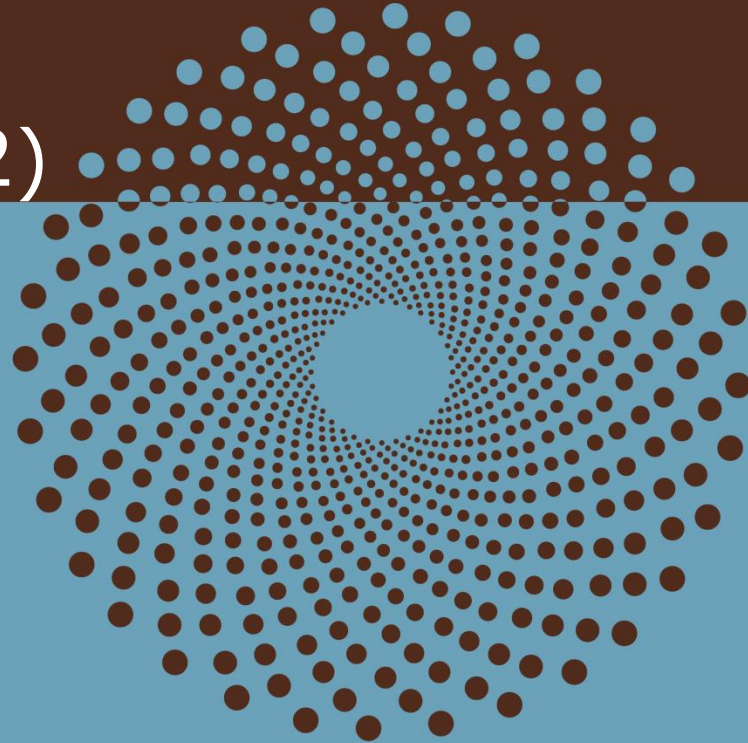


Appendix 1

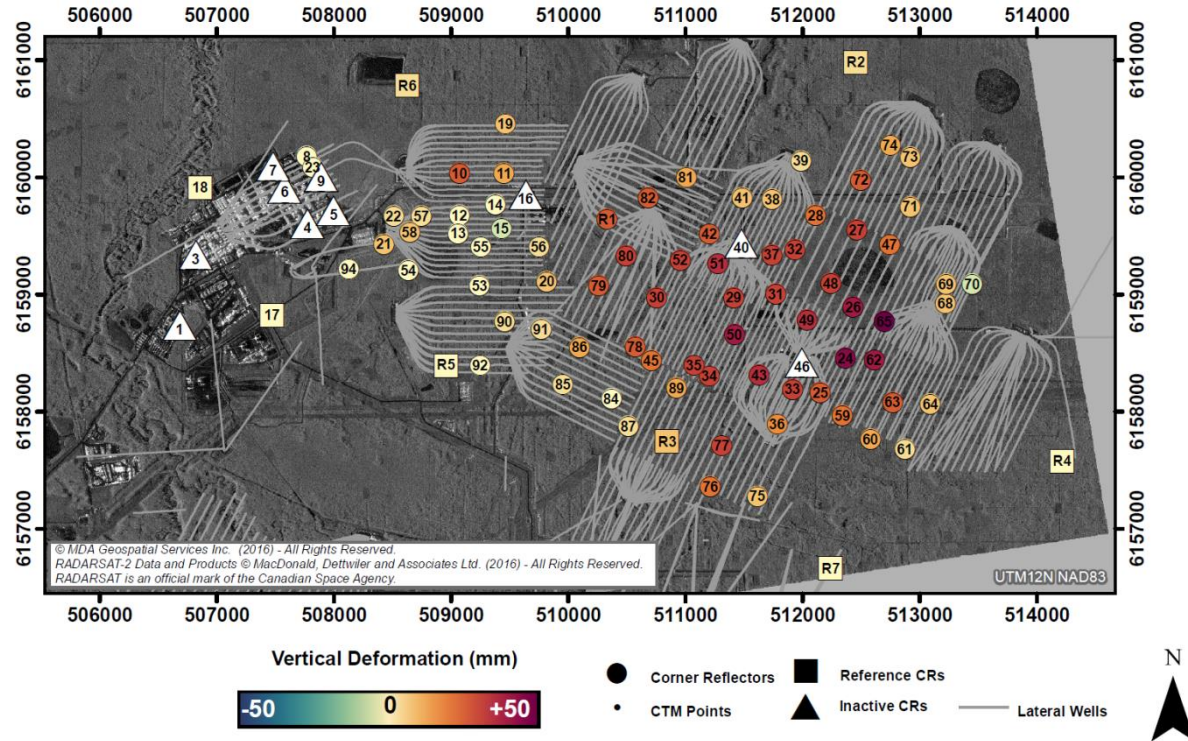
Subsection 3.1.1 – 2)

Heave data



Ground heave monitoring

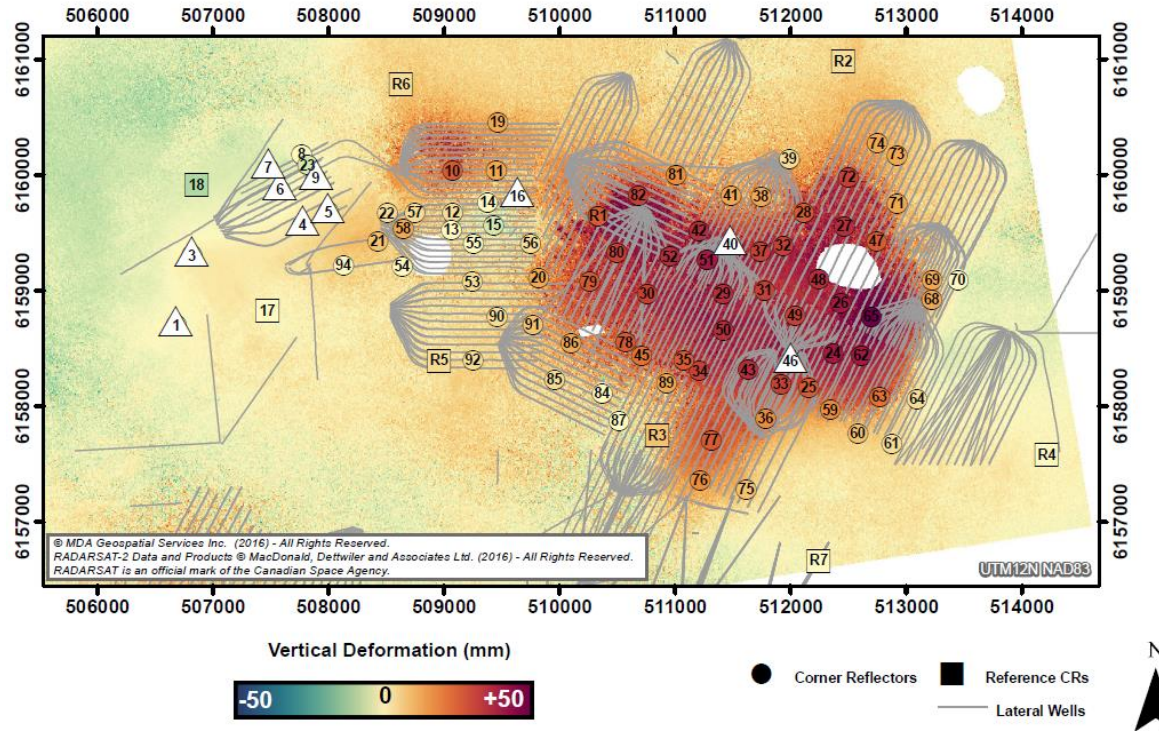
Annual Vertical Deformation: September 24, 2015 to September 18, 2016



InSAR Surface Movement Monitoring by MDA Geospatial Services Inc

Ground heave monitoring (InSAR)

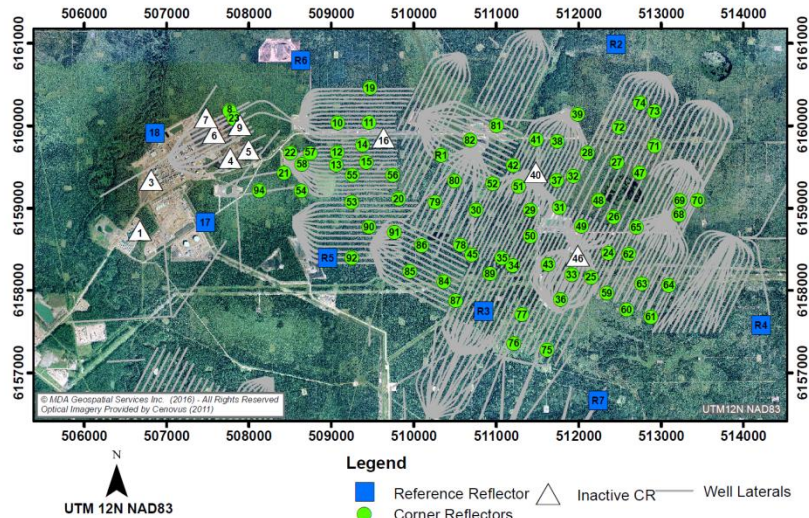
Annual Vertical Deformation: September 24, 2015 to August 25, 2016



InSAR Surface Movement Monitoring by MDA Geospatial Services Inc

Ground heave monitoring

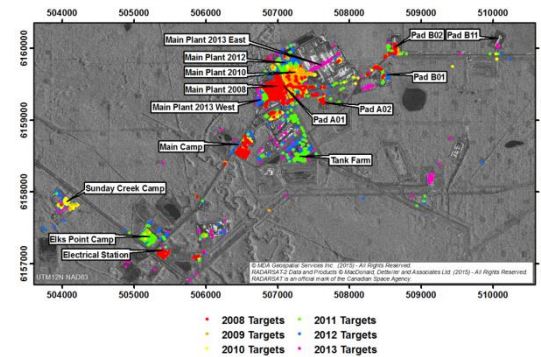
Christina Lake Corner Reflector Locations



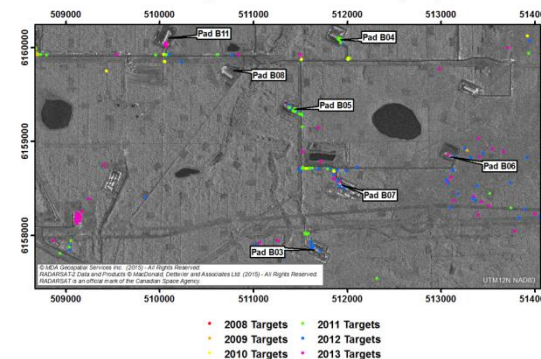
InSAR Surface Movement Monitoring by MDA Geospatial Services Inc

- 85 active CR
- No new CR added in 2016

CTM Target Selection
Annual Target Selection and Plot Areas (West)



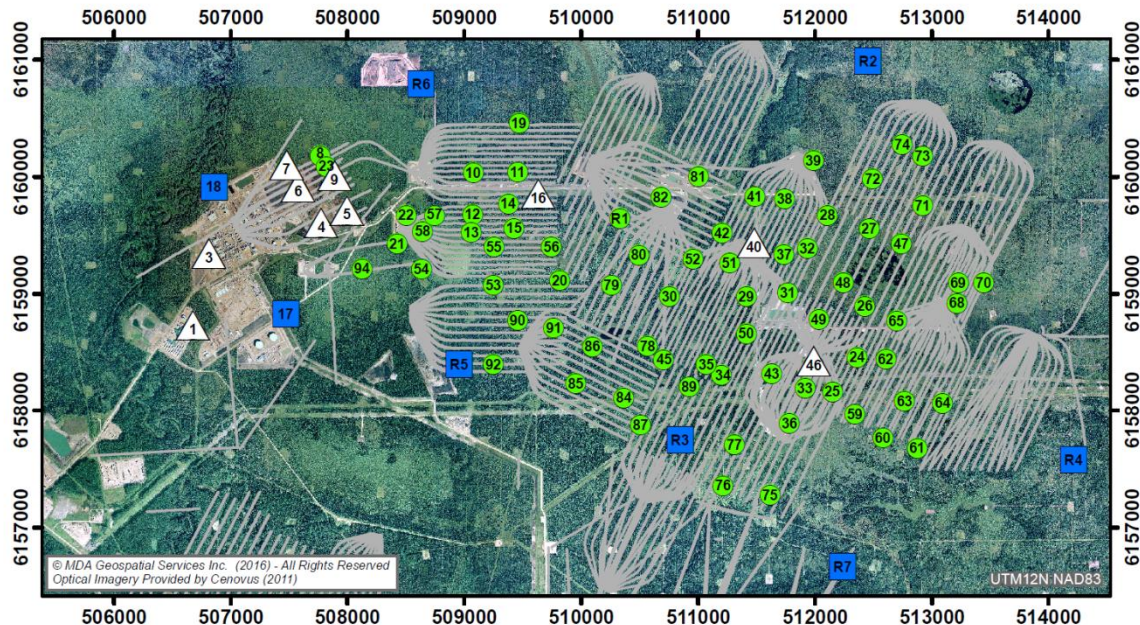
CTM Target Selection
Annual Target Selection and Plot Areas (East)



- 19,710 CTM targets
- No new targets added in 2016

Corner reflector locations

Christina Lake Corner Reflector Locations

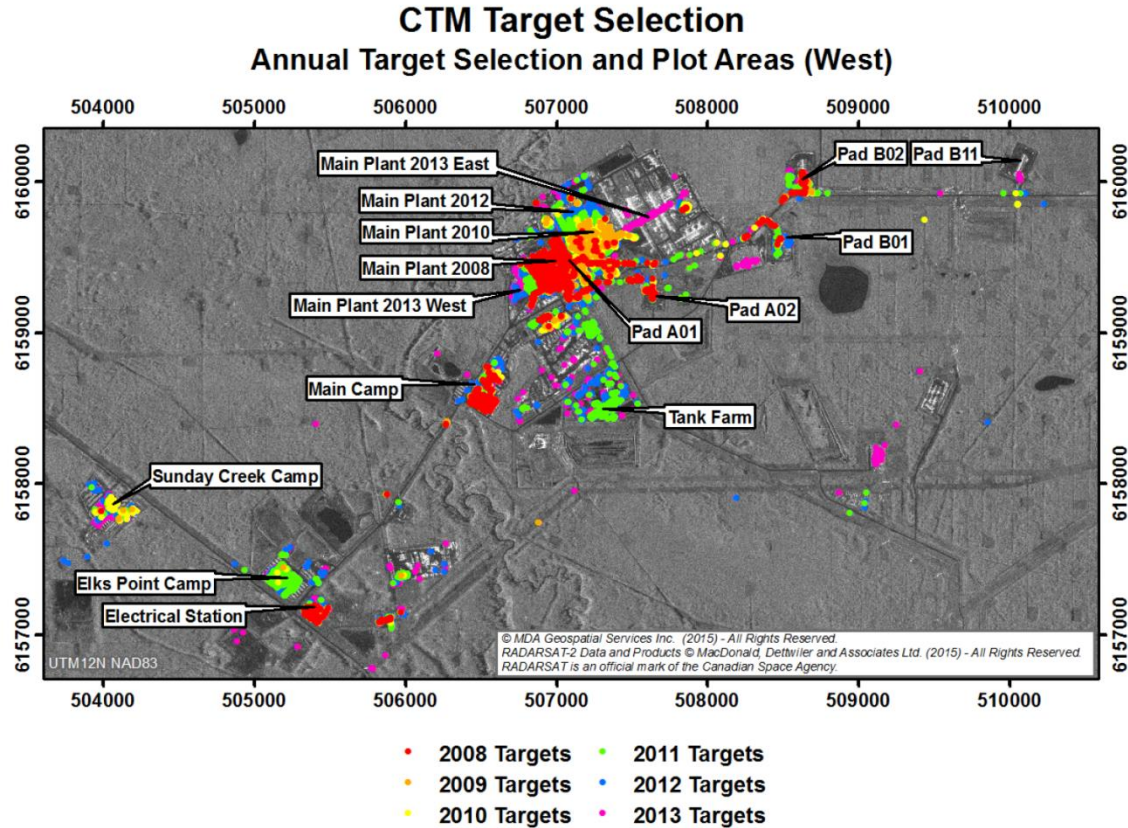


InSAR Surface Movement Monitoring by MDA Geospatial Services Inc

Legend

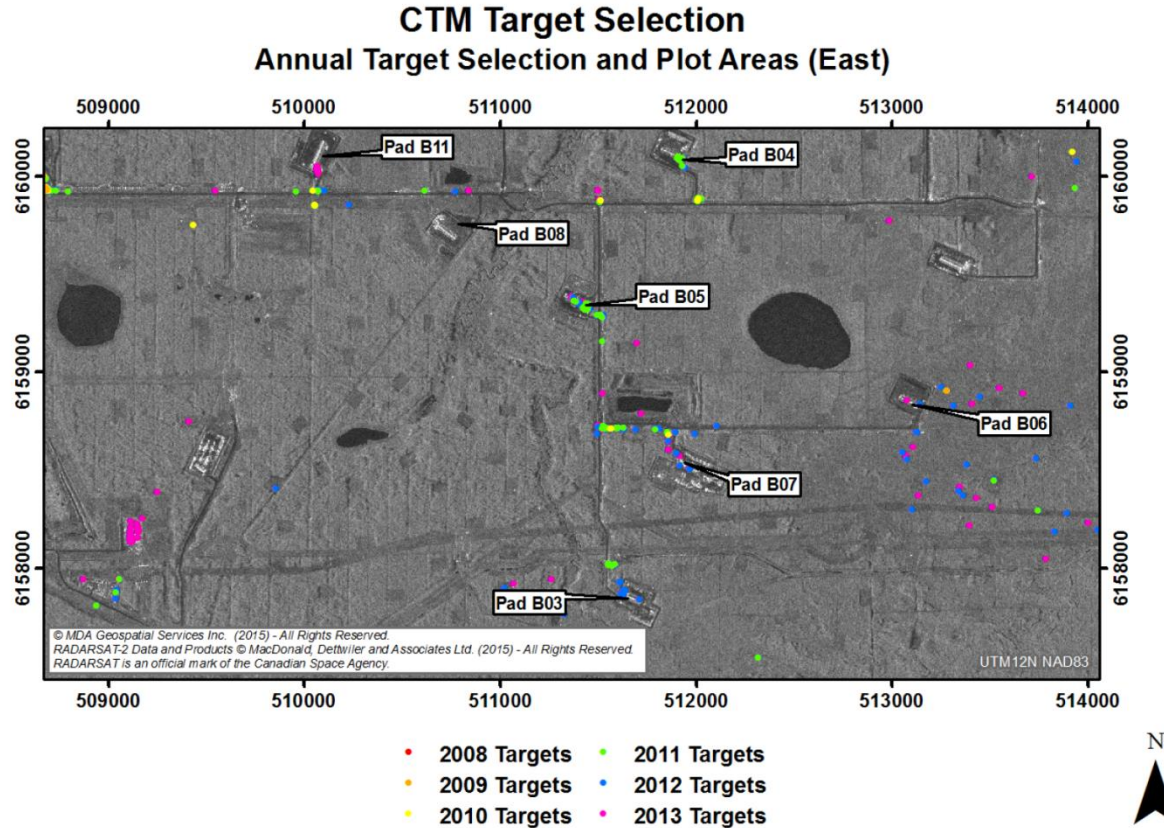
- Reference Reflector
- Corner Reflectors
- △ Inactive CR
- Well Laterals

Geomechanical and surface heave (Coherent Targets)



InSAR Surface Movement Monitoring by MDA Geospatial Services Inc

Geomechanical and surface heave (Coherent Targets)

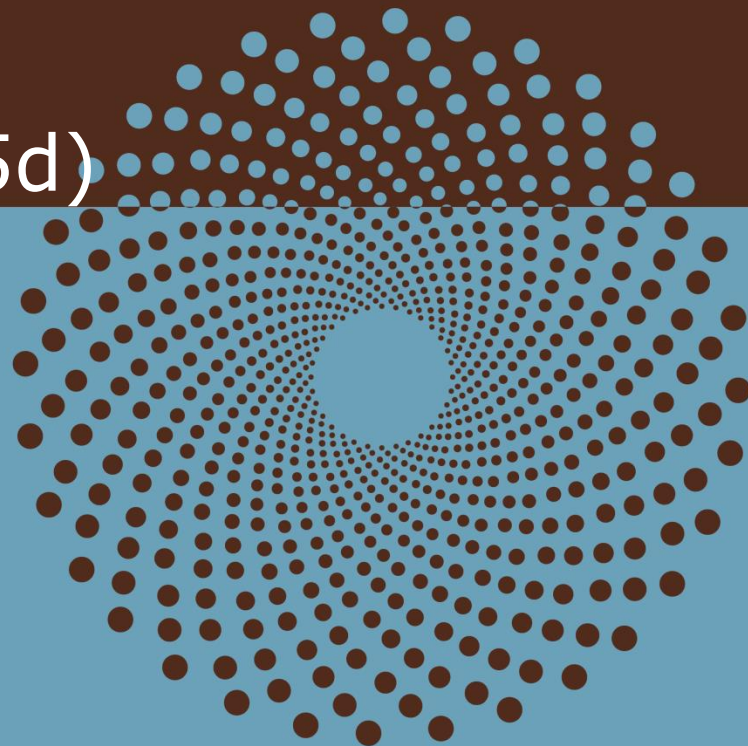


InSAR Surface Movement Monitoring by MDA Geospatial Services Inc

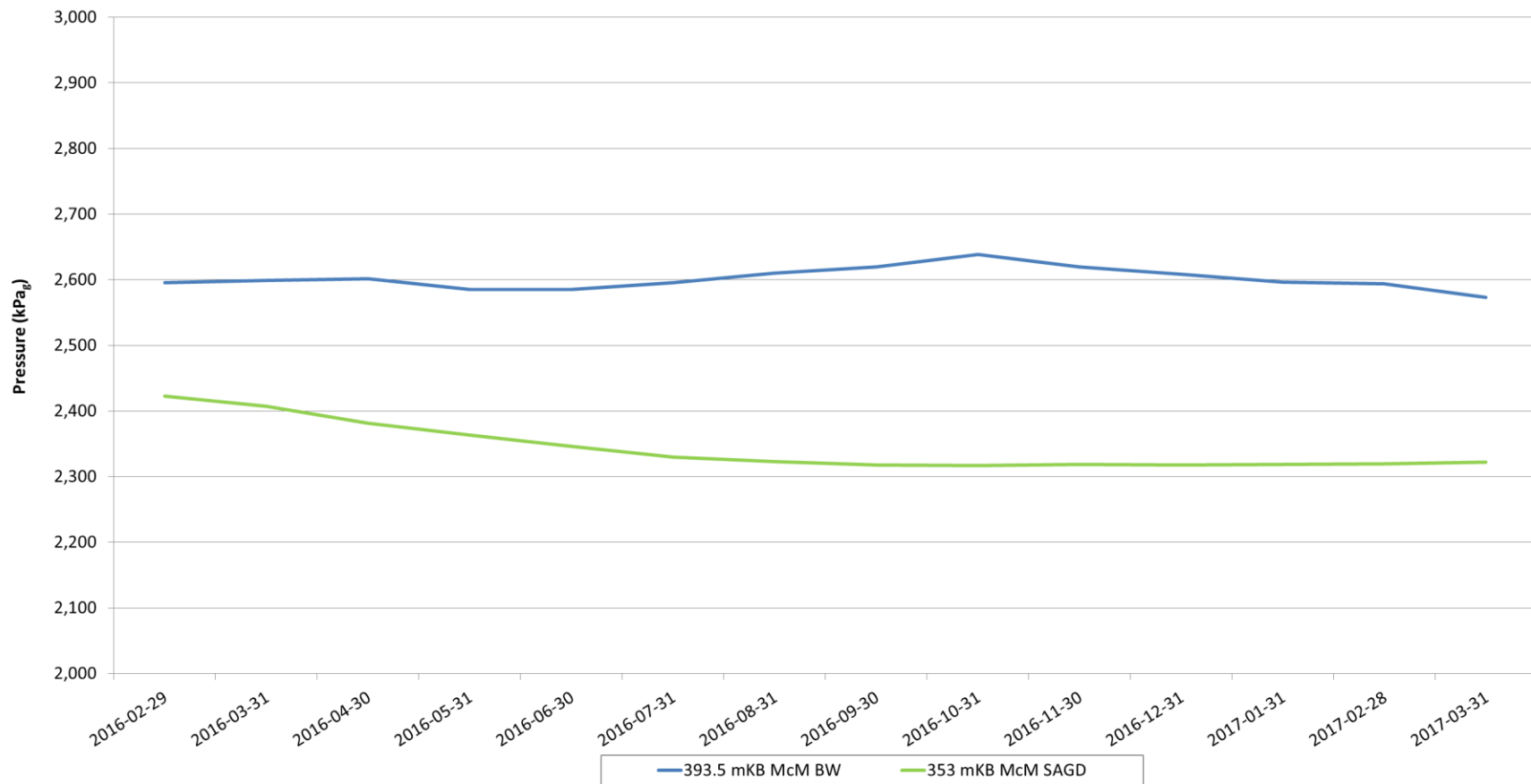
Appendix 2

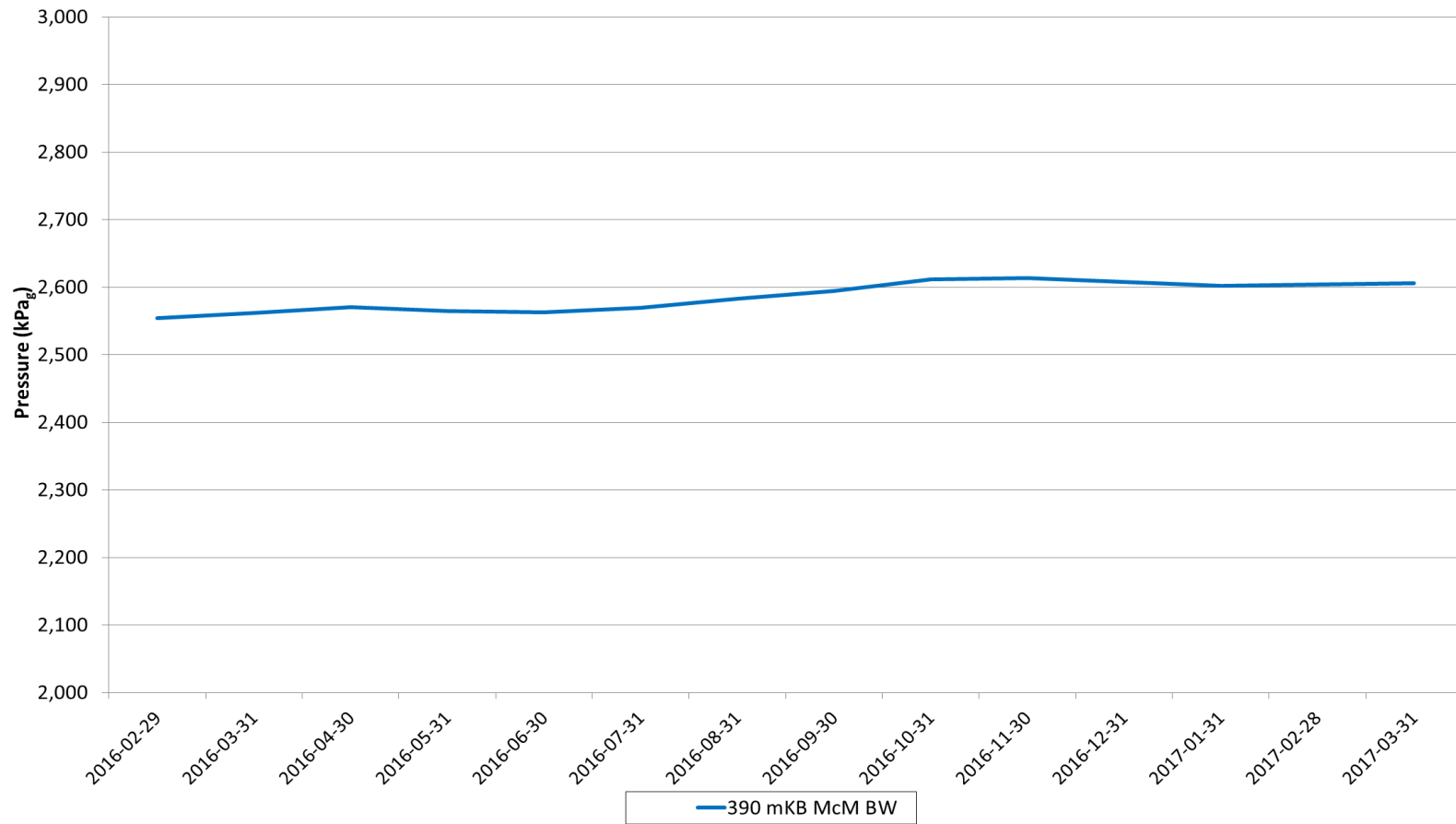
Subsection 3.1.1 – 5d)

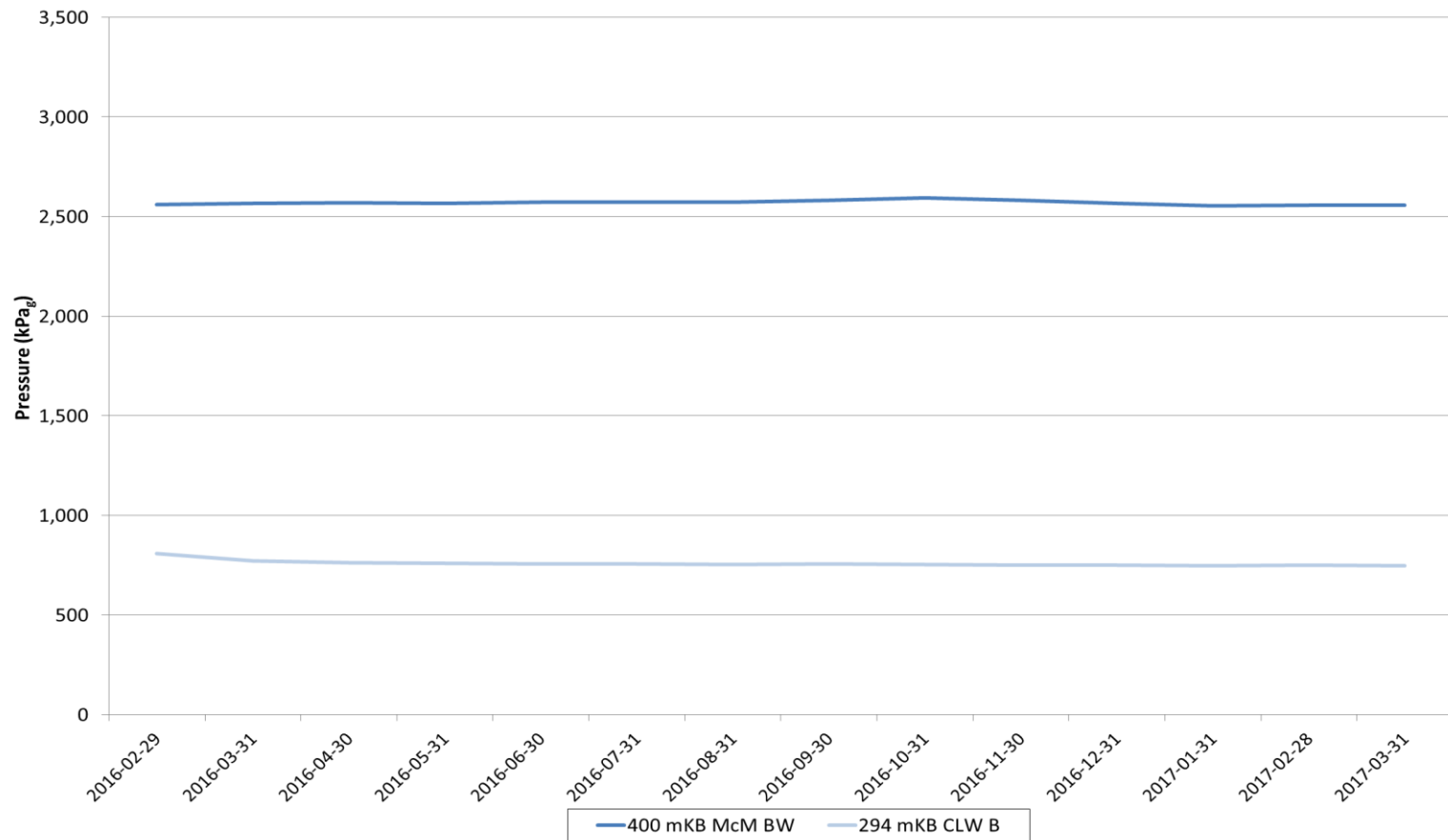
Piezometer data

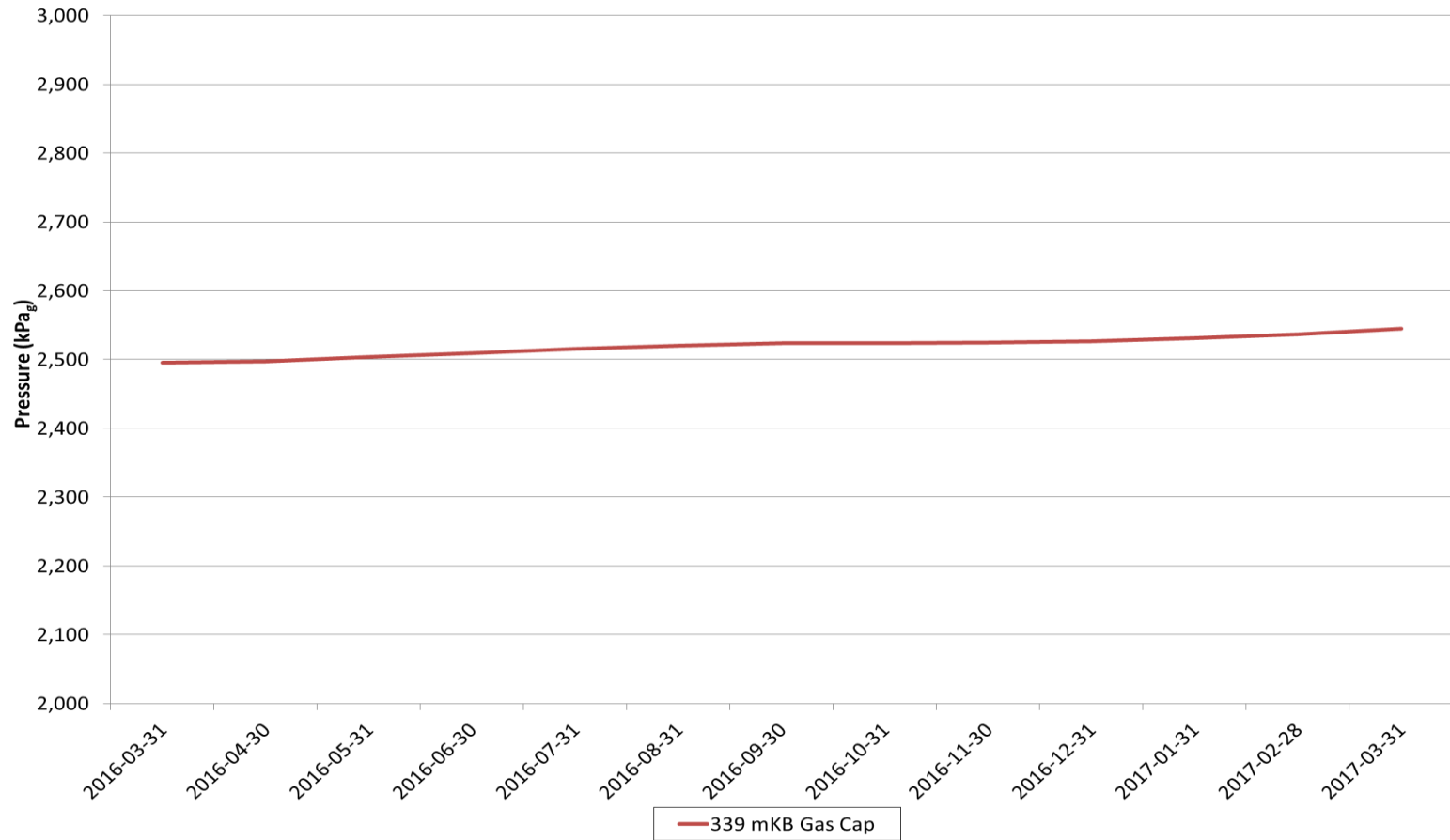


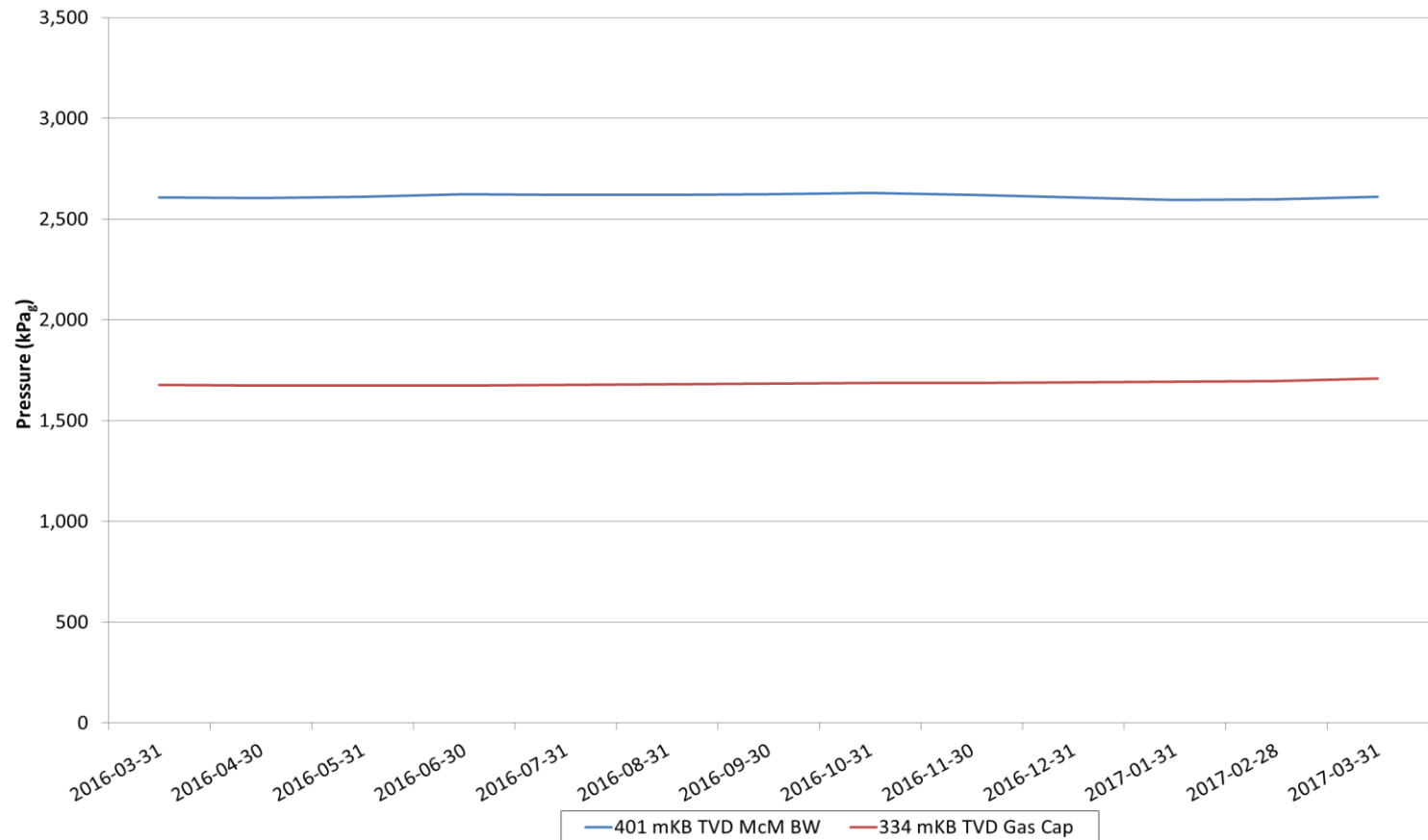
A6 LEISMER 6-21-76-6



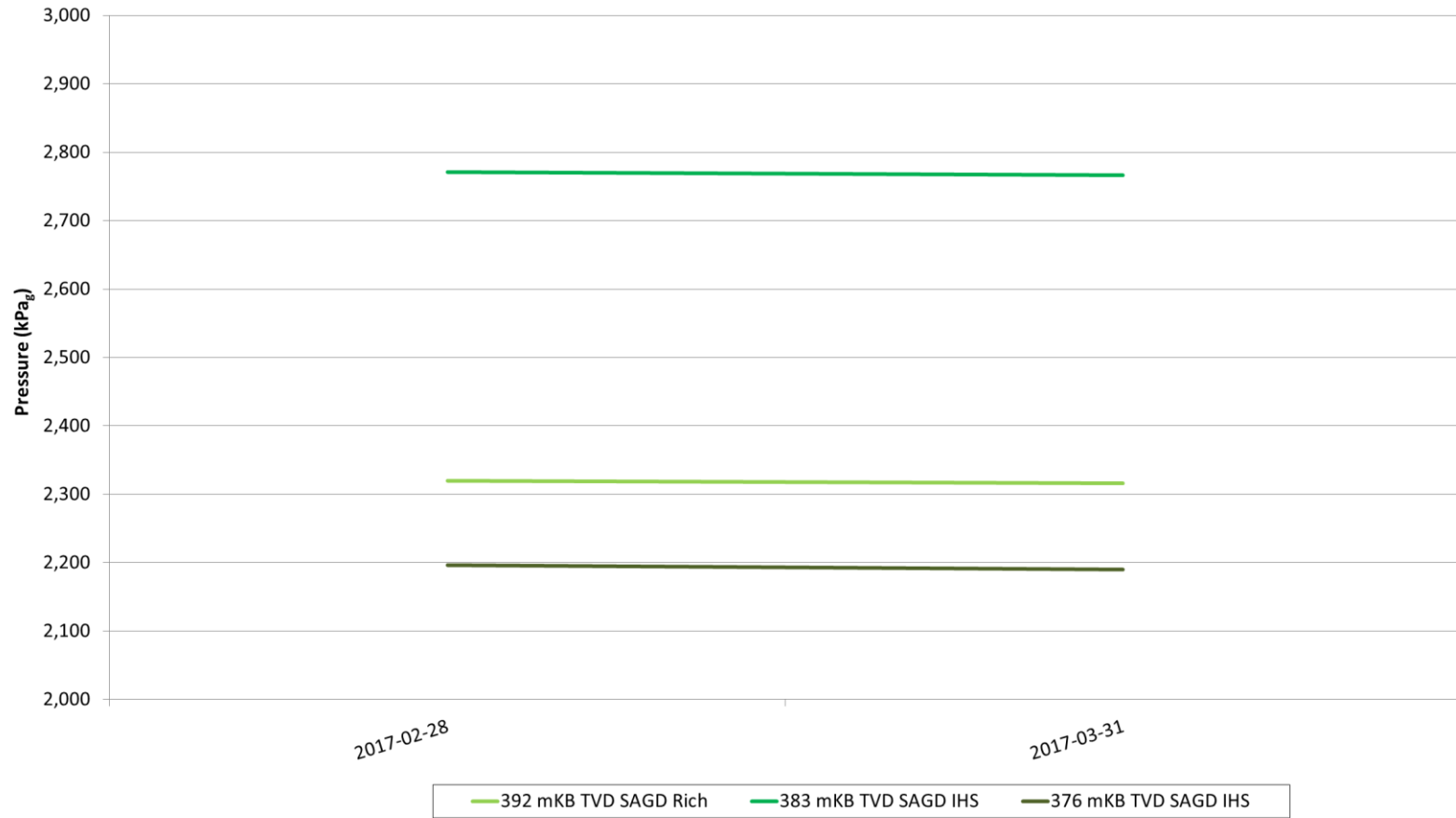
C13 LEISMER 13-22-76-6

D11 LEISMER 11-23-76-6

A2 HARDY 2-24-76-6

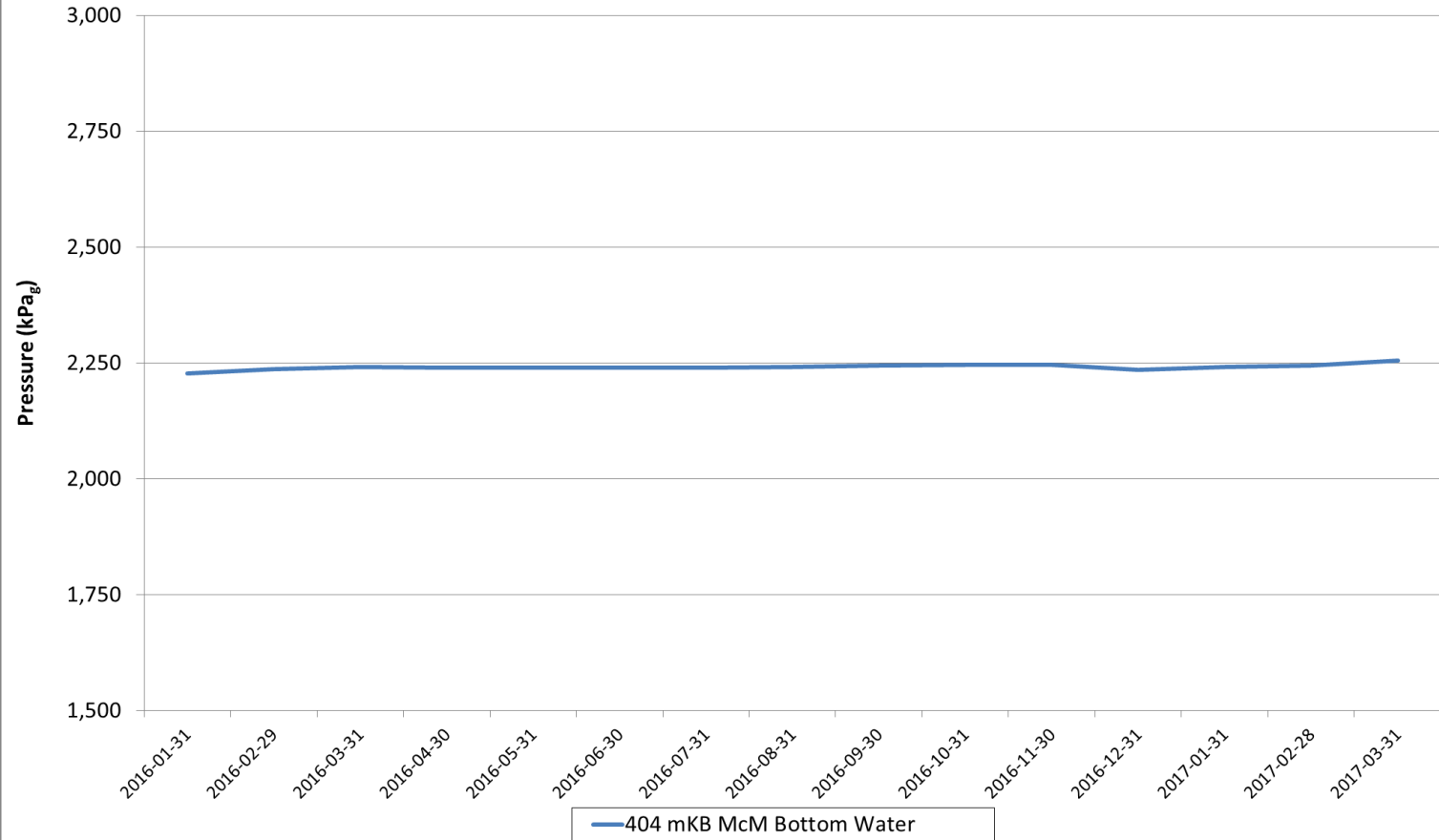
B15-24 D11 HARDY 11-24-76-6

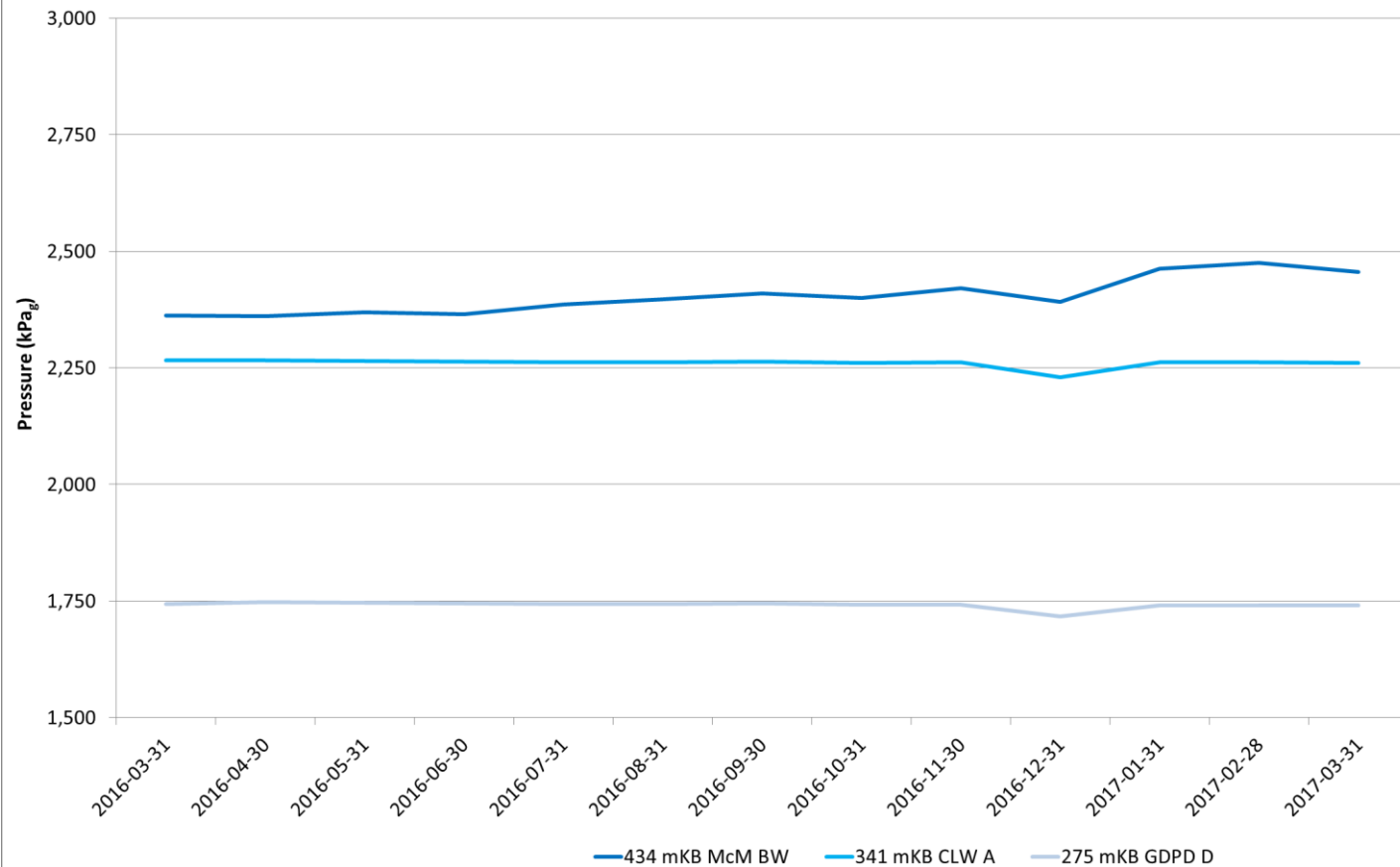
D8-22 C8 LEISMER 8-22-76-6



UWI: 100/01-35-076-04
Name: A1 HARDY 1-35-76-4

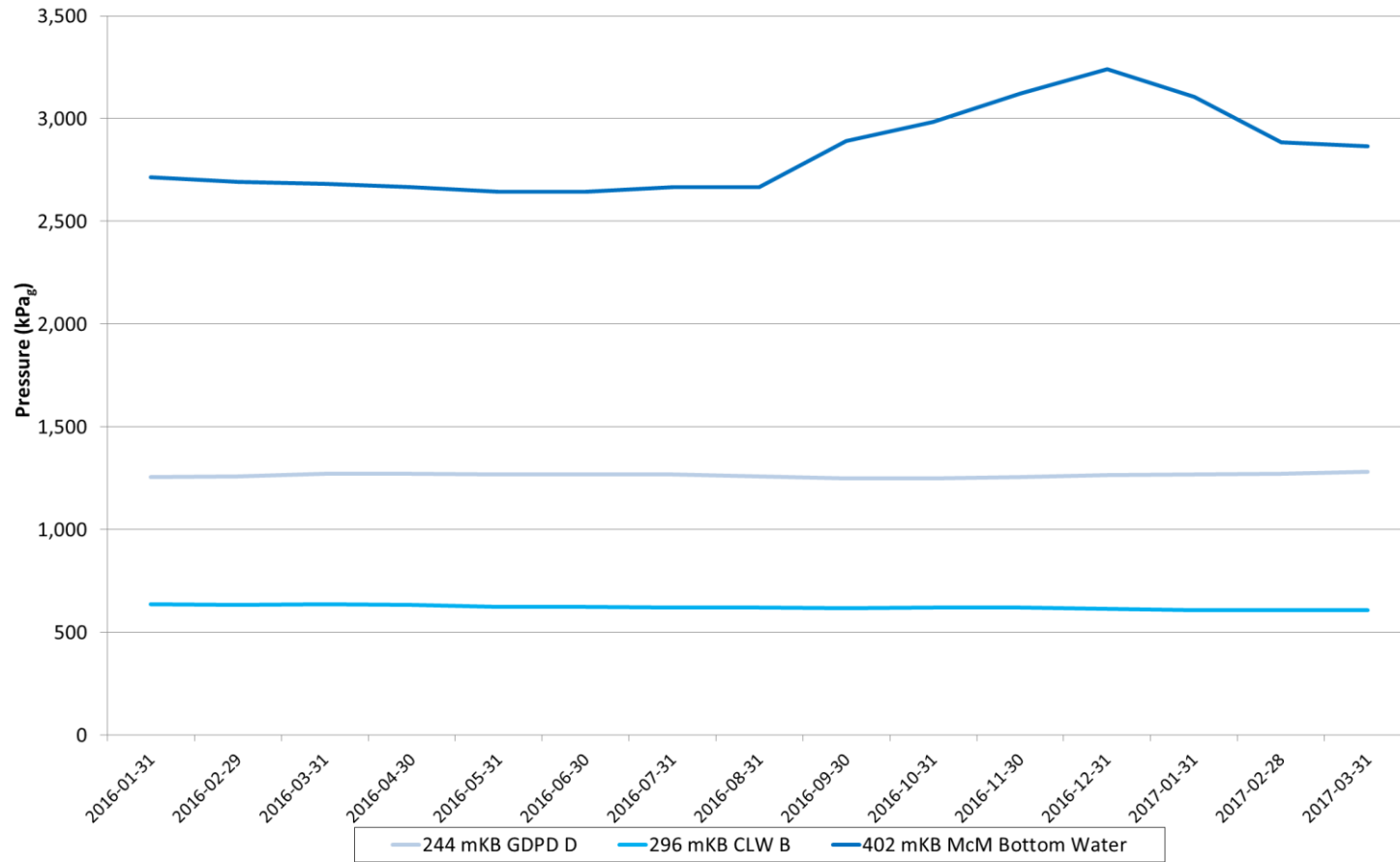
Broken Downhole



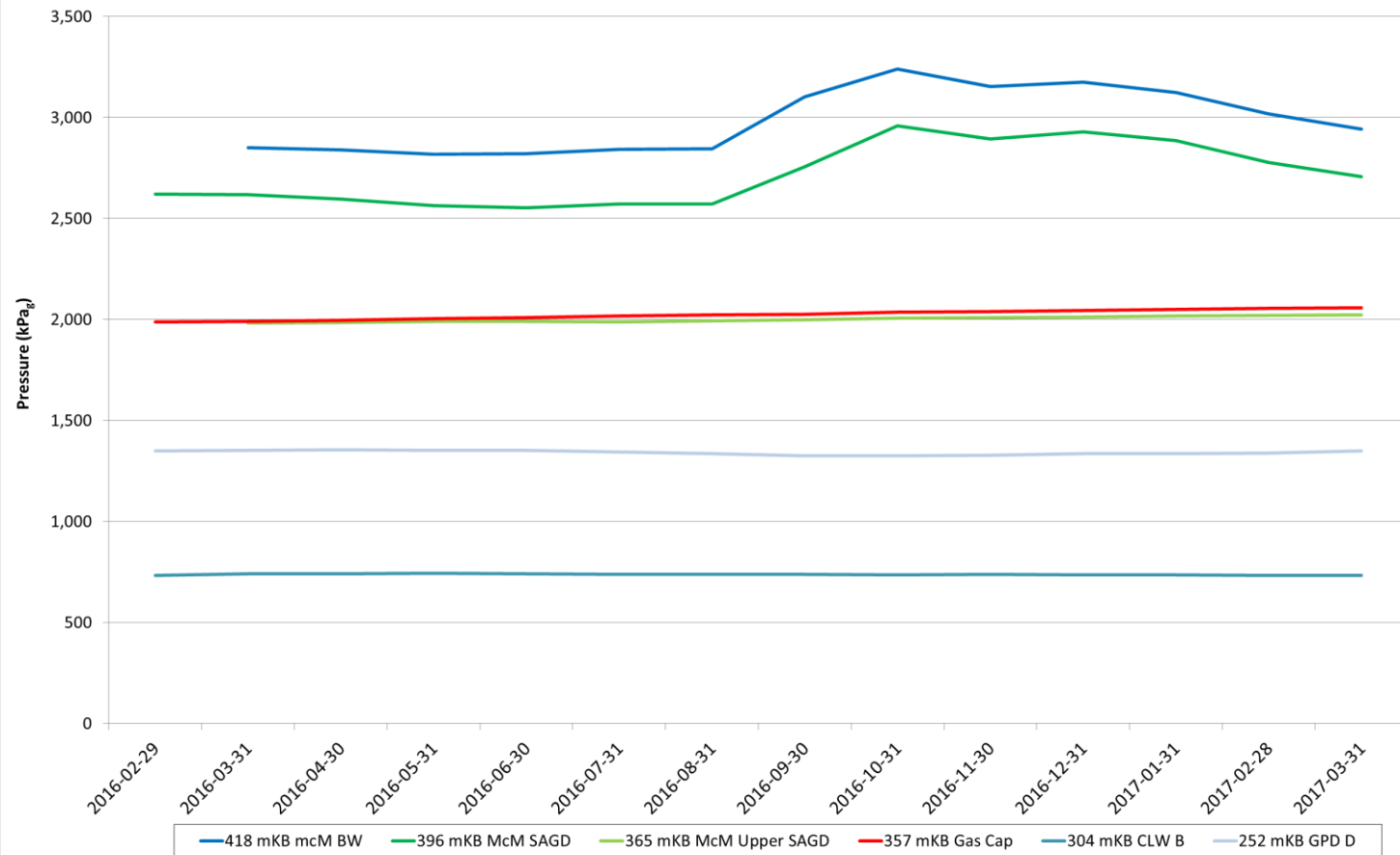
HARDY 13-34-76-3

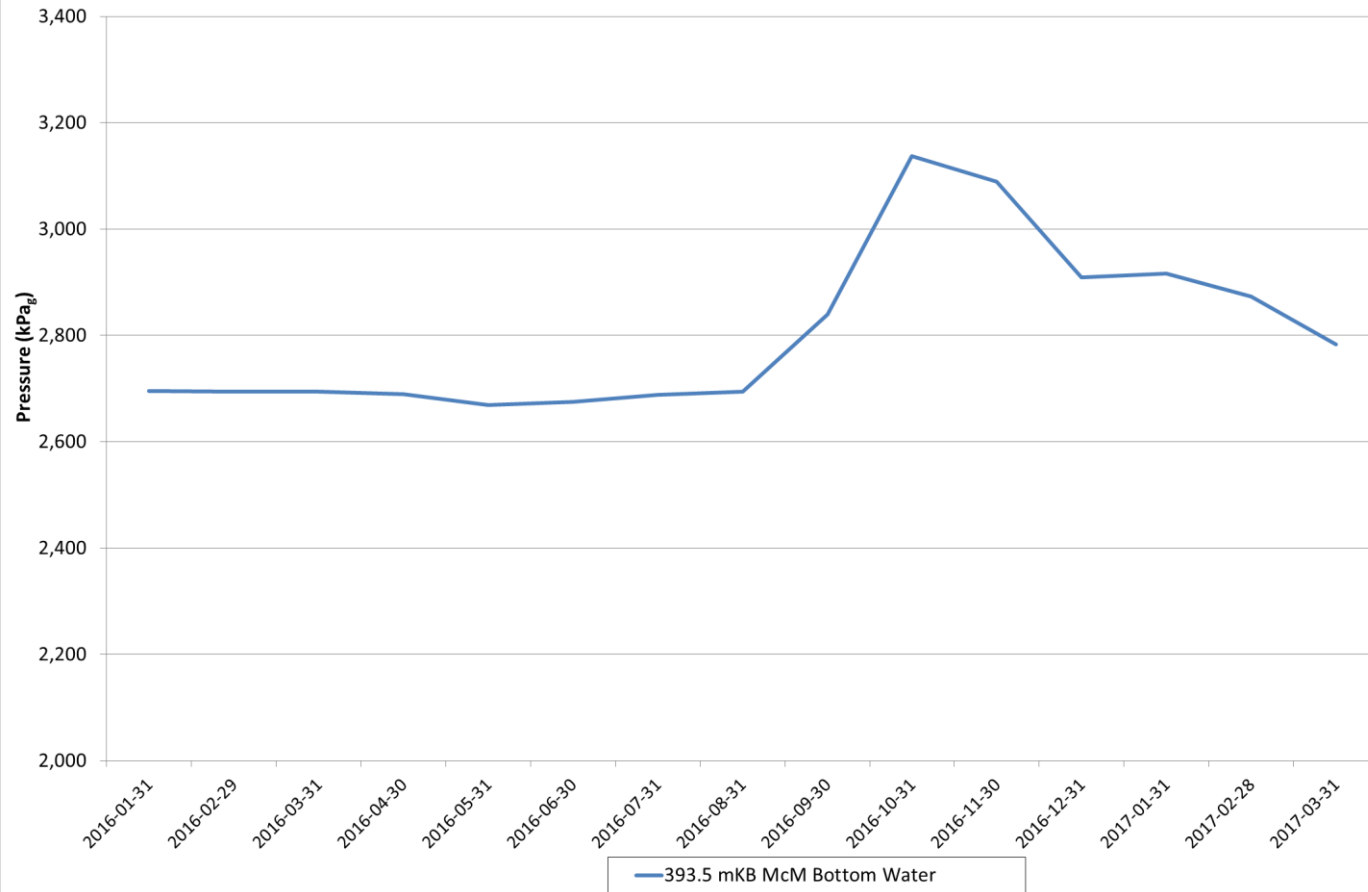
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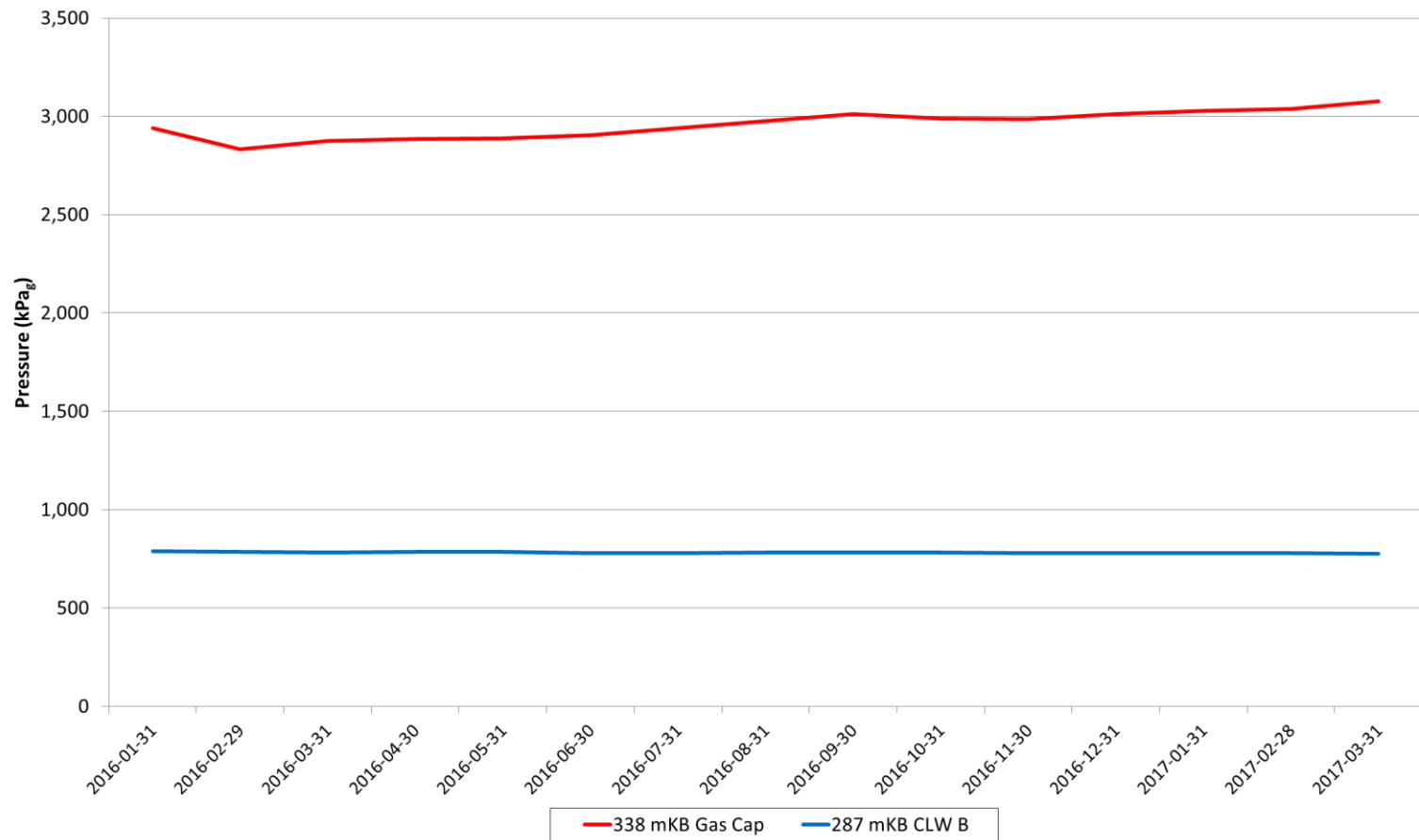
1AB/01-10-076-06W4



