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DRC-2011-007086

July 18, 2011

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Jo Ann S. Tischler, Director, Compliance and Permitting  
Denison Mines (USA) Corp.  
1050 17<sup>th</sup> Street, Suite 950  
Denver, CO 80265

Subject: Docket No. UGW09-03, Nitrate Investigation at the White Mesa Mill, Revised  
Phase 2 Detailed Workplan: **DRC Conditional Approval**

Dear Ms. Tischler:

This is in response to your letter dated July 12, 2011 regarding the Denison Mines (USA) Corp. (DUSA) Revised Phase 2 Detailed Workplan (Workplan) for the Nitrate Investigation at the White Mesa Mill Site. The revision was done to address the July 7, 2011 DRC comments regarding the initial Phase 2 Workplan (dated June 30, 2011).

Per review of the redline Workplan and your cover letter, it was noted that two of the DRC comments, comment number 15 and comment number 18, were not addressed in the Workplan; however, DUSA did provide explanation in the cover letter as to why these items were not included.

**DRC Findings Related to Comment 15:**

**Comment 15** – *“Attachment 2, Section 4.3.5: DRC requests that deionized water from a third-party commercial source (not from the Mill) be used for the field blanks for the Phase 2 investigation.”*

**DUSA Response to Comment 15**

*“DUSA does not believe it is necessary or practicable to obtain DI water from a third party commercial source for the following reasons:*

*1) The DI water from the Mill DI system is currently used and is considered suitable for all groundwater monitoring programs at the Mill which are subject to compliance and*

*enforcement requirements.*

*2) The large volume of water necessary for decontamination and rinsate blanks precludes the ability to have the DI water produced and shipped from a third party. Per the currently approved Mill groundwater procedures, the portable pump is submerged into 55-gallon barrels of decontamination fluids and DI water and the fluids are pumped through the portable pump. The procedure proposed for this investigation is pumping 55-gallons of soap solution made with DI water followed by dual DI rinses; each 55 gallons. The soap solution can be reused for one sampling day; however, the DI solutions would be used only once and disposed of after they have been through the pump. Since there are seven wells that will be sampled using the portable pump, that is 770 gallons of DI water for that step alone. In addition to the 770 gallons, the added volume for soap solutions and the initial decontamination of the pump prior to the first use increases the total DI usage to over 1,000 gallons. Procurement of over 1,000 gallons of DI water from a third party commercial laboratory source is logistically not feasible.*

*3) Although, DRC has expressed a concern in the past that nitrate may be present in the Mill DI system, that concern is not relevant for the Phase 2 investigation in which nitrate will not be analyzed.*

*4) DUSA has successfully eliminated low-level nitrate from the rinsate blanks during the second quarter chloroform investigation through the addition of the second DI rinse (with an additional 55-gallons of DI water). The nitrate in the rinsate blanks is originating from the nitric acid rinse used during the decontamination processes currently used for the compliance monitoring programs. For this investigation DUSA has eliminated the nitric acid rinse during decontamination AND has added the second rinse with DI water. For the foregoing reasons the requested change has not been made to the QAP. Originally detected in field blanks.”*

#### **DRC Findings and Conclusions Related to Comment 15:**

Based on DRC review of the DUSA response, the DRC will not require that deionized water be obtained from a third party source and will allow the Mill deionized water to be used so long as: 1) the same source of water is used for field and equipment blanks, 2) this water is representative of the water used in decontamination process, 3) the field and daily equipment blanks are analyzed for all the same analytes as the groundwater samples, using the same detection limits, and 4) in the event that any field or equipment blank shows detectable concentrations of any analyte of interest, the results of groundwater samples collected that day be disqualified. DRC agrees with DUSA's assertion that the DI water used to produce to decontamination solutions and rinses (DI water produced by the Mill) should also be suitable for use in field blanks during the Phase 2 investigation.

#### **DRC Findings Related to Comment 18**

**Comment 18** – *“Attachment 2, Sections 9.1 through 9.4: If the analytical laboratory reports detections of HMX, RDX, cryptosporidium, or perchlorate during Campaign 1 or Campaign 2, DRC will require third-party, validation of the analytical data. The presence of cryptosporidium, RDX, or HMX, or the presence of perchlorate above the background screening level, may indicate a contributor other than mill activities and may significantly affect the conclusions of the nitrate investigation. Therefore, verifying the validity of the analytical results for the Phase 2*

sampling is necessary. A third-party data validator is a company, unaffiliated with DUSA, DRC, or their contractors, that employs personnel who specialize in reviewing data from analytical laboratories for the purposes of verifying the validity of the results. A data validator reviews all of the available data, including results from field duplicates, field blanks, and all laboratory quality control samples to assess the validity of the reported results. The data validation is performed according to pre-determined guidelines. Because the data validator reviews a broader range of quality control data than the analytical laboratory, trace detections reported by an analytical laboratory can, in some cases, be flagged as uncertain or changed to a non-detect value by the data validator. The guidelines for the data validation would be determined after a decision is made whether data validation is necessary. The Co-Executive Secretary reserves the right to collect split samples from any of the monitoring wells that DUSA samples during Campaign 1, Campaign 2, or background sampling. DUSA must provide notice to DRC seven calendar days prior to each sampling event to allow DRC personnel to be present for the collection of split samples.”

