PSB dump endoscopy
30th May 2013

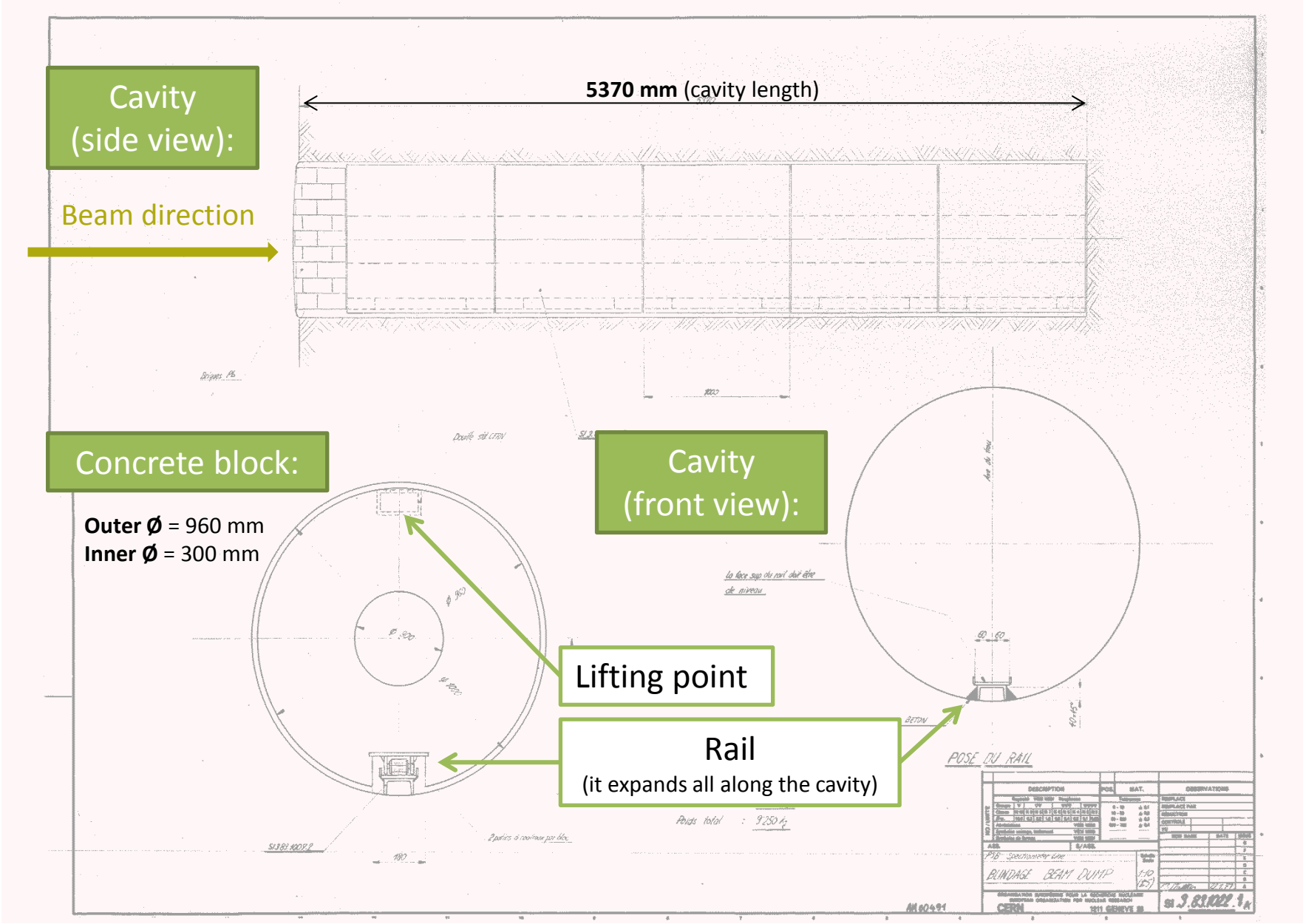
Alba Sarrió on behalf of EN-STI-TCD

Thanks to Pascal Mesenge (EN-MME)