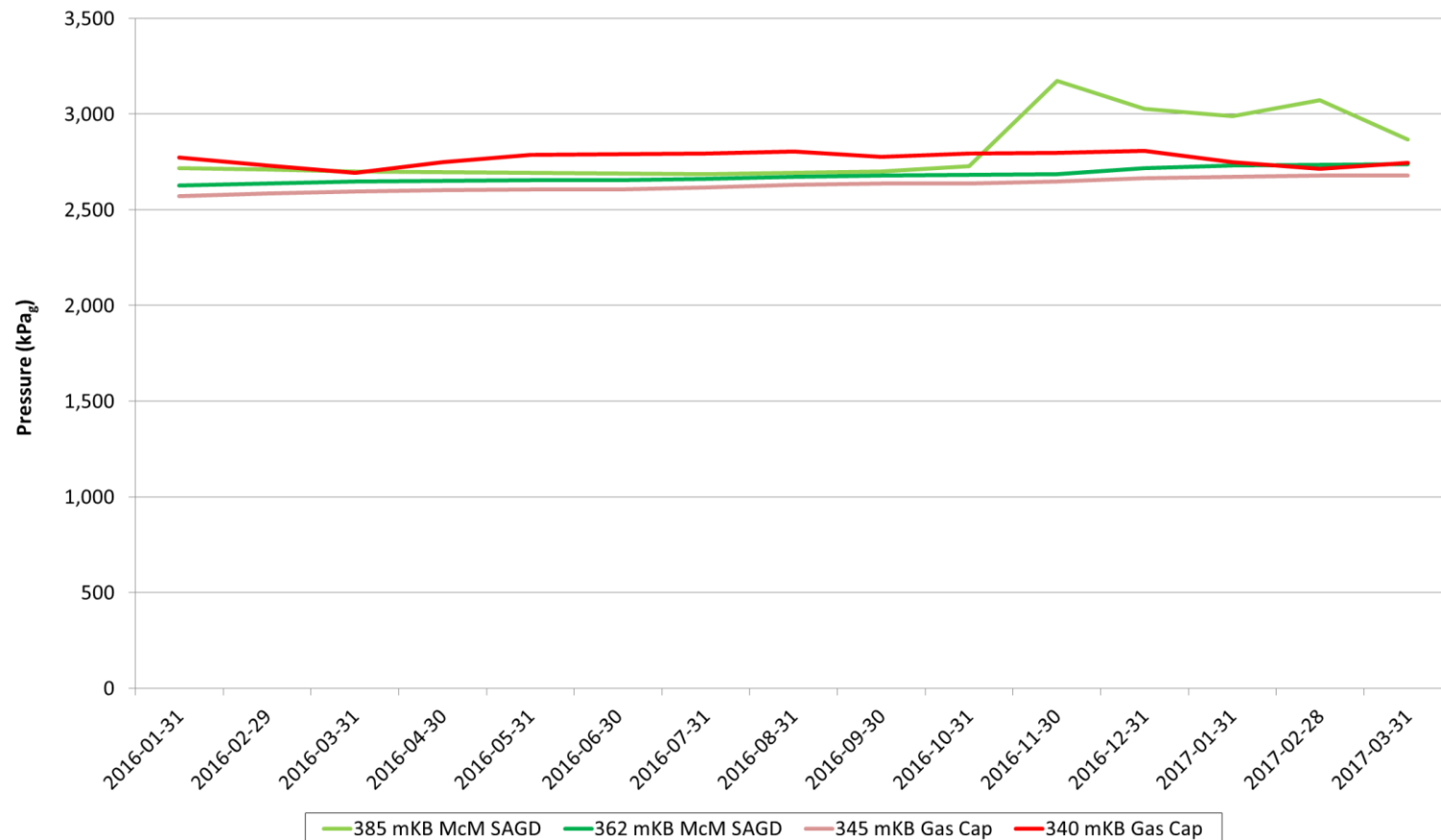
B7 LEISMER 7-10-76-6



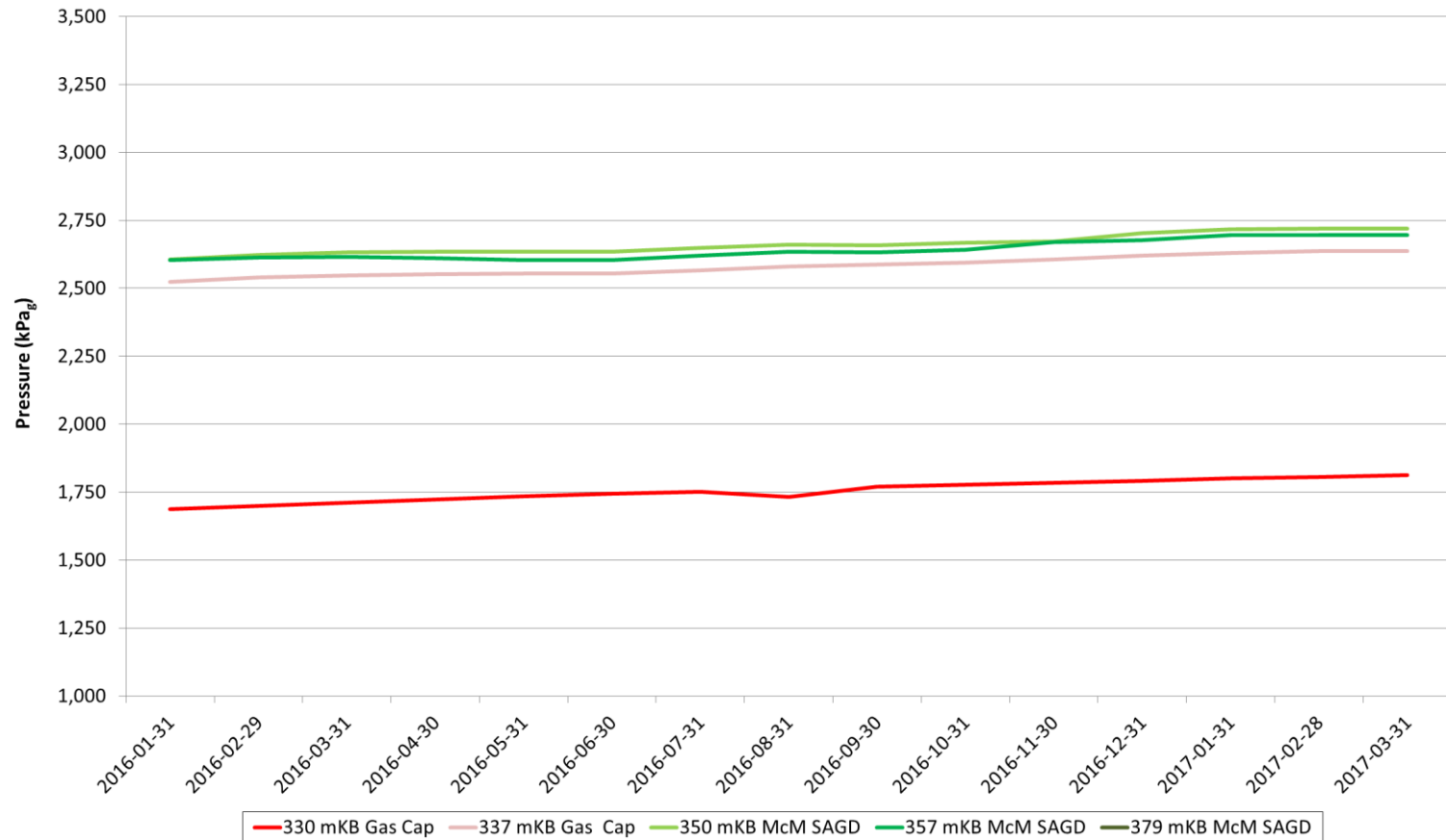


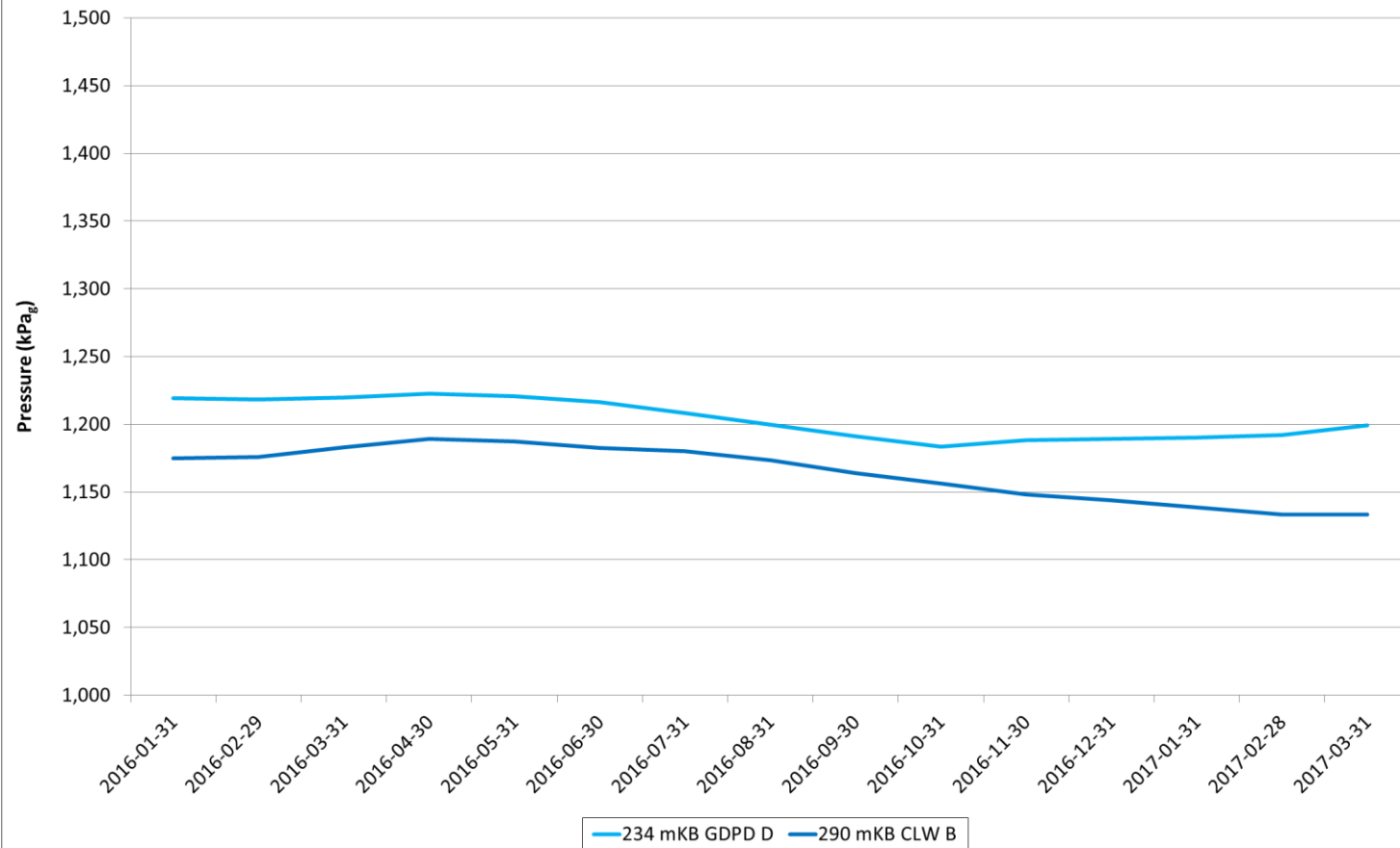


100/12-11-076-06W4



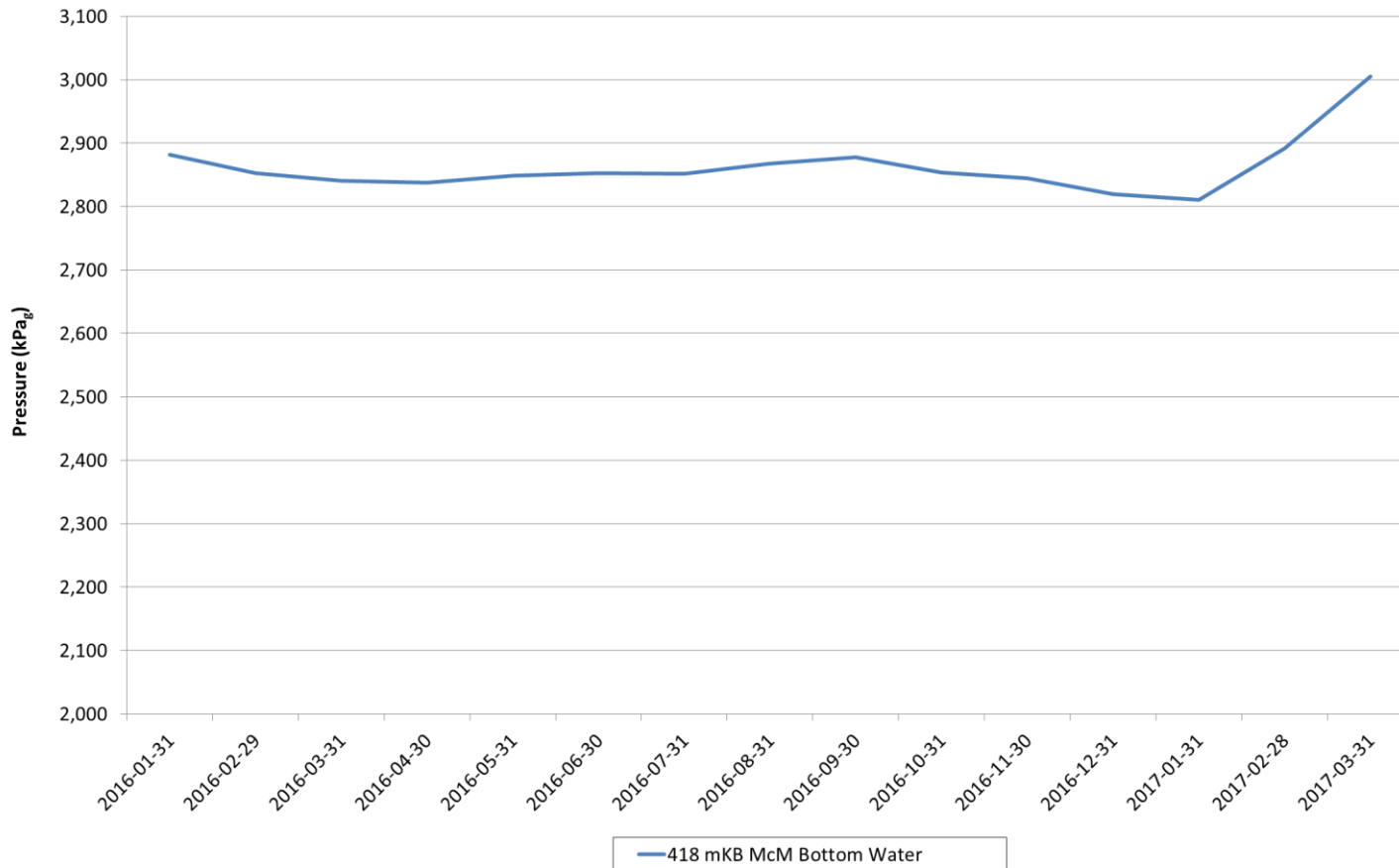
1AA/13-11-076-06W4

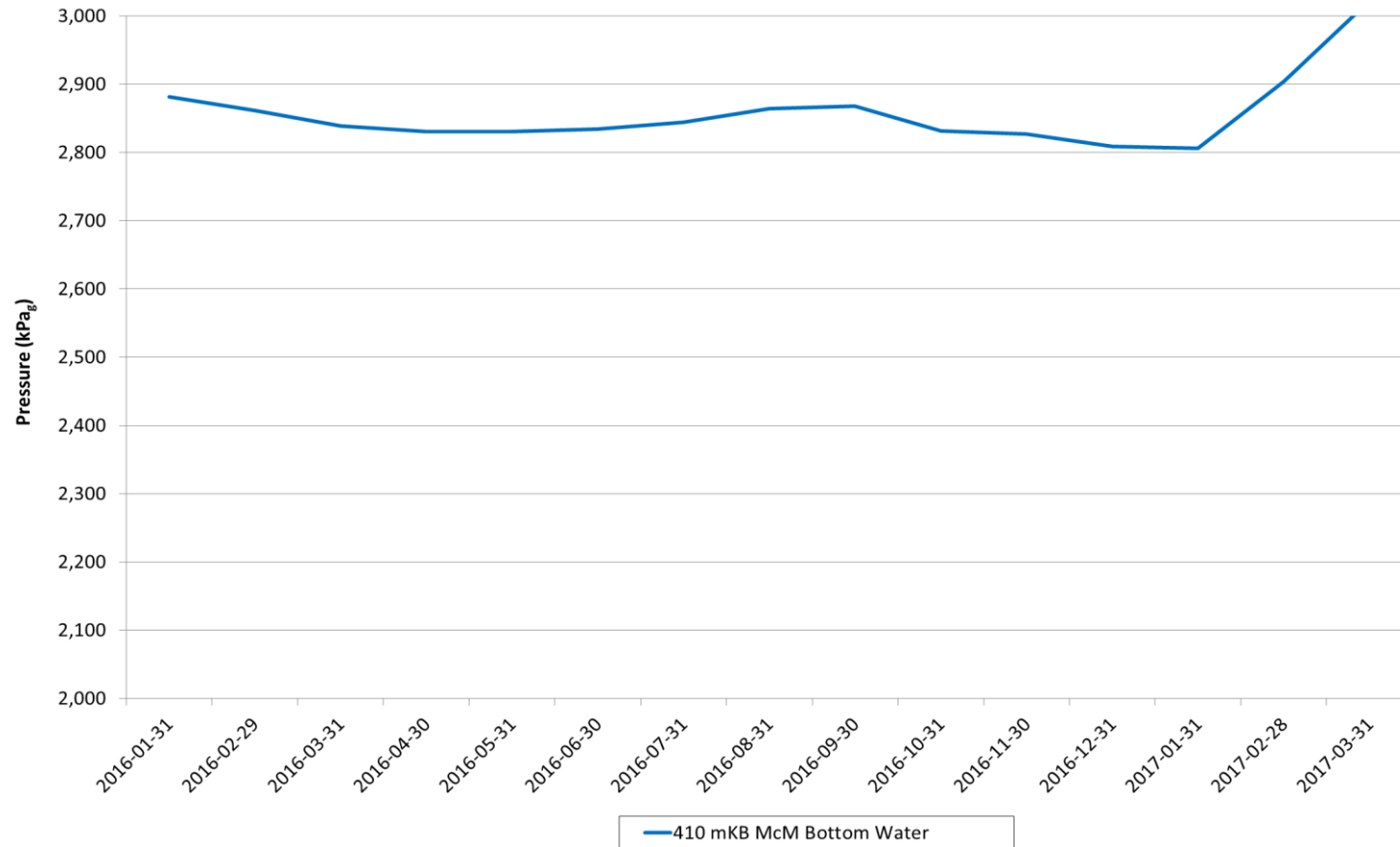


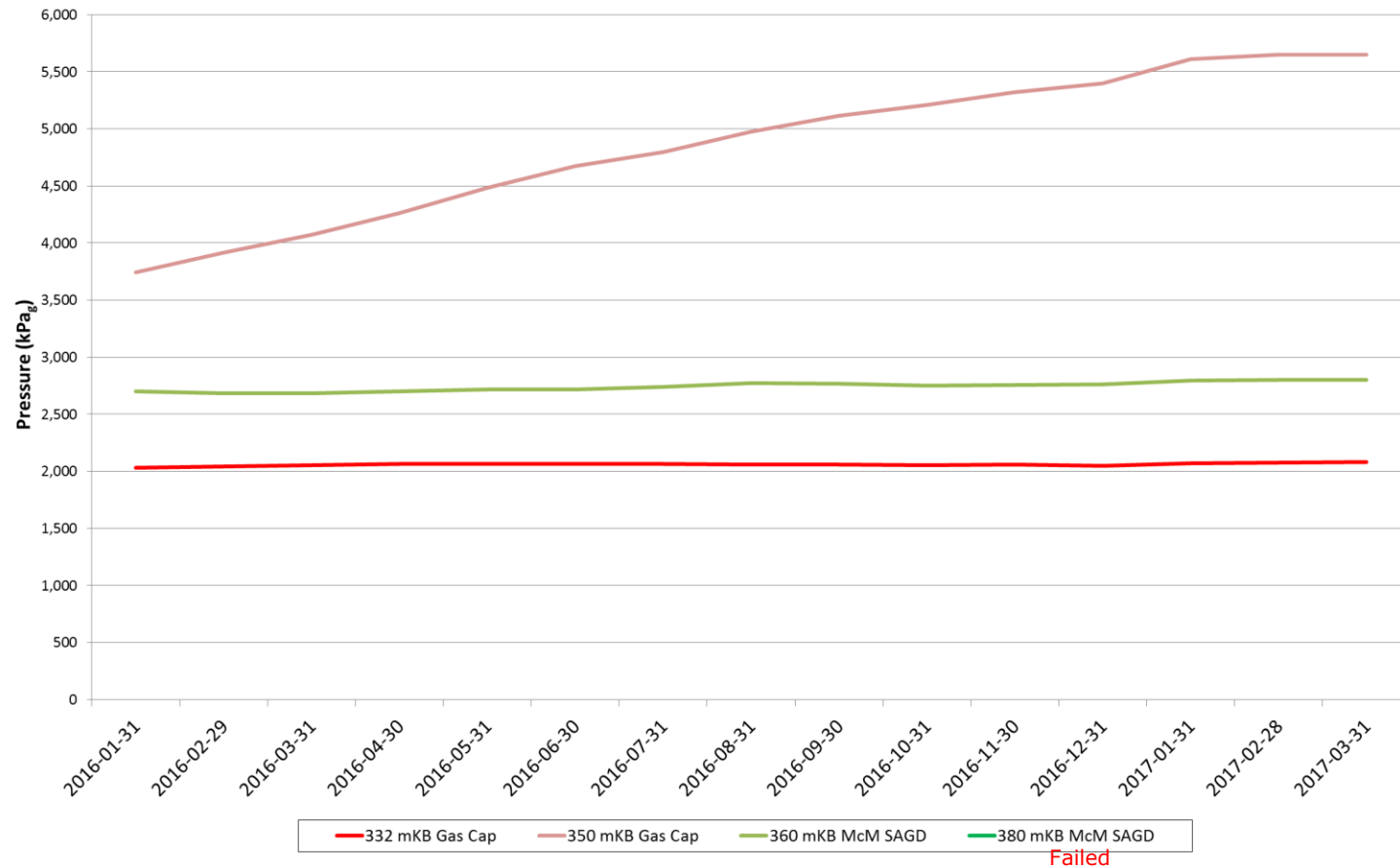


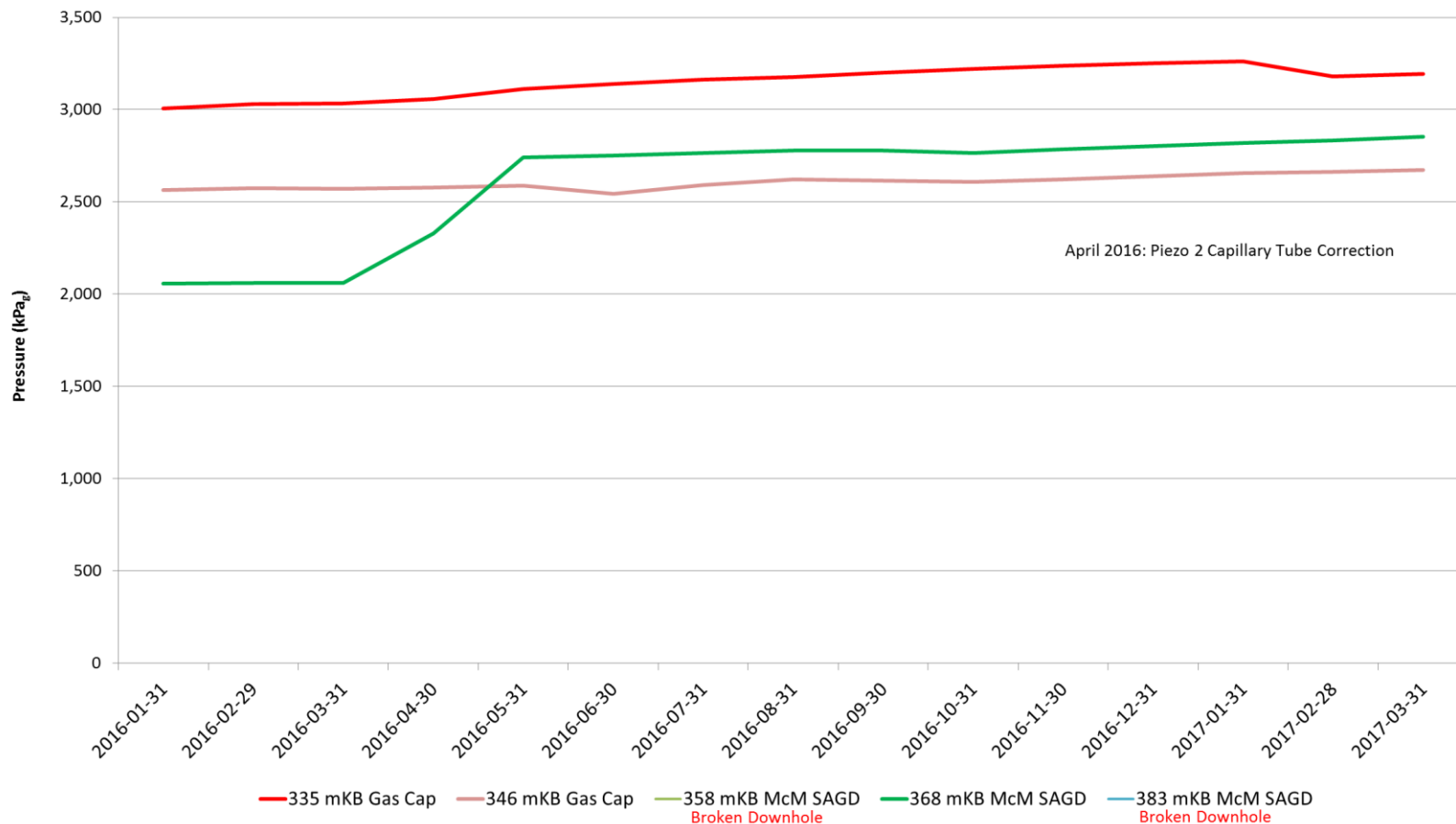
Name: D1 LEISMER 1-12-76-6

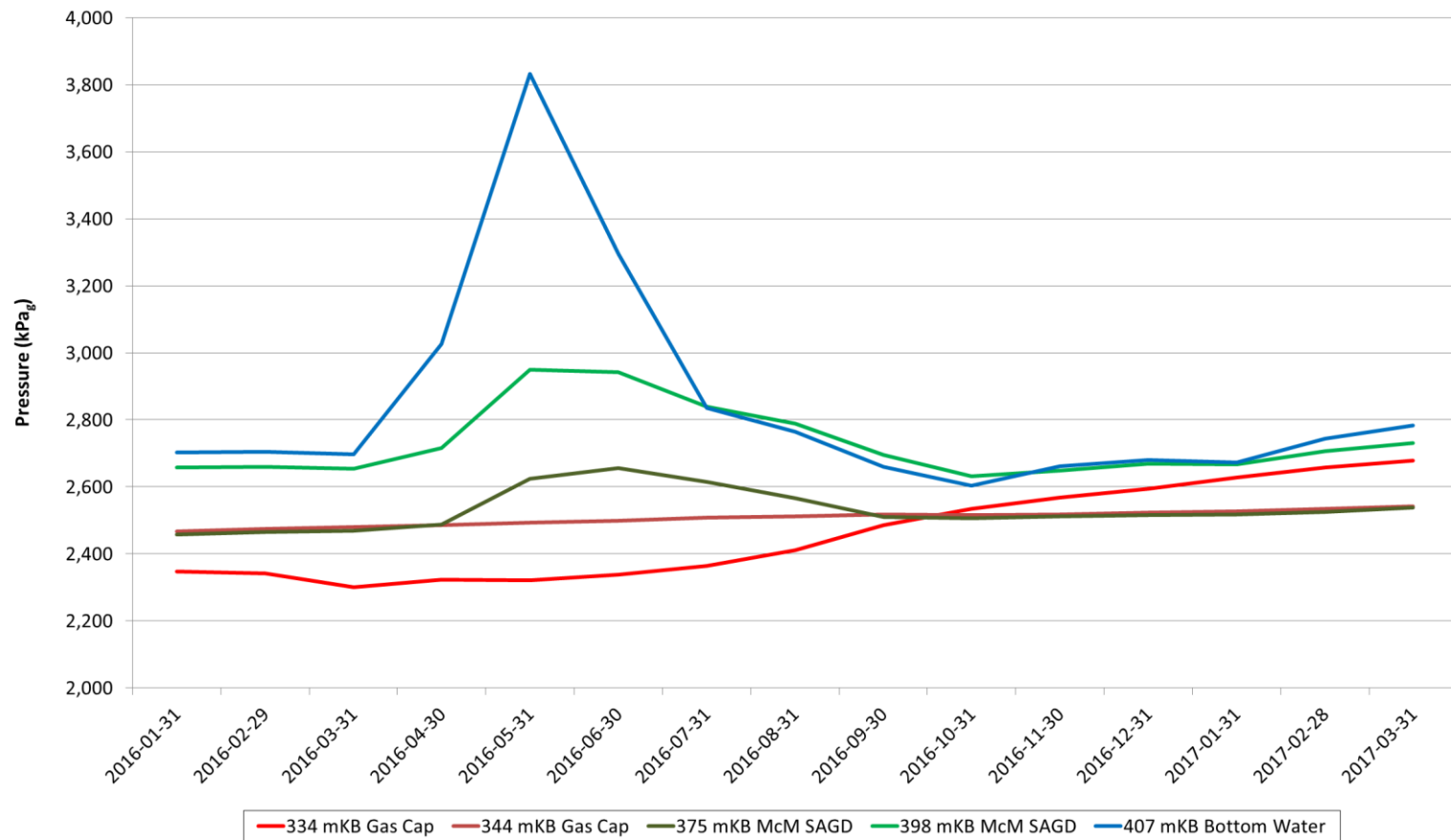
1AB/01-12-076-06W4





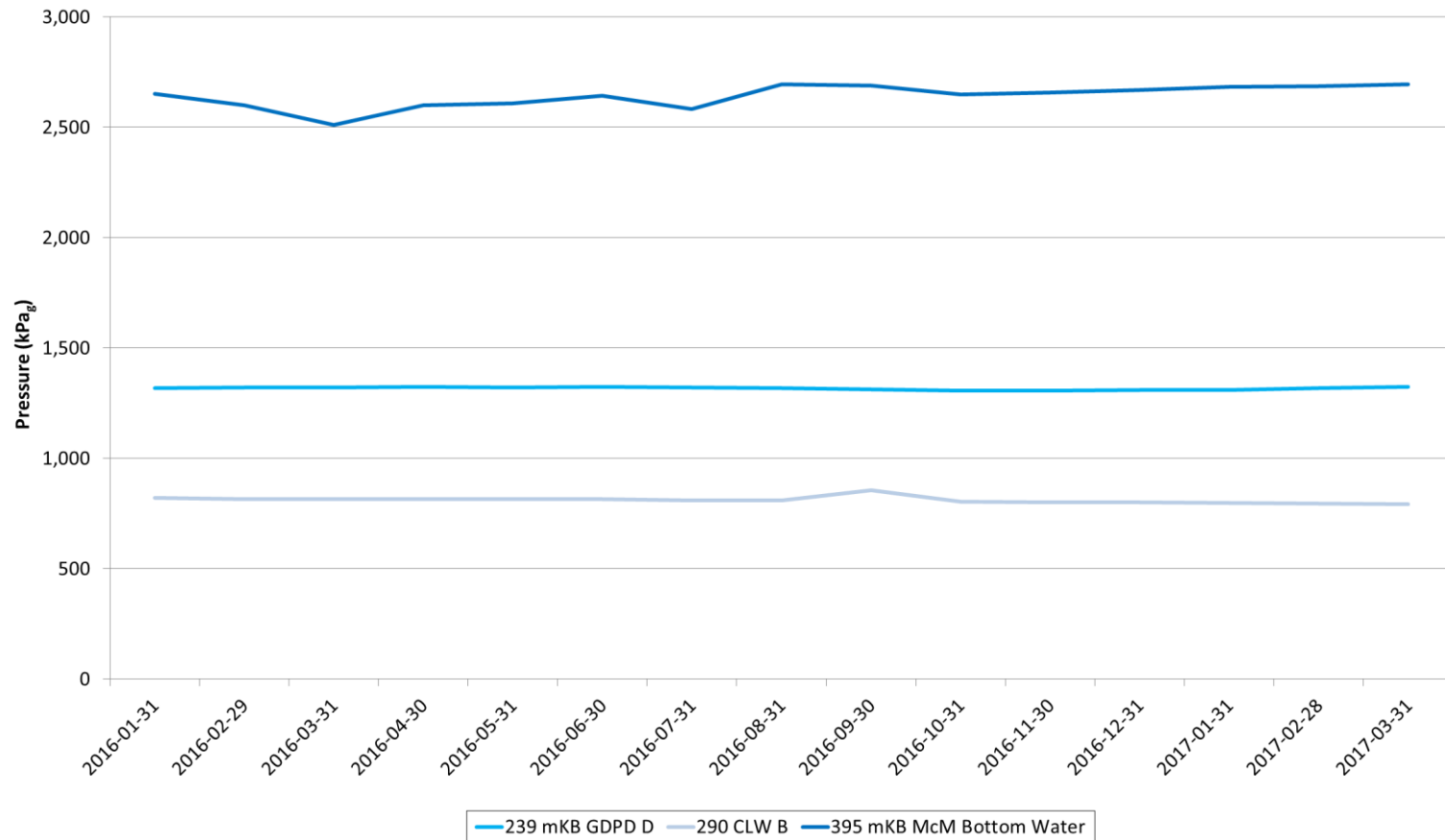






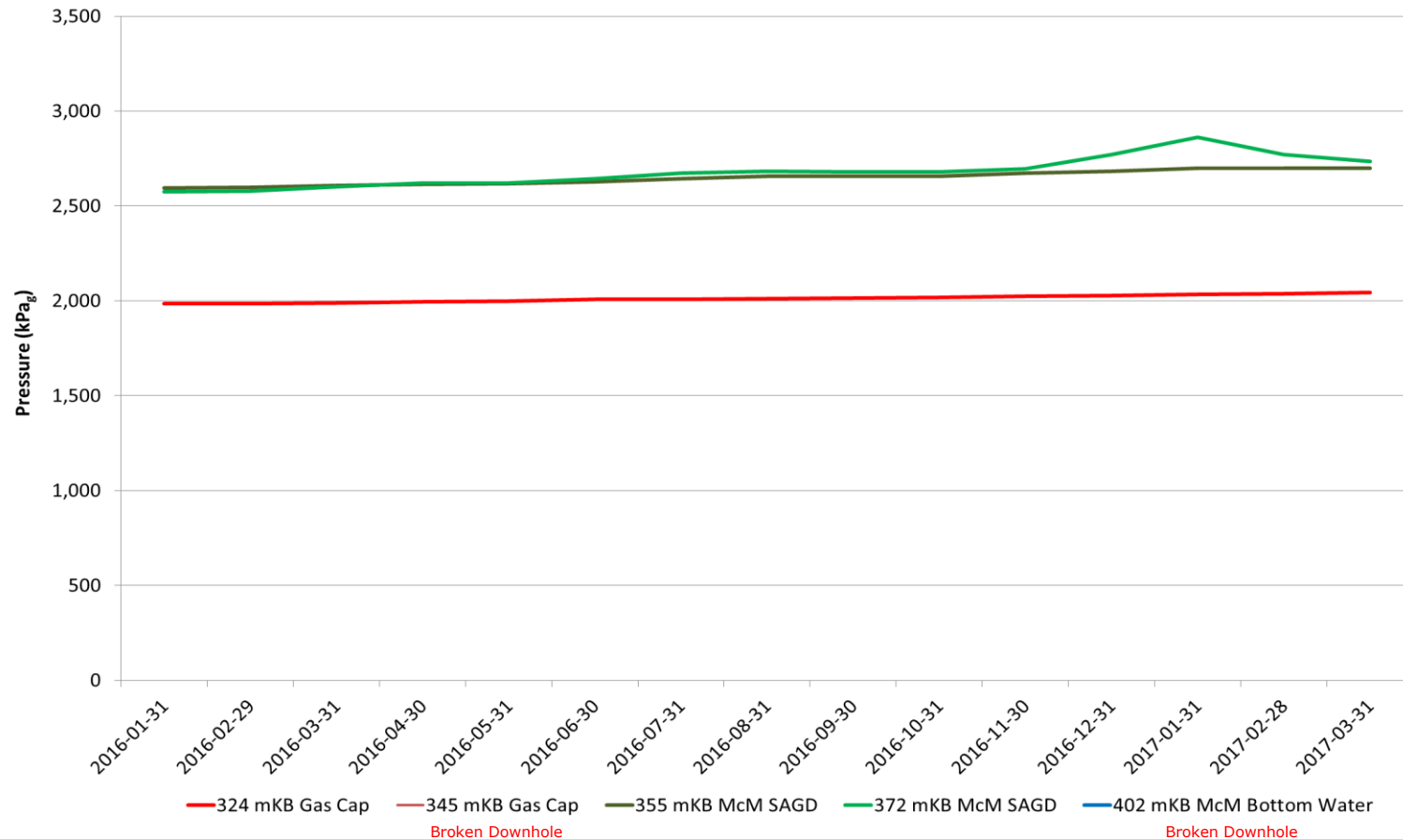
Name: B13 HARDY 13-13-76-6

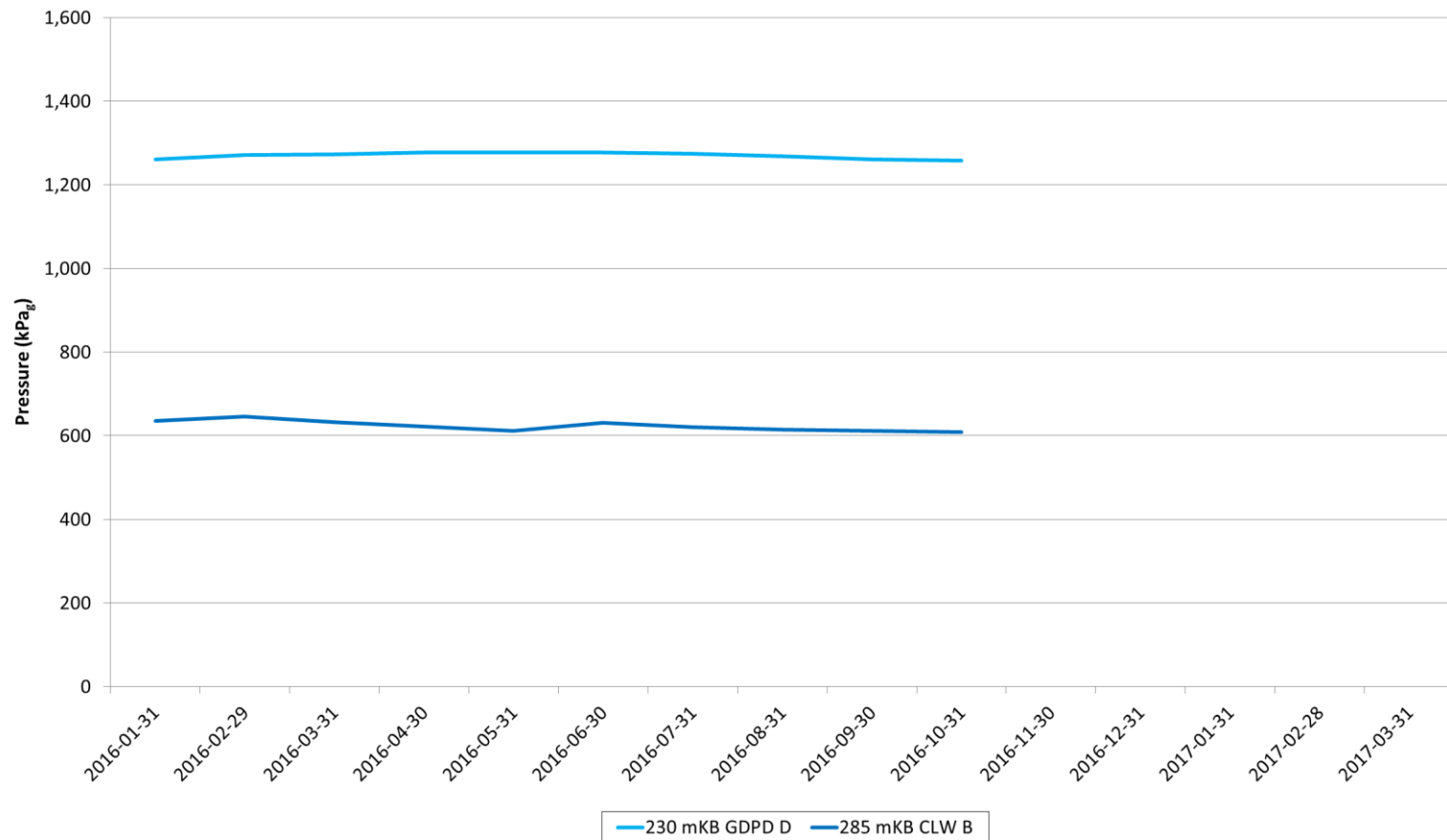
1AB/13-13-076-06W4



Name: D1 LEISMER 1-14-76-6

100/01-14-076-06W4





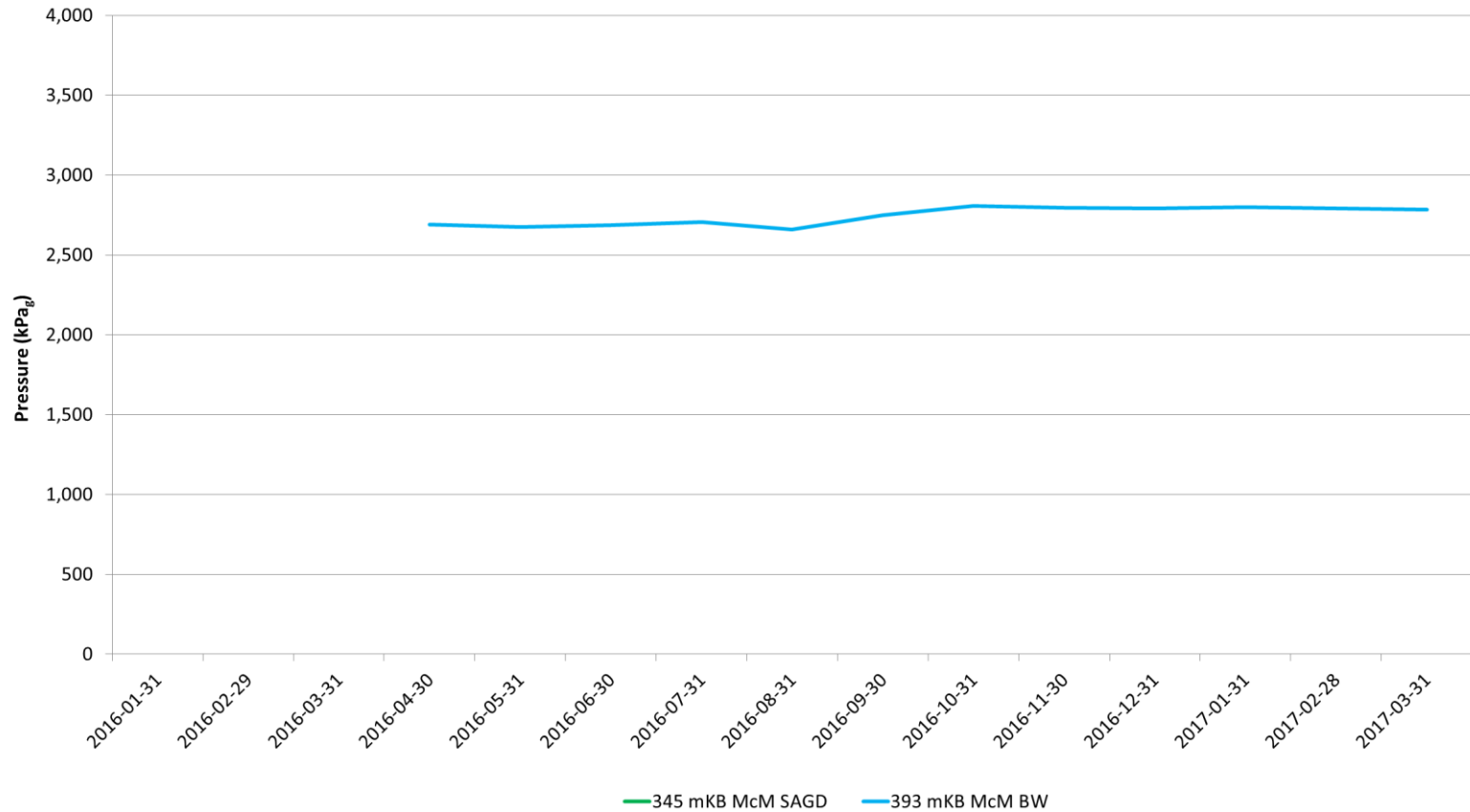
UWI: 102/03-14-076-06W4

Name: D3 LEISMER 3-14-76-6

Failed Downhole

Name: D5 LEISMER 5-14-76-6

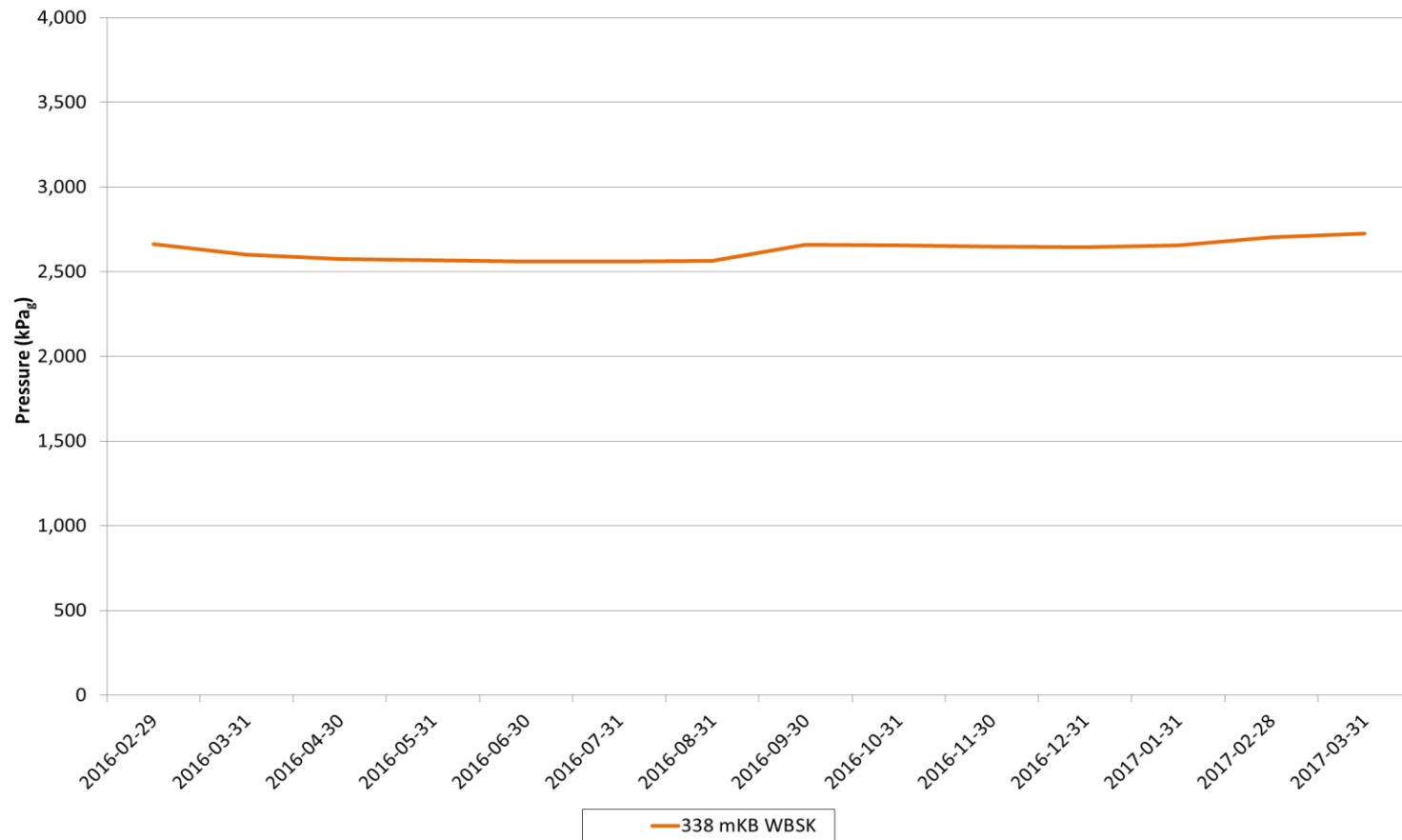
102/05-14-076-06W4



Failed Downhole

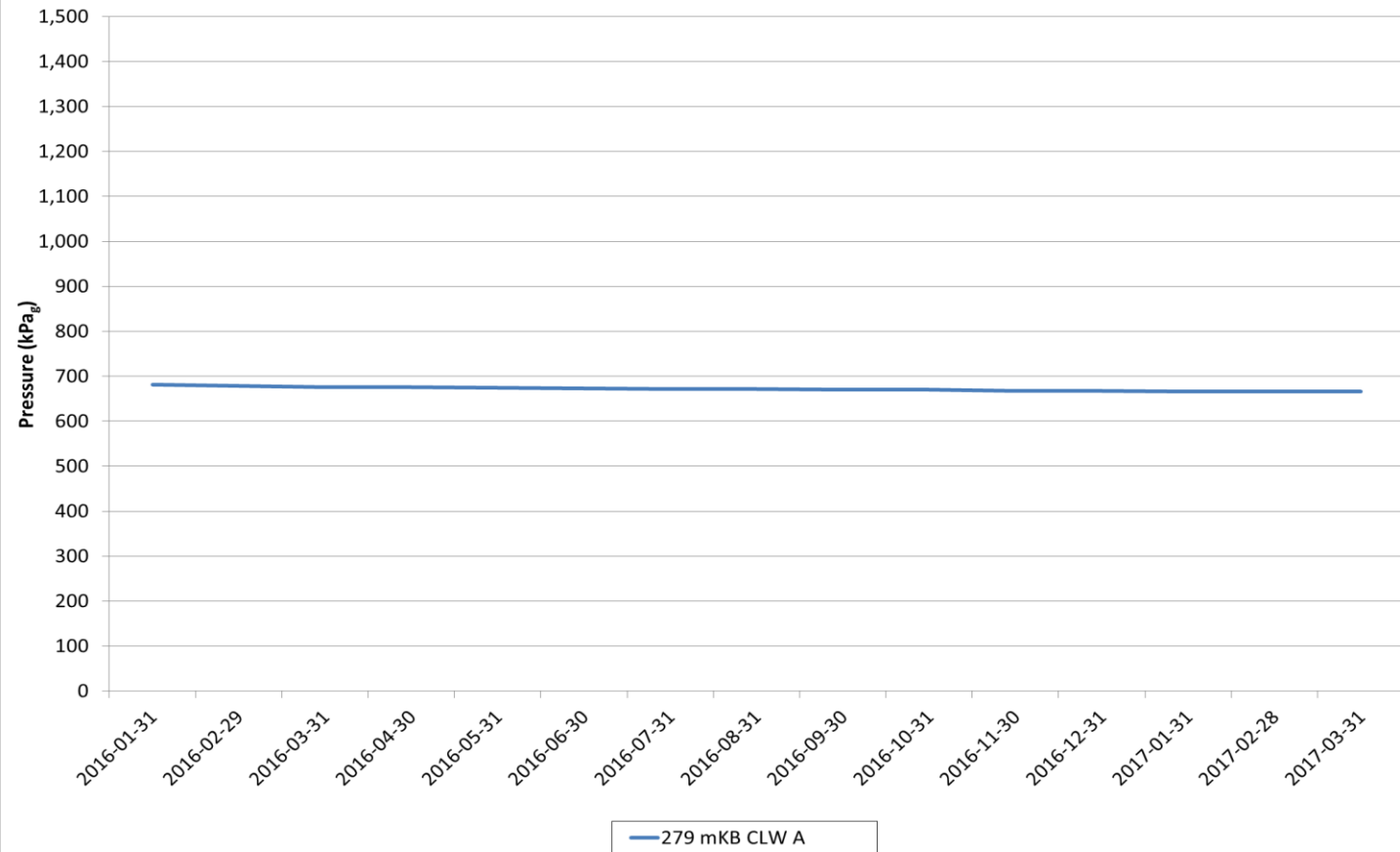
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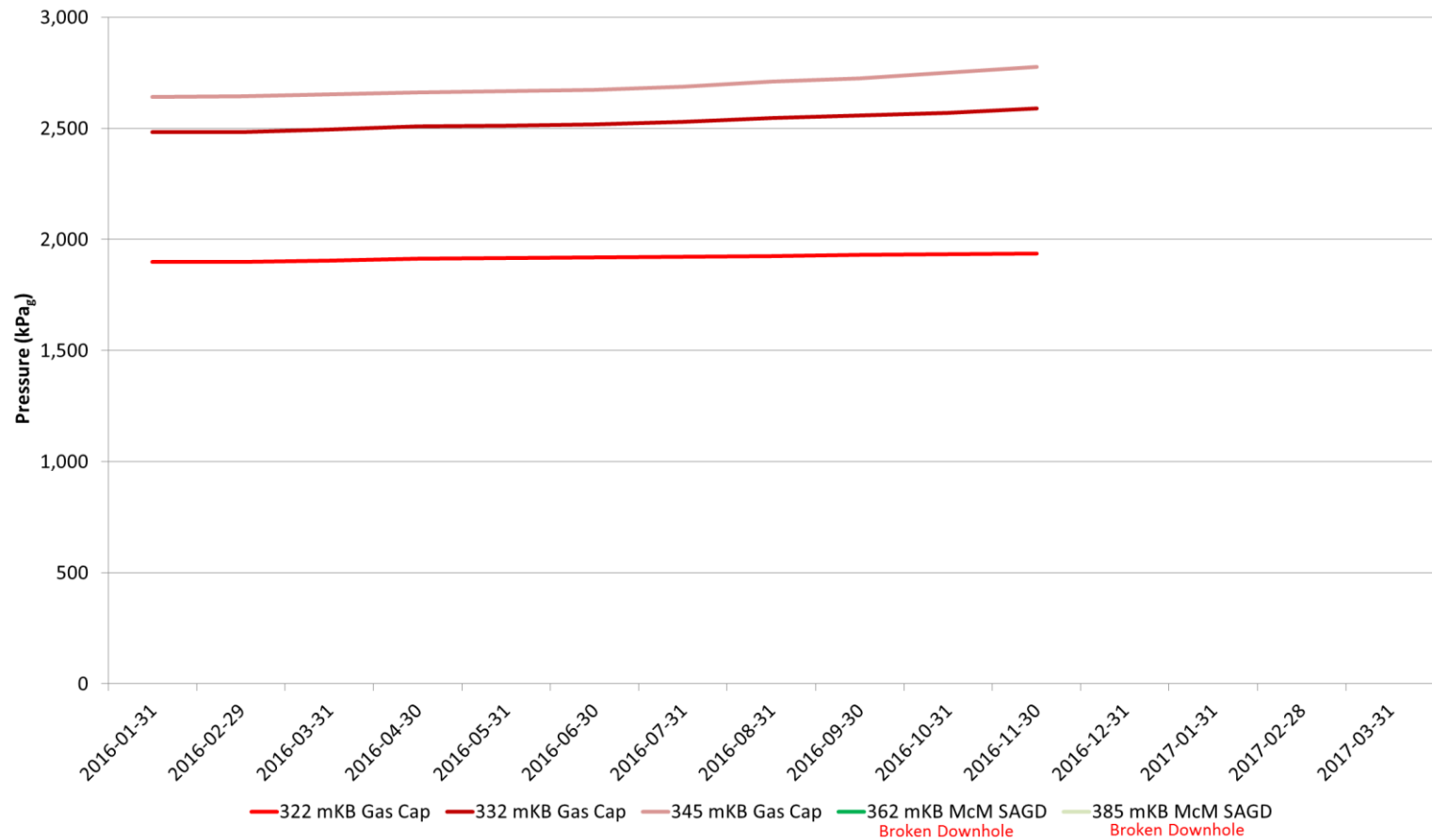
100/05-14-076-06W4

