



State of Utah

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Department of  
Environmental Quality

Amanda Smith  
Executive Director

DIVISION OF RADIATION CONTROL  
Rusty Lundberg  
Director

May 19, 2011

**DRC-2011-005799**



**CERTIFIED MAIL**  
**(Return Receipt Requested)**

David C. Frydenlund, Vice President, Regulatory Affairs and Counsel  
Denison Mines (USA) Corp.  
1050 17<sup>th</sup> Street  
Suite 950  
Denver, CO 80265

Subject: Final Memorandum of Agreement, Revision 3 between DRC and Denison Mines  
(USA) Corp. Regarding URS Services for the White Mesa Nitrate Contamination  
Investigation Work Plan Review

Dear Mr. Frydenlund:

A copy of the Final and Executed Memorandum of Agreement between the Utah Division of  
Radiation Control and Denison Mines (USA) Corp., Revision 3, is enclosed.

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

Sincerely,

Rusty Lundberg, Director  
Utah Division of Radiation Control

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# MEMORANDUM OF AGREEMENT

BETWEEN

UTAH DIVISION OF RADIATION CONTROL

AND

DENISON MINES (USA) CORP.

## I. General

The Utah Division of Radiation Control (DRC) and Denison Mines (USA) Corp. (DUSA) hereby enter into this Memorandum of Agreement (MOA).

- A. DUSA owns and operates a uranium mill tailings facility near Blanding, Utah.
- B. This MOA pertains to project tasks associated with the following:
- 1) DUSA Nitrate Investigation Report dated December 30, 2009.
  - 2) DRC Notice of Additional Required Action, dated October 5, 2010.
  - 3) DRC / DUSA Tolling Agreement, dated December 15, 2010.
  - 4) DRC / DUSA Tolling Agreement Rev. 1, dated April 28, 2011.
  - 5) DRC review of the DUSA February 18, 2011 "Work Plan and Schedule for Supplemental Contaminant Investigation Report for White Mesa Mill Nitrate Investigation."
  - 6) DRC review of the DUSA Phase I (Including Phases 1 A through 1 C as outlined in the Rev 1 Tolling Agreement) Work Plan for the White Mesa Uranium Mill Nitrate Contamination Investigation due to DRC by May 6, 2011.
  - 7) DRC review of the DUSA Phase 2 through 5 White Mesa Uranium Mill Nitrate Contamination Investigation Work Plan and Completion Schedule due to DRC by June 3, 2011
- C. This agreement may be extended or modified to include other identified project tasks or phases of activity, if expressly agreed to in writing by both parties to this agreement at least 30 days prior to its expiration date.
- D. Per discussion during a meeting between DRC and DUSA on February 14, 2011 (Meeting), it was agreed that comments related to the initial work plan would be submitted to DUSA by March 21, 2011. This is 30 days from the submittal of the amended initial work plan received by DRC on February 18, 2011. Therefore, item 4 of the 12/15/2010 Tolling Agreement between DRC and DUSA was agreed to be March 21, 2011 instead March 15, 2011 based on agreements during that Meeting. DRC does acknowledge that the original work plan was submitted on February 14, 2011, via hand delivery during the Meeting; however, during the Meeting, it was identified that certain revisions to one or more figures in the work plan were required and that laboratory QA/QC issues associated with isotopic sample collection and analysis had not been specifically addressed in the February 14, 2011 version. DUSA agreed to address these issues in the amended work plan submitted on February 18, 2011.

The DRC provided DUSA with its comments regarding the February 18, 2011 Work Plan in a March 21, 2011 URS Memorandum by e-mail on March 21, 2011 per agreements in Revisions 1 and 2 of this MOA.

## II. Duration

This MOA will become effective immediately upon signature by DUSA and DRC.

This MOA will expire on August 1, 2011.

The DEQ fee schedule allows for reimbursement of actual costs of special projects.

## III. Agreement

**Per Revisions 1 and 2 of this MOA DRC agrees to:**

- A. Engage the services of URS Corporation to accomplish Phase 1 of the project under the current contract (State Contract No. 116259), according to the agreed upon tasks and total costs in Table 1, below

Table 1. URS Task and Cost Summary For Phase 1\*

Task Description	Hours
Attend 4 DWQ Meetings	20
Review and discuss historical documents from DWQ website	48
Review the initial Work Plan and produce comments	36
Conduct two teleconference calls with the state DEQ/DRC	7
Conduct one teleconference call with Denison Mines (USA) Corp. (approximately 7 work days after review start)	5
Review the final work plan	7
Subcontract and payment for M. Singleton for isotopic analysis/review	6
Contract IDWA Management	12
Total Hours	141
Total Cost (up to)	\$17,704

\* Tasks and costs per an e-mail from URS, received by DRC on 2/15/2011 (Included as Attachment A of this MOA).

B. Provide DUSA with:

- 1) A telephone conference call with DRC and URS to share preliminary impressions and observations regarding review of the initial work plan (to be arranged approximately 7 days after beginning work plan review),

Per additional discussion during a meeting between both parties in Salt Lake City, Utah on April 13, 2011 to discuss the DRC comments for the February 18, 2011 Work Plan. A subsequent meeting was held in Salt Lake City, Utah on April 20, 2011. During the April 20 Meeting, it was agreed by both parties that the Nitrate Investigation field work would be conducted in five (5) Phases. During the meeting, the DRC and DUSA discussed in detail what Phase 1 would include and came to a consensus. Phase 1 will include three (3) sub-phases, as follows:

Phase 1A - Geoprobe investigation of a possible natural nitrate salt reservoir in vadose zone soils.