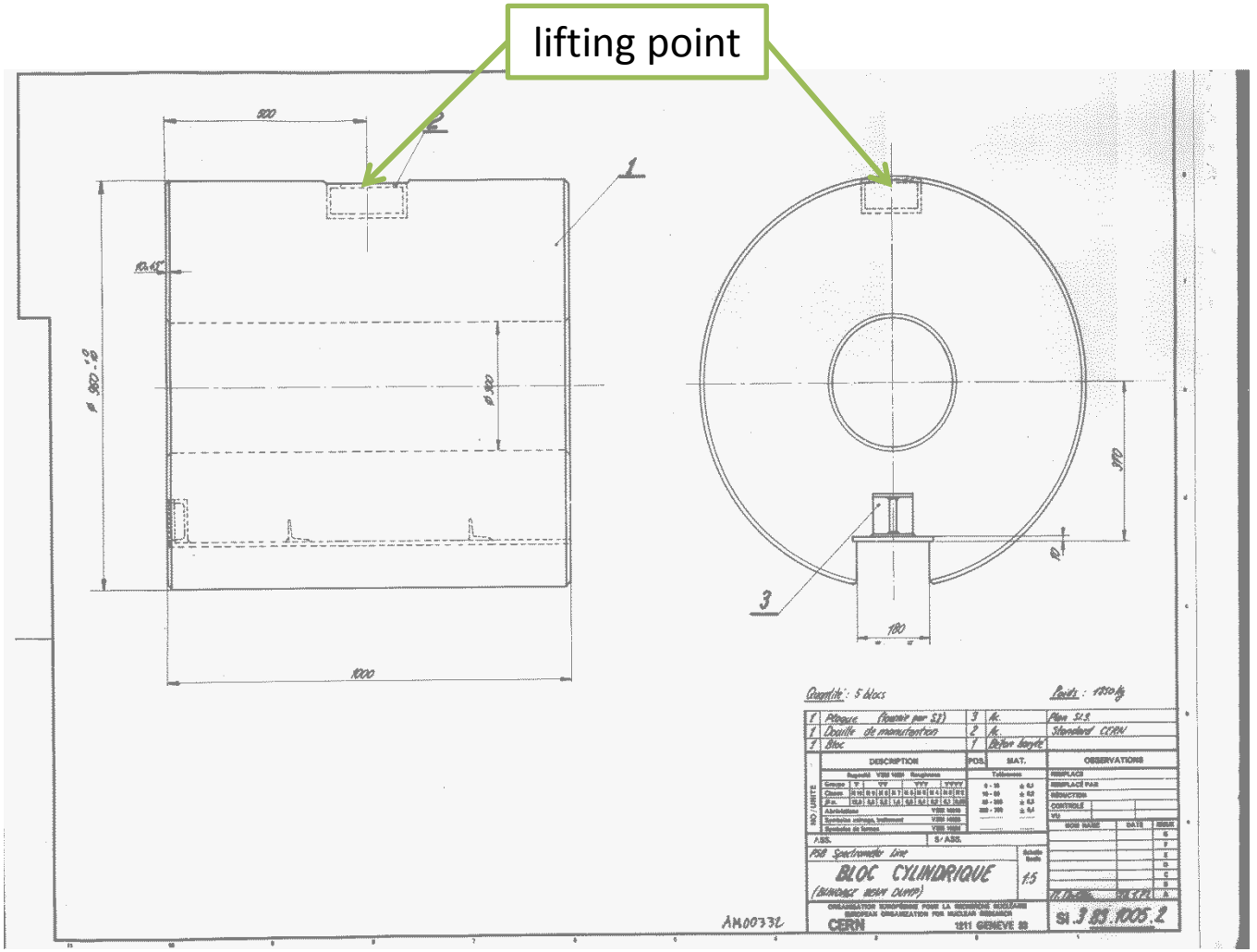
AIM OF THE ENDOSCOPY

- After the 2nd ALARA Dry-Run on the 21st of May, it was decided to investigate further:
  1. State of Rail
  2. Junction between 4th and 5th block
  3. State and position of dump
  4. Upper part of concrete blocks: lifting point?

