



# C305 – Eastern Running Tunnels

## Addendum to the I&M Close out report “DLR East India Station & Viaduct” (Drive Y)

CRL Document Number: C305-DSJ-C2-RGN-CRG03-50427

Supplier Document Number:

Contract MDL reference C08.079

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### 2a. Stakeholder Review Required? YES NO

Stakeholder submission required: LU  RIL  Purpose of submission: For no objection   
 NR  LO  For information   
 DLR  Other: \_\_\_\_\_

This document has been reviewed by the following individual for coordination, compliance, integration and acceptance and is acceptable for transmission to the above stakeholder for the above stated purpose.

Sign: [Redacted] Role: [Redacted] Name: [Redacted] Date: 12/08/16  
 Sign: \_\_\_\_\_ Role: \_\_\_\_\_ Name: \_\_\_\_\_ Date: \_\_\_\_\_

### 2b. Review by Stakeholder (if required):

Stakeholder Organisation	Job Title	Name	Signature	Date	Acceptance
					<input type="checkbox"/>
					<input type="checkbox"/>

### 3. Acceptance by Crossrail:

Crossrail Review and Acceptance Decal	
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<input type="checkbox"/>	Code 2. No: Accepted. Revise and resubmit. Work may proceed subject to incorporation of changes indicated
<input type="checkbox"/>	Code 3. Not Accepted. Revise and resubmit. Work may not proceed
<input type="checkbox"/>	Code 4. Received for information only. Receipt is confirmed
Reviewed/Accepted by (signature)	Print Name: _____ Position: _____ Date: 12/08/16
Acceptance by Crossrail does not relieve the designer/supplier from full compliance with their contractual obligations and does not constitute Crossrail approval of design details, calculations, analyses, test methods or materials developed or selected by the designer/supplier.	

<b>GEOCISA UK</b>						
Addendum to the I&M Close out report "DLR East India Station & Viaduct" (Drive Y)						
C305 Crossrail Eastern Running Tunnels						
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Document History :						
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**APPENDIX A. MONITORING GRAPHS**

Learning Legacy Document

## 1. Addendum Purpose

This addendum to the I&M Close out report "DLR East India Station & Viaduct (Drive Y)", document no. C305-DSJ-C2-RGN-CRG03-50398, includes the data of the instrumentation from February 2016 until June 2016 as last reading for sockets, prisms and tiltmeters.

The purpose of this addendum is to report the monitoring data from the instrumentation that are not included in the close out report.

## 2. Commentary

This report comprises the data of the instrumentation until the 3<sup>rd</sup> of June 2016, date of the last reading as stated above. For the sake of clarity, the graphs in this report follow the same sequence as the I&M Close out report. The date of the last reading included in the close out report is indicated in the plots with a vertical line.

The readings included in this report show no significant change of the ground movement with regards to the original close out report. Hence conclusion is that the settlement has reached or is approaching an acceptably low rate (2mm/year) and it has been agreed among the Client, the Asset Owner and the Contractor to cease monitoring and decommission.

See Appendix A for the data graphs.

Note: Limmo dewatering ended on 14 March 2016.

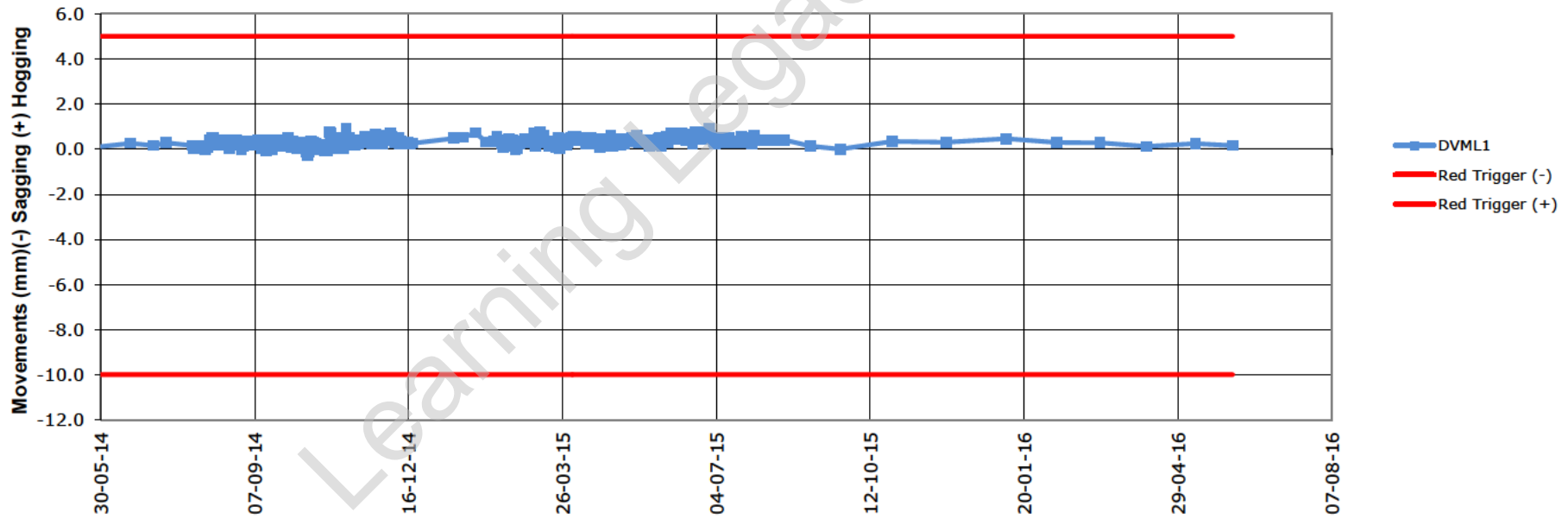
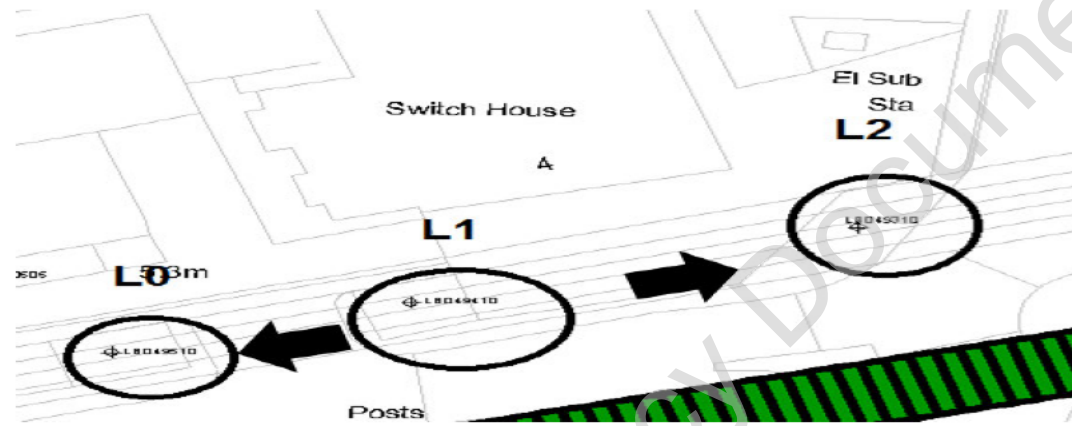


APPENDIX A: DATA GRAPHS

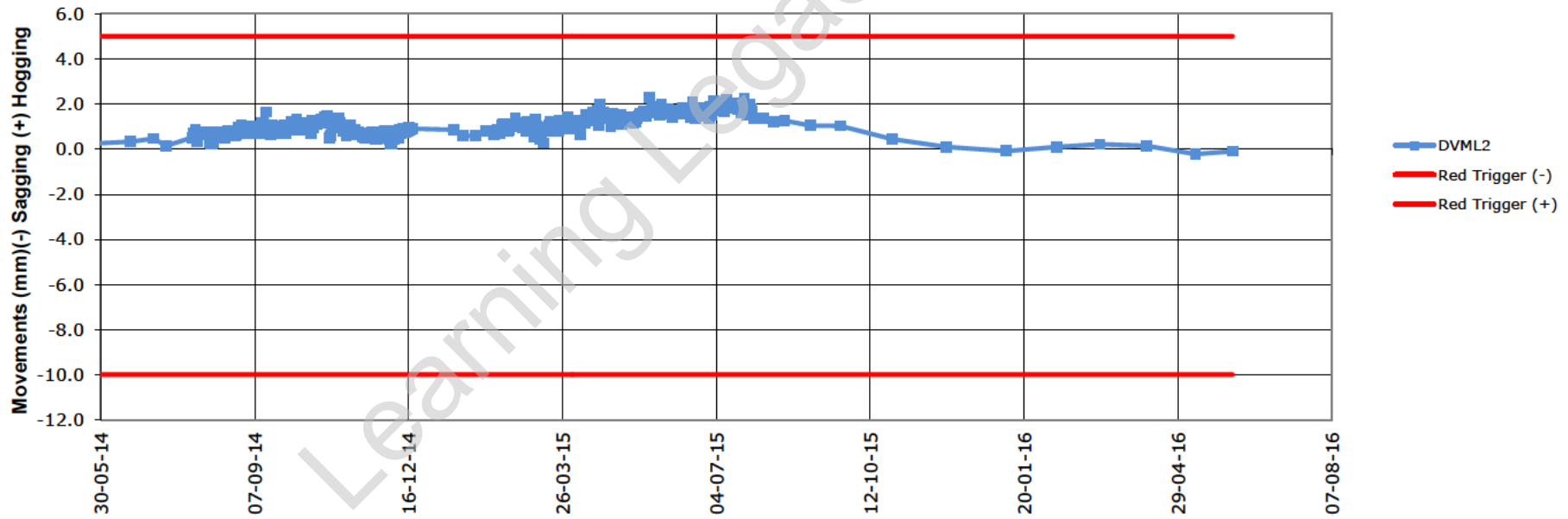
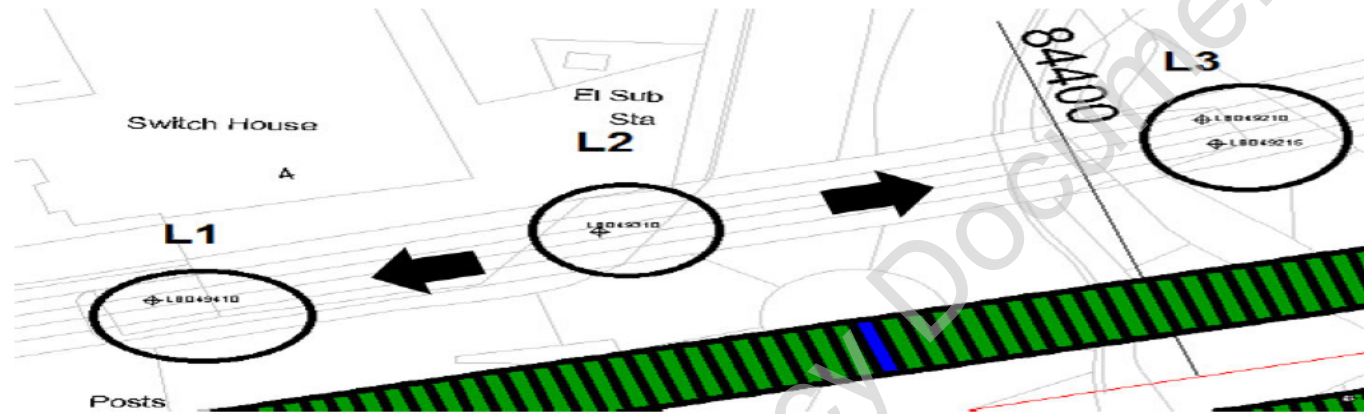
Learning Legacy Document



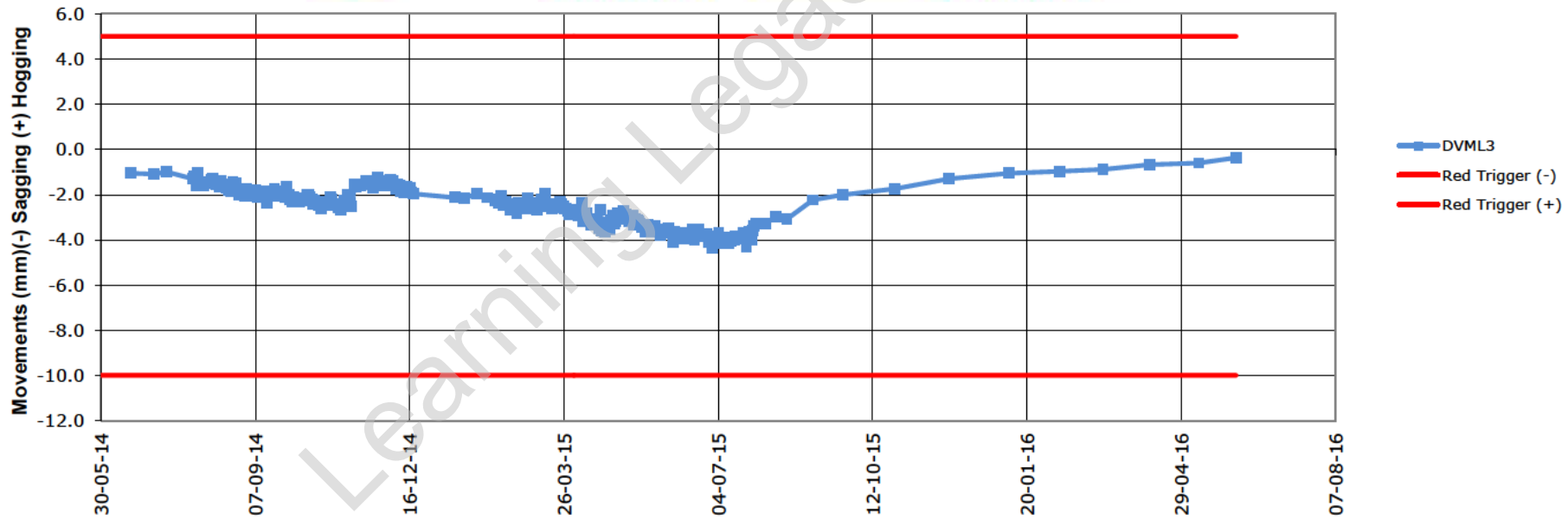
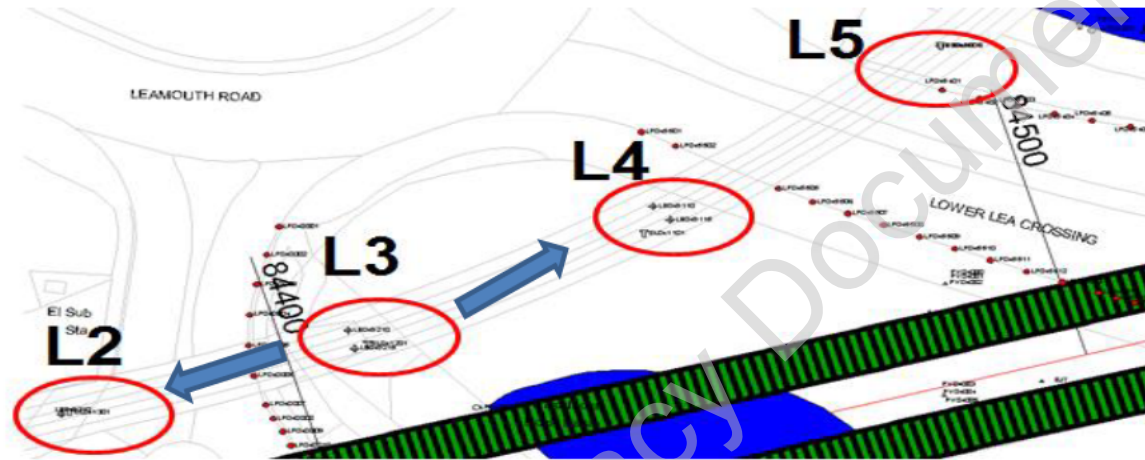
**CP 14 DIFFERENTIAL VERTICAL MOVEMENT L1**



