DENISON MINES

11205

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March 26, 2009

Mr. Bryce Bird
Division of Air Quality
Utah Department of Environmental Quality
1140 Nor4th 1950 West
P.O. Box 144820
Salt Lake City, UT 84114-4820

Dear Mr. Bird:

Re: White Mesa Uranium Mill-National Emission Standards for Radon Emissions From Operating Uranium Mill Tailings, 40 CFR Part 61, Subpart W-Annual Report

Please find enclosed the annual report pertaining to radon emissions from the tailings impoundment at the White Mesa Mill. The results of the 2008 testing indicate that the facility was in compliance with the 20 pCi/m^2-sec radon emanation standard at 3.9 and 3.1 pCi/m^2-sec for Cells 2 and 3, respectively. In accordance with the requirement of the NESHAP standard my signature below affirms the following certification:

> "I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment"

If you should have any questions regarding this report please contact Mr. Steven Landau, Denison's Manager of Environmental Affairs.

Yours very truly,

DENISON MINES (USA) CORP.
HAROLD R. ROBERTS
EXECUTIVE VICE PRESIDENT, U.S. OPERATIONS

National Emission Standards for Hazardous Air Pollutants
2008 Radon Flux Measurement Program
White Mesa Millsite
6425 South Highway 191
Blanding, Utah 84511

Prepared for: Denison Mines (USA) Corporation
6425 S. Highway 191
P.O. Box 809
Blanding, Utah 84511

Prepared by: Tellco Environmental
P.O. Box 3987
Grand Junction, Colorado 81502

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1. INTRODUCTION

During June 2008, Tellco Environmental, LLC (Tellco) of Grand Junction, Colorado, provided support to Denison Mines (USA) Corporation (Denison Mines) regarding the required National Emission Standards for Hazardous Air Pollutants (NESHAPs) Radon Flux Measurements. These measurements are required of Denison Mines to show compliance with Federal Regulations. The standard is not an average per facility, but is an average per radon source.

Tellco was contracted to provide radon canisters, equipment, and canister placement personnel as well as lab analysis of samples for calendar year 2008. The sampling effort commenced on June 09, 2008. Denison Mines personnel provided support for loading and unloading charcoal from the canisters. This report includes the procedures employed by Denison Mines and Tellco to obtain the results presented in Section 9.0 of this report.

2. SITE DESCRIPTION

The White Mesa Millsite facility is located in San Juan County in southeastern Utah, a few miles south of Blanding, Utah. The mill began operations in 1980 for the purpose of extracting uranium and vanadium from feed stocks. Processing effluents from the operation are deposited in four "lined" cells, which vary in depth. Cells 1 and 4 are used solely for "liquor" storage, while Cells 2 and 3 are used for sand tailings/liquor deposition.

Cell 2 has a total area of approximately 270,624 square meters (m^2) with a soil cover of varying thickness. This cell had one region that required NESHAPs radon flux monitoring. The remaining tailings beach region from the 2006 radon flux monitoring program had been covered.

Cell 3 has a total area of 288,858 m^2. This cell was comprised of two source regions that required NESHAPs radon monitoring: approximately 147,251 m^2 of the cell had a soil cover of varying thickness, and approximately 66,536 m^2 of exposed tailings "beaches". The remaining approximately 75,071 m^2 was covered by standing liquid in "low" elevation areas. The standing liquid level was about the same as in 2006. Raffinate crystals and residue from Cell 4 have been placed in Cell 3.

The areas tested for radon emanation are representative of the disposition of tailings for the 2008 reporting period. Due to worker health and safety concerns expressed by both Denison Mines and Tellco personnel, portions of the unstable and wet beaches and covered areas were not sampled.

3. REGULATORY REQUIREMENTS FOR THE SITE

Radon emissions from the uranium mill tailings piles at this site are regulated by the State of Utah's Division of Radiation Control and administered by the Utah Division of Air Quality under generally applicable standards set by the Environmental Protection Agency (EPA) for Operating Mills. Applicable regulations are specified in 40 CFR Part 61, Subpart W, National Emission Standards for Radon Emissions from Operating Mill Tailings, with technical procedures in Appendix B. At present, there are no Subpart T uranium mill tailings at this site. These regulations are a subset of the National Emission Standards for Hazardous Air Pollutants (NESHAPs). According to subsection 61.252

Standard, (a) radon-222 emissions to ambient air from an existing uranium mill tailings pile shall not exceed an average of 20 picoCuries per square meter per second (pCi/m2-s) for each pile or region. Subsection 61.253, Determining Compliance, states that: "Compliance with the emission standard in this subpart shall be determined annually through the use of Method 115 of Appendix B."