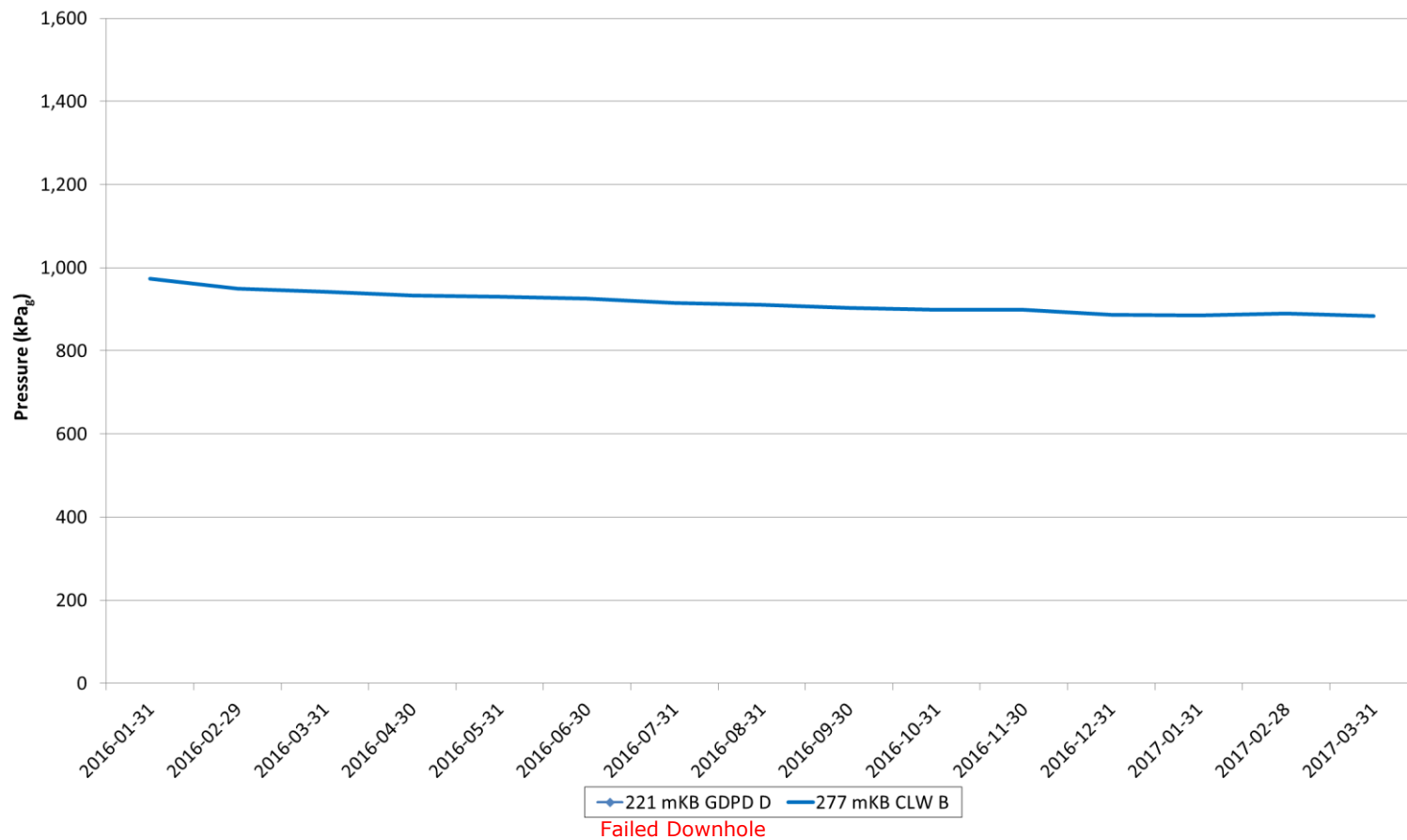


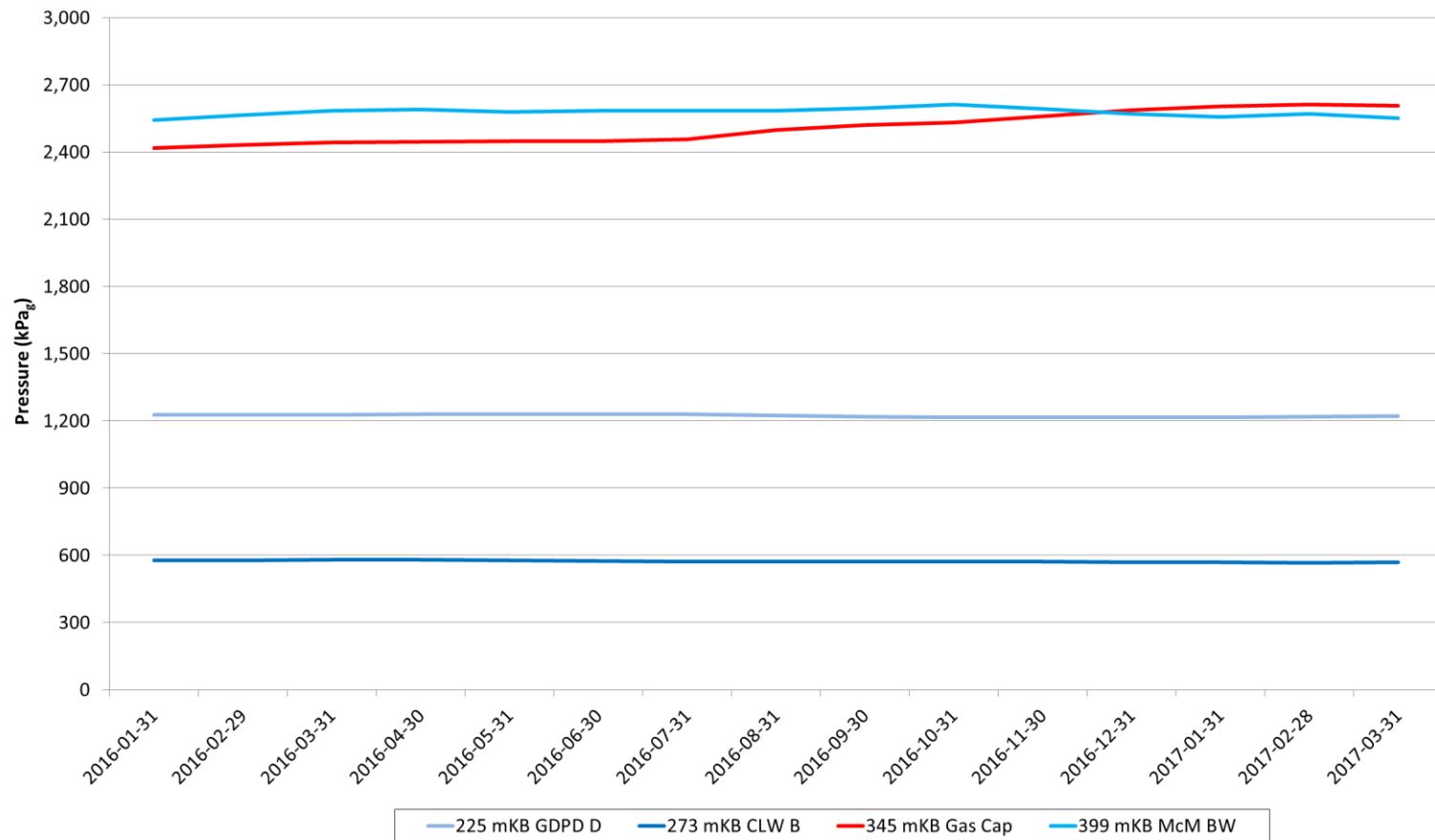
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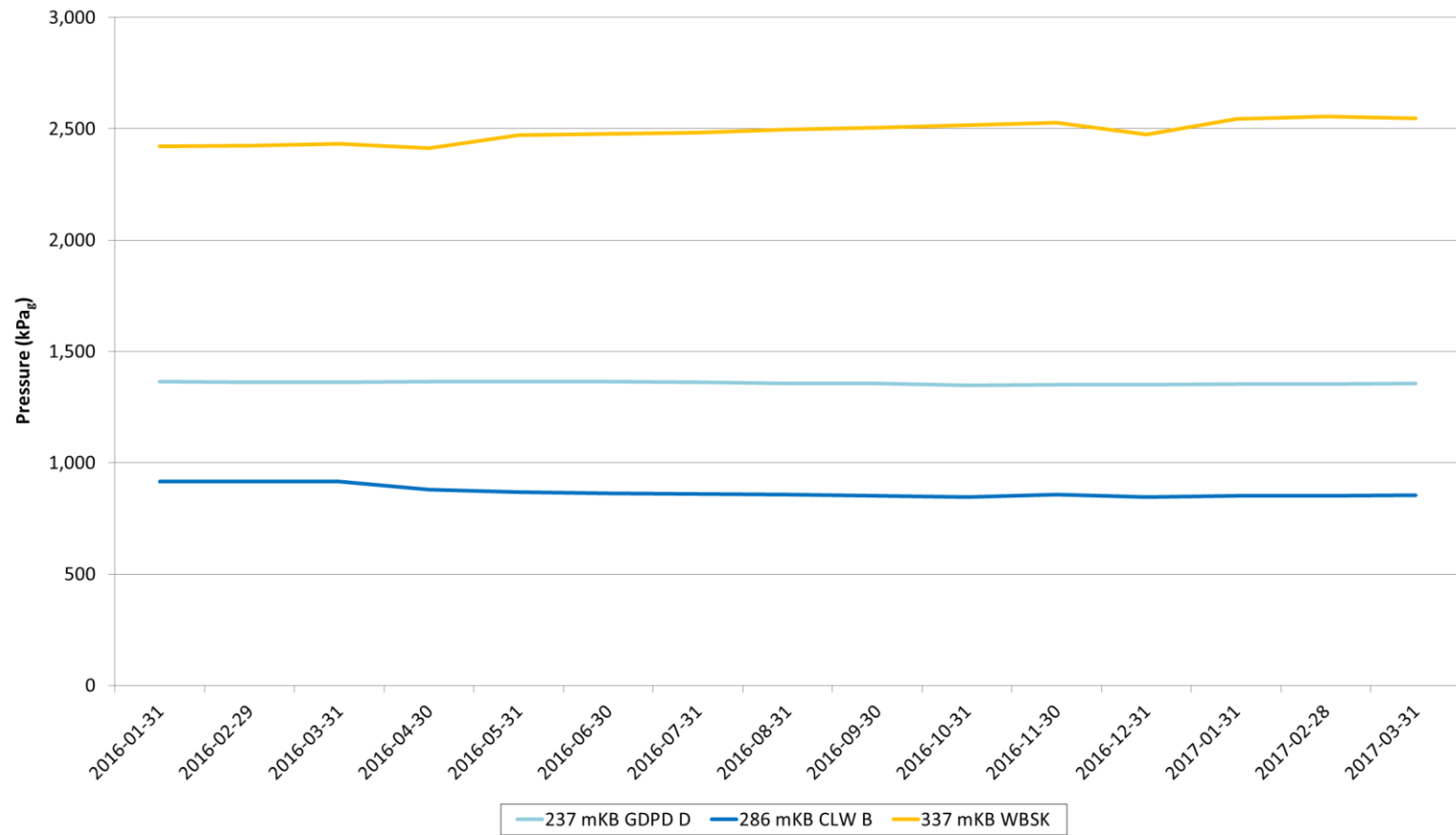
100/09-14-076-06W4





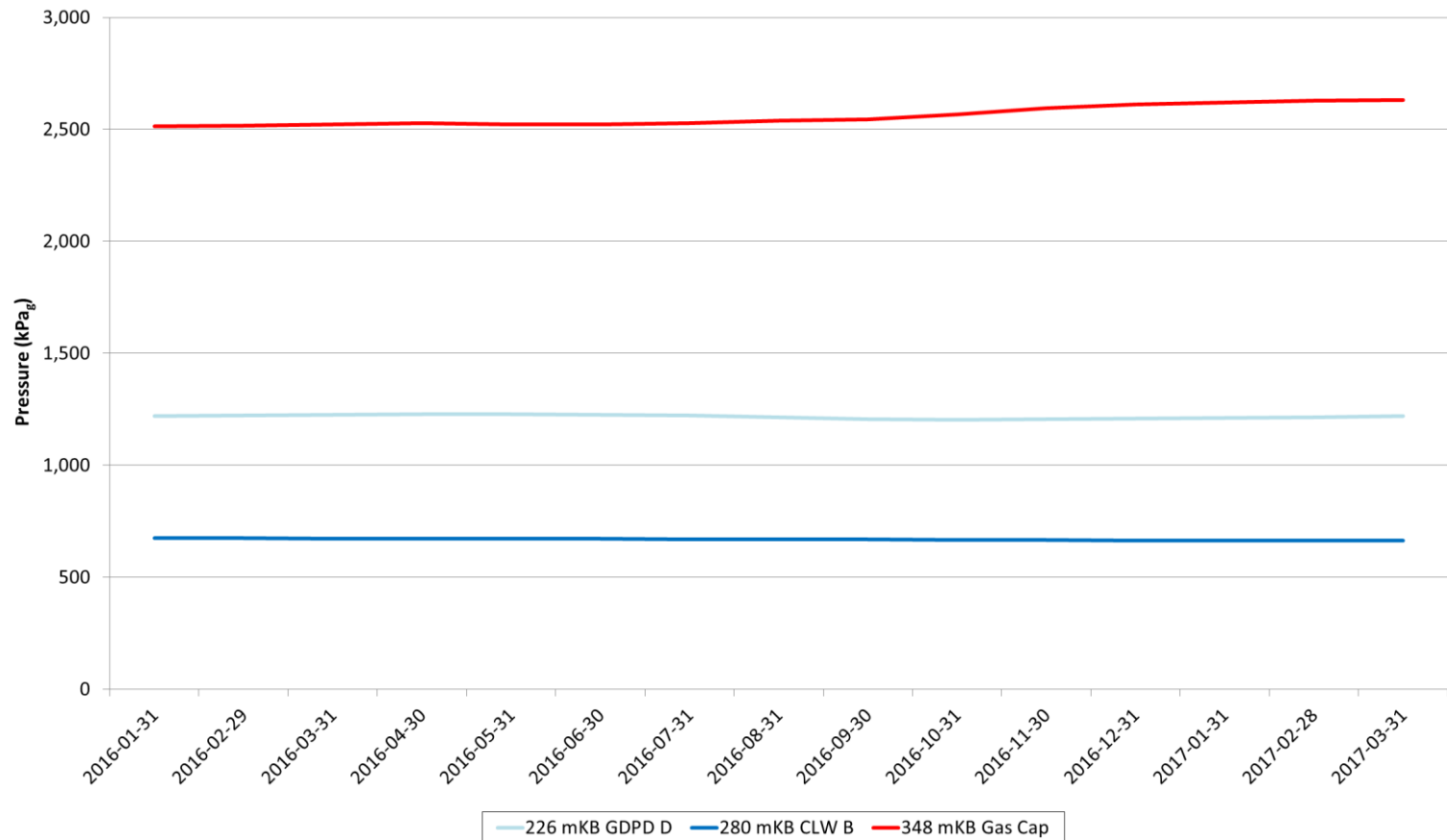


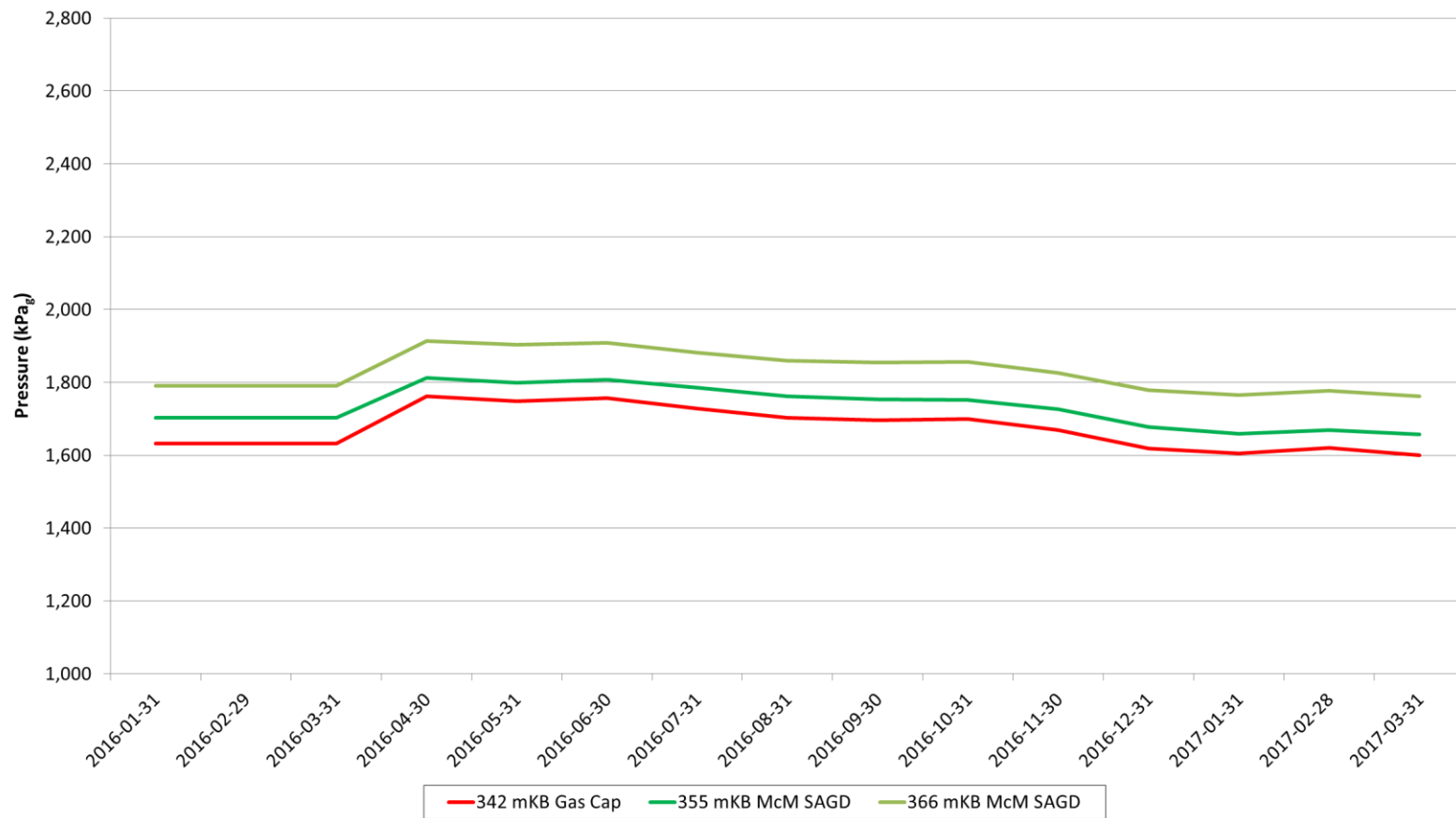




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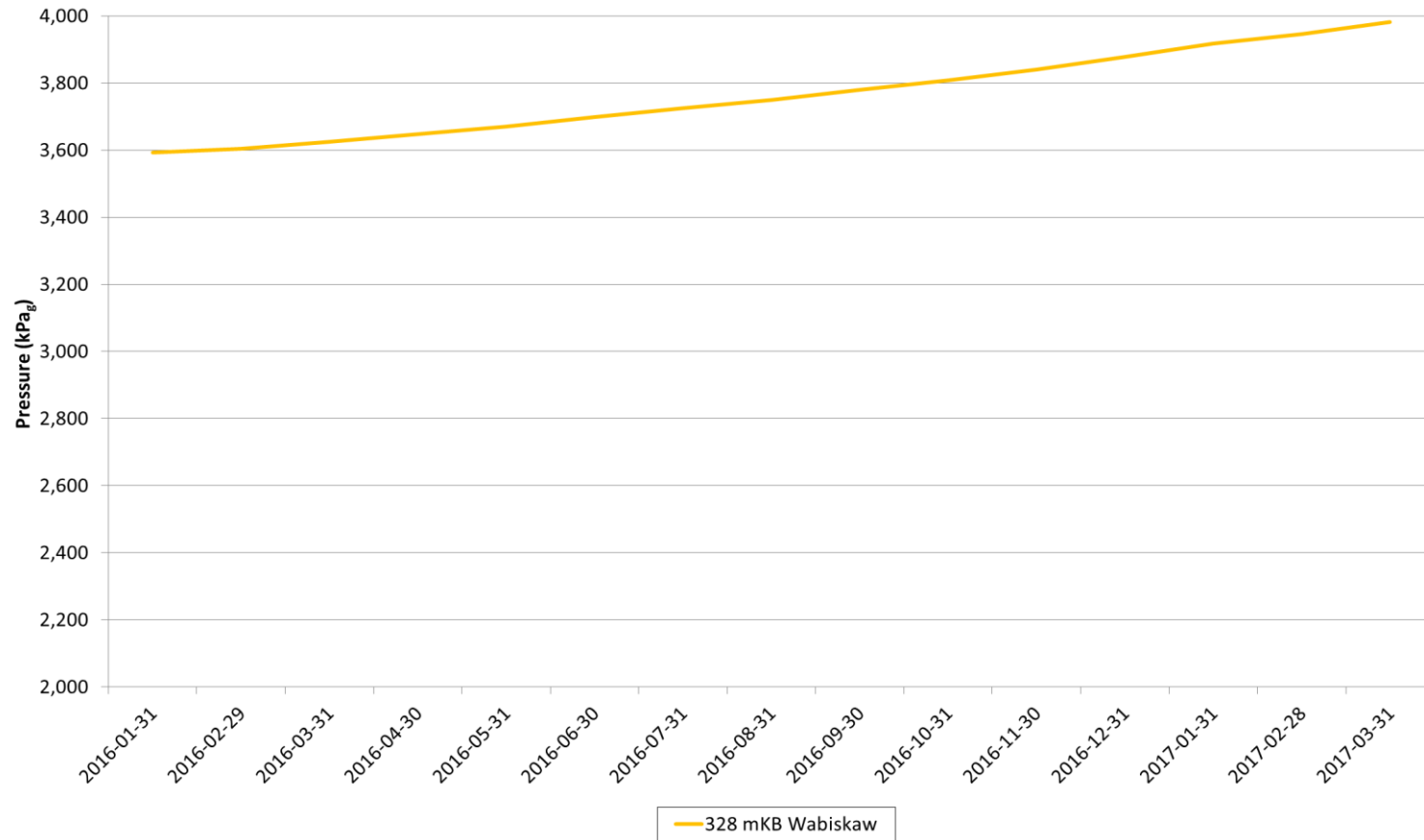
112/02-15-076-06W4

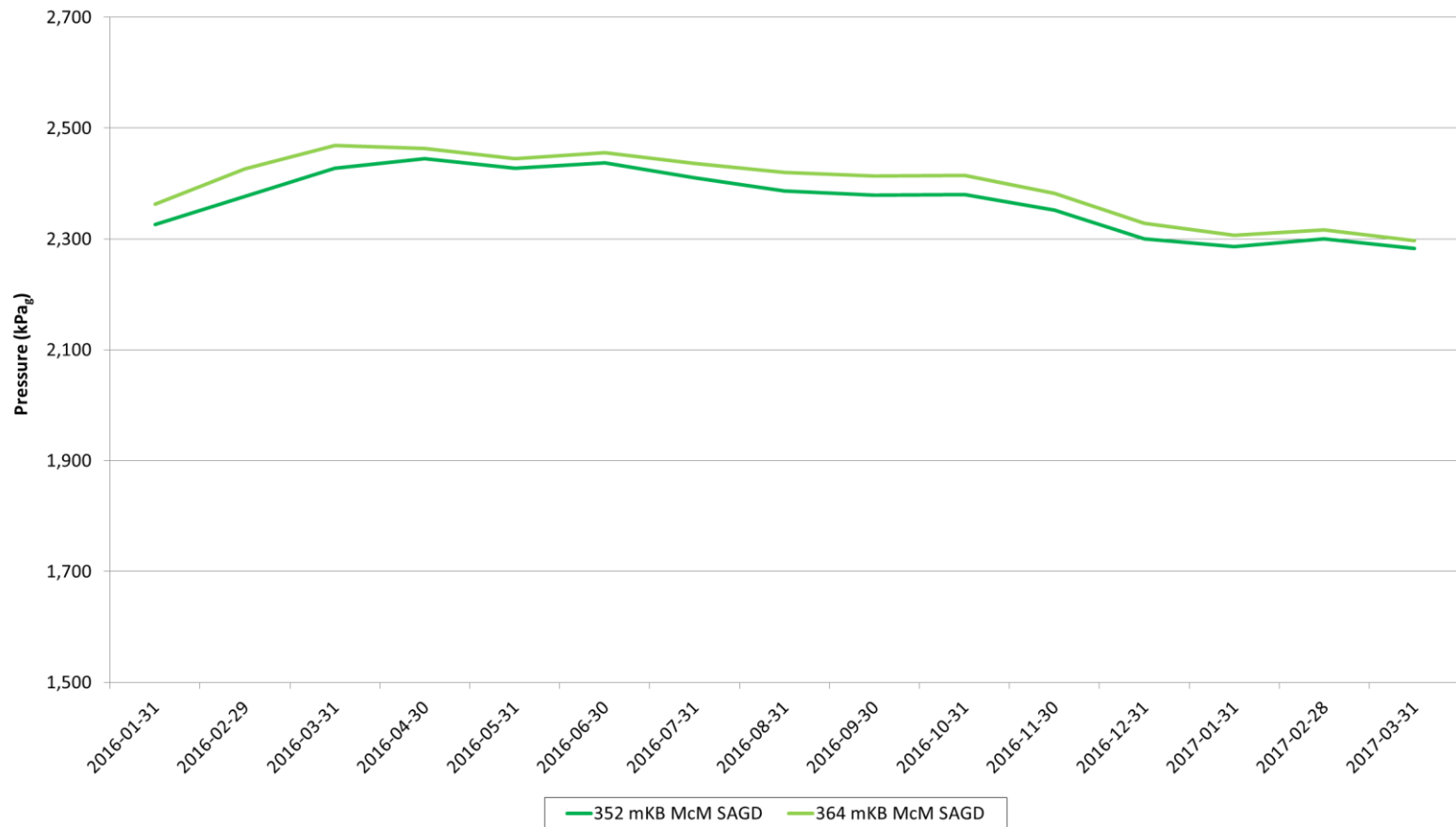


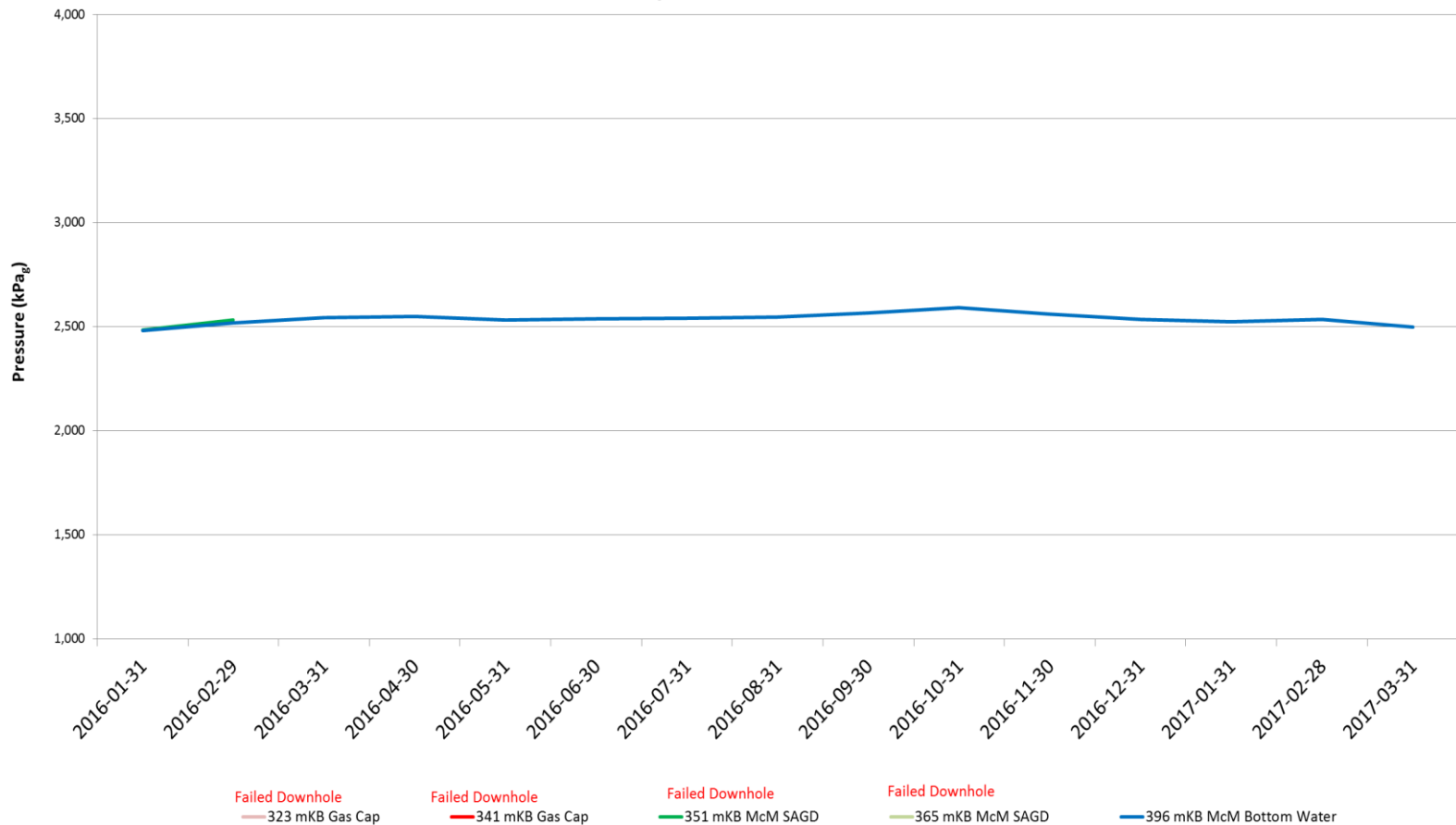


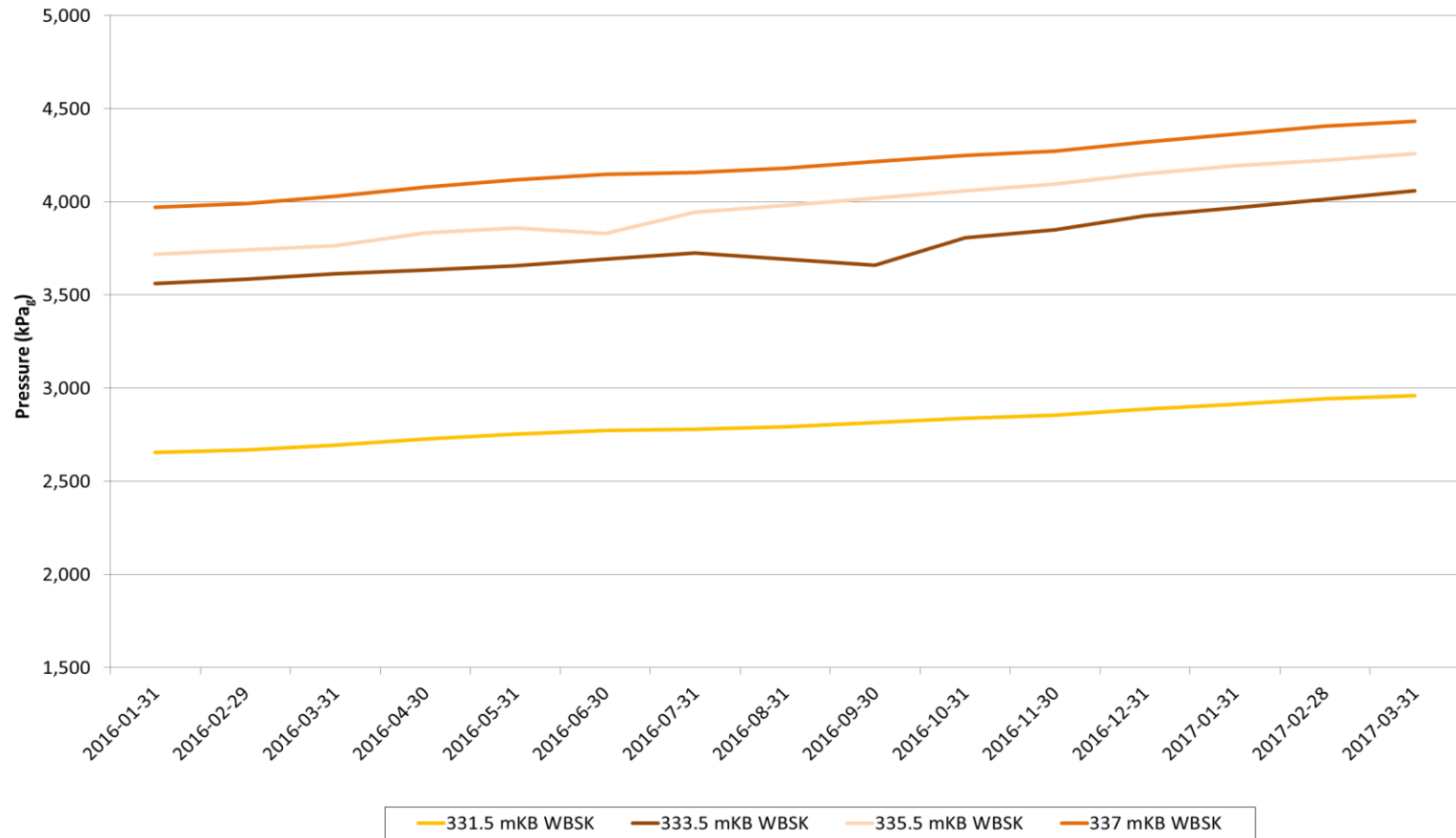
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103/03-15-076-06W4



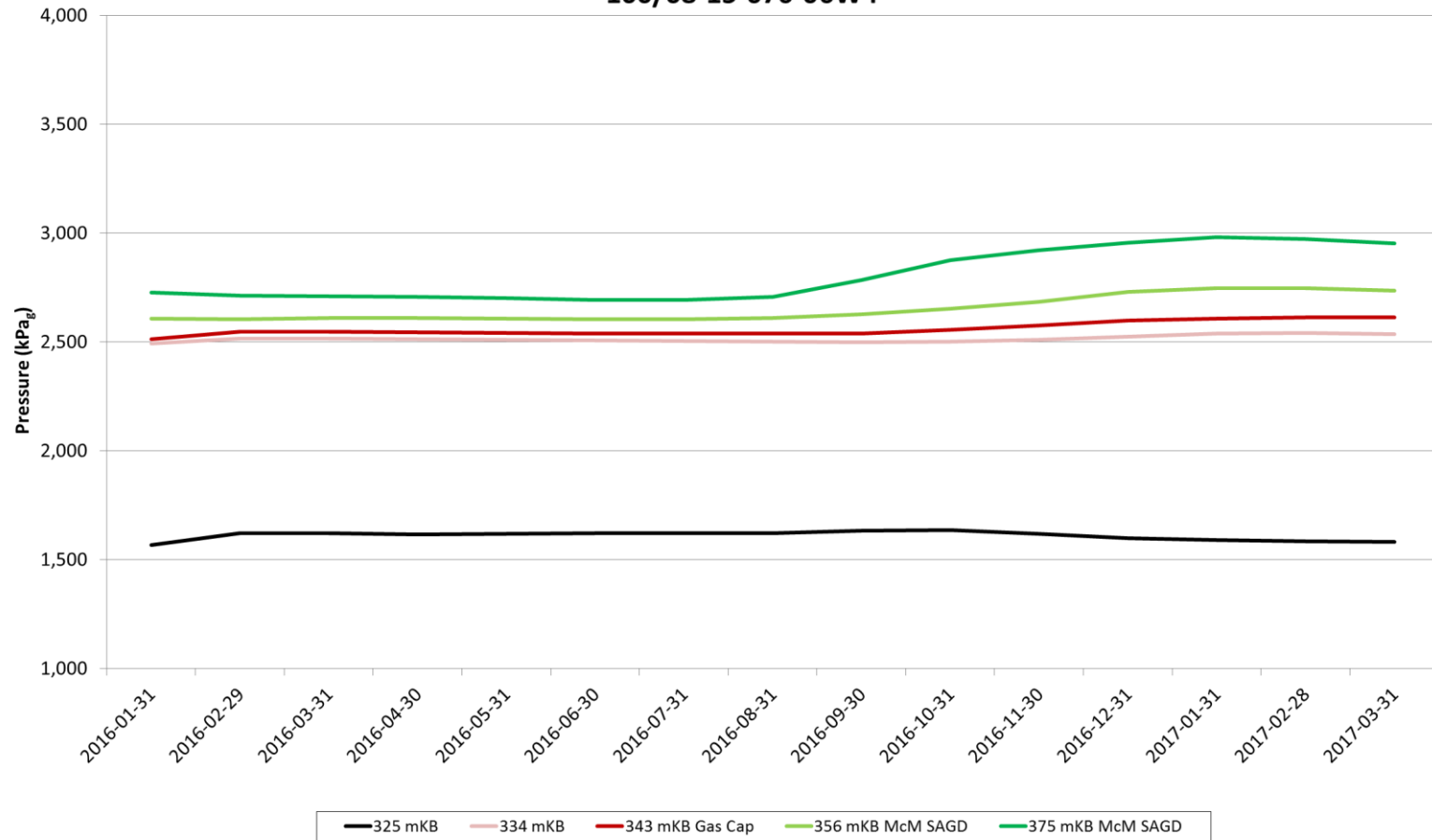






Name: LEISMER 8-15-76-6

100/08-15-076-06W4



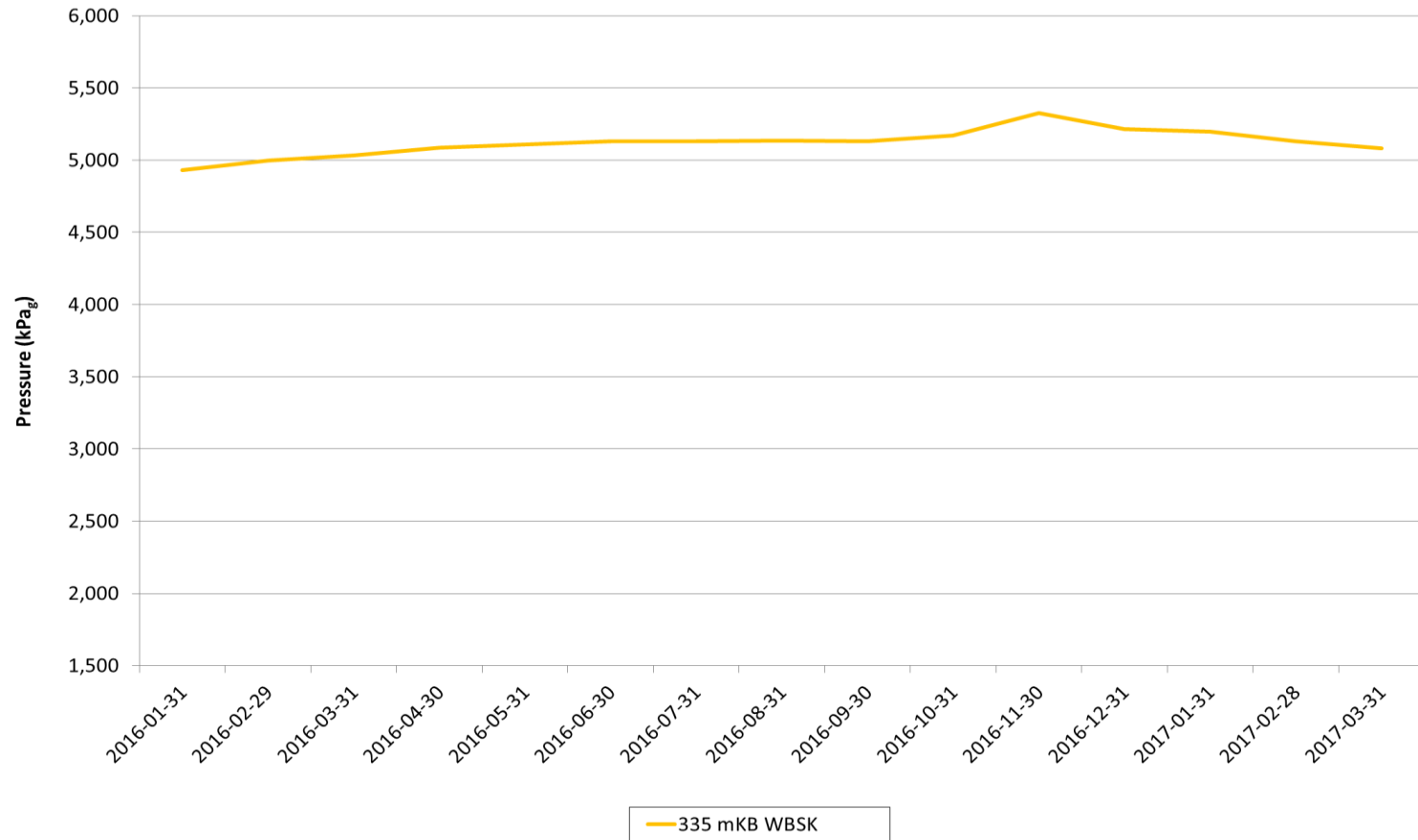
UWI: 100/09-15-076-06W4

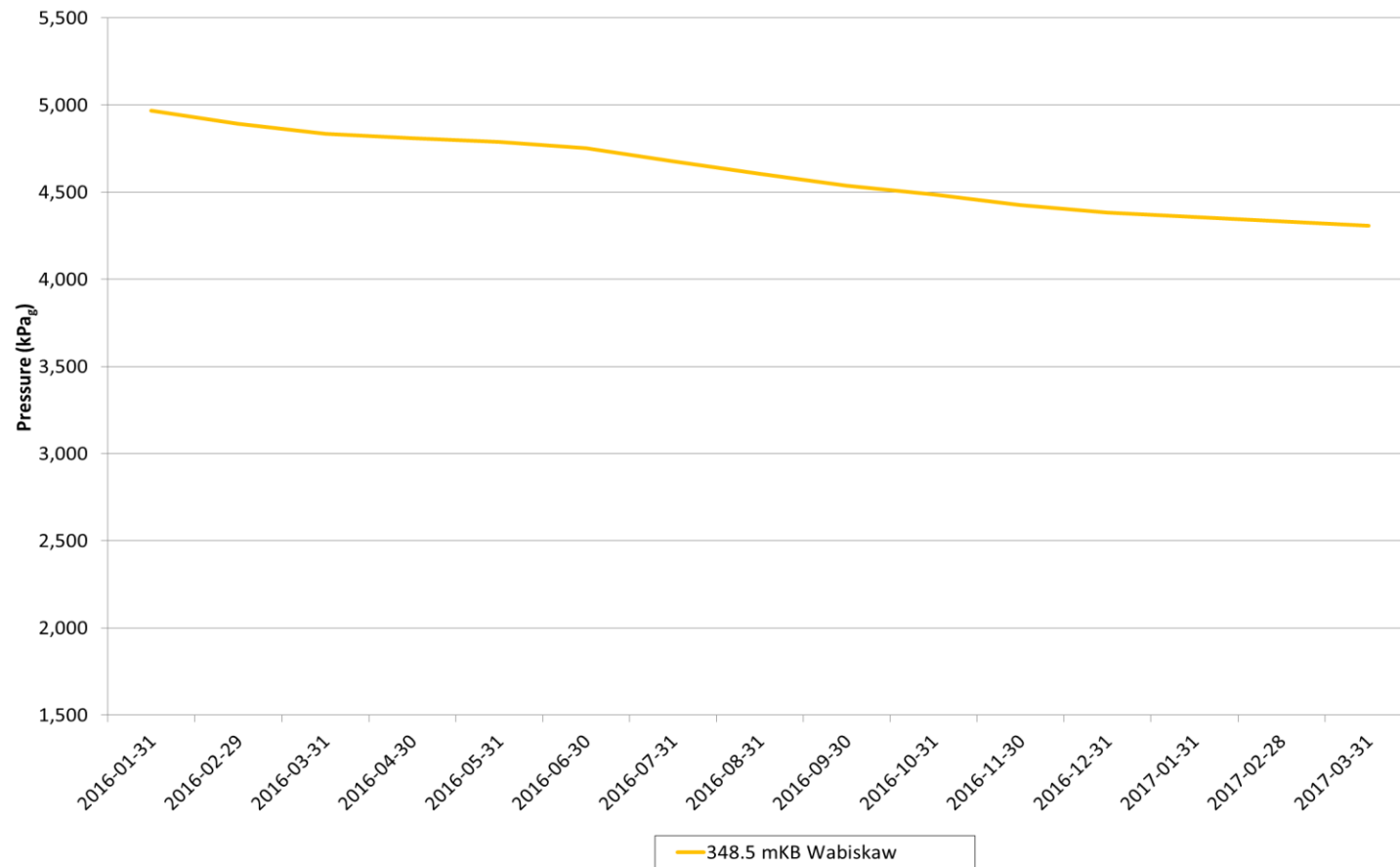
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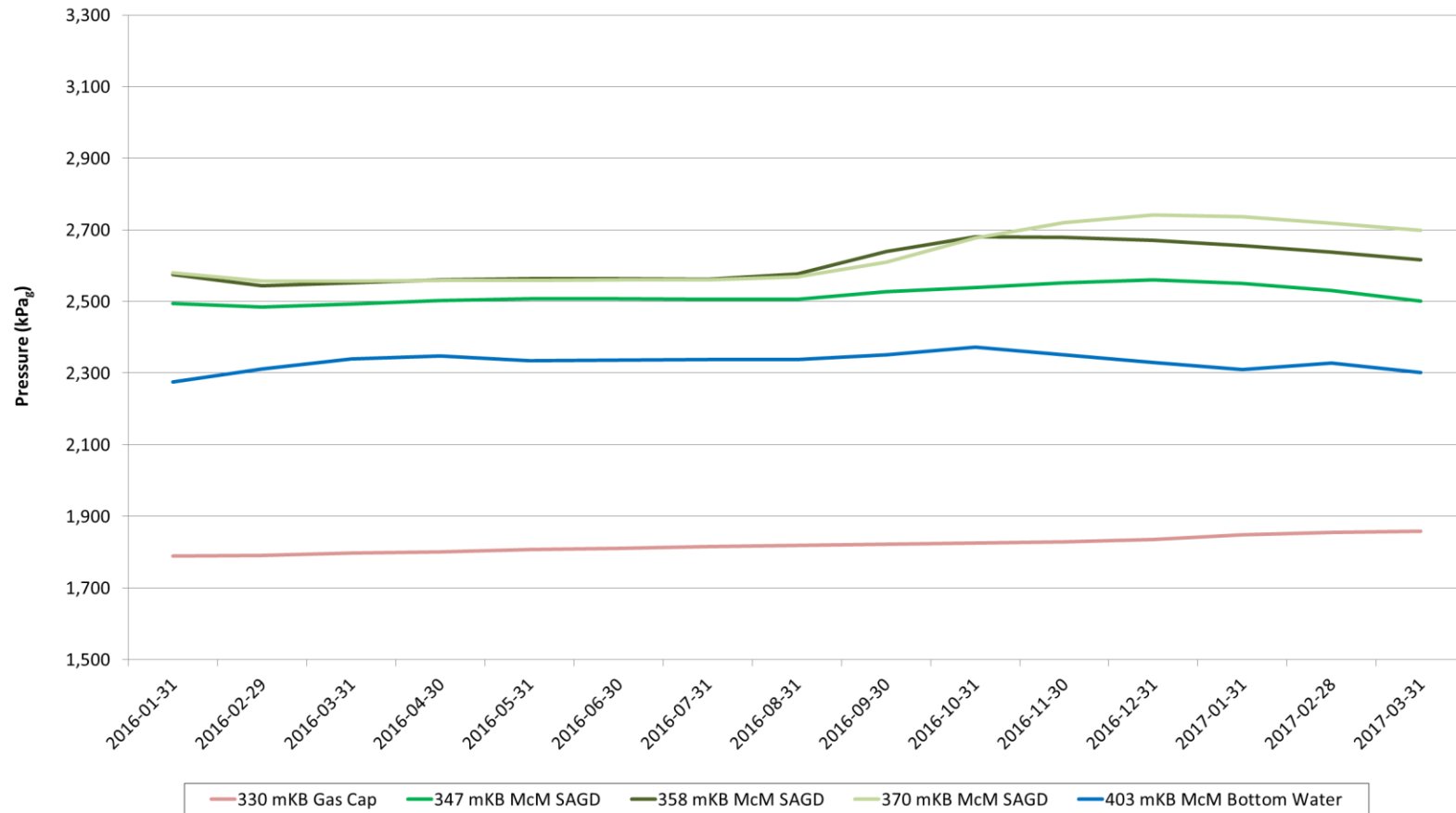
Failed Downhole