**CP 14 DIFFERENTIAL VERTICAL MOVEMENT L2**

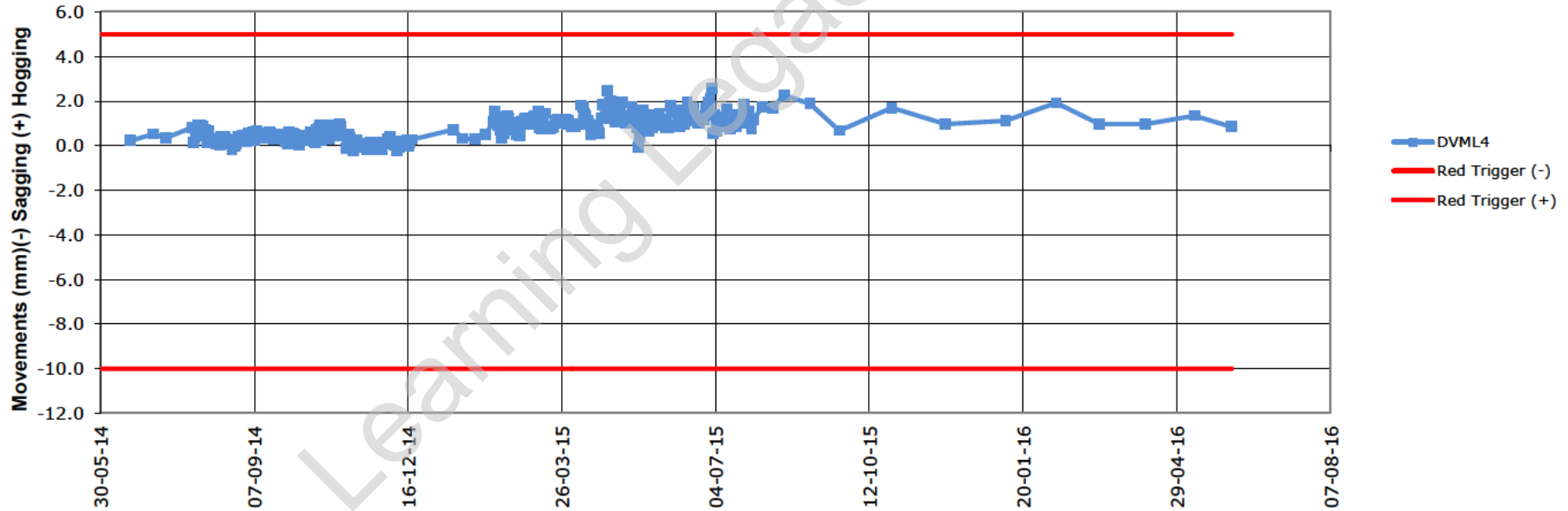
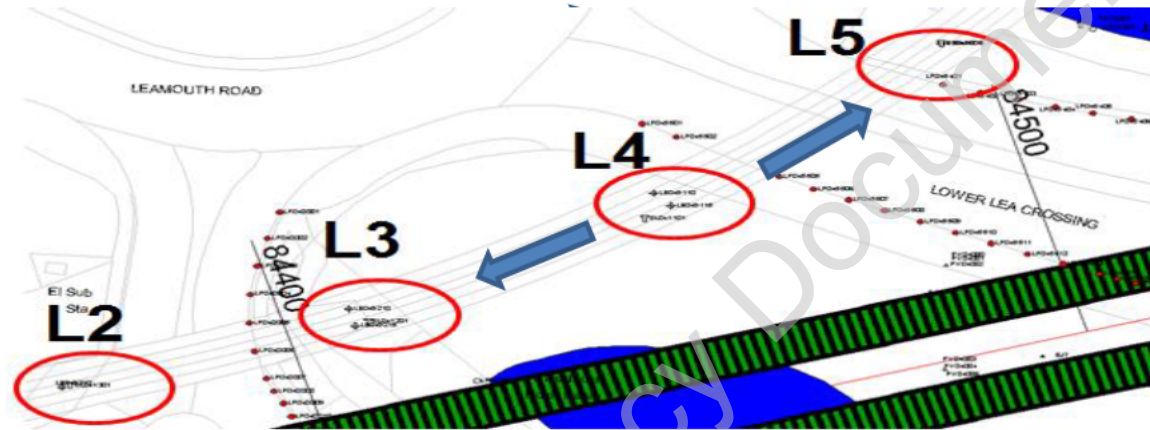


**CP 14 DIFFERENTIAL VERTICAL MOVEMENT L3**

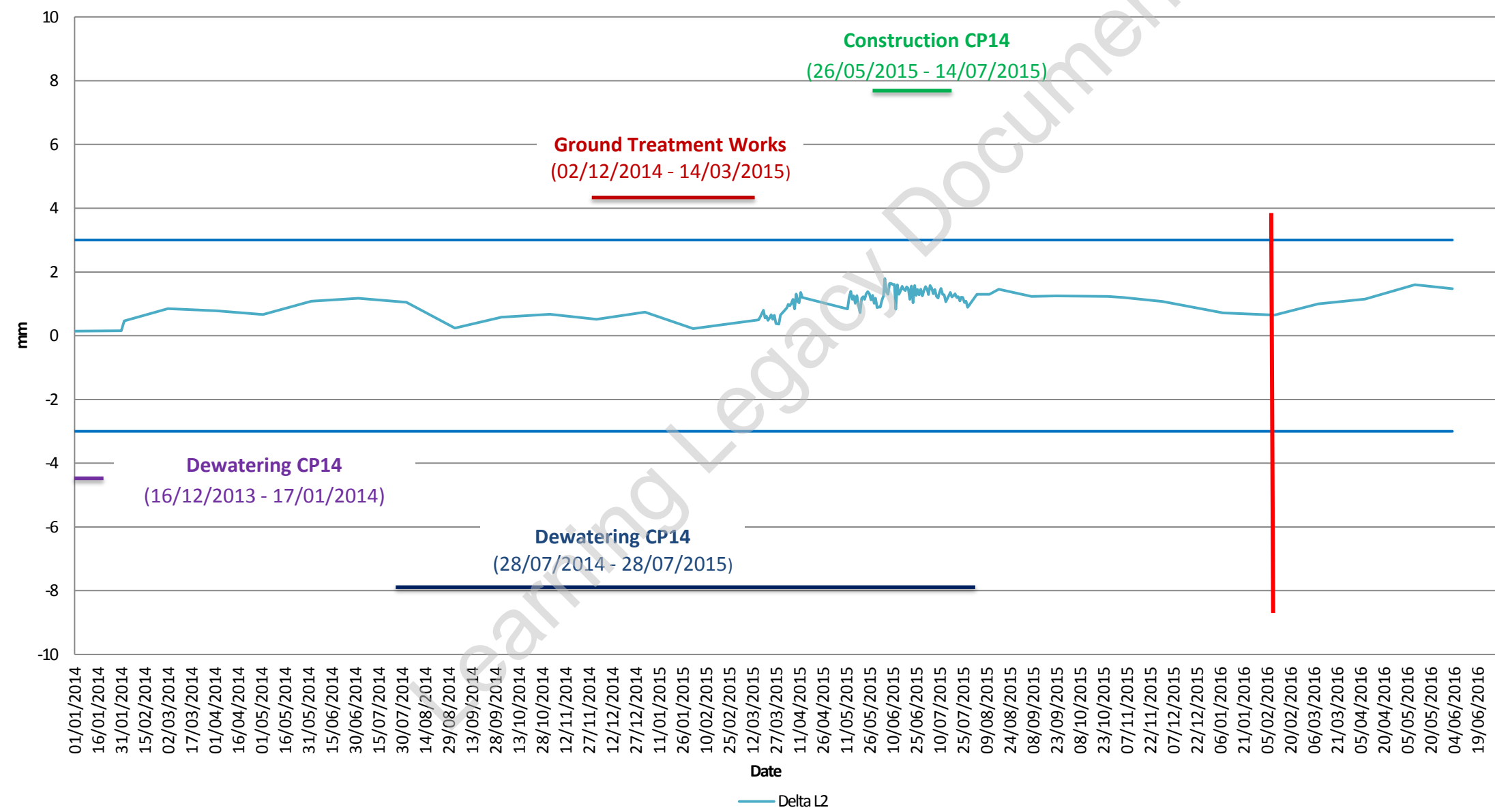




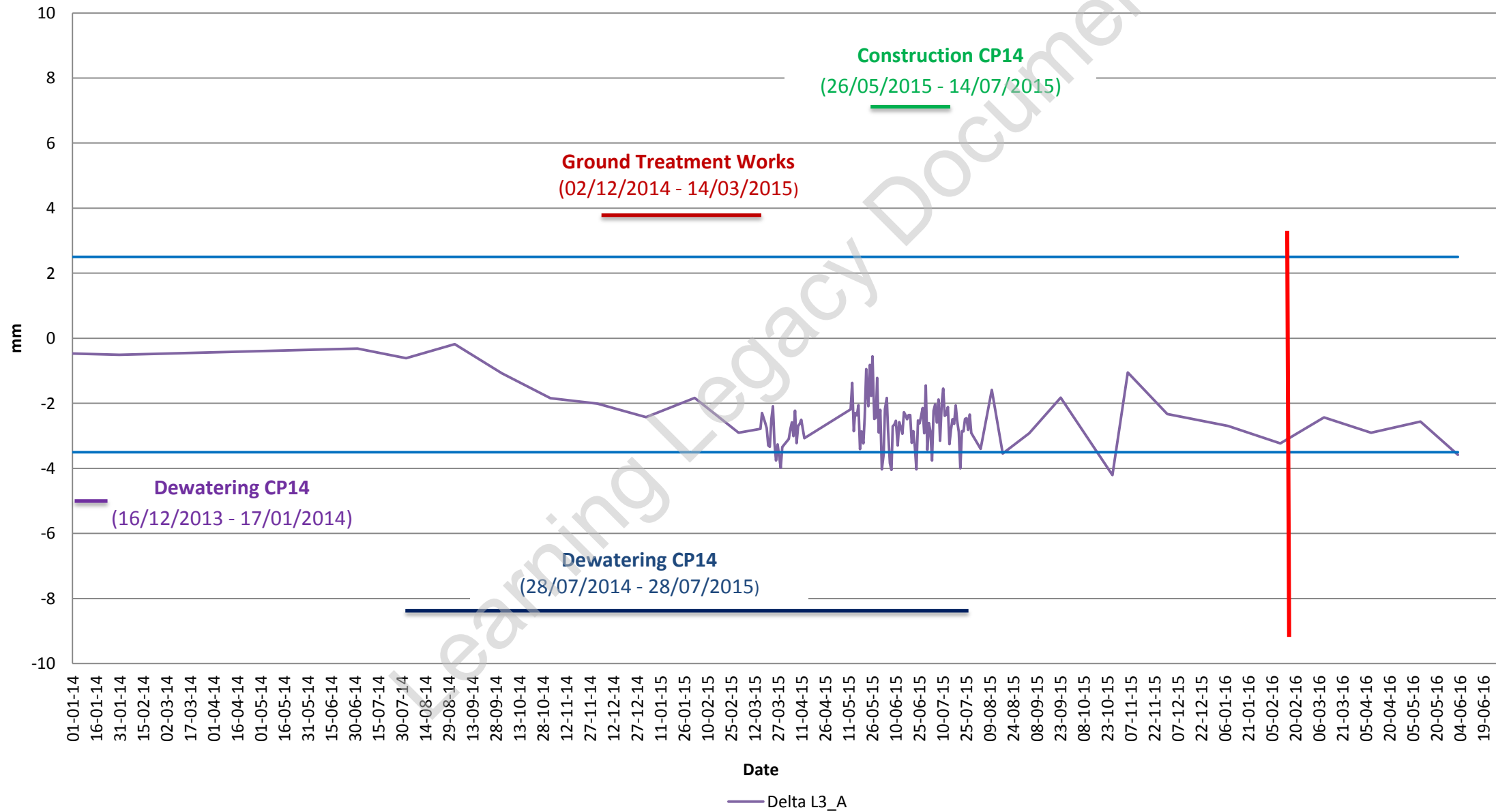
**CP 14 DIFFERENTIAL VERTICAL MOVEMENT L4**



