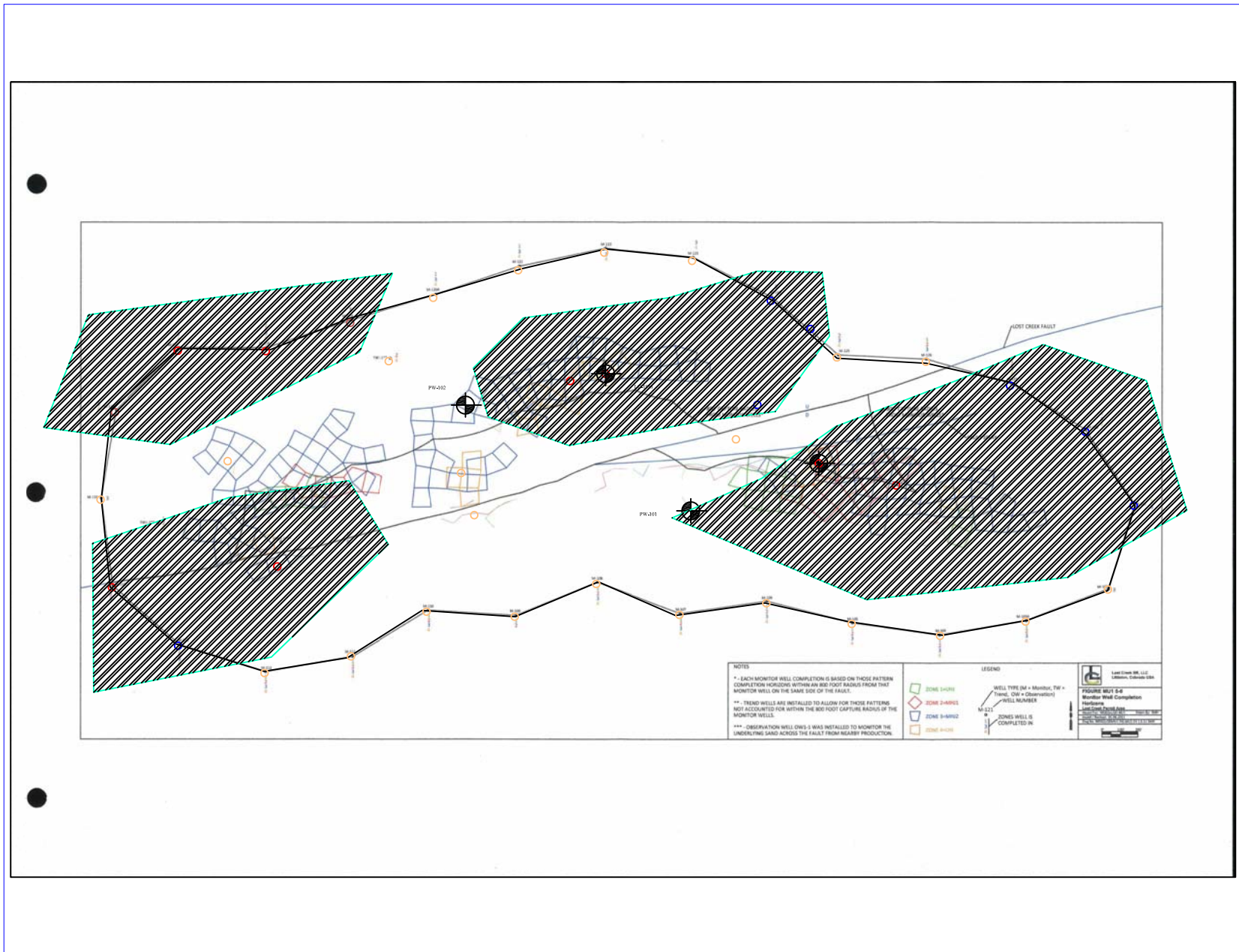


Attachment 2 – Extent of Clays

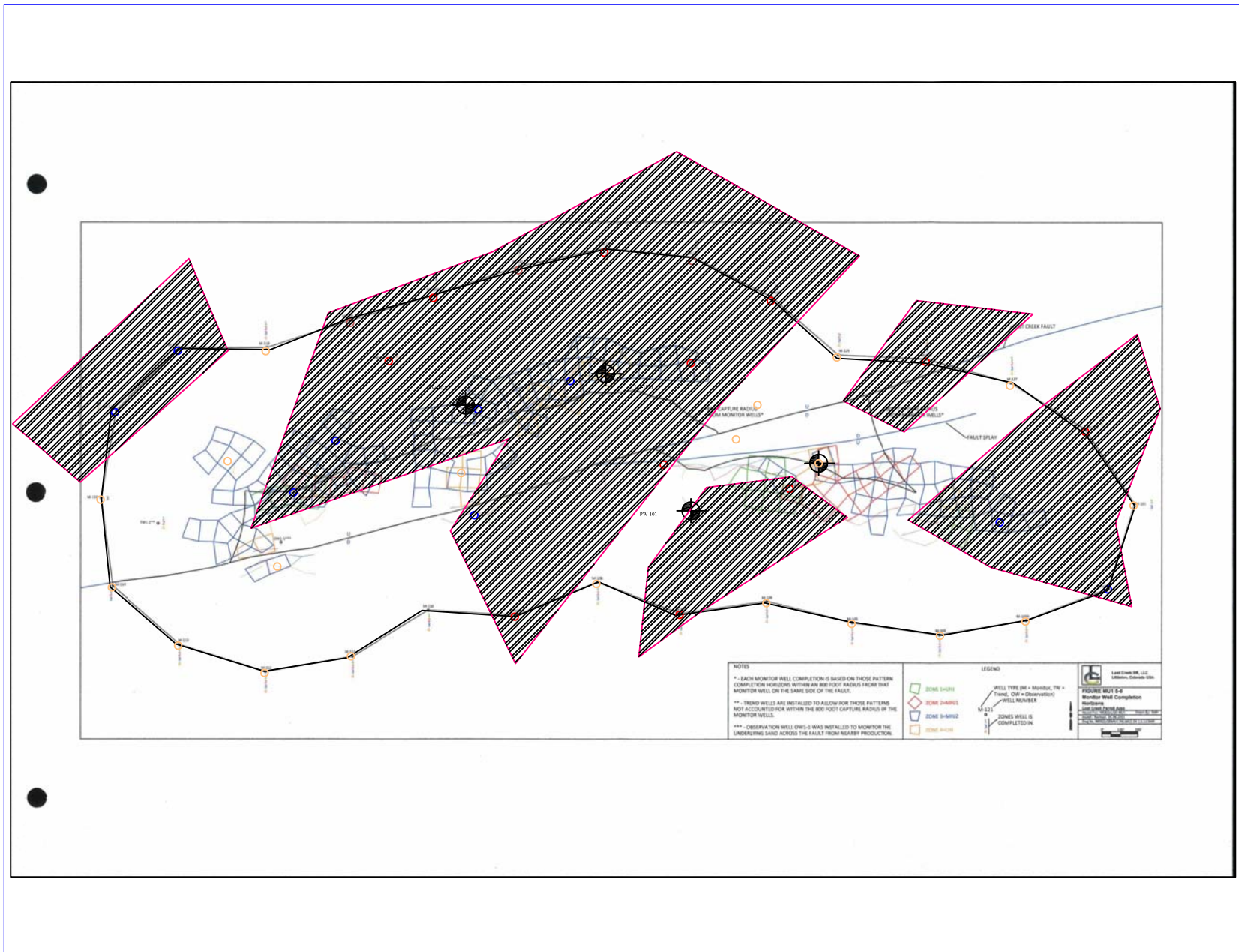
Lost Creek subdivides the HJ Horizon into four zones. In the license application, the licensee described the zones as separated by “thin clayey units that are not laterally extensive and, based on pump[ing] test results, do not act as confining units to prevent groundwater movement vertically between the HJ [zones]”. In Attachment 1, staff noted that a vertical anisotropy exists in the HJ Horizon. The existence of albeit thin mudstones potential enhances the anisotropy to the HJ Horizon. In addition, though not preventing groundwater movement between zones due to its incongruous nature, would certainly impede such movement should mudstones be locally contiguous in a module or portion of the wellfield.

Lost Creek did not provide any mapping on the intermediate mudstones. Because of staff’s concerns regarding the vertical anisotropy, staff reviewed the available information to establish the extent of the intermediate mudstones. The data use in the evaluation is summarized in Attachment 1 Table 1-1. This information is graphically displayed for the distribution of the mudstones between Zones 1 & 2, between Zones 2 & 3, and between Zones 3 & 4 is shown on Attachment 2 Figures 2-1, 2-2 and 2-3, respectively.

