

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

EPA General Comments on 90% Remedial Design Submittal (Enclosure 1 to EPA letter dated 9 April 2015)	
Review Comment	Response to Comment
<p>Pedestrian Safety At the invitation of the school superintendent, John Adkins, the EPA project manager attended a meeting of the school board on December 5, 2014, to discuss the process for addressing concerns about construction impacts on pedestrian safety in Wellpinit. While estimated increases in traffic due to the remediation are not likely to be extensive, some larger vehicles will be on the roads and increased traffic will occur, particularly during certain phases of work. In Wellpinit, children and adults use the road shoulder to walk between, for example, the high school and the Trading Post, and in several places they cross where there is poor visibility due to the bend in the road. At that curve, the road has ditches on both sides and no shoulders. I have encouraged Mr. Adkins to work with Greg Wynecoop, Tribal Roads and Utilities, and propose improvements for the Tribe or Stevens County to design and for the County Engineer to approve. Implementation costs are likely to be modest, and some combination of improved delineation of walking areas from traffic areas, visible crossing areas, vehicle speed controls, alternative walking paths and other changes could reduce the chance of an accident involving pedestrians. The Tribe has been considering improvements in pedestrian safety independently. Settling Defendants will need to work directly with the Tribe to support the pedestrian safety enhancements, through design assistance and/or implementation. A draft traffic safety/pedestrian safety plan reflecting discussions with the Tribe and the County, including specific enhancements and a proposed schedule for design, County approval, and implementation, shall be included in the 100% RD submittal. As this topic has not been part of earlier design submittals, EPA comments will provide further direction regarding the schedule for finalizing and implementing the plan.</p>	<p>Meetings involving representatives of Stevens County, Spokane Tribe of Indians (Tribe), Wellpinit School District, and DMC/Newmont have been conducted to discuss project vehicular traffic in the Wellpinit area. Discussions with Stevens County representatives identified School District Pedestrian Plan requirements with Colville and other school districts and the representatives' advice was that if the Wellpinit School District does not have a Pedestrian Plan, then a Plan should be developed as basis for further communications and planning.</p> <p>Stevens County representatives were open to working with DMC/Newmont and the Wellpinit officials with additional traffic control options should such options not develop a long-term Operations and Maintenance obligation for Stevens County. Mr. Adkins, the Wellpinit school board chairman and school district traffic employees determined a Pedestrian Plan does not exist, although they intend to develop one. During discussion with the DMC/Newmont it was mentioned that the Wellpinit School District has a busing policy for all students and that no students are allowed to walk to and from school without parental and school authorization. This policy was a DMC/Newmont did not have previous knowledge of, but does explain the lack of observed students walking to and from the school facilities which DMC/Newmont representatives have observed in the past. The school representatives discussed two primary pedestrian controls that would be helpful. These include: 1) installation of two or three designated crosswalks along the Ford-Wellpinit roadway between the Tribal Headquarters Building and the high school and 2) increased traffic law enforcement along the roadway during times when school was commencing or adjourned.</p> <p>DMC/Newmont representatives are interested and willing to work with the Wellpinit School District to develop a Pedestrian Plan and Mr. Randy Barnes of the DMC/Newmont will work with school representatives to prepare and submit this plan.</p>
<p>Modification of Wellpinit-West End road for site access EPA joined a meeting with SD representatives and Jim Whitbread, Stevens County Engineer, at the Public Works office in Colville on October 29, 2014. At the meeting, we discussed the process for obtaining county permits for construction vehicle use of county roads, weight and other restrictions on road use, and pedestrian and vehicle safety. Mr. Whitbread said that turning lanes would be needed at the proposed new site access road, from both directions. Engineering design for construction of those turning lanes must be approved by the County Engineer. The design of the road modifications shall be included in the 100% RD submittal. In addition, we discussed the current culvert and the crossing of the proposed pipeline route from the water treatment plant to the discharge point. We encourage you to seek input from Stevens County prior to submittal of the 100% RD submittal. If changes are required following 100% RD submittal, whether based on County Engineer input or changes to the access route, the changes shall be addressed through engineering change notices or other mechanisms.</p>	<p>A meeting was held with Mr. James Whitbread and other Stevens County representatives on May 18, 2015. Mr. Whitbread identified the county's requirements related to this roadway design, DMC/Newmont engineers are reviewing these requirements and designing any necessary roadway modifications. The design of the access from the county road to the new access road will be submitted to the county for their review. DMC/Newmont will advise EPA of the progress and provide final approval plans to EPA.</p>
<p>Robustness of design relative to climate change On December 15, 2014, Bill Lyle, Lou Miller, Tom Kelley and Vance Drain joined a call to discuss information gathered by Region 10 EPA about climate change and the anticipated temperature and precipitation changes. EPA technical staff, Mike Cox, Sue McCarthy, and Matt Gubitosa, gave a presentation that summarized results from a range of models based on a range of assumptions about future carbon dioxide emission rates. The science points to a trend of increasing temperature and predicted effects on the timing and amount of snowfall, volumes of runoff from rain (and more critically of rain on snow events), and hotter, dryer summers by mid to late century. We wanted to make sure the remedy you are designing makes adequate provision for the projected changes, which may affect the volume of groundwater to be captured and treated, the frequency and magnitude of high-volume runoff events, and the availability of water to support establishment and survival of revegetation in remediated areas or in wetland mitigation efforts. Data are available from several sources including the USGS National Climate Change Viewer which provides comparisons of historical and future projections for several emission scenarios, climate models, and time periods.1 The Viewer includes several variables including: temperature, precipitation, runoff, snow water equivalent, soil water storage, and evaporative deficit at the USGS Hydrological Units (HUC) 2, 4, and 8. In addition, we provided you with other references on the projected impacts from climate change in the vicinity of Midnite Mine. While there may be local impacts around the Midnite Mine site from future changes, EPA believes the results from the USGS Viewer and other sources, are sufficient to anticipate effects in the watershed which includes Midnite Mine. Settling Defendants' engineering team asserted that the remedial design is conservative enough to account for anticipated variations in water volume and that climate change should not affect the remedy construction or long-term performance. In addition to the potential impacts of climate change on long-term availability of makeup water for the water treatment plant and fire</p>	<p>The performance standards for the remedial design (RD) are listed in Table 4-6 of the Basis of Design Report (BODR), and the design storm events are listed in Table F-3 of Appendix F. The design storm events are based on elements in the Consent Decree, specifically the Surface Water Management section of the SOW, as summarized below.</p> <p>The diversion facilities shall be designed using standard engineering techniques for capacity and erosional stability to convey the 100-year, 24-hour storm event in a stable manner and to withstand a 500-year, 24-hour storm event. The cover shall be erosionally stable under the 100-year, 24-hour storm event.</p> <p>In the RD, the bench channels and downdrain channels were sized to convey runoff from the 500-year recurrence interval event. These channels as well as the cover surface were designed to be erosionally stable under the 100-year recurrence interval event, using the storm intensity producing the maximum runoff. The 100-year and 500-year recurrence interval events are estimated from existing climate station data using accepted statistical techniques.</p> <p>The performance standards also include extreme wet and dry climate variations in analysis of infiltration into the cover system and subsequent subsurface flow into the backfilled pit collection systems. The length of time that specific facilities are to be in operation or in long-term performance, as well as the</p>

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

EPA General Comments on 90% Remedial Design Submittal (Enclosure 1 to EPA letter dated 9 April 2015)																					
Review Comment	Response to Comment																				
<p>management, there may be impacts to remedial design elements critical for remedy effectiveness, such as revegetation. We anticipate that construction will be completed by 2025 and that revegetation will be established well before mid-century, 2050. However, to ensure that contingency plans have been considered in the event that establishment and survival of revegetation are adversely affected by climate change, discuss this potential impact in the Adaptive Management Plan (Section 5 of the RAWP dated July 2014).</p> <p>Settling Defendants are responsible for documenting that climate change has been adequately considered and incorporated into the 100% RD submittal to ensure that remedy performance and erosion rates, increased water storage and treatment volumes, the routing of clean surface water off site, the capture, containment, treatment and discharge of mine impacted water, and performance of vegetation in the waste containment area and other areas where revegetation is required will not be adversely affected by climate change. Settling Defendants shall include the following statement in the 100% RD submittal: <i>Settling Defendants have consulted the engineering team regarding the implications of climate change. The lead engineer, in affixing a PE stamp, affirms that projected mid to late century temperature, precipitation, and runoff, as described in information provided by EPA in December 2014, have been considered and are adequately addressed in the 100% design submittal for both construction purposes and for long-term functioning of the remedy.</i></p>	<p>consequences of unacceptable performance, have been considered in the selection of design storm events with respect to future climate variations.</p> <p>In the RD, the vegetation on the cover surface and on adjacent site surfaces is considered in the evaluation of erosion from the cover surface. Therefore, although future climate changes may affect productivity of specific plant species, these changes would not affect cover performance in terms of infiltration and erosion.</p> <p>The information provided by EPA in December 2014 has been reviewed and considered in the 100% RD. The selected design storm events and climate variations used in the analysis of facilities in the RD are consistent with this information. PE certification for the 100% RD will include the wording: The lead engineer, in affixing a P.E. stamp, affirms that projected mid to late-century temperature, precipitation, and runoff (as described in information provided by EPA in December 2014) have been considered and are adequately addressed in the 100% RD for both construction purposes and for long-term remedy performance.</p>																				
<p>Air Quality, Selection of Engines, and Diesel Particulate Filters</p> <p>In early 2014, EPA arranged a discussion with Keith Rose, EPA Region 10 lead for the construction sector of the West Coast Collaborative, which seeks reductions in diesel emissions. We discussed the potential inclusion of contract language for use of diesel particulate filters (DPFs), and how these have been effectively used elsewhere. EPA sent you sample contract language and facilitated a discussion with an expert in the field.</p> <p>One approach to limiting diesel emissions could be to pilot the use of DPFs in the first construction phase, with a commitment to adopt DPFs for later phases or switch to Tier 4 equipment. Alternatively, SDs could require the construction contractor to use equipment that already meets Tier 4 nonroad emission standards at the outside, or could phase in the use of Tier 4, with specific minimum percentages that increase over time. For example, SDs could start with a contract requirement for 25% of construction equipment that meets Tier 4 nonroad emissions standards the first year, progressing over time to 50% the second year, and potentially increasing it further in later phases. See highlighted sections of attached contractor specifications used at the Northridge Estates site.</p> <p>If the contractor leases Tier 4 equipment, we would anticipate that the lessor would specify the condition of equipment being returned, with replacement of parts that can't easily be decontaminated, such as engine filters or other expendable and/or difficult to clean components. We request that SDs go beyond the minimum requirements and give diesel emissions reduction increased consideration as part of green remediation at this site. See www.epa.gov/otaq/nonroad-diesel.htm</p>	<p>Diesel engine emissions standards will be reduced across the life of the project as equipment fleet requirements are implemented for each phase of construction. Tier 4 non-road diesel construction equipment standards (required in 40 CFR 1039 for all 2015 and newer models), will replace older equipment over time.</p> <p>A schedule for diesel construction equipment requirements has been added to the technical specifications (Specification 01585 – Green and Sustainable Practices), and is summarized below. All non-road diesel engines will meet emissions standards for Tier 2 or higher, and percentages indicated in the schedule are to be met across the given construction phase.</p> <p>Diesel Construction Equipment Fleet Requirements for Anticipated Construction Phases</p> <table border="1"> <thead> <tr> <th>Construction Phase</th> <th>Percent Tier 2</th> <th>Percent Tier 3</th> <th>Percent Tier 4</th> </tr> </thead> <tbody> <tr> <td>Phase I (~2016-18)</td> <td>50% max</td> <td>30% min</td> <td>20% min</td> </tr> <tr> <td>Phase II (~2019-22)</td> <td>20% max</td> <td>40% min</td> <td>40% min</td> </tr> <tr> <td>Phase III (~2023-25)</td> <td>none</td> <td>30% min</td> <td>70% min</td> </tr> <tr> <td>Post Phase III (~2026-27)</td> <td>none</td> <td>none</td> <td>100%</td> </tr> </tbody> </table>	Construction Phase	Percent Tier 2	Percent Tier 3	Percent Tier 4	Phase I (~2016-18)	50% max	30% min	20% min	Phase II (~2019-22)	20% max	40% min	40% min	Phase III (~2023-25)	none	30% min	70% min	Post Phase III (~2026-27)	none	none	100%
Construction Phase	Percent Tier 2	Percent Tier 3	Percent Tier 4																		
Phase I (~2016-18)	50% max	30% min	20% min																		
Phase II (~2019-22)	20% max	40% min	40% min																		
Phase III (~2023-25)	none	30% min	70% min																		
Post Phase III (~2026-27)	none	none	100%																		
<p>Radon Monitoring</p> <p>Tribal community members have raised concerns related to air quality, particularly with respect to radon exposure and worker safety. Radon monitoring has not been identified in the air monitoring plan.</p> <p>The Appendix L, Remedial Action Health and Safety Plan, Section 4.3, states, “Based on review of the historical data, if deemed necessary by the RSO” radon-222 and/or decay product concentrations will be measured using Alpha Track Detectors and/or the Kusnetz Method, or equivalent, as described in RPP-SOP05.” RPP-SOP5 and Attachment 5-1 indicate radon gas will be collected monthly at locations to be identified by the RSO. Air particulates will also be measured, though it's not clear where, if not the downwind areas identified in the Air Quality Monitoring Plan. (See excerpts below)</p> <p>Radon Gas. <i>Continuous passive radon sampling at locations to be identified by the RSO (exchanged monthly). These locations may change as work progresses.</i></p> <p>Air Particulate. <i>Operational Continuous general area sampling downwind of Controlled Areas will be conducted during operations when workers are present. Weekly composites will be analyzed monthly. Gross alpha measurements will be conducted per RPPSOP02. These locations may change as work progresses.”</i></p> <p>Radon monitoring results will be compared to the Derived Air Concentration (DAC) limits. For Rn-222, the limit is 3E-8 µCi/ml (the 10CFR20 occupational limit for Rn-222). The plan states that if results are 10% of the DAC or more, the RSO will re-evaluate. This could lead to requirements for better dust control or, less likely, respiratory protection.</p> <p>EPA is not aware that SDs have reviewed historical data to support a determination of the need for radon monitoring. Historical data represents conditions at the site during the study phase only. It does not represent conditions that may be experienced by workers in locations with high potential to generate radon, such as, in the pit bottoms and within the ore stockpiles.</p> <p>EPA expects Settling Defendants to include radon monitoring at the start of activities at locations with the high potential to generate</p>	<p>The requirement to monitor radon prior to the start of activities at locations that have a high potential to generate radon has been added to the Radiation Protection Plan. Specifically, the plan requires that “radon-222 and short-lived decay product (radon progeny) concentrations will be measured during initial project phases near/on ore piles and at the bottom of the pits.” Additionally, the Plan states that “If it is consistently demonstrated that exposure is not above 10% of the DAC in these areas, this monitoring can be reduced or discontinued at the discretion of the Company Radiation Safety Officer.”</p>																				

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

EPA General Comments on 90% Remedial Design Submittal (Enclosure 1 to EPA letter dated 9 April 2015)	
Review Comment	Response to Comment
<p>radon gas and then monitor monthly as activities continue. This is consistent with the SOPs. If radon is shown to be below levels of concern (identified in the Radiation Protection Plan as within 10% of the Derived Air Concentration) when work is taking place at these locations, it may be appropriate to reduce or eliminate the monitoring requirement after a few reporting periods at the discretion of the Radiation Safety Officer.</p>	
<p>Information for Community As you know, you're required by the Consent Decree to provide information in support of EPA community involvement work. EPA requests that you provide:</p> <ul style="list-style-type: none"> • a mechanism for making timely and user-friendly results of the site monitoring available to the public during the construction phase • a supplement to the monthly progress reports 1-3 paragraphs of description and graphics showing: <ul style="list-style-type: none"> o the progress of the ongoing construction, o air quality and other environmental data, o worker injury/near miss tracking, o road safety measures, and o the number of tribal employees who worked that month. <p>Settling Defendants have given considerable thought to supporting development of a community driven engagement process. Please keep EPA informed of the status of this effort and how it might help determine additional methods for engaging the community. Please keep the following in mind:</p> <ul style="list-style-type: none"> • At other locations we have seen very effective use of on-line resources and social media, videos and virtual tours, as well as appropriately managed site visits to keep the community apprised of cleanup progress. • EPA has found that reaching out to educators and participating in the health fair and similar events in the community has been helpful to raise awareness and understanding of the project; • Your efforts to establish a community information center should be continued • To this end, it may be effective to seek Tribal permission to site and staff a temporary building (e.g. a trailer or prefab shed) in Wellpinit, for example in the parking lot near the Trading Post or the Administration Building, the Public Safety Building, or other high visibility areas. 	<p>DMC/Newmont and the Tribal Counsel have been working towards providing a Community Liaison Officer employed by the Tribe. The primary role of Community Liaison Officer will be to ensure there is a well-informed community. A Memorandum of Understanding (MOU) between Tribe and DMC/Newmont is close to finalization. This MOU will allow hiring of a Community Liaison Officer, who will work closely with DMC/Newmont, EPA and Tribal Representatives to inform the greater Tribal community.</p>
<p>Superfund Job Training Initiative We discussed the inclusion of language in the contract that would require Newmont's construction contractor(s) to commit to hiring as many people as possible from the Superfund JTI. This would not conflict with the TERO threshold requirements, but would provide a way to enhance local hiring and be as close as possible to meeting TERO goals. Due to delays in the field season, EPA does not anticipate providing SJTI training in 2015 but, if funding is available, will seek to do so in 2016. We anticipate that Settling Defendants will continue to work with us on this.</p>	<p>DMC/Newmont will work with the Tribal authorities with regards to the Superfund JTI process and will support it as the Tribal authorities recommend. DMC/Newmont will encourage contractors to hire personnel consistent with the Tribal employment obligations and recommendations.</p>
<p>Site Access and Institutional Controls EPA anticipates that there will be formal agreements in place for site access and long-term institutional controls, with the Tribe and with the required ownership share for allotments. While it is possible that certain land areas for which access and/or institutional controls may be needed will have to be adjusted, Settling Defendants shall complete the remedial design to 100% based on finalization of proposed leases or other land arrangements assumed in the 90% RD.</p>	<p>DMC/Newmont completed the 100% remedial design based on finalization of proposed leases or other land arrangements assumed in the 90% RD.</p>
<p>Regulatory Compliance on site and off site We appreciate the work Settling Defendants have done since the 60% RD submittal to make progress on documenting compliance with the Clean Water Act (NPDES and Section 404), the Endangered Species Act, the Clean Air Act, and the National Historic Preservation Act. EPA comments require an updated version of Appendix M (Substantive Environmental Compliance Documentation). However, some aspects of environmental compliance documentation are not ready for finalization. EPA comments on the Air Quality Monitoring Plan are pending and additional field surveys at the mouth of Blue Creek are planned this spring to support the NHPA determinations. In addition, elements such as the draft Wetland Delineation Report, Revision 3, submitted February 3, 2015, and the draft Conceptual Mitigation Plan, submitted March 14, 2015 are still in development. Following an EPA site visit planned for April 2015 and determinations related to unavoidable impacts of remedial action on waters of the United States, we anticipate that further work will be needed to develop an acceptable Conceptual Mitigation Plan and, eventually, to design and implement the mitigation plan, including necessary maintenance and institutional controls. EPA will provide separate direction regarding schedule. With regard to the Rhoads borrow site, SDs shall clearly identify any additional environmental compliance steps necessary and provide a schedule for their completion. This includes compliance with tribal regulatory processes, if any were not addressed by tribal approval of the Plan of Operations and Reclamation (Appendix C of the 90% RD), and any federal, state, or county requirements other than the Stevens County approval of the Conditional Land Use Application.</p>	<p>DMC/Newmont acknowledged the comment concerning the Air Quality Monitoring Plan and the Wetlands Delineation Report. Significant advancements have been in completing with Wetlands Delineation and the Conceptual Wetlands Mitigation reports. The Wetland Delineation Report is complete and a surface water workshop is planned for July 16th. With respect to the NHPA Blue Creek work, this work was performed by Tribe resource personnel and they are currently preparing a report that summarizes their findings.</p> <p>The additional permitting required to use the Rhoads Property borrow area and the timing for that permitting is included in Appendix M of the BODR.</p>

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

CH2M Hill 90% Remedial Design Review Comments				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
1	General Comment on Drawings	Dehner	Excavation Plans state that the extent of excavation (horizontal and vertical) is to be established by field sampling per notes. However, it seems appropriate to provide horizontal limits of starting points with some control points to establish expectations from existing field sampling, as well as general staking in the field. Add these to the plan.	The procedures and sequence for performing verification surveys are described in Appendix S of the BODR. Appendix S also included delineations of initial Class 1 and Class 2 survey areas that will be used to define the extent of soil cleanup areas. References to this appendix have been added to the Excavation Plans to clarify what procedures, sequences, and preliminary survey extents will be used for determining soil cleanup limits.
2	General Comment on Drawings	Dehner	Several excavation locations identify existing utilities with note to preserve and protect throughout design. Design drawings appears to show utilities installed through contamination areas. How does the contractor remove that material yet preserve and protect the utility? Should more definitive notes be provided to phase excavation to maintain utility or to relocate as needed to complete the work? Review design drawings where notes state to preserve and protect the utility and evaluate site conditions at that location and if the note should be revised to indicate what needs to be done to protect and preserve.	The Design Drawings were revised to include additional existing utility delineation and notes regarding preservation, relocation, and removal of utilities.
3	General Comment	Dehner	Review and double check coordination between the sheets and the specifications. We did not do a comprehensive double check between drawings and specifications except for main design components. We noticed details on drawings that are not included in the specifications and vice versa.	The Design Drawings and Technical Specifications have been revised to improve coordination between these documents.
4	RAWP; General	Dehner	Several comments on drawings and appendices could impact the descriptions and information presented in the RAWP. Careful coordination/update will be required based on final comment disposition.	We understand the complexity of the coordination issues among the BODR text, the RD drawings/specifications, and Remedial Action Work Plan (RAWP). There has been considerable coordination among these various design components in the 100% design. However, the RAWP can only be finalized once the 100% BODR, design drawings and specifications are completed and accepted by EPA. As documented in a letter from EPA on June 9, 2015 clarifying the schedule for submittal of the RAWP and associated deliverables, responses to RAWP comments referenced herein and the draft final RAWP to be submitted within 60 days of final RD approval by EPA.
6	RAWP; Section 2.9	Dehner	Paragraph indicates design of temporary pipelines will be in the field due to highly variable flow requirements. It would seem design requirements would be established in the design now, based on consideration of flow variability and appropriate factors of safety. What may vary is the position of the pipelines based on construction sequencing and conditions found.	See response to Comment 4.
7	RAWP; Section 2.10.1	Dehner	Longitudinal slope of 2% is shown by deformation evaluations to not be suitable for handling runoff from cover. These benches need to maintain positive drainage throughout their forecasted life cycle. A minimum slope of 2% after long-term settlement is recommended. Also, apron transitions to the downdrain should be lined (or grouted) to maintain ensure collected water is shed to the downdrain and does not infiltrate between cover and downdrain.	See response to Comment 4.
8	RAWP; Section 5; Table 5-1	Dehner	Table format and content generally look good. Column RISK - should be expanded to describe if there are other risks in addition to schedule which could result from the criteria such as temporary risks to the environment resulting from delays or conditions.	See response to Comment 4.
9	RAWP; Section 5; Table 5-1	Dehner	West Pond Design: Given that the design criteria is conservatively based on 100 year design storm event with 6 weeks of power outage, how can criteria be confirmed based on observation of South Pond? How will soil conditions anticipated for West Pond be shown on the 100% drawings and what observed conditions will necessitate a change in the design layout for the pond? Add this information to the design.	See response to Comment 4.
10	RAWP; Section 5; Table 5-1	Dehner	Other design elements to consider for AMP tracking: Downdrain construction (location and conditions encountered) and change impacts to overall waste containment area design; waste settlement/deformation impacts on bench channel layouts; groundwater/seep conditions and	See response to Comment 4.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