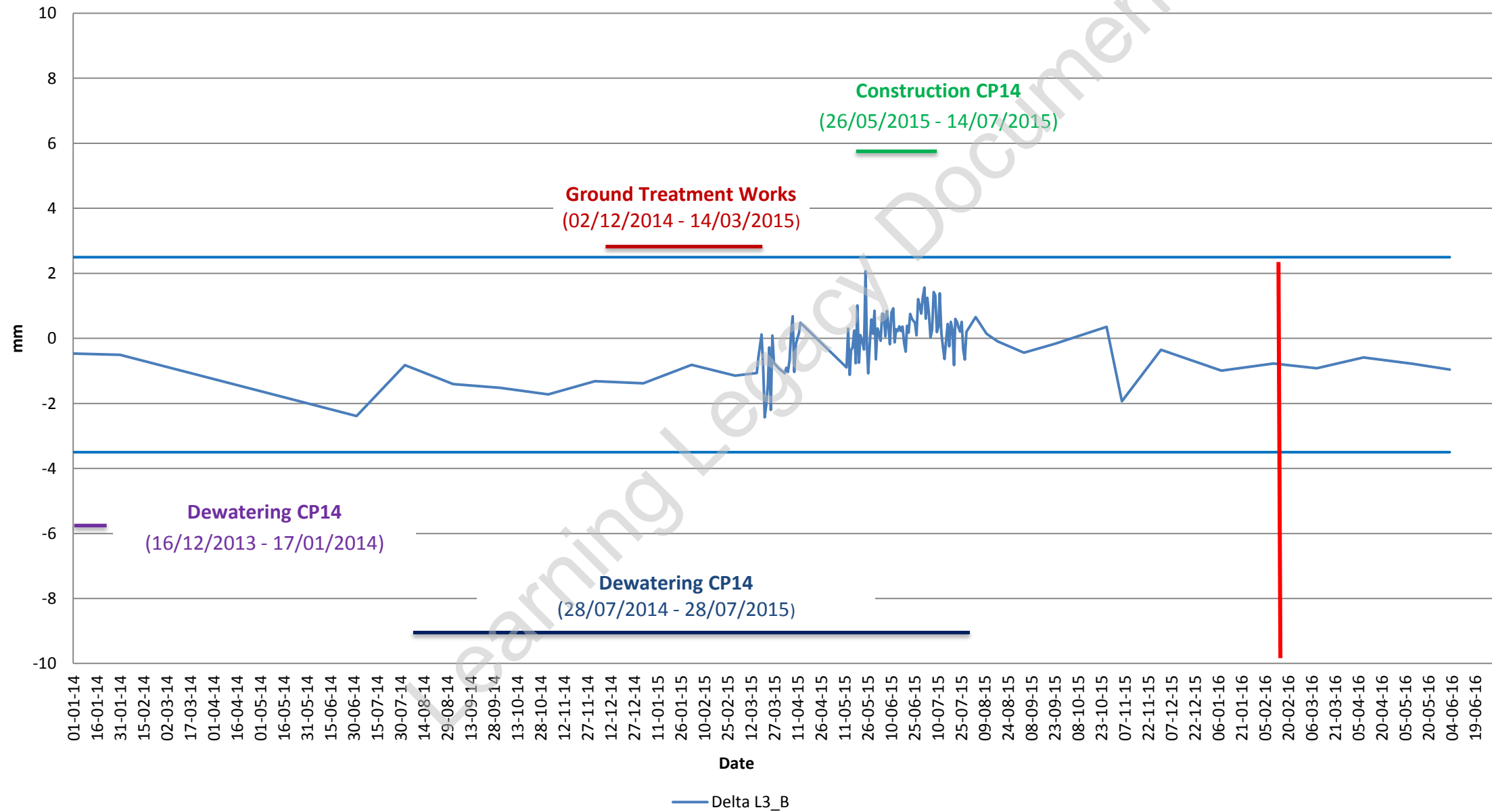
### Deck lateral mvt. Delta L2 (mm)



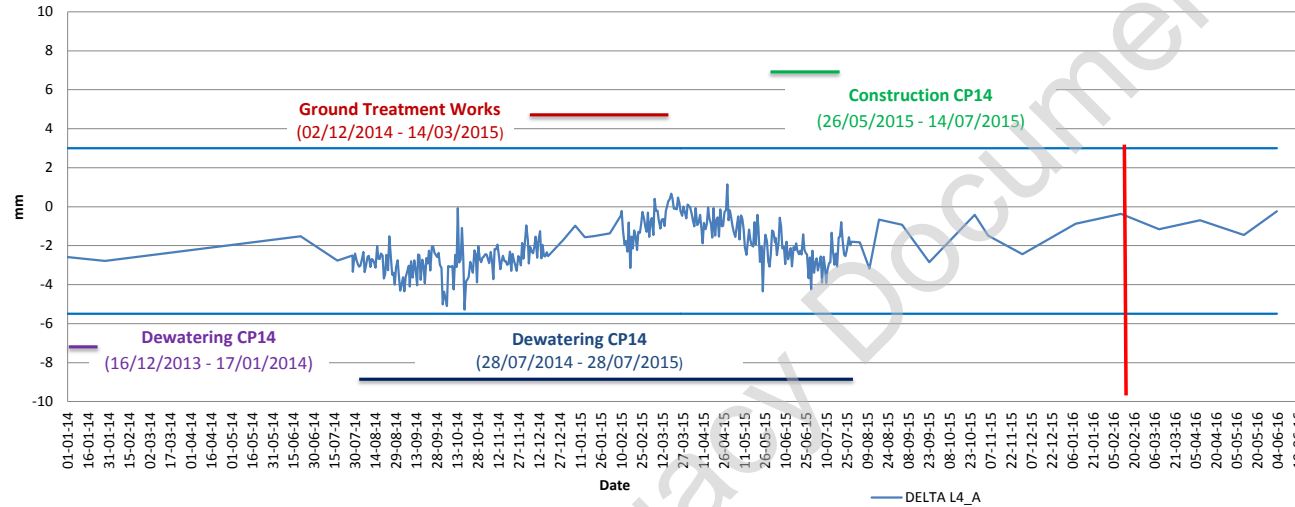
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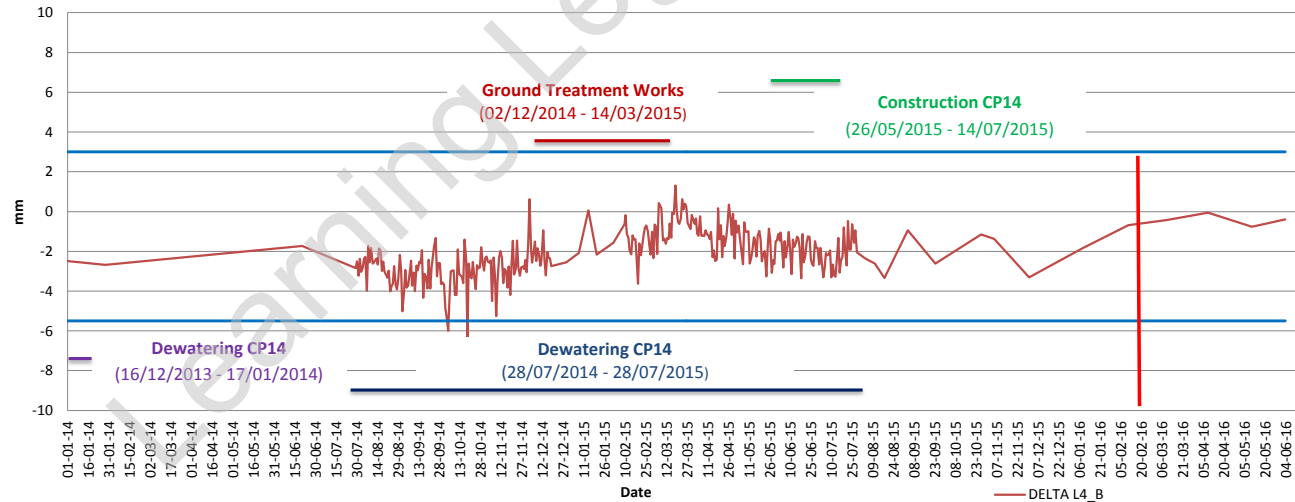
### Deck lateral mvt. Delta L3\_B (mm)



**Deck lateral mvt. Delta L4 SOUTHSIDE (mm)**



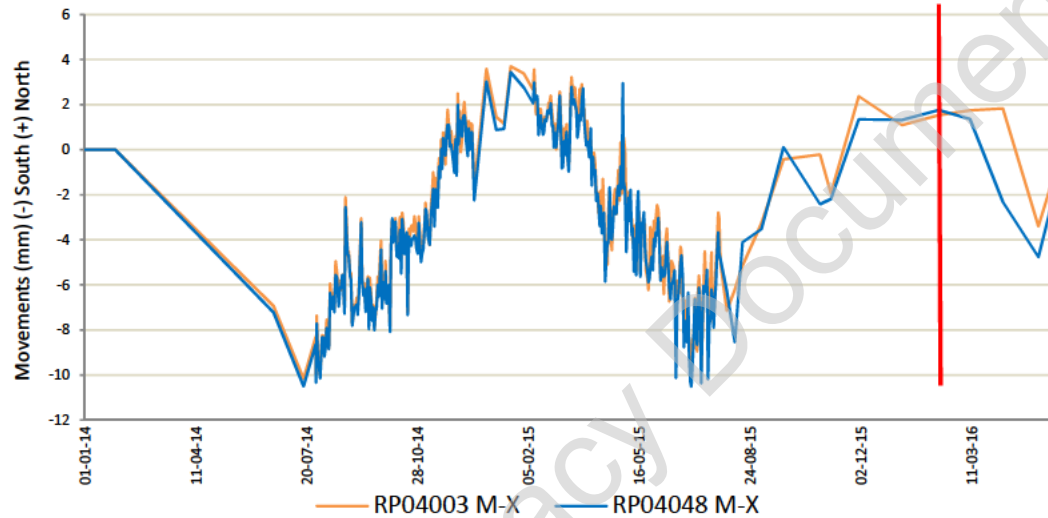
**Deck lateral mvt. Delta L4 NORTHSIDE (mm)**



