



**Western Copper  
Corporation**

**Project Proposal  
Carmacks Copper Project  
Yukon Territory**

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**Appendix D2**

**Western Copper Heap Leach Pad  
Loading Plan (July 2006)**

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**Western Copper Corporation**

**CARMACKS COPPER PROJECT**

**HEAP LEACH PAD LOADING PLAN**

**July 2006**

## Heap Leach Pad Loading Plan

The following plan presents an outline for the staged development and loading of the heap leach pad.

### Staged Development

The heap leach facility design uses staged development in order to control solution management on the heap, reduce leach pad precipitation inputs, control settlement of the pile and optimize the expenditures of capital costs over the project mine life. The proposed staged development of the facility is shown on Figure A and the ore loading plan is shown on Figure B. Heap leach pad loading sections are shown in Figure C for loading configurations for years 2, 4, 6 and 8.

Five stages of construction are foreseen:

Stage I	Preproduction
Stage II	Over liner Installation (initial pad construction)
Stage III	Production End of Year 2
Stage IV	Production End of Year 4
Stage V	Closure

A summary of the main construction activities to be carried out for each stage of development is summarized as follows:

#### Stage I (Preproduction)

Figure A, Year -1 Phased liner construction shows the approach for preproduction of the heap leach pad.

- Clear and grub heap leach pad area.
- Remove topsoil from foundation area, embankment to El. 830 m.
- Complete permafrost delineation program in foundation.
- Excavate and replace ice-rich material (if any found)

- Excavate perimeter bench.
- Construct diversion ditches around facility.
- Construct sediment control ponds.
- Construct confining embankment to crest El. 780 m.
- Construct foundation drains to El. 830 m.
- Construct leach pad area to El. 830 m.
- Construct leak detection and recovery system (LDRS) to El. 830 m.
- Construct spillway and events pond.
- Construct gravity flow solution pipeline.

### Stage II (Over liner Installation)

Figure A, Year -1 Overliner loading shows the approach for over liner pad loading.

- Construct temporary access road (10 m wide) from the upper end of the liner towards the heap embankment.
- End dump over liner material with haul truck.
- Push over liner material out onto liner to required thickness (minimum 1 m).
- D6 wide pad or smaller grade low ground pressure equipment used to push over liner material onto liner.
- Ensure through quality assurance and quality control program that required over liner thickness is achieved.

### Stage III (End of Production Year 2)

Figure A, Year 2 Loading Configuration and Figure B Year 2 Loading Configuration show the approach for extending the heap leach liner.

- Remove topsoil up to El. 850 m.
- Construct temporary diversion ditches around facility.
- Extend foundation drains to El. 850 m.
- Extend leach pad area to El. 850 m.

- Extend LDRS to El. 850 m.
- Place overliner material on extended leach pad area.

#### Stage IV (End of Production Year 4)

Figure B Year 4 Loading Configuration show the approach for extending the remaining portion of the heap leach liner.

- Remove topsoil for remaining pad area.
- Construct final diversion ditches around facility.
- Extend foundation drains to final limits.
- Extend LDRS to final limits.
- Extend leach pad area to final design limits.
- Place overliner material to final design limits.