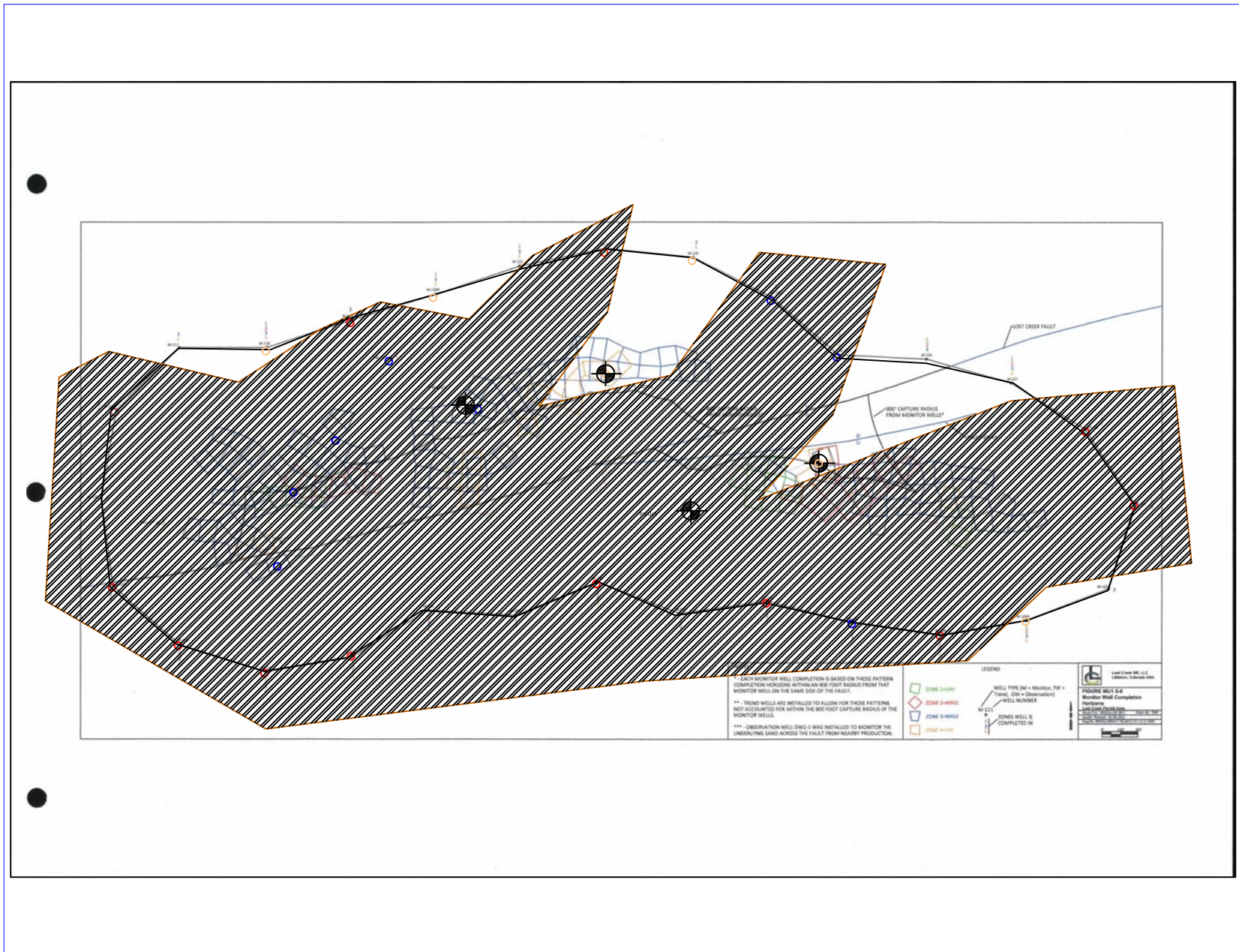
Although not contiguous throughout Mine Unit 1, the mudstones may be locally extensive for several of the proposed production areas.



Attachment 2 Figure 2-1 NRC Determined Distribution of Mudstone between Zones 1 & 2



Attachment 2 Figure 2-2 NRC Determined Distribution of Mudstone between Zones 2 & 3



Attachment 2 Figure 2-3 NRC Determined Distribution of Mudstone between Zones 3 & 4