CH2M Hill 90% Remedial Design Review Comments				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
			hydrogeologic condition impact on seep collectors, underdrain benches, and collection sump design.	
11	RAWP, 2.11.7	Martin	Two dewatering wells are listed for dewatering the BPA, one located in each pit complex, Boyd and Pit 2 West. The section also states that at a minimum, redundant wells will be installed similar to in Pit 4 and Pit 3 dewatering systems. The design does not include locations of these redundant wells or specifications, plans for their installation. Revise the design to reflect the installation of redundant pumping wells in the BPA.	See response to Comment 4.
12	RTC 24	Martin	A single well is proposed for the BPA dewatering. Revise to include a redundant well for dewatering in the BPA similar to Pit 4 and Pit 3.	The intent is that two dewatering wells (the existing GW-54 and a redundant backup well), both located in the Boyd Pit, will be used for long-term dewatering of the backfilled pit area (BPA). The current dewatering well located in Pit 2 will remain in place to monitor the effectiveness of the long-term dewatering system and, if necessary, be used for auxiliary pumping from Pit 2. The text in the RAWP has been modified to clarify the intended operation of long-term BPA dewatering system. In addition, the location of the redundant dewatering well near GW-54 has been added to the 100% Design Drawings (Sheets 4-54, 4-55, and 4-56). Appropriate amendments to the Technical Specifications and RAWP have also been incorporated.
13	Sheet 1-29 thru 1-31	Dehner	Stormwater attenuation berms missing from topo and important feature callouts. Permanent structures important for recognition. Add berms to the sheets.	Sheets 1-29 through 1-31 of the 100% Design Drawings have been updated to reflect construction of the Stormwater Attenuation Berms.
14	Appendix B	Martin	No comments.	
15	Sheet 2-1 and 2-4	Sykes	The WTC contamination is shown as 150 feet wide and 150 feet long (a large gray box) on these drawings. Is this accurate? Revise for accuracy and explain why the contamination is expected to cover such a large area at this location if the size is correct.	The approximate limits shown for the Whitetail Creek Contamination were those identified in the Whitetail Creek Sediment Evaluation - Phase 1 Data Transmittal Report (WME, 2014). Although it is likely that the estimated limits are conservative (large), at this time there is no additional information to allow for further refinement of the delineation of extent of contamination in this area. As indicated on the Design Drawings, the actual extent of contaminated materials will be identified and remediated during construction according to Appendix S - Analytical Support and Verification Plan for Remediation of Surface Materials and Sediments.
16	Sheet 2-16	Dehner	Vehicle Decontamination Area: Line inflow ditch where carrying contaminated decontamination water. Additionally, grading should ensure collection of all washdown water to the sump which may require berms or curbs.	The Design Drawings have been revised to include shotcrete lining of the Vehicle Decontamination Area collection ditch (see Detail 12 on Sheet 2-27). The Vehicle Decontamination Area grading plan has been developed to capture all surface water.
17	Appendix C - Ford Borrow Area Plan of Operation - page 10 and Drawing Sheet 3-205	Beattie	According to Appendix C, borrow area reclamation includes re-grading of excavation slopes to a maximum 33 percent. However, as shown on Sheet 3-205, the resulting topography will be a large depression that will retain surface water along the north edge. It appears that positive drainage could be achieved with minimal earthwork on the Northwest corner of the borrow site. Perhaps the intent is to create a wetland, but this is not clear from the text or the drawings.	As instructed by the EPA, the 100% design assumes that the Rhoads Property borrow will be used and therefore, no additional work is being done on the Ford Borrow Area Plan of Operation or any other aspect of that Area until it is necessary.
18	Sheets 3-104 to 3-112	Beattie	Haul road drainage design does not contain adequate detail for the 90% submittal. Culvert sizes should be noted and culverts should be shown on the profiles. In many locations where culverts are shown on the plan, it will not be possible to install as shown on detail 104 on Sheet 3-112 (especially in locations where the roadway profile gradeline and the existing ground match). Culverts are shown in some locations where drop inlets may be necessary in order to achieve adequate cover. Drainage in the roadside ditch is not adequately addressed (especially at about Station 61+00).	Section 3 of the 100% Design Drawings has been revised to include culvert materials and diameters (see Table 1 on Sheet 3-113). Drop inlets have been incorporated into the design where necessary and culvert details have been revised to address concerns about constructability and drainage (see Details 105 and 109 on Sheets 3-113 and 3-115, respectively). Please note that there is no roadside ditch at station 61+00. Runoff in this area will report to the sump in the Vehicle Decontamination Area (see Sheet 2-15).
19	Detail 101 on Sheet 3-112	Beattie	Haul road typical section requires more dimensions - specifically need to call out cut slope, width and depth of roadside ditch, and berm height.	Please note that the majority of the haul road within the Site boundary shares a ditch with the Site Access Road, which will be constructed prior to the haul road. Please refer to Section 2 of the Design Drawings for details of the proposed Site Access Road and associated ditch. The 100% Design Drawings were revised to provide additional information regarding ditch construction in areas where it is not feasible for the haul road to share a ditch with the proposed Site Access Road. Additional information has been added to the Section 3 Design Drawings to communicate necessary criteria for construction of the haul road (see Details 101, 102, and 103 on Sheet 3-112). This includes a note to clarify that the safety berm must have a minimum height

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

CH2M Hill 90% Remedial Design Review Comments				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
				equivalent to the mid-axle height of the largest haulage equipment selected by the contractor to use this road.
20	Detail 102 on Sheet 3-112	Beattie	Rolling dip outfall should provide some type of erosion protection on slope (riprap or erosion control geotextile)	Design of the rolling dips has been revised to clarify that a rock apron is to be incorporated at the outfall for erosion protection (see Details 103 and 104 on Sheet 3-112).
21	Detail 102 on Sheet 3-112	Beattie	Rolling dip typical length should be noted.	The length of the rolling dips is controlled by the road grade as shown on the detail. Since the road grade varies along the entire road alignment, the rolling dips do not have a "typical" length that can be called out on the Design Drawings. The critical design criteria (slope and depth of the rolling dip) are called out in both the 90% and 100% Design Drawings.
22	Detail 103 on Sheet 3-112	Beattie	Culvert size should be specified on drawing. Culvert sizing should be included in Appendix C. Detail should note sediment trap function of the Whitetail Creek crossing. Figure 13 in Appendix C shows a CPE culvert while this details indicated CMP.	Design of the Whitetail Creek Haul Road Crossing (Details 111 and 112 on Sheet 3-117) was revised as part of the 100% Design Drawings. Culvert diameters and materials are identified in Table 1 on Sheet 3-113. Based on comments and concerns expressed by Tribe, the culvert at the Whitetail Creek Haul Road Crossing, along with all other culverts associated with the Rhoads Property works, will be CMP (as opposed to CPE) as indicated on the Design Drawings. The referenced Figure 13 (containing the reference to a CPE culvert) is part of the Rhoads Property Plan of Operations and Reclamation (Rhoads Property POR) (MWH, 2014). Since the Rhoads property is not part of the site, and the POR was previously submitted to the Tribe for approval, the POR has been included with the BODR for reference only.
23	Detail 104 on Sheet 3-112	Beattie	Need dimension for minimum cover. Suggest including a table with culvert sizes for each crossing. Detail will not work in many locations where the profile grade line and existing ground match.	Design of the culverts associated with the haul road has been revised as part of the 100% Design Drawings. Details 105, 109, 110, and 111 on Sheets 3-113, 3-115, 3-116, and 3-117 all indicate the minimum cover thickness over culverts. Table 1 on Sheet 3-113 was added to clarify culvert materials, diameters, and inlet conditions (drop inlet, at-grade, etc.).
24	Detail 105 on Sheet 3-113	Beattie	Need to include cross section A.	Detail 107 on Sheet 3-114 of the 100% Design Drawings was revised to include Section A-A'.
25	Appendix D, Attachment D-13 General	Martin	The settlement analysis predicts settlement that ultimately will result in cover contours that will not meet acceptable cover grades. It does not appear the results of this analysis have been integrated into the 90 percent design. Revise cover design so the predicted long term cover after settlement will meet design grades for the RA.	The cover design in the 100% design has been revised such that the estimated post-settlement drainage bench channel slopes will be 0.5% or greater to provide sufficient drainage capacity.
26	Sheet 4-80, Detail 17	Martin	The detail shows geomembrane bedding and 0.5 foot bentonite seal along cover and pit slope interface. These areas are located along steep rock faces, along irregular interfaces, and with cover material anticipated to settle. A 0.5 foot bentonite interface is not adequate along these areas. Revise to include bentonite in the geomembrane bedding to provide adequate contact with the pit edge.	Detail 20 on Sheet 4-84 of the 100% Design Drawings was revised to incorporate a more robust bentonite seal. The 6-inch bentonite seal was increased to a 12-inch minimum. Furthermore, a "plug" of hydrated bentonite placed against the pit wall was incorporated into the design. This "plug" will provide better protection against infiltration than would be achieved by blending the geomembrane bedding with bentonite, because: (1) the "plug" will be located directly at the site of potential infiltration, (2) the "plug" will have a higher bentonite content than would be present in a bedding layer blended with bentonite, and (3) the material properties of the "plug" would provide a more compliant contact interface than would a blended material.
27	Appendix D Attachment D-12 (Revegetation Plan), Sheet 4-75, and Appendix K (Specifications)	Beattie	Additional detail provided in Attachment D-12 should be reflected in the Drawings and Specifications. Appendix K (Specifications) does not include the revegetation specification and none of the details and/or typical sections contained in the Section 4 sheets pertain to the revegetation plan. Sheet 4-75 is not adequate to communicate details of the revegetation plan to the contractor.	Specification 02970 - Revegetation is provided in the 100% Design submittal. To avoid conflicts, the Revegetation Plan included as Attachment D-12 to Appendix D - Mine Waste Excavation and Containment of the Basis of Design Report has been included as Appendix G to the RAWP. This appendix will be referenced as appropriate in the design documents and the RAWP will be provided with the bid documents for the contractors use.
28	Appendix D; Attachment D-13	Dehner	Deformation analysis shows long-term settlement results in most cover drainage berms having less than 2% slope across both Pit 4 and Pit 3 covers; several areas of zero or reverse (negative) slopes. Text identifies berms will be monitored under O&M and berms will be reconstructed as necessary. This result and approach is not desired or realistic. Reconstruction would require major rework of the cover system and result in potential additional damage areas. Berms should be redesigned to increase slope to maintain minimum design drainage and flow capacity.	See response to Comment 25.
29	Appendix D; Attachment D-13	Dehner	Lateral displacement effects have not been evaluated on the cover design overlaps at the drainage berms. Perform this evaluation and redesign to mitigate displacement.	Generalized lateral cover strains induced by differential vertical settlement were included in the 90% Design calculations. We agree that they may not fully reflect potential lateral displacements that may affect the geomembrane overlaps at the drainage berms. We have incorporated additional analyses of localized lateral

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

CH2M Hill 90% Remedial Design Review Comments				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
				displacements as calculated from the two-dimensional finite-element analyses, and their potential effects on geomembrane overlaps into Attachment D-13. Based on the results of these analyses, additional mitigation measures beyond the proposed design overlap distances are not warranted.
30	Sheet 4-5 thru 4-6	Dehner	Note 3 says existing utilities to remain/be protected. Plan shows utilities within excavation zones. Are there special requirements necessary to comply - temporary relocation, construction phasing, etc. that need description/elaboration?	See response to Comment 2.
31	Sheet 4-13	Dehner	Liner Control Points: Additional control points are necessary to depict full extent required for liner layout. Unclear what "5" NOM refers to based on plan and Sheet 4-78, Detail 11.	The Pit 3 and Pit 4 liners have irregular shapes controlled by the contacts of the underdrains with the pit walls. The liners will be constructed atop the underdrain surface and will extend to the crests of the rockfall protection berms (see Detail 9 on Sheet 4-81 on the 100% Design Drawings). In areas where rockfall berms are not present at the time of liner construction, the liner will be extended to five feet (nominally) from the high wall. Detail 8 on Sheet 4-80 has been added to the 100% Design Drawings to more clearly show the liner construction in these areas. Grading control points were added to Drawings 4-13 and 4-40 to provide additional guidance regarding liner extents. The final grading of the underdrain, and thus the extents of the liners, will be revised upon completion of as-built surveys following completion of pit bottom cleanout.
32	Sheet 4-10	Dehner	Edge of waste/liner: Not well defined at north end of pit. Layout control/coordinates needed. Can this edge be "smoothed" to improve installation and cover performance? See comments on Sheet 4-16.	See response to Comments 36 and 37.
33	Sheet 4-15	Dehner	Pit 4 Infiltration Collectors: Add collector extensions to cover large gaps east and west of line/UD area to improve efficiency of these systems.	An additional infiltration collector was incorporated east of the Pit 4 liner and one of the previously designed infiltration collectors west of the Pit 4 liner has been lengthened to increase capture efficiency.
34	Sheet 4-16	Dehner	Reverse slope runoff collection: Not clear how Drainage Benches modify at reverse slope locations (areas designated as "Slope Crest" which flows back toward DBs). Looking at Sheet 4-81, Detail 19 not clear how this detail modifies design for these areas.	Detail 28 on Sheet 4-87 was added to the 100% Design Drawings to clarify the grading in these areas.
35	Sheet 4-16	Dehner	Extending drainage controls through transitions/connectors: Liner controls to extend through all transitions/connections: It is unclear on Sheet 4-82, Detail 24 that geomembrane/GCL extends through/under this transition. Do not agree with comment response to 60% Design, Comment 209 that indicates liner materials not extended due to stability concerns and that some leakage is acceptable. Clean water collected from the cover system should be carried through all the way to acceptable point of discharge. Substantial effort is put into cover system collection and downdrain conveyance of clean water to discharge. Redesign required.	The design of the drainage controls (i.e., geomembrane liner and geocomposite drainage layer) have been modified to extend to the downdrain channel or to the bedrock contact. Details have been added to the Section 4 drawings to explicitly show the drainage controls under the transitions. The design was revised to extend the drainage controls (i.e., geomembrane liner and geocomposite drainage layer) to the downdrain channel or to the bedrock contact. Sheets 4-17, 4-42, 4-46, and 4-55 have been revised to more clearly show the extents of waste, geomembrane caps, and cover. Details 18, 25, and 26 of the Section 4 100% Design Drawings have been revised and Detail 19 added to Sheet 4-84 to clarify the design and explicitly show the drainage controls in the perimeter of the WCA.
36	Sheet 4-16	Dehner	Liner Edge: The liner edge is a substantial distance in some areas (>50') from the down-drain discharge point. What happens in these areas to prevent leakage/infiltration of runoff from getting back into waste areas? Does slush grouting apply to these large gap areas?	In the 90% Design Drawings, the extent of the backfilled waste was incorrectly labeled as the extent of geomembrane cap. This has been corrected and Sheets 4-17, 4-42, 4-46, and 4-55 revised to more clearly show the extents of waste, geomembrane caps, and cover. As a result of this correction, the large gap areas to which the reviewer is referring have been eliminated.
37	Sheet 4-16	Dehner	(a) Exposed Pit Slope Cover Tie-In: Consider smoothing of the northern edge (where Sheet 4-80, Detail 17 applies) by partial waste fills and/or excavation along segments that jut into cover area. (b) Add clean run-on control berm above this segment to convey flow from external contours draining toward cover to Pit 4 Overburden area.	(a) The irregular edge of the cover in the northeastern portion of Pit 4 is due to the irregular shape of highwall in the area of contact. This highwall contact cannot be smoothed without additional blasting/mining. Potential adverse effects of this irregular contact are minimal, due to the very small contributing area of drainage. As such, grading of the Pit 4 cover surface has not been altered to smooth the northeastern edge. (b) The Pit 4 North cover above this area is graded to drain away from the pit highwall, as shown in the 90% Design Drawings. A clean run-on control berm was incorporated into the 100% Design to provide additional run-on protection (see Sheet 4-22 and Detail 33 on Sheet 4-90).
38	Sheet 4-18	Dehner	Geocomposite Anchor: How is CDN anchored at slope crest areas at no CDN interface? Needs anchorage for stability during construction.	Previous experience on numerous projects has shown that fill placement over relatively minor (5-foot +/-) lap distances is sufficient to provide anchorage during construction. Detail 32 on Sheet 4-90 has been added to the 100% Design Drawings to show this construction sequencing.
39	Sheet 4-36	Dehner	(a) Cover grading shows excavation beneath existing contours in west lobe of cover (just east of Pit 2 West). Is this correct? Are the western shown contours accurate. (b) Verify that the contours shown are accurate and representative of underdrain contours.	(a) The BPA is to be regraded prior to placement of the cap and cover system. This results in areas of cut, such as the area east of Pit 2 West (also shown in the cut/fill grid presented on Sheet 4-24). (b) The underdrain contours shown reflect the top of the underdrain surface and are correct.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

CH2M Hill 90% Remedial Design Review Comments				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
40	Sheet 4-44	Dehner	Grading limits shown on plan are outside the cover limits shown on Sheet 4-33. Unclear from limits of regrade for Pit 5 why geomembrane cover doesn't extend through limits of regrade shown. Control points for the areas outside of the cover limits are missing. Resolve these issues and update drawings.	Sheet 4-46 of the 100% Design Drawings was revised to clarify the extents of cover, geomembrane cap and encapsulated waste as well as the location of the cover tie-in grading and perimeter channels (Area 5 perimeter channel design is presented on Sheet 6-5 and 6-20 of the 100% Design Drawings). Grading points were added and revised to define these design components and Sheet 4-47 was revised to clarify the coordination and extents of geomembrane cap during the various phases.
41	Sheet 4-45	Dehner	All on-cover drainage channels (Pit 3 Top Channel; On-Cover Down Drain; Drainage Bench) should have liners for conveyance of flow to appropriate discharge points.	All on-cover channels have liners (see Details 23, 25, 28, 42, 43, and 46 in Section 4 of the 100% Design Drawings).
42	Sheet 4-55	Dehner	Offset of shaded cover areas and from downdrain suggests substantial areas of cover are not lined, have very large grouted areas, or have massive rock toes at perimeter. Does not look accurate and construction layout is unclear from previous drawings. Resolve and revise drawings for clarity.	Design of the Pit 3 toe area was revised as part of the 100% Design. Due to the very steep slope of the native ground surface in this area, there will be areas of soil cover extending beyond the geomembrane cap. The geomembrane cap extends beyond the limits of waste in all areas. The surface of the soil cover in these areas has been graded to direct surface runoff away from the un-capped zones.
43	Sheet 4-56	Dehner	Additional detail is needed on CDN interface at exclusion zones.	See response to Comment 38.
44	Sheet 4-59	Dehner	Permanent access roads shown won't provide access to large portions of cover. Will secondary roads be provided? How will O&M inspections of ditches, channels, and cover areas be performed without road access? Add this information to the design.	Additional access roads have not been needed for O&M inspections on other projects with similar or steeper slope geometries. These inspections typically have been performed on foot. In addition, maintenance access on slopes that are 3:1 or flatter can be performed without significant difficulty by experienced crews. If needed, drainage benches configured as shown can be driven by light four-wheel drive or tracked vehicles by experienced operators.
45	Sheet 4-74	Dehner	Is there a detail for the Boulder Barrier? There will be a lot of boulders needed for barrier limits shown. Add to the design.	Permanent access control to the waste containment area (WCA) is addressed in Section 02800 (Permanent Access Controls) of the 100% Design technical specifications.
46	Sheet 4-53	Dehner	Upper most Drainage Bench not shown to discharge to down-drain or other collection point. Needs connection. Add to the design.	Sheet 4-55 of the 100% Design Drawings was revised to properly show the referenced connection between the bench channel and downdrain.
47	Sheet 4-52	Dehner	Portions of the western fill "lobe" will not be collected by the Pit 3 Infiltration Collector. An extension of this collector should be extended beneath the Phase 2 cover to connect under Phase 3 to the collector for control of seepage from mine waste footprint area.	The western Pit 3 infiltration collector was extended to improve the system's efficiency as requested (see Sheets 4-54 and 4-57).
48	Sheet 4-76	Dehner	(a) Cover Tie-In Typical Section 2, Sheet 4-76 suggests top of cover slopes and discharges directly to downdrain, but configuration shown on Pit 4 and Pit 3 final grading plan show otherwise. Detail should show/note what happens at gap areas. Should also reference Sheet 4-80, Detail 16. (b) Point labeled "Grade Break" is called out as "Edge of Liner" on control point tables. This isn't edge of liner as it is approximately 10' outside this edge. (c) Should identify on this and other applicable details location where the control points shown on plans are referring to.	(a) Sheets 4-17, 4-42, 4-46, and 4-55 were revised to more clearly show the extents of waste, geomembrane caps, and cover. This clarification eliminated many of the gap areas to which the reviewer is referring. Detail 2 on Sheet 4-79 now references the surface cover tie-in details (Details 18, 19 and 20 on Sheet 4-84), including the tie-in detail for areas where the downdrain is not immediately adjacent to the waste/cover. (b) The grading control point tables were revised to correct this. (c) Details were revised to indicate the location of points identified in the grading control point tables.
49	Sheet 4-78	Dehner	What controls the maximum height of the rockfall protection berm? Need coordinates on liner edge or berm centerline to set minimum bottom liner dimensions. Add this information to the design.	The intent is that the rockfall trench will be 10' deep and will contact the pit highwall, at which point the liner will be installed, using this configuration as control for the edge of liner. The use of "min" on the referenced detail has been removed. Additionally, a few estimated grading points were added to the liner installation plans. The final grading of the underdrain, and thus the extents of the liners, will be revised upon completion of pit bottom cleanout and as-built surveys.
50	Sheet 4-79	Dehner	Detail 14 calls out welding of HDPE boot to pipe and geomembrane. Geomembrane is VLDPE, not HDPE and so welding is not compatible. Rethink this seal.	Welding of LLDPE to HDPE with an extrusion weld is possible by an experienced contractor. However, due to difficulties in verification of weld integrity and the concern expressed by the reviewer, the design was revised. The referenced pipe boot is now a LLDPE pipe boot which will be welded to the geomembrane cap and sealed against the HDPE pipe sleeve with two stainless steel band clamps (see Detail 14 on Sheet 4-79).
51	Sheet 4-80	Dehner	(a) Sheet 4-81, Detail 16: Show Liner Edge Control Point and reference cover plan sheets for clarity. (b) Non-woven geotextile should extend under Drain Gravel for minimum distance. (c) Detail 17: Shaded Cover Geo Bedding should include soil bentonite mix	(a) Details 18 and 19 on Sheet 4-84 of the 100% Design Drawings was revised to identify the Grade Break/Edge of Waste control point identified on the cover tie-in grading plans. (b) The geotextile was extended as requested by the reviewer. (c) See response to Comment 26.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

CH2M Hill 90% Remedial Design Review Comments				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
			within some thickness against slope contact point for seal (in addition to seal shown).	
52	Sheet 4-81	Dehner	(a) Details 20 and 24 don't appear to coordinate with each other or with what plans show. Liner materials should extend all the way over to Down Drains (which is also sealed or completed in competent rock to ensure clean flow remains clean and controlled. Detail 20 shows this but Detail 24 does not. (b) Detail 19: show Drainage Bench Flow Line coordinate point on detail. (c) Detail 22: 50' TYP vertical spacing is not basis of control points shown on either Pit 4 or Pit 3 covers. Slope length dimensions shown are not accurate.	a) Please note that details 20 and 24 for the 90% Design Drawings refer to different features of the design. Detail 20 refers to the off-cover connector ditches, whereas Detail 24 refers to the on-cover transition between the drainage benches and downdrains. The titles of these details (Details 25 and 26 on Sheets 4-86 and 4-87) have been changed as part of the 100% Design to clarify this distinction. Detail 24 has been largely changed as part of the 100% Design and now correctly identifies the "edge of backfilled waste" and the extent of the geomembrane cap. (b) Detail 23 on Sheet 4-85 of the 100% Design Drawings was revised to identify the drainage bench flow-line. (c) Detail 27 on Sheet 4-87 of the 100% Design Drawings was modified for clarity. The final cover grading surfaces will be provided to the contractor through electronic files. However, grade break lines were added to the cover grading plans (Sheets 4-17, 4-42, and 4-55) to clarify the location of the transition between the grades for review.
53	Sheet 4-85	Dehner	3' min spacing of riprap to geomembrane doesn't work with a 3' thick cover section. Revise design.	Detail 42 on Sheet 4-93 of the 100% Design Drawings was revised to clarify the cover design in the vicinity of the on-cover downdrain.
54	Sheet 4-87	Dehner	3' min spacing beneath top channel bottom doesn't work with 3' thick cover. Revise the design.	Detail 46 on Sheet 4-94 of the 100% Design Drawings was revised to clarify the cover design in the vicinity of the Pit 3 Top Channel.
55	Sheet 4-57	Martin	Provide detail for sub-waste geomembrane liner pit slope interface.	Detail 9 on Sheet 4-81 on the 100% Design Drawings provides detailing regarding the edge of liner in areas where rockfall protection berms are present. Detail 8 on Sheet 4-81 was added to the 100% Design Drawings to show liner construction in the areas where no rockfall protection berm is present. These details are referenced on the Sub-Waste Liner Installation Plans and Sections (Sheets 4-13, 4-15, 4-40 and 4-41 of the 100% Design Drawings).
56	Sheet 4-59	Martin	Provide text describing access to monitoring well, settlement plate, other monitoring locations that will be required as part of ongoing site wide monitoring. (Does not have to be on this sheet).	The Site Wide Monitoring Plan (Appendix O) and the Operation, Maintenance and Monitoring (OM&M) Plan (Appendix P) describe access to these features.
57	Sheet 4-77, Detail 5	Martin	The friction sleeve detail notes direct backfill between HDPE geomembrane sleeve and friction sleeve. How is this to be accomplished? What is the annular space and how is placement of bentonite pellets going to be accomplished in the construction?	Note 1 of Detail 5 on Sheet 4-77 of the 90% Design Drawings incorrectly referenced the location in which the hydrated bentonite was to be placed. The intent is that the hydrated bentonite be placed in the annulus between the stainless steel well casing and the carbon steel casing. This mistake was corrected in the 100% Design Drawings (Detail 5 on Sheet 4-80).
58	Sheet 4-87, Detail 43	Martin	The section shows the cover thickness below the 1.5 foot deep channel as minimum 3 feet. However the design specifications have a 3 foot cover. Revise design to show how 1.5 feet channels will be constructed maintaining 3 feet of cover beneath the channel.	See response to Comment 54.
59	Appendix E, E5.2.4, page E-19	Martin		
60	Appendix E; Attachment E-6	Dehner	Calculations show uplift dimensions ranging from 17' (construction) to 11' (operations). While the analyses indicate that liner strains are within tolerable limits, this will be a substantial balloon effect on the sideslopes. Will this type of movement impact downslope pipe positions for discharge and sump access risers? Consider use of additional ballast measures at these locations if potentially impacted by the liner movement.	Attachment E-6 has been corrected to include the entire geocomposite liner system for the wind uplift analysis. Results show reduced wind uplift heights for construction and operational conditions. All discharge locations and sump access riser locations have ballast as shown in Details 22, 23, 25, and 26 on Drawings 5-18, 5-19, 5-21, and 5-22 respectively. The estimated wind uplift at these locations is zero.
61	Section 5 Drawing Detail Sheets	Beattie	There should be better coordination between the sheets and the specifications. For example, Sheet 5-21 refers to Submersible Pond Pump while Appendix K (Specifications), Section 11155 is titled "Dewatering Pumps." On Sheet 5-15, the type of riprap filter material should be called out as riprap specifications include two types of filter material. Suggest referencing specific sections in the specifications.	The 100% Design Drawings and Technical Specifications (Appendix K) have been revised to improve coordination between these design documents.
62	Sheet 5-3	Dehner	Appears portions of influent and effluent pipelines to both South and West Ponds will be exposed to freezing conditions. Note 10 says contractor to protect against freezing by burying 5' min, but can't do this where pipes are above liner. Soil berm over the top will need access across berm. Revise the design.	When referring to 'burial', the intent is to provide that amount of cover. The cover may be placed on top of the pipe above the liner. The drawings have been modified to clarify this. Details 12 and 13 on Drawings 10-87 and 10-88 illustrate freeze protection in these areas