#### Stage V (Closure)

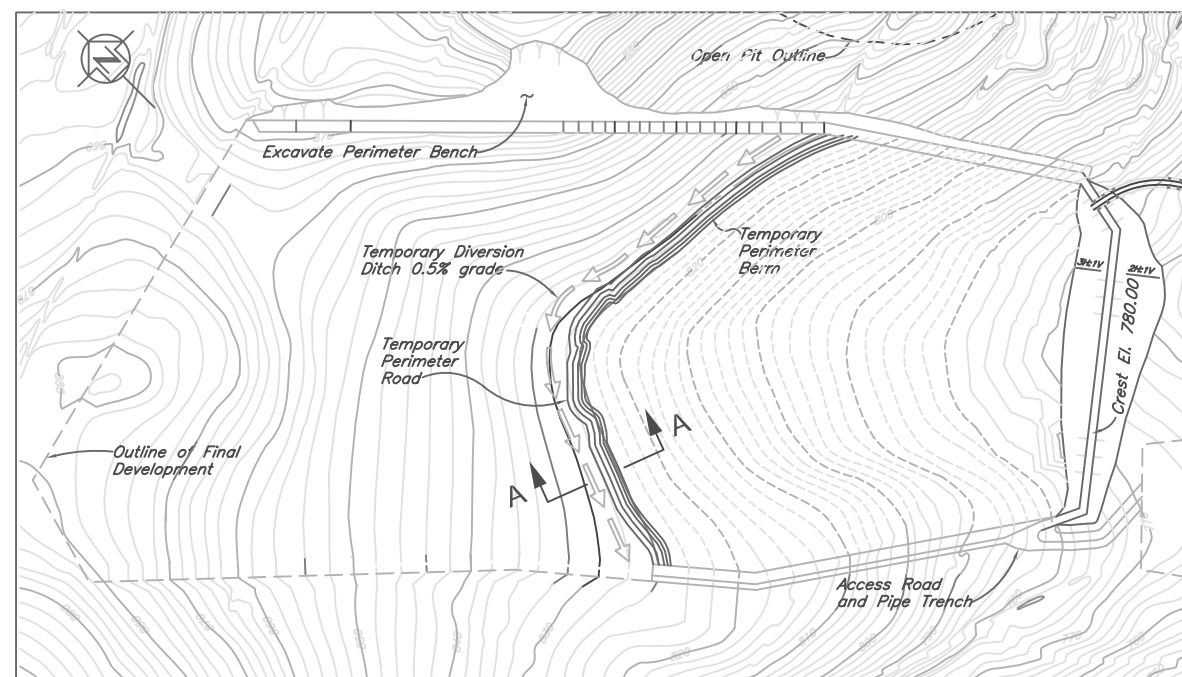
- Use heap detoxification test works conducted during operations to refine heap decommissioning.
- Rinse heap and recover process solutions.
- Reshape heap slopes to final configurations.
- Place evapo-transpiration engineered cover over leach pad area to reduce infiltration
- Continue to rinse heap and augment with alkali solutions. Treat and release excess heap solutions to reduce heap solution inventory.
- Install long-term monitoring systems and conduct post closure monitoring.

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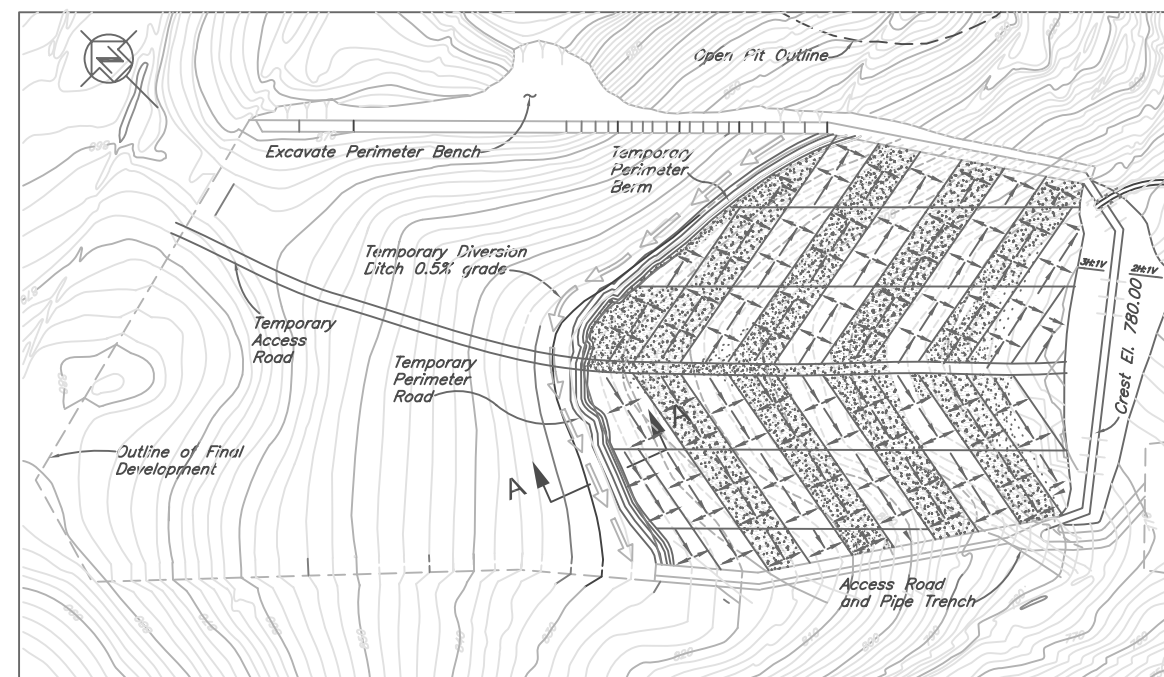


