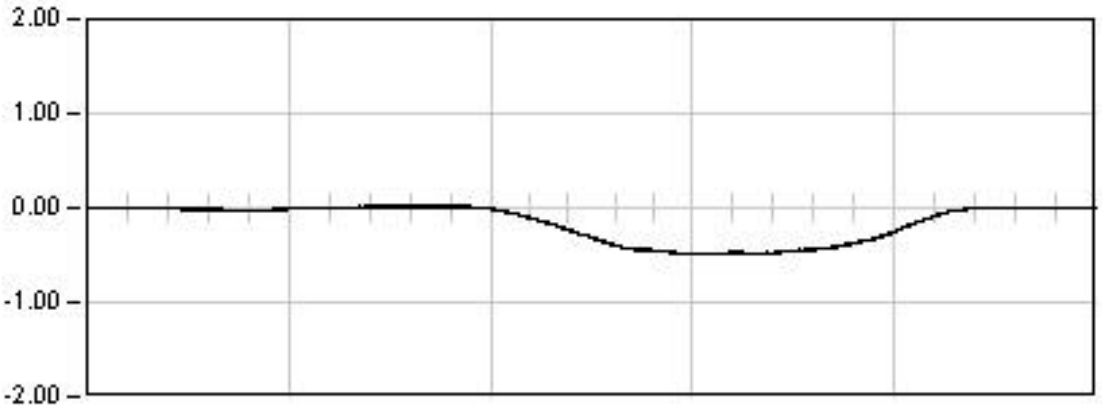
Max: -0.14
Min: 0.08
Rem: 0.01



DINAMICA 14

37.5 Seg

Max: 0.14
Min: -0.12
Rem: 0.02



DINAMICA 21

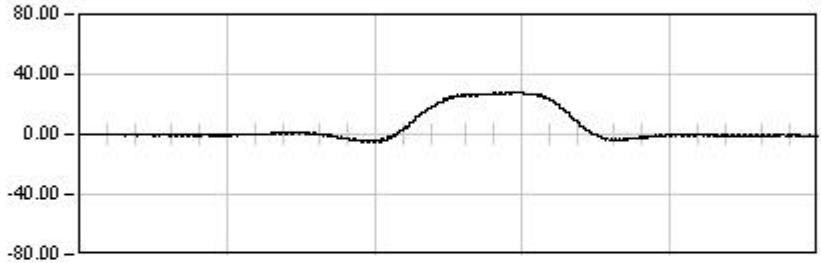
133.5 Seg

Max: -0.49
Min: 0.02
Rem: -0.00

26VI05. L.A.V. MADRID - BARCELONA. BASE MONTAGUT

VANO 1

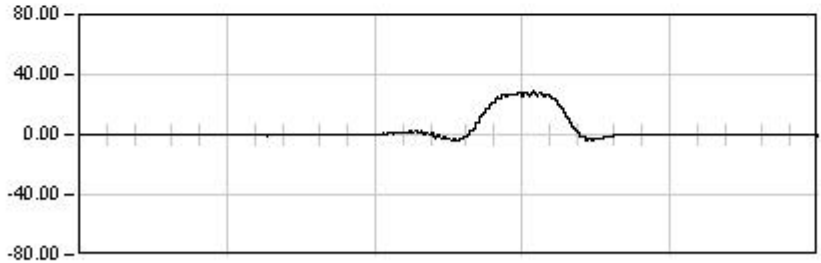
Punto : G021 Canal : 15 Unidades : µE



DINAMICA 12

28.5 Seg

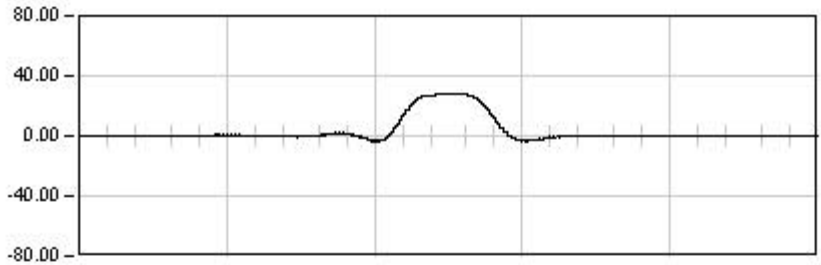
Max: 27.88
Min: -5.02
Rem: -0.78



DINAMICA 13

27.5 Seg

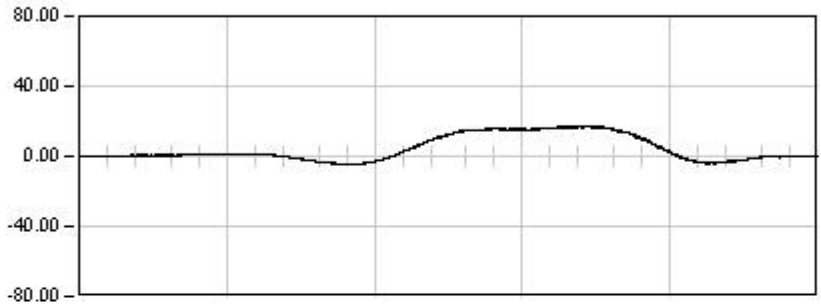
Max: 28.68
Min: -4.41
Rem: -0.20



DINAMICA 14

37.5 Seg

Max: 28.30
Min: -3.57
Rem: 0.10



DINAMICA 21

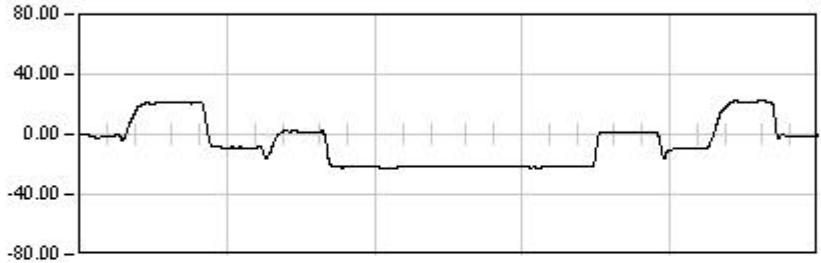
133.5 Seg

Max: 17.43
Min: -4.65
Rem: -0.07

26VI05. L.A.V. MADRID - BARCELONA. BASE MONTAGUT

VANO 1

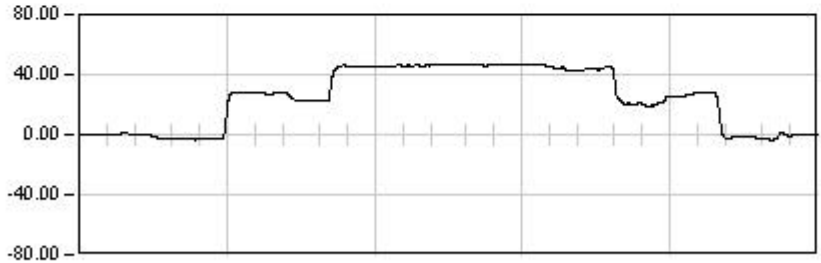
Punto : G022 Canal : 16 Unidades : µE



ESTATICA 01

2580.0 Seg

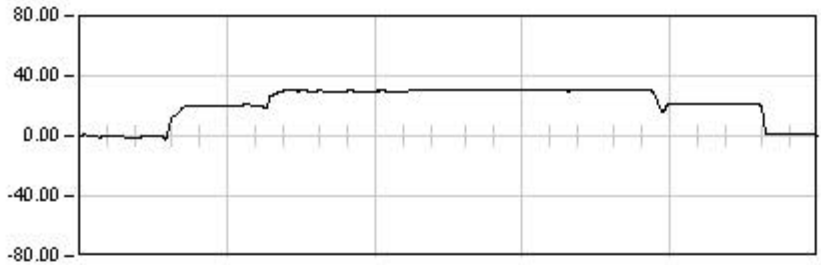
Est: -21.73
Max: -22.74
Min: 22.32
Rem: -1.03



ESTATICA 02

2577.0 Seg

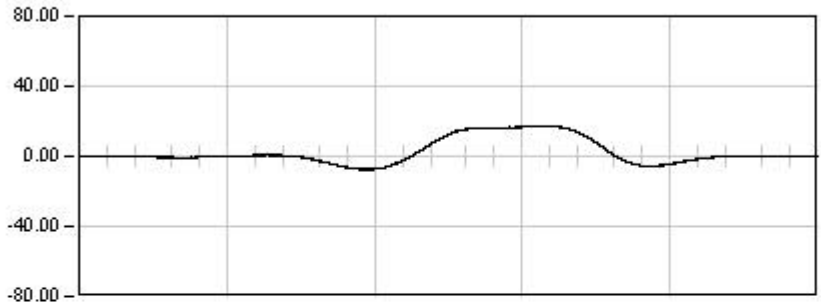
Est: 44.07
Max: 47.25
Min: -4.02
Rem: -0.18



ESTATICA 03

1670.0 Seg

Est: 30.85
Max: 31.22
Min: -2.12
Rem: 1.09



DINAMICA 11

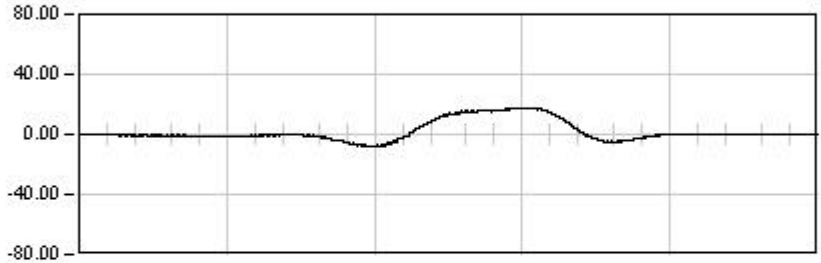
151.0 Seg

Max: 17.70
Min: -7.70
Rem: 0.03

26VI05. L.A.V. MADRID - BARCELONA. BASE MONTAGUT

VANO 1

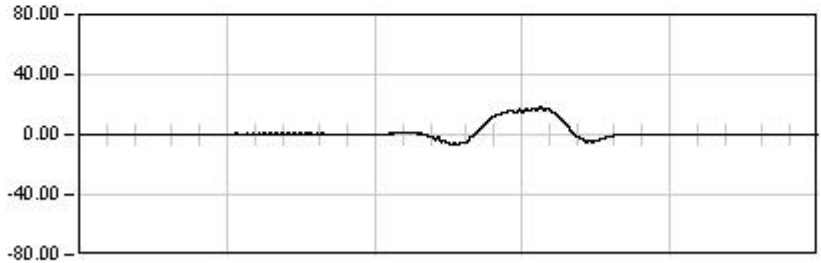
Punto : G022 Canal : 16 Unidades : µE



DINAMICA 12

28.5 Seg

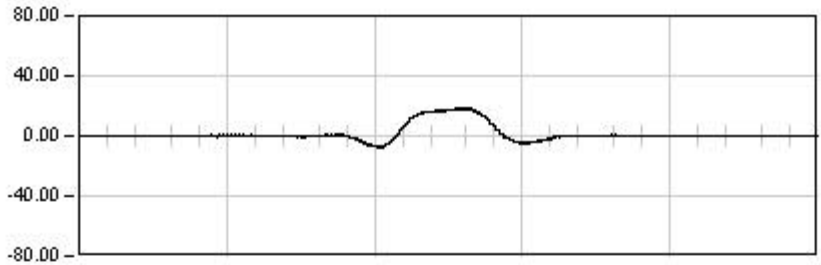
Max: 17.88
Min: -8.54
Rem: 0.33



DINAMICA 13

27.5 Seg

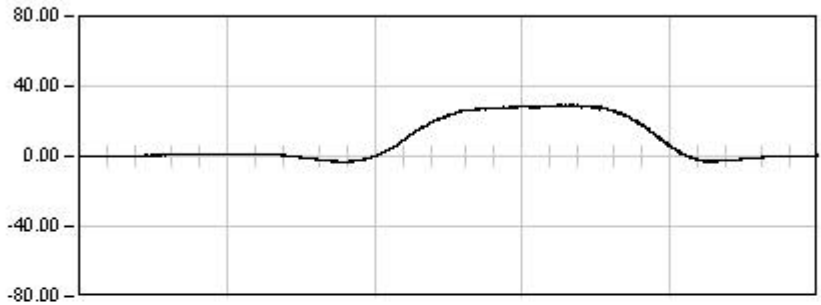
Max: 18.24
Min: -7.13
Rem: 0.22



DINAMICA 14

37.5 Seg

Max: 18.78
Min: -7.67
Rem: -0.20



DINAMICA 21

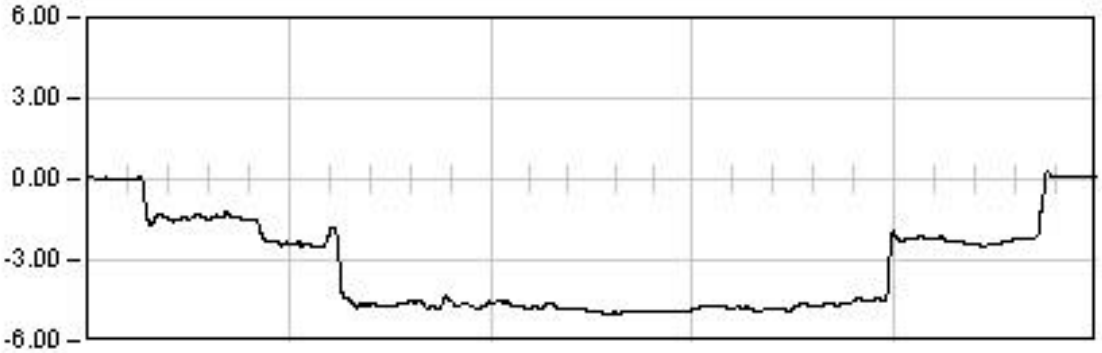
133.5 Seg

Max: 29.42
Min: -3.23
Rem: 0.05

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 3

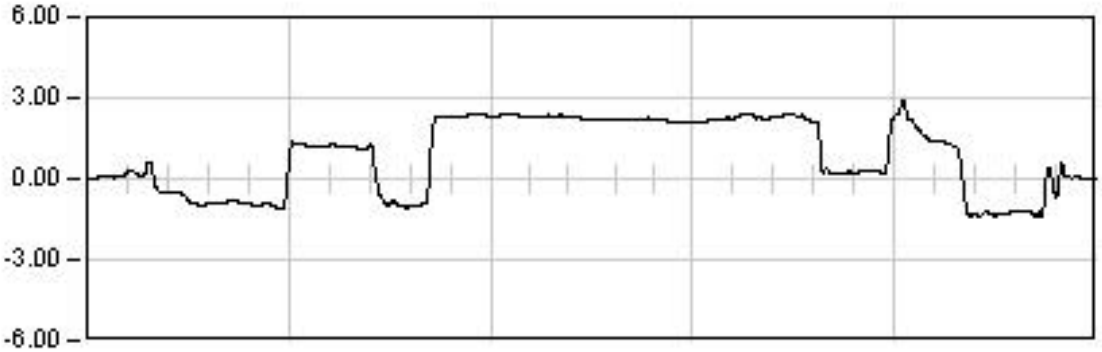
Punto : P031 **Canal : 10** **Unidades : mm**



ESTATICA 01

2580.0 Seg

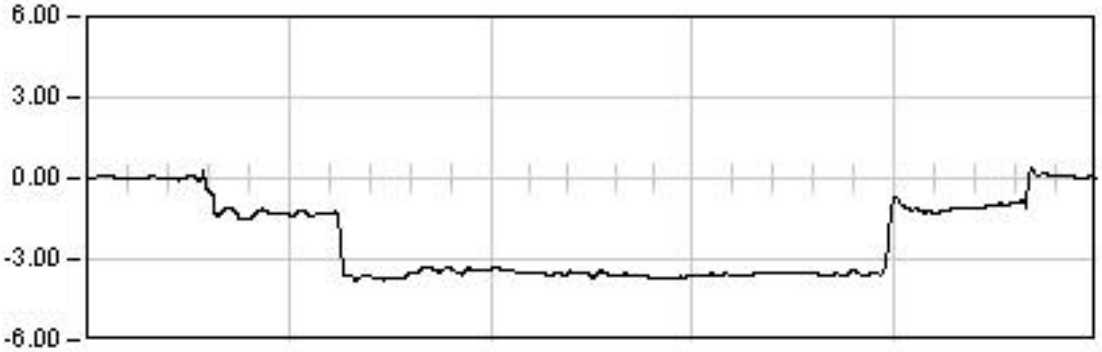
Est: -4.85
Max: -4.96
Min: 0.29
Rem: 0.09



ESTATICA 02

2577.0 Seg

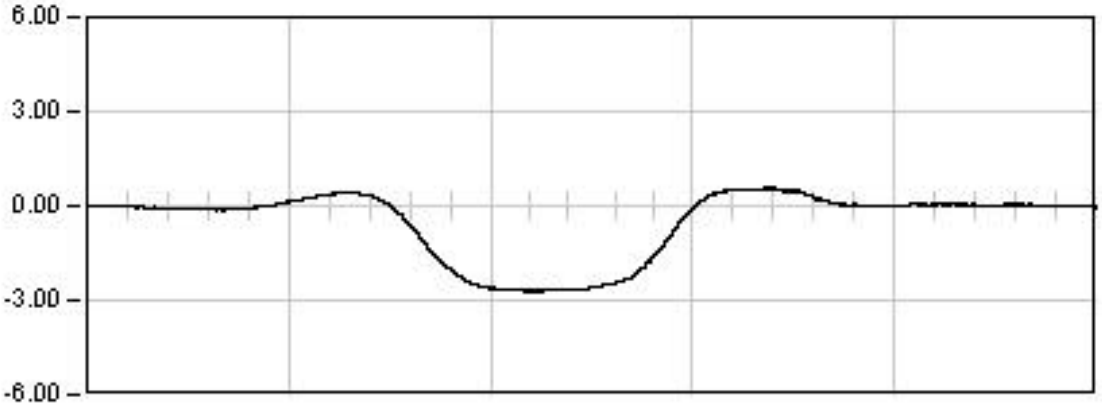
Est: 2.37
Max: 2.94
Min: -1.42
Rem: 0.04



ESTATICA 03

1670.0 Seg

Est: -3.54
Max: -3.76
Min: 0.37
Rem: 0.07



DINAMICA 11

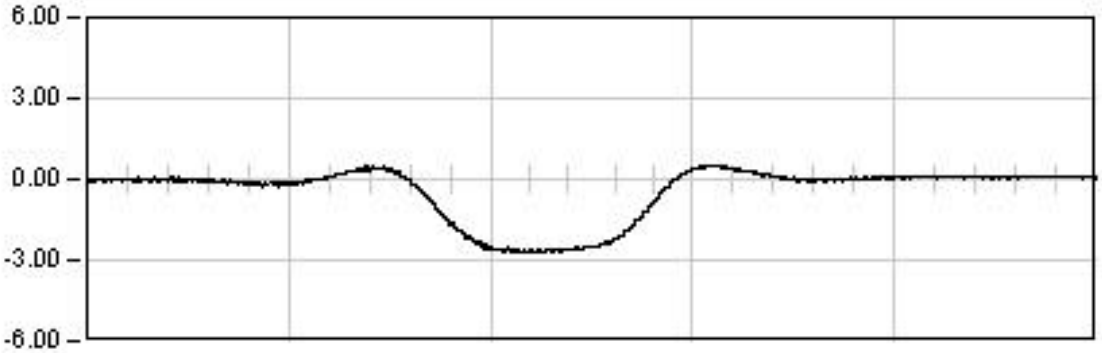
151.0 Seg

Max: -2.72
Min: 0.62
Rem: -0.04

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 3

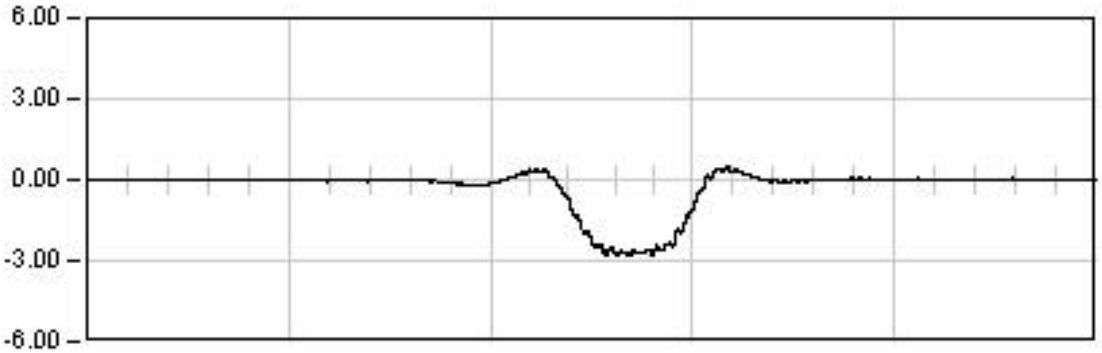
Punto : P031 Canal : 10 Unidades : mm



DINAMICA 12

28.5 Seg

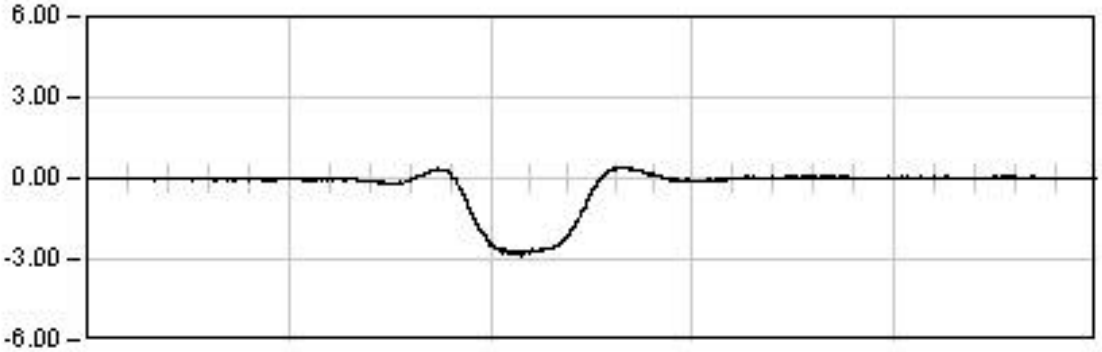
Max: -2.75
Min: 0.53
Rem: 0.07



DINAMICA 13

27.5 Seg

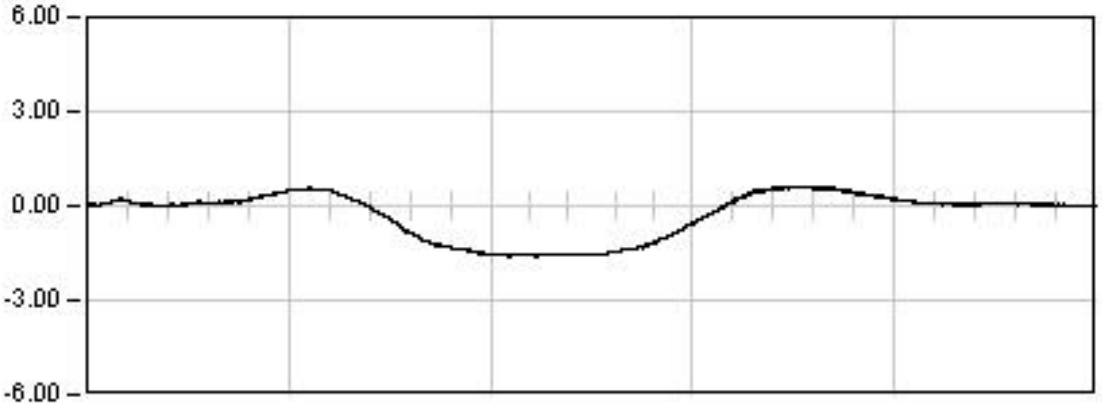
Max: -2.81
Min: 0.50
Rem: 0.01



DINAMICA 14

37.5 Seg

Max: -2.86
Min: 0.42
Rem: 0.04



DINAMICA 21

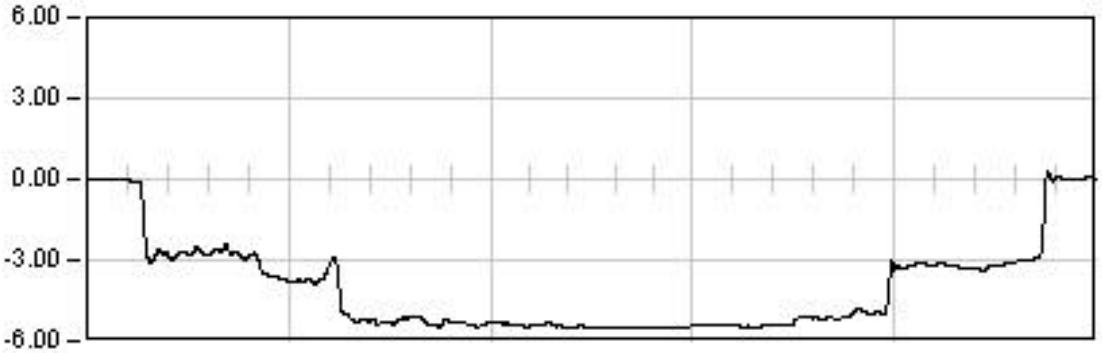
133.5 Seg

Max: -1.60
Min: 0.63
Rem: 0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

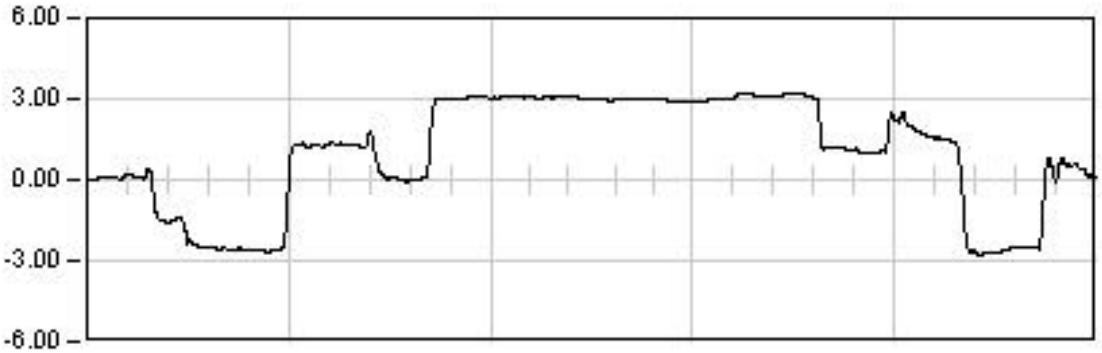
VANO 3

Punto : P032 Canal : 11 Unidades : mm



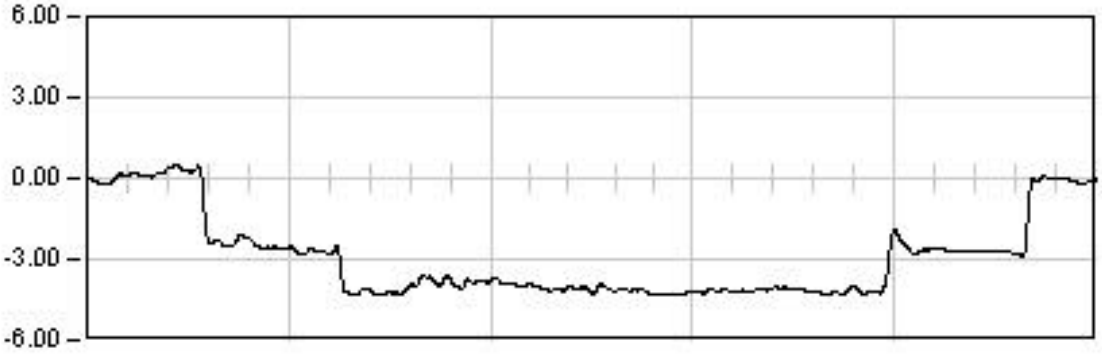
ESTATICA 01

2580.0	Seg
Est:	-5.44
Max:	-5.51
Min:	0.33
Rem:	0.03



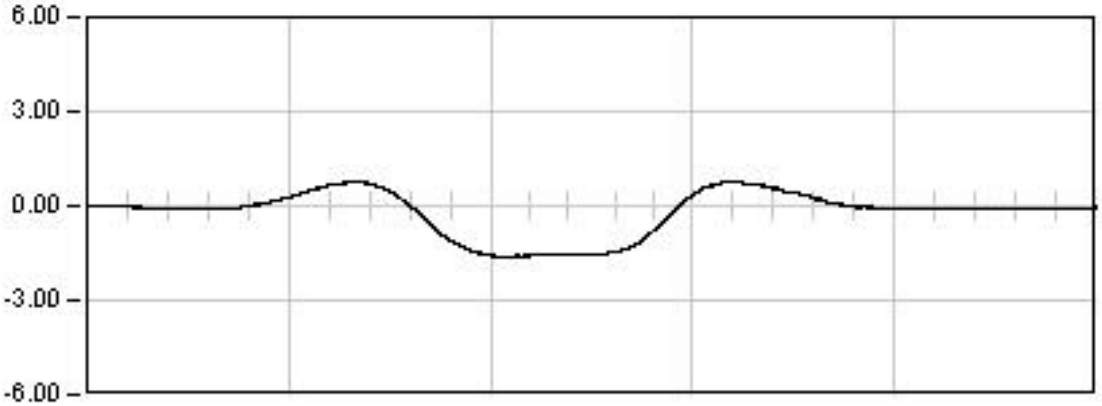
ESTATICA 02

2577.0	Seg
Est:	3.21
Max:	3.25
Min:	-2.82
Rem:	0.32



ESTATICA 03

1670.0	Seg
Est:	-4.19
Max:	-4.34
Min:	0.50
Rem:	-0.10



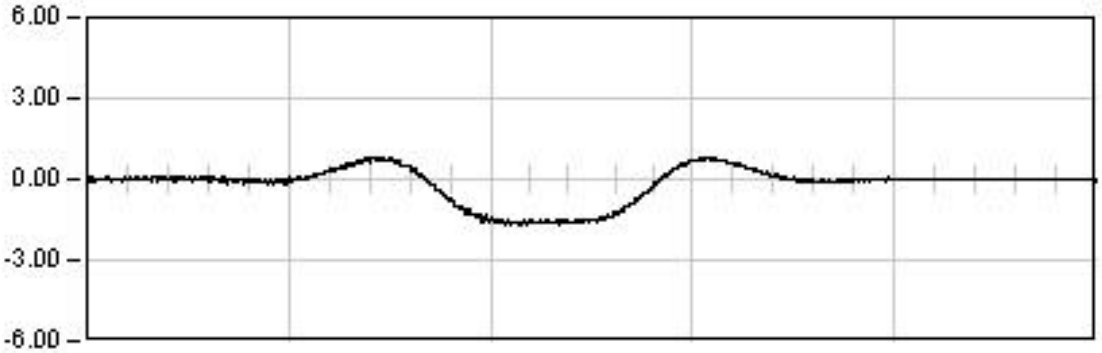
DINAMICA 11

151.0	Seg
Max:	-1.62
Min:	0.76
Rem:	-0.08

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 3

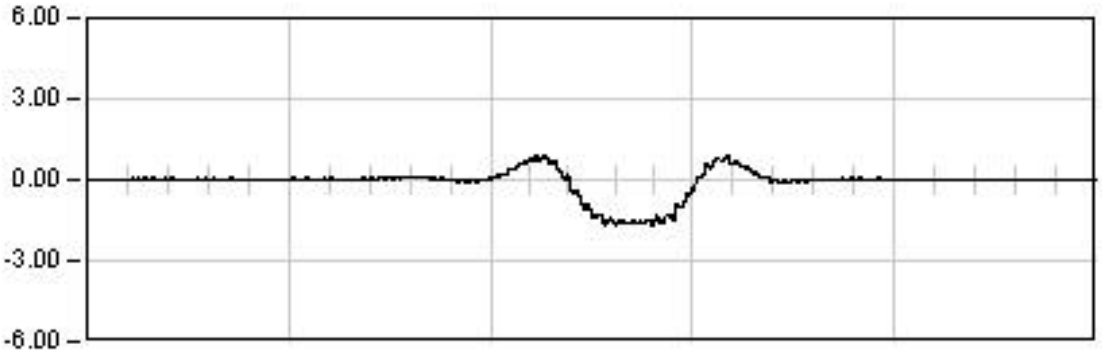
Punto : P032 Canal : 11 Unidades : mm



DINAMICA 12

28.5 Seg

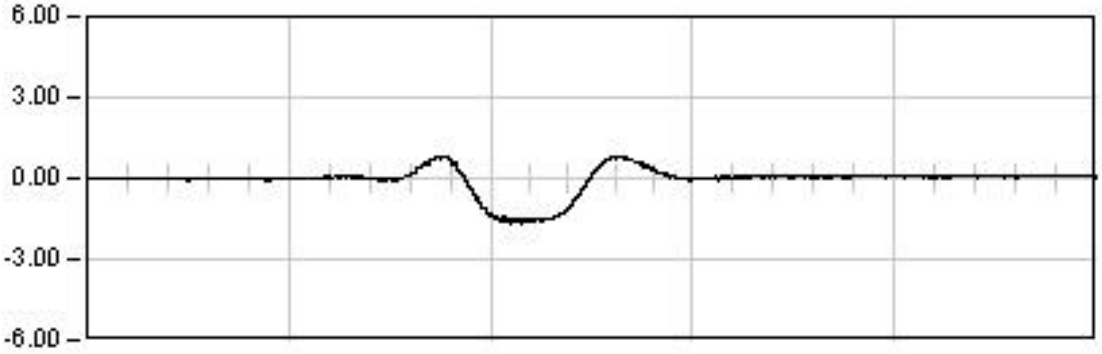
Max: -1.69
Min: 0.82
Rem: -0.02



DINAMICA 13

27.5 Seg

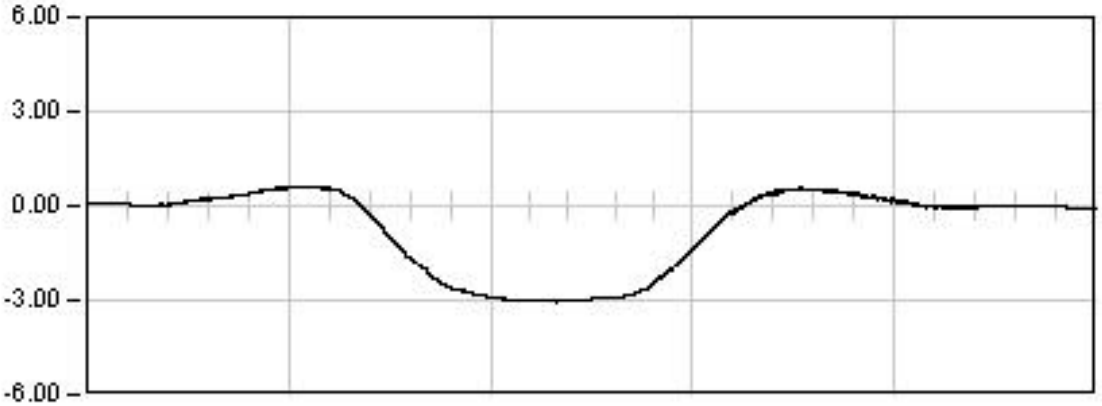
Max: -1.70
Min: 0.91
Rem: -0.00



DINAMICA 14

37.5 Seg

Max: -1.70
Min: 0.82
Rem: 0.05



DINAMICA 21

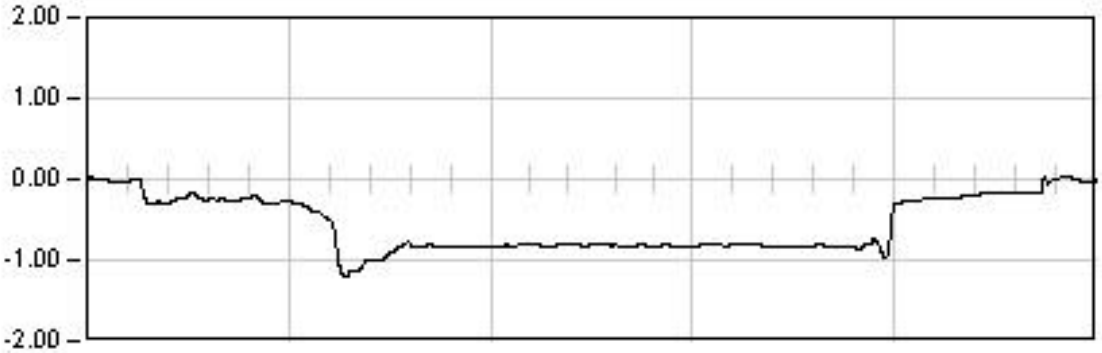
133.5 Seg

Max: -3.05
Min: 0.62
Rem: -0.10

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 3

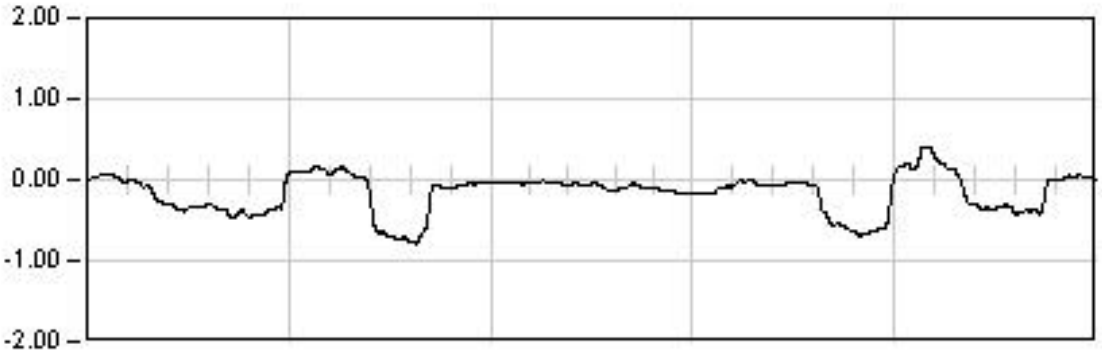
Punto : P033 Canal : 12 Unidades : mm



ESTATICA 01

2580.0 Seg

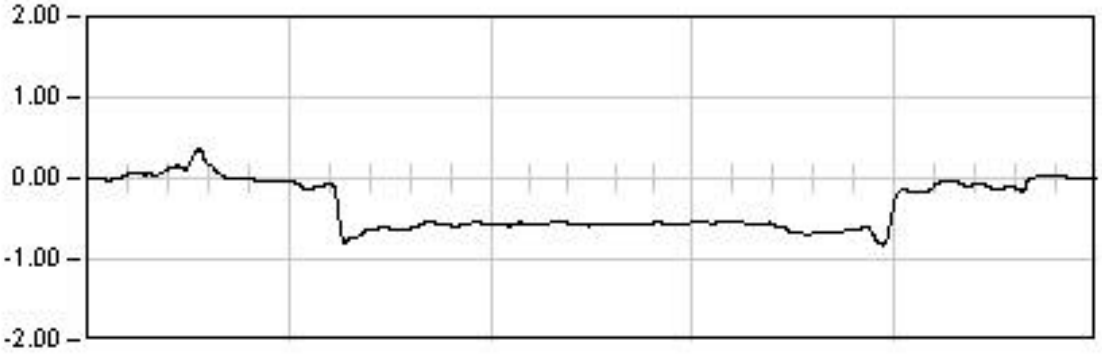
Est: -0.82
Max: -1.22
Min: 0.03
Rem: -0.01



ESTATICA 02

2577.0 Seg

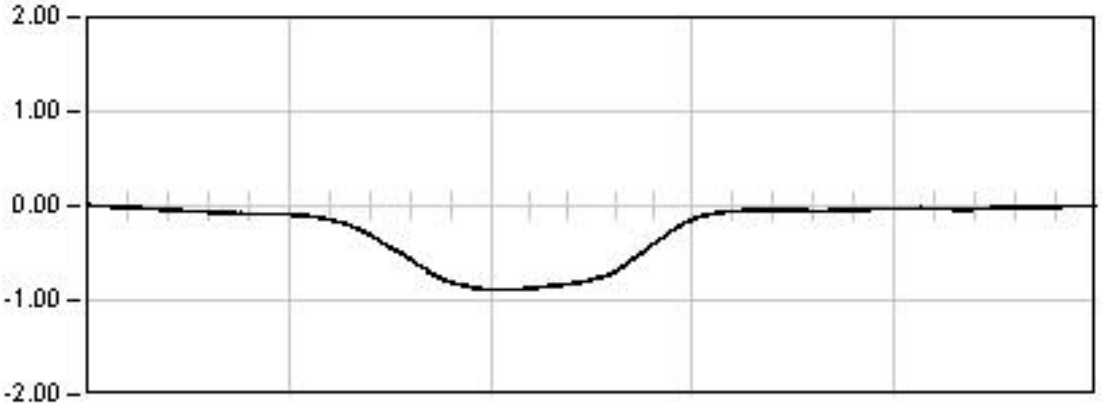
Est: -0.03
Max: -0.81
Min: 0.41
Rem: 0.00



ESTATICA 03

1670.0 Seg

Est: -0.68
Max: -0.82
Min: 0.36
Rem: 0.01



DINAMICA 11

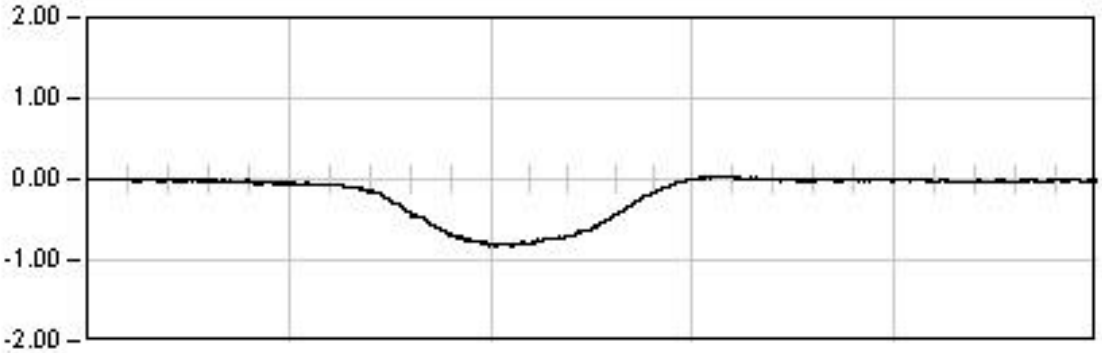
151.0 Seg

Max: -0.89
Min: 0.02
Rem: -0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 3

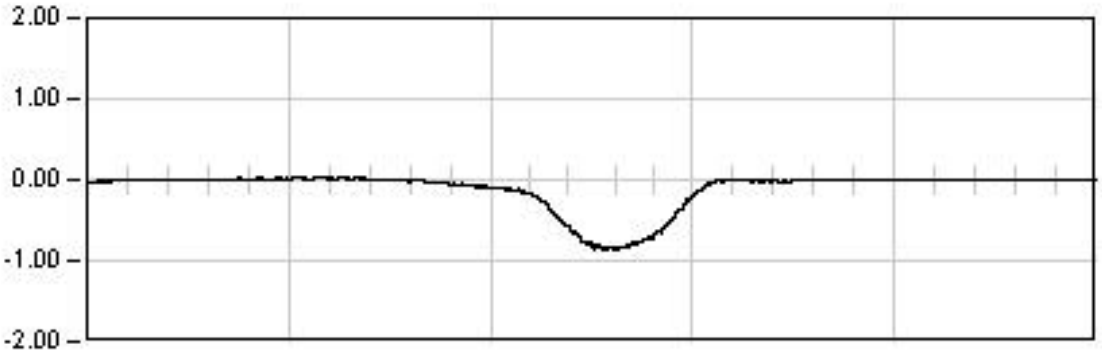
Punto : P033 Canal : 12 Unidades : mm



DINAMICA 12

28.5 Seg

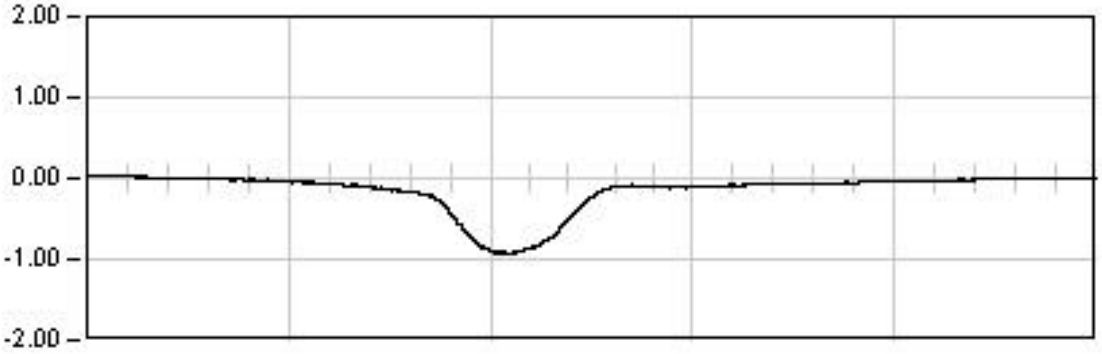
Max: -0.82
Min: 0.03
Rem: -0.01



DINAMICA 13

27.5 Seg

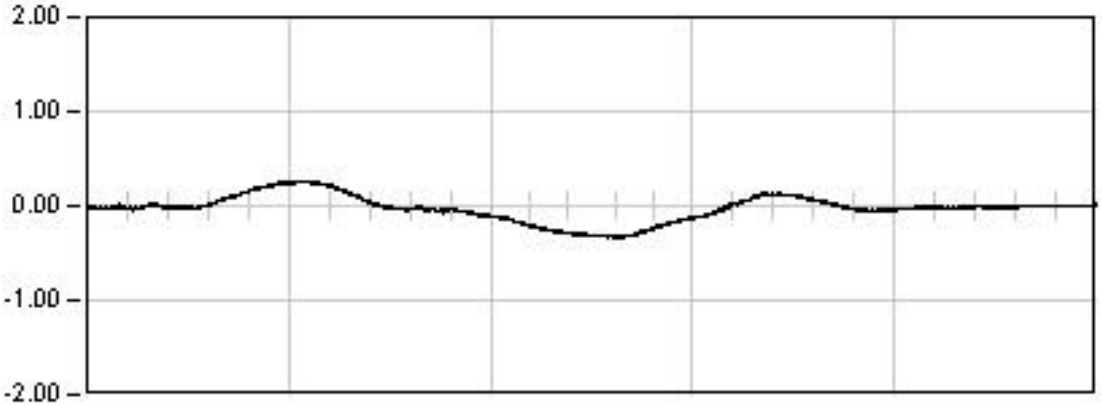
Max: -0.86
Min: 0.04
Rem: -0.00



DINAMICA 14

37.5 Seg

Max: -0.94
Min: 0.03
Rem: -0.01



DINAMICA 21

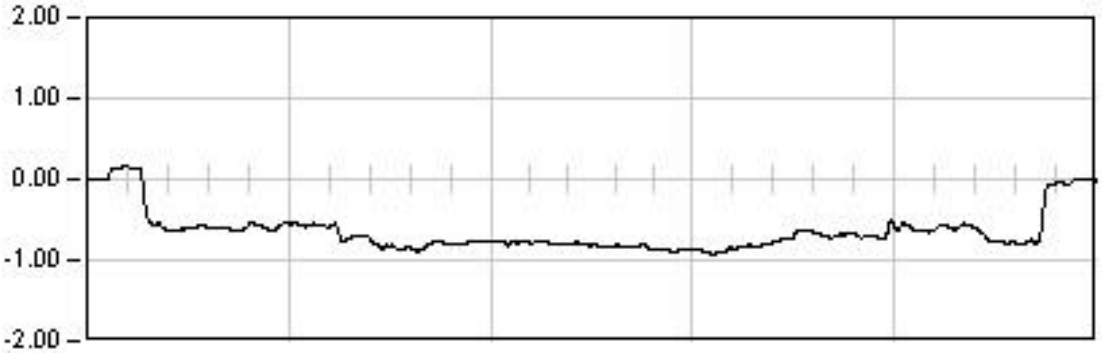
133.5 Seg

Max: -0.33
Min: 0.26
Rem: 0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 3

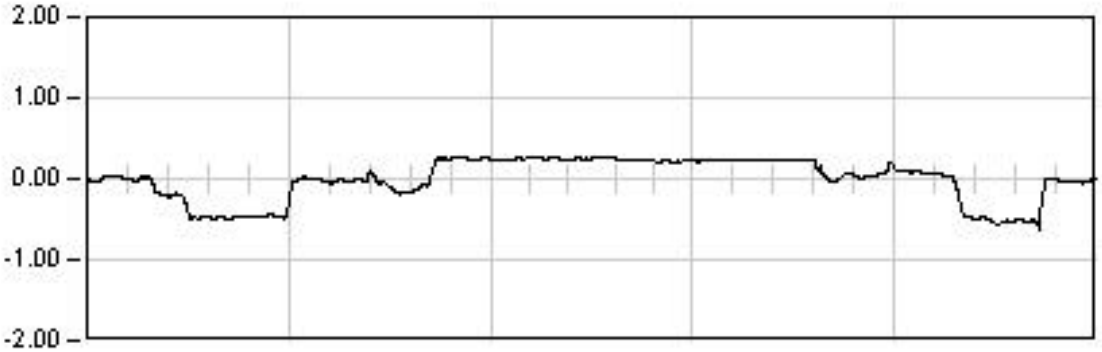
Punto : P034 **Canal : 09** **Unidades : mm**



ESTATICA 01

2580.0 Seg

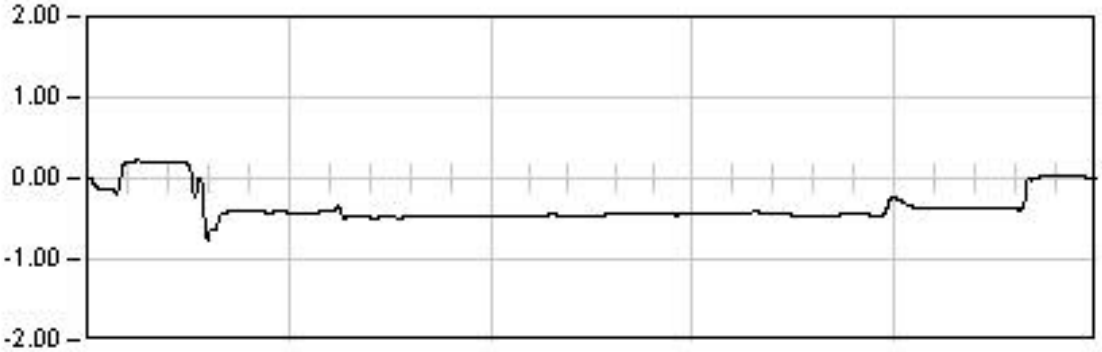
Est: -0.81
Max: -0.92
Min: 0.17
Rem: -0.00



ESTATICA 02

2577.0 Seg

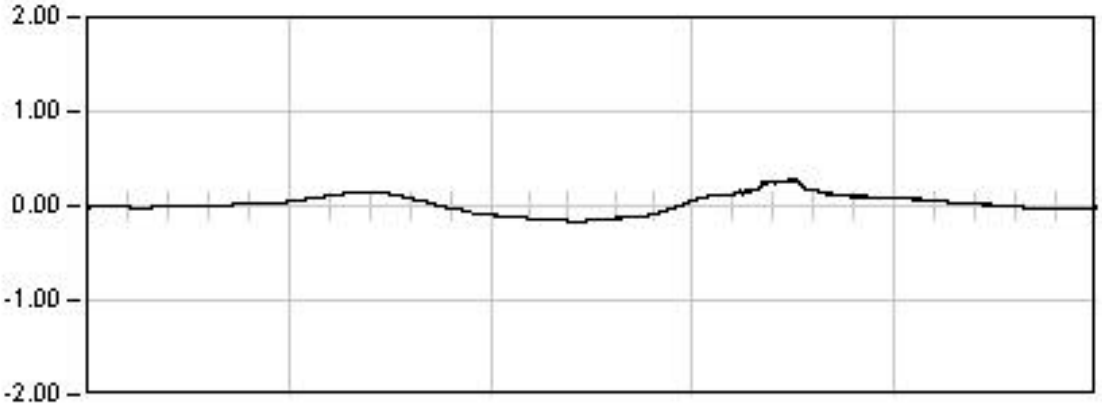
Est: 0.24
Max: -0.63
Min: 0.27
Rem: -0.03



ESTATICA 03

1670.0 Seg

Est: -0.47
Max: -0.76
Min: 0.22
Rem: 0.02



DINAMICA 11

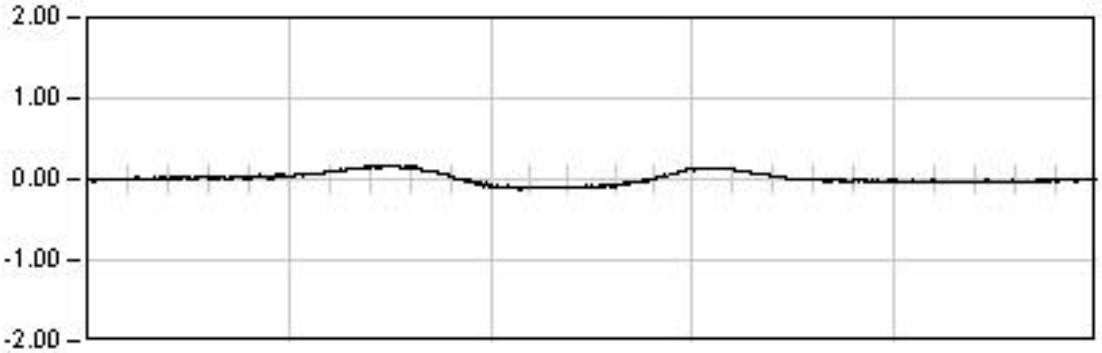
151.0 Seg

Max: 0.28
Min: -0.16
Rem: -0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 3

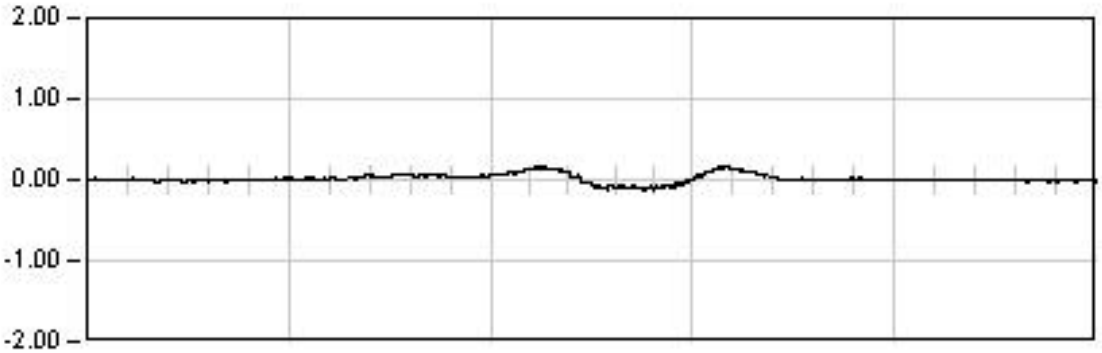
Punto : P034 **Canal : 09** **Unidades : mm**



DINAMICA 12

28.5 Seg

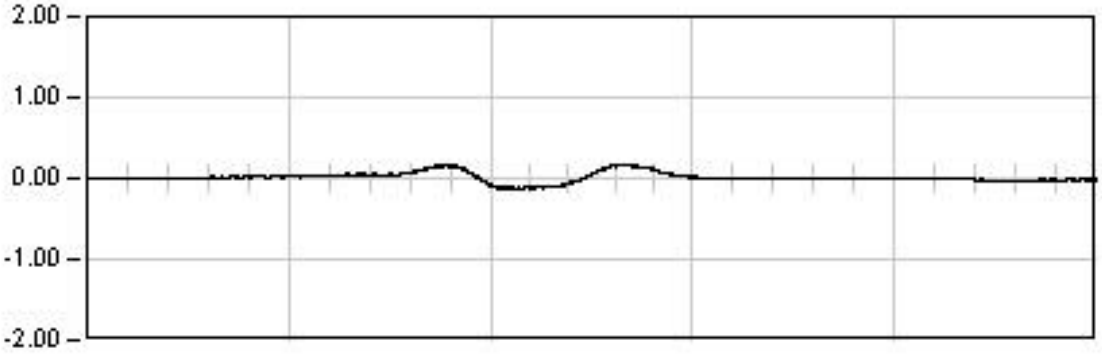
Max: 0.18
Min: -0.13
Rem: -0.01



DINAMICA 13

27.5 Seg

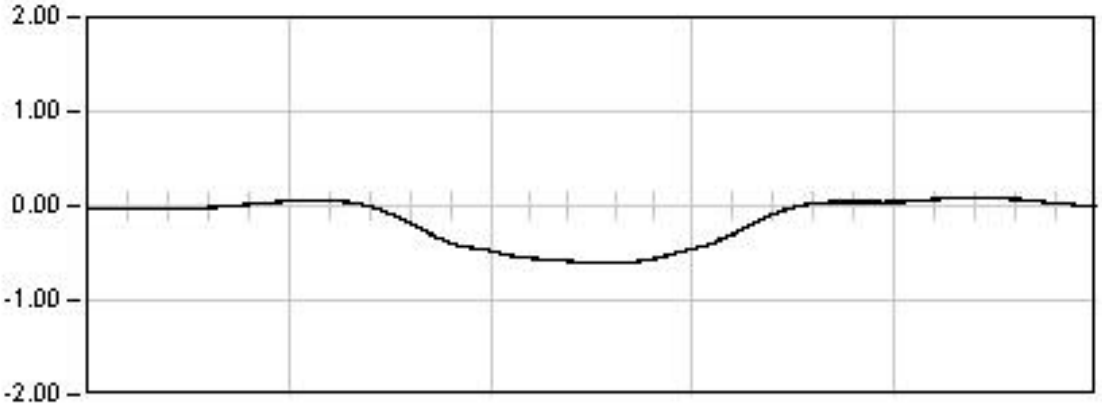
Max: 0.17
Min: -0.13
Rem: 0.00



DINAMICA 14

37.5 Seg

Max: 0.18
Min: -0.14
Rem: -0.02



DINAMICA 21

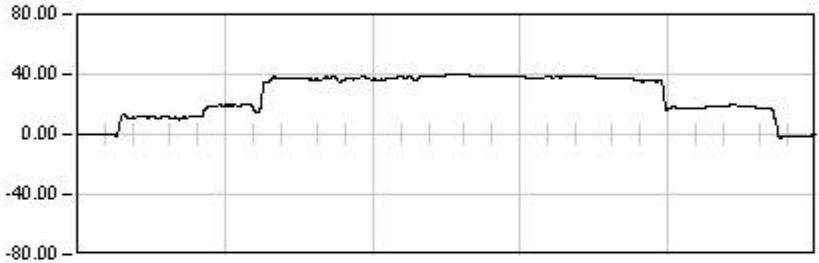
133.5 Seg

Max: -0.61
Min: 0.09
Rem: -0.00

26VI05. L.A.V. MADRID - BARCELONA. BASE MONTAGUT

VANO 1

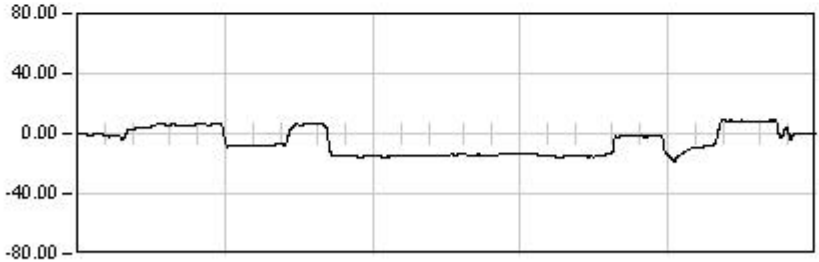
Punto : G031 Canal : 17 Unidades : µE



ESTATICA 01

2580.0 Seg

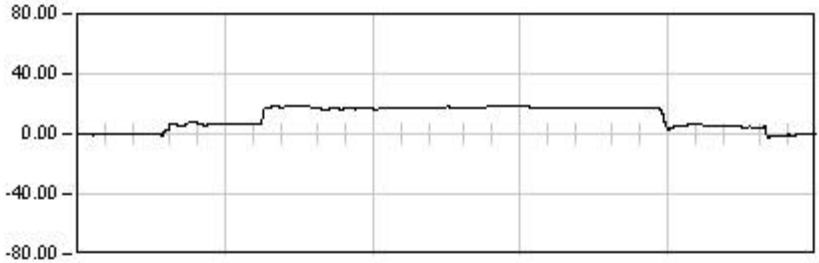
Est: 38.80
Max: 39.66
Min: -2.36
Rem: -0.74



ESTATICA 02

2577.0 Seg

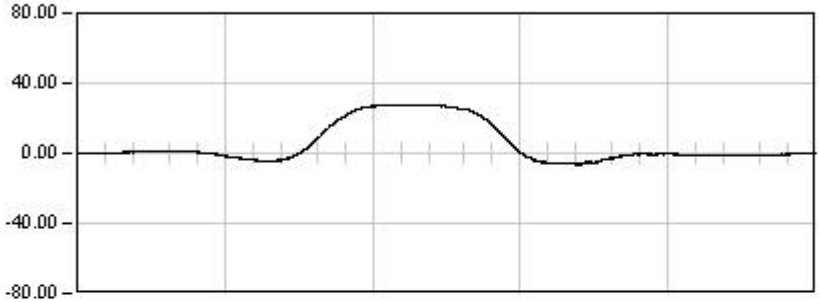
Est: -15.22
Max: -18.88
Min: 9.10
Rem: -0.25



ESTATICA 03

1670.0 Seg

Est: 17.54
Max: 18.72
Min: -2.05
Rem: -0.53



DINAMICA 11

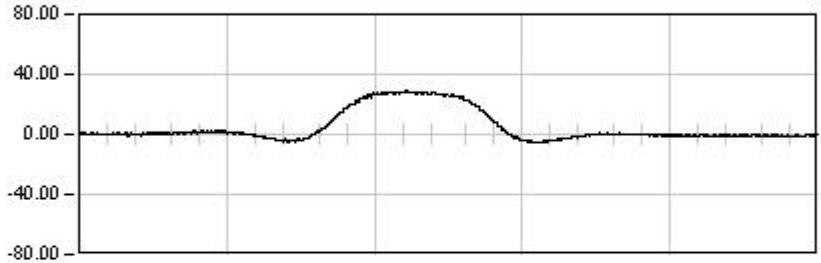
151.0 Seg

Max: 27.92
Min: -6.74
Rem: -0.08

26VI05. L.A.V. MADRID - BARCELONA. BASE MONTAGUT

VANO 1

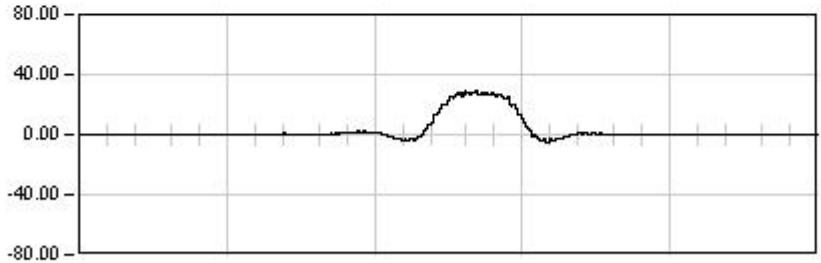
Punto : G031 Canal : 17 Unidades : µE



DINAMICA 12

28.5 Seg

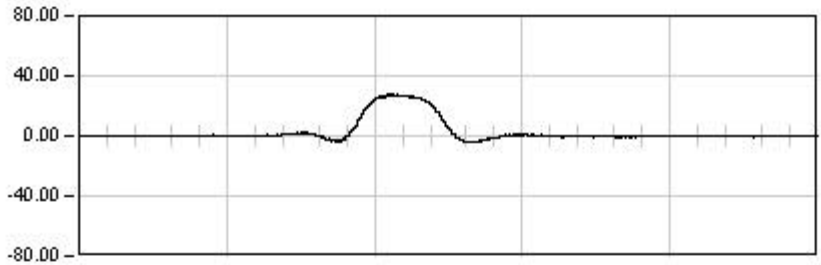
Max: 28.73
Min: -5.48
Rem: -0.71



DINAMICA 13

27.5 Seg

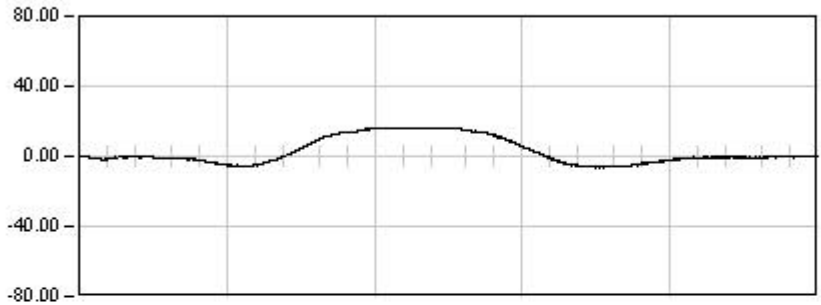
Max: 28.81
Min: -5.16
Rem: -0.09



DINAMICA 14

37.5 Seg

Max: 28.15
Min: -4.20
Rem: -0.48



DINAMICA 21

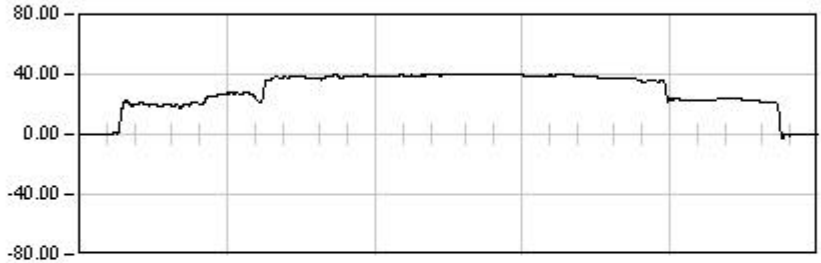
133.5 Seg

Max: 16.44
Min: -6.50
Rem: -0.23

26VI05. L.A.V. MADRID - BARCELONA. BASE MONTAGUT

VANO 1

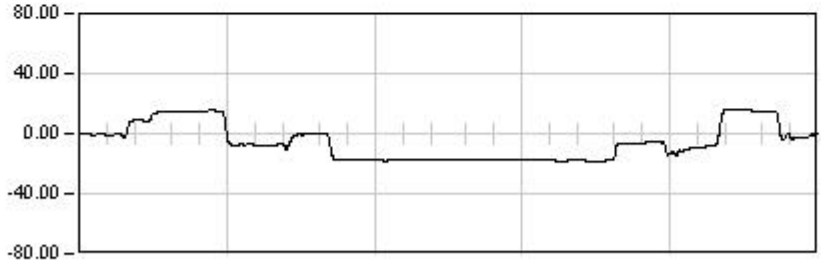
Punto : G032 Canal : 18 Unidades : µE



ESTATICA 01

2580.0 Seg

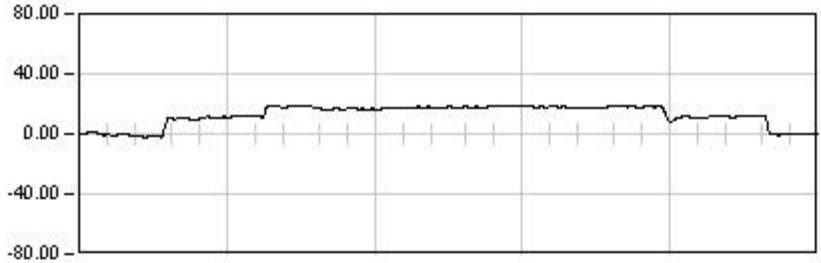
Est: 39.35
Max: 39.90
Min: -2.52
Rem: -0.35



ESTATICA 02

2577.0 Seg

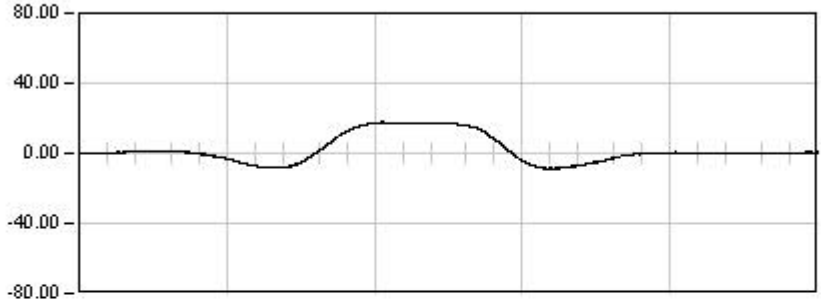
Est: -18.48
Max: -18.72
Min: 16.52
Rem: -1.66



ESTATICA 03

1670.0 Seg

Est: 18.03
Max: 18.88
Min: -2.25
Rem: 0.04



DINAMICA 11

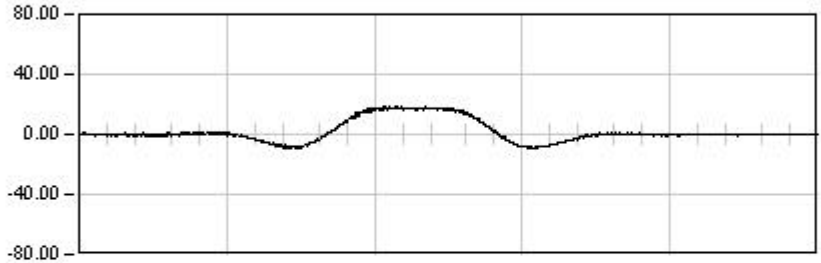
151.0 Seg

Max: 17.78
Min: -8.81
Rem: 0.42

26VI05. L.A.V. MADRID - BARCELONA. BASE MONTAGUT

VANO 1

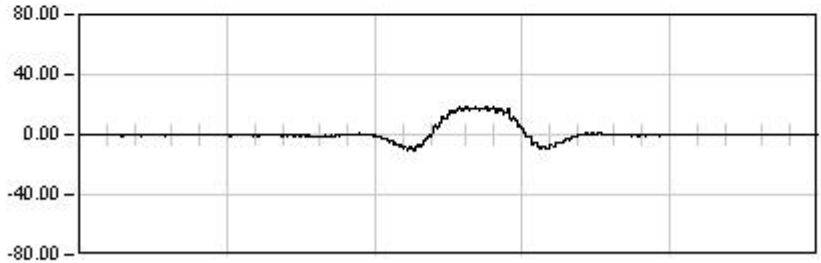
Punto : G032 Canal : 18 Unidades : µE



DINAMICA 12

28.5 Seg

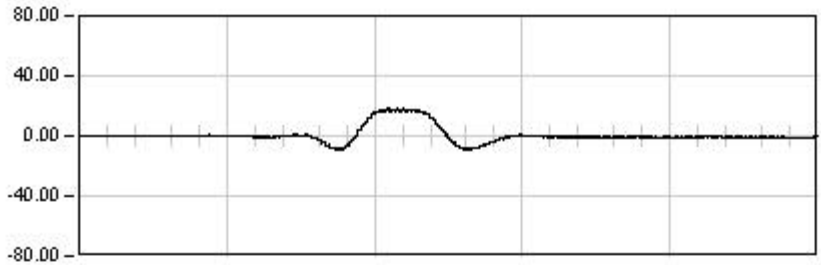
Max: 18.51
Min: -9.28
Rem: -0.27



DINAMICA 13

27.5 Seg

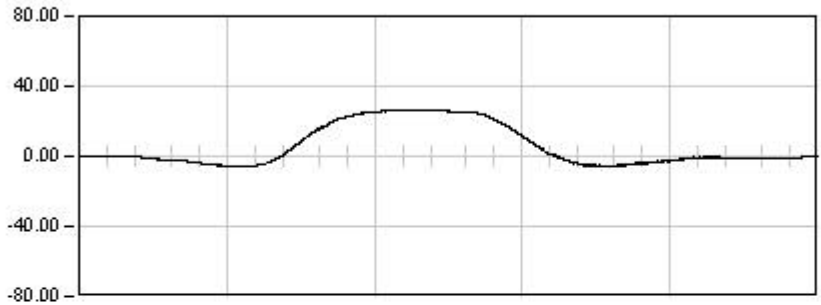
Max: 18.77
Min: -10.14
Rem: -0.08



DINAMICA 14

37.5 Seg

Max: 18.82
Min: -9.06
Rem: -0.60



DINAMICA 21

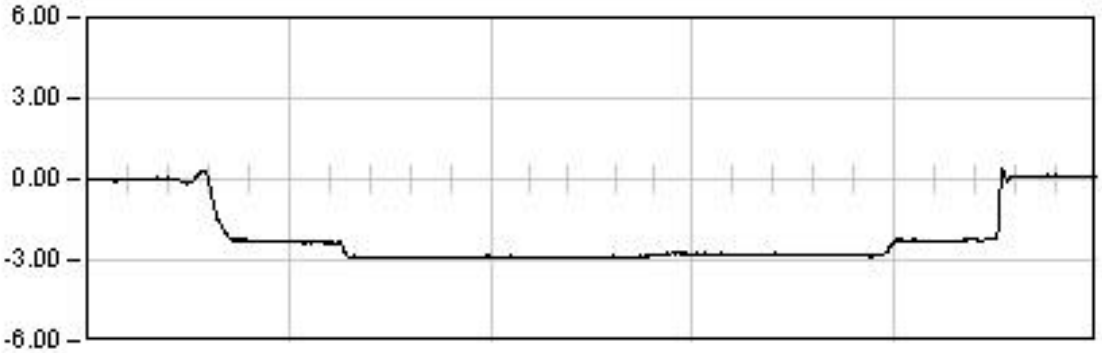
133.5 Seg

Max: 26.52
Min: -5.83
Rem: -0.30

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

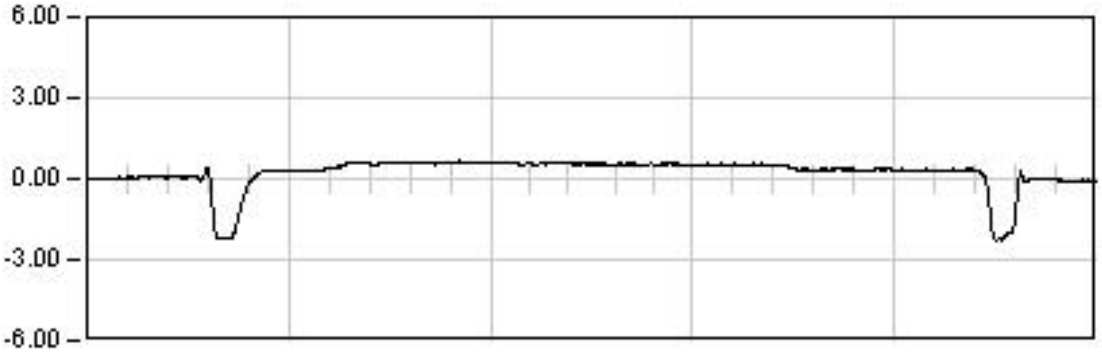
Punto : P041 Canal : 01 Unidades : mm



ESTATICA 14

1419.0 Seg

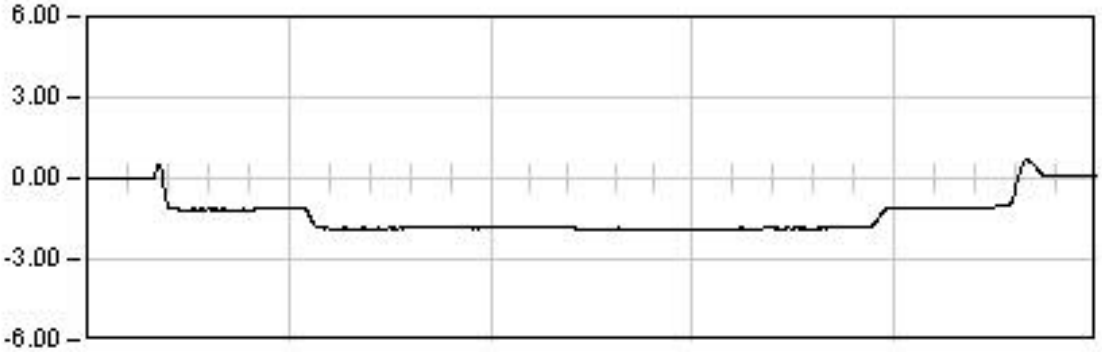
Est: -2.90
Max: -2.94
Min: 0.35
Rem: 0.11



ESTATICA 15

1379.0 Seg

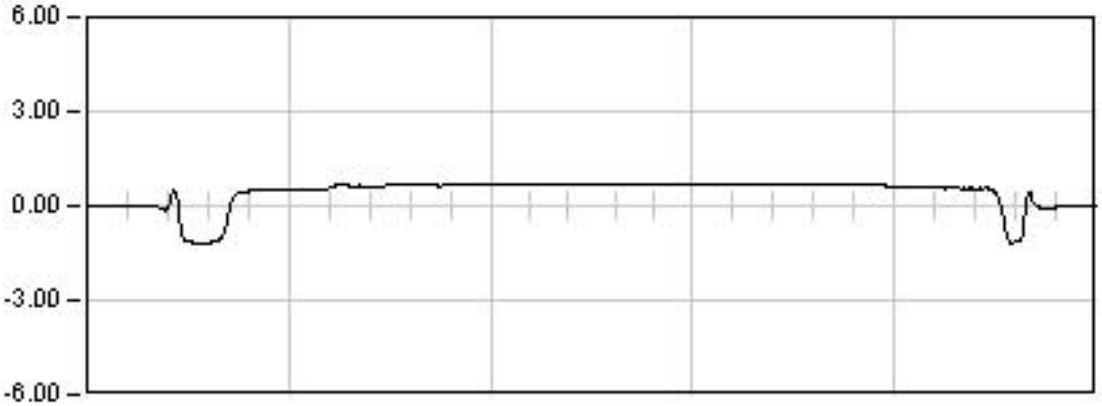
Est: 0.54
Max: -2.30
Min: 0.66
Rem: -0.07