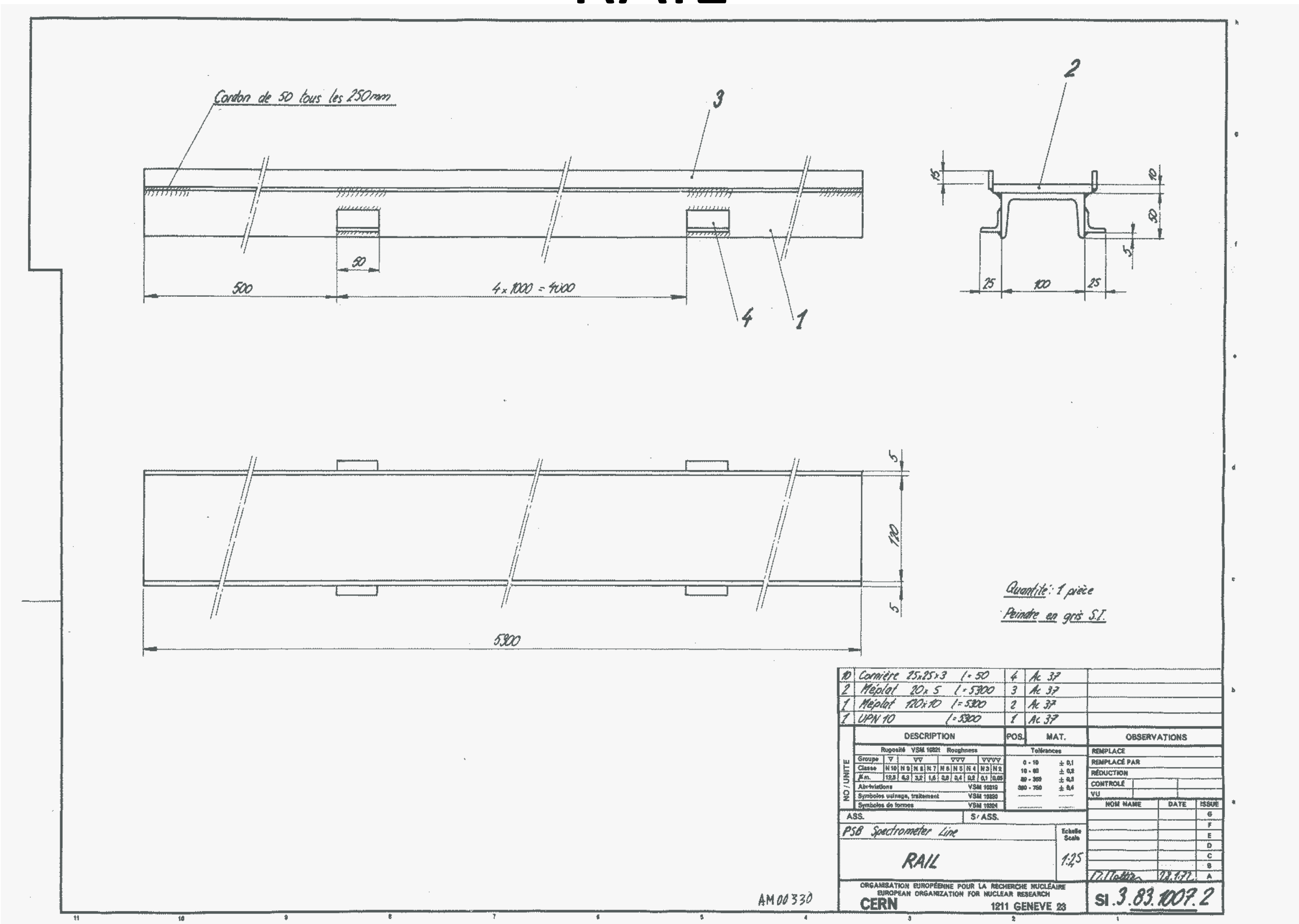
BEAM DUMP SHIELDING ASSEMBLY



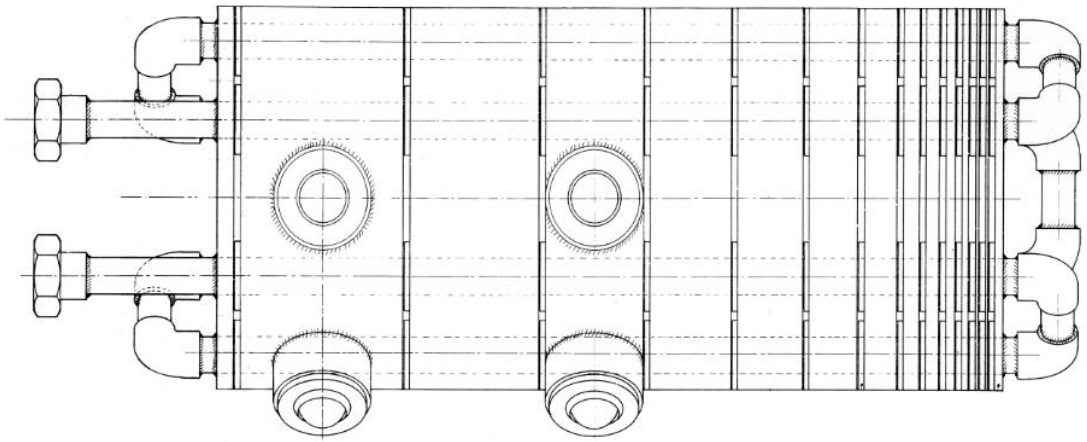
CONCRETE BLOCK

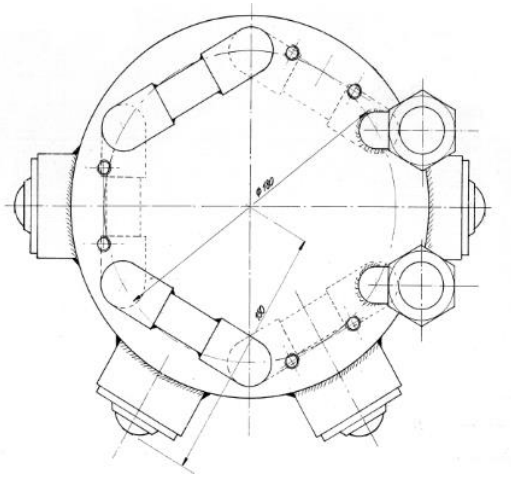


RAIL

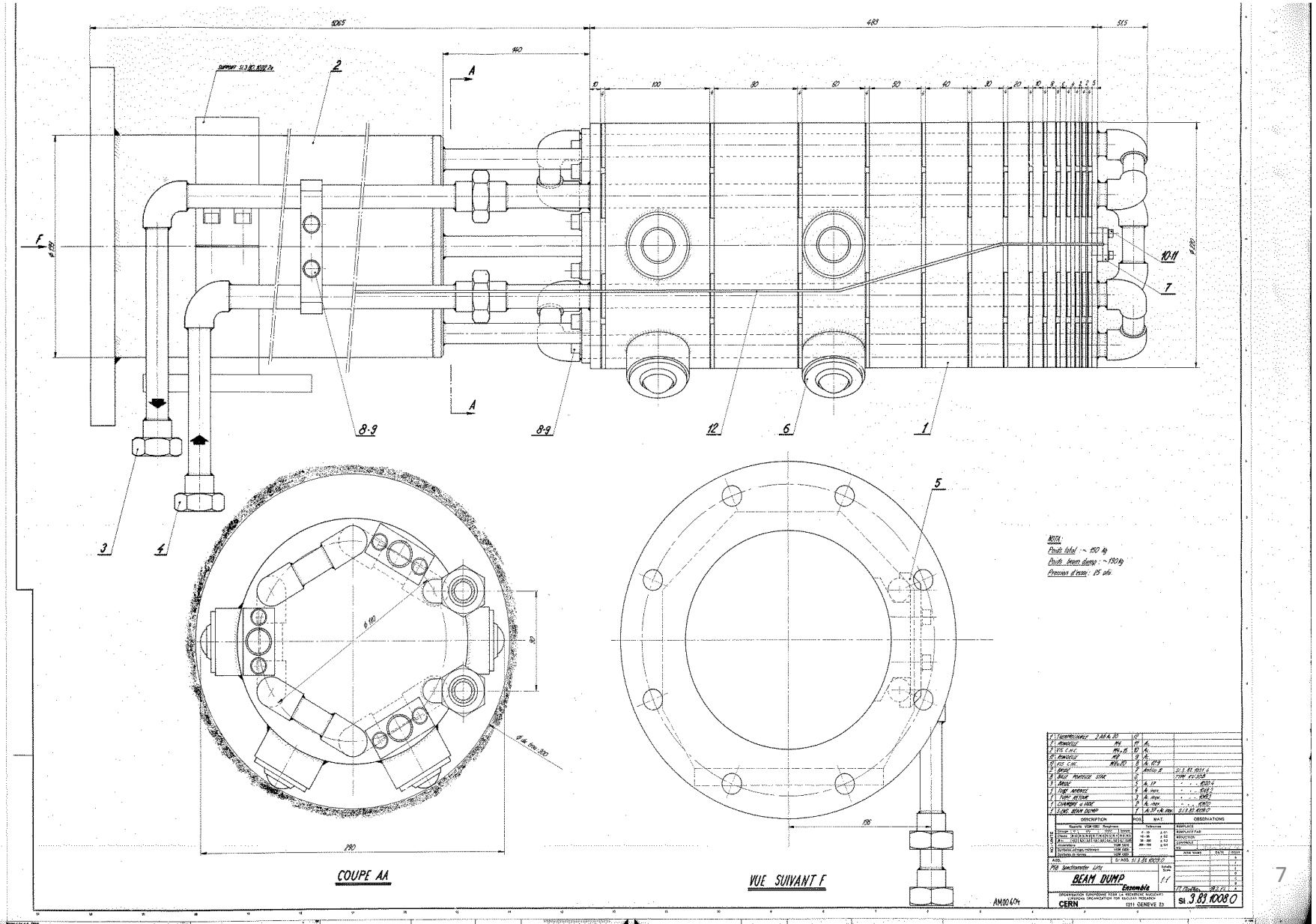

Cordon de 50 tous les 250mm
500
50
4 x 1000 = 4000
5300
120
Quantité: 1 pièce
Peindre en gris S.I.
10 Cornière 25x25x3 l=50 4 Ac 37
2 Méplat 20x5 l=5300 3 Ac 37
1 Méplat 120x10 l=5300 2 Ac 37
1 UPN 10 l=5300 1 Ac 37
NO / UNITE
DESCRIPTION
POS.
MAT.
OBSERVATIONS
REMPLACE
REMPLACÉ PAR
RÉDUCTION
CONTROLÉ
VU
NOM NAME
DATE
ISSUE
ASS.
S/ASS.
PSB Spectrometer Line
RAIL
Echelle Scale
1:25
ORGANISATION EUROPÉENNE POUR LA RECHERCHE NUCLÉAIRE
EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH
CERN
1211 GENEVE 23
SI.3.83.1007.2
AM 00330

DUMP CORE



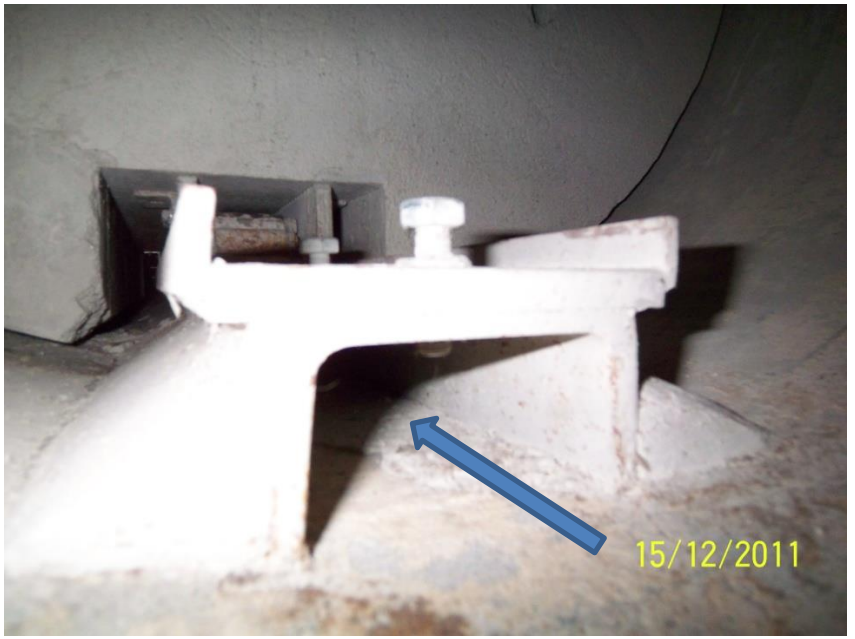


BEAM PIPE – DUMP CORE ASSEMBLY



RESULTS OF THE ENDOSCOPY

1. State of Rail → view under rail



Insertion of endoscope: view under rail

RESULTS OF THE ENDOSCOPY

1. State of Rail → view under rail

Conclusion: the rail is in one piece, in very good state and it reaches the end of the cavity

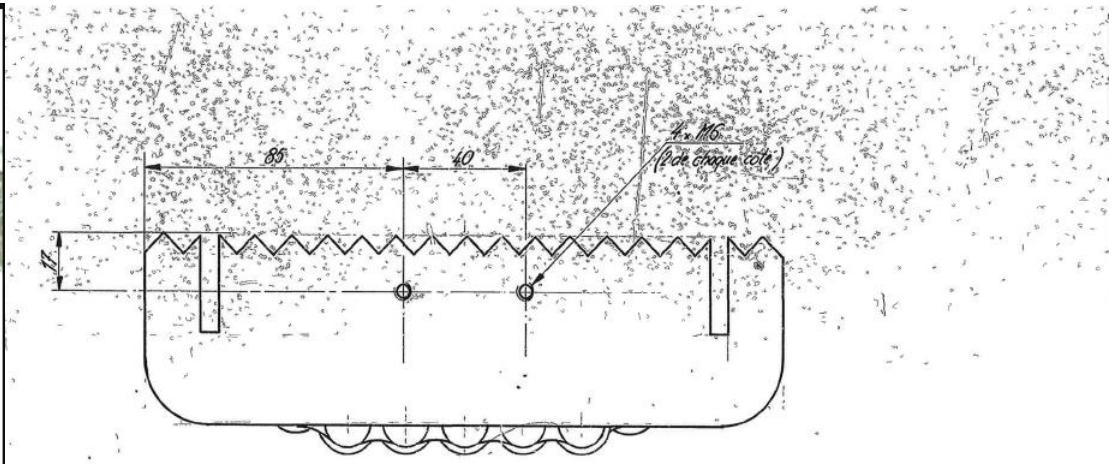
RESULTS OF THE ENDOSCOPY

1. State of Rail → view on top of the rail

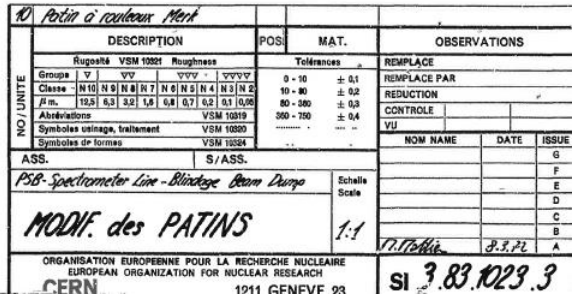
Insertion of endoscope: on top of the rail