Name: LEISMER 11-15-76-6

100/11-15-076-06W4

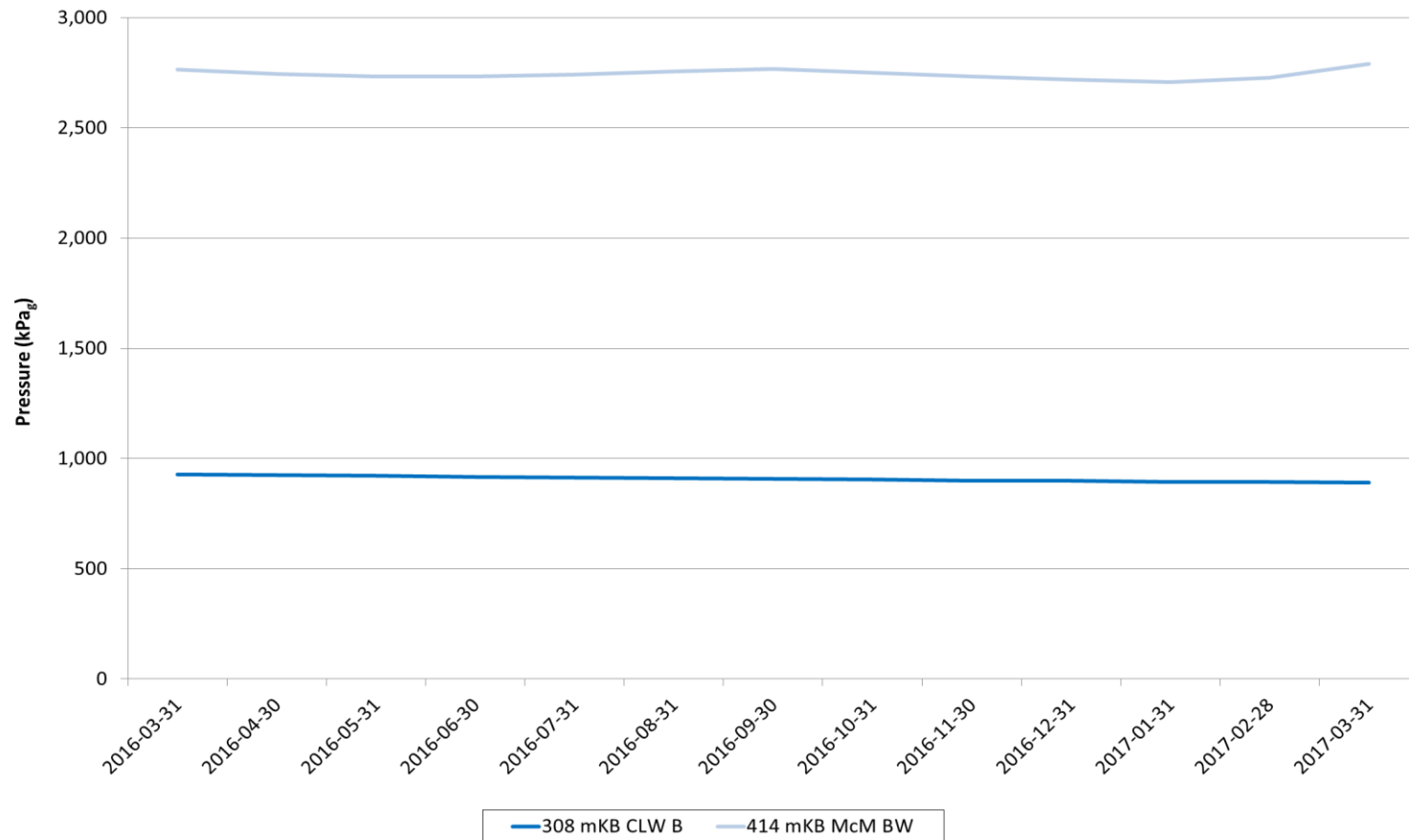


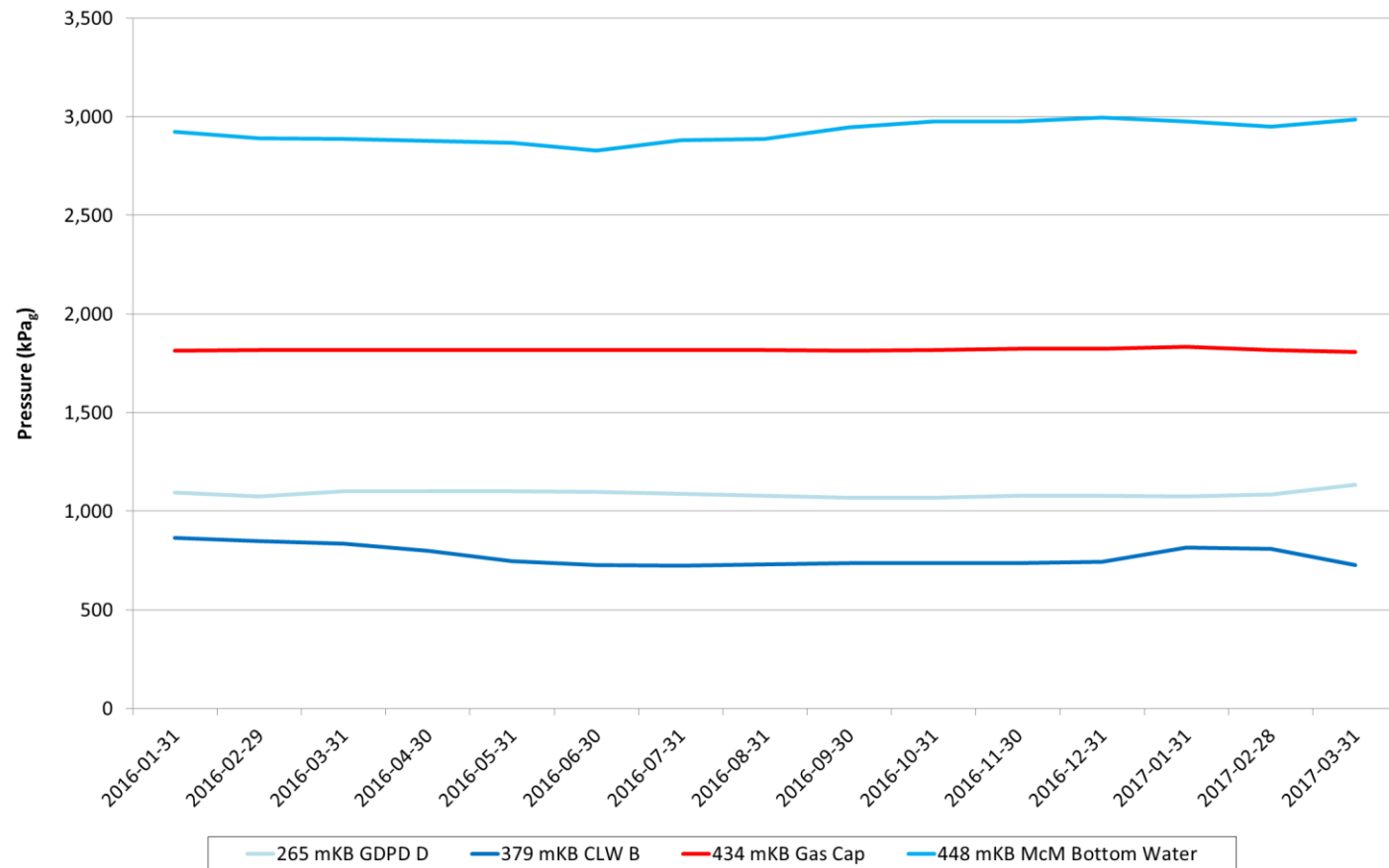


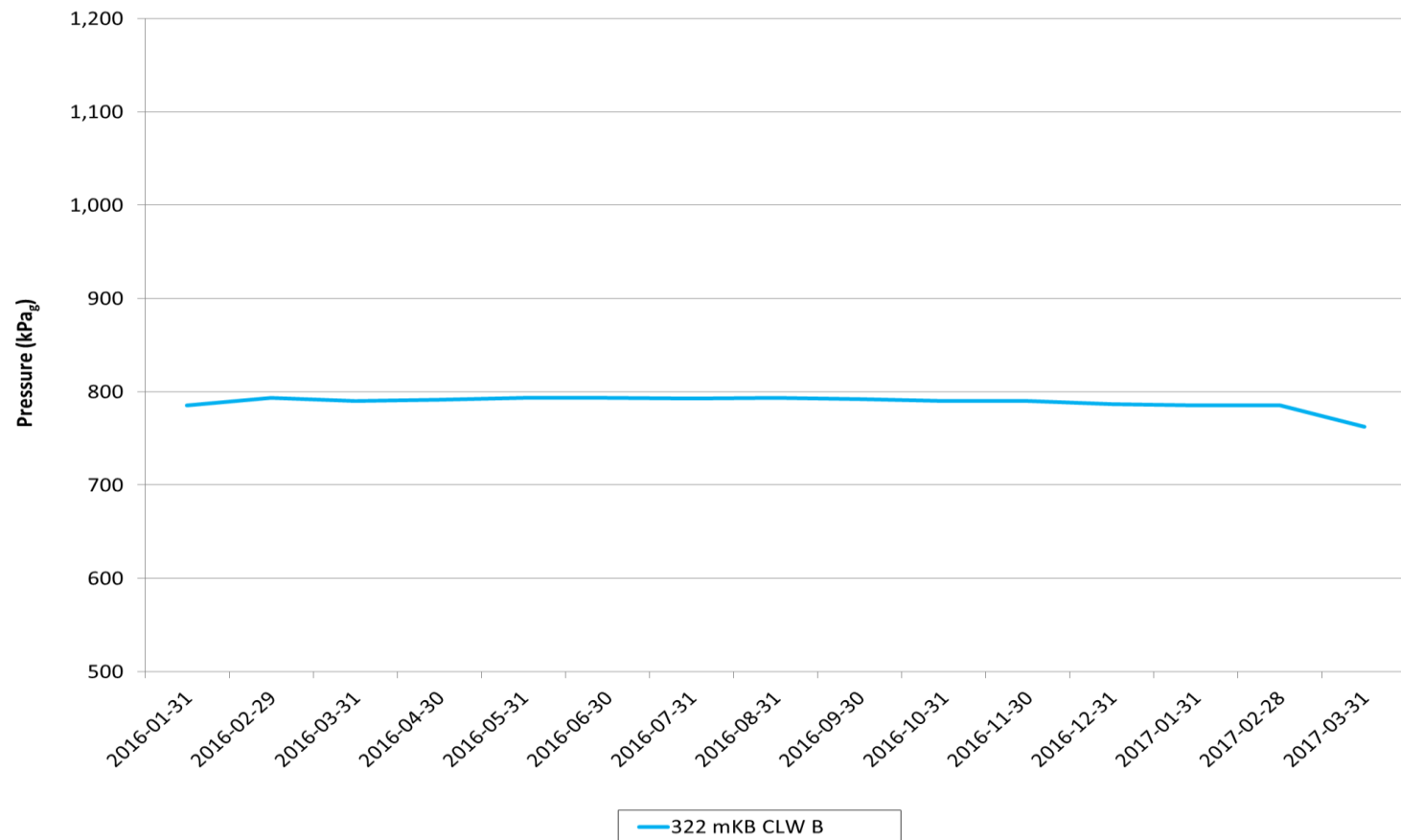


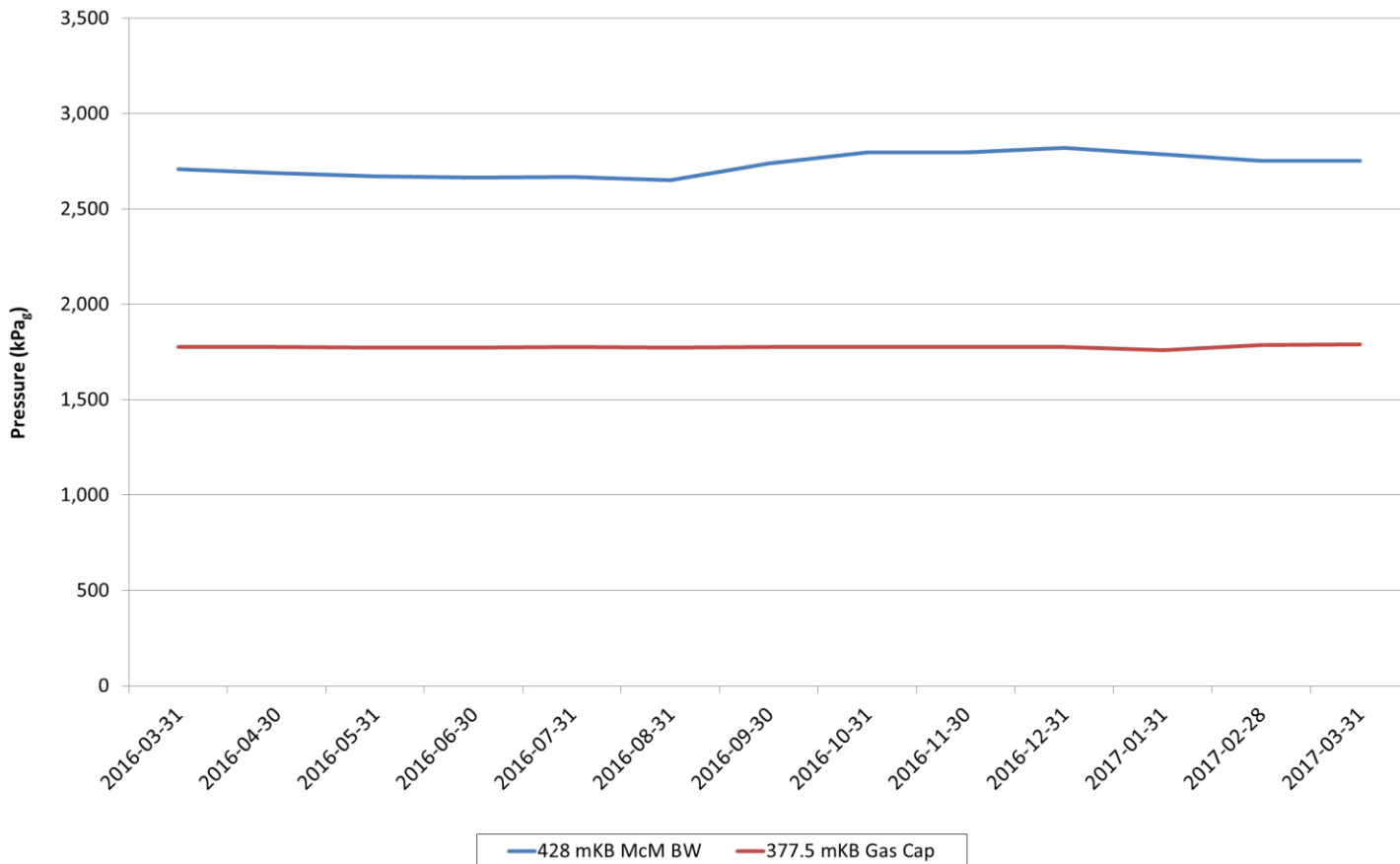
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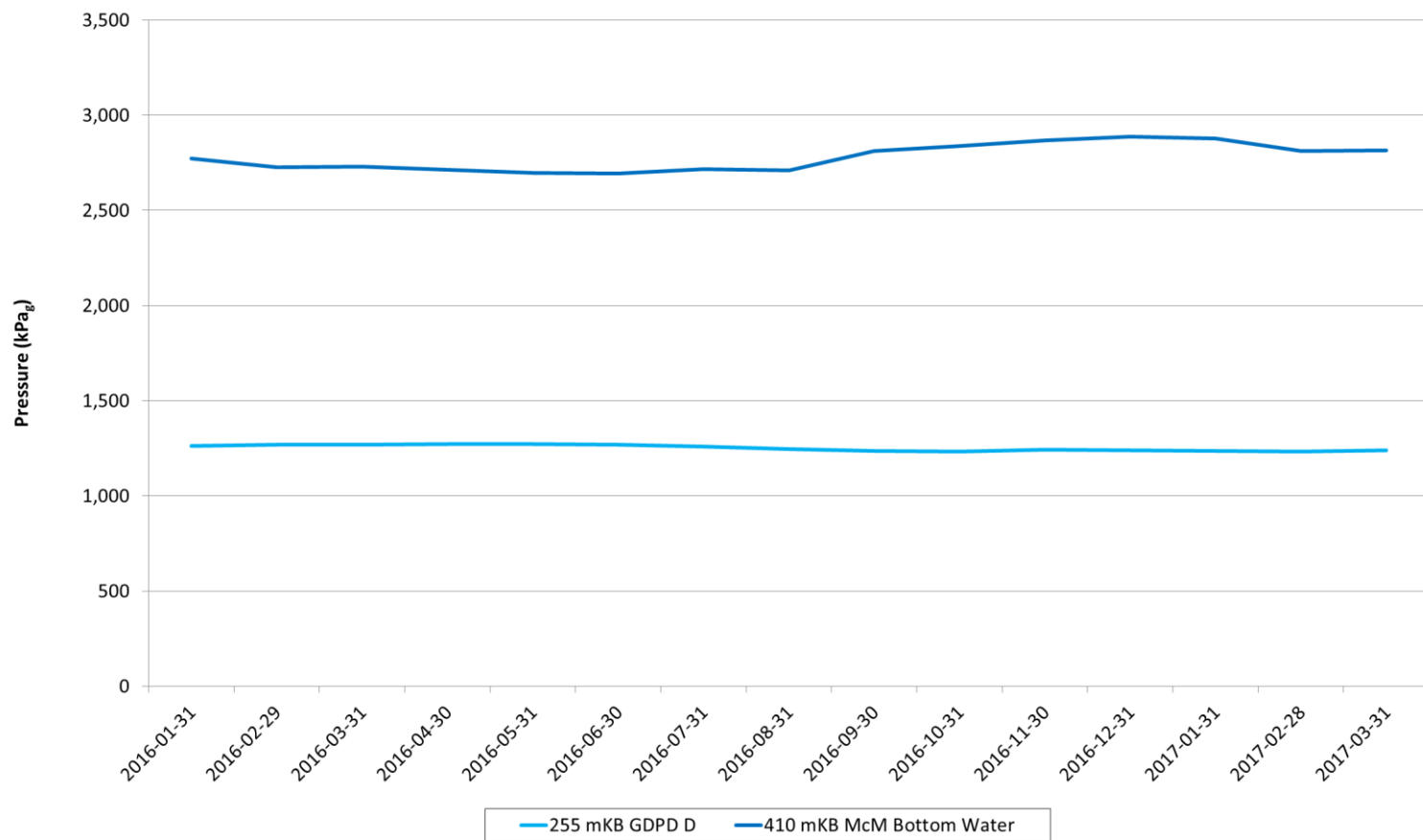
1AC/07-01-076-06W4

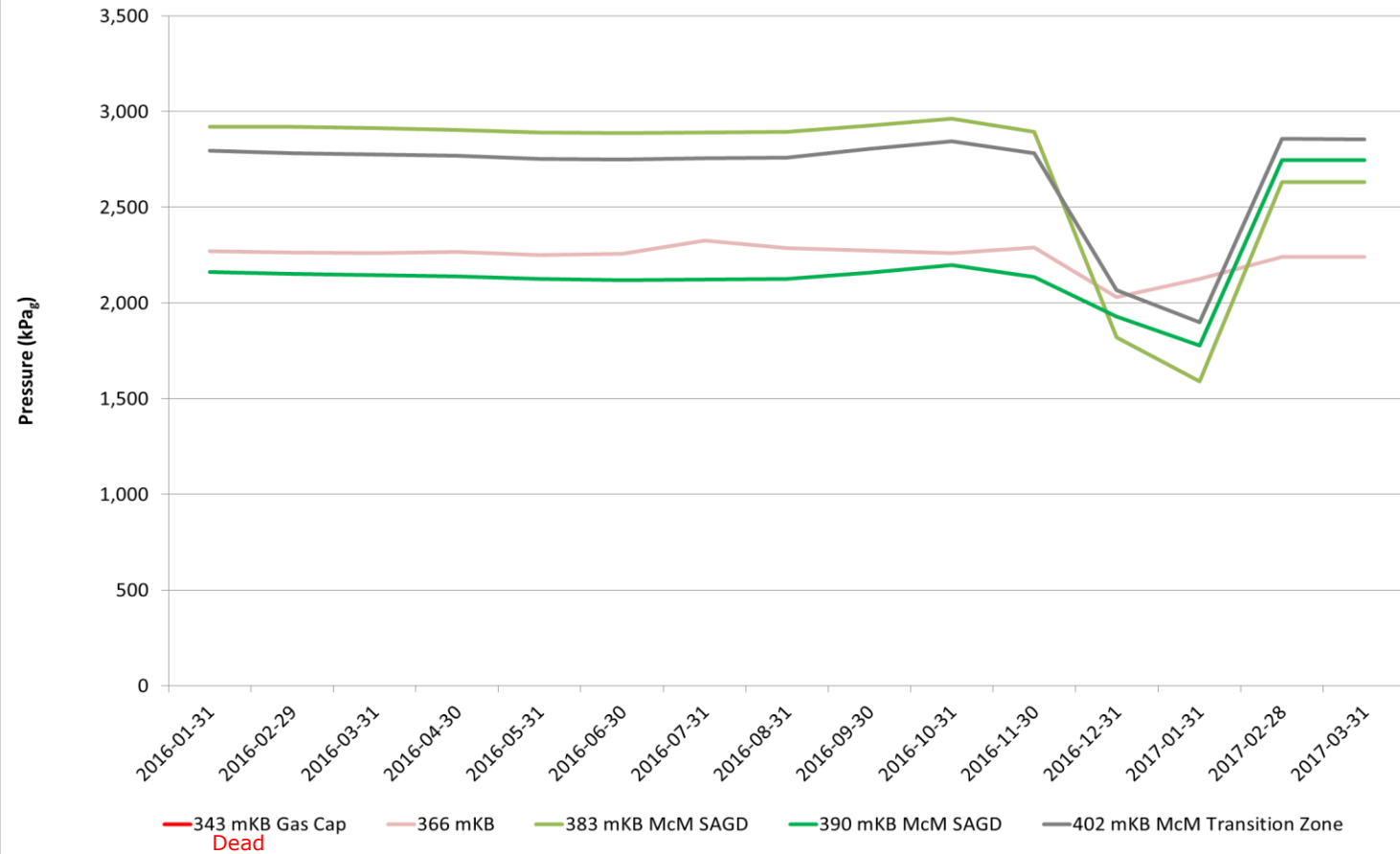


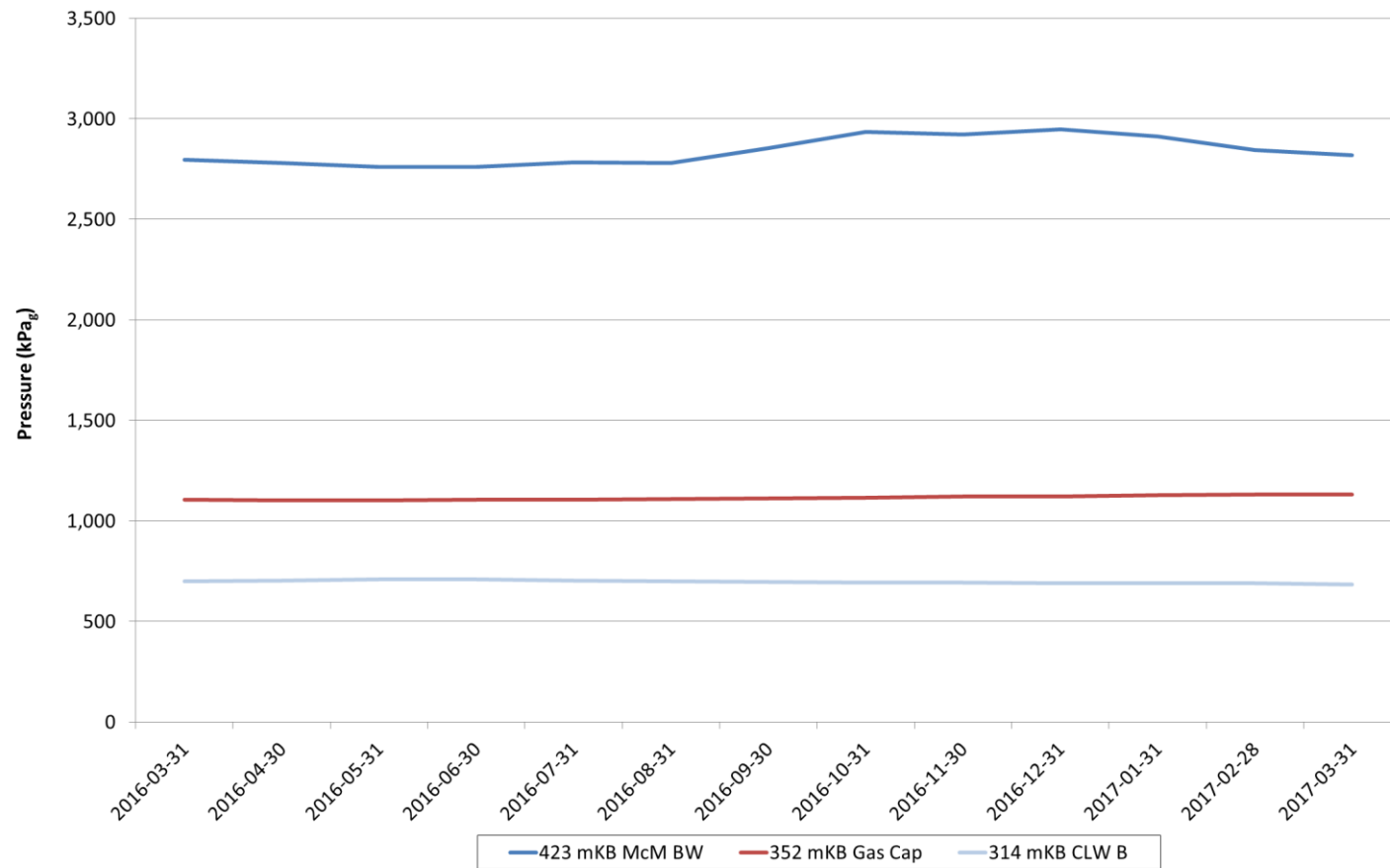




2B4 KIRBY 4-2-76-6



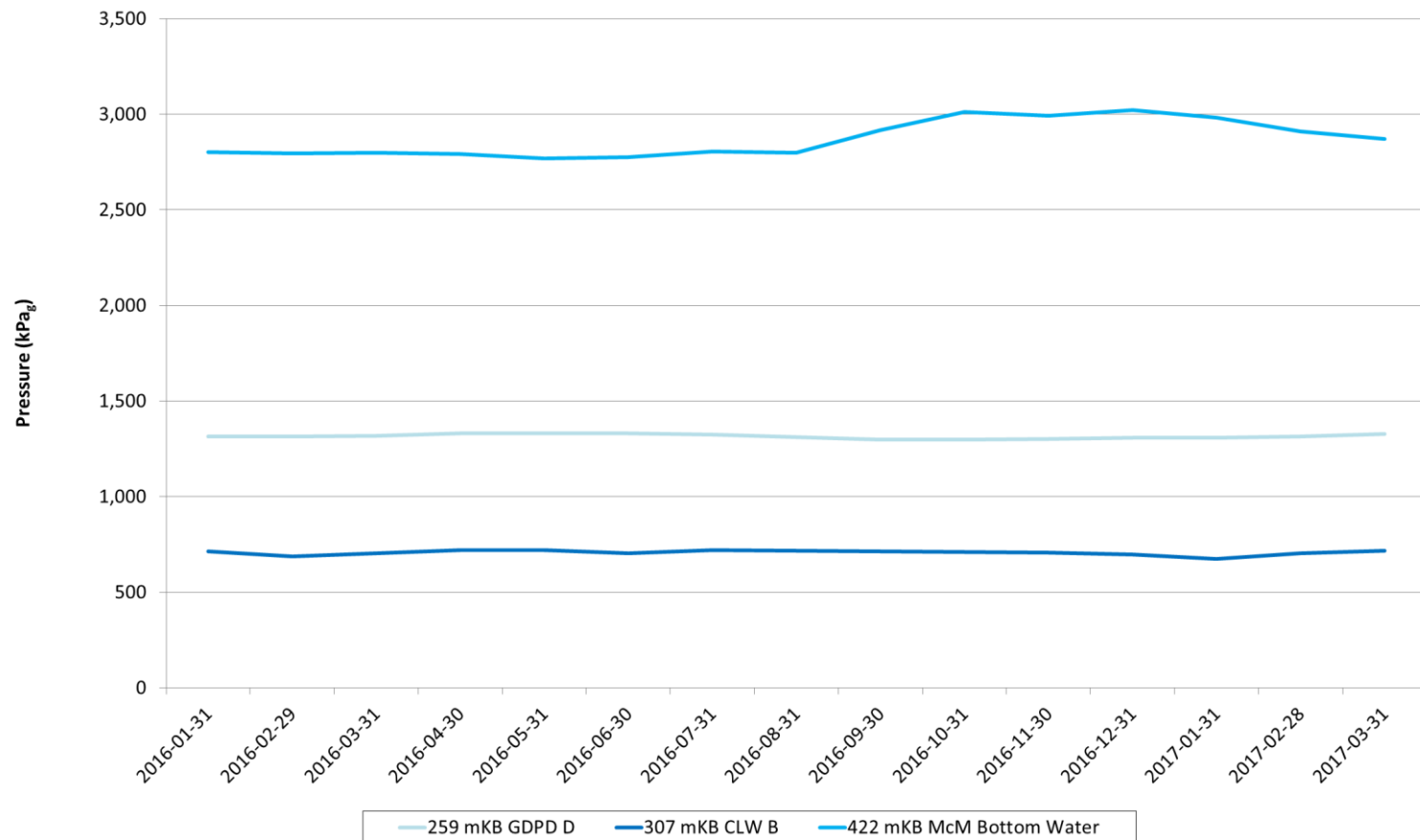


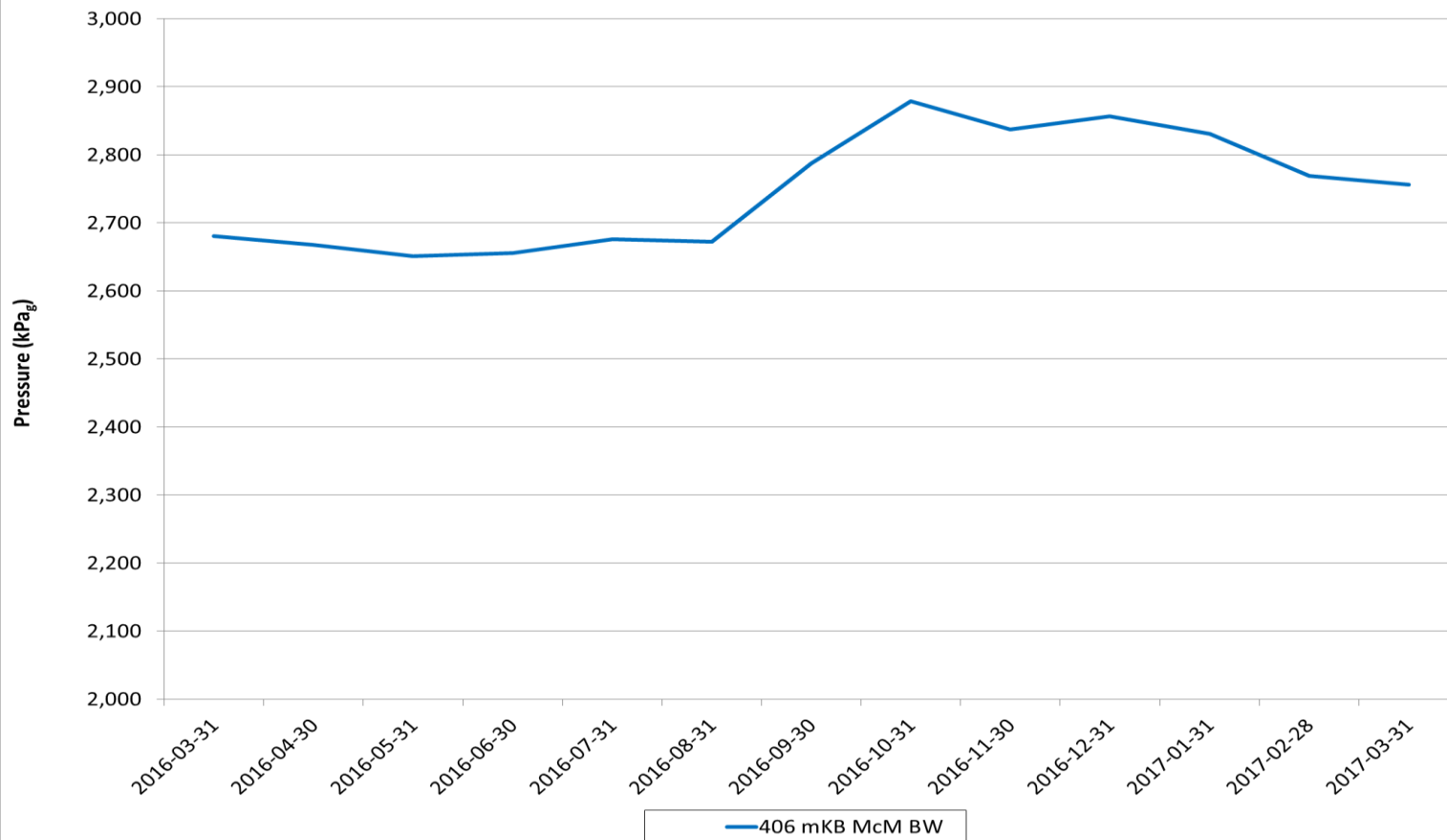
C2 KIRBY 2-3-76-6

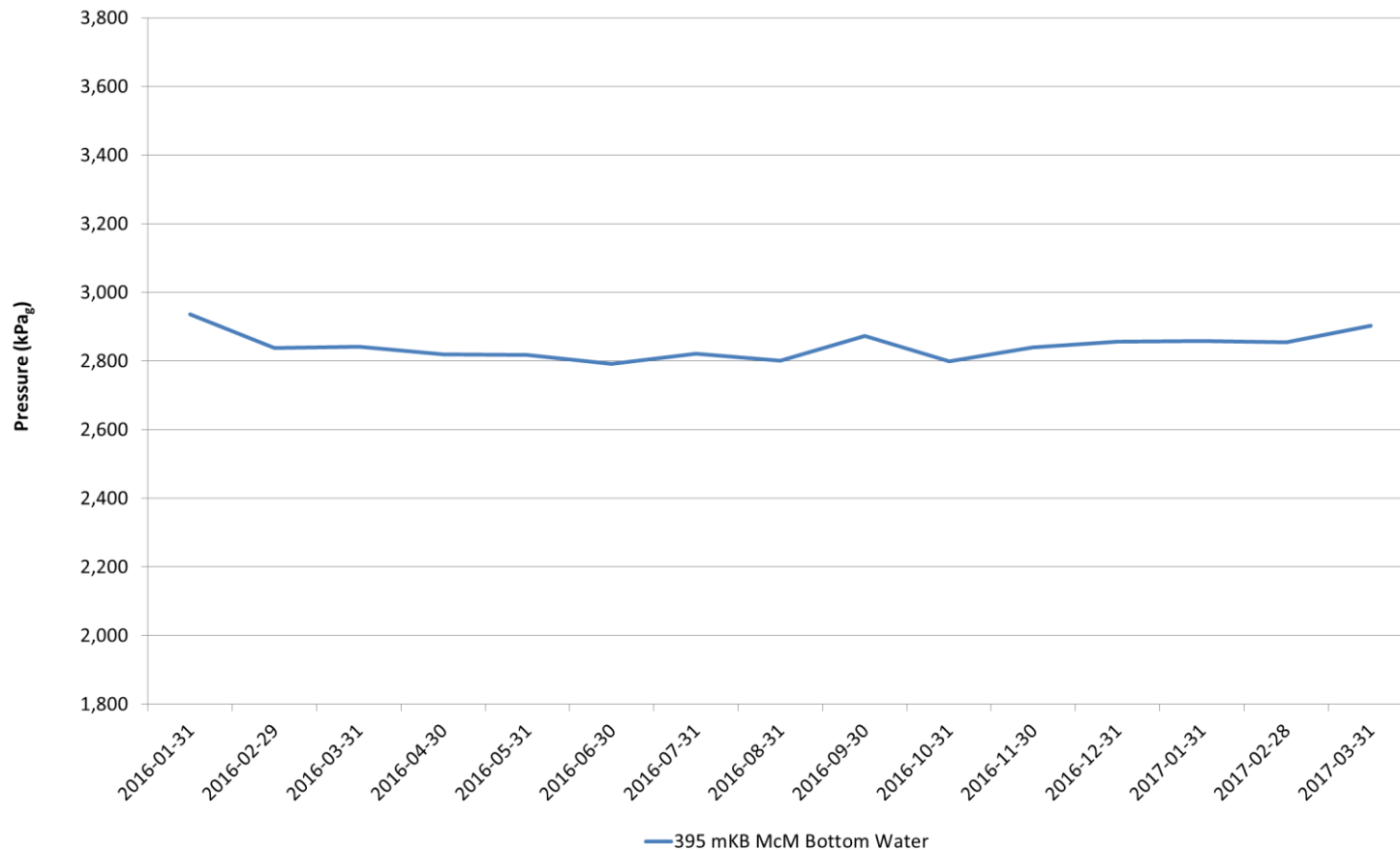
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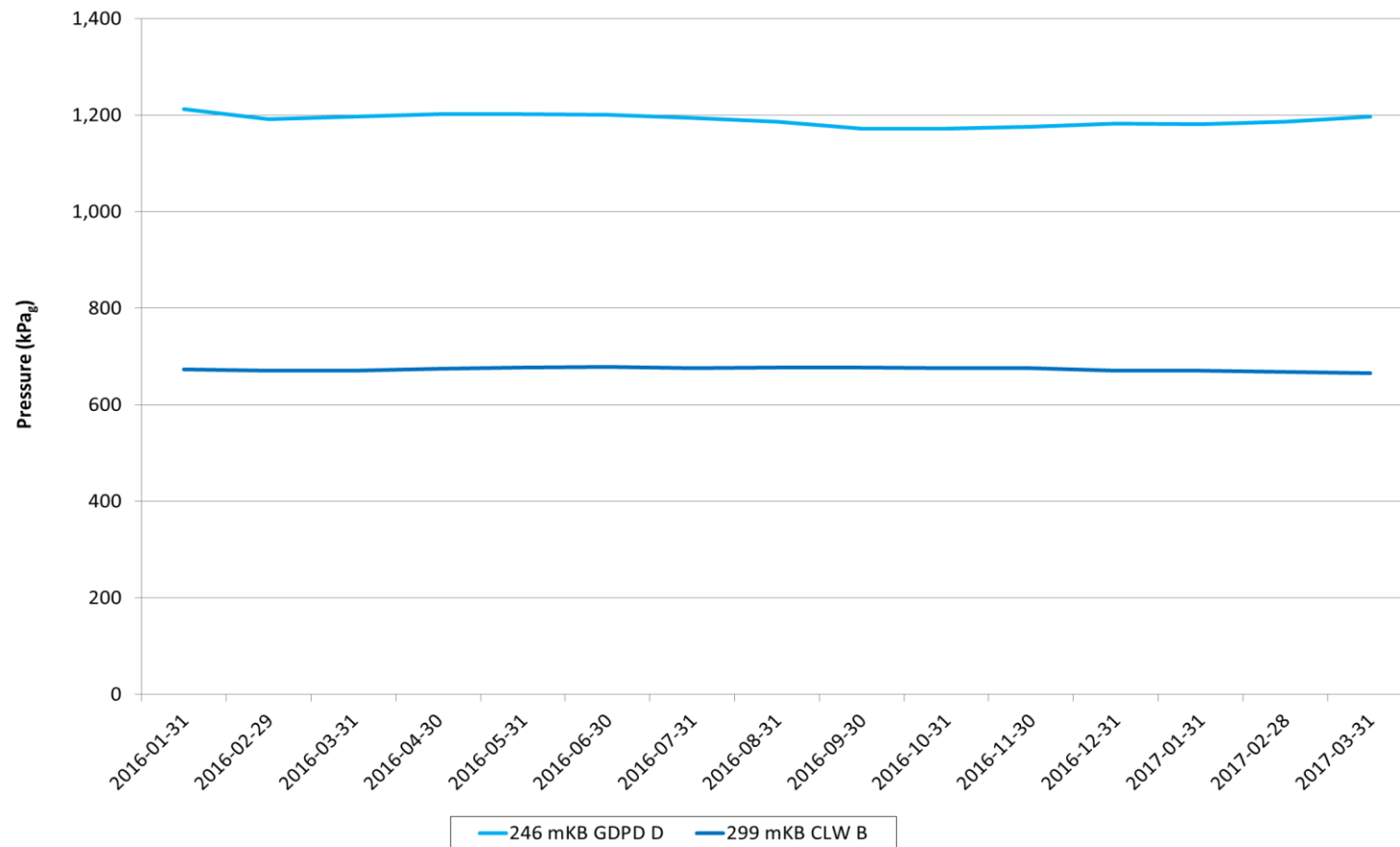
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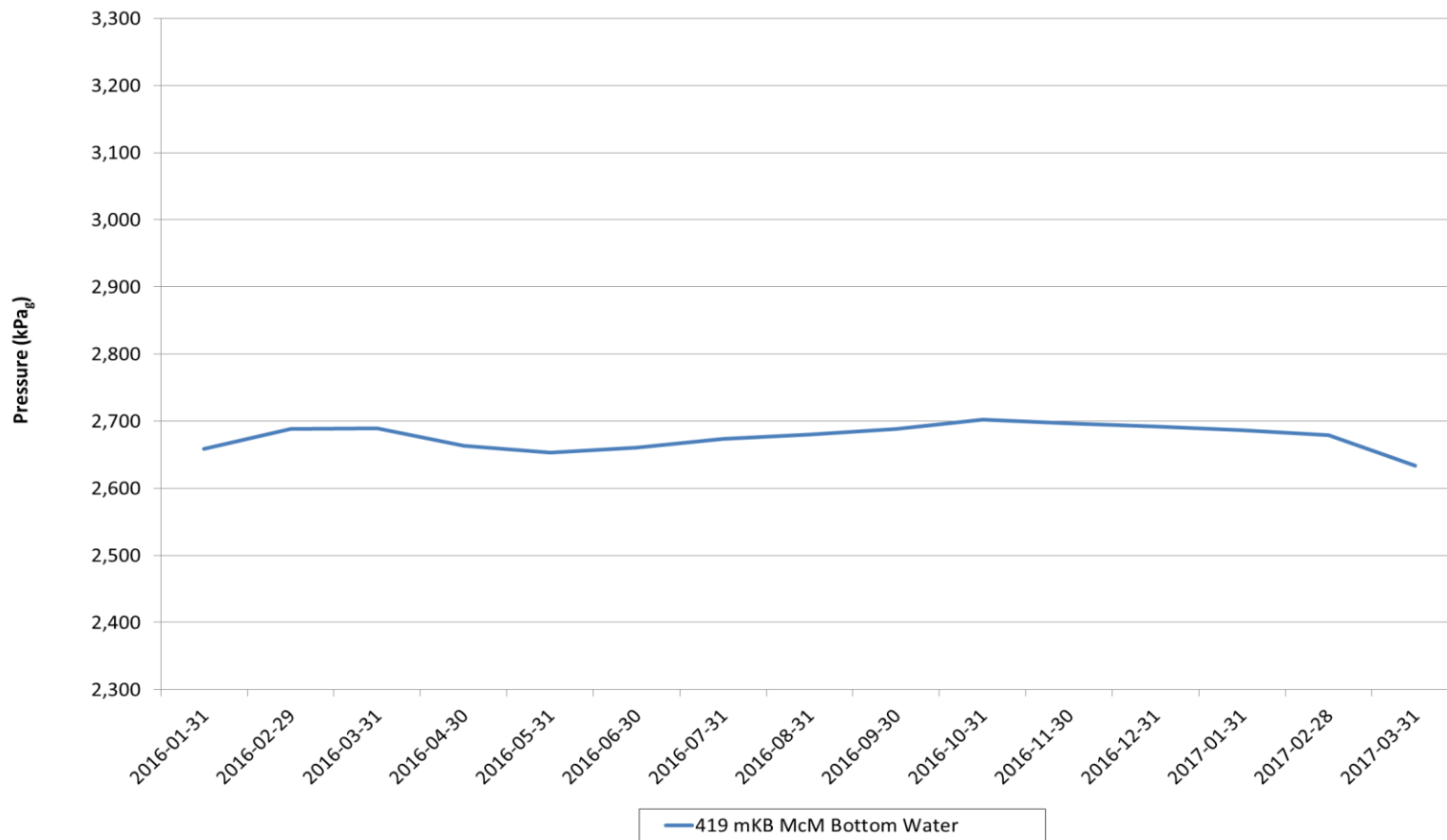
Failed Downhole