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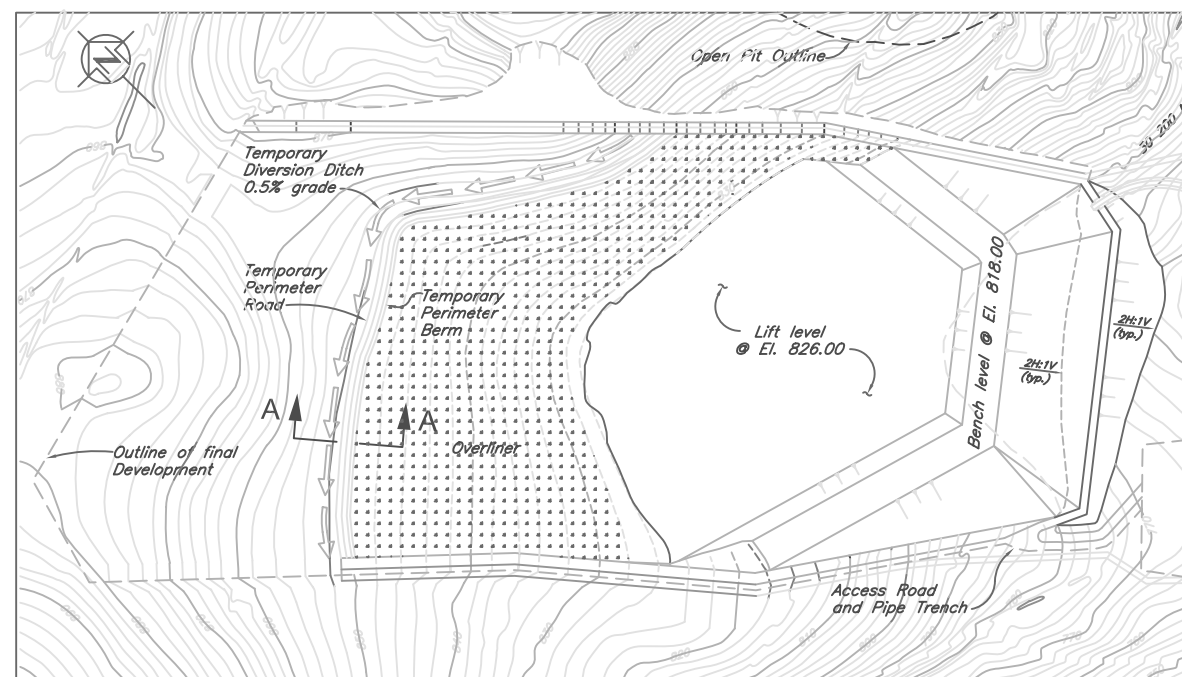
Note: Drawing is for illustrative purposes only,  
NOT FOR CONSTRUCTION