ESTATICA 26

1203.0 Seg

Est: -1.81
Max: -1.90
Min: 0.68
Rem: 0.12



ESTATICA 27

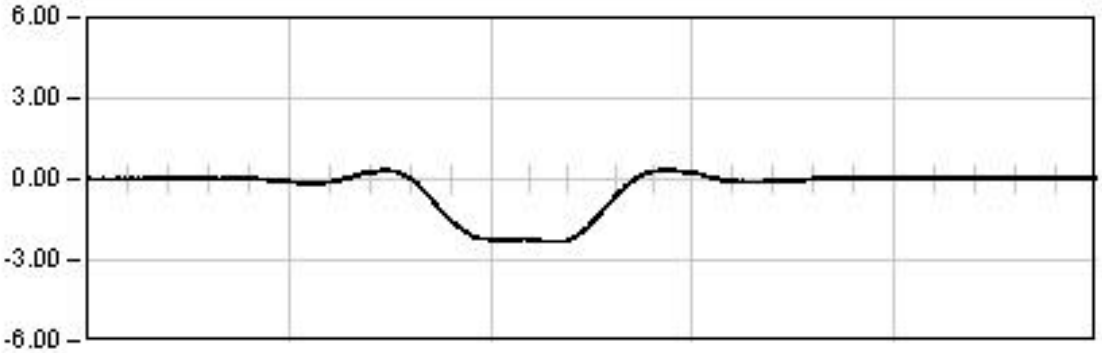
1225.0 Seg

Est: 0.68
Max: -1.23
Min: 0.72
Rem: -0.03

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

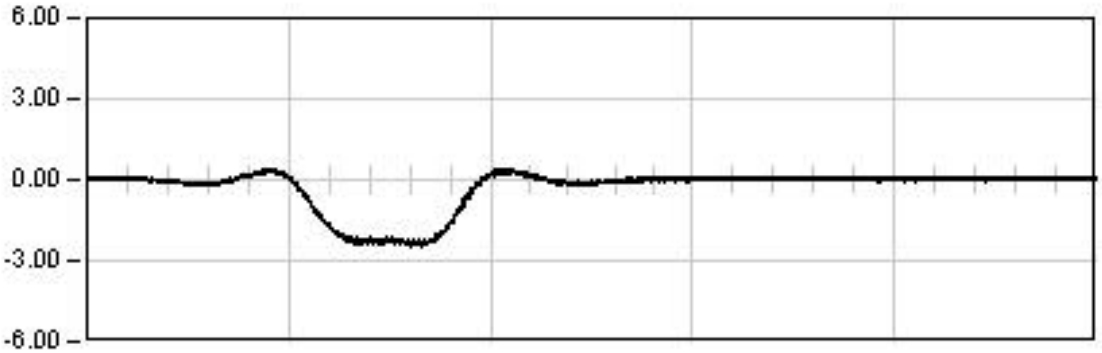
Punto : P041 Canal : 01 Unidades : mm



DINAMICA 11

245.5 Seg

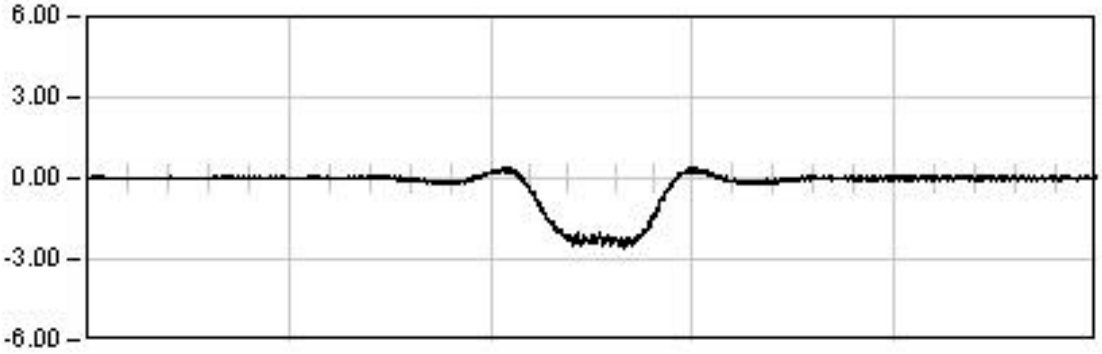
Max: -2.35
Min: 0.37
Rem: 0.04



DINAMICA 12

40.0 Seg

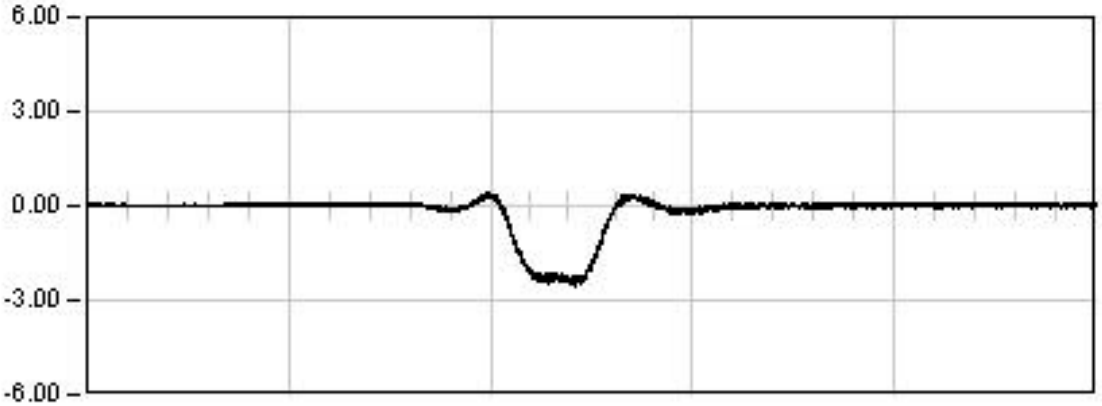
Max: -2.46
Min: 0.43
Rem: 0.03



DINAMICA 13

36.5 Seg

Max: -2.55
Min: 0.36
Rem: -0.00



DINAMICA 14

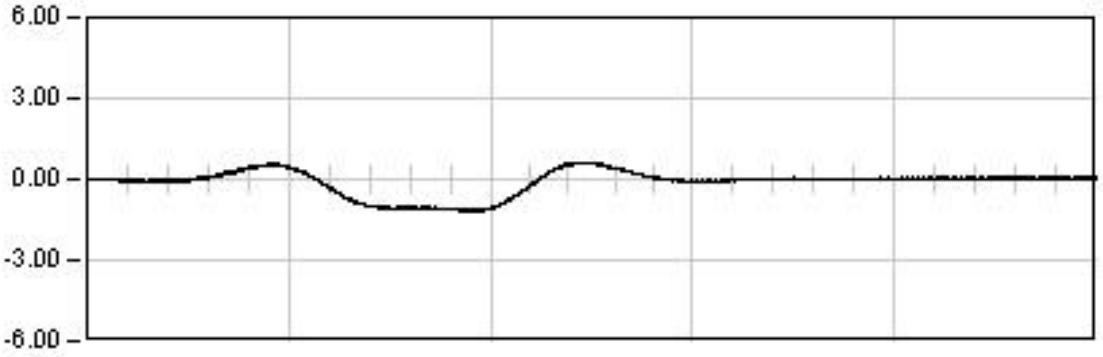
53.5 Seg

Max: -2.58
Min: 0.40
Rem: -0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

Punto : P041 Canal : 01 Unidades : mm



DINAMICA 21

293.0 Seg

Max: -1.17

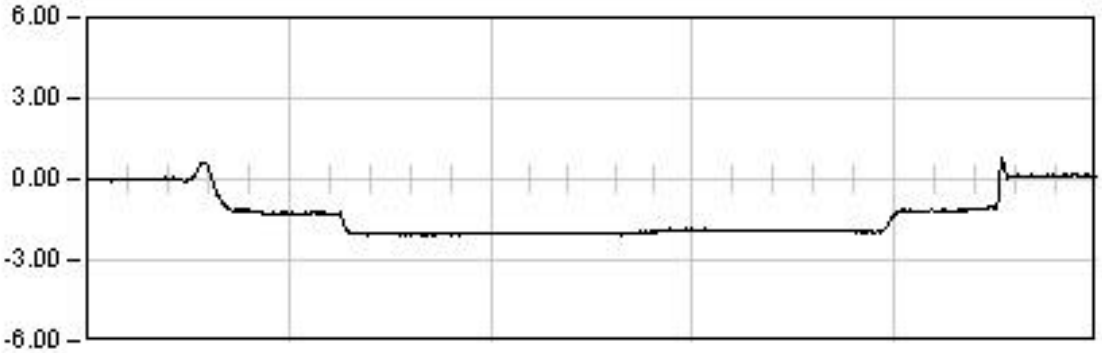
Min: 0.63

Rem: 0.04

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

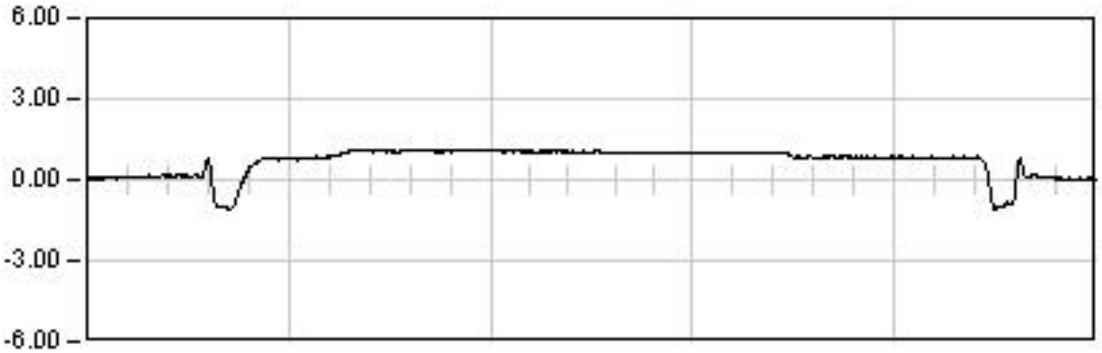
Punto : P042 Canal : 02 Unidades : mm



ESTATICA 14

1419.0 Seg

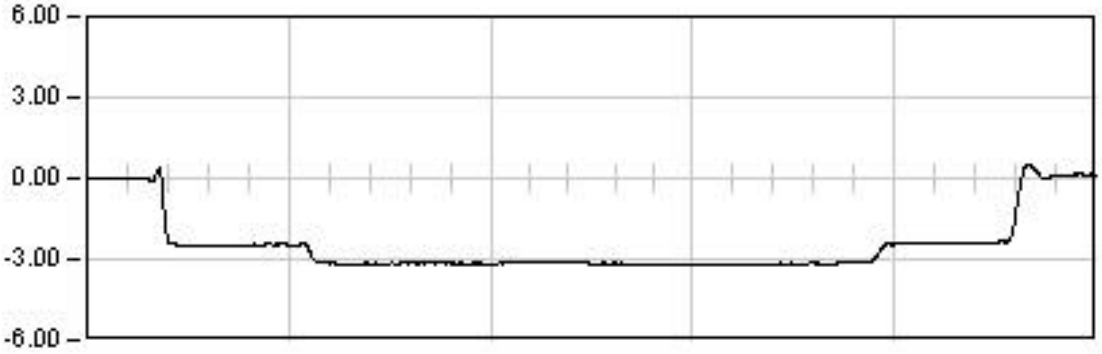
Est: -1.98
Max: -2.07
Min: 0.78
Rem: 0.14



ESTATICA 15

1379.0 Seg

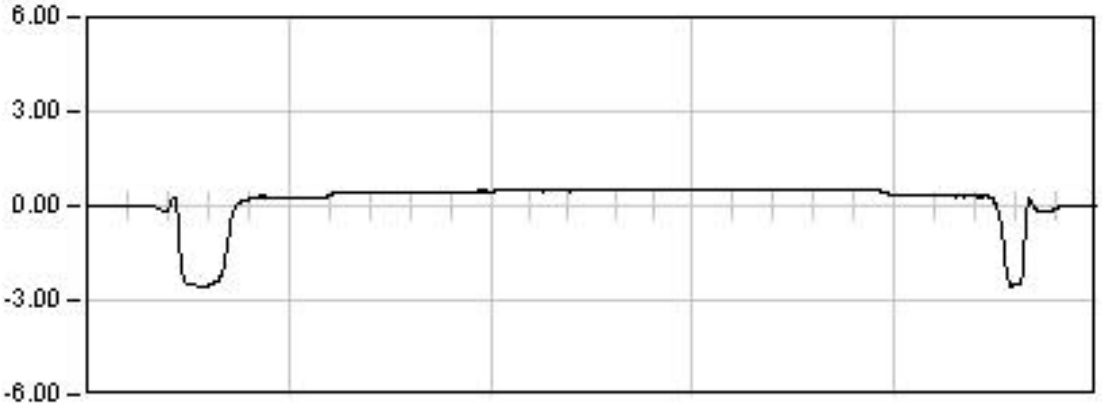
Est: 1.01
Max: 1.15
Min: -1.13
Rem: 0.01



ESTATICA 26

1203.0 Seg

Est: -3.15
Max: -3.19
Min: 0.48
Rem: 0.12



ESTATICA 27

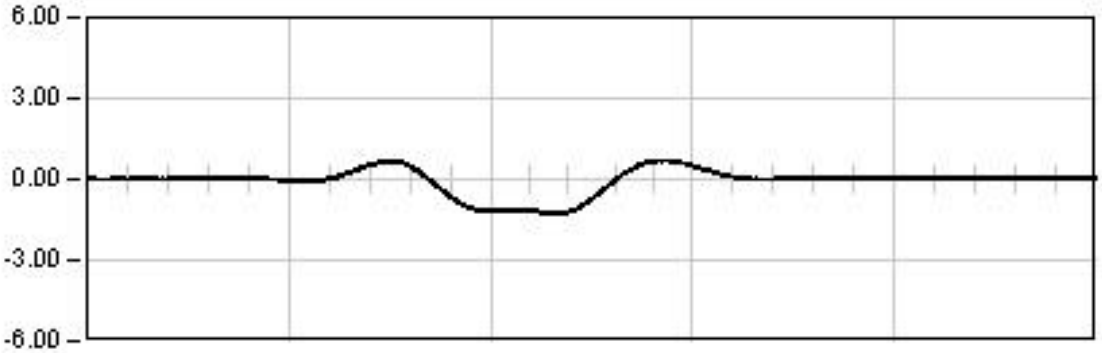
1225.0 Seg

Est: 0.54
Max: -2.58
Min: 0.54
Rem: -0.04

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

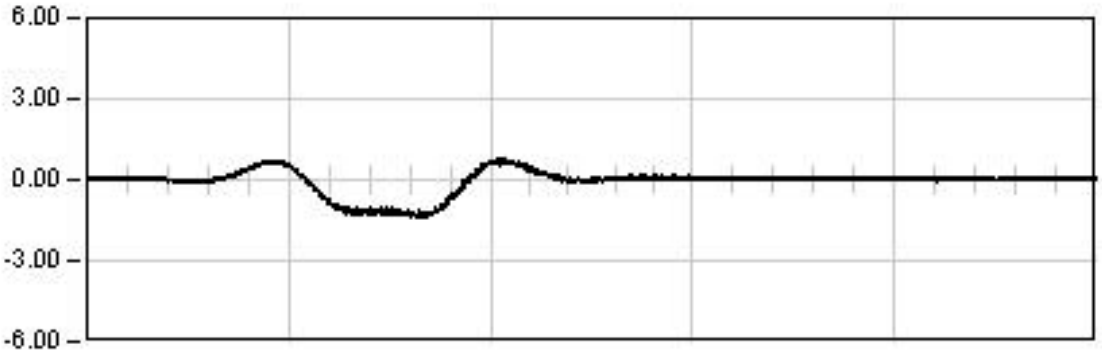
Punto : P042 Canal : 02 Unidades : mm



DINAMICA 11

245.5 Seg

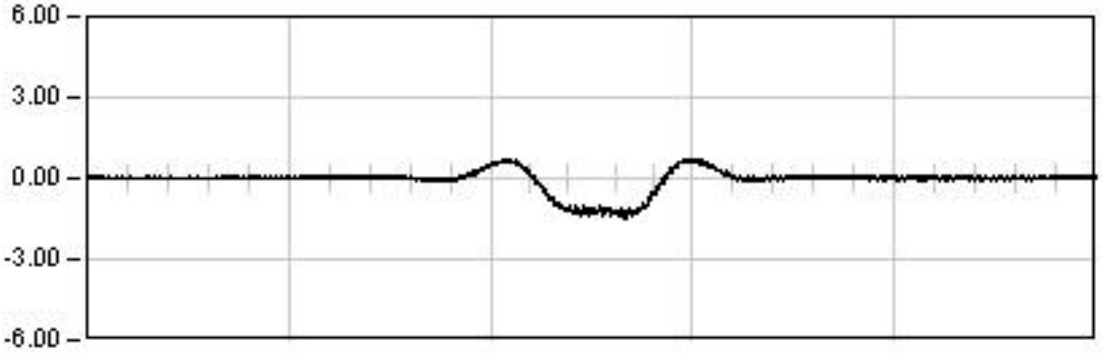
Max: -1.30
Min: 0.75
Rem: 0.03



DINAMICA 12

40.0 Seg

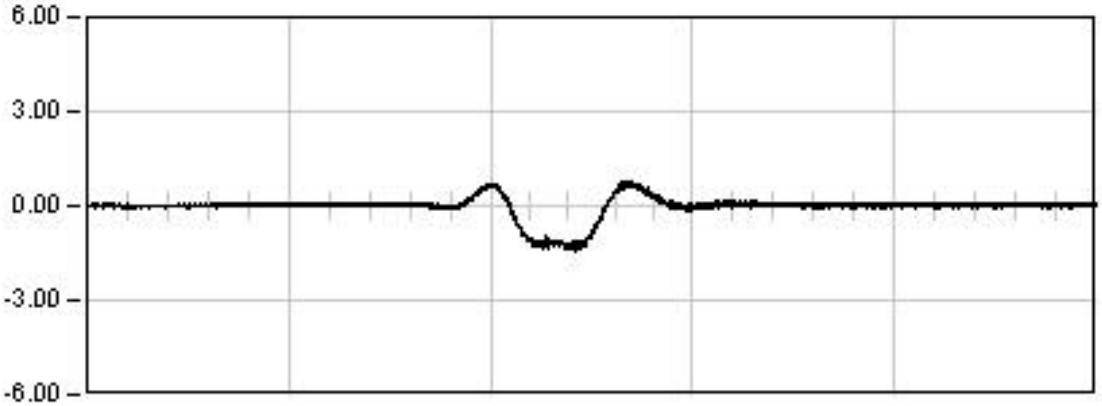
Max: -1.46
Min: 0.82
Rem: 0.04



DINAMICA 13

36.5 Seg

Max: -1.47
Min: 0.75
Rem: 0.01



DINAMICA 14

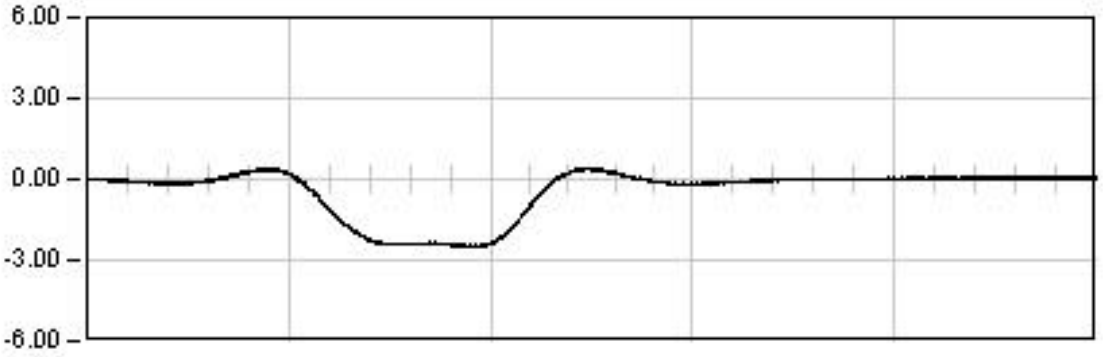
53.5 Seg

Max: -1.43
Min: 0.81
Rem: 0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

Punto : P042 Canal : 02 Unidades : mm



DINAMICA 21

293.0 Seg

Max: -2.49

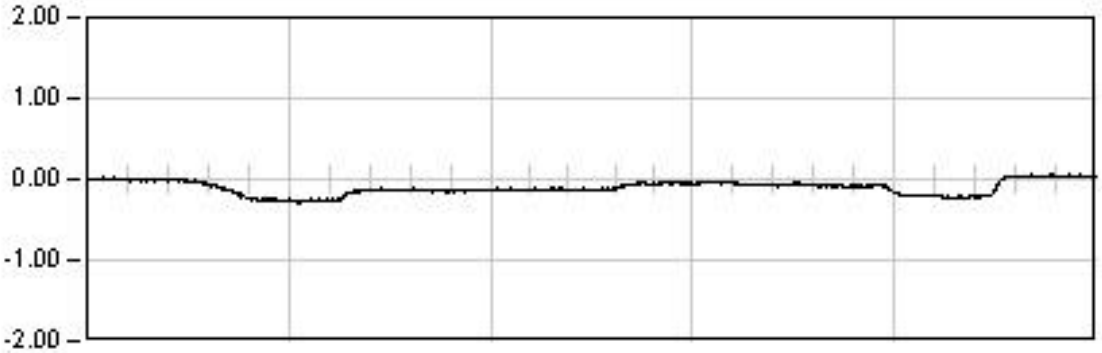
Min: 0.41

Rem: 0.05

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

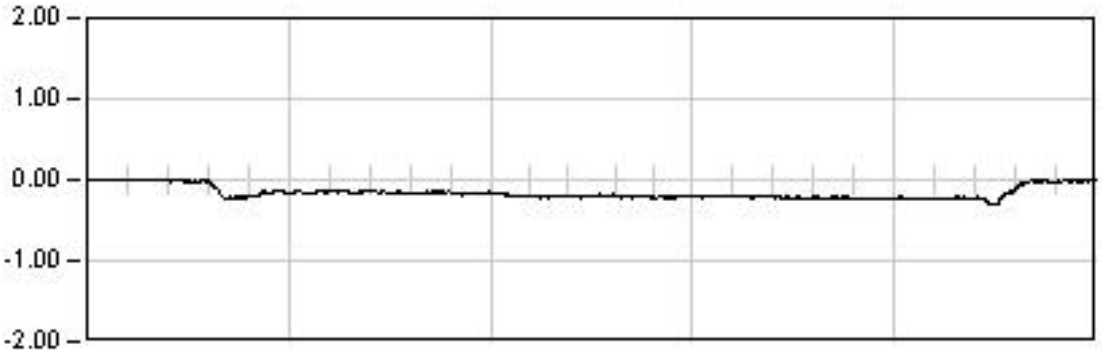
Punto : P043 Canal : 03 Unidades : mm



ESTATICA 14

1419.0 Seg

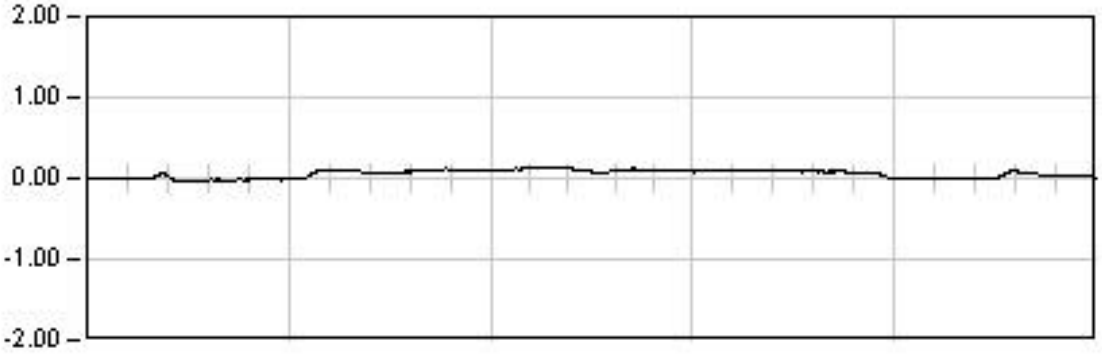
Est: -0.14
Max: -0.28
Min: 0.06
Rem: 0.00



ESTATICA 15

1379.0 Seg

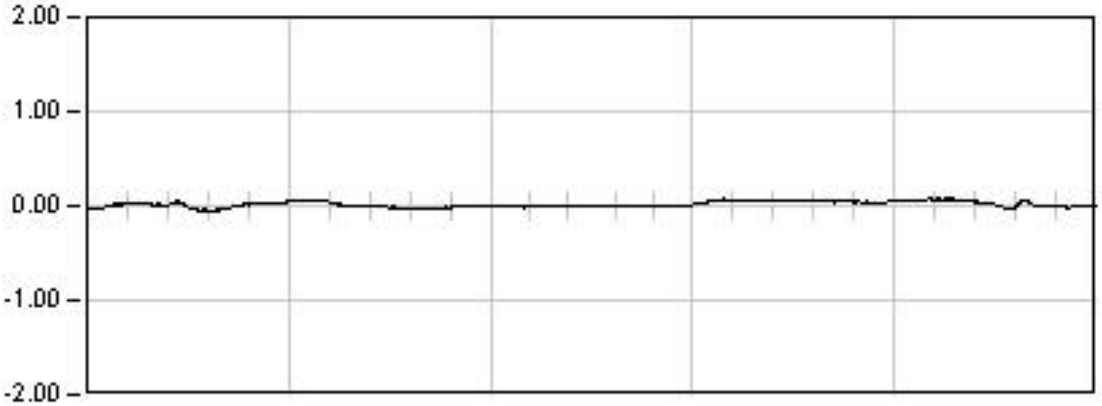
Est: -0.20
Max: -0.31
Min: 0.01
Rem: -0.01



ESTATICA 26

1203.0 Seg

Est: 0.07
Max: 0.15
Min: -0.03
Rem: 0.01



ESTATICA 27

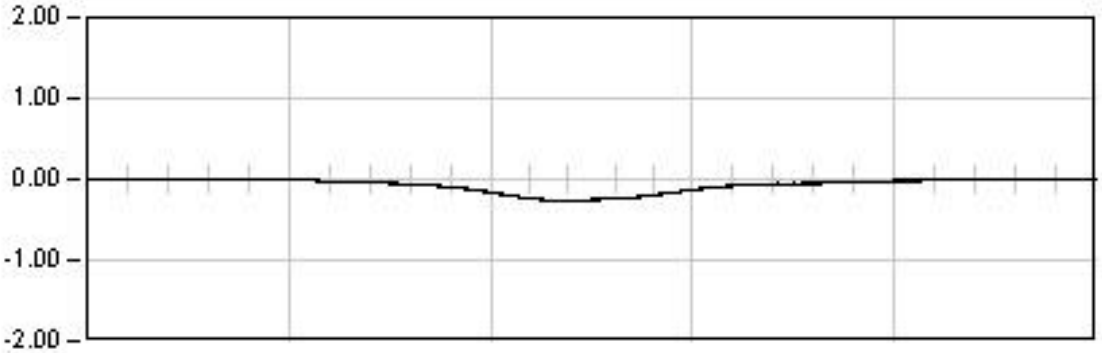
1225.0 Seg

Est: 0.05
Max: 0.08
Min: -0.05
Rem: -0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

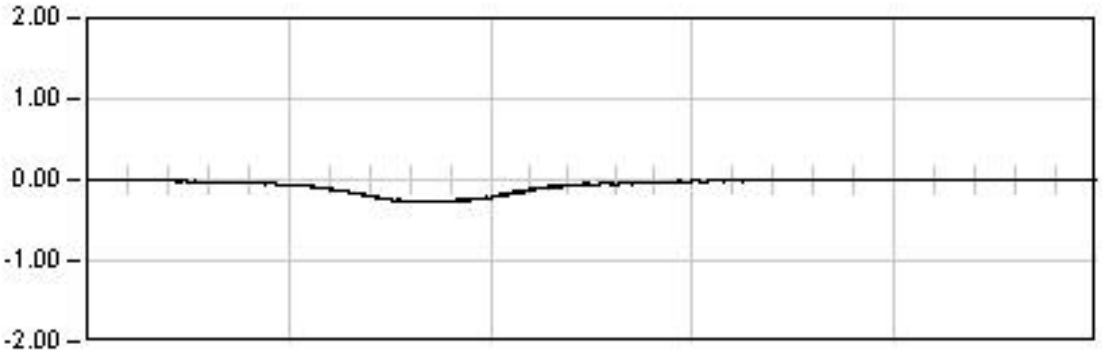
Punto : P043 **Canal : 03** **Unidades : mm**



DINAMICA 11

245.5 Seg

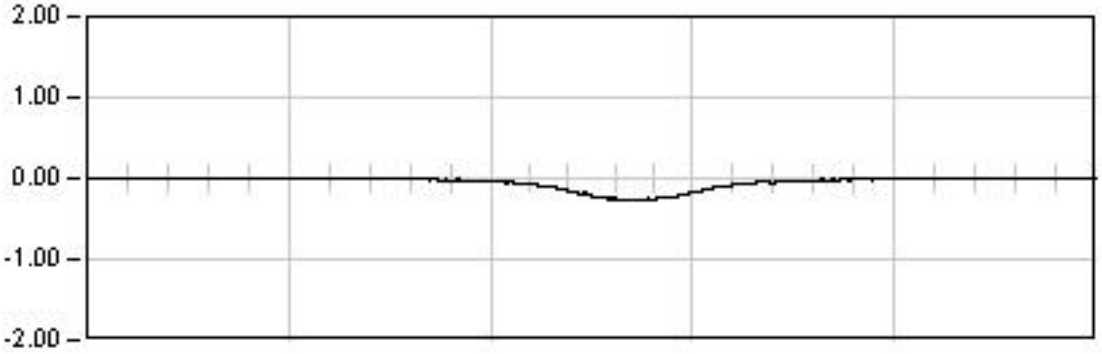
Max: -0.26
Min: 0.01
Rem: -0.01



DINAMICA 12

40.0 Seg

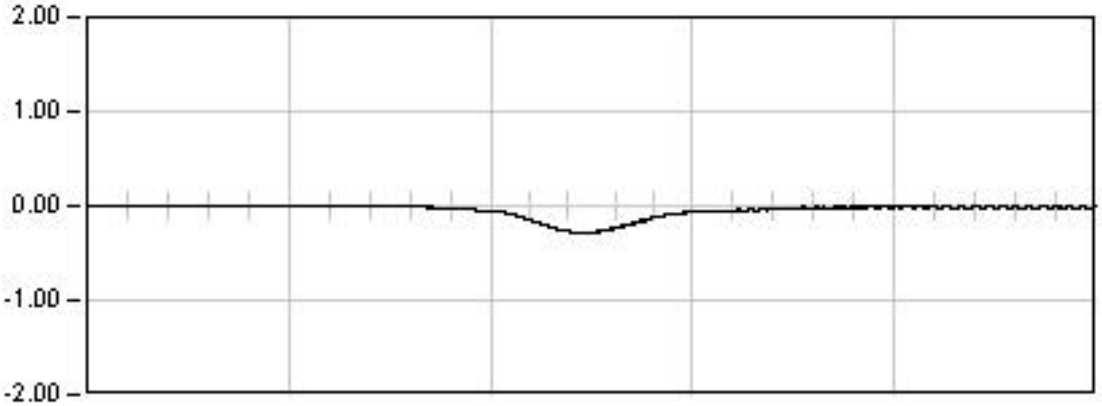
Max: -0.28
Min: 0.01
Rem: -0.01



DINAMICA 13

36.5 Seg

Max: -0.28
Min: 0.01
Rem: -0.01



DINAMICA 14

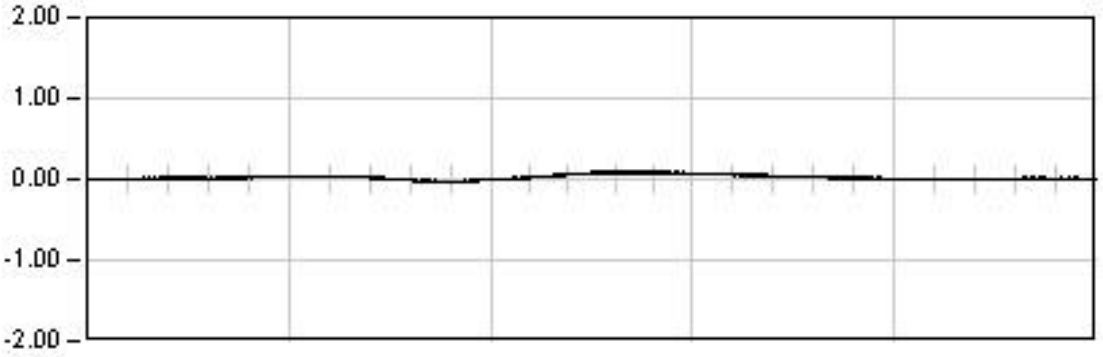
53.5 Seg

Max: -0.29
Min: -0.00
Rem: -0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

Punto : P043 **Canal : 03** **Unidades : mm**



DINAMICA 21

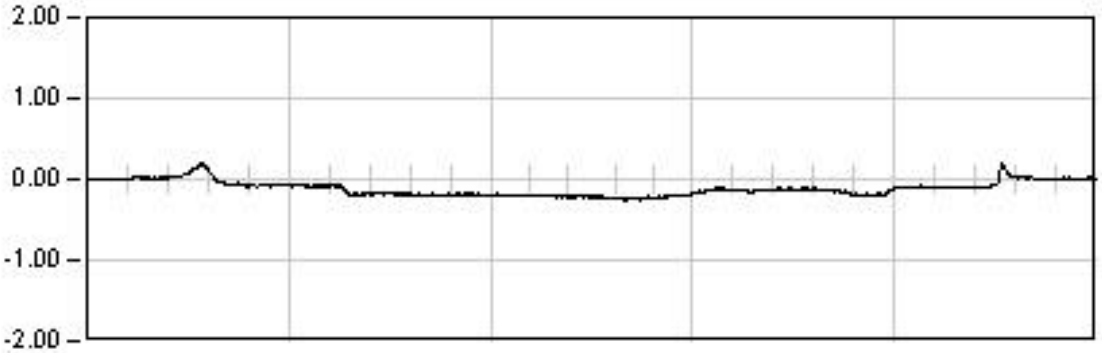
293.0 Seg

Max: 0.10
Min: -0.03
Rem: 0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

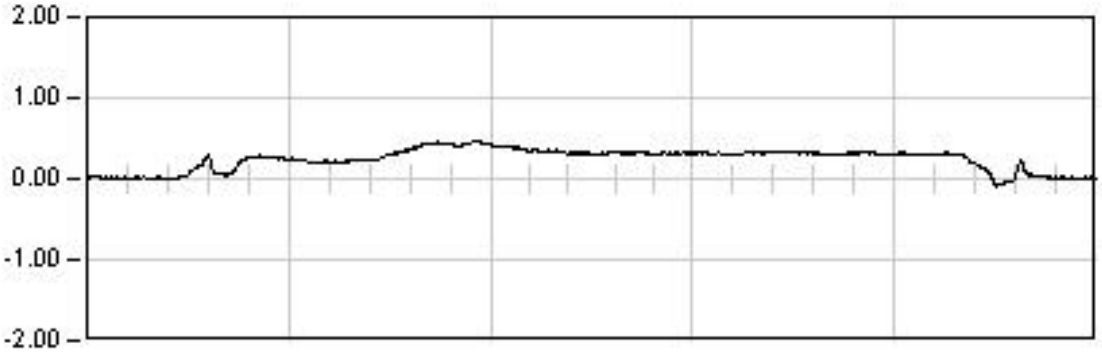
Punto : P044 **Canal : 00** **Unidades : mm**



ESTATICA 14

1419.0 Seg

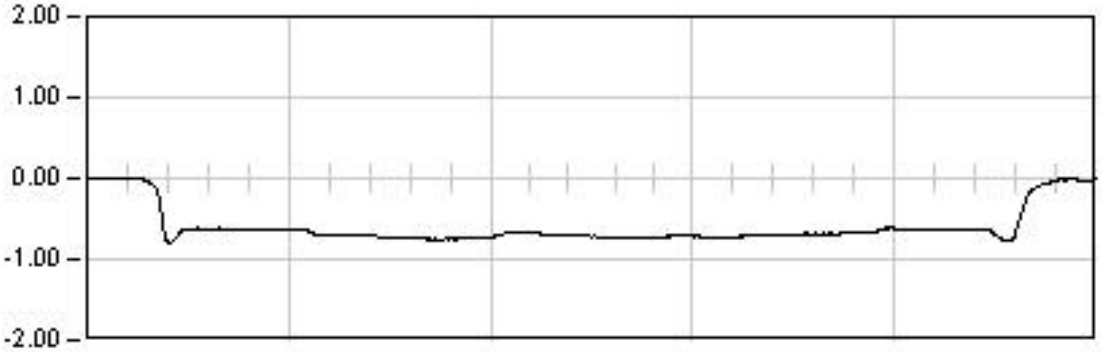
Est: -0.13
Max: -0.25
Min: 0.20
Rem: 0.01



ESTATICA 15

1379.0 Seg

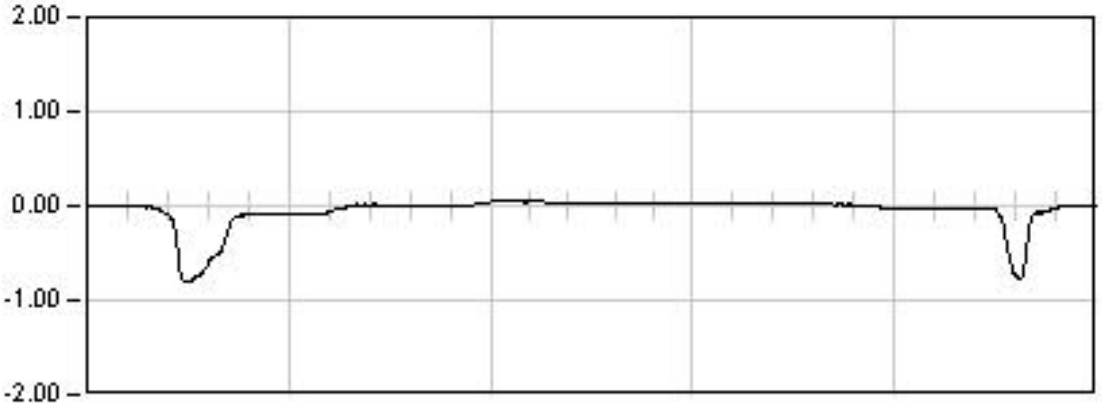
Est: 0.30
Max: 0.46
Min: -0.09
Rem: 0.01



ESTATICA 26

1203.0 Seg

Est: -0.67
Max: -0.80
Min: 0.03
Rem: -0.02



ESTATICA 27

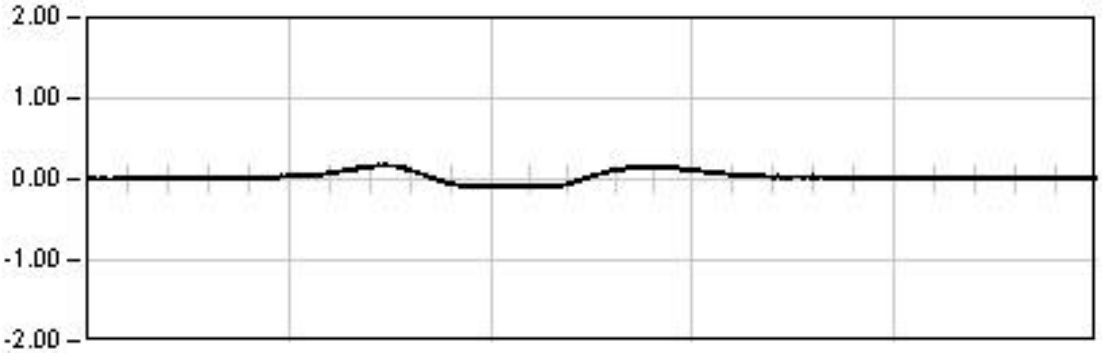
1225.0 Seg

Est: 0.01
Max: -0.81
Min: 0.05
Rem: -0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

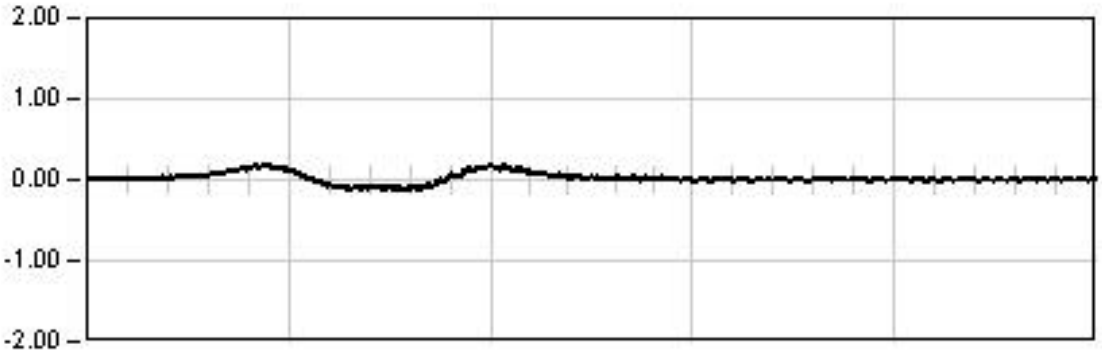
Punto : P044 **Canal : 00** **Unidades : mm**



DINAMICA 11

245.5 Seg

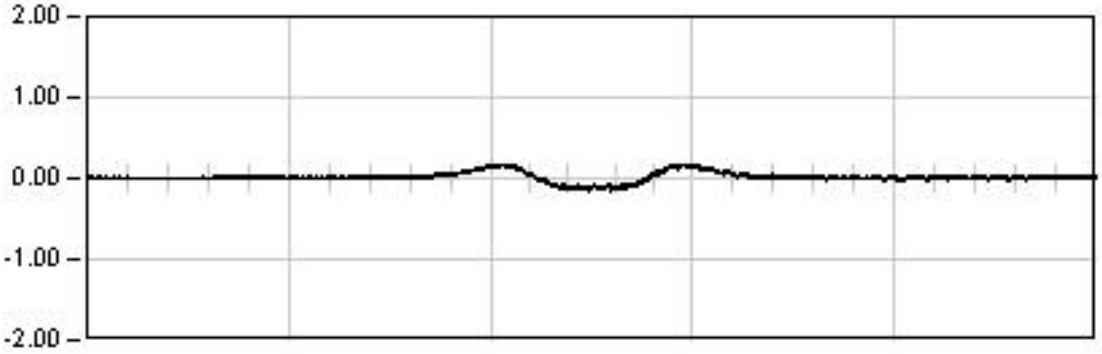
Max: 0.19
Min: -0.11
Rem: 0.01



DINAMICA 12

40.0 Seg

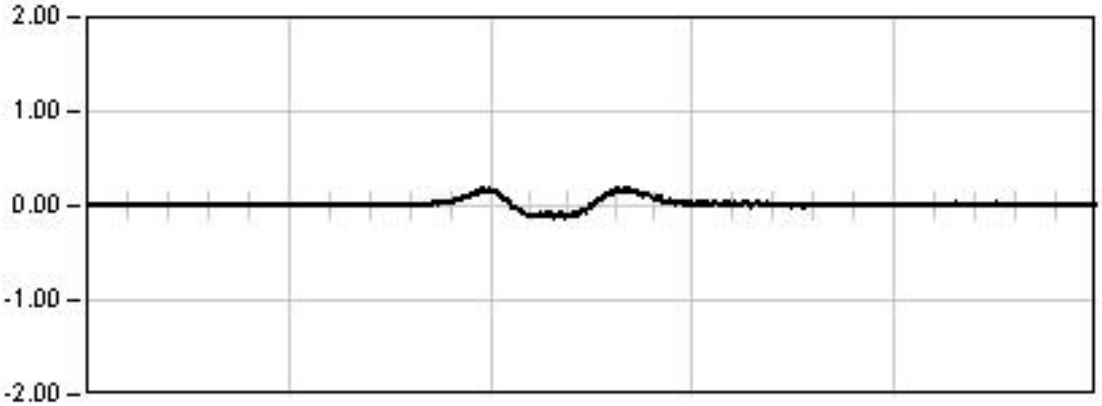
Max: 0.19
Min: -0.14
Rem: 0.01



DINAMICA 13

36.5 Seg

Max: 0.18
Min: -0.16
Rem: 0.01



DINAMICA 14

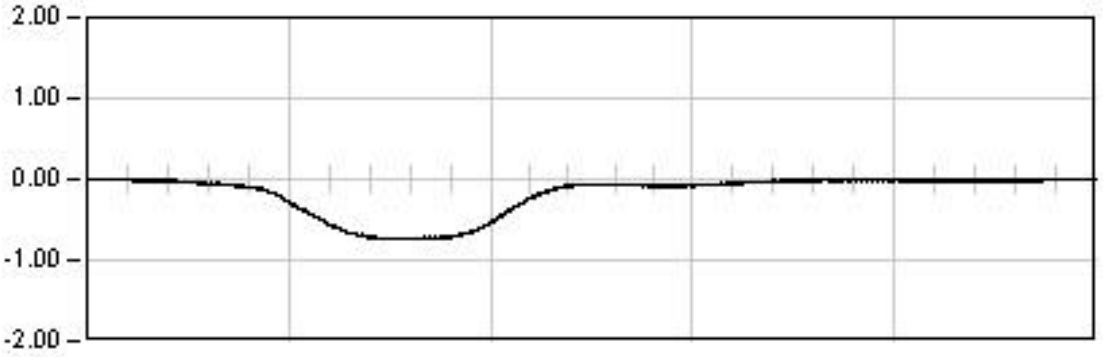
53.5 Seg

Max: 0.20
Min: -0.14
Rem: 0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

Punto : P044 **Canal : 00** **Unidades : mm**



DINAMICA 21

293.0 Seg

Max: -0.74

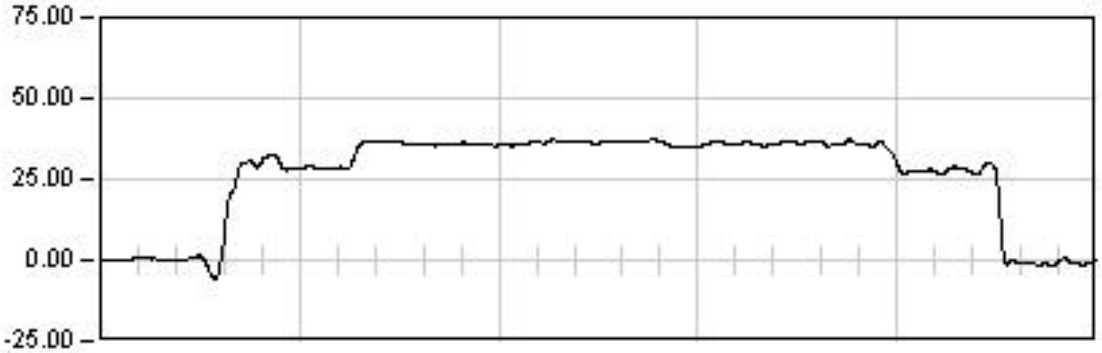
Min: 0.01

Rem: 0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

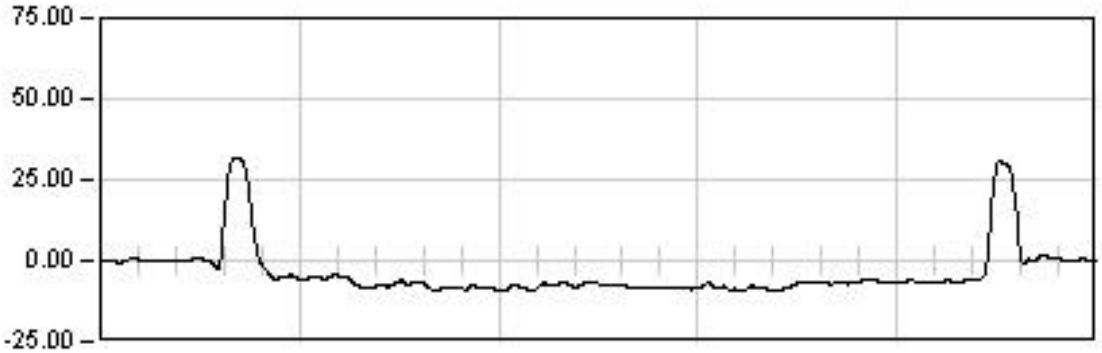
Punto : G041 Canal : 28 Unidades : µE



ESTATICA 14

1419.0 Seg

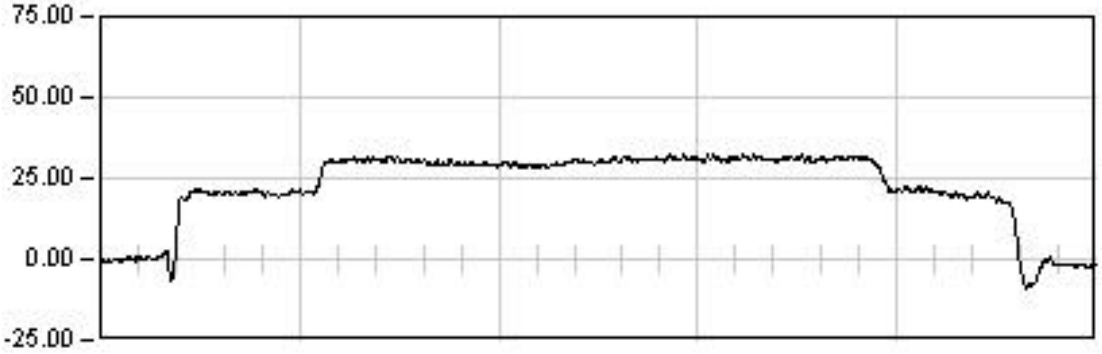
Est: 28.20
Max: 37.41
Min: -5.59
Rem: -0.67



ESTATICA 15

1379.0 Seg

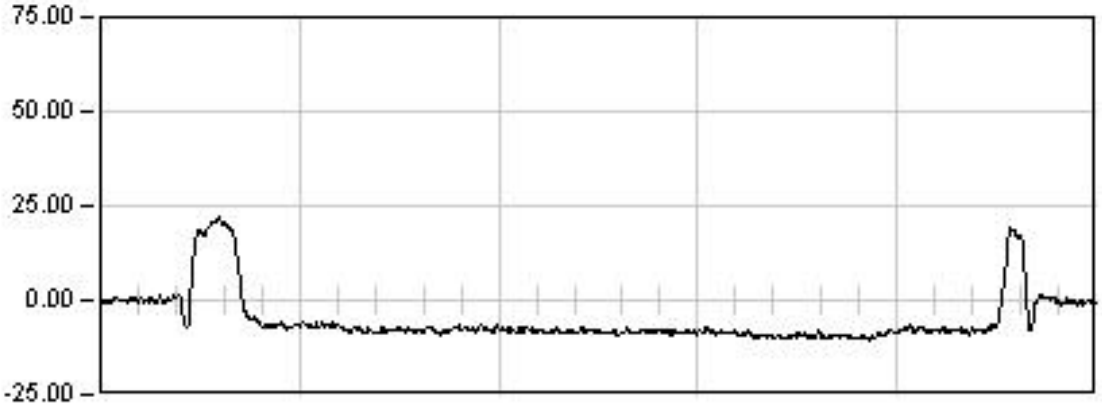
Est: -8.76
Max: 31.90
Min: -9.50
Rem: 0.27



ESTATICA 26

1203.0 Seg

Est: 33.44
Max: 32.27
Min: -8.95
Rem: -1.54



ESTATICA 27

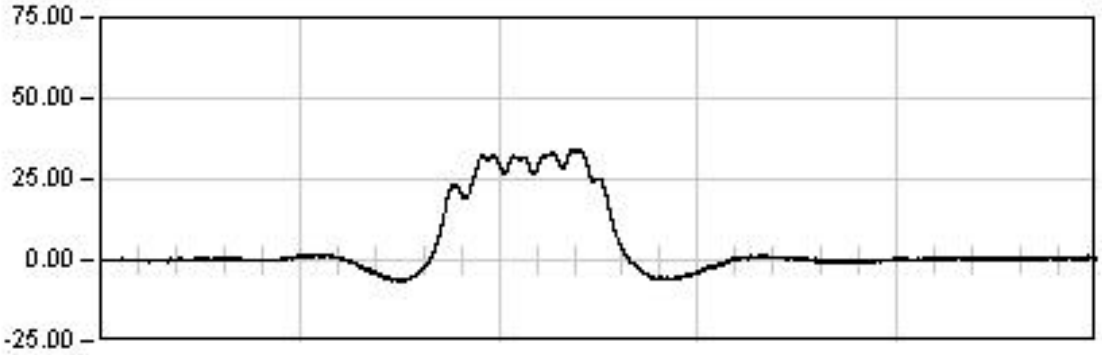
1225.0 Seg

Est: -7.32
Max: 22.08
Min: -10.43
Rem: -0.34

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

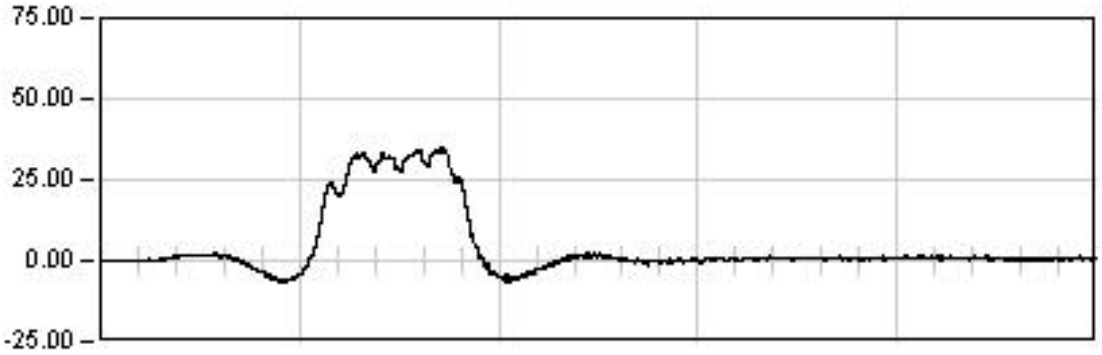
Punto : G041 Canal : 28 Unidades : µE



DINAMICA 11

245.5 Seg

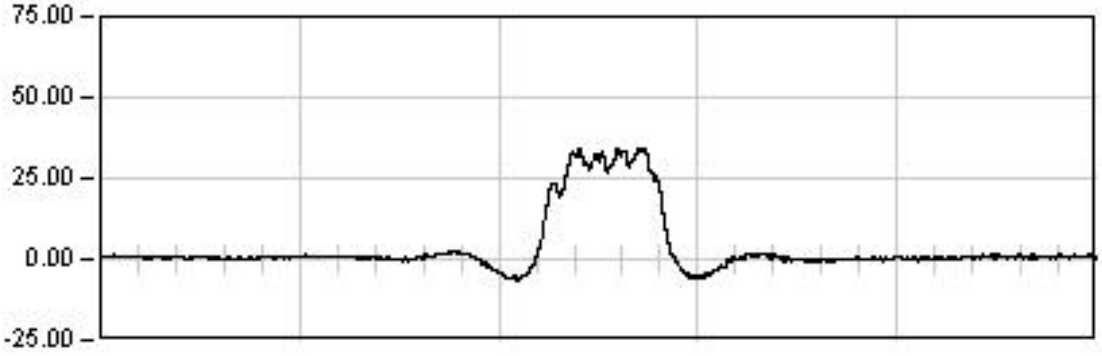
Max: 34.49
Min: -6.57
Rem: 0.65



DINAMICA 12

40.0 Seg

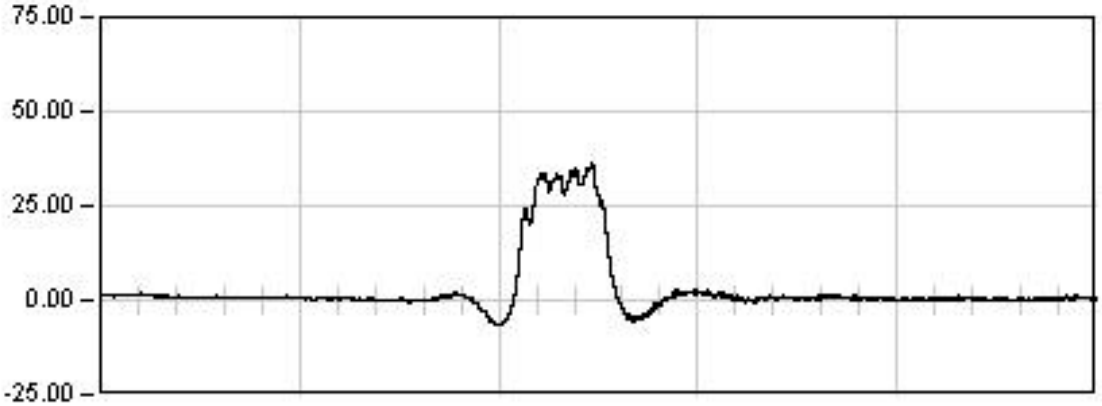
Max: 34.78
Min: -6.63
Rem: 0.84



DINAMICA 13

36.5 Seg

Max: 34.46
Min: -6.47
Rem: 0.91



DINAMICA 14

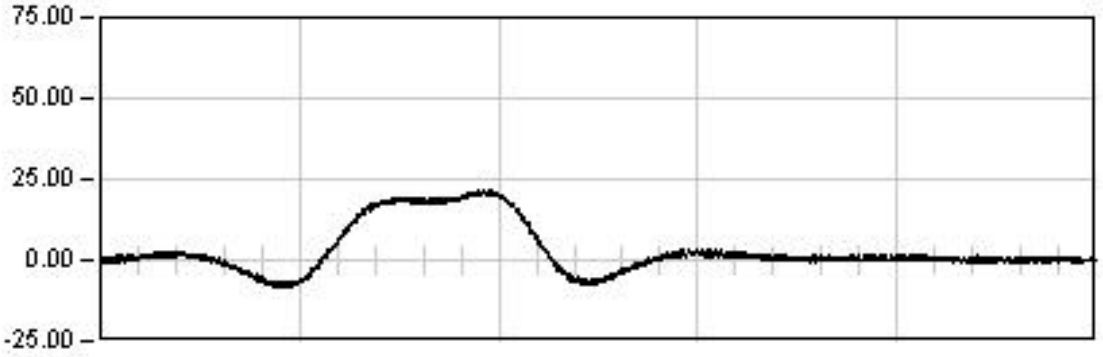
53.5 Seg

Max: 36.39
Min: -6.51
Rem: 0.46

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

Punto : G041 Canal : 28 Unidades : µE



DINAMICA 21

293.0 Seg

Max: 21.85

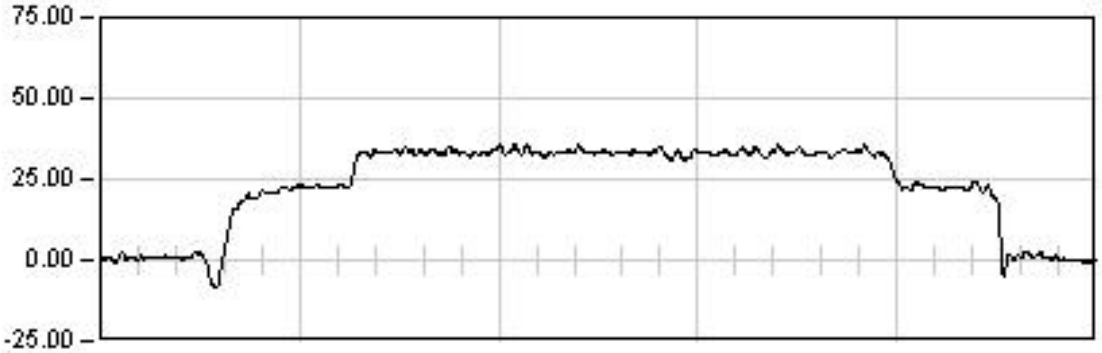
Min: -8.46

Rem: -0.07

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

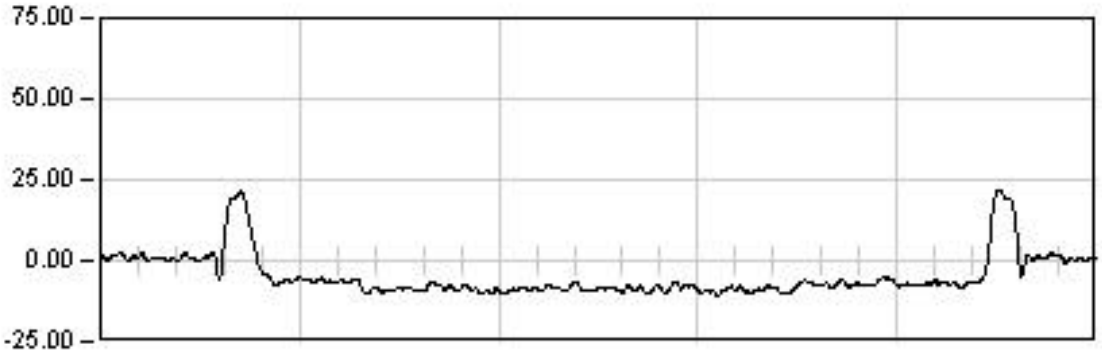
Punto : G042 Canal : 05 Unidades : µE



ESTATICA 14

1419.0 Seg

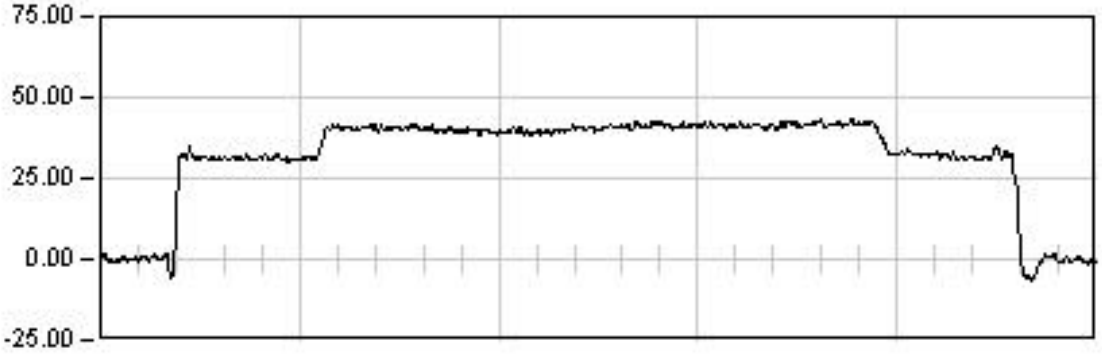
Est: 32.19
Max: 35.86
Min: -8.28
Rem: 0.02



ESTATICA 15

1379.0 Seg

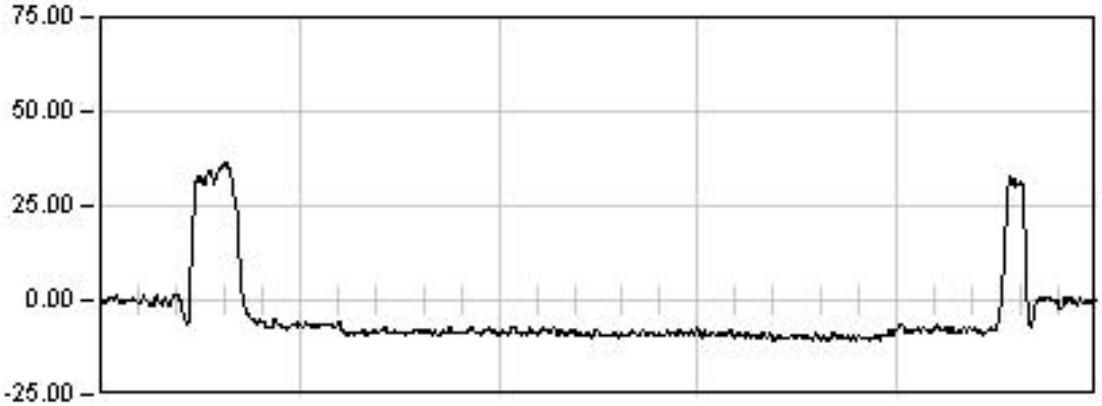
Est: -8.30
Max: 22.06
Min: -10.77
Rem: 0.75



ESTATICA 26

1203.0 Seg

Est: 40.75
Max: 43.67
Min: -6.26
Rem: -0.06



ESTATICA 27

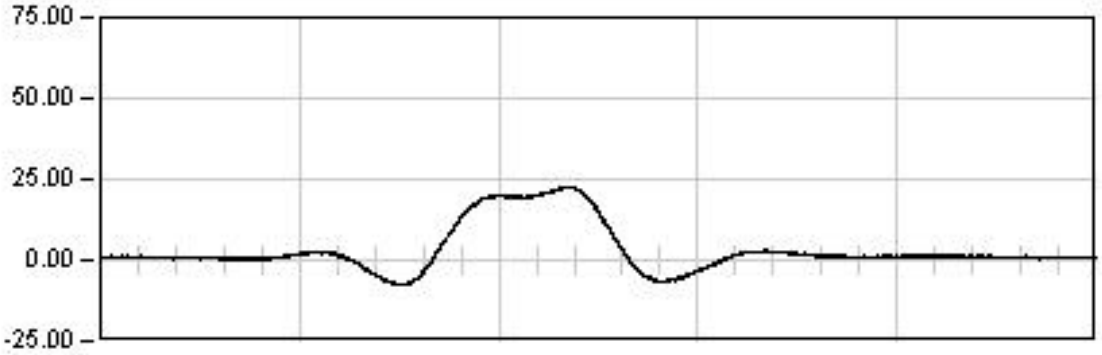
1225.0 Seg

Est: -10.45
Max: 36.40
Min: -10.74
Rem: -0.32

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

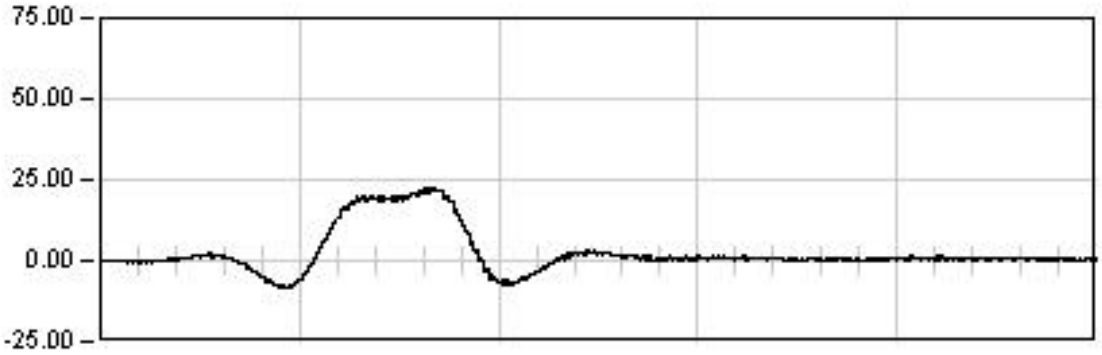
Punto : G042 Canal : 05 Unidades : µE



DINAMICA 11

245.5 Seg

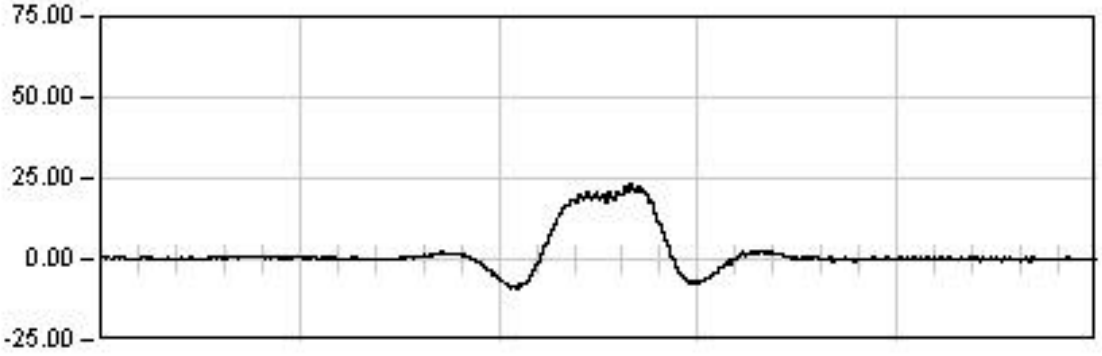
Max: 22.73
Min: -7.78
Rem: 0.92



DINAMICA 12

40.0 Seg

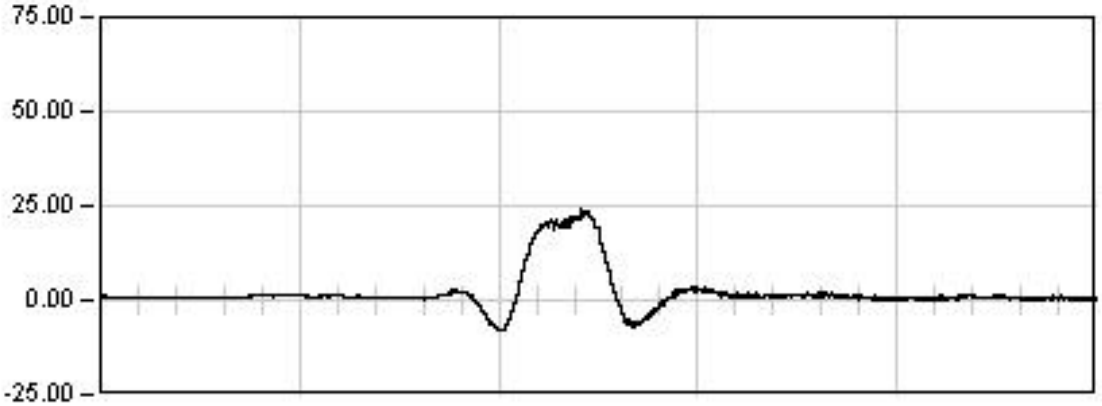
Max: 22.89
Min: -8.37
Rem: 0.53



DINAMICA 13

36.5 Seg

Max: 23.64
Min: -9.09
Rem: -0.06



DINAMICA 14

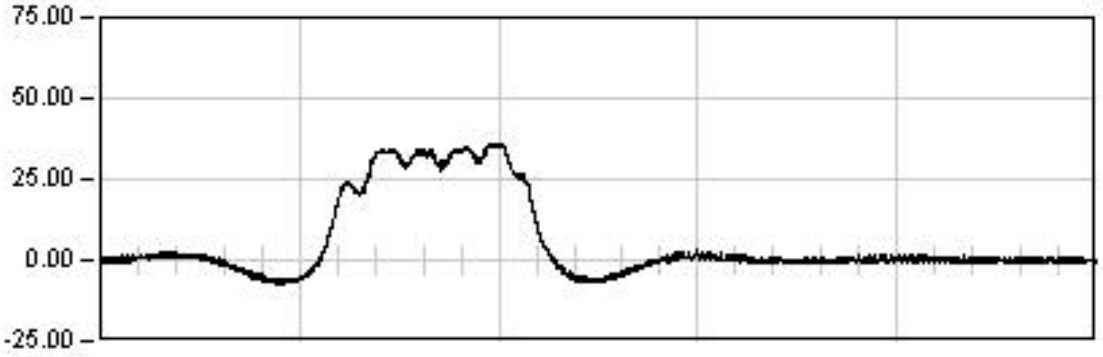
53.5 Seg

Max: 24.12
Min: -8.03
Rem: 0.47

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 4

Punto : G042 Canal : 05 Unidades : µE



DINAMICA 21

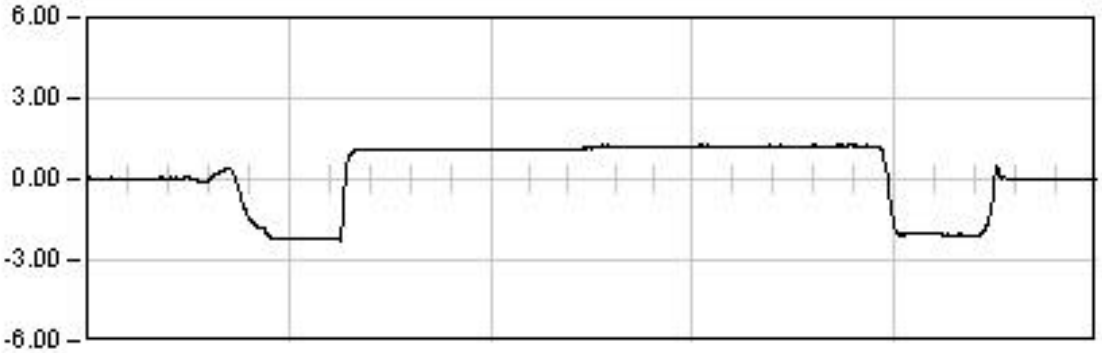
293.0 Seg

Max: 36.25
Min: -7.68
Rem: -0.12

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

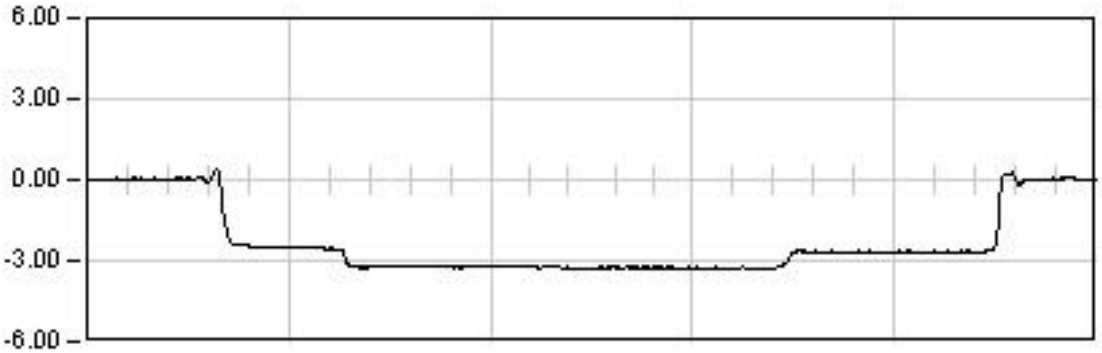
Punto : P051 **Canal : 07** **Unidades : mm**



ESTATICA 14

1419.0 Seg

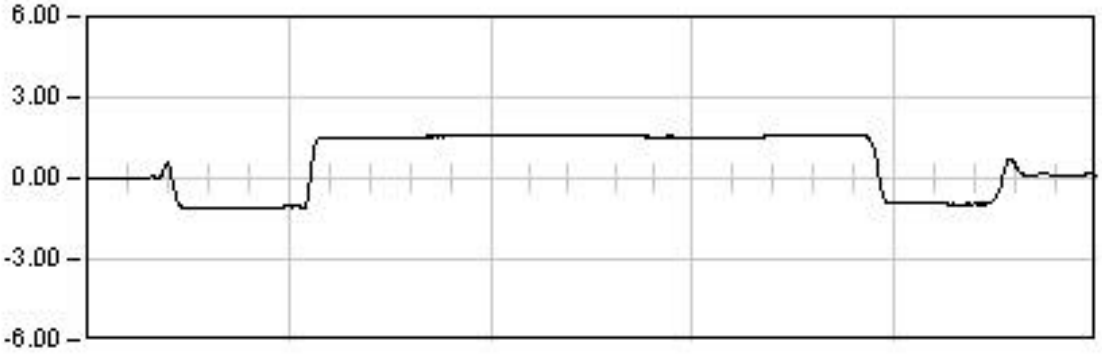
Est: 1.21
Max: -2.30
Min: 1.28
Rem: 0.02



ESTATICA 15

1379.0 Seg

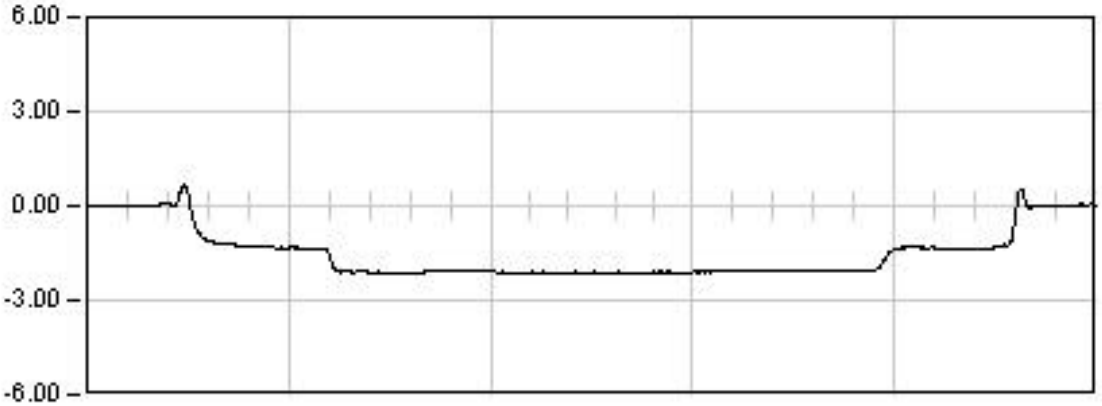
Est: -3.27
Max: -3.29
Min: 0.37
Rem: 0.03



ESTATICA 26

1203.0 Seg

Est: 1.59
Max: 1.60
Min: -1.13
Rem: 0.14



ESTATICA 27

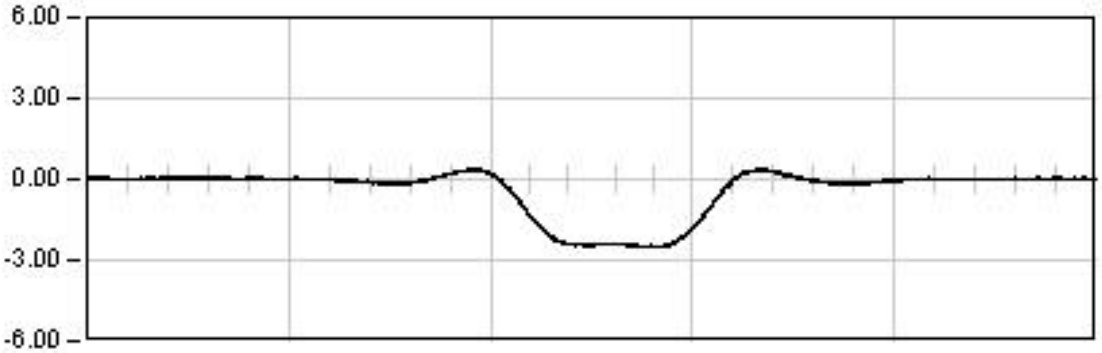
1225.0 Seg

Est: -2.05
Max: -2.13
Min: 0.66
Rem: 0.03

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

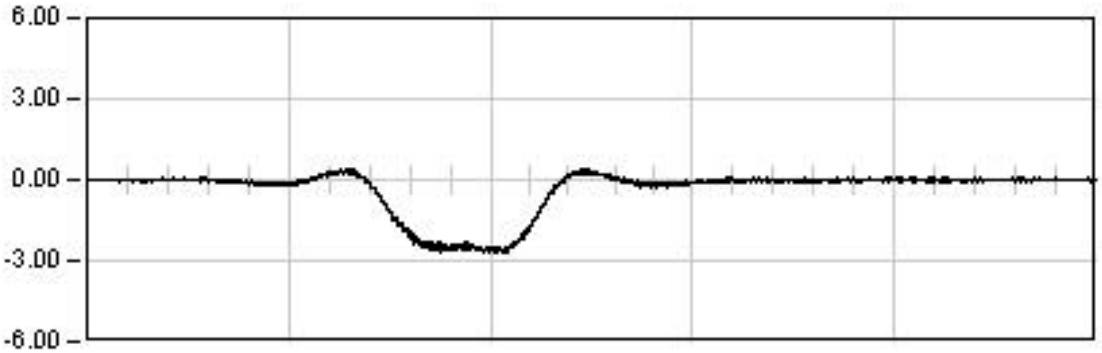
Punto : P051 Canal : 07 Unidades : mm



DINAMICA 11

245.5 Seg

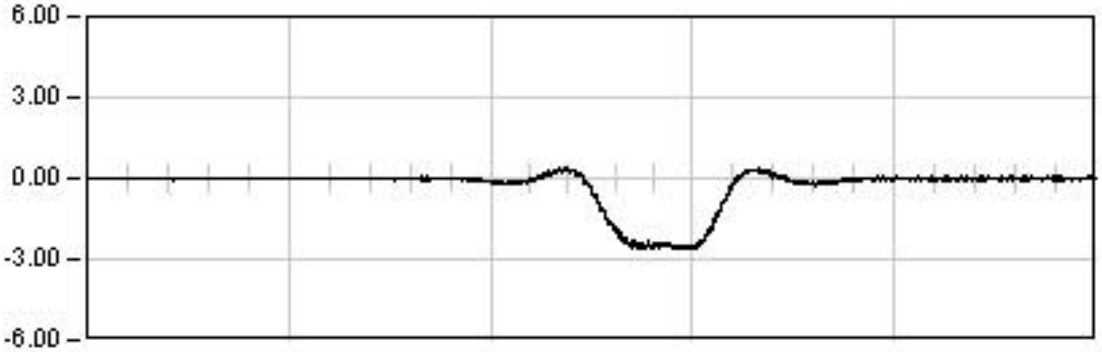
Max: -2.52
Min: 0.40
Rem: 0.01



DINAMICA 12

40.0 Seg

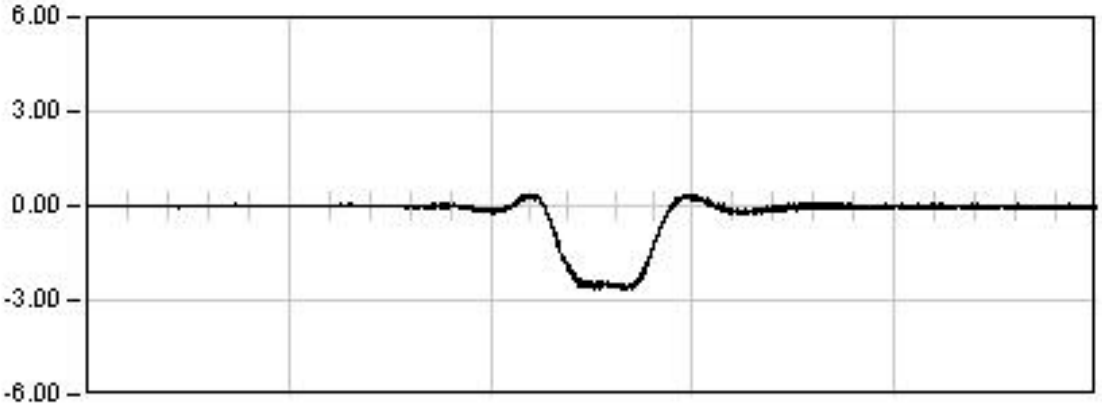
Max: -2.70
Min: 0.40
Rem: -0.00



DINAMICA 13

36.5 Seg

Max: -2.63
Min: 0.40
Rem: -0.02



DINAMICA 14

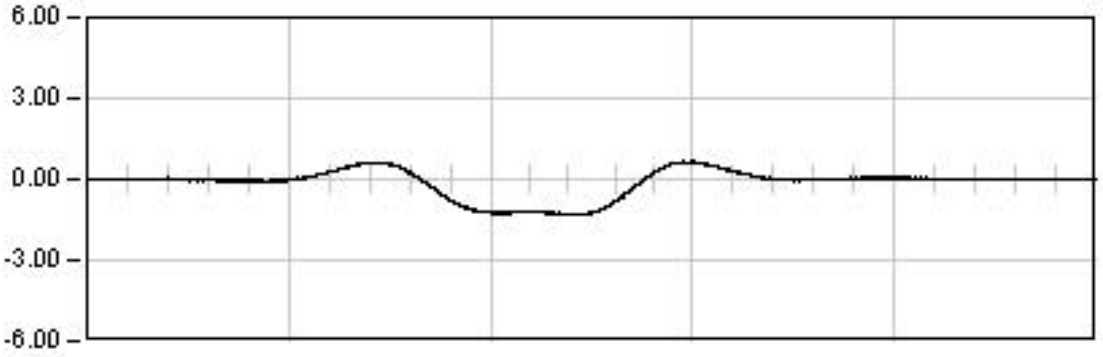
53.5 Seg

Max: -2.66
Min: 0.38
Rem: -0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