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

CH2M Hill 90% Remedial Design Review Comments				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
63	Sheet 5-5	Dehner	What seals geomembrane to concrete lined channel? Sheet 5-15, Detail 4 doesn't show this seal for both primary and secondary liners. Comment applies to both South and West Ponds. Add resolution to the design.	Detail 14 on Sheet 5-15 of the 100% Design Drawings was revised to depict the connection between the geomembrane liners and the concrete-lined channel.
64	Sheet 5-7	Dehner	(a) West Pond Diversion Channel in overflow (off-normal) condition flows directly into West Pond. Need diversion and routing for emergency conditions to keep runoff from entering pond. (b) Note 5 identifies that additional geotechnical investigations may be necessary after completion of Phase 2 waste rock removal. Why not complete these investigations in advance to avoid potential re-design and field delays? How might these investigations change the layout of West Pond? Who makes this decision and what are contractor's responsibilities? (c) Note 6 identifies welding requirements for the rube sheets shown on the plan. Only one rube sheet location is shown on this plan, but looking at the details, a rube sheet is also required under the submersible riser and ballast tube locations. Should also show those on the plan. Applies to South Pond as well.	(a) The West Pond Diversion Channel was designed in accordance with CD. The West Pond and associated emergency spillway were designed in accordance with Washington State dam safety regulations. This includes all flows that may report to the West Pond during high-precipitation events, including those flows normally carried by the West Pond Diversion Channel and identified in Attachment E-9 (Midnite Mine Remedial Action Design Flow Estimates for Spillways Design). (b) Performing geotechnical investigations after removal of the waste rock within the Western Drainage will provide a much clearer understanding of foundation conditions. At that point in time, there will be a much better understanding of post-cleanup topography and subsoil conditions in both the embankment and impoundment areas. It is anticipated that the Western Drainage waste rock will be excavated in the early stages of Phase 2 and there will be a significant delay (2+ years) before completion of other Phase 2 activities (excavation of the East Waste Rock Pile (EWRP), sediment cleanup within drainages, cap and cover construction, etc.). This delay will allow sufficient time to perform necessary investigations and refinements to the West Pond design. Please refer to response to Comment 4 because the Adaptive Management Plan (specifically Table 5-1) is important to this issue. (c) The West Pond and South Pond grading plans were revised to reflect the location of all rube sheets.
65	Sheet 5-14	Dehner	Good detail. Can tube be supported from single eyelet and cable? Tubes are very long and can potentially shift/slide with snow/ice loads. Can pipe make the bends shown on plan for West Pond locations? Confirm design for tube support is adequate to account for snow and ice loads and potential shift. Re-evaluate the bends and revise design if needed and confirm that HDPE piping has sufficient flex to make bends as shown.	The design of the ballast tube support has been revised to include two eyelets and cable attachments as shown on Sheet 5-14. Evaluation of the revised ballast tube support shows support is sufficient to support the weight of tubes. This evaluation has been included in Attachment E-6. Ballast tube support should be sufficient for snow/ice loads. The minimum design radius of the ballast tubes is less than the minimum allowable long-term cold bending radius for the ballast tube pipes. Information regarding minimum cold-bend radii has also been added to Attachment E-6.
66	Sheet 5-19 thru 5-22	Dehner	Leak detection risers should have some restraint against shifting or sliding; ends should be protected from liner contact. Add to the design.	Details 22 and 26 on Sheets 5-19 and 5-22 were revised to show the geonet extending beyond the toes of the leak detection risers and the tops of the leak detection risers secured to the anchor posts. These changes, combined with the small trench into which the risers will be placed, will secure the leak detection risers against moving and provide rub protection at the toes of the risers.
67	Appendix F, pages 23 and 24	Beattie	Design details for the Bench Channels are shown on Sheet 4-81 not 4-84 as stated. Details are on Sheets 4-81 and 4-82 not 4-85 as stated on page 24. Revise reference.	The text was revised to make the correction.
68	Appendix F, page 24	Beattie	Table F-8 lists the channel depth at 1.5 feet. Sheet 4-81, Detail 19 indicates channel depth of 2 feet. Revise references.	The table was revised to list a 2-foot channel depth.
69	Appendix F, page 24	Beattie	Table F-8 lists the factor of safety against soil erosion in a 100-year storm as 47. This is misleading as this value is the factor of safety based on estimates of the effective and allowable stresses on the vegetation and the underlying soil (assuming vegetation is in place). The actual factor of safety against soil erosion should not include vegetation in place.	The evaluations are intended to represent the design closure conditions after grasses on the cover are fully established. Wording in the text was revised to explicitly note that the factor of safety for the soil assumes that vegetation is in place. Evaluations are not made for the bare soil as this is not the design condition. Interim erosion control best management practices (BMPs) (as will be specified in the yearly stormwater pollution prevention plan (SWPPP)) and monitoring and maintenance as necessary will be put in place for the construction and early post-construction periods until vegetation is established.
70	Appendix F, page 24	Beattie	Text states "minimum of 5 feet upstream of the apron transition, the bench channel lining changes from grass to riprap." This is not shown on the drawings.	The transition details in the Section 4 Design Drawings have been modified and include extending the riprap a minimum of 3 feet upslope of the bench channel/transition.
71	Appendix F, page 26	Beattie	Table F-9 should match Table 1 on Sheet 6-26 and the profiles. Pit 3 East Downdrain Channel from 00+43 to 9+00 is not consistent. Check stationing for Pit 3 East on both Table F-9 and Table 1 on Sheet 6-26.	The text has been revised to be consistent with the drawings.
72	Appendix F, page 27	Beattie	Text states that "channels . . . excavated into fractured rock will be slush grouted to seal open fractures." This requirement is not noted on the drawings.	A note has been added to the plan and profile sheets giving the requirement to slush grout open fractures.
73	Appendix F, page 30	Beattie	Text states that "berms will capture any sediment migrating from the WCA during the early remediation period." This text is misleading and erroneous. The berms will not capture 100% of suspended sediments as the berms will not have sufficient capacity to provide adequate detention time for settlement of fine sediments.	BMPs will be in place during the early remediation period to capture sediment. The berms will provide some long-term sediment controls; however, the primary purpose of the berms is to attenuate peak flows during large storm event. The text referenced in the review comment has been removed.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

CH2M Hill 90% Remedial Design Review Comments				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
74	Attachment F-2 (Site-Wide Hydrologic Analysis) - page 13	Beattie	Capacity of Flow Attenuation Berms is limited and two berms (western and central) lack adequate capacity to attenuate the peak flows to pre-mining flow rates. Hydrographs were developed with HEC-HMS and routed through the berm structures with reservoir routing simulations in HMS. Results are presented in Table 6 (Attachment F-2). At the western berm, the 100-yr, 24-hr flow increases (2.3 cfs pre-mine and 3.6 cfs post-mine). At the central berm the flow also increases (0.9 cfs pre-mine and 1.7 cfs post-mine). At the eastern and southern berms, the flow is decreased. Pre-mine and post-mine flow hydrographs are included in Attachment F-2. Since flows are not adequately attenuated downstream of the central berm and the western berm, some additional protection may be necessary just downstream of these structures.	As stated in Section F5.4 of Appendix F, the primary purpose of the Flow Attenuation Berms is to dissipate the energy of a storm surge and to limit peak flow from the 100-year, 24-hour storm in post-remediation condition to be at or below pre-mine flows at the Site outfall (i.e., where the Midnite Mine drainage flows into Blue Creek). Limiting flows to be at or below pre-mine flows upstream of the site outlet is not a design objective of the berms, nor is it required by the Performance Standards. Further, providing erosion protection against the 100-year storm flows downstream of the waste containment area is not required by the Performance Standards, nor is it the intent of the design. No channel protection is provided beyond interim BMP measures. This will allow the natural channels to evolve to a stable configuration under post-remediation conditions. Further, as shown in the modeling results, the simulated flows for the post-remediation conditions are not much greater in terms of absolute flow rates than the pre-mine conditions.
75	Sheet 6-26	Beattie	Section B includes a reference to note 3 "cut channel into existing bedrock." There is not a note that refers to the excavation of bedrock. There is not a note about slush grouting described in Appendix F, page 27.	A note has been added to the plan and profile sheets giving the requirement to slush grout open fractures.
76	Sheet 6-17	Beattie	Typical section for the West Pond Diversion Channel shows a triangular channel cut into existing ground and Table 1 on Sheet 6-26 specifies native rock lining. Over the profile length of 1125 feet, elevation drops about 30 feet with an overall slope of 2.7 percent. No details are provided for outlet protection at the downstream end of the channel. It is not clear how this concentrated flow would be conveyed downstream to the western flow attenuation berm.	The West Pond diversion ditch is connected to the West Pond Emergency Spillway at the downstream end of the channel. The spillway design and outlet protection are shown on Drawing 5-10. Downstream of the spillway, flows will be conveyed in the Western Drainage. An engineered channel is not proposed for the Western Drainage downstream of the spillway outlet. This downstream portion of the Western Drainage will be allowed evolve to a stable configuration over time.
77	Sheet 6-4	Dehner	Reference Sheet 6-14 for discharge of stormwater from Pit 3 West Down Drain. Sheet 6-14 shows discharge to central drainage. However at end of Phase 2, South Pond is still in place and functional, and routing of the discharge around the pond is required, but not adequately shown.	Both the Pit 3 West and the Pit 3 East downdrain channels terminate above the South Pond in Phase 2. Peak flows in these downdrain channels will be low during Phase 2 because they have small tributary catchment areas. For example, the simulated peak flows for the 10-year, 24-hour event are 1.7 cubic feet per second (cfs) and 2.3 cfs for the Pit 3 East and Pit 3 West Downdrains, respectively. While the South Pond is still in place, flows from the downdrain channels will be routed around the South Pond. To address the reviewer's comment, a small, riprap-lined, diversion berm around the South Pond to divert runoff from the downdrains around the South Pond was added as shown on Drawing 6-4 (also see Detail 4 on Sheet 6-18).
78	Sheet 6-5	Dehner	(a) The extension of the down drain on the west side of the Pit 3 cover up to Pit 5 drainage is not adequately depicted between Sheet 4-33, 4-53, and this sheet. (b) Off cover drainage from west side of Pit 5 and along the Contingency Waste Storage Area is not shown to reach the channels installed by down drain construction as depicted on Sheet 4-33. This need coordination. (c) East side drainage should show and reference Sheets 6-15 thru 6-16.	(a) The downdrain on the west side of the Pit 3 cover ends at the northern-most Pit 3 drainage bench. Presentation of this downdrain in the 100% Design Drawings has been revised for clarity (see Sheets 4-34, 4-55, 6-5, and 6-12). (b) Off cover drainage from west side of Area 5 will be collected by a perimeter channel (see Sheets 6-5 and 6-20 of the 100% Design Drawings). The Pit 4 west downdrain and Pit 3 top channel will intercept runoff from areas upgradient of the cover in the vicinity of the Contingency Waste Storage Area (see Sheets 6-2, 6-5, and 4-55 of the 100% Design Drawings). (c) Portions of the downdrain channels that will be constructed in Phase 3 are shown in bold with plan and profile references on Sheet 6-5. The portions of the downdrain channel that will be constructed in Phase 1 or Phase 2 are shown in faded gray on Sheet 6-5.
79	Sheet 6-17	Dehner	Temp Dike Diversion shown on this sheet references Sheet 6-23, Detail 1 which is for the Pit 4 (as shown on Sheet 6-8): Sheet 6-4 calls out Sheet 6-23, Detail 3 for this diversion control. Sheet 6-23, Detail 3 is a small berm and does not appear robust enough for this critical diversion point. A detail similar to Sheet 6-23, Detail 1 should be developed for this important diversion location.	A detail for a larger, riprap-armored temporary diversion berm (Detail 4 on Sheet 6-18 of the 100% Design Drawings) has been added. This temporary diversion berm will be used at the head of the West Pond Diversion Channel as well as other temporary diversion locations.
80	Sheet 6-8	Dehner	Function of Temp Diversion Dike uncertain. Controls runoff through cutoff but has no detention area or connection to discharge. Appears to lead water down to Pit 4 W Down Drain but does not connect.	The purpose of the temporary diversion berm is to direct non-mine affected runoff from the excavated portion of the Hillside Waste Rock Pile (HSWRP) into the Phase 1 Temporary Catch Basin and Pipe Inlet (See Sheet 6-3). The alignment of the berm will be adjusted by the contractor as excavation progresses. A note stating this has been added to Sheets 6-3 and 6-8.
81	Sheet 6-3	Dehner	Note that runoff from the excavated portions of the west Hillside waste rock pile discharges into the Pit 4 West Down Drain. Is this drain designed for runoff flows from both the cover and external areas?	During Phase 1, runoff from the Hillside Waste Rock Pile will be directed by the temporary berm into the temporary pipe across Area 5. See response to Comment 80.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

CH2M Hill 90% Remedial Design Review Comments				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
82	Sheet 6-10	Dehner	Unclear why bold grading shown for complete down drain installation extending down station from 17+20 does not continue up station. What criteria is used to depict these areas differently? This is confusing as work is similar.	The referenced change in line weight coincides with the divergence of the down drain from the previously-constructed cover tie-in grading. Sheet 6-10 of the 100% Design Drawings has been revised to clarify this aspect of the design. Bolded line types (new construction) have been updated and corrected.
83	Sheet 6-12	Dehner	Use of existing pre-mine topo on these profiles is not applicable, particularly for the down drains constructed over cover areas. Waste will be removed from this area in Phase 1 before this work begins.	The topo for the appropriate phase is shown on the plan and profile sheets. The labeling of the ground surface has been revised to make this clear.
84	Sheet 6-13 thru 6-14	Dehner	Unclear why grading stops at western edge of down drain because grading required to construct down drain extends outside of this line. Grading does not appear to be consistently shown across down drains as to what is existing currently, existing after phased construction, and to be completed under these drawings. Resolve this discrepancy and update design.	The full grading is shown in the updated drawings.
85	Sheet 6-20	Dehner	Spillway outlet apron not shown on plans, but should be. Add to design. Spillway intersects blanket drain section and appears to cut it off. How do these features interface? Add interfaces to drawings.	The outlet apron has been added to the design and provided notes regarding the interface between the blanket drain and the spillway.
86	Sheet 6-23	Dehner	Sheet 6-23, Detail 3: This temp diversion berm/dike looks suitable for only minor flow diversion areas. Upstream edge if it conveys flow should have some reinforcement to control erosion.	A detail for a larger, riprap-armored temporary diversion berm has been added (Detail 4 on Sheet 6-18 of revised drawings).
88	Appendix H, H5.2.1, page H-6	Martin	List item 2 states that ACM and other hazardous materials will be disposed of in compliance with Stevens County and Washington State regulation. However it states these wastes would be disposed of onsite. The disposal of ACM and hazardous material by landfill would require different design and monitoring that provided for in the mine waste backfill. Additionally, the quantities anticipated would be relatively small, though would require a completely separate landfill construction and monitoring requirements. Revise the design to provide for offsite disposal of ACM and hazardous material related to demolition activities.	Identified hazardous organic materials will be removed from the site and disposed offsite in accordance with Washington State and Federal regulations. Any materials designated for offsite disposal will be screened for radiological constituents. Identified and regulated asbestos-containing material (ACM) will be collected and disposed in accordance with Washington Department of Labor and Industries, under the Washington Industrial Safety and Health Act (WISHA) rules and other pertinent regulations. DMC/Newmont will select a specialty subcontractor that focuses on waste characterization and disposal to evaluate the materials that will be encountered in demolition for hazardous organic materials and ACM. The cover system design is based on evaluations stipulated in the Consent Decree and additional evaluations requested by EPA's subcontractor, and follows EPA's (Draft) Technical Guidance for RCRA/CERCLA Final Covers, EPA 540-R-04-007 (EPA, 2004), that the cover system as designed complies with the requirements of a Subtitle C RCRA landfill. In addition, the inorganics in the demolition debris and ACM are compatible with the inorganics for which the cover system and water treatment plant (WTP) were designed.
89	Sheet 10-6	Dehner	Discharge of water from Pit 4 to Pit 3: Open air discharge from near top of pit has potential for slope erosion and contamination spread from misting/wind dispersion. Several options exist to control this water delivery to Pit 3. Redesign discharge for better erosion and contamination control.	The pipeline from Pit 4 to Pit 3 during Phase 1 has been revised in the 100% Design submittal to route water around the east side of Pit 3 and enter the pit from the access road on the south.
90	Sheet 10-8	Dehner	Pit 4 discharge pipe: Significant portions of this pipe alignment are to be placed in excavated areas which have been excavated to bedrock. The 5' min burial depth may be problematic in these areas. Notes state single-walled pipe OK for temp piping but portions of this alignment appear to be permanent and so dual walled required. Review the pipeline alignment against actual site conditions and update to dual walls when necessary.	Pipeline alignments have been selected to avoid work areas and may require that cover be used rather than trenching through bedrock areas. Dual walled pipe will be used for all permanent pipes. The drawings have been updated in the 100% Design submittal to better differentiate between single and dual wall pipe.
91	Sheet 10-11	Dehner	Discharge pipe shows as permanent pipe (dual contained) but shows as temporary in phased plans (moved between Phase 1 and 2). Resolve discrepancy.	Section 10 drawing have been revised to clarify which pipelines are considered permanent, and will be constructed as dual-walled pipes, and which pipelines are considered temporary and will be constructed of single-walled pipe at various stages of the remedial action (RA).
92	Sheet 10-4	Beattie	Placement of pipelines with rocky subgrade conditions is a concern. For example, the discharge pipeline from Pit 4 to South Pond under Phase 2 shows a significant portion of the pipeline going through removed stockpile areas. The assumption is waste rock piles get removed down to bedrock, so that means significant portions of this temporary pipeline would be placed 5 feet (min depth burial) into bedrock. In addition, some portions of this pipeline are aligned on steep terrain. The only acknowledgement of	When referring to 'burial', the intent is to provide that amount of cover. For temporary piping, the 5' of cover may be achieved by berming over the temporary pipeline placed at grade. The drawings have been modified for clarity. Language has been added to the 100% Design submittal to clarify some of those more challenging installations.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

CH2M Hill 90% Remedial Design Review Comments				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
			challenging conditions for construction of the pipeline is Note 1 on Sheet 10-4 which indicates "Some sections of pipe will require excavation or bedding material to prevent point loading on the pipe." Recommend additional provisions/language be included in the drawings and specification to address these conditions.	
93	Sheet 10-1 thru 10-3, and others	Beattie	Notes refer to temporary overland piping and require the use of soil anchors. The pipe daylights to discharge into Pit 3 on Sheet 10-6. Otherwise, these notes are the only mention of overland piping in the drawings and Appendix J text.	The original intent of the "temporary overland piping" was for use during construction at the discretion of the contractor. However, to avoid dictating the contractor's means and methods, the anchors have been removed.
94	Sheet 10-1	Beattie	Drawing notes are not consistent relative to freeze protection. For protection against freezing note 2 states "burial with 48" soil cover is recommended. Plan and profile sheets include note that states "Contractor shall protect pipe against freezing. Assume 5' burial depth to invert." For clarity, suggest using the second note only.	The conflicting notes have been resolved in the 100% Design submittal to refer to cover and not burial depths. Trenching will only be required for permanent installations.
95	Sheet 10-5	Beattie	Profile should include pipe and structures from Station 0+00 to 2+00.	This has been corrected in the 100% Design submittal.
96	Sheet 10-5	Beattie	Influent pipe invert elevations and existing ground surface elevations shown on the profile do not provide 5' burial depth to invert necessary for freeze protection.	When referring to 'burial', the intent is to provide that amount of cover. The 5' of cover may be placed above the pipe. The drawings have been modified for clarity.
97	Sheet 10-6	Beattie	The discharge from Pit 4 into Pit 3 after Phase 1 is basically a cascade from the top of the slope into Pit 3. Considering the nature of contaminated water on the site, this does not seem responsible from an erosion and air dispersal standpoint.	The pipeline from Pit 4 to Pit 3 during Phase 1 is revised in the 100% Design submittal to route water around the east side of Pit 3 and enter the pit from the access road on the south.
98	Sheet 10-6	Beattie	Elevations provided for influent pipe invert and existing ground are the same number at station 16+00 and 17+00.	This has been corrected in the 100% Design submittal.
99	Sheets 10-9, 10-10, 10-11, and 10-12	Beattie	These sheets show the temporary pipeline from Pit 4 to the South Pond. The pipeline is continuous over a distance exceeding 5,500 ft. No manholes are shown on the drawings. We recognize that Appendix J indicates manhole spacing at least every 2,500 feet along the permanent influent pipeline only. However, Sheet 10-78, Detail 15 is for a temporary influent manhole. It is not clear if any temporary manholes would be used or not.	"Temporary manholes" were intended for monitoring locations and may be located by the field engineer, as needed. This has been clarified in the 100% Design submittal.
100	Sheets 10-12 and 10-81, Detail 24	Beattie	Plan view indicates a flow split with an approximate "Y" configuration while detail (Pit 4 to South Pond Splitter) indicates flow split with an "T" shaped configuration.	The drawing has been updated as part of the 100% Design submittal to better reflect the design intent.
101	Sheets 10-14 and 10-82, Detail 27	Beattie	Plan view indicates a flow split with an approximate "Y" configuration while detail (BPA to South Pond Splitter) indicates flow split with an "T" shaped configuration.	The drawing has been updated as part of the 100% Design submittal to better reflect the design intent.
102	Sheets 10-17 and 10-81, Detail 23	Beattie	Plan view indicates a flow split with an approximate "Y" configuration while detail (Pit 3 to South Pond Splitter) indicates flow split with an "T" shaped configuration.	The drawing has been updated as part of the 100% Design submittal to better reflect the design intent.
103	Sheet 10-21	Beattie	South Pond discharge manifold is shown on the profile but is not shown on the plan and is not included in details.	The drawing has been corrected as part of the 100% Design submittal.
104	Sheets 10-31 and 10-43	Beattie	Drawings indicate Sheet 10-76, Detail 9 (well header valve box) at about Station 1+50. Please check that this detail is appropriate at this location.	The detail is correct.
105	Sheet 10-32	Beattie	Air/vacuum relief valve box shown at about Station 1+20 should be located at the highest point in the pipeline profile. See note 2 on Sheet 10-31 "high point valve box shall be field located at the highest point along the alignments." Suggest adding this note to Sheet 10-32.	The box has been added to the drawing as part of the 100% Design submittal. The note has been added.
106	Sheet 10-33	Beattie	Sheet index labels are reversed. "Sheet 10-35" should refer to "Sheet 10-34" and vice versa.	The drawing has been corrected as part of the 100% Design submittal.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