4. SAMPLING METHODOLOGY

Radon emissions were measured using Large Area Activated Charcoal Canisters (canisters) in conformance with 40 CFR, Part 61, Appendix B, Method 115, Restrictions to Radon Flux Measurements, (EPA, 2008). These are passive gas adsorption sampling devices used to determine the flux rate of radon-222 gas from a surface. The canisters were constructed using a 10-inch diameter PVC end cap containing a bed of 180 grams of activated, granular charcoal. The prepared charcoal was placed in the canisters on a support grid on top of a ½ inch thick layer of foam and secured with a retaining ring under 1½ inches of foam (see Figure 1, page 10).

One hundred canisters were placed in each region. Due to worker health and safety concerns, measurement of the wet beach areas was limited to areas readily accessible by foot. Each charged canister was placed directly onto the surface (open face down) and exposed to the surface for 24 hours. Radon gas adsorbed onto the charcoal and the subsequent radioactive decay of the entrained radon resulted in radioactive lead-214 and bismuth-214. These radon progeny isotopes emit characteristic gamma photons that can be detected through gamma spectroscopy. The original total activity of the adsorbed radon was calculated from these gamma ray measurements using calibration factors derived from cross-calibration of standard sources containing known total activities of radium-226 with geometry identical to the counted samples and from the principles of radioactive decay.

After 24 hours, the exposed charcoal was transferred to a sealed plastic sample container (to prevent radon loss and further exposure during transport), identified and labeled, and transported to the Tellco laboratory in Grand Junction, Colorado for analysis. Upon completion of on-site activities, the field equipment was alpha- and beta-gamma scanned for possible contamination resulting from fieldwork activities. All field equipment was surveyed by Denison Mines Radiation Safety personnel and released for unrestricted use. Tellco personnel maintained custody of the samples from collection through analysis.

5. FIELD OPERATIONS

5.1 Equipment Preparation

All charcoal was dried at 110°C before use in the field. Unused charcoal and recycled charcoal were treated the same. 180-gram aliquots of dried charcoal were weighed and placed in sample containers.

Proper balance operation was verified daily by checking a standard weight. The balance readout agreed with the known standard weight to within ± 0.1 percent. (Appendix A).

After acceptable balance check, empty containers were individually placed on the balance and the scale was re-zeroed with the container on the balance. Unexposed and dried charcoal was carefully added to the container until the readout registered 180 grams. The lid was immediately placed on the container and sealed with plastic tape. The balance was checked for readout drift between readings.

Sealed containers with unexposed charcoal were placed individually in the shielded counting well, with the bottom of the container centered over the detector, and the background count rate was documented. Three five-minute background counts were conducted on ten percent of the containers, selected at random to represent the "batch". If the background counts were too high to achieve an acceptable lower limit of detection (LLD), the entire charcoal batch was labeled non-conforming and recycled through the heating/drying process.

5.2 Sample Locations, Identification, and Placement

Designated sample point locations were established within each region. A sample identification number (ID) was assigned to every sample point, using a sequential alphanumeric system indicating the charcoal batch and physical location within the region (e.g., A01...A100). This ID was written on an adhesive label and affixed to the top of the canister. The sample ID, date, and time of placement were recorded on the radon flux measurements data sheets for the set of one hundred measurements.

The sampling locations were spread out throughout each region. Prior to placing a canister at each sample location, the retaining ring, screen, and foam pad of each canister were removed to expose the charcoal support grid. A pre-measured charcoal charge was selected from a batch, opened and distributed evenly across the support grid. The canister was then reassembled and placed face down on the surface at each sampling location. Care was exercised not to push the device into the soil surface. The canister rim was "sealed" to the surface using a berm of local borrow material.

