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CHINCO COAL CATALYST

RIEBEEK KILN 1

Thursday, 25 July 2019



CHINCO coal catalyst improves combustion of coal by leaving unburnt carbon in the ash and reducing the amount of coal required by at least 3 %



The main objective for introducing CHINCO into RK1 was to improve the kiln's heat consumption.



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THE EFFECT OF CHINCO ON RBK KILN 1

In terms of the following:

- Coal Usage and Heat Consumption
- Cost Implications
- Clinker Quality
- Emissions



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1

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COAL USAGE AND HEAT CONSUMPTION

CHINCO COAL CATALYST

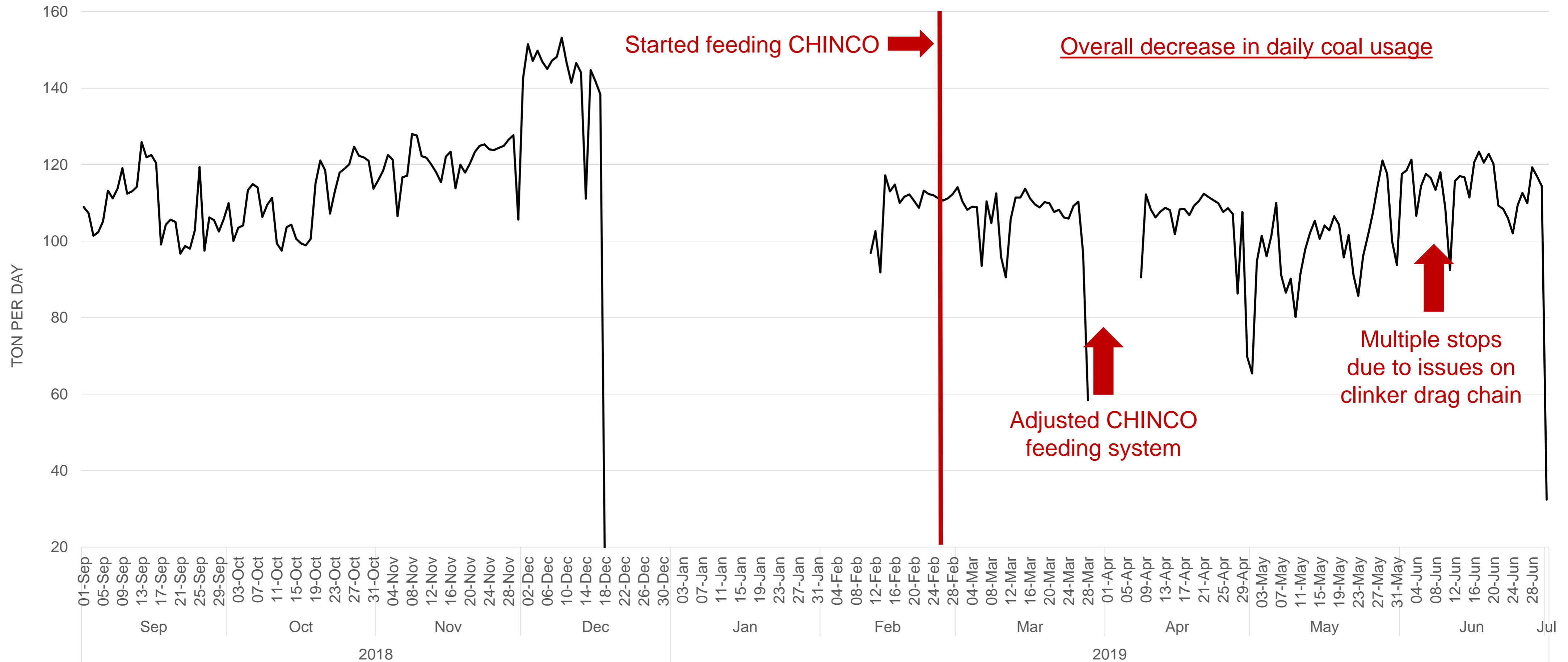


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Coal Usage

Daily usage (ton per day)