RESULTS OF THE ENDOSCOPY

1. State of Rail → view under rail



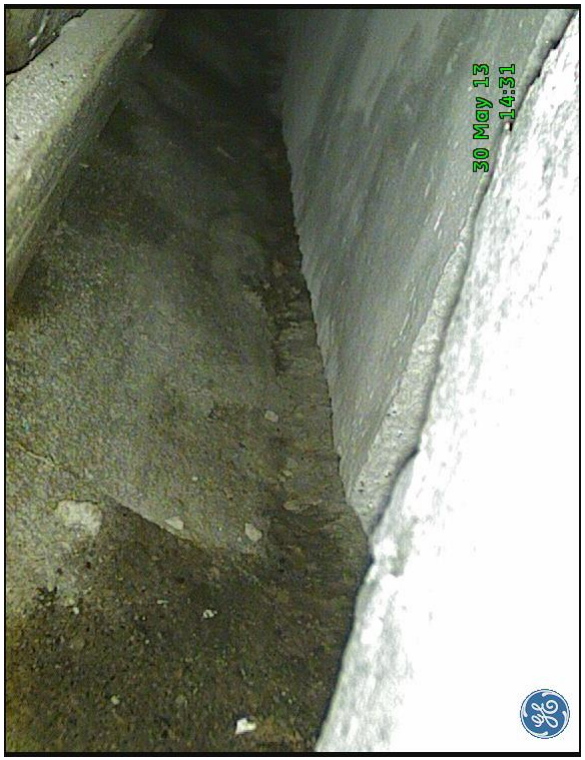
The technical drawings are accurate.
The rollers are in good state.



RESULTS OF THE ENDOSCOPY

1. State of Rail

Insertion of endoscope:
between rail and concrete block



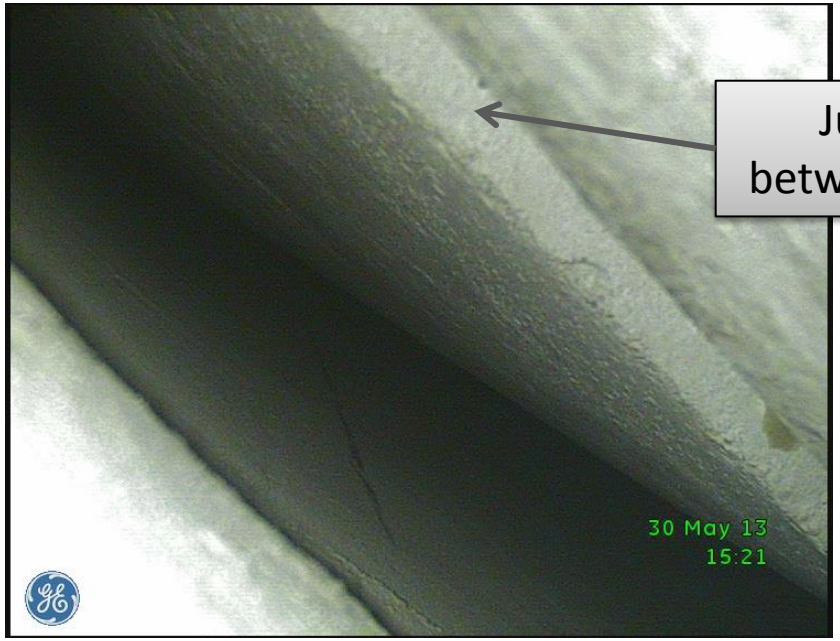
The lower part of the cavity is in good state, as well as the side of the rail

RESULTS OF THE ENDOSCOPY

2. Junction between 4th and 5th block

Insertion of endoscope: outside concrete block

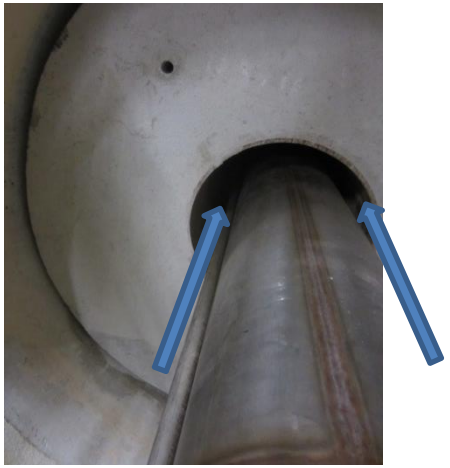
The outer part of the blocks is in good state and the 4th and 5th blocks are aligned