Five canisters (blanks) for each region were similarly processed and the canisters were kept inside an airtight plastic bag during each 24-hour testing period.

5.3 Sample Retrieval

At the end of the 24-hour testing period, all canisters were disassembled and each sample was individually poured through a funnel into a container. Identification numbers were transferred to the appropriate container, which was sealed and placed in a box for transport. Retrieval date and time were recorded on the same data sheets as the sample placement information. The blank samples were similarly processed.

5.4 Environmental Conditions

A rain gauge and a minimum/maximum thermometer were in place at Denison Mines' site to monitor rainfall and air temperatures during sampling in order to ensure compliance with the regulatory measurement criteria.

In accordance with 40 CFR, Part 61, Appendix B, Method 115:

- Measurements were not initiated within 24 hours of rainfall.
- No rainfall occurred during any of the sampling periods.
- None of the radon measurements presented in this report were performed during temperatures below 35°F or on frozen ground (the minimum air temperature recorded at the site during the collection periods was 39°F).

6. SAMPLE ANALYSIS

6.1 Apparatus

Apparatus used for the analysis:

- Single- or multi-channel pulse height analysis system, Ludlum Model 2200 with a Teledyne 3" x 3" sodium iodide, thallium-activated (NaI(Tl)) detector.
- Lead shielded counting well approximately 40 cm deep with 5-cm thick lead walls and a 7-cm thick base and 5 cm thick top.
- National Institute of Standards and Technology (NIST) traceable aqueous solution radium-226 absorbed onto 180 grams of activated charcoal.
- Ohaus Model C501 balance with 0.1-gram sensitivity.

6.2 Sample Inspection and Documentation

Once in the laboratory, the integrity of each charcoal container was verified by visual inspection of the plastic container. Laboratory staff documented damaged or unsealed containers and verified that the data sheet was complete.

One sample (C39) was lost in the field due to charcoal spillage. All of the remaining 399 sample containers received and inspected at the Tellco analytical laboratory were verified as valid.

6.3 Background and Sample Counting

The gamma ray counting system was checked daily, including background and radium-226 source measurements prior to and after each counting session. Based on calibration statistics, using two sources with known radium-226 content, background and source control limits were established for each Ludlum/Teledyne counting system with shielded well (see Appendix A).

Gamma ray counting of exposed charcoal samples included the following steps:

- The length of count time was determined by the activity of the sample being analyzed, according to a data quality objective of a minimum of 1,000 accrued counts for any given sample.

- The sample container was centered on the NaI detector and the shielded well door was closed.
- The sample was counted over a determined count length and then the mid-sample count time, date, and gross counts were documented on the radon flux measurements data sheet and used in the calculations.
- The above steps were repeated for each exposed charcoal sample.
- Approximately 10 percent of the containers counted were selected for recounting. These containers were recounted within a few days following the original count.

7. QUALITY CONTROL (QC) AND DATA VALIDATION

Charcoal flux measurement QC samples included the following intra-laboratory analytical frequency objectives:

- Blanks, 5 percent, and
- Recounts, 10 percent

All sample data were subjected to validation protocols that included assessments of sensitivity, precision, accuracy, and completeness. All method-required data quality objectives (EPA, 2008) were attained.

7.1 Sensitivity

A total of fifteen blanks were analyzed by measuring the radon progeny activity in samples subjected to all aspects of the measurement process, excepting exposure to the source region. These blank sample measurements comprised approximately 5 percent of the field measurements. The results of the blank sample radon flux rates ranged from less than 0.01 to 0.04 pCi/m^2-s, with an average of approximately 0.03 pCi/m^2-s.

7.2 Precision

Thirty recount measurements, distributed throughout the sample sets, were performed by replicating analyses of individual field samples (see Appendix B). These recount measurements comprised approximately 10 percent of the total number of samples analyzed. The precision of all recount measurements, expressed as relative percent difference (RPD), ranged from less than 1 percent to 22.2 percent with an overall average precision of approximately 3.3 percent.

7.3 Accuracy

Accuracy of field measurements was assessed daily by counting two laboratory control samples with known Ra-226 content. Accuracy of these lab control sample measurements, expressed as percent bias, ranged from approximately –3.8 percent to +1.4 percent. The arithmetic average bias of the lab control sample measurements was approximately +0.4 percent (see Appendix A).