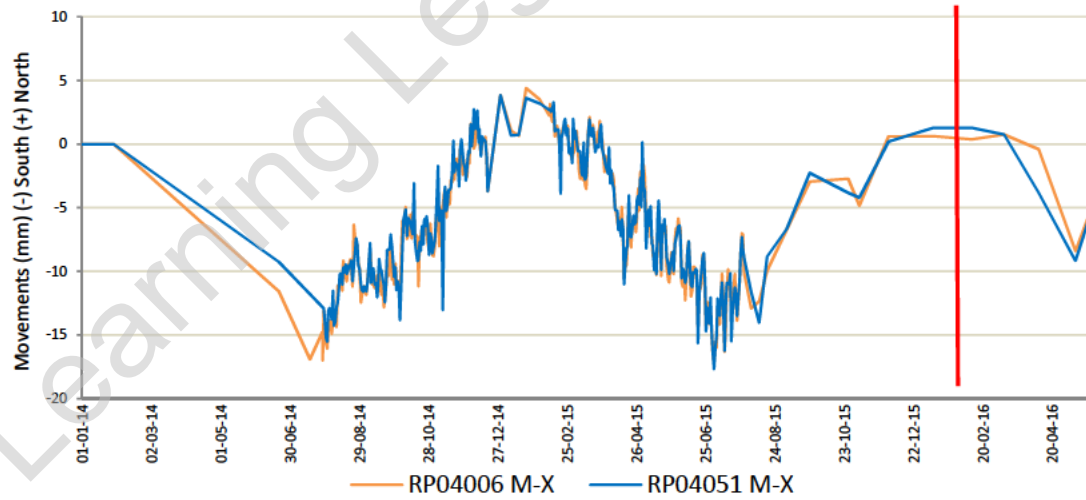


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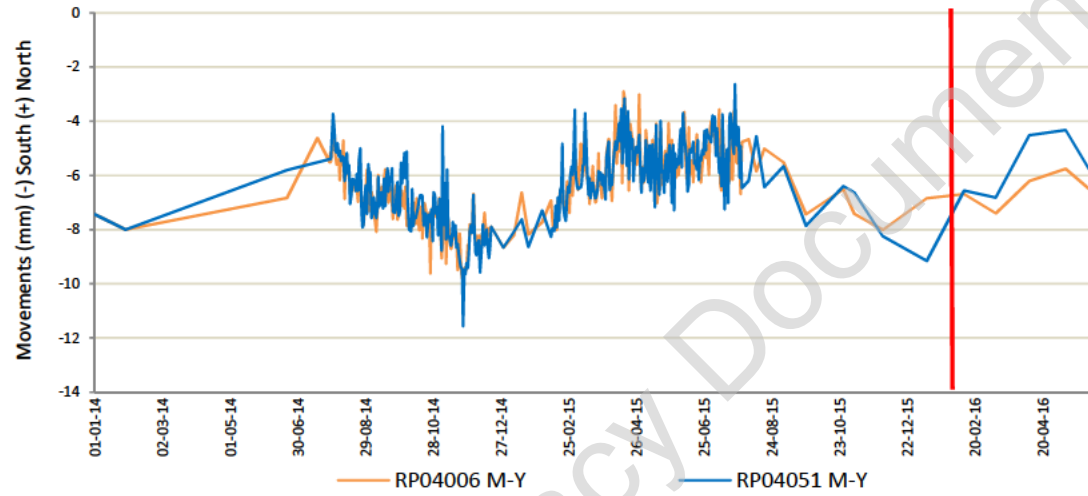
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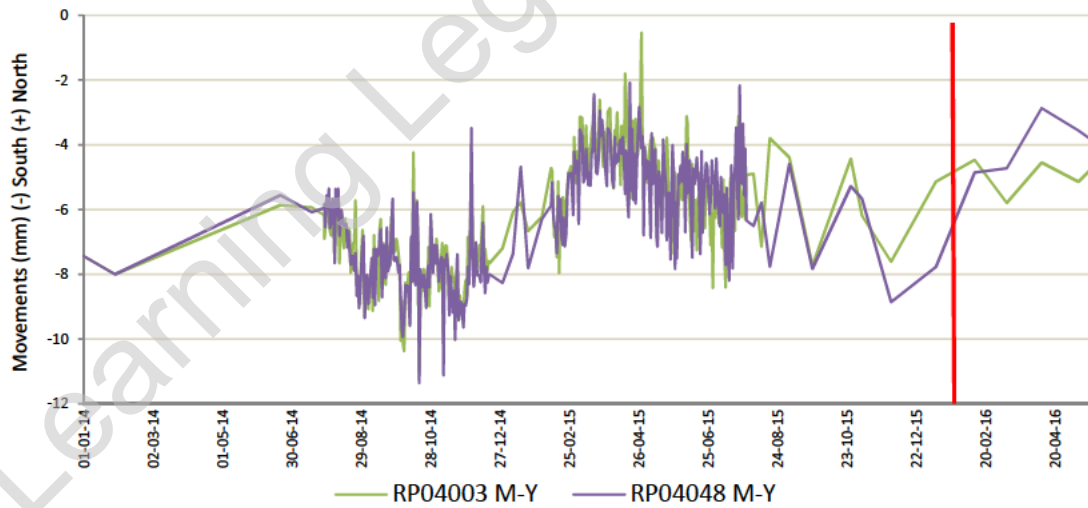
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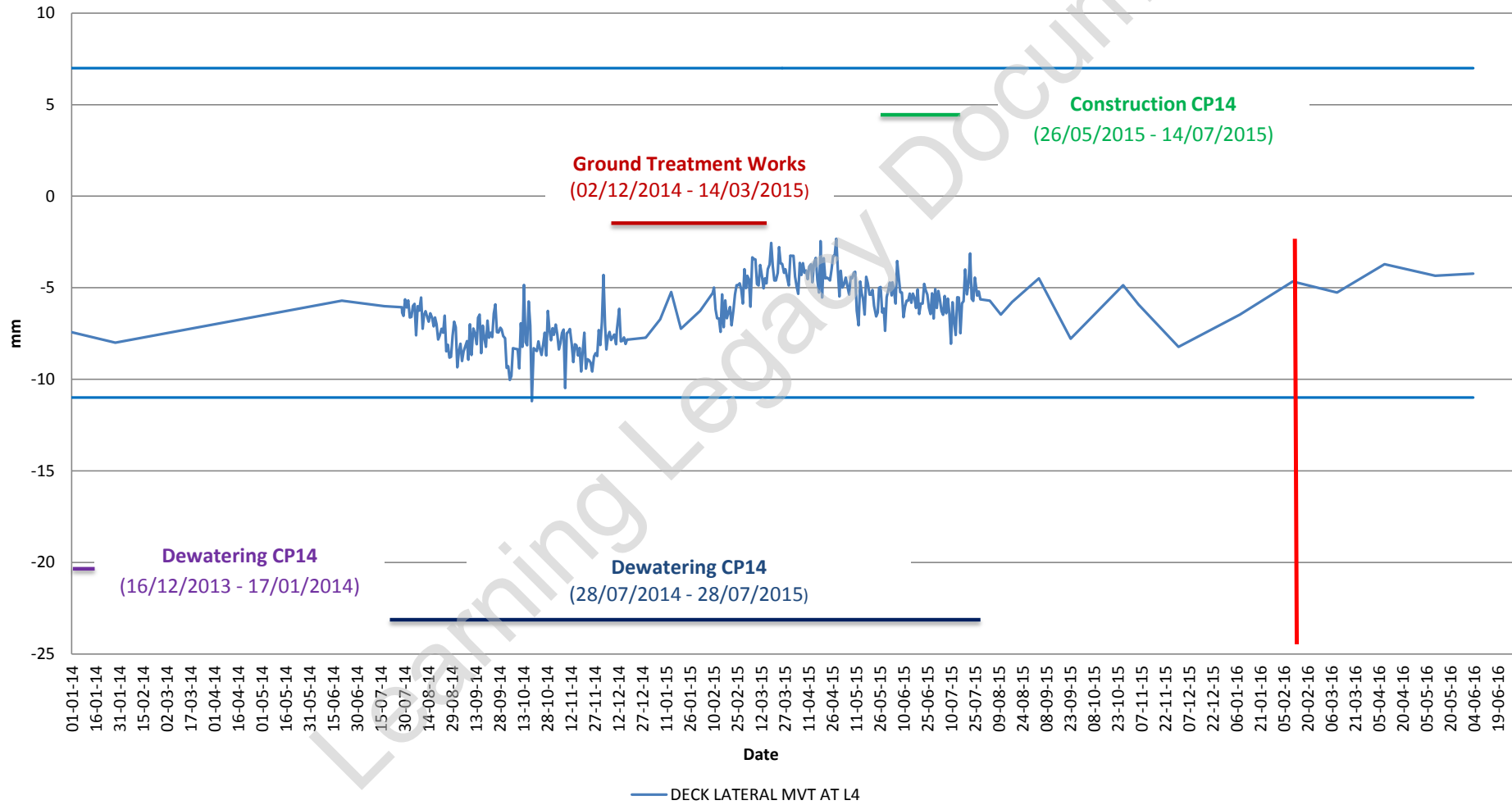
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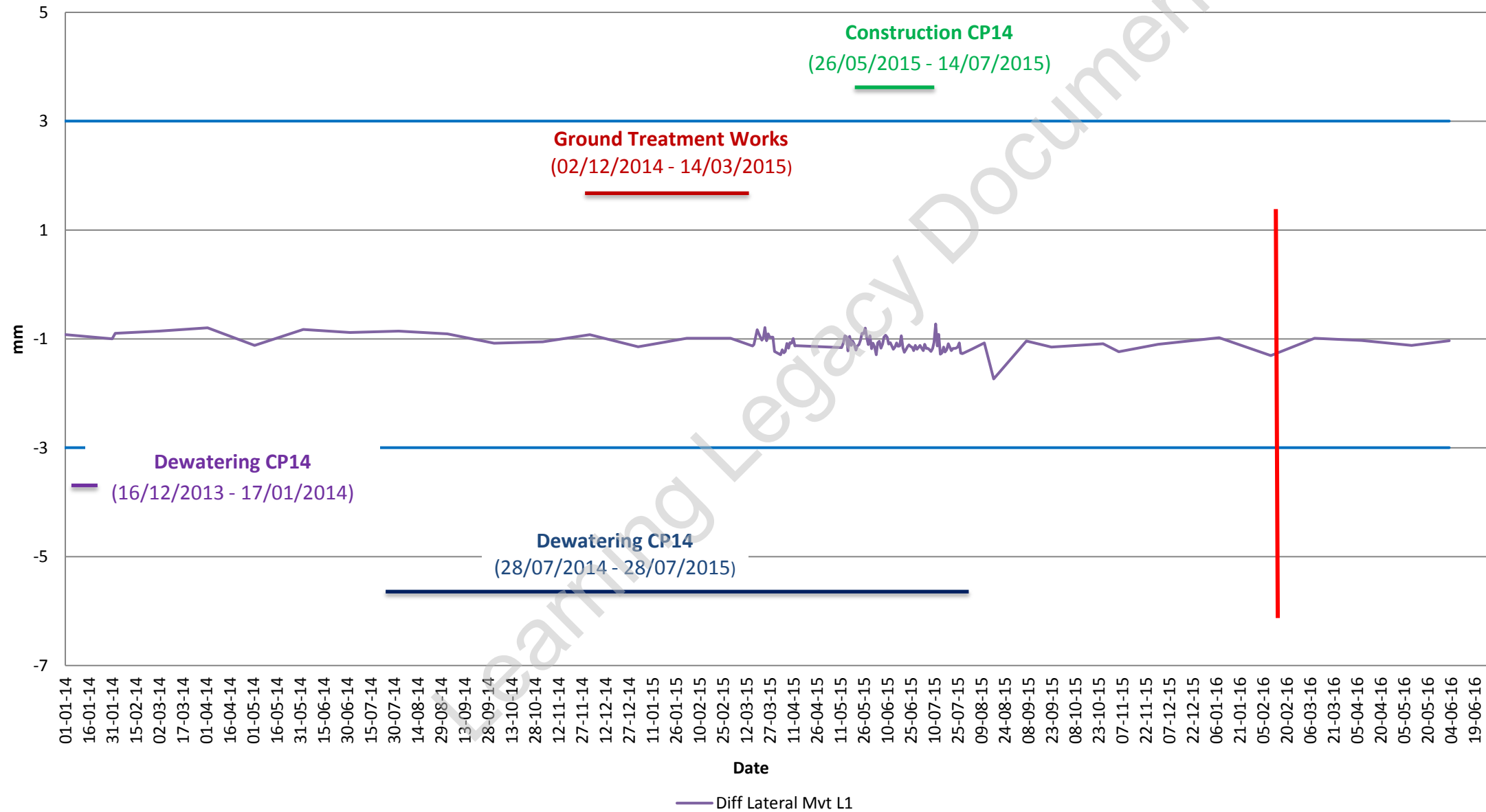
**Deck Y mvt. Manual L4 (mm)**



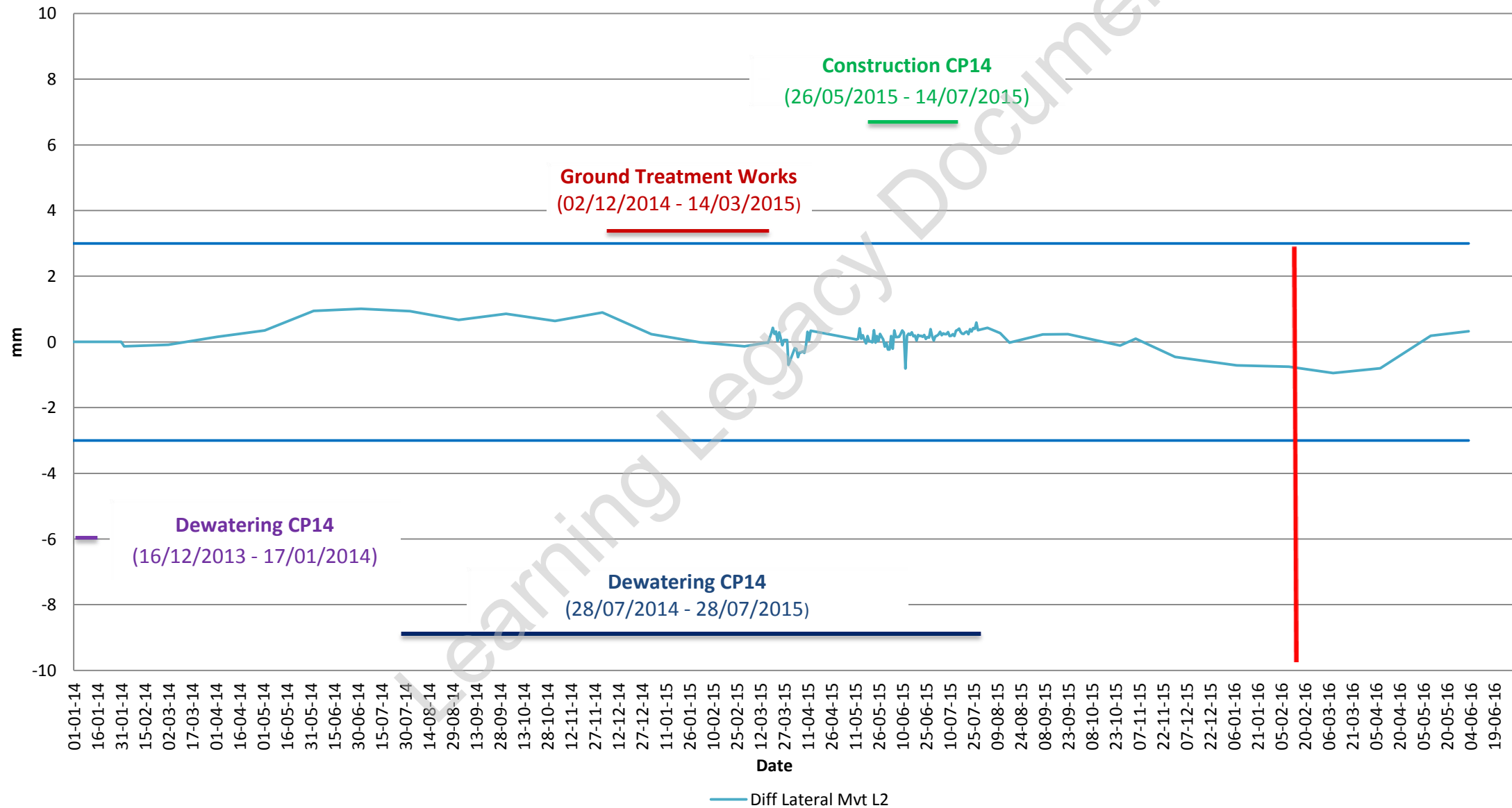
### Deck lateral movement at L4 (mm)