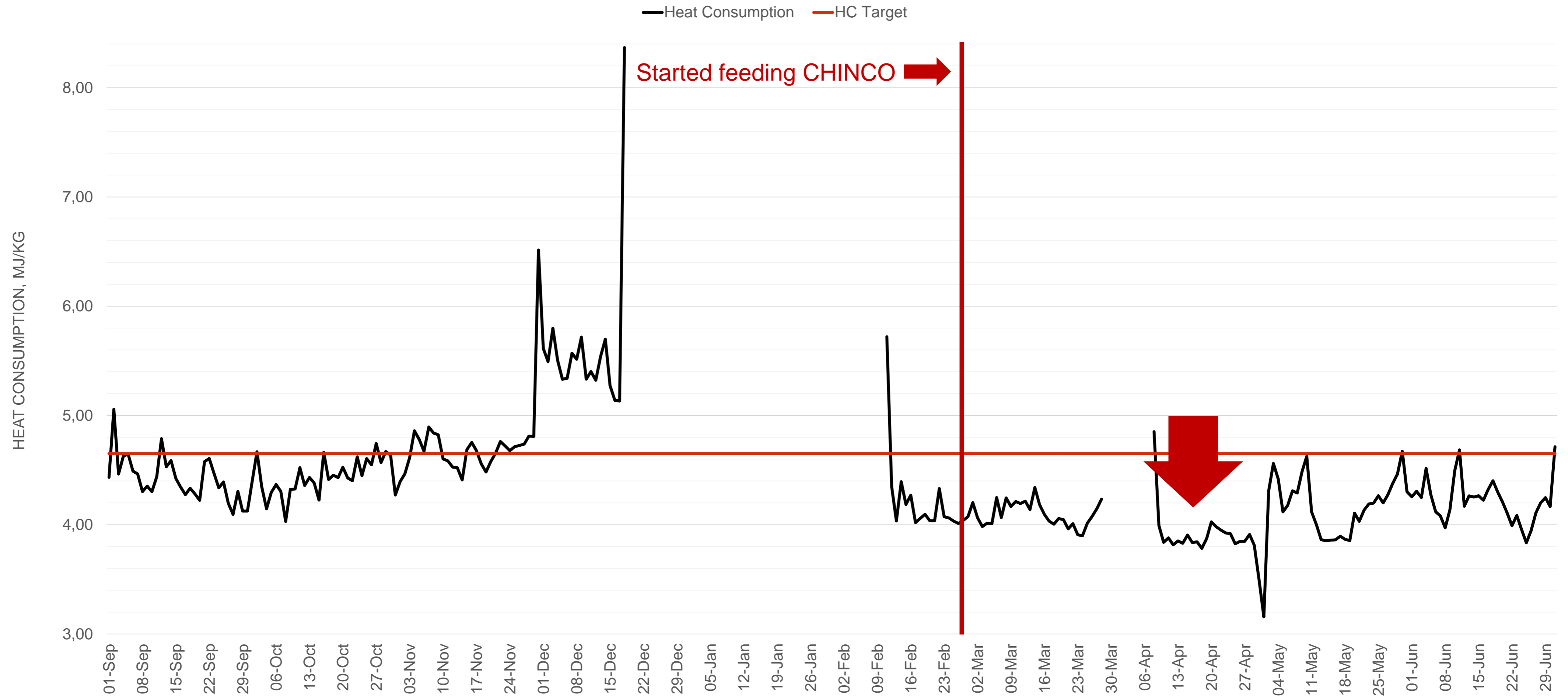


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Heat Consumption

D a i l y a v e r a g e s





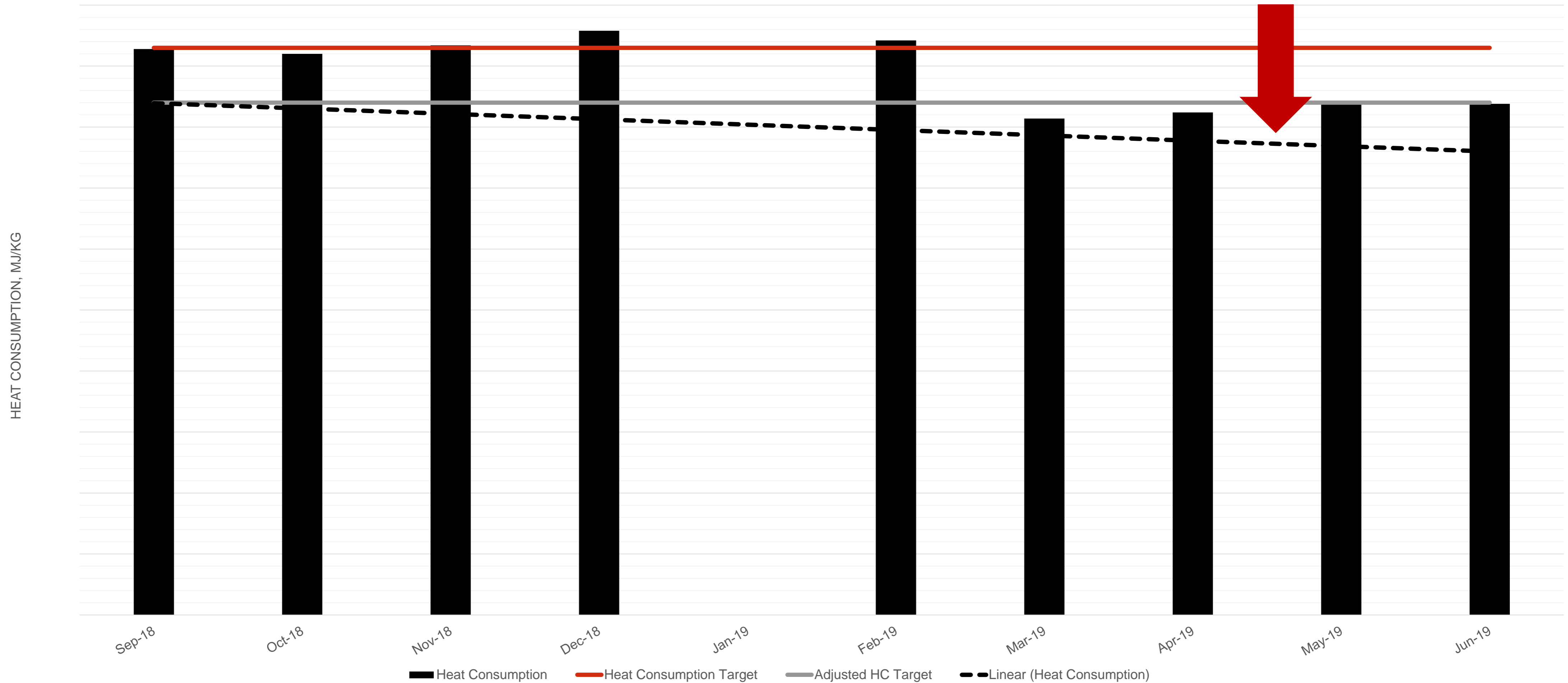
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Heat Consumption