Year -1 Phased Liner Construction



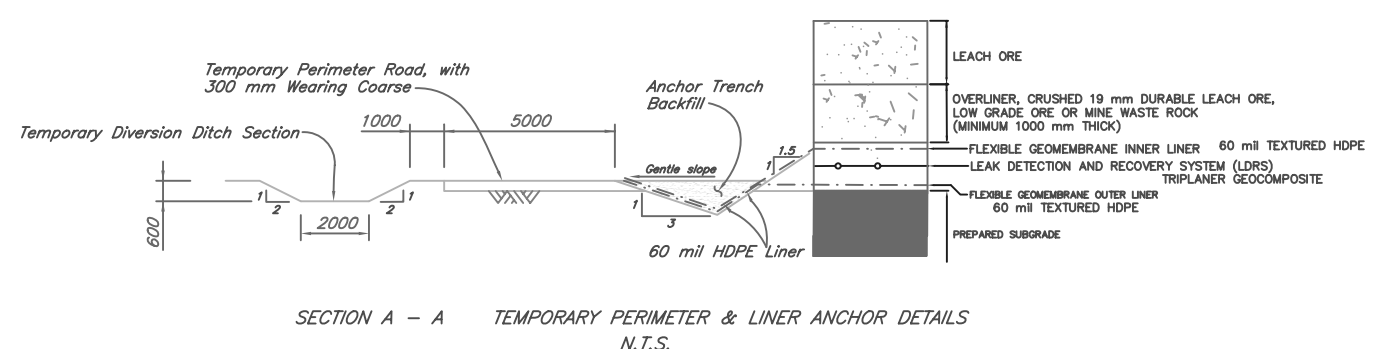
Year -1 Overliner Loading



Year 1 Loading Configuration

**NOTE**

1. All elevations are in metres, and dimensions are in millimetres, unless otherwise noted.
2. All drawings are to be read in conjunction with the Updated Detailed Design Report, REF. NO. 1785/1.



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Original drawing from Knight Piesold Limited, "Heap Leach Facility Staged Construction Plan", Drawing #1785.209 Rev. 0

## Heap Leach Facility Staged Construction Plan

### Figure A



Revised by: HD      Checked by: DDC

Date: May 2006

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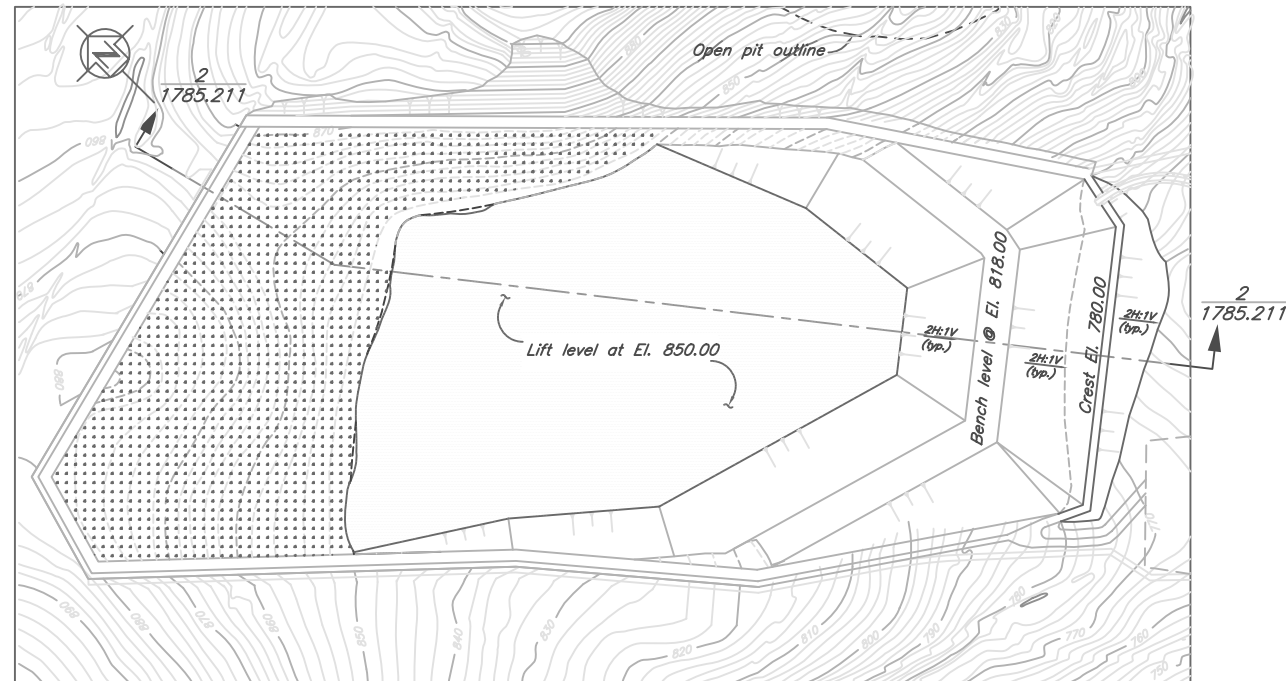