**Differential lateral movement of column L1(mm)**

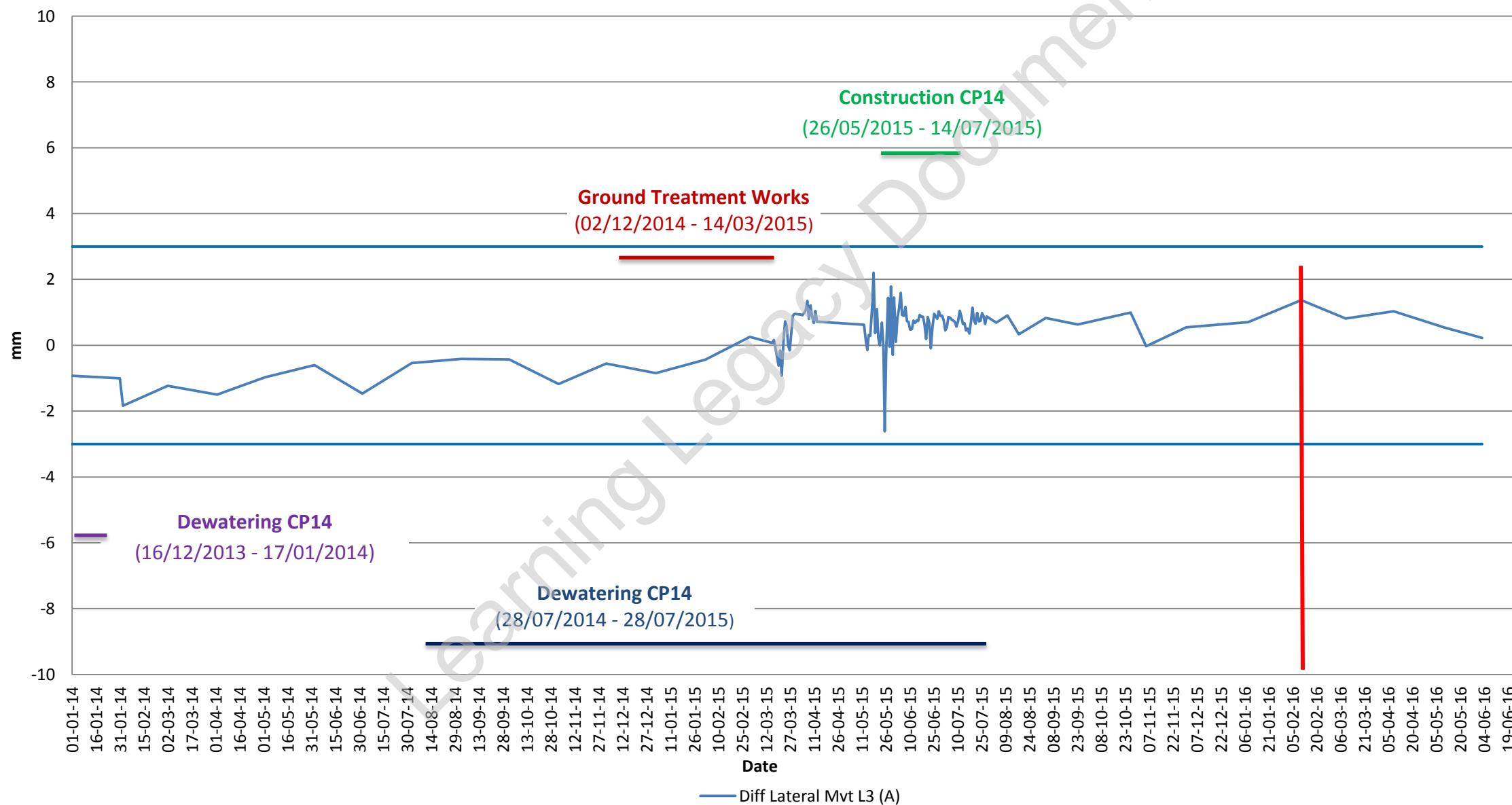


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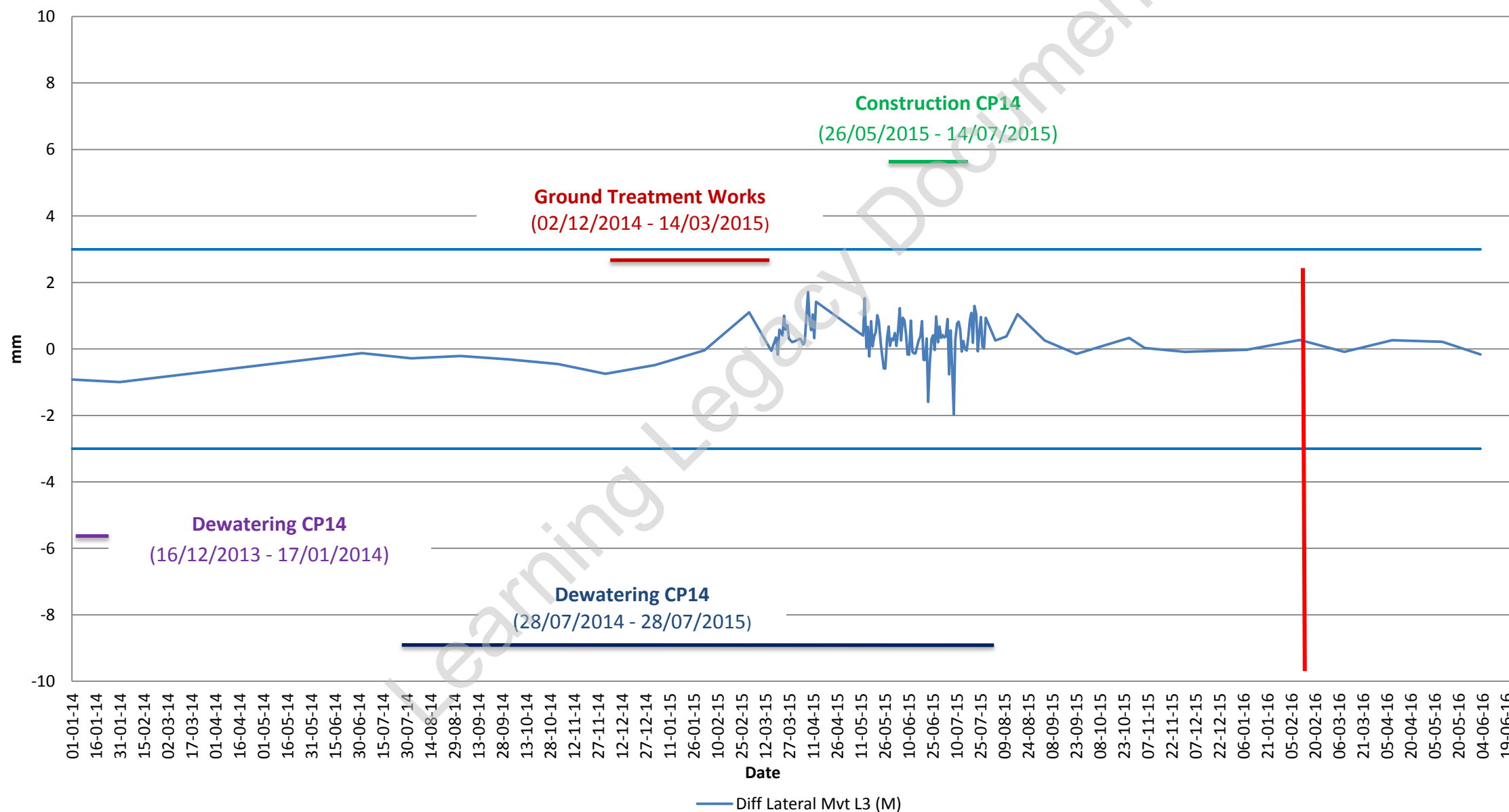




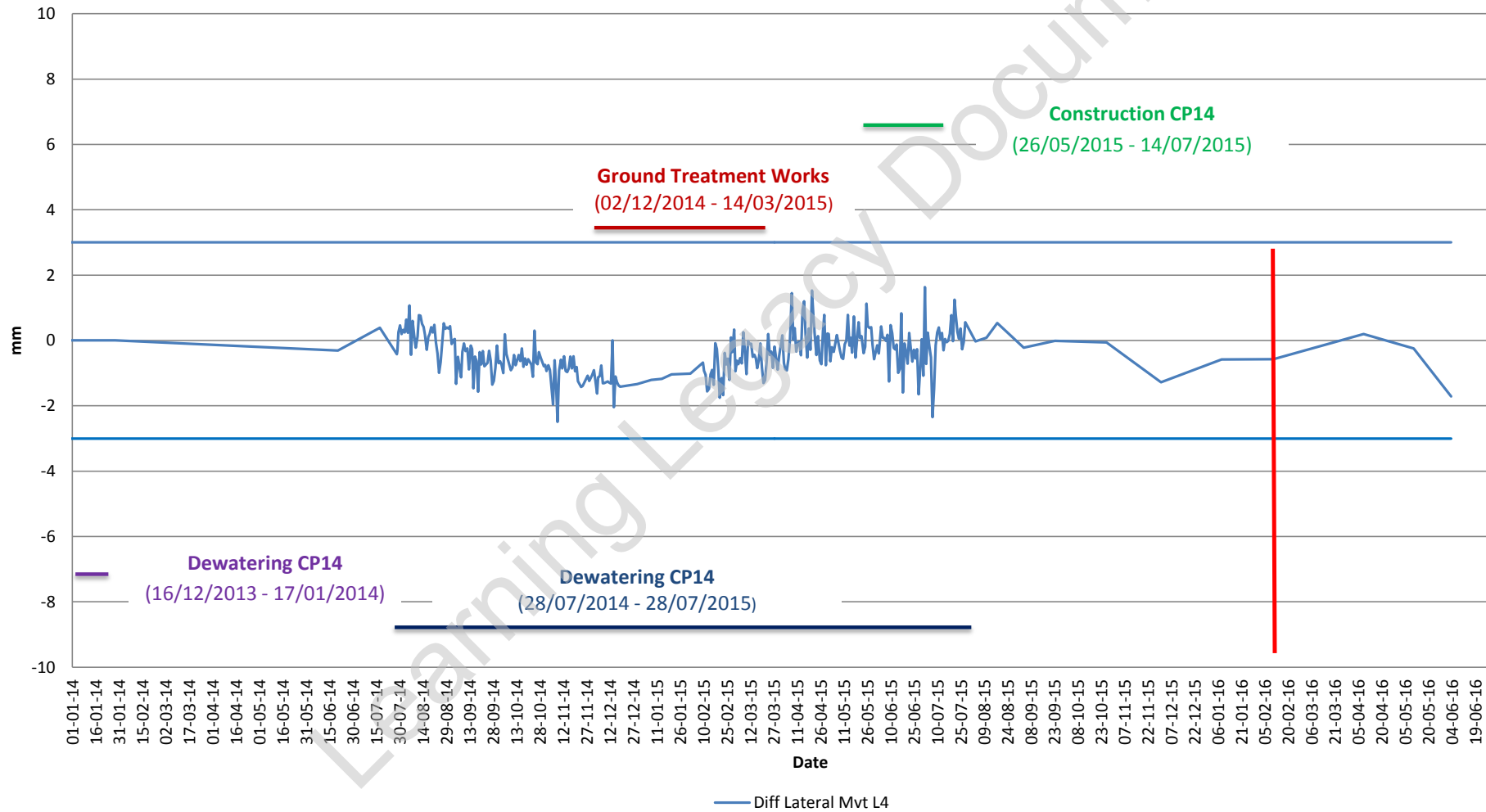
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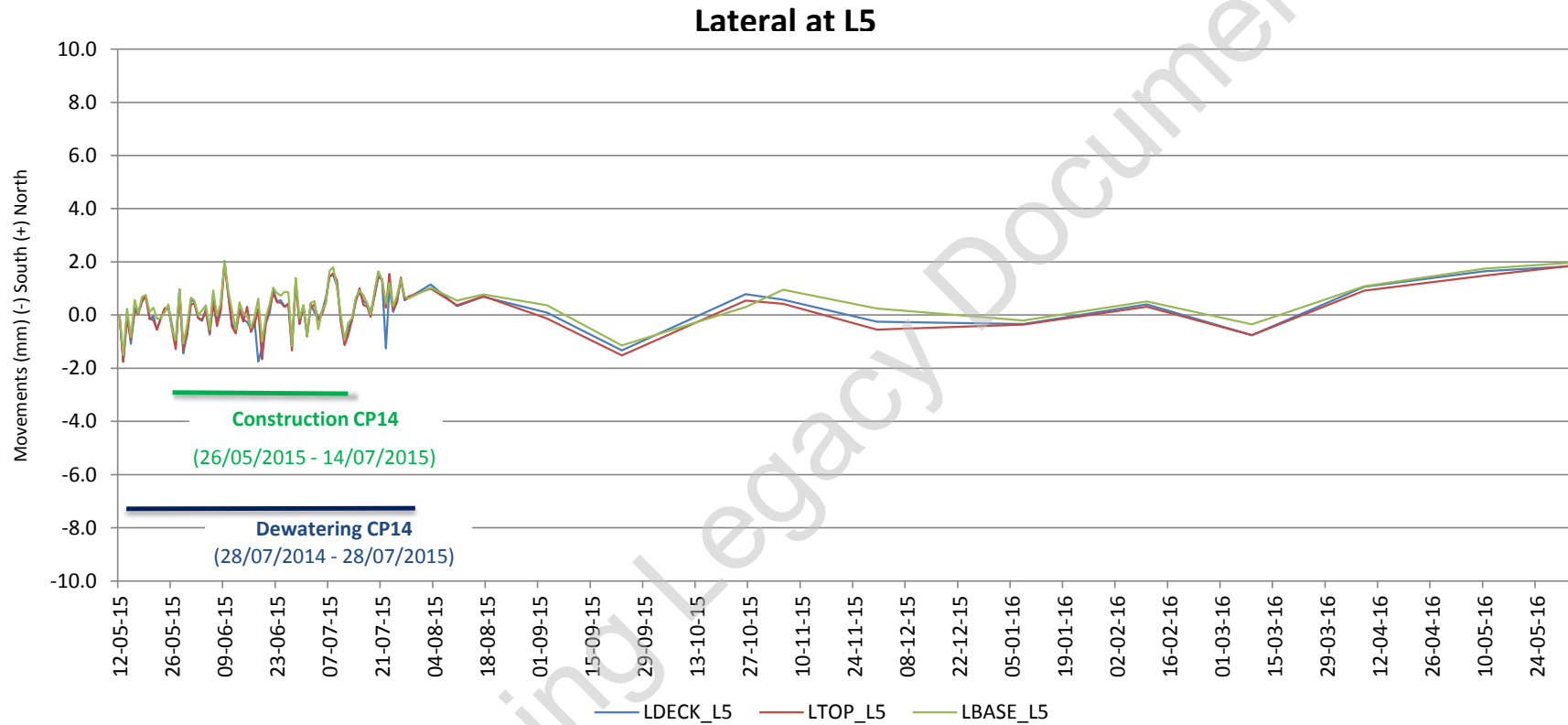