7.4 Completeness

All 100 samples from the Cell 2 Region were verified, representing 100 percent completeness for that region.

All 100 the samples from the Cell 3 Beaches region were verified, representing 100 percent completeness for that region. Ninety-nine of the samples from the Cell 3 Covered Region were verified, representing 99 percent completeness for that region.

Altogether, 399 samples from the total 400 sample locations were verified during this sampling program, representing 99.8 percent completeness overall.

8. CALCULATIONS

Radon flux rates were calculated for charcoal collection samples using calibration factors derived from cross-calibration to sources with known total activity with identical geometry as the charcoal containers. A yield efficiency factor was used to calculate the total activity of the sample charcoal containers. Individual field sample result values presented were not reduced by the results of the field blank analyses.

In practice, radon flux rates were calculated by a database computer program. The algorithms utilized by the data base program were as follows:

Equation 8.1:

$$\text{pCi Rn-222/m}^2\text{sec} = \frac{N}{[Ts*A*b*0.5^{(d/91.75)}]}$$

where: N = net sample count rate, cpm under 220-662 keV peak
Ts = sample duration, seconds
b = instrument calibration factor, cpm per pCi; values used:
0.1714, for M-01/D-21 and
0.1720, for M-02/D-20
d = decay time, elapsed hours between sample mid-time and count mid-time
A = area of the canister, m^2

Equation 8.2:

$$\text{Error},2\sigma = 2\times \frac{\sqrt{\frac{\text{Gross Sample, cpm}}{\text{Sample Count,t,min}} + \frac{\text{Background Sample,cpm}}{\text{Background Count,t,min}}}}{\text{Net,cpm}} \times \text{Sample Concentration}$$

Equation 8.3:

$$LLD = \frac{2.71 + (4.65)(S_b)}{[Ts*A*b*0.5^{(d/91.75)}]}$$

where: 2.71 = constant
4.65 = confidence interval factor
S_b = standard deviation of the background count rate
Ts = sample duration, seconds
b = instrument calibration factor, cpm per pCi; values used:
0.1714, for M-01/D-21 and
0.1720, for M-02/D-20
d = decay time, elapsed hours between sample mid-time and count mid-time
A = area of the canister, m^2

9. RESULTS

9.1 Mean Radon Flux

Referencing 40 CFR, Part 61, Subpart W, Appendix B, Method 115 - Monitoring for Radon-222 Emissions, Subsection 2.1.7 - Calculations, "the mean radon flux for each region of the pile and for the total pile shall be calculated and reported as follows:

(a) The individual radon flux calculations shall be made as provided in Appendix A EPA 86(1). The mean radon flux for each region of the pile shall be calculated by summing all individual flux measurements for the region and dividing by the total number of flux measurements for the region.

(b) The mean radon flux for the total uranium mill tailings pile shall be calculated as follows:

$$J_s = \frac{J_1A_1 + \ldots J_2A_2\ [+]\ \ldots J_iA_i}{A_t}$$

Where: J_s = Mean flux for the total pile (pCi/m^2-s)
J_i = Mean flux measured in region i (pCi/m^2-s)
A_i = Area of region i (m^2)
A_t = Total area of the pile (m^2)

2.1.8 Reporting. The results of individual flux measurements, the approximate locations on the pile, and the mean radon flux for each region and the mean radon flux for the total stack [pile] shall be included in the emission test report. Any condition or unusual event that occurred during the measurements that could significantly affect the results should be reported."

9.2 Site Results

Site Specific Sample Results (reference Figure 2 and Appendix C)

(a) The mean radon flux for each region within the site as follows:

Cell 2 - Cover Area = 3.9 pCi/m^2-s (based on 270,624 m^2 area)

Cell 3 - Cover Area = 5.5 pCi/m^2-s (based on 147,251 m^2 area)
- Beach Areas = 12.2 pCi/m^2-s (based on 66,536 m^2 area)
- Standing Liquid = 0 pCi/m^2-s (based on 75,071 m^2 area)

Note: Reference Appendix C of this report for the entire summary of individual measurement results.