Junction between blocks

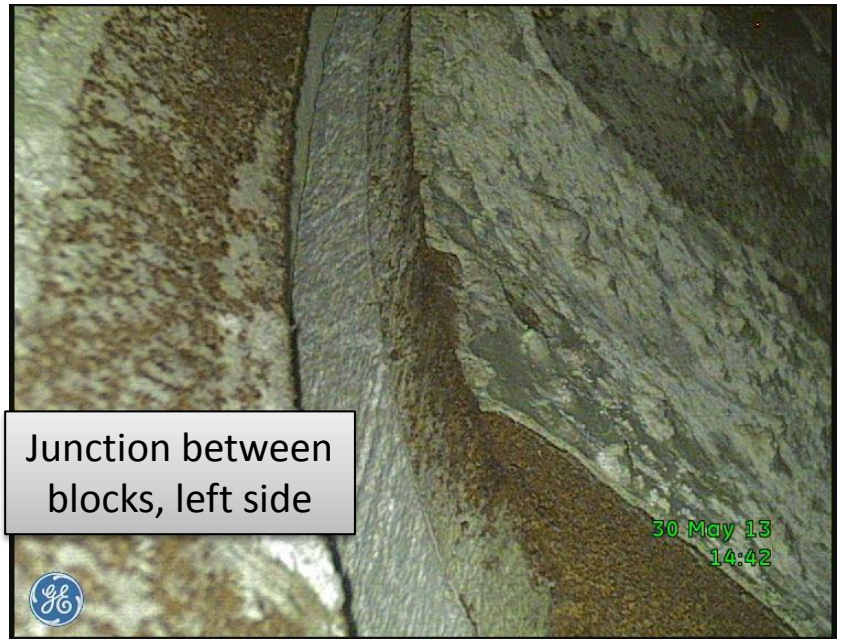
RESULTS OF THE ENDOSCOPY

2. Junction between 4th and 5th block

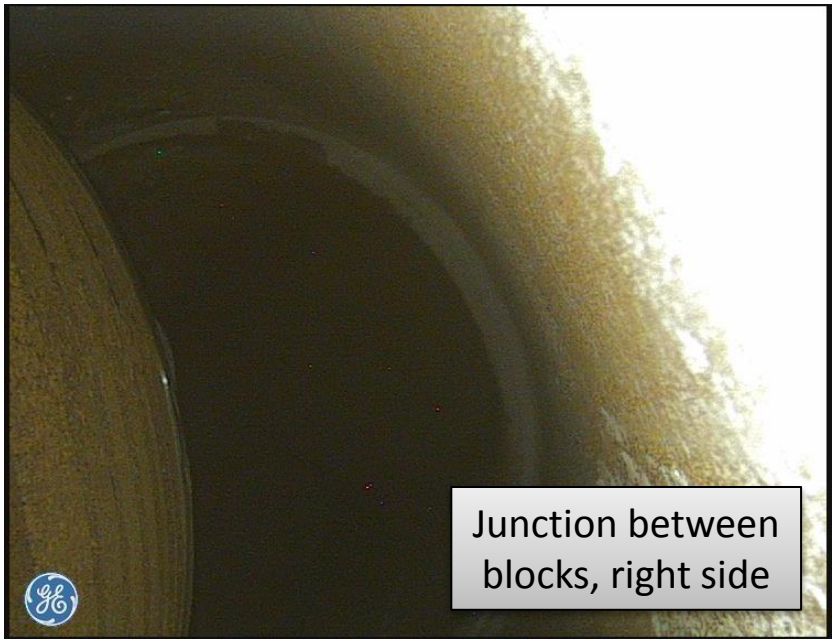


Insertion of endoscope: inside concrete block (left & right side)

5th block inner Ø < 4th block inner Ø
Conclusion: the blocks are aligned outside but not inside