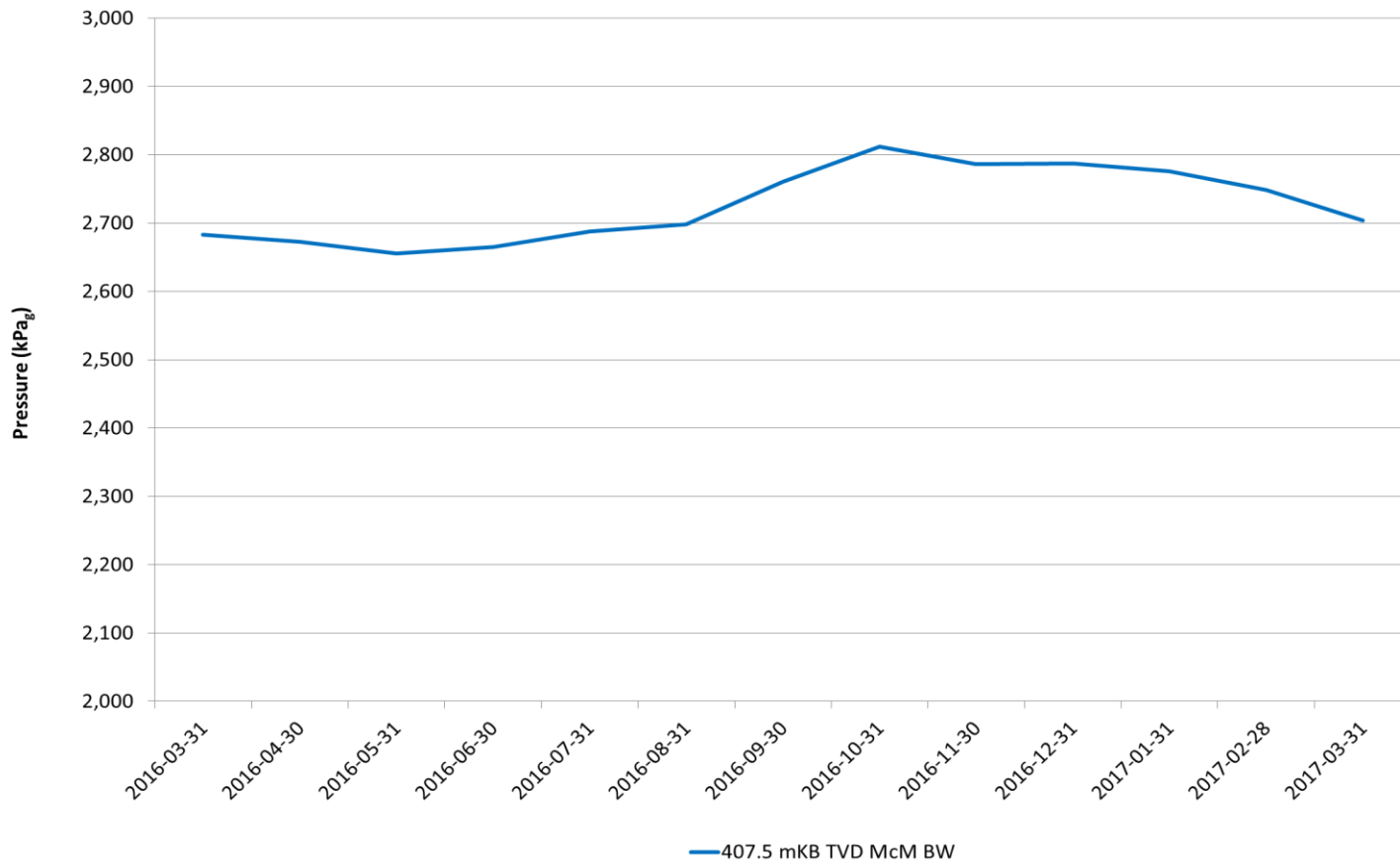


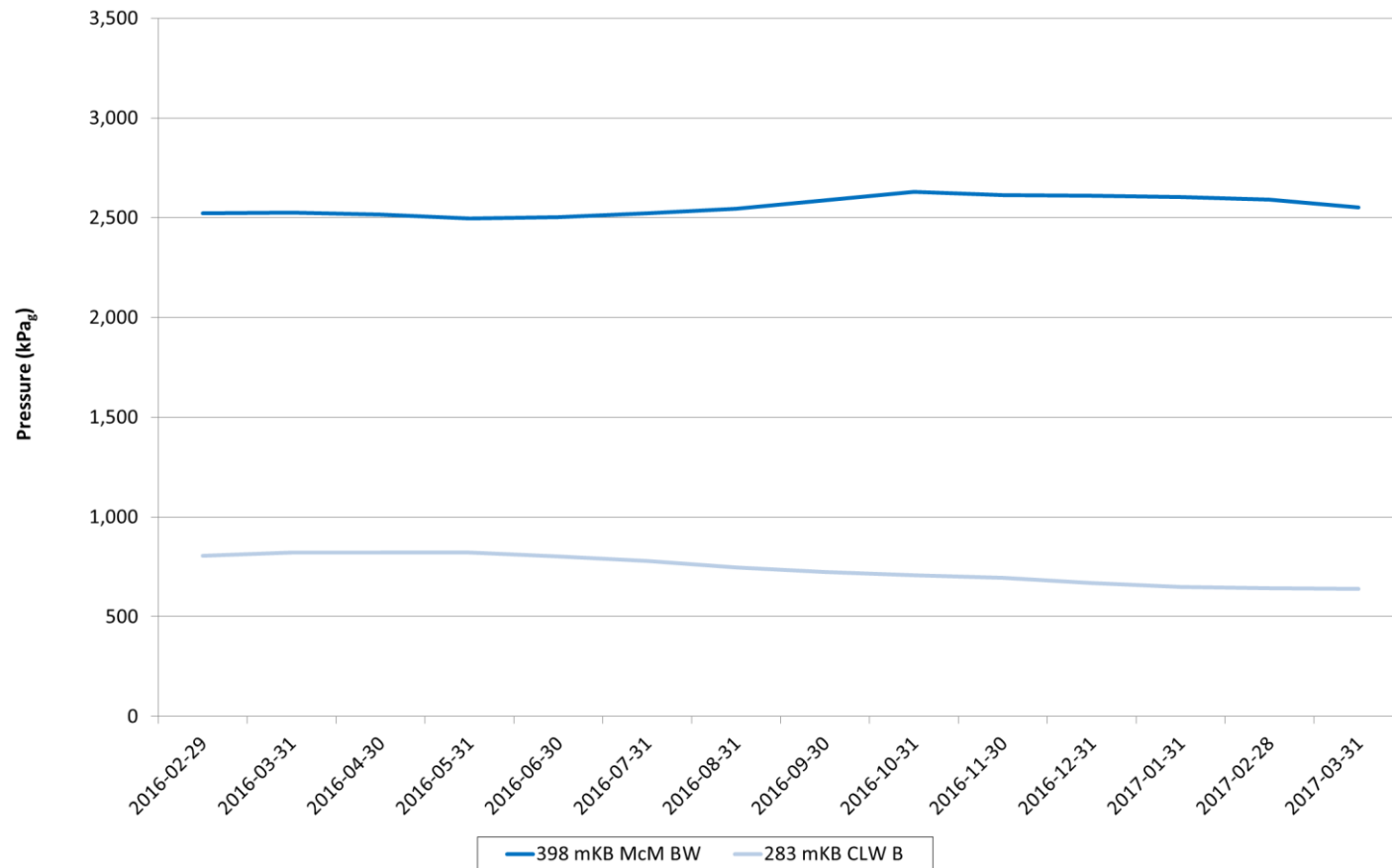
C14 KIRBY 14-3-76-6





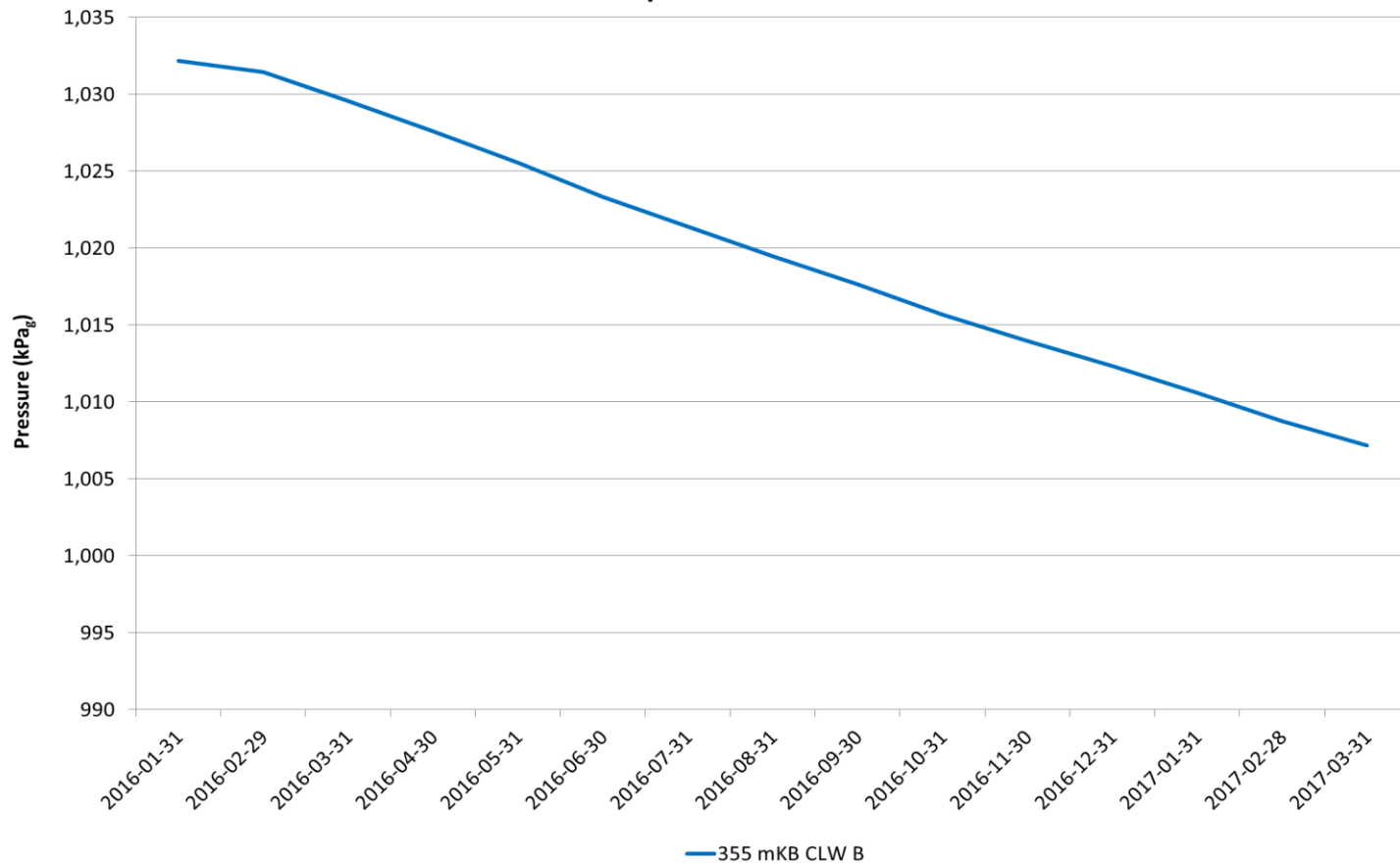


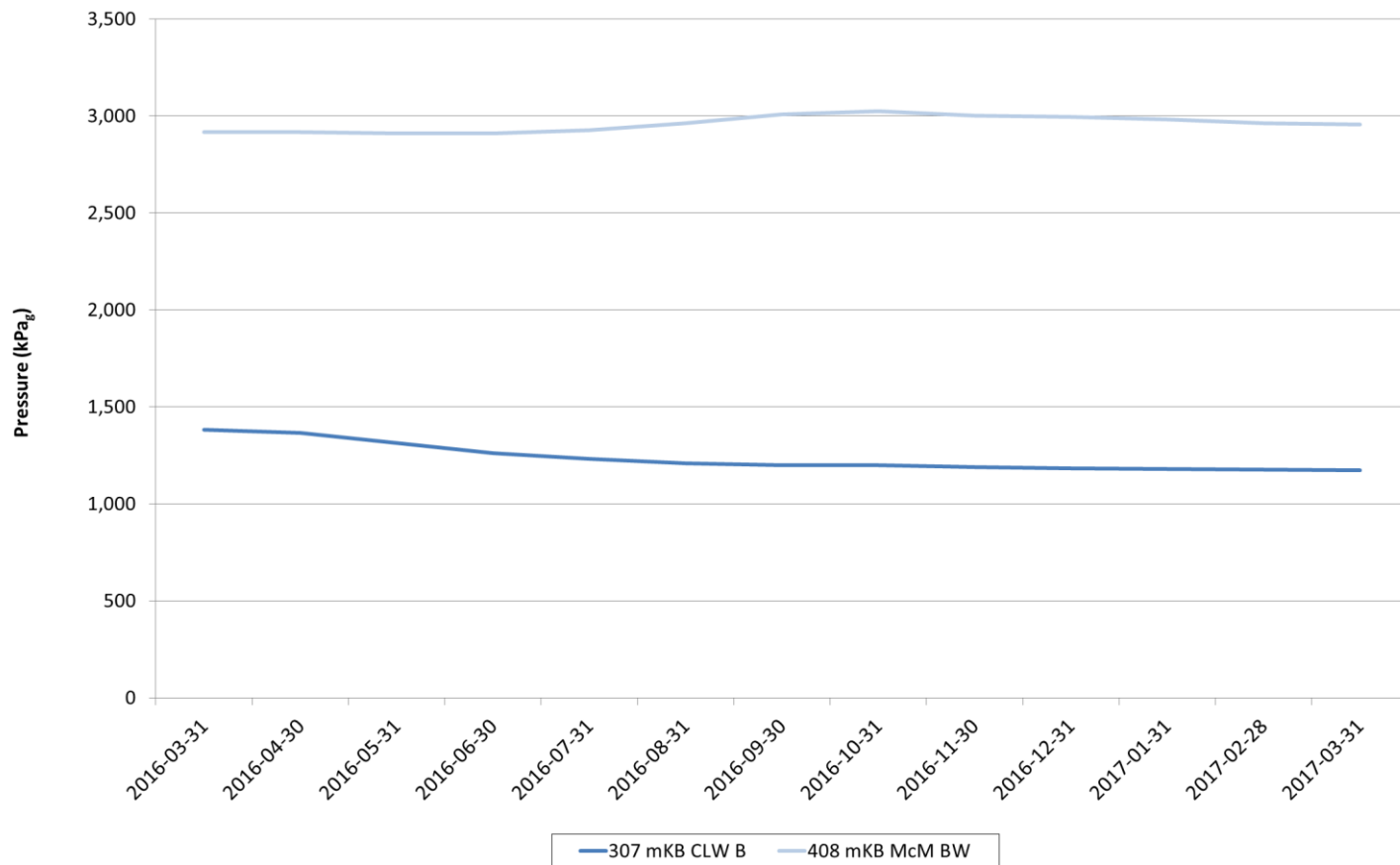
A2-9 D2 LEISMER 2-9-76-6

D10 LEISMER 10-9-76-6

Name: D7 KIRBY 7-17-75-6

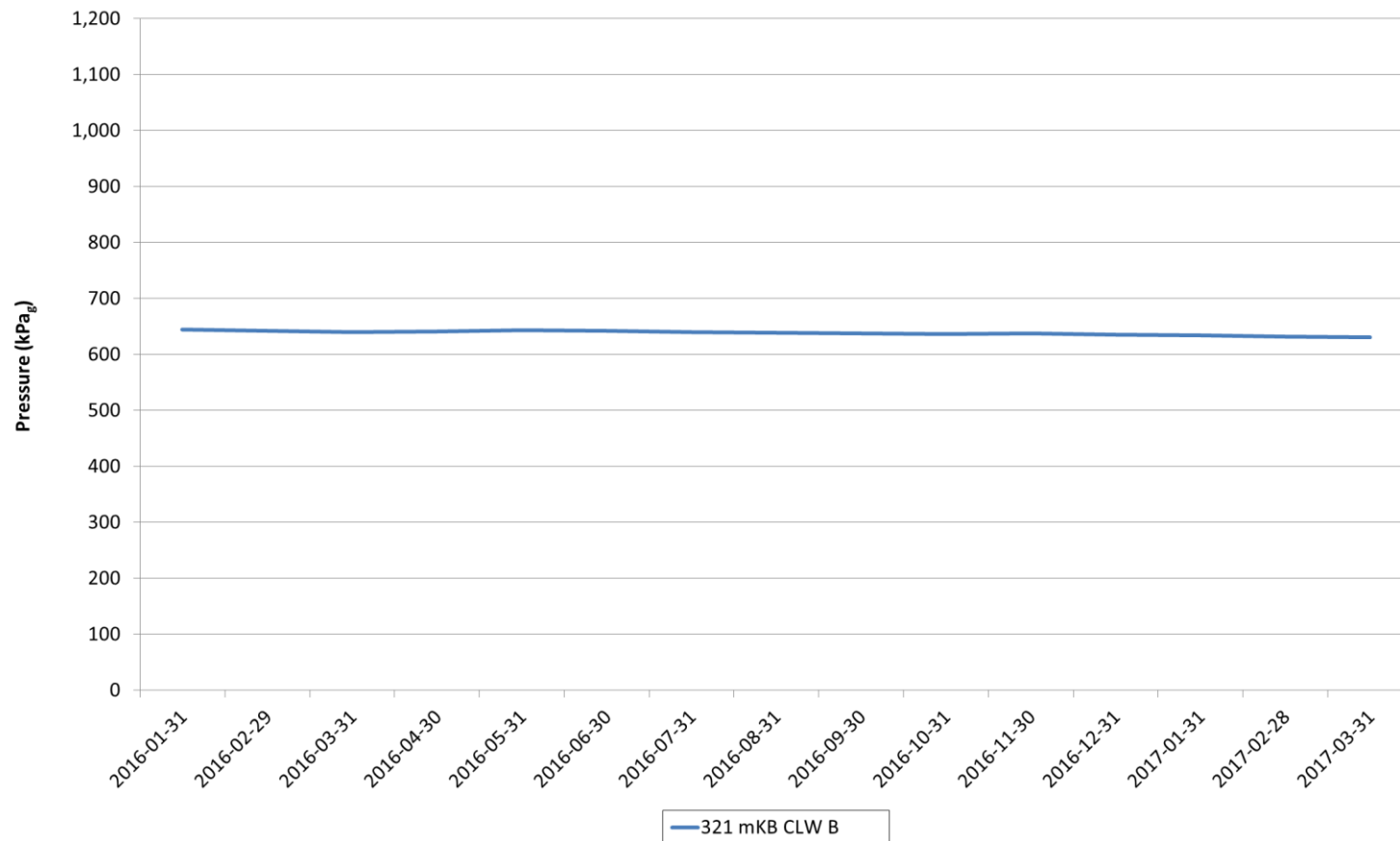
100/07-17-075-06W4

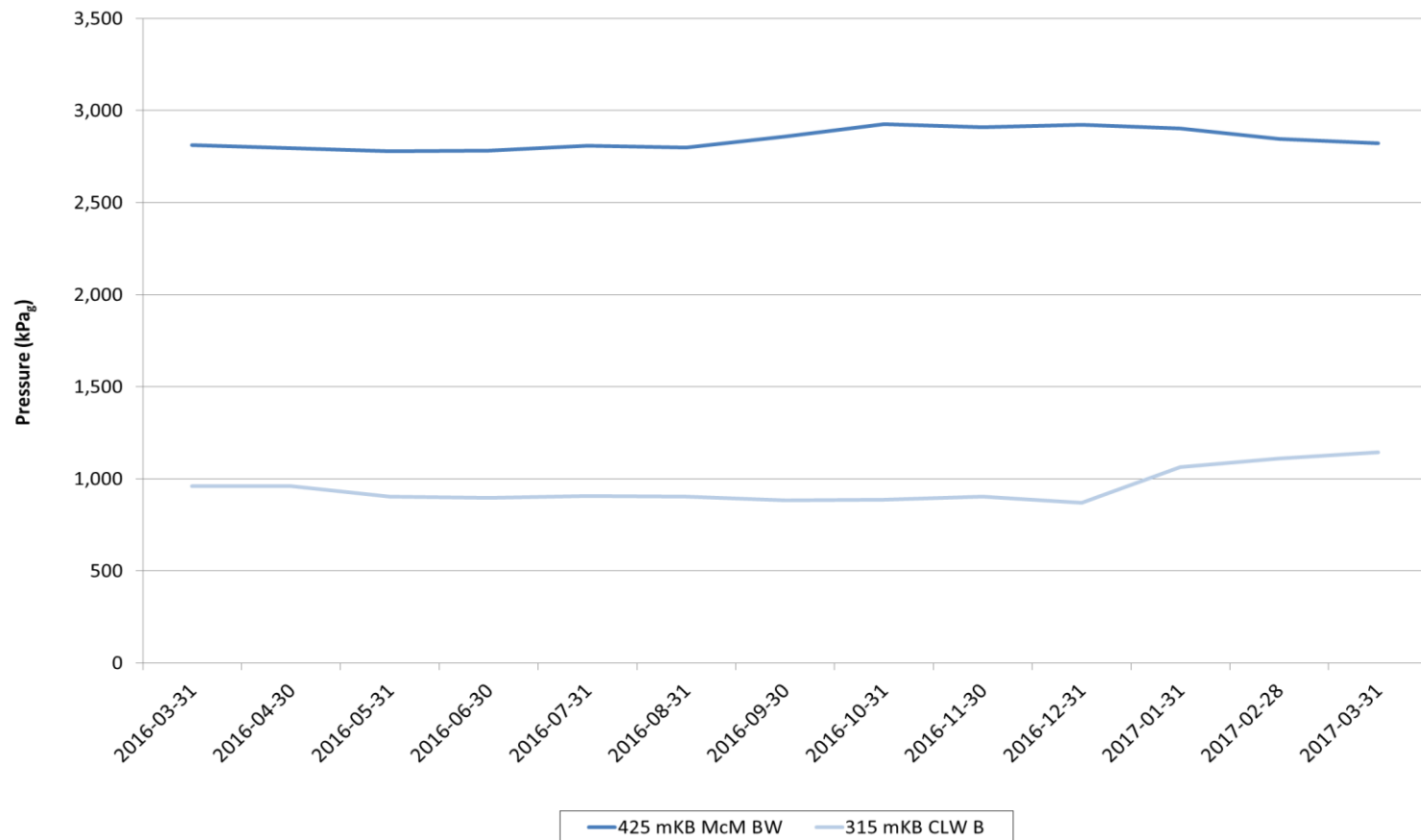


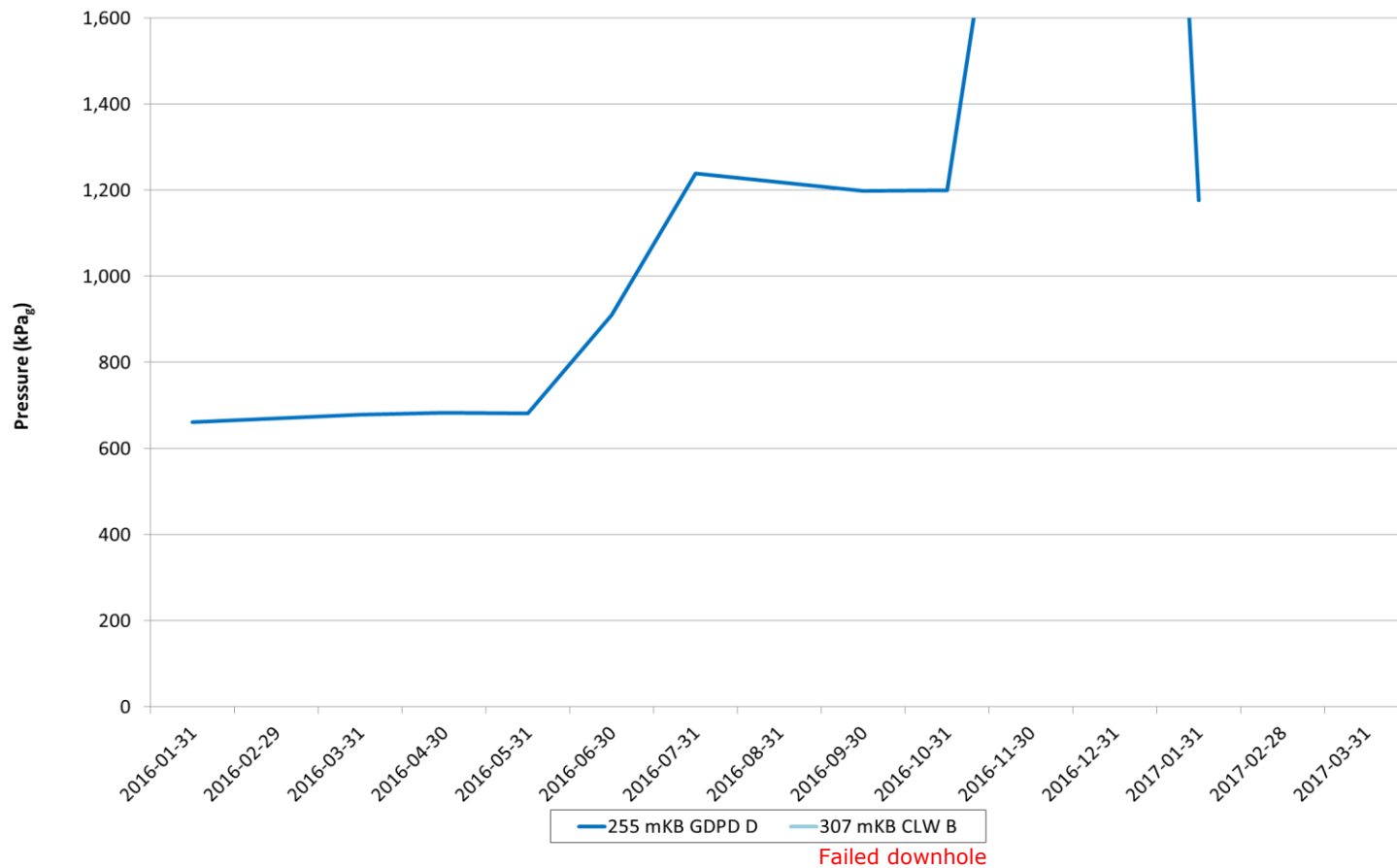
1AB/13-26-075-06W4

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100/10-34-075-06W4

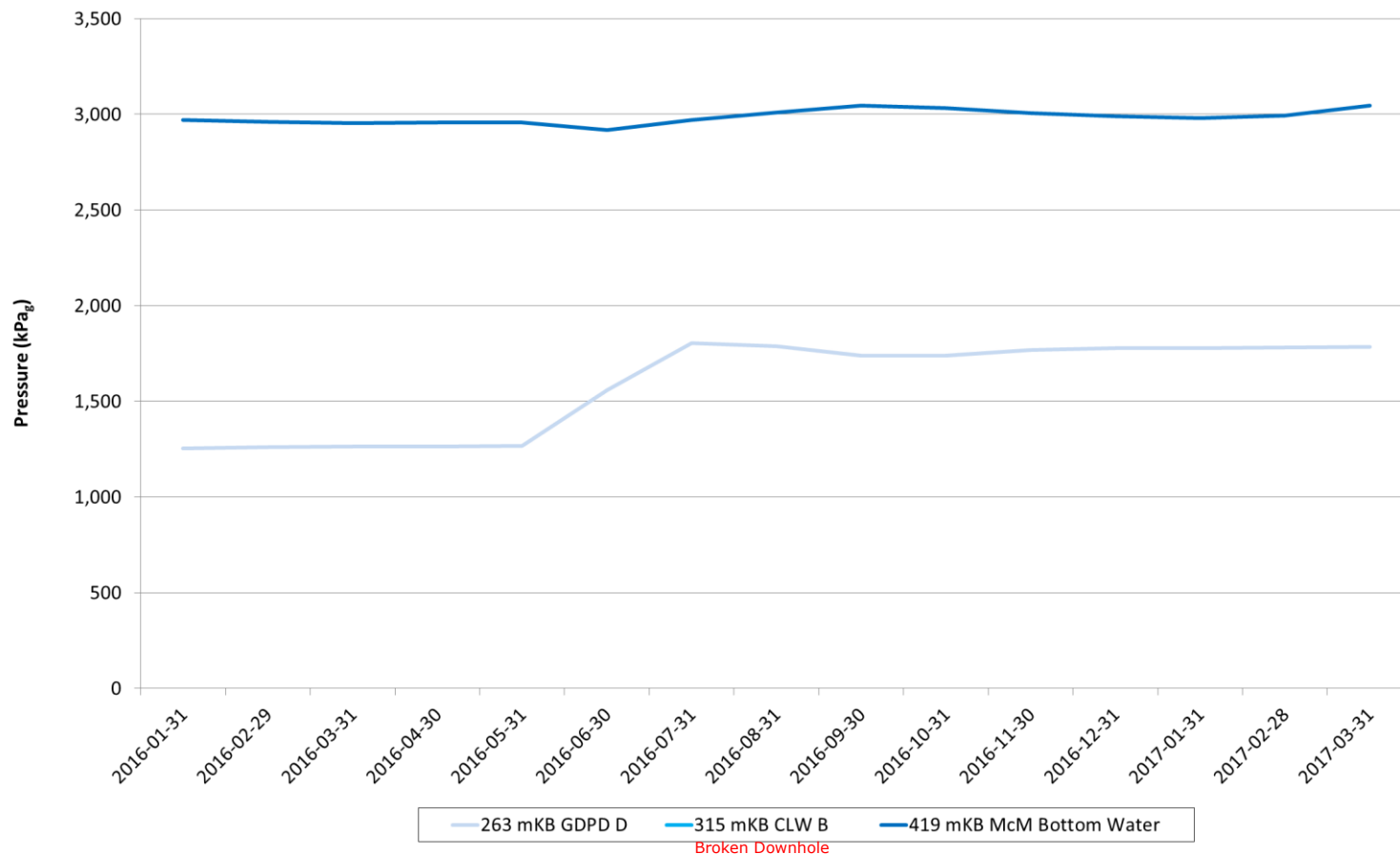


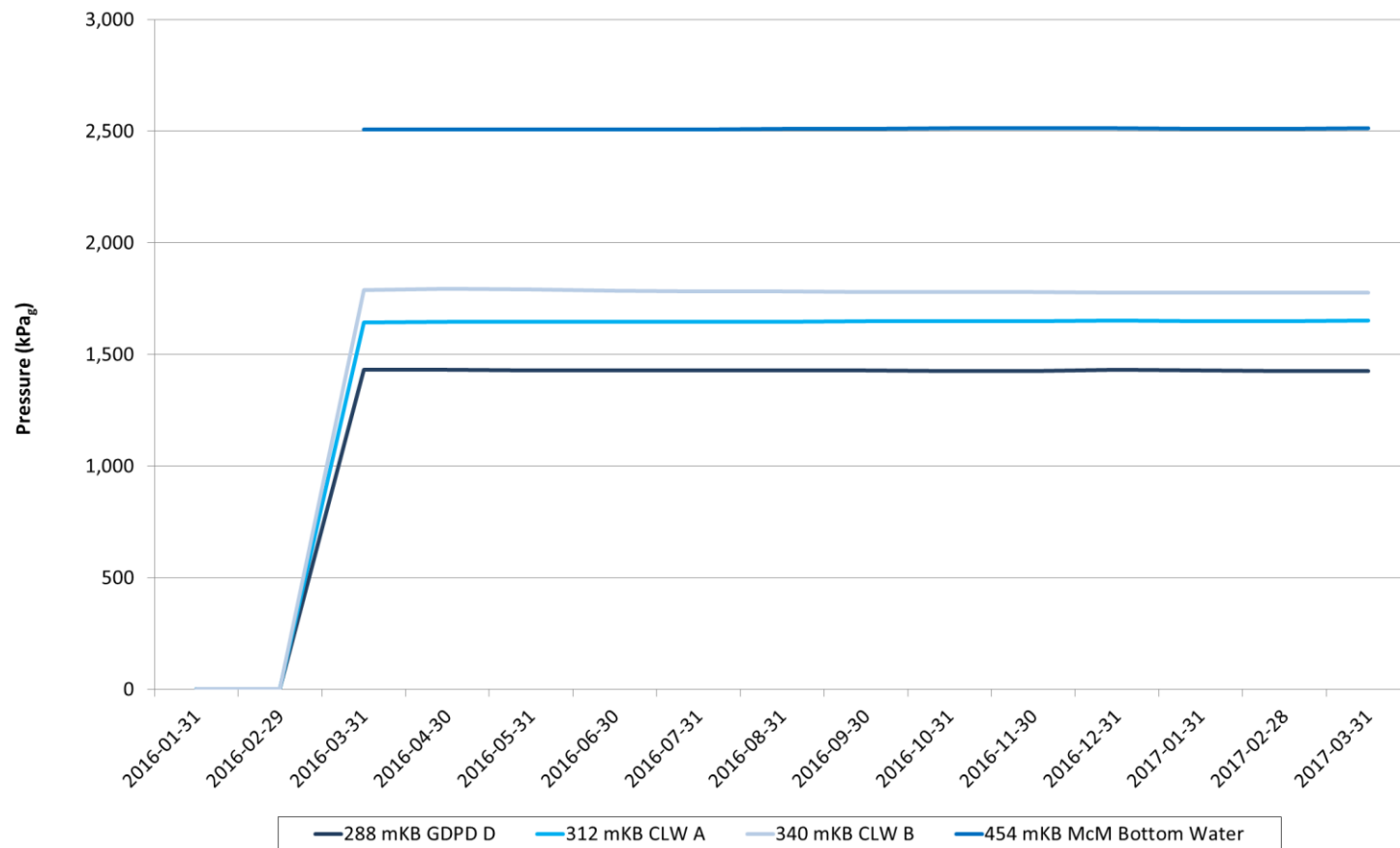




Name: A7 KIRBY 7-36-75-6

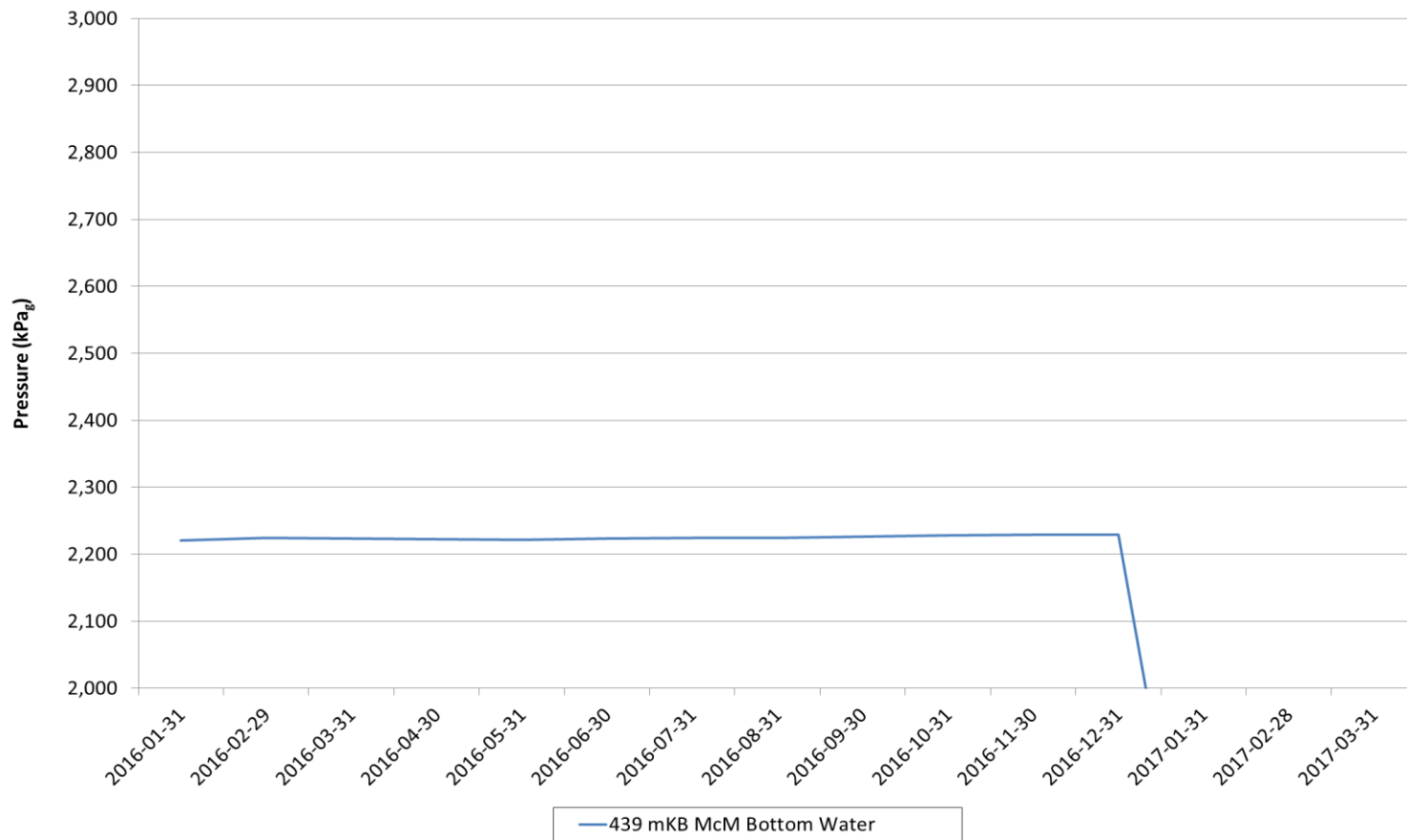
100/07-36-075-06W4

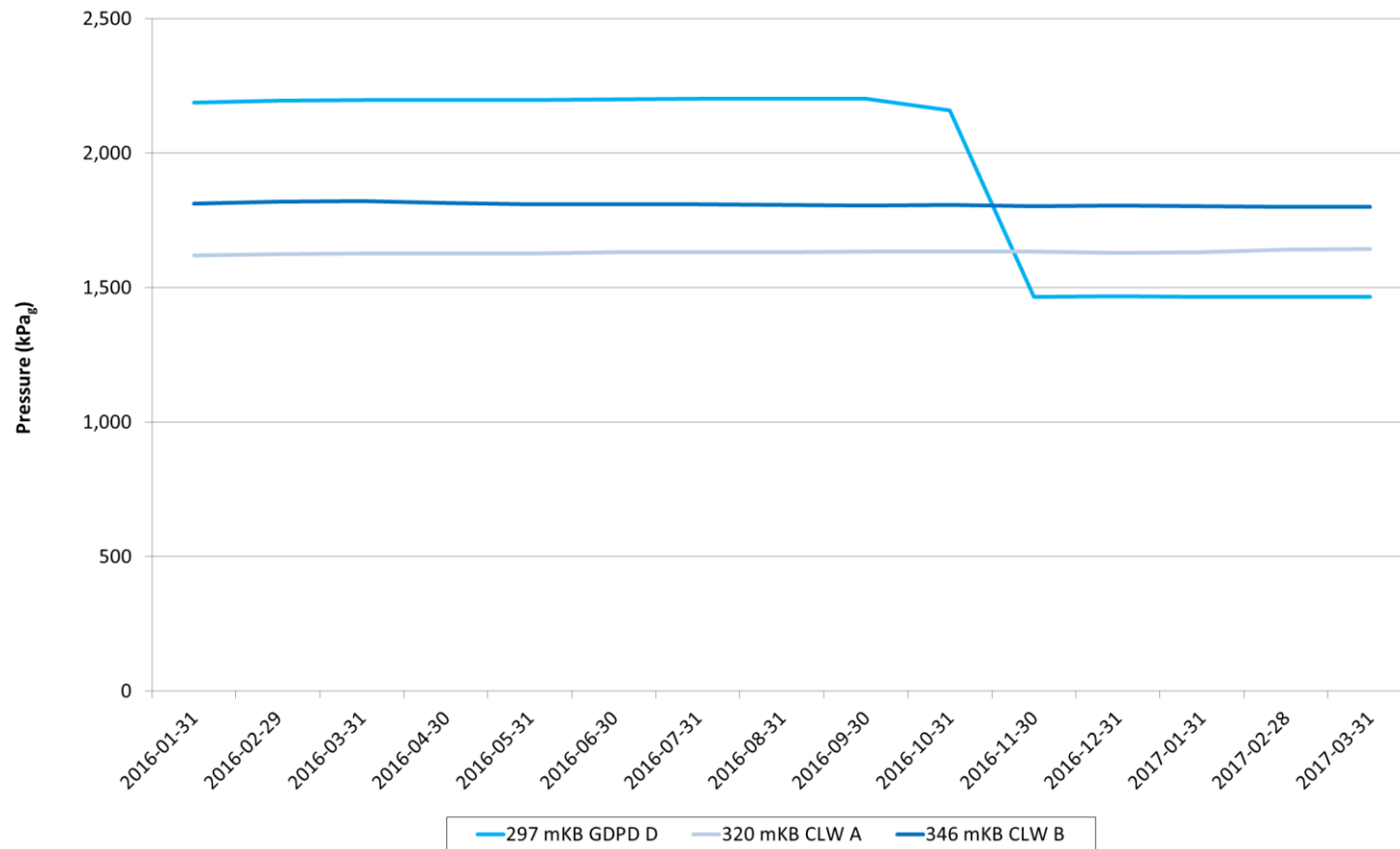


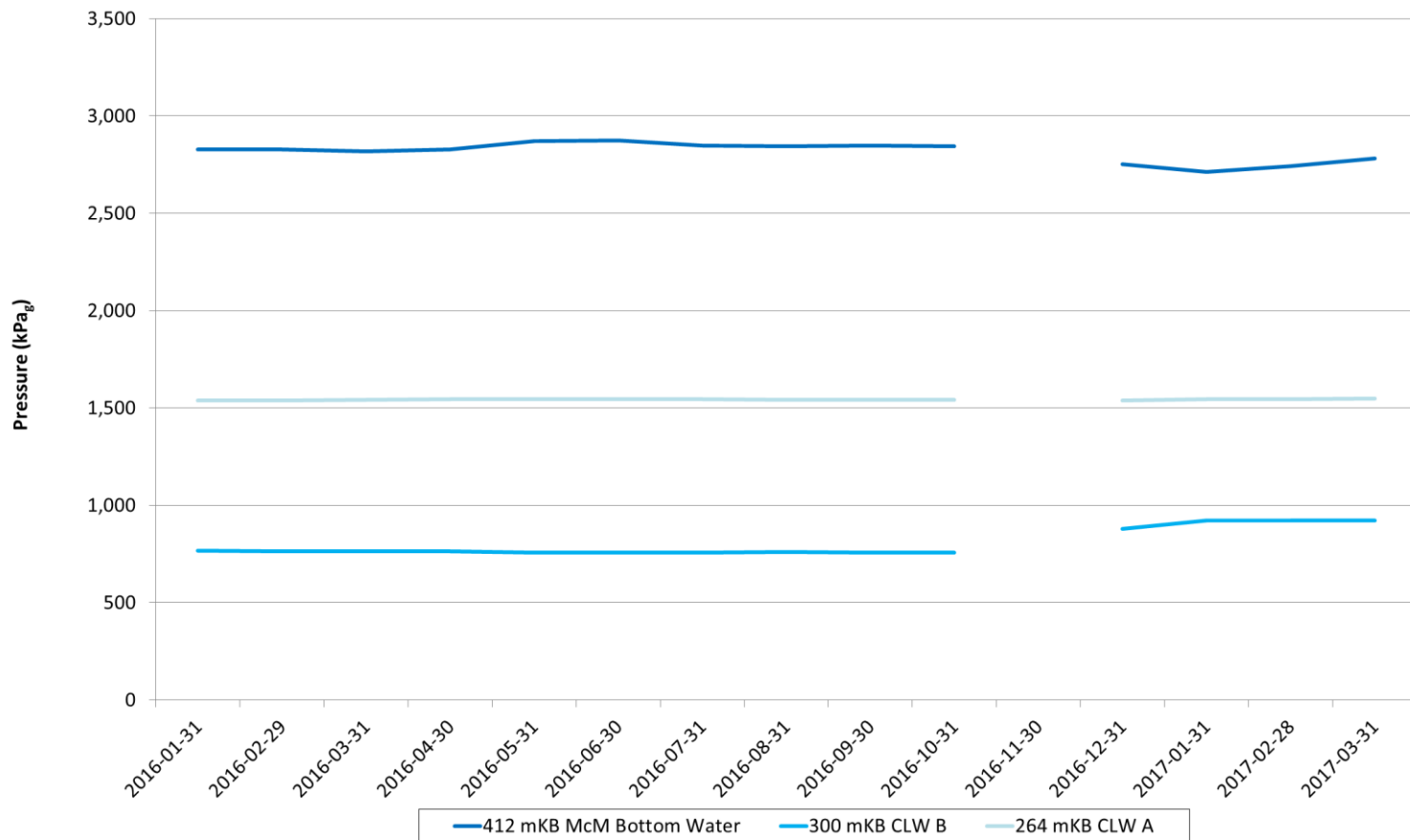


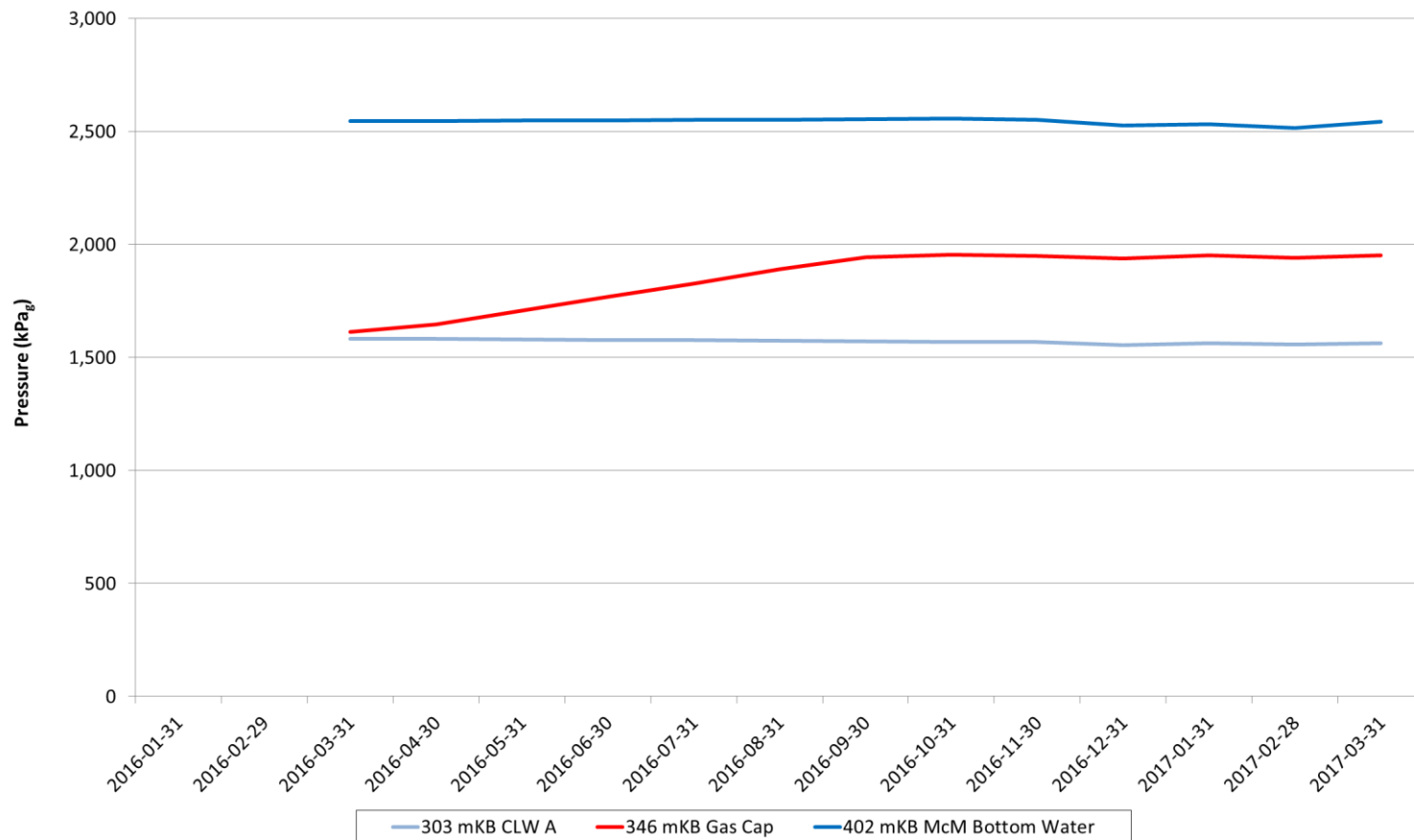
Name: B10 HARDY 10-13-76-5

100/10-13-076-05W4



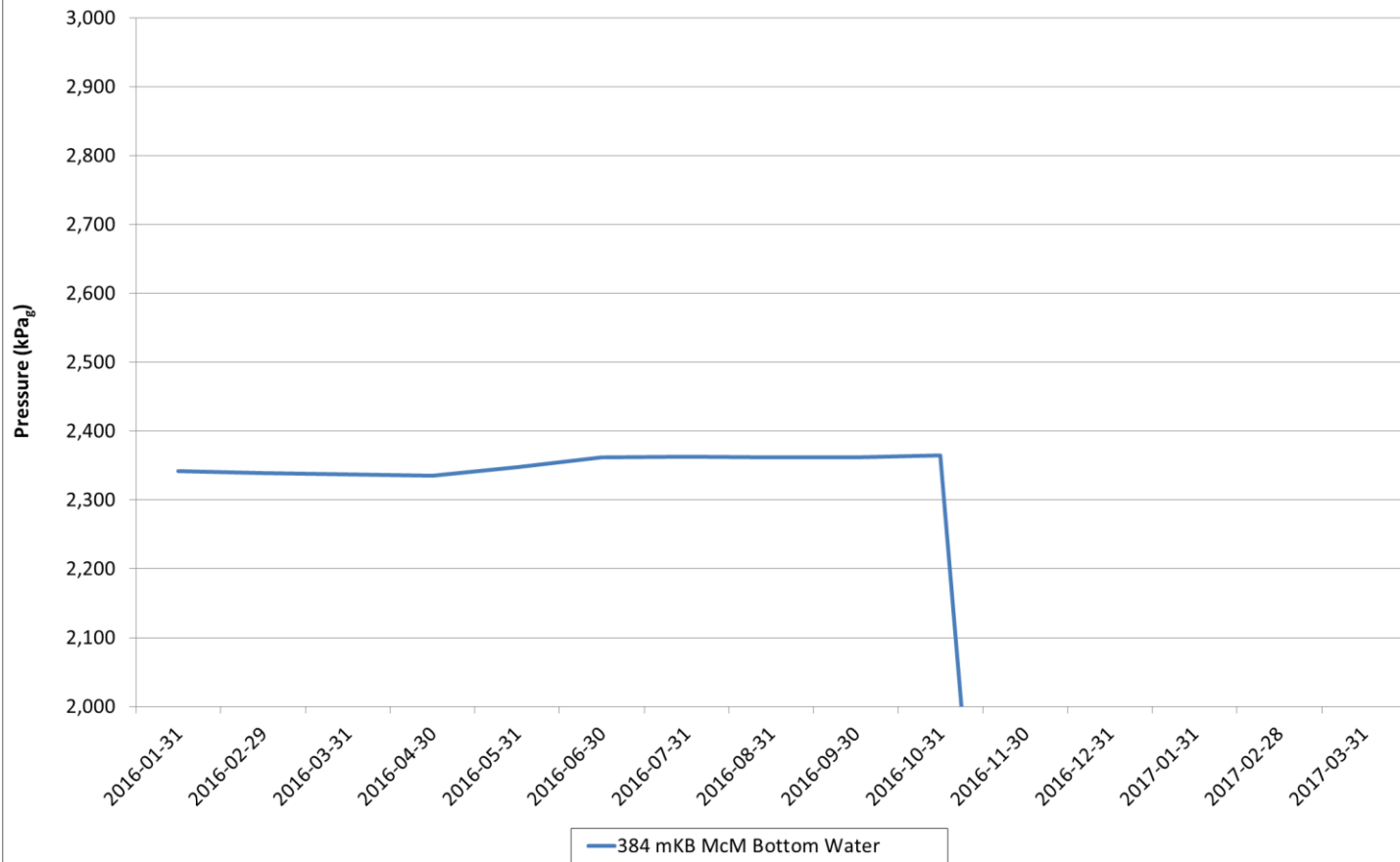


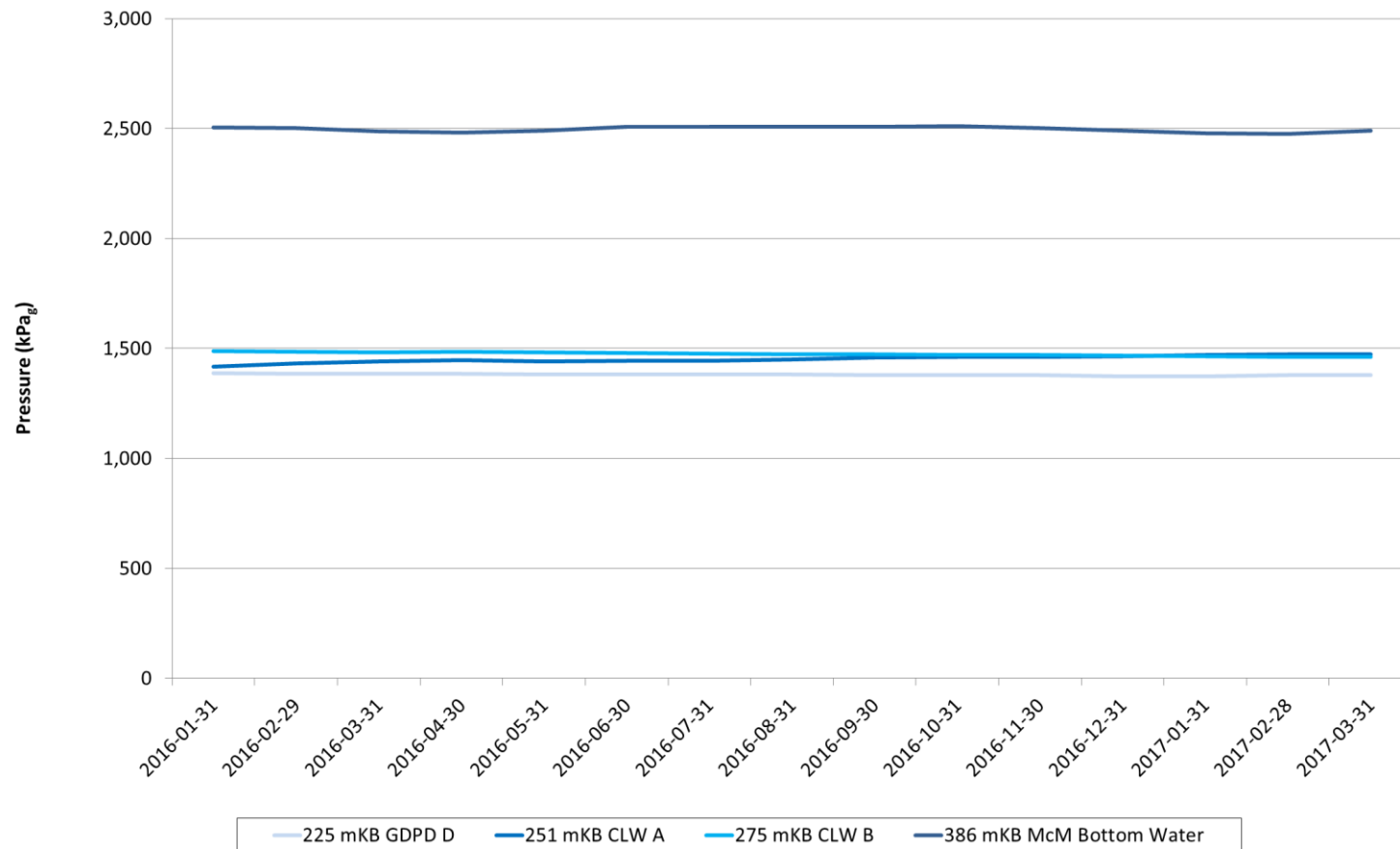


1AB/11-21-076-05W4

Name: A6 HARDY 6-29-76-5

100/06-29-076-05W4

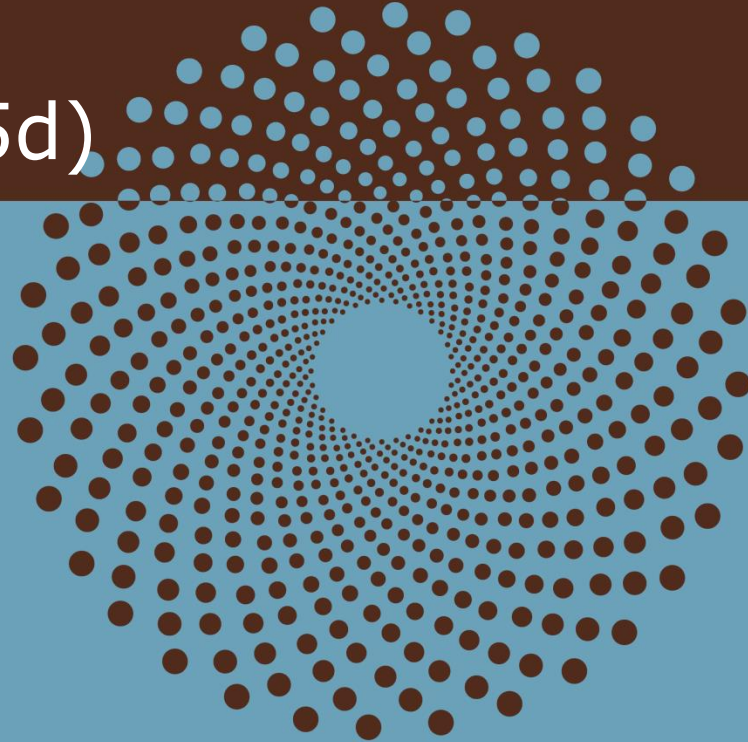




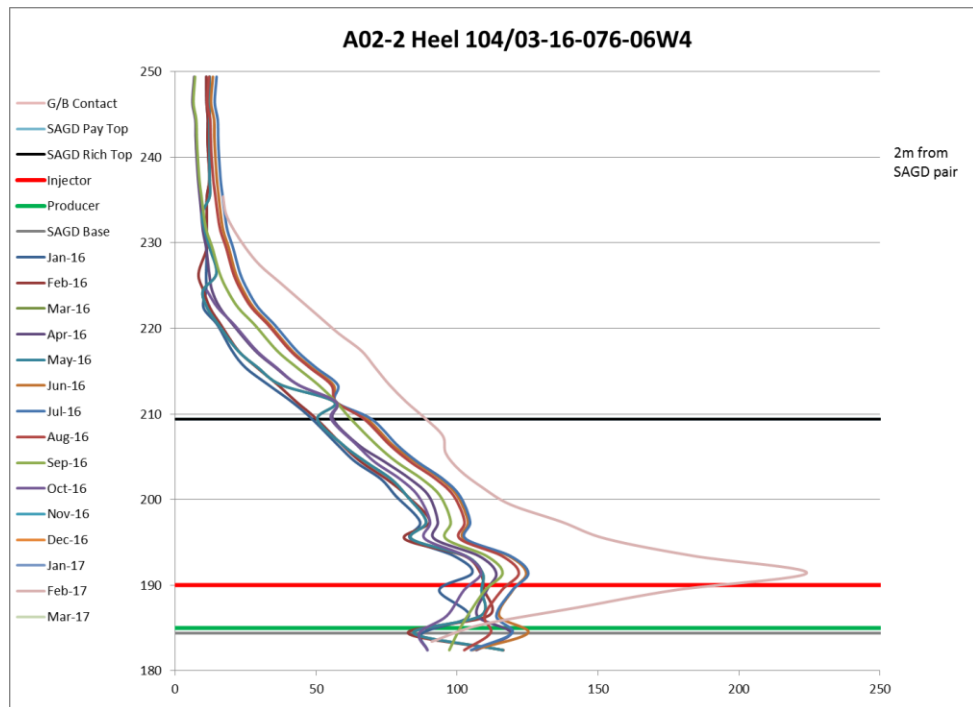
Appendix 3

Subsection 3.1.1 – 5d)

Observation Well Temperature Data



A02: 104/03-16-076-06W4/0



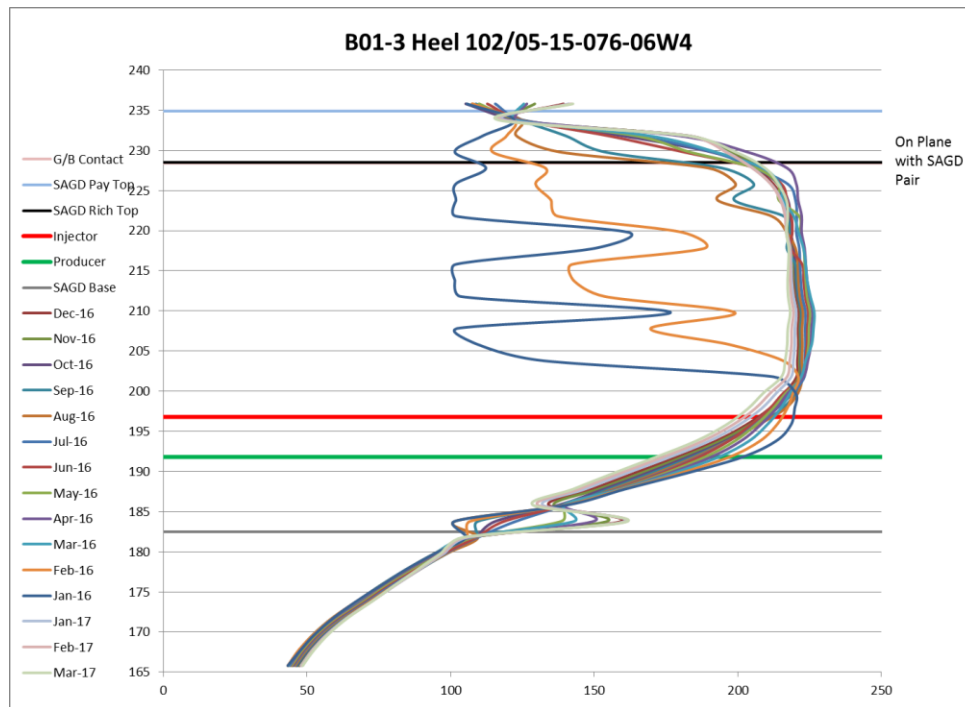
A02: 100/02-16-076-06W4/00

Virgin Reservoir Conditions

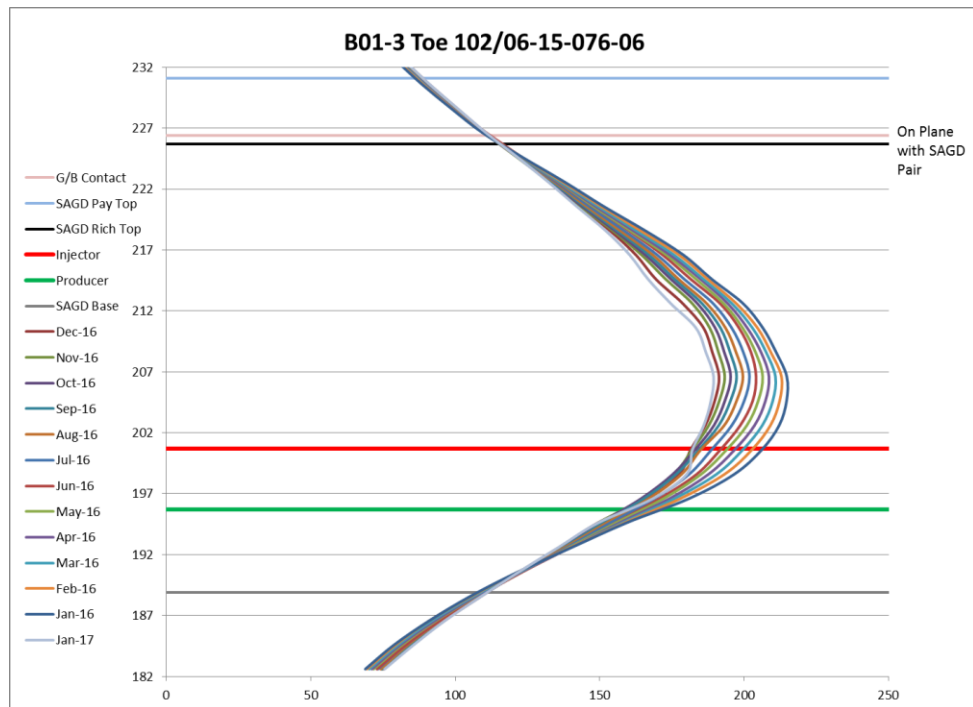
A02: 100/01-16-076-06W4/00

Virgin Reservoir Conditions

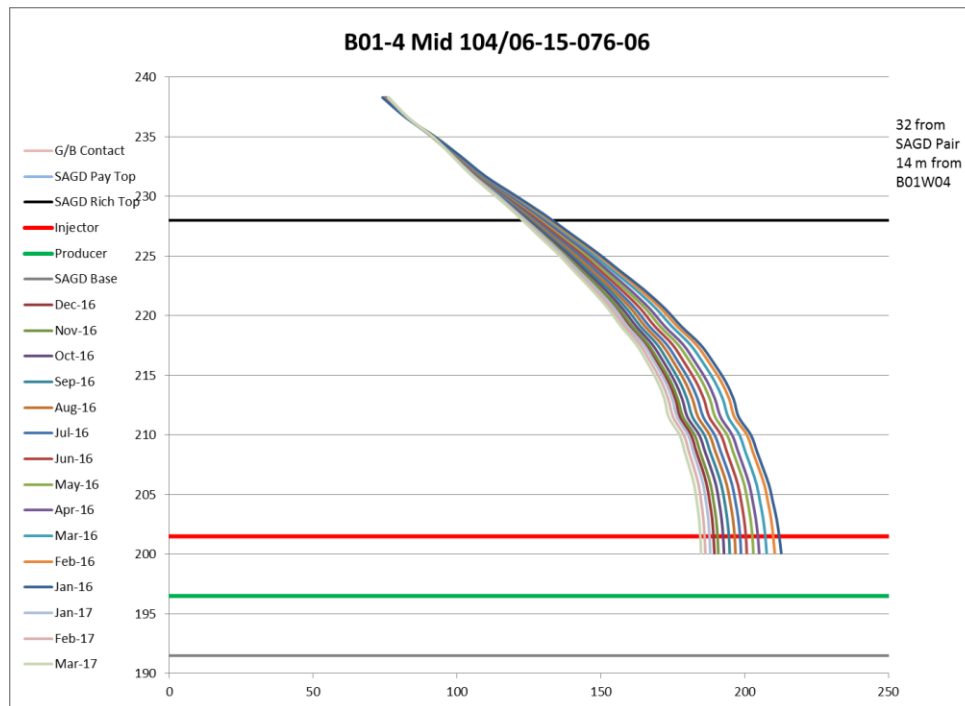
B01: 102/05-15-076-06W4/0



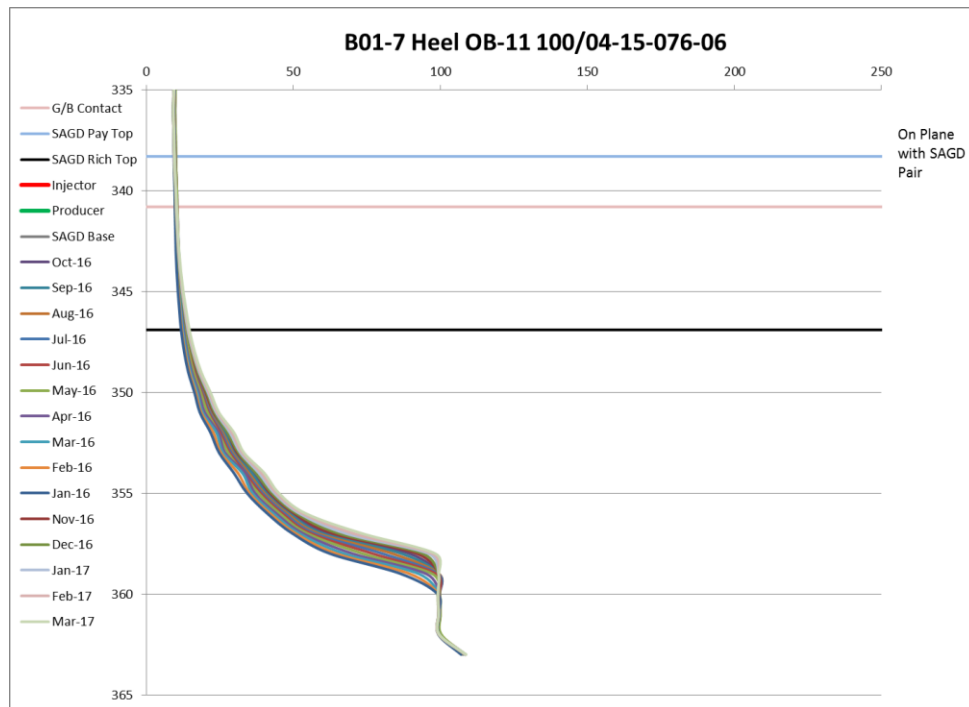
B01: 102/06-15-076-06W4/0



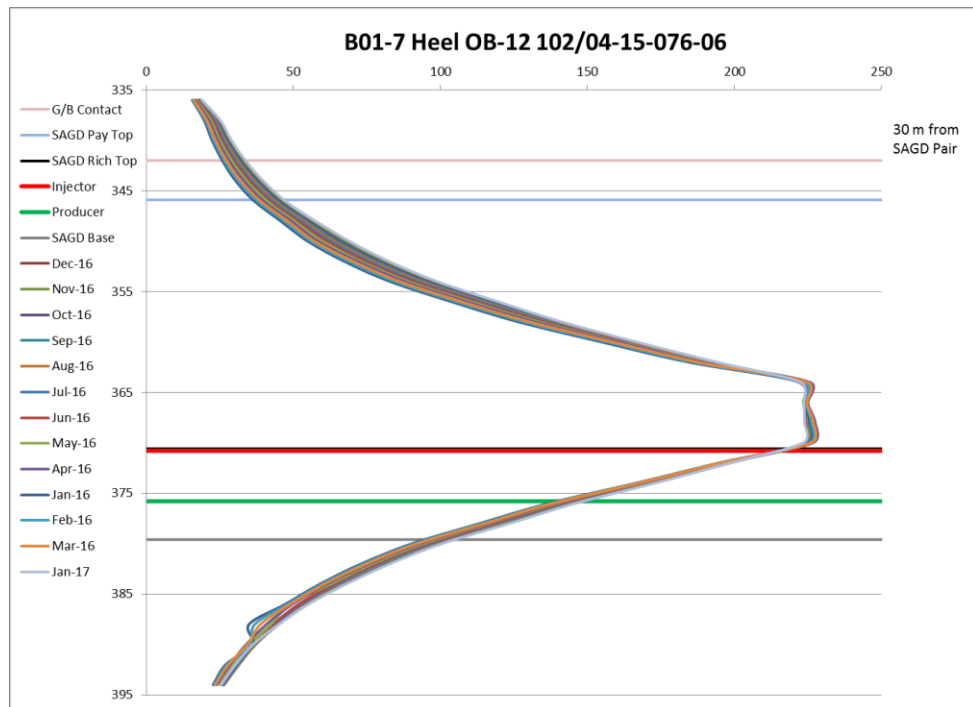
B01: 104/06-15-076-06W4/0



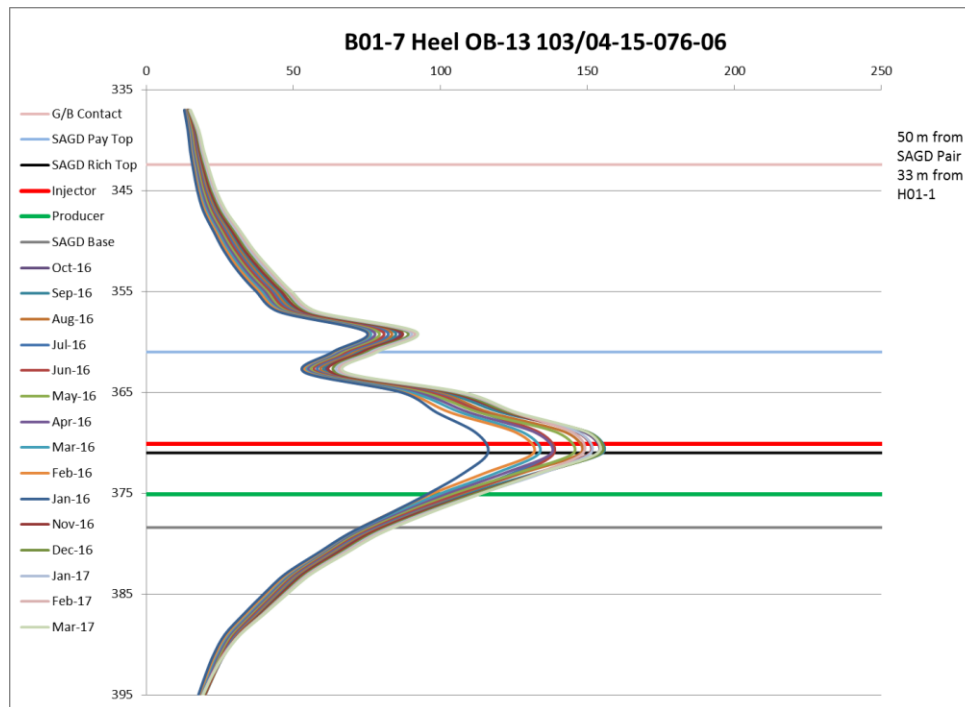
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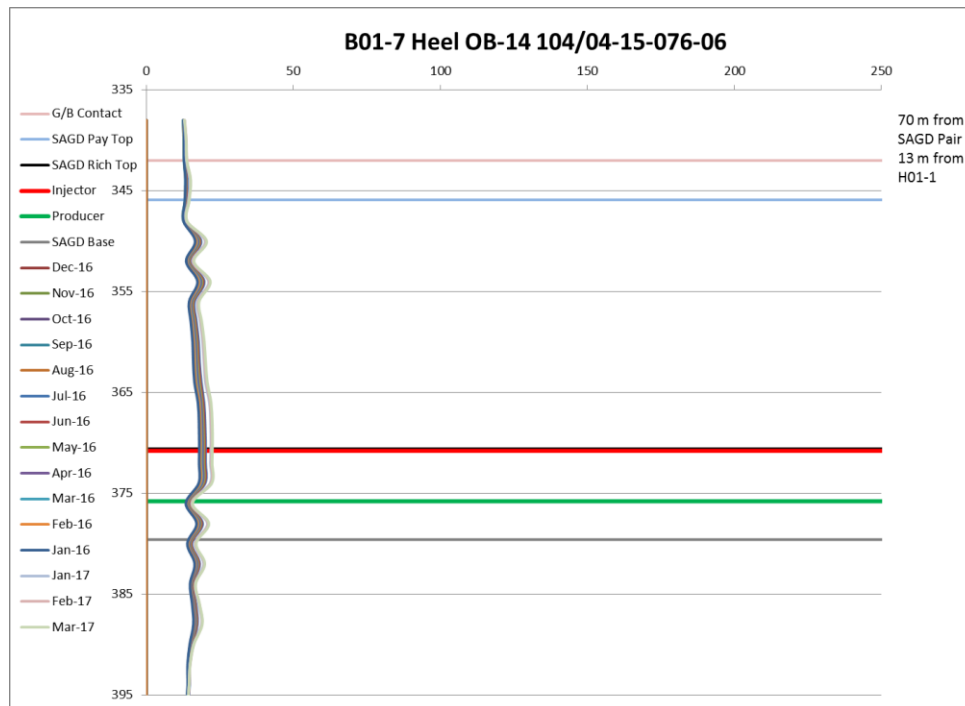
B01-7: 102/04-15-076-06W4/0



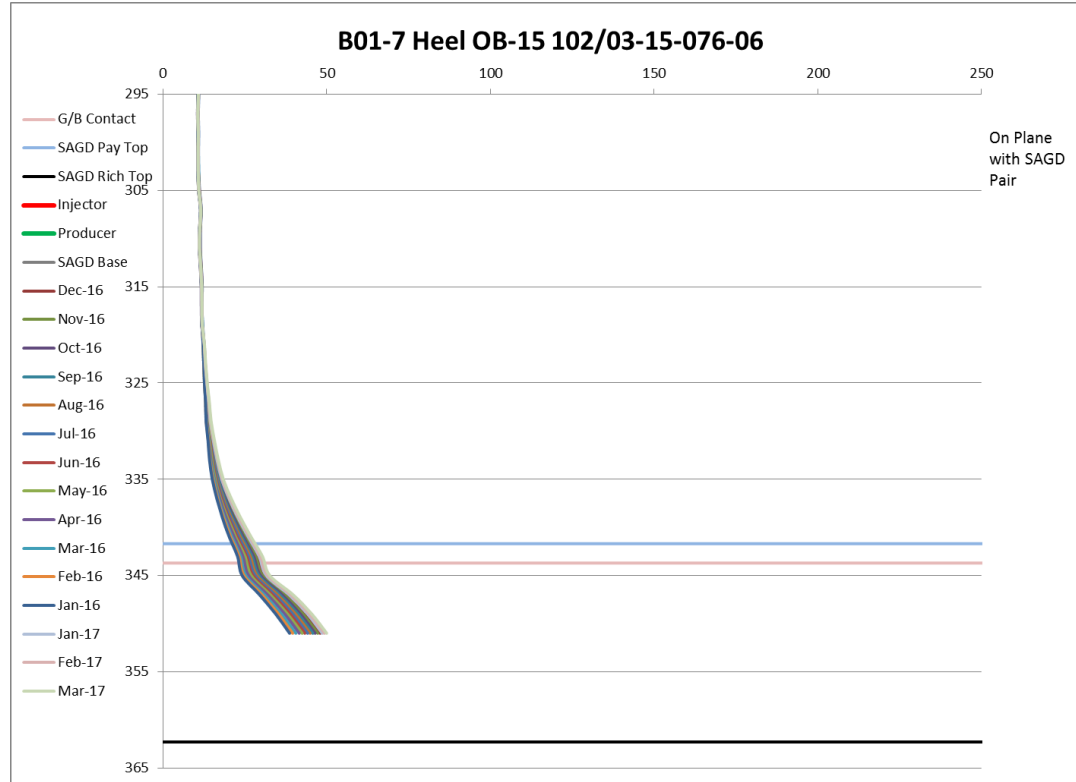
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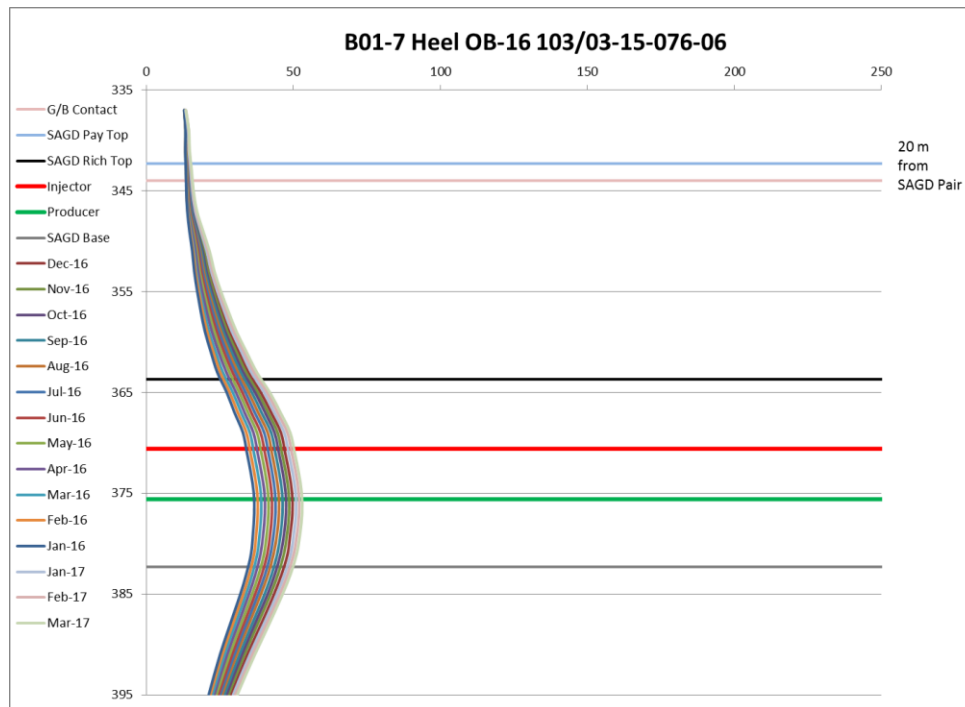
B01-7: 104/04-15-076-06W4/0