Punto : P051 **Canal : 07** **Unidades : mm**



DINAMICA 21

293.0 Seg

Max: -1.32

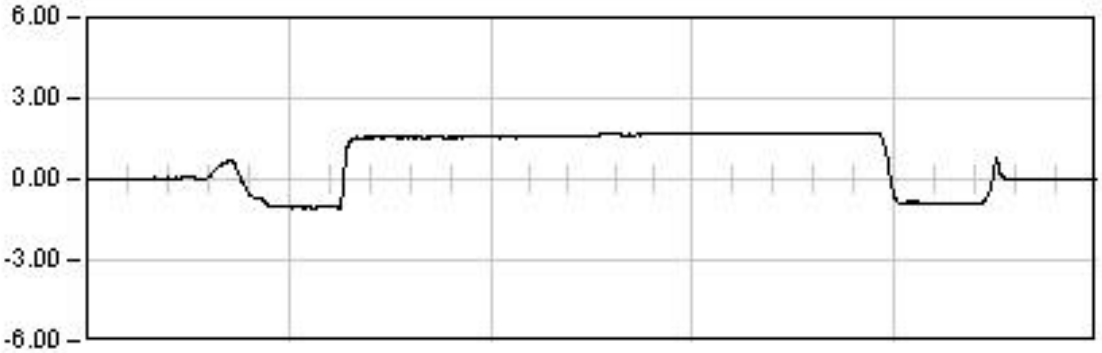
Min: 0.67

Rem: 0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

Punto : P052 Canal : 08 Unidades : mm



ESTATICA 14

1419.0 Seg

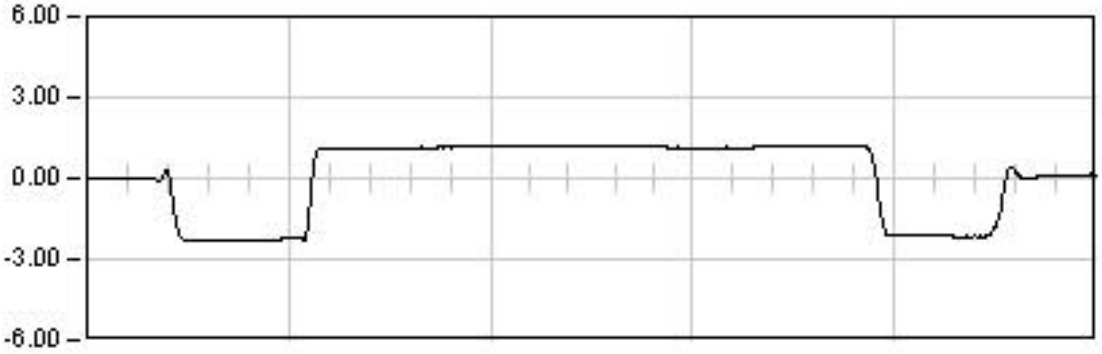
Est: 1.46
Max: 1.74
Min: -1.10
Rem: -0.00



ESTATICA 15

1379.0 Seg

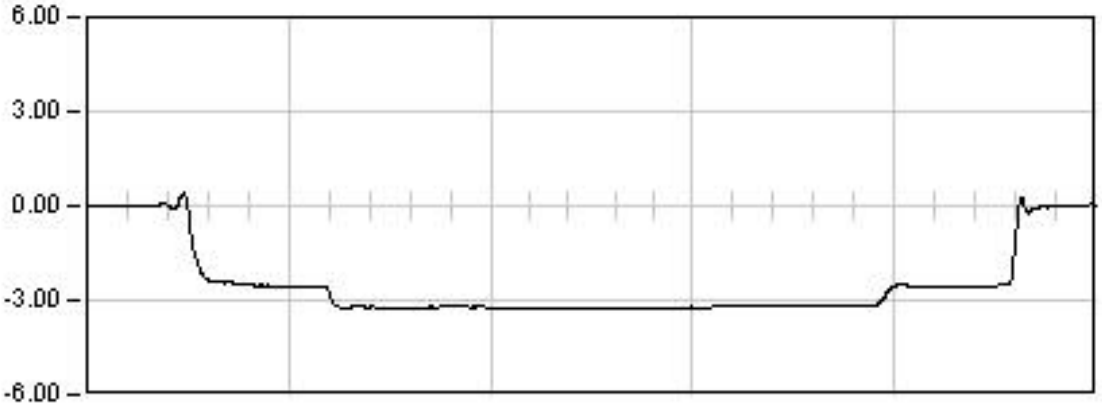
Est: -2.12
Max: -2.14
Min: 0.70
Rem: 0.07



ESTATICA 26

1203.0 Seg

Est: 1.20
Max: -2.31
Min: 1.21
Rem: 0.13



ESTATICA 27

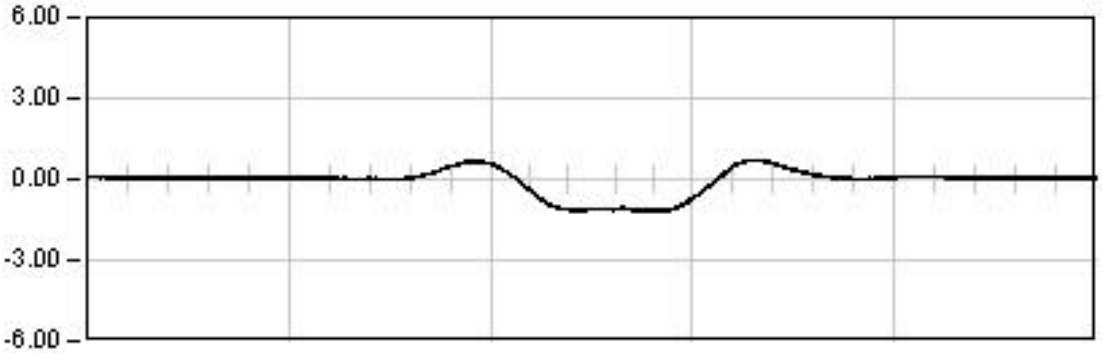
1225.0 Seg

Est: -3.18
Max: -3.25
Min: 0.41
Rem: 0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

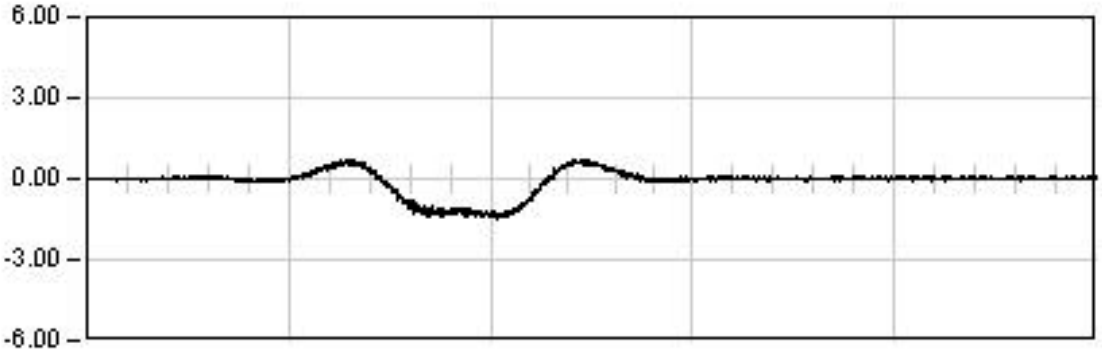
Punto : P052 **Canal : 08** **Unidades : mm**



DINAMICA 11

245.5 Seg

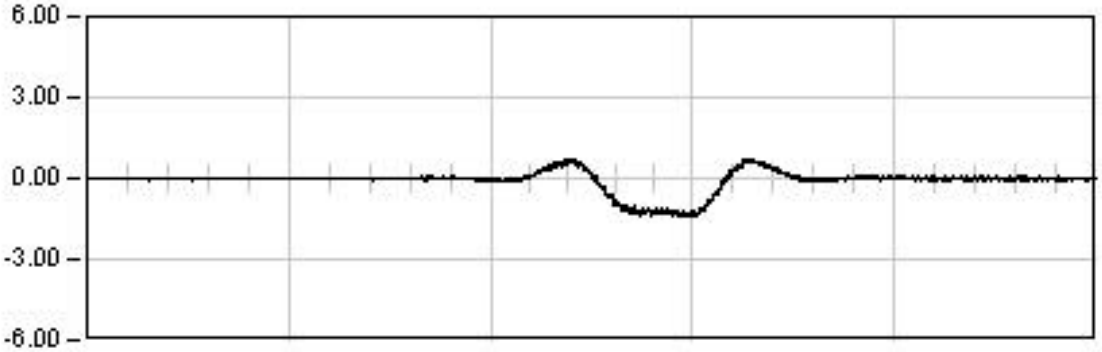
Max: -1.20
Min: 0.75
Rem: 0.03



DINAMICA 12

40.0 Seg

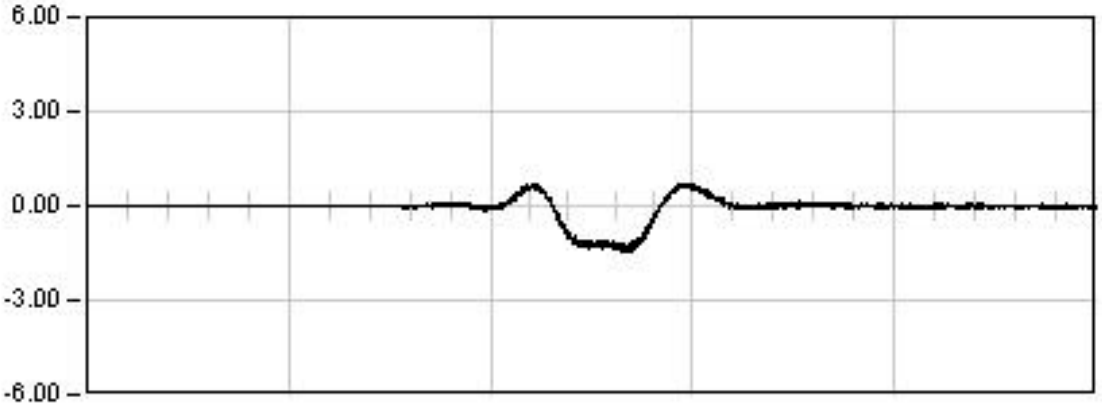
Max: -1.46
Min: 0.74
Rem: 0.03



DINAMICA 13

36.5 Seg

Max: -1.42
Min: 0.71
Rem: -0.01



DINAMICA 14

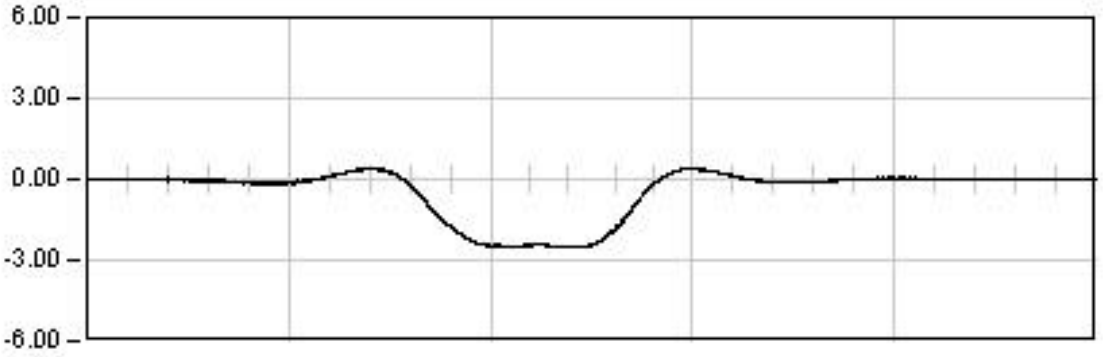
53.5 Seg

Max: -1.45
Min: 0.73
Rem: -0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

Punto : P052 Canal : 08 Unidades : mm



DINAMICA 21

293.0 Seg

Max: -2.53

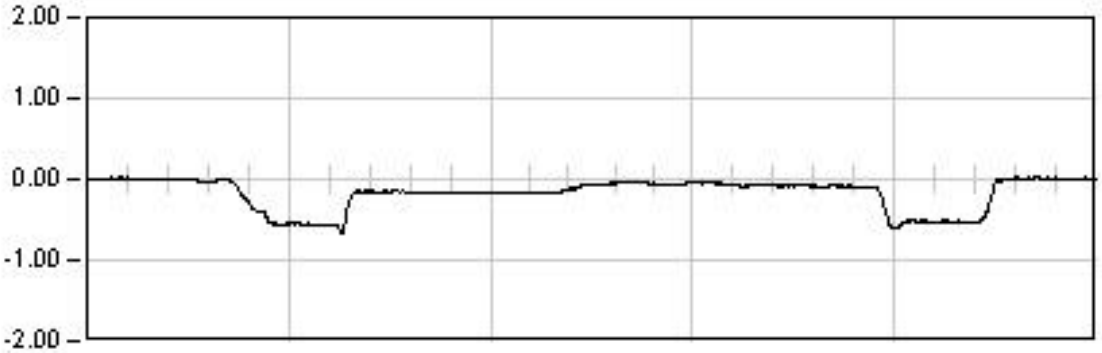
Min: 0.41

Rem: 0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

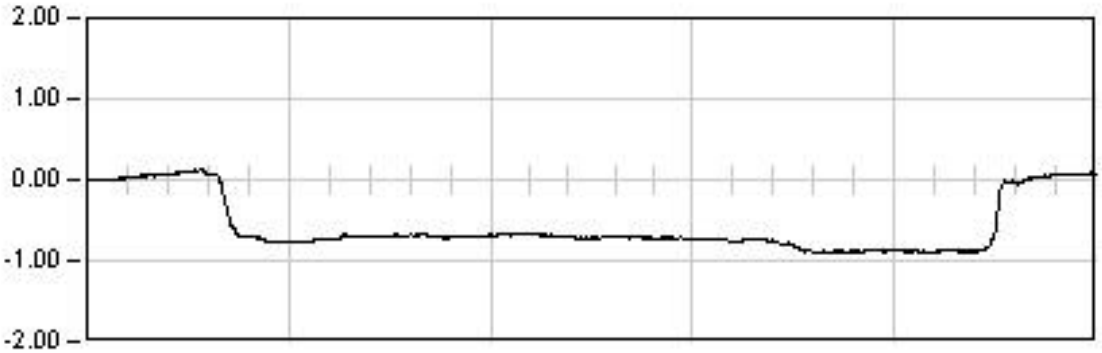
Punto : P053 Canal : 30 Unidades : mm



ESTATICA 14

1419.0 Seg

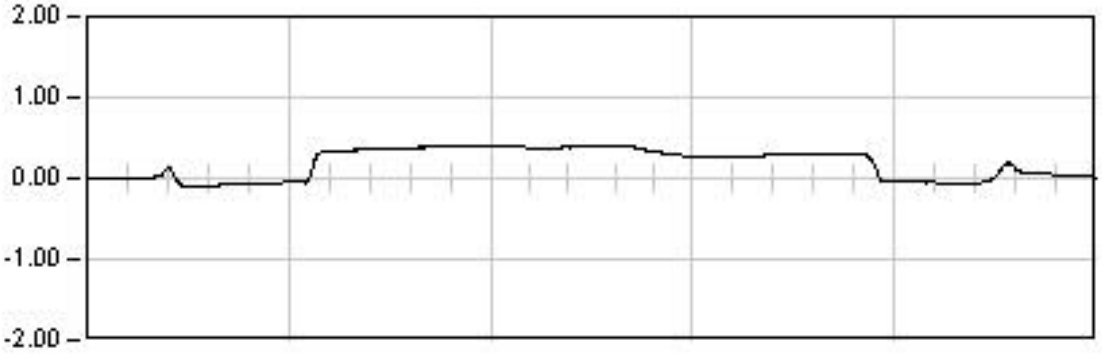
Est: -0.30
Max: -0.66
Min: 0.03
Rem: 0.01



ESTATICA 15

1379.0 Seg

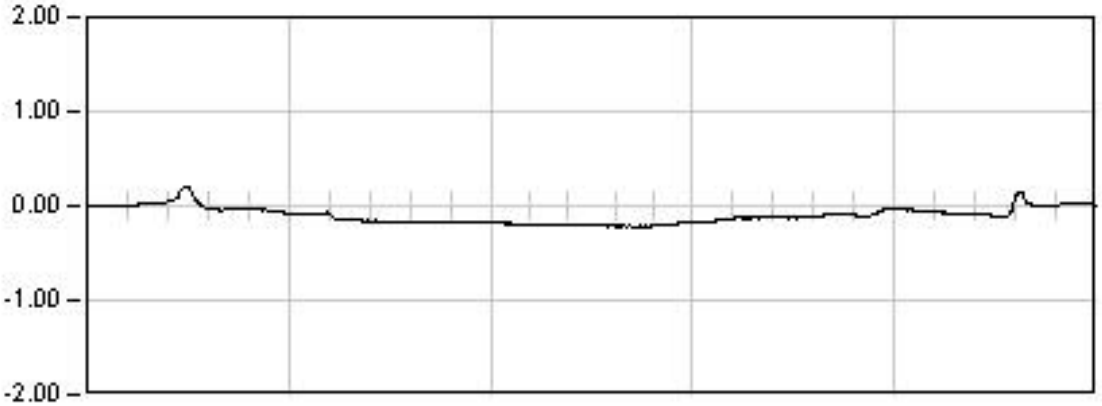
Est: -0.73
Max: -0.91
Min: 0.12
Rem: 0.07



ESTATICA 26

1203.0 Seg

Est: 0.30
Max: 0.41
Min: -0.10
Rem: 0.03



ESTATICA 27

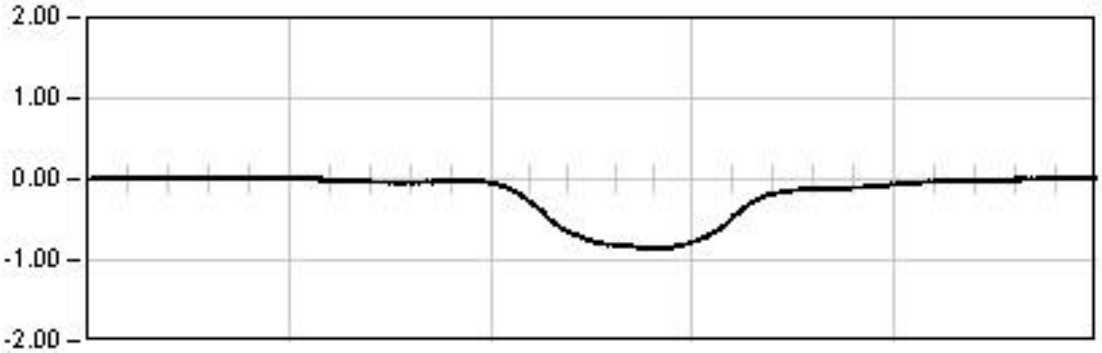
1225.0 Seg

Est: -0.10
Max: -0.22
Min: 0.21
Rem: 0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

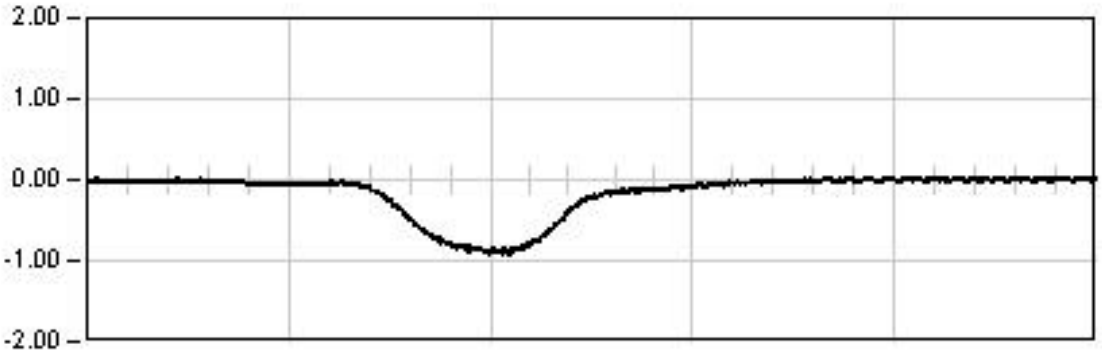
Punto : P053 Canal : 30 Unidades : mm



DINAMICA 11

245.5 Seg

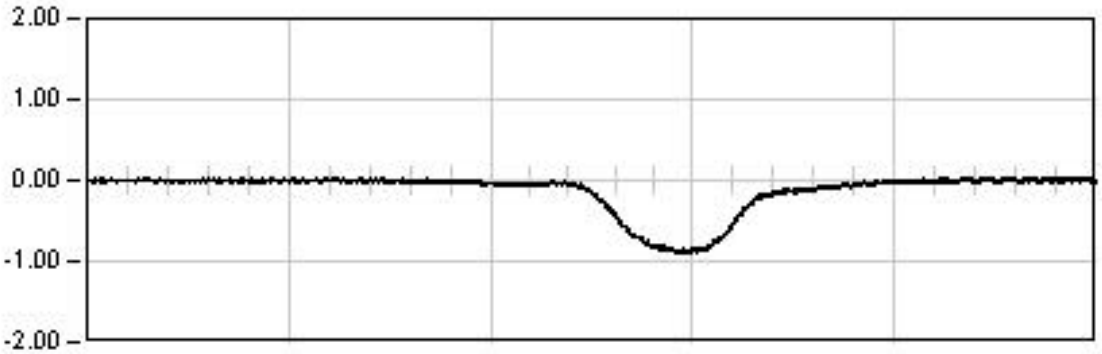
Max: -0.87
Min: 0.03
Rem: 0.02



DINAMICA 12

40.0 Seg

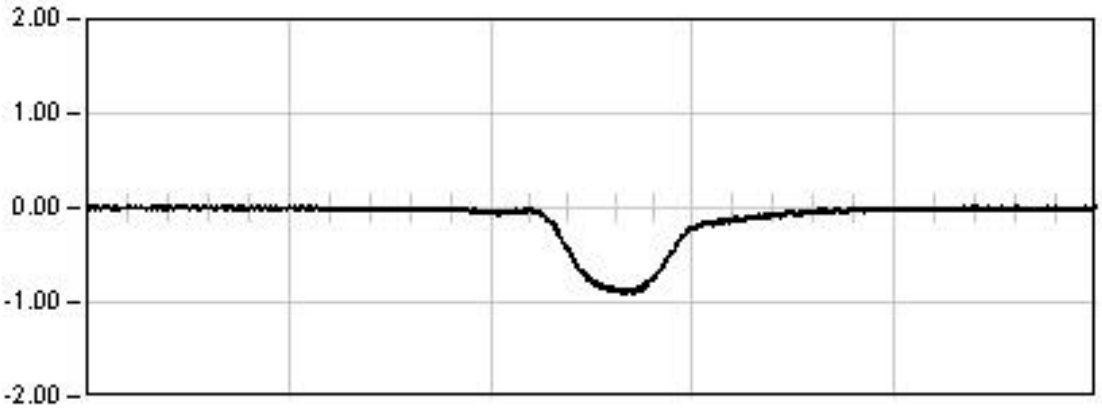
Max: -0.93
Min: 0.04
Rem: 0.00



DINAMICA 13

36.5 Seg

Max: -0.91
Min: 0.03
Rem: -0.00



DINAMICA 14

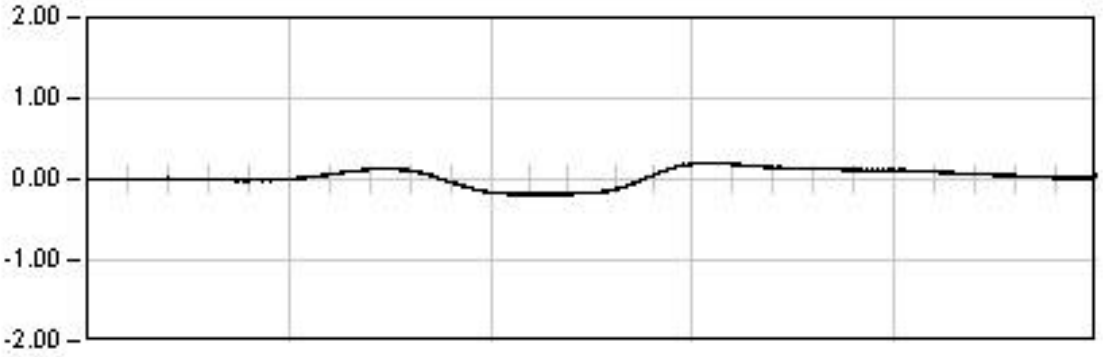
53.5 Seg

Max: -0.91
Min: 0.02
Rem: -0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

Punto : P053 Canal : 30 Unidades : mm



DINAMICA 21

293.0 Seg

Max: 0.21

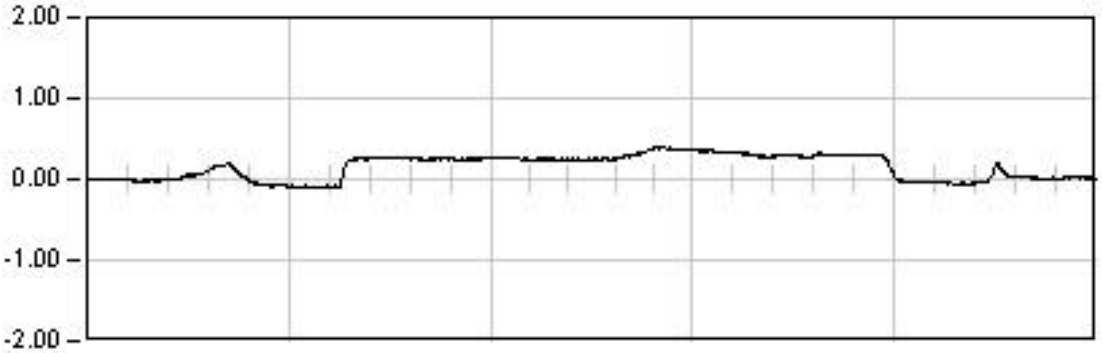
Min: -0.19

Rem: 0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

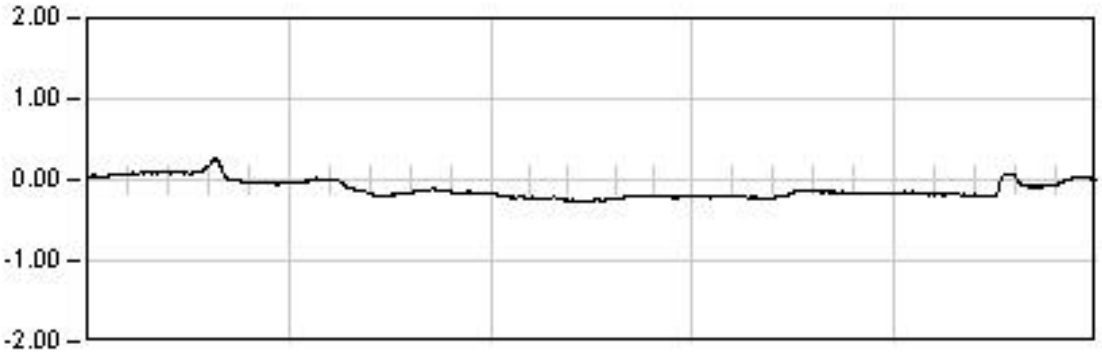
Punto : P054 **Canal : 06** **Unidades : mm**



ESTATICA 14

1419.0 Seg

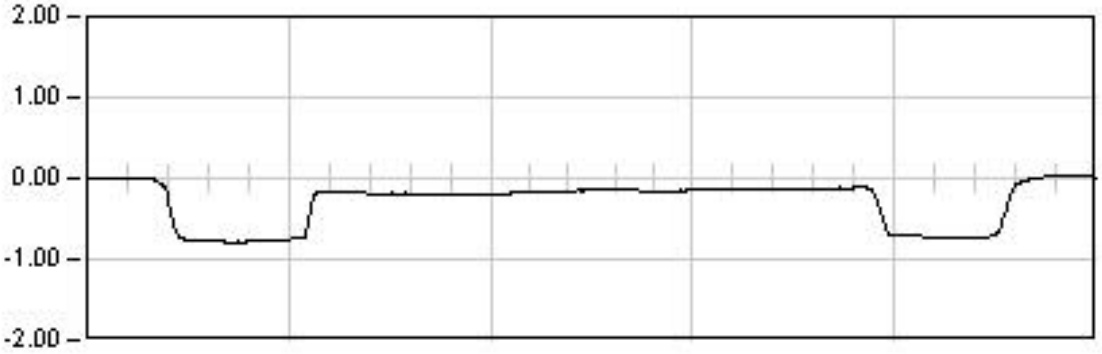
Est: 0.29
Max: 0.40
Min: -0.10
Rem: 0.02



ESTATICA 15

1379.0 Seg

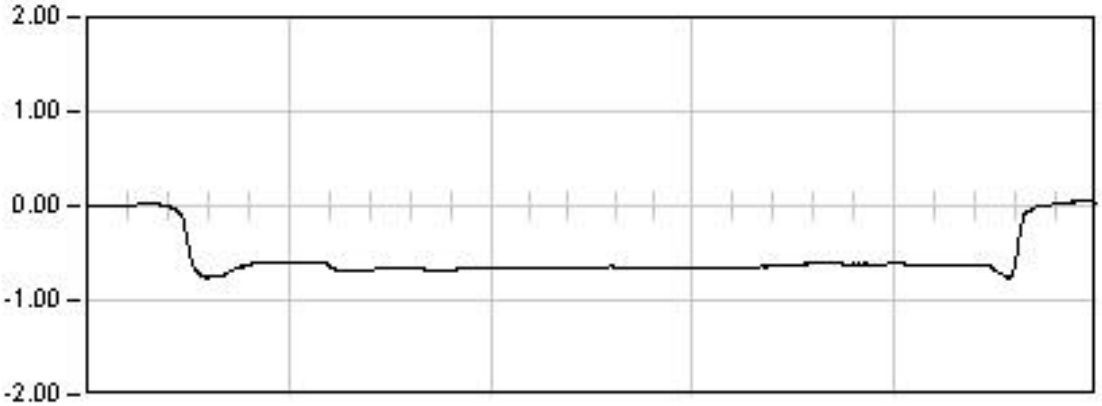
Est: -0.21
Max: -0.26
Min: 0.26
Rem: -0.00



ESTATICA 26

1203.0 Seg

Est: -0.11
Max: -0.79
Min: 0.04
Rem: 0.01



ESTATICA 27

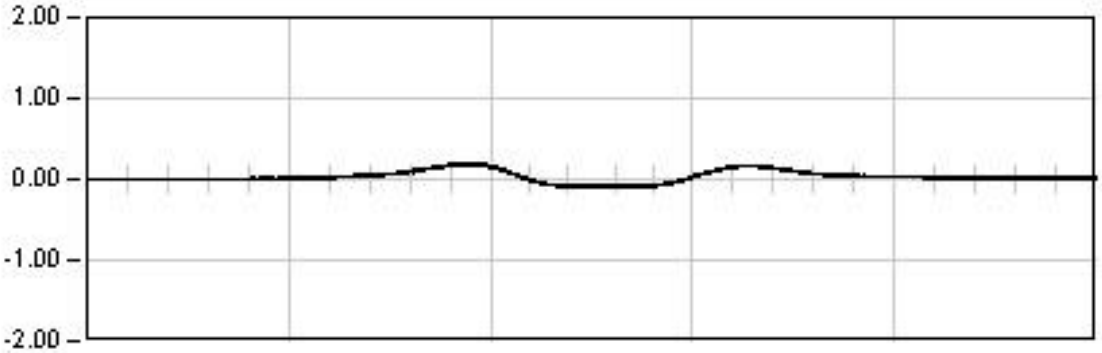
1225.0 Seg

Est: -0.62
Max: -0.76
Min: 0.06
Rem: 0.04

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

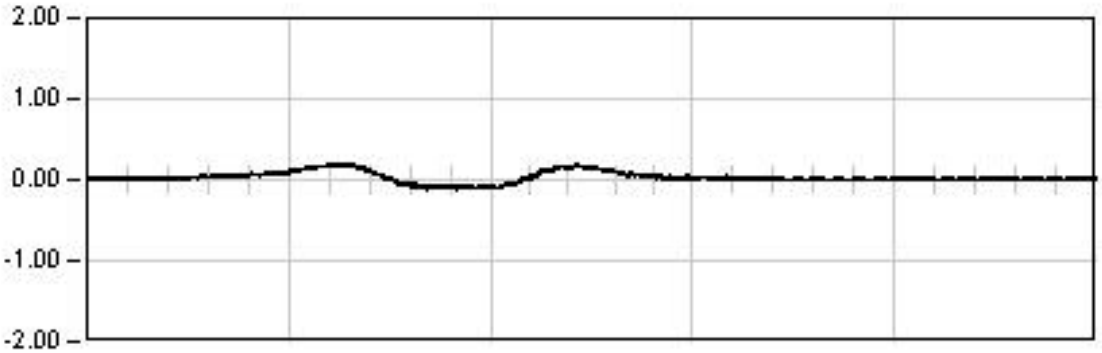
Punto : P054 **Canal : 06** **Unidades : mm**



DINAMICA 11

245.5 Seg

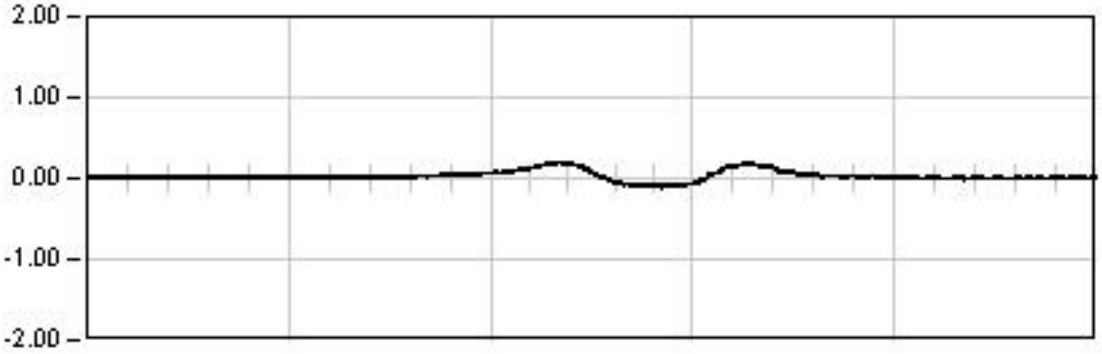
Max: 0.20
Min: -0.10
Rem: 0.02



DINAMICA 12

40.0 Seg

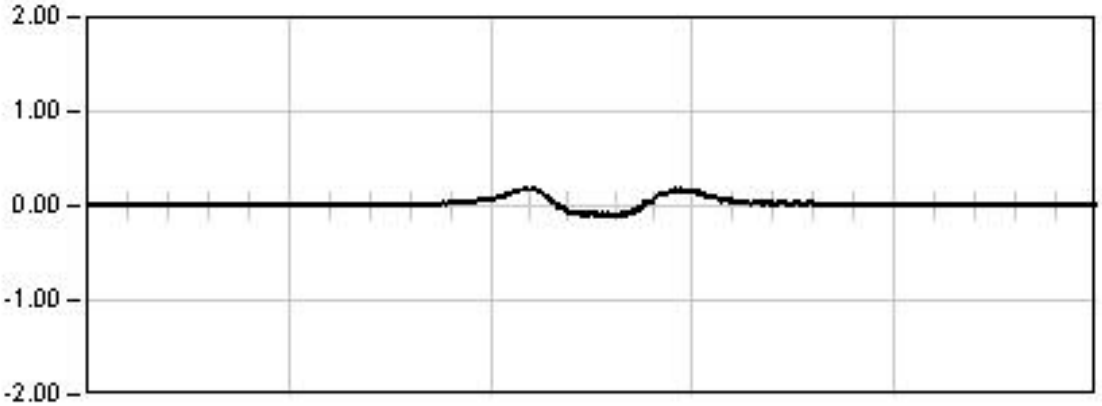
Max: 0.21
Min: -0.12
Rem: 0.01



DINAMICA 13

36.5 Seg

Max: 0.21
Min: -0.12
Rem: 0.01



DINAMICA 14

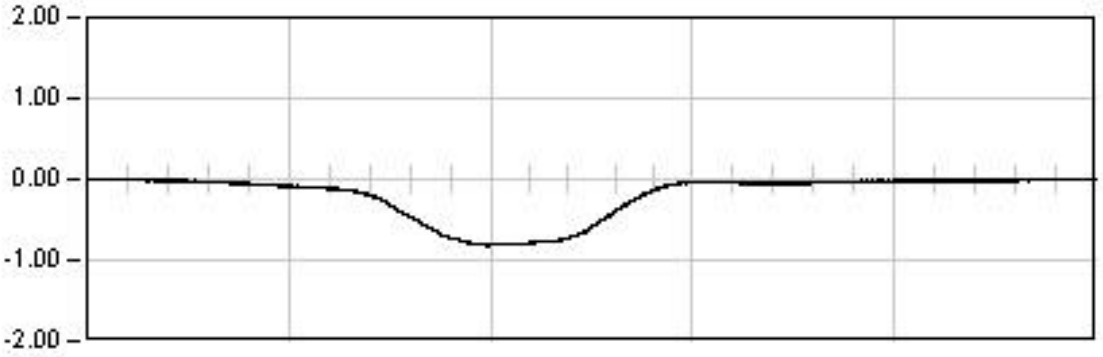
53.5 Seg

Max: 0.19
Min: -0.12
Rem: 0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

Punto : P054 **Canal : 06** **Unidades : mm**



DINAMICA 21

293.0 Seg

Max: -0.82

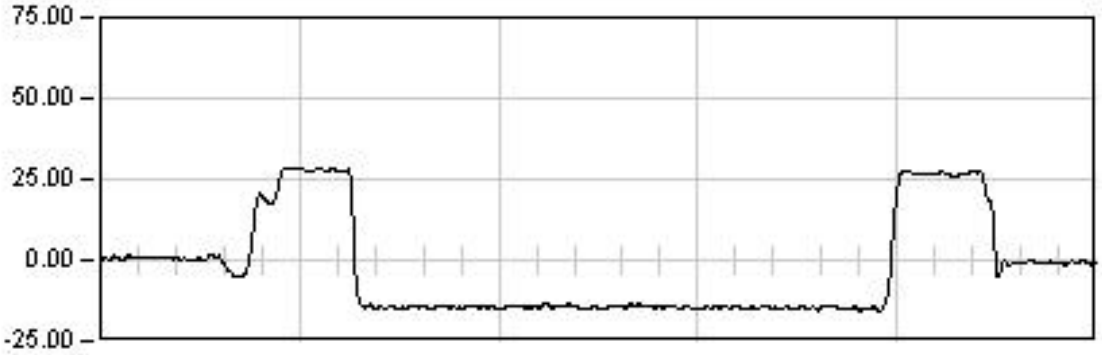
Min: 0.01

Rem: -0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

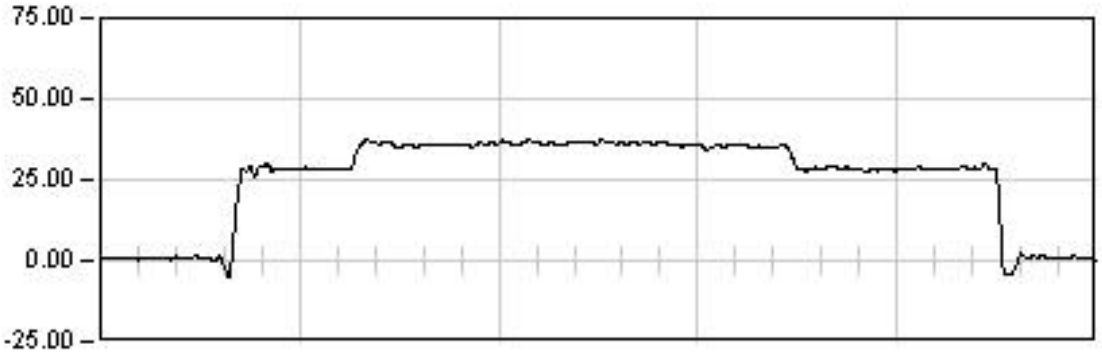
Punto : G051 Canal : 10 Unidades : µE



ESTATICA 14

1419.0 Seg

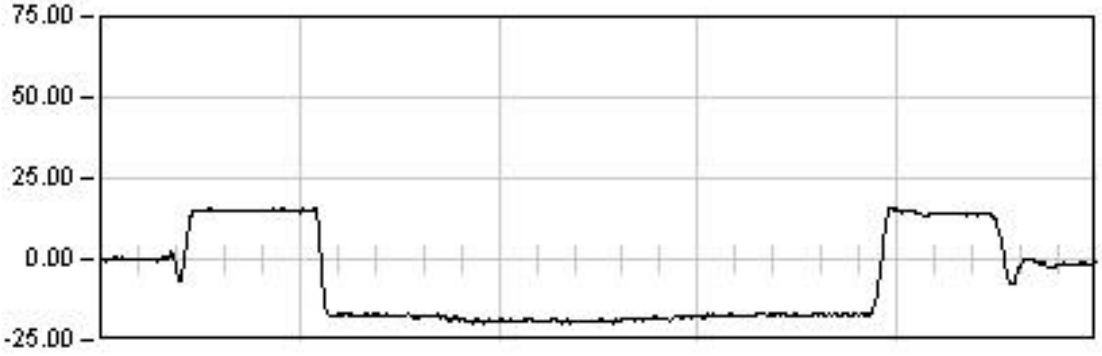
Est: -15.62
Max: 28.59
Min: -15.76
Rem: -0.74



ESTATICA 15

1379.0 Seg

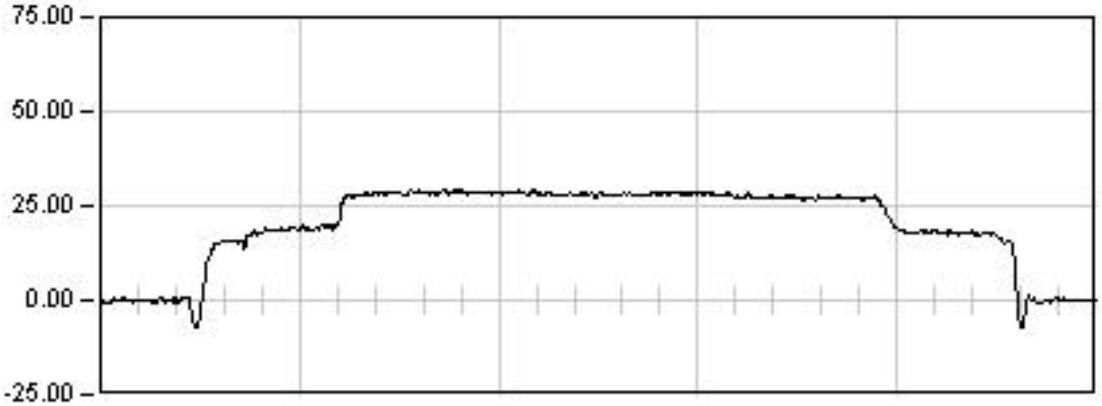
Est: 35.91
Max: 37.49
Min: -4.68
Rem: 0.89



ESTATICA 26

1203.0 Seg

Est: -16.72
Max: -20.21
Min: 15.90
Rem: -1.67



ESTATICA 27

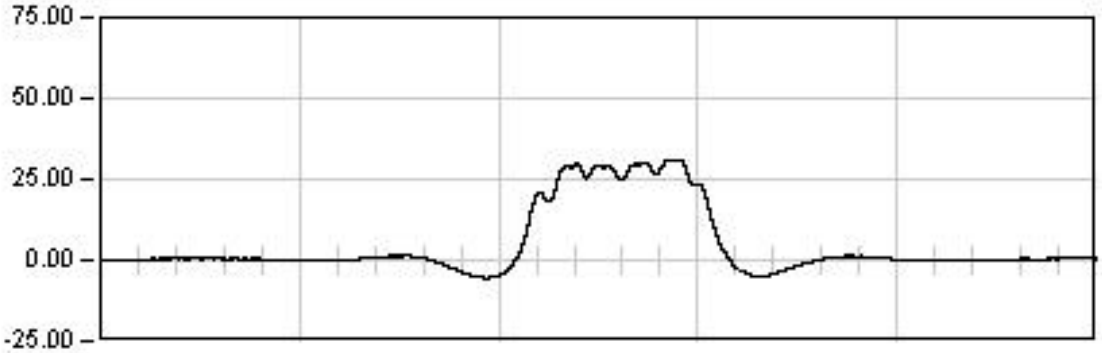
1225.0 Seg

Est: 28.21
Max: 29.57
Min: -7.47
Rem: 0.20

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

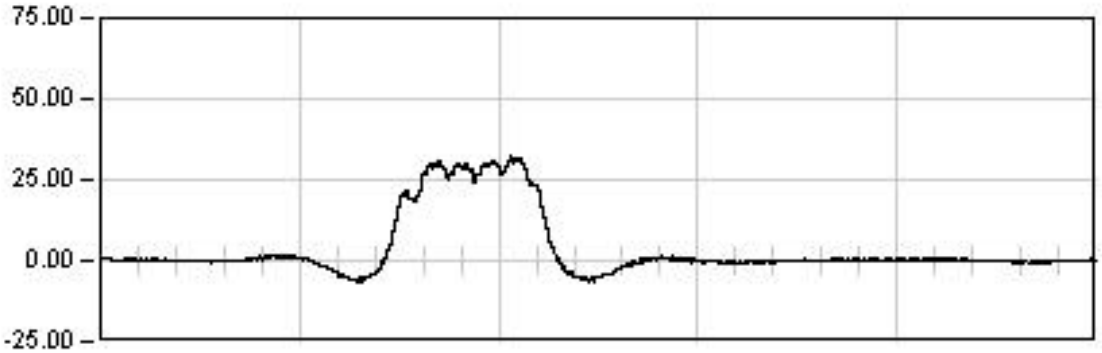
Punto : G051 Canal : 10 Unidades : µE



DINAMICA 11

245.5 Seg

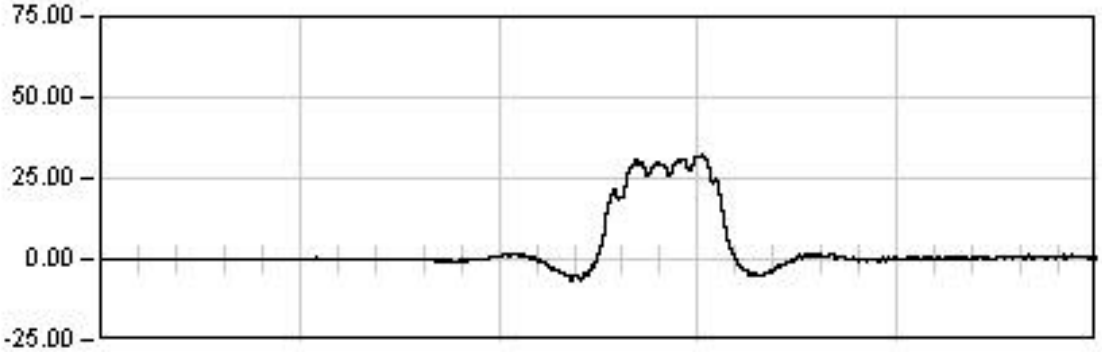
Max: 31.22
Min: -5.52
Rem: 0.49



DINAMICA 12

40.0 Seg

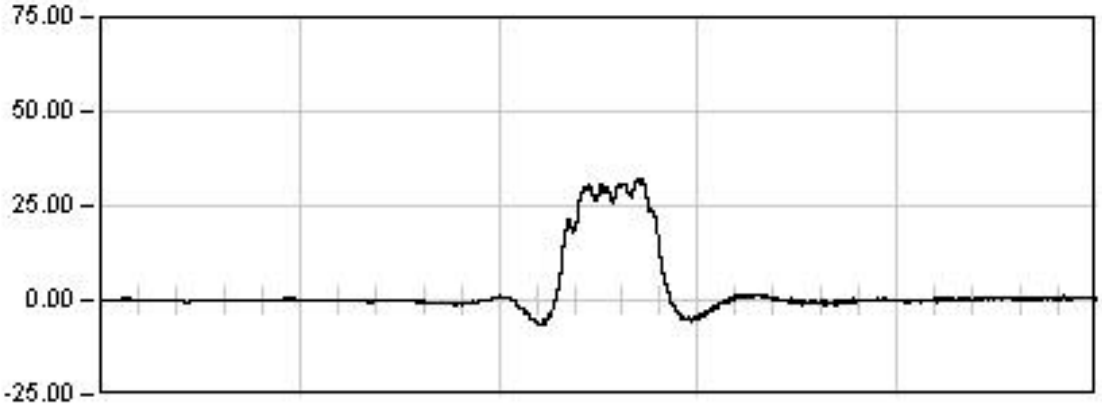
Max: 32.28
Min: -6.60
Rem: 0.05



DINAMICA 13

36.5 Seg

Max: 32.34
Min: -6.82
Rem: 0.83



DINAMICA 14

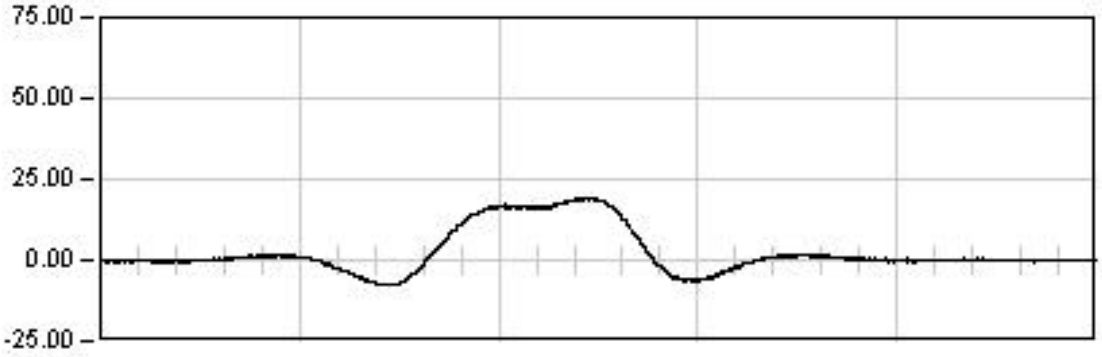
53.5 Seg

Max: 32.18
Min: -6.31
Rem: 0.62

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

Punto : G051 Canal : 10 Unidades : µE



DINAMICA 21

293.0 Seg

Max: 19.43

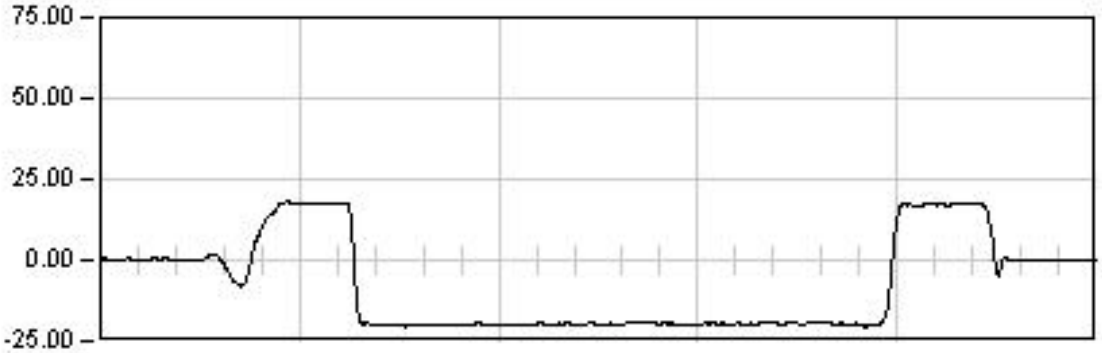
Min: -7.78

Rem: -0.24

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

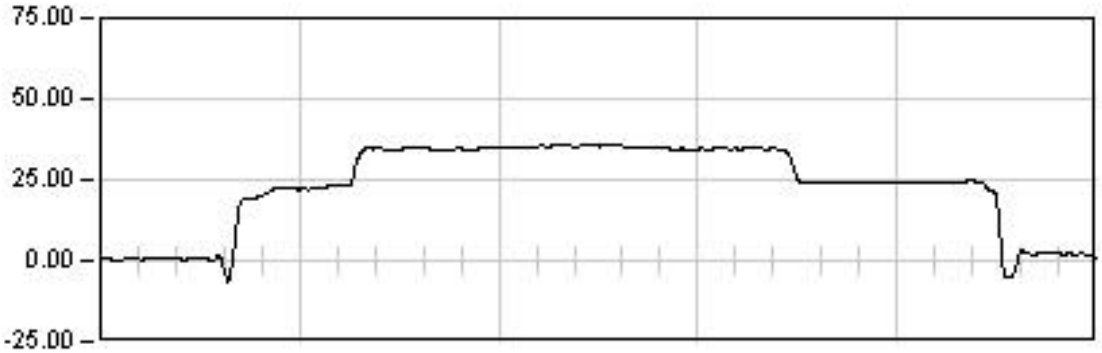
Punto : G052 Canal : 11 Unidades : µE



ESTATICA 14

1419.0 Seg

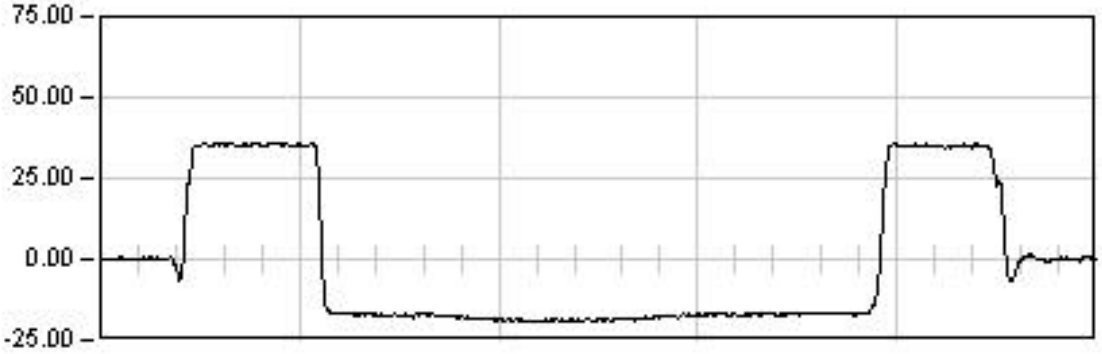
Est: 0.13
Max: -20.54
Min: 18.04
Rem: 0.14



ESTATICA 15

1379.0 Seg

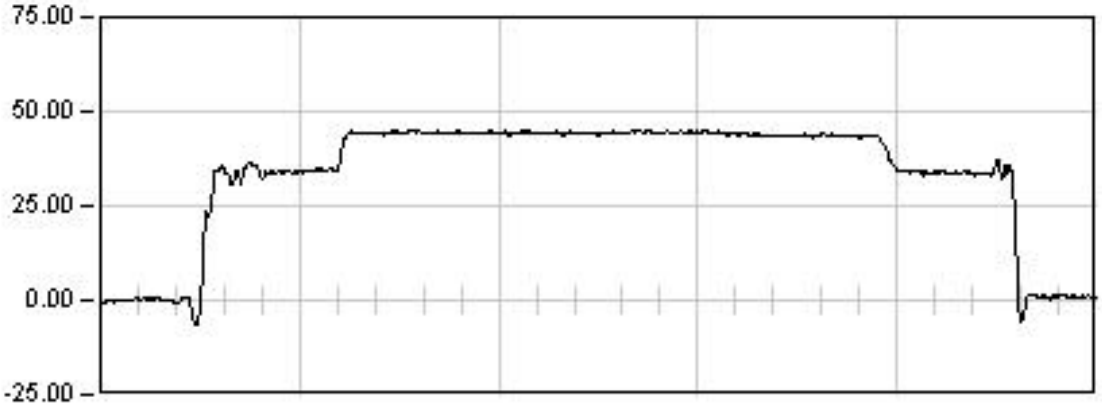
Est: 34.57
Max: 35.87
Min: -6.31
Rem: 2.04



ESTATICA 26

1203.0 Seg

Est: -16.72
Max: 36.17
Min: -19.10
Rem: 0.04



ESTATICA 27

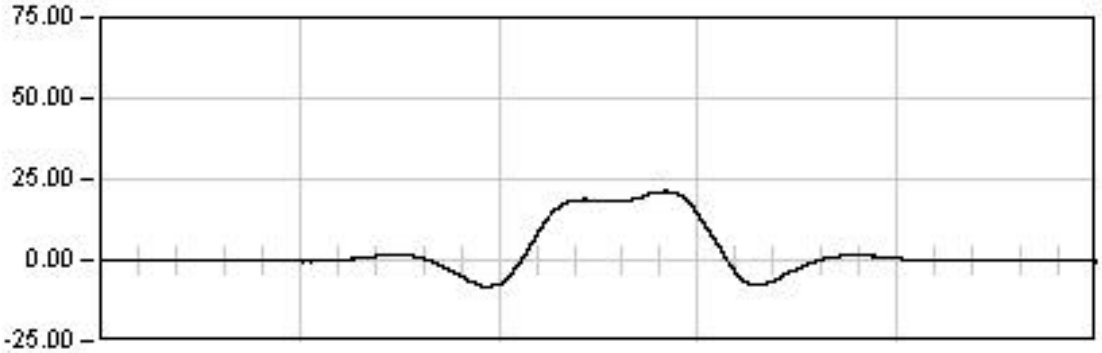
1225.0 Seg

Est: 43.89
Max: 45.20
Min: -6.59
Rem: 0.90

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

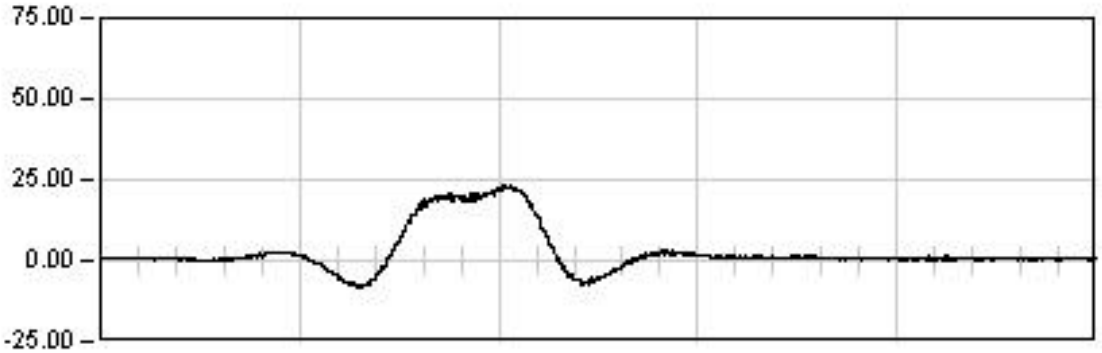
Punto : G052 Canal : 11 Unidades : µE



DINAMICA 11

245.5 Seg

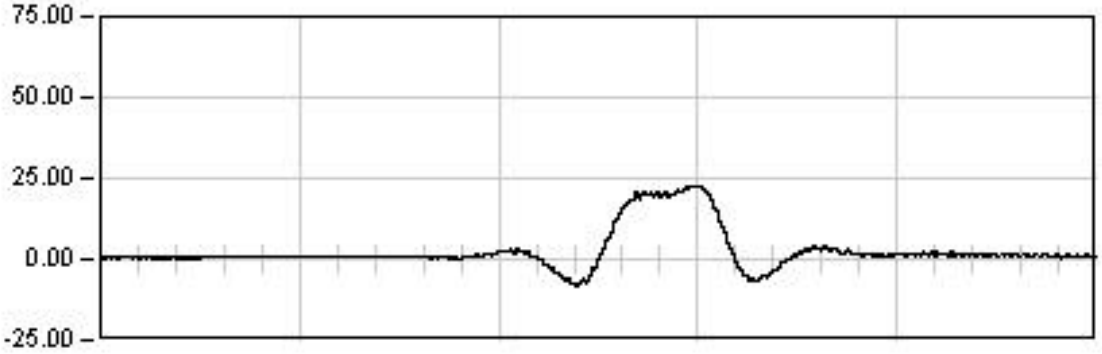
Max: 21.30
Min: -8.41
Rem: -0.09



DINAMICA 12

40.0 Seg

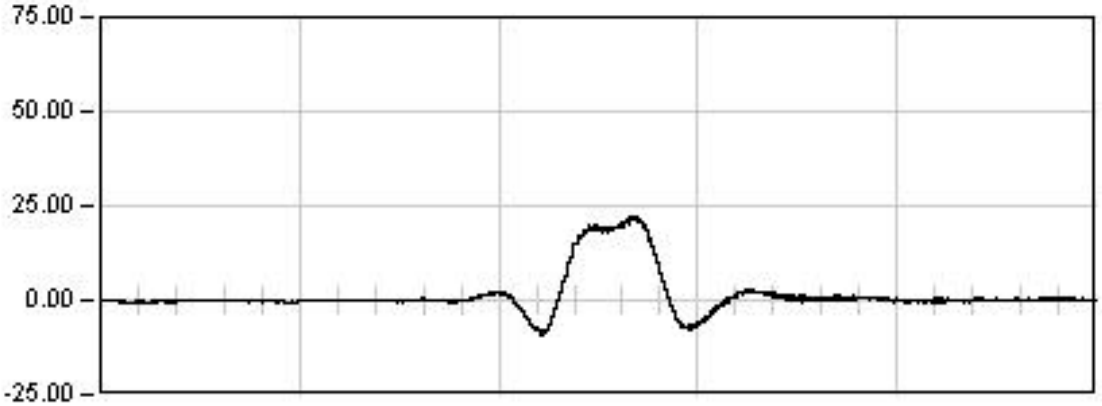
Max: 23.52
Min: -8.53
Rem: 0.59



DINAMICA 13

36.5 Seg

Max: 22.83
Min: -8.14
Rem: 0.78



DINAMICA 14

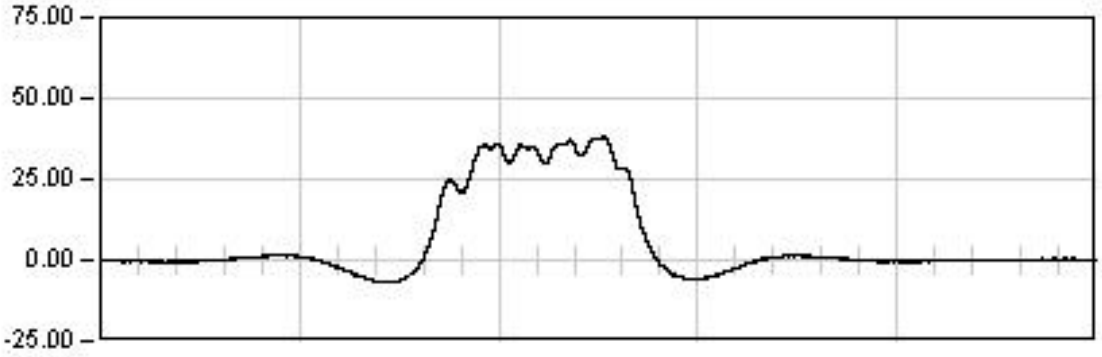
53.5 Seg

Max: 22.30
Min: -9.28
Rem: -0.03

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 5

Punto : G052 Canal : 11 Unidades : µE



DINAMICA 21

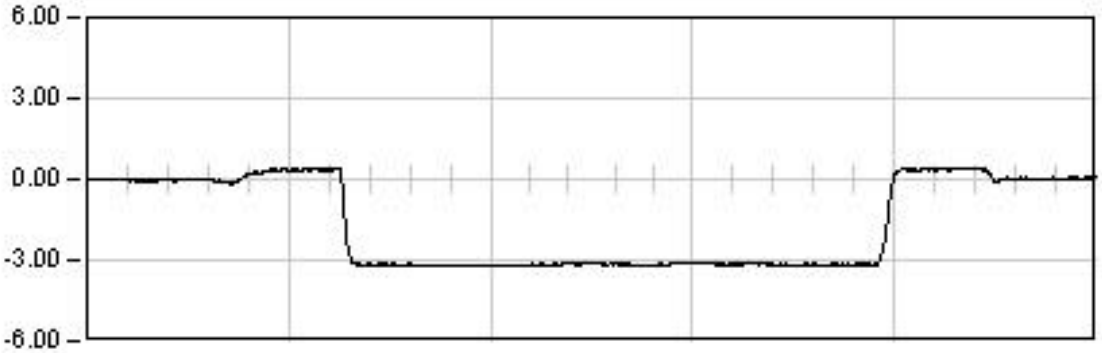
293.0 Seg

Max: 38.10
Min: -6.84
Rem: 0.27

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

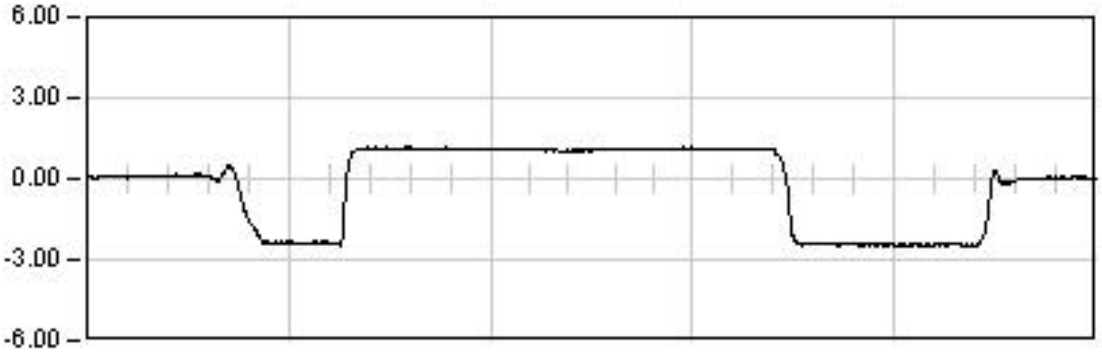
Punto : P061 **Canal : 13** **Unidades : mm**



ESTATICA 14

1419.0 Seg

Est: -3.01
Max: -3.24
Min: 0.40
Rem: 0.04



ESTATICA 15

1379.0 Seg

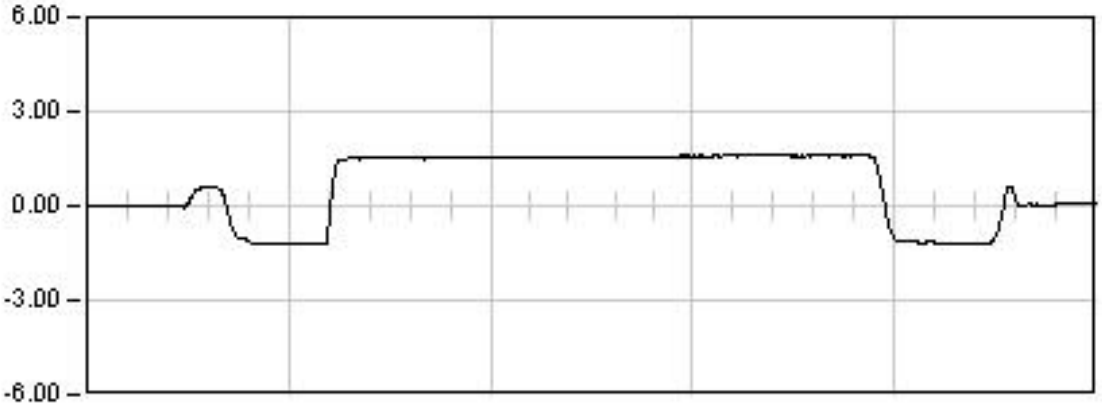
Est: 1.10
Max: -2.49
Min: 1.16
Rem: 0.04



ESTATICA 26

1203.0 Seg

Est: -2.07
Max: -2.16
Min: 0.72
Rem: 0.07



ESTATICA 27

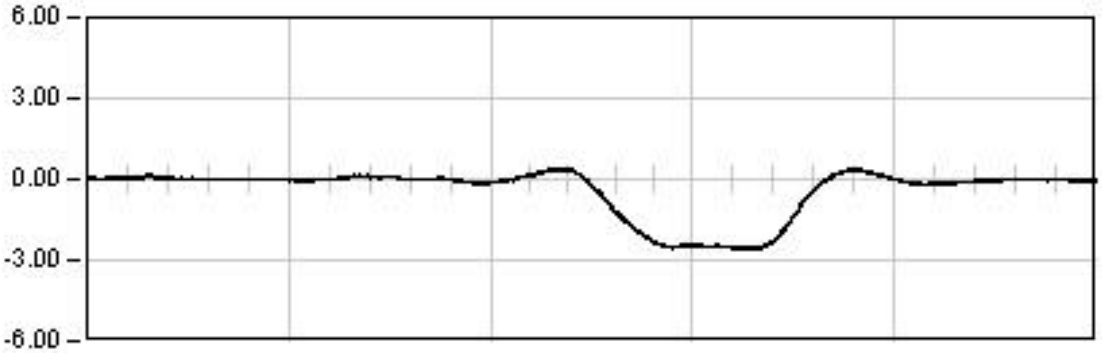
1225.0 Seg

Est: 1.59
Max: 1.61
Min: -1.23
Rem: 0.06

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

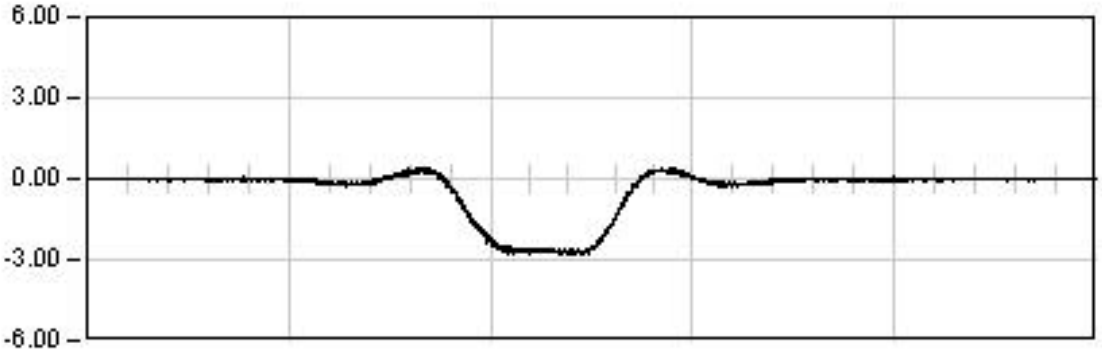
Punto : P061 Canal : 13 Unidades : mm



DINAMICA 11

245.5 Seg

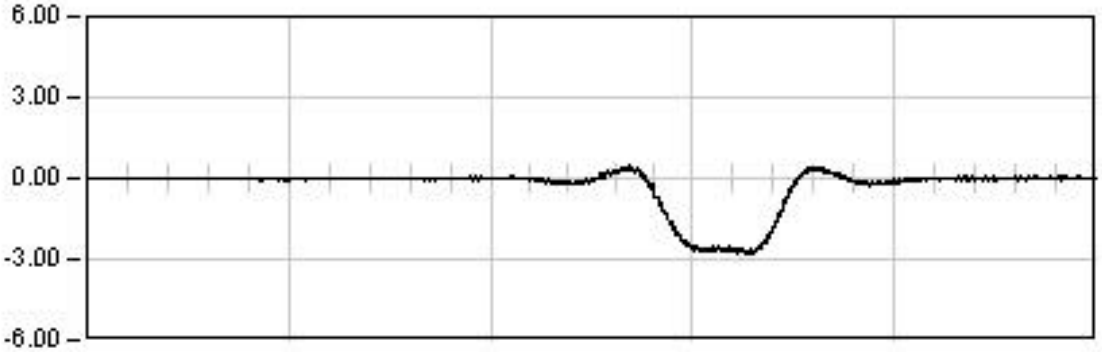
Max: -2.60
Min: 0.42
Rem: -0.04



DINAMICA 12

40.0 Seg

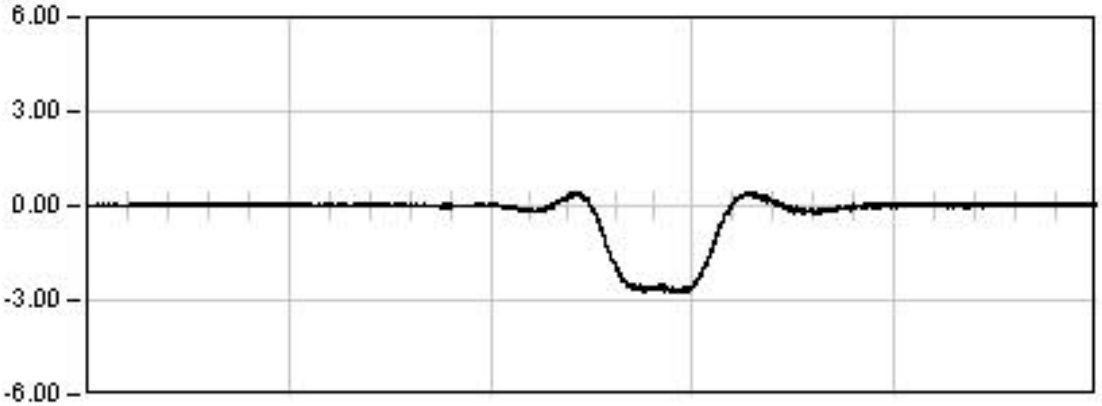
Max: -2.84
Min: 0.42
Rem: -0.01



DINAMICA 13

36.5 Seg

Max: -2.78
Min: 0.46
Rem: 0.01



DINAMICA 14

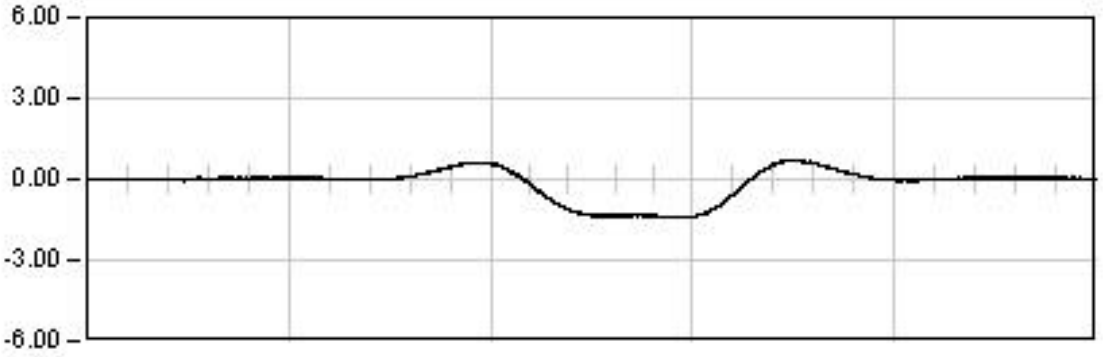
53.5 Seg

Max: -2.75
Min: 0.44
Rem: 0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

Punto : P061 Canal : 13 Unidades : mm



DINAMICA 21

293.0 Seg

Max: -1.44

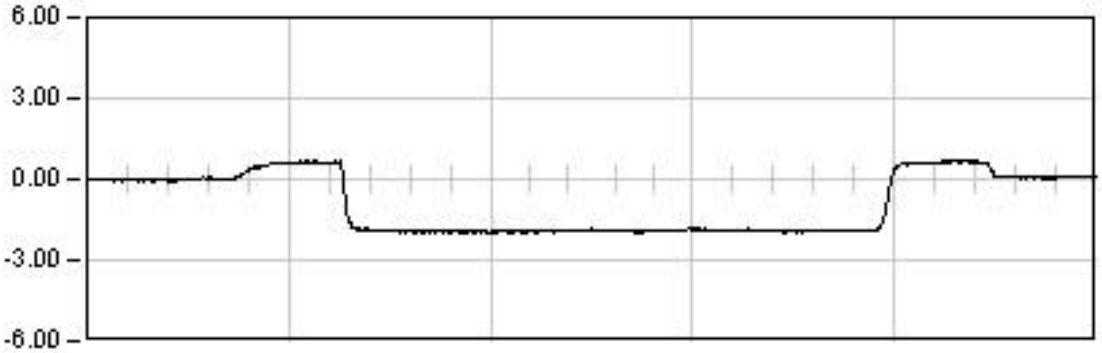
Min: 0.71

Rem: 0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

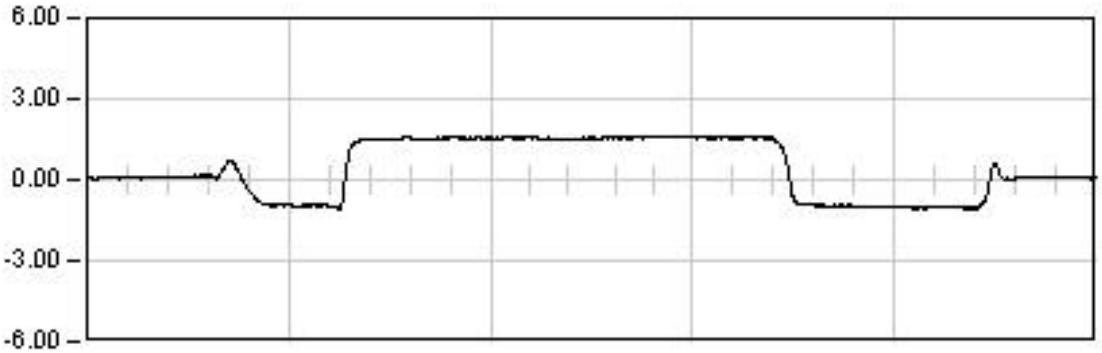
Punto : P062 Canal : 14 Unidades : mm



ESTATICA 14

1419.0 Seg

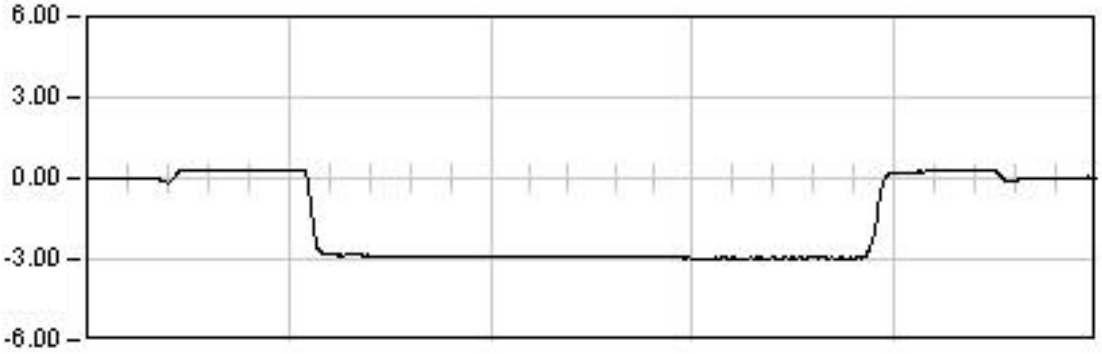
Est: -1.70
Max: -2.00
Min: 0.67
Rem: 0.01



ESTATICA 15

1379.0 Seg

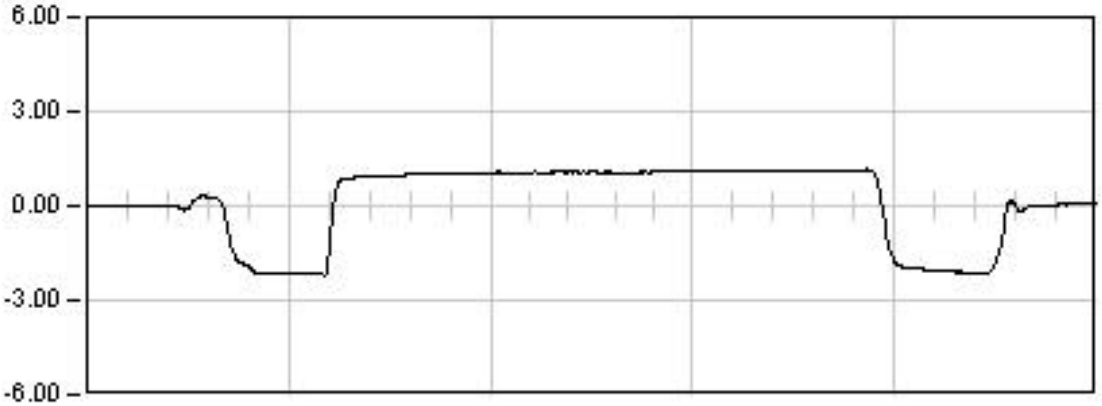
Est: 1.59
Max: 1.61
Min: -1.08
Rem: 0.10



ESTATICA 26

1203.0 Seg

Est: -2.94
Max: -2.98
Min: 0.34
Rem: 0.01



ESTATICA 27

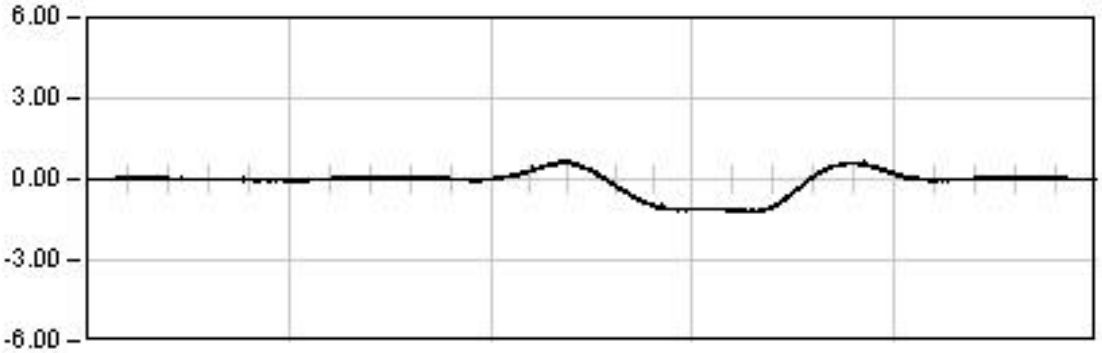
1225.0 Seg

Est: 1.10
Max: -2.20
Min: 1.16
Rem: 0.06

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

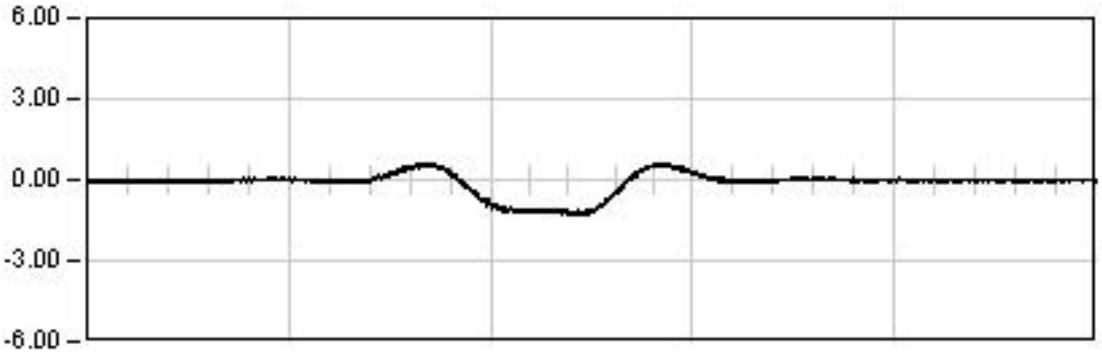
Punto : P062 **Canal : 14** **Unidades : mm**