(b) Using the data presented above, the calculated mean radon flux for each cell (pile) is, as follows:

$$\text{Cell 2} = 3.9 \text{ pCi/m}^2\text{-s}$$

$$\frac{(3.9)(270{,}624)}{270{,}624}$$

$$\text{Cell 3} = 3.1 \text{ pCi/m}^2\text{-s}$$

$$\frac{(5.5)(147{,}251) + (12.2)(66{,}536) + (0)(75{,}071)}{288{,}858}$$

As shown above, the arithmetic mean radon flux for the each cell at Denison Mines' White Mesa milling facility is below the NRC and EPA standard of 20 pCi/m^2-s. No condition or unusual event occurred during the measurements that could significantly affect the reported results. Appendix C is a summary of individual measurement results, including blank sample analysis. Sample locations are depicted on Figure 2, which is included in Appendix D. The map was produced by Tellco.

References

U. S. Environmental Protection Agency, *Radon Flux Measurements on Gardinier and Royster Phosphogypsum Piles Near Tampa and Mulberry, Florida*, EPA 520/5-85-029, NTIS #PB86-161874, January 1986.

U. S. Environmental Protection Agency, *Title 40, Code of Federal Regulations*, February 2008.

U. S. Nuclear Regulatory Commission, *Radiological Effluent and Environmental Monitoring at Uranium Mills*, Regulatory Guide 4.14, April 1980.

U. S. Nuclear Regulatory Commission, *Title 10, Code of Federal Regulations*, Part 40, Appendix A, January 2008.

Figure 1

Large Area Activated Charcoal Canisters Diagram

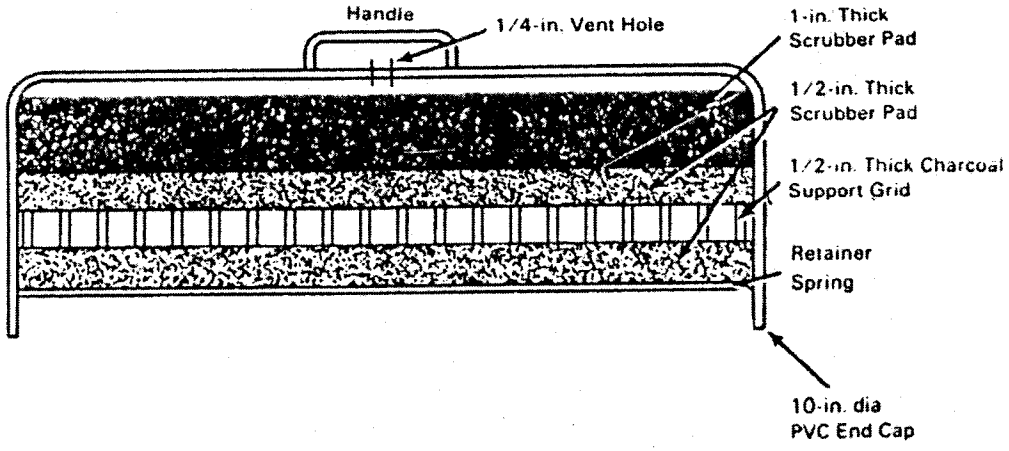

FIGURE 1 Large-Area Radon Collector

Appendix A

Charcoal Canister Analyses Support Documents

BALANCE OPERATION DAILY CHECK

Balance Model: Ohaus Port-o-gram S.N. 12307

Standard Weight (g): 200.0 g

Date	Pre-check (g)	Post-check (g)	O.K. ± 0.1 % ?	By
6/14/08	200.0	200.0	yes	DLCoop
6/15/08	200.0	200.0	yes	DLCoop
6/16/08	200.0	200.0	yes	DLCoop