Monthly averages

10-12 % decrease in heat consumption





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COST IMPLICATIONS

C H I N C O C O A L C A T A L Y S T

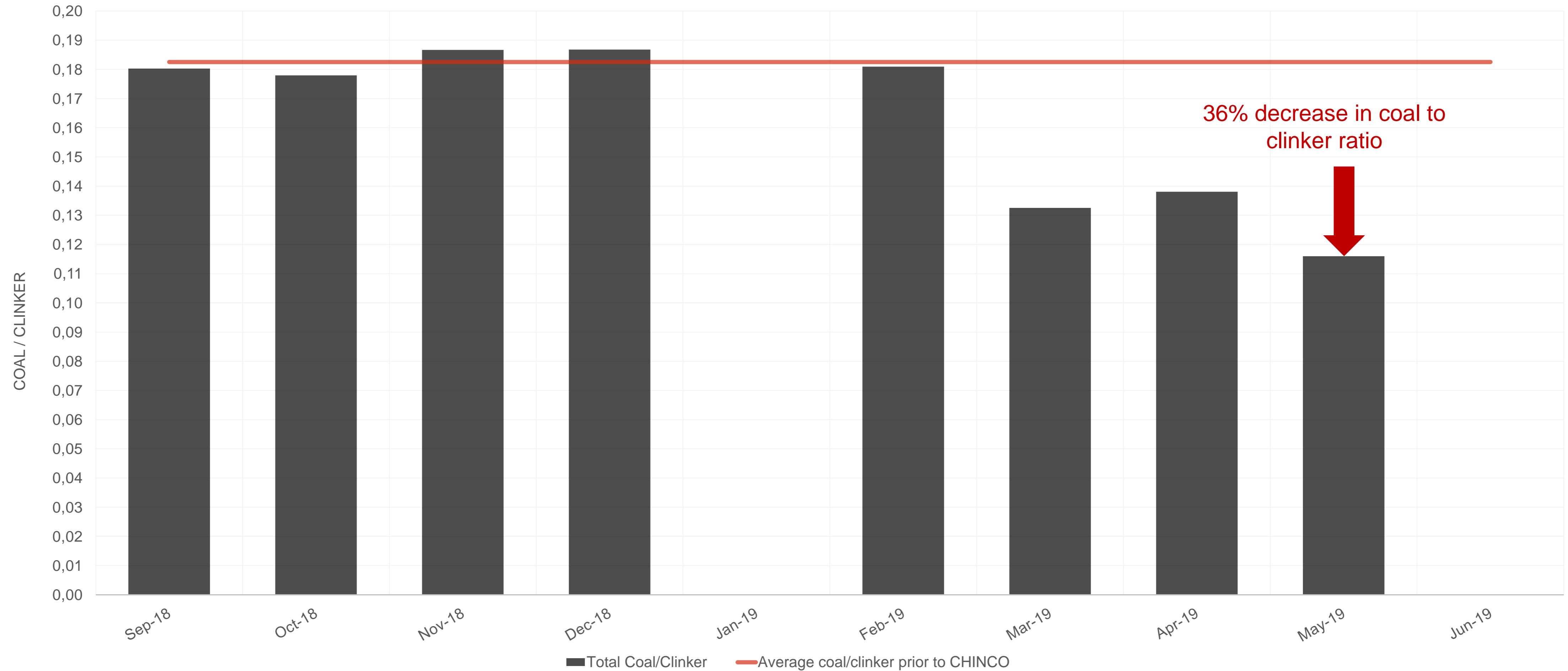


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COST IMPLICATIONS

Coal to Clinker Ratio