DINAMICA 11

245.5 Seg

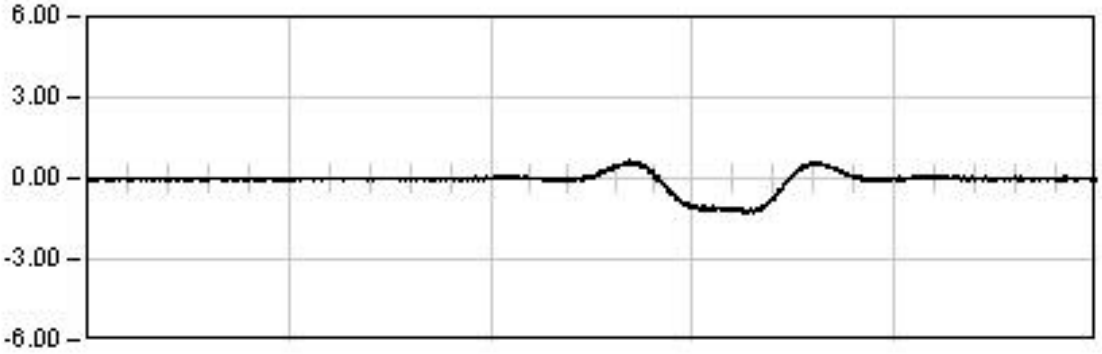
Max: -1.24
Min: 0.65
Rem: 0.01



DINAMICA 12

40.0 Seg

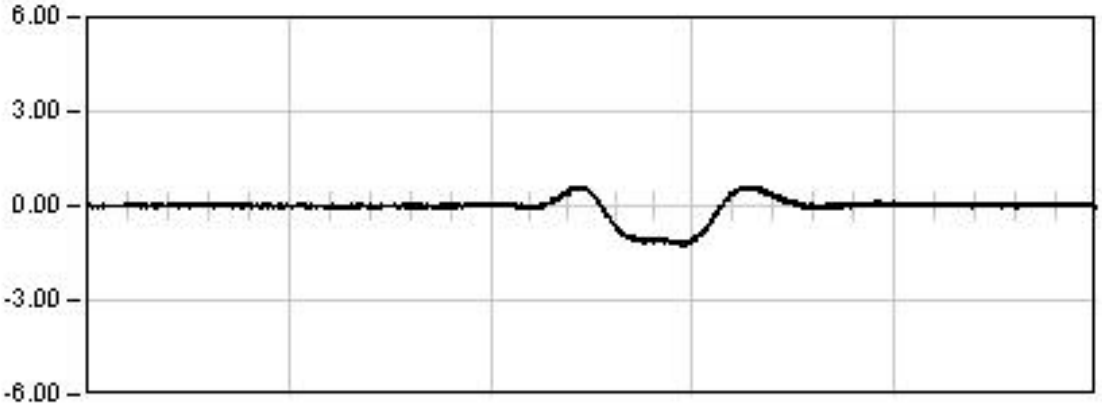
Max: -1.32
Min: 0.62
Rem: -0.01



DINAMICA 13

36.5 Seg

Max: -1.26
Min: 0.65
Rem: 0.00



DINAMICA 14

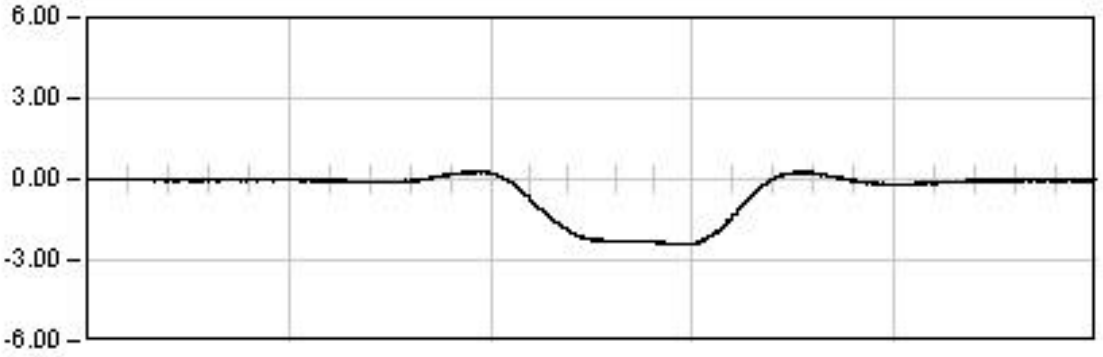
53.5 Seg

Max: -1.24
Min: 0.64
Rem: 0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

Punto : P062 Canal : 14 Unidades : mm



DINAMICA 21

293.0 Seg

Max: -2.41

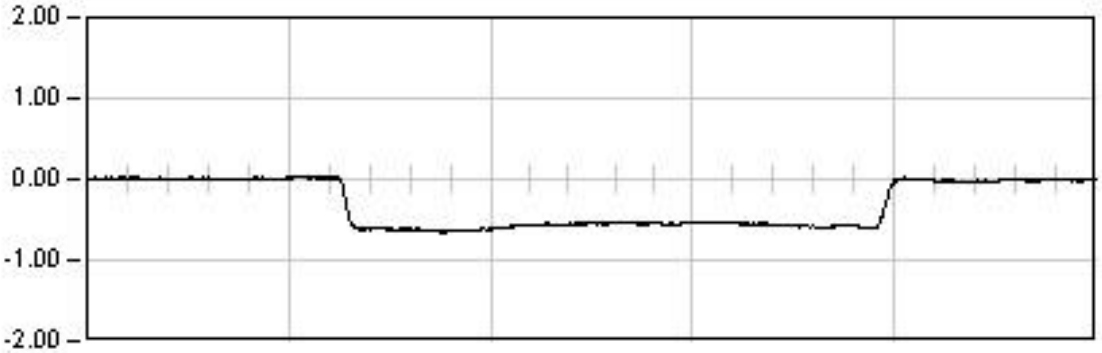
Min: 0.30

Rem: -0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

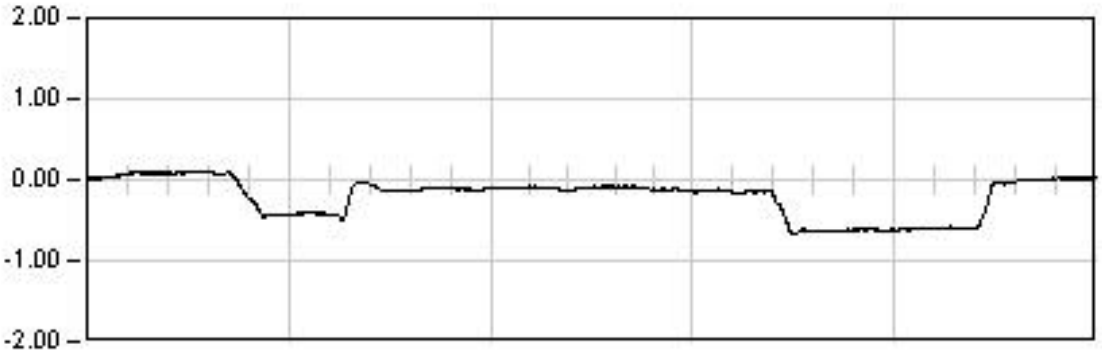
Punto : P063 Canal : 15 Unidades : mm



ESTATICA 14

1419.0 Seg

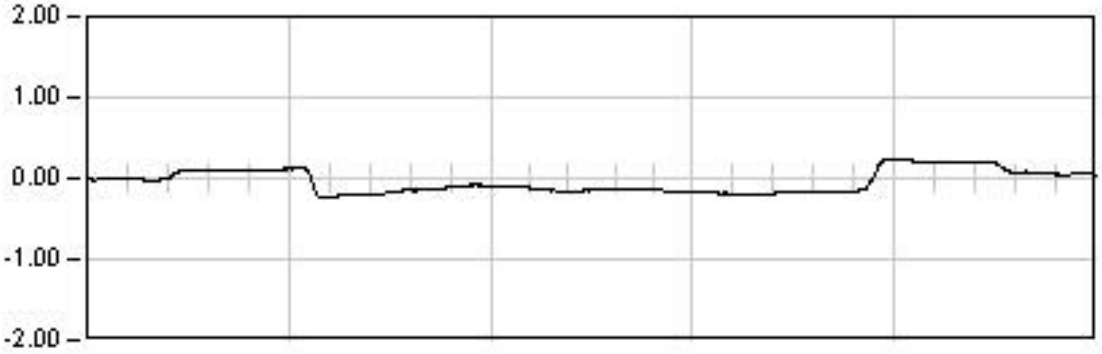
Est: -0.58
Max: -0.65
Min: 0.04
Rem: -0.01



ESTATICA 15

1379.0 Seg

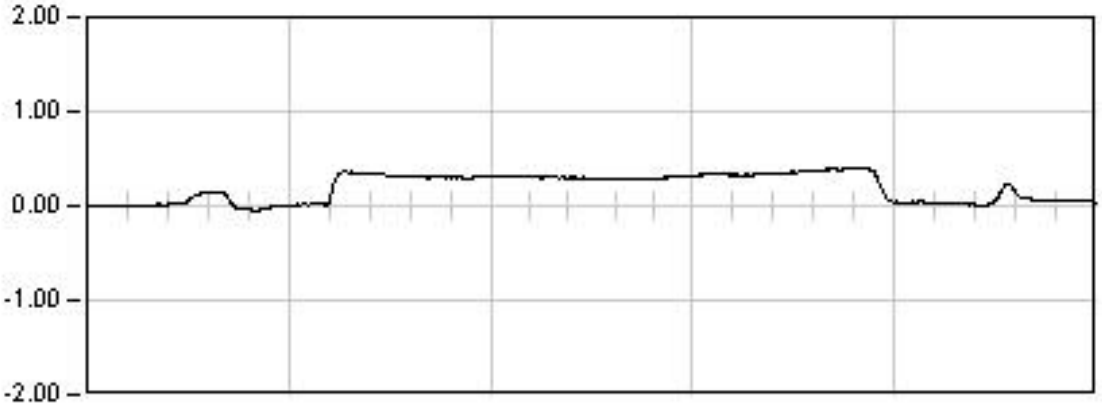
Est: -0.13
Max: -0.67
Min: 0.11
Rem: 0.01



ESTATICA 26

1203.0 Seg

Est: -0.14
Max: -0.25
Min: 0.24
Rem: 0.01



ESTATICA 27

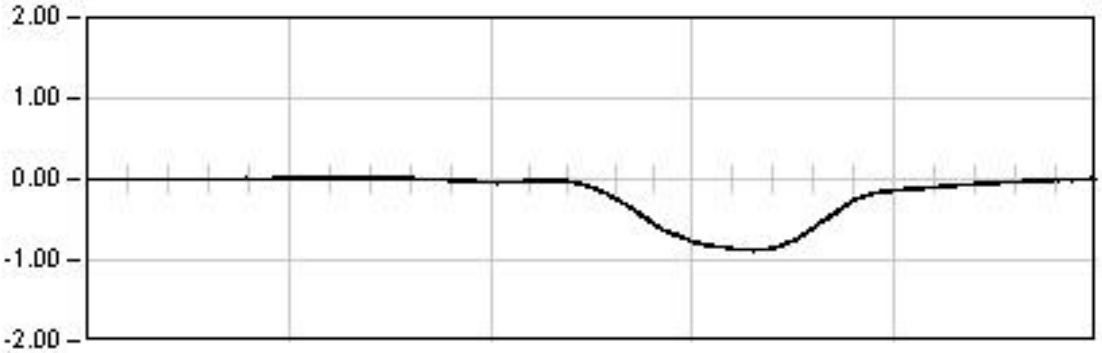
1225.0 Seg

Est: 0.39
Max: 0.40
Min: -0.05
Rem: 0.03

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

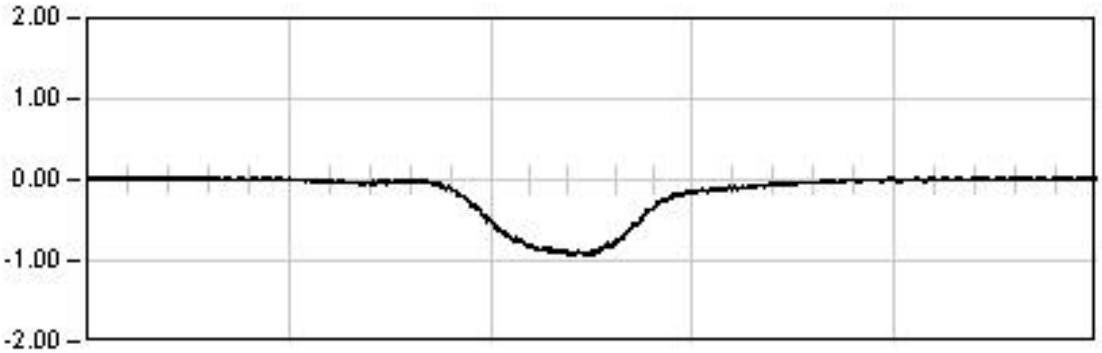
Punto : P063 Canal : 15 Unidades : mm



DINAMICA 11

245.5 Seg

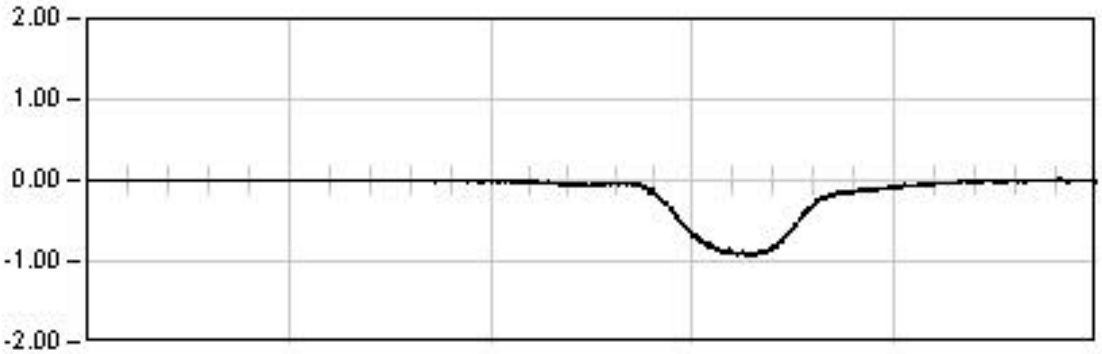
Max: -0.89
Min: 0.02
Rem: 0.01



DINAMICA 12

40.0 Seg

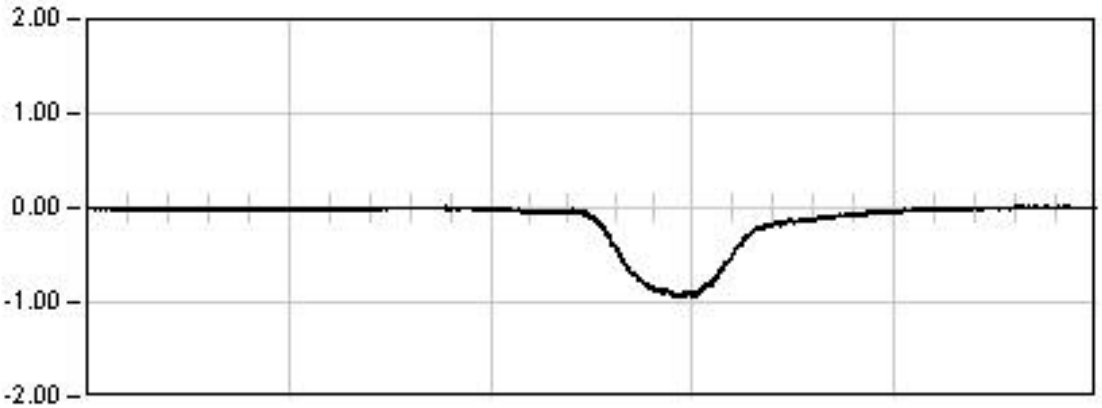
Max: -0.93
Min: 0.04
Rem: 0.01



DINAMICA 13

36.5 Seg

Max: -0.94
Min: 0.02
Rem: -0.00



DINAMICA 14

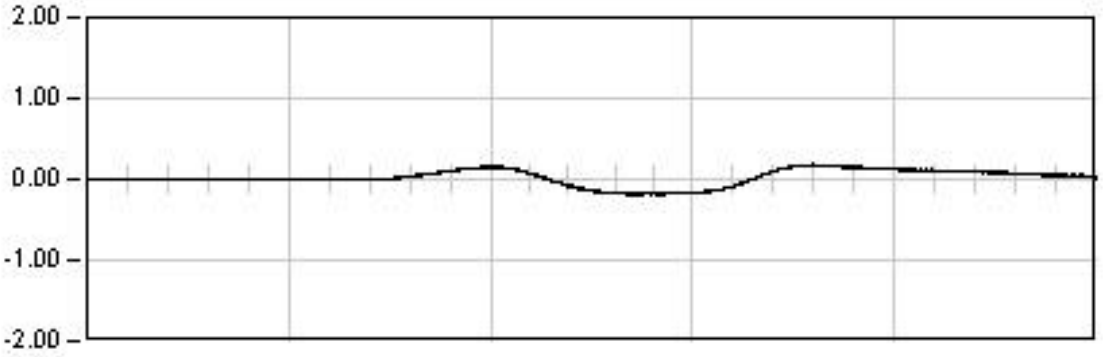
53.5 Seg

Max: -0.95
Min: 0.02
Rem: 0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

Punto : P063 Canal : 15 Unidades : mm



DINAMICA 21

293.0 Seg

Max: -0.19

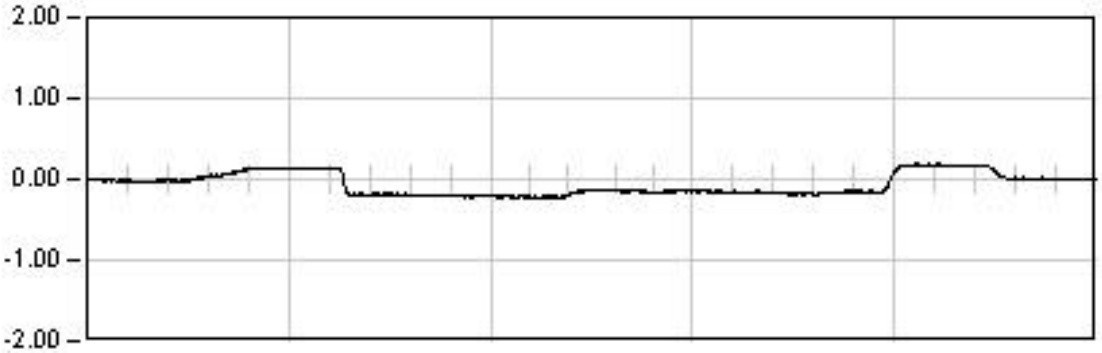
Min: 0.19

Rem: 0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

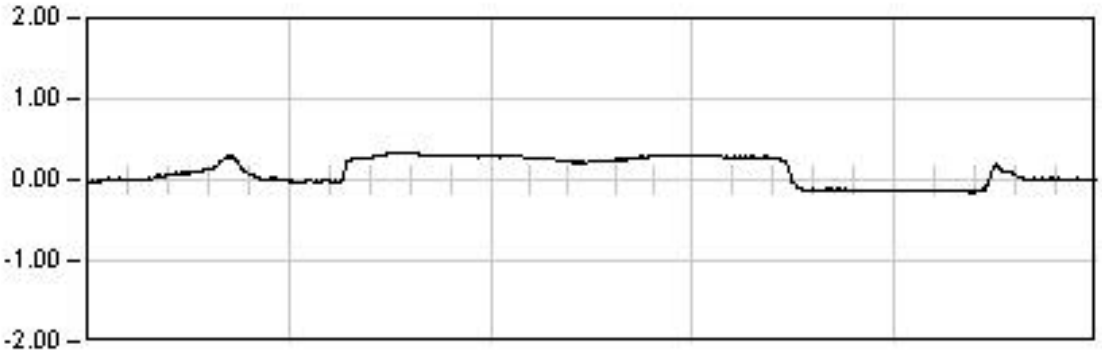
Punto : P064 **Canal : 12** **Unidades : mm**



ESTATICA 14

1419.0 Seg

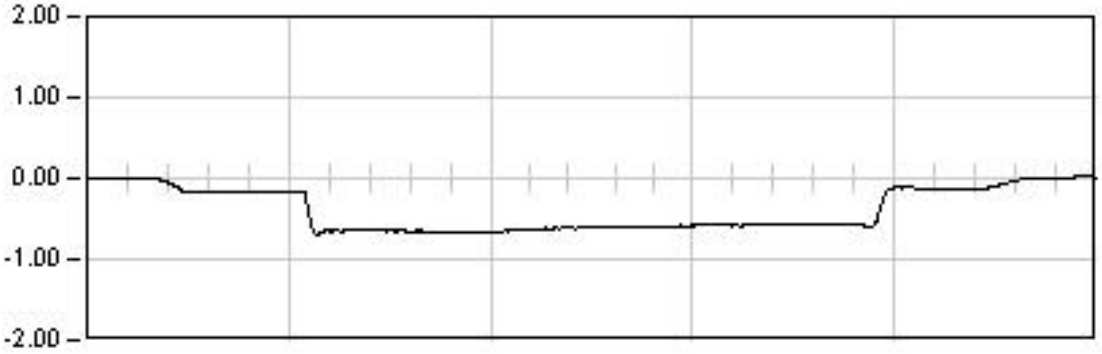
Est: -0.10
Max: -0.23
Min: 0.19
Rem: 0.00



ESTATICA 15

1379.0 Seg

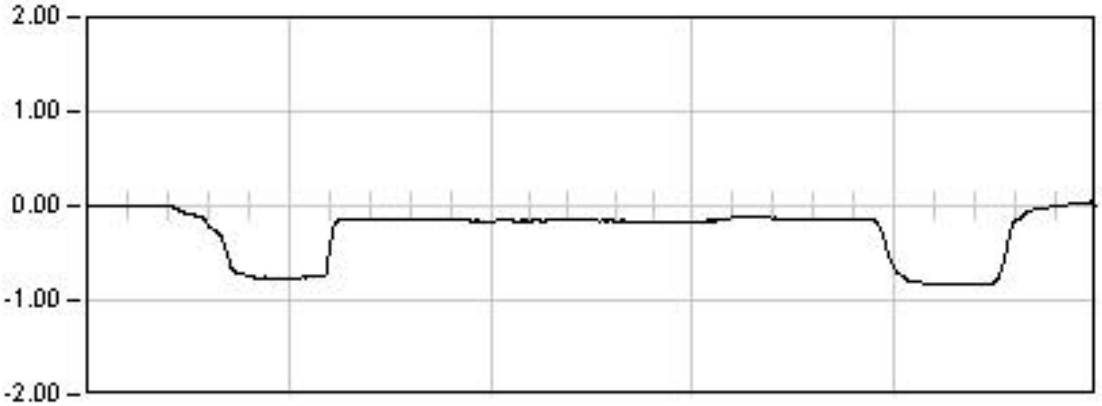
Est: 0.28
Max: 0.34
Min: -0.15
Rem: 0.01



ESTATICA 26

1203.0 Seg

Est: -0.56
Max: -0.70
Min: 0.04
Rem: 0.02



ESTATICA 27

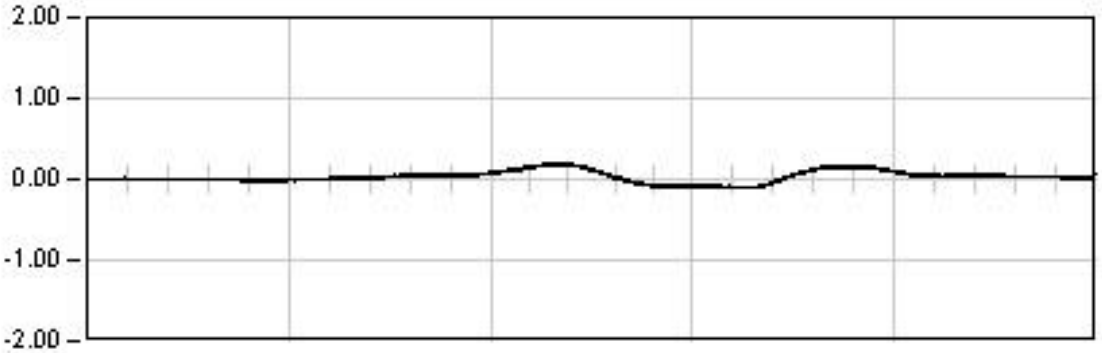
1225.0 Seg

Est: -0.14
Max: -0.84
Min: 0.05
Rem: 0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

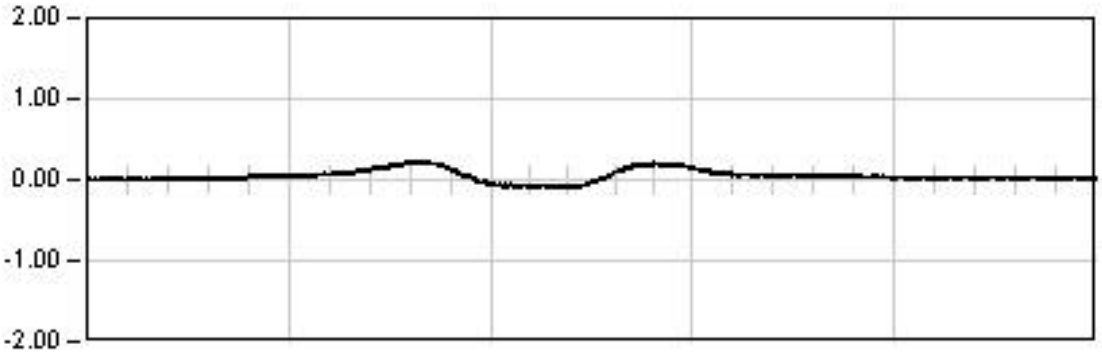
Punto : P064 **Canal : 12** **Unidades : mm**



DINAMICA 11

245.5 Seg

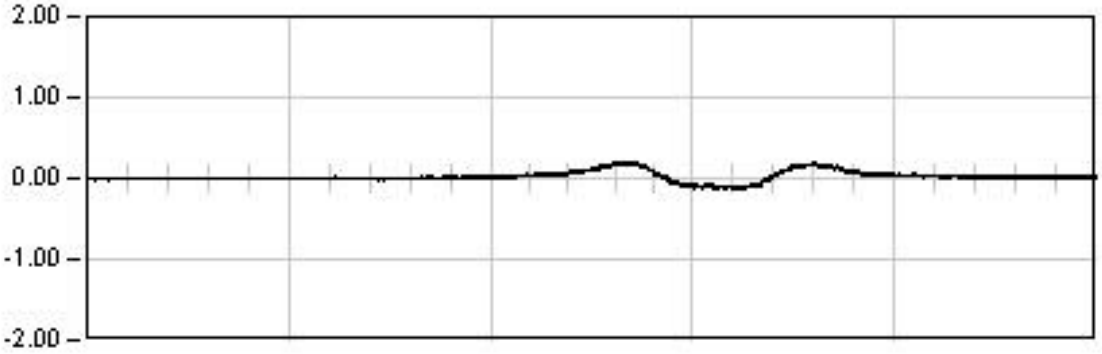
Max: 0.19
Min: -0.12
Rem: 0.02



DINAMICA 12

40.0 Seg

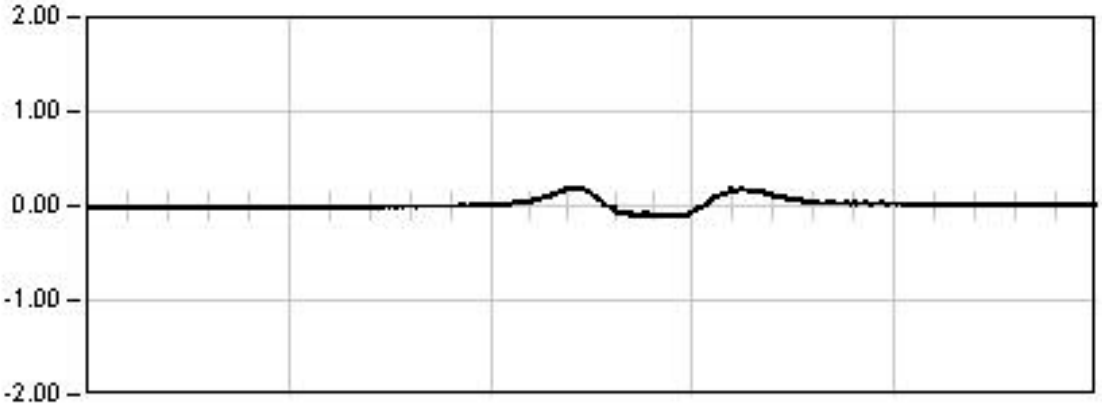
Max: 0.23
Min: -0.10
Rem: 0.02



DINAMICA 13

36.5 Seg

Max: 0.20
Min: -0.13
Rem: 0.02



DINAMICA 14

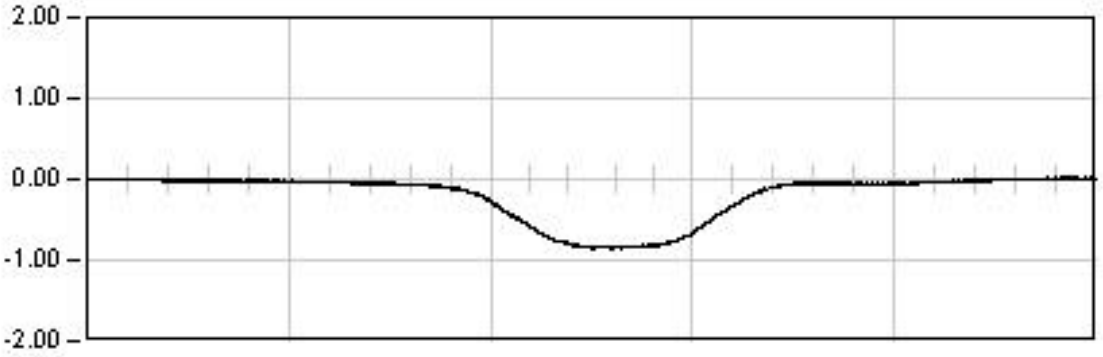
53.5 Seg

Max: 0.21
Min: -0.12
Rem: 0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

Punto : P064 Canal : 12 Unidades : mm



DINAMICA 21

293.0 Seg

Max: -0.85

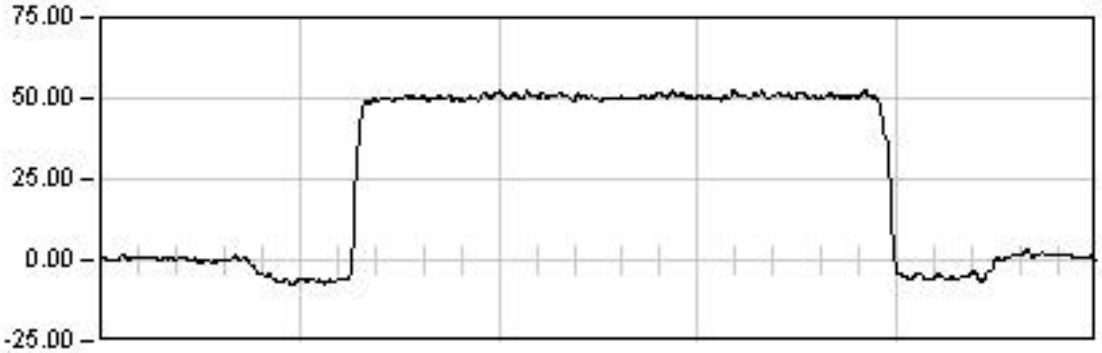
Min: 0.02

Rem: 0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

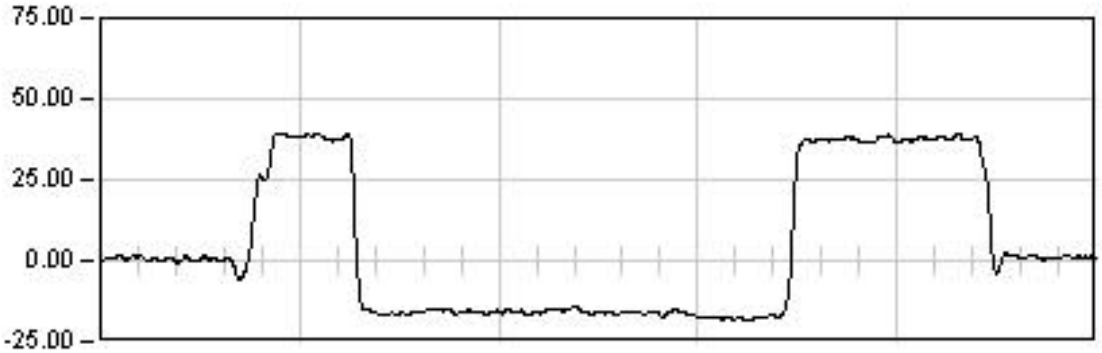
Punto : G061 Canal : 16 Unidades : µE



ESTATICA 14

1419.0 Seg

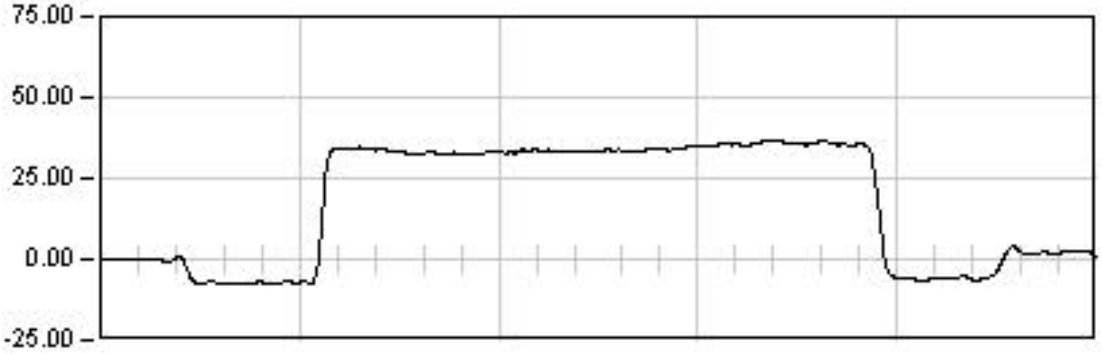
Est: 1.88
Max: 52.69
Min: -7.53
Rem: 1.30



ESTATICA 15

1379.0 Seg

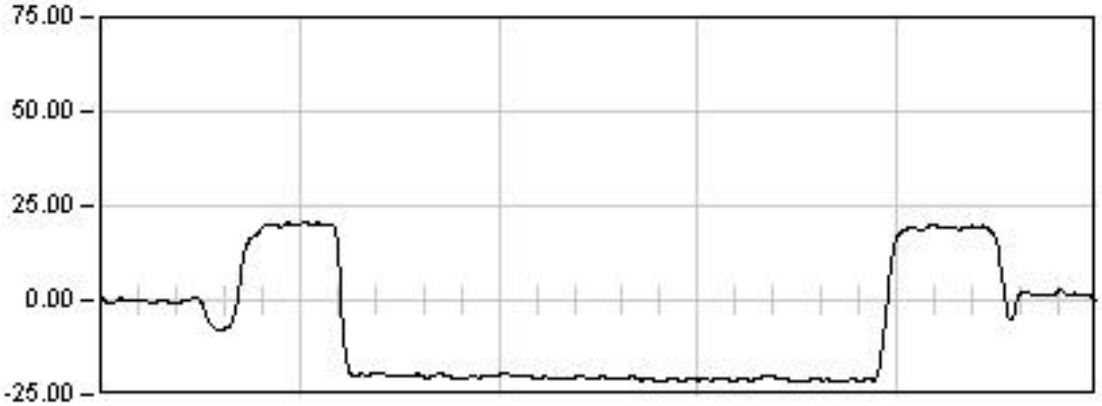
Est: -17.35
Max: 39.37
Min: -18.66
Rem: 1.18



ESTATICA 26

1203.0 Seg

Est: 35.69
Max: 37.01
Min: -7.74
Rem: 2.17



ESTATICA 27

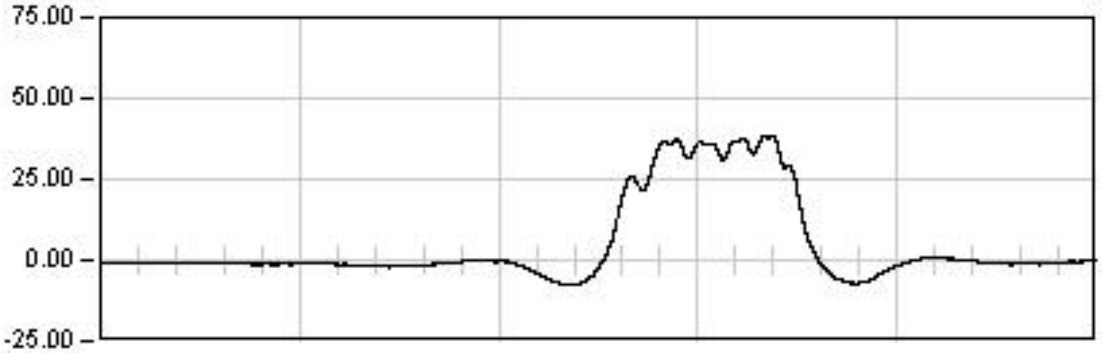
1225.0 Seg

Est: -21.11
Max: -21.62
Min: 20.72
Rem: 1.53

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

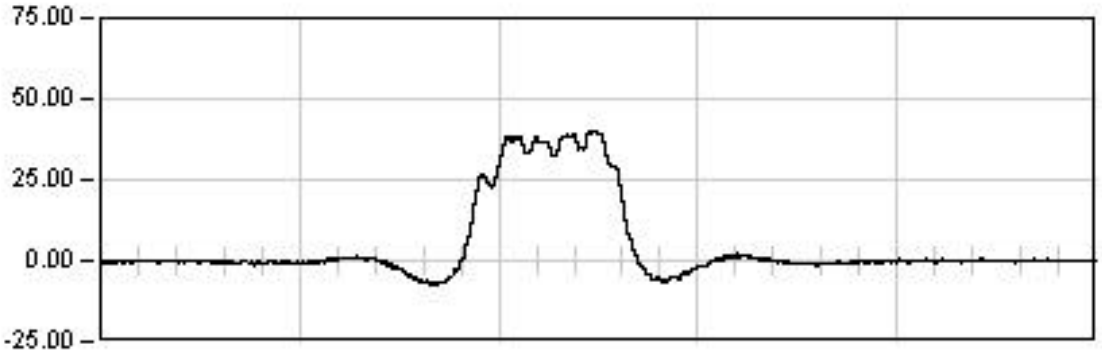
Punto : G061 Canal : 16 Unidades : µE



DINAMICA 11

245.5 Seg

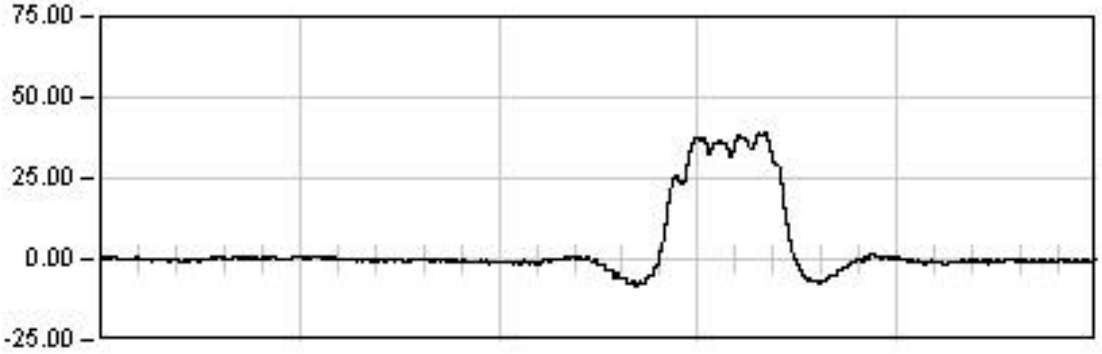
Max: 38.43
Min: -7.74
Rem: -0.19



DINAMICA 12

40.0 Seg

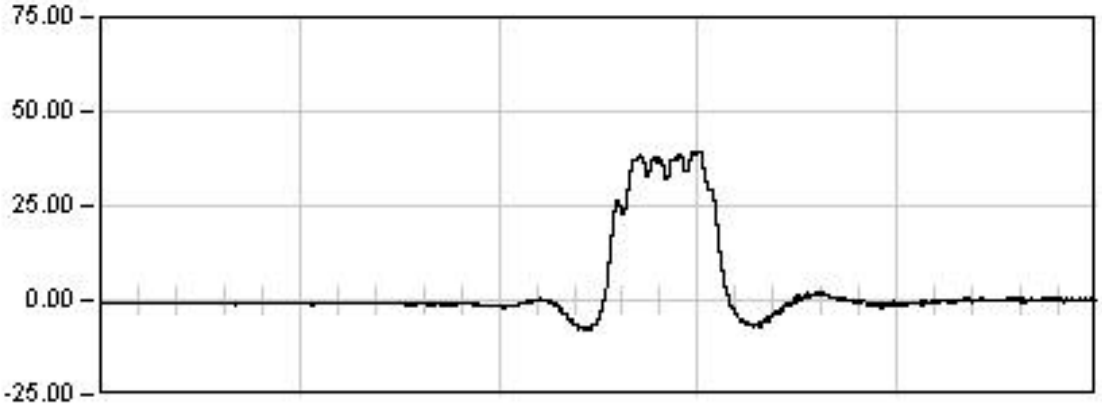
Max: 39.87
Min: -7.49
Rem: -0.17



DINAMICA 13

36.5 Seg

Max: 39.28
Min: -8.16
Rem: -0.59



DINAMICA 14

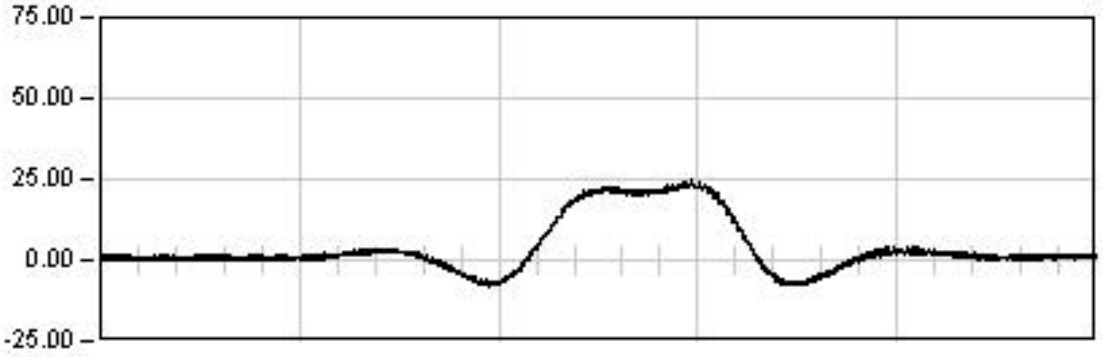
53.5 Seg

Max: 39.64
Min: -7.88
Rem: 0.15

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

Punto : G061 Canal : 16 Unidades : µE



DINAMICA 21

293.0 Seg

Max: 24.63

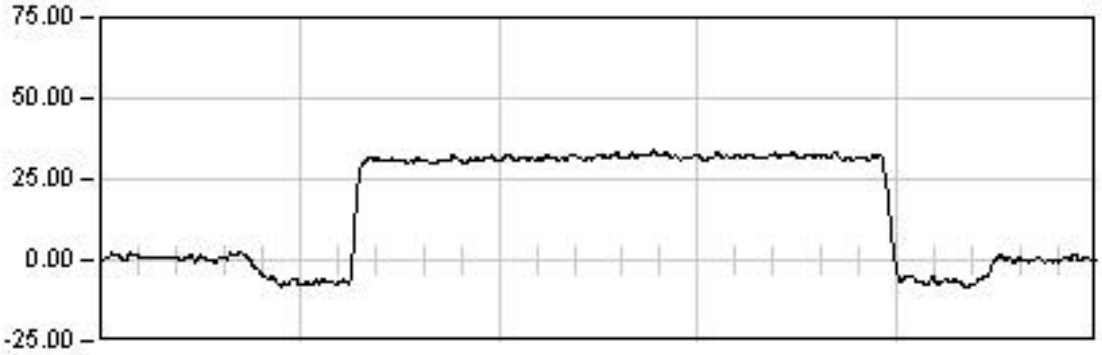
Min: -8.00

Rem: 1.18

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

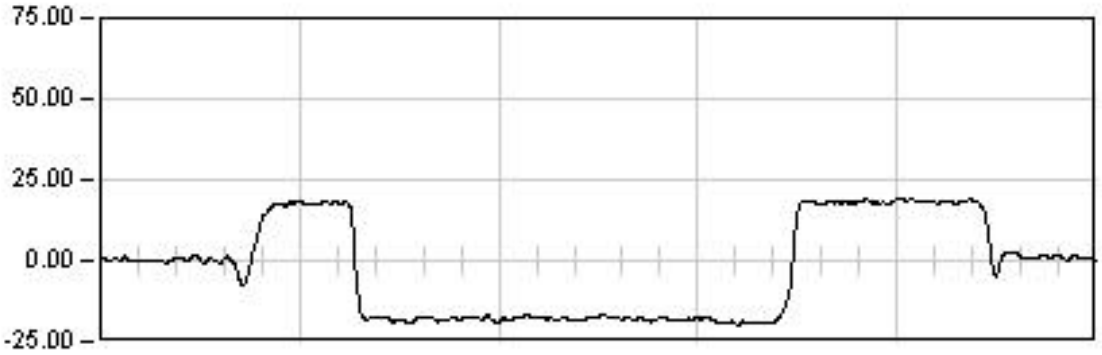
Punto : G062 Canal : 17 Unidades : µE



ESTATICA 14

1419.0 Seg

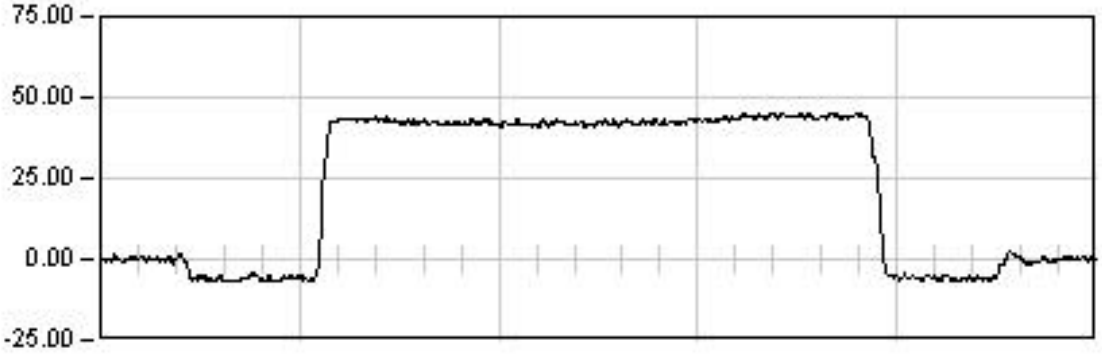
Est: 26.29
Max: 33.82
Min: -8.74
Rem: 0.42



ESTATICA 15

1379.0 Seg

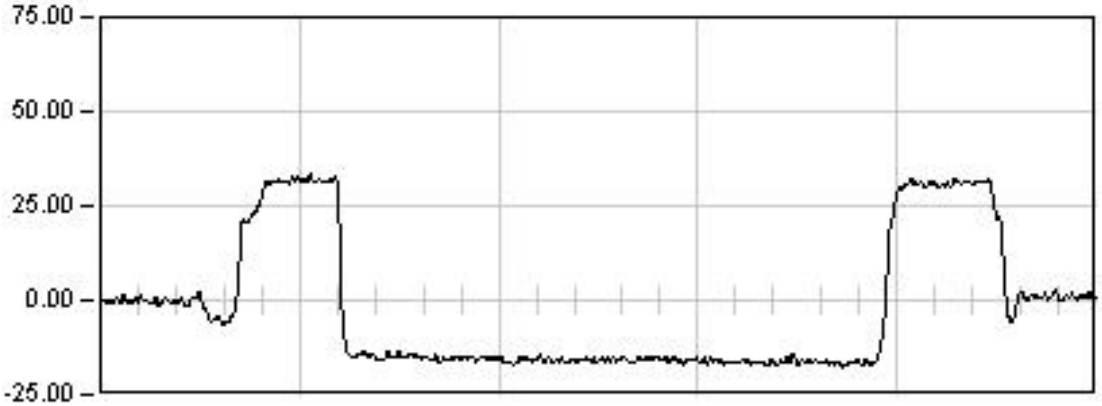
Est: -19.11
Max: -19.73
Min: 18.98
Rem: 0.93



ESTATICA 26

1203.0 Seg

Est: 44.92
Max: 45.38
Min: -6.87
Rem: 0.06



ESTATICA 27

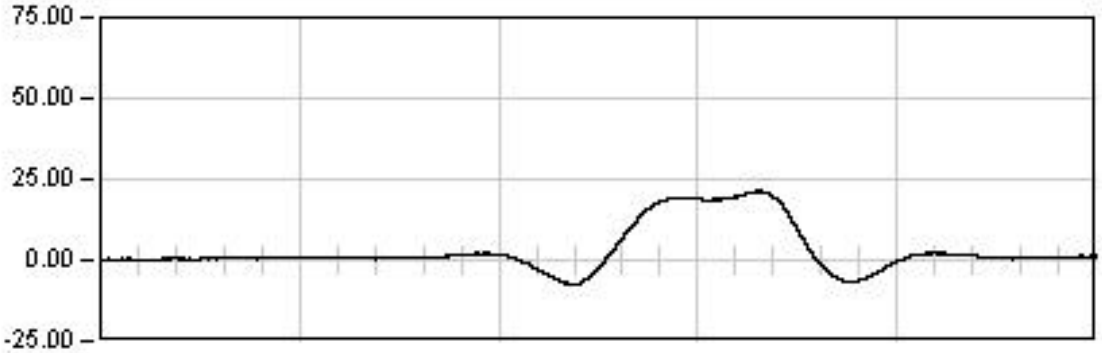
1225.0 Seg

Est: -16.72
Max: 33.41
Min: -17.56
Rem: 0.96

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

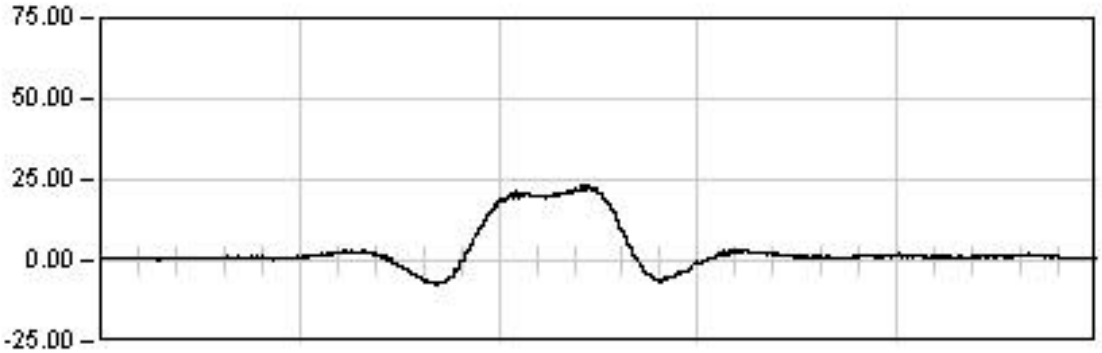
Punto : G062 Canal : 17 Unidades : µE



DINAMICA 11

245.5 Seg

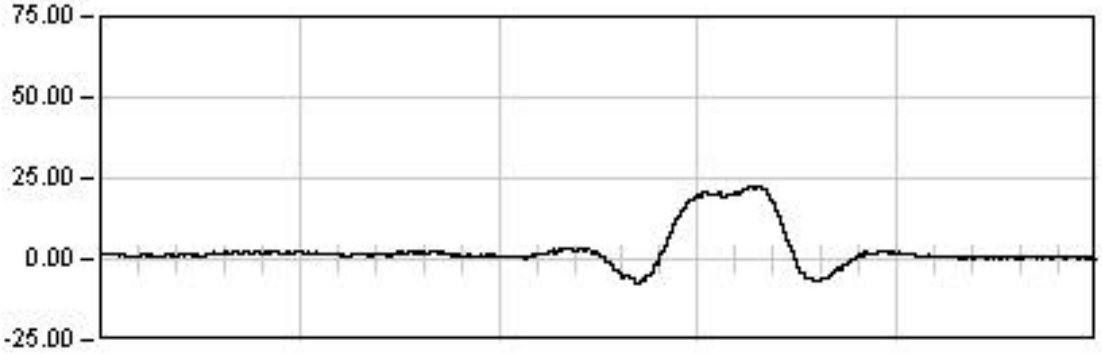
Max: 21.42
Min: -7.36
Rem: 1.23



DINAMICA 12

40.0 Seg

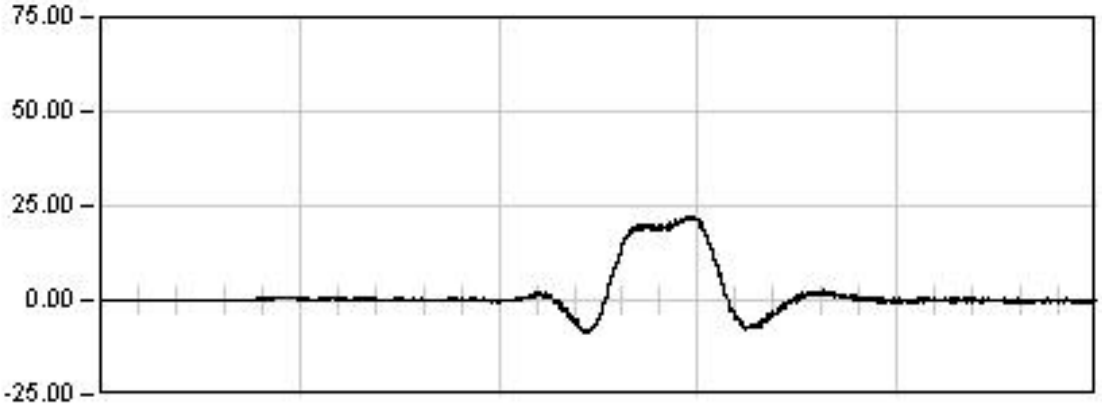
Max: 23.10
Min: -7.31
Rem: 1.01



DINAMICA 13

36.5 Seg

Max: 22.81
Min: -7.38
Rem: 0.22



DINAMICA 14

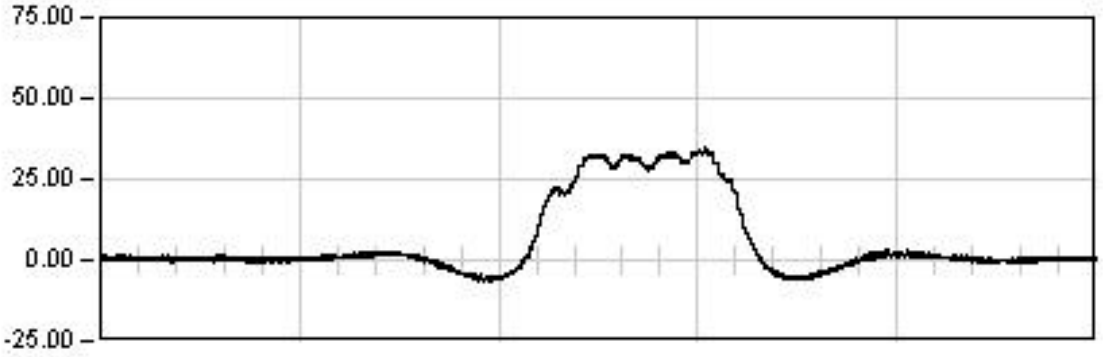
53.5 Seg

Max: 22.42
Min: -8.67
Rem: -0.25

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 6

Punto : G062 Canal : 17 Unidades : µE



DINAMICA 21

293.0 Seg

Max: 34.61

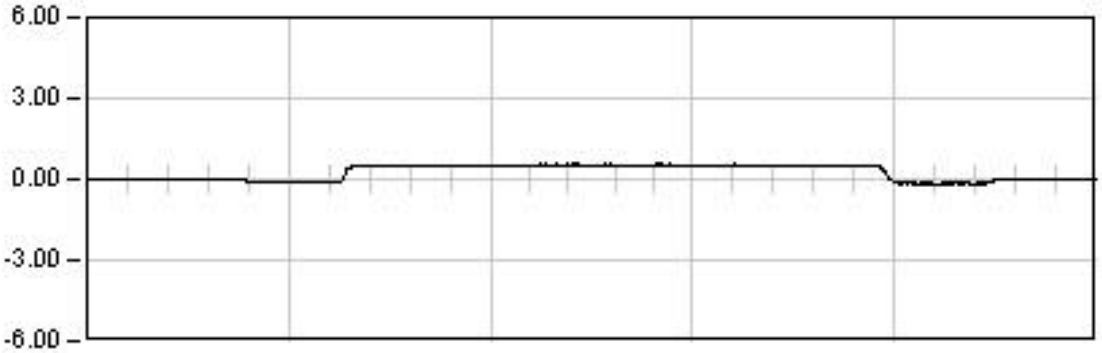
Min: -6.58

Rem: 0.50

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 7

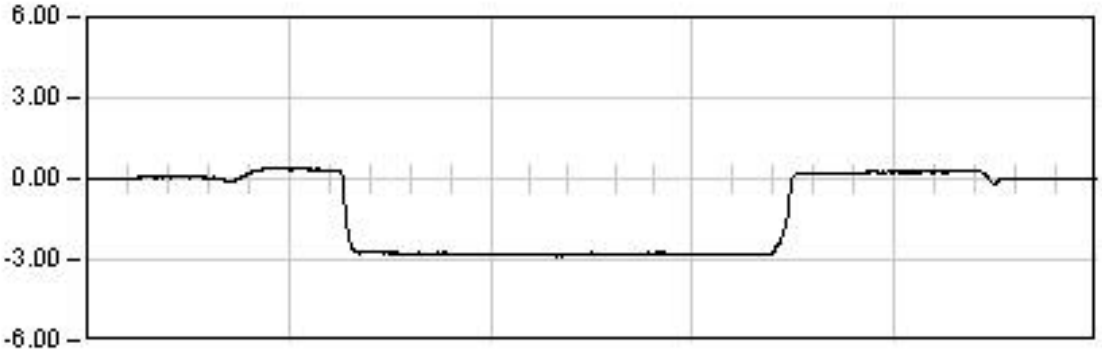
Punto : P071 **Canal : 19** **Unidades : mm**



ESTATICA 14

1419.0 Seg

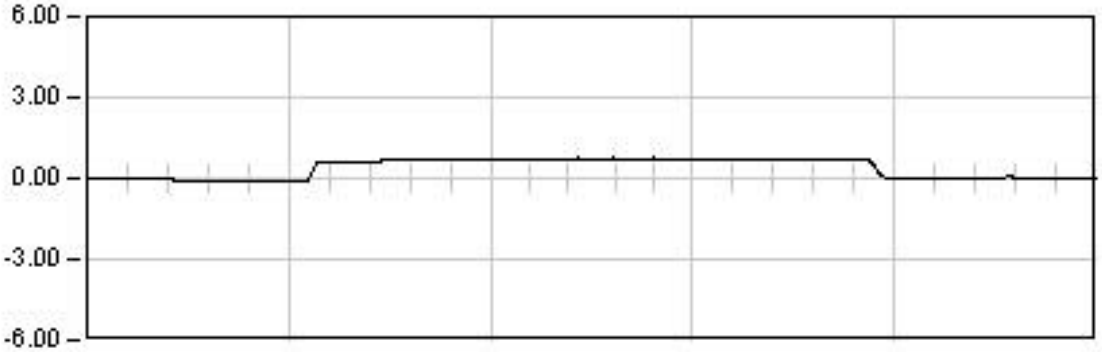
Est: 0.53
Max: 0.56
Min: -0.18
Rem: -0.02



ESTATICA 15

1379.0 Seg

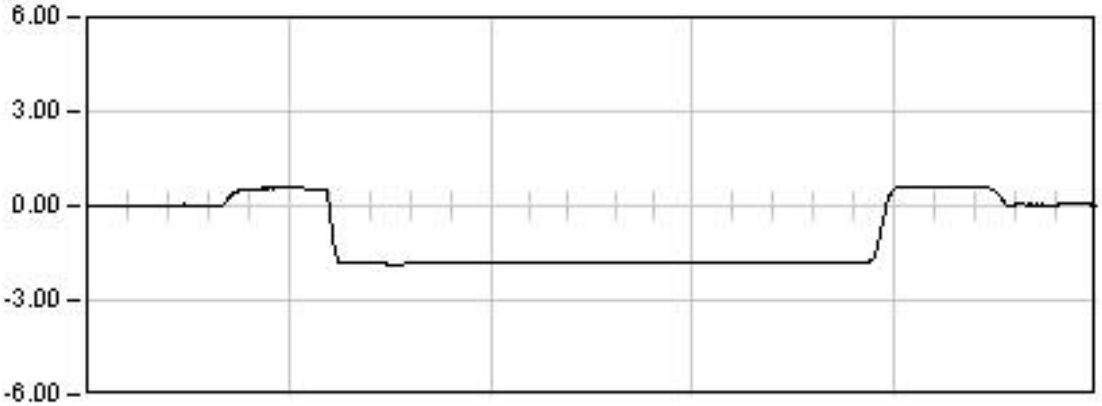
Est: -2.78
Max: -2.85
Min: 0.39
Rem: -0.00



ESTATICA 26

1203.0 Seg

Est: 0.75
Max: 0.76
Min: -0.14
Rem: -0.01



ESTATICA 27

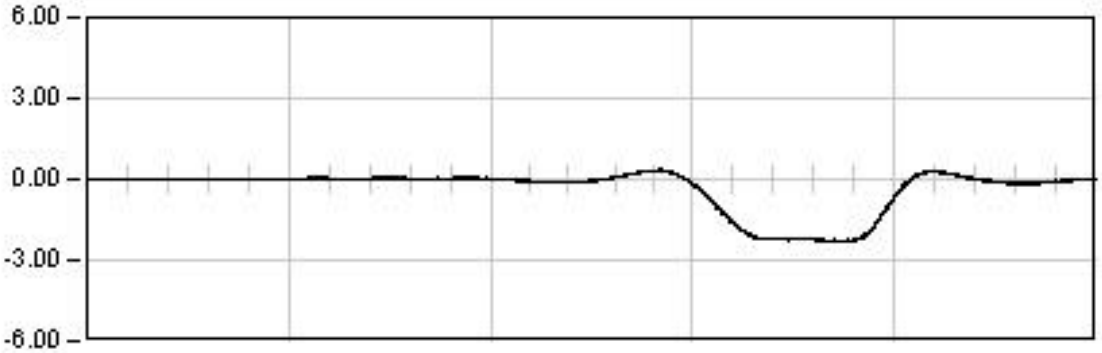
1225.0 Seg

Est: -1.74
Max: -1.85
Min: 0.62
Rem: 0.05

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 7

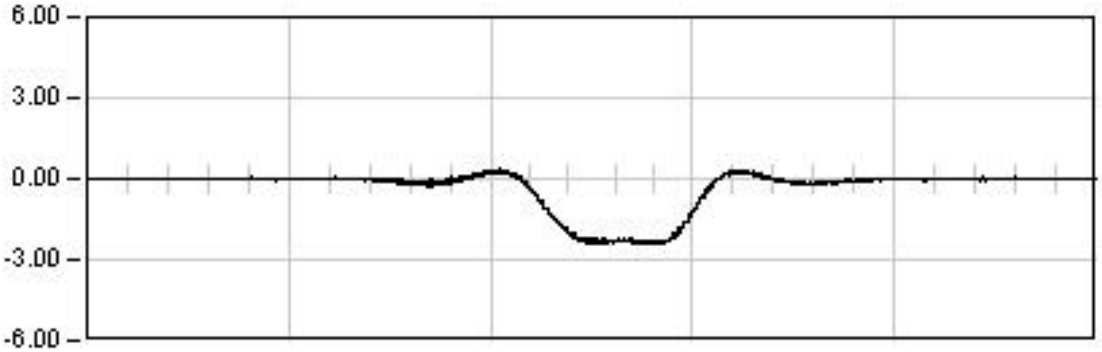
Punto : P071 **Canal : 19** **Unidades : mm**



DINAMICA 11

245.5 Seg

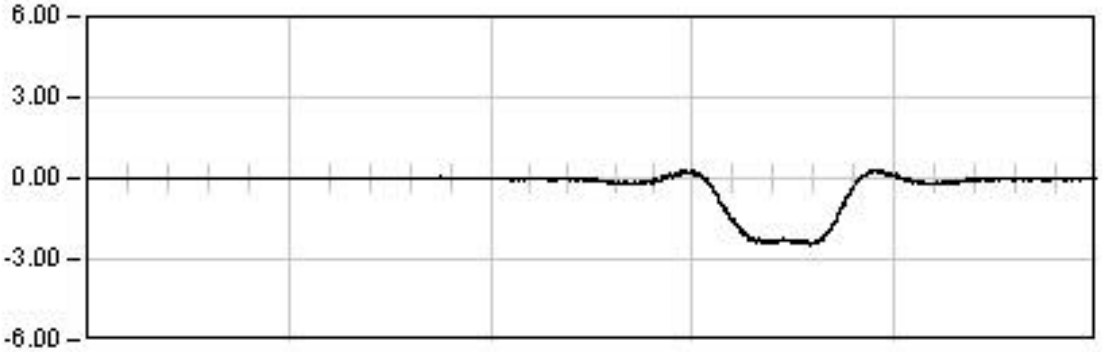
Max: -2.30
Min: 0.35
Rem: -0.00



DINAMICA 12

40.0 Seg

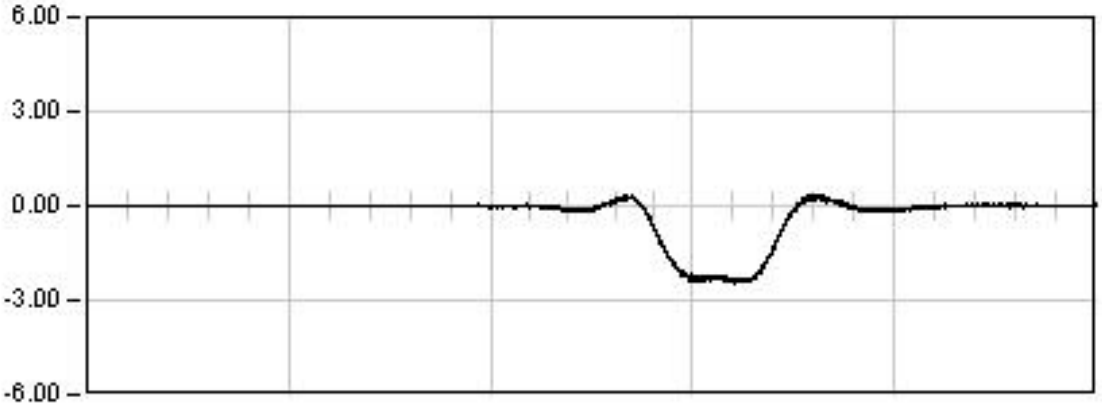
Max: -2.44
Min: 0.36
Rem: 0.00



DINAMICA 13

36.5 Seg

Max: -2.46
Min: 0.32
Rem: -0.02



DINAMICA 14

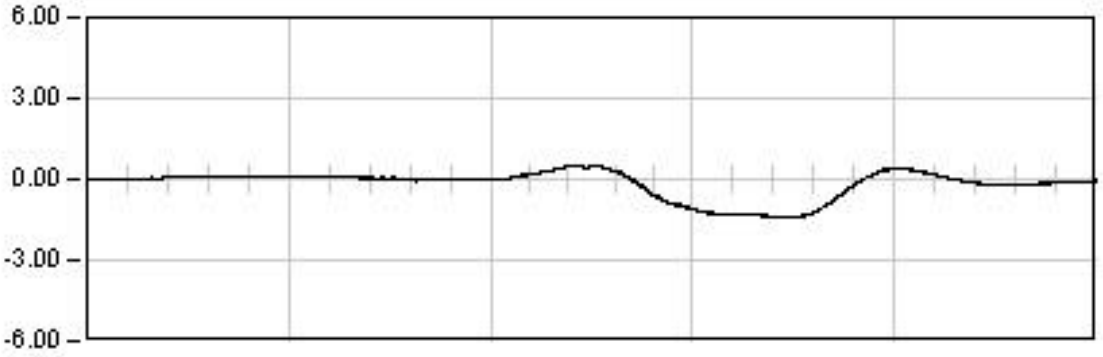
53.5 Seg

Max: -2.45
Min: 0.34
Rem: 0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 7

Punto : P071 Canal : 19 Unidades : mm



DINAMICA 21

293.0 Seg

Max: -1.43

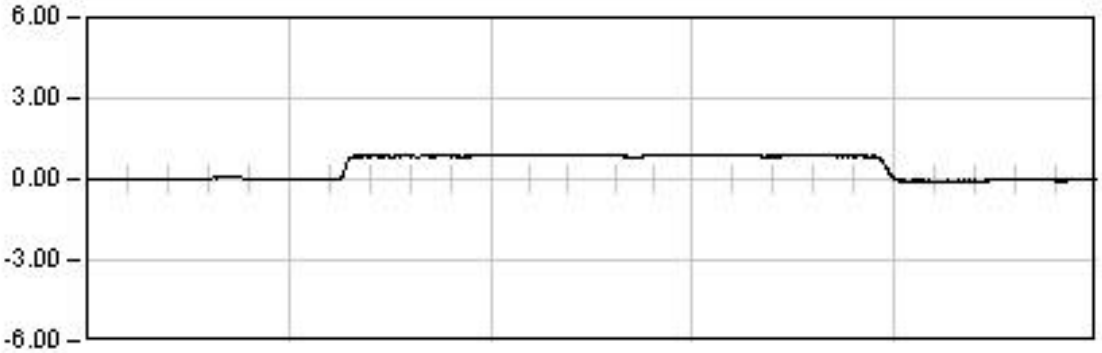
Min: 0.47

Rem: -0.07

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 7

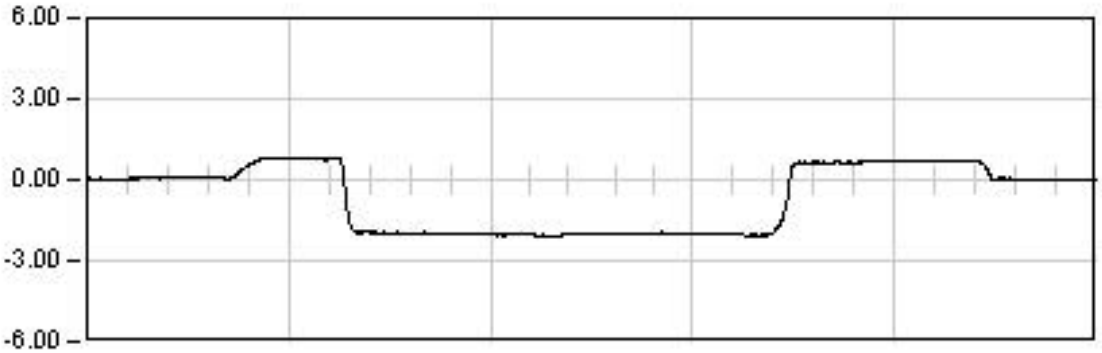
Punto : P072 **Canal : 20** **Unidades : mm**



ESTATICA 14

1419.0 Seg

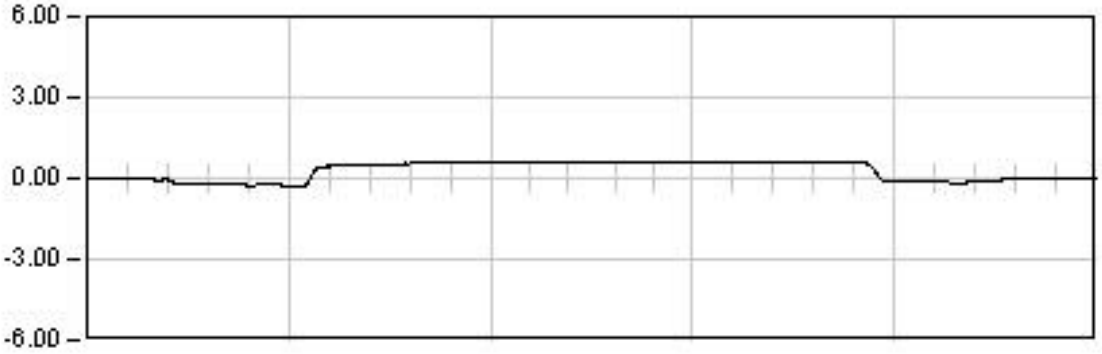
Est: 0.91
Max: 0.93
Min: -0.08
Rem: -0.04



ESTATICA 15

1379.0 Seg

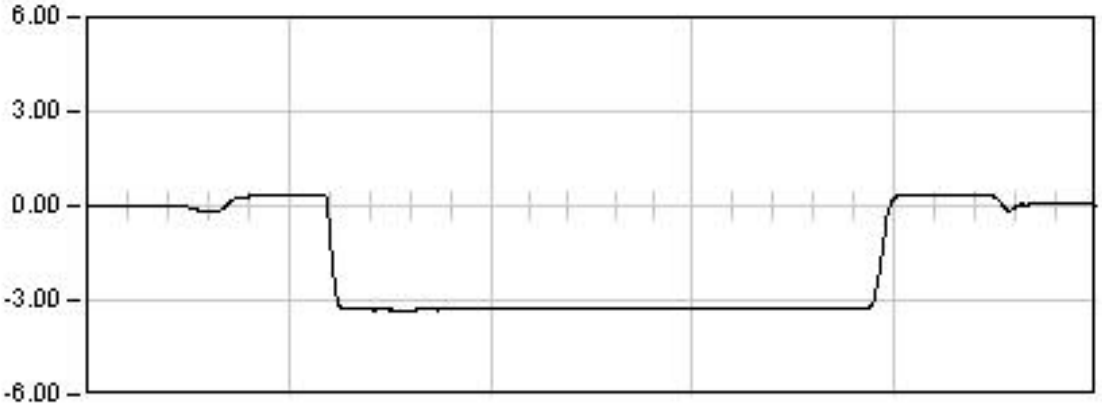
Est: -1.99
Max: -2.10
Min: 0.84
Rem: -0.00



ESTATICA 26

1203.0 Seg

Est: 0.59
Max: 0.63
Min: -0.27
Rem: 0.00



ESTATICA 27

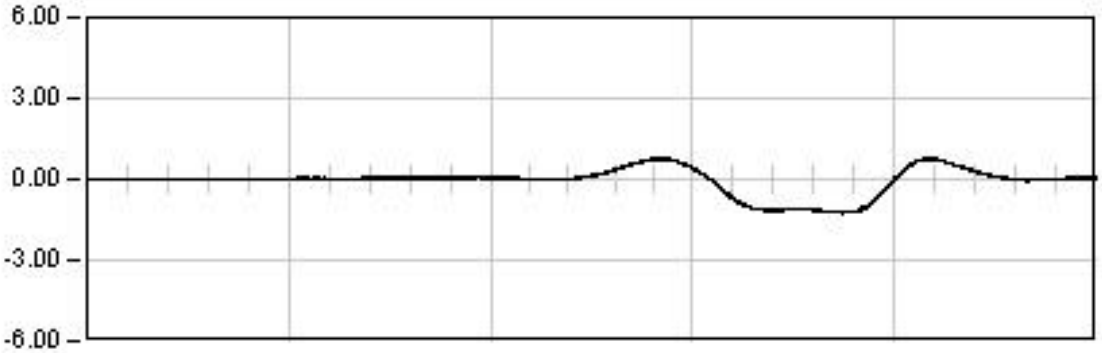
1225.0 Seg

Est: -3.23
Max: -3.31
Min: 0.37
Rem: 0.06

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 7

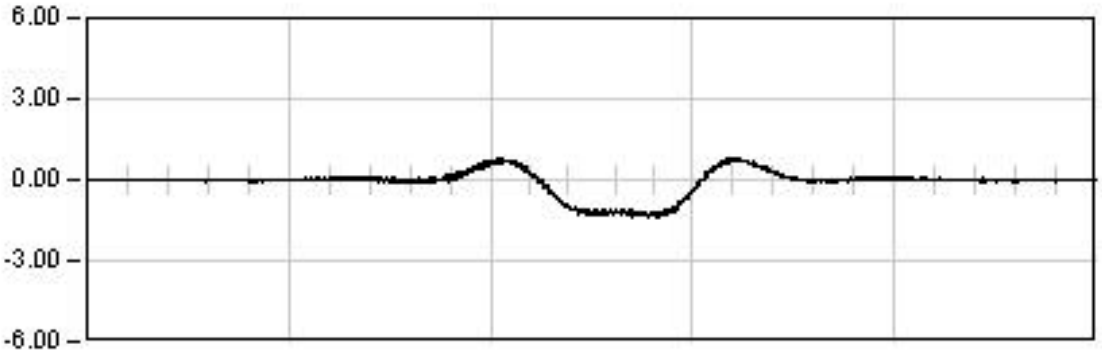
Punto : P072 **Canal : 20** **Unidades : mm**



DINAMICA 11

245.5 Seg

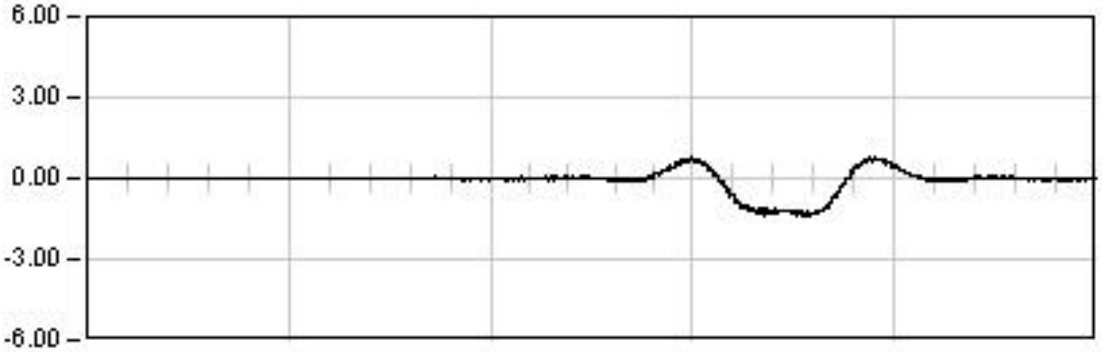
Max: -1.26
Min: 0.78
Rem: 0.06



DINAMICA 12

40.0 Seg

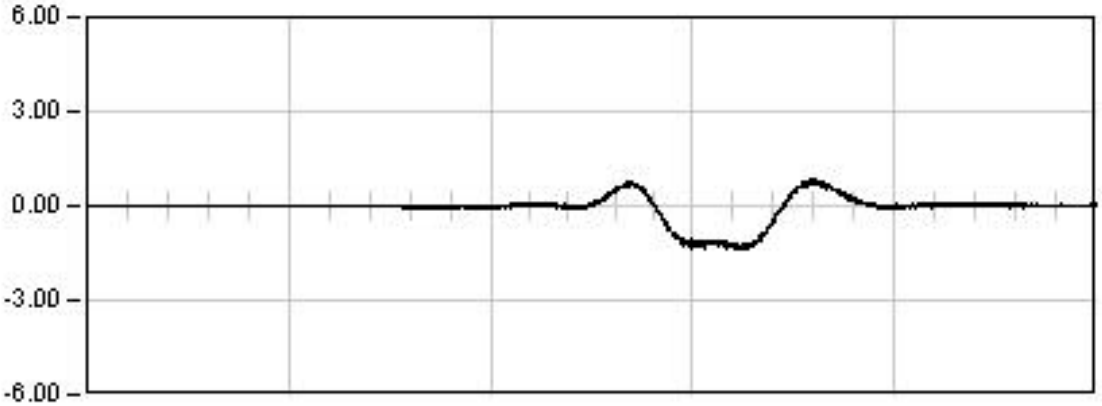
Max: -1.40
Min: 0.78
Rem: -0.01



DINAMICA 13

36.5 Seg

Max: -1.38
Min: 0.78
Rem: -0.03



DINAMICA 14

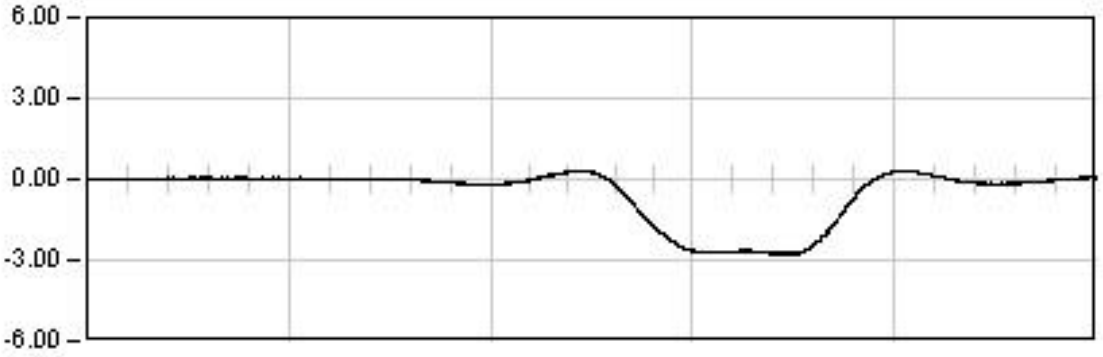
53.5 Seg

Max: -1.36
Min: 0.84
Rem: -0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 7