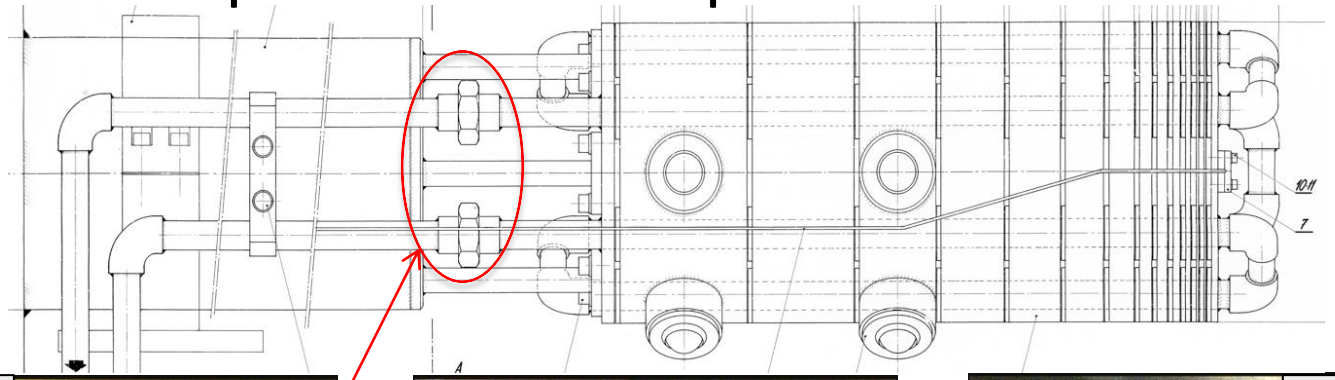
Junction between blocks, left side



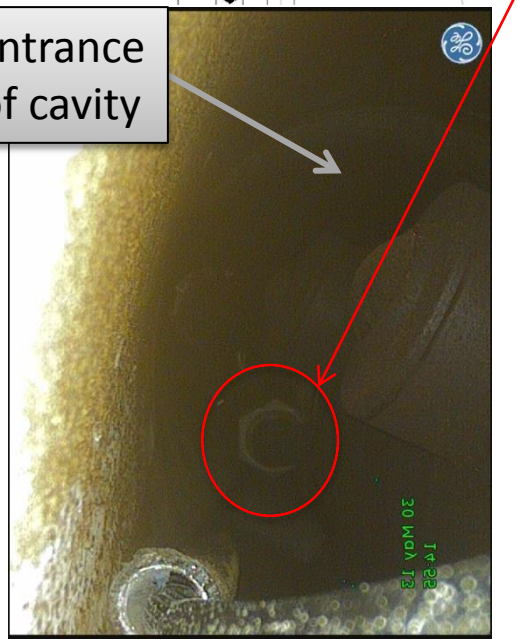
Junction between blocks, right side

RESULTS OF THE ENDOSCOPY

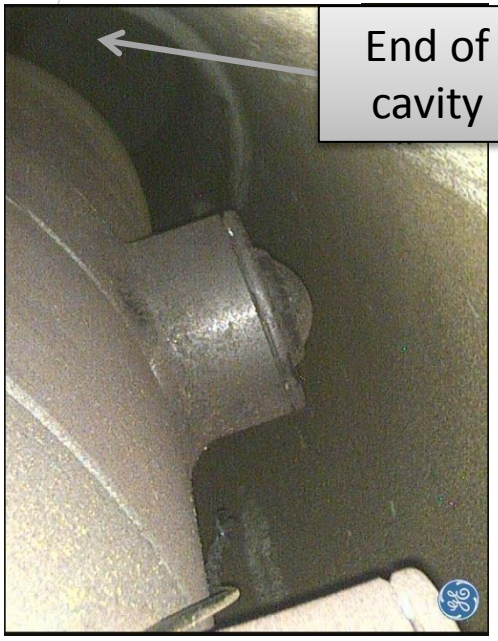
3. State and position of dump



Entrance of cavity



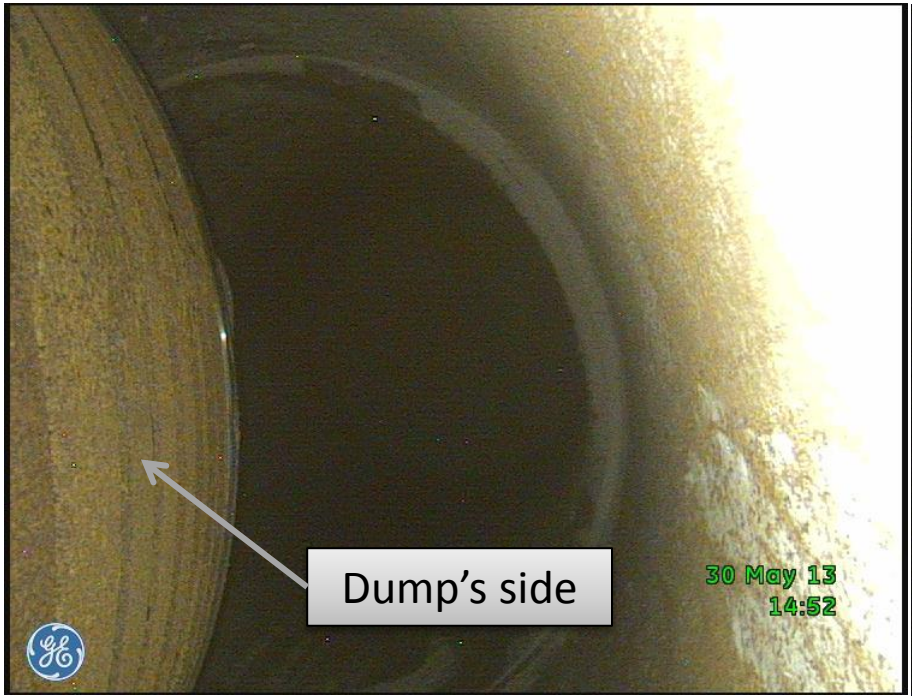
End of cavity



The dump's supporting balls are in good state, so are the cooling pipe connections

RESULTS OF THE ENDOSCOPY

3. State and position of dump

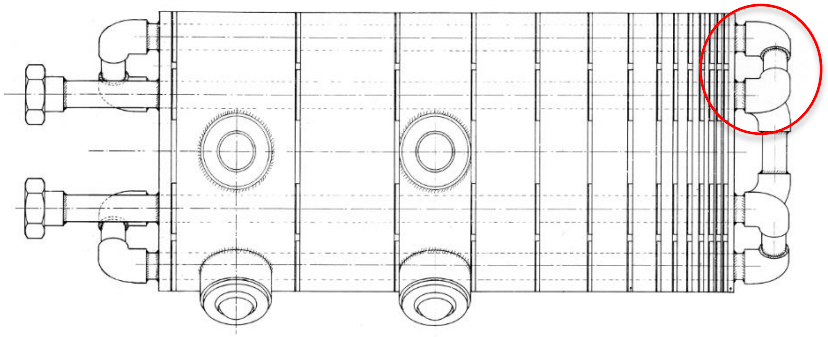


RESULTS OF THE ENDOSCOPY

3. State and position of dump

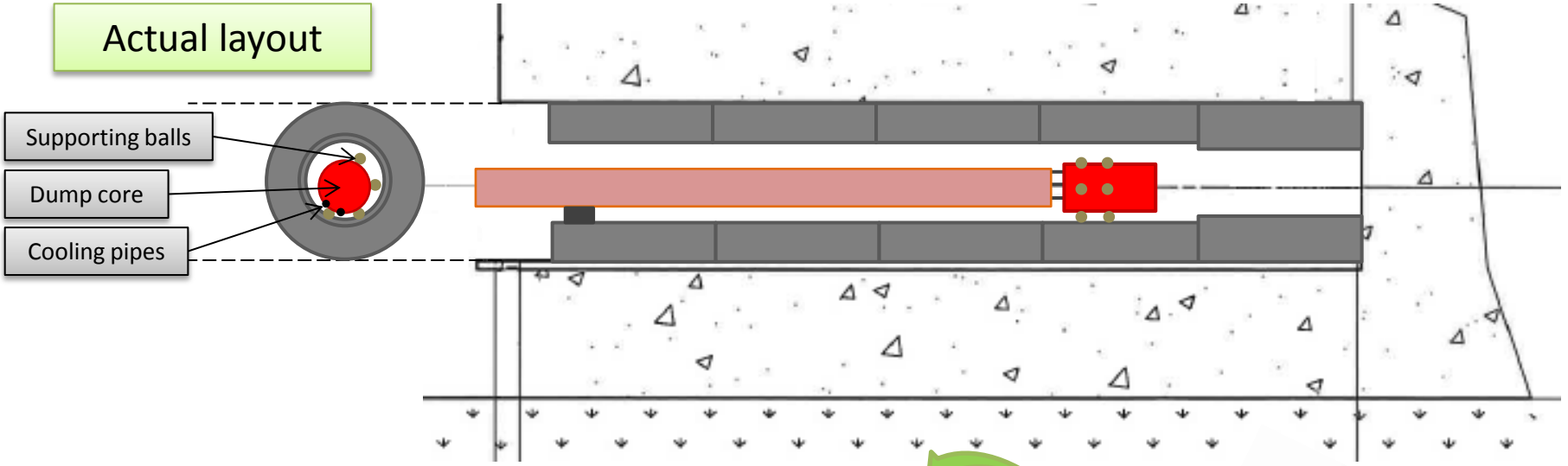
water connections (cooling system)