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CLINKER QUALITY

C H I N C O C O A L C A T A L Y S T

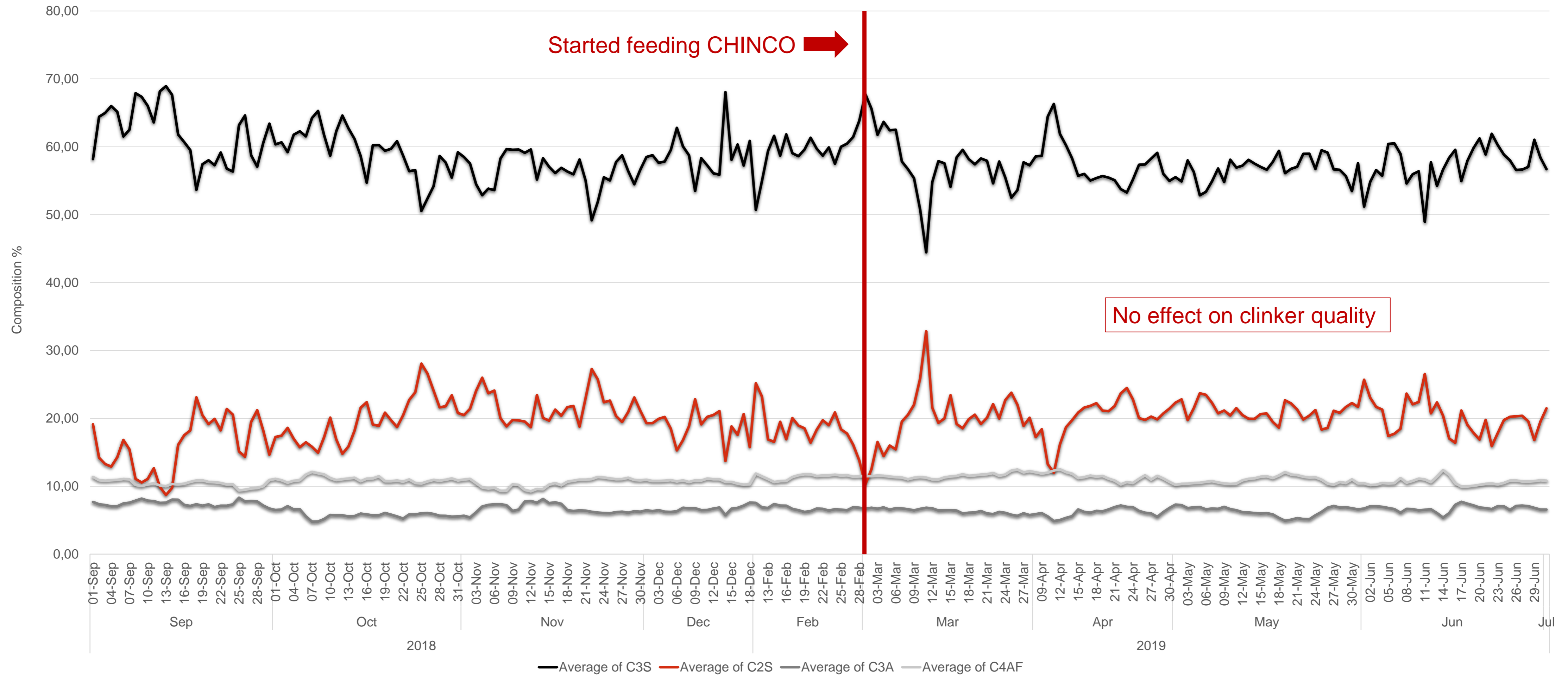


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Main Clinker Minerals

D a i l y a v e r a g e s



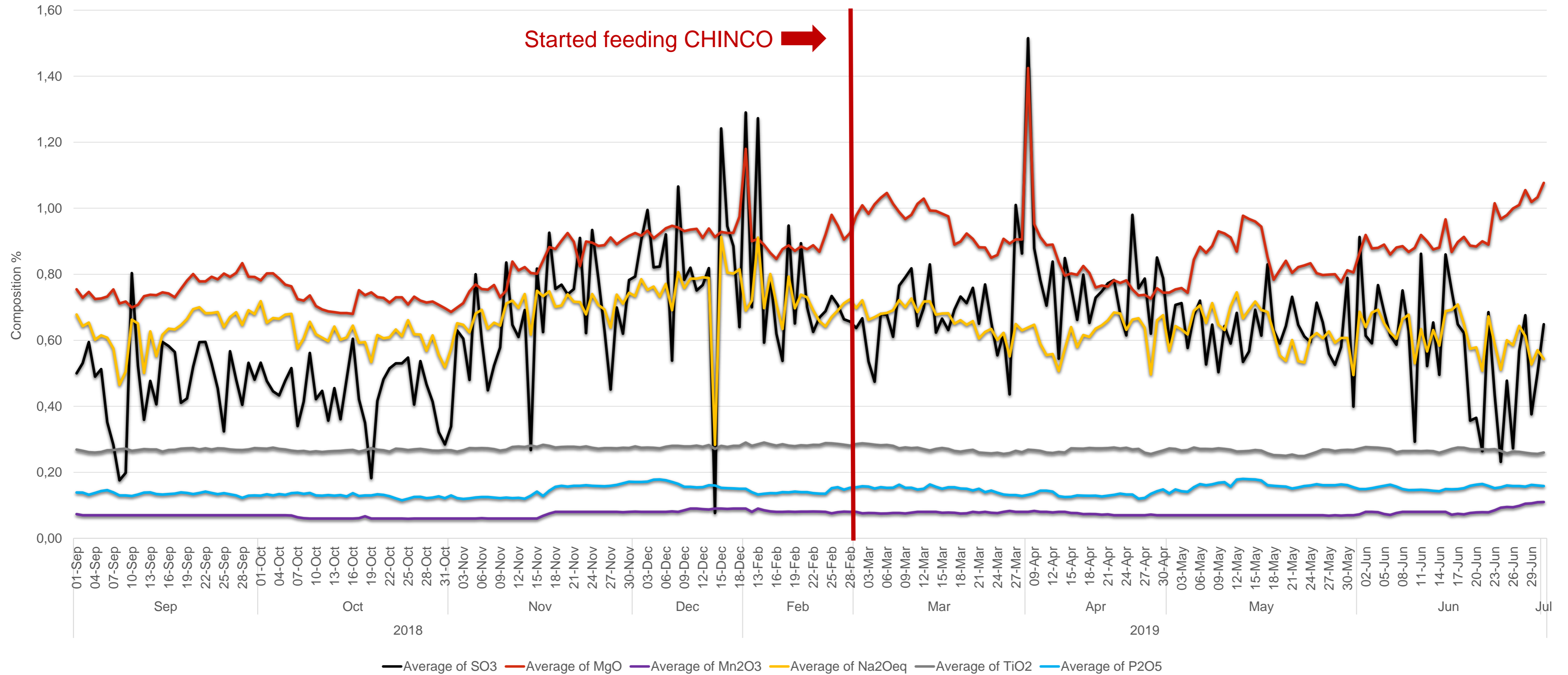


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Minor Components