Punto : P072 **Canal : 20** **Unidades : mm**



DINAMICA 21

293.0 Seg

Max: -2.78

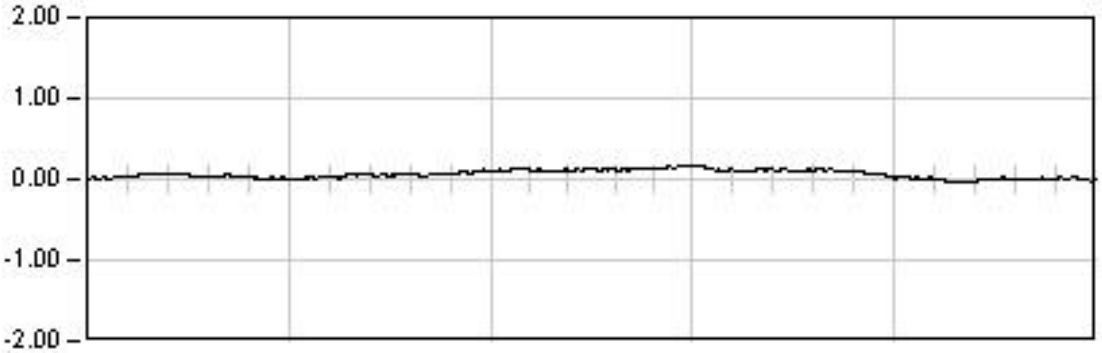
Min: 0.32

Rem: 0.07

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 7

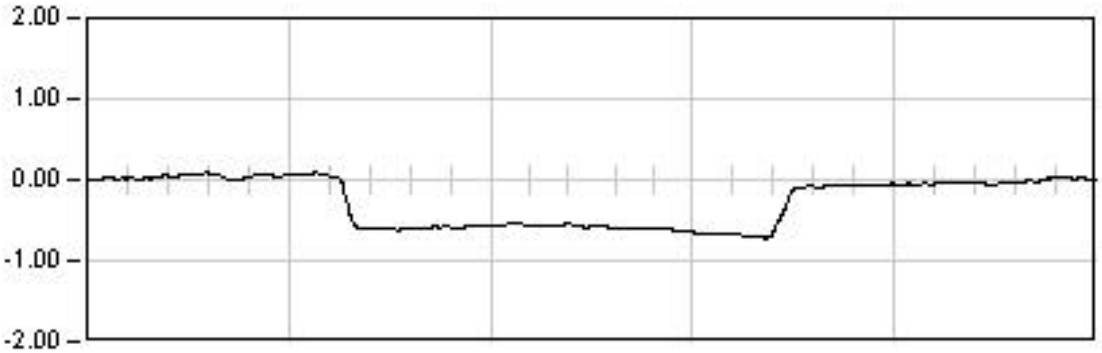
Punto : P073 Canal : 31 Unidades : mm



ESTATICA 14

1419.0 Seg

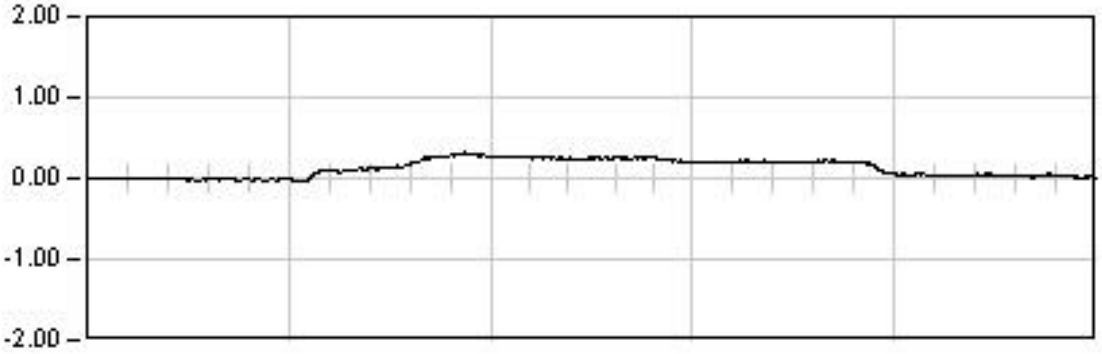
Est: 0.13
Max: 0.17
Min: -0.04
Rem: 0.01



ESTATICA 15

1379.0 Seg

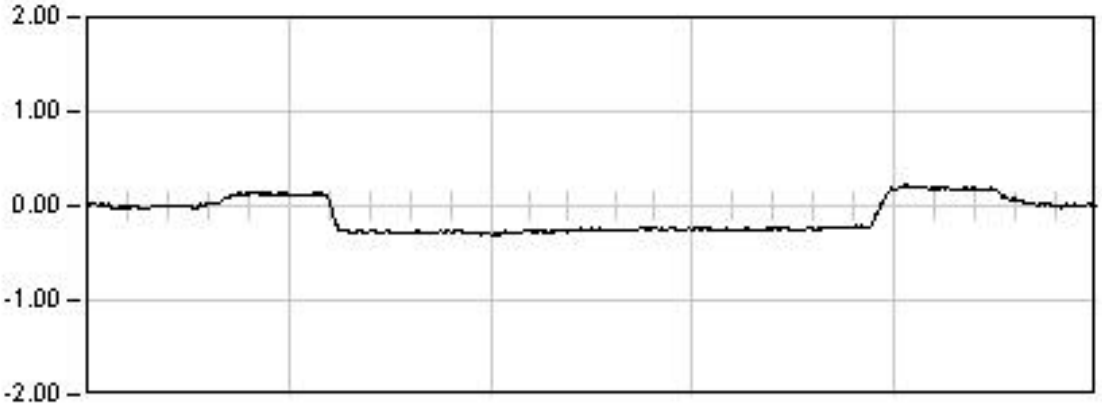
Est: -0.66
Max: -0.72
Min: 0.09
Rem: 0.02



ESTATICA 26

1203.0 Seg

Est: 0.19
Max: 0.32
Min: -0.04
Rem: 0.01



ESTATICA 27

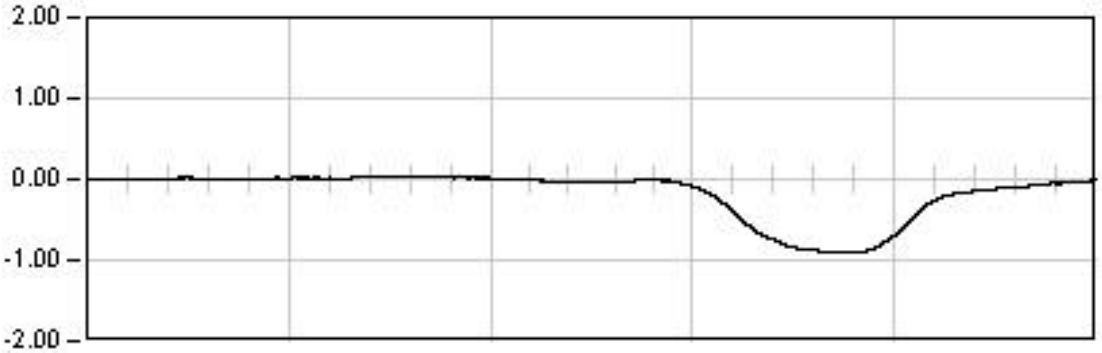
1225.0 Seg

Est: -0.23
Max: -0.31
Min: 0.23
Rem: 0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 7

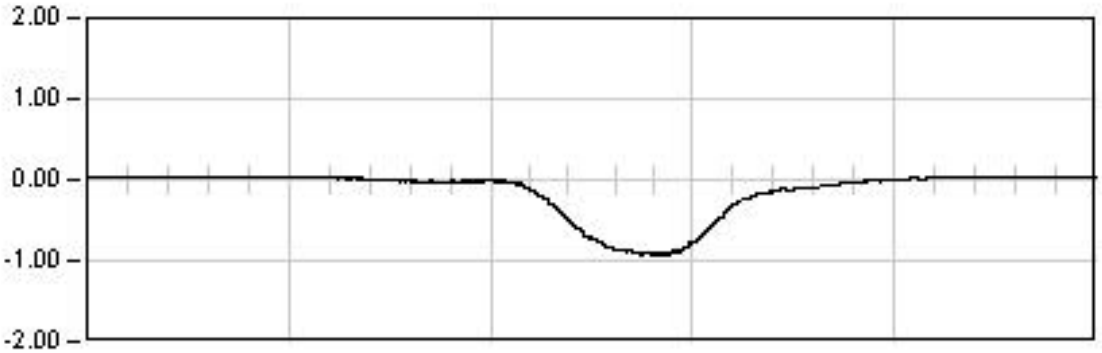
Punto : P073 Canal : 31 Unidades : mm



DINAMICA 11

245.5 Seg

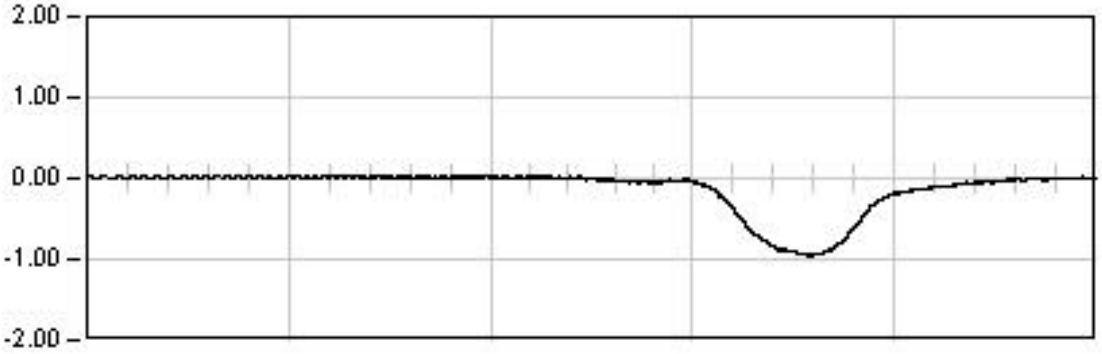
Max: -0.91
Min: 0.03
Rem: -0.01



DINAMICA 12

40.0 Seg

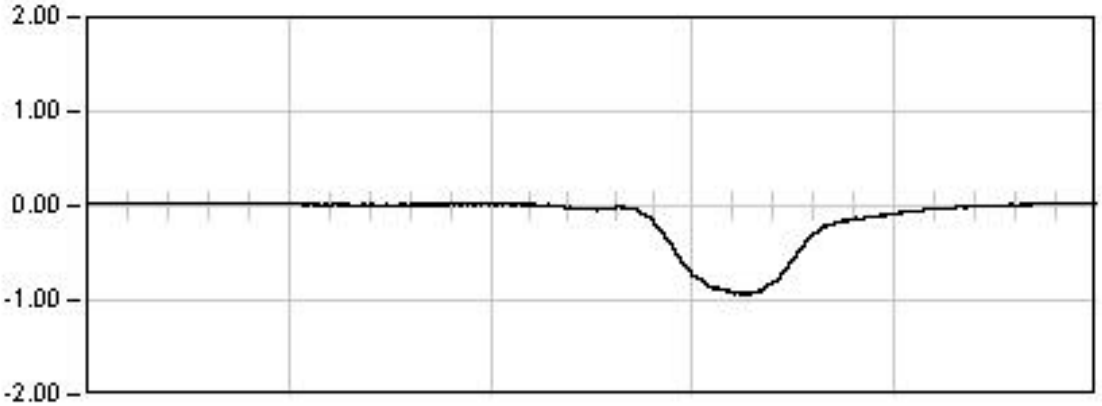
Max: -0.94
Min: 0.05
Rem: 0.03



DINAMICA 13

36.5 Seg

Max: -0.96
Min: 0.04
Rem: 0.00



DINAMICA 14

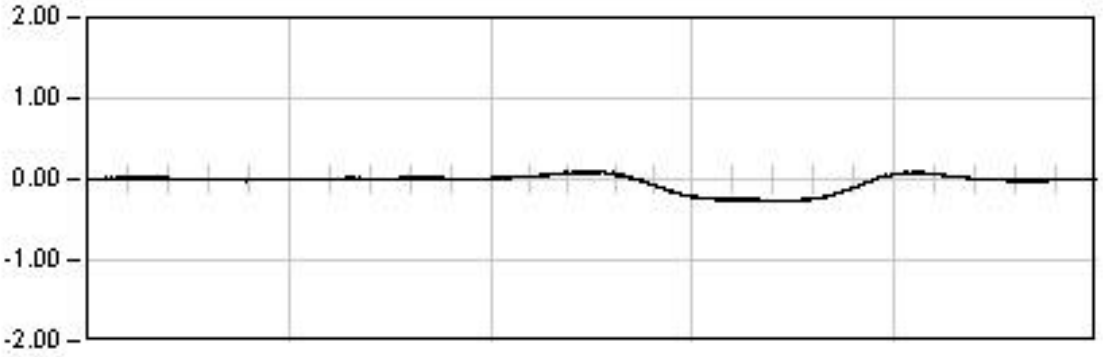
53.5 Seg

Max: -0.94
Min: 0.03
Rem: 0.03

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 7

Punto : P073 Canal : 31 Unidades : mm



DINAMICA 21

293.0 Seg

Max: -0.26

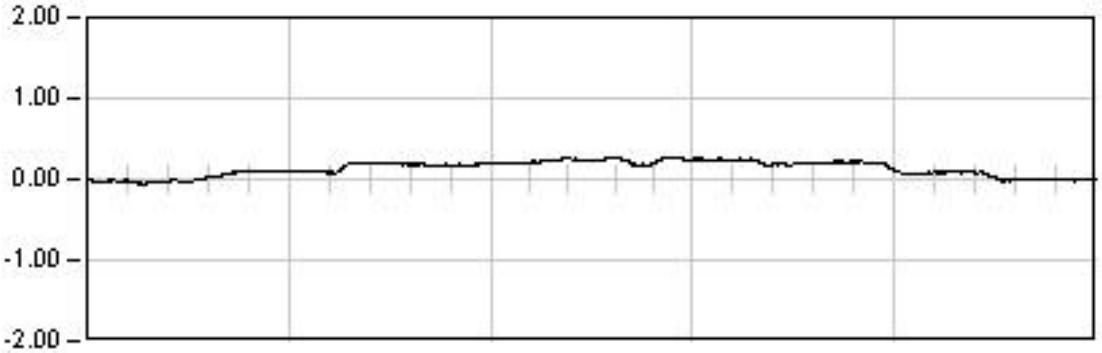
Min: 0.10

Rem: 0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 7

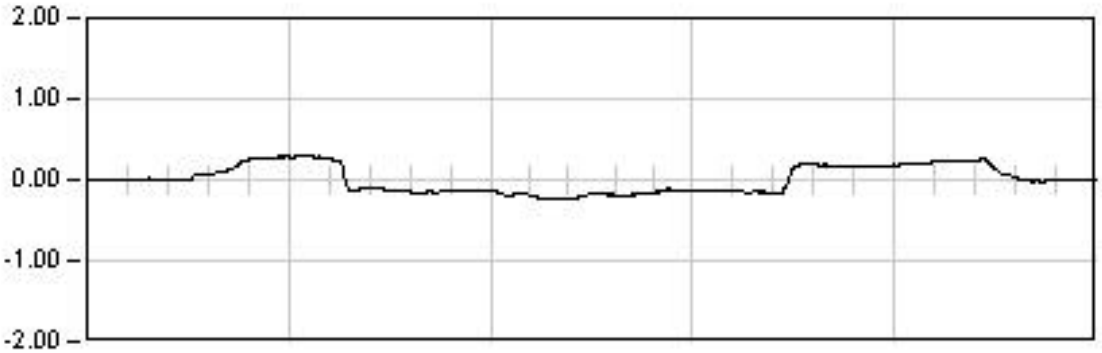
Punto : P074 Canal : 18 Unidades : mm



ESTATICA 14

1419.0 Seg

Est: 0.18
Max: 0.27
Min: -0.06
Rem: -0.01



ESTATICA 15

1379.0 Seg

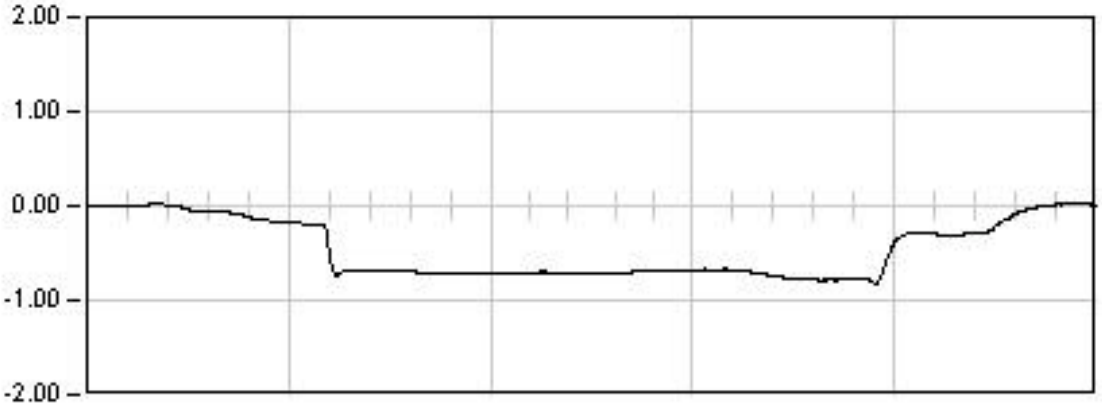
Est: -0.15
Max: 0.31
Min: -0.25
Rem: -0.00



ESTATICA 26

1203.0 Seg

Est: -0.24
Max: -0.31
Min: 0.01
Rem: -0.00



ESTATICA 27

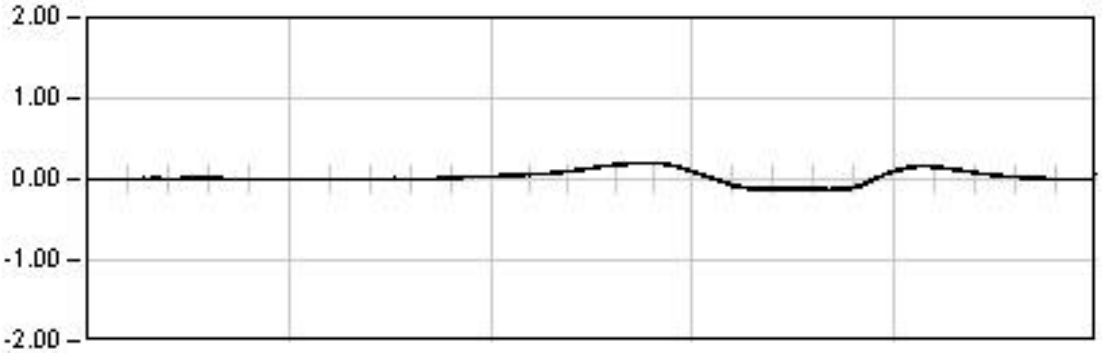
1225.0 Seg

Est: -0.77
Max: -0.82
Min: 0.02
Rem: 0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 7

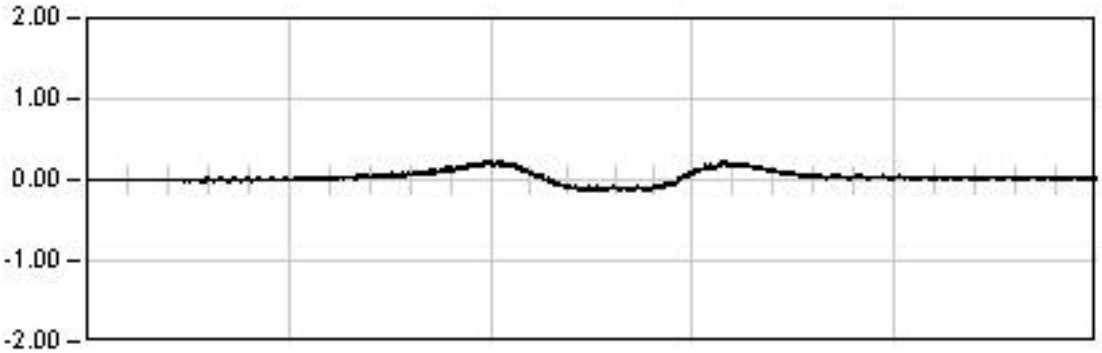
Punto : P074 **Canal : 18** **Unidades : mm**



DINAMICA 11

245.5 Seg

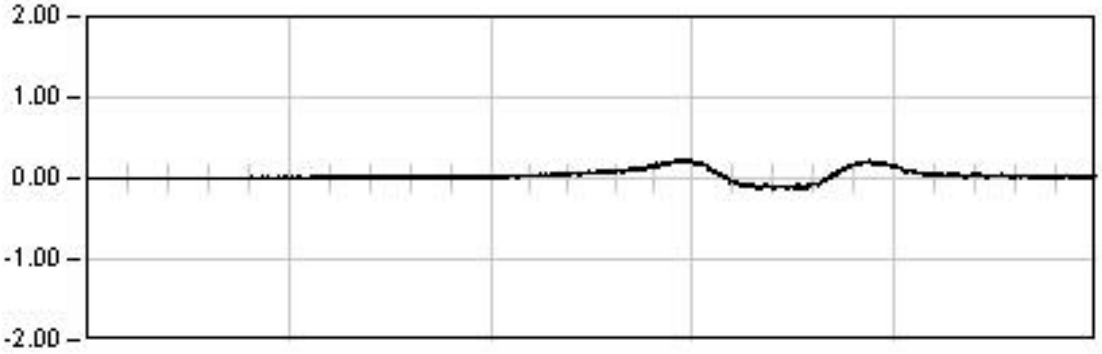
Max: 0.21
Min: -0.13
Rem: 0.02



DINAMICA 12

40.0 Seg

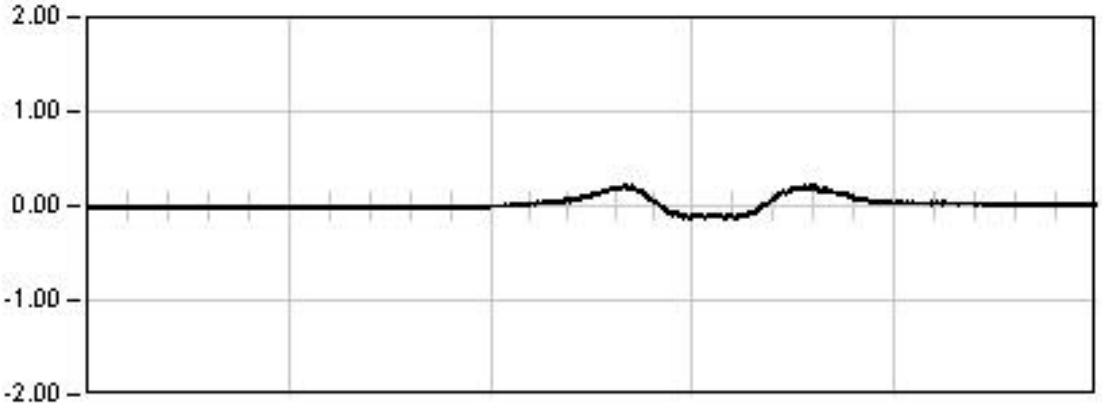
Max: 0.24
Min: -0.14
Rem: 0.02



DINAMICA 13

36.5 Seg

Max: 0.25
Min: -0.13
Rem: 0.02



DINAMICA 14

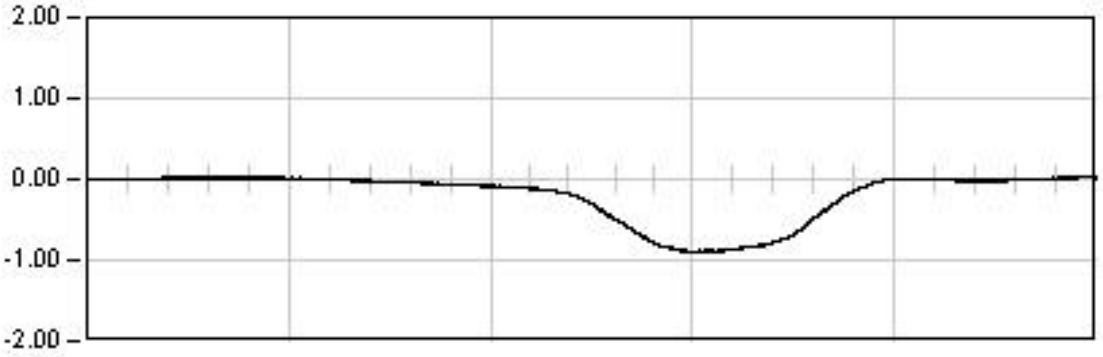
53.5 Seg

Max: 0.23
Min: -0.14
Rem: 0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 7

Punto : P074 Canal : 18 Unidades : mm



DINAMICA 21

293.0 Seg

Max: -0.90

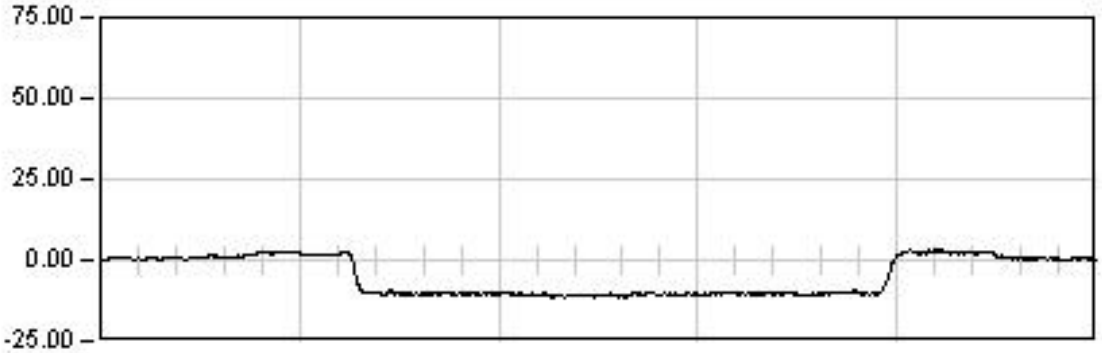
Min: 0.03

Rem: 0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 7

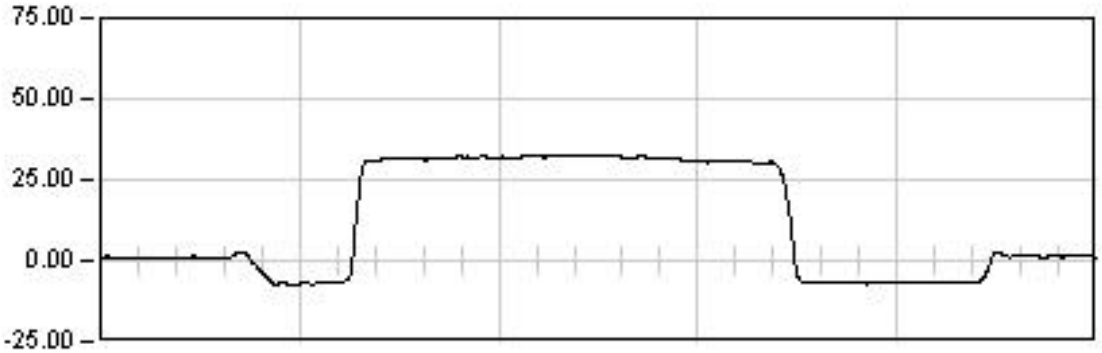
Punto : G072 Canal : 23 Unidades : µE



ESTATICA 14

1419.0 Seg

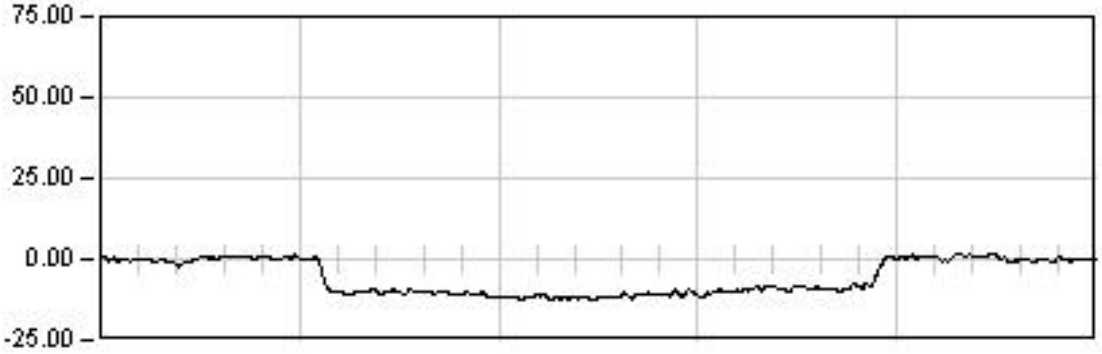
Est: -10.23
Max: -11.73
Min: 3.37
Rem: 0.42



ESTATICA 15

1379.0 Seg

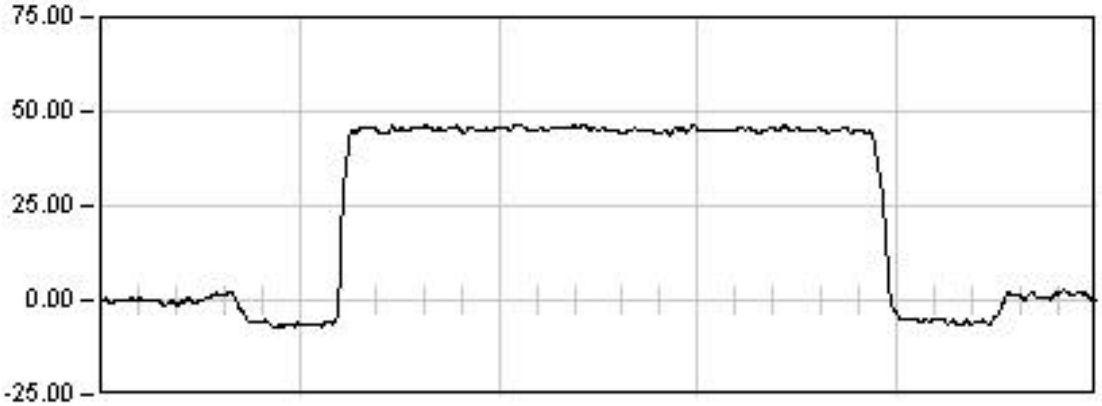
Est: 30.69
Max: 32.63
Min: -7.29
Rem: 1.52



ESTATICA 26

1203.0 Seg

Est: -8.62
Max: -12.84
Min: 1.65
Rem: -0.10



ESTATICA 27

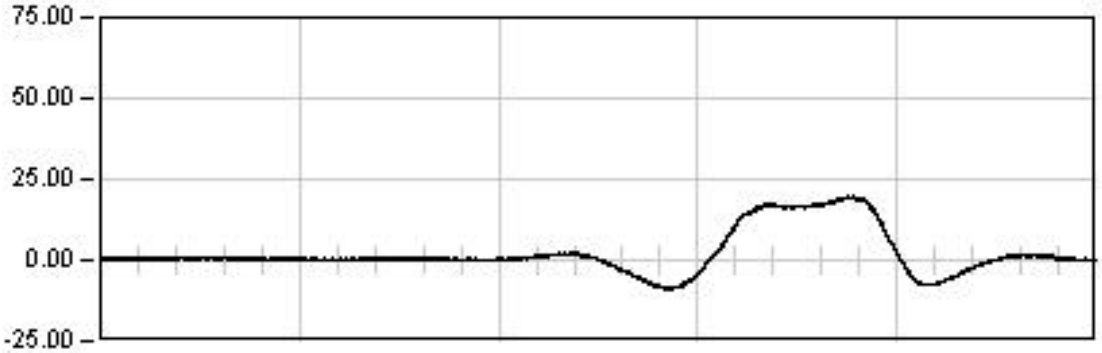
1225.0 Seg

Est: 45.07
Max: 46.49
Min: -7.13
Rem: 1.45

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 7

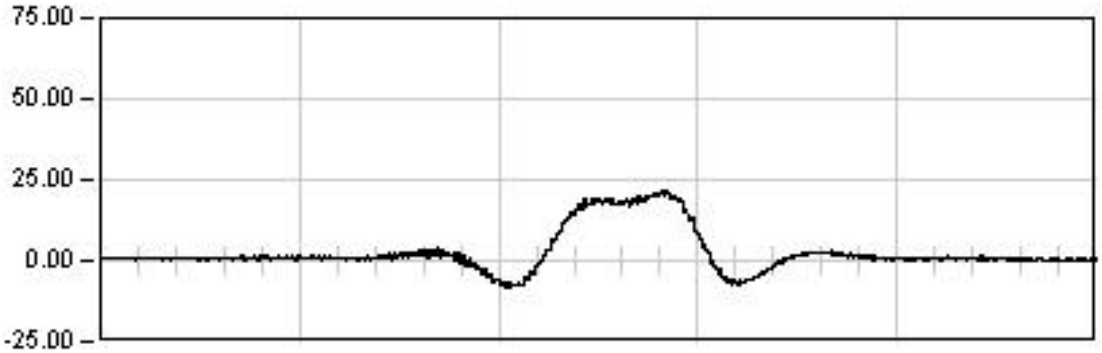
Punto : G072 Canal : 23 Unidades : µE



DINAMICA 11

245.5 Seg

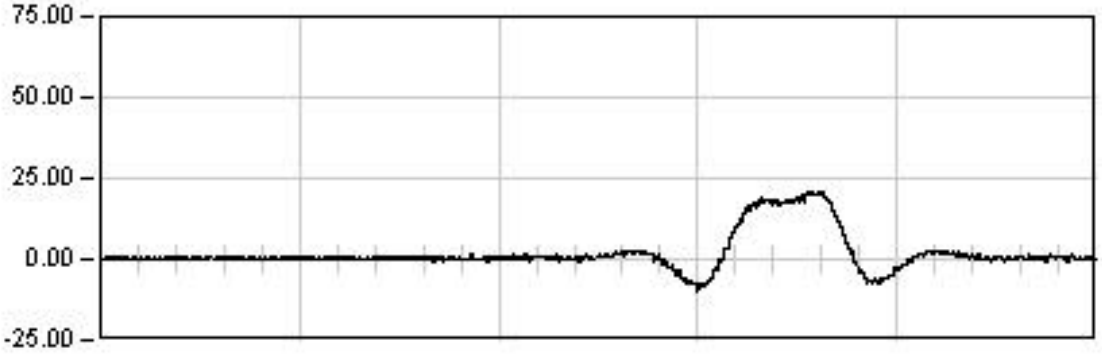
Max: 19.67
Min: -9.17
Rem: -0.14



DINAMICA 12

40.0 Seg

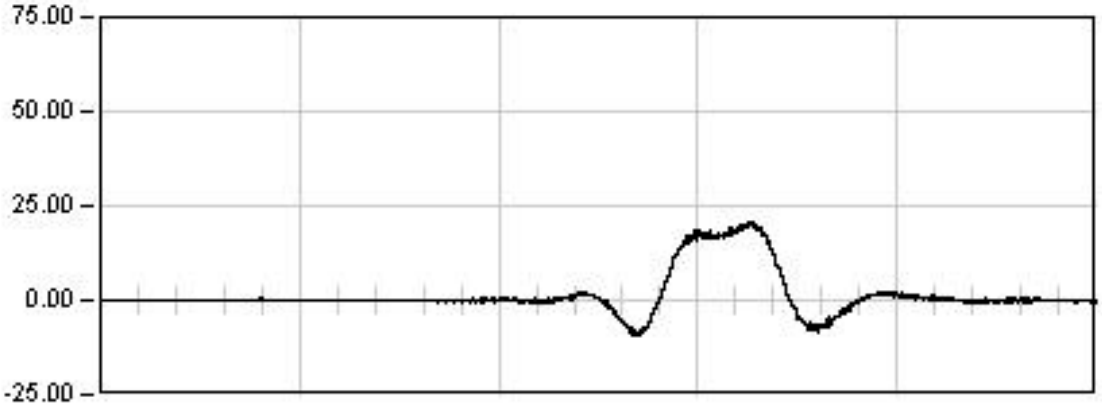
Max: 21.68
Min: -8.47
Rem: 0.43



DINAMICA 13

36.5 Seg

Max: 21.10
Min: -9.63
Rem: 0.39



DINAMICA 14

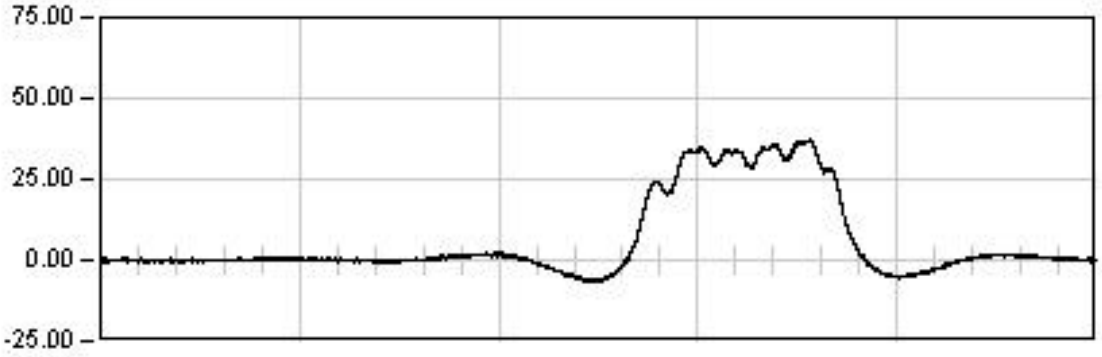
53.5 Seg

Max: 20.84
Min: -9.40
Rem: -0.15

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 7

Punto : G072 Canal : 23 Unidades : µE



DINAMICA 21

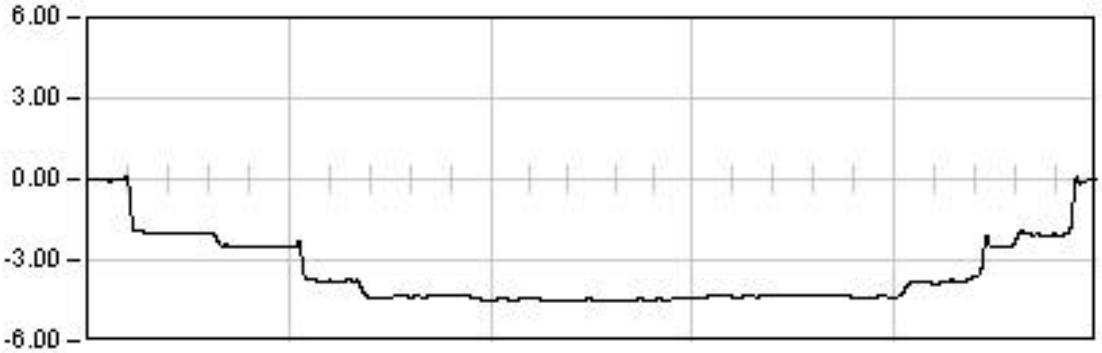
293.0 Seg

Max: 37.16
Min: -6.66
Rem: -0.10

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 8

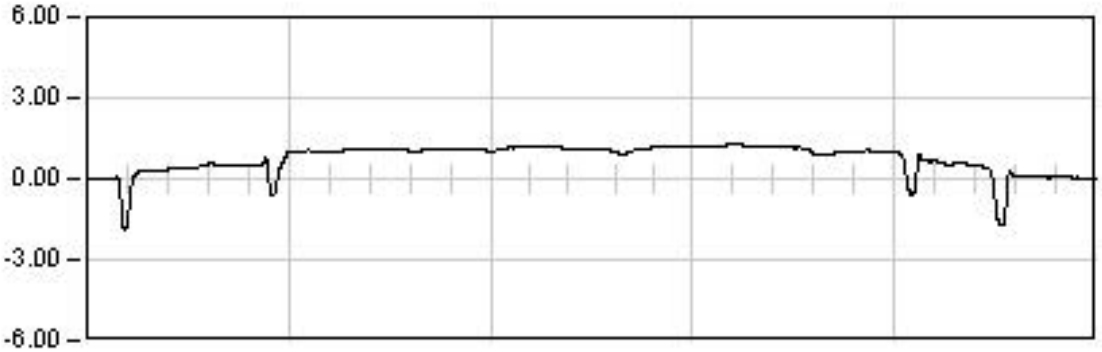
Punto : P081 **Canal : 01** **Unidades : mm**



ESTATICA 08

2601.0 Seg

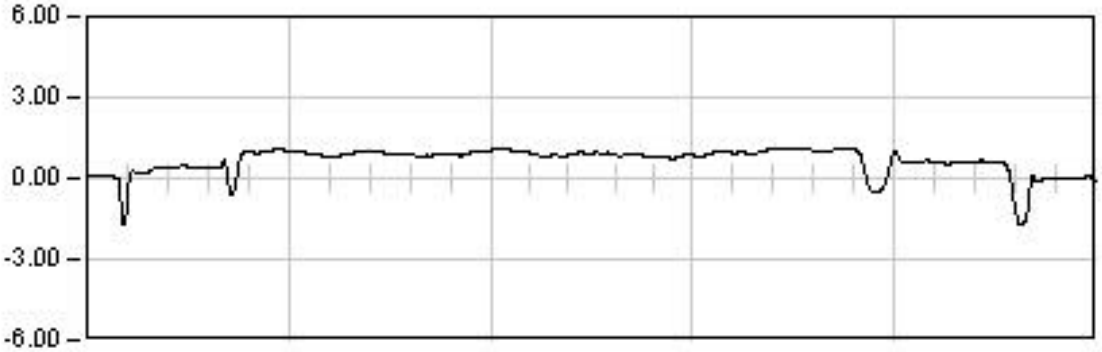
Est: -4.35
Max: -4.55
Min: 0.12
Rem: -0.10



ESTATICA 09

2333.0 Seg

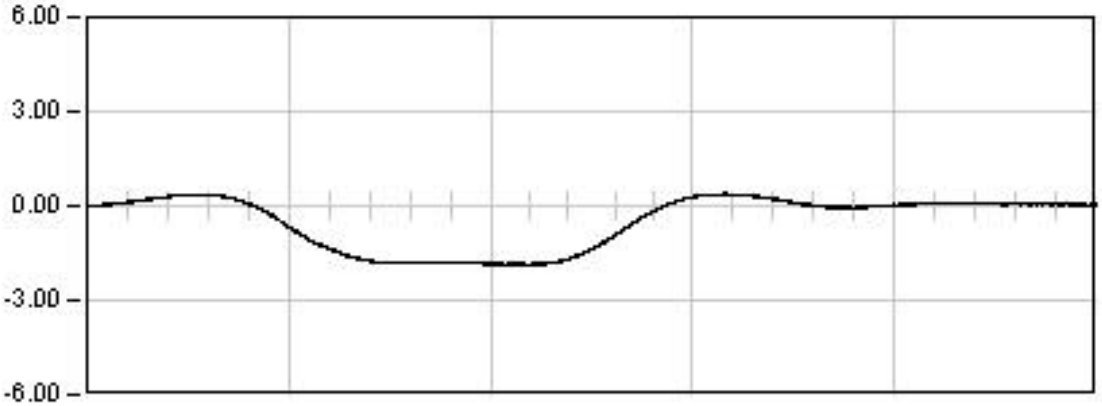
Est: 1.00
Max: -1.89
Min: 1.30
Rem: 0.02



ESTATICA 10

1690.0 Seg

Est: 0.89
Max: -1.69
Min: 1.11
Rem: 0.03



DINAMICA 11

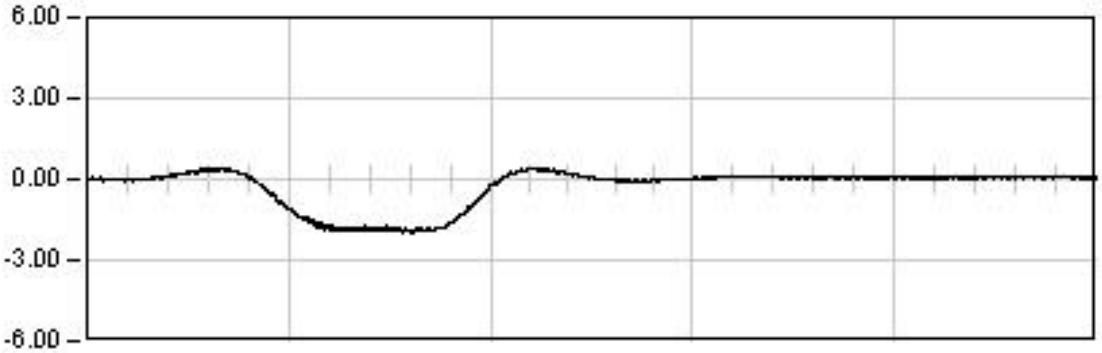
120.5 Seg

Max: -1.88
Min: 0.39
Rem: 0.04

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 8

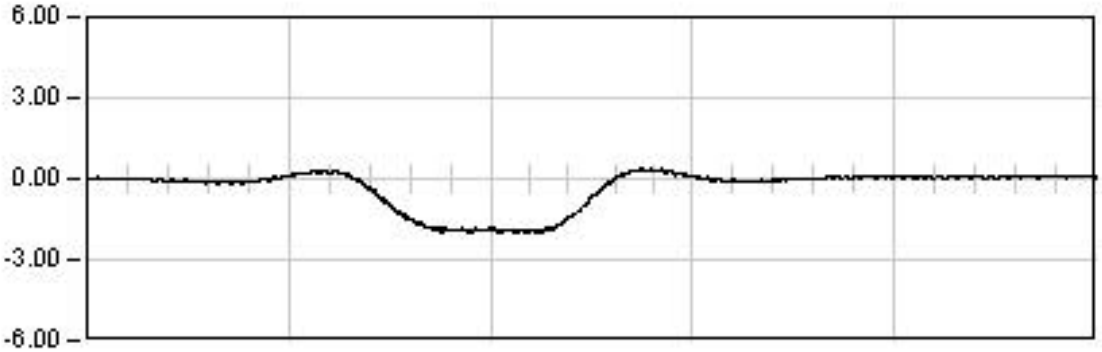
Punto : P081 Canal : 01 Unidades : mm



DINAMICA 12

26.5 Seg

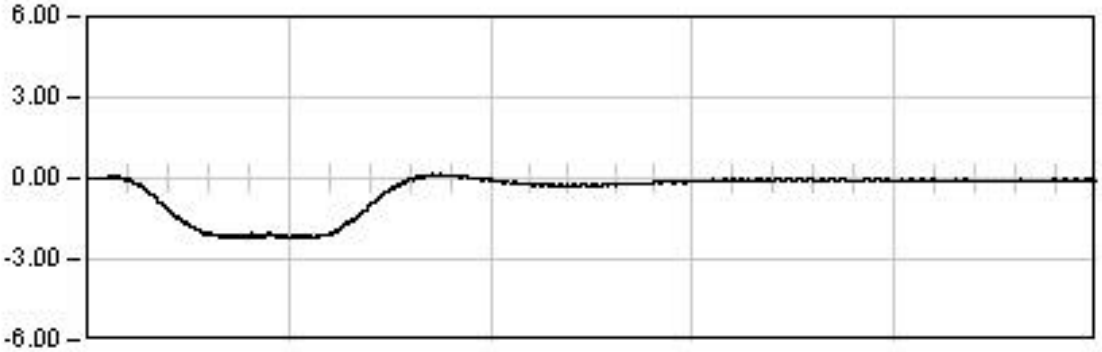
Max: -1.97
Min: 0.41
Rem: 0.05



DINAMICA 13

19.5 Seg

Max: -2.00
Min: 0.37
Rem: 0.07



DINAMICA 14

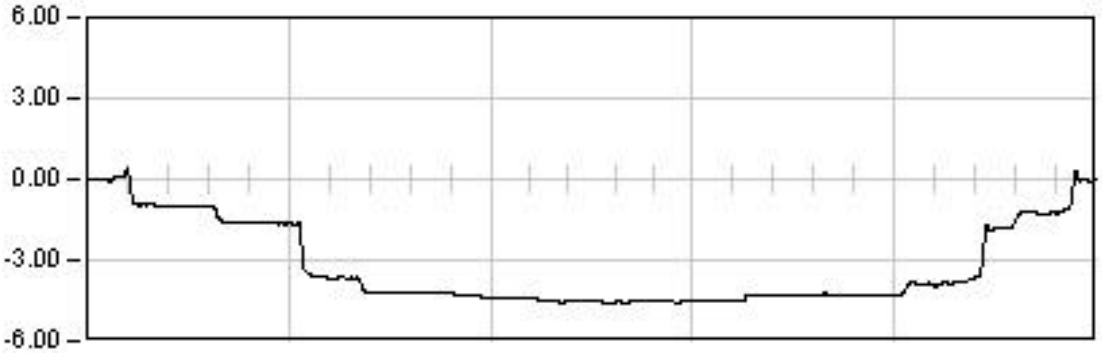
22.5 Seg

Max: -2.23
Min: 0.18
Rem: -0.06

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 8

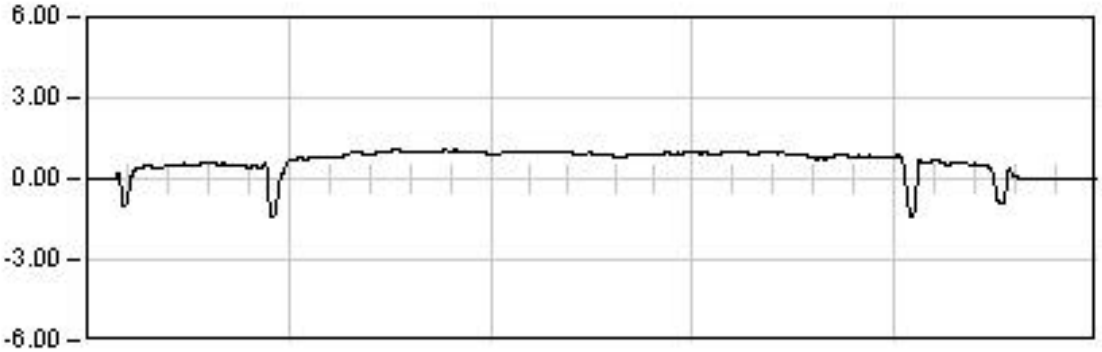
Punto : P082 Canal : 02 Unidades : mm



ESTATICA 08

2601.0 Seg

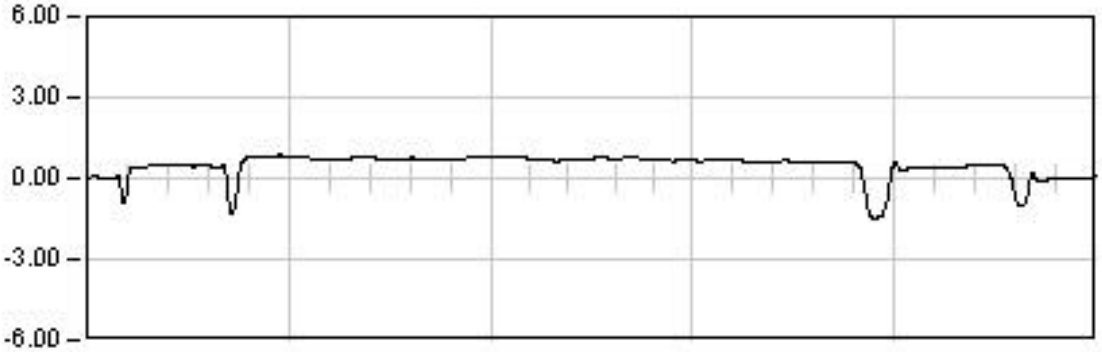
Est: -4.29
Max: -4.57
Min: 0.38
Rem: -0.01



ESTATICA 09

2333.0 Seg

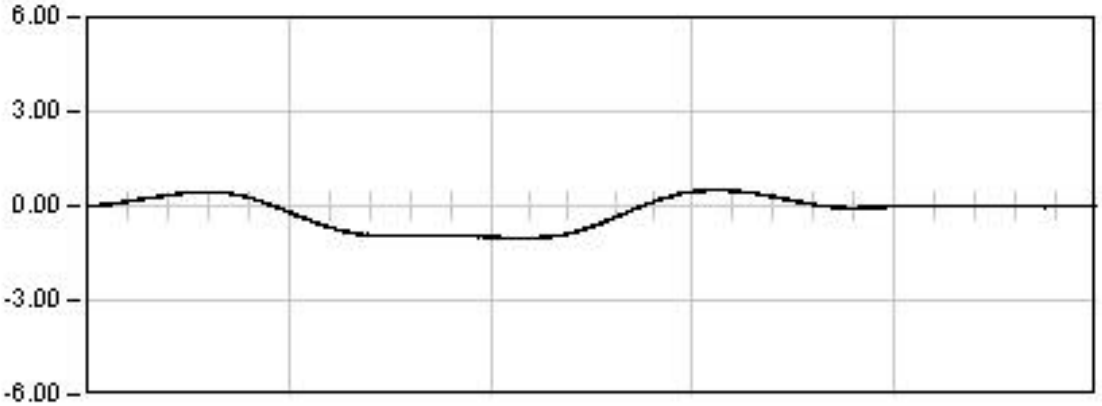
Est: 0.79
Max: -1.42
Min: 1.08
Rem: 0.01



ESTATICA 10

1690.0 Seg

Est: 0.75
Max: -1.50
Min: 0.85
Rem: -0.00



DINAMICA 11

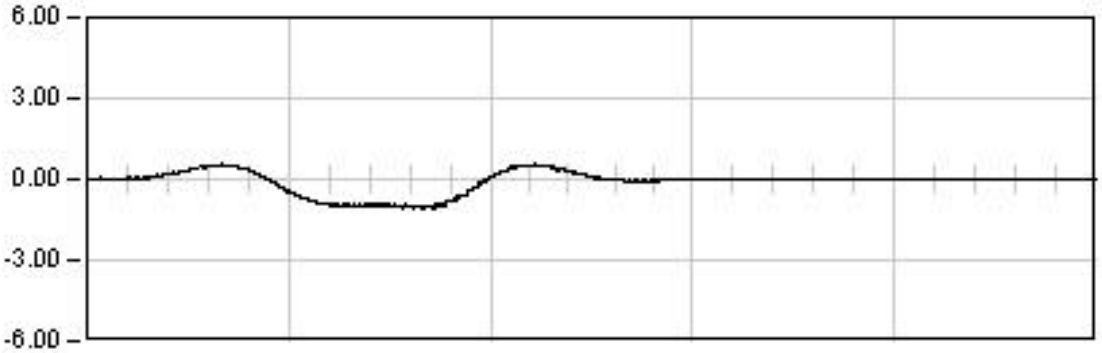
120.5 Seg

Max: -1.04
Min: 0.52
Rem: -0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 8

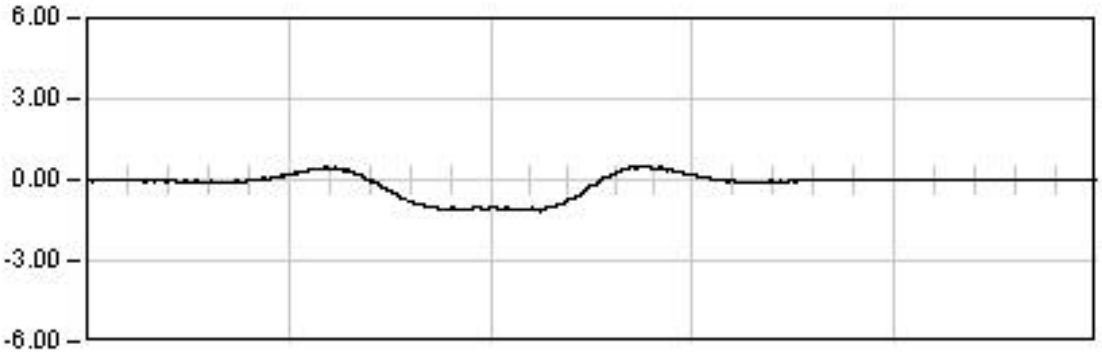
Punto : P082 Canal : 02 Unidades : mm



DINAMICA 12

26.5 Seg

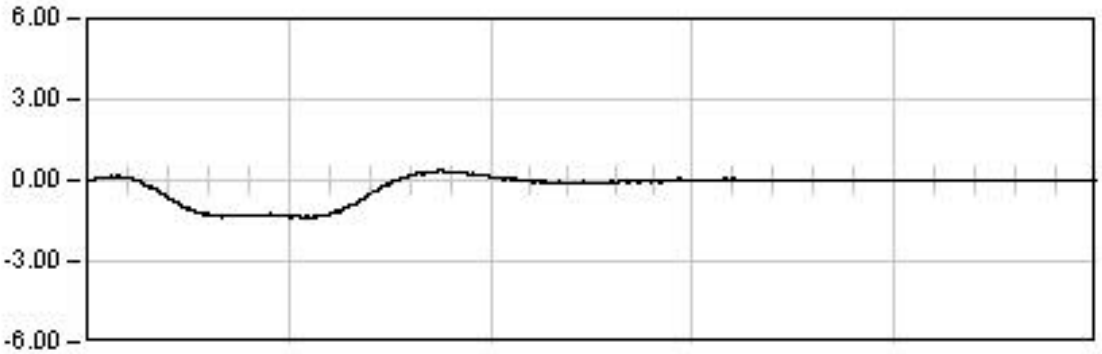
Max: -1.12
Min: 0.55
Rem: 0.01



DINAMICA 13

19.5 Seg

Max: -1.15
Min: 0.51
Rem: -0.00



DINAMICA 14

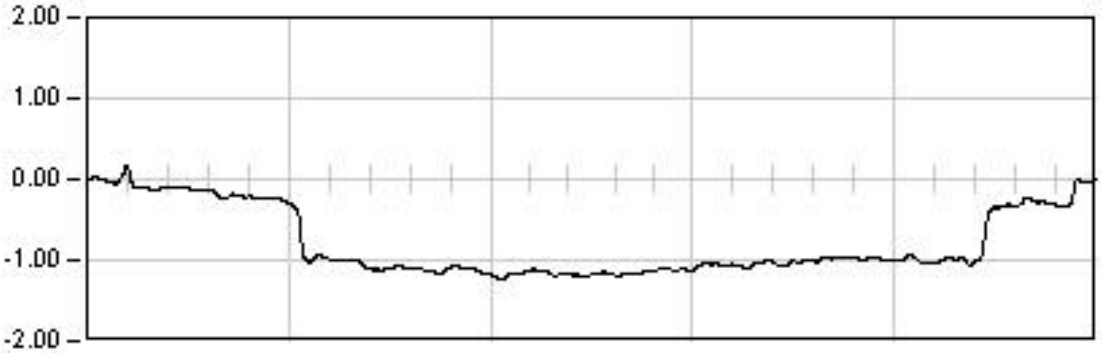
22.5 Seg

Max: -1.39
Min: 0.38
Rem: 0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 8

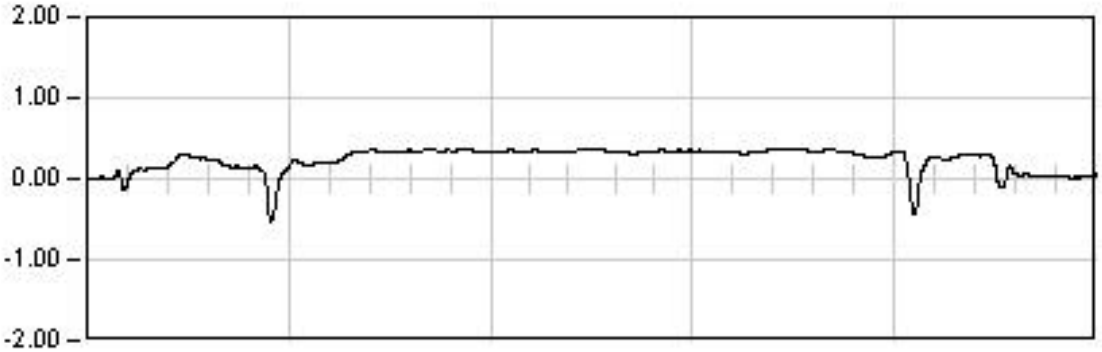
Punto : P084 Canal : 00 Unidades : mm



ESTATICA 08

2601.0 Seg

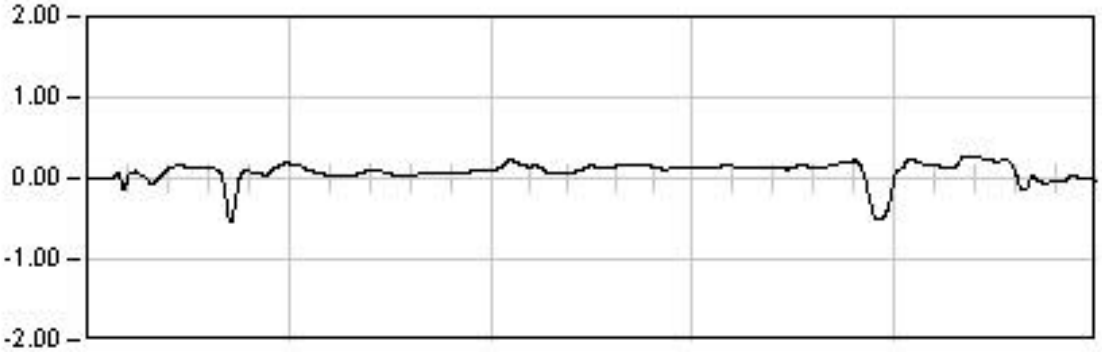
Est: -0.97
Max: -1.24
Min: 0.17
Rem: -0.03



ESTATICA 09

2333.0 Seg

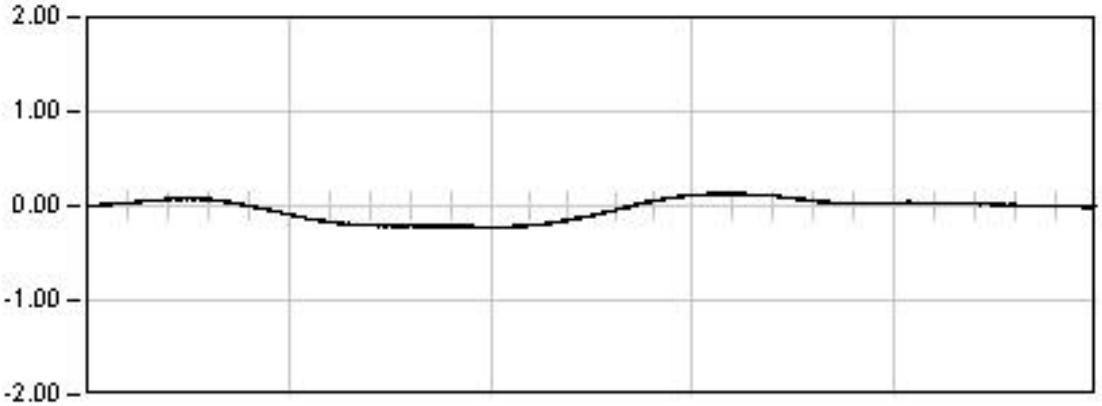
Est: 0.34
Max: -0.52
Min: 0.38
Rem: 0.02



ESTATICA 10

1690.0 Seg

Est: 0.15
Max: -0.53
Min: 0.27
Rem: -0.00



DINAMICA 11

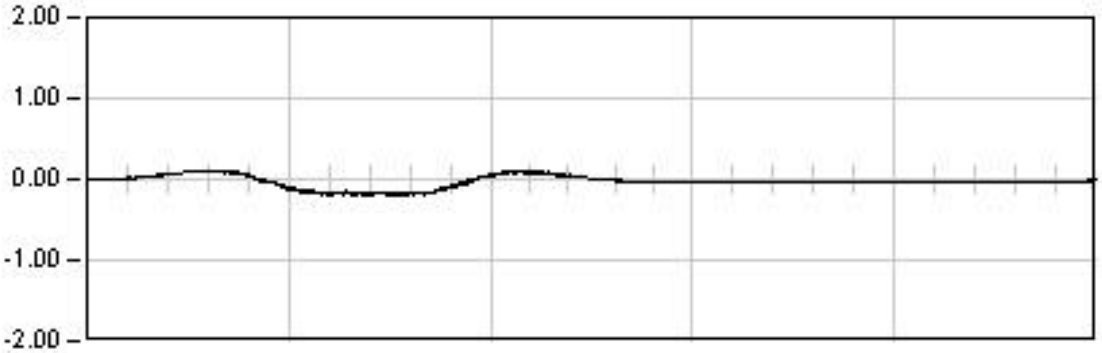
120.5 Seg

Max: -0.23
Min: 0.14
Rem: -0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 8

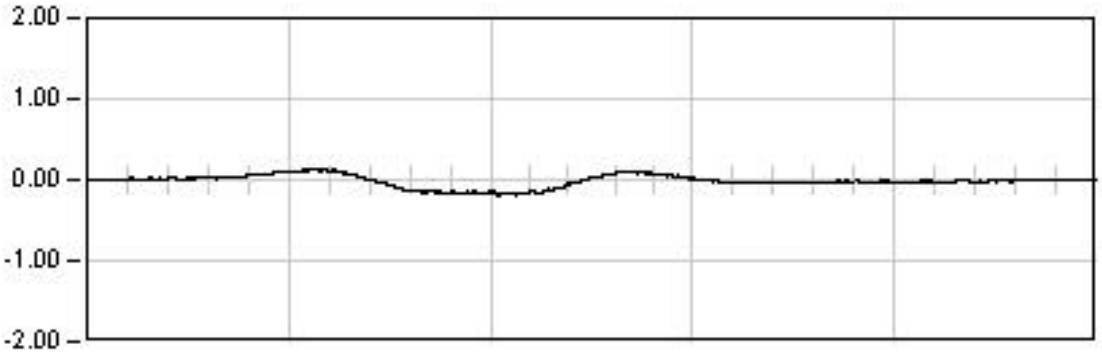
Punto : P084 **Canal : 00** **Unidades : mm**



DINAMICA 12

26.5 Seg

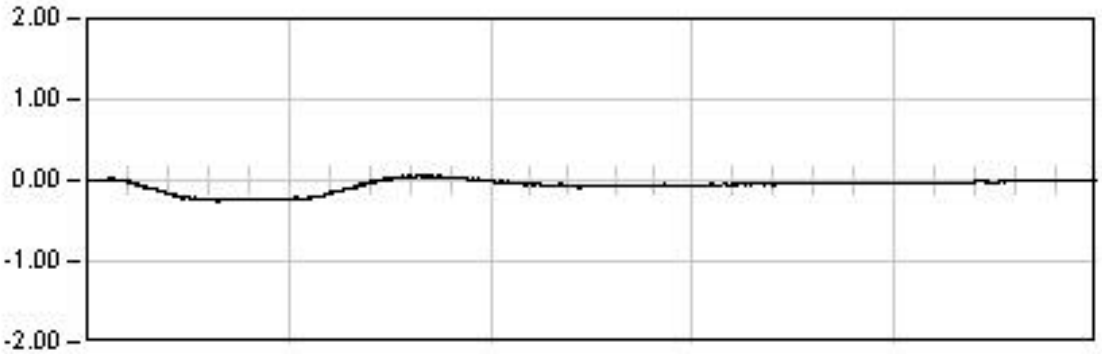
Max: -0.20
Min: 0.11
Rem: -0.01



DINAMICA 13

19.5 Seg

Max: -0.19
Min: 0.13
Rem: -0.00



DINAMICA 14

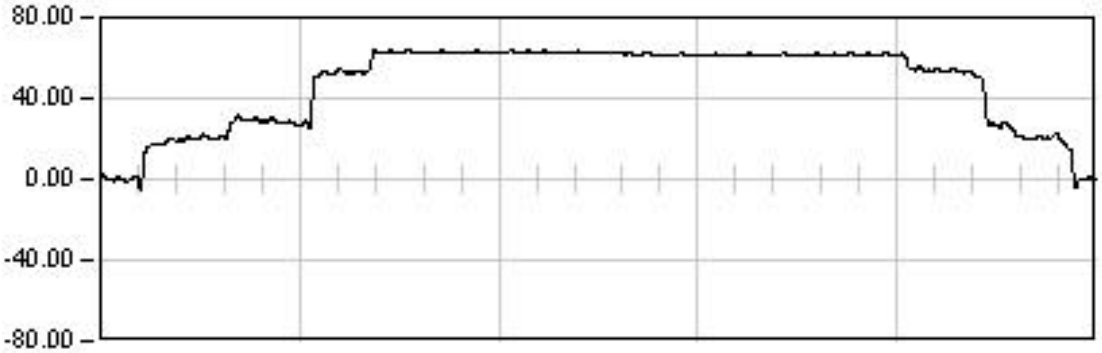
22.5 Seg

Max: -0.25
Min: 0.06
Rem: -0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 8

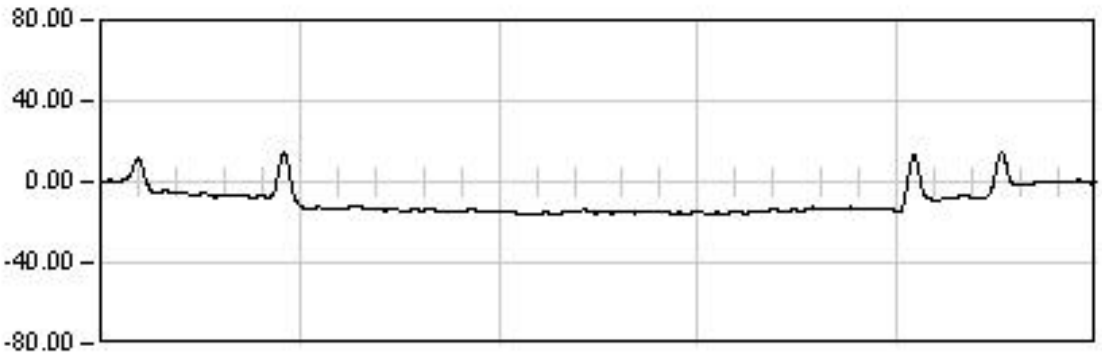
Punto : G081 Canal : 04 Unidades : µE



ESTATICA 08

2601.0 Seg

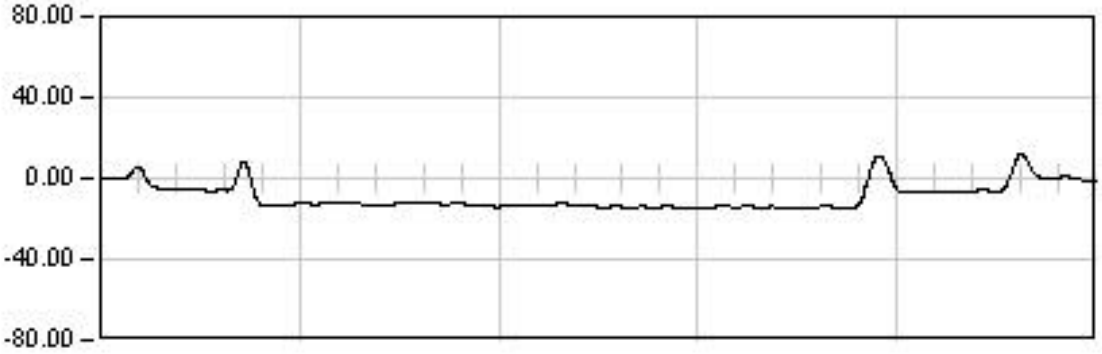
Est: 61.55
Max: 64.01
Min: -4.86
Rem: -0.32



ESTATICA 09

2333.0 Seg

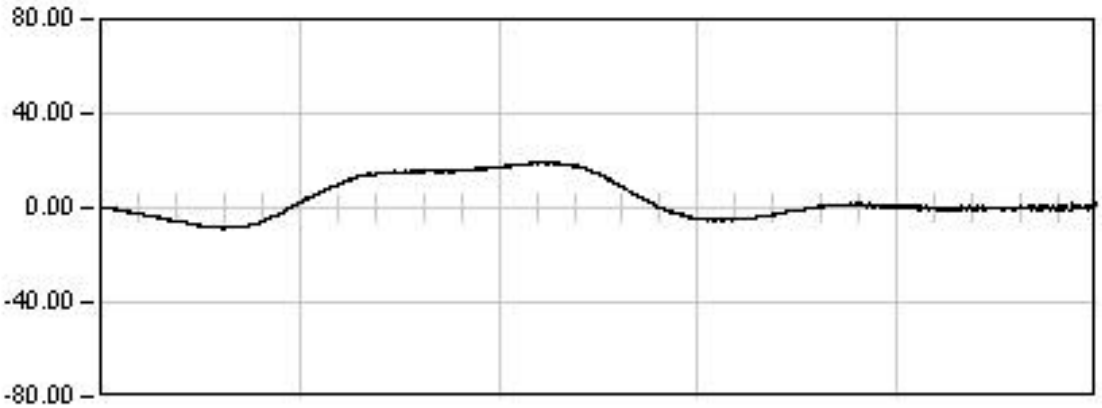
Est: -12.72
Max: -16.12
Min: 14.79
Rem: -0.02



ESTATICA 10

1690.0 Seg

Est: -13.97
Max: -15.21
Min: 12.35
Rem: -0.32



DINAMICA 11

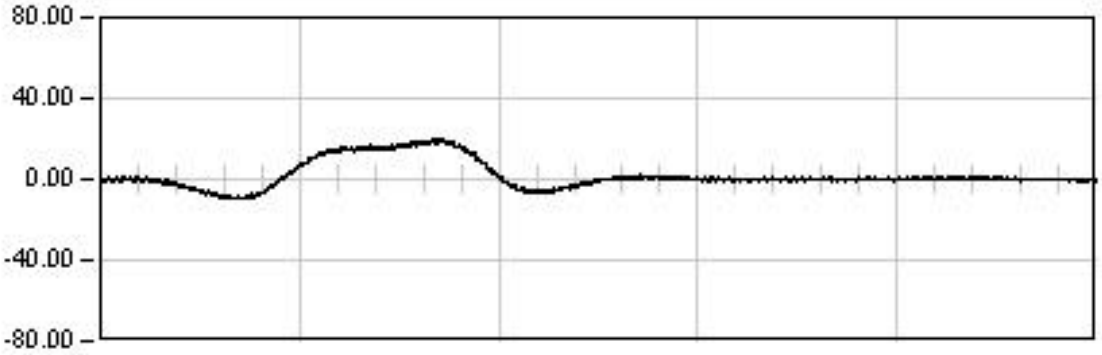
120.5 Seg

Max: 19.55
Min: -8.70
Rem: 0.47

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 8

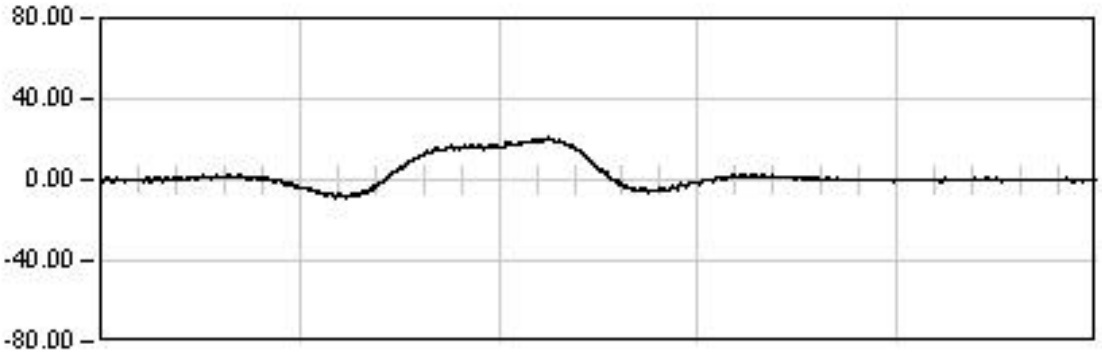
Punto : G081 Canal : 04 Unidades : µE



DINAMICA 12

26.5 Seg

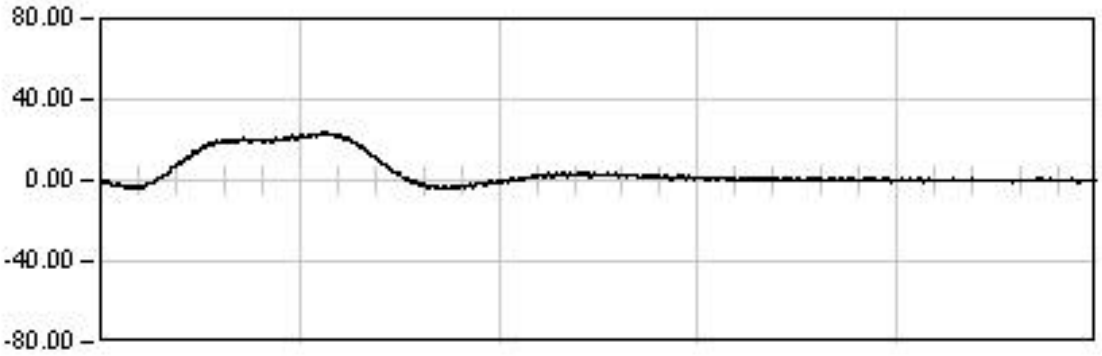
Max: 20.27
Min: -9.86
Rem: -0.54



DINAMICA 13

19.5 Seg

Max: 20.83
Min: -8.86
Rem: 0.02



DINAMICA 14

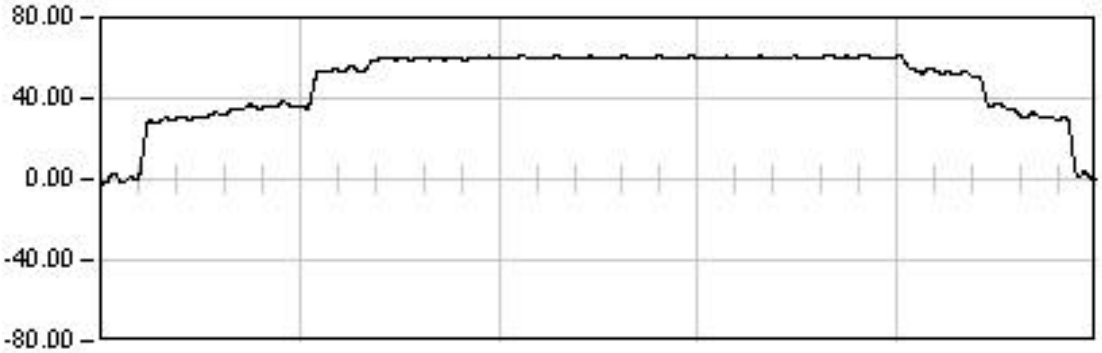
22.5 Seg

Max: 23.67
Min: -4.41
Rem: 0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