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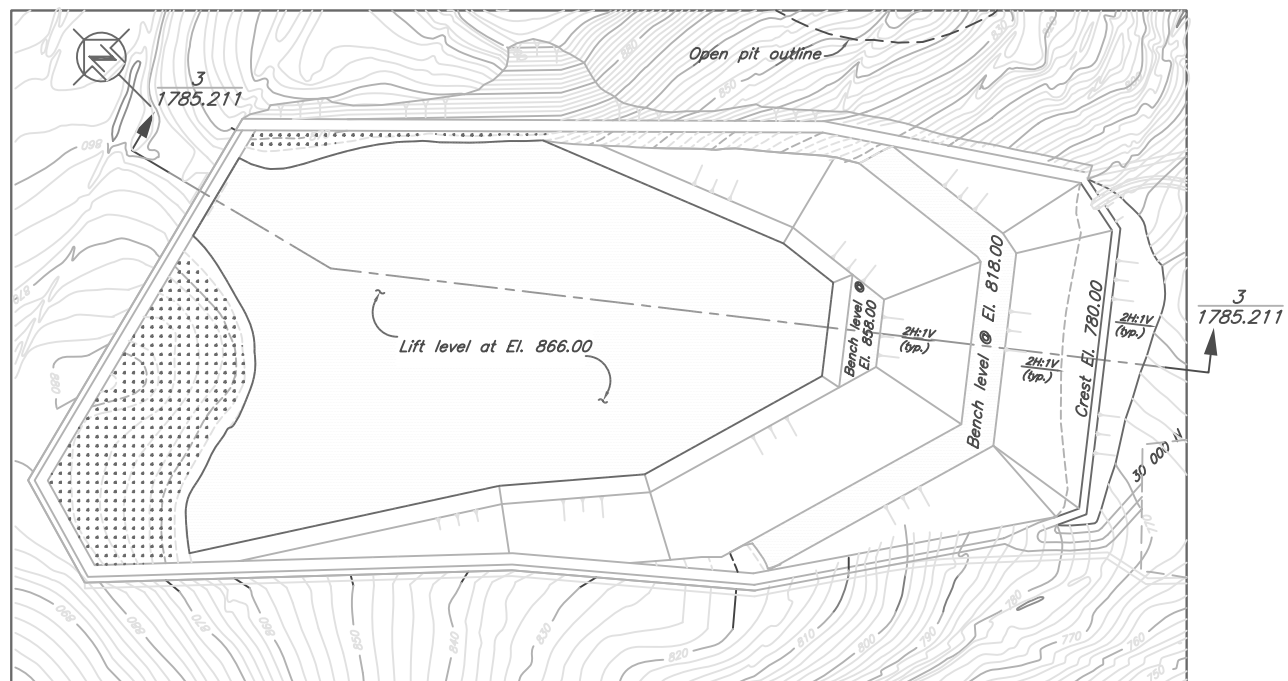
Note: Drawing is for illustrative purposes only,  
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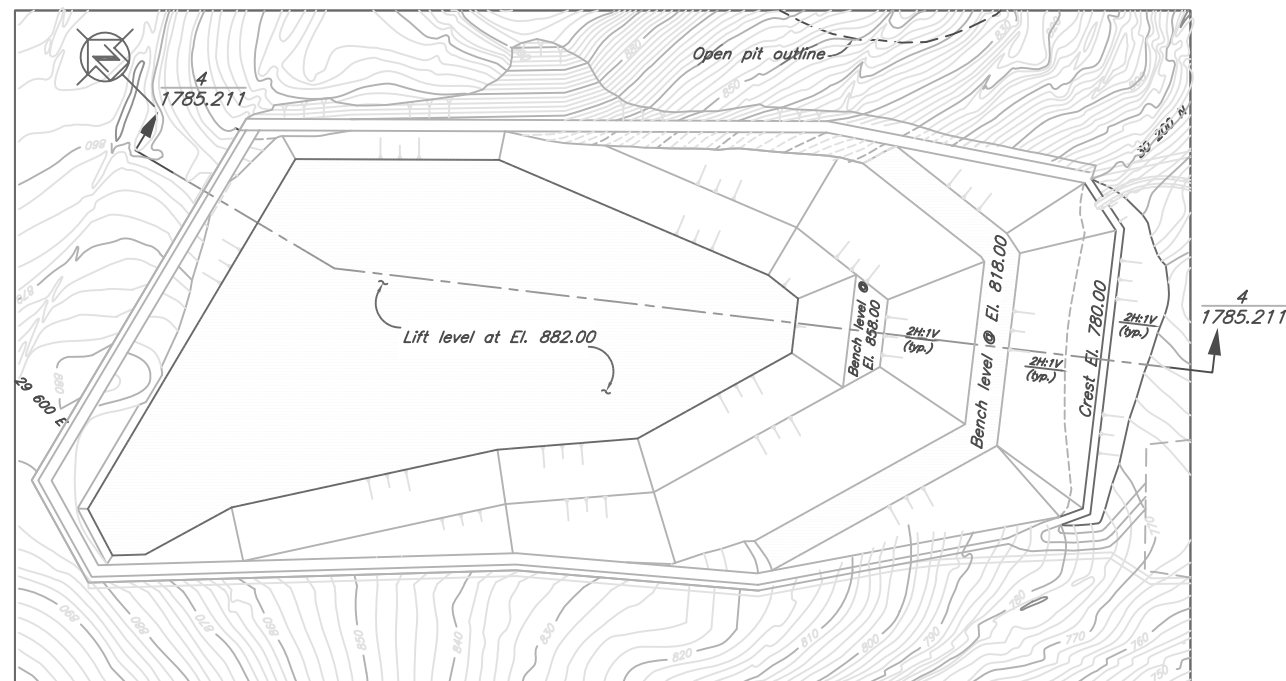
YEAR 2 LOADING CONFIGURATION



