

**From:** cuadrillaresources.com]  
**Sent:** 20 August 2019 22:14  
**To:** (Oil & Gas Authority)  
**Cc:** @cuadrillaresources.com>  
**Subject:** 2019\_08\_20 Cuadrilla view re GeoSierra PNR1Z paper

Dear ,

Thanks for forwarding the information/paper. Slickensided beddings are common and their impact on fractures are quite well known though difficult to quantify. I had a quick read of their papers and website, and easily spotted a few critical flaws in their argument and proposal (vertical well frac initiation technique, use of surface tiltmeters, etc). Anyway, happy to discuss when we next meet.

I like to follow up with on the OGA sponsored projects. Let me know if you and are available next week Tuesday or Wednesday, we can meet up at your office.

Kind Regards



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**From:** (Oil & Gas Authority) [ogauthority.co.uk](http://ogauthority.co.uk)]  
**Sent:** 20 August 2019 13:38  
**To:** [cuadrillaresources.com](http://cuadrillaresources.com)>

**Cc:** [cuadrillaresources.com](http://cuadrillaresources.com)>

**Subject:** GeoSierra PNR1Z paper

Dear \_\_\_\_\_, we've been made aware of a study produced by \_\_\_\_\_ who is CEO of GeoSierra which raises the question of the overburden pressures in the PNR1Z well and we'd like to better understand his claims.

GeoSierra's review of Preston New Road 1Z can be found at [www.geosierra.com/news.html](http://www.geosierra.com/news.html) or direct link <http://www.geosierra.com/files/132316323.pdf>

We were made aware of a previous study by GeoSierra which we asked \_\_\_\_\_ to consider in March of 2017, <http://www.geosierra.com/files/122554754.pdf> and he said that their conclusions were flawed because they did not have access to actual bottom hole pressure data for the Preese Hall 1 well.

Can you kindly consider this paper and share your views with us?

Kind regards,



Head of Onshore Exploration and Production



[ogauthority.co.uk](http://ogauthority.co.uk)



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