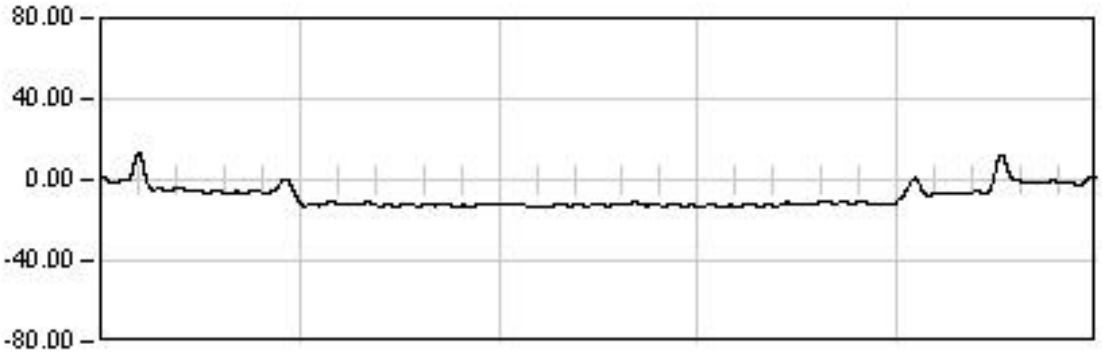
VANO 8

Punto : G082 Canal : 05 Unidades : µE



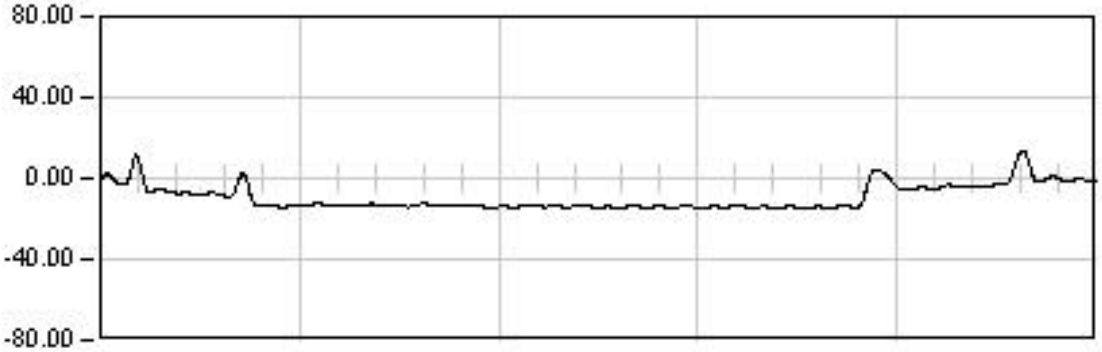
ESTATICA 08

2601.0	Seg
Est:	60.52
Max:	61.85
Min:	-2.00
Rem:	0.56



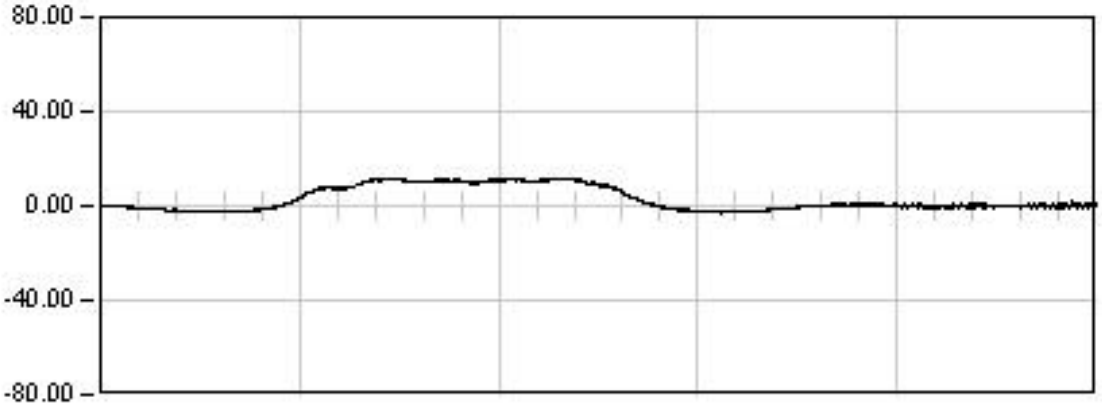
ESTATICA 09

2333.0	Seg
Est:	-11.85
Max:	-13.46
Min:	13.12
Rem:	-0.73



ESTATICA 10

1690.0	Seg
Est:	-14.28
Max:	-14.86
Min:	13.86
Rem:	-0.87



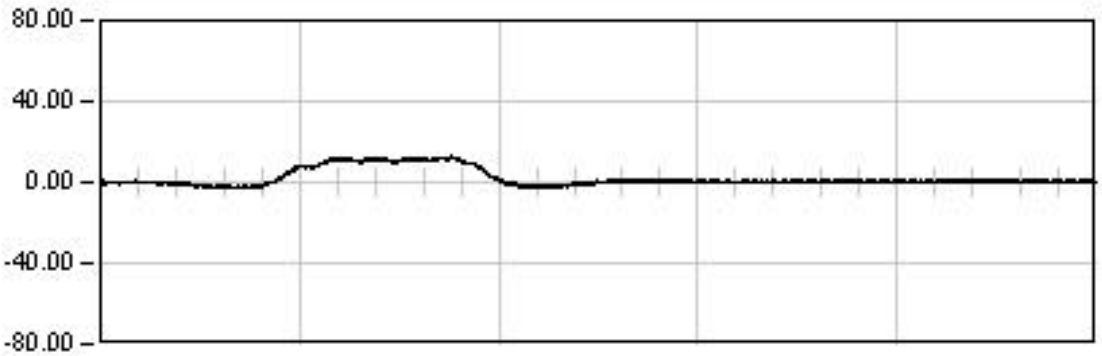
DINAMICA 11

120.5	Seg
Max:	11.66
Min:	-2.91
Rem:	0.27

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 8

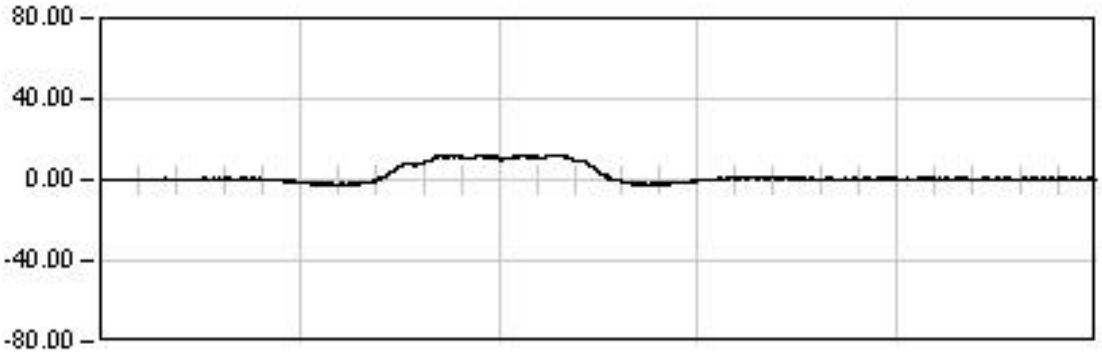
Punto : G082 Canal : 05 Unidades : µE



DINAMICA 12

26.5 Seg

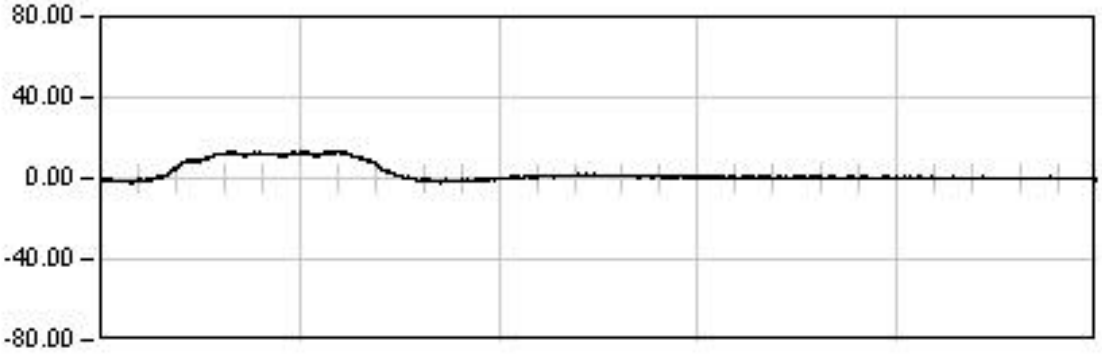
Max: 12.72
Min: -3.04
Rem: 0.43



DINAMICA 13

19.5 Seg

Max: 12.38
Min: -2.80
Rem: 0.37



DINAMICA 14

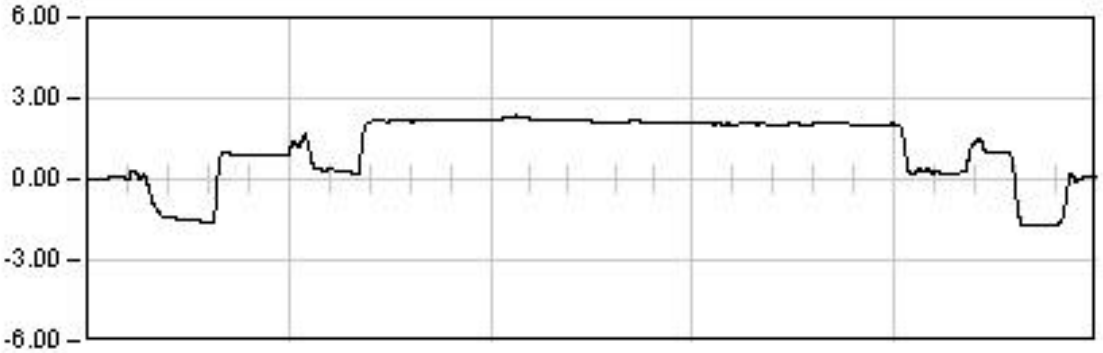
22.5 Seg

Max: 13.52
Min: -2.04
Rem: -0.07

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 9

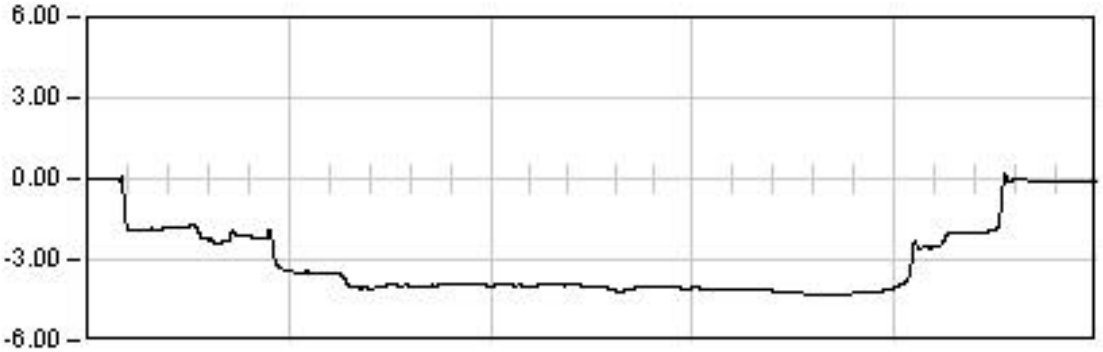
Punto : P091 **Canal : 07** **Unidades : mm**



ESTATICA 08

2601.0 Seg

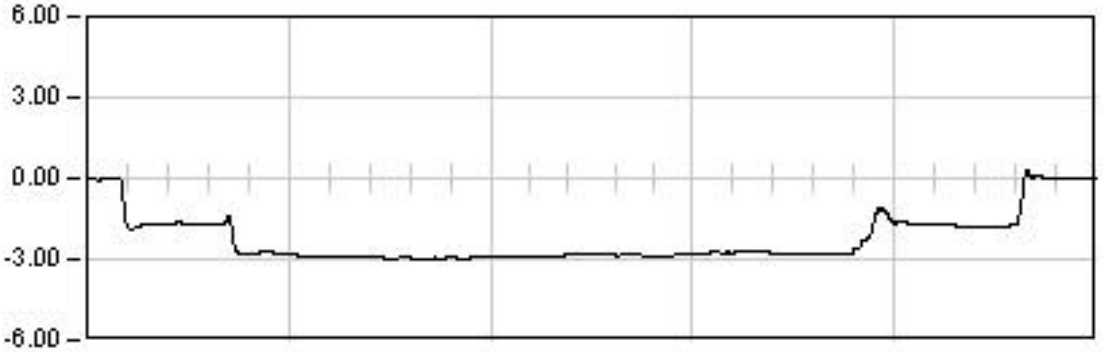
Est: 1.99
Max: 2.35
Min: -1.73
Rem: 0.05



ESTATICA 09

2333.0 Seg

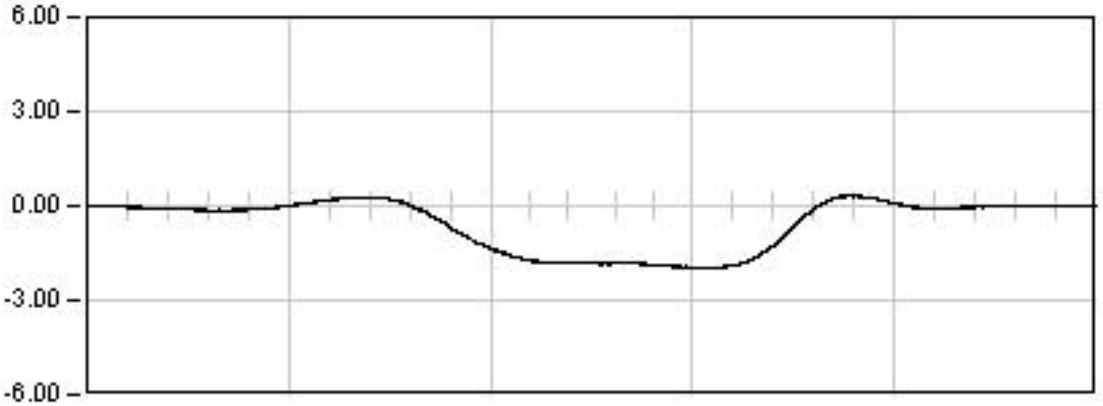
Est: -4.30
Max: -4.34
Min: 0.17
Rem: -0.11



ESTATICA 10

1690.0 Seg

Est: -2.83
Max: -2.99
Min: 0.26
Rem: -0.03



DINAMICA 11

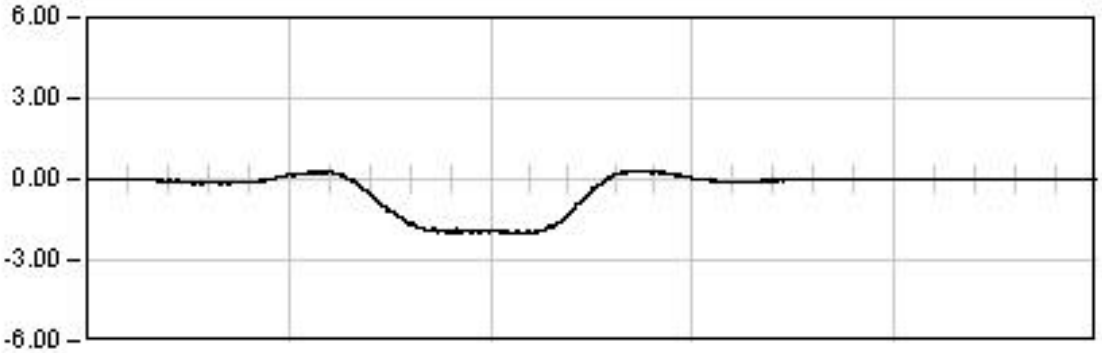
120.5 Seg

Max: -1.97
Min: 0.34
Rem: -0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 9

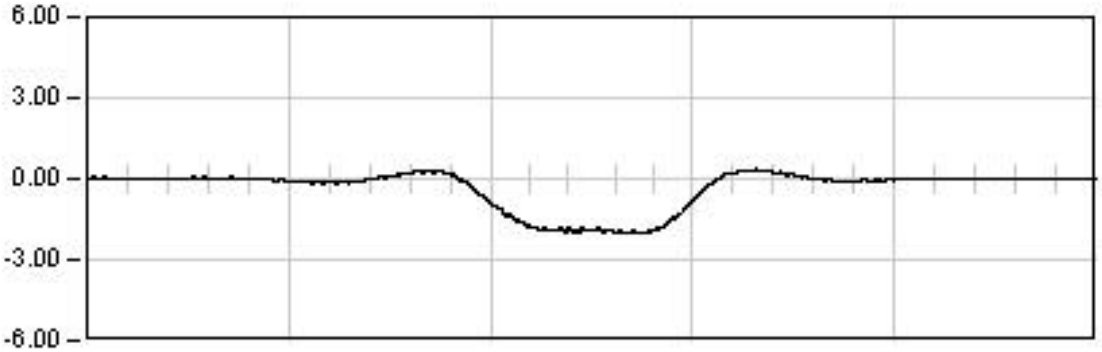
Punto : P091 **Canal : 07** **Unidades : mm**



DINAMICA 12

26.5 Seg

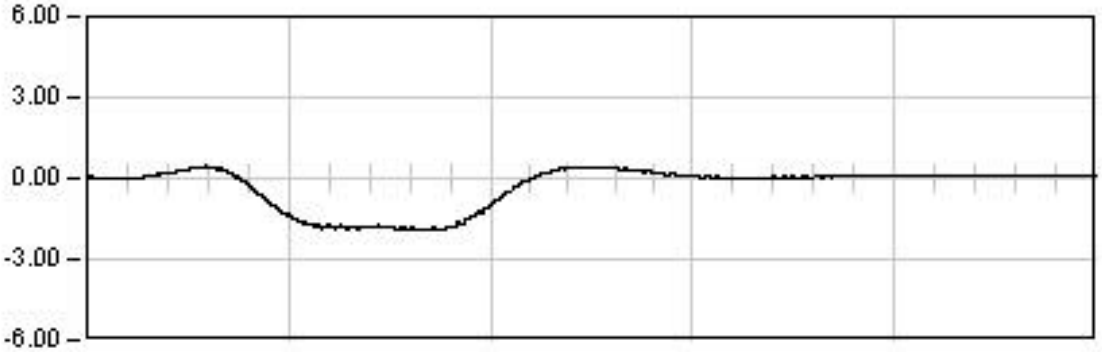
Max: -2.02
Min: 0.34
Rem: -0.02



DINAMICA 13

19.5 Seg

Max: -2.03
Min: 0.35
Rem: 0.03



DINAMICA 14

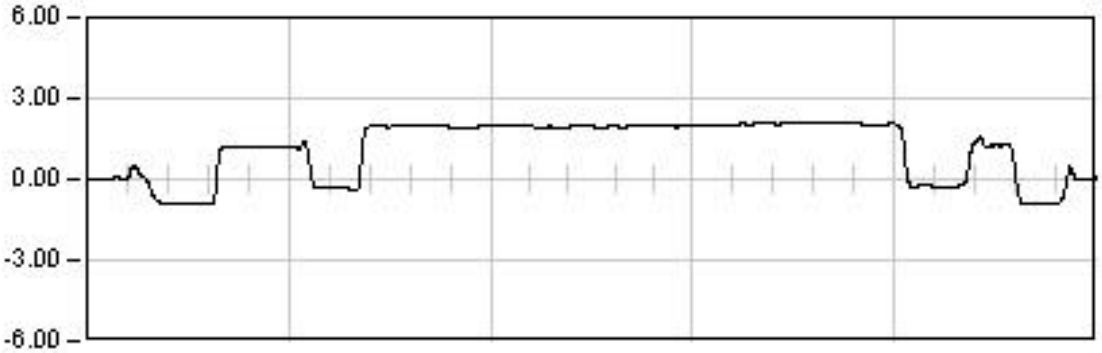
22.5 Seg

Max: -1.93
Min: 0.45
Rem: 0.12

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 9

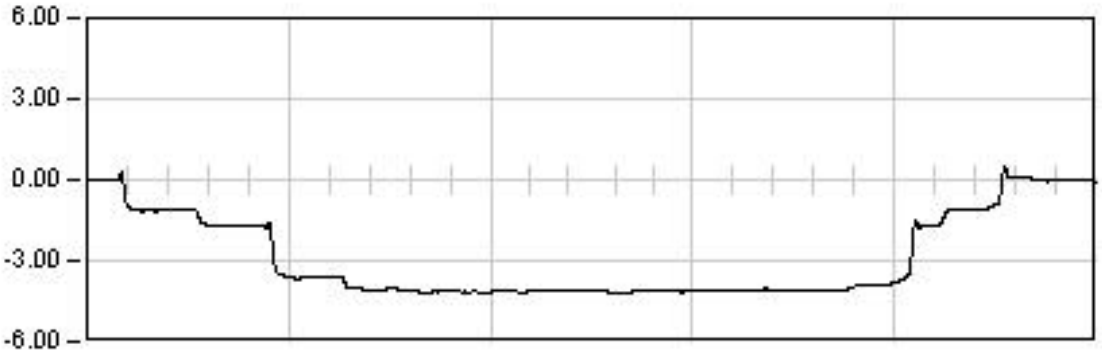
Punto : P092 **Canal : 08** **Unidades : mm**



ESTATICA 08

2601.0 Seg

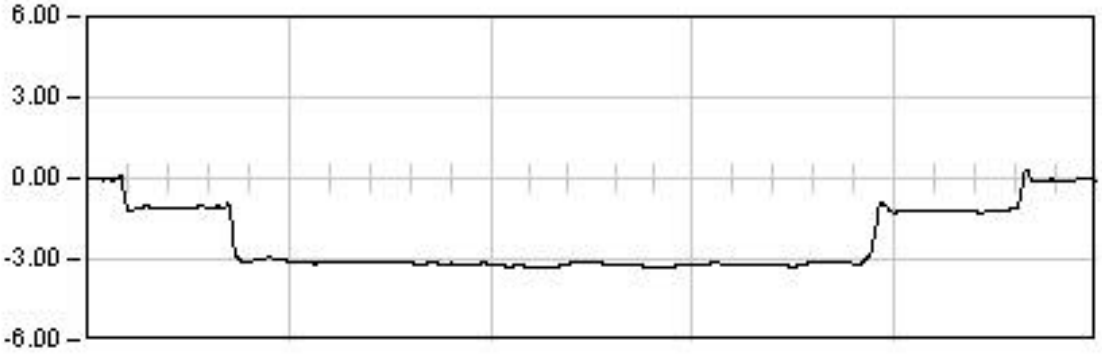
Est: 2.04
Max: 2.15
Min: -0.94
Rem: 0.01



ESTATICA 09

2333.0 Seg

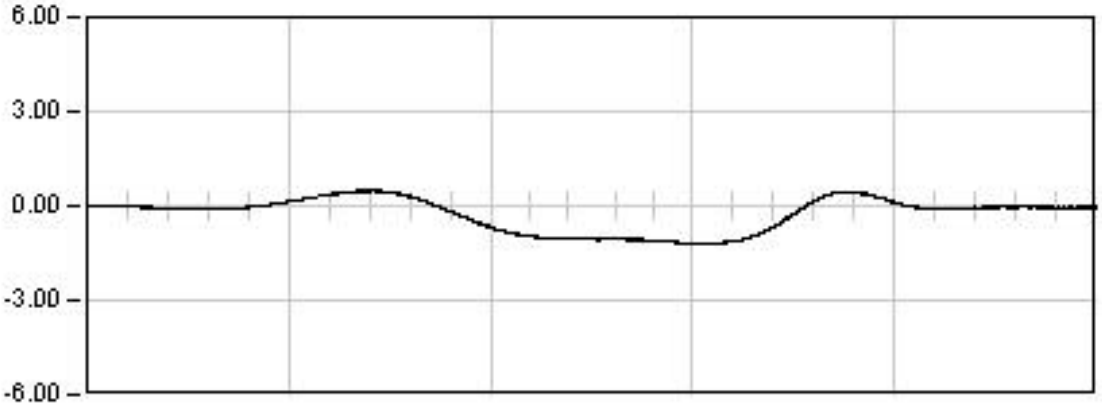
Est: -4.11
Max: -4.25
Min: 0.48
Rem: -0.04



ESTATICA 10

1690.0 Seg

Est: -3.21
Max: -3.31
Min: 0.32
Rem: -0.05



DINAMICA 11

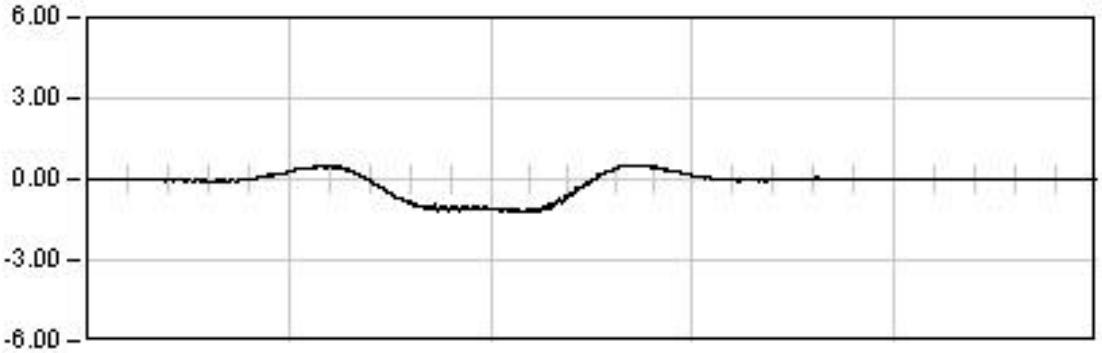
120.5 Seg

Max: -1.20
Min: 0.49
Rem: -0.05

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 9

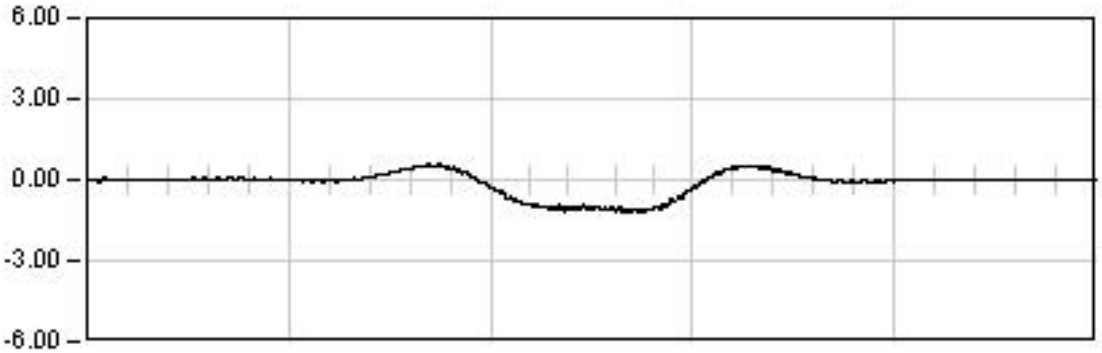
Punto : P092 Canal : 08 Unidades : mm



DINAMICA 12

26.5 Seg

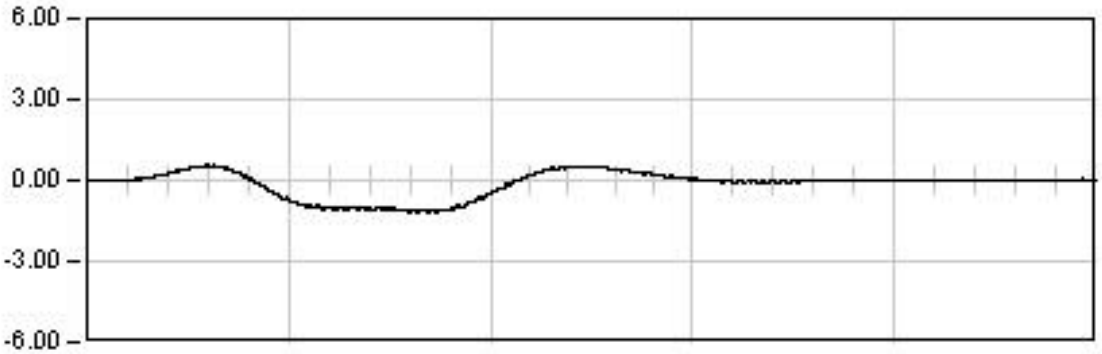
Max: -1.25
Min: 0.53
Rem: -0.01



DINAMICA 13

19.5 Seg

Max: -1.23
Min: 0.57
Rem: 0.01



DINAMICA 14

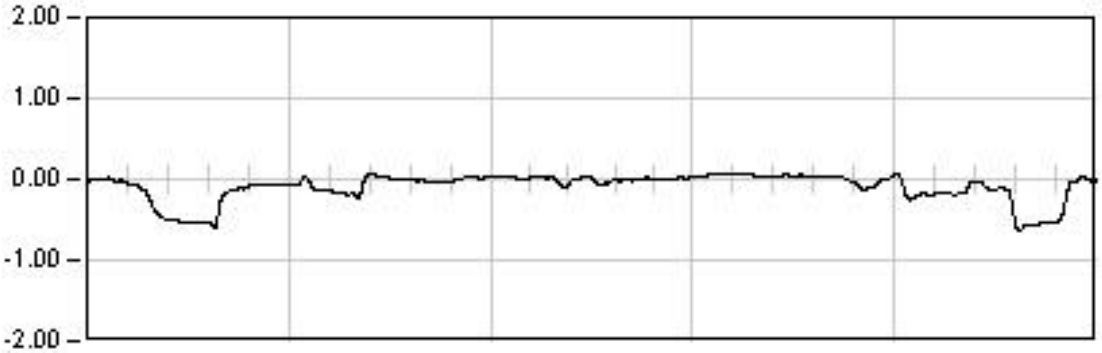
22.5 Seg

Max: -1.20
Min: 0.57
Rem: 0.03

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 9

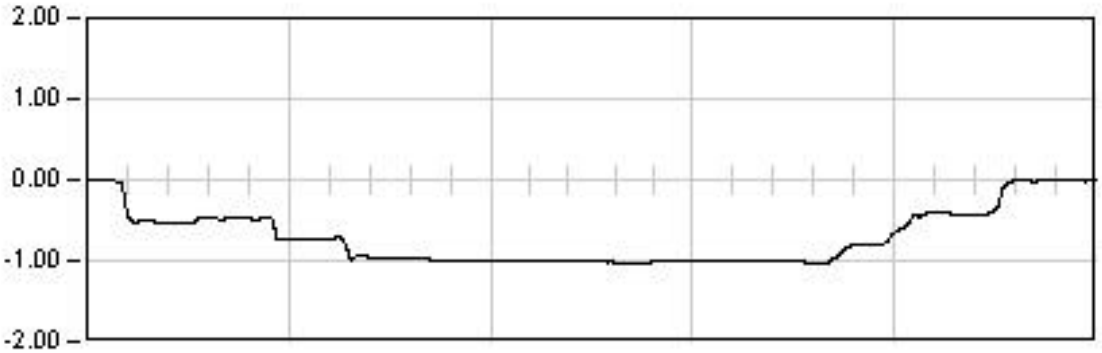
Punto : P093 Canal : 09 Unidades : mm



ESTATICA 08

2601.0 Seg

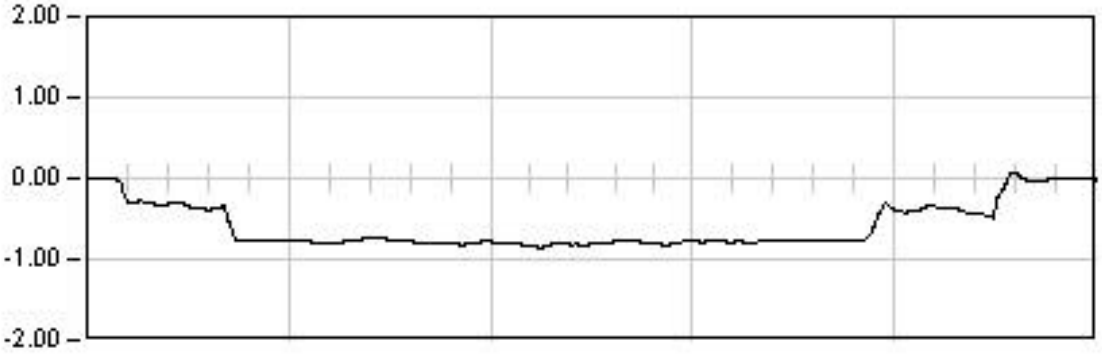
Est: -0.04
Max: -0.64
Min: 0.08
Rem: -0.00



ESTATICA 09

2333.0 Seg

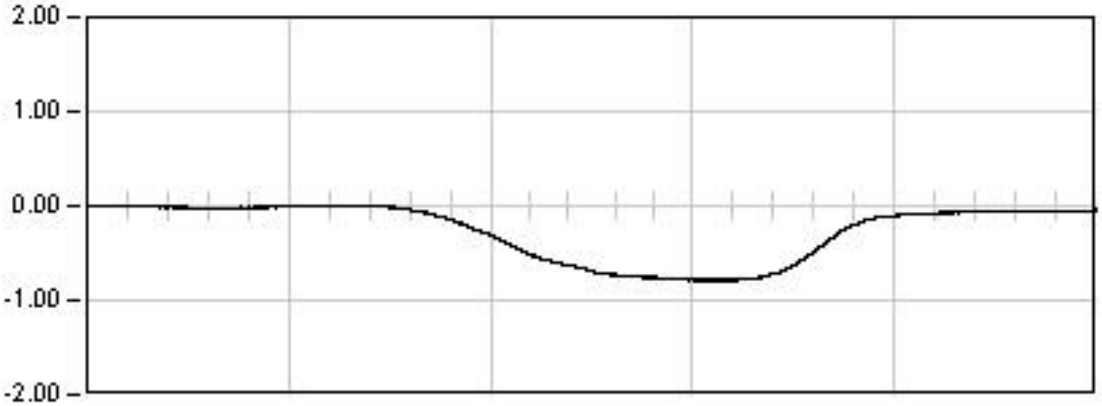
Est: -1.02
Max: -1.03
Min: 0.02
Rem: -0.01



ESTATICA 10

1690.0 Seg

Est: -0.78
Max: -0.85
Min: 0.07
Rem: -0.00



DINAMICA 11

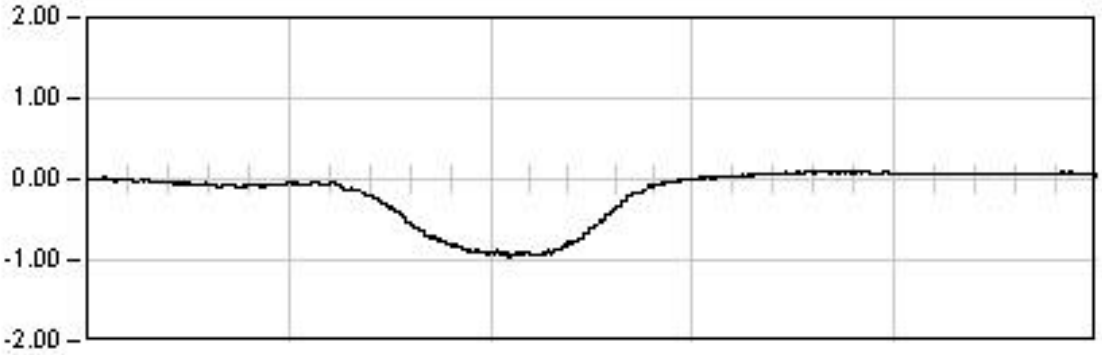
120.5 Seg

Max: -0.79
Min: 0.01
Rem: -0.05

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 9

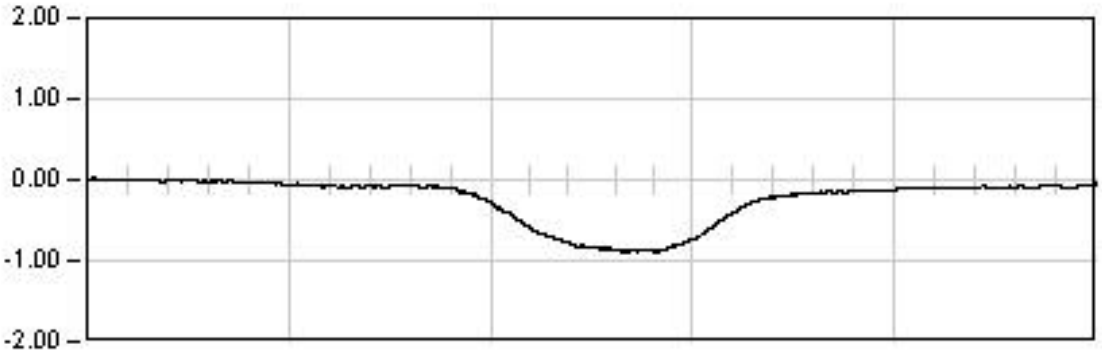
Punto : P093 Canal : 09 Unidades : mm



DINAMICA 12

26.5 Seg

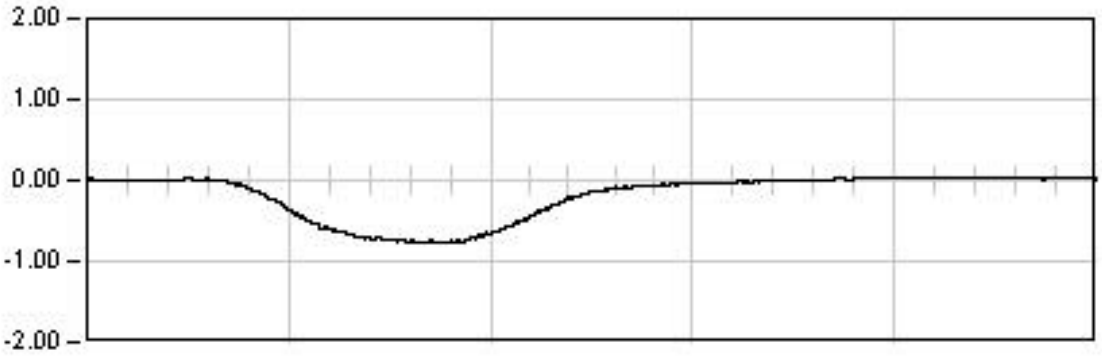
Max: -0.95
Min: 0.09
Rem: 0.08



DINAMICA 13

19.5 Seg

Max: -0.89
Min: 0.02
Rem: -0.07



DINAMICA 14

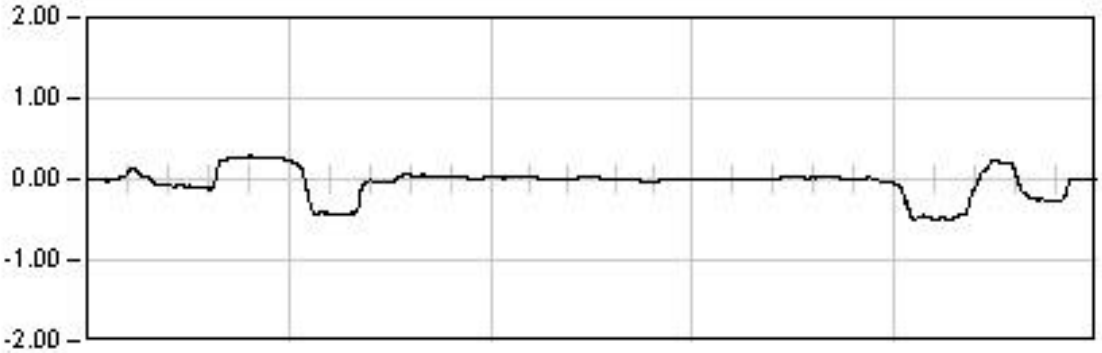
22.5 Seg

Max: -0.78
Min: 0.04
Rem: 0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 9

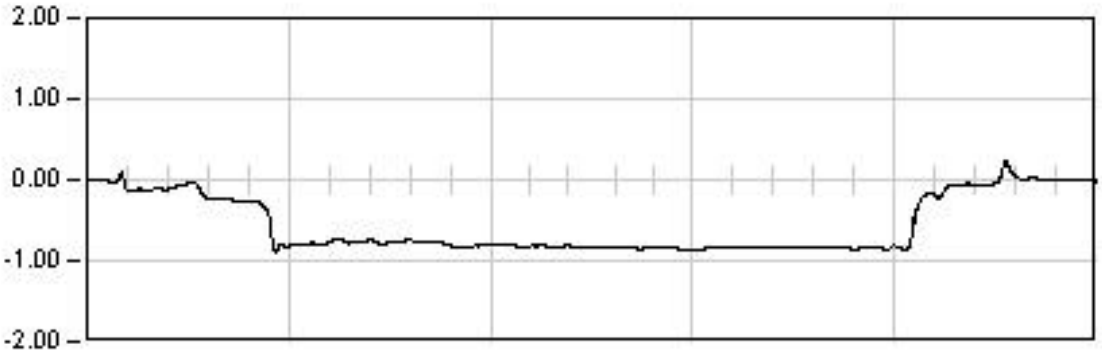
Punto : P094 **Canal : 06** **Unidades : mm**



ESTATICA 08

2601.0 Seg

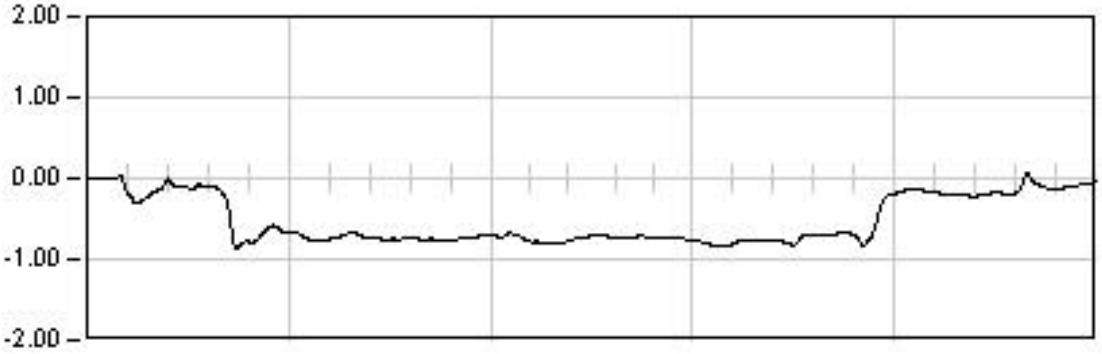
Est: -0.01
Max: -0.52
Min: 0.28
Rem: -0.00



ESTATICA 09

2333.0 Seg

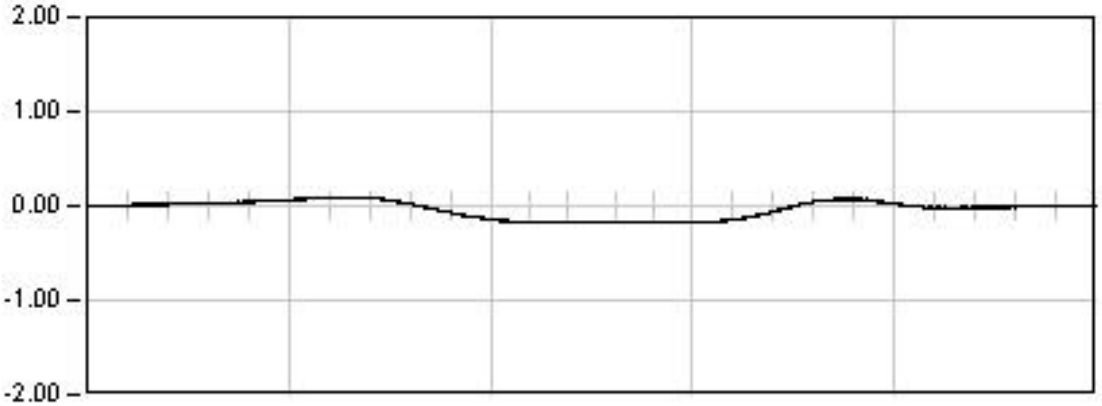
Est: -0.83
Max: -0.88
Min: 0.23
Rem: -0.01



ESTATICA 10

1690.0 Seg

Est: -0.71
Max: -0.85
Min: 0.06
Rem: -0.08



DINAMICA 11

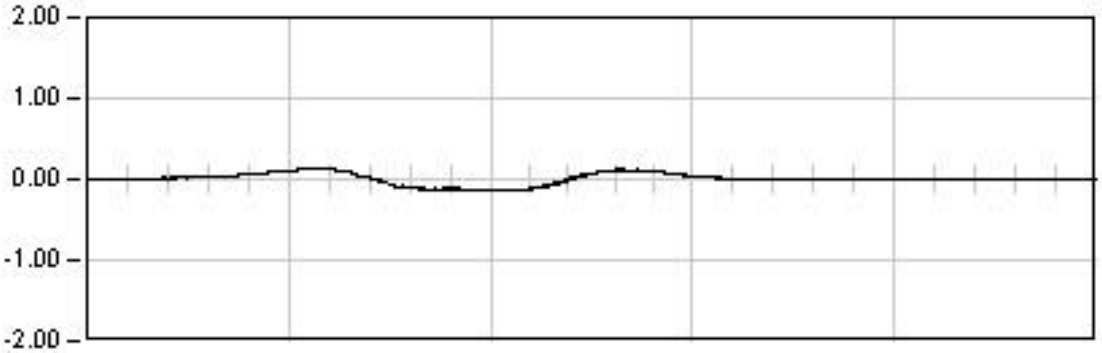
120.5 Seg

Max: -0.18
Min: 0.10
Rem: -0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 9

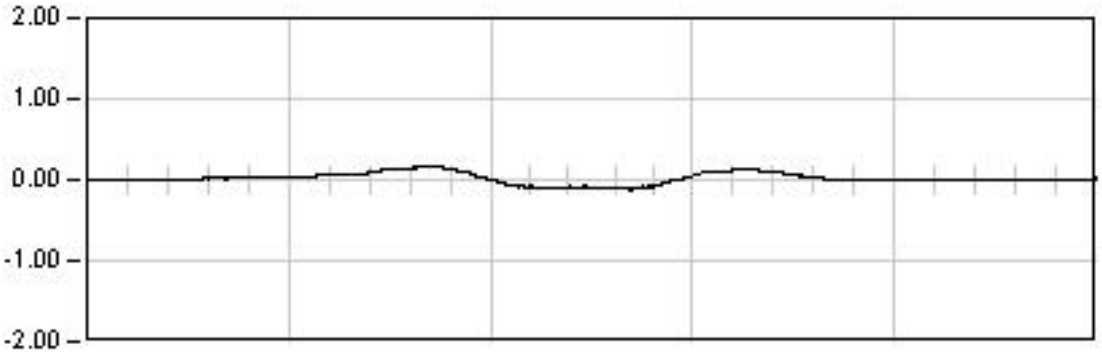
Punto : P094 **Canal : 06** **Unidades : mm**



DINAMICA 12

26.5 Seg

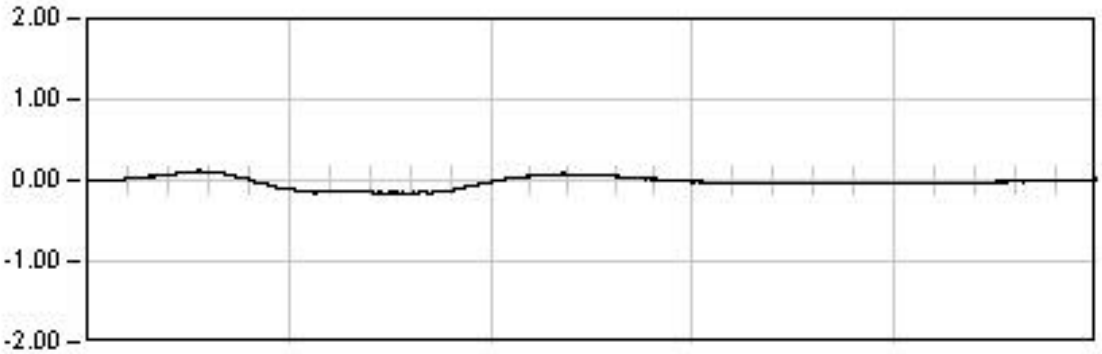
Max: -0.15
Min: 0.14
Rem: -0.01



DINAMICA 13

19.5 Seg

Max: 0.17
Min: -0.12
Rem: -0.00



DINAMICA 14

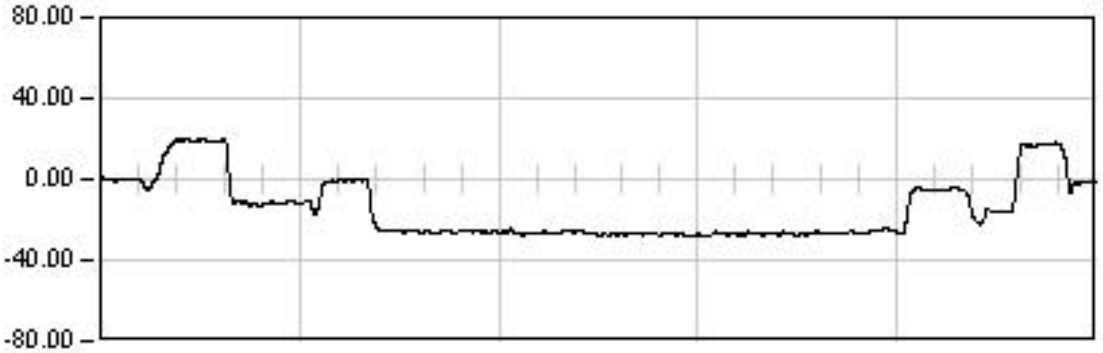
22.5 Seg

Max: -0.16
Min: 0.12
Rem: -0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 9

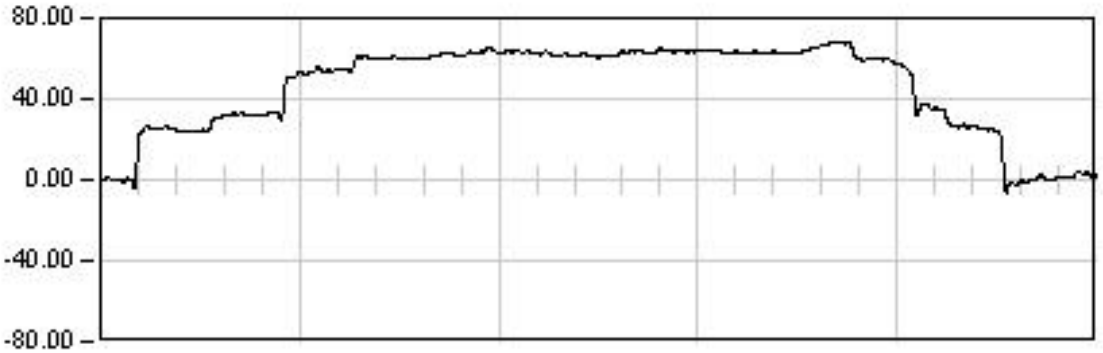
Punto : G091 Canal : 10 Unidades : µE



ESTATICA 08

2601.0 Seg

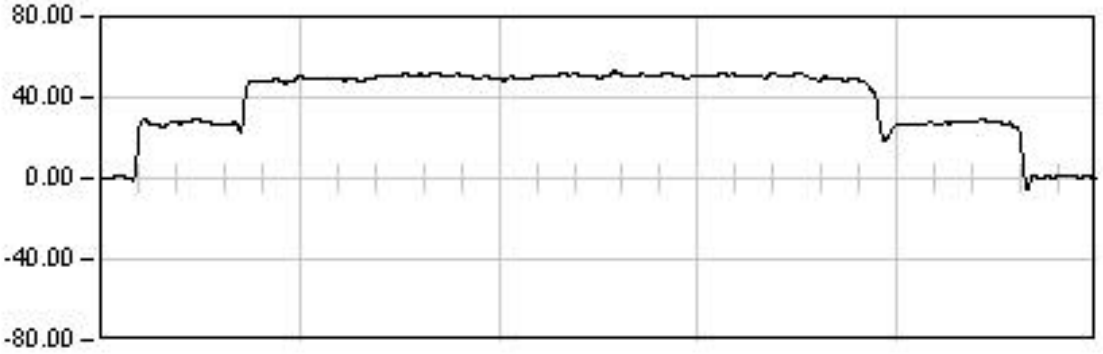
Est: -25.80
Max: -28.02
Min: 20.27
Rem: -1.61



ESTATICA 09

2333.0 Seg

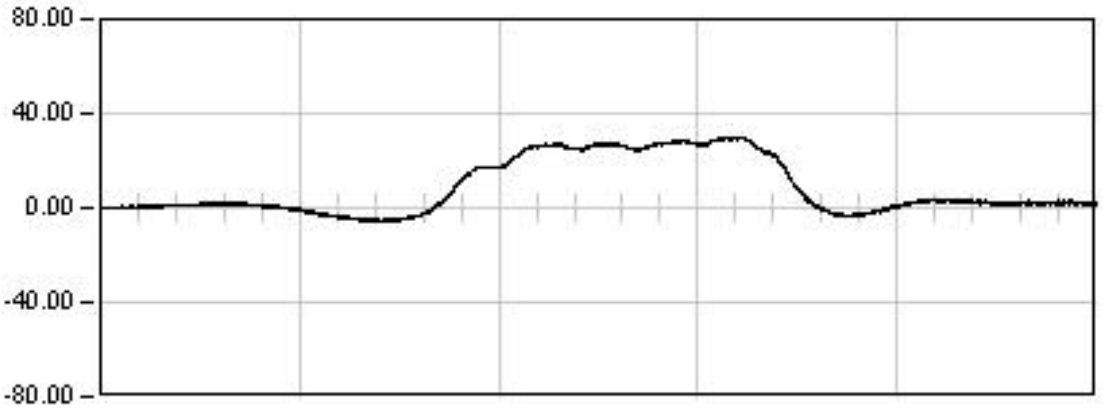
Est: 65.83
Max: 68.25
Min: -6.22
Rem: 2.86



ESTATICA 10

1690.0 Seg

Est: 51.23
Max: 53.00
Min: -4.82
Rem: 0.81



DINAMICA 11

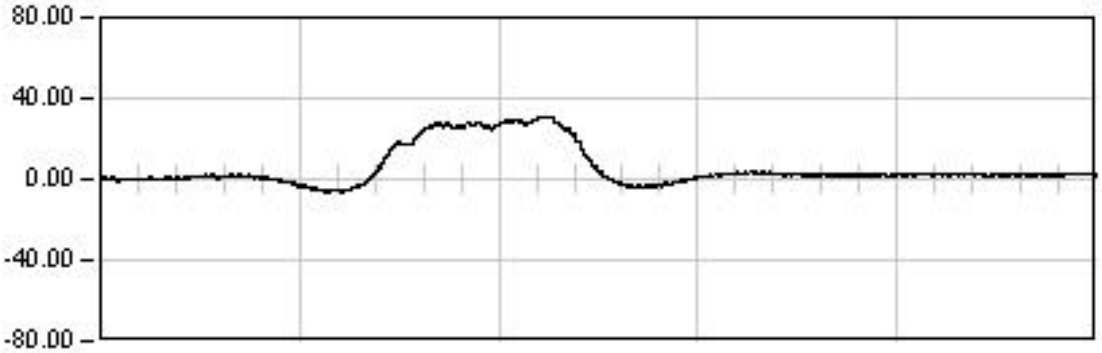
120.5 Seg

Max: 30.10
Min: -5.88
Rem: 2.05

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 9

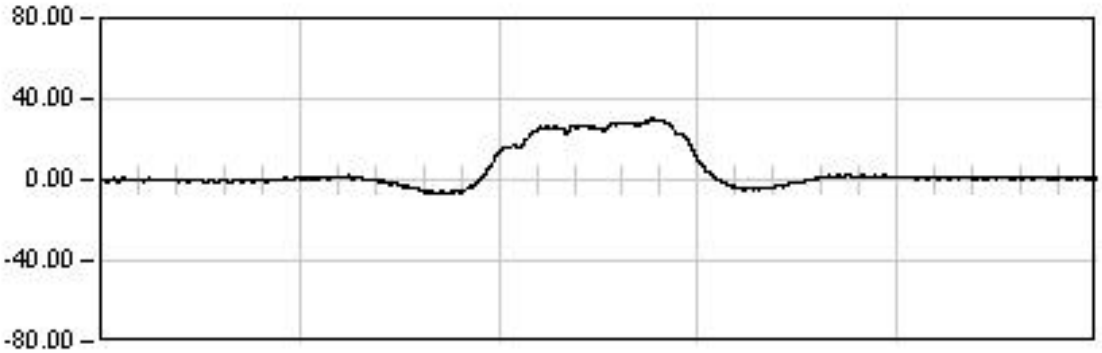
Punto : G091 Canal : 10 Unidades : µE



DINAMICA 12

26.5 Seg

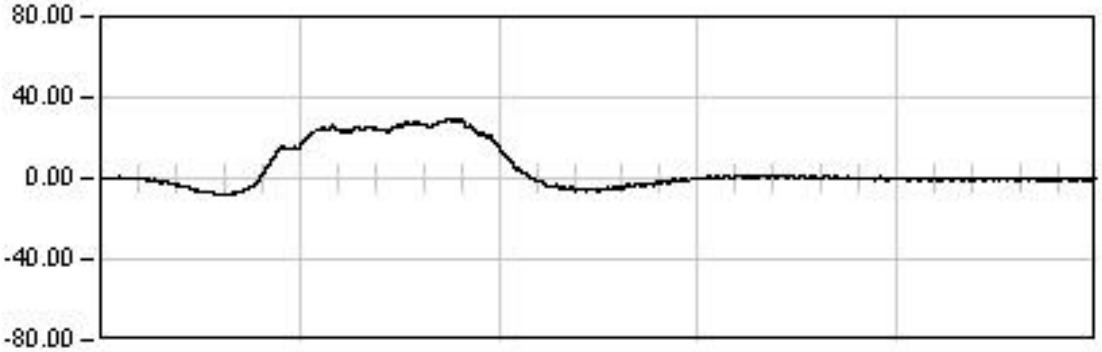
Max: 31.27
Min: -6.33
Rem: 2.43



DINAMICA 13

19.5 Seg

Max: 30.36
Min: -7.05
Rem: 0.62



DINAMICA 14

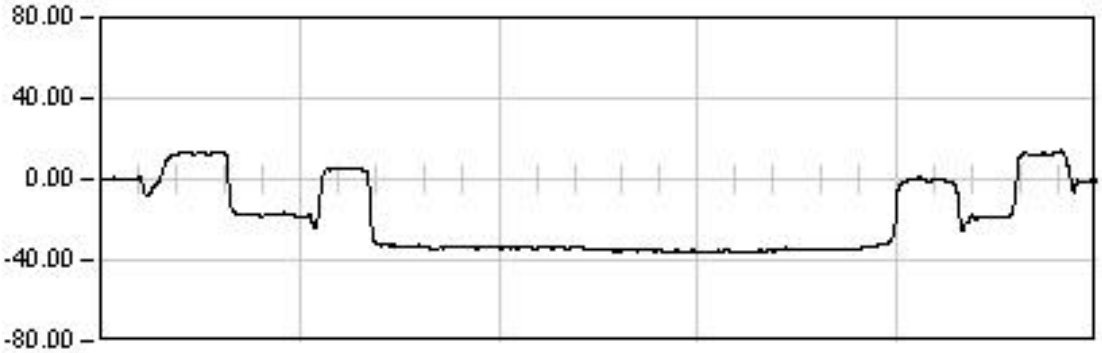
22.5 Seg

Max: 29.26
Min: -8.49
Rem: -0.52

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 9

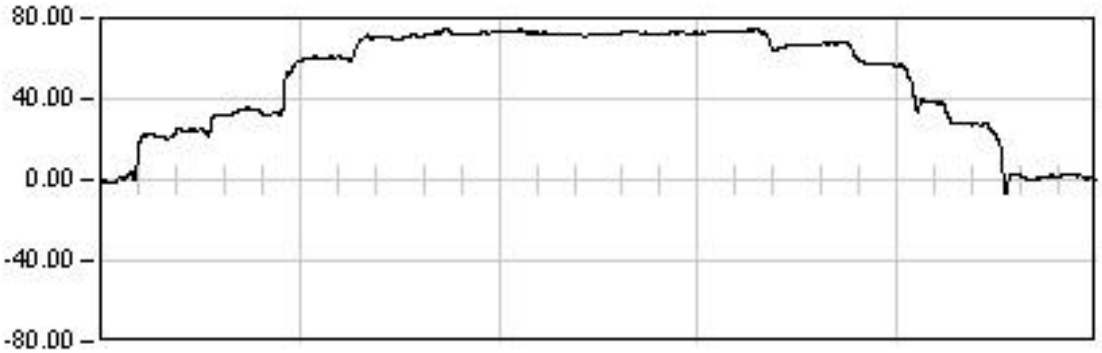
Punto : G092 Canal : 11 Unidades : µE



ESTATICA 08

2601.0 Seg

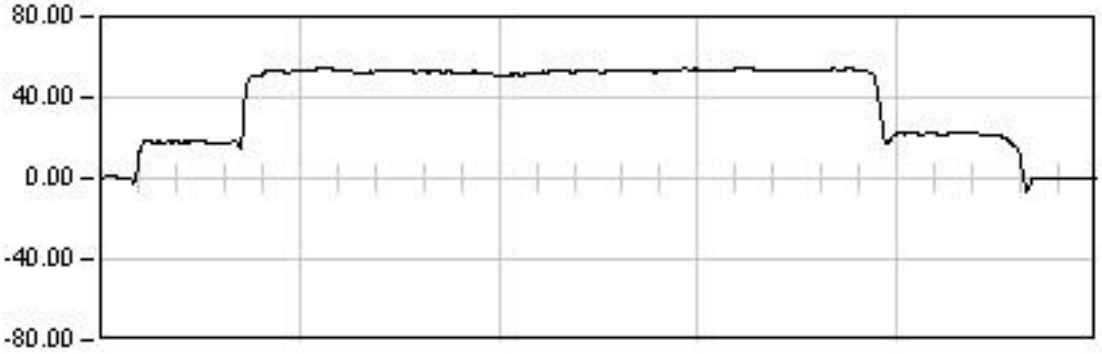
Est: -32.60
Max: -36.53
Min: 14.32
Rem: -1.70



ESTATICA 09

2333.0 Seg

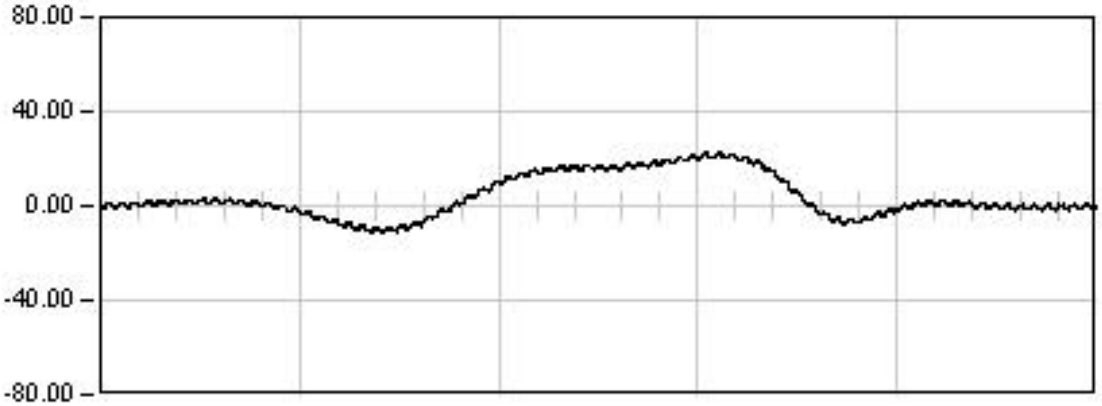
Est: 67.21
Max: 74.74
Min: -6.50
Rem: 1.41



ESTATICA 10

1690.0 Seg

Est: 53.21
Max: 54.81
Min: -6.20
Rem: 0.09



DINAMICA 11

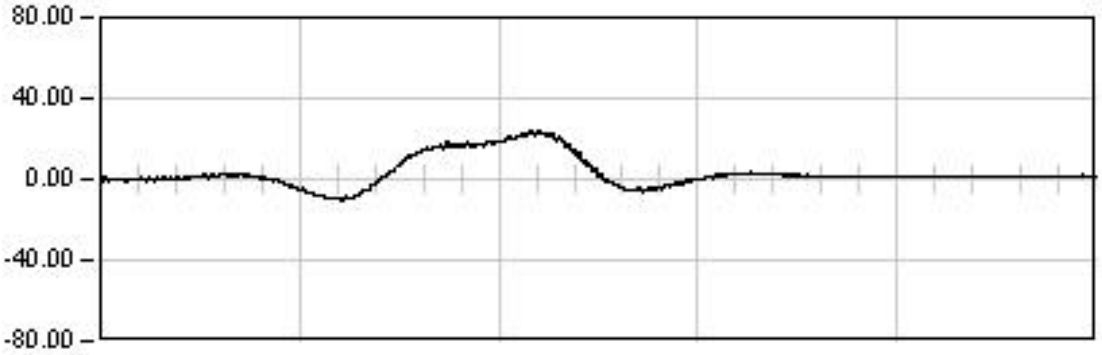
120.5 Seg

Max: 22.43
Min: -11.24
Rem: -0.85

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 9

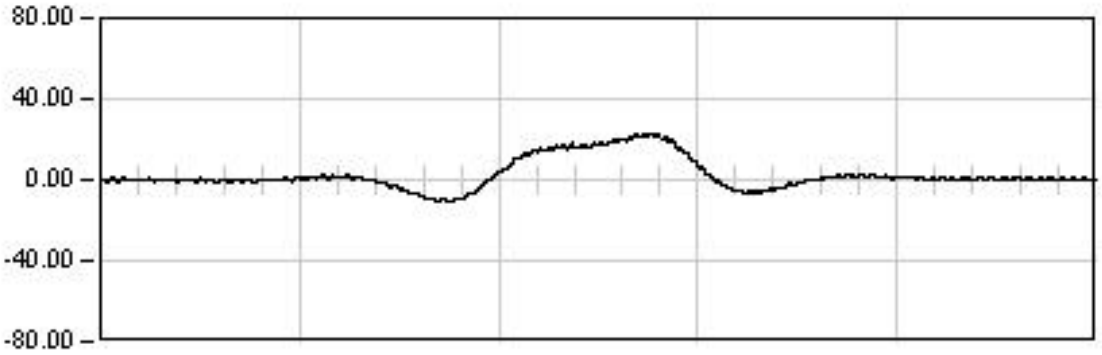
Punto : G092 Canal : 11 Unidades : µE



DINAMICA 12

26.5 Seg

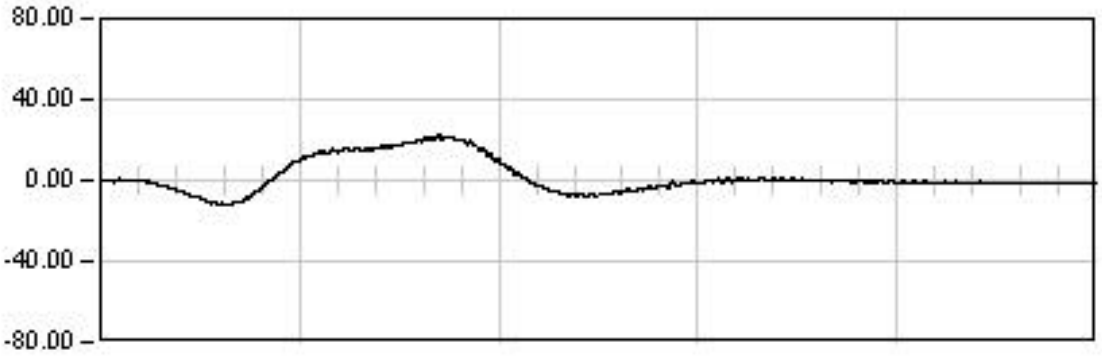
Max: 24.19
Min: -10.34
Rem: 1.45



DINAMICA 13

19.5 Seg

Max: 23.14
Min: -11.16
Rem: 0.50



DINAMICA 14

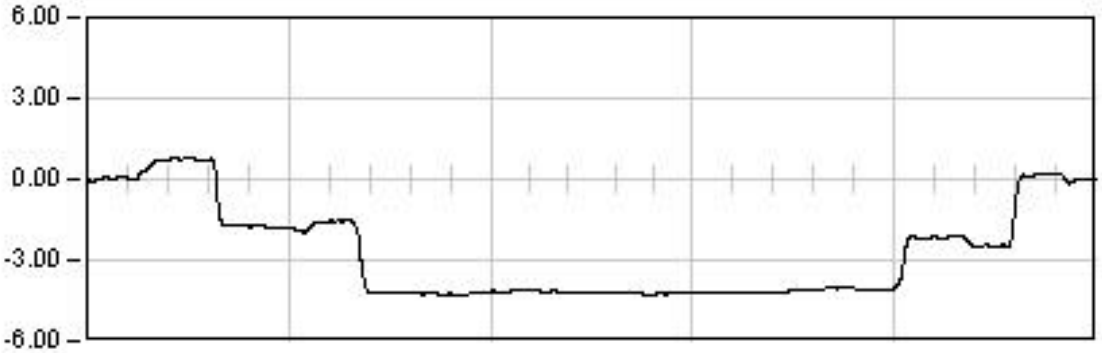
22.5 Seg

Max: 22.46
Min: -12.21
Rem: -1.35

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 10

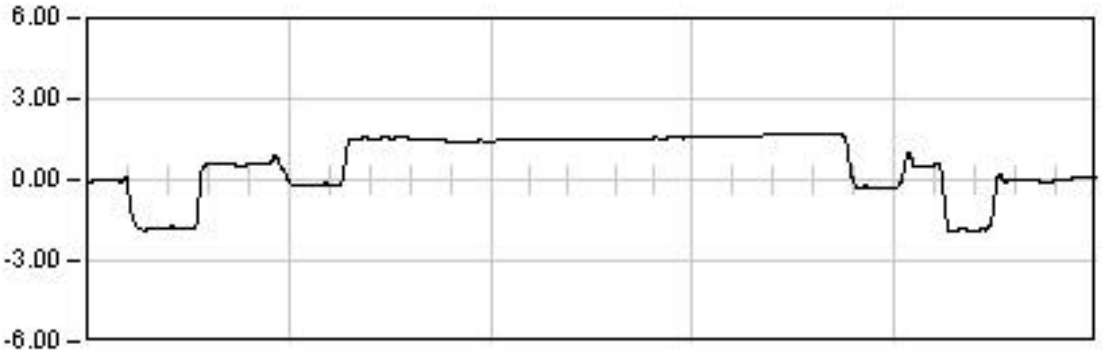
Punto : P101 **Canal : 13** **Unidades : mm**



ESTATICA 08

2601.0 Seg

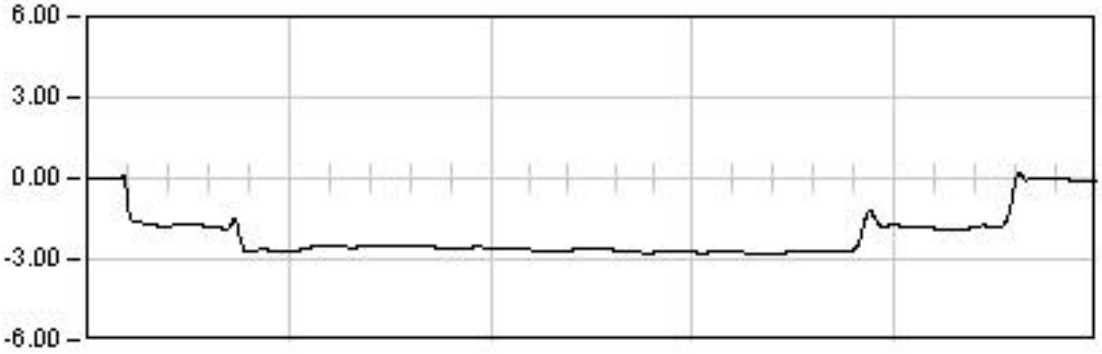
Est: -4.07
Max: -4.28
Min: 0.78
Rem: -0.01



ESTATICA 09

2333.0 Seg

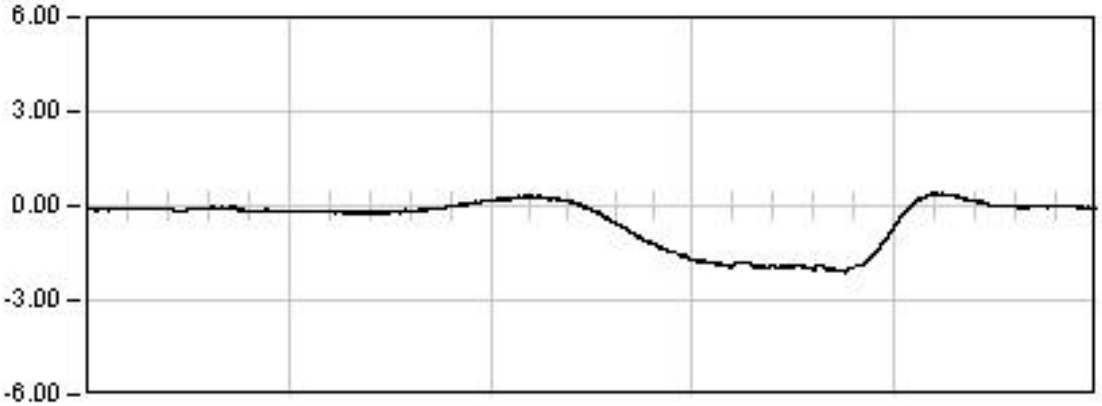
Est: 1.71
Max: -1.93
Min: 1.74
Rem: 0.10



ESTATICA 10

1690.0 Seg

Est: -2.72
Max: -2.83
Min: 0.24
Rem: -0.07



DINAMICA 11

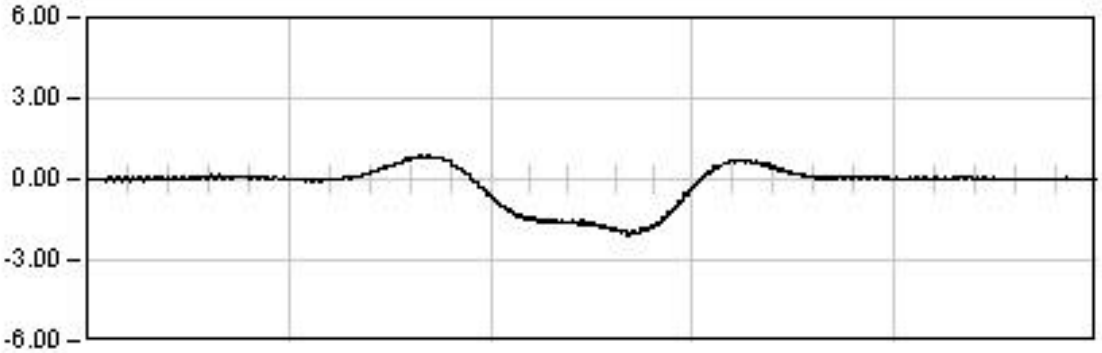
120.5 Seg

Max: -2.11
Min: 0.41
Rem: -0.07

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 10

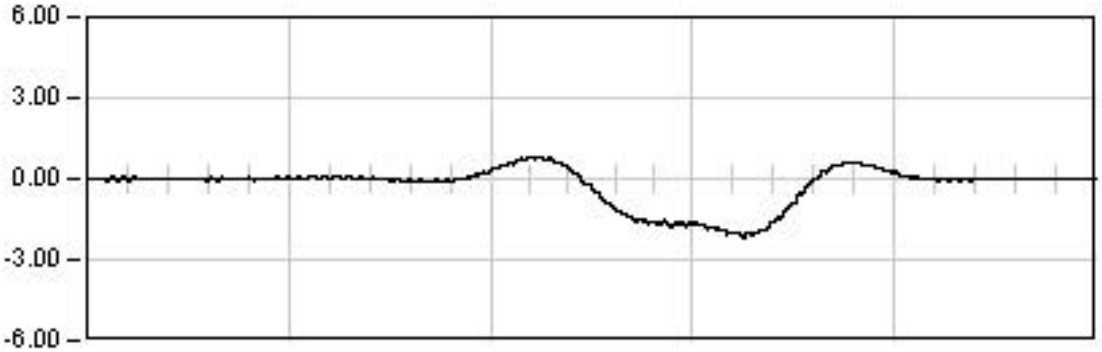
Punto : P101 **Canal : 13** **Unidades : mm**



DINAMICA 12

26.5 Seg

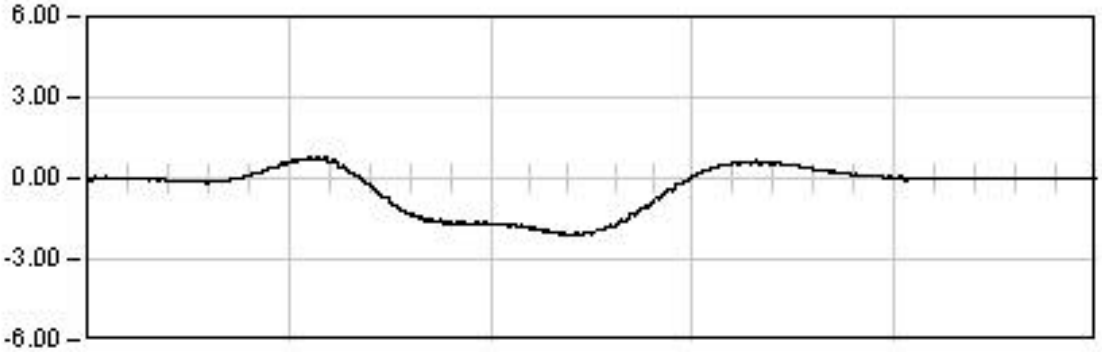
Max: -2.06
Min: 0.91
Rem: 0.02



DINAMICA 13

19.5 Seg

Max: -2.19
Min: 0.83
Rem: 0.01



DINAMICA 14

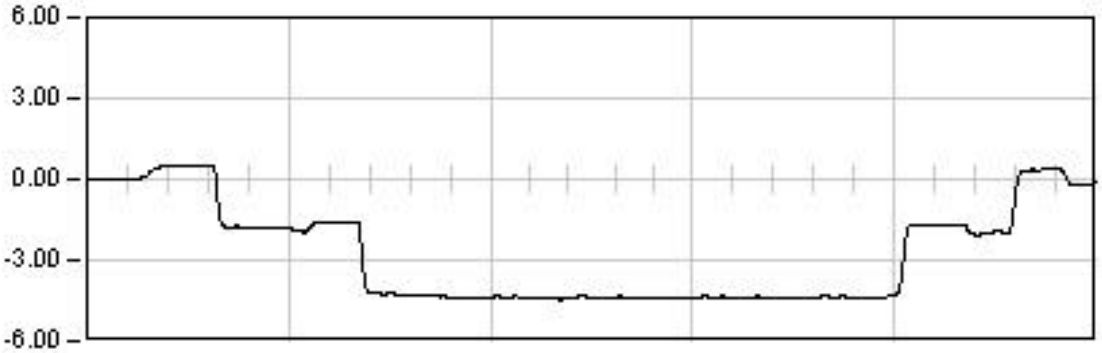
22.5 Seg

Max: -2.12
Min: 0.79
Rem: -0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 10

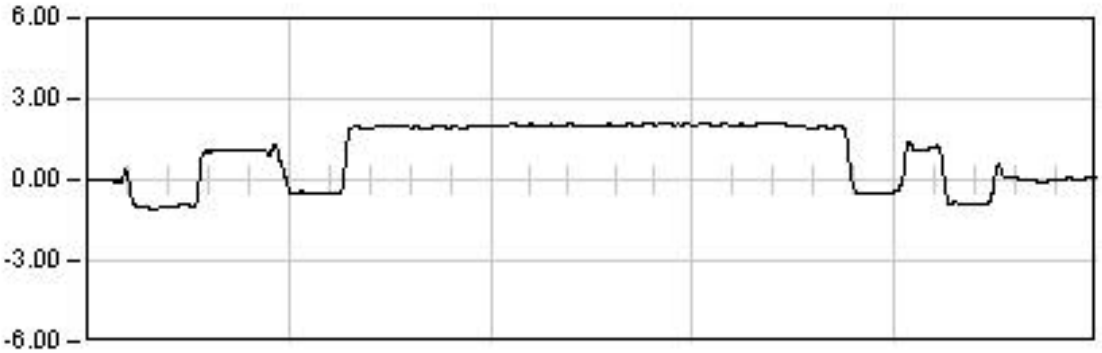
Punto : P102 **Canal : 14** **Unidades : mm**



ESTATICA 08

2601.0 Seg

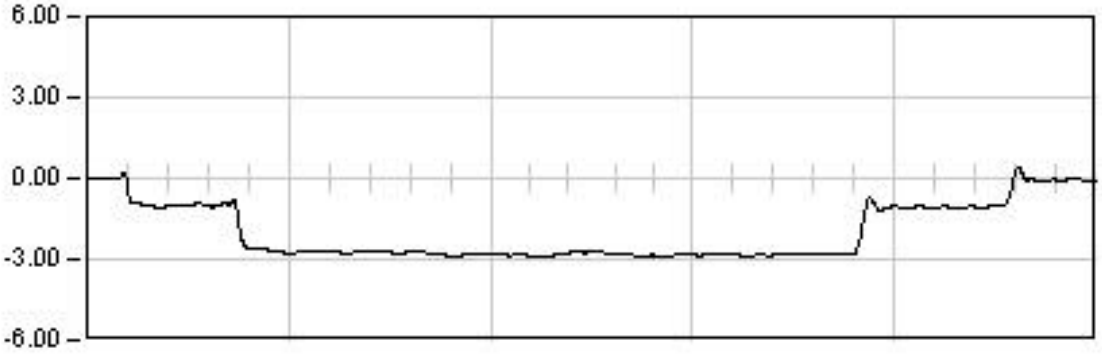
Est: -4.40
Max: -4.46
Min: 0.53
Rem: -0.17



ESTATICA 09

2333.0 Seg

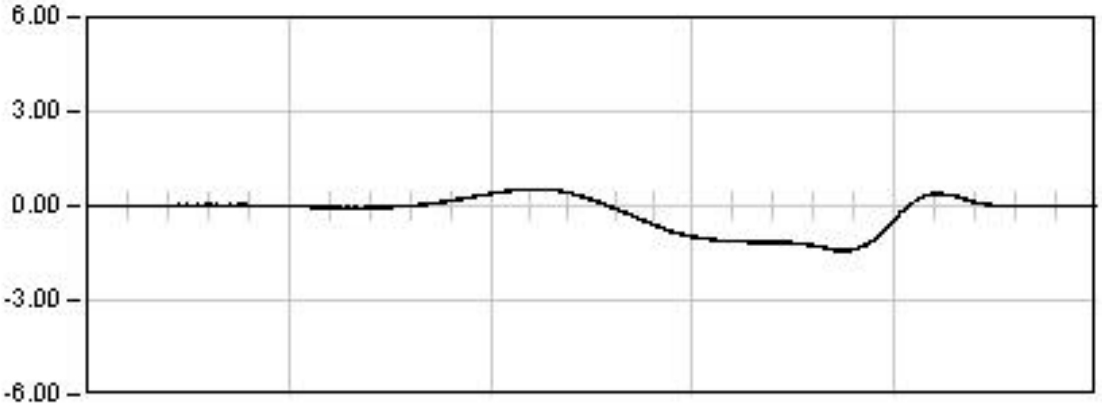
Est: 1.92
Max: 2.13
Min: -1.08
Rem: 0.05