CH2M Hill 90% Remedial Design Review Comments				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
107	Sheet 10-34 and 10-77, Detail 10	Beattie	Drawing indicates Detail 10 on Sheet 10-77 (BPA wet well) at about Station 5+50. Please check that this detail is appropriate at this location. Also check orientation of north arrow on Detail 10.	The detail is correct. The north arrow has been removed in the 100% Design submittal.
108	Sheet 10-38	Beattie	Well header valve box is shown at different locations on the plan and profile.	The drawing has been corrected as part of the 100% Design submittal.
109	Sheet 10-43	Beattie	Air/vacuum relief valve box shown at about Station 9+70 should be located at the highest point in the pipeline profile. See note 2 "high point valve box shall be field located at the highest point along the alignments."	The drawing has been corrected as part of the 100% Design submittal.
110	Sheet 10-46	Beattie	Title should be revised "PERMANENT PIT 4 TO WTP"	The drawing has been corrected as part of the 100% Design submittal.
111	Sheet 10-51 and 10-80, Detail 22	Beattie	Sheet 10-51 refers to Pit 3 Junction Manhole which is not correct. This drawing should refer to the "Pit 4 Pipe Junction" which is shown in Sheet 10-80, Detail 22. The details do not include the "Pit 4 Pipe Junction" detail.	The drawings have been corrected as part of the 100% Design submittal.
112	Sheet 10-53	Beattie	Plan and profile should show "Pit 4 Pipe Junction" where pipelines from Pit 3 and Pit 4 converge. Suggest one manhole to address the "Pit 4 Pipe Junction" and include influent from trenches as shown on Sheet 10-77, Detail 11 which shows "from pits."	The drawing has been corrected as part of the 100% Design submittal. Details have also been made clearer about their application.
113	Sheet 10-55	Beattie	Profile indicates "permanent influent manhole detail" at about 15+80." This should be the "Pit 3 Junction Manhole."	The drawing has been corrected as part of the 100% Design submittal.
114	Sheet 10-77, Detail 10	Beattie	Graphics in both plan and section illustrate 4 X 8 and 2 X 4 as the same size pipe. Although detail is "not to scale" these pipes should look different.	Actual discharge sizing from the wet well pump may vary by manufacturer. In the 100% Design submittal pump specification, coordination of sizing is required of the contractor. Scaling has not been adjusted in the drawing detail.
115	Sheet 10-82, Detail 26	Beattie	Plan indicates influent from Pit 3. This should be from West Pond.	The drawing has been corrected as part of the 100% Design submittal.
116	Appendix K, 02200, 3.18	Martin	Field Testing frequency has not been defined. The specifications list "TBD" under frequency of testing for earth works. The frequency should be defined as part of the design specification and critical for QAQC and contractor bidding. Revise to include field testing frequency in this section.	Agreed. Testing frequencies have been defined and provided in the referenced specification in the 100% Design submittal.
117	Appendix K, 02017, 3.5, B	Martin	The section describes measurements and survey for the well, but does not provide a level of accuracy. Revise the section to specify measurements to be accurate to 0.01 ft.	A survey accuracy of 0.1ft (horizontal and vertical) has been added to this section. 0.1ft accuracy is consistent with other topographic and structural surveys for the project.
118	Appendix K, 02050, 1.1, D, E, F, RAWP	Martin/Dehner	There is inconsistency between the specifications, Appendix H, and the RAWP. The specification 02050 states that ACM and lead based paint will be disposed of in the WCA. It says that PCBs will NOT be disposed of in the WCA. Appendix H says that Asbestos containing material (ACM) and hazardous waste will be disposed of in the WCA per County and State regulations. However ACM is a hazardous waste, so per Appendix H could be disposed of in the WCA. The RAWP Section 2.7.2 in Task 2 identifies that hazardous waste and ACM could be placed within Pit 3. Hazardous waste generated as part of building demolition should be disposed of in appropriate offsite facilities that are permitted to accept this type of waste. RAWP Section 4.3 Management of Wastes indicates offsite disposal will be implemented. Consider that placement of certain demolition debris (such as drywall) into a landfill environment could generate constituents, such as sulfates, in leachate not currently anticipated for water treatment. Revise all documents in the design to be consistent and require off site disposal of ACM and hazardous waste.	Please refer to the response to Comment 88 above. Discrepancies among the specifications, Appendix H (Demolition), and the RAWP have been eliminated. Demolition debris will be characterized and properly disposed either on or offsite depending on its characteristics, properly handled, and disposed as discussed in the revised Appendix H.
119	Appendix L H&S	Sykes	No comments.	
120	Appendix M	NA	Ongoing EPA comment process.	
121	Appendix O SWMP	Beattie	No comments.	
122	Appendix P; Attachment P-9	Dehner	(a) Section 3.3 - Horizontal and vertical survey points should be established on these risers/vaults to track movement relative to design, and assist with forecast of potential issues. (b) Inspection components to consider: water monitoring parameters that assist in tracking clogging conditions (sediment; bio-fouling); routine down-	(a) Due to the potential for settlement, survey requirements have been added for the dewatering and underdrain vaults. (b) As indicated in Table 2, fouling will be assessed through quarterly review of discharge flowrates, pump discharge pressures. If decreased flowrates or increased discharge pressures are apparent, evaluations (including video logging) may be performed. (c) Specifics regarding downgradient performance monitoring and corresponding response actions have been added to Table 2 as requested.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

CH2M Hill 90% Remedial Design Review Comments				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
			hole inspections for well screen, sediment buildup; inclinometer tracking of casing movement. (c) Missing specifics on water level performance monitoring for alluvial collectors. Need to identify anticipated cutoff/control and what constitutes action for additional cutoff performance enhancement (such as grouting).	
123	Appendix P; Attachment P-10	Dehner	(a) Figure 2-1: Permanent site roads shown don't coordinate with those shown in 90% drawings. Resolve discrepancy. (b) Section P3.1: visual cover inspection from permanent access roads will allow access to about 10% of the entire area to be inspected. Based on this section, the remainder of the cover is inspected on foot. This approach is not sufficient to provide the important information needed to maintain the cover through four seasons of operation annually. Consider options to improve access for complete and thorough inspections (such as reinforced cover sections for ATV; additional access roads for vehicles; routine aerial surveys; geophysical surveys for vegetation establishment). (c) Non-routine events should be expanded over single 25 year, 24 hr event as trigger. Rain on snow, rain on frozen ground, and other substantial storm events can damage the cover and should be considered for inspection coverage. (d) What is the recurrence interval for a magnitude 5.0 EQ at the site? How does this level coordinate with the stability calculations performed for the cover and ponds? Inspections should be conservative around these events as FS (for the ponds) were close to minimum. (e) Discharges from drainage bench subsurface collectors should be inspected for flow, sedimentation, and discharge function.	(a) Figure 2-1 has been coordinated with the 100% Design drawings to resolve the discrepancy. (b) We disagree that conducting inspections on foot is insufficient. These types of inspections are regularly conducted on large covers. We are concerned with providing additional roads/tracks for ATV access. Once the perimeter fence is removed, visible tracks may encourage use by local residents, which could promote erosion and other damage to the covers. (c) The design storm event used for the cover erosional stability analysis is the 100-year short duration storm event. This design storm is much more significant than our inspection trigger storm (25-year, 24-hour storm event). (d) The design acceleration used for the slope stability analysis was based upon a probabilistic event which is an aggregate hazard from numerous earthquakes occurring at numerous distances from the site, and is not based on a specific earthquake magnitude. The site analysis of potential seismicity at the site indicates a magnitude 5.0 earthquake event within 7.5 miles of the site would produce an acceleration of approximately 0.05g. This is less than the design acceleration of 0.131g. (e) Inspection of drainage bench discharge infrastructure will be added as appropriate.
124	Appendix P; Attachment P-11	Dehner	Pond embankment inspections are missing from this list, but vital to the O&M plan for these systems. Signs of seepage, erosion, instability should be paramount for inspection. Conformance with dam safety requirements for inspection type, location, and frequency should be followed.	Agreed. Requirements for the inspection of the pond embankments are included in the in the RAWP.
125	Appendix P, Attachment P-10 - Table 3-1 and related text	Martin	The settlement analysis predicts settlement resulting in less that 2 percent grades across the cover. Table 3-1 (first page, in last row titled for "Routine Measurements" and the column titled "Action Trigger/Unacceptable Condition") states that the "Acceptable settlement amount in feet/inches TBD at 90 percent design." This is the 90 percent design and results of the settlement analyses have provided estimates of settlement over time that can be used to determine an acceptable settlement amount. Add the criteria for acceptable settlement to Table 3-1.	Agreed. Acceptable settlement criteria were added to Table 3-1.
126	Appendix P, Attachment P-10 - P3.0, page 8	Martin	The cover system operation, maintenance and monitoring plan provides type and frequency of measurements for the cover system, but does not provide settlement measurement locations. Revise to include in text and potentially figures that provide monitoring program measurement locations for settlement. A detail is provided for the settlement plates, but no discussion is provided on locations for construction of the settlement plates.	Locations of the settlement monuments are included in the 100% Design Drawings. Specifics relative to the construction of the settlement plates are included in the specifications. Appendix P was updated to present the locations of the settlement monuments.
127	Appendix P, Attachment P-11 - 3.0, page 5	Martin	The water management ponds operation, maintenance and monitoring plan provides type and frequency of measurements for the south and west ponds, but does not provide settlement measurement locations. Revise to include in text and potentially figures that provide monitoring program measurement locations for settlement. A detail is provided for the settlement plates, but no discussion is provided on locations for construction of the settlement plates.	Locations of the settlement monuments are included in the 100% Design Drawings. Specifics relative to the construction of the settlement plates are included in the specifications. Appendix P have been updated to present the locations of the settlement monuments.
128	Appendix Q - Q2.1.4, Page 14	Martin	The fifth paragraph discusses groundwater flow within the bedrock hydrostratigraphic unit. A sentence discusses hydraulic conductivity differences between the weathered and deeper unweathered bedrock.	The referenced section has been revised to distinguish between weathered and unweathered bedrock.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

CH2M Hill 90% Remedial Design Review Comments				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
			Since the discussion is regarding saturated hydraulic conductivities, and the bedrock hydrostratigraphic unit, this discussion is confusing. The weathered bedrock, saturated, is part of the regolith hydrostratigraphic unit, and would not be included as part of the bedrock hydrostratigraphic unit (as described through this section). Revise section to clearly identify unweathered rock hydraulic conductivity in this section.	
129	Appendix Q - Q2.1.4, Page 15	Martin	The eighth paragraph contains a bulleted list of groundwater discharges from the system. There are listed three discharge mechanisms, evaporation, transpiration, groundwater discharge to surface water, but does not also list groundwater loss to bedrock. Revise discussion to include groundwater loss to bedrock.	A bullet has been added for "Groundwater discharge to deeper unweathered bedrock."
130	Appendix Q - Figure Q-4	Martin	The figure shows the post remedy hydrologic system. The site wide monitoring program includes a post remedy groundwater monitoring network. Revise to include the well locations associated with the Figure cross section to illustrate how the post remedy groundwater monitoring network will provide data to support the post remedy groundwater hydrology and used to compare actual conditions versus the conceptual site model.	The intent of the figure is to show the post-remedy hydrologic system in cross section. Monitoring wells along cross section A-A' are shown on the figure (i.e., MWNW-01, MW-02, MWCD-01, GW-36a, GW-51, MWCD-02a, GW-19, MWED-10, and MWED-11). Due to the scale, it would be difficult to show the entire monitoring network on the inset map in the lower left corner of Figure Q-4, which is intended to show the location of the cross section line (A-A') in map view.
131	Appendix Q - Q2.2, page 16	Martin	The second paragraph describes anticipated impacts regarding surface flow and discharge into Blue Creek. There is no discussion regarding surface water flow to the west. As discussed previously in the BODR, not all surface water flows ultimately to Blue Creek. There is some flow toward the Far West Drainage. Revise section to include discussion regarding Far West Drainage. This would also reflect the fact that there are existing, and proposed monitoring locations in the Far West Drainage channel.	The third sentence in the referenced section was revised as follows: "In areas where mine wastes and contaminated sediments are removed, the precipitation and snowmelt will runoff or infiltrate, converge on the Western, Central, and Eastern, and Far West drainages, and ultimately discharge to Blue Creek (or directly to Lake Roosevelt in the case of the Far West Drainage). "
132	Appendix Q - Figure Q-3	Martin	The figure shows the pre-remedy hydrologic system conceptual site model in profile. The flow lines associated with Pit 4 show groundwater flow from the north and south flowing toward Pit 4. However, as discussed previously in the BODR there is a component of groundwater flow from Pit 4 toward Pit 3, as also indicated in the interpreted potentiometric surface shown on Figure Q-3. Revise the groundwater flow directions south of Pit 4 to reflect flow in this area toward Pit 3.	The referenced figure was revised to show flow outflow from Pit 4 occurring on the southern or downgradient portion of the pit towards Pit 3, as requested and in accordance with the text in Section Q2.1.1.2 Open Pits and Other Impoundments.
133	Appendix Q1 - Q1-2.1.1, page 2	Martin	The excavated pits Pit 2 and Adit pit will be provided with a soil cover only. These are mineralized zones exposed as part of mining activity and pose a potential source of surface water contamination from these areas. Revise to include surface water monitoring locations at the mouths of these features, post remedy, and include in the site wide monitoring program.	As shown on Drawings 4-48 and 4-49, the final graded surfaces near the former Adit Pit and Pit 2 are relatively uniform (i.e., there is no distinct drainage or "mouth" feature where surface water will accumulate for monitoring). Any possible surface water flow from the remediated areas will converge on the natural mine drainages that have designated surface water monitoring locations. Also, as described in Site-Wide Monitoring Plan (SMP) Section Q1.4, the SMP (and the supporting Field Sampling Plan and Quality Assurance Project Plan) is a dynamic document that will be updated periodically to reflect changes to the site-wide monitoring network (and associated Data Quality Objectives (DQOs), procedures and protocols, as necessary) that occur as the phased RA progresses. Recommendations for updates will be made in the quarterly data reports (or in more frequent monthly reports, if necessary) in coordination with the EPA and the Tribe, and will be based on changing site conditions, results of data evaluations, or new data needs that may arise throughout the RA. Therefore, SW monitoring locations can be added near the former Adit Pit /Pit 2 areas if deemed appropriate based on actual post-remedy conditions (e.g., if data from existing SW monitoring locations indicate possible impacts from the former Adit Pit/Pit 2 areas, and if SW flow occurs in these areas that can be monitored).
134	Appendix Q1 - Q1-2.1.3, Table Q1-3, Figure Q1-2, and throughout text.	Martin	The groundwater monitoring network does not include the MWNW wells that were requested in the 60 percent design comments and were included in the interim deliverable for the groundwater monitoring network. Pre, DURING, and POST remedy groundwater monitoring is to include wells MWNW-02, 03, 04, and to the practical extent, wells MWNW-01 and 07. Revise the Appendix Q to include these monitoring locations, type of monitoring, and frequency to the site wide monitoring plan.	The Appendix Q1 figures and tables were revised to add the following monitoring wells to the monitoring network: MWNW-01, -02, -03, -04, and -07. Wells MWNW-02, -03, and -04 will be monitored for water levels only to confirm flow is from the Northwest Ridge towards the pits.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

CH2M Hill 90% Remedial Design Review Comments				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
135	Appendix Q1 - Q1-2.1.3, Table Q1-3, Figure Q1-2, and throughout text.	Martin	The site wide monitoring plan does not include during and post remedy monitoring for the Far West Drainage. However, there are existing Far West Drainage monitoring wells, were Far West Drainage monitoring wells in the interim deliverable (wells MWW-01 and -02), and proposed Far West Drainage monitoring wells within the drainage channel as part of the Rhoads borrow (Appendix C). Revise to include the existing Far West Drainage monitoring location in the during and post remedy groundwater monitoring network and the site wide monitoring plan. Also include discussion of the Rhoads borrow in the site wide monitoring plan and include those wells (two proposed pairs) located within Whitetail Creek.	The Appendix Q1 figures and tables were revised to add the monitoring wells MWW-01 and MWW-02 to the monitoring network, as requested.
136	Appendix R; R2.2	Dehner	Identifies that topsoil stockpiles have previously been tested (is this so?) and may be suitable for integration into the final cover, including the pit soil cover. Clarify what components of the cover it would be suitable for as significant testing would be required to integrate it into the ET cover component of the pits.	The stockpiled soils appears to be residual and transported materials stripped from the western portion of the site and of similar textural classification to the surficial soils at the Rhoads Property. In addition to testing to verify these soils meet cleanup standards, it is the intent to perform geotechnical index property testing (gradation, Liquid Limit, and Plastic Limit) as well as agronomic testing to verify similar characteristics to what was observed in soils from the Rhoads Property. This testing would be performed at the same frequency as for other (e.g. Rhoads Property) borrow soils. If testing confirms similar index and agronomic properties to Rhoads Property soils, there use as soil cover material in the WCA and other disturbed areas requiring revegetation would be unrestricted.
137	Appendix R; R2.3	Dehner	Has demo debris been tested for haz materials which could not be disposed in pits? What is process for removing any of these type materials and/or materials suitable for recycling?	Please refer to response to Comment 88.
138	Appendix S, page 25		The borrow material sampling frequency should be based on a volume of soil removed in addition to the time frequency of every two weeks. Add one sample every 1,000 cubic yards or propose a frequency based on excavation production.	Random gamma screening of borrow materials will be increased to once per week, with four random soil samples to be collected each week during active excavations. Assuming a maximum borrow material excavation rate of 20,000 cubic yards (CY) per week, this is equivalent to a minimum volume-based sampling frequency of 1 sample per 5000 CY. This schedule should be more than adequate for screening of background level borrow materials. These new requirements have been incorporated into Section 3.1.2 of Appendix S.
139	Appendix S, Section 3.3.1, page 39 new text	Sykes	New roads that will be constructed are identified for resurvey. Add exactly what survey will be done since this is a long linear feature. Identify how many samples will be collected.	Section 3.3.1 does not address this issue - it is assumed that the comment refers to related material presented in Section 4.2.1. In the event that such a temporary road is constructed, the resurvey after road reclamation/closure will include a complete gamma survey (100% coverage of the former roadway and margin areas), with a minimum of two soil samples to be collected at any location with gamma-based evidence of elevated readings per the protocols of Section S.4.2.3.1. Such roads will not be treated as new MARSSIM-based final status survey units - the area will have already been surveyed under MARSSIM protocols, and only highly localized secondary impacts to surface soils due to small amounts of material spillage would plausibly be expected. Slight modification to Section 4.2.1 has been added for clarity in response to this EPA comment.
141	Appendix S	Sykes	Add a section describing the process that will be implemented in Class 1 areas where no remediation will occur or where you are deciding if remediation is necessary. Add text that it is expected that 98% of the Class 1 areas will be excavated to remove waste rock and contaminated soil, but a few isolated areas, less than 2% of the total surface area shown as Class 1, will be investigated prior to remediation to verify that excavation is required. Also add methodology for areas with subsurface contamination (e.g. structures at WTP) since the gamma walkover survey and surface soil sample collection isn't applicable because it won't detect contamination at depth. Provide a thorough review of all subsurface contamination that may be covered by soil, such as, in a drainage, and provide a list of those areas.	For planning purposes, it is initially assumed that all portions of Class 1 areas will require remediation. Prior to any remediation, gamma shine would likely render gamma-based evidence of the extent of any "clean" areas inaccurate. Once above-grade mine materials have been excavated down to the original ground surface, gamma shine will be reduced and at this point in the remedial process, recorded, screening-level gamma scans will be conducted across each survey unit to characterize the general spatial distribution of residually contaminated soils. Ground coverage of these initial screening-level gamma scans will be on the order of 10% or less (e.g. 40-50 meter transect spacing), and scan speeds may exceed typical walking speeds (ATVs may be used for this initial scanning). This screening-level information will be used to plan initial excavation areas and sequences within each survey unit. This information may also be useful for identifying areas that may not require further remediation, but this must be confirmed via interim remedial support gamma scanning and soil sampling and ultimately, via final status gamma surveys and soil sampling. A new paragraph reflecting these new requirements has been added to Section S.3.1.1 in response to this EPA comment. The 50 feet of waste rock underlying the old WTP will be excavated to the original ground surface during remediation and the remedial support plan will then be implemented as with other areas. With the possible exception of small sections of mine drainages (e.g. small zones of sediment aggradation), there are no other areas where impacted subsurface soils would plausibly exist with clean soils on top.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

CH2M Hill 90% Remedial Design Review Comments				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
143	Appendix U	Dehner	<p>(a) The CQAP as written is very general and provides no real use to the RA team for implementation. The plan describes general CM roles, functions, and activities in conjunction with QA/QC specific requirements and so makes it difficult to understand what is required for proper QA implementation. For example, the weekly progress meetings and topics identified are general CM work elements of which it appears QA will be discussed versus a specific weekly meeting focused on specific QA implementation (work progress and testing, reporting status, results overviews, NCRs, corrections, etc.).</p> <p>(b) The Plan itself should include an overview of the definable features of work and associated key CQA activities to be implemented in the field. Key work elements where specific CQA processes should be reviewed should be identified. Attachments to this plan should include summaries from the technical specifications of required CQA testing to be performed (tests, frequencies, and standards), summarized by major work element, CQA reports anticipated and their frequencies.</p> <p>(c) The role of the CC in CQA is unclear. It appears that the CQA will rely on testing specified to be implemented as part of CQC, performed and documented by the CC. However, CQA should be final verification/validation that the work meets the design requirements, and implemented independent to the extent practical of the CQC processes, performed by independent testing and/or witnessed by CM personnel. This may not apply to every construction activity performed (for example, in-field geomembrane seam testing or pipe leakage testing) but it should apply to many key construction elements (geosynthetic materials testing, soil geotech lab and field testing, WTP structural inspection/testing, WTP performance testing, etc.).</p>	<p>(a) and (b) The introduction to the Construction Quality Assurance Plan (CQAP) describes how the document is intended to be paired with the task-specific CQA information in the RAWP. Much of the requested information (e.g., definable features of work, key CQA/CQC activities to be implemented in the field) is presented in the RAWP. The critical information for the CQA/CQC field activities (tests, frequencies, standards) is sourced from the Technical Specifications and will be summarized in Inspection and Test Plans (ITPs) will be included in the RAWP once the design is final. Weekly progress meetings will cover all CQA/CQC topics relevant to the work being performed. (c) The overall role of the CC (and associated CQC) and the CM (and associated CQA) is described in Section U1.3, U1.4 and in Table U-1, and aligns with the process described in the comment. The task-specific roles of the CC (CQC) and the CM (CQA) will be identified in the ITPs included in the RAWP.</p>
144	Appendix V; Section V 2.1	Dehner	<p>What basis of bid/bid selection process is anticipated for the selection of the CC? I see some good info within Attachment V-2 which could be referenced/brought forward in the plan. Describe the "best value" approach and weighting criteria that will be considered in selection of the CC specific to this project. Also should describe what would render a bid unresponsive for this project.</p>	<p>A request for information (RFI) will be sent to an extensive list of possible prime RA contractors (your reference is CCs) that Newmont believes have the necessary resources, experience, and personnel to conduct the initial Phase 1 SOW. The RFI process now is described in Section V2.1 (and contains much of the information that was formerly in Section V7.0). The RFI will be followed by the RFP process discussed in Section V2.2. Prospective RA Contractors will be eliminated from participating in the RFP process if 1) they don't submit the RFI responses, and 2) it is believed by Newmont that the potential RA Contractor would not be able to successfully accomplish the work based on responses to the RFI questions. Unresponsiveness to the RFP is discussed in Section 10.3.3 Attachment V-2. Attachment V-2, specifically sections 9.0 (Receipt and Opening of Bids), 10.0 (Bid Evaluation Procedures) and 11.0 (Recommendations and Purchase Order Award) are now referenced and quoted in Section V2.2 (Request for Proposal) of Appendix V. Also, the best value approach to RA Contractor selection for this project and a bid considered unresponsive are more fully detailed in Section V2.1 but are discussed in detail in Section 10.0 of Attachment V-2. The weighting criteria are left up to the discretion of DMC/Newmont and their internal Global Supply Management (GSM) evaluation team.</p>
145	Appendix V; Section V 3.0	Dehner	<p>Paragraph mentions the "RA" as both an event and a person which is confusing.</p>	<p>Agreed. Section V3.0 has been revised.</p>
146	Appendix V; Section V 5.0	Dehner	<p>This section looks incomplete both as an overview of procurement requirements and as a summary of package-specific needs relative to tasks to complete. Summary tables associated with task-specific implementation developed from the technical specifications would be useful to verify that requirements are understood clearly by the CC at the procurement level.</p>	<p>Appendix V, Section V5.0 discusses minimum contractor and personnel certifications, qualifications, and training necessary to work on the Midnite Mine Superfund remedial action. It is possible you are referring to Section V4.0. We are attempting to give the RA Contractor an idea of the scope of services that will be required for this RFP. This is a "procurement plan" and not a complete reproduction of the upcoming RFP. When the Phase 1 RFP is sent out, each prospective RA Contractor will have a copy of the Final designs and specifications, the RAWP, and the CQAP. ITPs developed from the specification requirements will be a component of the RAWP and will give the prospective RA Contractors the detail that you are requesting.</p>
147	Appendix V; Section V 6.0 & 7.0	Dehner	<p>Section 6.0 - How does the TERO requirements affect GC contractor selection. This is a massive job and should be quickly apparent if any tribal</p>	<p>A comprehensive list of potential contractors including Tribal contractors will be included in the RFI. Based on responses to the RFI, it will be determined if Tribal contractors have the qualifications to perform the work.</p>

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

CH2M Hill 90% Remedial Design Review Comments				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
			entity has previous experience at this magnitude. Can these requirements be established in advance of bidding so that the process can be streamlined and directed accordingly? Section 7.0 - Can see need and benefit of this process, however, it is unclear what the results are intended to provide. Is the intent to develop a list of pre-qualified Native American firms that could supply subcontractor services in various work elements of the project? This could be very beneficial to the GCs, but also should clearly identify requirements and/or goals for integrating these business in accordance with TERO requirements.	In any event, the selected RA Contractor will have to demonstrate in their response to the RFP, either by experience or by procedures laid out in their proposal, how they will comply with the TERO compliance plan for work on the Spokane Reservation. The RFI process will allow sufficient time for the possible Prime RA Contractors to understand these requirements and contact the TERO office to determine available Tribal employees and subcontractors and their skill sets. Section 7 has been moved up to Section V2.1 and Section V2.1 is now V2.2. This rearrangement should help communicate how the RFI and RFP processes will be conducted in a step-wise fashion to select the best RA Contractor for the project and how a pool of native subcontractors and Tribal employees will be integrated into the process.
148	Appendix V; Section V 8.0	Dehner	See previous comment on bid selection process and the need to provide an overview of the approach to bid review and selection.	Please refer to responses to Comments 144 and 147.
149	Appendix W	Dehner	Not reviewed.	
150	Appendix X	Dehner	Schedule missing: installation/reconfiguration of temp and permanent process water pipes; stormwater conveyance construction sequencing (relative to phased approach shown in design - e.g., downdrains shown completed after cover installation but initial grading must be completed in advance of cover install; site stormwater channel construction); sequencing of installation of Pit 3 cover system; restoration of excavation areas outside of pit cover areas; procurement processes for sequential construction phases. Several durations appear unrealistic: WTP procurement process; geomembrane cap installation time period for Pit 4; liner install and spillway construction for South Pond.	Process water pipeline installation and relocation during the RA work process would be conducted by the RA Contractor as site cleanup progresses. This would be done in parallel with material excavation and relocation. The pipeline layouts in Section 10 are shown at key times in the RA schedule. It will be the RA Contractor's responsibility to have appropriate process water pipelines in place at these key times as well as throughout the RA. Downdrain and channel installation activity (A1230 and A1550) are in the same task as cover placement, since they would be done concurrently. Restoration of areas outside of Pit 3 and 4 cover areas is included in Activities A1700 and A1710. Procurement of contractors in sequential construction phases is not separated out since additional work may be awarded to the selected contractor on a contract extension or work order basis, and not through a re-bid and procurement process. WTP contractor procurement is planned during EPA review of the 100% WTP design. WTP contractor pre-qualification and selection is planned during preparation and review of the 90% WTP design. The geomembrane cap installation time for both the Pit 4 and Pit 3 cover systems was based on an installation production rate between 1.0 and 1.5 acres per day. Liner installation for the South Pond was based on an installation production rate of 0.5 acres per day. Spillway construction would be conducted concurrently with liner installation.
151	Appendix Y Blue Creek	NA	Not reviewed.	
152	Appendix Z, Table Z-1, and Figure Z-1	Martin	The well decommissioning plan lists wells that are to be decommissioned in various methods and during various phases, and those wells to be retained for ongoing or future monitoring. Several wells that were listed in the interim groundwater monitoring plan for ongoing post RA monitoring are included in the decommissioning plan, MWW-01, 02, MWNW-02, 03, and 04. Revise the section text, table, and figure to represent the interim deliverable and include these wells in the ongoing and post RA monitoring network.	The figures and tables in the Well Decommissioning Plan were revised to show that the wells MWNW-01, -02, -03, -04, -07, MWW-01, and MWW-02 will be retained for site-wide monitoring and will not be abandoned.
153	Appendix AA	Dehner	No comments.	

