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AQS, Inc.  
2112 Deer Run Drive  
South Weber, Utah 84405

(801) 476-1365

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Mr. David Cobrain  
New Mexico Environment Department (NMED)  
Hazardous Waste Bureau  
2905 Rodeo Park Dr. E/Bldg 1  
Santa Fe, NM 87505

DEC 15 2017  
NMED  
Hazardous Waste Bureau

RE: Technical Review of the *RCRA Facility Investigation at SW006 and WL102*, Cannon Air Force Base (CAFB), dated February 2017.

Dear Mr. Cobrain:

Attached, please find technical review comments on the risk assessments conducted as part of CAFB's, *RCRA Facility Investigation at SW006 and WL102*, dated February 2017.

The description of SW006 provided in Section 2.2.1 of the report, is that the site consisted of a recovered diesel tank that had been connected to an oil/water separator (OWS) that lead to an underground storage tank (UST). The UST was located approximately 60 feet east of the OWS; the UST has been removed. The 2007 investigation appeared to focus solely on the location of the UST. It is not clear whether any investigation of the OWS and/or the piping that lead from the building to the OWS to the UST has occurred. The OWS is not notated on Figure 5-1, thus the sampling locations with respect to the OSW cannot be determined. It is possible that there are some data gaps with respect to nature and extent of contamination associated with SW006.

An ecological risk assessment was not conducted for either SW006 or WL102. However, lines of evidence to support the lack of exposure pathways and lack of habitat are provided in Section 3.6. It is agreed that a qualitative assessment of ecological risk is not required for these sites.

If you have any questions, please contact me at (801) 451-2864 or via email at [pwalton@aqsnnet.com](mailto:pwalton@aqsnnet.com).

Thank you,

Paige Walton  
AQS Senior Scientist and Program Manager

cc: Gabriel Acevedo, NMED (electronic)  
Joel Workman, AQS (electronic)

**Technical Review of the RCRA Facility Investigation at SW006 and WL102, Cannon Air Force Base (CAFB), dated February 2017**

**Comments**

1. Section 3.5.1, Page 3-3. The future site worker scenario was assumed to be incomplete. The rationale is that the site is covered in asphalt and any releases would have occurred below the ground surface. The presence of asphalt is not sufficient to preclude a potential site worker. However, this was a subsurface feature with contamination occurring below one-foot below ground surface (bgs). As the soil exposure interval for an industrial worker is zero to one-foot bgs, it is agreed that the future industrial worker is an incomplete pathway.
2. Section 3.5.1, page 3-3. Volatiles were not considered primary contaminants for either SW006 or WL102. For SW006, benzene was detected in one sample. For WL102, toluene, xylene and 4,4-DEE were detected in one out of eight samples. The vapor intrusion pathway is only considered incomplete if 100% of the data are non-detect. Since the volatiles were minimally detected (Tables 2-3 and 2-4), the pathway is potentially complete, and a qualitative discussion is required (per Section 2.5.2 of the NMED Soil Screening Guidance). Revise the report to include a discussion of the vapor intrusion pathway.
3. Section 3.5.1, page 3-4. The soil-to-groundwater pathway is considered incomplete due to the arid climate, depth to groundwater and presence of clay minerals. These lines of evidence of not sufficient, as the source was a liquid providing a mechanism to facilitate vertical migration. The report must include a comparison to the soil-to-groundwater screening levels. If site contamination is present above the screening levels, lines of evidence, to include sample resulting showing decreasing concentrations with depth may be provided.
4. Section 3.5.4, page 3-5. Step 2 of the site attribution analysis includes comparison of the range of site concentrations to the range of detected background concentrations. The NMED SSG does not allow for comparison of site data to the range of background. As noted in Section 2.8.3.2 of the SSG, if the maximum site concentration is greater than the background reference value, a two-sample hypothesis test should be used to compare the data distributions. Under certain circumstances, comparison to the range may be applicable. NMED will allow the comparison to the background dataset range for the identification of COPCs if nature and extent has been defined and only when sufficient samples are not available to conduct a statistical analysis. The comparison must be coupled with multiple lines of evidence to include looking at the number of detections versus total number of samples, history of the site (as best known), and locations (to define any spatial variation or trend). If there is site history to suspect the constituent to be present from site activities, then it would be possible that the constituent could be present from historical activities at low levels (in the high range of background). In these cases, the constituent still must be carried forward as a COPC and retained in the risk assessment (it will likely not be a risk driver). It is noted that for SW006, the only metal for which comparison to the range was conducted was for cadmium; the maximum detected concentration was equal to the maximum end of

the range of background (only four samples were available), and was thus retained for risk analysis.

5. Section 5.4.1, page 5-2. The risk assessments are to have included both historical and current analytical results. However, for SW006, the historical samples or the data for the detections of benzene and total petroleum hydrocarbons are not included in the risk assessments. Further, the historical metals data listed in Table 2-3 also do not appear to be included. Clarify what historical data were used and if all data were not used, provide justification for exclusion of the data. [Note – the tables for WL102 were not included in Appendix E2 (see below comment), although it is assumed that the organic data were excluded from the assessments.]
6. Table E-1. The footnote indicates that chromium was evaluated as trivalent chromium. The data likely represent total chromium and as such, the use of the total chromium screening levels should have been applied. Unless speciated data are available to support the assumption that 100% of chromium in soils is trivalent, the total chromium screening levels should be used for comparison to total chromium data. It is noted that use of the screening level for total chromium does not change the conclusion of the risk assessments.
7. Appendix E.2, WL102. The appendix contains the tables for SW006. Revise the appendix to include the data and risk assessment associated with WL102.