D a i l y a v e r a g e s



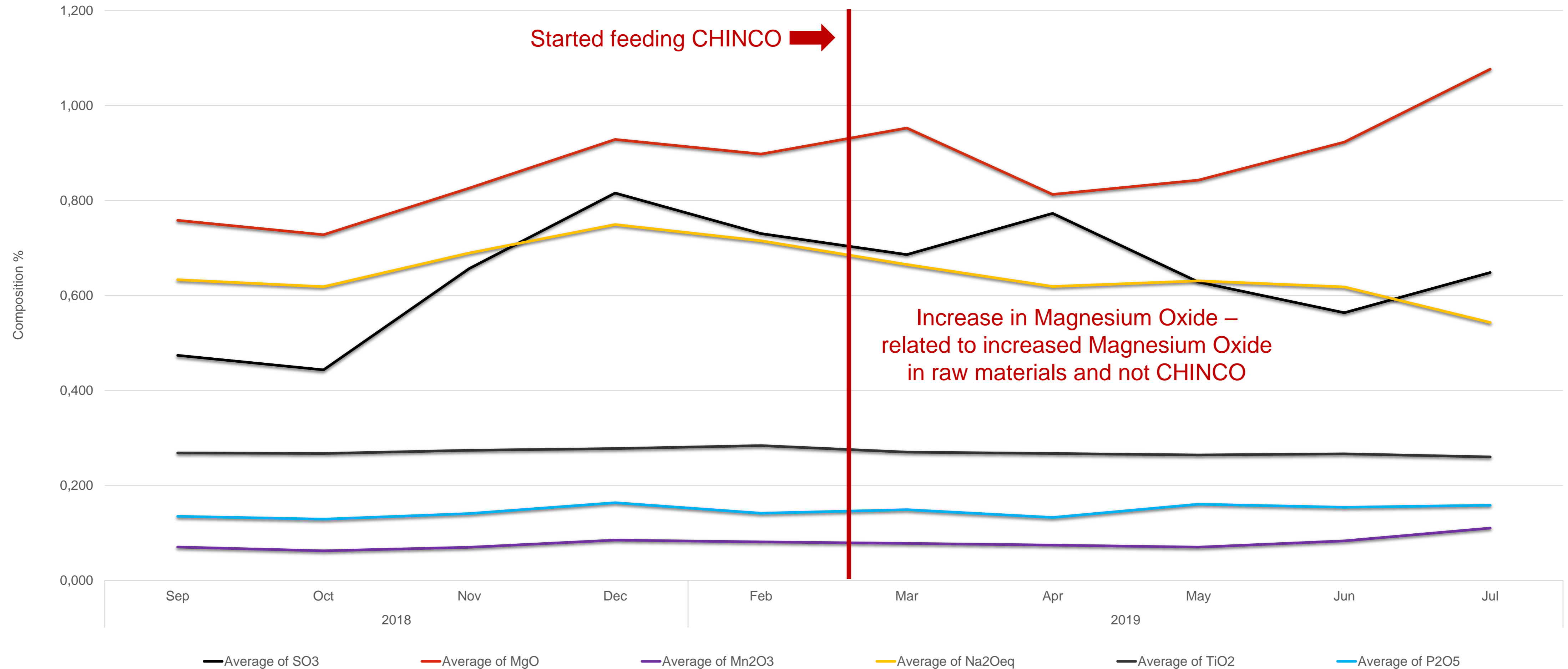


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Minor Components

Monthly averages





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EMISSIONS

C H I N C O C O A L C A T A L Y S T

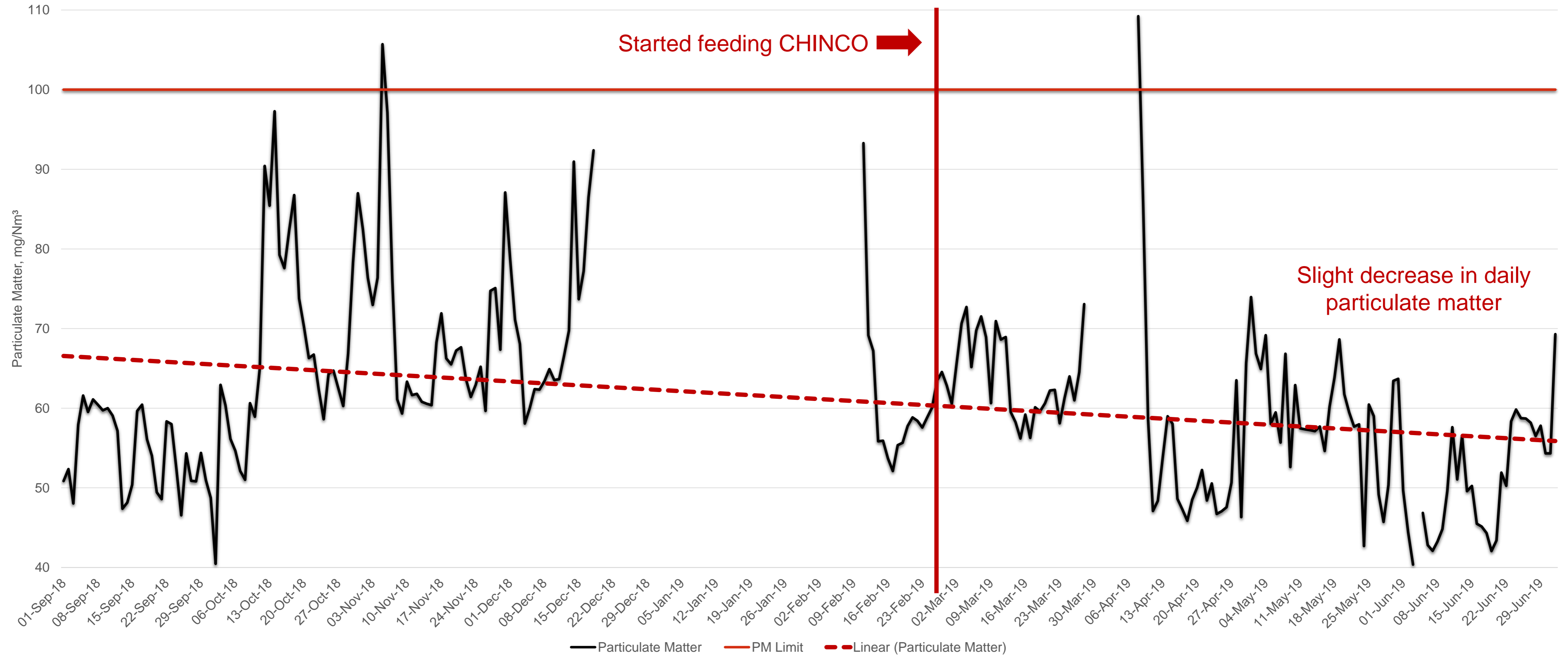