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Comments on 90% design - EPA review				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
154	General	E. Hale	See Enclosure 1 to EPA comment letter. Note separate process for review of regulatory documentation. Add a traffic safety plan for onsite and offsite project traffic, with updated estimate of traffic. Ensure positive drainage following settlement.	Comment noted. The responses to the technical issues discussed in Enclosure 1 are provided in this 90% design response to comment (RTC) package.
155	General	E. Hale	Scan for references to Ellen Hale, update RPM name to Karen Keeley as appropriate.	The documents have been revised and Karen Keeley's name has replaced Ellen Hale.
156	BODR Report	E. Hale	Update BODR to reflect adjusted schedule, phasing, and completion of tasks (e.g. A4.1.4 last sentence)	The entire BODR (text and appendices) has been updated to reflect the current schedule and completion of tasks. It should be noted that the design and schedule depends on finalization of an agreement between the Tribe and Dawn/Newmont for Site access, access to the Rhoads Property borrow area and use of on-site water for construction. A tentative terms of agreement was reached, which sets forth the framework for detailed definitive agreements that will provide for access to Tribal lands for all purposes related to implementing the Midnite Mine remedy, including access for excavating and transporting the Rhoads Property borrow material. The agreements will further grant a lease of Tribal water rights in amounts sufficient to implement the remedy. The parties are proceeding to prepare the necessary agreements and leases to implement these terms. It is assumed throughout the BODR that the timing for finalization of this agreement will not impact the overall schedule. The updated schedule is provided in Appendix X.
157	DWGS Section 4 - Mine Waste Excavation and Containment	E. Hale	See CH2M Hill comments	Comment acknowledged.
158	DWGS Section 5 - Water Management Ponds	E. Hale	See CH2M Hill comments	Comment acknowledged.
159	DWGS Section 6 - Surface Water and Sediment Controls	E. Hale	See CH2M Hill comments	Comment acknowledged.
160	DWGS Section 8 - Demolition	E. Hale	See CH2M Hill comments	Comment acknowledged.
161	Drawing 8-4	E. Hale	Note on debris disposal exclusion areas is confusing: Clarify: "Horizontal extent of areas where demolition debris placement shall not occur. See Dwg 8-5 and 8-5 for vertical extent" (for example).	The indicated note has been revised as follows: "Demolition debris exclusion zones (see Sheets 8-5 through 8-7)."
162	DWGS Section 9 - Water Treatment Plant	E. Hale	Further EPA comment will be provided when 90% design of WTP is submitted.	Comment acknowledged.
163	DWGS Section 10 - Pipelines	E. Hale	Sheet 10-1, note 1 - The 60% design had very light topo lines and few labels and landmarks to identify the route of the pipeline. Several reviewers could not tell where the pipe passed below the Wellpinit-West End road along the Southwest Drainage, or where the pipe crossed Blue Creek. Review and add location information, labels and landmarks (the W-WE road, the BC road) to make this very clear.	Sheet 10-1 has neither topographic lines nor labels. It is assumed that the reviewer is referring to Sheet 10-2, which already has the requested labels and landmarks. Sheet 10-2 further directs the reader to specific drawings within Section 10 for more detailed information regarding the influent and effluent pipelines. Please note that the effluent pipeline design has not been revised since the 60% design and will be updated concurrently with the WTP design after the NPDES permit is issued.
164	Appendix B - Construction Support Facilities	E. Hale	Overall, these look good and well thought out.	Comment acknowledged.
165	Appendix C - Borrow Area	E. Hale	Because the areas for each phase will be developed, graded, covered and revegetated in one season, EPA encourages Settling Defendants to consider the potential for successful salvage and to work with the tribe or local nurseries, environmental organization, or others to salvage some plants.	When the Rhoads Property borrow area receives final approval from the Tribe and an access agreement is reached, hand planting of trees and shrubs will occur in accordance with the approved Rhoads Property Plan of Operations and Reclamation. This includes the requirement to: "plant seedlings will be native to the mine site area; therefore, arrangements will be made with a local nursery to promulgate the seed materials (as possible) from the Site and grow the seedlings from these seed sources. All seedlings will be at least 18 months old prior to planting the seedlings at the site." (Please refer to Section 3.3.2 of the POR for additional details).

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Comments on 90% design - EPA review				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
166	General	E. Hale	(a) Update to reflect status of permits (including compliance with FARR) for the Rhoads property. (b) Check references to C-1, C-2. Lane, not Layne. (c) Cite to testing requirements to verify that material meets criteria for use as cover. Material will not be stockpiled, so a selection of truckloads should be tested.	(a) A comprehensive summary of permits required for the entire project, including those needed for the Rhoads Property borrow area are included in Appendix M of the BODR. Please refer to Appendix M for details and status of required permits for off-site activities associated with the Rhoads Property borrow area. (b) References to C-1 and C-2 have been updated in the text. The spelling of "Lane" has also been corrected. (c) Testing requirements and frequencies for cover soils in the WCA are specified in Section 02200 - Earthworks of the Technical Specifications presented in Appendix K.
167	Ford Borrow Site	E. Hale	Where are costs for the use of the material in the Midnite Mine project? They are not included in Appendix W.	The RD and associated estimated costs in Appendix W are based on use of the Rhoads Property borrow area for cover material. Use of cover material from the Ford borrow site is an alternate or reserve borrow source. The estimated costs for excavating and hauling this material to the Site were not included and are not necessary now as there is a tentative agreement between Tribe and DMC/Newmont for access to the Rhoads Property borrow area and water during the RA.
168	RTC 60% design #372 (c)	E. Hale	EPA did not find text related to volumes and sources for miscellaneous borrow needs (bedding sand, e.g.). This must be included.	Text and a summary table of quantity estimates for miscellaneous borrow needs have been added to Appendix C. Please note that materials that will be obtained by processing of Hillside Waste Rock Pile material (e.g. geomembrane bedding sand, drain gravel) are discussed in Appendix D. These quantity estimates have not been repeated in Appendix C, but text has been added referring the reader to Appendix D for that information.
169	Section C1.0, 2nd paragraph	E. Hale	Ford POR and reclamation costs are included, but the costs of borrow material excavation, hauling, and spreading at Midnite Mine need to be presented. Stevens County requirements for road surveys and repairs will also add costs and must be identified. These should be included here or in Appendix W. Do the reclamation costs reflect compliance with DNR surety bond requirements? Note any permits required.	See the response to Comment 167. Permits and reclamation bonding for use of the Ford borrow area are unnecessary with the tentative agreement in place with Tribe for access to the Rhoads Property borrow material.
170	Section C2.2 Ford Borrow Area	E. Hale	The Ford Borrow Area is a "reserve borrow area, in case there is an insufficient amount of suitable borrow material in the Rhoads Property Borrow Area or permitting of the RPBA is unsuccessful." The AMP discusses how and when sufficiency of volumes will be tracked. Given the needed borrow volume increase and the cover redesign needed if Ford borrow material is used, as well as the time needed for permits, SDs should identify a timeline to investigate borrow material sources with properties more similar to Rhoads borrow material. Update to reflect input from the Stevens County Engineer regarding the surveys required to determine baseline road conditions and repairs.	A signed tentative agreement has been completed with the Tribe which will allow for the use of the Rhoads Property borrow area for cover material. It is believed that a final agreement will be completed in the next several months, so that Rhoads Property borrow material can be used when it is required for cover material. While current estimates indicate that there will be sufficient material from the Rhoads Property borrow area, the Adaptive Management Plan (AMP) recognizes that it might be necessary to obtain additional material from a supplemental borrow area. If this is the case, the additional material would be required at the end of Phase 3 which is in year 9 or 10 of the construction schedule. In the unlikely event that additional borrow material is necessary, the amount of material necessary to finish the project will be understood at the end of Phase 2 of the construction. This will enable 2 to 3 years to plan for and obtain the necessary additional material. Any additional work would not be prudent until it is determined if and how much additional material is required.
171	Appendix D - Mine Waste Excavation and Containment	E. Hale	See CH2M Hill comments	Comment acknowledged.
172		E. Hale	Minimum legal requirements for diesel engines must be met, but EPA recommends building in incentives for contractors to increase the percentage of Tier 4 engines.	Legal requirements for diesel-powered construction equipment will be met or exceeded by equipment used for RA construction. A schedule for diesel construction equipment requirements is included the technical specifications (Specification 01585 – Green and Sustainable Practices).
173	Appendix E - Water Management Ponds	E. Hale	See CH2M Hill comments	Comment acknowledged.
174		E. Hale	State West Pond design life and specify that, if water storage is still needed ten years prior to the end of that design life, an updated pond design shall be submitted based on current conditions and the West Pond replaced.	The anticipated design life of the West Pond (10 to 15 years) was included in Appendix E. Text has been added to Section E.5.2.5 stating that if the required life of the pond is significantly longer than anticipated, that replacing the liner system, or even redesign and replacement of the West Pond may be necessary.
175	Appendix F - Surface Water and Sediment Controls	E. Hale	See CH2M Hill comments	Comment acknowledged.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Comments on 90% design - EPA review				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
176	Appendix G - Groundwater Controls	E. Hale	See CH2M Hill comments	Comment acknowledged.
177	Appendix H - Demolition	E. Hale	See CH2M Hill comments	Comment acknowledged.
178	H5.2.1	E. Hale	Recommend completion of lead/asbestos inspection this year, separate from contractor.	The Demolition Plan has been modified to state that a specialty contractor will conduct an evaluation of the existing structures to determine the presence of asbestos containing materials or other hazardous materials prior to demolition. This evaluation will be conducted in coordination with the RA Contractor and will be scheduled so that demolition activities can occur in a timely manner.
179	H5.2.1	E. Hale	Item 1 -Clarify: "presence [of?] or contamination associated with.." .Item 2 - "on-site disposal." ACM shall not be disposed on site. Hazardous waste shall not be disposed in the pits. Make this clear. Item 3 - Specify "in accordance with regulatory requirements" and indicate where/how disposal requirements will be determined. Item 4 - suggest "safely" before disconnected, or a more precise qualifier (e.g. by a certified ..."). Item 5 - Note that liquid and solid residues may be present in pipes and drains. State how will this be managed or reference specification.	Item 1 - The presence of hazardous or regulated asbestos-containing material (RACM) will be identified by a certified specialty contractor. Items 2 - RACMs may require on-site disposal if they contain radioactivity above limits allowing release from the Site. Should such RACM radioactivity contamination exist, the RACM abatement and containment procedures will be conducted in accordance with Washington Department of Labor and Industries, under the Washington Industrial Safety and Health Act (WISHA) rules and regulations Identified hazardous materials and RACMs below radioactivity limits will be transported and disposed offsite according to Washington, Federal and any other applicable regulations. Item 3 - The separation of these materials from other demolition debris, as well as their transport and disposal will be according to applicable Washington State and Federal regulations. Item 4 - The wording has been revised to state that the work will be done according to the specialty contractor's health and safety requirements. Item 5 - Pipelines "will be drained" implies that the residual liquid in the pipes will be removed. Residual solid material will be placed in the disposal areas allocated for demolition debris placement with the pipe.
180	H5.2.4	E. Hale	"other approved material" - State whose approval, how approval will be determined and documented.	We assume that this comments refers to the last sentence: Tanks that cannot be crushed or dismantled will be transported to the disposal area, filled with grout or similar approved material, and buried. Approval would be by the On-Site field engineer and documented in in daily engineer reports. The objective is to fill void spaced (such as the inside of tanks) with an incompressible material. This could be grout, sand, or other excavated granular material within the WCA.
181	H7.2	E. Hale	Include shutdown limits, and consider including in the contracting documents penalties for not following the shutdown limits, as well as incentives for use of machinery with automatic idle-shutdown devices. Except when driving on paved roads, 30 miles per hour is too fast, not just from a green remediation standpoint but for safety and dust minimization. Note that different limits are currently cited in different parts of the design (Appendix O, Appendix M AQMP). Review the different conditions, areas, and/or vehicles and specify speed limits for each.	Shutdown limits - A no-idling policy is included in the technical specifications (Specification 01585 – Green and Sustainable Practices). The policy indicates work vehicles or equipment are not allowed to idle longer than 5 minutes, with a few listed exceptions (i.e., conducting repairs, safety issues). Additionally, Tier 3 and Tier 4 construction equipment, which will comprise the majority of the diesel non-road construction fleet for the project, are equipped with idle limiters that can be programmed for the 5 minute maximum allowable idle time. Speed limits – Speed limits will be established between DMC/Newmont and the selected earthmoving contractor(s), depending on the equipment fleet to be used, sight distances, haul road curvature and grades, traffic patterns, and haul road surface conditions.
182	Appendix I - Water Treatment Plant	E. Hale	See CH2M Hill comments	Comment acknowledged.
183	RTC 60% design #382	E. Hale	Note that FMEA process shall be used in design of new system, to ensure redundant or replacement equipment is available on hand.	A follow-up FMEA is planned once the design effort for the water treatment plant resumes. Currently, the design is on hold until the NPDES permit is completed.
184	Appendix J - Influent and Effluent Pipelines	E. Hale	See CH2M Hill comments	Comment acknowledged.
185	Appendix J text and Attachment J-2	E. Hale	Because the pipeline route shown in the 2013 Blue Creek Geotechnical Investigation has changed, mark the figures "route superseded" or "pipeline route modified. See current ... " Include a clear image [separate from the design drawings, which are difficult to interpret] showing the revised pipeline route in Appendix A.	The geotechnical investigation report has not be modified since it is already final. Revisions were made to the Appendix J text to better clarify this issue.
186	Appendix K - Specifications	E. Hale	See CH2M Hill comments	Comment acknowledged.
187	General	E. Hale	See CH2M Hill comments	Comment acknowledged.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Comments on 90% design - EPA review				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
188	Appendix L - RA H&S Plan	E. Hale		
189	General	E. Hale	This reflects better coordination between the HASP and the RSM, but a map and a matrix of work areas, actions, and what specific requirements apply might be a good way to provide a clear crosswalk. Despite improvements, it's not clear what are restricted areas, what are exclusion zones, and which workers (if not all) are subject to both OSHA and NRC safety requirements. If certain requirements apply only to certain work or locations, a table may help. Clarity is essential to avoid conflicts and gaps in worker safety planning.	The RA Health and Safety Plan (HASP), which includes the Radiation Protection Plan (RPP) in Attachment L-1, was developed using applicable protocols from both the NRC and OSHA guidance. The RA HASP and Radiation Safety Manual (RSM) are companion documents that together are applicable to <u>all</u> RA activities and <u>all</u> areas of the Site until the RA is complete. The work areas, actions, and specific requirements will be established by the Company Site Safety Manager. The nature of the RA requires that these work areas, applicable actions and requirements will be in flux and will evolve as the RA progresses. As discussed in Section L1.5.3, the Company Site Safety Manager coordinates with the Company Radiation Safety Officer to ensure that both the HASP and the RPP are effectively implemented.
190	L2.2	E. Hale	Note that safety issues, accident/incident and near miss reports shall be summarized in the weekly progress reports required during RA activities.	The following text has been added as the second sentence of Section L2.2: "The Company Construction Manager will convey the accident/illness information to the Supervising Contractor for inclusion in the Weekly Construction Report to EPA."
191	L2.5.1	E. Hale	How will JSAs be turned into worker requirements? Minimum PPE should be specified for certain conditions or types of work.	As stated in Section L2.6.1, it is anticipated that RA activities will require Level D PPE. The contractor-prepared Contractor/Subcontractor Safety and Health Plan (CSHP) will dictate the worker requirements, including required PPE. The following text has been added as the third sentence in Section L2.6.1: "The recommended PPE for specific RA tasks will be identified in the SOPs and JSAs included in the CSHP (see Section L1.4)."
192	L2.7	E. Hale	Laundry and shower procedures shall be specified in the 100% design.	Section L2.7 has been revised to state that the RA Contractor/Subcontractor will review the shower/laundry facility design and include appropriate shower/laundry procedures in the CSHP.
193	L2.8	E. Hale	JSAs don't generally specify decon procedures. Ensure that SOPs include a decon line, and sequence the removal of PPE to avoid cross-contamination.	The sentence referencing Job Safety Analyses (JSAs) has been deleted from Section L2.8. RPP-SOP06 includes the decontamination procedures. The sequence for Level D personal protection equipment (PPE) decontamination is listed in the bullets at the end of Section L2.8. The bold text has been added to the last sentence in the first paragraph of Section L2.6.1 (Levels of PPE) as follows: "If Level C PPE is deemed necessary, this HASP will be modified to reflect both the increased risk and the need for greater personal protection, exposure monitoring, decontamination procedures , and medical surveillance."
194	L2.9.4	E. Hale	Provide more detailed information regarding coordination with local emergency response agencies in L2.9 and emergency health providers in L2.9.4. Provide a frequency for coordination to ensure that staff changes etc do not affect preparedness.	Section L2.9 has been revised as follows: "Local emergency response agencies will be informed of the project by the Company Site Construction Manager or his/her designated representative and provided the document titled Midnite Mine Superfund Site Health and Safety Information for Emergency Responders (MWH, 2012). The Company Site Construction Manager or his/her designated representative will coordinate with the local response agencies on a routine basis as established amongst the parties to provide project status updates, and to ensure that potential staff changes do not affect emergency preparedness. In addition to the emergency response information presented below, a Contingency Plan is included in the Remedial Action Work Plan (RAWP)."
195	L2.9.8	E. Hale	Communication. Will there be a telephone at Midnite Mine, or is this a holdover from another site? Discuss who will be able to have radios and who will provide them. Discuss cellphone coverage at and near the site.	Section L2.9.8 has been revised as follows: "Communications will occur via two-way radios or cellular telephones equipped with receiver boosters. At a minimum, the RA Contractor will be required to provide reliable communication services on-Site."
196	L3.5.5	E. Hale	"Work in remote and/or rugged terrain should [shall?] not be conducted alone." Is the buddy system built in as a requirement? Mountainous and wooded--in some areas. Discuss other slip, trip, and fall hazards, such as slippery liners, surface pipes, ditches and lined ponds, for example, highwalls and uneven/unstable slopes of waste rock.	Note that the referenced text is in Section L3.4.10. Slippery liners, temporary pipes located on the land surface, and ditches have been added as potential slip, trip, and fall hazards. Specifics regarding the buddy system are referenced in Sections L1.5.3, and L2.3.
197	L3.7.3	E. Hale	(a) Are site buildings grounded and equipped with lightning rods? (b) What is the threshold for suspending work for an electrical storm? (c) What about fire hazards that may result? How to ensure that workers are not trapped between fence and fire?	(a) The detailed design of the buildings in the CSZ (including grounding requirements) will be at the discretion of the RA Contractor. (b) General procedures for avoiding lightning-related injuries were added to Section L3.7.3. (c) Fire hazards and evacuation procedures during a fire are addressed in Section L3.4.11.
198	L3.8.5	E. Hale	Ensure that pre-demolition inspections and demolition work address protection from hantavirus exposure.	Text was added to Section 3.8.5 to state that the contractor-prepared CSHP will include JSAs specific to inspecting and demolishing existing Site structures that may present hanta virus risks.
199	L3.9.1	E. Hale	Do liners and liner adhesives (if used) produce organic vapors of concern? These will be installed near the pit bottoms. While radon	(a) As stated in Section L3.9.1, the JSAs contained in the contractor-prepared CSHP will consider organic vapors specific to their work activities. (b) The initial text under the L3.9 header has been revised to add the following bolded