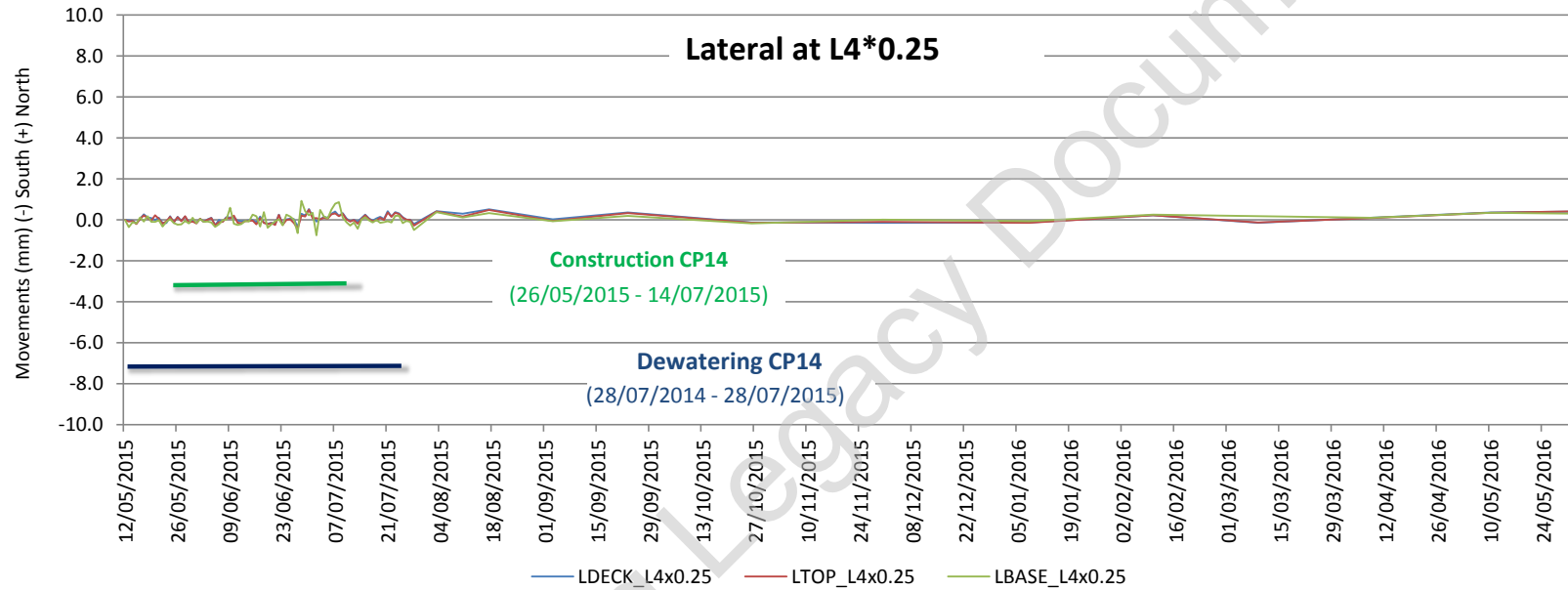
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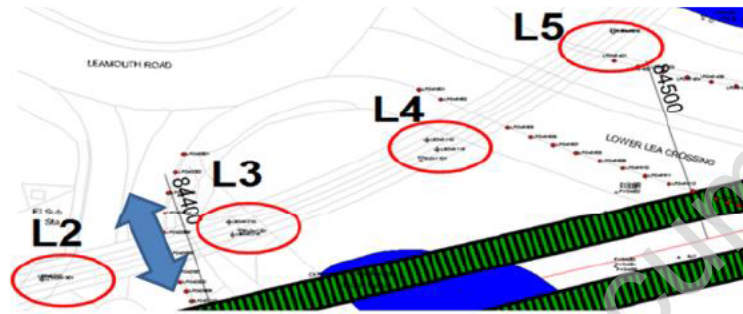
### Differential lateral movement of column L4