ESTATICA 10

1690.0 Seg

Est: -2.89
Max: -2.91
Min: 0.42
Rem: -0.05



DINAMICA 11

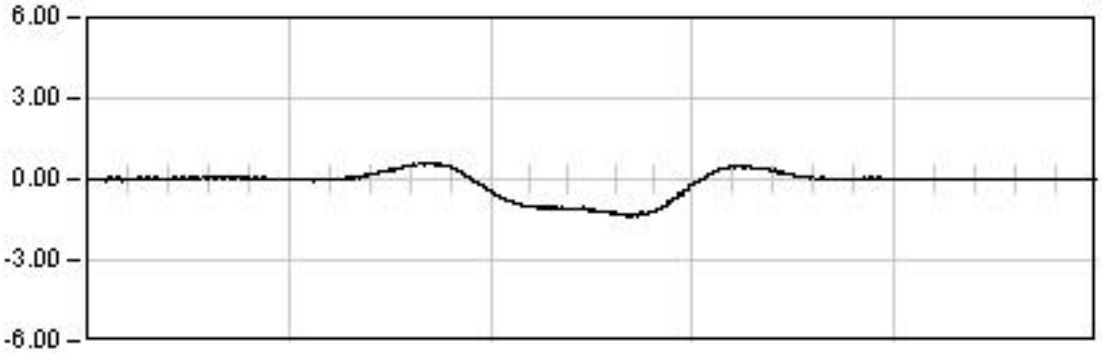
120.5 Seg

Max: -1.45
Min: 0.55
Rem: -0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 10

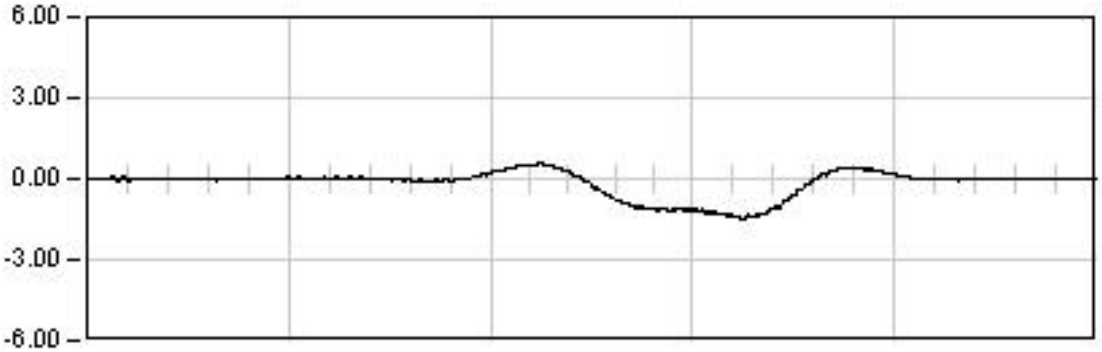
Punto : P102 **Canal : 14** **Unidades : mm**



DINAMICA 12

26.5 Seg

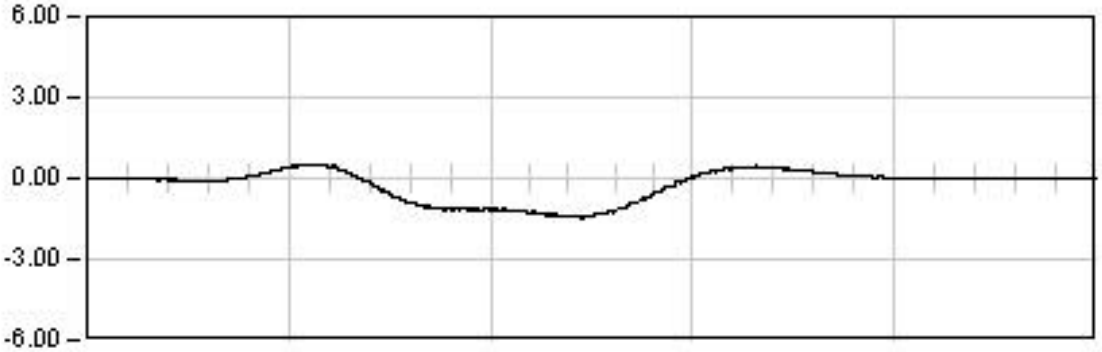
Max: -1.41
Min: 0.62
Rem: 0.02



DINAMICA 13

19.5 Seg

Max: -1.50
Min: 0.57
Rem: 0.01



DINAMICA 14

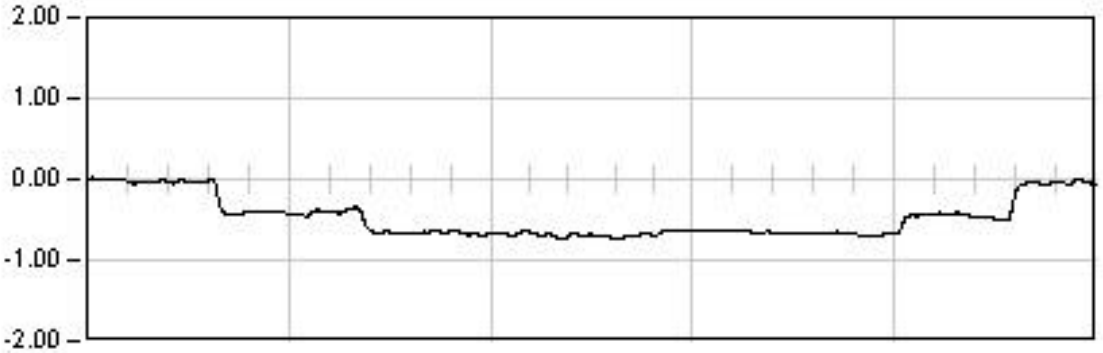
22.5 Seg

Max: -1.45
Min: 0.54
Rem: -0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 10

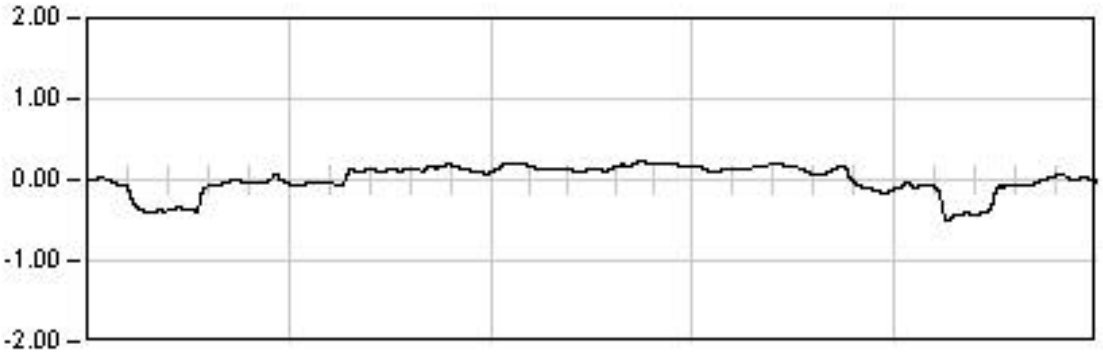
Punto : P103 **Canal : 15** **Unidades : mm**



ESTATICA 08

2601.0 Seg

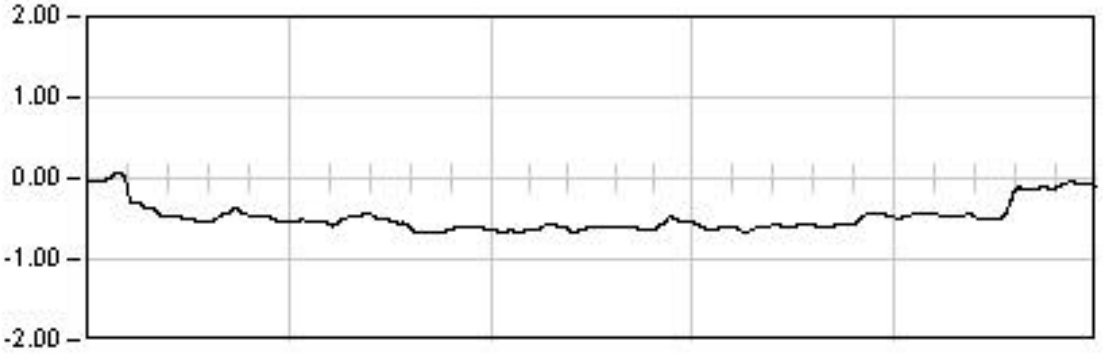
Est: -0.70
Max: -0.75
Min: 0.02
Rem: -0.03



ESTATICA 09

2333.0 Seg

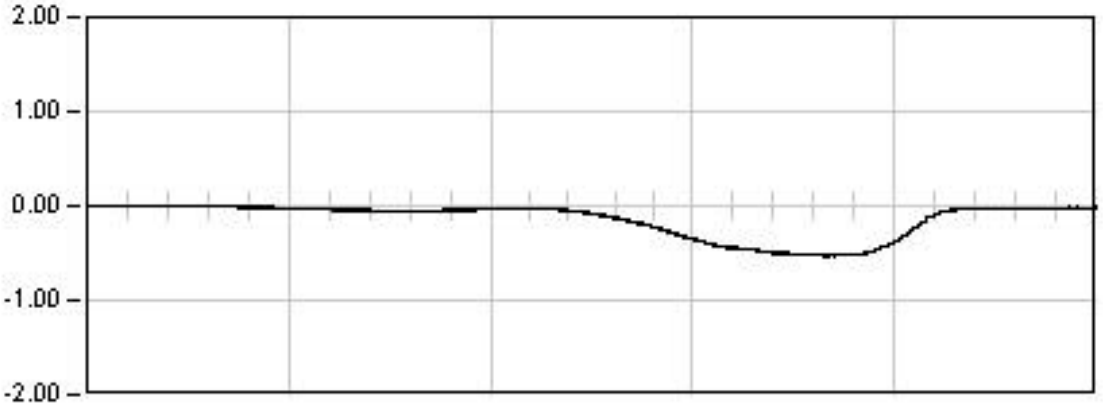
Est: 0.08
Max: -0.51
Min: 0.22
Rem: 0.01



ESTATICA 10

1690.0 Seg

Est: -0.62
Max: -0.67
Min: 0.06
Rem: -0.06



DINAMICA 11

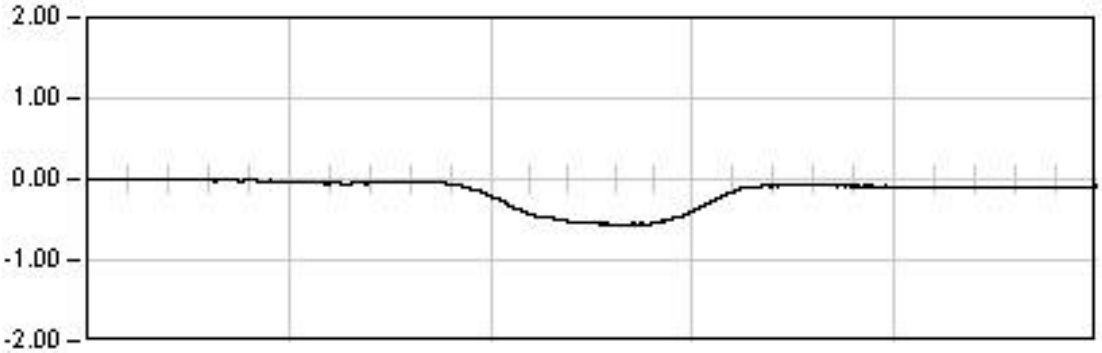
120.5 Seg

Max: -0.53
Min: 0.01
Rem: -0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 10

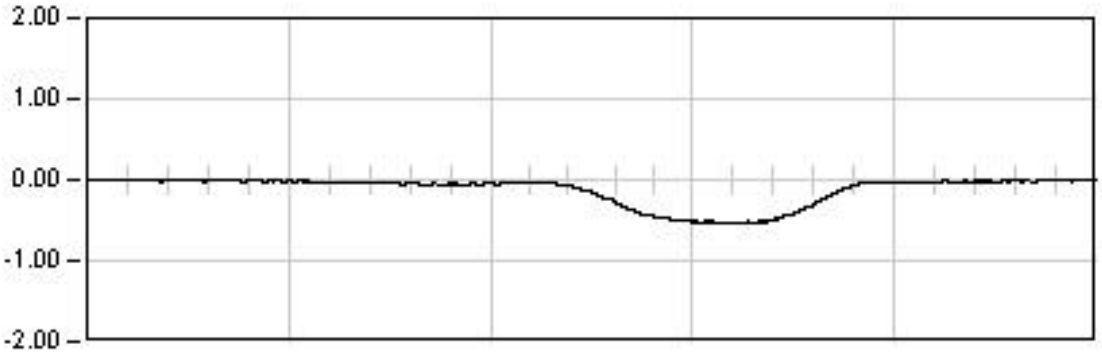
Punto : P103 **Canal : 15** **Unidades : mm**



DINAMICA 12

26.5 Seg

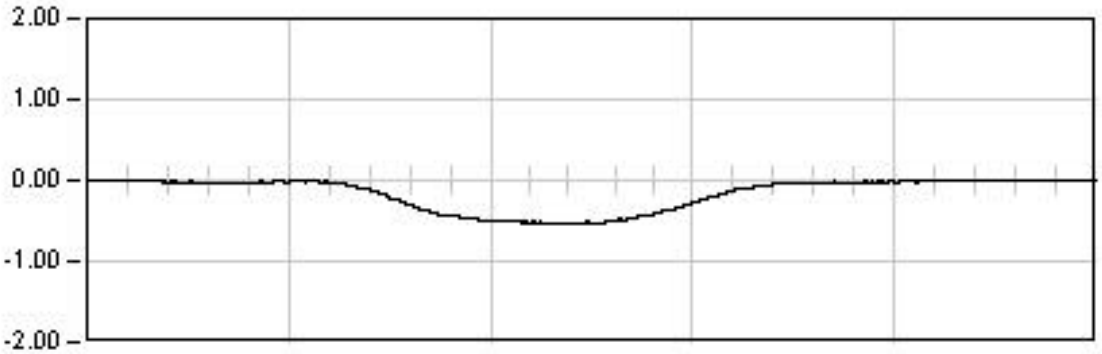
Max: -0.57
Min: 0.01
Rem: -0.09



DINAMICA 13

19.5 Seg

Max: -0.54
Min: 0.01
Rem: -0.01



DINAMICA 14

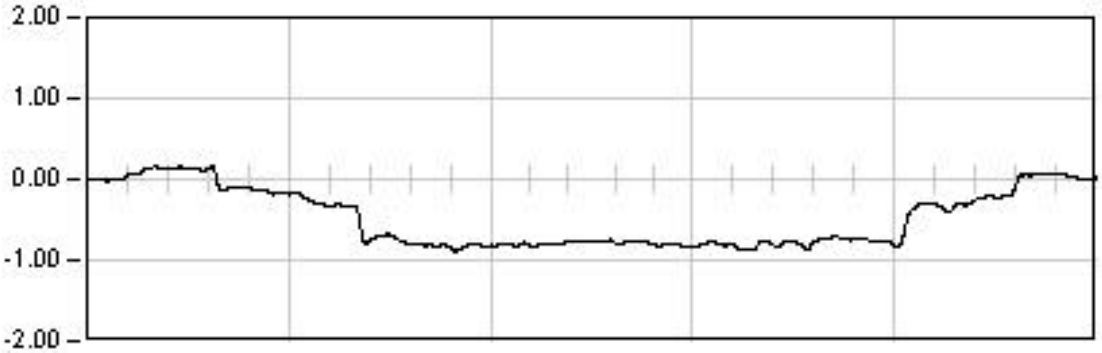
22.5 Seg

Max: -0.54
Min: 0.01
Rem: 0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 10

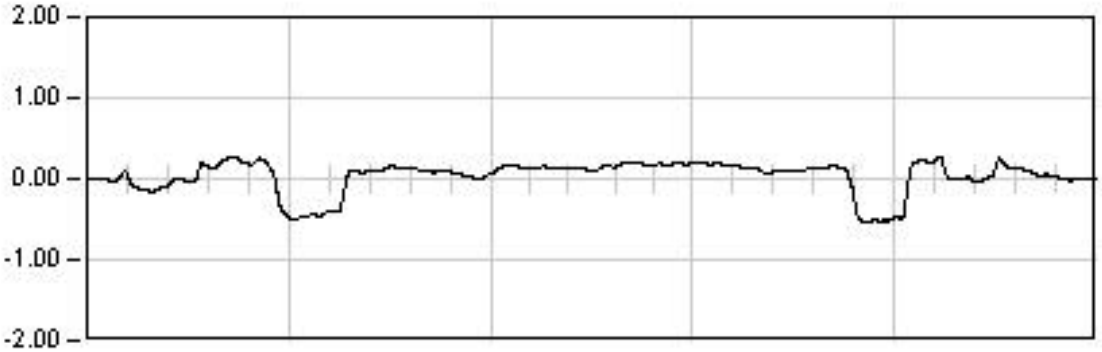
Punto : P104 **Canal : 12** **Unidades : mm**



ESTATICA 08

2601.0 Seg

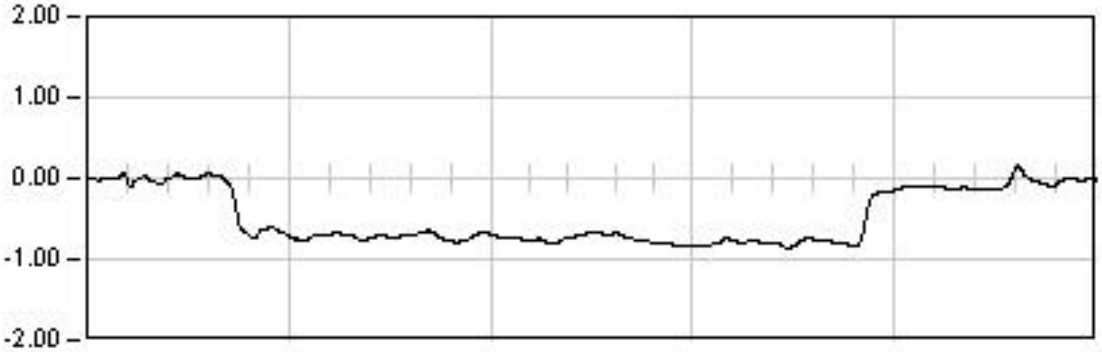
Est: -0.76
Max: -0.89
Min: 0.16
Rem: 0.00



ESTATICA 09

2333.0 Seg

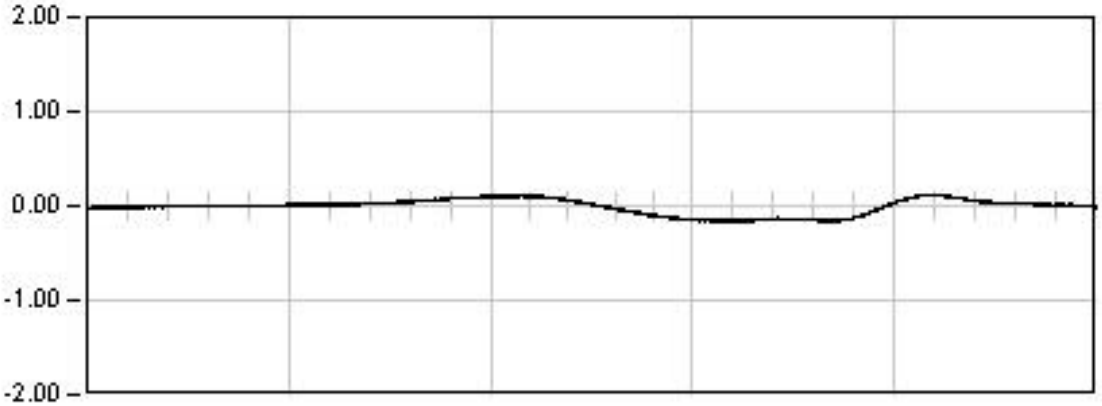
Est: 0.13
Max: -0.54
Min: 0.27
Rem: 0.00



ESTATICA 10

1690.0 Seg

Est: -0.76
Max: -0.86
Min: 0.16
Rem: -0.01



DINAMICA 11

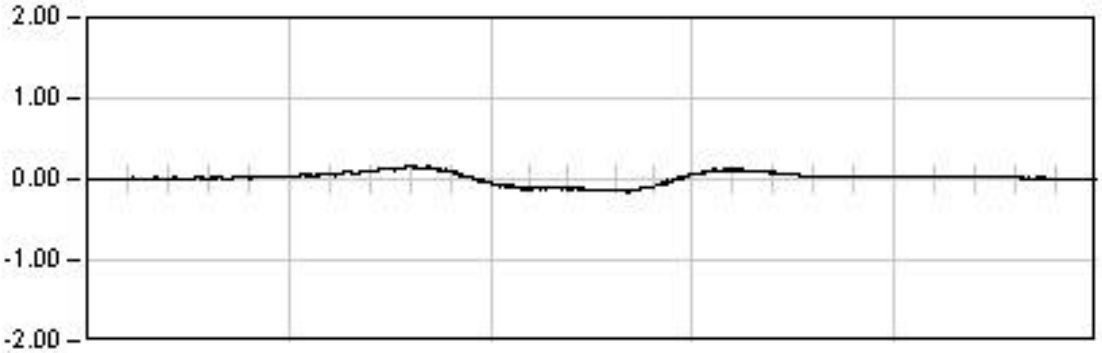
120.5 Seg

Max: -0.16
Min: 0.12
Rem: -0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 10

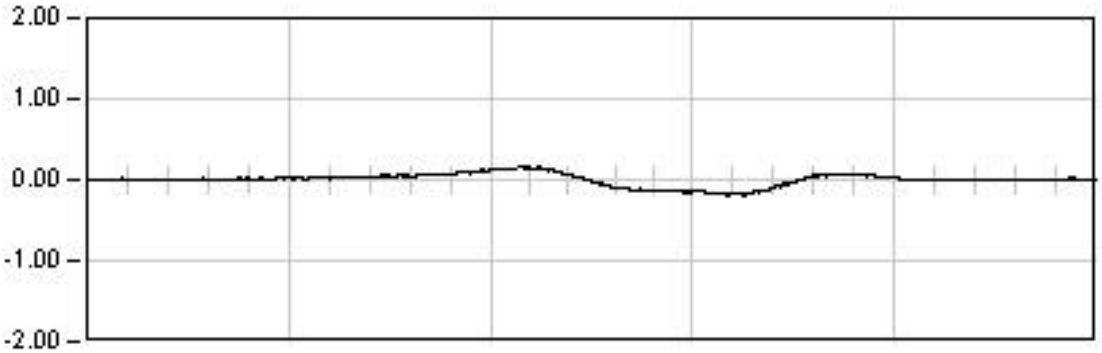
Punto : P104 **Canal : 12** **Unidades : mm**



DINAMICA 12

26.5 Seg

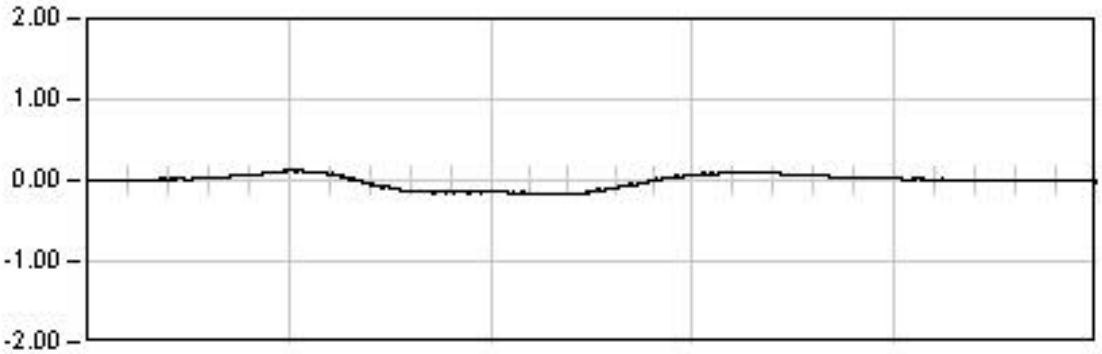
Max: 0.17
Min: -0.16
Rem: 0.01



DINAMICA 13

19.5 Seg

Max: -0.19
Min: 0.16
Rem: 0.01



DINAMICA 14

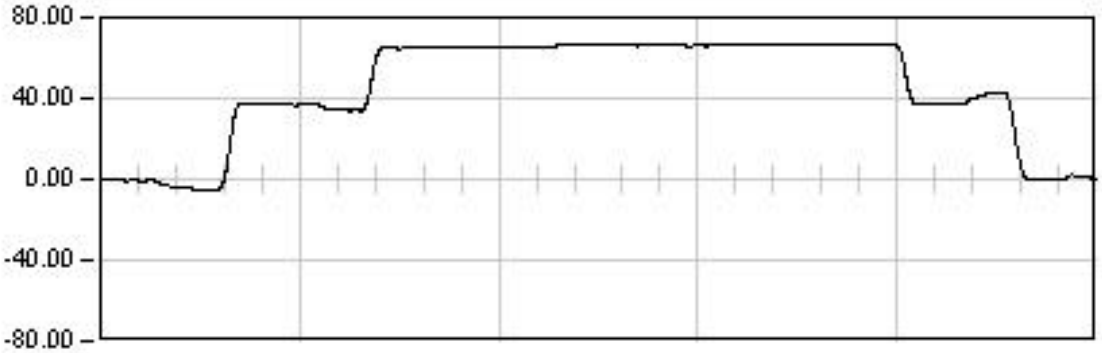
22.5 Seg

Max: -0.17
Min: 0.13
Rem: -0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 10

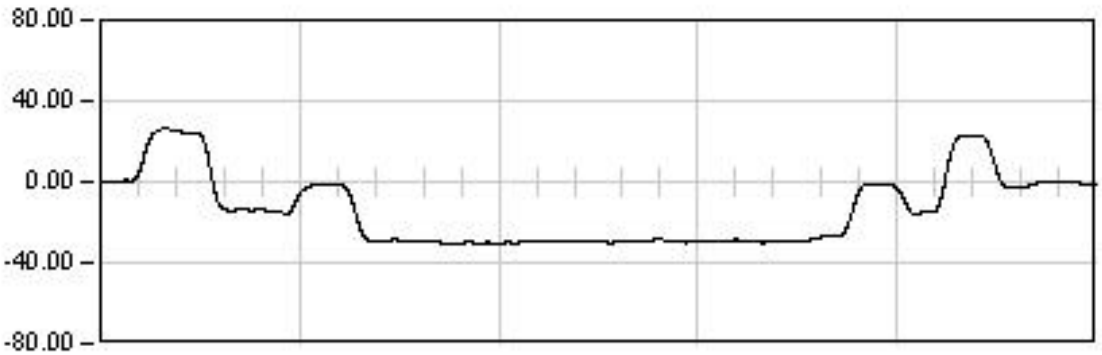
Punto : G101 Canal : 16 Unidades : µE



ESTATICA 08

2601.0 Seg

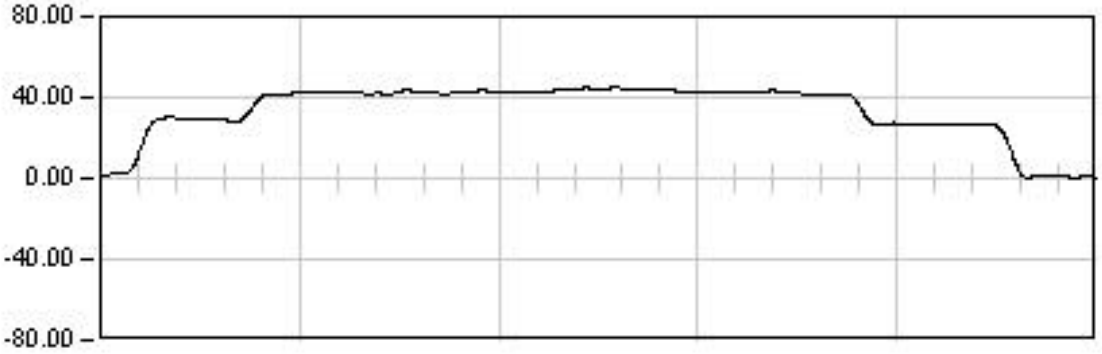
Est: 66.90
Max: 67.10
Min: -5.49
Rem: 1.02



ESTATICA 09

2333.0 Seg

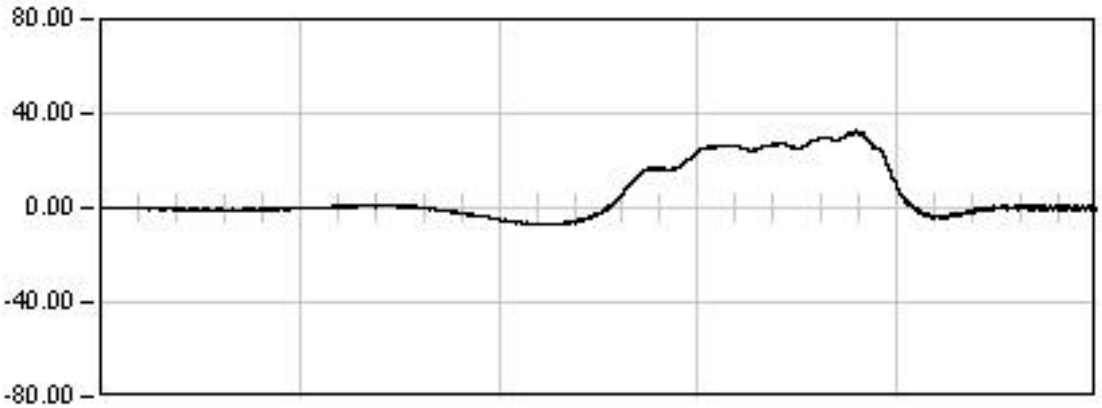
Est: -27.87
Max: -30.72
Min: 26.38
Rem: -0.89



ESTATICA 10

1690.0 Seg

Est: 44.40
Max: 44.88
Min: 0.40
Rem: 0.80



DINAMICA 11

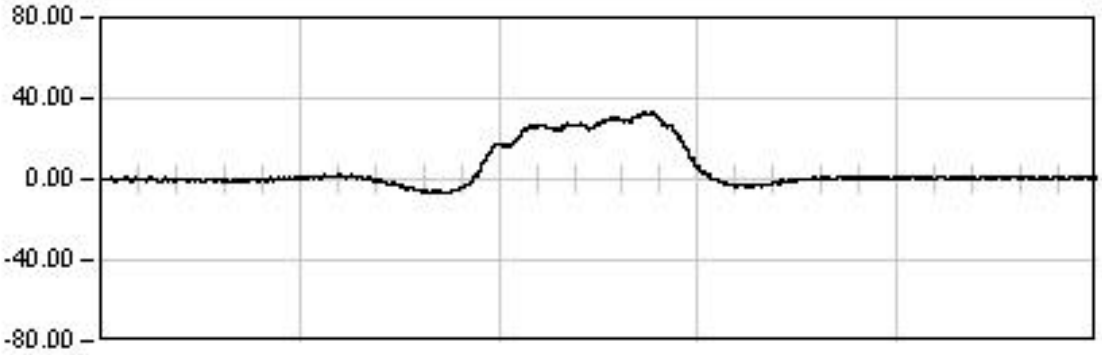
120.5 Seg

Max: 32.94
Min: -7.30
Rem: -0.08

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 10

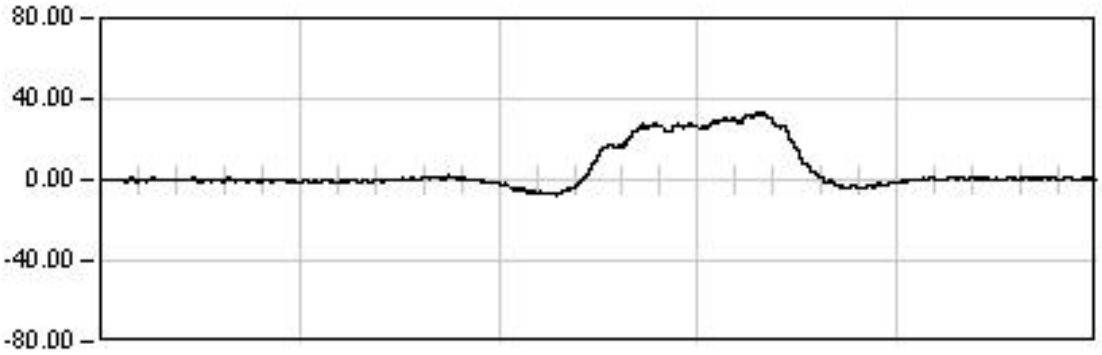
Punto : G101 Canal : 16 Unidades : µE



DINAMICA 12

26.5 Seg

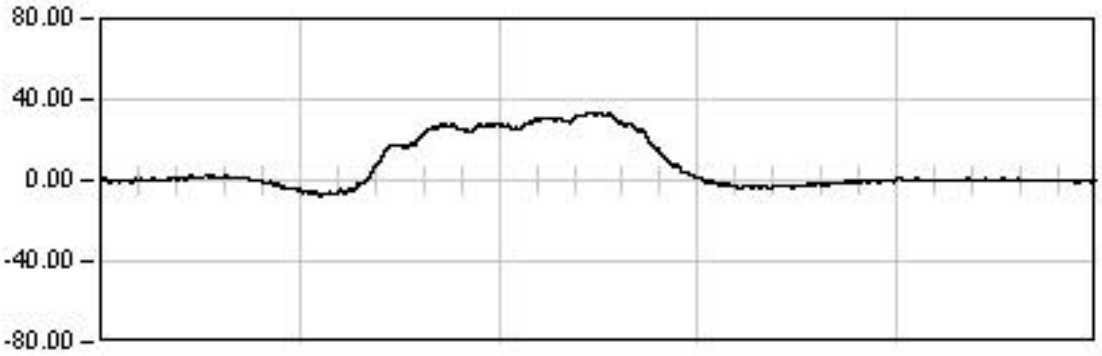
Max: 33.38
Min: -7.31
Rem: 0.65



DINAMICA 13

19.5 Seg

Max: 33.15
Min: -7.50
Rem: 0.55



DINAMICA 14

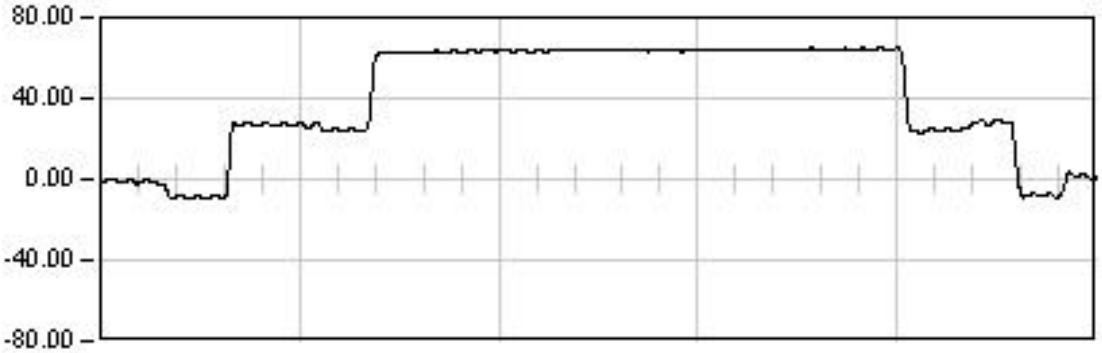
22.5 Seg

Max: 33.77
Min: -7.41
Rem: -0.34

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 10

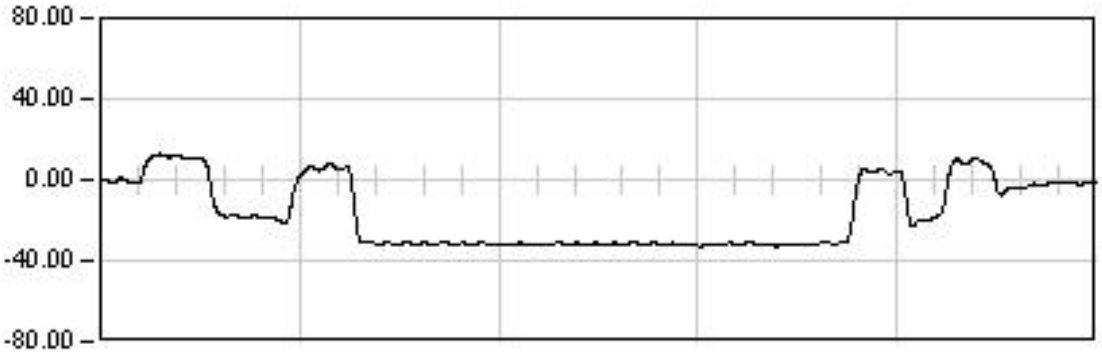
Punto : G102 Canal : 17 Unidades : µE



ESTATICA 08

2601.0 Seg

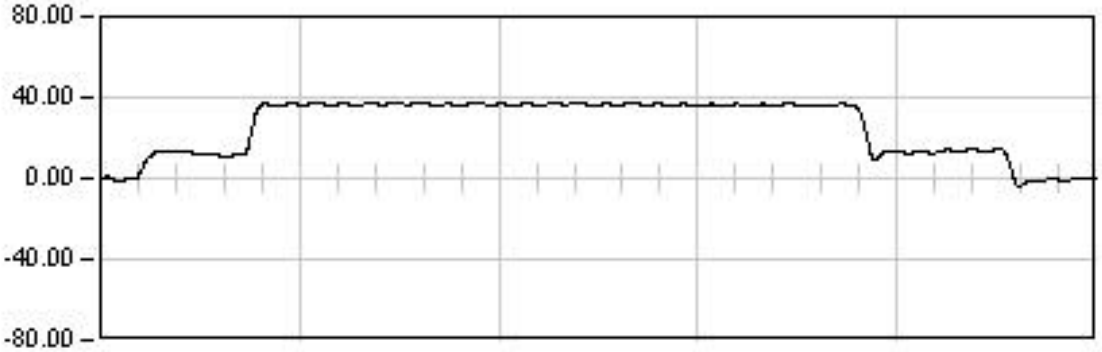
Est: 65.06
Max: 65.16
Min: -9.87
Rem: 1.48



ESTATICA 09

2333.0 Seg

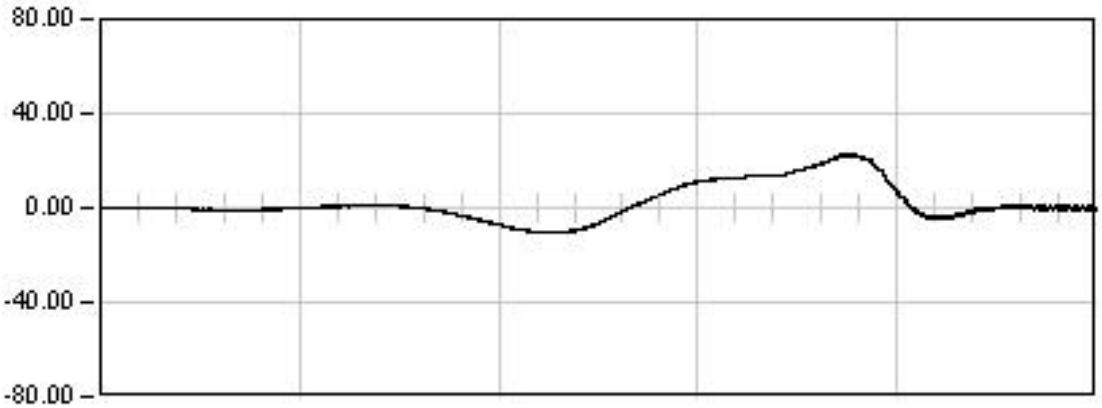
Est: -32.37
Max: -32.76
Min: 12.68
Rem: -1.40



ESTATICA 10

1690.0 Seg

Est: 36.36
Max: 37.73
Min: -4.50
Rem: -0.43



DINAMICA 11

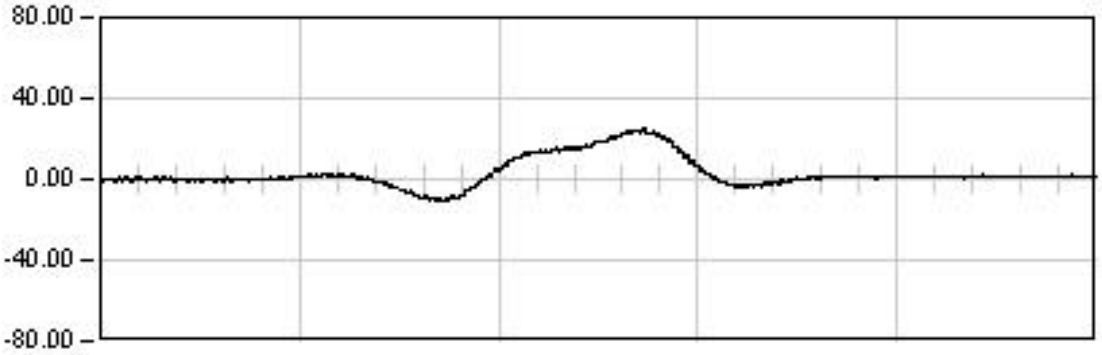
120.5 Seg

Max: 23.01
Min: -10.78
Rem: -0.05

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 10

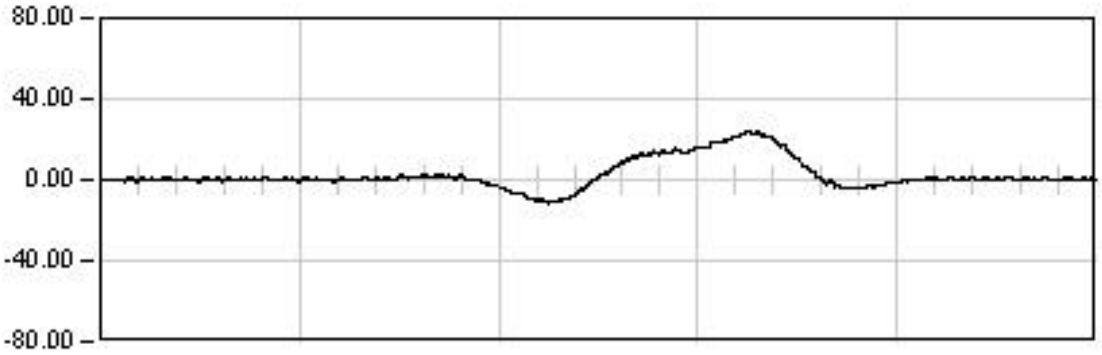
Punto : G102 Canal : 17 Unidades : µE



DINAMICA 12

26.5 Seg

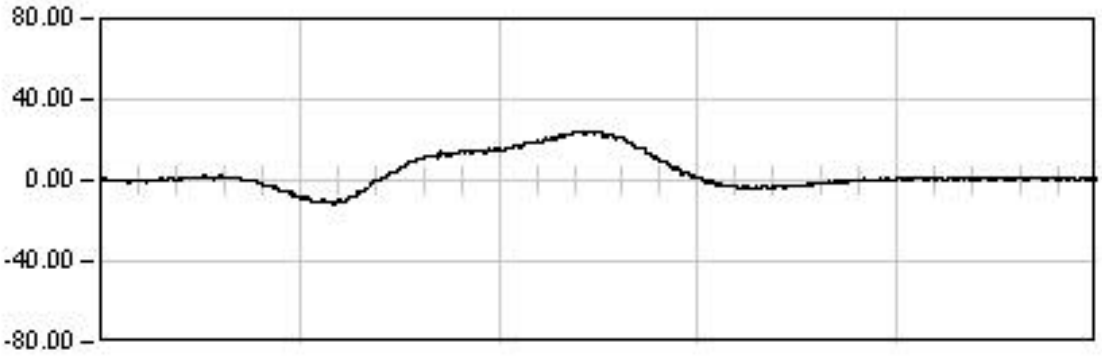
Max: 24.97
Min: -10.85
Rem: 1.34



DINAMICA 13

19.5 Seg

Max: 24.37
Min: -11.59
Rem: 0.50



DINAMICA 14

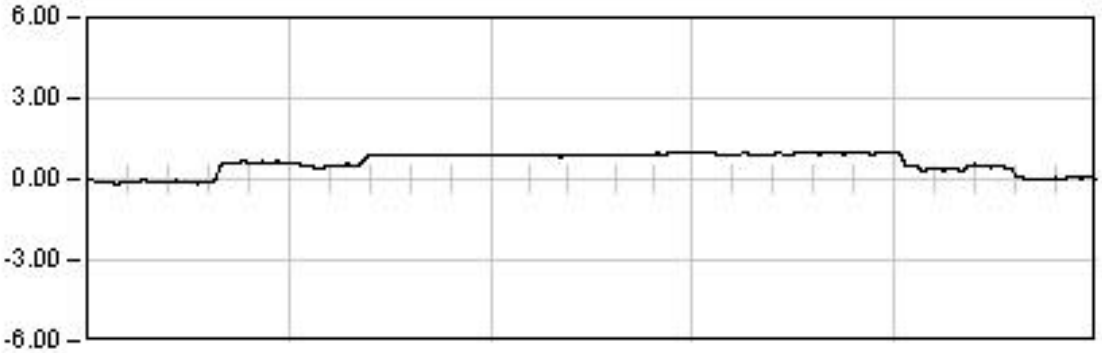
22.5 Seg

Max: 24.36
Min: -11.62
Rem: 0.70

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 11

Punto : P111 **Canal : 19** **Unidades : mm**



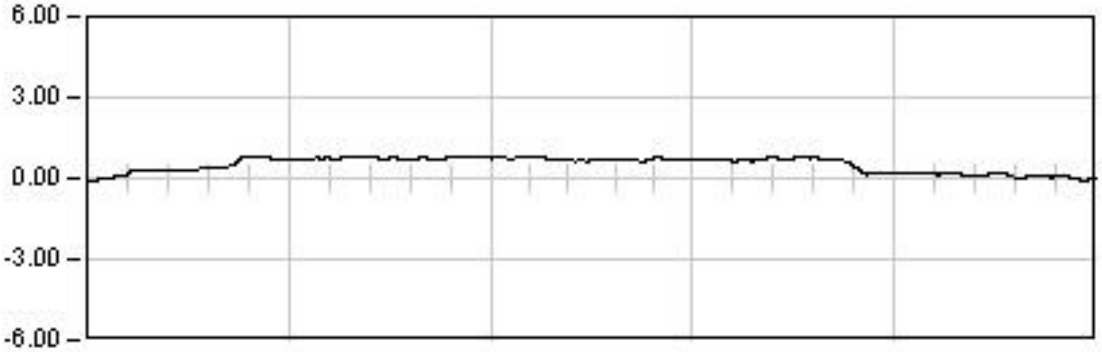
ESTATICA 08

2601.0	Seg
Est:	0.96
Max:	1.01
Min:	-0.16
Rem:	0.06



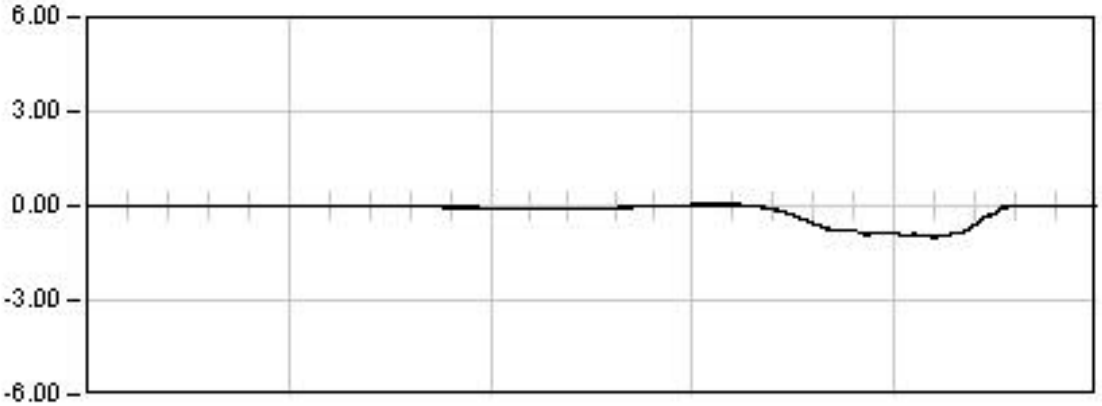
ESTATICA 09

2333.0	Seg
Est:	-2.97
Max:	-3.15
Min:	0.09
Rem:	0.02



ESTATICA 10

1690.0	Seg
Est:	0.65
Max:	0.84
Min:	-0.10
Rem:	0.00



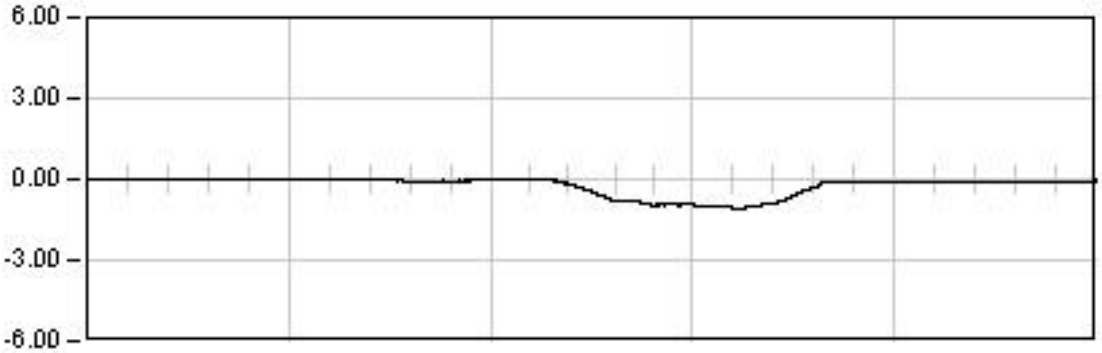
DINAMICA 11

120.5	Seg
Max:	-1.00
Min:	0.07
Rem:	-0.03

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 11

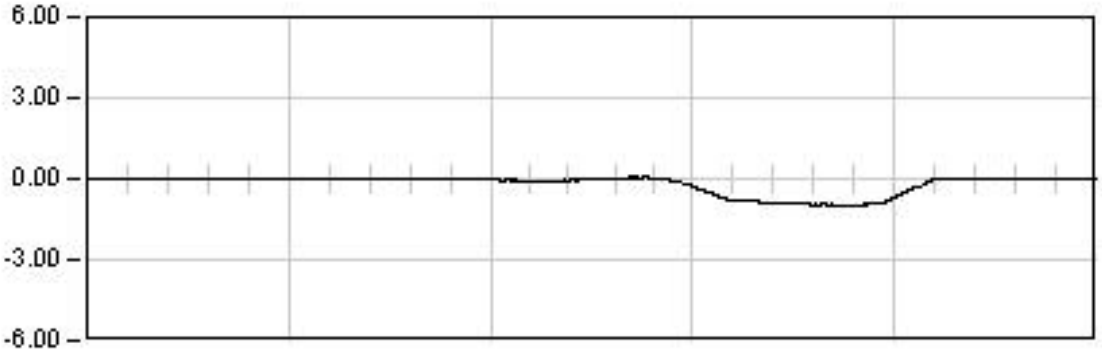
Punto : P111 **Canal : 19** **Unidades : mm**



DINAMICA 12

26.5 Seg

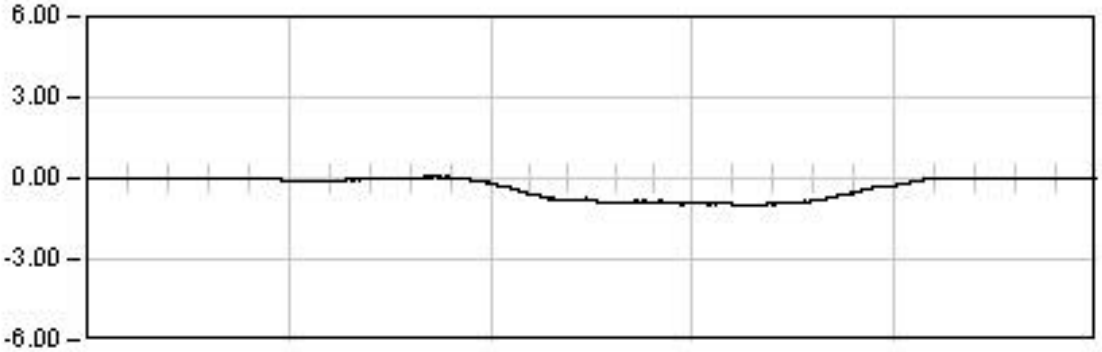
Max: -1.10
Min: 0.05
Rem: -0.07



DINAMICA 13

19.5 Seg

Max: -1.04
Min: 0.07
Rem: -0.03



DINAMICA 14

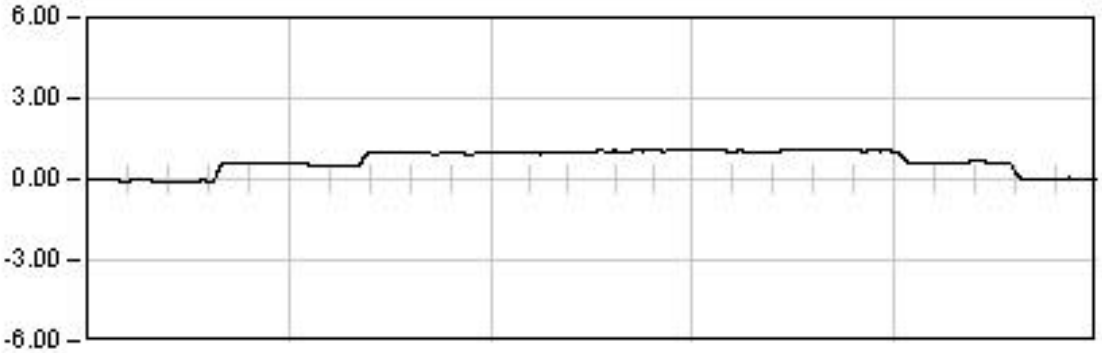
22.5 Seg

Max: -1.02
Min: 0.07
Rem: 0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 11

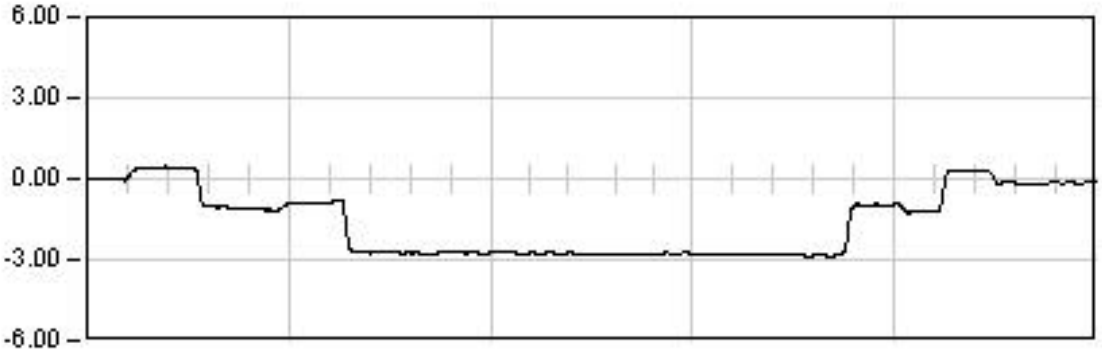
Punto : P112 **Canal : 20** **Unidades : mm**



ESTATICA 08

2601.0 Seg

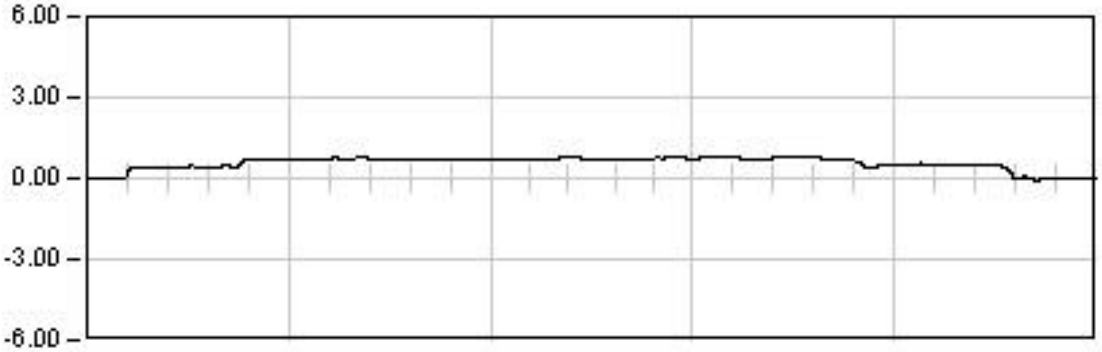
Est: 1.06
Max: 1.12
Min: -0.10
Rem: 0.01



ESTATICA 09

2333.0 Seg

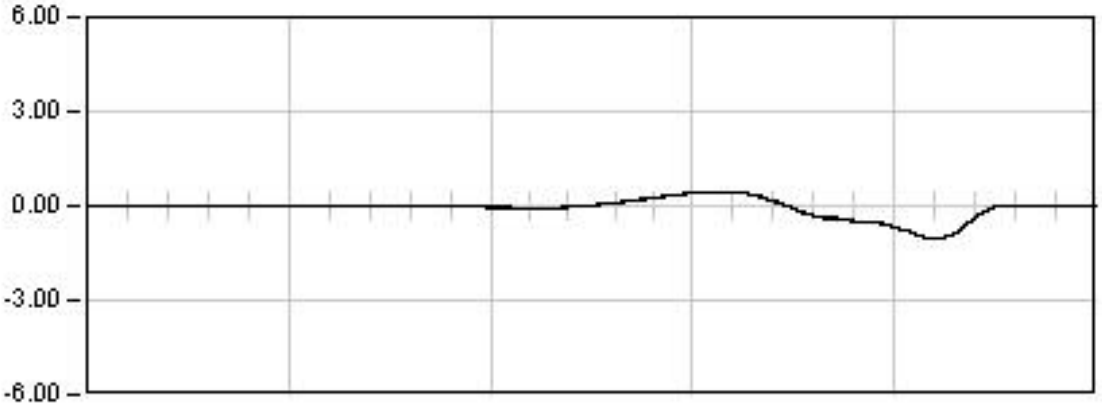
Est: -2.86
Max: -2.86
Min: 0.45
Rem: -0.13



ESTATICA 10

1690.0 Seg

Est: 0.68
Max: 0.80
Min: -0.06
Rem: 0.02



DINAMICA 11

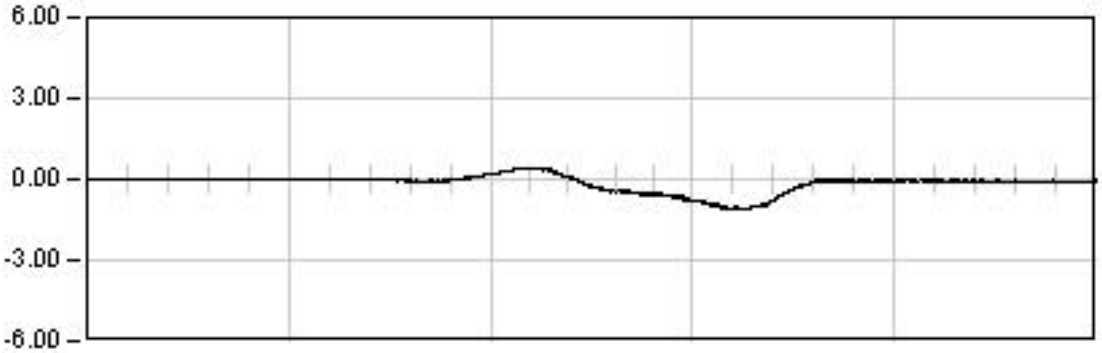
120.5 Seg

Max: -1.04
Min: 0.46
Rem: -0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 11

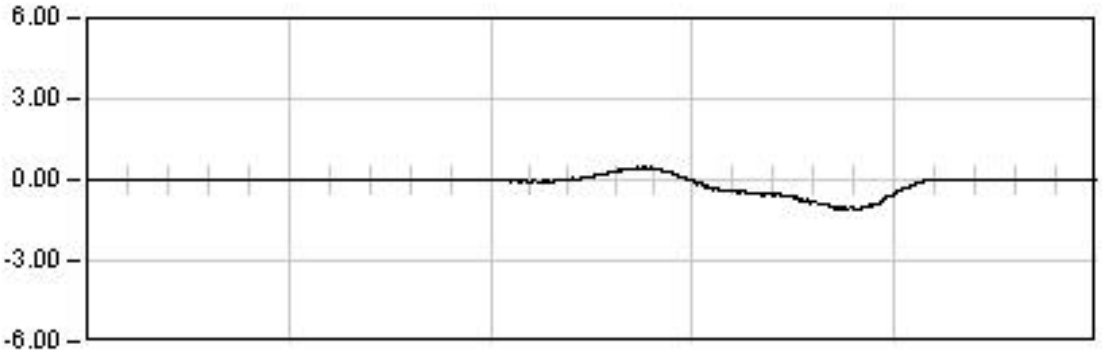
Punto : P112 **Canal : 20** **Unidades : mm**



DINAMICA 12

26.5 Seg

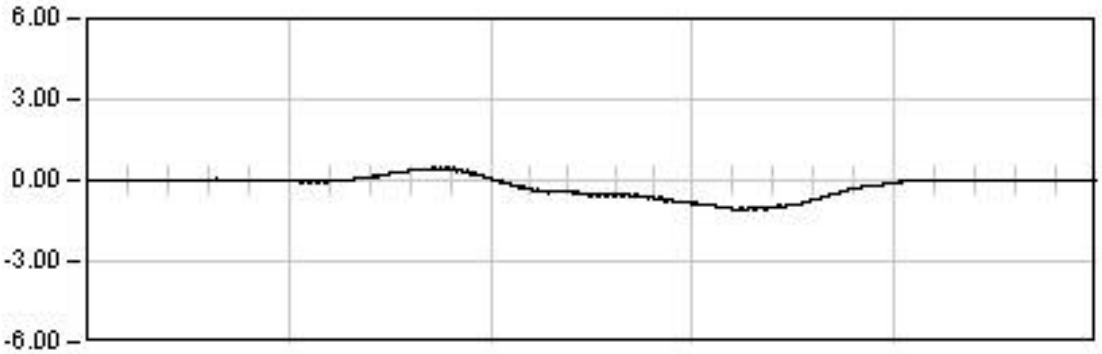
Max: -1.13
Min: 0.45
Rem: -0.06



DINAMICA 13

19.5 Seg

Max: -1.11
Min: 0.47
Rem: -0.02



DINAMICA 14

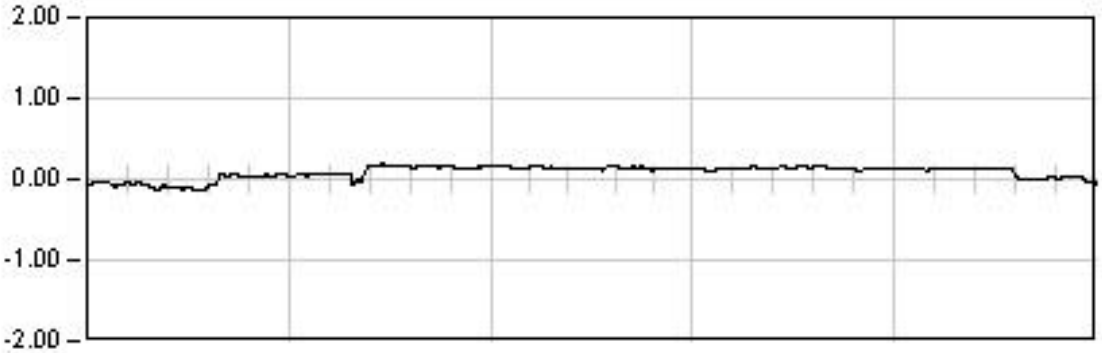
22.5 Seg

Max: -1.08
Min: 0.48
Rem: 0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 11

Punto : P113 Canal : 21 Unidades : mm



ESTATICA 08

2601.0 Seg

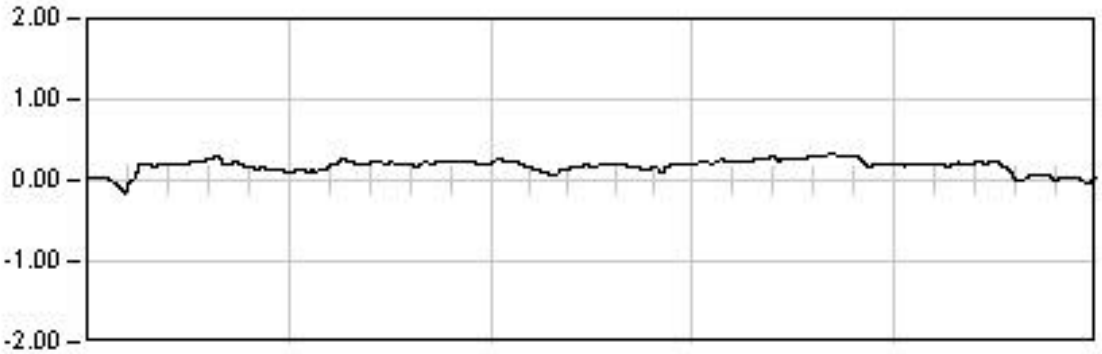
Est: 0.14
Max: 0.18
Min: -0.13
Rem: 0.00



ESTATICA 09

2333.0 Seg

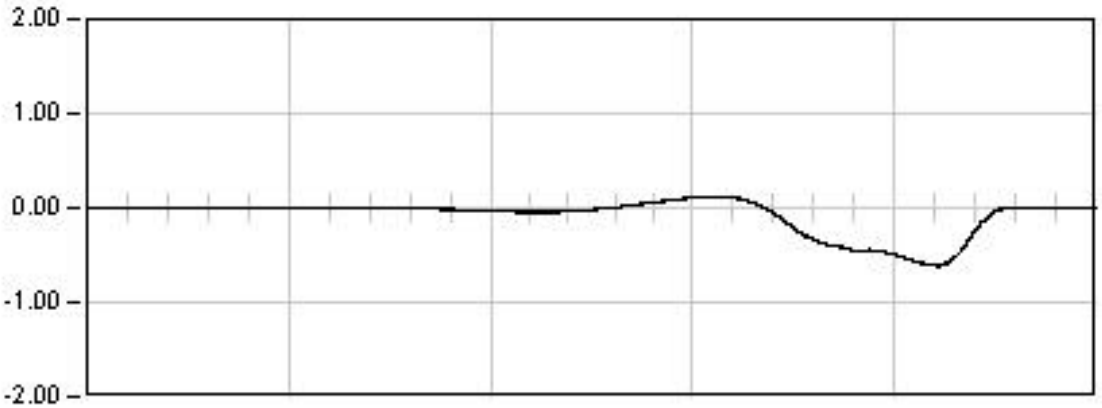
Est: -0.56
Max: -0.57
Min: 0.18
Rem: 0.00



ESTATICA 10

1690.0 Seg

Est: 0.16
Max: 0.34
Min: -0.15
Rem: 0.01



DINAMICA 11

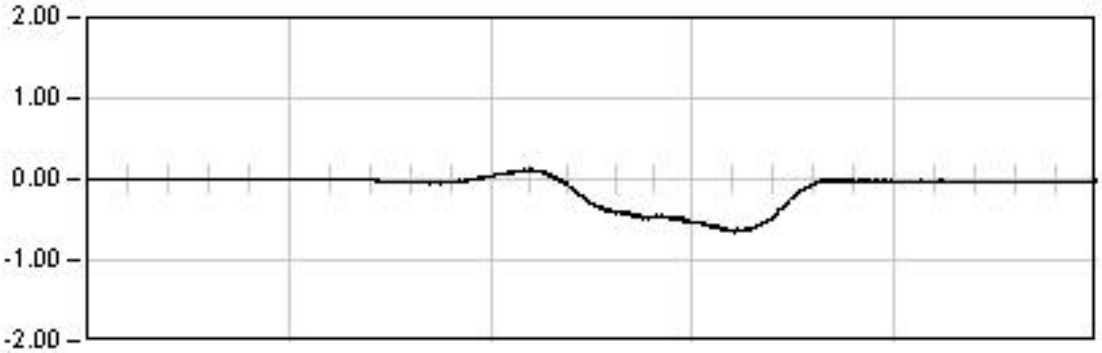
120.5 Seg

Max: -0.62
Min: 0.12
Rem: -0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 11

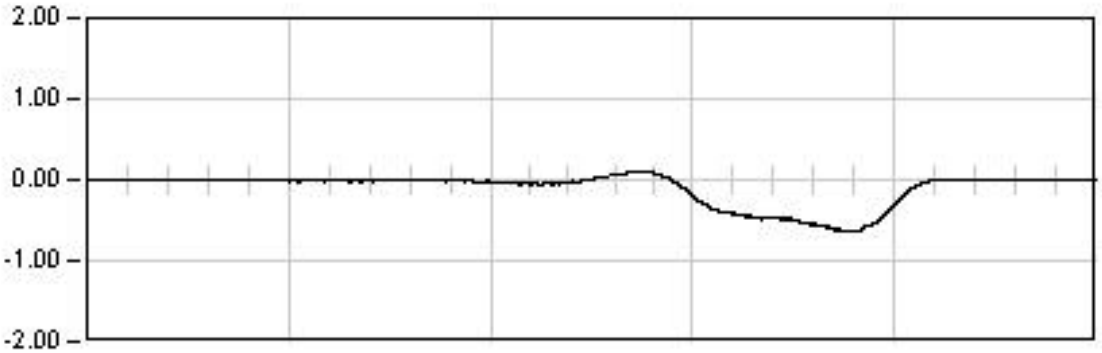
Punto : P113 **Canal : 21** **Unidades : mm**



DINAMICA 12

26.5 Seg

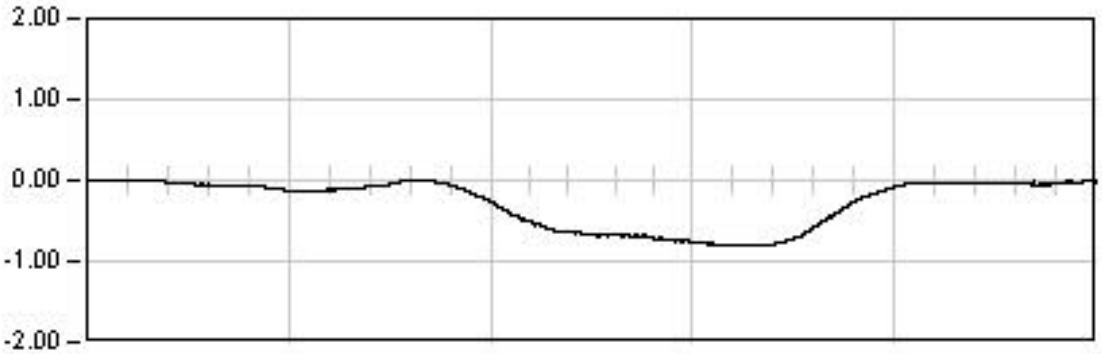
Max: -0.65
Min: 0.12
Rem: -0.02



DINAMICA 13

19.5 Seg

Max: -0.64
Min: 0.11
Rem: -0.00



DINAMICA 14

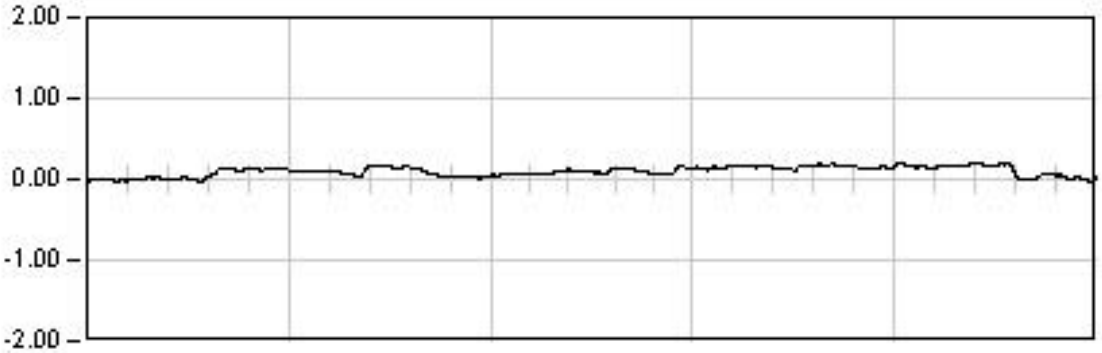
22.5 Seg

Max: -0.81
Min: 0.01
Rem: 0.01

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 11

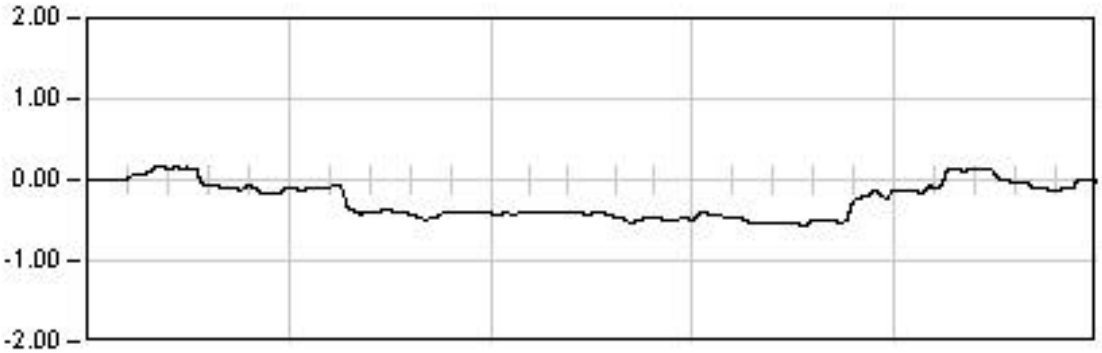
Punto : P114 **Canal : 18** **Unidades : mm**



ESTATICA 08

2601.0 Seg

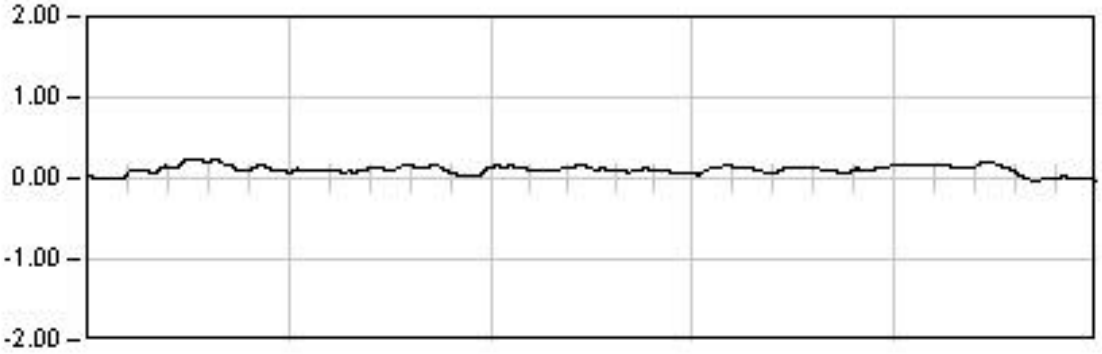
Est: 0.14
Max: 0.21
Min: -0.03
Rem: 0.00



ESTATICA 09

2333.0 Seg

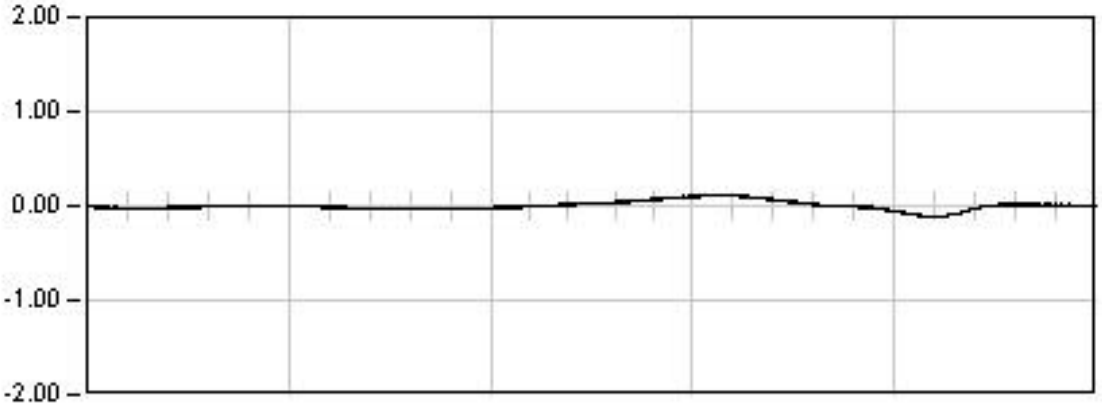
Est: -0.52
Max: -0.56
Min: 0.18
Rem: -0.02



ESTATICA 10

1690.0 Seg

Est: 0.10
Max: 0.25
Min: -0.05
Rem: 0.00



DINAMICA 11

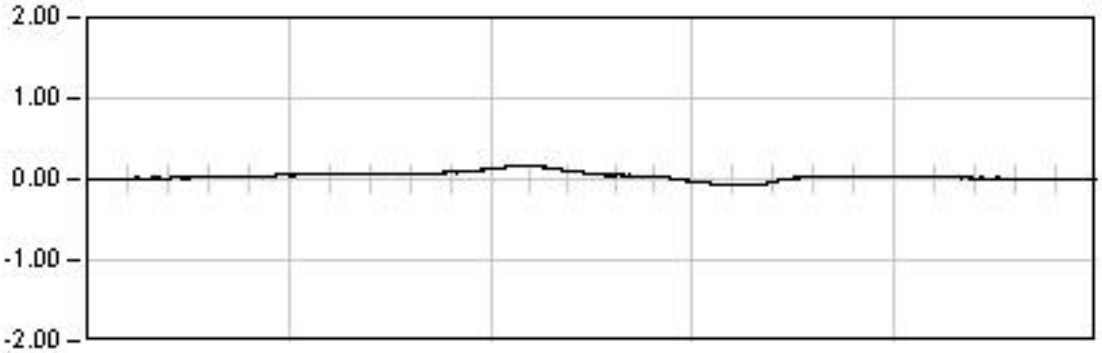
120.5 Seg

Max: -0.12
Min: 0.11
Rem: 0.00

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 11

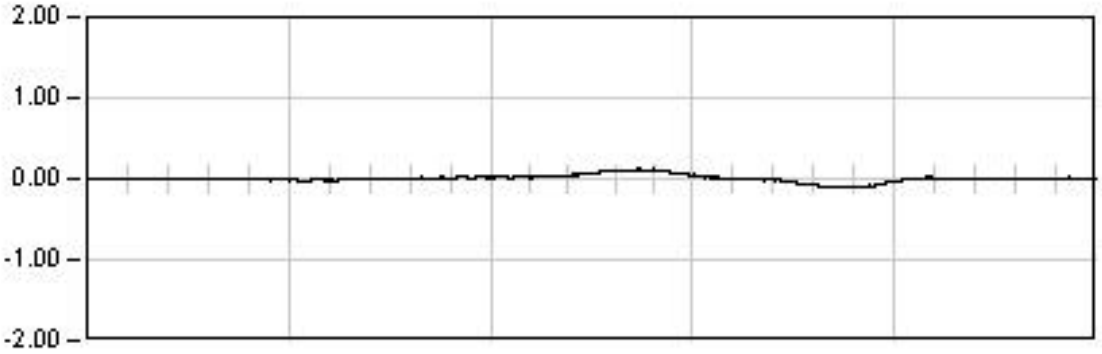
Punto : P114 **Canal : 18** **Unidades : mm**



