

Our Ref: RH/10411/Let25

Your Ref:

Contact: Ruth Howells

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Natural Resources Wales

**Via Email**

For the attn. of Mr Matthew Llewellyn

Dear Matthew

**GROUNDWATER MONITORING: HERBERT ROAD, NEWPORT**

In our Remediation Strategy Report No.12032/RS, dated August 2015, it was proposed that further assessment of the groundwater beneath the site and the ree water be completed. The purpose of this was to increase confidence that no risks are presented to the aquatic environment from filling of the site. It was specified that one round of water sampling be completed prior to fill works, and two upon completion of the Riversee Limited fill works, or in the event of delay, the second and third monitoring rounds should be completed no later than five and six months following commencement of the earthworks.

The fill works were delayed in 2015 and are to re-commence shortly. The three groundwater sampling and testing rounds were completed as necessary.

Detailed in the enclosed groundwater test results summary table are the exceedences found in the groundwater results from testing completed in 2013 (BH1 – BH6), 2014 (BH1 – BH6) and from the additional three rounds (newly installed replacement wells, named BH1a – BH6a). The ree was also sampled and tested in the recent monitoring rounds.

All results have been compared to current threshold levels, rather than those used in previous assessment. Water Framework Directive thresholds are referred to where available, and in their absence drinking water directive thresholds are quoted. As per previous reporting petroleum hydrocarbon fractions have been assessed using a target concentration of 10ug/l (0.01mg/l) as a threshold in the absence of available guidelines. Some substances have also been highlighted where present above the laboratory detection limit (LoD), but where no guideline is available.

It should be noted that due to activity on site the well in BH4 was accidentally damaged. Also, the water sampling pump became jammed in BH1. These boreholes could therefore not be sampled in the monitoring rounds 5 months and 6 months after earthworks commencement.

In general, substances previously identified in exceedance at some stage in 2013, 2014 and 2015 tend to also be present in the two more recent 2016 samples. Also, only changes in Water Framework Directive guidance now means copper and zinc are highlighted as potential contaminants.

No correlation between the earthworks and water quality can be identified, and despite an incomplete dataset (due to the damaged/inaccessible wells) the table does not indicate that the fill works on site have had an adverse impact upon the underlying groundwater or ree.

In addition, it should be reiterated that all imported fill has adhered to thresholds levels quoted in our Remediation Strategy, with the exception of some minor exceedances already brought to your attention and subsequently confirmed acceptable.

Earthworks are due to re-commence in the early September 2016. Prior to this the Remediation Strategy Report needs to be revised to cover these remaining fill works.

Based on the above I do not see any merit in continuing water sampling and testing during the remainder of the earthworks.

Further fill will be screened as previously in accordance with our Remediation Strategy, to include leachate analysis to BS:EN:12457. Any unacceptable soils will be rejected and therefore no potential contaminative source to groundwater will be introduced to site.

I would be grateful if you could consider my suggestion for terminating groundwater monitoring at this stage and advise at your earliest opportunity whether you are in agreement or otherwise.

I trust that the above is to your satisfaction, however, if you have any queries or require any further information please do not hesitate to contact me.

Yours sincerely

**for: Terra Firma (Wales) Ltd**



**Mrs Ruth Howells**