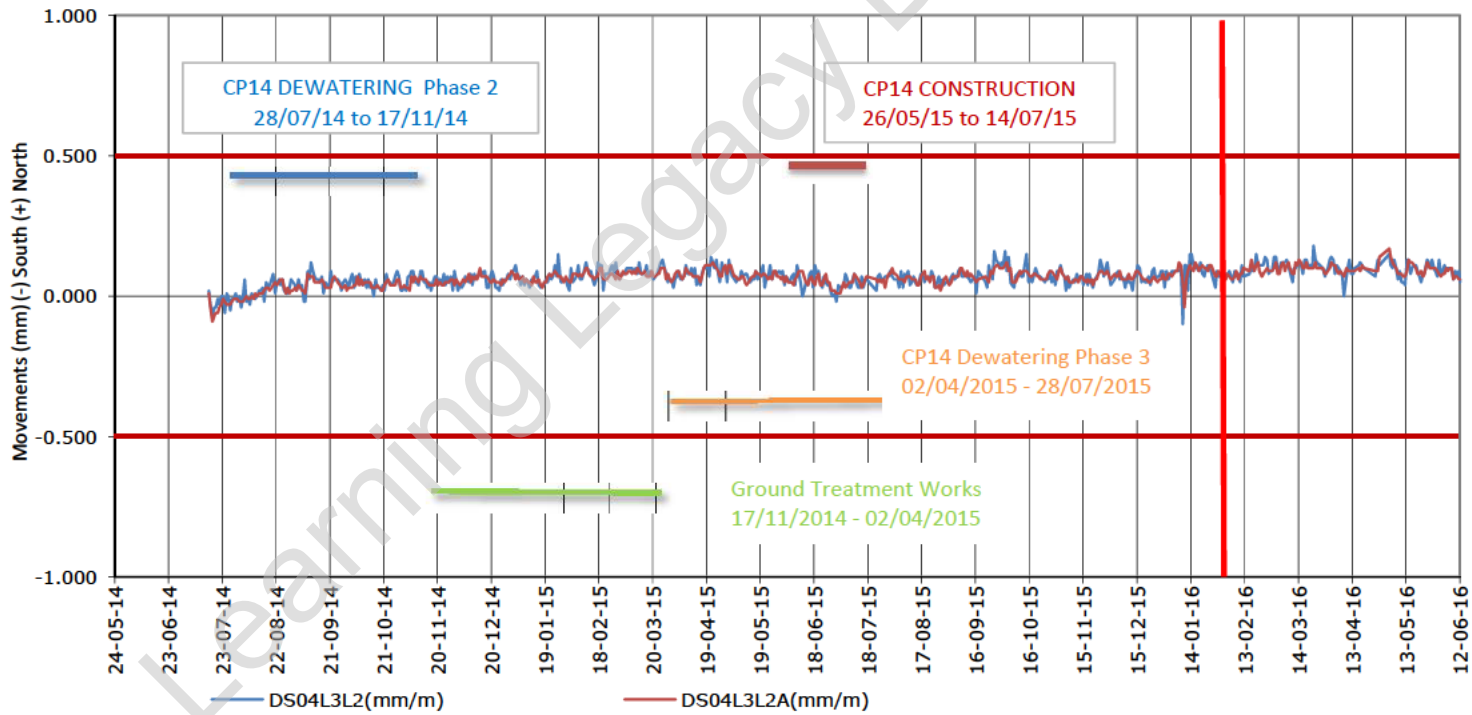


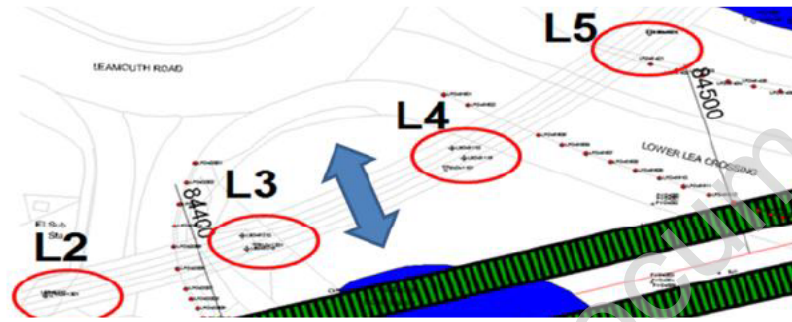




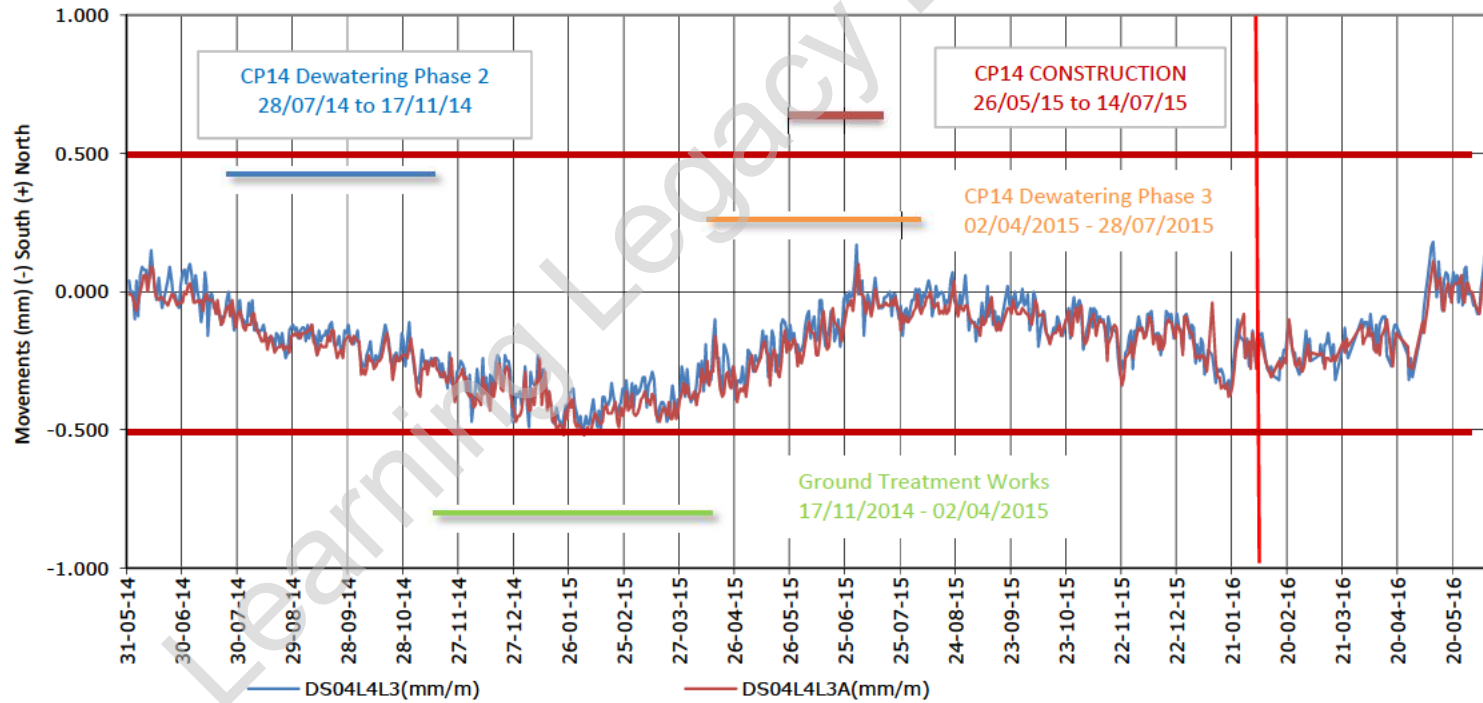


TILTMETER SECTION EAST INDIA L3-L2

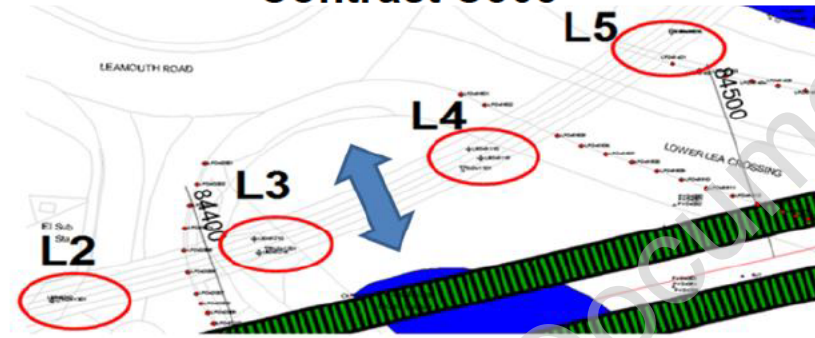




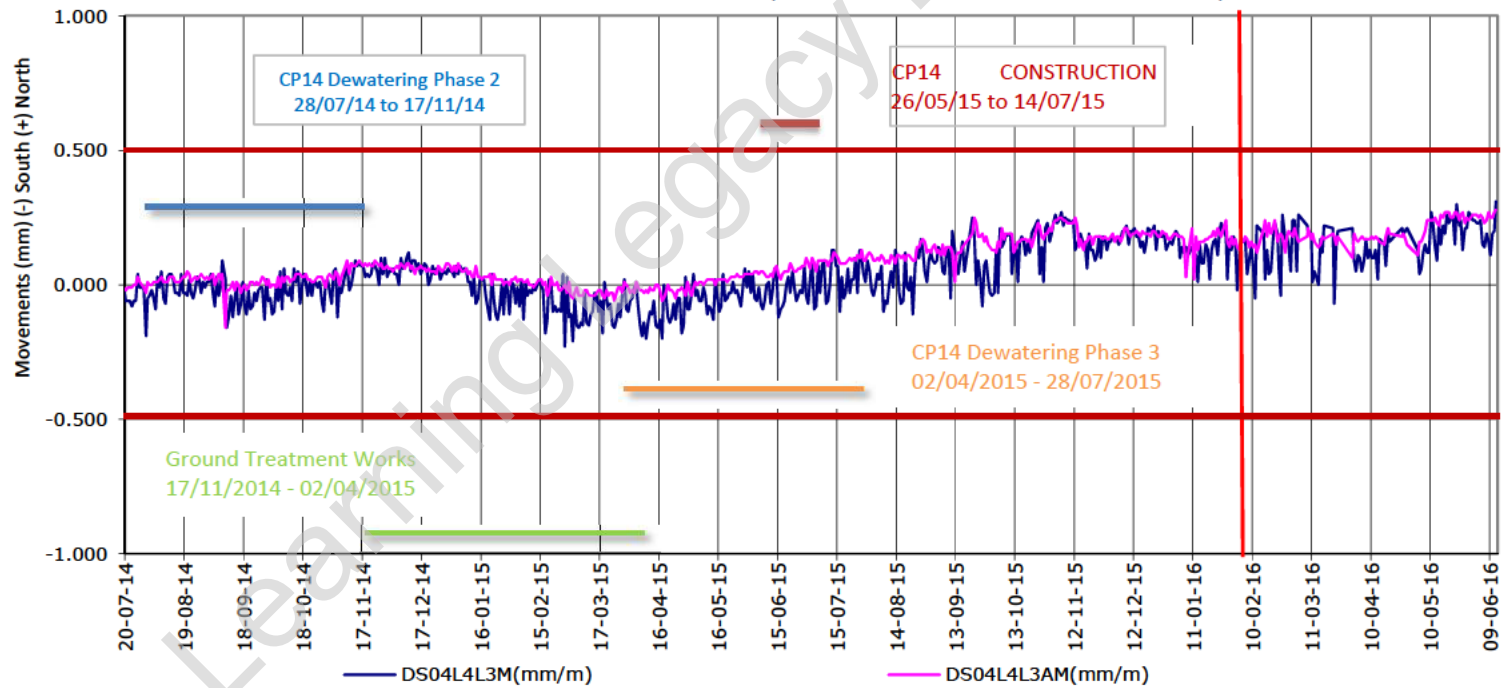
TILTMETER SECTION EAST INDIA L4-L3

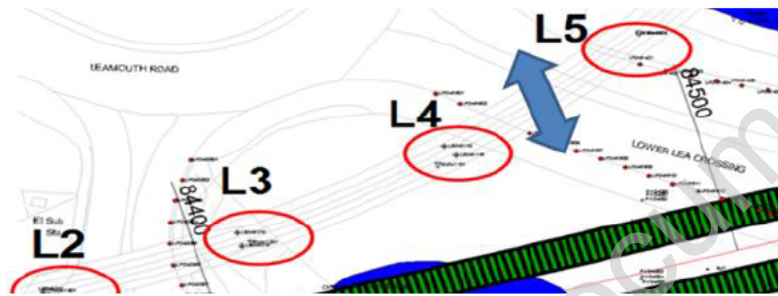


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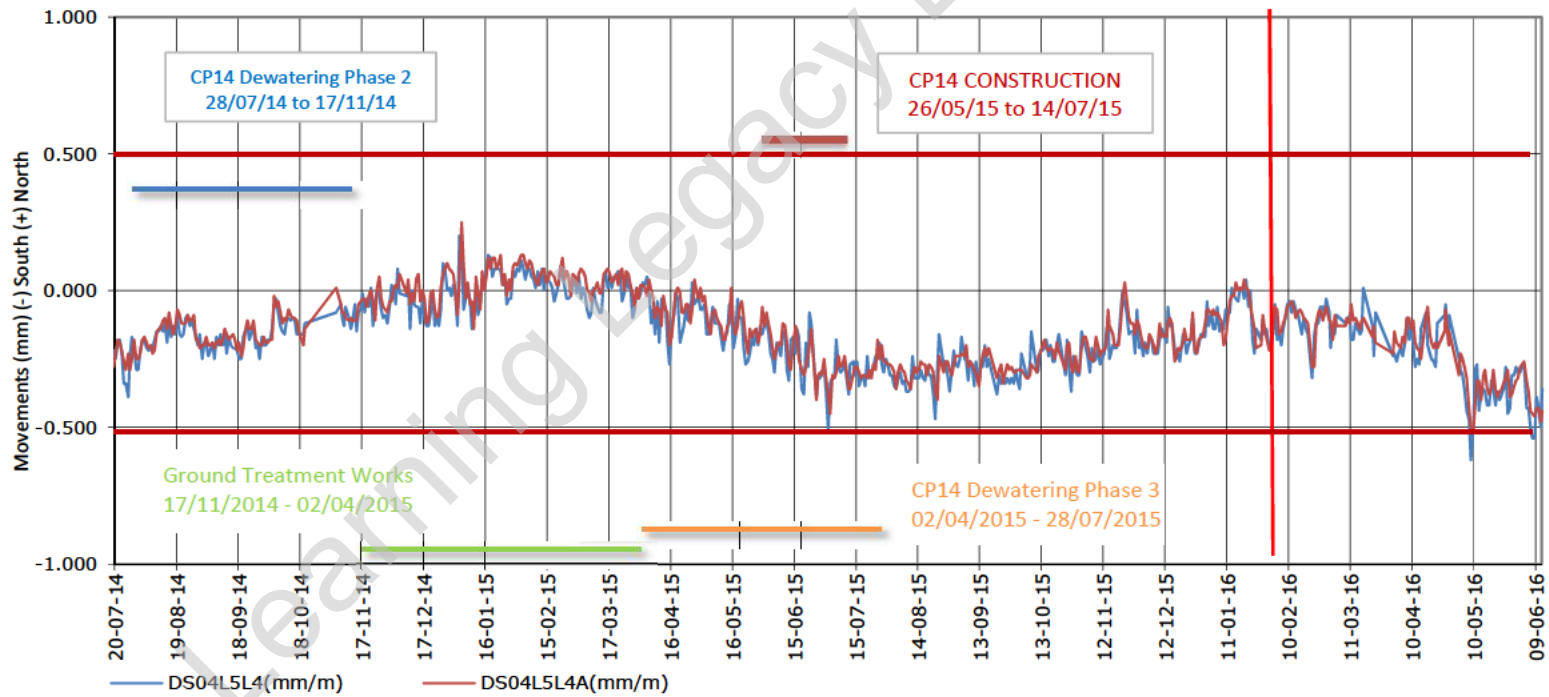


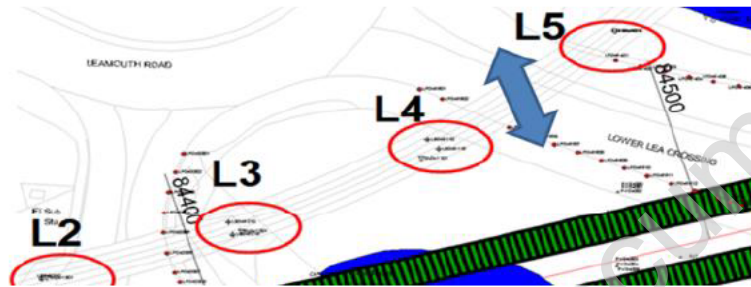
TILTMETER SECTION EAST INDIA L4-L3 M (TEMPERATURE MODEL CORRECTION)



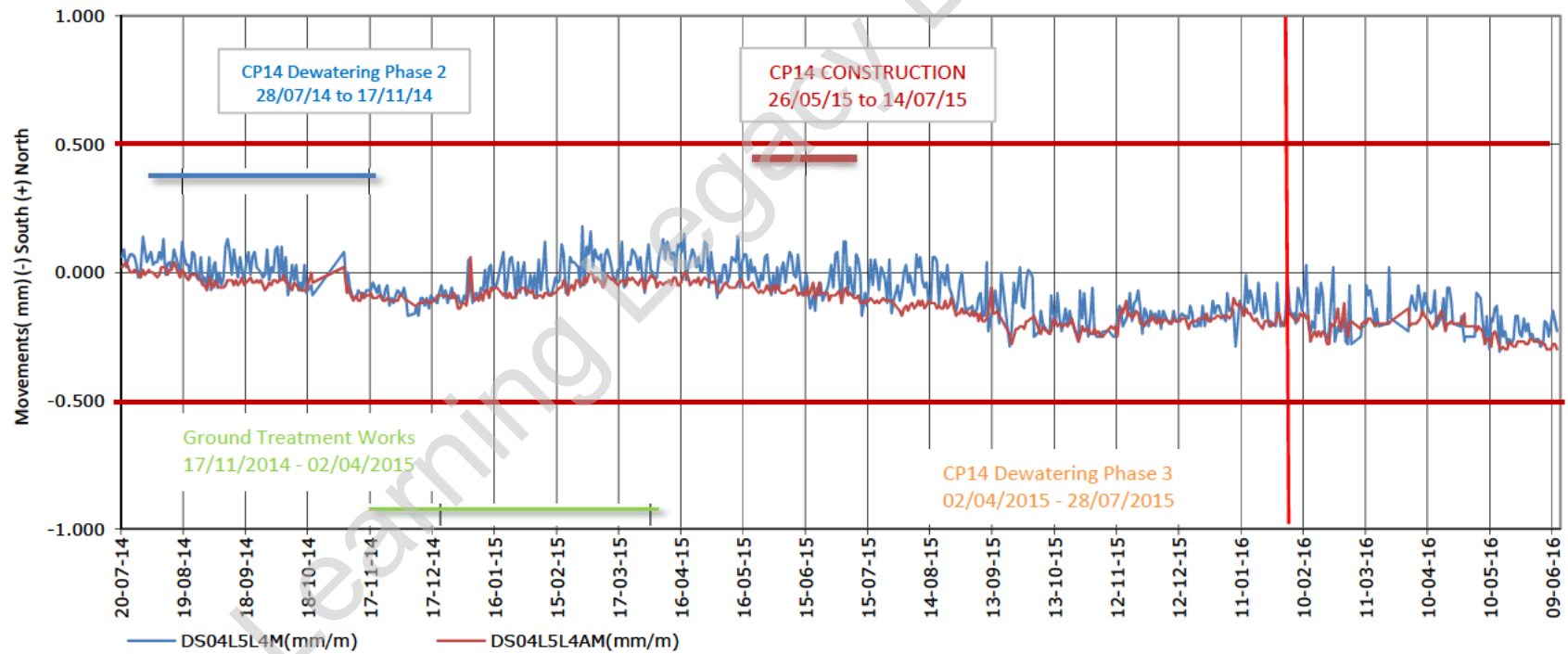


TILTMETER SECTION EAST INDIA L5-L4

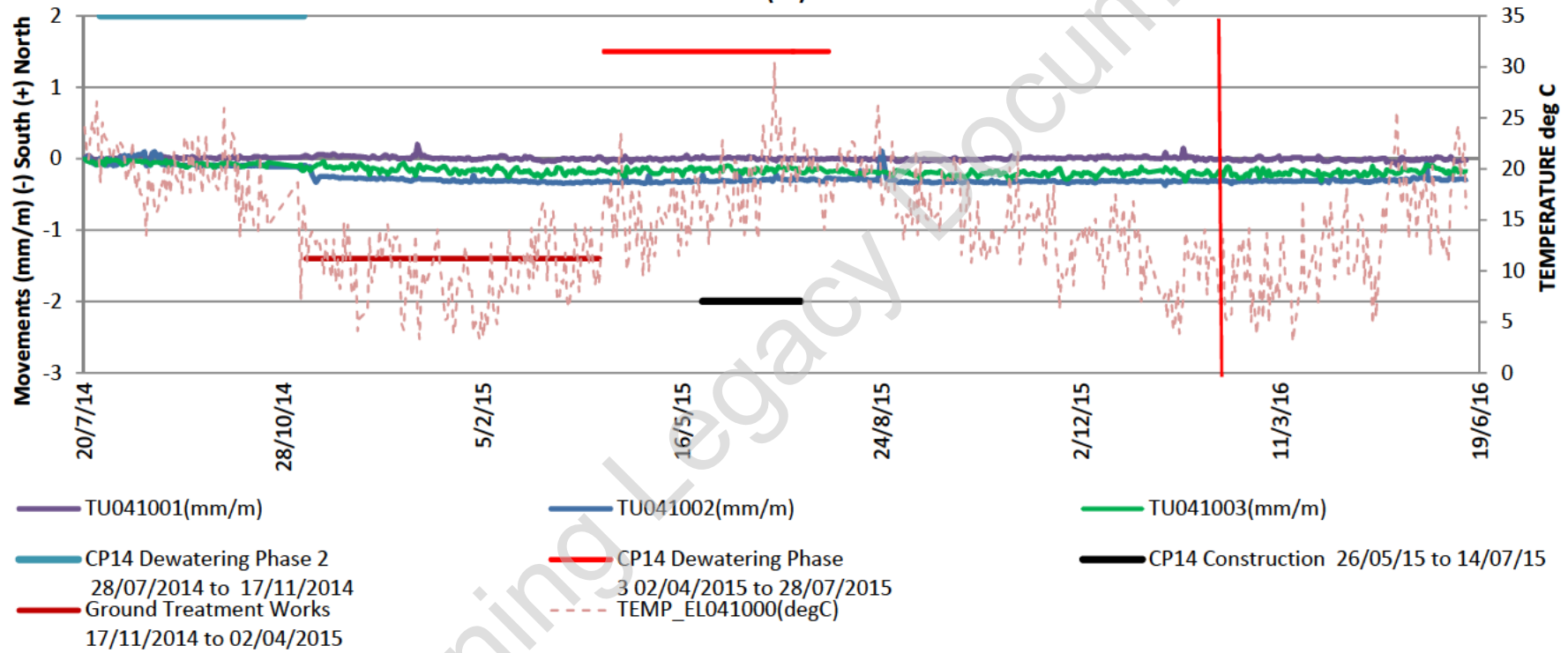




TILTMETER SECTION EAST INDIA L5-L4 M (TEMPERATURE MODEL CORRECTION)

