7-5)

Data Request:

7-5) Please refer to Dr. Jon Schmidt's rebuttal testimony, lines 235 to 245

a) In the response to Mr. Sterner's testimony request for additional maps and drawing related to water resources, Dr. Schmidt states that pre and post construction maps depicting drainage features is not needed since they will be restoring all hydrological features to pre-construction grade. Although the Application may state that hydrologic resources would be restored to pre-construction conditions, please provide a map of features such as springs, seeps, ephemeral channels in order to better define the current hydrological setting of the Project area.
b) Further, in response to Mr. Sterner's request for maps of wellhead protection areas, aquifers, springs, seeps, and groundwater flows, the rebuttal testimony incorrectly assumes the request infers the use of groundwater sources for the Summit project. The request was made to have any such features mapped so that compliance with any related permit conditions could be verified should the Commission grant a permit with conditions. Please provide the requested map with the features noted above.

Updated Response:

a) Summit was able to obtain information on springs from the U.S. Geological Survey (USGS), but the information is only a reflection of what is reported as opposed to a concerted effort to survey for the feature. A digital map of the surficial aquifer was also obtained from the South Dakota geological survey. The updated map book (Updated 7-5a Appendix 1) is provided with this response that includes the location of water wells, and surface hydrology features (perennial, intermittent, and ephemeral drainages) as mapped in the field by Summit or via a desktop review for those parcels which survey access was denied. Note that the background imagery will not represent hydrology features present during surveys. The U.S. Army Corps of Engineers is reviewing all drainage features as part of their review of the Nationwide Permit 58 permit application package.
b) Research and discussions with the USGS, State of South Dakota, and South Dakota Department of Agriculture and Natural Resources did not yield any georeferenced information on groundwater flows, wellhead protection areas, or springs or seeps.

Response prepared by: Jon Schmidt, EXP

Wellhead protection areas are not digitized and paper maps are not georeferenced (see attached email correspondence 7-Sb Appendix 2). Updated map book (Updated 7-Sb Appendix 1) is provided with surficial aquifers, and surface drainages as mapped in the field and noted above.

It is reemphasized that the as stated in AR 20:10:22:15: "(4) If aquifers are to be used as a source of potable water supply or process water, specifications of the aquifers to be used and definition of their characteristics, including the capacity of the aquifer to yield water, the estimated recharge rate, and the quality of ground water;" That Summit will not be using aquifers as a source of water and therefore has not been required to provide details on the groundwater or aquifers crossed by the Project.