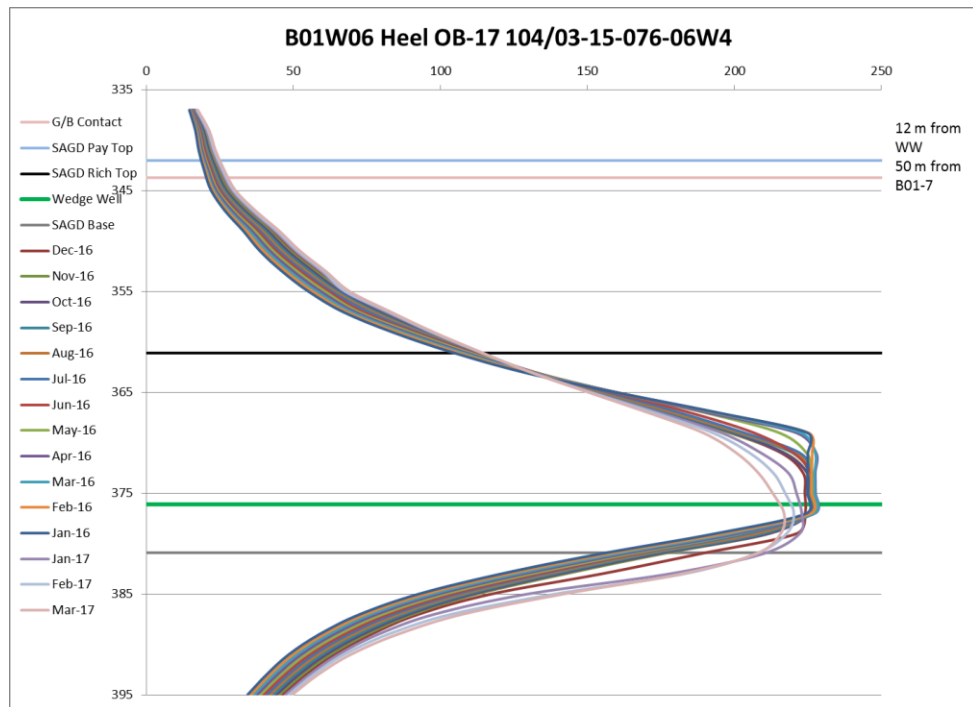
B01-7: 102/03-15-076-06W4/0



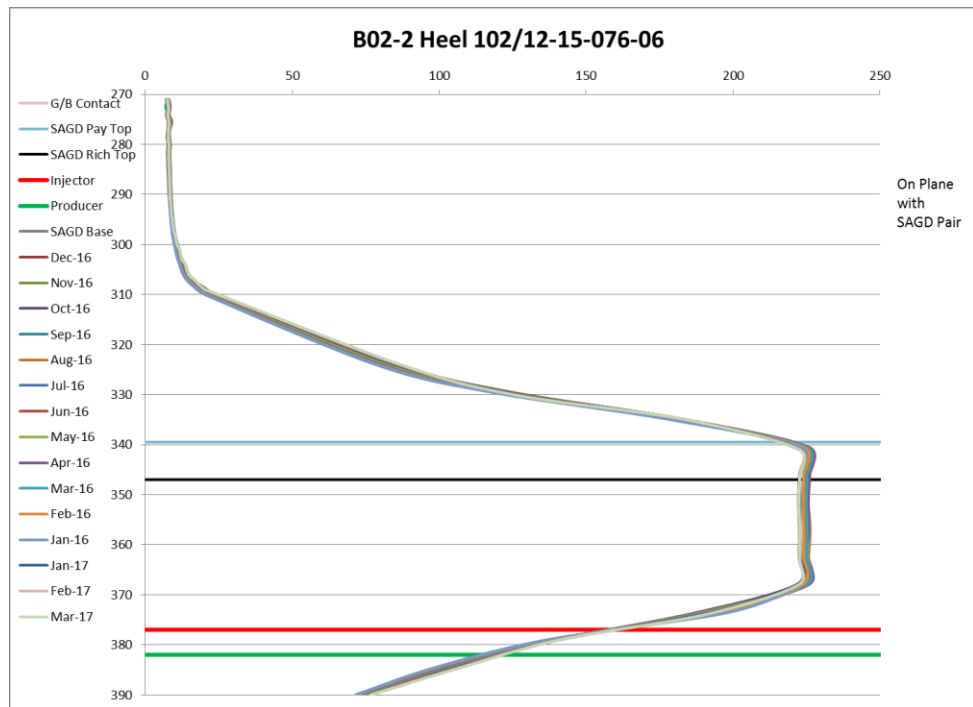
B01-7: 103/03-15-076-06W4/0



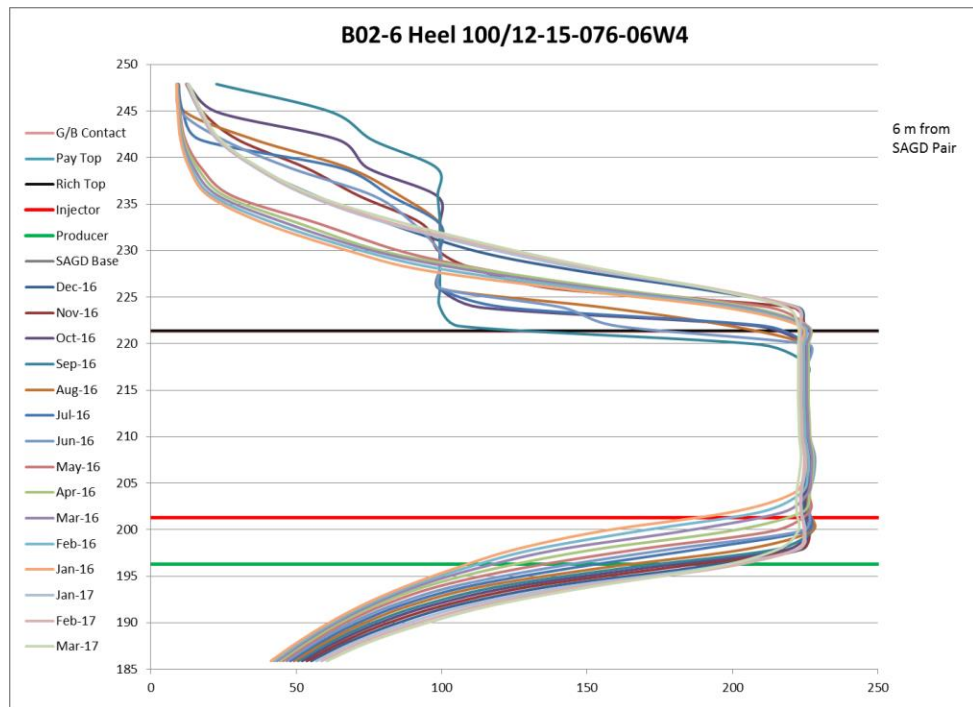
B01-7: 104/03-15-076-06W4/0



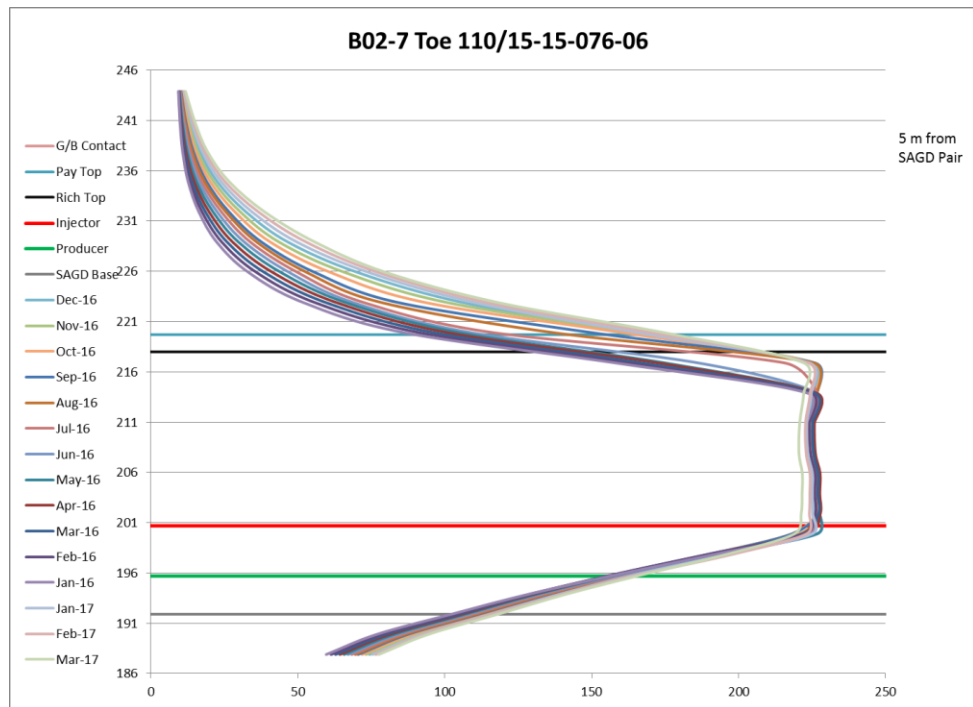
B02: 102/12-15-076-06W4/0



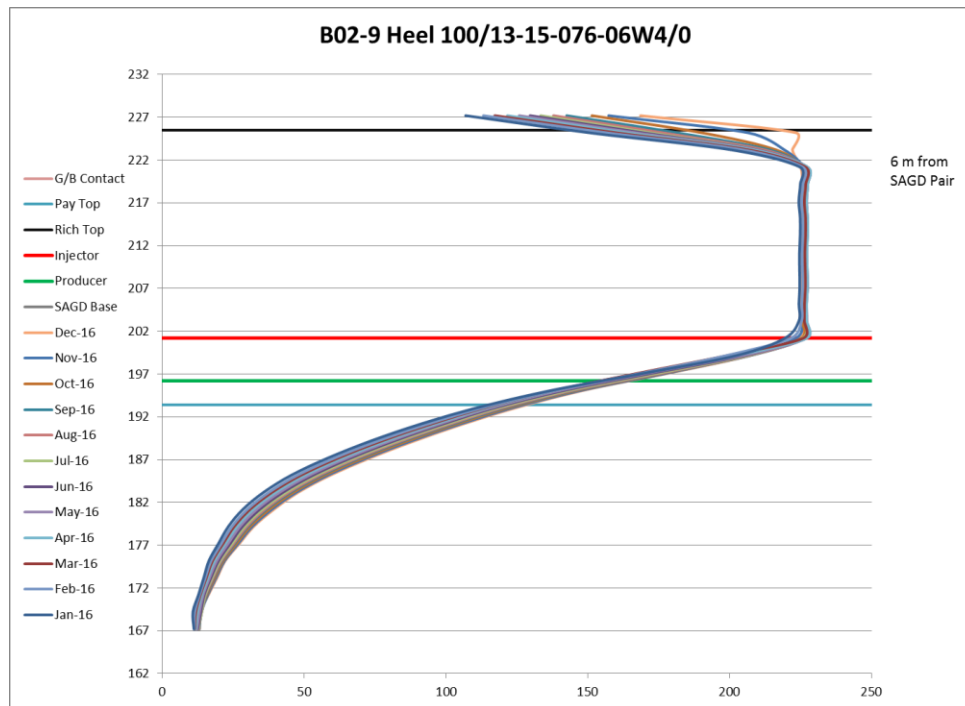
B02c: 100/12-15-076-06W4



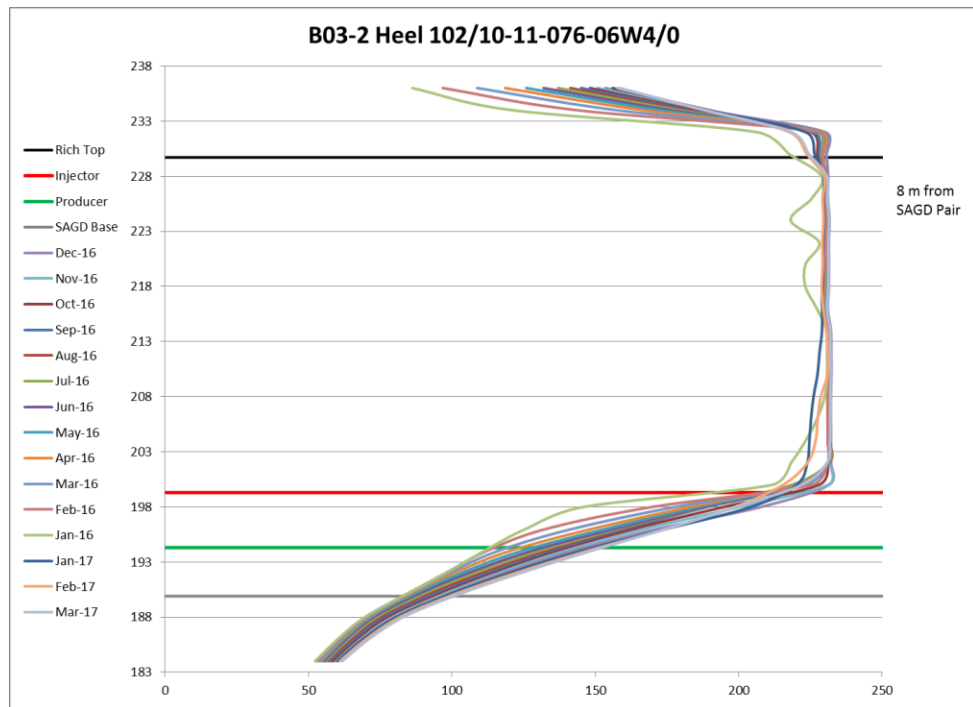
B02c: 110/15-15-076-06W4/0



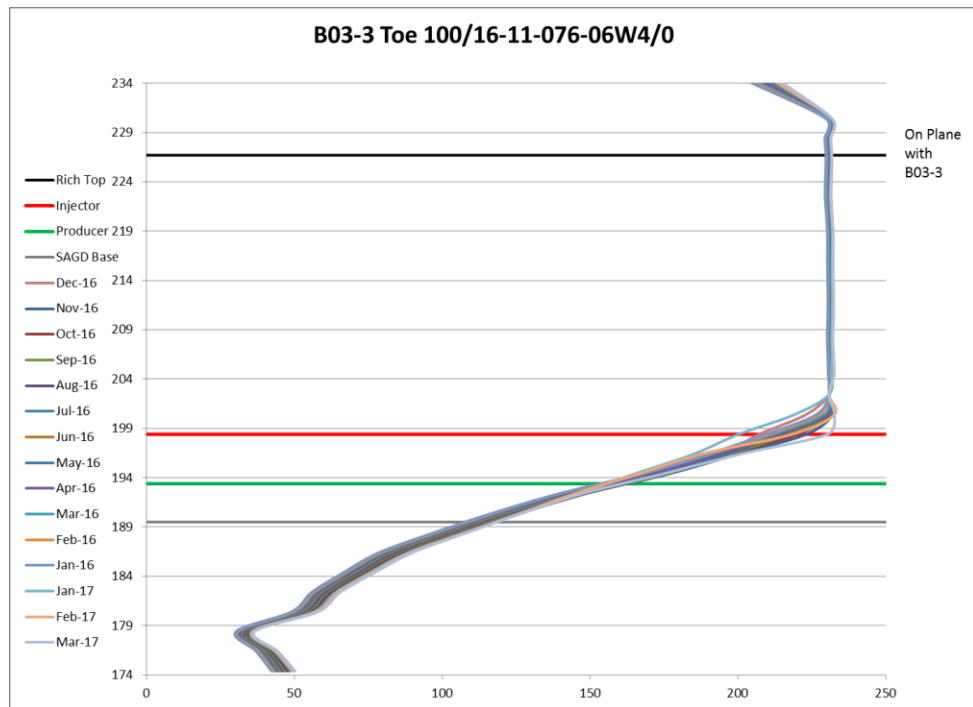
B02c: 100/13-15-076-06W4/0



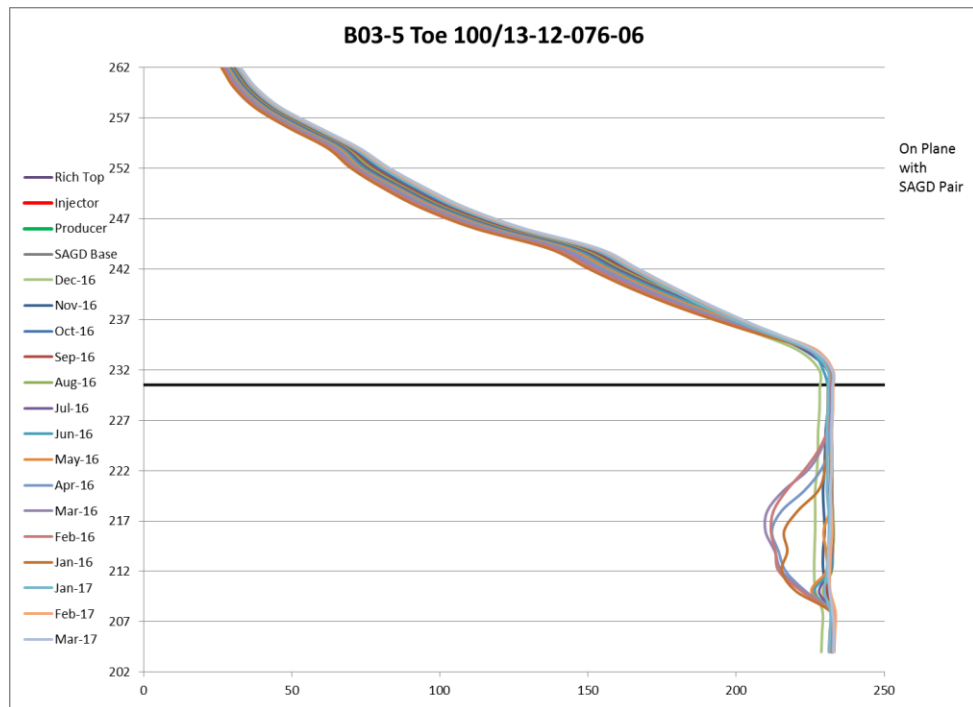
B03: 102/10-11-076-06W4



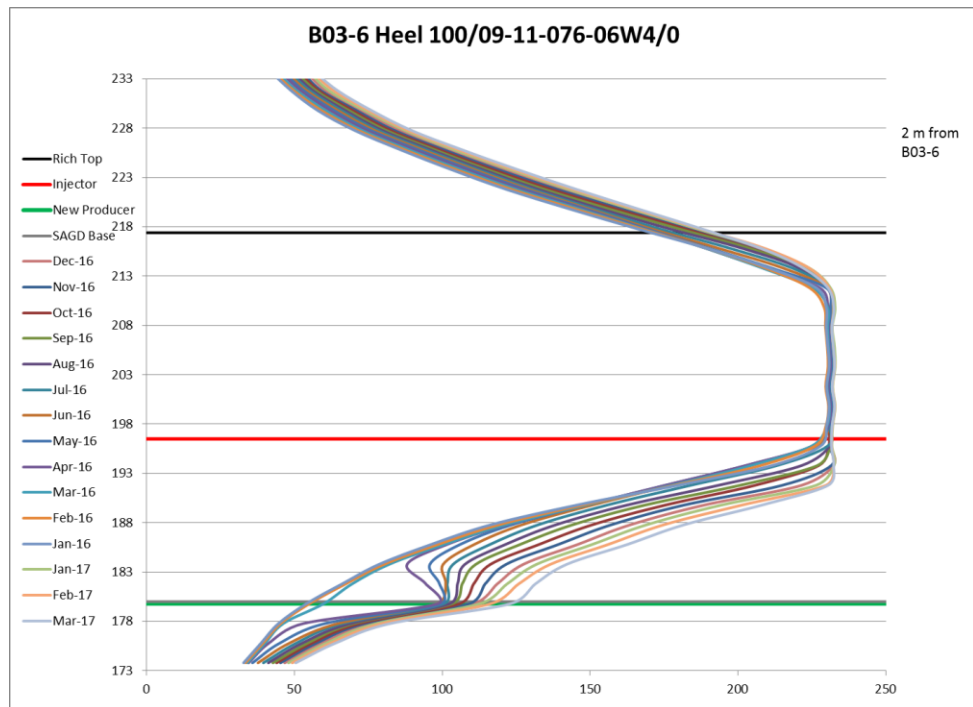
B03: 100/16-11-076-06W4



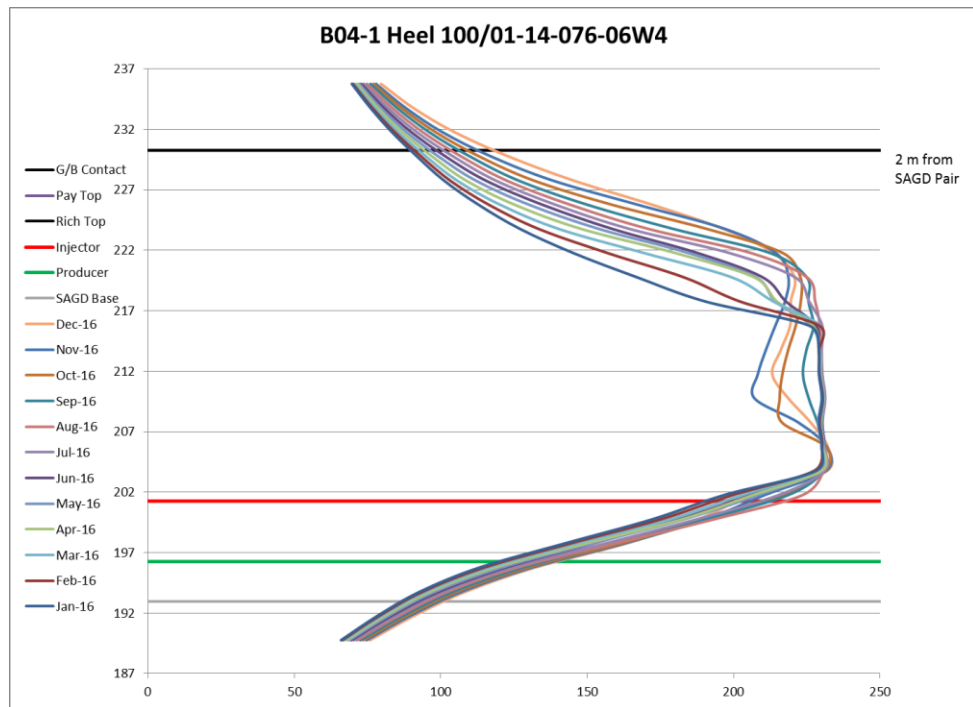
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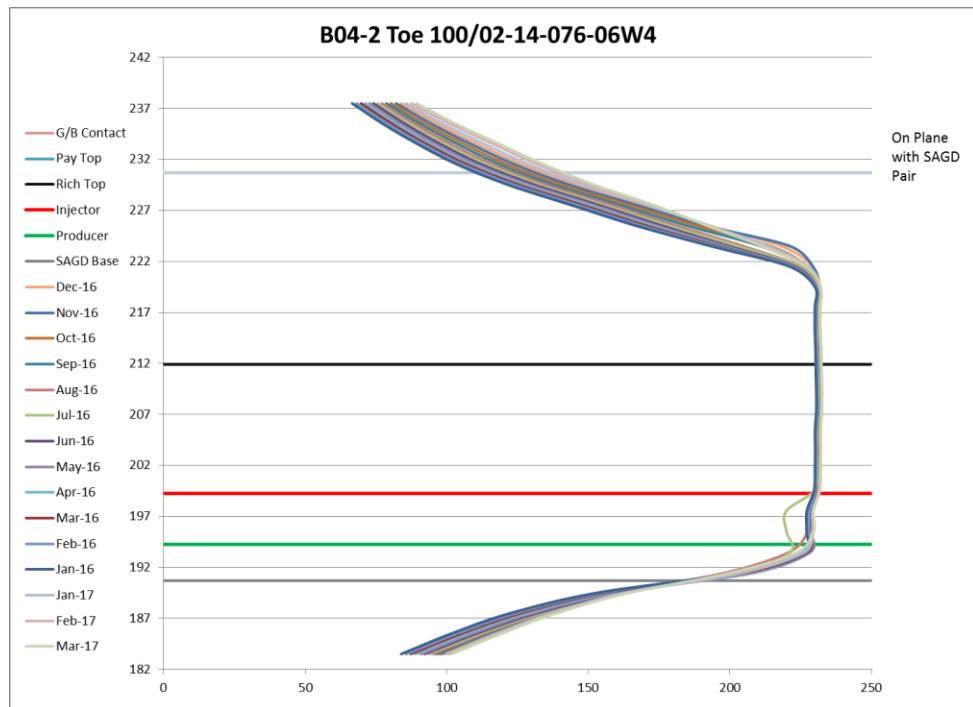
B03: 100/09-11-076-06W4



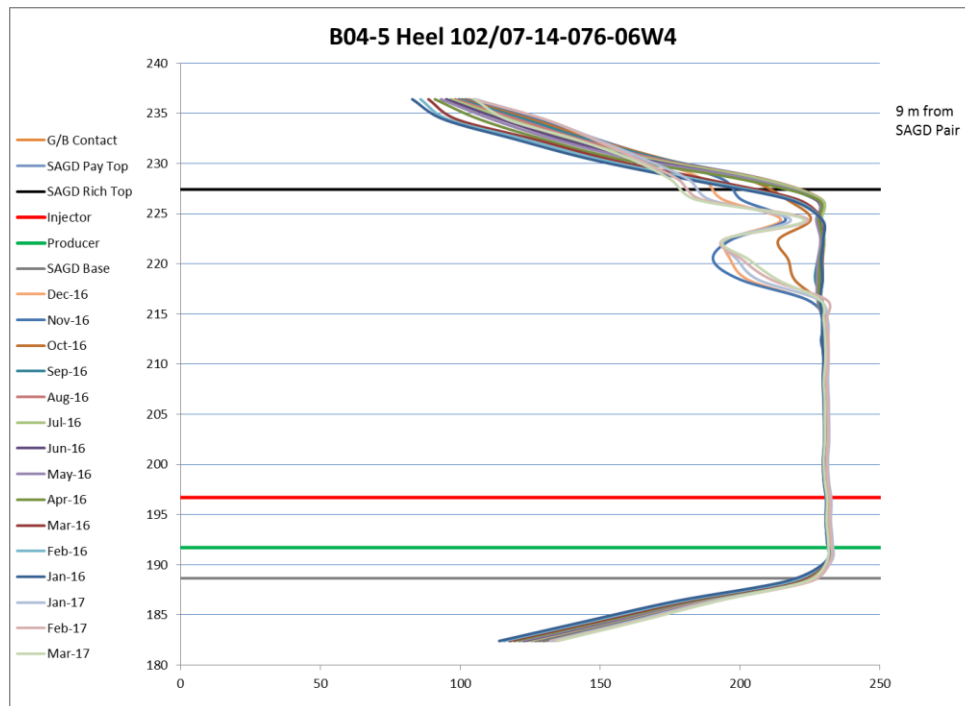
B04: 100/01-14-076-06W4



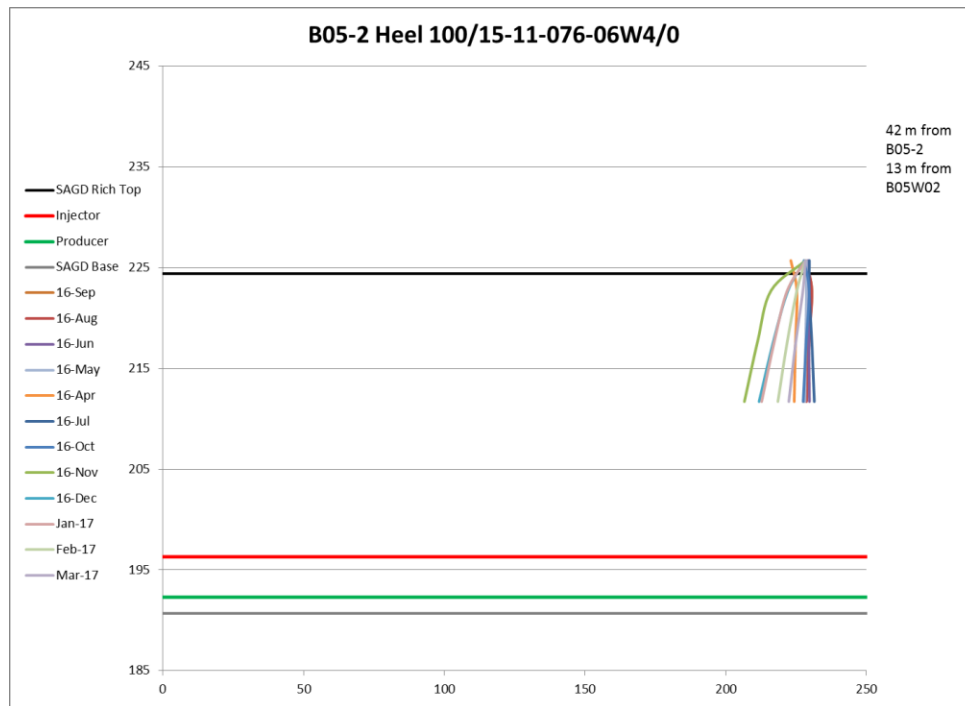
B04: 100/02-14-076-06W4



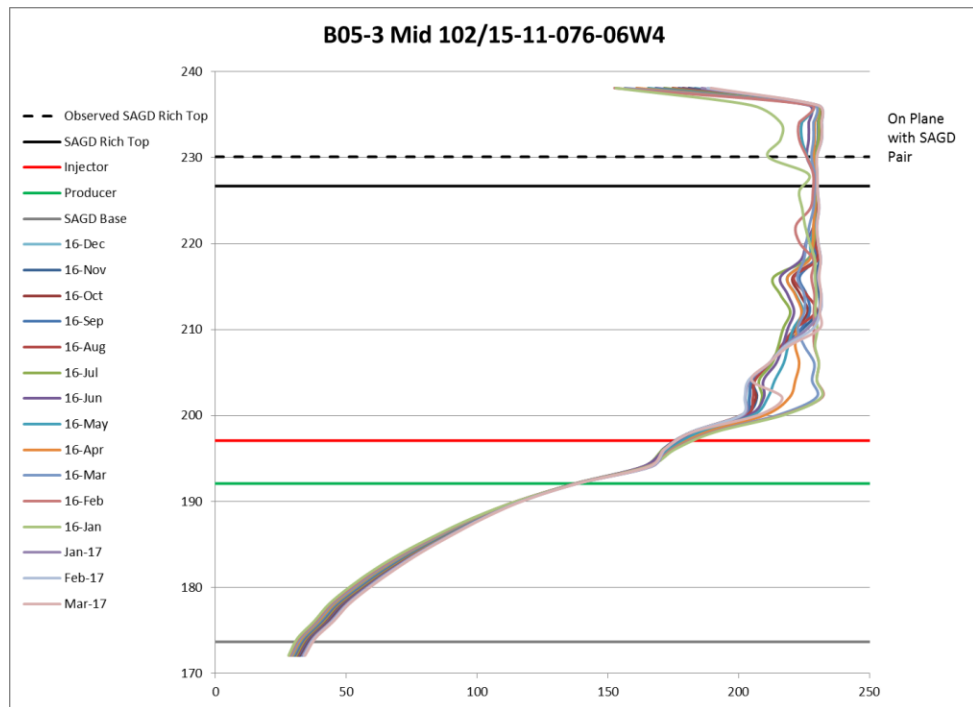
B04: 102/07-14-076-06W4



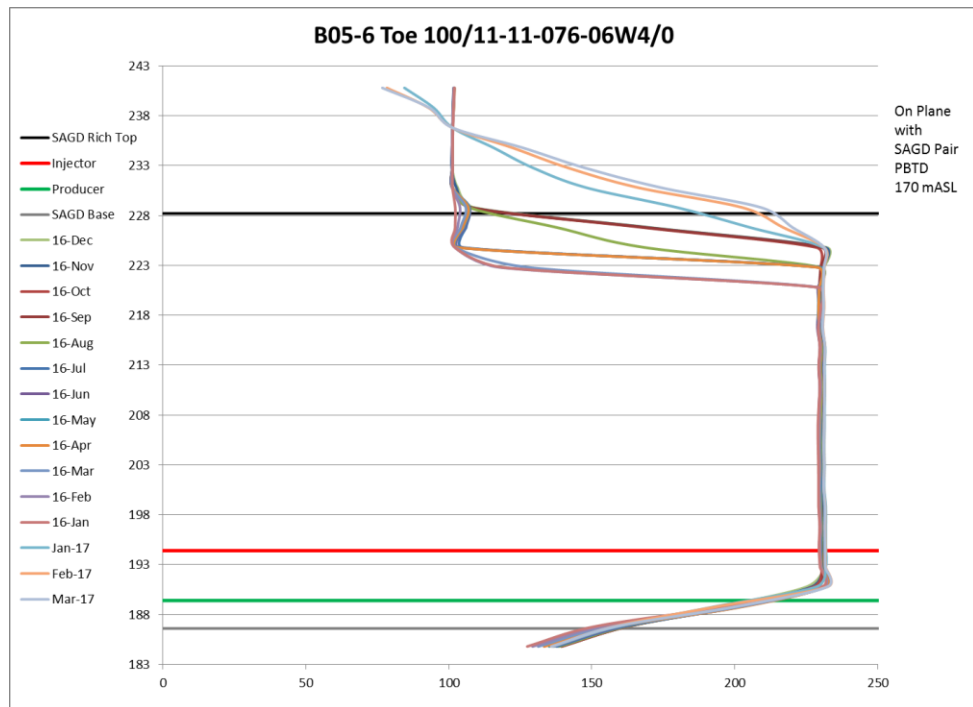
B05: 100/15-11-076-06W4/0



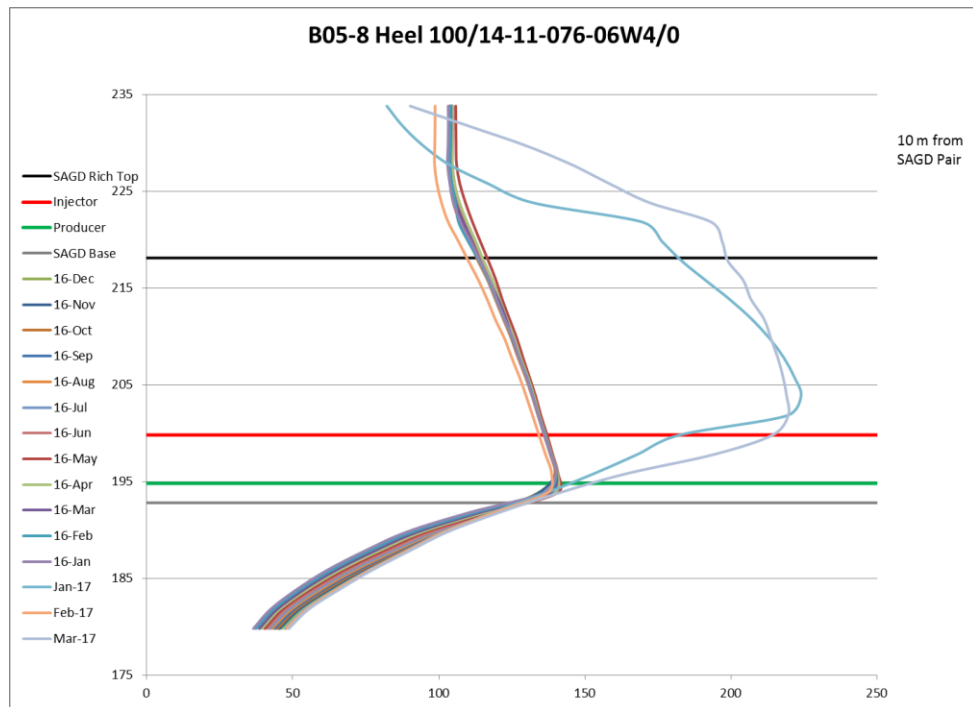
B05: 102/15-11-076-06W4



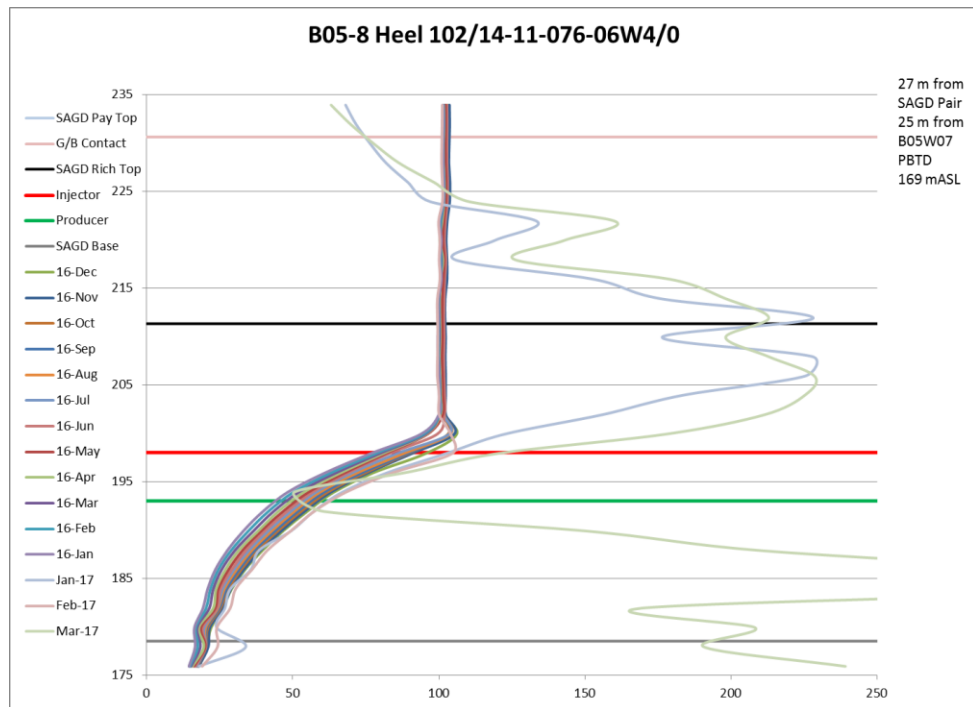
B05: 100/11-11-076-06W4/0



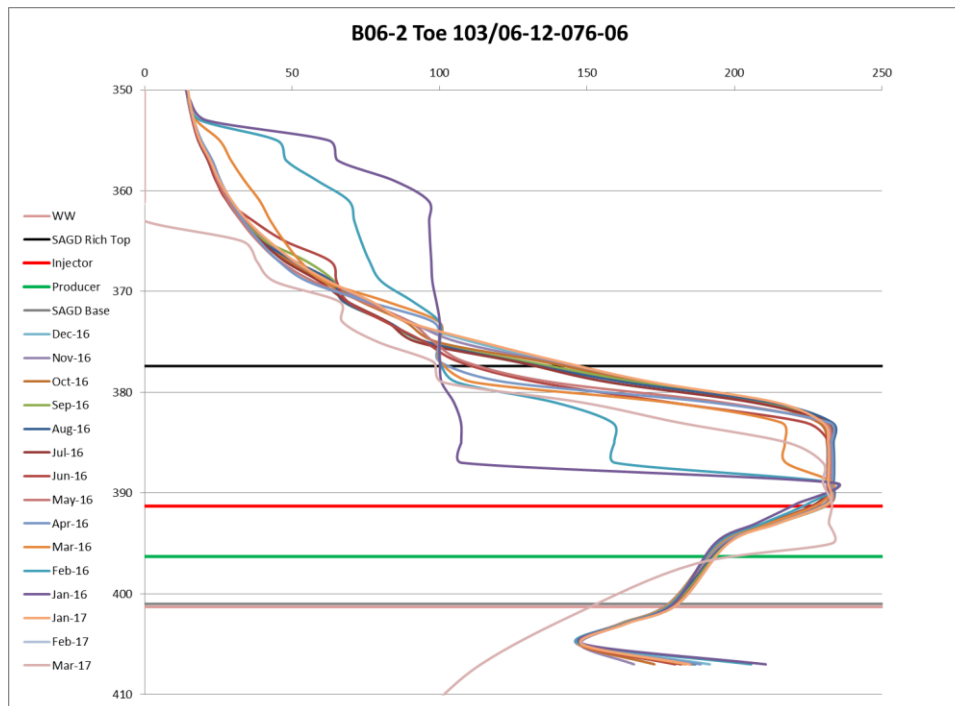
B05: 100/14-11-076-06W4/0



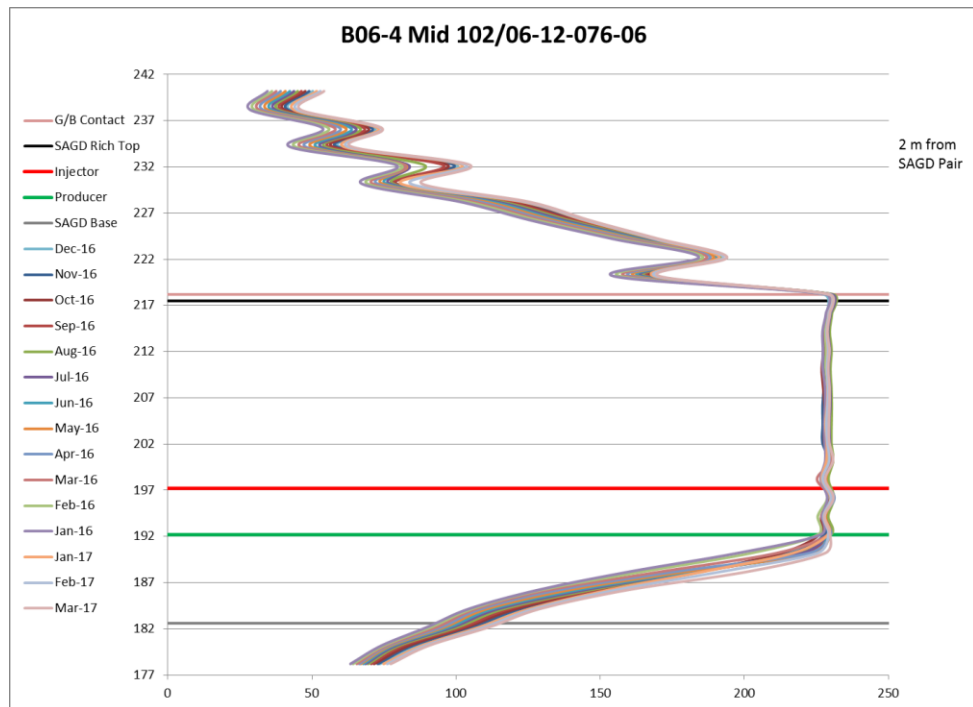
B05: 102/14-11-076-06W4/0



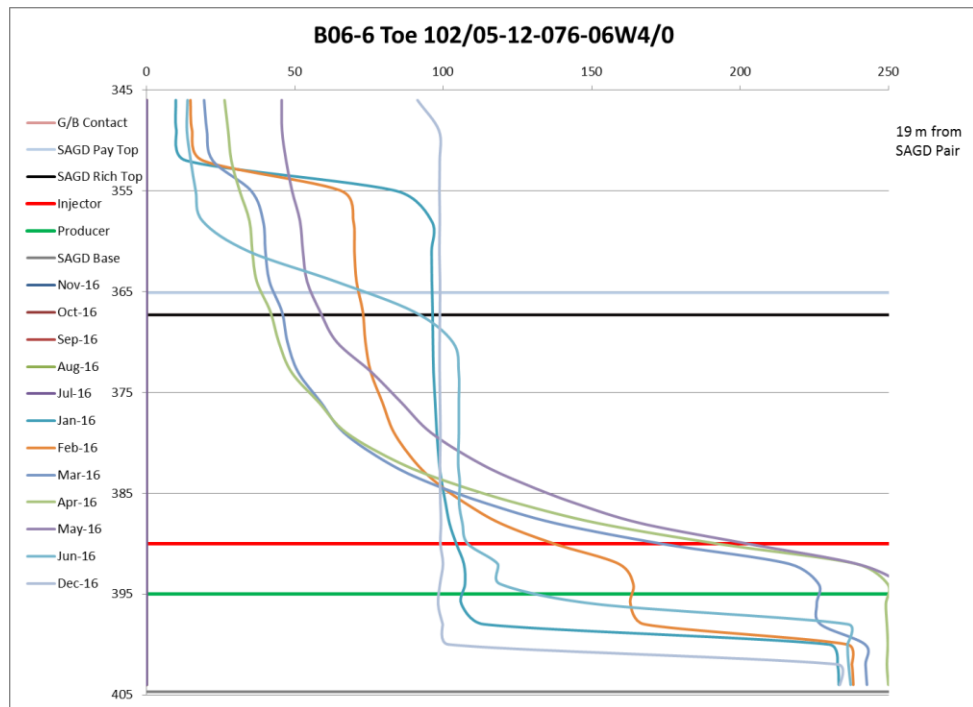
B06: 103/06-12-076-06W4/0



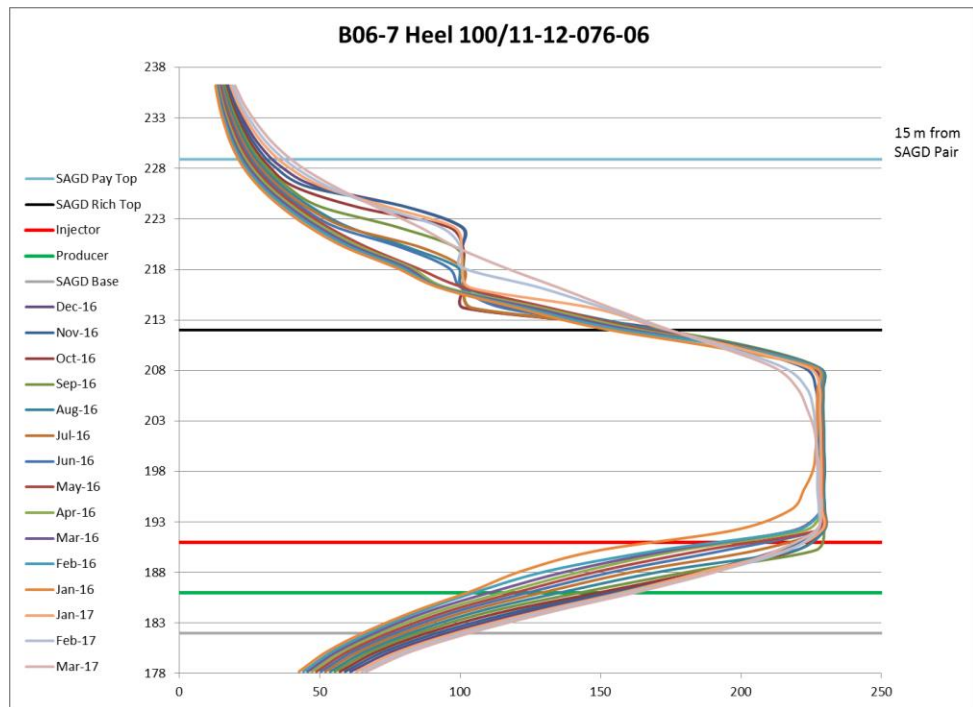
B06: 102/06-12-076-06W4



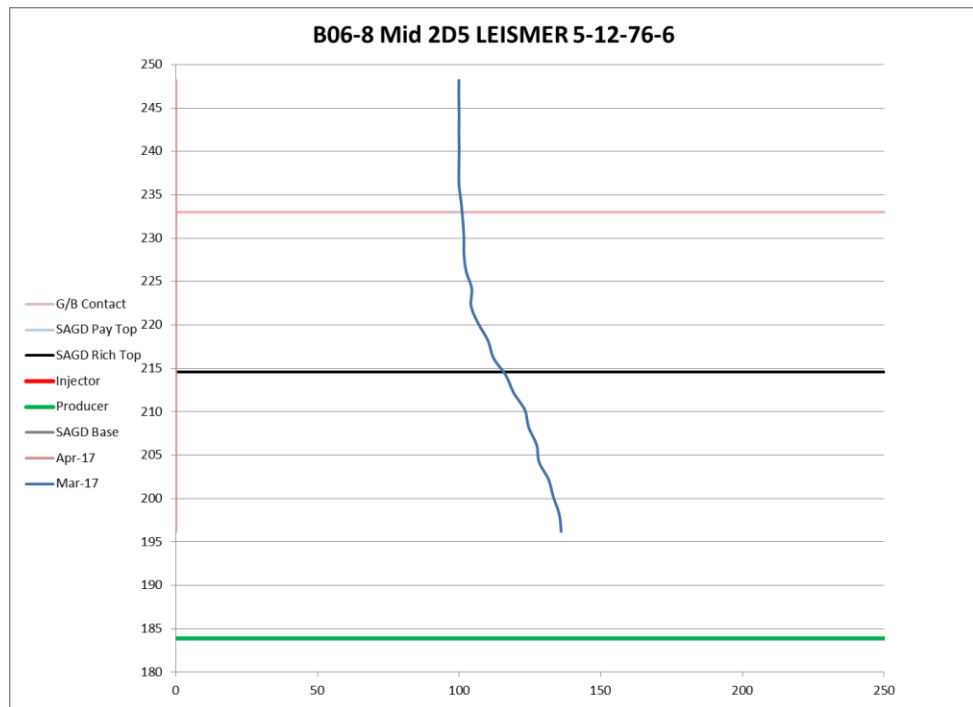
B06: 102/05-12-076-06W4/0



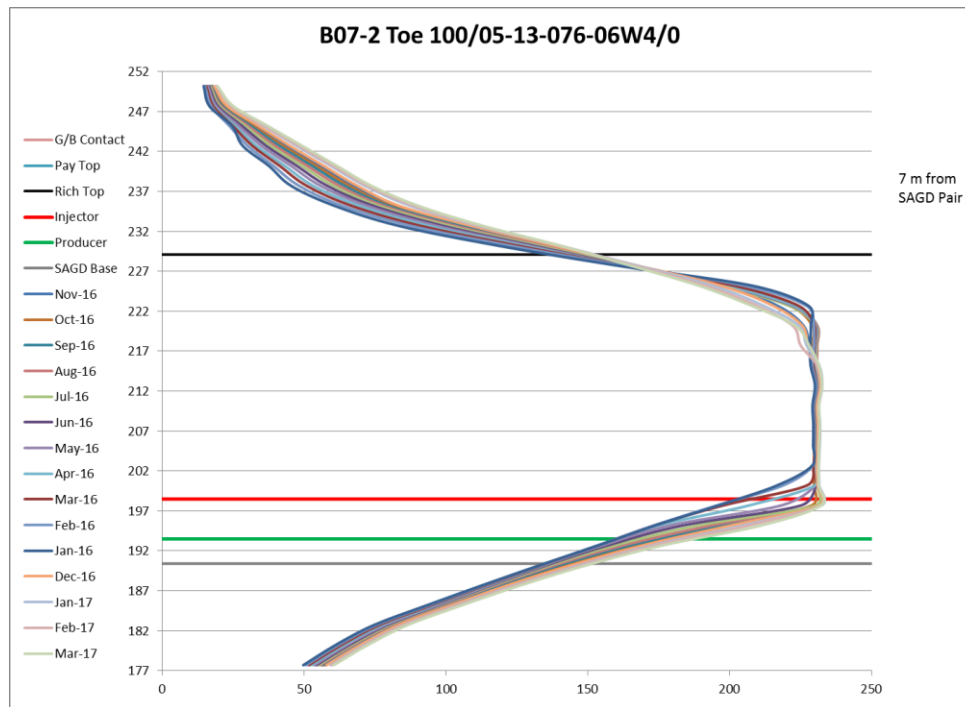
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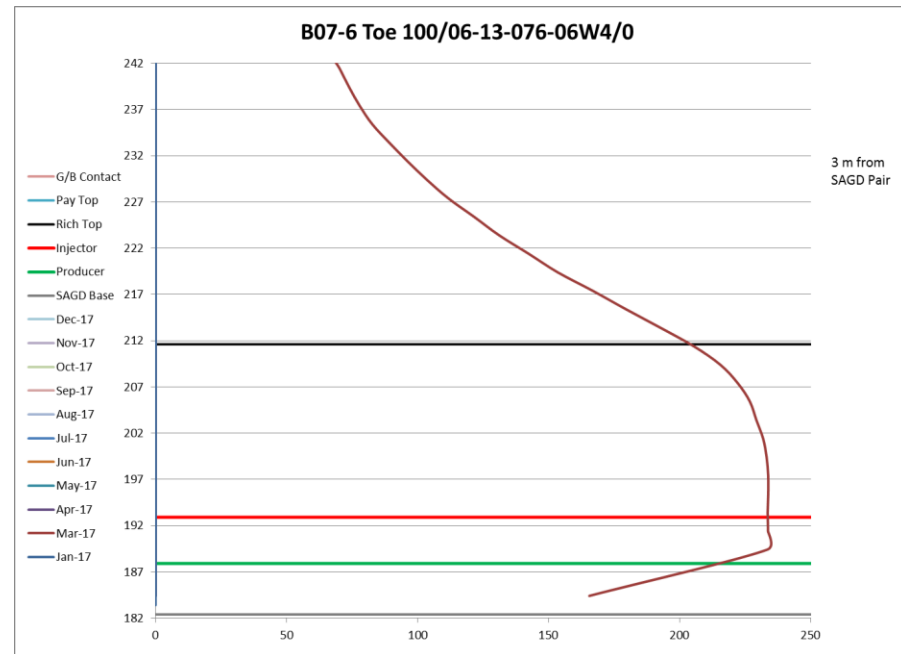
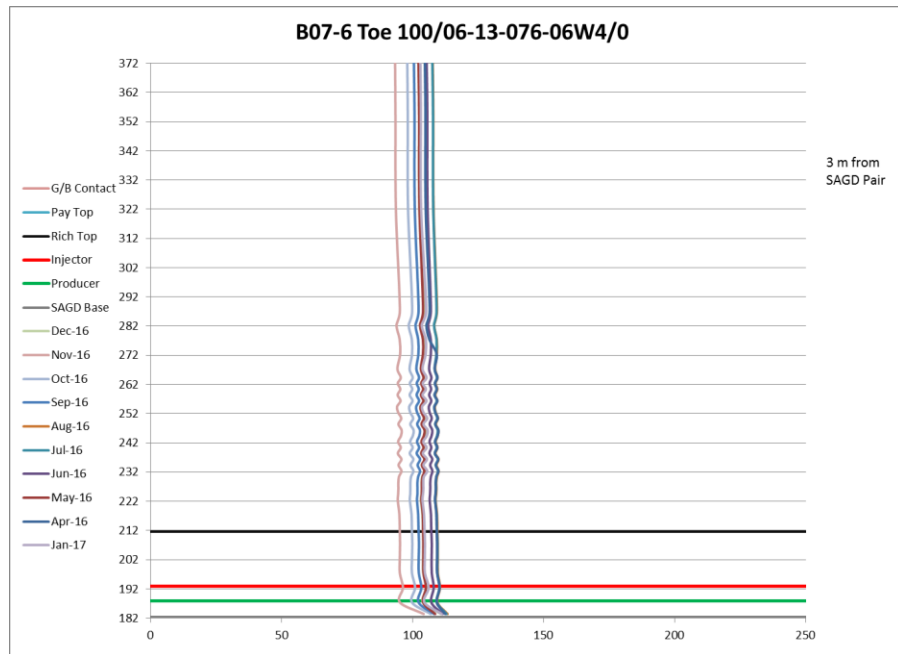
B06: 100/05-12-076-06W4



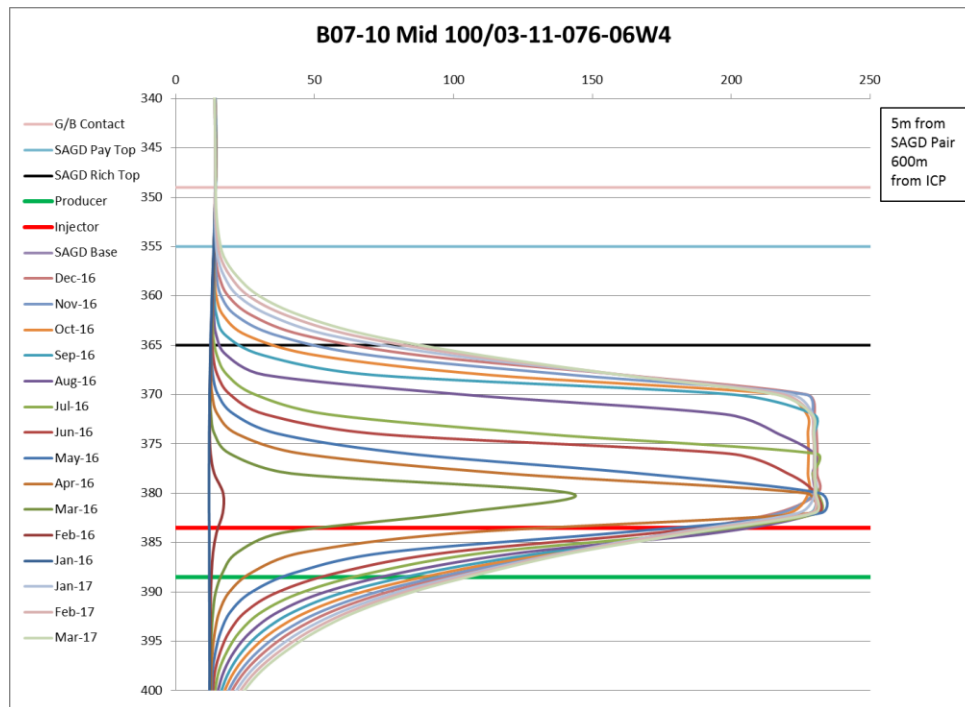
B07: 100/05-13-076-06W4/00



B07: 100/06-13-076-06



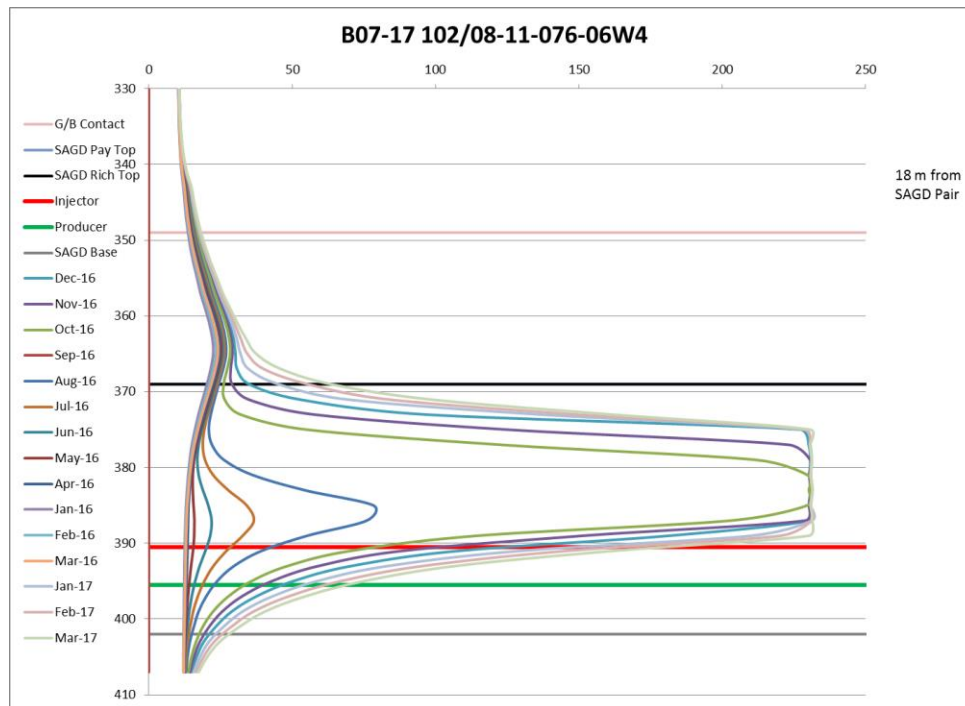
B07b: 100/03-11-076-06W4



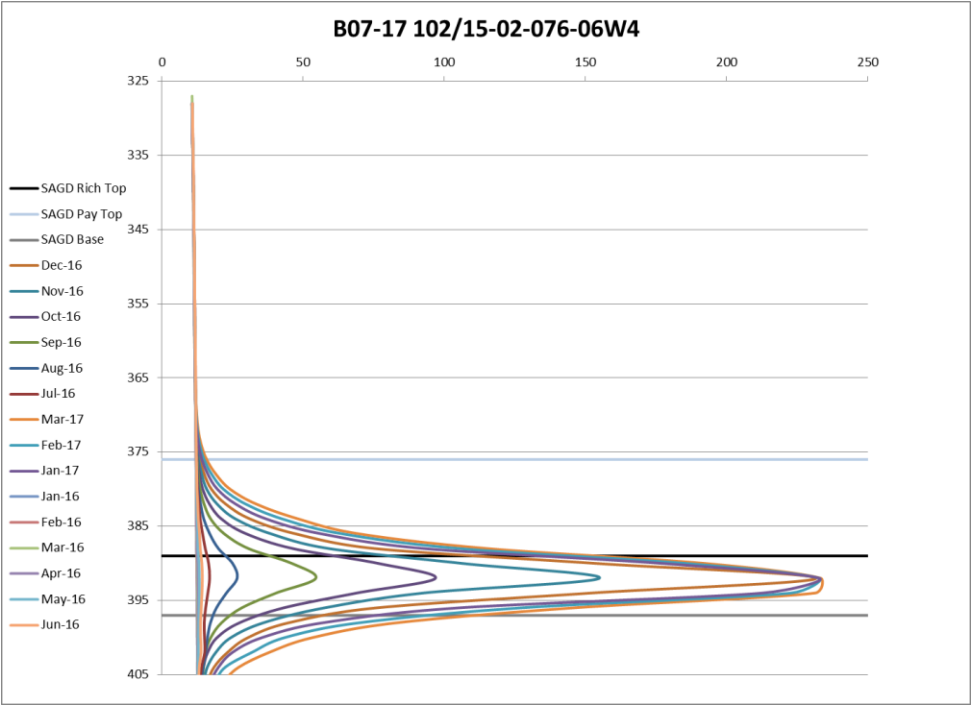
B07b: 102/14-02-76-6W4/0

Virgin Reservoir Conditions

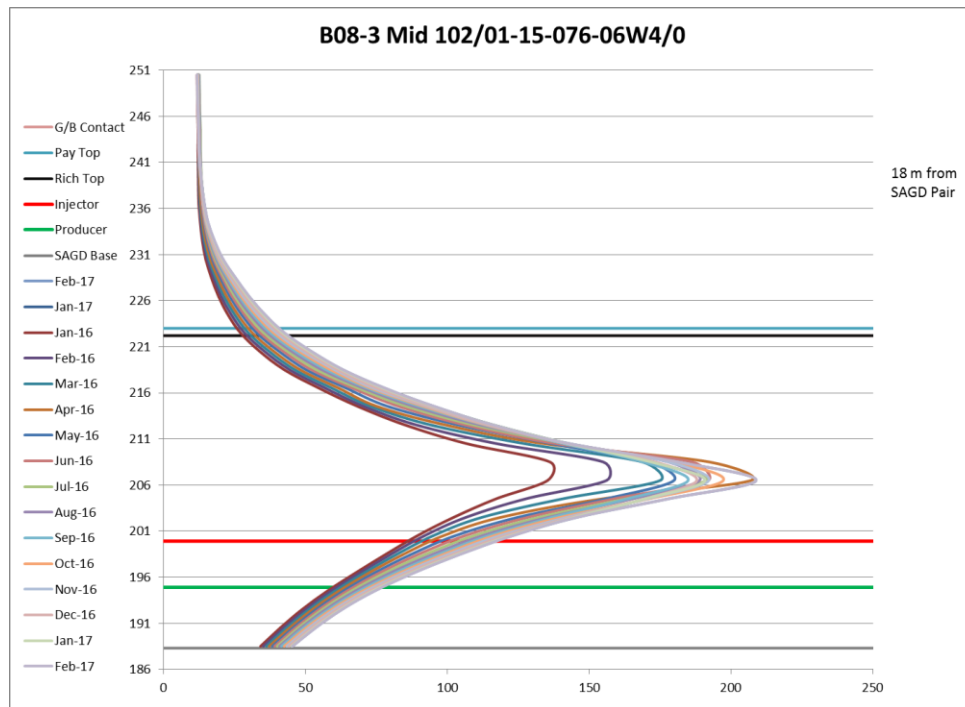
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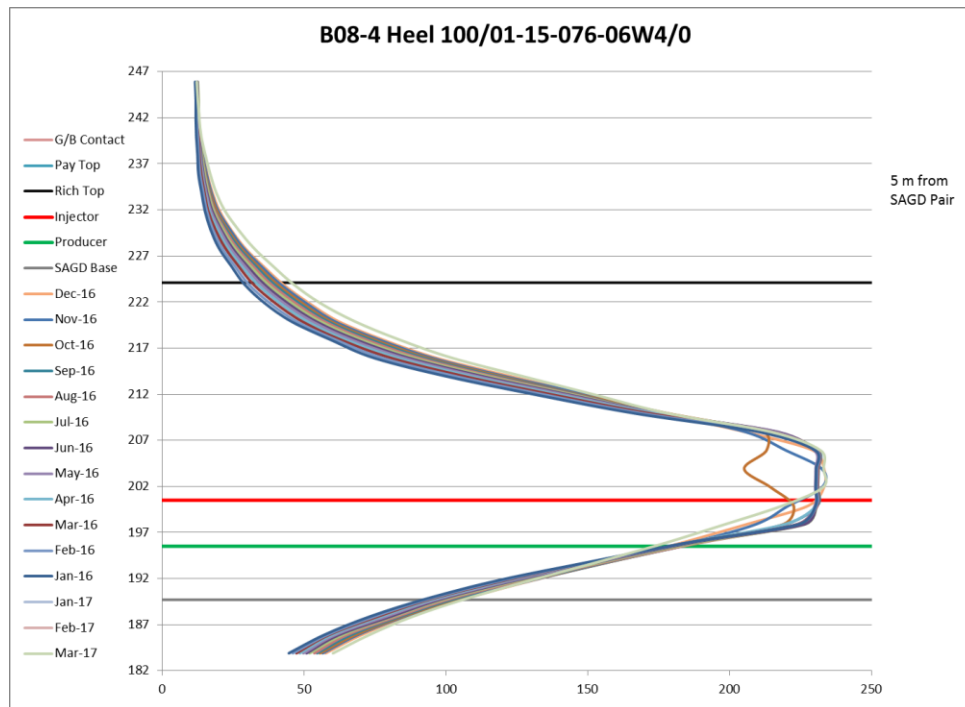
B07b: 102/15-02-076-06W4