DINAMICA 12

26.5 Seg

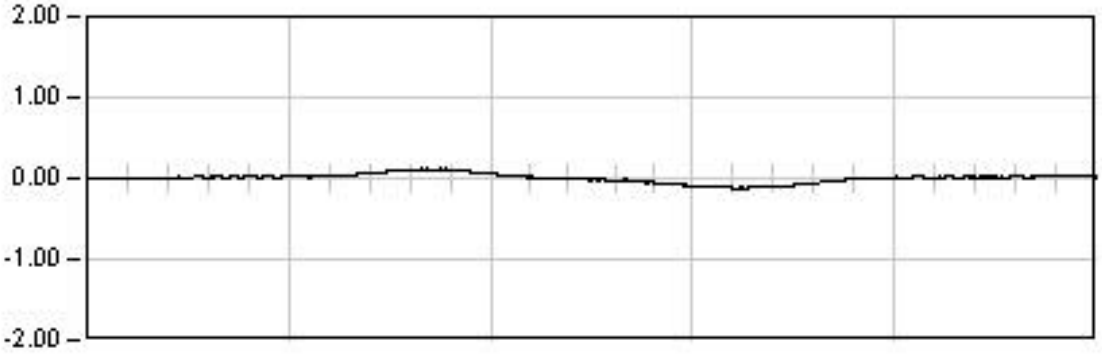
Max: 0.17
Min: -0.08
Rem: 0.00



DINAMICA 13

19.5 Seg

Max: 0.12
Min: -0.12
Rem: 0.01



DINAMICA 14

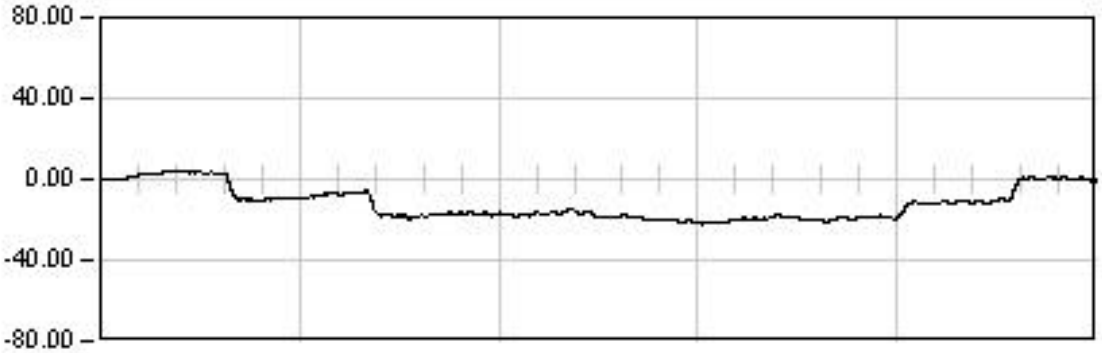
22.5 Seg

Max: -0.12
Min: 0.12
Rem: 0.02

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 11

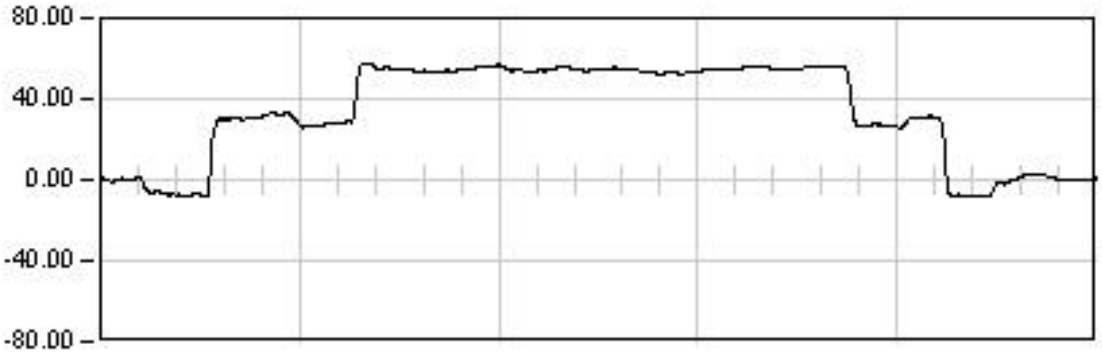
Punto : G111 Canal : 23 Unidades : µE



ESTATICA 08

2601.0 Seg

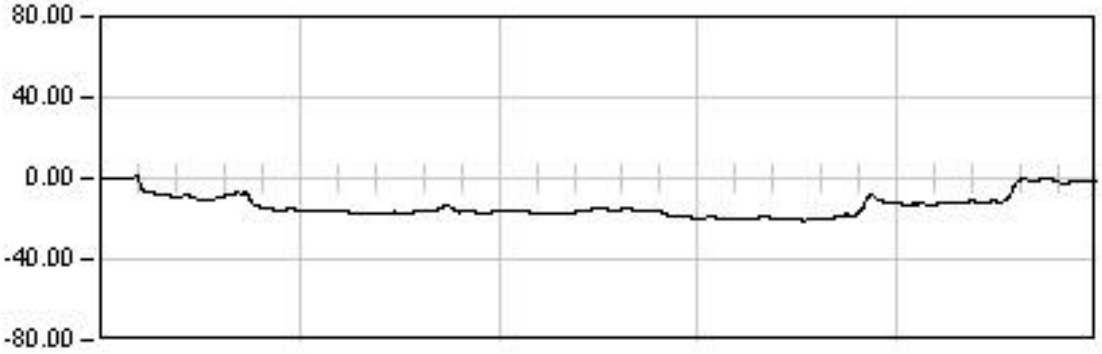
Est: -18.01
Max: -22.01
Min: 4.60
Rem: -0.07



ESTATICA 09

2333.0 Seg

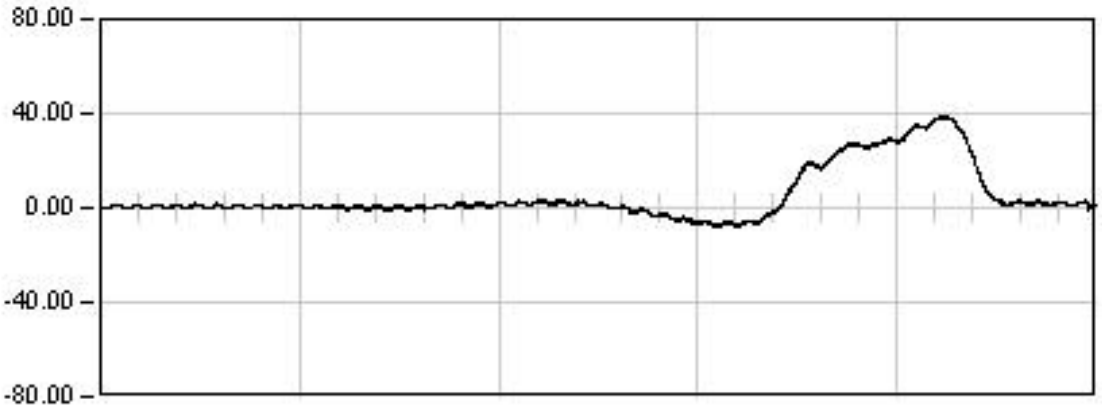
Est: 55.61
Max: 57.95
Min: -8.57
Rem: 0.08



ESTATICA 10

1690.0 Seg

Est: -15.67
Max: -20.81
Min: 1.05
Rem: -1.64



DINAMICA 11

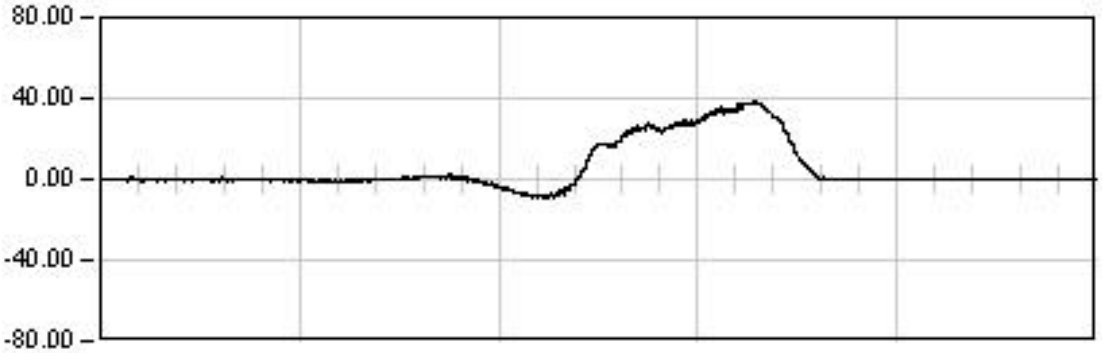
120.5 Seg

Max: 38.67
Min: -7.80
Rem: 1.08

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 11

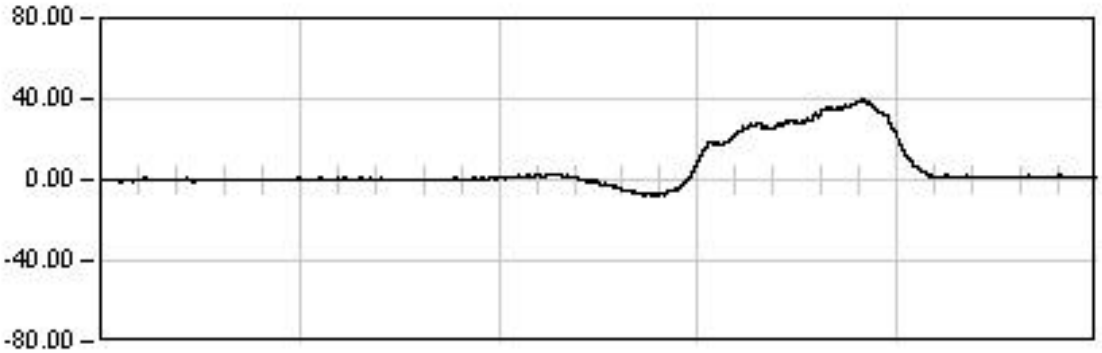
Punto : G111 **Canal : 23** **Unidades : µE**



DINAMICA 12

26.5 Seg

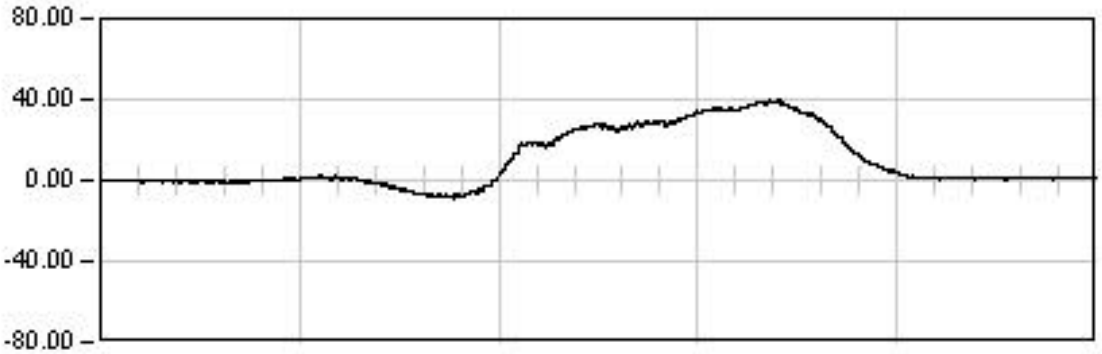
Max: 38.85
Min: -9.32
Rem: -0.01



DINAMICA 13

19.5 Seg

Max: 39.68
Min: -7.99
Rem: 1.44



DINAMICA 14

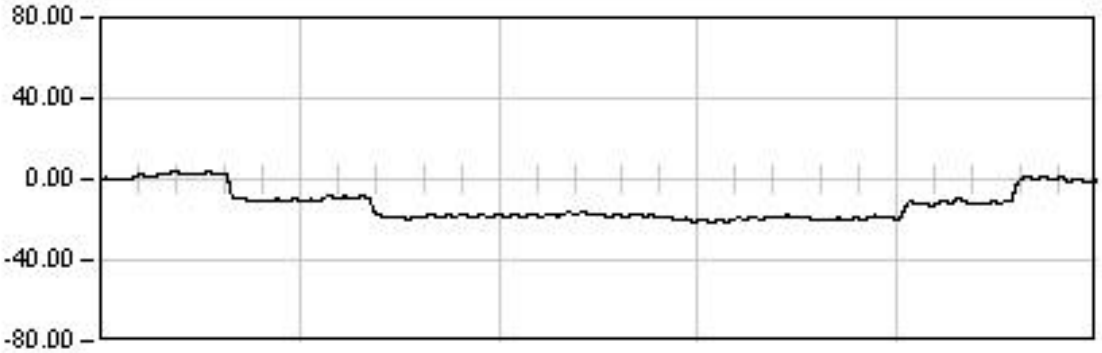
22.5 Seg

Max: 39.61
Min: -8.78
Rem: 1.19

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

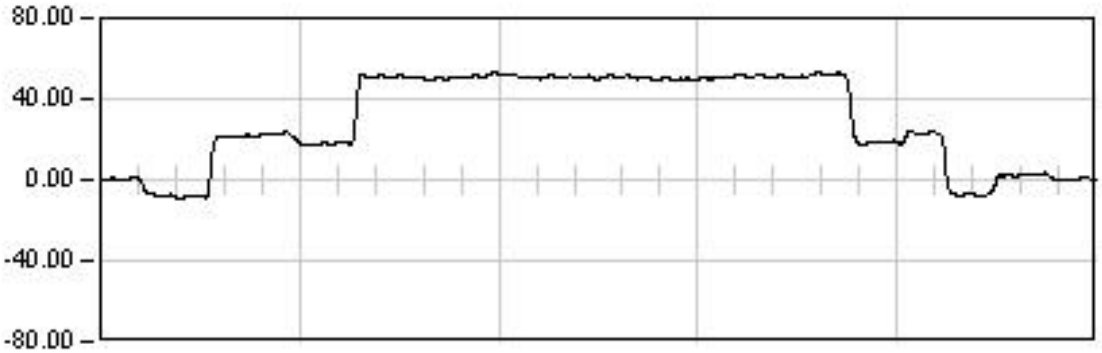
VANO 11

Punto : G112 Canal : 22 Unidades : µE



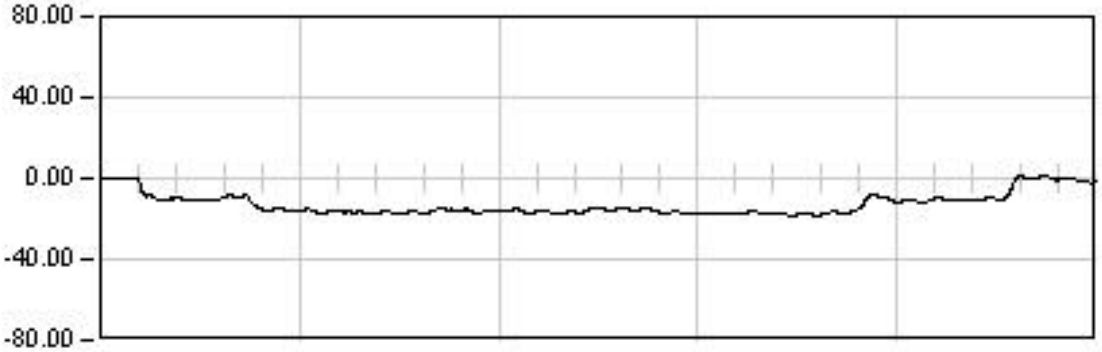
ESTATICA 08

2601.0	Seg
Est:	-19.17
Max:	-20.91
Min:	4.25
Rem:	-0.58



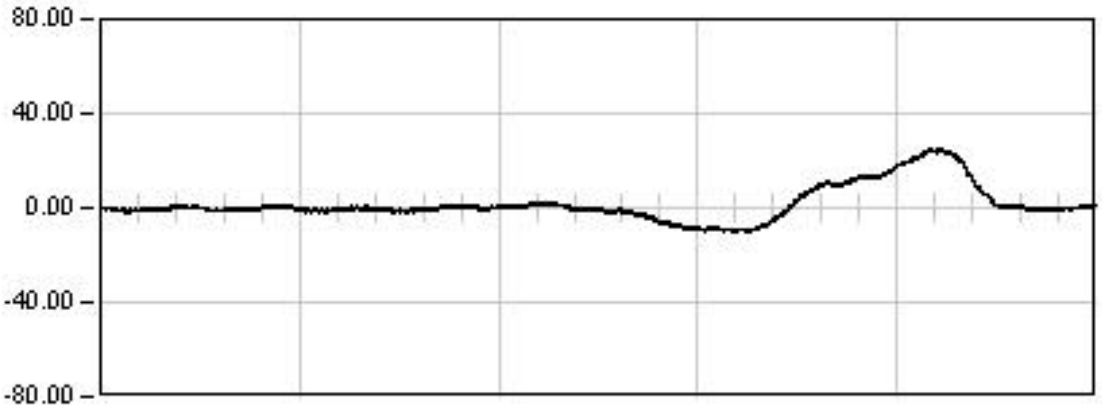
ESTATICA 09

2333.0	Seg
Est:	52.78
Max:	53.50
Min:	-9.15
Rem:	0.55



ESTATICA 10

1690.0	Seg
Est:	-14.79
Max:	-18.40
Min:	1.76
Rem:	-0.95



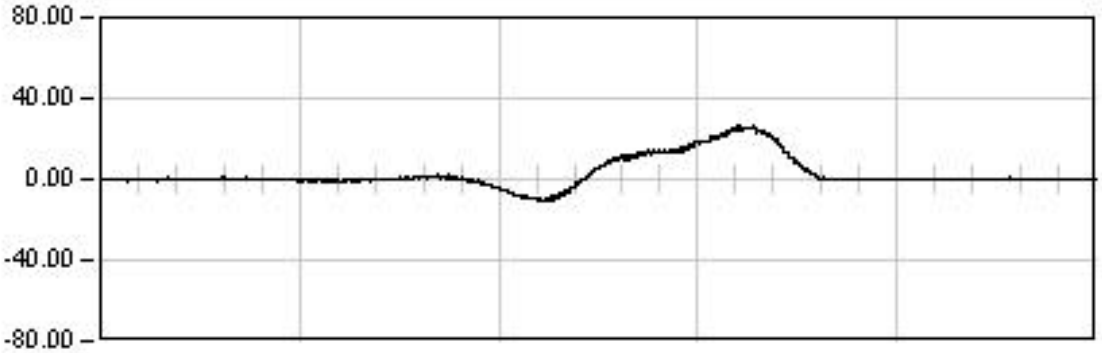
DINAMICA 11

120.5	Seg
Max:	24.98
Min:	-10.31
Rem:	0.57

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

VANO 11

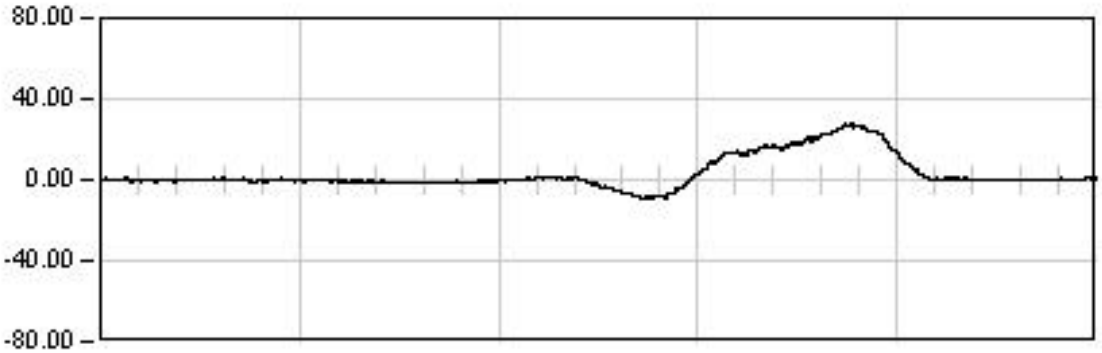
Punto : G112 **Canal : 22** **Unidades : µE**



DINAMICA 12

26.5 Seg

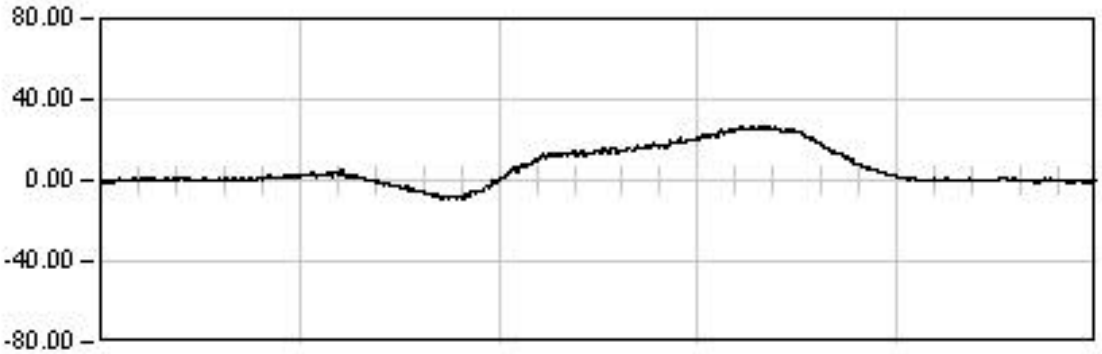
Max: 26.18
Min: -10.93
Rem: 0.04



DINAMICA 13

19.5 Seg

Max: 27.83
Min: -9.62
Rem: 0.71



DINAMICA 14

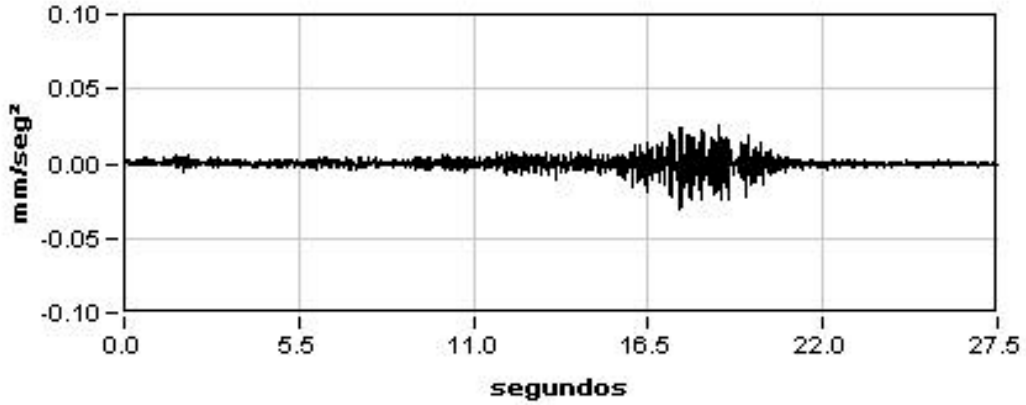
22.5 Seg

Max: 27.19
Min: -9.41
Rem: -0.62

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

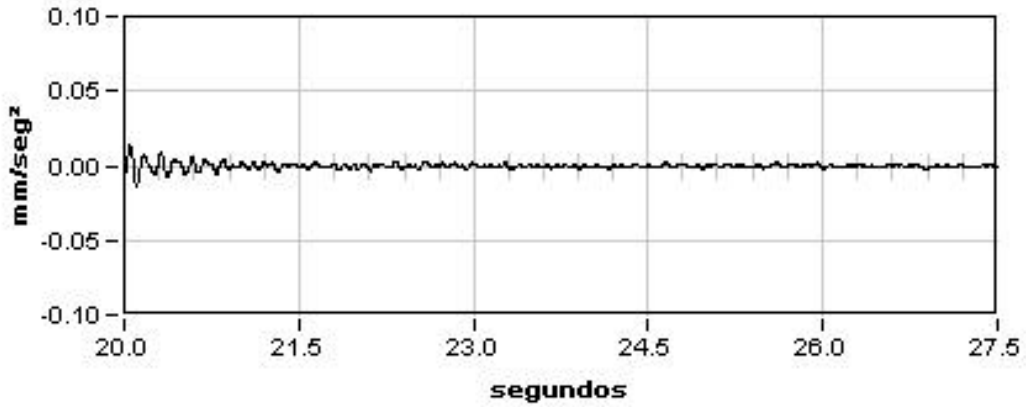
VANO 1

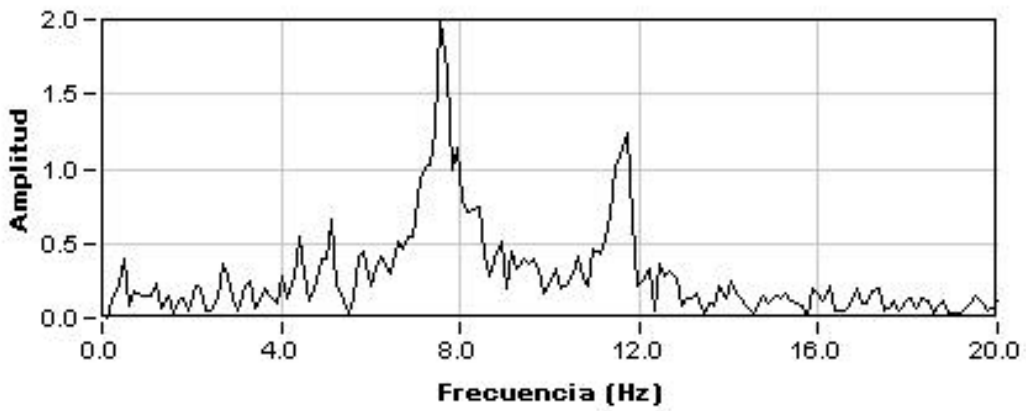
Prueba: din13 Punto: A012 Canal: 24



Máximo
-0.03

Mínimo
0.03





Amplitud
2.01

Frecuencia
7.59

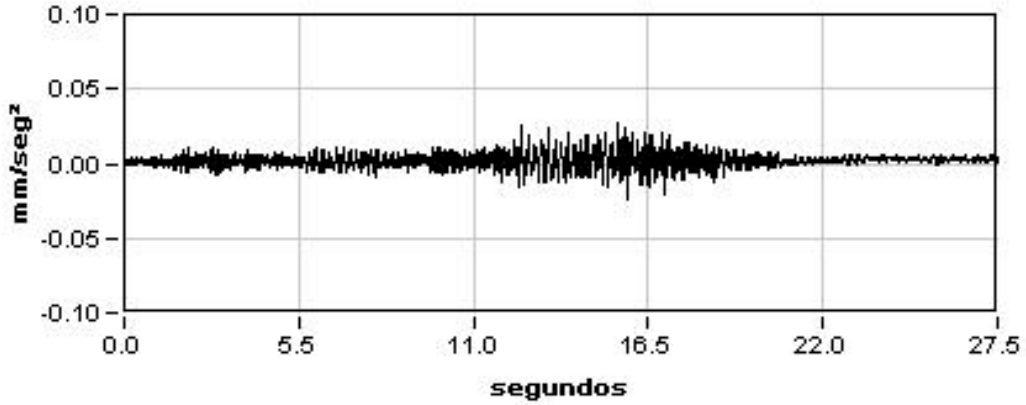
Dec.Logarit.
0.11

Amortiguac.
1.73 %

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

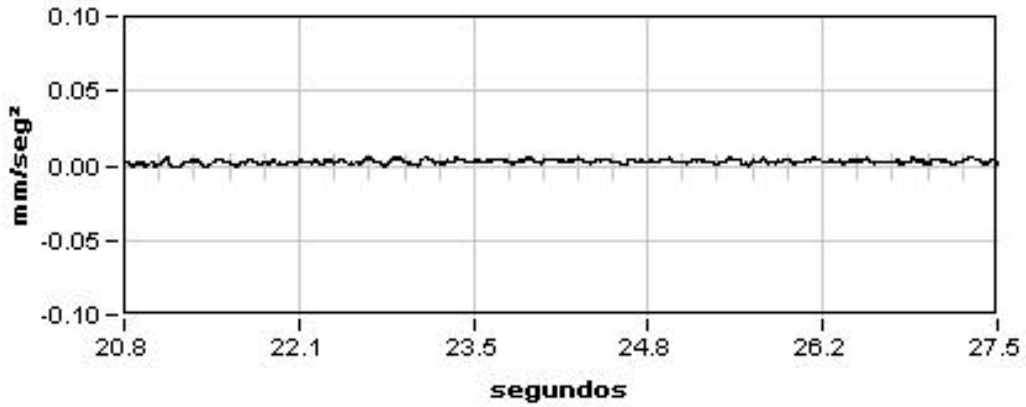
VANO 2

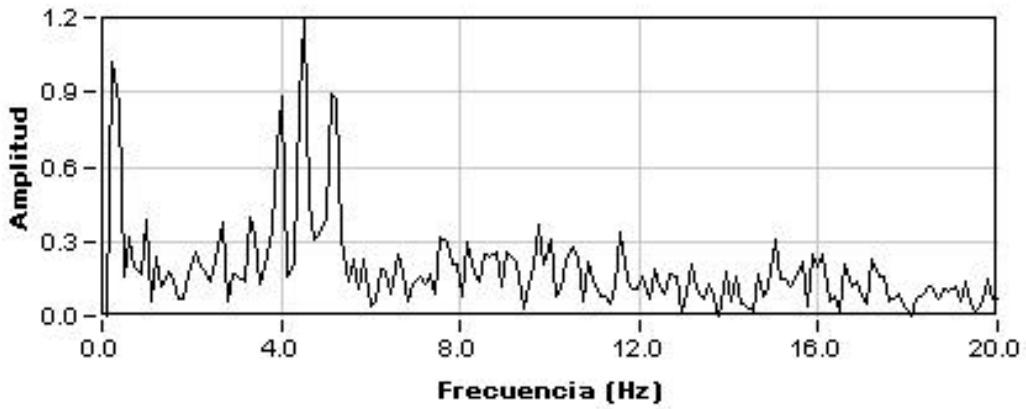
Prueba: din13 Punto: A021 Canal: 25



Máximo
0.03

Mínimo
-0.02





Amplitud
1.19

Frecuencia
4.51

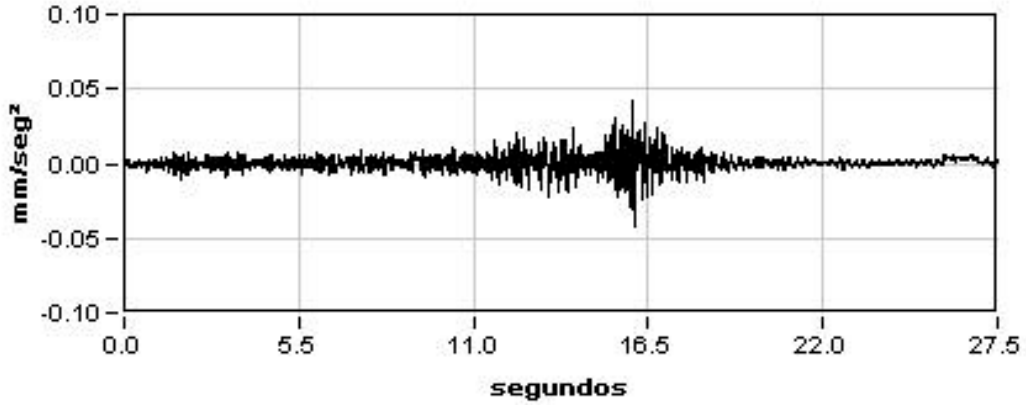
Dec.Logarit.
0.13

Amortiguac.	
2.02	%

26VI05. L.A.V. MADRID-BARCELONA. BASE MONTAGUT

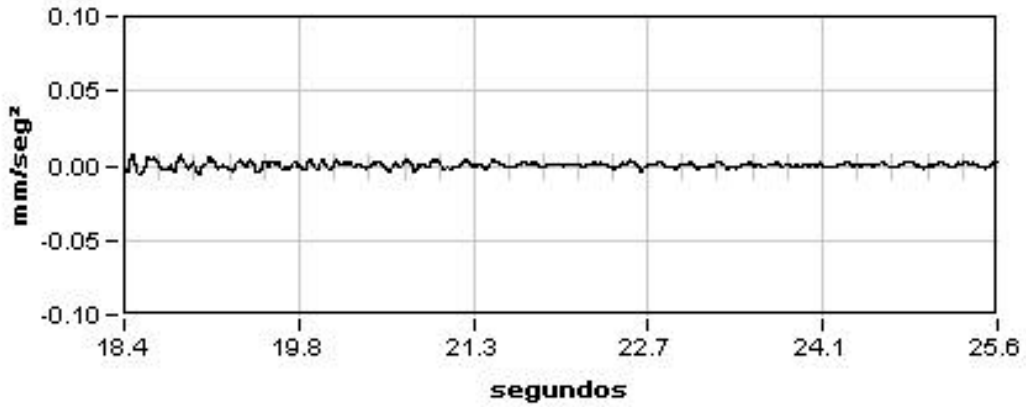
VANO 3

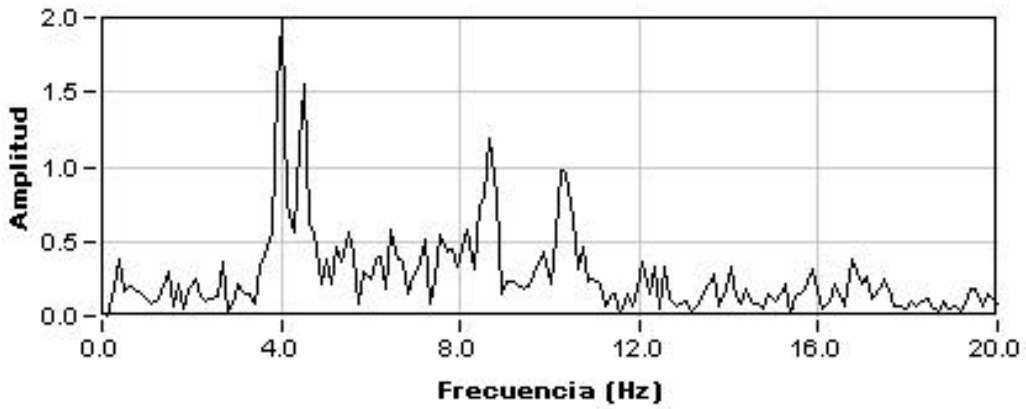
Prueba: din13 Punto: A032 Canal: 26



Máximo
0.04

Mínimo
-0.04





Amplitud
1.97

Frecuencia
4.02

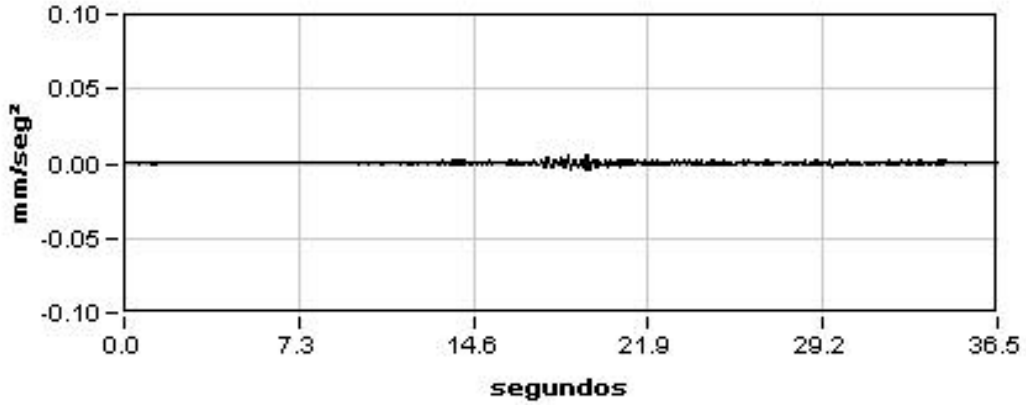
Dec.Logarit.
0.15

Amortiguac.	
2.42	%

26VI05 L.A.V. MADRID-BARCELONA. BASE MONTAGUT

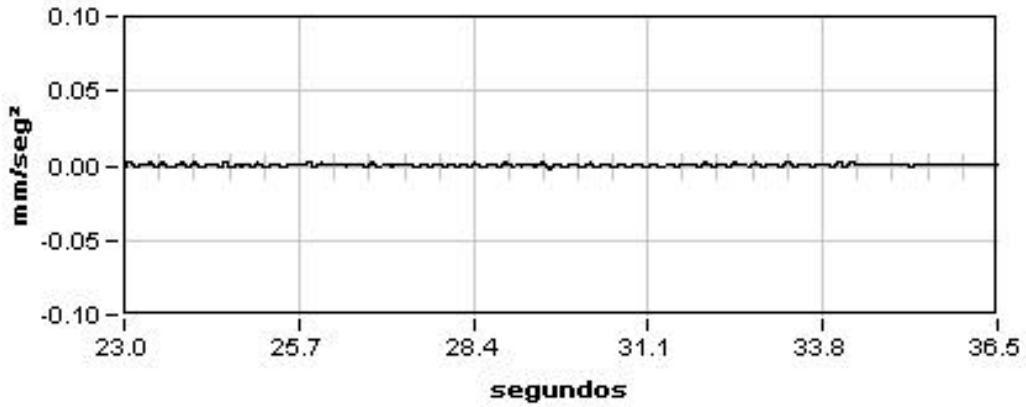
VANO 4

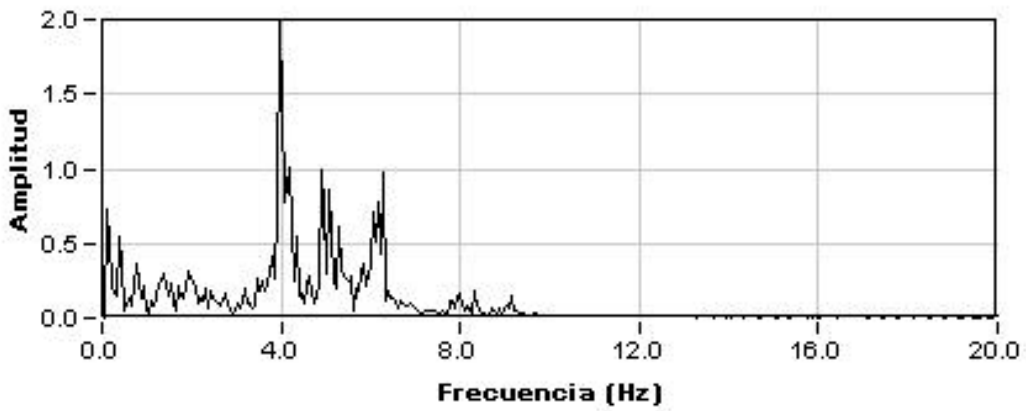
Prueba: din13 Punto: A041 Canal: 24



Máximo
0.01

Mínimo
-0.00





Amplitud
1.99

Frecuencia
3.97

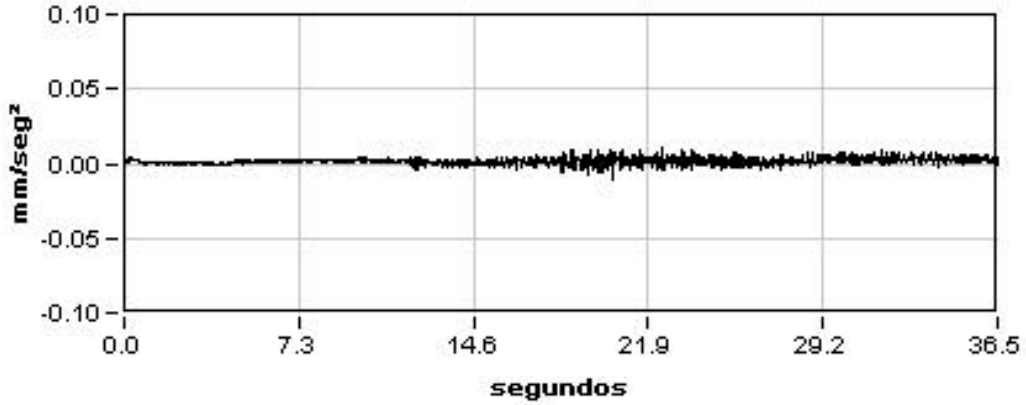
Dec.Logarit.
0.07

Amortiguac.
1.19 %

26VI05 L.A.V. MADRID-BARCELONA. BASE MONTAGUT

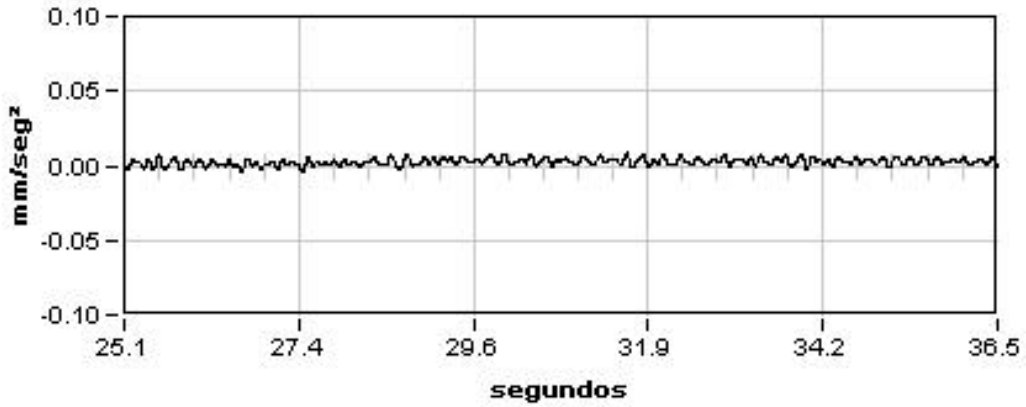
VANO 5

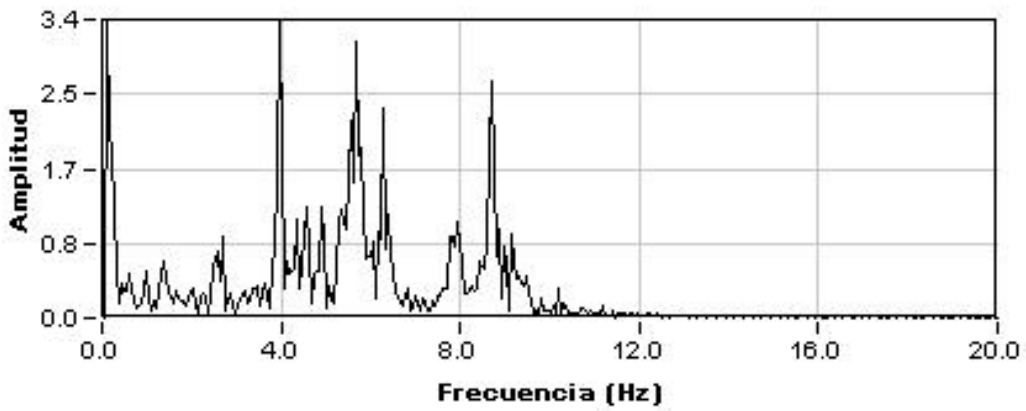
Prueba: din13 Punto: A052 Canal: 25



Máximo
0.01

Mínimo
-0.01





Amplitud
3.36

Frecuencia
3.97

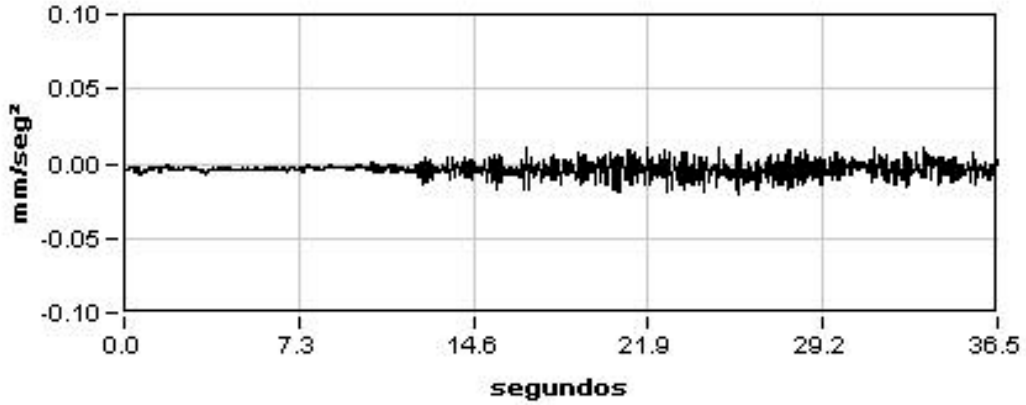
Dec.Logarit.
0.06

Amortiguac.
0.96 %

26VI05 L.A.V. MADRID-BARCELONA. BASE MONTAGUT

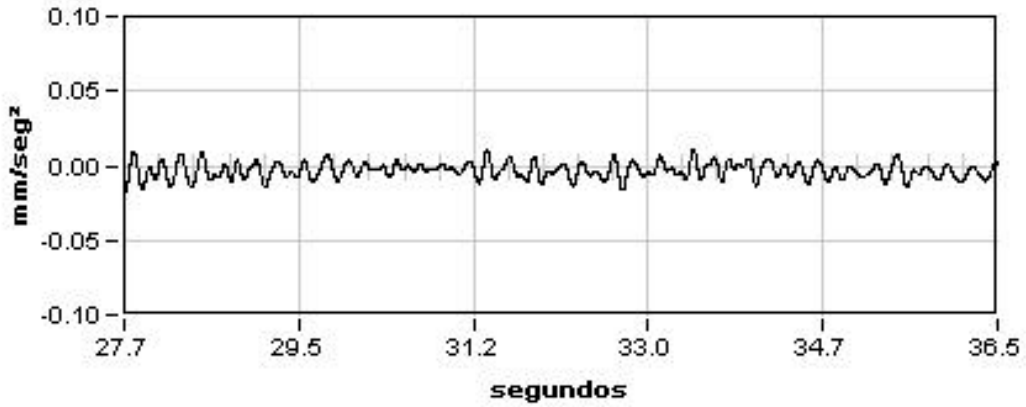
VANO 7

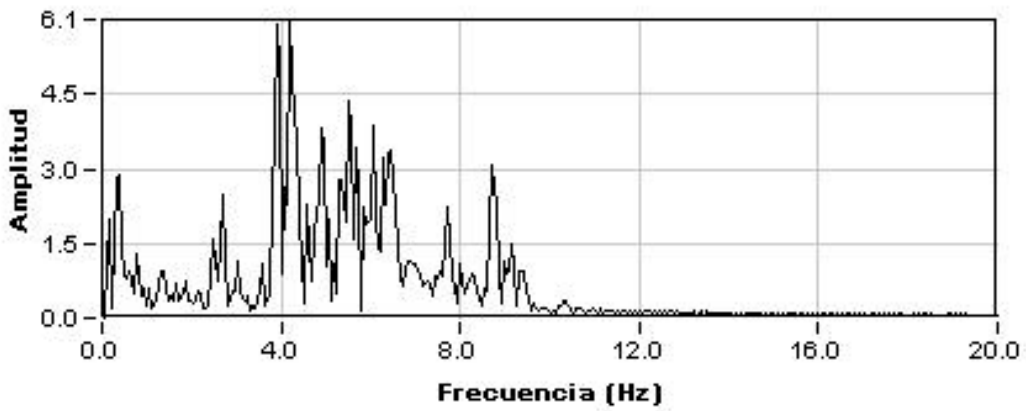
Prueba: din13 Punto: A072 Canal: 27



Máximo
-0.02

Mínimo
0.01





Amplitud
6.06

Frecuencia
4.20

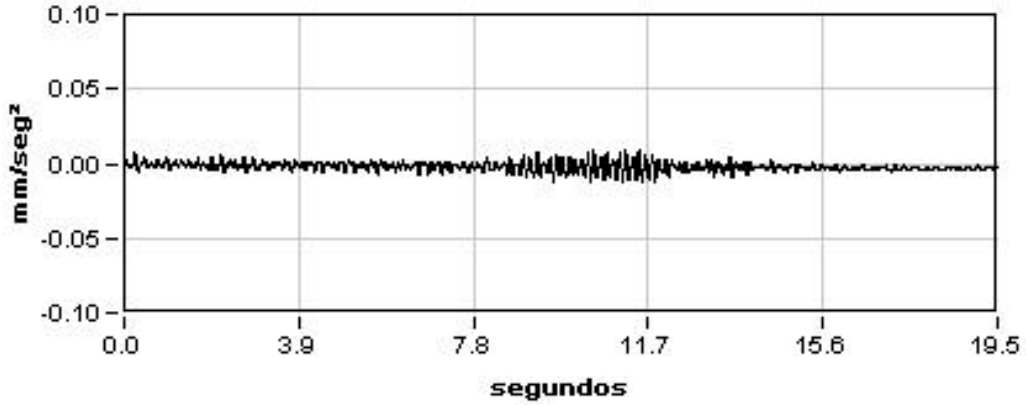
Dec.Logarit.
0.06

Amortiguac.
0.98 %

26VI05 L.A.V. MADRID-BARCELONA. BASE MONTAGUT

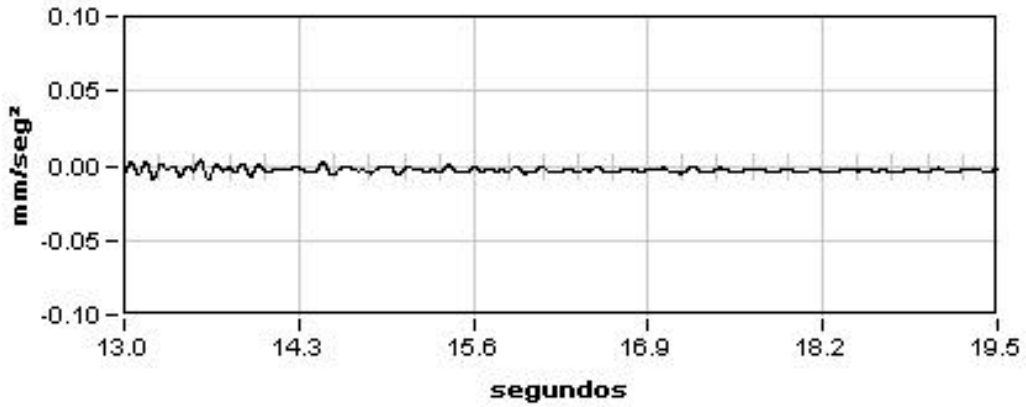
VANO 9

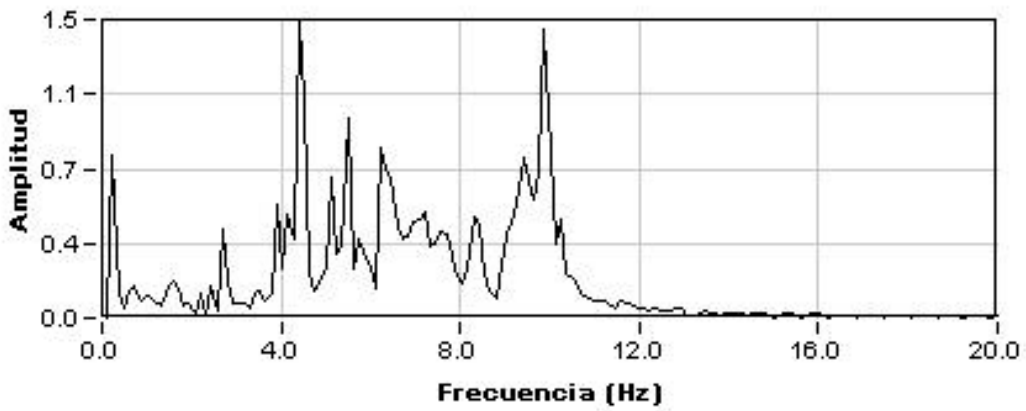
Prueba: din13 Punto: A091 Canal: 25



Máximo
-0.01

Mínimo
0.01





Amplitud
1.49

Frecuencia
4.38

Dec.Logarit.
0.13

Amortiguac.
1.99 %

GIF
Gestor de Infraestructuras Ferroviarias

ANEJO 5: REPORTAJE FOTOGRÁFICO

Madrid, Octubre de 2001

TIFSA
Grupo Renfe



FOTOGRAFÍA 1: Vista general del puente



FOTOGRAFÍA 2: Vista superior del tablero



FOTOGRAFÍA 3: Vista inferior del tablero



FOTOGRAFÍA 4: Vista lateral del puente.



FOTOGRAFÍA 5: Detalle estribo



FOTOGRAFÍA 6: Vista de estribo y primera pila



FOTOGRAFÍA 7: Transductores en zona de estribos



FOTOGRAFÍA 8: Transductores de centro de vano



FOTOGRAFÍA 9: Detalle de transductor junto a pila



FOTOGRAFÍA 10: Posición Estática



FOTOGRAFÍA 11: Posición estática con cargas en vanos alternos



FOTOGRAFÍA 12: Posición estática con cargas en vanos 2 y 3



FOTOGRAFÍA 13: Posición estática con cargas en vanos 2 y 4



FOTOGRAFÍA 14: Posición estática con cargas en vanos 2 y 4



FOTOGRAFÍA 15: Posición estática con cargas en vanos 1 y 3



FOTOGRAFÍA 16: Posición estática con cargas en vanos 2 y 3

ANEJO 6: ACTA DE LA PRUEBA DE CARGA

Madrid, Octubre de 2001

GIF Gestor de Infraestructuras Ferroviarias

FECHA PRUEBA: 3 de octubre de 2001

ACTA DE LA PRUEBA DE CARGA

IDENTIFICACIÓN ESTRUCTURA

LÍNEA DE ALTA VELOCIDAD	MADRID - BARCELONA - FRONTERA FRANCESA
TRAMO	PUENTE DE EBRO - LLEIDA
P.K.	42 + 368
IDENTIFICACIÓN INVENTARIO	26VI05
NOMBRE	Viaducto E-2
DESCRIPCIÓN ESTRUCTURA	Puente continuo de hormigón pretensado de once vanos, con luces 28,00+9*35,00+28,00 metros. Sección del tablero constituida por una sección cajón de 2,45 m de canto. Estribos de muro frontal y en vueltas de hormigón armado, con cimentación es directa. Pilas de sección cajón con cabeza superior en forma de "Y" y altura máxima de 25,50 m. Cimentación de encepados y pilotes.

ASISTENTES

	ORGANISMO EMPRESA
D. JOSÉ MANUEL GALINDO ESCRIBANO	G.I.F.
D. JUSTO CARRETERO PÉREZ	T.I.F.S.A.

CONDICIONES ATMOSFÉRICAS

Temperarura	27,0-29,5 ºC
Humedad relativa	35,1-42,6 %

INSTRUMENTACIÓN INSTALADA

(según Informe de Prueba de Carga para la Recepción)

		UNIDADES
CONTROL DE FLECHAS	TRANSDUCTORES DE DESPLAZAMIENTO	13
GRADO TENSIONAL DE LAS VIGAS	GALGAS EXTENSOMÉTRICAS	6
REGISTRO DE VIBRACIONES	ACELERÓMETROS	3

TRENES DE CARGA UTILIZADOS

	VEHÍCULO	NÚMERO	TIPO	PESO UNITARIO (t)	PESO TOTAL (t)
C1: COMPOSICIÓN UTILIZADA EN VÍA 1 (CIRCULACIÓN LLEIDA - ZARAGOZA)	LOCOMOTORA	1	GIF	120,0	440,0
	TOLVAS	4	GIF	80,0	
C2: COMPOSICIÓN UTILIZADA EN VÍA 2 (CIRCULACIÓN LLEIDA - ZARAGOZA)	LOCOMOTORA	1	TRACTOR	88,0	408,0
	TOLVAS	4	GIF	80,0	

SENTIDO CIRCULACIÓN PARA PRUEBAS DIÁMICAS LLEIDA-ZARAGOZA

PRUEBAS DE CARGA REALIZADAS

	VELOCIDAD	COMPOSICIÓN UTILIZADA VÍA 1			COMPOSICIÓN UTILIZADA VÍA 2		
			HORA COMIENZO	HORA FINAL		HORA COMIENZO	HORA FINAL
Prueba estática EST01		C1	15:50	16:33	C2	17:13	17:45
Prueba estática EST02		C1	16:35	17:18	C2	17:48	18:19
Prueba estática EST03		C1	17:20	17:49	C2	18:23	18:48
Prueba cuasi-estática DIN11	5 km/h	C1	13:40	13:40	C2	-	-
Prueba cuasi-estática DIN21	5 km/h	C1	-	-	C2	14:52	14:52
Prueba a velocidad media DIN12	40 km/h	C1	13:55	13:55	C2	-	-
Prueba a máxima velocidad DIN13	80 km/h	C1	14:00	14:00	C2	-	-
Prueba de frenado a máxima velocidad DIN14	80 km/h	C1	14:10	14:10	C2	-	-

RESULTADOS BÁSICOS ALCANZADOS EN LA ESTRUCTURA

Resultados prueba	Acordes con los teóricos previstos en el Proyecto de Prueba de Carga
Recuperaciones	Superiores al 90 % en todos los casos. Comportamiento de la estructura: Elástico
Anomalías detectadas en la inspección visual previa	Nidos y coqueras de grava en los estribos que podrían derivar en alguna patología en el futuro. Peuqñas incidencias con influencia en la estética.
Anomalías detectadas durante el proceso de carga y al final del mismo	Ninguna en particular
Otros datos de Interés	Prueba de carga desarrollada en días distintos para diferentes conjuntos de vanos.
Comportamiento resistente de la estructura	Correcto durante la realización de las pruebas de carga
Observaciones	Estos datos corresponde a las pruebas de carga en los vanos 1-2-3

TIFSA

D. JOSÉ MANUEL GALINDO ESCRIBANO
por G.I.F.

D.JUSTO CARRETERO PÉREZ
por T.I.F.S.A.

GIF Gestor de Infraestructuras Ferroviarias

FECHA PRUEBA: 5 de octubre de 2001

ACTA DE LA PRUEBA DE CARGA

IDENTIFICACIÓN ESTRUCTURA

LÍNEA DE ALTA VELOCIDAD	MADRID - BARCELONA - FRONTERA FRANCESA
TRAMO	PUENTE DE EBRO - LLEIDA
P.K.	42 + 368
IDENTIFICACIÓN INVENTARIO	26VI05
NOMBRE	Viaducto E-2
DESCRIPCIÓN ESTRUCTURA	Puente continuo de hormigón pretensado de once vanos, con luces 28,00+9*35,00+28,00 metros. Sección del tablero constituida por una sección cajón de 2,45 m de canto. Estribos de muro frontal y en vueltas de hormigón armado, con cimentación es directa. Pilas de sección cajón con cabeza superior en forma de "Y" y altura máxima de 25,50 m. Cimentación de encepados y pilotes.

ASISTENTES

	ORGANISMO EMPRESA
D. JOSÉ MANUEL GALINDO ESCRIBANO	G.I.F.
D. JUSTO CARRETERO PÉREZ	T.I.F.S.A.

CONDICIONES ATMOSFÉRICAS

Temperarura	23,6-27 ºC
Humedad relativa	58,9-69,8 %

INSTRUMENTACIÓN INSTALADA

(según Informe de Prueba de Carga para la Recepción)

		UNIDADES
CONTROL DE FLECHAS	TRANSDUCTORES DE DESPLAZAMIENTO	16
GRADO TENSIONAL DE LAS VIGAS	GALGAS EXTENSOMÉTRICAS	8
REGISTRO DE VIBRACIONES	ACELERÓMETROS	1

TRENES DE CARGA UTILIZADOS

	VEHÍCULO	NÚMERO	TIPO	PESO UNITARIO (t)	PESO TOTAL (t)
C1: COMPOSICIÓN UTILIZADA EN VÍA 1 (CIRCULACIÓN LLEIDA - ZARAGOZA)	LOCOMOTORA	1	GIF	120,0	440,0
	TOLVAS	4	GIF	80,0	
C2: COMPOSICIÓN UTILIZADA EN VÍA 2 (CIRCULACIÓN LLEIDA - ZARAGOZA)	LOCOMOTORA	1	TRACTOR	88,0	408,0
	TOLVAS	4	GIF	80,0	

SENTIDO CIRCULACIÓN PARA PRUEBAS DIÁMICAS LLEIDA-ZARAGOZA

PRUEBAS DE CARGA REALIZADAS

	VELOCIDAD	COMPOSICIÓN UTILIZADA VÍA 1	HORA COMIENZO	HORA FINAL	COMPOSICIÓN UTILIZADA VÍA 2	HORA COMIENZO	HORA FINAL
Prueba estática EST14		C1	18:10	18:34	C2	-	-
Prueba estática EST15		C1	18:45	19:07	C2	-	-
Prueba estática EST26		C1	-	-	C2	20:55	21:15
Prueba estática EST27		C1	-	-	C2	21:25	21:45
Prueba cuasi-estática DIN11	5 km/h	C1	18:05	18:07	C2	-	-
Prueba cuasi-estática DIN21	5 km/h	C1	-	-	C2	20:45	20:47
Prueba a velocidad media DIN12	40 km/h	C1	18:25	18:25	C2	-	-
Prueba a máxima velocidad DIN13	80 km/h	C1	18:35	18:35	C2	-	-
Prueba de frenado a máxima velocidad DIN14	80 km/h	C1	18:45	18:45	C2	-	-

RESULTADOS BÁSICOS ALCANZADOS EN LA ESTRUCTURA

Resultados prueba	Acordes con los teóricos previstos en el Proyecto de Prueba de Carga
Recuperaciones	Superiores al 90 % en todos los casos. Comportamiento de la estructura: Elástico
Anomalías detectadas en la inspección visual previa	Nidos y coqueras de grava en los estribos que podrían derivar en alguna patología en el futuro. Peuqñas incidencias con influencia en la estética.
Anomalías detectadas durante el proceso de carga y al final del mismo	Ninguna en particular
Otros datos de Interés	Prueba de carga desarrollada en días distintos para diferentes conjuntos de vanos.
Comportamiento resistente de la estructura	Correcto durante la realización de las pruebas de carga
Observaciones	Estos datos corresponde a las pruebas de carga en los vanos 4-5-6-7

TIFSA

D. JOSÉ MANUEL GALINDO ESCRIBANO
por G.I.F.

D.JUSTO CARRETERO PÉREZ
por T.I.F.S.A.

FECHA PRUEBA: ***10 de octubre de 2001***

ACTA DE LA PRUEBA DE CARGA

IDENTIFICACIÓN ESTRUCTURA

LÍNEA DE ALTA VELOCIDAD	MADRID - BARCELONA - FRONTERA FRANCESA
TRAMO	PUENTE DE EBRO - LLEIDA
P.K.	42 + 368
IDENTIFICACIÓN INVENTARIO	26VI05
NOMBRE	Viaducto E-2
DESCRIPCIÓN ESTRUCTURA	Puente continuo de hormigón pretensado de once vanos, con luces 28,00+9*35,00+28,00 metros. Sección del tablero constituida por una sección cajón de 2,45 m de canto. Estribos de muro frontal y en vueltas de hormigón armado, con cimentación es directa. Pilas de sección cajón con cabeza superior en forma de "Y" y altura máxima de 25,50 m. Cimentación de encepados y pilotes.

ASISTENTES

	ORGANISMO EMPRESA
D. JOSÉ MANUEL GALINDO ESCRIBANO	G.I.F.
D. JUSTO CARRETERO PÉREZ	T.I.F.S.A.

CONDICIONES ATMOSFÉRICAS

Temperarura	23,4-31,1 ºC
Humedad relativa	29,4-49,5 %

INSTRUMENTACIÓN INSTALADA

(según Informe de Prueba de Carga para la Recepción)

		UNIDADES
CONTROL DE FLECHAS	TRANSDUCTORES DE DESPLAZAMIENTO	16
GRADO TENSIONAL DE LAS VIGAS	GALGAS EXTENSOMÉTRICAS	8
REGISTRO DE VIBRACIONES	ACELERÓMETROS	0

TRENES DE CARGA UTILIZADOS

	VEHÍCULO	**NÚMERO**	**TIPO**	**PESO UNITARIO (t)**	**PESO TOTAL (t)**
C1: COMPOSICIÓN UTILIZADA EN VÍA 1 (CIRCULACIÓN LLEIDA - ZARAGOZA)	LOCOMOTORA	1	GIF	120,0	440,0
	TOLVAS	4	GIF	80,0	
C2: COMPOSICIÓN UTILIZADA EN VÍA 2 (CIRCULACIÓN LLEIDA - ZARAGOZA)	LOCOMOTORA	1	TRACTOR	88,0	408,0
	TOLVAS	4	GIF	80,0	

SENTIDO CIRCULACIÓN PARA PRUEBAS DIÁMICAS LLEIDA-ZARAGOZA

PRUEBAS DE CARGA REALIZADAS

	VELOCIDAD	**COMPOSICIÓN UTILIZADA VÍA 1**			**COMPOSICIÓN UTILIZADA VÍA 2**		
			HORA COMIENZO	**HORA FINAL**		**HORA COMIENZO**	**HORA FINAL**
Prueba estática EST08		C1	15:05	15:48	C2	15:05	15:48
Prueba estática EST09		C1	16:05	18:44	C2	16:05	18:44
Prueba estática EST10		C1	16:45	17:13	C2	16:45	17:13
Prueba cuasi-estática DIN11	5 km/h	C1	13:25	13:25	C2	-	-
Prueba a velocidad media DIN12	40 km/h	C1	14:10	14:12	C2	-	-
Prueba a máxima velocidad DIN13	80 km/h	C1	14:20	14:20	C2	-	-
Prueba de frenado a máxima velocidad DIN14	80 km/h	C1	14:45	14:45	C2	-	-

RESULTADOS BÁSICOS ALCANZADOS EN LA ESTRUCTURA

Resultados prueba	Acordes con los teóricos previstos en el Proyecto de Prueba de Carga
Recuperaciones	Superiores al 90 % en todos los casos. Comportamiento de la estructura: Elástico
Anomalías detectadas en la inspección visual previa	Nidos y coqueras de grava en los estribos que podrían derivar en alguna patología en el futuro. Peuqñas incidencias con influencia en la estética.
Anomalías detectadas durante el proceso de carga y al final del mismo	Ninguna en particular
Otros datos de Interés	Prueba de carga desarrollada en días distintos para diferentes conjuntos de vanos.
Comportamiento resistente de la estructura	Correcto durante la realización de las pruebas de carga
Observaciones	Estos datos corresponde a las pruebas de carga en los vanos 8-9-10-11

TIFSA

D. JOSÉ MANUEL GALINDO ESCRIBANO
por G.I.F.

D.JUSTO CARRETERO PÉREZ
por T.I.F.S.A.

GIF
Gestor de Infraestructuras Ferroviarias

ANEJO 7: FICHA DE SEGUIMIENTO

Madrid, Octubre de 2001

TIFSA
Grupo Renfe

GIF Gestor de Infraestructuras Ferroviarias

TIFSA

CONTRATO DE CONSULTORÍA Y ASISTENCIA PARA LA REALIZACIÓN DE PRUEBAS DE CARGA PARA LA RECEPCIÓN DE PUENTES DE LA LÍNEA DE ALTA VELOCIDAD MADRID-ZARAGOZA-BARCELONA-FRONTERA FRANCESA. TRAMO: PUENTE DE EBRO-LLEIDA. BASE DE MONTAGUT.



FICHA DE SEGUIMIENTO (REVISIÓN 0)

SUBTRAMO IV
Viaducto E-2
26VI05

NORMALIZADO POR INECO

Julio de 2001

INSPECCIONES ESTRUCTURAS
L.A.V. MADRID-ZARAGOZA-BARCELONA-FRONTERA FRANCESA

IDENTIFICACIÓN

ID (Identificador de la estructura)	**26VI05**
P.K. INICIAL (sentido Madrid-Barcelona)	42+373
P.K. FINAL (sentido Madrid-Barcelona)	42+744
TIPO	Puente (10 m < luz <= 50 m)
SUBTRAMO	ZARAGOZA-LLEIDA: IV
FECHA DE LA INSPECCIÓN	19/07/01

OBSERVACIONES

INSPECCIONES ESTRUCTURAS
L.A.V. MADRID-ZARAGOZA-BARCELONA-FRONTERA FRANCESA

ID (Identificador de la estructura)	**26VI05**
FECHA DE LA INSPECCIÓN	**19/07/01**

DATOS GENERALES

NOMBRE	VIADUCTO E-2
TIPOLOGÍA GENERAL	TABLERO EN CAJÓN
TIPOLOGÍA ESTRUCTURAL	ESTRUCTURA CONTINUA
Nº DE VÍAS	2
VELOCIDAD MÁXIMA (km/h)	350
TIPO DE ACCESO	VEHÍCULO AUTOMOVIL
OBSTÁCULO SALVADO	VALLE/EMBALSE
OBSERVACIONES	

INSPECCIONES ESTRUCTURAS
L.A.V. MADRID-ZARAGOZA-BARCELONA-FRONTERA FRANCESA

ID (Identificador de la estructura)	**26VI05**
FECHA DE LA INSPECCIÓN	**19/07/01**

PARÁMETROS GEOMÉTRICOS

LONGITUD TOTAL (m)	371,00	
Nº DE VANOS	11	
LONGITUD MEDIA DEL VANO (m)	33,73	
LUZ DE CADA VANO (m)	28+9*35+28	
ALTURA MÁXIMA DE ESTRIBOS (m)	3,00	
ANCHURA MÁXIMA DE ESTRIBOS (m)	13,70	
ALTURA MÁXIMA DE PILAS (m)	25,50	
ANCHURA MÁXIMA DE PILAS (m)	5,50	
ESPESOR MÁXIMO DE PILAS (m)	2,50	
GÁLIBO INFERIOR (m)	> 5,00	
ANCHURA MÁXIMA DE TRAMOS (m)	13,70	
CANTO MÁXIMO DE TRAMOS EN CENTRO DE VANOS (m)	2,45	
Nº DE ELEMENTOS PRINCIPALES EN EL TRAMO	1	
SEPARACIÓN ENTRE ELEMENTOS PRINCIPALES (m)	-	
CANTO DE ELEMENTOS PRINCIPALES	CONSTANTE	
CANTO MÁXIMO DE ELEMENTOS PRINCIPALES EN CENTRO DE VANOS (m)	2,45	
GÁLIBO IZQUIERDO (m)	3,55	
GÁLIBO DERECHO (m)	3,45	
ENTREVÍA (m)	4,62	
TRAZADO DE VÍA EN PLANTA (m)		+m (curva a la derecha)
PERALTE DE VÍA DE ENTRADA (m)		
PERALTE DE VÍA DE CENTRO (m)		
PERALTE DE VÍA DE SALIDA (m)		

OBSERVACIONES

INSPECCIONES ESTRUCTURAS
L.A.V. MADRID-ZARAGOZA-BARCELONA-FRONTERA FRANCESA

ID (Identificador de la estructura)	**26VI05**
FECHA DE LA INSPECCIÓN	**19/07/01**

MATERIALES

MATERIAL CONSTITUYENTE	HORMIGÓN PRETENSADO
TRAMOS	
TIPOLOGÍA DE TRAMOS	TABLERO EN CAJÓN
TIPOLOGÍA ESTRUCTURAL DE TRAMOS	ESTRUCTURA CONTINUA
MATERIAL EN TRAMOS	HORMIGÓN PRETENSADO
IMPERMEABILIZACIÓN DE ESTRUCTURA DE TRAMOS	SI
ELEMENTOS DE DRENAJE EN TRAMOS	LONGITUDINALES
ESTRIBOS	
TIPOLOGÍA DE ESTRIBOS	MUROS FRONTAL Y EN VUELTAS
MATERIAL BASE EN ESTRIBOS	HORMIGÓN ARMADO O EN MASA
PROTECCIÓN EN PIE DE ESTRIBOS	NO EXISTE
TIPOLOGÍA DE CIMENTACIÓN EN ESTRIBOS	CIMENTACIÓN DIRECTA
MATERIAL BASE EN CIMENTACIÓN DE ESTRIBOS	HORMIGÓN ARMADO O EN MASA
PILAS	
TIPOLOGÍA DE PILAS	TABIQUE HUECO O EN CAJÓN
SECCIÓN DE PILAS	CONSTANTE
TAJAMARES	NO
MATERIAL BASE EN PILAS	HORMIGÓN ARMADO O EN MASA
TIPOLOGÍA DE CIMENTACIÓN EN PILAS	ENCEPADO Y PILOTES
MATERIAL BASE EN CIMENTACIÓN DE PILAS	HORMIGÓN ARMADO O EN MASA
APARATOS Y JUNTAS DE DILATACIÓN	
APARATOS DE APOYO	TIPO POT
JUNTAS DE DILATACIÓN	AMBOS ESTRIBOS
TIPOLOGÍA DE JUNTAS DE DILATACIÓN	MURETES GUARDABALASTO Y CUBREJUNTAS
APARATOS DE DILATACIÓN DE CARRILES	NO EXISTEN
VARIOS	
PASEOS DE SERVICIO	AMBOS LADOS

OBSERVACIONES: LAS PILAS 1, 2 y 9 TIENEN CIMENTACIÓN DIRECTA.

INSPECCIONES ESTRUCTURAS
L.A.V. MADRID-ZARAGOZA-BARCELONA-FRONTERA FRANCESA

ID (Identificador de la estructura)	**26VI05**
FECHA DE LA INSPECCIÓN	**19/07/01**

ESTADO ACTUAL ESTRIBOS

Punzonado bajo apoyos	0: No existen daños
Daños en unión frente y laterales	0: No existen daños
Juntas degradadas	0: No existen daños
Golpes y roturas	0: No existen daños
Fisuras y grietas	0: No existen daños
Coqueras y nidos de grava	2: Defectos con riesgo de evolución patológica
Meteorización y degradación	0: No existen daños
Desprendimientos	0: No existen daños
Carbonatación y desagregación	0: No existen daños
Armaduras vistas someras	0: No existen daños
Corrosión y disgregación	0: No existen daños
Humedades y filtraciones	0: No existen daños
Incrustaciones calcáreas y eflorescencias	0: No existen daños
Desagüe de mechinales	0: No existen daños
Abombamientos	0: No existen daños
Desplomes o basculamientos	0: No existen daños
Asentamientos	0: No existen daños
Descalces	0: No existen daños
Socavaciones	0: No existen daños
Depósitos en coronación	0: No existen daños
Daños en coronación	0: No existen daños
Daños en espaldón	0: No existen daños
Balasto encastrado	0: No existen daños
Daños en protección de pie de estribos	0: No existen daños
Daños en cimentaciones vistas	0: No existen daños
Vegetación aflorando	0: No existen daños
Vegetación adosada	0: No existen daños

OBSERVACIONES ESTRIBOS

INSPECCIONES ESTRUCTURAS
L.A.V. MADRID-ZARAGOZA-BARCELONA-FRONTERA FRANCESA

ID (Identificador de la estructura)	**26VI05**
FECHA DE LA INSPECCIÓN	**19/07/01**

ESTADO ACTUAL PILAS

Punzonado bajo apoyos	0: No existen daños
Daños en unión frente y laterales	0: No existen daños
Juntas degradadas	0: No existen daños
Golpes y roturas	0: No existen daños
Fisuras y grietas	0: No existen daños
Coqueras y nidos de grava	0: No existen daños
Meteorización y degradación	0: No existen daños
Desprendimientos	0: No existen daños
Carbonatación y desagregación	0: No existen daños
Armaduras vistas someras	0: No existen daños
Corrosión y disgregación	0: No existen daños
Humedades y filtraciones	1: Defectos con incidencia en la estética
Incrustaciones calcáreas y eflorescencias	0: No existen daños
Abombamientos	0: No existen daños
Desplomes o basculamientos	0: No existen daños
Asentamientos	0: No existen daños
Descalces	0: No existen daños
Socavaciones	0: No existen daños
Depósitos en coronación	0: No existen daños
Daños en coronación	0: No existen daños
Daños en cimentaciones vistas	0: No existen daños
Vegetación aflorando	0: No existen daños
Vegetación adosada	0: No existen daños

OBSERVACIONES PILAS

INSPECCIONES ESTRUCTURAS
L.A.V. MADRID-ZARAGOZA-BARCELONA-FRONTERA FRANCESA

ID (Identificador de la estructura)	**26VI05**
FECHA DE LA INSPECCIÓN	**19/07/01**

ESTADO ACTUAL APARATOS DE APOYO

Envejecimiento	0: No existen daños
Corrosión	0: No existen daños
Suciedad y aterramiento	0: No existen daños
Bloqueo o encastramiento	2: Defectos con riesgo de evolución patológica
Desplazamiento o deslizamiento	0: No existen daños
Aplastamiento	0: No existen daños
Reglaje incorrecto	0: No existen daños
Desnivelaciones	0: No existen daños
Falta de contacto	0: No existen daños
Cunas de apoyo deterioradas	0: No existen daños
Vegetación adosada	0: No existen daños

OBSERVACIONES APARATOS DE APOYO

INSPECCIONES ESTRUCTURAS
L.A.V. MADRID-ZARAGOZA-BARCELONA-FRONTERA FRANCESA

ID (Identificador de la estructura) **26VI05**
FECHA DE LA INSPECCIÓN **19/07/01**

ESTADO ACTUAL ESTRUCTURA DE TRAMOS

Pintura envejecida y desprendida	
Oxidación superficial	
Corrosiones locales activas	
Entalladuras y pérdidas de sección	
Elementos metálicos deformados o rotos	
Tornillos flojos o faltan	
Soldaduras fisuradas	
Fisuras y grietas longitudinales bóvedas	
Fisuras y grietas tranversales clave	
Fisuras y grietas tranversales riñones	
Fisuras y grietas tranversales arranques	
Fisuras y grietas longitudinales tímpanos	
Fisuras y grietas verticales tímpanos	
Separación y filtraciones tímpano-bóveda	
Fisuras y grietas longitudinales losas	0: No existen daños
Fisuras y grietas tranversales losas	0: No existen daños
Fisuras y grietas verticales losas	0: No existen daños
Fisuras y grietas alas superiores vigas	0: No existen daños
Fisuras y grietas longitudinales alas-alma	0: No existen daños
Fisuras y grietas tranversales alma vigas	0: No existen daños
Fisuras y grietas inclinadas alma vigas	0: No existen daños
Fisuras y grietas longitudinales ala inferior	0: No existen daños
Fisuras y grietas tranversales ala inferior	0: No existen daños
Fisuras y daños en testeros	0: No existen daños
Golpes y roturas	0: No existen daños
Coqueras y nidos de grava	0: No existen daños
Meteorización y degradación	0: No existen daños
Desprendimientos	0: No existen daños
Carbonatación y desagregación	0: No existen daños
Armaduras vistas someras	0: No existen daños
Corrosión y disgregación	0: No existen daños
Humedades y filtraciones	0: No existen daños
Desagües obturados	0: No existen daños
Incrustaciones calcáreas y eflorescencias	0: No existen daños
Abombamientos	0: No existen daños
Asentamientos y desnivelaciones	0: No existen daños
Juntas transversales degradadas	1: Defectos con incidencia en la estética
Vegetación aflorando	0: No existen daños
Vegetación adosada	0: No existen daños

OBSERVACIONES ESTRUCTURA DE TRAMOS: DESAGÜES EN ALAS SIN GÁRGOLAS

INSPECCIONES ESTRUCTURAS
L.A.V. MADRID-ZARAGOZA-BARCELONA-FRONTERA FRANCESA

ID (Identificador de la estructura) **26VI05**
FECHA DE LA INSPECCIÓN **19/07/01**

ESTADO ACTUAL RESTO DE ELEMENTOS

Impermeabilización	0: No existen daños
Drenaje longitudinal	0: No existen daños
Drenaje transversal	
Muretes guardabalasto	0: No existen daños
Juntas de dilatación	0: No existen daños
Conducciones y canaletas	0: No existen daños
Barandillas	0: No existen daños

OBSERVACIONES RESTO DE ELEMENTOS

INSPECCIONES ESTRUCTURAS
L.A.V. MADRID-ZARAGOZA-BARCELONA-FRONTERA FRANCESA

ID (Identificador de la estructura) **26VI05**

FECHA DE LA INSPECCIÓN **19/07/01**

ESTADO ACTUAL

ESTADO GENERAL	0: No existen daños
ESTADO GENERAL ESTRIBOS	0: No existen daños
ESTADO GENERAL PILAS	1: Defectos con incidencia en la estética
ESTADO GENERAL APARATOS DE APOYO	1: Defectos con incidencia en la estética
ESTADO GENERAL ESTRUCTURA DE TRAMOS	0: No existen daños
ESTADO GENERAL RESTO DE ELEMENTOS	0: No existen daños

OBSERVACIONES

INSPECCIONES ESTRUCTURAS
L.A.V. MADRID-ZARAGOZA-BARCELONA-FRONTERA FRANCESA

ID (Identificador de la estructura) **26VI05**

FECHA DE LA INSPECCIÓN **19/07/01**

IDENTIFICACIÓN ARCHIVOS FOTOGRÁFICOS		NOMBRE ARCHIVO
FOTOGRAFÍA Nº 1	ALZADO DERECHO	26VI0501.JPG
FOTOGRAFÍA Nº 2	ALZADO IZQUIERDO	26VI0502.JPG
FOTOGRAFÍA Nº 3	VISTA SUPERIOR DESDE ENTRADA	26VI0503.JPG
FOTOGRAFÍA Nº 4	VISTA SUPERIOR DESDE SALIDA	26VI0504.JPG
FOTOGRAFÍA Nº 5	ESTRIBO DE ENTRADA	26VI0505.JPG
FOTOGRAFÍA Nº 6	ESTRIBO DE SALIDA	26VI0506.JPG
FOTOGRAFÍA Nº 7	VISTA INFERIOR	26VI0507.JPG
FOTOGRAFÍA Nº 8	ULTIMO TRAMO	26VI0508.JPG
FOTOGRAFÍA Nº 9	LATERAL DERECHO DESDE ESTRIBO SALIDA	26VI0509.JPG
FOTOGRAFÍA Nº 10		
FOTOGRAFÍA Nº 11		
FOTOGRAFÍA Nº 12		
FOTOGRAFÍA Nº 13		
FOTOGRAFÍA Nº 14		
FOTOGRAFÍA Nº 15		

OBSERVACIONES



FOTOGRAFÍA Nº 1: ALZADO DERECHO



FOTOGRAFÍA Nº 2: ALZADO IZQUIERDO

INSPECCIONES ESTRUCTURAS
L.A.V. MADRID-ZARAGOZA-BARCELONA-FRONTERA FRANCESA



FOTOGRAFÍA Nº 3: VISTA SUPERIOR DESDE ENTRADA



FOTOGRAFÍA Nº 4: VISTA SUPERIOR DESDE SALIDA



FOTOGRAFÍA Nº 5: ESTRIBO DE ENTRADA



FOTOGRAFÍA Nº 6: ESTRIBO DE SALIDA



FOTOGRAFÍA Nº 7: VISTA INFERIOR.



FOTOGRAFÍA Nº 8: ULTIMO TRAMO.



FOTOGRAFÍA Nº 9: LATERAL DERECHO DESDE ESTRIBO SALIDA

GIF
Gestor de Infraestructuras Ferroviarias

ANEJO 8: NIVELACIÓN DE LA ESTRUCTURA

Madrid, Octubre de 2001

TIFSA
Grupo Renfe

En esta estructura se ha efectuado la Planimetría y Nivelación que se incluira posteriormente.