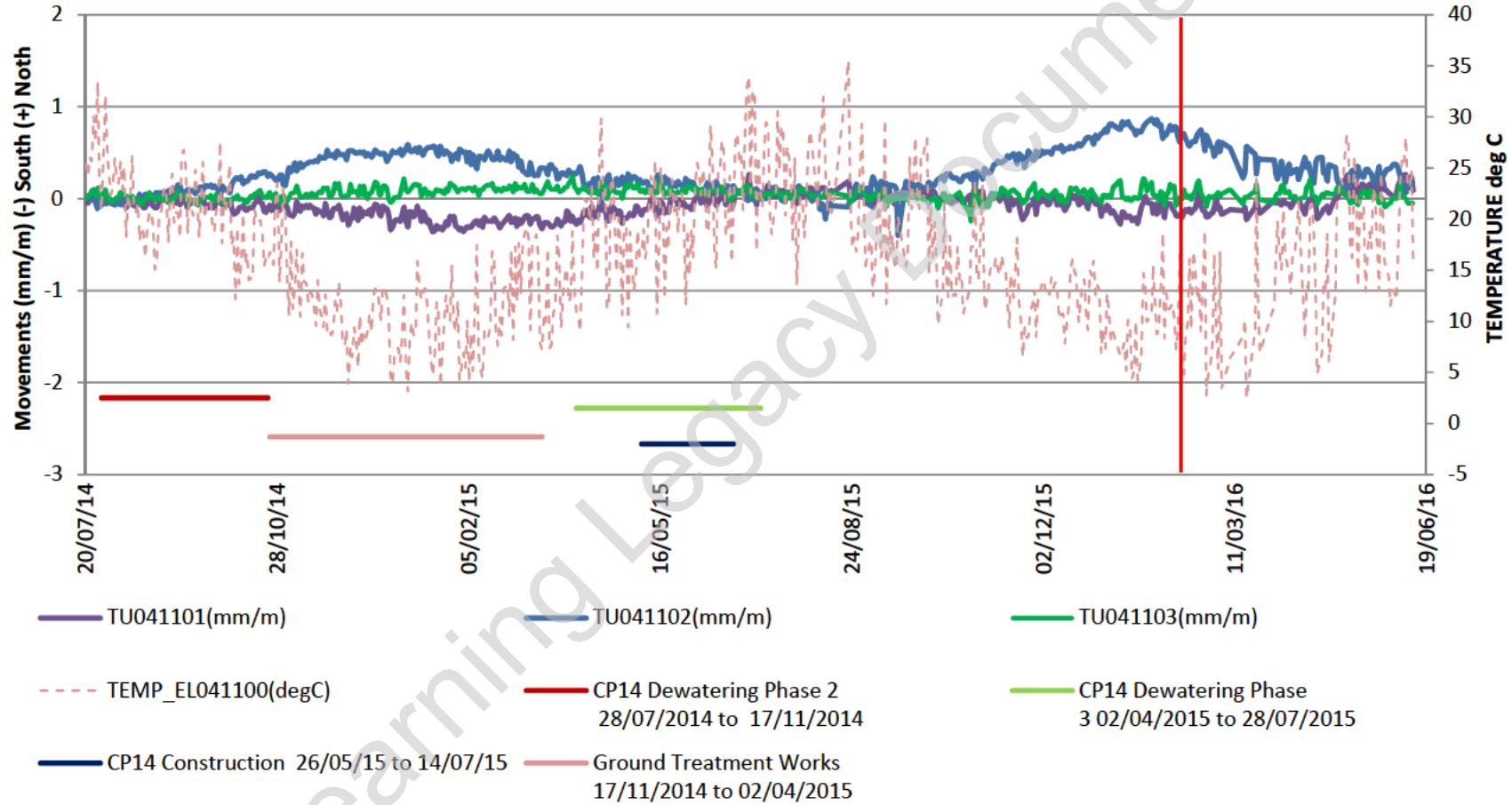


**AREA 4 LIMMO TO CANARY WHARF  
CP14 PILLAR P0 (L5) TILTMETERS**

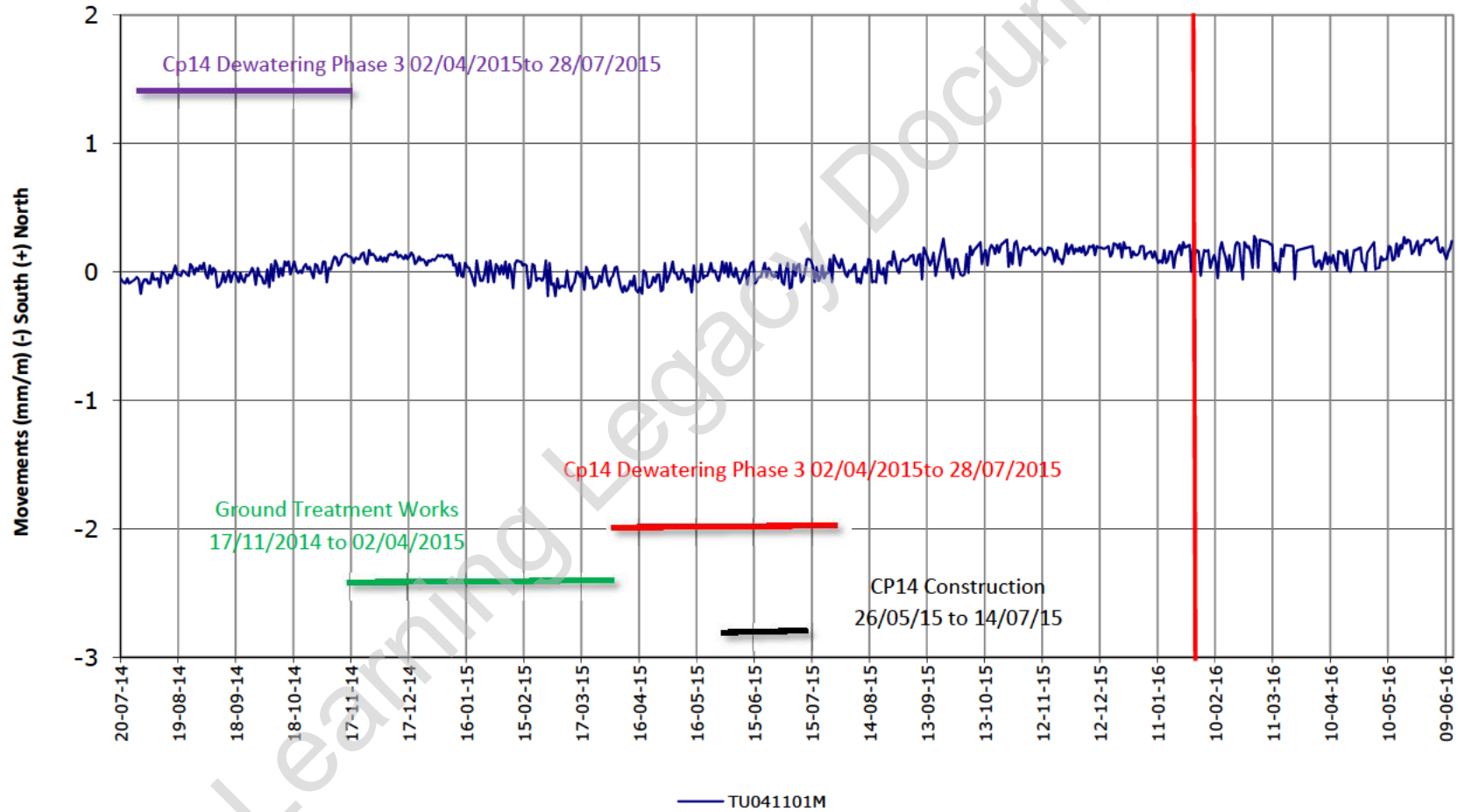




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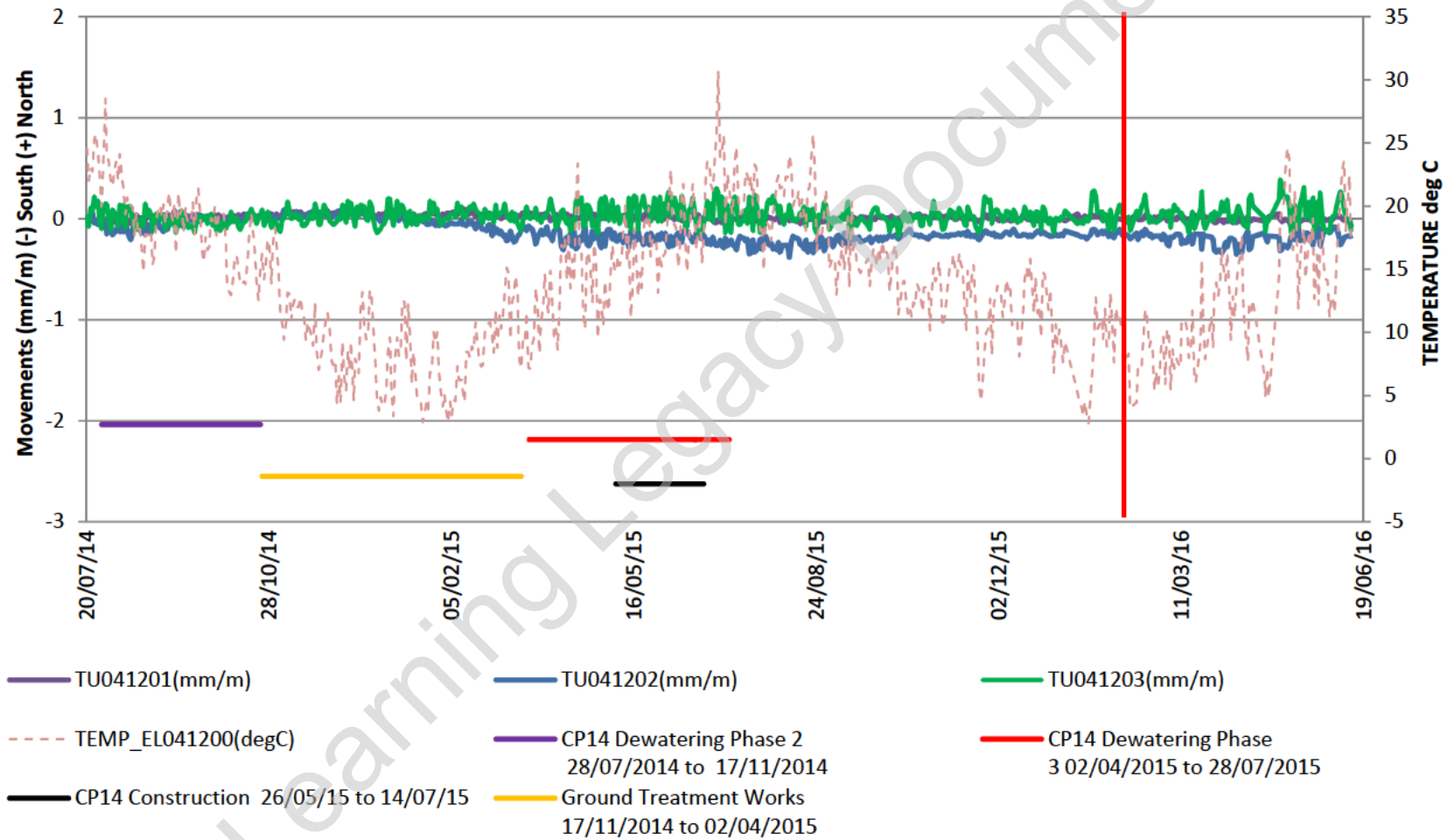


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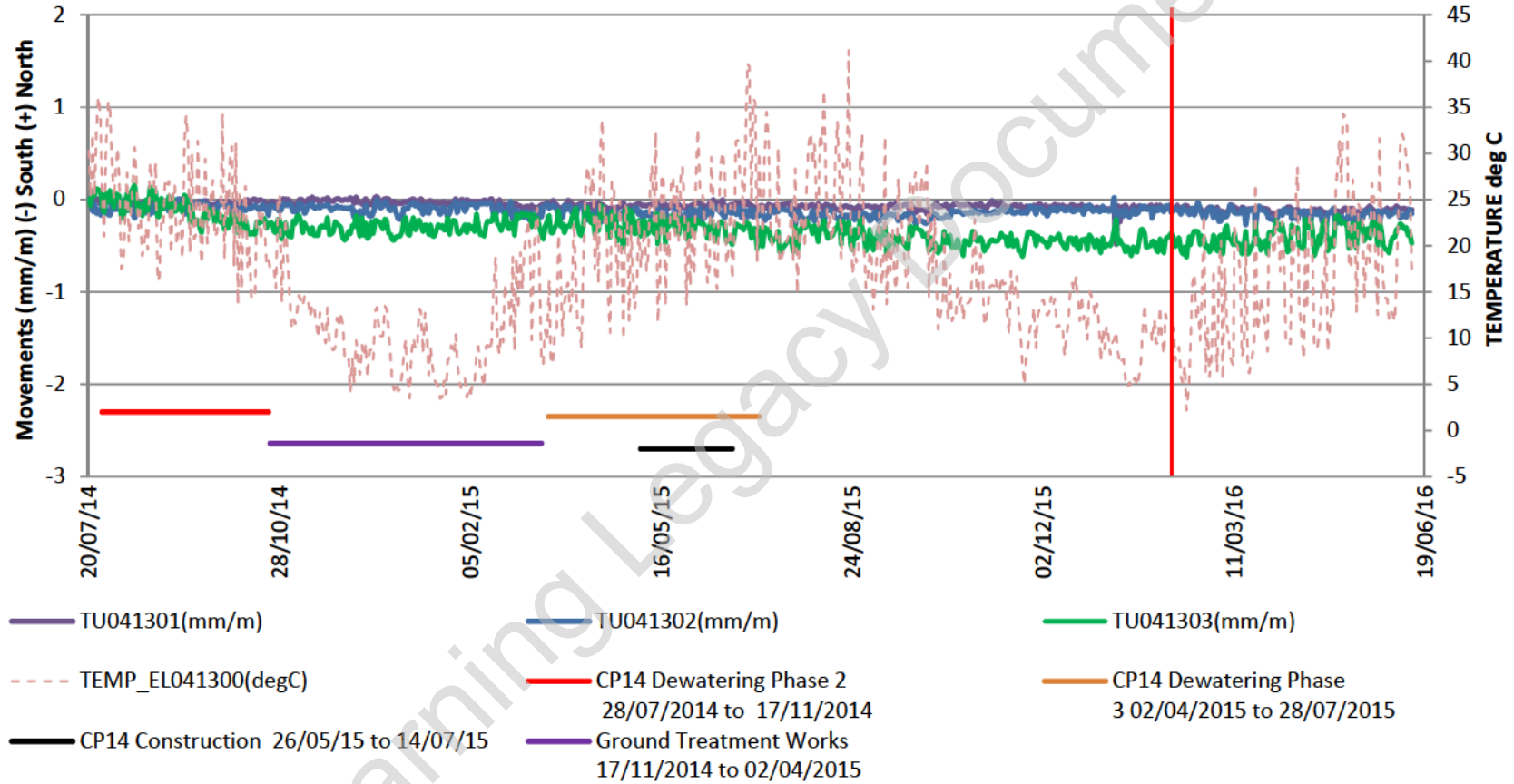




### AREA 4 LIMMO TO CANARY WHARF CP14 PILLAR P2 (L3) TILTMETERS



### AREA 4 LIMMO TO CANARY WHARF CP14 PILLAR P3 (L2) TILTMETERS



### AREA 4 LIMMO TO CANARY WHARF CP14 PILLAR P4 (L1) TILTMETERS