ACCURACY APPRAISAL TABLE

DENISON MINES (USA) CORPORATION
WHITE MESA MILL, BLANDING, UTAH
2008 NESHAPs RADON FLUX MEASUREMENTS
CELLS 2 & 3

SYSTEM I.D.	DATE	Bkg Counts (1 min. each)			Source Counts (1 min. each)			AVG NET	YIELD	FOUND	SOURCE	KNOWN	% BIAS
		#1	#2	#3	#1	#2	#3	cpm	cpm/pCi	pCi	ID	pCi	
M-01/D-21	6/14/2008	131	115	131	10040	9793	9889	9782	0.1714	57069	GS-04	59300	-3.8%
M-01/D-21	6/14/2008	150	141	136	10203	9969	10041	9929	0.1714	57927	GS-04	59300	-2.3%
M-01/D-21	6/15/2008	133	134	134	10368	10227	10229	10141	0.1714	59166	GS-04	59300	-0.2%
M-01/D-21	6/15/2008	138	135	142	10327	10213	10268	10131	0.1714	59107	GS-04	59300	-0.3%
M-01/D-21	6/16/2008	130	126	147	10176	10196	10379	10116	0.1714	59020	GS-04	59300	-0.5%
M-01/D-21	6/16/2008	123	136	121	10277	10282	10329	10169	0.1714	59331	GS-04	59300	0.1%
M-01/D-21	6/14/2008	131	115	131	10558	10344	10385	10303	0.1714	60113	GS-05	59300	1.4%
M-01/D-21	6/14/2008	150	141	136	10307	10209	10254	10114	0.1714	59010	GS-05	59300	-0.5%
M-01/D-21	6/15/2008	133	134	134	10316	10403	10271	10196	0.1714	59489	GS-05	59300	0.3%
M-01/D-21	6/15/2008	138	135	142	10298	10165	10138	10062	0.1714	58705	GS-05	59300	-1.0%
M-01/D-21	6/16/2008	130	126	147	10454	10263	10369	10228	0.1714	59671	GS-05	59300	0.6%
M-01/D-21	6/16/2008	123	136	121	10265	10447	10434	10255	0.1714	59833	GS-05	59300	0.9%
M-02/D-20	6/14/2008	133	164	94	10315	10185	10110	10073	0.1720	58564	GS-04	59300	-1.2%
M-02/D-20	6/14/2008	138	122	125	10109	10046	10272	10014	0.1720	58221	GS-04	59300	-1.8%
M-02/D-20	6/15/2008	119	109	119	10347	10349	10342	10230	0.1720	59479	GS-04	59300	0.3%
M-02/D-20	6/15/2008	124	120	109	10439	10333	10254	10224	0.1720	59444	GS-04	59300	0.2%
M-02/D-20	6/16/2008	120	151	134	10310	10140	10208	10084	0.1720	58630	GS-04	59300	-1.1%
M-02/D-20	6/16/2008	143	140	139	10276	10211	10401	10155	0.1720	59043	GS-04	59300	-0.4%
M-02/D-20	6/14/2008	133	164	94	10324	10224	10384	10180	0.1720	59188	GS-05	59300	-0.2%
M-02/D-20	6/14/2008	138	122	125	10288	10370	10344	10206	0.1720	59335	GS-05	59300	0.1%
M-02/D-20	6/15/2008	119	109	119	10305	10509	10222	10230	0.1720	59475	GS-05	59300	0.3%
M-02/D-20	6/15/2008	124	120	109	10424	10358	10296	10242	0.1720	59545	GS-05	59300	0.4%
M-02/D-20	6/16/2008	120	151	134	10272	10355	10349	10190	0.1720	59246	GS-05	59300	-0.1%
M-02/D-20	6/16/2008	143	140	139	10341	10261	10375	10185	0.1720	59215	GS-05	59300	-0.1%
												AVERAGE PERCENT BIAS FOR ALL ANALYTICAL SESSIONS:	-0.4%

CHARCOAL CANISTER ANALYSIS SYSTEM

SITE LOCATION: White Mesa Mill

CLIENT: Denison Mines (USA) Corp.

Calibration Check Log

System ID: M-02/D-20 Calibration Date: 6/05/08 Due Date: 6/05/09

Scaler S/N: 51563 High Voltage: 800 Window: 4.42 Thrshld: 2.20

Detector S/N: 041532 Source ID/SN: Ra-226 GS-04 Source Activity: 59.3 kpCi

Blank Canister Bkgd. Range, cpm: 2 σ = 91 to 171 3 σ = 71 to 191

Gross Source Range, cpm: 2 σ = 10032 to 10532 3 σ = 9907 to 10657

Technician: DL Cooper

All counts times are one minute.