### **DUSA Response to Comment 18**

“DUSA does not believe that third-party validation is necessary or appropriate for the following reasons:

- 1) The current validation procedure used is considered suitable for all groundwater monitoring programs at the Mill which are subject to compliance and enforcement requirements.
- 2) All of the QC sample reviews cited in the comment including duplicates, rinsate blanks, and laboratory QC samples are currently completed by the DUSA QA Manager as discussed in Section 9.0 of the QAP. Again, these reviews are considered suitable for compliance and enforcement determinations for all of the groundwater programs at the Mill.
- 3) The Executive Secretary has the ability to take split samples and to perform his own validation on those samples.
- 4) The scenario presented in the comment stating that low-level detections may be changed to nondetected results is in conflict with UDEQ-approved procedures currently enforced for Mill groundwater data. Changing a low-level detection to a nondetected result is the effective equivalent of raising the detection limit. To date, UDEQ has not allowed raising detection limits unless it is the result of a dilution necessary to bring a high sample result within the calibration range of an instrument. Per the approved QAP, a raised detection limit may be reported only if the result is greater than the raised detection limit. DUSA has received NOV's in the past for raising detection limits for samples with low-level or no detections to compensate for matrix interferences. DUSA has not been allowed to raise detection limits for the convenience of the laboratory and prevention of laboratory instrumental damage.
- 5) Validating data from this study and application of a different set of criteria would render the current data incomparable to historic data. None of the constituents being sampled in Phase 2 are present in the historical suite of data; however, application of differing criteria results in differing interpretations of data usability for whole data sets thus rendering the data incomparable.
- 6) Validation criteria need to be specified prior to sample collection and analysis so that the laboratory can produce data packages which provide the information necessary to complete the data validation specified. Specialized data package requests need to be submitted to the laboratory to

*minimize laboratory costs and laboratory labor. Requesting larger data packages after the fact causes delays in schedule, and data packages are difficult and expensive to recreate. Specification of this prior to analysis allows the timely collection of all of the appropriate data at the time of analysis. 7) If there are any detections of any of the constituents in Phase 2, Denison would consider repeat sampling for those constituents. A sentence to that effect has been added to Section 3.1 of the Phase 2 Nitrate Investigation Detailed Work Plan and Schedule. For these reasons, the requested change has not been made to the plans. If the Executive Secretary believes that third-party validation is required to verify the validity of low level detections, then the Mill's Groundwater Discharge Permit should be amended to require third party validation prior to any accelerated monitoring or out of compliance requirements being triggered.”*

### **DRC Findings and Conclusions Related to Comment 18:**

Due to the extremely short period of time before the first round of sampling and the scheduled delivery of the first set of samples to the analytical laboratory, the DRC agrees that it may be impractical for DUSA to make arrangements with the laboratory to obtain a data package during Campaign 1, that could be validated by a third party. The DRC will reserve its right to require third-party data validation of analytical data collected until after the results from Campaign 1 are available. In the event that both parties agree that Campaign 2 sampling is warranted, then the further sampling will be based on the analytical results from Campaign 1, as already outlined in the Phase 2 Work Plan.

As pointed out in the DUSA reasons 3 and 6 above, additional validation of the data could also be achieved through DRC split sampling and/or repeat sampling by DUSA if any of the Phase 2 analytes are detected. As a condition of plan approval, the Co-Executive Secretary reserves the right to require repeat DUSA sampling at specific wells where concentrations are detected, which will allow the DRC the opportunity to collect split samples for either Campaign 1 or 2.

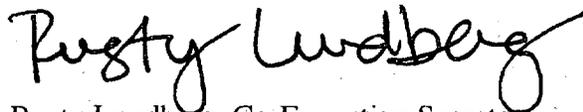
### **Conditional Approval**

The July 12, 2011, “White Mesa Uranium Mill Phase 2 Nitrate Investigation Detailed Work Plan and Schedule, Revision 1” is hereby approved on the following conditions:

1. Based on DRC and/or DUSA review of the laboratory results for the Phase 2 groundwater sampling (Campaign 1 or Campaign 2), the Co-Executive Secretary may require repeat DUSA sampling and analysis at specific wells in order to allow the Executive Secretary an opportunity to collect split samples for purposes of data validation. Such additional sampling shall be completed consistent with the Phase 2 Work Plan QAP and according to a schedule agreed upon by DUSA and DRC.
2. The Mill deionized water may be used for equipment decontamination with the condition that the same water be used for the applicable field sampling Quality Assurance samples, included in, but not limited to, Section 4.0 of the “Phase 2 Nitrate Investigation Quality Assurance Plan (July 1, 2011).” This includes Equipment Rinse Samples (Daily) and Field Blanks (At least 1 sample per campaign). The Quality Assurance samples are to be analyzed for all applicable parameters being investigated for Phase 2, and; in the event that any of the field Quality Assurance sample results show a detectable concentration, all environmental sample results collected during the campaign will be disqualified.

If you have any questions or concerns regarding this letter please contact Tom Rushing at (801) 536-0080.

Sincerely

A handwritten signature in black ink that reads "Rusty Lundberg". The signature is written in a cursive, flowing style with a large, prominent "R" and "L".

Rusty Lundberg, Co-Executive Secretary  
UTAH WATER QUALITY BOARD

RL:TR:tr