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Comments on 90% design - EPA review				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
			monitoring doesn't belong here, reference it, to acknowledge "air quality that may be unique to working in the pits"	text: "Radiation/ Radon Surveys. Radiation/ radon monitoring requirements are discussed in the RPP included in Attachment L-1."
200	RSM, section 4.3	E. Hale	"Historical data on radon concentration in air will be reviewed and general baseline levels established." This should be done in 2015. Rather than the default being to not monitor unless deemed necessary, monitoring should be required unless deemed unnecessary. This is an issue of particular community concern for worker safety. Consider BZ monitoring for initial phases of work near/on ore piles and at the bottom of the pits. Demonstrating that exposure is not above 25% of the DAC in areas where activity concentrations are high provides the strongest assurance.	Measurement and evaluation of airborne radon and radon progeny concentrations near ore piles and at the bottom of the pits will be conducted during initial phases of the project to evaluate the need for further radon monitoring. Section 4.3 of the RPP has been revised accordingly.
201	SOPs	E. Hale	Note that at 100%, the SOPs submitted shall be approved and signed.	The signature blocks from the standard operating procedures (SOPs) in the RPP (Attachment L-1) have been removed. All other signatures in the BODR supporting plans (e.g., HASP, QAPP) will be added following EPA approval of the 100% BODR.
202	Appendix M - Substantive Compliance	E. Hale		
203	General	E. Hale	A number of regulatory compliance reviews are ongoing, such as Section 107, Section 106, CAA and CWA compliance documentation. See separate correspondence. Provide updated Appendix M with 100% design, indicating status (revision number/approval status)	Appendix M has been updated with the current status of the various regulatory requirement documentation/agency reviews, as applicable.
204	Appendix M Biological Assessment	E. Hale	EPA submitted the BA to USFWS with a letter dated September 29, 2014, and a response is pending. No further action is required of SDs at this time.	Comment acknowledged.
205	Appendix N - Tribal Access/Right of Way Documentation	E. Hale	Update this Appendix to reflect the current status of leases, as many have expired. Update information regarding negotiations with the Tribe in N2.7. EPA is not confident that best efforts have been used to advance access assurance with allottees. EPA and BOR are coordinating regarding access in areas below elevation 1310'. Note that the Appendix heading should be broadened (delete Tribal).	Appendix N has been updated to reflect the current status of negotiations.
206		E. Hale	It appears that the Tribe may have concerns regarding the pipeline route from the WTP along the FWD to Blue Creek. The route was hard to see in drawings. Note that Figure 3 appears to show the old route at the mouth of Blue Creek. Regardless of the timing of the NPDES permit, the route of the pipeline must be established and cultural reviews and access arrangements must be moved forward. If the route has been altered, either at the mouth of along the southwest drainage, update this figure to show the route agreed to by the Tribe.	Figure 3 has been updated to include the most current pipeline alignment. Topographic contours were also added to provide a frame of reference. Note: the cultural surveys were performed by the Tribe's Preservation Office in the Area of Potential Effect (APE) that was based on the current alignment.
207	Appendix O - Master Stormwater Management Plan	E. Hale		
208	O5.5	E. Hale	Supervisory versus certified--clarify which organization is responsible for dust monitoring (Contractor? CQA lead? DMC staff?). Tribal air quality staff have indicated that DMC monitoring commitments have not been fulfilled, data hasn't been provided, and the correct monitoring method has not been used. This is an area that requires thorough planning, communication, and follow-through.	To maintain consistency between the RA plans, the air monitoring requirements were removed from the Stormwater Management Plan (SWMP). All air monitoring during the RA will be performed in accordance with the Air Quality Monitoring Plan (AQMP). We believe that current air monitoring is being conducted as required, that the data are recorded and retained in records as required, and that the correct methods and employee training are being employed.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Comments on 90% design - EPA review				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
209	O5.6	E. Hale	The December 7, 2013 Technical Memorandum identifies commitments to identify and address mine-impacted groundwater that may be coming to the surface in/from remediated areas. Revise design to reflect requirement for contractor to regularly identify and characterize groundwater seeps/sources to areas where work is ongoing and as each area is cleared of waste, and describe process for taking action to address (capture/store/treat) seeps. In RTC, reference where this is described.	FSP Section Q1-2.1.7 describes the process for 1) performing inspections to identify and characterize seeps in the remediated areas, and 2) the process for capturing and treating the water pending characterization results. This and other FSP tasks will be performed by DMC/Newmont, and are not the responsibility of the RA Contractor. Any water encountered in areas where RA construction is ongoing will be captured and conveyed to the operating WTP, and not allowed to flow off-Site prior to treatment.
210	Appendix P - OM&M Plan	E. Hale	See CH2M Hill comments	Comment acknowledged.
211	Appendix Q - RA Site-wide Monitoring Plan	E. Hale	See CH2M Hill comments	Comment acknowledged.
212	General	E. Hale	(a) This plan is intended to support monitoring during the construction phase. It includes discussion about the changes expected as a result of completion of the remedy, but doesn't discuss it fully in terms of potential impacts of the remedial action work, even those that the design seeks to prevent. Doing so is necessary to ensure appropriate monitoring. (b) Will there be potential exposure of unweathered rock and resulting water quality impacts (in areas undergoing remediation), for example, or WTP influent changes, or mine-affected stormwater and air particulates moving offsite. (c) Radon/Radiation heading should state expectations about whether levels will be affected during construction. (d) Ensure that metals in surface water are analyzed both as dissolved and total concentrations.	(a) Section Q2.2 been added to the SMP to describe the anticipated impacts that the RA construction activities will have on contaminant fate and transport. (b) As described in Section Q2.2, BMPs will be established to prevent mine-affected stormwater and particulates from moving off-Site, and the monitoring network described in the FSP (Appendix Q1) is designed to confirm the BMPs are effective. The monitoring network also is designed to provide data to evaluate if exposed bedrock in remediated areas is impacting surface water downstream. WTP influent parameters are not expected to change significantly during the RA as water will continue to be temporarily stored (and homogenized) in large ponds. (c) It is not anticipated that gamma exposure rates will differ during construction. Radon levels will be monitored as necessary as discussed in the HASP. (d) Surface water samples will be monitored for both total and dissolved constituents.
213	Q1.1	E. Hale	This notes that a comprehensive air monitoring program is not required by regulation, because remediation will not be a major source. Update this section when EPA provides comments on the AQMP.	The referenced text has been revised as follows: " Air Monitoring. Details of the environmental air monitoring plan are being developed, and an Air Quality Monitoring Plan (AQMP) has been submitted for Tribe and EPA review. When finalized, the AQMP will be included as an attachment to this SMP."
214	Q1.2	E. Hale		
215	Q2.3	E. Hale	This section notes that the alluvial interceptor trenches will be abandoned once alluvial groundwater meets cleanup standards. Abandonment can mean a defined process, as for a well, or simply walking away. We assume the former, but discuss the objectives, methods and, if not done well, the potential hydrologic effect. Might this inadvertently create wetlands?	It is likely that discontinuing the operation of the alluvial groundwater trenches will impact the local flow regime in these drainages. DMC/Newmont envisions discussing the appropriate abandonment procedures with EPA during the CERCLA 5-year process if and when the results from groundwater monitoring show that the groundwater in the shallow aquifer is meeting the cleanup goals.
216	General, esp Q4.0, Q2.4.2	E. Hale	Check for tenses: "may be" or 'likely' is used in some cases, but many are actions or conditions that must be clear by 100% design (e.g. air monitoring). 'Will be' is used in some cases for work that has been completed (e.g. wells near Oyachen). Check use of "converges" - needs "with XX" to be understood.	The sentence that stated "...new monitoring wells will be installed at the confluence of Oyachen and Blue Creeks..." has been deleted (these wells have been installed and are added to the groundwater monitoring network). The last sentence in Section Q4.5 has been revised to clarify where the stormwater converges. Reference to the AQMP has been added as described in the response to Comment 213.
217	JSA	E. Hale	Correct the spelling of analysis in title.	Spelling has been corrected as requested.
218	Appendix R - Staging/Temporary Stockpiling Plan	E. Hale	See CH2M Hill comments	Comment acknowledged.
219	Appendix S - Analytical Support and Verification Plan for Surface Materials and Sediments	E. Hale	See CH2M Hill comments	Comment acknowledged.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Comments on 90% design - EPA review				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
220	Appendix T - Water Source Identification and Development	E. Hale		
221	General and T3.0	E. Hale	Update status of water source identification and development to reflect the results of the man camp well testing to verify MCL compliance. If IX polishing will be needed, provide more detail to support claims of its effectiveness or propose a schedule for testing treatment. Discuss waste management. Ensure that the costs of the additional treatment and IX resin disposal are included. Provide details of a backup source and include cost for acquiring and delivering water, in the event that SDs and the Tribe do not reach agreement. In coordinating with the County PW and in estimating traffic and road loading, verify that the estimates account for water trucks.	Appendix T has been updated to include the results of the water quality testing for the well near the mancamp, details describing the water treatment, and details of the IX resin management. The estimated cost to construct a treatment system for this well, would be approximately \$15,000. A signed tentative agreement between the Tribe and DMC/Newmont for the use of on-Site water has been completed and a final agreement is expected to be completed in the next several months.(WME)
222	Appendix U - RA CQAP	E. Hale	See CH2M Hill comments	Comment acknowledged.
223	Appendix V - Procurement Strategy	E. Hale	See CH2M Hill comments	Comment acknowledged.
224	General	E. Hale	Review the need to update phasing and associated contract procurement approach if an abbreviated 2015 work season will be needed. As discussed, SDs should work with the Tribe's HR program and their Enterprises group to draft a list of information about tribal contracting capabilities for construction contractors in a timely way.	On 27 April 2015, DMC/Newmont sent a revised schedule attached to a letter requested by EPA (in your 9 April 2015 correspondence transmitting the 90% Midnite Design comments). In our letter, we state that because of ongoing Tribe/DMC/Newmont negotiations for Site access and water and now a signed tentative agreement that 2015 construction activities are not possible. In a follow-up May 15, 2015 submittal, it was reiterated that no activities could be conducted in 2015 in "an efficient and responsible manner prior to finalization of all items necessary to begin the project." EPA acknowledged this conclusion in a letter dated May 28, 2015. As a result, the revised project schedule shows that construction will begin in 2016 following EPA acceptance of the 100% Design, selection of a RA Contractor, then finalization and approval of the RAWP. DMC/Newmont will work with the Tribal HR program as outlined in the Spokane Tribal Employment Rights Ordinance (TERO).
225	V4.3	E. Hale	Typo in Section title.	Effluent spelling corrected.
226	V7.0	E. Hale	Clarify V7.0 bullets: "and their compliance with applicable laws and regulations". Does "their" refer to safety plans, policies and procedures, or is this related to more general compliance (such as compliance with environmental laws). Past issues with either worker health and safety or environmental compliance warrants consideration of the costs for work stoppage due to such issues and warrant heightened oversight.	"Their compliance" refers to their safety plan and internal company policies and procedures compliance with federal, state, local, and Tribal regulations. In the RFI process, if there are problems with any aspects of these items, the prospective contractor could, depending on the situation, be excluded from the next step in the bidding process (i.e., receipt of the project RFP).
227	V6.0	E. Hale	(a) Briefly mention here SDs' expectation (this should be a requirement in the bid documents) for contractor to hire as many Superfund Job Training graduates as possible. (b) Revise "Preference will be granted" to clarify who will grant preference to Tribal contractors (and clarify: does this apply only to prime construction contractors or to all contractors/subcontractors?)	(a) Should the Tribe and EPA conduct a Super JTI training program, DMC/Newmont will encourage the selected RA Contractor to utilize Super JTI graduates in a manner that is consistent with the administration of the Tribe TERO program, provided such hires are qualified for the necessary project activities. (b) Section V.6 has been revised to state: "all RA work will be conducted in accordance with the Spokane Tribe of Indians TERO." Statements regarding preference have been deleted.
228	Appendix W - Engineer's Cost Estimate	E. Hale	This document was submitted as CBI. EPA comments are not CBI. EPA did not task CH2M Hill with review of this estimate.	Comment acknowledged.
229	General	E. Hale	(a) Is it typical not to include information about uncertainties in the estimate and/or contingency? (b) This estimate assumes indefinite availability of the White Mesa mill for processing and disposal of WTP residuals. Note the uncertainty in this, and identify a range of potential costs should this option be unavailable. (c) Review all environmental monitoring costs (air, water, sediment, groundwater,	(a) The earthworks construction costs for the 90% RD were prepared to be transparent for review, with no contingencies included. (b) Sludge disposal costs assuming processing at the White Mesa Mill were included as there is an existing contract with Energy Fuels for processing into the foreseeable future. The availability and cost of an alternative beyond the foreseeable future cannot be quantified at this time. (c) Environmental monitoring costs are provided in Attachment W-4. (d) The estimated costs for determination of the need for remediation of lower Blue Creek, as well as the estimated costs for actual remediation of lower Blue Creek, are not included since this is a

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Comments on 90% design - EPA review				
Number	Reference Page or Sheet No.	Reviewer	Review Comment	Response to Comment
			etc). (d) Include estimated costs for determining the need for remediation in Blue Creek. Add a note that the Blue Creek remediation costs are not known, and if necessitated, would be done through a separate contract. Add a note regarding mitigation costs. (e) Are costs for Tribal cultural observers included? (f) Verify that IX costs (for construction water, and for WTP) are called out. (g) Confirm that NPDES discharge monitoring costs are included (or are not). (h) Consider whether contingencies are sufficient in light of potential climate change impacts. (i) Present worth value is provided at 7% discount for 30 years. (j) This project includes perpetual O&M&M, so the effect of different discount rates and periods should be presented. 7% is no longer realistic or recommended by OMP. OM&M schedule should include maintenance of soil/revegetation areas outside the cover footprint (as waste is cleared). (k) Cost uncertainties (and estimated cost) if off-reservation sources of water and borrow must be used should be noted. (l) Are costs for proper well and alluvial interceptor trench abandonment included?	“contingent action” and the need for remediation would be determined after the Site RA. If a contingent action is required to remediate sediment in Blue Creek. It is assumed that work would be done under a separate contract. (e) Estimated costs for Tribal cultural observers during the RA are not included. (f) Ion exchange (IX) costs are not included in the cost estimate because it is assumed that the sludge will be processed at Energy Fuels, and therefore the IX portion of the WTP will not be required. (g) NPDES discharge monitoring costs are included in Attachment W-4. (h) The design and therefore the estimated costs have considered potential climate change impacts. (i) The present worth calculations present a range of present values from annual costs over two time periods (7% over 30 years and 3% over 140 years). (j) Cover maintenance costs are included in Attachment W-4 for two periods of time through 2044, and would include critical areas outside of the cover footprint. (k) The design and therefore the cost estimate assumed the use of on-Site water and borrow from the Rhoads Property borrow area. Tentative agreements have been reached with the Tribe for use of these resources. (l) Costs for well abandonment and alluvial interceptor trench abandonment are not included since the duration of their operation and use will not be known until the RA performance is monitored.
230	Appendix X - RD/RA Schedule	E. Hale		
231	General	E. Hale	Update the schedule, based on status of negotiations. EPA understands that some key 2015 tasks can start later in the 2015 work season and continue through the winter. For example, at a minimum, initiation of rock crushing should be a goal.	The schedule has been updated with the assumption that construction will begin in the spring of 2016. While crushing of Hillside Borrow Area rock is a goal for initial activities, water necessary for dust control for the crushing operation requires this task to be contingent on resolution of negotiations. The revised schedule in the 100% BODR Appendix X shows the construction work beginning in 2016 as has been communicated with the EPA. This assumes successful finalization of the agreement between Tribe and DMC/Newmont for Rhoads Property borrow area access and use of water during the RA, approval of the 100% Design, selection of a RA Contractor, and finalization and approval of the RAWP prior to mobilization for construction in late May 2016.
232	Appendix Y - Blue Creek and Delta Assessment	E. Hale		
233	General	E. Hale	EPA comments on this document are on hold pending geomorphic reconnaissance results and further discussion. While we expect resolution and any baseline sampling that is required to occur prior to the 2016 field season, the 100% RD need not include this Appendix unless otherwise indicated by EPA.	Appendix Y - Blue Creek and Delta Assessment Work Plan is not provided in the 100% Midnite Mine design based on this comment.
234	Appendix Z - Well Decommissioning Plan	E. Hale	See CH2M Hill comments	Comment acknowledged.
235	Appendix AA - Power Distribution and Pump Controls	E. Hale	no comments.	Comment acknowledged.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Spokane Tribe Technical Comments from Dr. Fred Kirschner, AESE Inc				
Number	Reference Page or Sheet No.	Review Comment	EPA Direction	Response to Comment
236	FK 10/27/14 Addendum to Comments dated 10/20/14	The Spokane's September 20, 2014 [NB: the correct date is October 20, 2014] review of the aforementioned document, which was also submitted electronically to NEM, states: "This review focuses on technical aspects associated with proposed actions occurring in the MA and MAA. It does not focus on compliance with building codes...However, individual resource project managers may submit comments on these types of issues at a later date." Upon further discussion with EPA and STI-DNR, it became apparent that a Wetland Mitigation/Restoration plan is inadequate for the 90% BODR submittal. The following language which is repeated throughout Table M-3 and elsewhere is not necessarily correct and does not sufficiently describe decisions and subsequent actions that are the heart of a Mitigation/Restoration plan. [bullets: unavoidable impacts to wetlands will be avoided , minimized, and mitigated in the Northern and Eastern Drainages; Applicable conditions associated with NWP 38 including compliance with Section 404 of the CWA, Section 106 of the NHPA, ESA, and Executive Orders 11990 for wetlands and 11988 for floodplains will be complied with; Pre-mine wetlands impacted will be replaced at a 1:1 ratio ; A Wetland Restoration Plan consistent with Section 404(b)(1) requirements will be prepared and implemented ; If on-site wetland restoration is unsuccessful, alternative locations within the Spokane Indian Reservation will be identified and pursued or credits will be purchased at an accredited mitigation bank. [Emphasis added] For example, if the replacement ratio is not specified in STI-DNR regulation, then a technical team headed by a natural resources economist may be necessary to determine the appropriate replacement ratio. Also, credits purchased from "an accredited mitigation bank", will not necessarily benefit STI citizens. Finally, this section describes preparing Mitigation/Restoration plan sometime in the future, when clearly the plan should be developed as part of the BODR. STI-DNR personnel have been contemplating prospective projects and are willing to work with the SDs on this issue: however, the Wetland Mitigation/Restoration plan needs more work.	EPA direction: (a) Update this discussion to reflect current information. Since the 90% design submittal, considerable progress has been made in better defining the requirements of the CWA 404 with respect to avoidance, minimization, and mitigation. (b) Through meetings with EPA and the Tribe, deliverables for EPA and Tribal review, a site visit and other work as necessary, the SDs will be able to accurately document how impacts will be avoided or minimized, and how and when necessary mitigation for unavoidable impacts will be completed. At a minimum, the final design shall include accurate reports of current conditions, the anticipated timing of impacts due to remediation, the area and functions of the impacted wetlands and watercourses, and a conceptual design for required mitigation. (c) through (f) The ratio of impacted areas to required mitigation areas is an EPA policy determination based on science and guidance. We recognize the importance of input from the Tribal resource managers, and the Spokane Tribe will be asked to provide 401 Certification. In the absence of appropriate credits from a mitigation bank, mitigation plans will be developed by SDs in coordination with Tribal resource managers and EPA for EPA approval. Mitigation ratios, specific mitigation plans, and a schedule for implementation will be subject to EPA approval. NB: Correct the bullet to remove an extra "avoided". Correct the bullet that states "pre-mine wetlands impacted will be replaced at a 1:1 ratio" to reflect that the mitigation ratios will be based on guidance (cited in comments from EPA's Wetland Ecologist, Linda Storm) and other current practices. Note also that mitigation is required for impacts to water courses, not only wetlands, and is not limited to pre-mining wetlands and water courses.	(a) Appendix M has been updated to include the most current discussion with EPA regarding the impacts to wetlands and streams as well as mitigation as described in the Wetland Delineation - Rev 4 and Conceptual Mitigation Approach. (b) The text has been updated to state "Impacts to wetlands will be avoided and minimized, and unavoidable impacts will be mitigated". (c) The mitigation ratios used will be based on EPA's interagency Mitigation Guidance for Washington State. (d) Stream mitigation ratios are still being negotiated with EPA since there is no formal agency guidance. (e) Investigation for an appropriate off-site mitigation bank for compensatory mitigation is ongoing. (f) The 401 Certification will be requested from the Tribe for off-site activities that require a CWA 404 or NPDES permit.
237	FK 10/20/14 page 1	The Tribe's review focuses on technical aspects of the proposed actions in the MA and MAA. It does not focus on compliance with building codes, cultural resource issues, or issues subject to the review of the IRMP, such as the prospective borrow areas or the alignment of the pipeline along Blue Creek. Individual resource project managers may submit comments on these types of issues at a later date.	The Tribe may comment at any time, but for purposes of incorporating the requirements in the 100% design, EPA has provided a reasonable opportunity for review and comment by the Tribe. While we will gladly receive and consider comments prior to approval, we cannot guarantee that we will require the mining company to address comments received following EPA approval.	Comment Acknowledged
238	FK 10/20/14 General	It has been determined that the SDs do not have legal access to and from the site (i.e. the Rhoads property is	EPA direction: The 100% design shall include updated language regarding agreement for access and other	Appendix N has been updated with the current status of negotiations with the Tribe regarding site access. Unresolved issues have been identified.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Spokane Tribe Technical Comments from Dr. Fred Kirschner, AESE Inc				
Number	Reference Page or Sheet No.	Review Comment	EPA Direction	Response to Comment
	Comment 1 - Access to Rhoads Property	landlocked), and if access to the Rhoads property is not resolved, the Ford Borrow Area alternative must be used. [Footnote 1] Therefore, the following statement (page 3, Appendix N), as well as others pertaining to the status of negotiations between the Tribe and SDs, are dated and are no longer valid: The Company has had several meetings and discussions with Tribal representatives, including their technical and legal representatives, over the past six months. There have been comprehensive offers made that provide for the combination of access to the site, renewal of expired leases, water for construction purposes, and long term institutional controls, and the Company believes that these offers were well in excess of reasonable, fair market value for these specific items. Discussions are ongoing, and the parties' representatives are continuing to prepare draft agreements addressing these matters. However, key terms have not been agreed upon, and it is unclear if definitive final agreements on these necessary elements can be obtained in time to begin implementation of the remedy under the current schedule. Although the Tribe and the SDs have been in discussion on water needs and within-site access, access to the Rhoads property has not been the subject of these discussions until very recently. Further, the Tribe does not believe that SDs offers for on site-related resources "were well in excess of reasonable, fair market value for these specific items". In fact, it appears that the Tribe and NEM are currently far apart on many issues and unless resolved, the Ford Cover Material Borrow Alternative, as well as trucking-in water from off-reservation locations may be necessary. [footnote 1: This issue also has implications on the alignment of the upstream portion of the NPDES pipeline as well as the assumed use of a new access road to the site. Like the off-MA ponds once proposed by the SDs, the Tribe wants to reduce the impact to lands not necessary to carrying out the remedy and does want to commit any new unaffected lands to long-term land uses that are not compatible with future land use (IRMP: Preserve All Future Land Uses).]	arrangements related to the site. If the Tribe and SDs have not reached agreement, unresolved matters shall be identified but negotiation issues not discussed in detail.	
239	FK 10/20/14 General Comment 2 - MA Culvert Crossing	MA culvert crossing at Ford-Wellpinit Road: The road prism containing the aforementioned culvert is constructed out of MUM mine waste material. The Tribe is unable to determine from the 90%BODR if this road prism will be removed as part of the remedy. There are a handful of smaller crossings in the area (e.g. on Blue Creek upstream from the MA confluence) which are also constructed at MUM mine waste material. Will these be removed as well?	(a) According to Dr. Kirschner, there are two crossings on Blue Creek made with Togo Schist from Midnite Mine. One is at Burma Road (#43) and one is at Elijah Road (#25). SDs shall plan and implement in 2015 a field reconnaissance and gamma survey of these locations and as possible the Ford Wellpinit road prism near the current and proposed culvert. SDs shall submit a report within 30 days of the field survey, summarizing the investigation and providing photographs, tabulated gamma results and a mine waste rock volume estimate. It may be that the material is a minor ongoing source of mineralized particulates and that removal of the material from Blue	(a) DMC/Newmont will conduct a gamma survey at the Elijah Creek and Burma Road crossings in 2015 as instructed and provide a report within 30 days of this field work. (b) It is noted that removal of mine waste rock if it is found at the crossings will require a design change at some point during the RA. (c) Mine waste rock removal, whether at the Site or in a road prism discussed in this comment, will follow the same procedure of identification, excavation, and verification that are followed during the entire Site cleanup. Specification Section 02205 discusses mine waste excavation and disposal. This material will be removed until sampling shows the cleanup goals for Mine Surface Materials have been met (Table 8-3 in the CD), then depending on the circumstances, replaced with clean fill.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Spokane Tribe Technical Comments from Dr. Fred Kirschner, AESE Inc				
Number	Reference Page or Sheet No.	Review Comment	EPA Direction	Response to Comment
			Creek will improve the chance of the creek recovering or, after sediment cleanup, continuing to meet cleanup standards. If a crossing is still needed, replacement of waste rock with basalt may be appropriate. (b) For purposes of the final design, please note that removal of mine waste, if present, shall be addressed as a design change prior to installation of the pipeline along Blue Creek road. (c) With regard to road prism, SDs shall describe how mine waste rock exposed during construction of or in, or repair of, roads will be addressed.	
240	FK 10/20/14 General Comment 3 - Logging on or Near the Site	Logging on or near the Site. The Tribe plans to log areas near the MUM as part of its timber program. It is not clear how the Tribe's work or removal of sediments and proximal vegetation in the MA and MAA by the SDs might affect the hydrograph for different storm events. In summary, we need to know if there will be any negative effects from logging in these areas.	The attenuation berms appear to have been designed for flows assuming vegetated drainages. SDs shall document that the design of attenuation berms and erosion controls in the drainages addresses conditions in the drainage during and after remediation. Address removal of vegetation, construction activities, a temporary lack of soil in excavated areas, re-vegetation that is not fully established, buildings and roads, potential near term logging of areas that flow to the mine drainages, and any other anticipated changes to areas that drain to these berms. In addition, SDs shall document that and discuss how the design addresses the potential impacts of logging of as much as 80% of the mature trees in the drainage basin following establishment of vegetation on site, using long term hydrologic assumptions. Address in the design of erosion controls, attenuation berms, and any other impacted elements.	The design basis for the attenuation berms is the remediated (vegetated) condition; however stormwater simulations are run for each phase of the remedial action as well as for the post-remediation condition. To address this comment, we ran additional simulations that assumed logging of 80% of the mature trees. The simulation results show that the 100-year peak flow at the mine outlet increases from 8 cfs to 19 cfs and the 500-year peak flow at the mine outlet increases from 23 cfs to 34 cfs. The spillways are used in the 100-year and 500-year storm events for the post-logging scenario, but the berm crests are not overtopped.
241	FK 10/20/14 Comments on 60% not addressed 1.	The Tribe's 5th general comment on the 60% BODR has not been adequately addressed. EPA directed SDs to include an estimate for excavation and hauling of the necessary material volumes if Ford material were used. SD's response states: "At this time, DMC/Newmont feels it is premature to provide costs for the possible uses of the Ford Borrow Area when the Spokane Tribal council has given approval for the use of the Rhoads Borrow Area." It may be that some material will be needed from Ford to complete the remedy, and this information has been requested more than once as a means of demonstrating transparency in decision-making.	EPA again directs SDs to provide an estimate of the costs (for the full volume needed) in Appendix C, unless it is provided to EPA and the Tribe separately to support an agreement for site access to the Rhoads property.	See response to Comment 167.
242	FK 10/20/14 Comments on 60% not addressed 2.	The Tribe's 7th General comment on the 60% BODR has not been adequately addressed.	EPA direction: Discuss the potential for a spill of diesel or other organics to end up in the water treatment system, for example if a spill occurs in Pit 3, the backfilled pits, or the South Pond impoundment during construction. Could such an occurrence damage the water treatment plant enough to cause a delay of 6 weeks or more? If so, SDs shall incorporate into the remedial design (not the WTP design, but not incompatible with it) a means of preventing this by providing for storage of impacted water and using technologies such as an oil-water separator or a GAC	A Spill Prevention and Response Plan will need approval prior to construction implementation. The water treatment process will likely be incompatible with organic contaminants, thus requiring pretreatment if organics are present. Portable, temporary treatment equipment will need to be identified as a contingency for this condition, thus minimizing potential down time for the mine water treatment plant operation.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Spokane Tribe Technical Comments from Dr. Fred Kirschner, AESE Inc				
Number	Reference Page or Sheet No.	Review Comment	EPA Direction	Response to Comment
			unit to pre-treat impacted water. EPA does not require that the long term treatment system be designed to handle organic compounds, as we do not expect to find organics in the water. If conditions change or a spill occurs, SDs shall demonstrate how this contingency would be handled and ensure that it will not impact the remediation schedule.	
243	FK 10/20/14 Comments on 60% not addressed 3.	The Tribe's 12th General comment on the 60% BODR has not been adequately addressed.	While Dr. Kirschner indicates that portions of Blue Creek may not have been perennial prior to mining, Brian Crossley indicated that Blue Creek probably was not ephemeral. The importance of making a final determination is unclear. However, SDs shall identify in response to this comment what data they are referring to in stating that pre-mining conditions were perennial. EPA accepts the text in the 90% BODR at this time. A determination based on all available information can be sought if needed in future.	Comment acknowledged.
244	FK 10/27/14 Addendum to Comments dated 10/20/14	<p>The wetland mitigation/restoration plan is inadequate for the 90% BODR submittal. The following language which is repeated throughout Table M-3 and elsewhere is not necessarily correct and does not sufficiently describe decisions and subsequent actions that are the heart of a Mitigation/Restoration plan.</p> <ul style="list-style-type: none"> - Unavoidable impacts to wetlands will be avoided, minimized, and mitigated in the Northern and Eastern Drainages. - Applicable conditions associated with NWP 38 including, compliance with Section 404 of the CWA, Section 106 of the National Historic Preservation Act, Endangered Species Act, and Executive Orders 11990 for wetlands and 11988 for floodplains will be complied with. - Pre-mine wetlands impacted will be replaced at a 1:1 ratio. - A Wetland Restoration Plan consistent with Section 404(b)(1) requirements will be prepared and implemented. - If on-site wetland restoration is unsuccessful, alternative locations within the Spokane Indian Reservation will be identified and pursued or credits will be purchased at an accredited mitigation bank. [Emphasis added] <p>For example, if the replacement ratio is not specified in STI-DNR regulation, then a technical team headed by a natural resources economist may be necessary to determine the appropriate replacement ratio. Also, credits purchased from "an accredited mitigation bank", will not necessarily benefit STI citizens. Finally, this section describes preparing</p>	Addressed in separate EPA comments on CWA 404 compliance.	CWA 404 compliance has been updated per EPA's comment.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Spokane Tribe Technical Comments from Dr. Fred Kirschner, AESE Inc				
Number	Reference Page or Sheet No.	Review Comment	EPA Direction	Response to Comment
		Mitigation/Restoration plan sometime in the future, when clearly the plan should be developed as part of the BODR. STI-DNR personnel have been contemplating prospective projects and are willing to work with the SDs on this issue; however, the Wetland Mitigation/Restoration plan needs more work.		