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Emissions



Particulate Matter - Daily



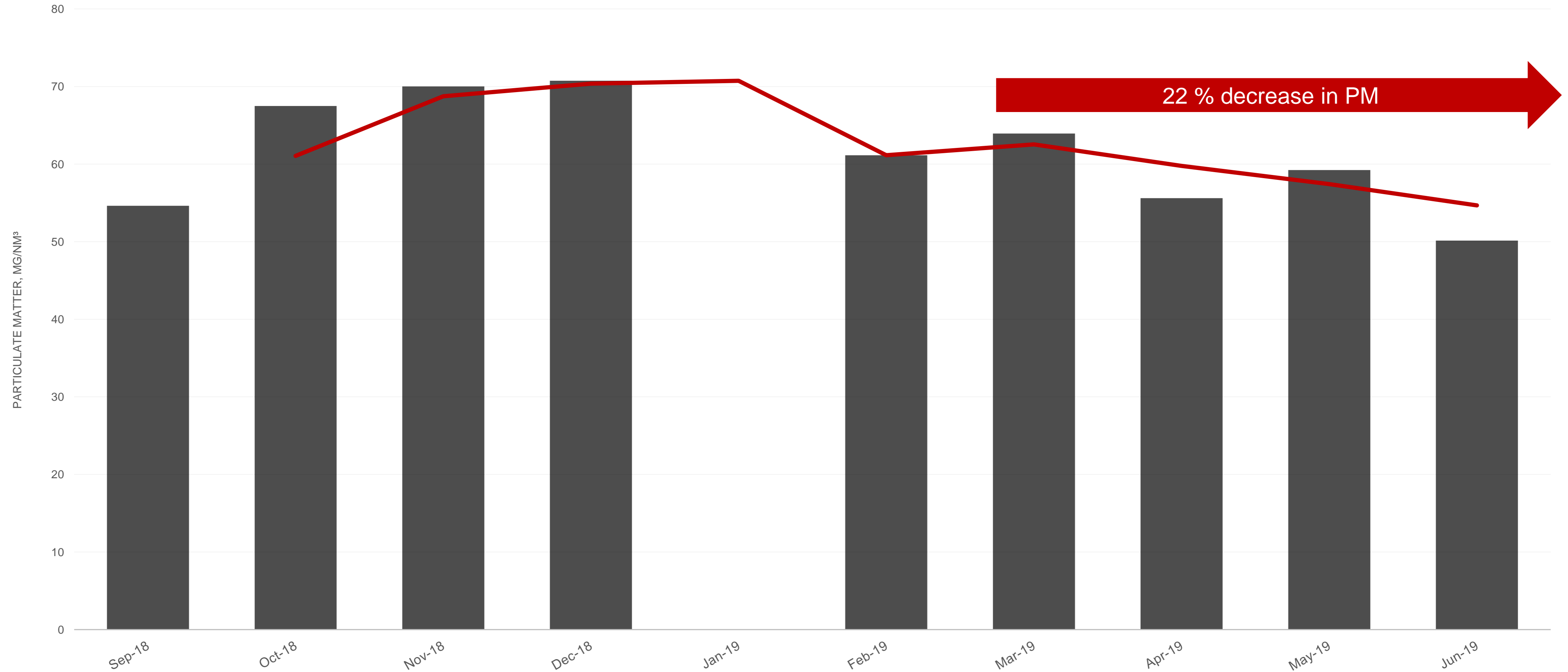


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EMISSIONS

Particulate matter - Monthly



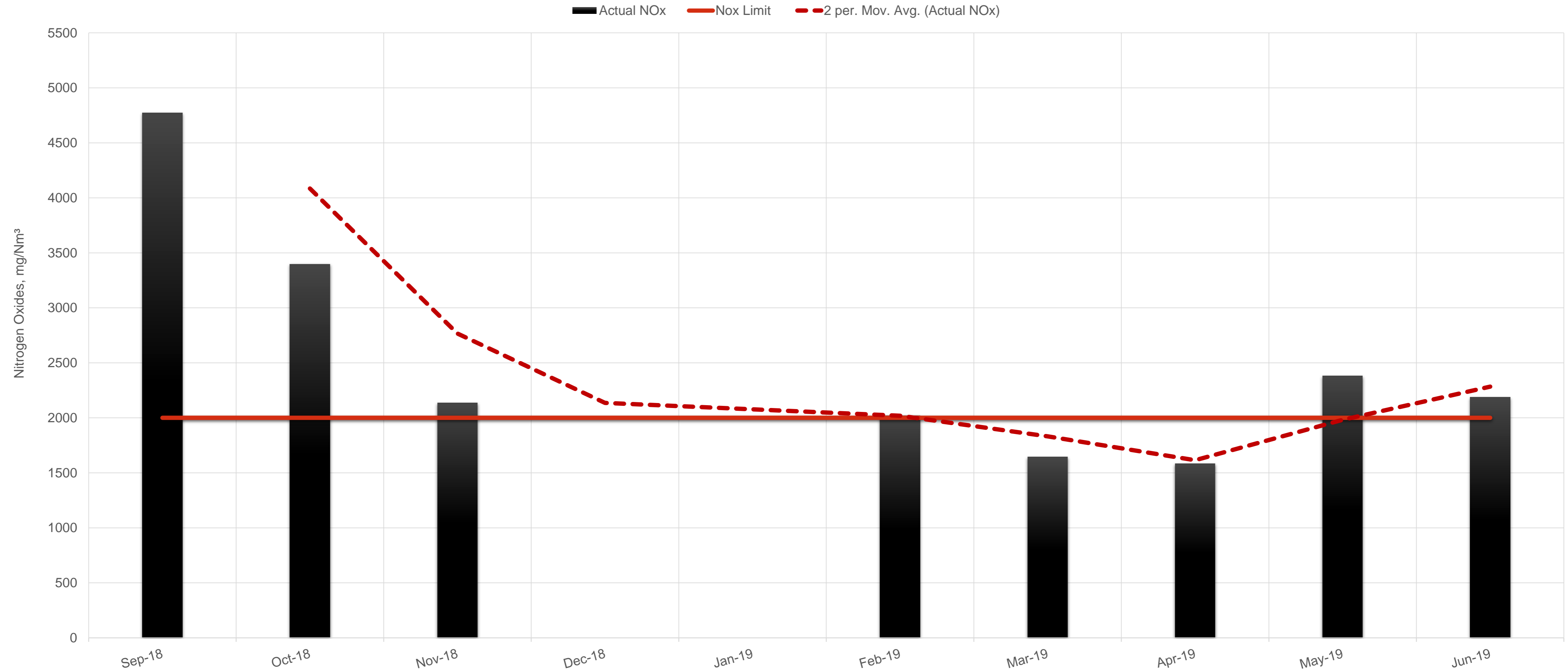


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Emissions