YEAR 4 LOADING CONFIGURATION



YEAR 6 LOADING CONFIGURATION



YEAR 8 LOADING CONFIGURATION

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Original drawing from Knight Piesold Limited,  
"Heap Leach Facility Staged Loading Plan",  
Drawing #1785.210 Rev. 0

**Heap Leach Facility  
Loading Plan  
Years 2 - 8**

**Figure B**



Revised by: HD

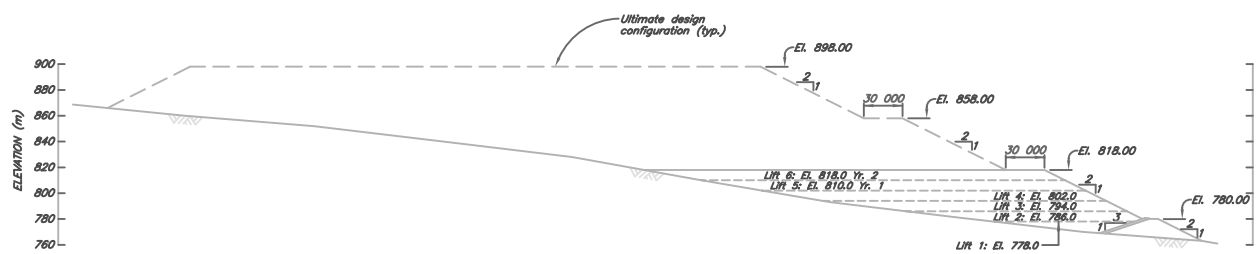
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Date: May 2006