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Comments from Jackie Corley, Tribal Archaeologist, Spokane Tribe Archaeology and Preservation Office			
Number	Review Comment	EPA Direction	Response to Comment
245	Rhoads Property plan of operation and reclamation page 10. Cultural consideration for the survey mentions that it will be performed in the spring/summer of 2014. Due to the contract being drafted later in the year the survey work occurred in the fall of 2014.	Update description of survey work.	If and when the use of the Rhoads Property borrow area receives final approval from the Tribe and an access agreement is reached, the Rhoads Property Plan of Operation and Reclamation will be updated as required by the Tribe, Stevens County, and other permitting entities. Please note that the current version of the Rhoads Property borrow area has been included with the BODR for reference only.
246	The SWPPP must also include a legible site map (maps) showing the entire construction site outside of the fence.	The referenced SWPPP is for the Rhoads borrow area, so the requested map for other areas doesn't belong here. However, a SWPPP is required for the remedial construction. Include in the overall SWPPP the SWPPP for the Rhoads borrow area and ensure that the two plans are integrated, including areas inside and outside the fence.	The commenter must keep in mind that there are two SWPPPs: one for the Rhoads Property (which is located in the Rhoads Plan of Operations and Reclamation in Appendix C of the BODR), and one for the remedial action construction at the mine site (which is located in Appendix O - Master Stormwater Management Plan of the BODR). The requested maps showing the "entire construction site" are located in Attachment O-2 of Appendix O. Drawings 3-101, 3-102, and 3-103 in the 90% BODR indicated all known areas of construction disturbance within the Whitetail Creek (WTC) Drainage, both within and outside of the Rhoads Property boundary. If an access agreement is finalized with the Tribe for use of the Rhoads Property as a borrow source, then the SWPPP included in the Rhoads Plan of Operations and Reclamation will be updated to include a map showing all known areas of construction disturbance within the Whitetail Creek Drainage, both within and outside of the Rhoads Property boundary including WTC soil cleanup areas and as otherwise required by the permitting process. If an access agreement and final approval of the Rhoads Property borrow area is not received, the Master Stormwater Plan of the BODR (Attachment O-2) will be updated to reflect only areas of disturbance associated with the WTC cleanup (i.e. areas disturbed by access road, haul road, and Rhoads Property borrow area development will be deleted).
247	Show anticipated timing for demolition/disposal of buildings, facilities, structures, and equipment that are not needed for the remediation. .	Demolition activities are described in Appendix H. Initial demolition is shown on line A0720, with WTP demolition shown on A1430. This is acceptable to EPA. Confirmed with JC.	Initial demolition is shown in Appendix X for structures and equipment not needed for remediation on line A0720. The demolition activities are described in Appendix H and shown in the Section 8 Drawings.
248	The effluent pipeline and the diffuser design have been put on hold at the 60% design level until the NPDES permitting process is finalized. The cultural resource survey done in 2014 for the Blue Creek Pipeline did not include the drawdown area where Blue Creek enters Lake Roosevelt. This area needs to be added, based on the 90% design of the pipeline or on an area sufficient to encompass potential changes in the route through this zone. The route must not pass through the Blue Creek Campground. Please ensure that figures do not include the campground in the Area of Potential Effect and state clearly that the pipeline does not and will not affect the Blue Creek Campground.	Make the requested change.	The effluent pipeline does not enter or pass through the Blue Creek Campground. Updates have not been made to the effluent pipeline drawings since the WTP design is on hold until the NPDES permit is reissued. These design updates will be included when that portion of the project is progressed.
249	Figure 1 of Attachment J-3 shows the 30% design proposed pipeline alignment that goes through the Blue Creek Campground. The tribe has expressed that they do not want the pipeline running through this campground and the drawings generally show the more current alignment.	The map in this appendix is associated with a report from 2012. Please ensure that the figure (and any others that show the former proposed pipeline route is marked with a clearly visible SUPERSEDED to avoid confusion.	Refer to the response to Comment 249.
250	Tracking and Documentation #19: (Please reword the following statement to what is listed below) "The preservation office will prepare a report summarizing the results of their literature search, interviews of previous mine employees, field survey, monitoring, historical research, and THPO consultation if necessary." Sections #20, actions to be taken to attain the requirements (change to statement above) Section #21, actions to be taken (change to statement above) Note: The preservation program does not want any confusion that we will be performing informative	Make the requested change.	The sections were updated to be consistent with comment.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Comments from Jackie Corley, Tribal Archaeologist, Spokane Tribe Archaeology and Preservation Office			
Number	Review Comment	EPA Direction	Response to Comment
	meetings, or interviews with the community. The interviews are strictly to obtain information from previous employees about the construction of the mine, and other topics that will pertain to the cultural survey report.		
251	On site substantive requirements: please change phrase to: "The preservation office will prepare a report summarizing the results of their literature search, interviews of previous mine employees, field survey, monitoring, historical research, and THPO consultation if necessary."	Make the requested change.	The section was updated as requested.
252	The italic sections of the following statement are incorrect. Reword: "In addition the Preservation Office will <i>provide public notification</i> on the Spokane Reservation and determine if interviews with former mine workers <i>or consultation with stakeholders and interested parties would be necessary.</i> " This section should only state that this department will conduct interviews with former mine workers. The archaeology and preservation program will not be responsible for conducting interviews of or consultation with stakeholders and interested parties. This department will not provide public notification about the mine, the final cultural resource report, or the reclamation process.	Make the requested change.	The section was updated as requested.
253	During the field visit it was mentioned that existing structures within the mine were not culturally significant. The archaeology and preservation program thought that the Mancamp within the fence was worth documenting. It was photographed, and GPS readings and notes were taken on the structures for the cultural resource report.	The preservation department confirmed in an email clarification of prior comments (dated 3/17/2015) that it is not culturally significant.	The section was updated as described.
254	Please reword "The Tribal Cultural Resource Administrator will be on site to identify artifacts exposed by construction and record items found." Reword to: "A member of the Spokane Tribe of Indians Archaeology and Preservation Program will be on site to identify historic or prehistoric artifacts that may be exposed by construction and record items found."	Make the requested change.	Document revised as requested.
255	Please change the following section in the table. Cultural Resources: Probability- Moderate. Revise to read as follows: The most likely area to encounter cultural resources would be the lower Blue Creek drainage. Most of this pipeline will lie under the existing Blue Creek road, which has been surveyed. The pipeline will cross Blue Creek near its mouth, then continue downslope to the deepest part of the Spokane Arm of Lake Roosevelt. Cultural resources may lie below the mud due to inundation and sediment deposition. Although additional survey work is planned below 1310' elevation in this area, the possibility of finding cultural resources during excavation for the pipeline cannot be ruled out.	Make the requested change.	Document revised as requested.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Comments from Gonzaga University Legal Assistance reviewers					
Number	Reference Page or Sheet No.	Reviewer	Review Comment	EPA Direction	Response to Comment
256	general comment	Hansen/ Gonzaga ULA	In order to minimize negative impacts on the project, we urge you to provide an opportunity for public comment and a public hearing when a draft NPDES permit for the treatment facility is available. The Spokane Tribe has strict regulations for surface and drinking water and wants to ensure that the Midnite Mine's NPDES permit is consistent with such standards.	The comment does not directly affect the remedial design. A public comment period is required and EPA expects that at least one public meeting will be planned following the draft NPDES permit. Treated water will be discharged to the Spokane River within the reservation boundary. The permit will be based on the Tribe's surface water quality standards.	Comment acknowledged.
257	general comment	Hansen/ Gonzaga ULA	Community members are concerned about minimizing construction impacts. This includes concerns about wetland water flow. Since effluent discharge to Blue Creek will be discontinued, there will be impacts to the Eastern Drainage area. However, because the primary source of water is the waste water treatment plant discharge, the eastern drainage is not a jurisdictional wetland. Since the wetlands restoration plan is still in progress, please address specific ways in which the Midnite Mine cleanup will be conducted in such a way as to limit harm to wetlands (Table D-1). EPA should be aware of specific concerns including impacts to aquifer in terms of flow, temperature, toxicity and pH of the streams and removal of associated vegetation.	The comment does not directly affect the remedial design. Compliance with the Clean Water Act, Section 404, requires that impacts be avoided, if possible, and that unavoidable impacts be minimized and mitigated. This must be documented and approved by EPA. To clean up contaminated sediments, the sediments must be removed. This will disturb water courses, wetlands, and vegetation in the drainages. Revegetating as soon as possible after sediment removal is required, mitigating for temporal losses while vegetation is re-established, and mitigating for permanent losses of stream courses and wetlands will be key elements of mitigation. Containing mine wastes in the mine pits will greatly reduce the volume of contaminated water that must be collected and treated. Storage of contaminated water in lined impoundments and discharge of treated water to the river removes some water from the immediate watershed, but overall comes closer to pre-mining hydrology. Clean runoff will flow down the drainages and Blue Creek flow will peak and decline on a cycle similar to other drainages.	Comment acknowledged. As described in Appendix M of the BODR, impacts to wetlands will be avoided or minimized. Only those wetlands that require sediment cleanup will be directly impacted by the remedial actions. All other wetlands will be avoided. Temporary and permanent impacts to wetlands will be mitigated in accordance with EPA's interagency wetland mitigation guidance for Washington State.
258	general comment	Hansen/ Gonzaga ULA	Community members are concerned about worker protection. While the radiation protection plan accounts for establishing baselines for radon monitoring based on historical data, it is not expected to be necessary for outdoor work at Midnite Mine. Due to the dense nature of radon, EPA should require expanding this plan to ensure radon monitoring in pits while workers' breathing space is below the natural grade of the landscape.	EPA comments (EPA letter with comments on 90% design) affirm that monitoring is required in areas potentially high in radon, including the pits and ore piles. Monitoring results that indicate levels well below thresholds for worker protection may be used by the Radiation Safety Office to reduce the frequency of monitoring.	Measurement and evaluation of airborne radon and radon progeny concentrations near ore piles and at the bottom of the pits will be conducted during initial phases of the project to evaluate the need for further radon monitoring. Section 4.3 of the RPP has been revised accordingly.
259	general comment	Hansen/ Gonzaga ULA	It should be further required that adequate berms are placed in agreement with safety assessments conducted by Rock Solid Solutions in order to protect workers from falling rocks. The 90% design proposes dimensions of 10	Settling Defendants shall review the 90% design for berms and trenches and ensure that recommendations by Rock Solid Solutions are consistently reflected,	Please review Section 1.3 in the Rockfall Mitigation Plan from Rock Solid Solutions (Attachment D-11) as well as the updated CRSP analyses in the summary (page 4) to Attachment D-11. A 10-foot deep, 15-foot wide rockfall catch berm/trench as designed is considered sufficient to protect against rockfalls involving boulders up to three feet in size. Pit wall scaling will be performed to

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Comments from Gonzaga University Legal Assistance reviewers					
Number	Reference Page or Sheet No.	Reviewer	Review Comment	EPA Direction	Response to Comment
			foot deep by 15 foot wide trenches while the Rock Solid report recommended 15-foot deep by 25 foot wide trenches.	or if not, specify why reduced berm size and other rockfall safety measures provide an equivalent level of rockfall protection.	remove (or in the case they cannot be removed, identify for further monitoring) rockfall sources larger than 3 feet in size.
260	general comment	Hansen/ Gonzaga ULA	Community members are concerned about liner selection and cap monitoring. EPA should review procedures for assuring caps are protected indefinitely, such as utilizing methodology to indicate whether repairs are needed due to erosion.	EPA is reviewing such procedures, which are included in the Operations, Maintenance and Monitoring Plan. The plan will be refined as the remedy nears completion, but assessing erosion is a central task.	Comment acknowledged.
261	general comment	Hansen/ Gonzaga ULA	Community members are concerned by impacts to Tribal resources. Deer have been observed within fenced areas of Midnite Mine and drinking water from the mine pits. EPA should review and investigate the effectiveness of fencing around the mine. Due to safety concerns regarding eating game meat from the area around the mine. EPA has briefly outlined interim measures to minimize contact with affected plants, surface water, and sediment. Such measures may include signs, advisories, and community outreach. EPA should review what outreach measures are necessary to adequately inform community members what restrictions are necessary on consumption of plants and animals in the area. Better signs, fact sheets and local media advertisements are a few such examples.	The comment does not directly affect the remedial design. The mining company inspects the site fence monthly and includes observations of wildlife, in particular game such as elk, moose, and deer. EPA believes exposure to site contaminants has been reduced greatly since the fence was built in 2009. Completion of the cleanup will eliminate animal contact with contaminated water, sediments, and vegetation in the mined area and in downstream drainages. Regarding advisories, the Tribe developed the current signs in coordination with EPA. Further efforts may be needed as conditions change. Local media advertisements were used by ATSDR, and EPA has worked with the Tribe to clarify where populations of game are that could be exposed to mine contamination outside the fenced area. While exposure to higher contaminant concentrations at the mined area are no longer occurring, the game animals' range includes the lower mine drainages and Blue Creek as well as unaffected areas. Given the natural occurrence of minerals like uranium and metals in the area and the animals' range, tissue data would likely produce ambiguous results. With or without data, it is difficult to advise people which game to avoid, but ATSDR has published information recommending people avoid harvesting in the area. It may be possible for the Tribe to develop fact sheets to include with hunting licenses or to improve outreach.	Comment acknowledged.
262	general comment	Hansen/ Gonzaga ULA	Community members are concerned about longterm remedy effectiveness and contingency planning. This includes the possibility of landslide damage impacting the effluent pipeline from the water treatment plant to	The current pipeline route reflects changes to avoid impacts from slope instability. EPA will provide information to the community regarding all aspects of	Comment acknowledged.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Comments from Gonzaga University Legal Assistance reviewers					
Number	Reference Page or Sheet No.	Reviewer	Review Comment	EPA Direction	Response to Comment
			Roosevelt Lake. Though five areas of geological concern were identified in the geohazard report, it should be expanded to address additional investigation into hillside stabilization as well as the feasibility of locating the effluent pipeline outside of the landslide zone. The community members request to be kept informed of any additional investigations into the landslide area and concerning the effluent pipeline.	the design. Final design of the pipeline will be associated with completion of the NPDES permit and design of the new water treatment system.	
263	general comment	Hansen/ Gonzaga ULA	Community members are concerned about future job opportunities. Companies in charge of cleanup must comply with the tribe's Tribal Employment Rights Ordinance.	The comment does not directly affect the remedial design. EPA is aware that TERO is applicable and has communicated this requirement to the mining companies. The Tribe will determine compliance, and has been in discussion with the mining company about ways to ensure appropriate training for the potential hires.	Comment acknowledged.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

TASC Points of Community Interest			
Number	TASC Points of Community Interest	EPA Direction	Response to Comment
264	In Appendix D, Rock Solid Solutions recommends a 10-foot deep by 15-foot wide berm/ditch for worker protection from falling rocks (Page B-3, Appendix B of Attachment D-11 in Appendix D), which is less than the 15-foot-deep trench and 25-foot offset mentioned in Section 3.2 of the 90 Percent Design report. Community members may want to ask DMC/Newmont to clarify its plans for protecting workers from falling rocks.	Section 3.2.1 through 3.2.2 of the BODR summarize the Rockfall Hazard evaluations including the rockfall monitoring work that was completed to address the question. In Appendix D, attachment D-11 is the Rockfall Mitigation Plan with calculations that provided the recommendations and basis for the rockfall mitigations designs. The evaluations and mitigations included analysis of size and height of rocks using the CRSP analysis modeling, and acknowledges rockfall hazards with rocks 6 to10 feet in diameter. The engineering controls include scaling of identified hazard areas, the rockfall catch berm/ditch design, and a portable rock barrier, in addition to the ground operations, protective equipment, and emergency procedures in the Rockfall Mitigation Plan found in Attachment D-11. EPA directs SDs to provide a rationale for the deviation from the trench recommended by RSS and affirm that the approach in the 100% RD will provide equivalent or better worker protection.	The 15-foot deep by 25-foot wide trench recommended in the <i>Geologic Investigations of Pits and Assessment of Sediments Investigation Report - Revision 2</i> (MGC, 2011a) was based on an assumption that pit wall scaling would not be performed and that potentially unstable boulders 6 to 10 feet in size might be present at some locations in the pit walls. Subsequent to the preparation of that 2011 report, a specialty rockfall protection contractor (Rock Solid Solutions, RSS) visited the Site and provided updated recommendations regarding rockfall protection measures. This including scaling of pit walls, placement of temporary rockfall fencing during preliminary work, and updated rockfall analyses and trench designs (the 10-foot deep, 15-foot wide trench) that reflected removal of larger potentially unstable boulders from the pit walls. This updated rockfall protection plan from RSS is included as Attachment D-11 to Appendix D and their recommendations have been included in the design presented in Appendix D and the Section 4 Drawings.
265	The 90 Percent Design does not seem to include approaches for dealing with medium-size rockslides. Community members may want to ask DMC/Newmont whether the proposed 10-foot deep by 15-foot wide berm/ditch (or 15-foot deep trench and 25-foot horizontal offset) system will be sufficient to prevent injuries from medium-size rockslides.	Section 3.2.1 through 3.2.2 of the BODR summarize the Rockfall Hazard evaluations including the rockfall monitoring work that was completed to address the question. In Appendix D, attachment D-11 is the Rockfall Mitigation Plan with calculations that provided the recommendations and basis for the rockfall mitigations designs. The evaluations and mitigations included analysis of size and height of rocks using the CRSP analysis modeling, and acknowledges rockfall hazards with rocks 6 to10 feet in diameter. The engineering controls include scaling of identified hazard areas, the rockfall catch berm/ditch design, and a portable rock barrier, in addition to the ground operations, protective equipment, and emergency procedures in the Rockfall Mitigation Plan found in Attachment D-11. EPA directs SDs to provide a rationale for the deviation from the recommended trench and affirm that the approach in the 100% RD will provide equivalent or better worker protection.	Please see response to Comment 264. The design has not deviated from the recommendations summarized in Sections 3.2.1 and 3.2.2. They reflect the updated Rockfall Protection Plan which includes pit wall scaling. This was not included in the preliminary (2011) work that assumed pit wall scaling would not be performed to remove larger unstable boulders.
266	DMC/Newmont may add a drying material to the sediment if needed. The drying material could be fine-grained waste rock or soil, or imported cement or fly ash. Fly ash is a recycled waste product from coal-fired power plants.	No EPA direction	Comment acknowledged.
267	The 90 Percent Design does not address increased truck traffic on public roads and possible transport of hazardous wastes on public roads. TASC encourages community members to discuss any concerns or questions about this with EPA. Questions that community members may have include:	No EPA direction	Comment acknowledged. The RAWP, which will be completed following approval of the 100% Design, will include information regarding the anticipated types of materials which will be transported to the Site as part of the RA. The RAWP will also have emergency response plans which would be implemented in the event of a spill (e.g., Spill Prevention, Control and Countermeasures Plan (SPCC)).
268	What is the expected volume of truck traffic during the cleanup?	SDs are requested to provide updated summary information for use in a fact sheet.	Updated estimates of truck traffic were provided prior to meeting with EPA and Stevens County on October 28, 2014. These estimates will be updated as additional information becomes available (e.g. after contractor selection and details of equipment fleet to be used are known) and provided as requested.
269	Will hazardous materials be hauled on public roads? If so, what precautions will be taken to protect the public from spills?	SDs are requested to provide summary information about what will be hauled, for use in a fact sheet.	Hazardous materials will be hauled on public roads. All hazardous materials will comply with the Hazardous Materials Transportation Guidelines. The full list of materials will not be known until after the contractor is selected and SPCC is prepared by the Selected Contractor. The SPCC will be an attachment to the RAWP. The information from the SPCC can be used in a fact sheet.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

TASC Points of Community Interest			
Number	TASC Points of Community Interest	EPA Direction	Response to Comment
270	In the event of an accident with a truck hauling hazardous material from the site, are there any special actions that should be taken by first responders?	SDs are requested to provide summary information about what will be hauled, for use in a fact sheet.	Appropriate responders will be notified as required by DOT's Hazardous Materials Guidelines. The full list of materials will not be known until after the RA Contractor is selected. The SPCC is prepared by the RA Contractor and will be an attachment to the RAWP.
271	EPA has posed questions to the community about traffic safety. TASC encourages community members to provide answers to these questions to EPA so that the community's concerns can be addressed. These questions are: Are there sections of road on the reservation where you have concerns about traffic safety? What routes, timing, lighting, speed limits, vehicle markings, etc. could address these concerns?	No EPA direction. However, SDs shall require construction contractor to provide information about these matters for use in outreach material.	Comment acknowledged.
272	Section 1.3 (Dust Abatement) of Appendix K states that trucks hauling dirt, sand, soil or other loose materials off of the site will be covered or have at least two feet of freeboard vertical distance between the top of the load and the top of the trailer sides. Presumably, uncovered materials being transported off of the site discussed in Appendix K are not for off-site disposal. Community members may want to ask EPA to clarify when trucks are required to be covered.	<p>For control of fugitive dust and for worker safety, EPA directs SDs to revise Section 1.3 of Appendix K (specifications) and other text as needed to clarify that trucks carrying materials on, to or from the site shall be secured and covered in compliance with 40 CFR 49.126(d) and WAC 173-400-040(9) Fugitive Dust: (a) The owner or operator of a source or activity that generates fugitive dust must take reasonable precautions to prevent that fugitive dust from becoming airborne and must maintain and operate the source to minimize emissions. For public safety, EPA directs SDs to require covering loads unless six inches of freeboard is maintained within the bed of the truck. For vehicles leaving the site, EPA directs SDs to ensure compliance with RCW 46.61.655, which states: (2) No person may operate on any public highway any vehicle with any load unless the load and such covering as required thereon by subsection (3) of this section is securely fastened to prevent the covering or load from becoming loose, detached, or in any manner a hazard to other users of the highway. (3) Any vehicle operating on a paved public highway with a load of dirt, sand, or gravel susceptible to being dropped, spilled, leaked, or otherwise escaping therefrom shall be covered so as to prevent spillage. Covering of such loads is not required if six inches of freeboard is maintained within the bed. [...]</p> <p>(5) The state patrol may make necessary rules to carry into effect the provisions of this section, applying such provisions to specific conditions and loads and prescribing means, methods, and practices to effectuate such provisions. [...]</p> <p>(7)(a)(i) A person is guilty of failure to secure a load in the first degree if he or she, with criminal negligence, fails to secure a load or part of a load to his or her vehicle in compliance with subsection (1), (2), or (3) of this section and causes substantial bodily harm to another.</p> <p>(ii) Failure to secure a load in the first degree is a gross misdemeanor.</p> <p>(b)(i) A person is guilty of failure to secure a load in the second degree if he or she, with criminal negligence, fails to secure a load or part of a load to his or her vehicle in compliance with subsection (1) or (2) of this section and causes damage to property of another.</p> <p>(ii) Failure to secure a load in the second degree is a misdemeanor.</p>	Specification 01560 (Temporary Environmental Controls), Section 1.3 (Dust Abatement) was revised to require trucks carrying materials on, to or from the site to be secured and covered in compliance with 40 CFR 49.126(d) and WAC 173-400-040(9).