	Date	By	Background Counts (1 min. each)				Source Counts (1 min. each)				ok?
			#1	#2	#3	Avg.	#1	#2	#3	Average	Y/N
pre	6/14/08	DLCooper	133	164	94	130	10315	10185	10110	10203	Y
post	6/14/08	DLCooper	138	122	125	128	10109	10046	10272	10142	Y
pre	6/15/08	DLCooper	119	109	119	116	10347	10349	10342	10346	Y
post	6/15/08	DLCooper	124	120	109	118	10439	10333	10254	10342	Y
pre	6/16/08	DLCooper	120	151	134	135	10310	10140	10208	10219	Y
post	6/16/08	DLCooper	143	140	139	141	10276	10211	10401	10296	Y

Y/N: Y = average background and source cpm falls within the control limits.
N = average background and source cpm does not fall within the control limits.

The acceptable ranges were determined from prior background and source check data.

CHARCOAL CANISTER ANALYSIS SYSTEM

SITE LOCATION: White Mesa Mill

CLIENT: Denison Mines (USA) Corp.

Calibration Check Log

System ID: M-02 /D-20 Calibration Date: 6/05/08 Due Date: 6/05/09

Scaler S/N: 51563 High Voltage: 800 Window: 4.42 Thrshld: 2.20

Detector S/N: 041532 Source ID/SN: Ra-226 GS-05 Source Activity: 59.3 KpCi

Blank Canister Bkgd. Range, cpm: 2 σ = 91 to 171 3 σ = 71 to 191

Gross Source Range, cpm: 2 σ = 10154 to 10618 3 σ = 10038 to 10734

Technician: DL Cooper

All counts times are one minute.

	Date	By	Background Counts (1 min. each)				Source Counts (1 min. each)				ok?
			#1	#2	#3	Avg.	#1	#2	#3	Average	Y/N
Pre	6/14/08	DLCoop	133	164	94	130	10324	10224	10384	10311	Y
post	6/14/08	DLCoop	138	122	125	128	10288	10370	10344	10334	Y
pre	6/15/08	DLCoop	119	109	119	116	10305	10509	10222	10345	Y
post	6/15/08	DLCoop	124	120	109	118	10424	10358	10396	10359	Y
pre	6/16/08	DLCoop	120	151	134	135	10372	10355	10349	10325	Y
post	6/16/08	DLCoop	143	140	139	141	10341	10261	10375	10326	Y

Y/N: Y = average background and source cpm falls within the control limits.
N = average background and source cpm does not fall within the control limits.

The acceptable ranges were determined from prior background and source check data.

CHARCOAL CANISTER ANALYSIS SYSTEM

SITE LOCATION: White Mesa Mill

CLIENT: Denison Mines (USA) Corp.

Calibration Check Log

System ID: M-01 / D-21 Calibration Date: 6/05/08 Due Date: 6/05/09

Scaler S/N: 51572 High Voltage: 1150 Window: 4.42 Thrshld: 2.20

Detector S/N: 041533 Source ID/SN: Ra-226 GS-04 Source Activity: 59.3 kpCi

Blank Canister Bkgd. Range, cpm: 2 σ = 110 to 160 3 σ = 97 to 172

Gross Source Range, cpm: 2 σ = 9882 to 10642 3 σ = 9692 to 10832

Technician: DL Cooper

All counts times are one minute.

	Date	By	Background Counts (1 min. each)				Source Counts (1 min. each)				ok?
			#1	#2	#3	Avg.	#1	#2	#3	Average	Y/N
Pre	6/14/08	DLCooper	131	115	131	126	10040	9793	9889	9907	Y
Post	6/14/08	DLCooper	150	141	136	142	10203	9969	10041	10071	Y
Pre	6/15/08	DLCooper	133	134	134	134	10368	10227	10229	10275	Y
Post	6/15/08	DLCooper	138	135	142	138	10327	10213	10268	10269	Y
Pre	6/16/08	DLCooper	130	126	147	134	10176	10196	10379	10250	Y
Post	6/16/08	DLCooper	123	136	121	127	10277	10282	10329	10296	Y

Y/N: Y = average background and source cpm falls within the control limits.
N = average background and source cpm does not fall within the control limits.

The acceptable ranges were determined from prior background and source check data.