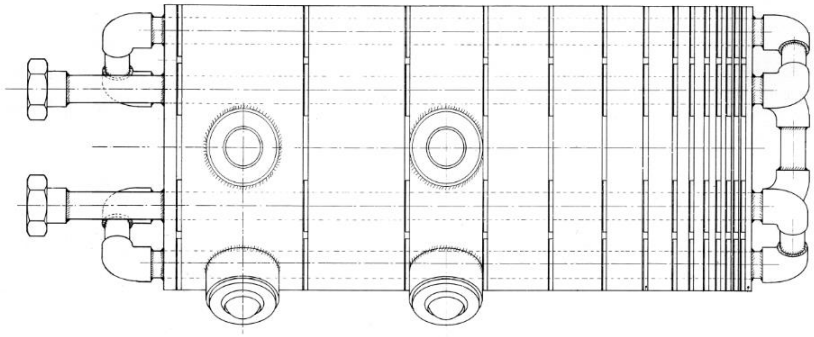
The water connections are in good state

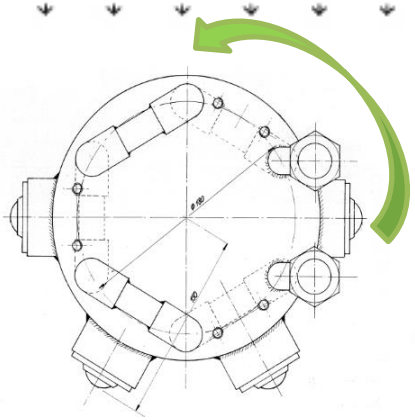


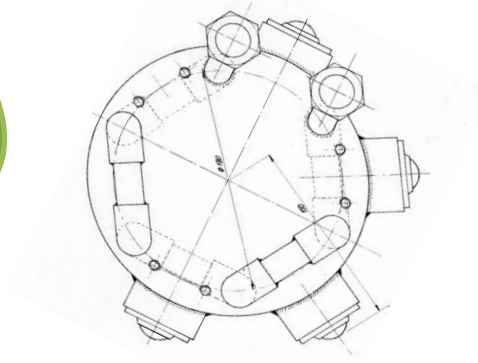
POSITION OF DUMP

Actual layout









Nominal position of dump

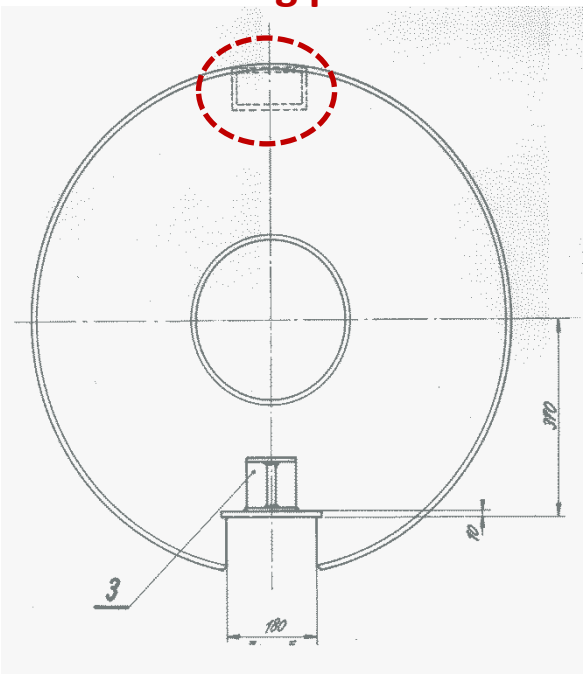
Actual position of dump

Conclusion: the dump is rotated 60 ° counter-clockwise

RESULTS OF THE ENDOSCOPY

4. Upper part of concrete blocks

lifting point?



Insertion of endoscope: upper part of 1st concrete block

RESULTS OF THE ENDOSCOPY

4. Upper part of concrete blocks: lifting point?

Conclusion: the blocks have a lifting point in their upper part

CONCLUSIONS OF THE ENDOSCOPY

The aim of the endoscopy was to investigate:

1. State of Rail

Conclusion: the rail is in one piece, in very good state and it reaches the end of the cavity. The rollers are also in good state. The technical drawings are accurate.

2. Junction between 4^{th} and 5^{th} block

Conclusion: the blocks are aligned outside but not inside. 5^{th} block inner Ø < 4^{th} block inner Ø

3. State and position of dump

Conclusion: the dump's supporting balls are in good state, so are the water connections.
The dump is rotated 60° counter-clockwise.

4. Upper part of concrete blocks: lifting point?

Conclusion: the blocks have a lifting point in their upper part