Responses to Comments for the								
Draft Final SI Report - ARNG PFAS Program: Biak Training Center, Oregon								
Response Code: A = Agree with comment D = Disagree with comment C = Comment requires clarification								
Comment Number	**Commenter**	**Page(s)**	**Section**	**Line(s)**	**Comment**	**Response Code**	**Response**	
TECHNICAL COMMENTS								
1	DEQ	2-4	2.2.2 Hydrogeology	392-393	This section note the presence of seven privately owned domestic wells located approximately 1 mile to the northwest of the site. DEQ notes, however, the presence of several additional nearby wells in Figure 2-3, particularly to the northeast and southeast of the site. We suggest all domestic wells within 1 mile of the site be discussed for completeness, particularly as some of the unmentioned wells appear to be downgradient of the site.	A	The text in Section 2.2.2 has been revised to include a dicussion of the offsite wells to the northeast/eat of the facility. Additionally, Figure 2-3 has been updated with the lastest offsite well information available through OWRD.	
2	DEQ	5-3	5.3 Permanent Well Installation and Groundwater Sampling	691-692	This section indicates that the two permanent monitoring wells installed during this investigation are within or downgradient of potential sources areas. However, Figure 5-1 indicates that while well BTC-MW002 was installed within AOI 2, the two wells appear to be cross or upgradient of AOI 1 and AOI 3. As a result, it is difficult to evaluate whether potential groundwater impacts at the site were fully evaluated.	A/D	During the SI planning phase, groundwater flow direction was inferred be generally to the northwest using information available in *Groundwater Hydrology of the Upper Deschutes Basin, Oregon* (USGS 2001). During the SI, the onsite drinking water well was intented to be gauged for depth to groundwater, along with newly installed wells BTC-MW001 and BTC-MW001, to confirm the groundwater flow direction at the site. However, the onsite drinking water well was found to be inaccessible for gauging, and a depth to groundwater measurement couldn't be collected. The depth to groundwater measurements and subsequent groundwater elevations calculated for wells BTC-MW001 and BTCMW-002 indcate that groundwater flow is to the northeast. A northeast groundwater flow direction would put the onsite drinking water well downgradient of AOIs 1 and 2 and crossgradient of AOI03. Two water samples collected from the onsite drinking water well during the SI for evaluation of decontamination water use, as well as drinking water samples collected by OMD in 2017 and 2020, were non-dectect for PFAS above laboratory reporting limits. Additionally, the onsite drinking water well will be sampled for PFAS during planned future drinking water sampling events conducted by OMD.	
3	DEQ	6-1	6.1 Screening Levels	820	DEQ notes that EPA Regional Screening Levels for soil developed for the protection of groundwater ("Protection of Groundwater SSLs") are not included. Without their use, we consider screening to be incomplete. We note that PFOS, PFHxS, and PFNA SSLs were exceeded in AOI 1 and AOI 2 surface soil and the PFOS SSL was exceeded in AOI 2 deep soil.	D	Current DoD policy is to use EPA RSLs for soil based on direct ingestion for screening during the SI. No change recommended.	

4	DEQ	6-1	6.1 Screening Levels	820	DEQ notes that discussion and screening was limited to five PFAS target analytes per DOD guidance. Analysis for a sixth potential target analyte - HFPO-DA (GenX) - was not completed because screening values were established after SI planning and execution. However, additional PFAS were analyzed, though not discussed in the report. As future regulatory actions and screening levels may consider PFAS beyond the 5 discussed in the report, consider including a brief discussion of the results of the other PFAS analyzed.	D	The outline and format of the SI Report has been adopted for a programmatic approach and has undergone ARNG G-9 legal review. No change is recommended. Results for additional PFAS compounds analyzed during the SI are provided in Appendix F.	
5	DEQ	6-3	6.4.1 AOI 2 Soil Analytical Results	890	As briefly noted in Section 6.4.1, PFOS was detected at 0.144 ug/kg at 94-96' bgs. It is unclear whether this is thought to be attributable to cross-contamination through drilling or indicative of contamination present at depth. DEQ notes that PFOS was not detected in the shallower or deeper samples from this location. More discussion is requested, including tying the sampling depths to specific geologic materials encountered during drilling.	A	Additional text has been added to Section 6.4.1 "This low level detection, which was collected from within a coarse sand interbed, may be attributed to drilling mud circulation or matrix interference during laboratory analysis."	
6	DEQ	8-1	8.2 Outcome	1033-1046	Due to the cross and upgradient location of the installed monitoring wells to two of the three AOIs and the exceedances of some PFAS SSLs, DEQ does not agree that there is enough site information and data to determine further evaluation is not warranted. However, we recognize the lack of groundwater detections, low magnitude of soil detections, and the very deep groundwater in the area indicate likely a low risk of PFAS exposure from the site.	D	Please see the response to Technical Comments #2 and 3.	
EDITORIAL COMMENTS								
7	DEQ				There are a number of limitations under which SI work was completed, including groundwater well placement, screening criteria, and PFAS analytes. In general, we appreciate the sharing of information but feel that it generally insufficient to support DEQ decision-making.	A	The regulatory and policy framework around PFAS is constantly in flux, and new guidance and may emerge during the course of or after these Site Inspections are complete.The depth to groundwater measurements and subsequent groundwater elevations calculated for wells BTC-MW001 and BTCMW-002 indcate that groundwater flow is to the northeast. A northeast groundwater flow direction would put the onsite drinking water well downgradient of AOIs 1 and 2 and crossgradient of AOI03. Two water samples collected from the onsite drinking water well during the SI for evaluation of decontamination water use, as well as drinking water samples collected by OMD in 2017 and 2020, were non-dectect for PFAS above laboratory reporting limits. Additionally, the onsite drinking water well will be sampled for PFAS during planned future drinking water sampling events conducted by OMD. DoD policy is to reevaluate the site if additional information becomes available. This includes future drinking water sampling results, changes in RSLs, RSLs for new compounds, or other information that may impact the original decision.	