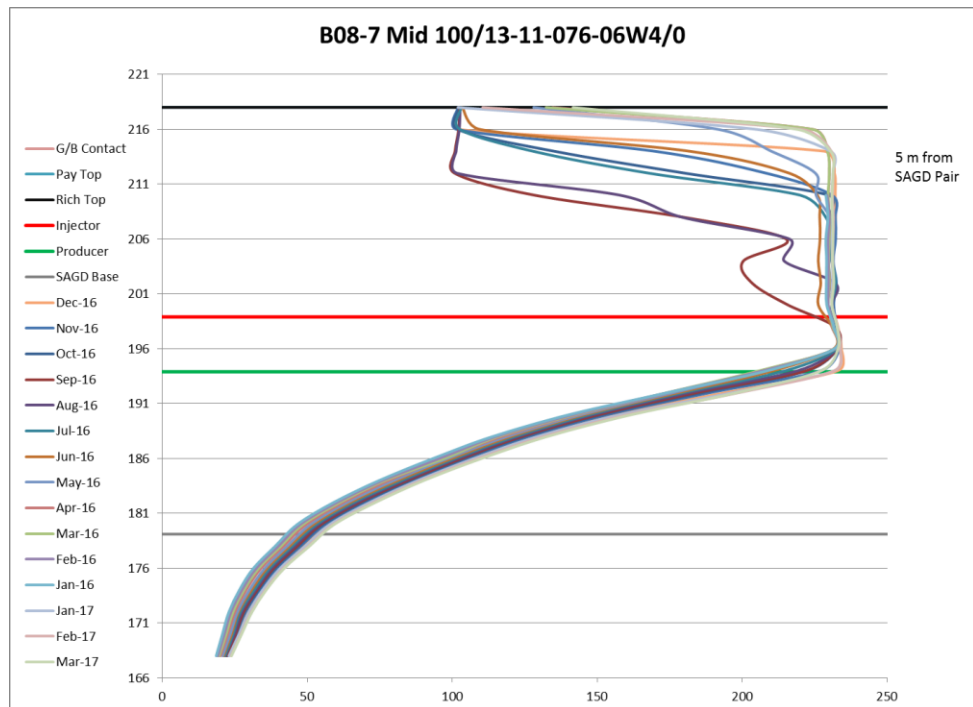
B08: 102/01-15-076-06W4/0



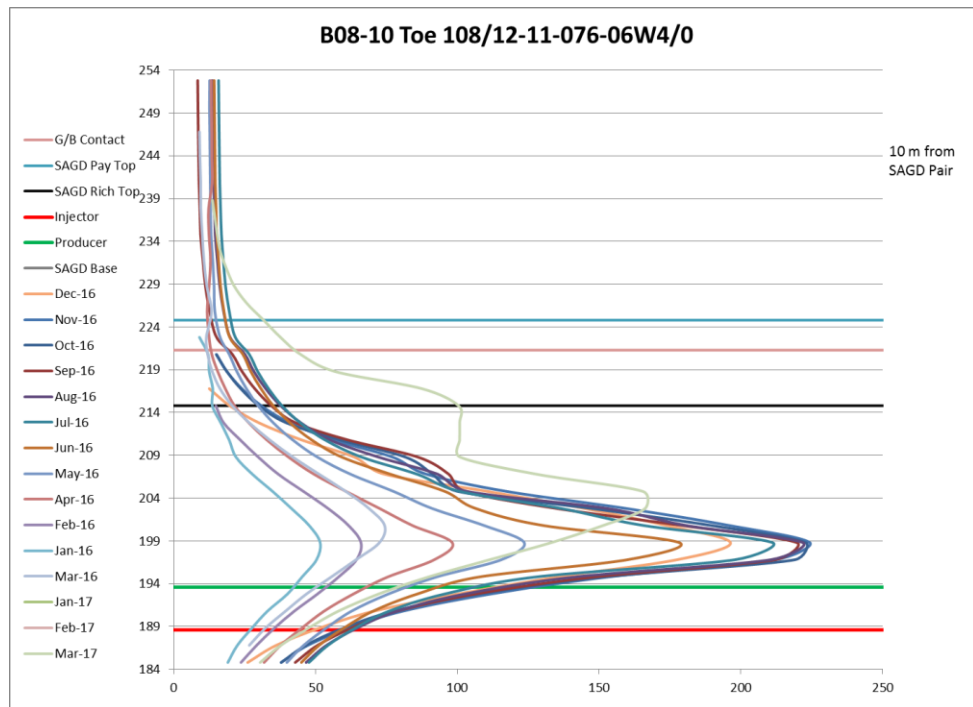
B08: 100/01-15-076-06W4/00



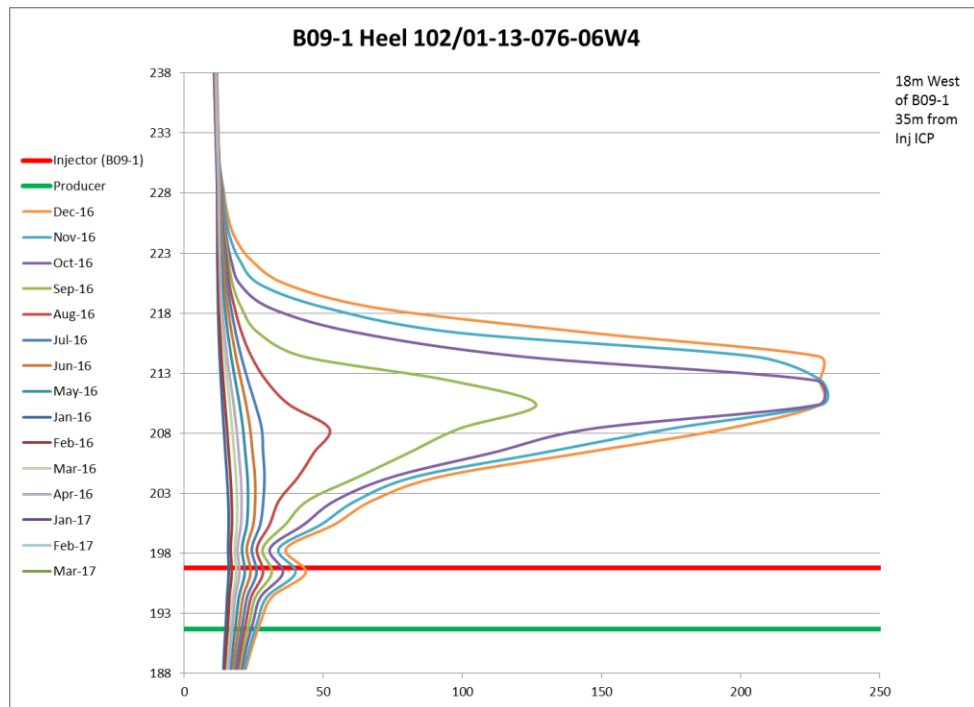
B08: 100/13-11-076-06W4/00



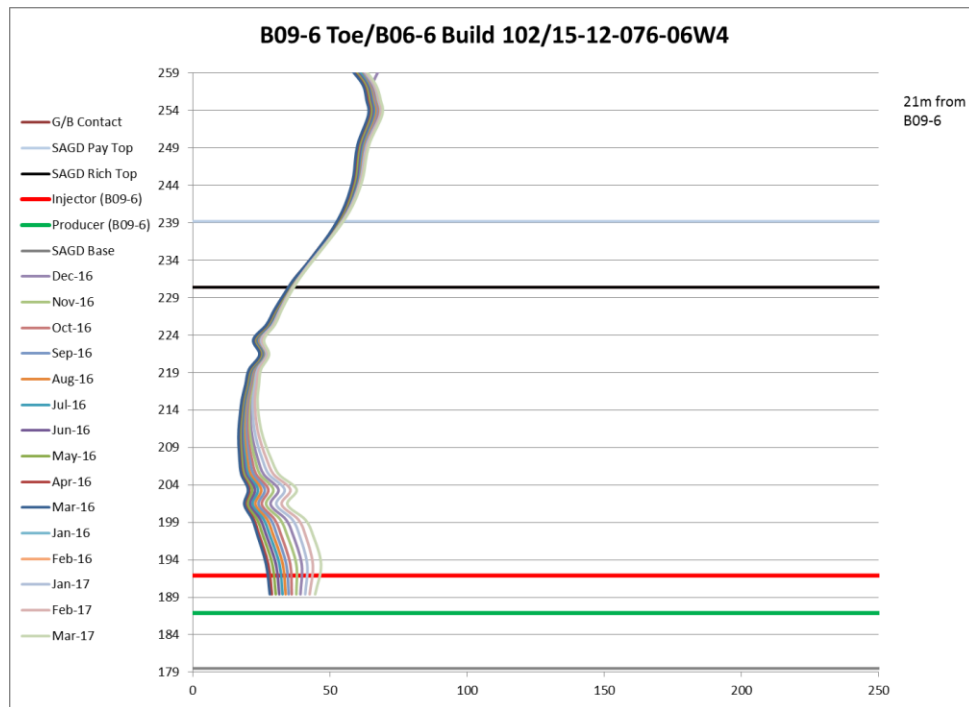
B08: 108/12-11-076-06W4/00



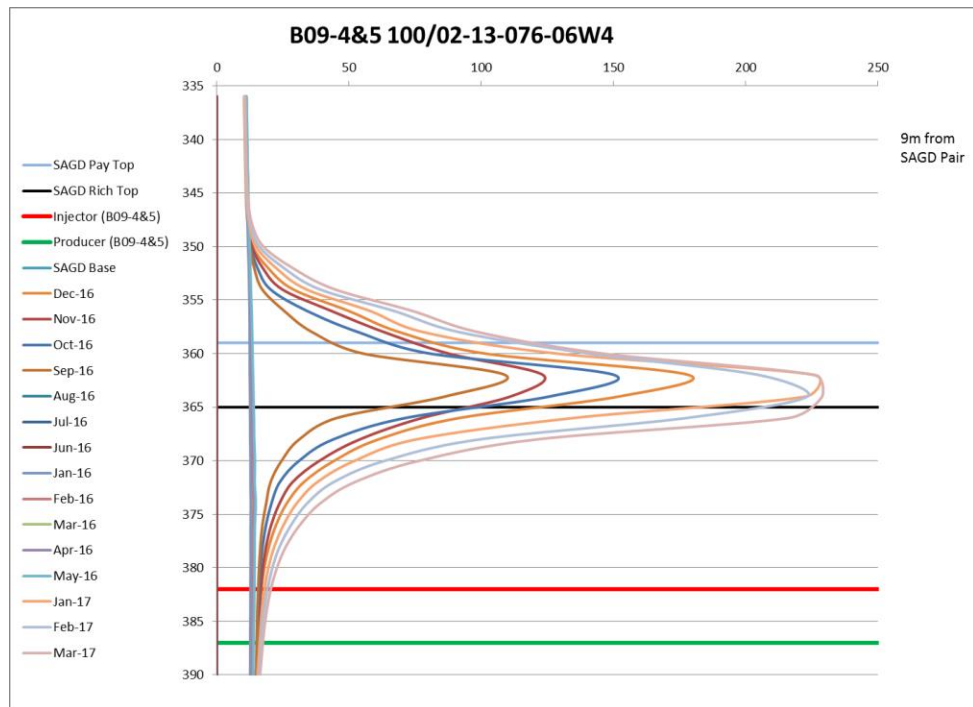
B09: 102/01-13-076-06W4



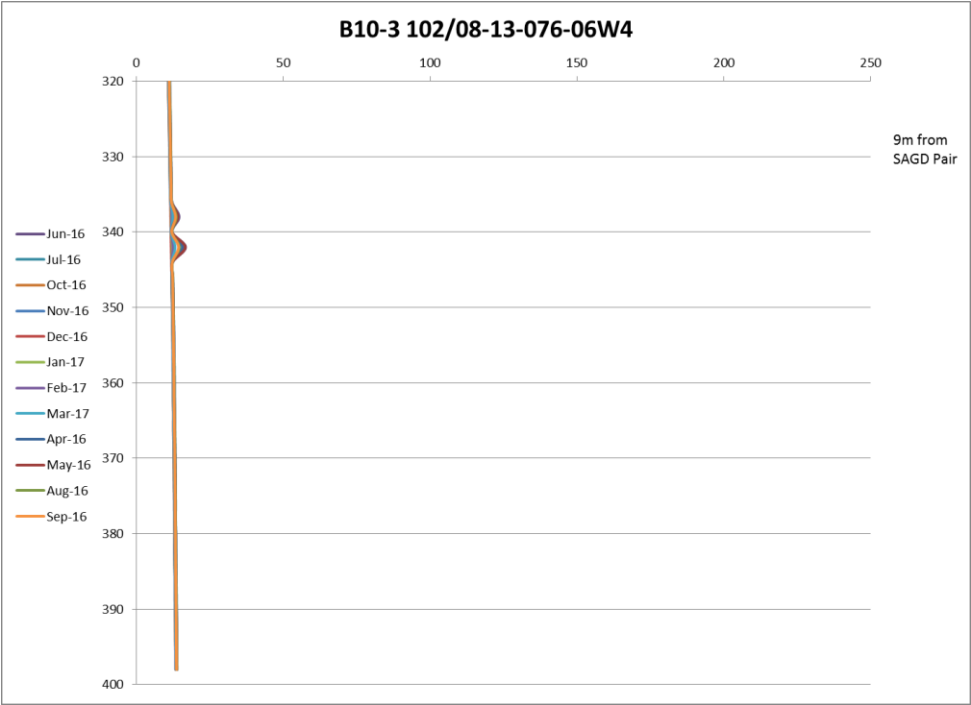
B09: 102/15-12-076-06W4



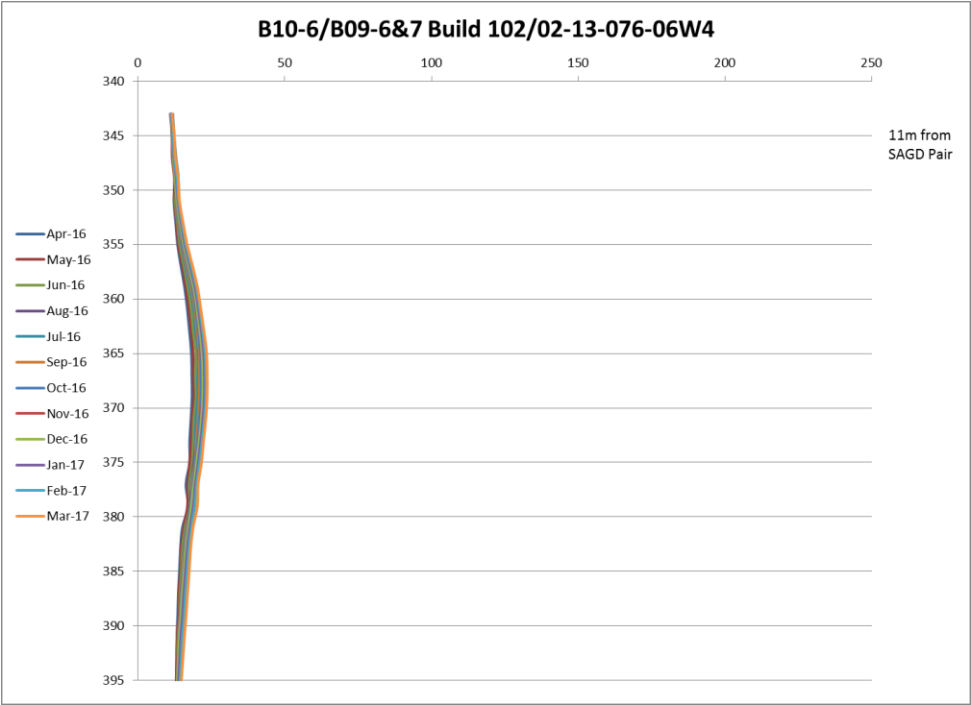
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B10: 102/08-13-076-06W4



B10: 102/02-13-076-06W4



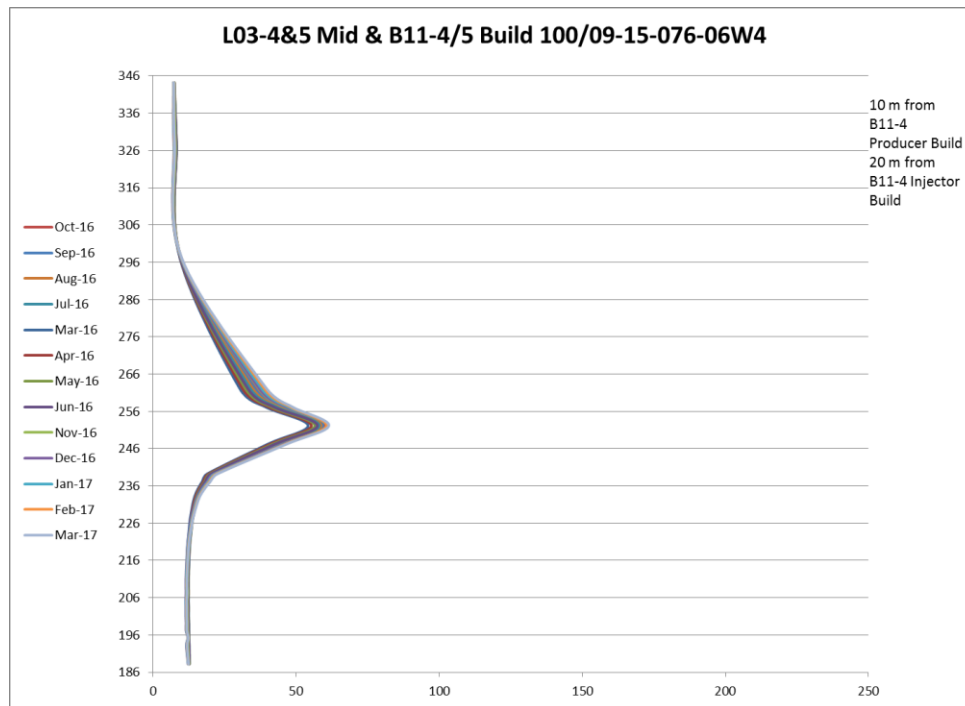
B10: 100/09-13-076-06W4

Virgin Reservoir Conditions

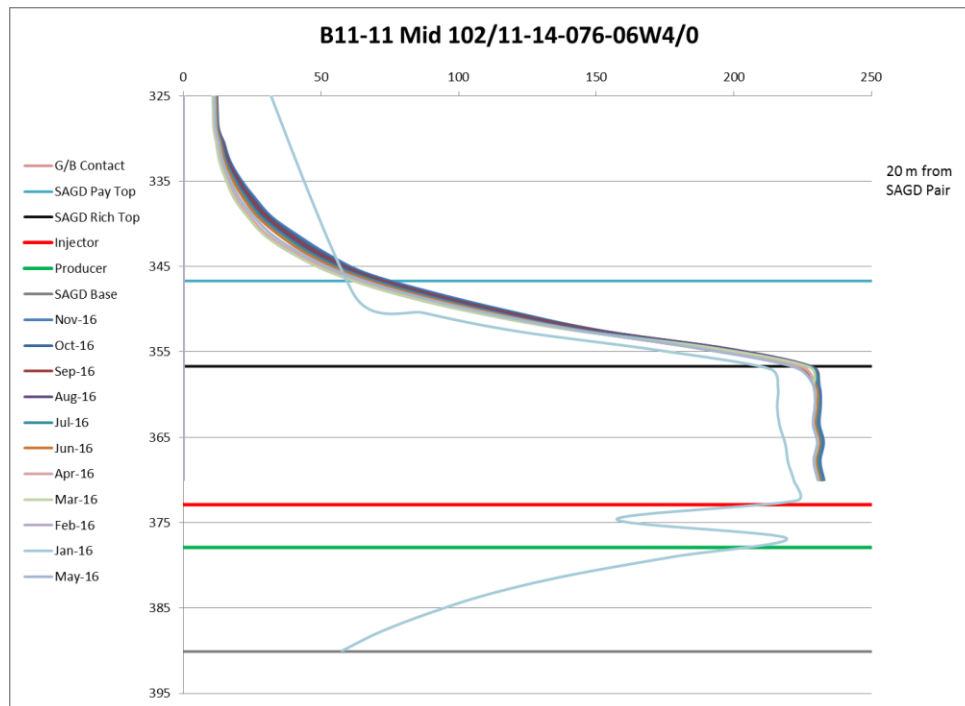
B10: 100/07-13-076-06W4



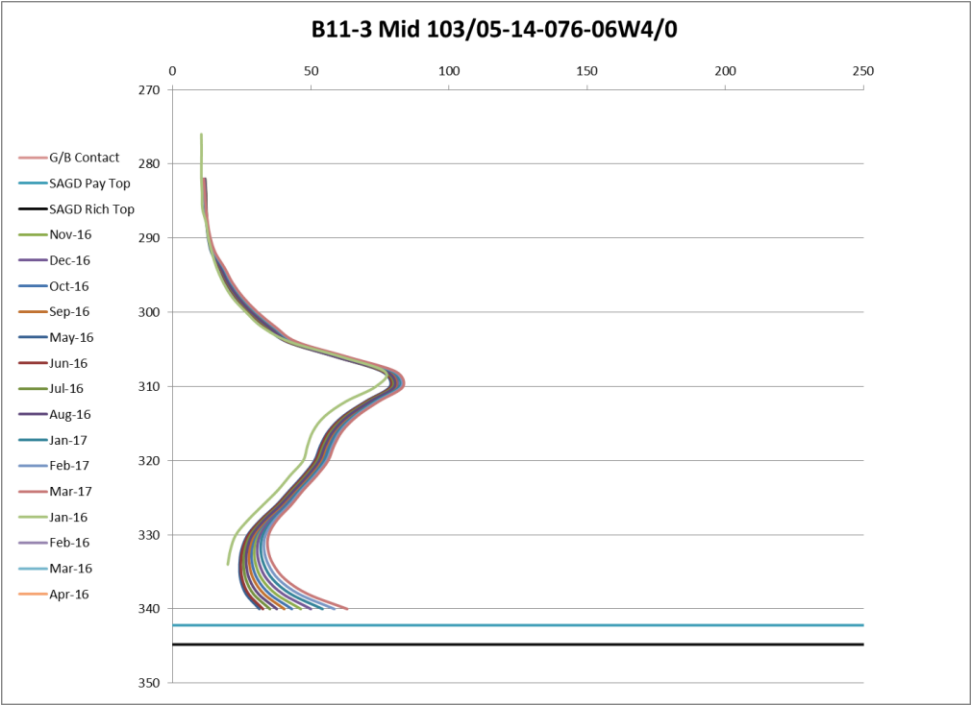
B11: 100/09-15-076-06W4



B11: 102/11-14-076-06W4/00



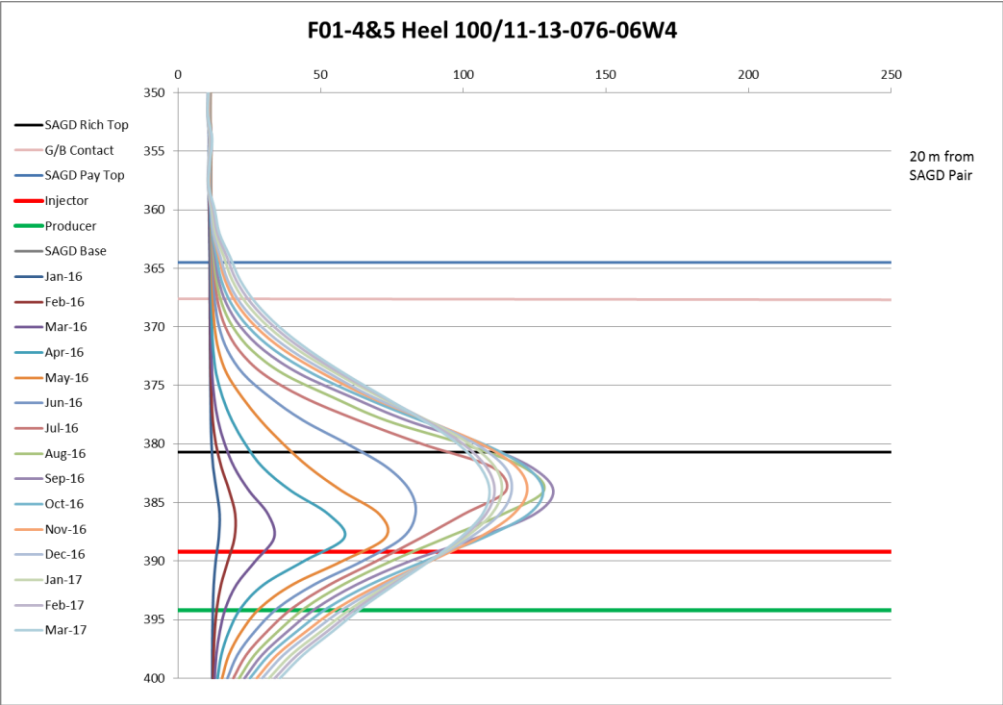
B11: 103/05-14-076-06W4/00



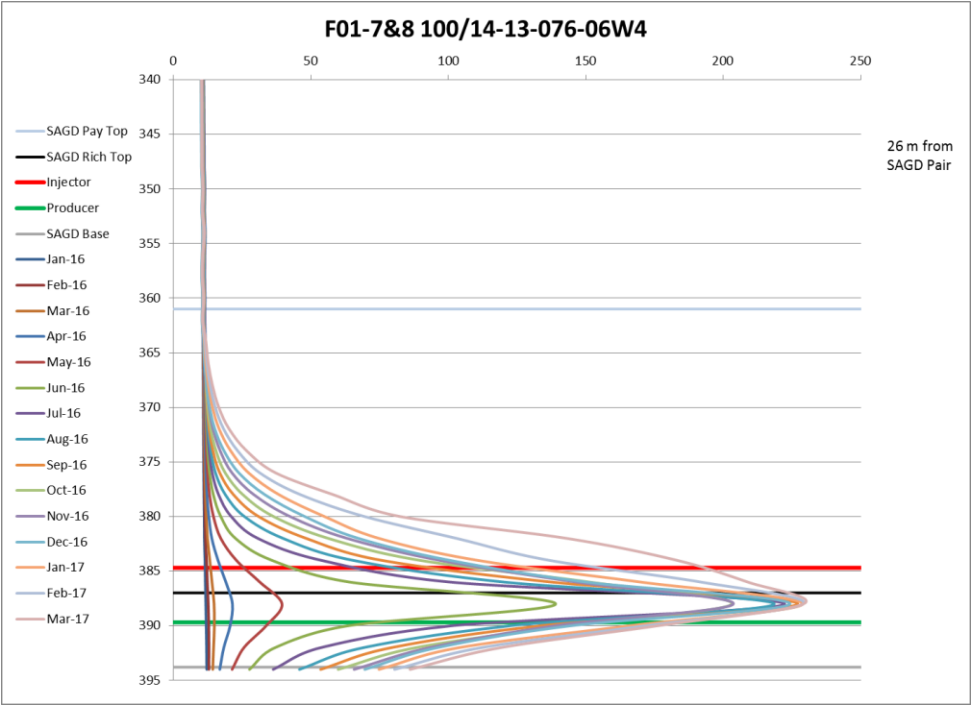
F01: 108/06-13-076-06W4

Virgin Reservoir Conditions

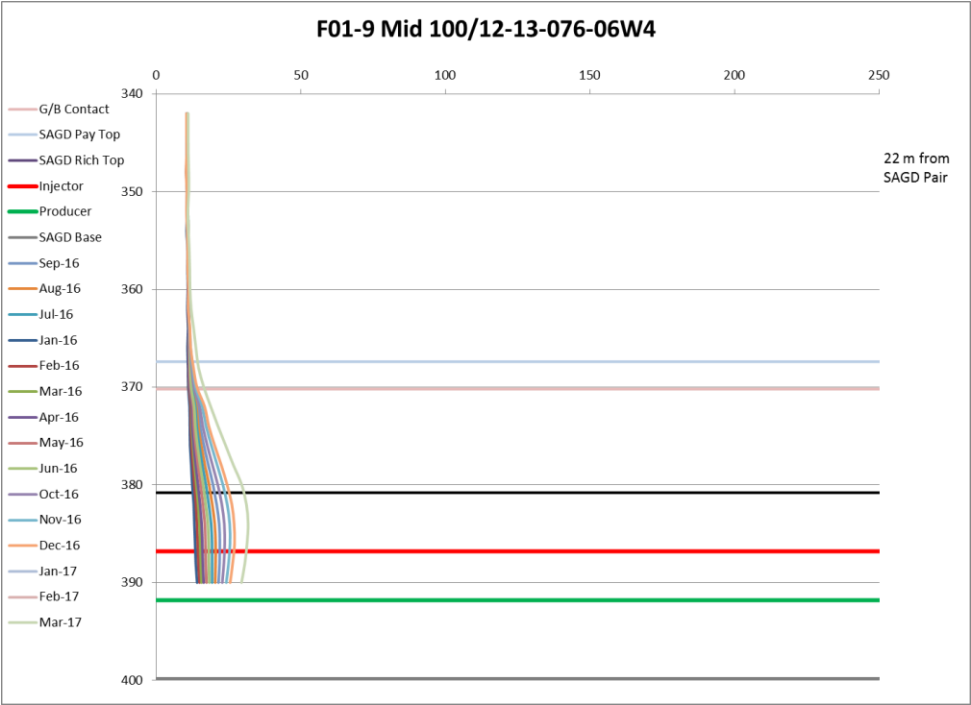
F01: 100/11-13-076-06W4



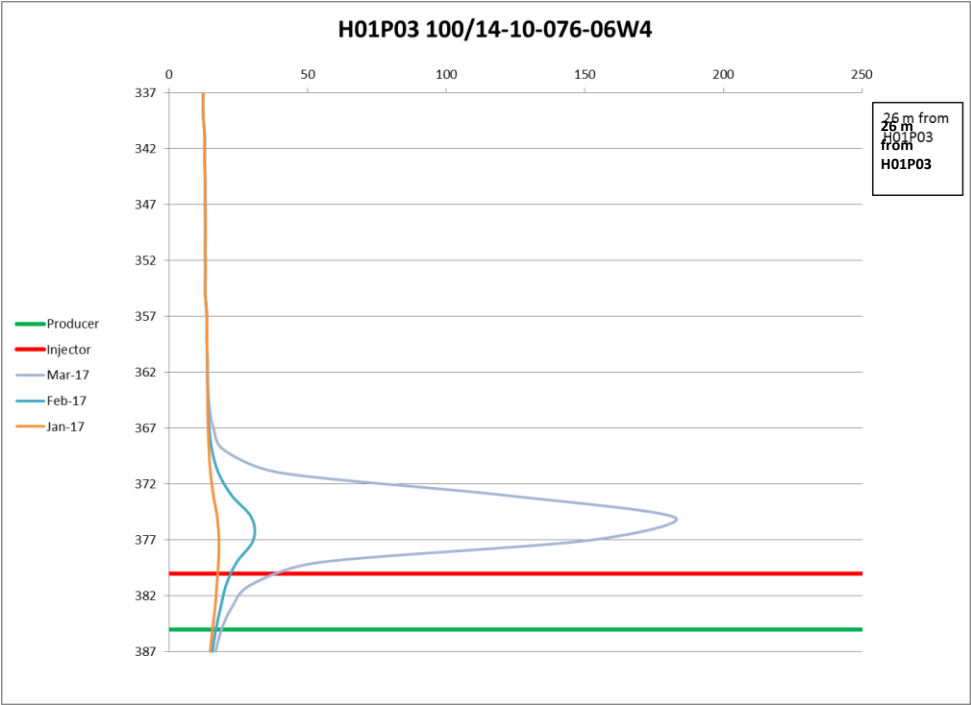
F01: 100/14-13-076-06W4



F01: 100/12-13-076-06W4



H01: 100/14-10-076-06W4



H01(2): 100/12-10-76-6W4/0

Virgin Reservoir Conditions

H01(3): 102/14-10-76-6W4/0

Virgin reservoir Conditions

H01(4): 103/15-10-76-6W4/0

Virgin Reservoir Conditions

H03: 102/08-10-76-6W4/0

Virgin Reservoir Conditions

H03: 105/09-10-76-6W4/0

Virgin Reservoir Conditions

H03: 100/07-10-76-6W4

Virgin Reservoir Conditions

L03: LEISMER 8-15-76-6

Virgin Reservoir Conditions

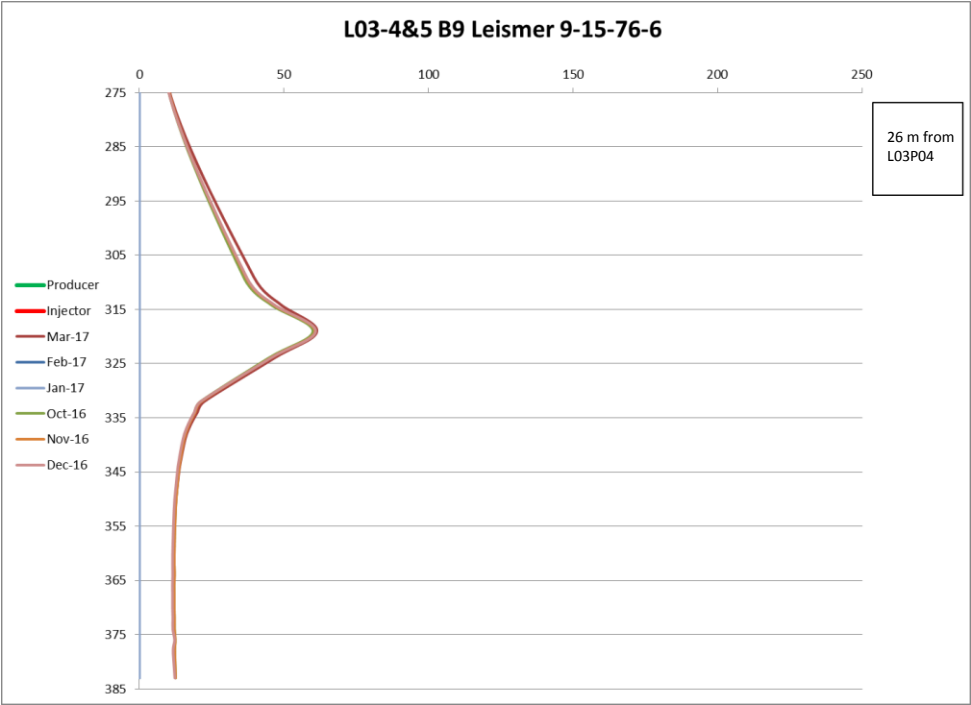
L03: 2A2 LEISMER 2-15-76-6

Virgin Reservoir Conditions

L03: D2 LEISMER 2-15-76-6

Virgin Reservoir Conditions

L03: B9 LEISMER 9-15-76-6



B13: 1AC/07-12-076-08

Virgin Reservoir Conditions

B13: 103/07-12-076-06

Virgin Reservoir Conditions

B13: 100/12-07-076-05

Virgin Reservoir Conditions

B13: 1AB/01-12-076-06

Virgin Reservoir Conditions

B13: 100/05-07-076-5

Virgin Reservoir Conditions

J01: 1AB/01-10-076-06

Virgin Reservoir Conditions

J01: 100/09-03-076-06

Virgin Reservoir Conditions

J01: 100/12-02-076-06

Virgin Reservoir Conditions

J01: 1AB/13-02-076-06

Virgin Reservoir Conditions

J01: 1AB/16-03-076-06

Virgin Reservoir Conditions

J03: 100/08-10-076-06

Virgin Reservoir Conditions

L05: 102/13-14-076-06

Virgin Reservoir Conditions

L05: 1AB/14-14-076-06

Virgin Reservoir Conditions

L05: 105/11-14-076-06

Virgin Reservoir Conditions

L09: 1AB/15-23-076-06

Virgin Reservoir Conditions

L09: 102/16-23-076-06

Virgin Reservoir Conditions

L09: 100/09-23-076-06

Virgin Reservoir Conditions

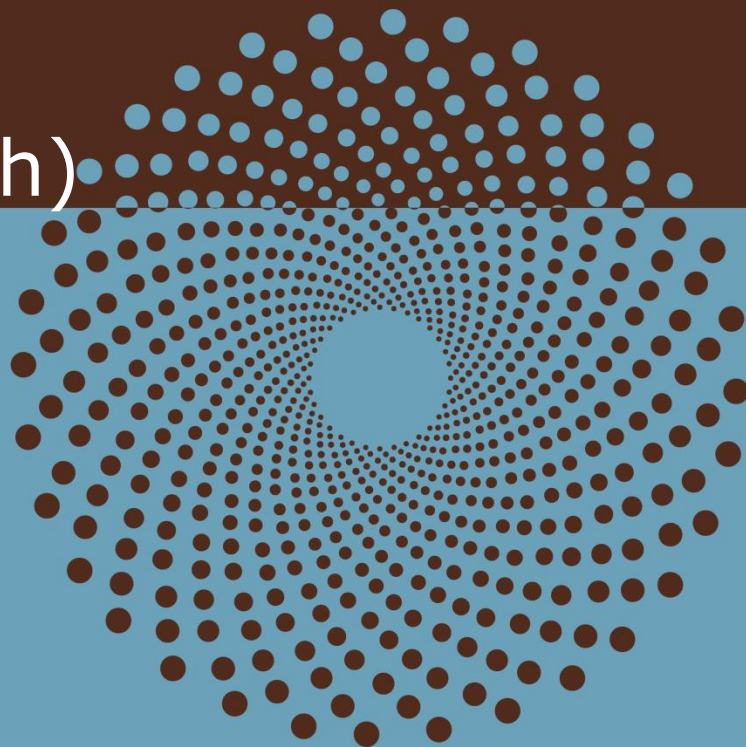
L09: 102/12-24-076-06

Virgin Reservoir Conditions

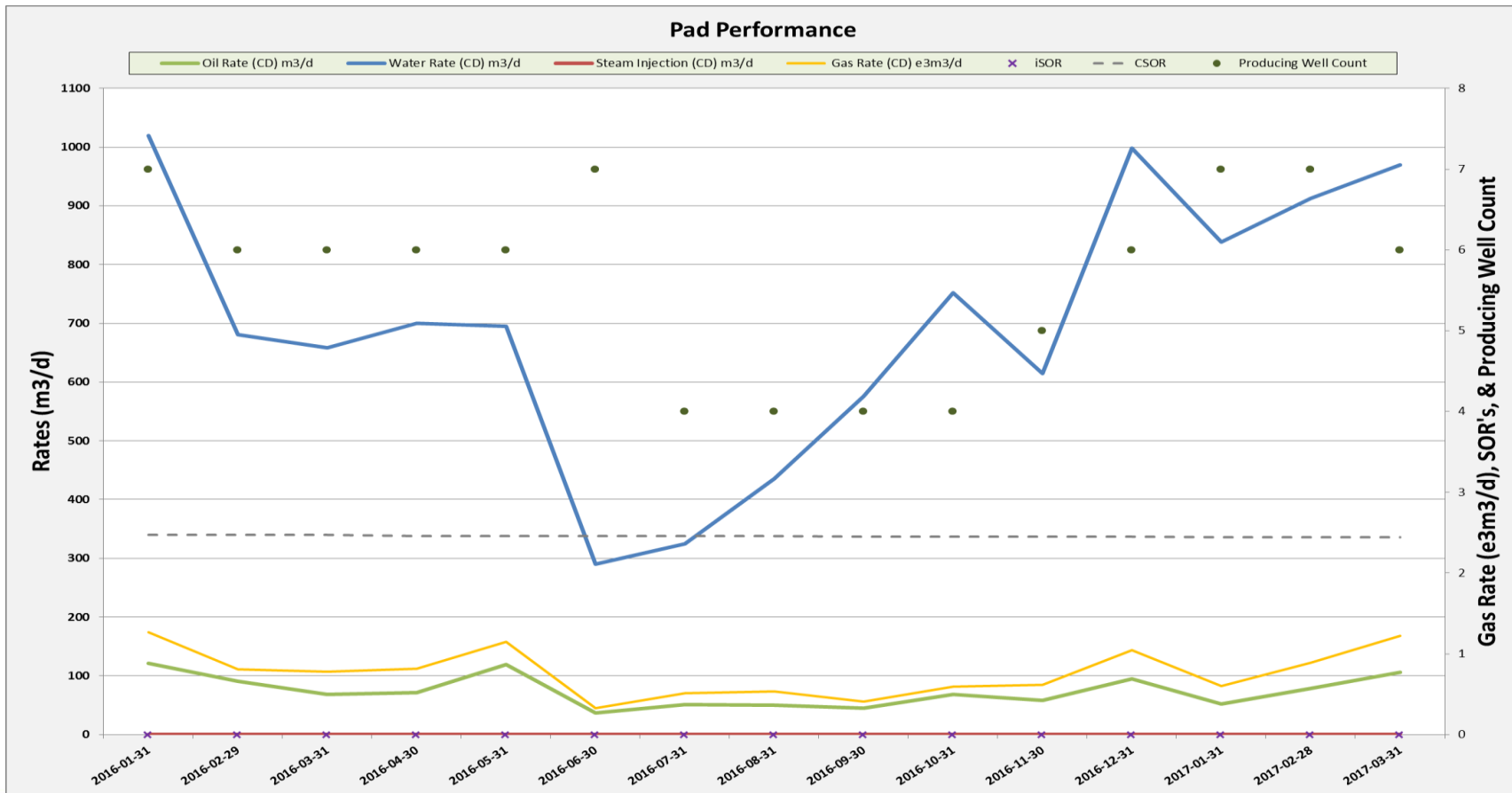
Appendix 4

Subsection 3.1.1 – 7h)