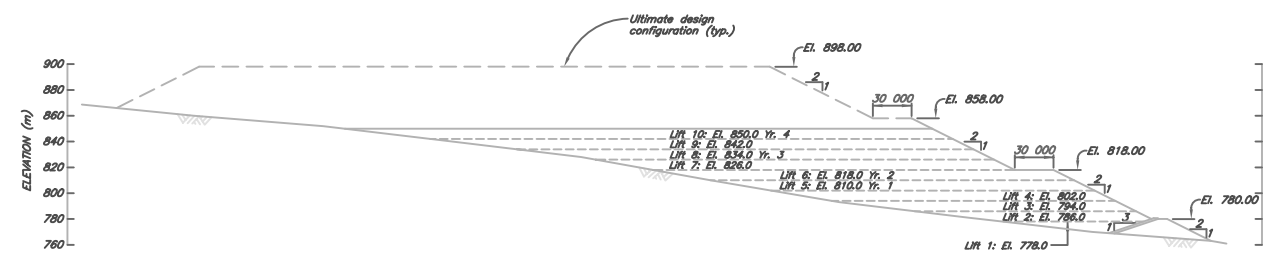
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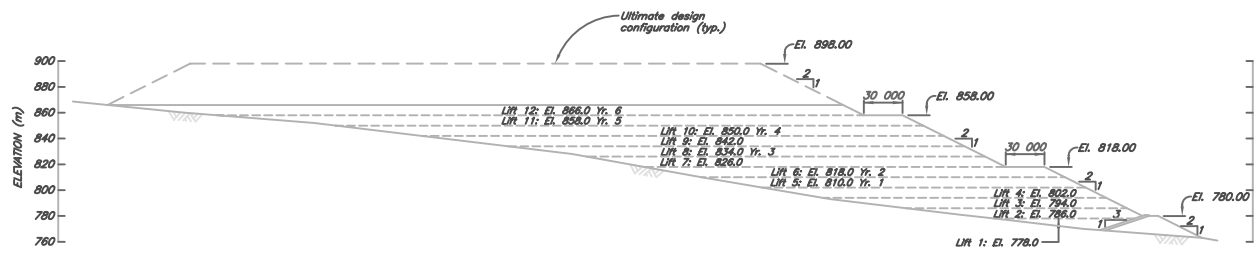
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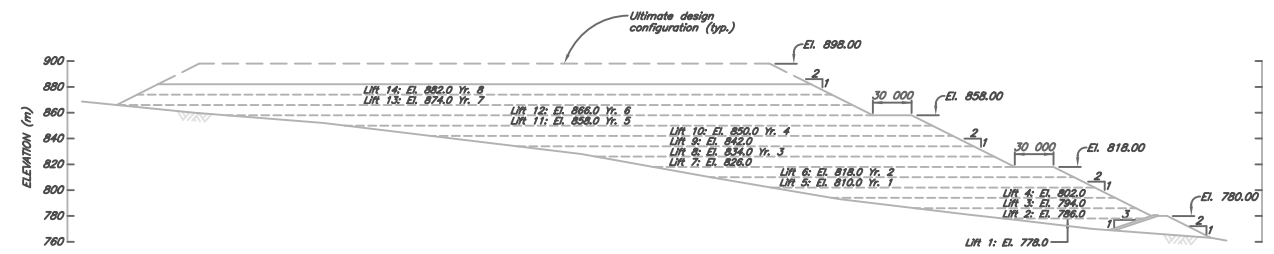
SECTION  $\frac{1}{1785.210}$   
LOADING CONFIGURATION - END OF YEAR 2



SECTION  $\frac{2}{1785.210}$   
LOADING CONFIGURATION - END OF YEAR 4



SECTION  $\frac{3}{1785.210}$   
LOADING CONFIGURATION - END OF YEAR 6



SECTION  $\frac{4}{1785.210}$   
LOADING CONFIGURATION - END OF YEAR 8

- NOTES**
1. All elevations are in metres, and dimensions are in millimetres, unless otherwise noted.
  2. For further details refer to Updated Detailed Design Report, REF. NO. 1785/1.
  3. Lift elevations correspond to top of lift.



NOT FOR CONSTRUCTION

Note: Drawing is for illustrative purposes only,  
NOT FOR CONSTRUCTION

Original drawing from Knight Piesold Limited,  
"Heap Leach Pad Staged Loading Sections",  
Drawing #1785.211 Rev 0

## Heap Leach Pad Staged Loading Sections Years 2 - 8

### Figure C



Revised by: HD      Checked by: DDC

Date: May 2006