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

TASC Points of Community Interest			
Number	TASC Points of Community Interest	EPA Direction	Response to Comment
		(c) A person who fails to secure a load or part of a load to his or her vehicle in compliance with subsection (1), (2), or (3) of this section is guilty of an infraction if such failure does not amount to a violation of (a) or (b) of this subsection.	
273	Some of the facilities will remain after the cleanup is complete, including the new water treatment plant, the pipelines to and from the plant and the new site access road. Other facilities will be removed after the cleanup is finished.	No EPA direction	Comment acknowledged.
274	Access to the work areas will be restricted to one controlled access points. The access restrictions will be detailed in the Remedial Action Work Plan.	No EPA direction	Comment acknowledged.
275	Exterior color for permanent structures was to be chosen during the 90 Percent Design phase. Community members may want to ask if the colors have been chosen.	No EPA direction for this element of RD. The 90% and 100% RD of the WTP shall include this information.	The WTP design is on hold until the NPDES permit is completed. Architectural features like exterior color will be determined in the next phase of the design and made available for review in the next design submittal.
276	Plans for the Rhoads Borrow Area include hiring a tribal timber contractor to clear and harvest commercial-value timber. Newmont/DMC will coordinate with the Tribal Council to identify potential ways to distribute timber proceeds in a manner that is beneficial to the tribe.	No EPA direction.	Comment acknowledged. All issues regarding the Rhoads Property borrow area will be conducted in accordance with the Rhoads Property Plan of Operations and Reclamation that was approved by the Spokane Tribal Council.
277	Newmont/DMC plans to reseed the Rhoads Borrow Area with a native, tribal-approved seed mix followed by the planting of native trees and shrubs to provide habitat and food for local wildlife	No EPA direction.	Comment acknowledged.
278	EPA has explained to TASC that the less steep west wall of Pit 4 will have ditches cut into the wall that route water coming down the pit wall (while pit is open or waste rock is down-draining) to the subwaste liner sump/well. This is being done to keep water away from the waste in areas without a subwaste liner. These ditches are expected to collect little to no water after the pit cover system is installed.	No EPA direction.	Comment acknowledged.
279	The remediation plan has been revised to remove the mine waste from the Adit Pit and Pit 2 West and consolidate them within Pits 3 and 4 waste containment areas.	No EPA direction.	Comment acknowledged.
280	Investigation of sediment and waste rock in Whitetail Creek identified two areas for cleanup. These sediments and materials will be cleaned up during the preliminary (early works) construction. The materials will be stockpiled, then placed in Pit 4 during Phase 1 of the construction.	No EPA direction.	Comment acknowledged.
281	EPA staff have stated that EPA intends to comment that the settlement analysis shows that the 90 Percent Design does not ensure positive drainage after settlement and needs to be modified.	No EPA direction. See EPA comments.	Comment acknowledged.
282	Page J-23 states that pipes carrying contaminated water to the water treatment plant are assumed to be pressurized and will require dual-walled HDPE pipe to prevent leaks.	No EPA direction. The 90% and 100% design for these pipes are expected to be consistent with what is shown here, at 60% design.	Final influent piping on-Site will be dual-walled. Single-wall pipe will only be installed temporarily during construction in areas that are already contaminated and are easily monitored.
283	Most of the Blue Creek pipeline carrying treated water from the water treatment plant will flow by gravity rather than by being pressurized. This will reduce the risk of leaks, so DMC/Newmont believes that the pipeline will not need to have special equipment to check for leaks (pages J-27 to J-28).	No EPA direction. The 90% and 100% design for these pipes are expected to be consistent with what is shown here, at 60% design.	Comment acknowledged.
284	Site-wide monitoring will begin when the cleanup starts and will continue until an end date determined by EPA. Data from the site-wide monitoring will be used by EPA to evaluate the protectiveness of the remedy. Superfund law requires a formal review of the remedy every five years, at sites where contamination is left on site.	No EPA direction.	Comment acknowledged.
285	DMC/Newmont has had several meetings and discussions with tribal representatives over the past six months. Negotiations of water rights, access to the site and institutional controls are ongoing.	No EPA direction.	Comment acknowledged.
286	The companies in charge of the cleanup will have regular meetings with EPA and the tribe, as well as periodic scheduled inspections by EPA and the tribe.	No EPA direction.	Comment acknowledged.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

TASC Points of Community Interest			
Number	TASC Points of Community Interest	EPA Direction	Response to Comment
287	The companies doing the cleanup will comply with the tribe's Tribal Employment Rights Ordinance (TERO). Preference will be granted to qualified tribal contractors. If a tribal contractor cannot meet the pre-qualification requirements, the selected contractor will comply with TERO hiring requirements.	No EPA direction.	Comment acknowledged.
288	Tribal contractors interested in working on the cleanup should read Appendix V, especially Section V7.0, to see how to be pre-qualified.	No EPA direction.	Comment acknowledged.
289	The schedule shows cleanup starting in 2015 and ending in 2025.	No EPA direction. Schedule will be updated. It is now likely that cleanup will start late 2015 or 2016.	Given the tentative agreement for Rhoads Property access and use of water during the RA between Tribe and DMC/Newmont, the schedule has been revised to depict start of construction in 2016.
290	EPA staff reported that wastewater treatment system sludge is currently being run through a filter press installed during the winter of 2013 instead of through a centrifuge to dry the sludge. The filtercake is being shipped to Utah for processing at a mill, per a state-approved license amendment.	No EPA direction.	Comment/statement acknowledged.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Remedial Action Work Plan Comments – Hale				
Number	Reference	Reviewer	Comment	Response to Comment
291	Page 54 and HASP	Hale	P 54 - Ensure that HASP addresses pit bottom sediment removal, scaling, blasting of sump, etc.	See response to Comment 4.
292	Page 55	Hale	Says that “to the extent practicable, without ripping, drilling, or blasting, etc” pit bottoms will be graded to drain to sump. “As a result, grading the pit bottom to a perfectly smooth, free-draining surface is considered unrealistic and unnecessary.” Perfectly smooth is unrealistic, but cite to analysis and specify what depth or volume of water would trigger active work to avoid excessive ponding.	See response to Comment 4.
293	Page 54	Hale	Says that the Project Designer will determine the need for use of hydraulic cleanup after using standard earthmoving. What objective basis would require it? May be better to just require it up front? (see also comment on page 60, “jetting operation” - this topic seems to differ in different areas of the document)	See response to Comment 4.
294	Page 54	Hale	Page 54 – top - “areas where rockfall catch berms cannot be constructed” – Make sure the criteria for this are clearly defined?	See response to Comment 4.
295	Page 55	Hale	Page 55 top – “conveyed to a settling/dewatering area. Alternately, these remaining sediments could be pumped into geotubes for dewatering rather than to a settling area.” What criteria will be used for changing to geotube?	See response to Comment 4.
296	Page 55	Hale	Excavated pit sediments won’t be included in zones ‘designated for low activity waste?’ Or low Reactivity? (see also page 60) Check all references – this seems to be mixed up in various places.	See response to Comment 4.
297	Page 57	Hale	As dewatering risers are raised, is there a minimum clearance to ensure the well is not run over and not filled with waste rock? 2 inches? 2 feet? If established during construction, so state.	See response to Comment 4.
298	Page 58	Hale	Top: “thus avoiding water level fluctuations within the mine waste” – should this not be “within the drain layer”? Water shouldn’t be in the mine waste.	See response to Comment 4.
299	Page 58	Hale	Reference the table used to determine the volume of higher activity waste going into Pit 4 and ensure that it includes sediments and spoils.	See response to Comment 4.
300	Page 58, Item 8	Hale	Page 58, item 8 – chipped vegetation – show calculations of volume of chipped vegetation and identify limits on how much can be placed in the pits without impact on settlement or production of gas?	See response to Comment 4.
301	Page 60	Hale	This says “Instead, if areas of ponding are noted during the jetting operation and can be removed...” but it’s not clear whether the jetting operation is definitely to happen, or whether other methods can be used if they achieve the same objective. May be a cut/paste or incomplete change error, but Pit 4 doesn’t commit to jetting. Clarify this text and make descriptions consistent for both pits.	See response to Comment 4.
302	Page 61	Hale	Page 61 - BPA dewatering – Incorporate the results of the BPA dewatering test in the design. In this document, update to reflect the conclusion of the study? “a series of extraction wells in the BPA” – State when these and associated monitoring wells will be located and installed. State the target elevation of water in the BPA.	See response to Comment 4.
303	General	Hale	Plan is to empty pit 4, which should take about 20 days. Pit 4 water is currently used as makeup water. How will this change be addressed?	See response to Comment 4.
304	General	Hale	Estimates of future water flow to WTP should not rely only on ROD estimates. Alluvial interceptor volumes must be considered, as well as seepage drain at toe of containment area.	See response to Comment 4.
305	Page 65	Hale	This references a separate cell on top of Pit 3 for decommissioning of West Pond. Discuss how this will be incorporated in design without adversely affect surface contours and drainage?	See response to Comment 4.
306	Page 65	Hale	Construction of the south pond will pose challenging issues and warrants specific submittals that address them: 70 foot excavation and safety, for example. Double liner installation over large area. Disposal of geonet material and liner material when decommissioned (how to remove/compact in pits? Potential use of each to supplement waste isolation under cover—maybe place geonet against walls, liner over areas with dewatered pit sediment? There will be bedding material below the liner: What is source of that material, and how much is needed?	See response to Comment 4.
307	Page 65	Hale	Are existing alluvial wells to be abandoned, or only “taken off line”. Might they be useful as backup for repairs, or additional pumping in the event of high flow?	See response to Comment 4.
308	Page 67	Hale	Section 2.14 - This section is rather general. Ensure that construction techniques to be developed and implemented by the contractor address the following in submittals (CQAP, etc.): Alluvial interceptor trenches. Sequence: “early in RA and prior to sediment cleanup” – are trenches done concurrently, or phase by phase? Source of ‘drain sand’ in trench – define how to test and make	See response to Comment 4.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Remedial Action Work Plan Comments – Hale				
Number	Reference	Reviewer	Comment	Response to Comment
			sure it's clean/not reactive. How quickly will interceptor trench construction be completed, with pumps? If fast, like hours, maybe not a big deal, but what happens to water after working platform blocks flow and before trench and pipes are ready? Will trench have downgradient side liner or some way to keep from losing gravel fill when impermeable barrier goes in? (or does slurry hold up sides?). How does working platform "contain trench slurry"? [and what are consequences if slurry gets loose?] Will platform have upgradient side impoundment? 2.14.2 Any shallow groundwater or surface flow intercepted at the working platform level will be pumped to the PCP. Item 4 – sequencing will be important to ensure water is captured/contained—need pump, pipes to PCP in place, then sump: where are these identified in design? "spoils" from site preparation excavation – Make sure testing of spoils is identified in a plan: who will test, how? Keep the sediments and soils separate: separate cleanup standards apply, and sediments more likely to be impacted by site. If 'biodegradable slurry' used to excavate, excavated native material will get slurry on it: manage spoils as with SLCB trench spoils? Restoring original grade is good, but if removing contaminated material, may be hard to do.	
309	Page 68	Hale	2.14.3 – excavated into "either" valley wall– clarify: Both? Or one?	See response to Comment 4.
310	Section 2.14.3	Hale	Soil mixing "may be used" – what would be the basis for this decision? Is strength and identified permeability a performance standard? Say so. SLAG-cement bentonite...any reason not to use?	See response to Comment 4.
311	Page 70	Hale	Excavation spoils from SLCB trench will be transported to ... and allowed to harden. Is this because in excavating, the slurry gets on the native material?	See response to Comment 4.
312	Page 70	Hale	P2 feet of soil on top of hardened slurry, okay, but: does this mean slurry stops 2 feet below final grade? what is highest alluvial groundwater elevation— probably pretty close to surface, no? Also, in these areas, is bedrock gw going to be coming up at lease sometimes into some downgradient areas, and if so, how will that affect concentrations in shallow gw and (where gaining reach) sw?	See response to Comment 4.
313	Page 71	Hale	Demobilization: Demolition of temporary facilities: does GSR discuss potential for re-use of trailers, laundry, garage, etc.? Might be of interest to Tribe, if scanned out and as necessary decontaminated? Scan/Decon appears to apply only to "equipment" – what is included with that?	See response to Comment 4.
314	Page 71	Hale	Don't decon zone (task 6) and stockpiling area (task 7) need to be in place before stockpile and waste excavation begins, esp task 5. Or if not, maybe need to explain how decon will occur and where stockpiling will occur for tasks 1, 2, 4, 5. Will "man camp" area be included in item 5? When will soil stockpiles to be moved be characterized?	See response to Comment 4.
315	Page 72	Hale	Task 2 "prep pit 4 for backfilling" is a big task and should stand alone. Task 7 – concurrent reclamation of adit/pit2W planned? Earlier in this document, it says alluvial trenches go in "early" – if this is sequence, why is it task 12?	See response to Comment 4.
316	Page 73	Hale	What is the "trigger" for starting the Area 5/Pit 3/BPA cover—should there be a seasonal driver (so cover is in place before winter?)? Or is it achieving the grades in the design? Or is it getting to the point where South Pond and material under WTP are the last thing to go? Or is it when Area 5 is no longer needed for processing drain layer material? It requires stopping filling process (@CH2: or does it? concurrent fill and cover possible? Issues of safety/stability?). Contractor COULD resist stopping to implement partial cover, so need to clarify.	See response to Comment 4.
317	Page 73	Hale	The design shows that Pit 3 filling will start after Pit 4 is completed. Delays in NPDES permit and design/construction of a new WTP are not desirable, but possible. Consider how much waste rock could be removed from the East Drainage (and possible the Central Drainage) before having to dismantle the WTP. This might involve relocating utilities.	See response to Comment 4.
318	Phases and Tasks	Hale	Phases and tasks: state that Rhoads phased reclamation will occur concurrent with borrow development.	See response to Comment 4.
319	Page 74, Section 3.3	Hale	"These waste materials from the West Pond will be taken to an appropriate waste disposal site" This is not consistent with prior section that says a separate unit will be built on top of Pit 3 cover. Which is it?	See response to Comment 4.
320	Page 75, Section 3.3	Hale	Top of page 75, Section 3.3. – "The West Pond will not be decommissioned until..." Identify an objective criterion.	See response to Comment 4.
321	Task 6	Hale	BPA cover should be added: does it belong with task 6?	See response to Comment 4.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Remedial Action Work Plan Comments – Hale				
Number	Reference	Reviewer	Comment	Response to Comment
322	Task 7	Hale	Why construct interim fencing at this stage, when all the containment construction is done? Is it to keep animals out? (I think so...). If so, what are the performance criteria that must be met before going to a final boulder barrier?	See response to Comment 4.
323	Section 3.4 Final Remediation	Hale	Is final remediation phase 4? Text mentions roads and pipelines, but these are listed above as task 8 in Phase 3. Task 9 (continuation from Phase 3 tasks 1 – 8—odd) lists permanent alluvial groundwater controls: what does this mean about the others—are they not permanent? These controls were supposed to be constructed early on. Pit seepage collector trench: thought that would be constructed concurrently with other Pit 3 cover tasks.	See response to Comment 4.
324	Page 76, Cultural Resource Monitoring	Hale	This is much too vague and must be revised and updated. In referring to “inventory will be performed outside of the MA...in those locations” – does this refer to the 2014 work done by Jackie Corley? Or will additional surveys precede specific construction work in specific areas outside the MA? INSIDE the MA is not mentioned at all: specify. An administrator will be on site to identify artifacts exposed and found, but a monitor will oversee construction in areas with the potential for cultural resources. What is difference between administrator and monitor, and what is the difference in what they are doing? Have areas with potential for cultural resources been defined (or areas without?) and by whom? Make this more specific – what areas, when surveyed, who will provide monitoring during construction where? CC will need to know what the situation really is. And by the way, where it is clear that collection of artifacts is prohibited? Is it illegal? Is it stated clearly in the contract and will contractor staff be briefed? How will compliance be monitored?	See response to Comment 4.
325	Page 76, Decontamination	Hale	How will it be documented that contractor deconned equipment before mobilizing to site?	See response to Comment 4.
326	Page 77, Mgt of Wastes	Hale	Note that the Off Site Rule is not limited to hazardous wastes. http://www.epa.gov/osw/hazard/wastetypes/wasteid/offsite/os-facts.htm Three step process regarding construction waste management refers only to hazardous waste. Many issues with this (e.g. 2 nd bullet under item 3 – municipal or industrial solid waste facility may not be able to accept hazardous waste referenced in item 3)	See response to Comment 4.
327	Page 78, Vehicle Maintenance	Hale	Regarding “Trained and qualified Company personnel” scanning construction waste, which company? Will they scan out trucks of construction debris, etc? How? Is there a form for Field Engineer approval and waste tracking? Is it in the design?	See response to Comment 4.
328	Page 78, Vehicle Maintenance	Hale	‘Major vehicle and equipment maintenance will be performed off site’ – What is and isn’t major? Remember decon requirements for off-site transportation. What about minor maintenance? If you have to control pollutants in any case, why make this distinction?	See response to Comment 4.
329	Page 79, Dust Control	Hale	Speed limit of 15 in MA and 25 on access roads (‘soil access roadways?’ – borrow access? clarify) – Is this consistent with other references? How enforced? Clarify 2 nd bullet, to separate water sources and areas where sources can be used. “Unimpacted areas” – Make clear up front what areas (previously, it was Borrow Area versus onsite). Review in light of traffic safety plan.	See response to Comment 4.
330	Table 5-1 - Adaptive Management Matrix	Hale	General: The items listed are valid and appropriate, but a greater level of level of detail is recommended. Reporting is referenced throughout the AMP, with an annual RA monitoring report. Cite the relevant construction/post construction monitoring plans in all instances. Note that information that will be obtained and considered in determining the need to modify the design shall be shared with EPA and the Tribe. (this says “stakeholders” in some places. If this term is retained, make sure it is clear what it means). The focus on schedule risk is too narrow. There are major cost implications and other risks to be considered (environmental impacts, impacts on other aspects of the remedy, liability if worker safety issues, regulatory or CD violations, contract disputes, costs, damage to relationships).	See response to Comment 4.
331	Table 5-1 - Adaptive Management Matrix	Hale	Waste Volume – This anticipates 1:1 volume. We have had several discussions on this subject and agree that the majority of settlement will occur during construction and there is likely to be adequate capacity. See CH2M Hill comments on the need to fully address anticipated settlement to ensure positive drainage. Reference where quarterly settlement measurement during construction is detailed. Identify what amount of settlement would warrant changing work practices or trigger other actions. The response actions identified are to “re-evaluate cleanup levels to reduce volumes requiring containment” and “Alternatives include in situ capping.” Delete both. Changing cleanup levels to reduce volumes is very unlikely. Changing the remedy itself, if necessary, would likely	See response to Comment 4.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Remedial Action Work Plan Comments – Hale				
Number	Reference	Reviewer	Comment	Response to Comment
			involve a focused FS and evaluation of a range of alternatives, potentially including off-site disposal, additional on-site containment structures, and other options.	
332	Table 5-1 - Adaptive Management Matrix	Hale	Sufficiency of Borrow –This says the estimated availability of borrow from Rhoads is conservative, and this appears to be the case based on investigations and testing results to date. Given uncertainties in shrink/swell from borrow to cover, it would be prudent to address the impact of insufficient borrow on costs, schedule, and other aspects of the project.	See response to Comment 4.
333	Table 5-1 - Adaptive Management Matrix	Hale	Sufficiency of Drain Rock – Change: Insufficient volume of <u>suitable</u> HSWR material. We established criteria for durability and leachability. “Two phases” doesn’t necessarily define all of the material. Suggest that once Pit 4 volumes are used up, you re-assess volume assumptions AND the suitability of remaining material. Cite to QAPP for how volume measurements will be taken. Column 6 says there’s plenty of time to find another source. Note that the drain rock for Pit 3 is needed at the very start of Phase 2, so the time for finding an alternative source only lasts as long as Phase 1. What is the backup if the shortage is determined <u>during</u> Phase 2?	See response to Comment 4.
334	Table 5-1 - Adaptive Management Matrix	Hale	Dust Suppression – The focus on CAA standards at the site boundary is misguided. These are important, but worker safety on site needs to be included. If visible dust is an issue, then work practices must be revisited. Add a separate bullet about worker safety. If there’s a safety issue, what are the potential impacts. Safety must be and is addressed up front, but note the potential consequences of failing.	See response to Comment 4.
335	Table 5-1 - Adaptive Management Matrix	Hale	Storm Event and pond spillover – Consider building into the construction contract emergency repair options. This says impacts can only be tracked after they occur (and is underlined). While EPA agrees the risk of overflow is low, the O&M Plan should call for increased monitoring when pond volumes approach maximum. In addition, if ponds are compromised, then immediate emergency repairs would be appropriate and necessary to avoid unpermitted discharges. Cite where the systematic process and frequency of assessing storage ponds, capacity, monitoring and other controls is or will be spelled out, including engineering measurements/tests, water quality monitoring. Given conservatism in pond sizing calculations, the design appears robust.	See response to Comment 4.
336	Table 5-1 - Adaptive Management Matrix	Hale	Vertical Dewatering Wells - CH2M Hill past comments on design of the sumps and wells have been addressed. For this section, however, clarify: both wells (or all four—this includes wells in the liner sump, yes?) could fail at the same time, depending on the reason for the failure. If one well fails, note whether there will still be a well that can be used for monitoring. Is there a way to assess the condition (saturation?) of the waste itself, not just in the sump? Recommend that a design be prepared for installing a replacement well with location control adequate to ensure location in sump), to identify issues with installation (through cover and waste) before it’s an emergency. Also recommend including option in contract, to avoid delay. This states that it would take 1 to 2 weeks to install a new well and start operation: how long do we have in each pit before the drainage layer is saturated. Could saturation and upward pressure damage the subwaste liner? Is well failure within the backfilled pits more likely? Does it require a different response? How will saturation of drain layer and waste fill be identified?	See response to Comment 4.
337	Table 5-1 - Adaptive Management Matrix	Hale	Alluvial dewatering trenches – Alluvial dewatering trench performance has been the subject of technical meetings and comments. This discussion should reflect whether, if they fail, they could cause a significant release, and should be clear how we will know if the trench is failing/has failed. Edit column on probability: I think it is intended to imply that pump failure is inevitable but easily fixed. Also, it says if they don’t operate initially redesign may be needed: note whether the most probable causes of failure have been considered in this design.	See response to Comment 4.
338	Table 5-1 - Adaptive Management Matrix	Hale	WTP: WTP operational considerations in the face of variable water quality needs to be explicitly discussed when the WTP design proceeds. Is there a possible influent water quality that the system cannot address? There isn’t complete flexibility in throughput rates, given limitations on storage. This discusses monthly measurements, but more frequent in-system monitoring, at least during initial periods of waste rock movement, or otherwise during periods of anticipated water quality changes (freshet, e.g., or as water is pumped from pit during filling and until rates drop), should be performed if the robustness of the system can’t be documented up front.	See response to Comment 4.
339	Table 5-1 - Adaptive Management Matrix	Hale	Sufficiency of dust control water. This says “these requirements will change throughout the RA”. Clarify if “these requirements” means the amount of water needed for dust suppression or the	See response to Comment 4.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Remedial Action Work Plan Comments – Hale				
Number	Reference	Reviewer	Comment	Response to Comment
			amount of pond capacity that must be reserved. Seems like dust suppression water needs won't vary much as a function of the phase of work, but may vary due to seasonal variation in moisture/humidity. Typo: Draught should be drought. Response Action: Alternative management of ponds to retain spring runoff doesn't seem unreasonable, but clarify what this might include. There must be a mechanism in place for dust control/construction water in case of drought. Under Probability, "Ponds" should be pits. This doesn't take into account the use of the man camp well, assuming that is resolved. Does that alter the picture?	
340	Table 5-1 - Adaptive Management Matrix	Hale	Can birds be kept out of these impoundments? Discuss how this issue will be identified and options for bird-deterrent noise or floats.	See response to Comment 4.
341	Table 5-1 - Adaptive Management Matrix	Hale	West Pond Design – See CH2M Hill comments regarding West Pond. Refine this to note what data will be gathered to determine if "the operation of the South Pond helps refine the size of the West Pond" (and clarify how and when this refinement would be done, based on what information)? Note where it is specified what measurements will be done to determine whether 'foundation topography and soils... are substantially different' from the design drawings.	See response to Comment 4.
342	Table 5-1 - Adaptive Management Matrix	Hale	Stormwater Channels – Criteria: See CH2M Hill comments on design and update this for consistency. Clarify: is this regarding the construction period or in the long-term after construction? Discuss grouting as you go. 'Impacts to Remedy' would be that clean water that should be diverted in the channels instead enters the subsurface and either is released or if captured increases the amount of water to be treated. EPA disagrees with this statement: '...so leakage is not of great concern long term.' Consider a volume or water quality trigger for addressing the issue. The tracking mechanism is to monitor during construction: how can leakage (especially in areas already grouted) be discerned during and after construction (compare upstream and downstream flow? This references "regrouting" under response action: how likely is failure of initial grout?	See response to Comment 4.
343	Table 5-1 - Adaptive Management Matrix	Hale	Remediated Areas – Construction practices to control recontamination (through SWPPP; BMPs; dust suppression), screening and screening verification must be clearly addressed in the site construction monitoring plan. However, it is important that these address how to track areas cleaned up to assess whether vehicles, wind or runoff events has caused or could cause recontamination. If recontamination is suspected, what is the threshold for a response and how will the need for action be determined (scan, sample, statistics)? Under Response Action, it says the area in question would have to be rescanned 'to prove that it is clean'. Revise wording 'to determine whether it has been recontaminated'. How will you determine if the cause is windblown dust, to know you need to ramp up dust control?	See response to Comment 4.
344	Table 5-1 - Adaptive Management Matrix	Hale	Stormwater from capped areas – Clarify first column: If stormwater from capped areas doesn't meet the CLs, we have a problem that needs to be solved right away. If that is the topic, it may deserve its own space. If that wasn't the intent of this heading, then clarify what is meant in the first column: is it that surface water quality downstream of the alluvial trenches may be affected by residual groundwater discharge or re-dissolution for a while but is expected to improve following construction and over time should meet the cleanup levels? Include a proposed timeframe for determining that CL exceedances are not due to residual groundwater and warrant additional evaluation and, potentially, action. This states: "If cleanup levels are unattainable...determine if they are too stringent or unrealistic given the background conditions in the Blue Creek drainage." Delete this phrase. It is not a schedule issue or a near-term design and construction issue. Note that if based on data and/or five year reviews, EPA determines that progress is not being made toward meeting the cleanup levels in surface water, EPA may require SDs to perform additional remedial work or additional studies to determine the cause or to revisit background estimates. In this event, background for Blue Creek is unlikely to become less stringent. This suggests that upstream Blue Creek water quality parameters should include analytes (and detection limits) relevant to cleanup levels and Spokane Tribe water quality standards.	See response to Comment 4.
345	Table 5-1 - Adaptive Management Matrix	Hale	Cultural Resources – Under "tracking mechanism" – notify the Tribe '[insert] in advance each time remediation [this seems like a broad term: does it mean soil disturbance, inspections, O&M? make clear] is planned to begin outside of the mined area.'	See response to Comment 4.

**Midnite Mine Superfund Site
Response to Comments on the 90% Basis of Design**

Remedial Action Work Plan Comments – Hale				
Number	Reference	Reviewer	Comment	Response to Comment
346	Table 5-1 - Adaptive Management Matrix	Hale	Acknowledge here that there are risks that aren't listed, such as accidents/safety issues, economic challenges (fuel costs?), regulatory, political, or legal risks, lease renewal issues, litigation and whatever else may be worth considering.	See response to Comment 4.