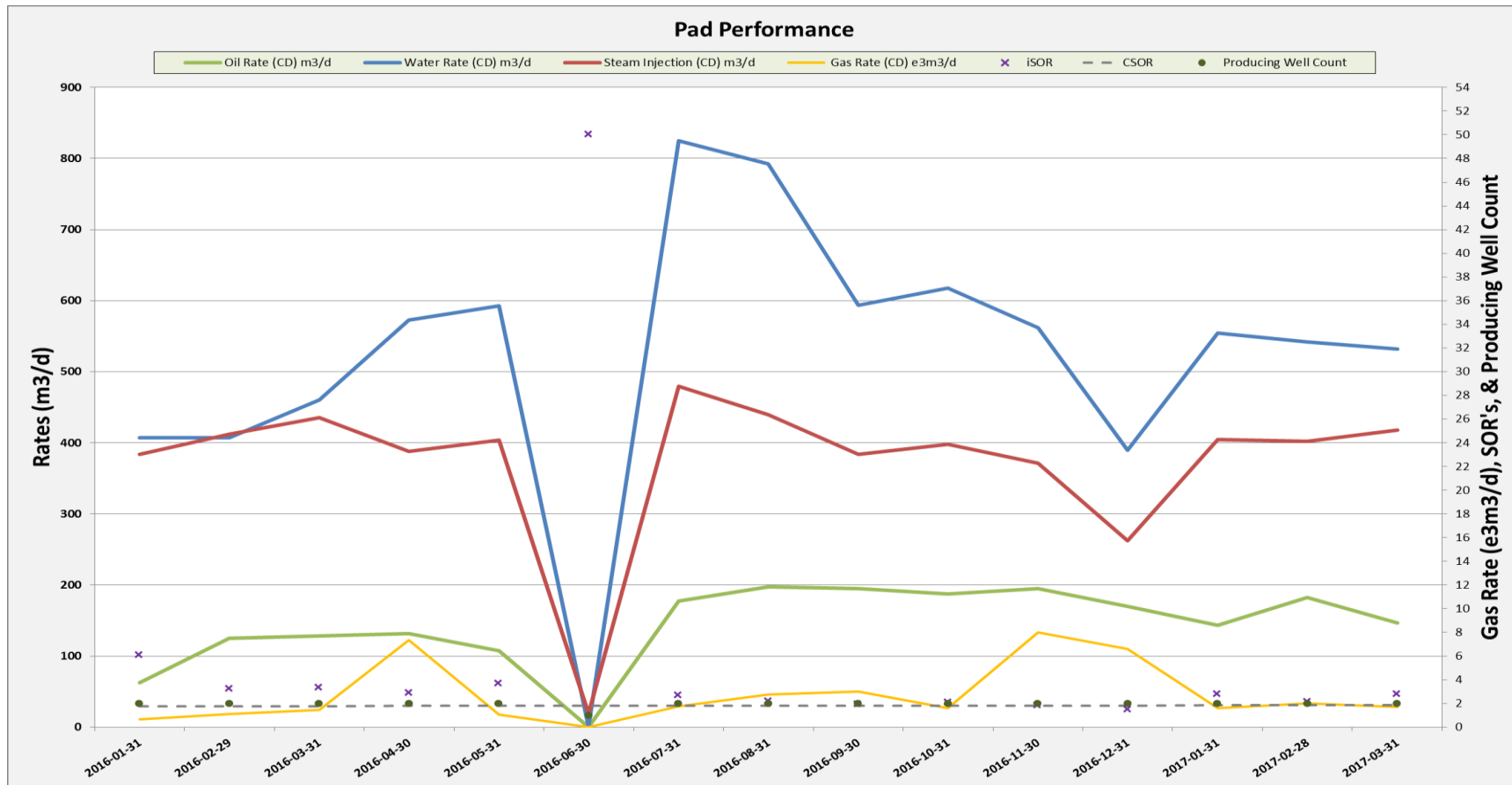
Pad Production Data



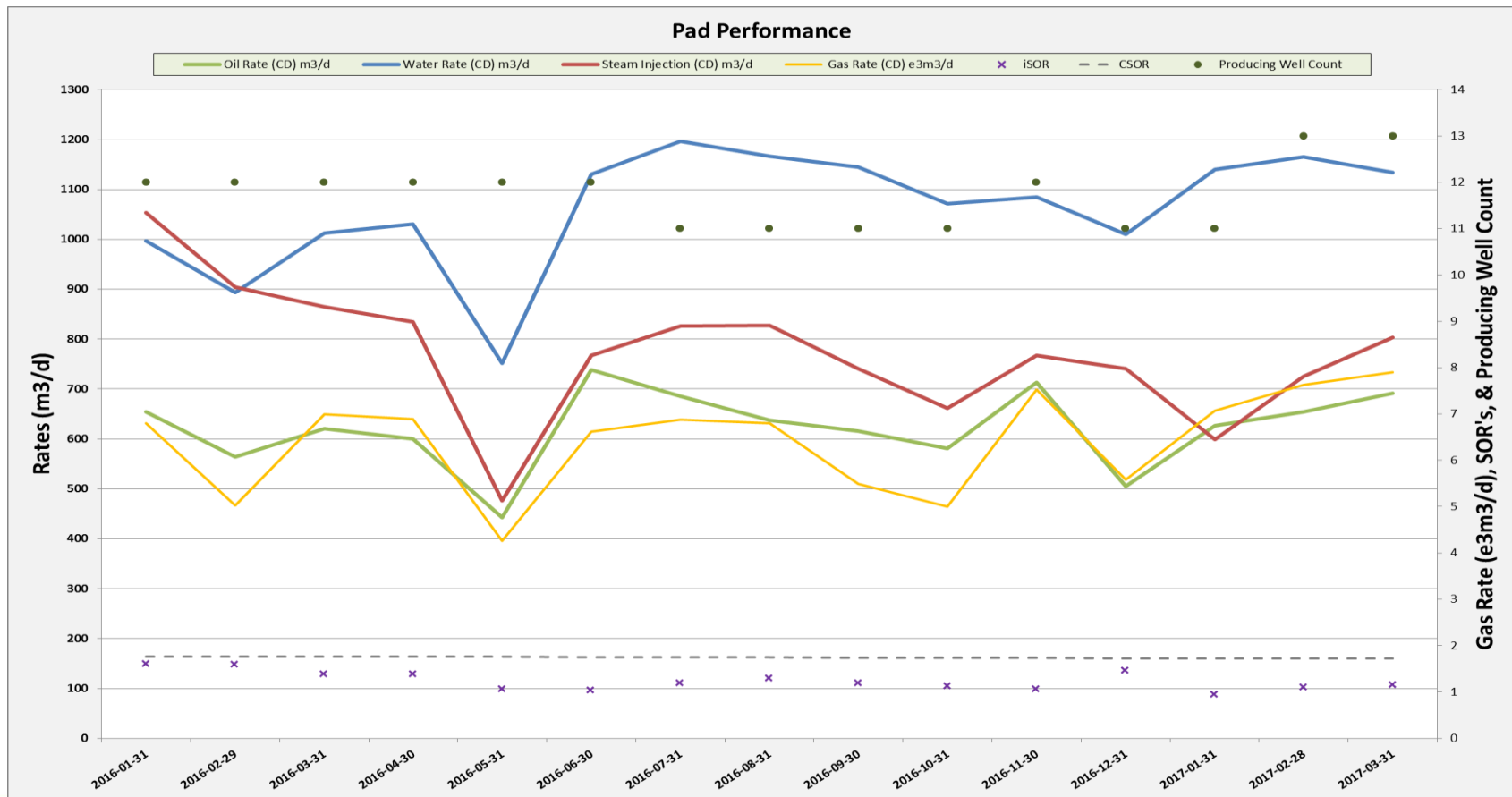
A01 Pad



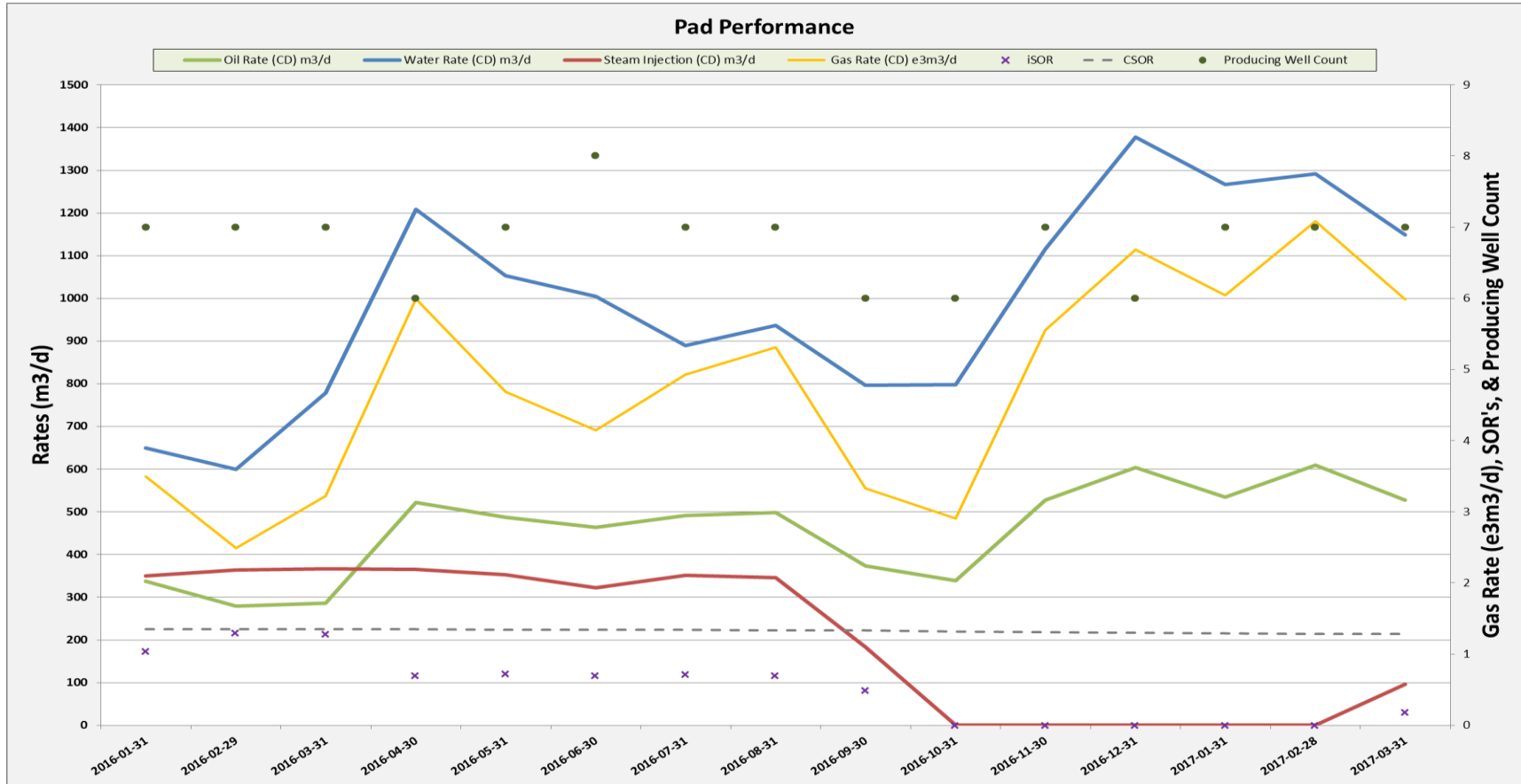
A02 Pad



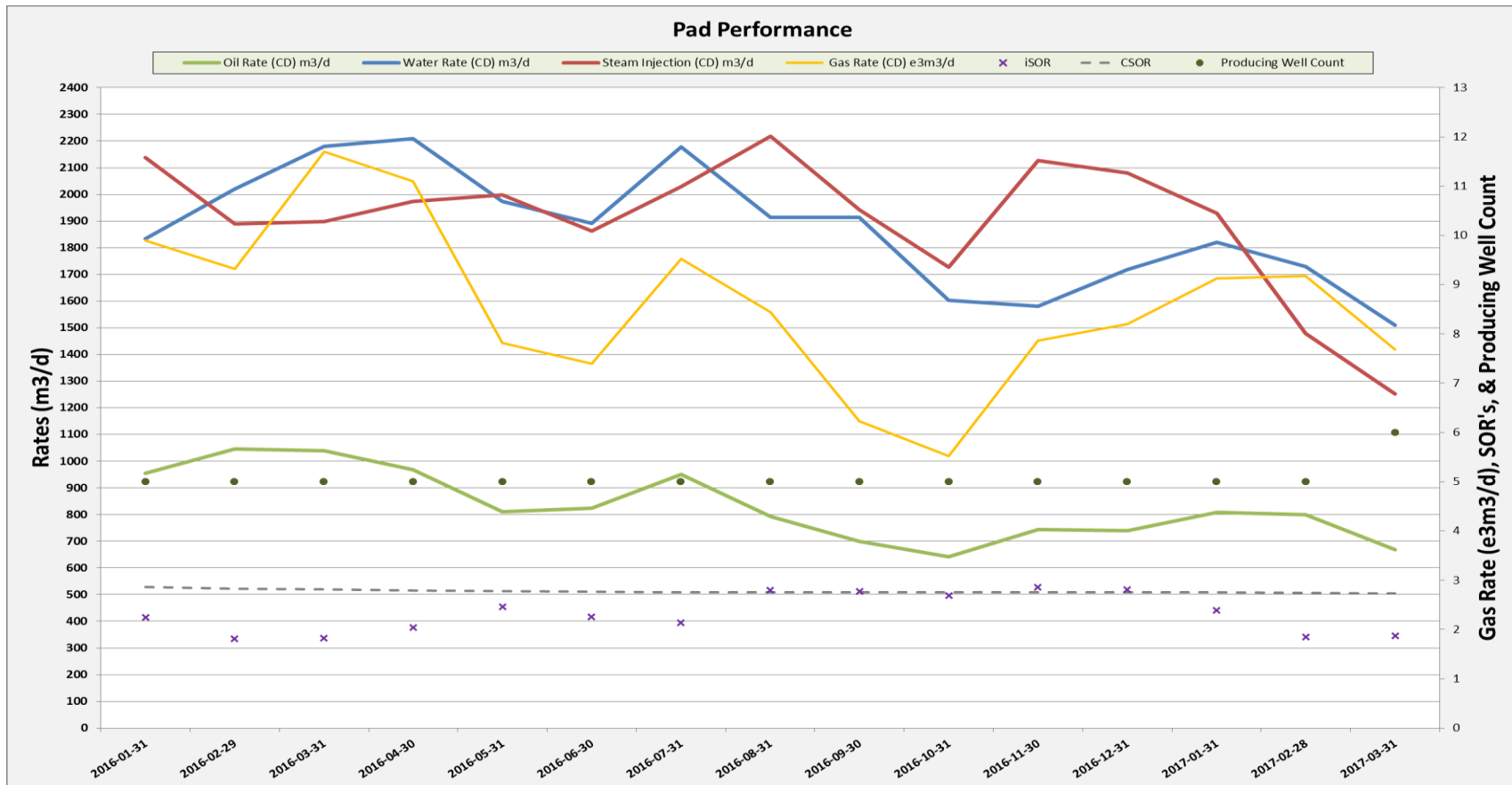
B01 Pad



B02 Pad

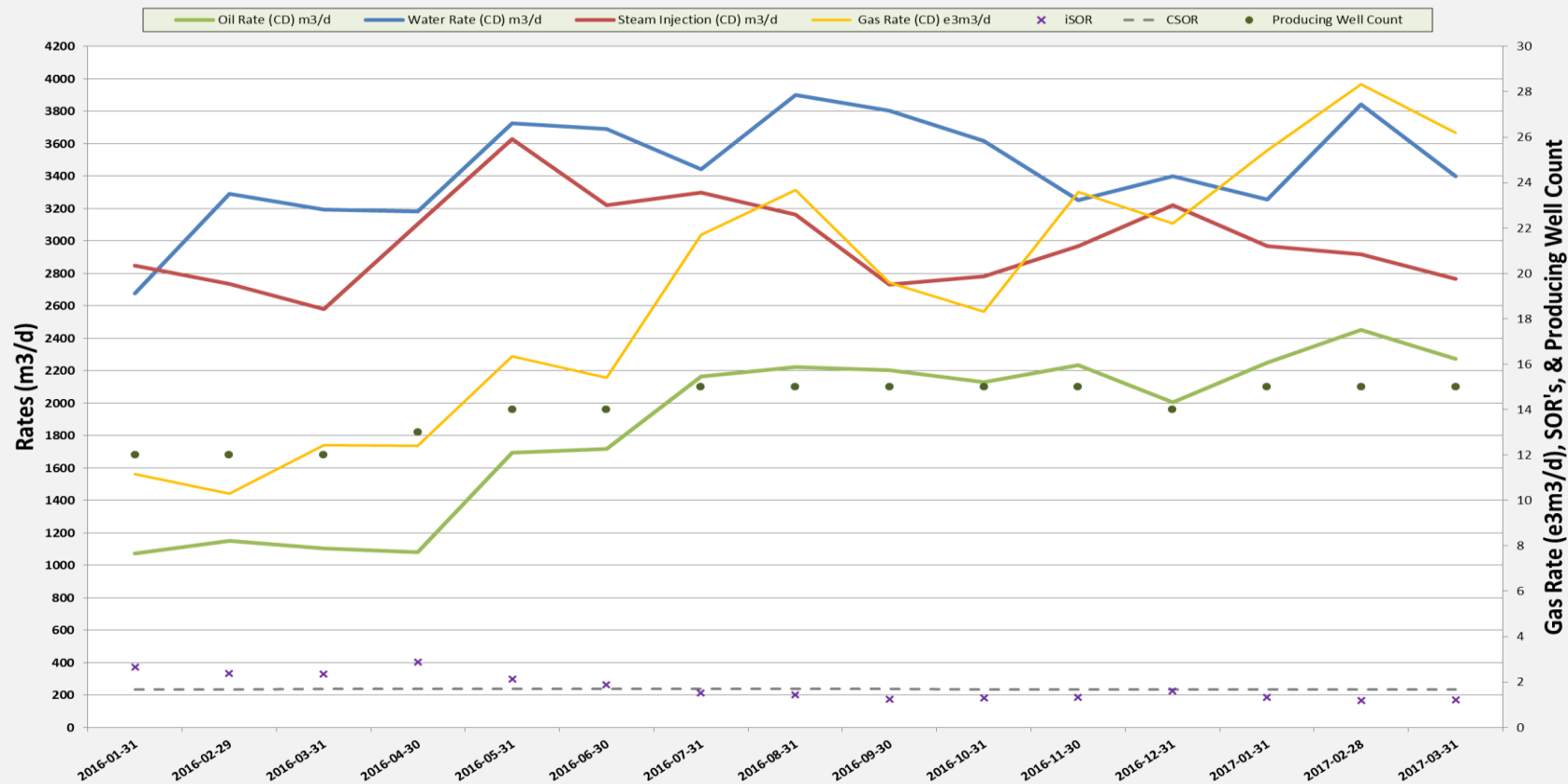


B02C Pad



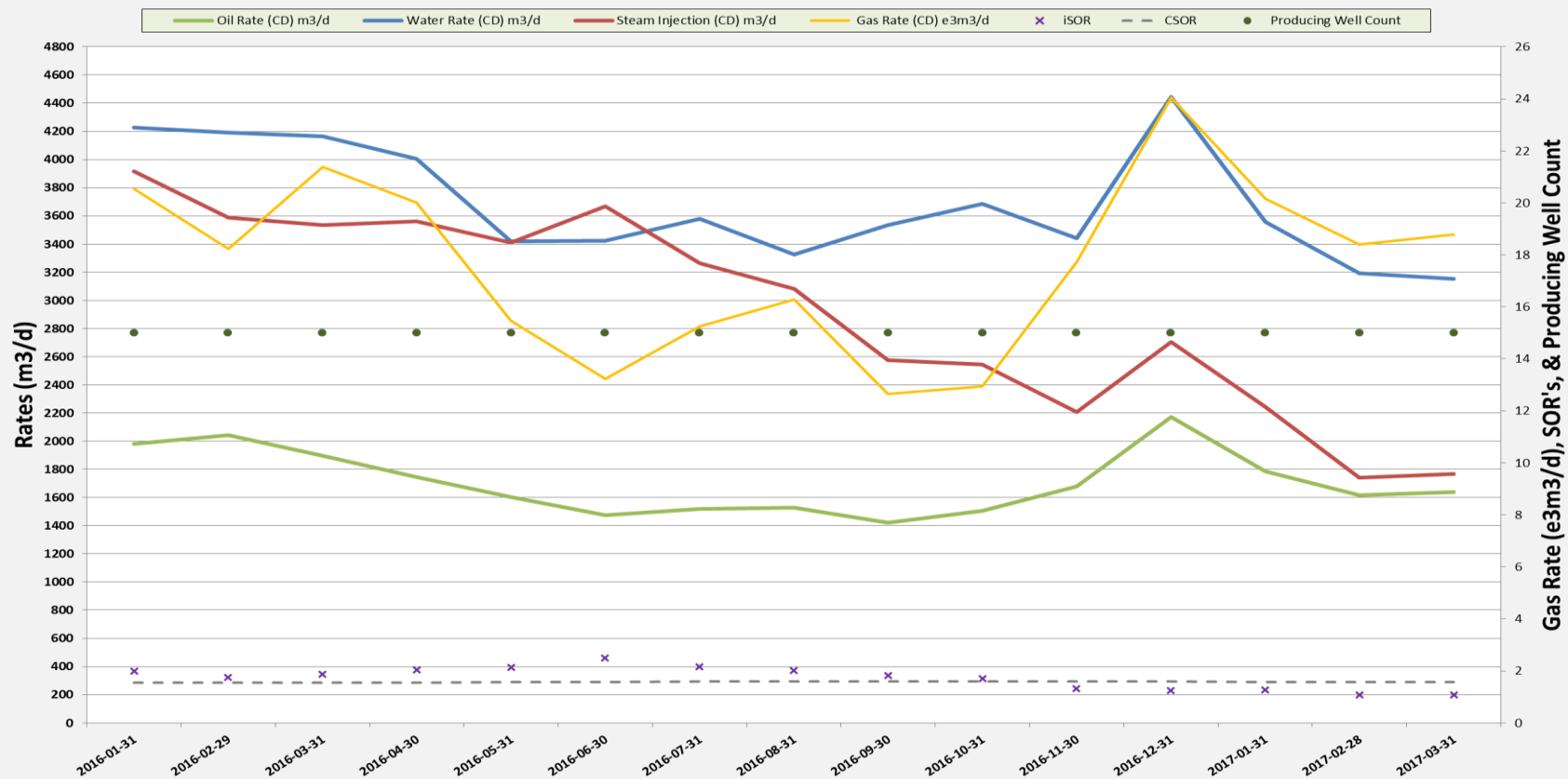
B03 Pad

Pad Performance

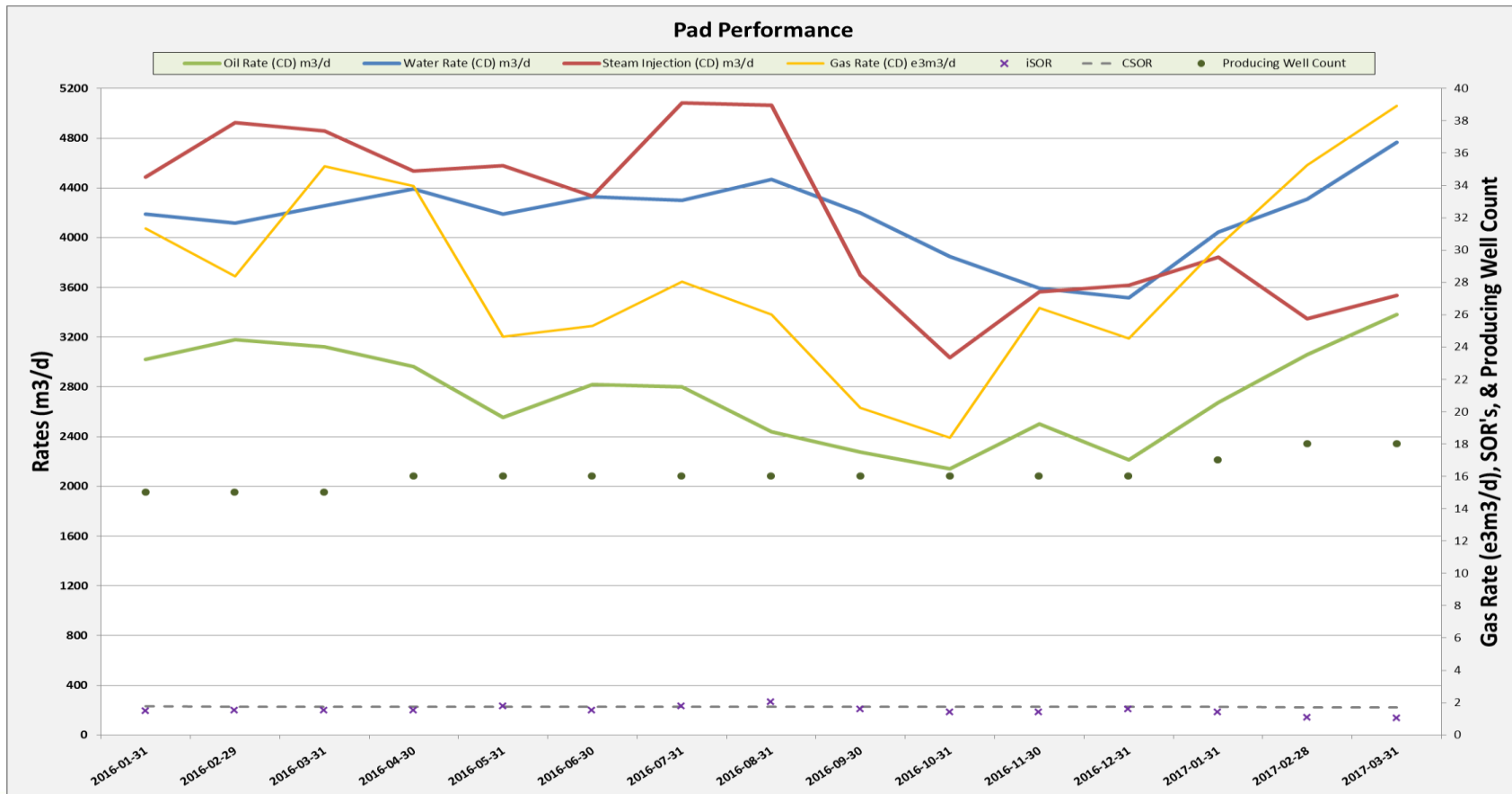


B04 Pad

Pad Performance

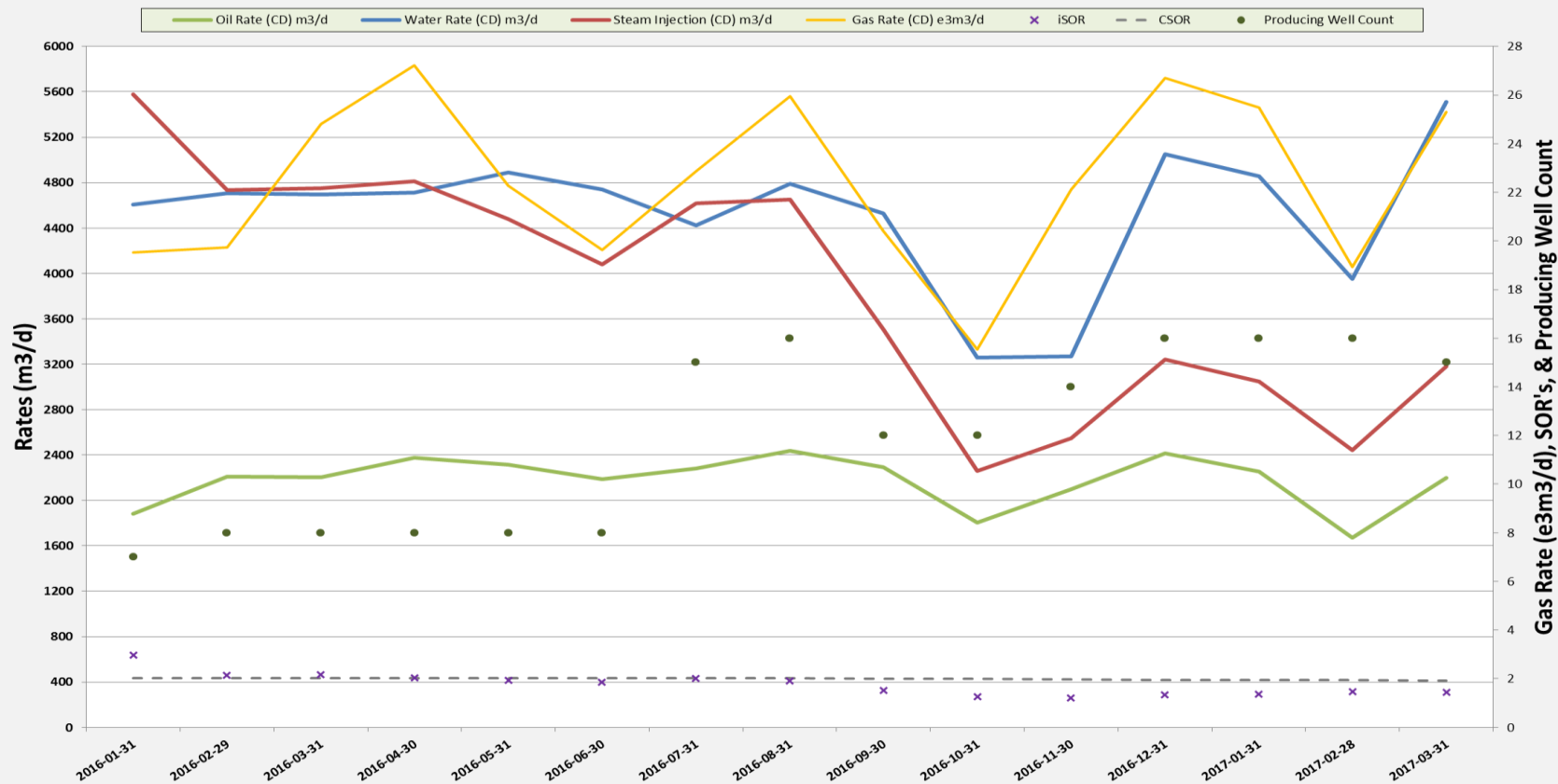


B05 Pad



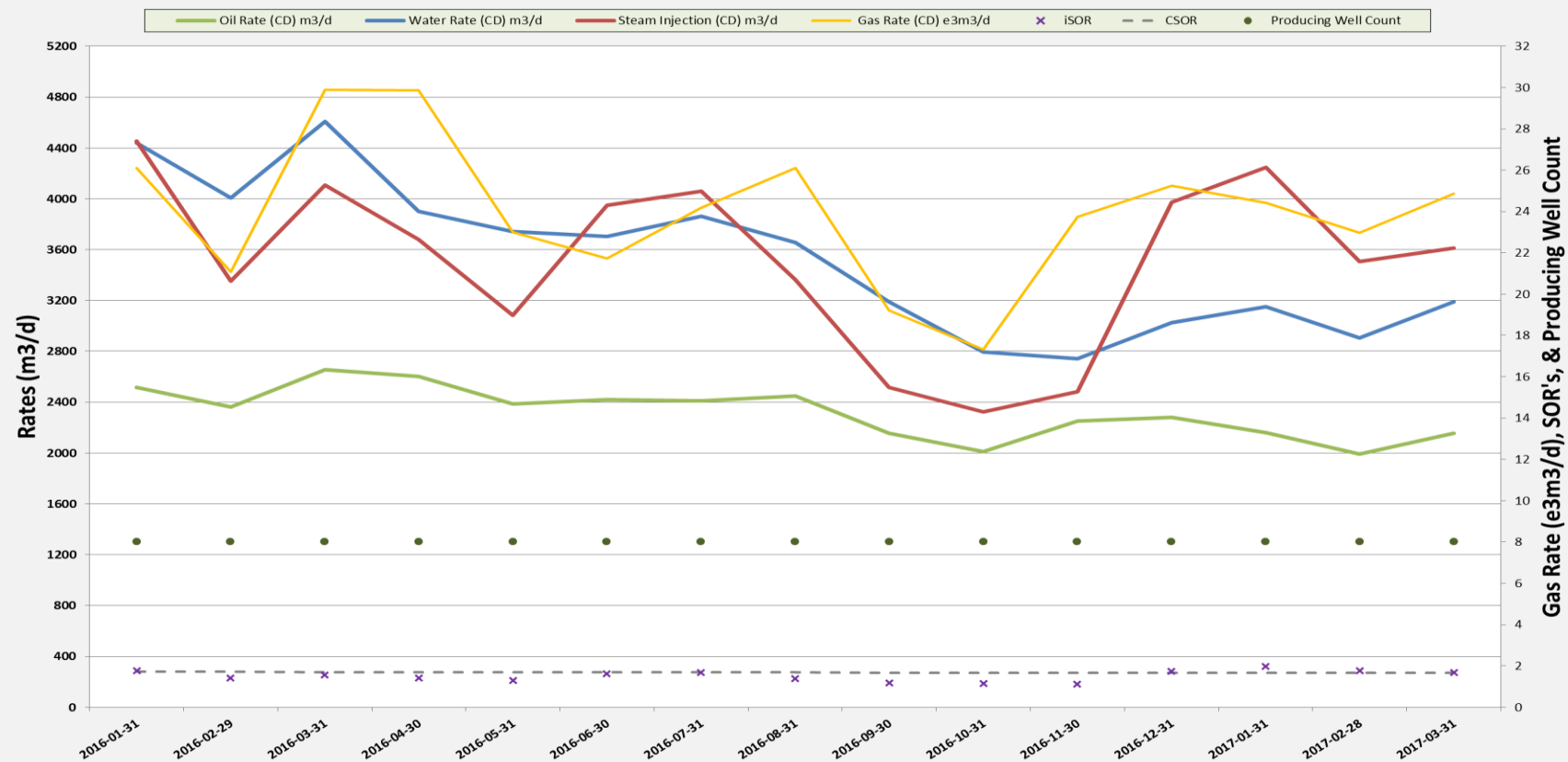
B06 Pad

Pad Performance



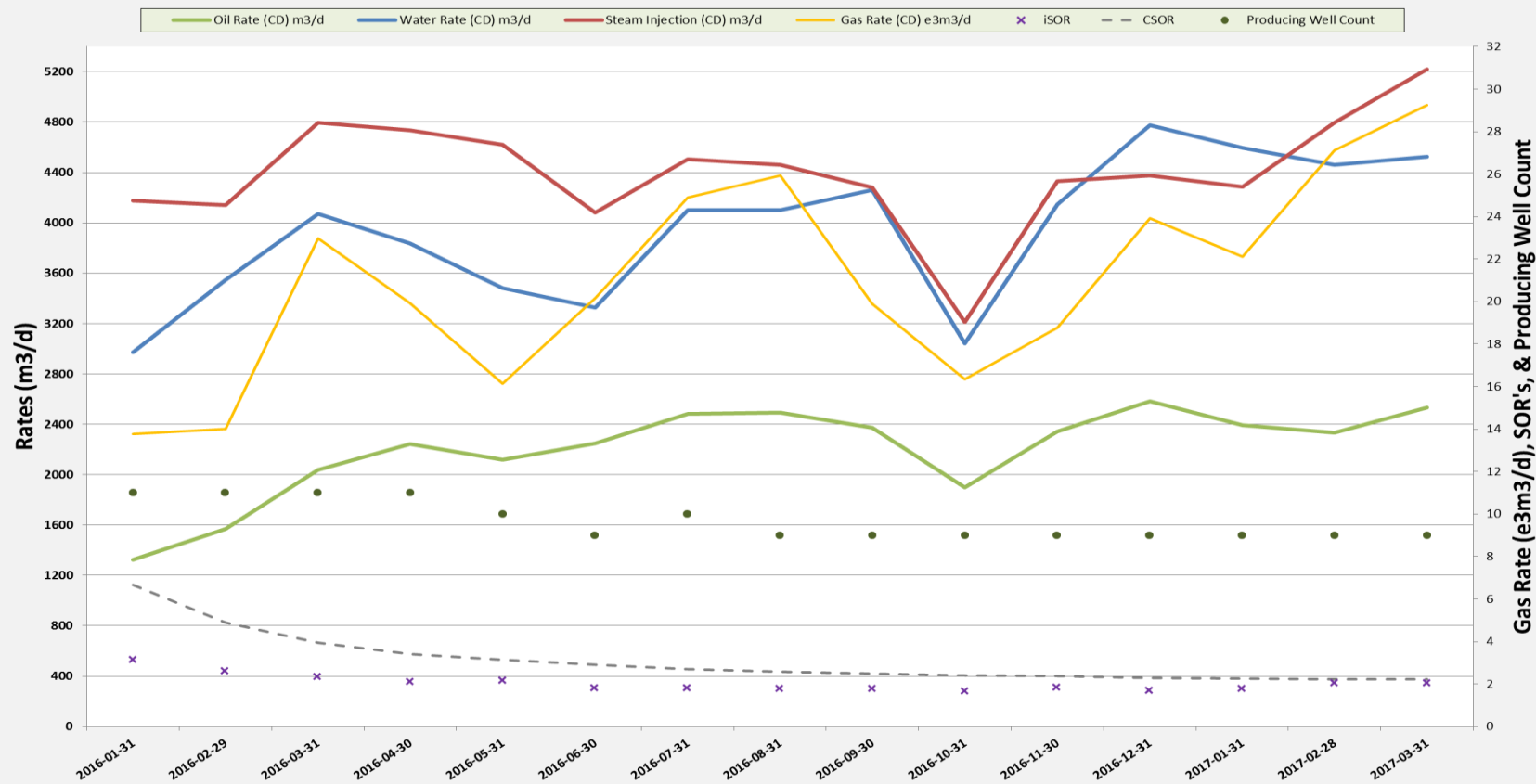
B07 Pad

Pad Performance



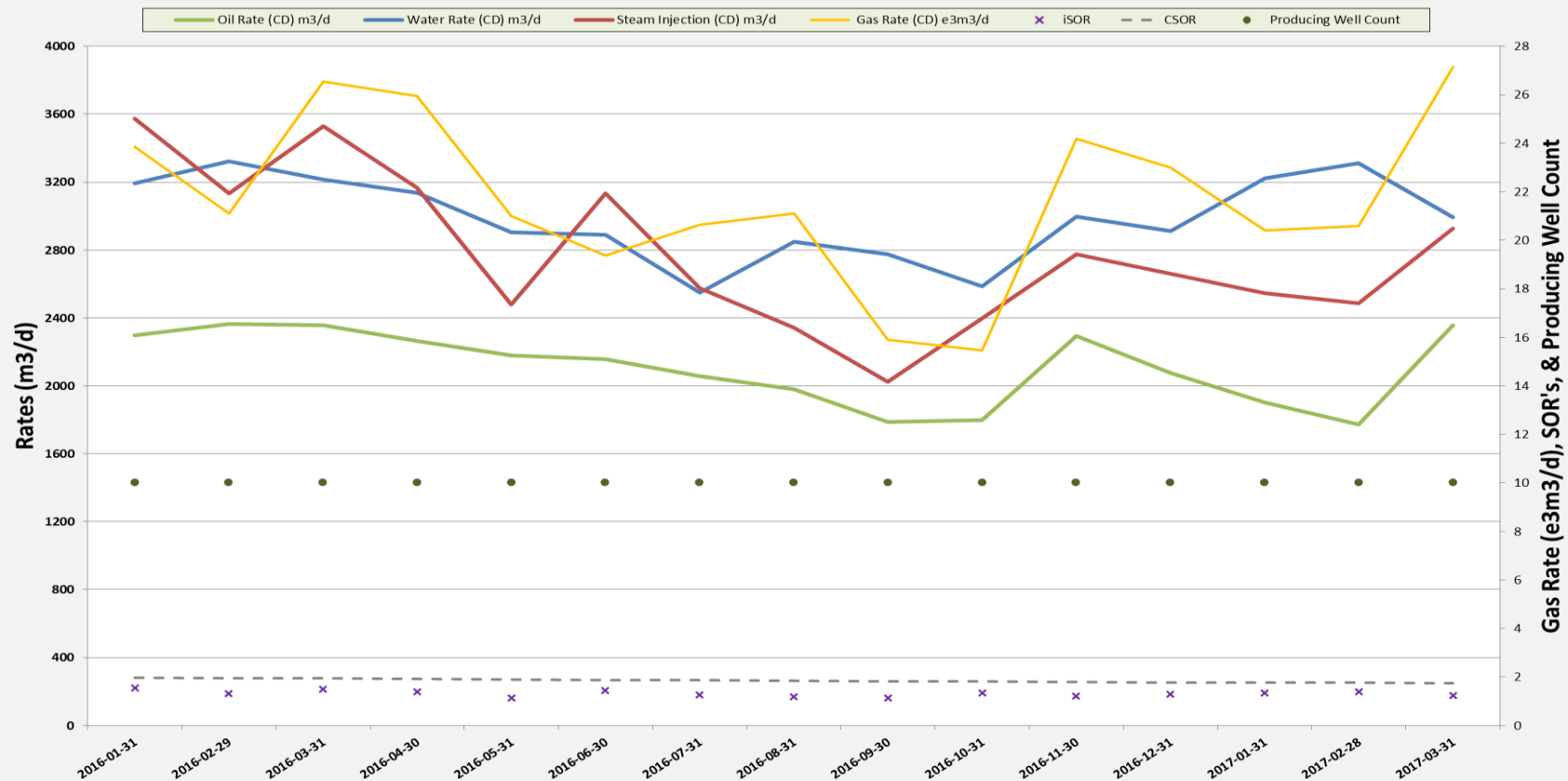
B07B Pad

Pad Performance



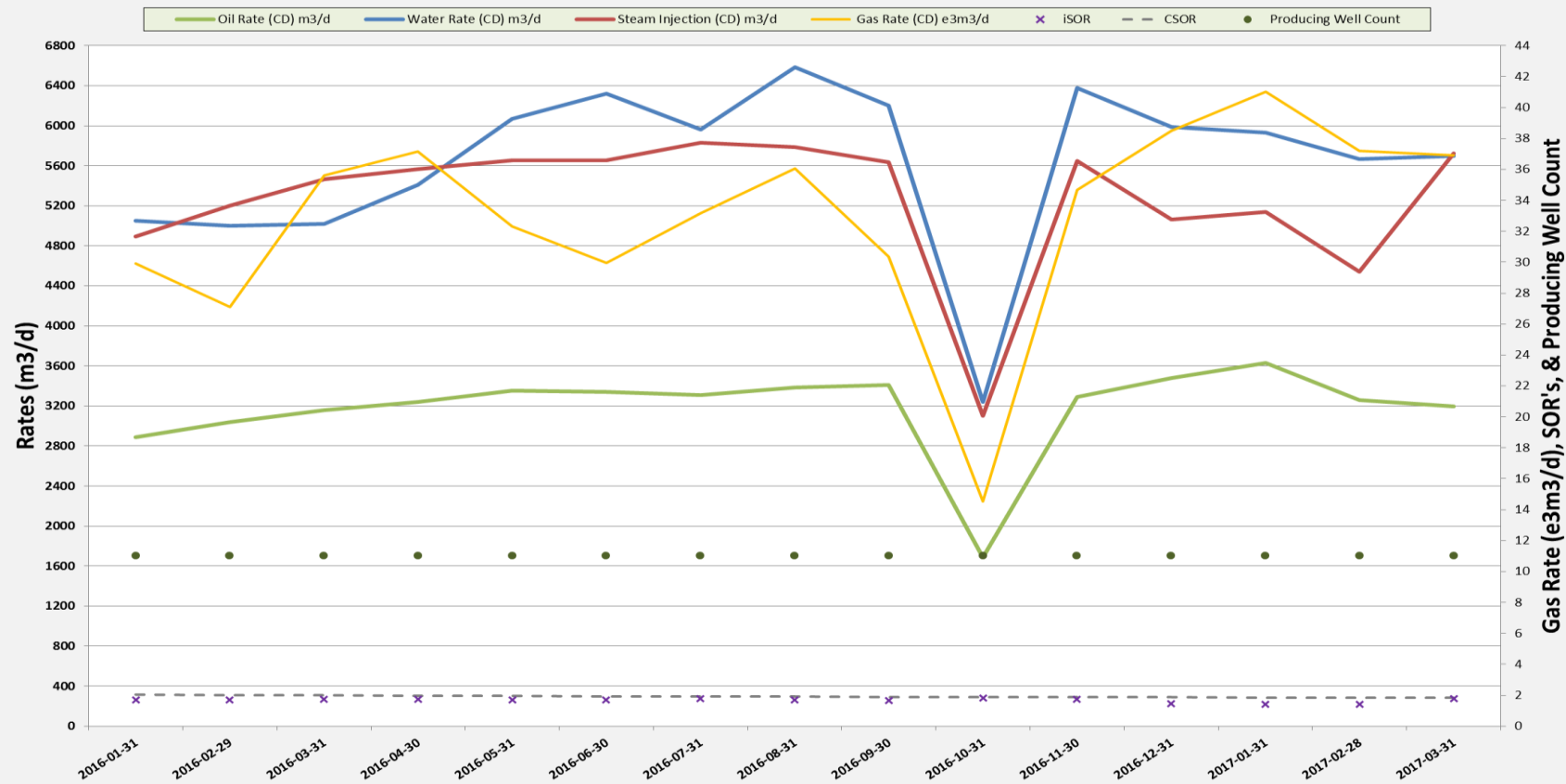
B08 Pad

Pad Performance

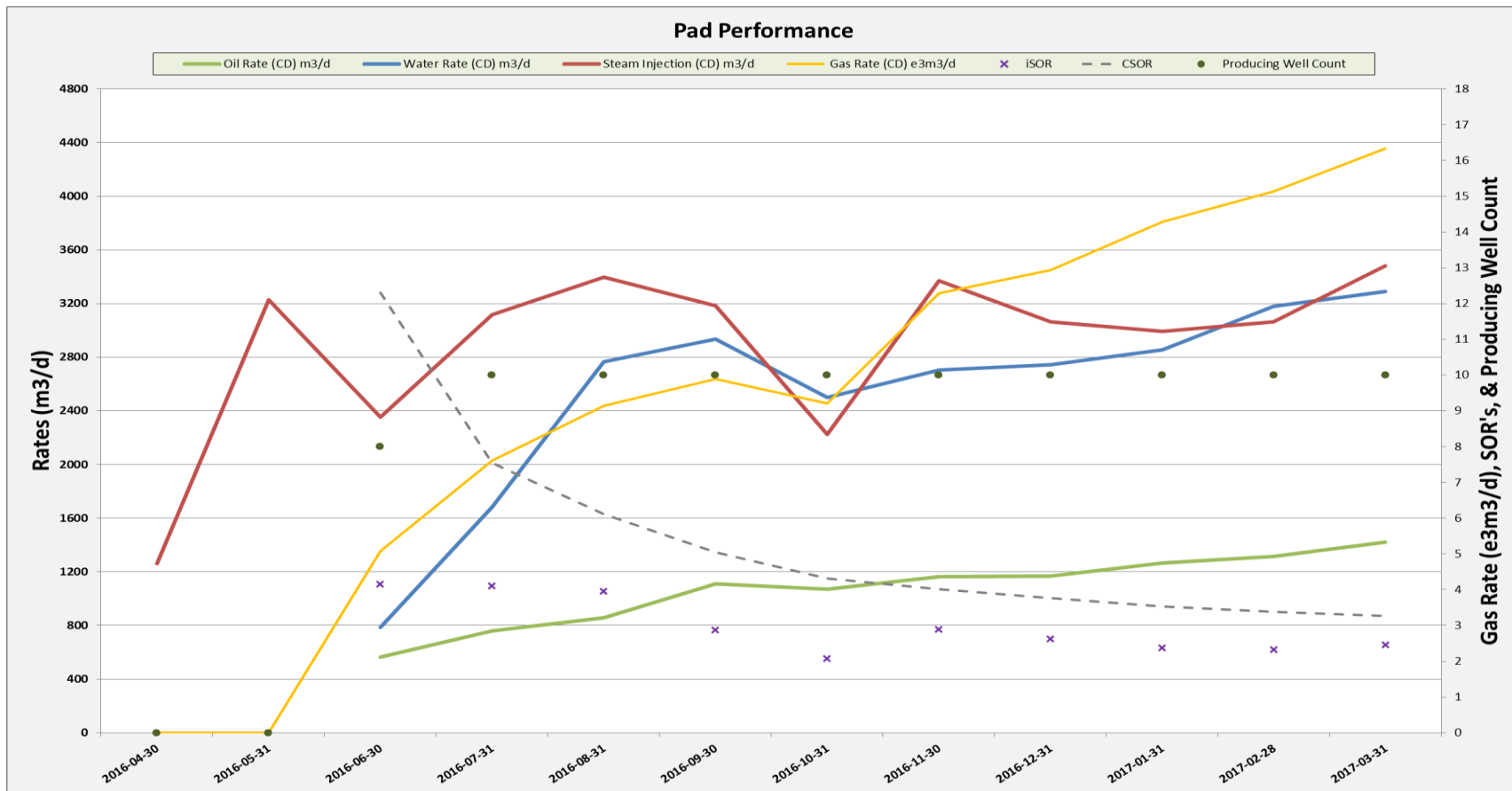


B09 Pad

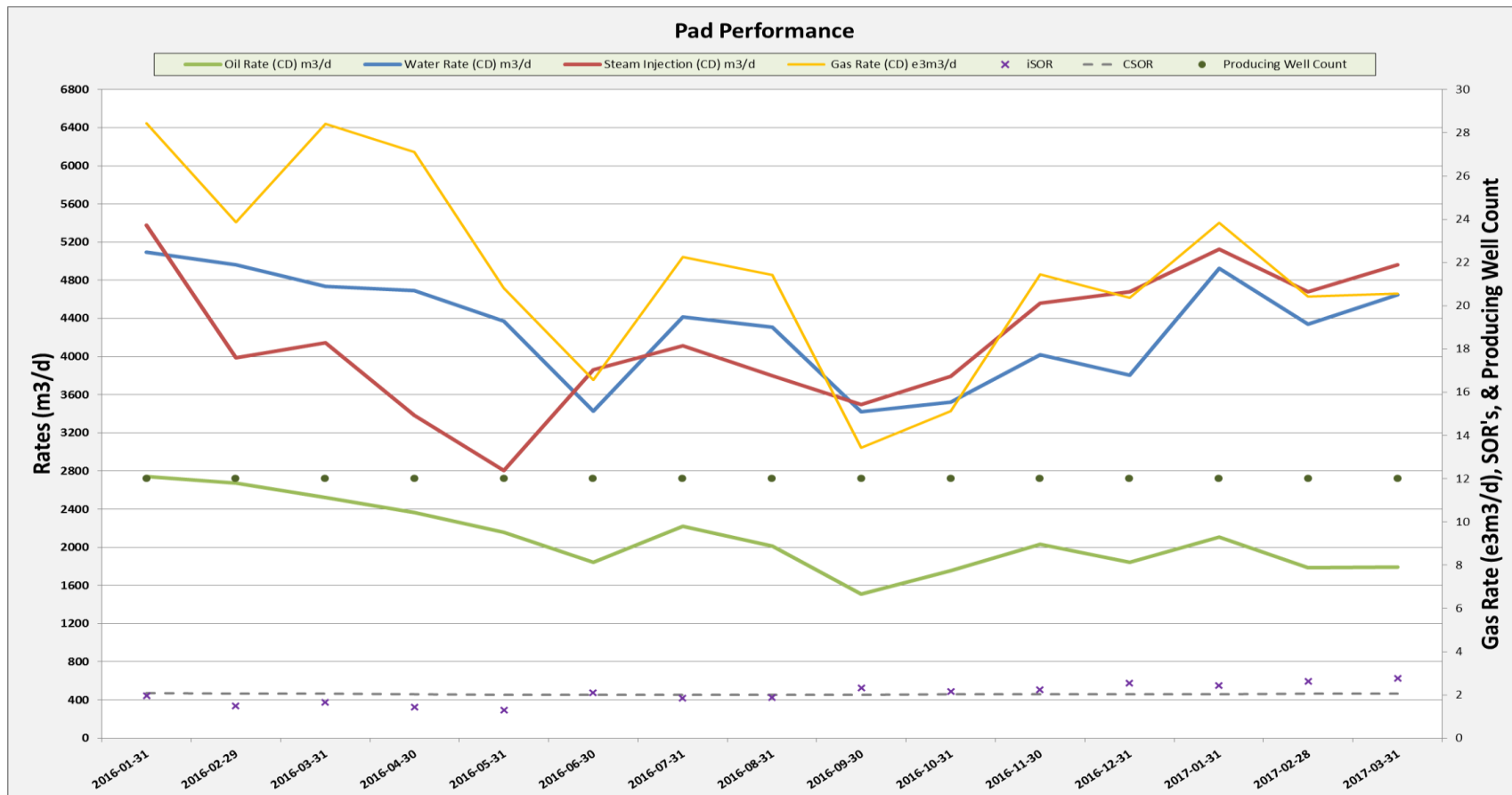
Pad Performance



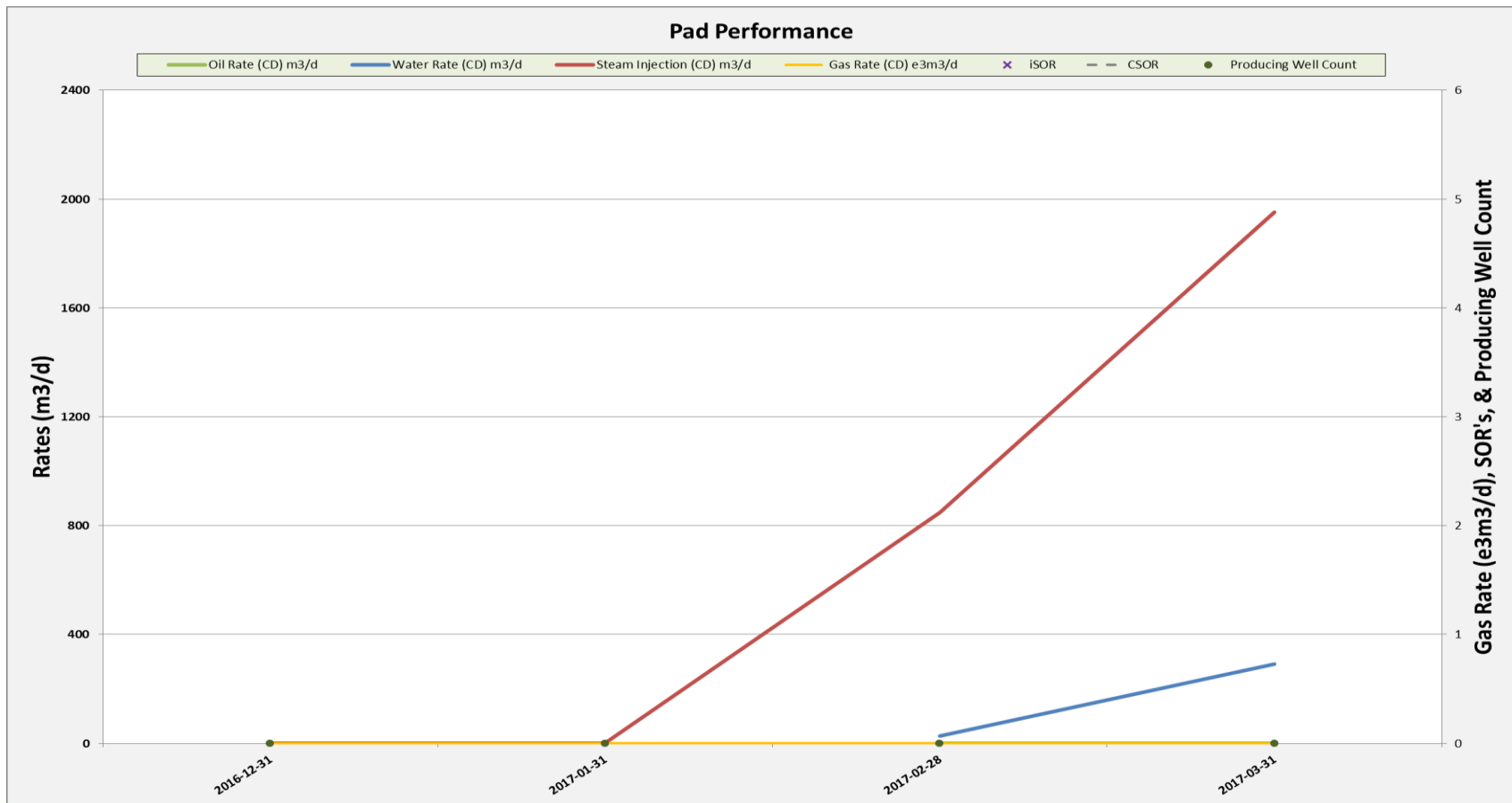
B10 Pad



B11 Pad

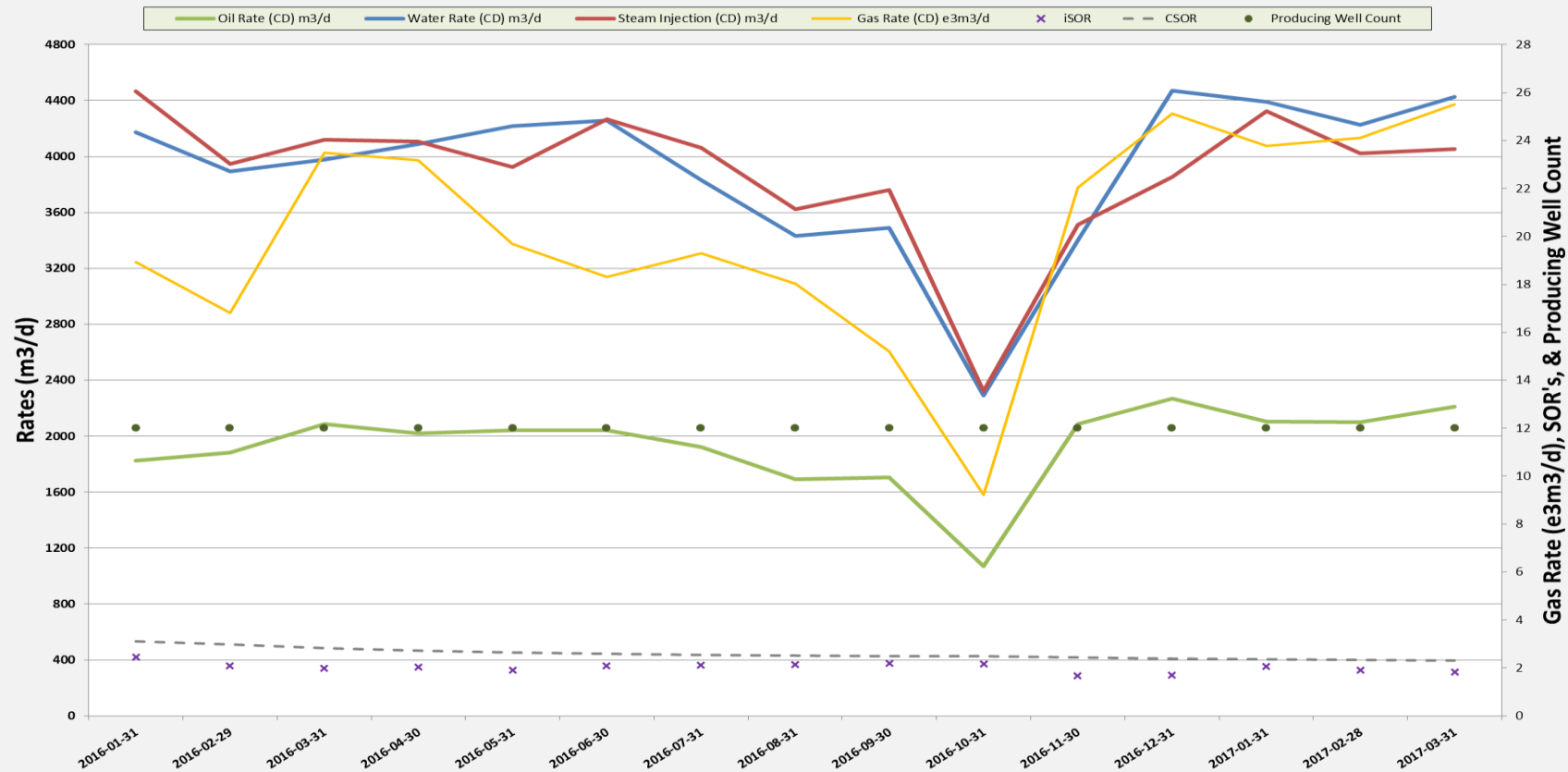


B13 Pad

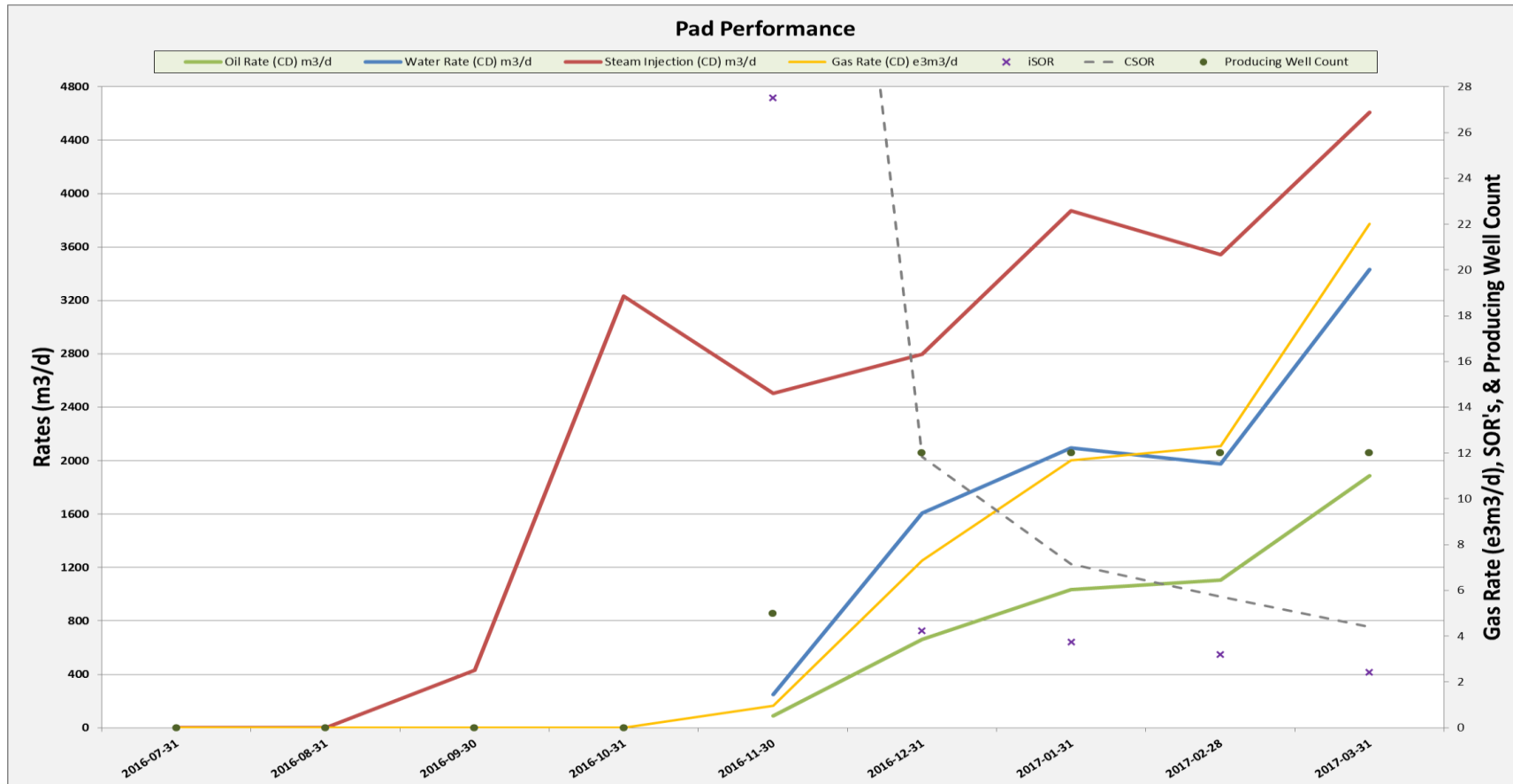


F01 Pad

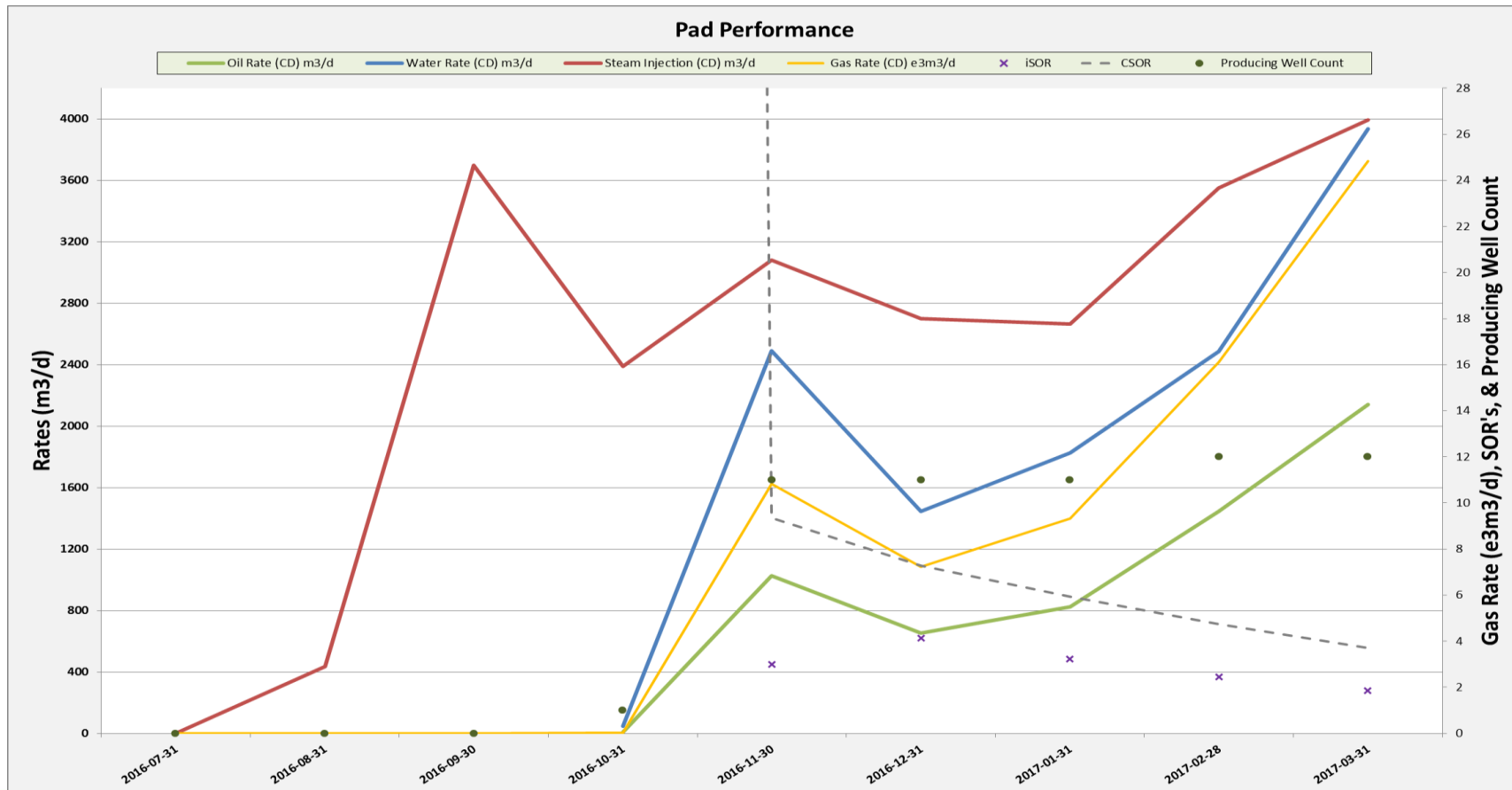
Pad Performance



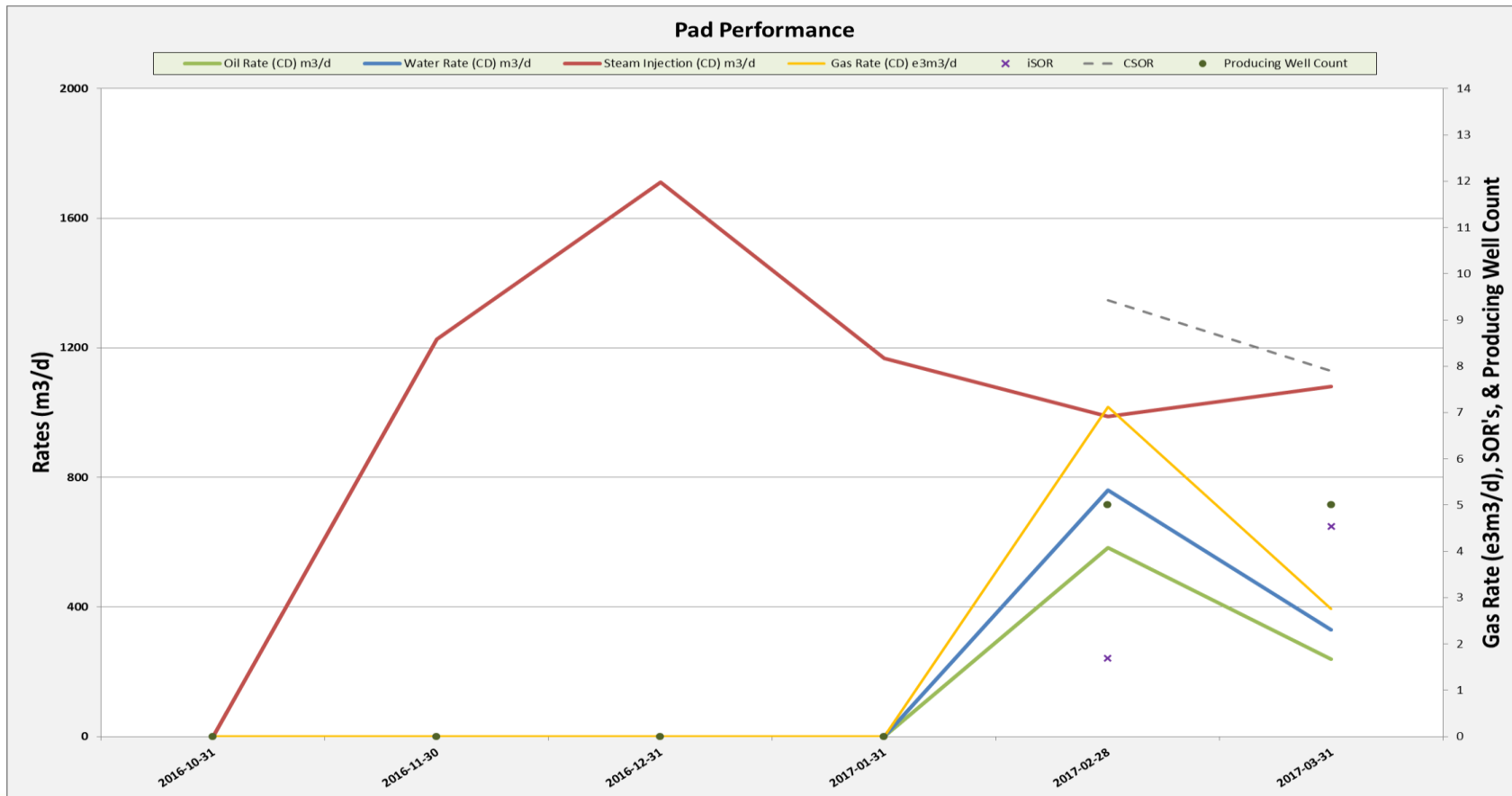
H01 Pad



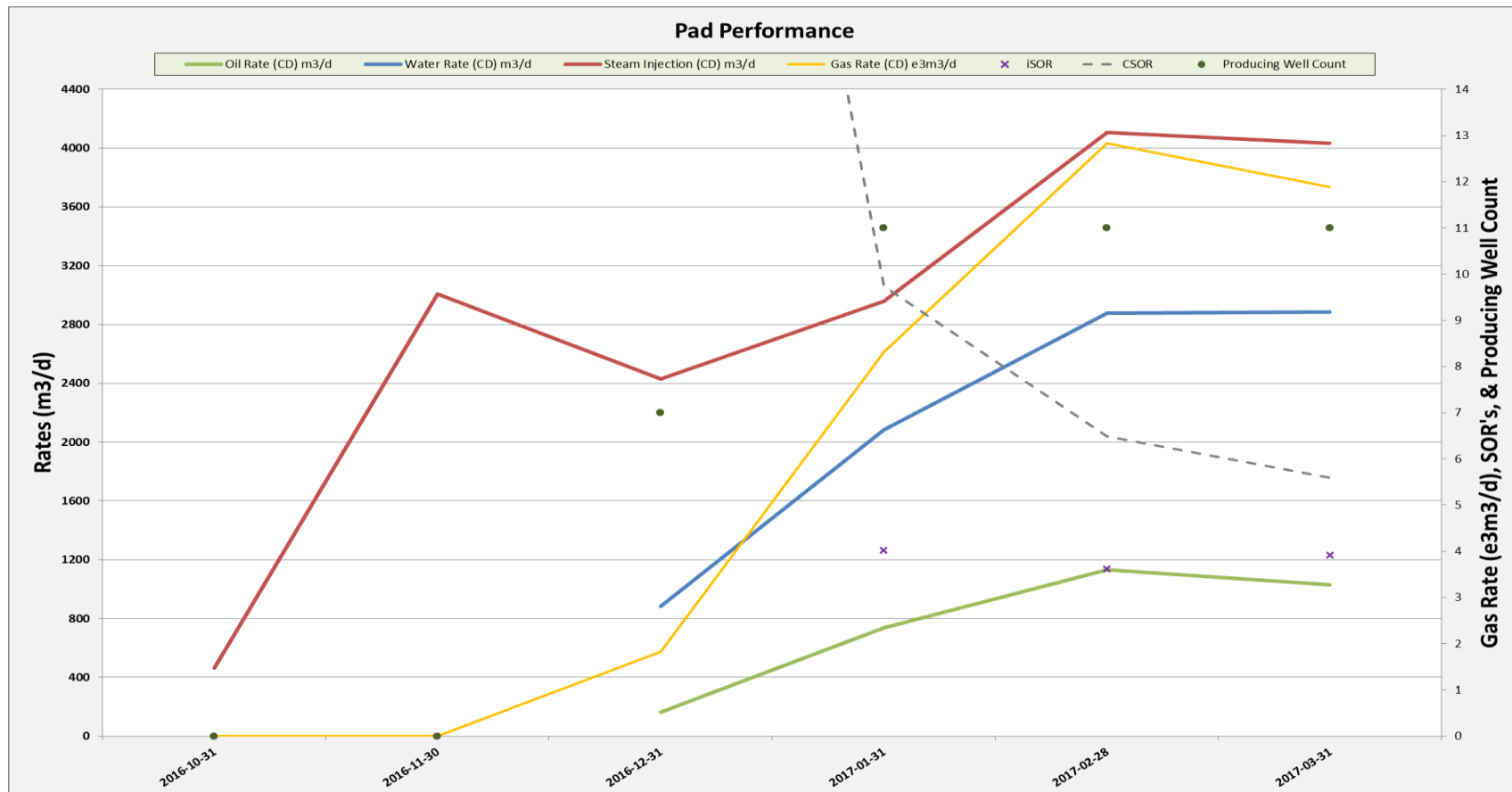
H03 Pad



J01 Pad



J03 Pad



L03 Pad