Nitrogen Oxides (Monthly spot check)



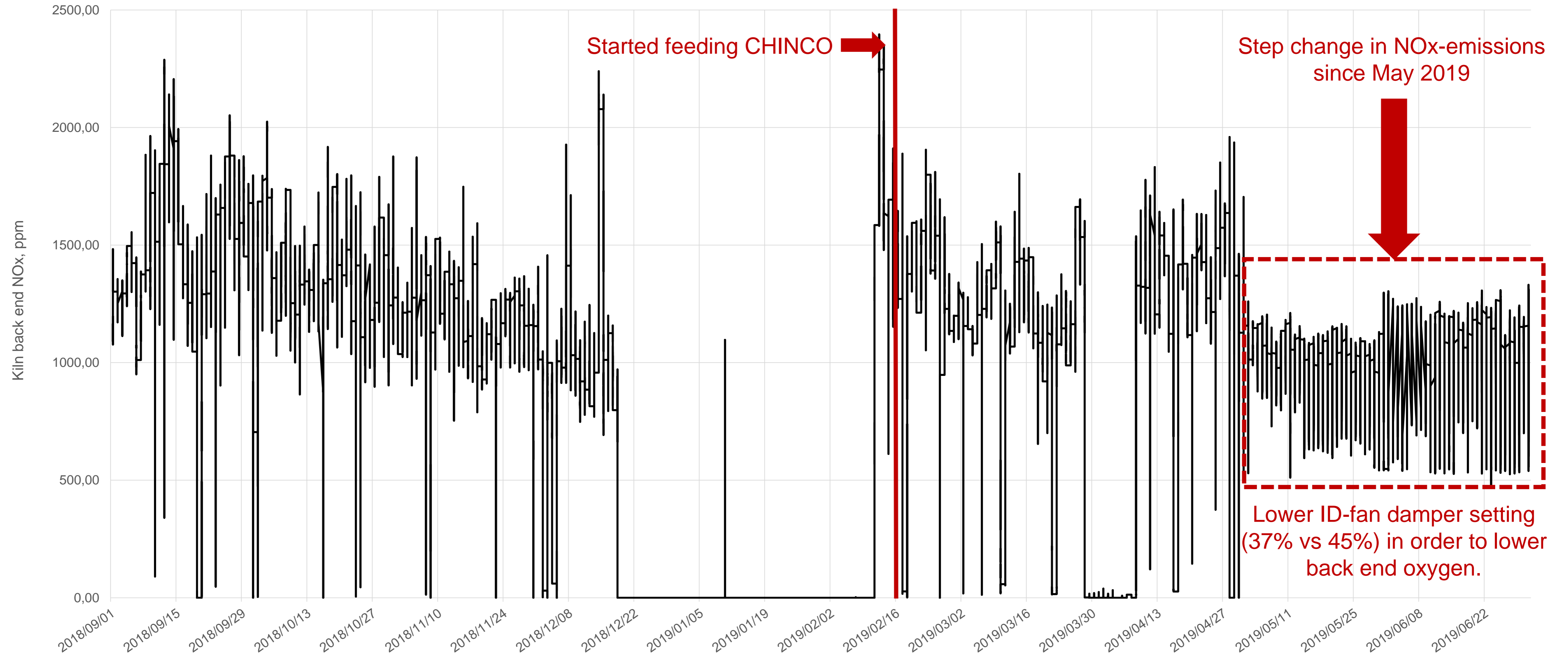


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Emissions

Nitrogen Oxides (Back End of Kiln)





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CONCLUSION

C H I N C O C O A L C A T A L Y S T



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Conclusion

C H I N C O C O A L C A T A L Y S T

- Improves heat consumption by 10-12%.
- Reduces coal costs.
- Have no effect on clinker quality.
- Reduced particulate matter emitted from kiln by 22% since March 2019.
- As CHINCO reduces the overall coal usage it also reduces the overall amount of pyrite nitrogen oxides generated from burning coal.