Phase 1B - Geoprobe investigation of potential nitrate source locations in the Mill site area.

Phase 1C - Geoprobe investigation of other potential nitrate sources.

During the April 20 Meeting, the Co-Executive Secretary and DUSA agreed that DUSA would prepare and submit a Revised Work Plan for Phase 1A through C on or before May 6, 2011. The DRC committed to give DUSA its comments for the Phase 1 Work Plan on or before May 12, 2011.

During the April 20 Meeting, it was agreed that as many as four other phases of study / activity may be required as part of the nitrate investigation. These were briefly discussed in concept; and it was agreed that the possible remaining phases and activities could include the following:

Phase 2 - Groundwater quality sampling and analysis of existing wells for non-isotopic analytes, including, but not limited to submittal of a revised Quality Assurance Plan (hereafter QAP) for all non-isotopic constituents not currently found in the March 22, 2010 DUSA QAP (Rev. 6).

Phase 3 - Deep bedrock core sampling and analysis at possible natural nitrate reservoir and potential nitrate source locations, with similar objectives as Phase 1A, B and C, above.

Phase 4 - Stable isotopic sampling and analysis of groundwater in existing wells, with details to be defined later, and approved by both parties.

Phase 5 - Isotopic soil sampling and analysis (if needed).

During the April 20 meeting, the Co-Executive Secretary and DUSA agreed that DUSA would prepare and submit a Revised Phase 2 through 5 Work Plan and Completion Schedule for Co-Executive Secretary review and approval on or before June 3, 2011. DUSA also committed to provide, as part of the Revised Phase 2 through 5 Work Plan, an initial Conceptual Site Model (hereafter CSM) to guide the Nitrate Investigation. Both parties agreed that the initial CSM could be subject to revision as Phases 2 through 5 of the investigation proceeded forward.

- 2) A final report of findings (observations and requests for additional information) regarding the Revised Work Plan, on or before March 21, 2011, and,
  - 3) Any URS invoices for services rendered on this project, including hours expended, hourly rates and job classification of URS staff involved, and a breakdown of any other expenses incurred during project completion.
- C. Bill DUSA for URS work efforts expended in completion of the total project for review of the February 18, 2011 Work Plan Review (MOA Part I.B.5) and/or Attachment A, up to \$17,704. These costs are based on the work element and schedule assumptions found in Table 1 above. This agreement may be amended, for any reason, after consent by both parties.

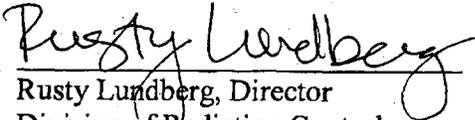
**Per Revision 3 of the MOA DRC Agrees to:**

- A. Engage the services of URS Corporation to accomplish review of the project under the current contract (State Contract No. 116259), according to the agreed upon tasks and total costs in Attachment B of this Agreement
- B. Bill DUSA for URS work efforts in completion of the current phased project (MOA Parts I.B.6 and I.B.7), up to \$14,209. These costs are based on the work elements and schedule assumptions found in Attachment B. This agreement may be amended, for any reason, after consent by both parties.

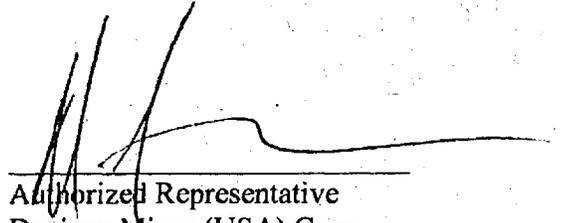
**DUSA Agrees to:**

Provide DRC with timely payment of any invoice for URS Corporation consulting services related to completion of the activities referenced above and/or included in Attachments A and B.

**SIGNATURES:**

  
 Rusty Lundberg, Director  
 Division of Radiation Control

5/19/2011  
 Date

  
 Authorized Representative  
 Denison Mines (USA) Corp.

5/16/11  
 Date

Attachment A – Cost Estimates for URS by task and staff time

URS Scope of Work for UDRC: Review of Denison Mines Reports

**EFFORT BY TASK**

**EFFORT BY PERSON**

	Totals		Totals
1) Attend 4 DWQ Meetings (2 meetings already attended)	20	Robert Baird	17
2) Review and discuss historical documents from DWQ web site	48	Paul Bitter	38
		Jeremy Cox	44
3) Review draft work plan and produce comments	36	M Singleton	28
4) Two Teleconference calls with state DWQ	7	Admin	14
5) One teleconference call with Denison	5	Total hours	141
		<b>Total Cost</b>	<b>\$ 17,704</b>
6) Review final work plan	7		
7) Subcontract and payment for M Singleton for isotope analysis consultation	6		
8) Contract IDWA management	12		
Total hours	141		
<b>Total Cost</b>	<b>\$ 17,704</b>		

Attachment B – Cost Estimates for URS by task and staff time (MOA Parts I.B.6 and I.B.7)

DUSA NITRATE PLUME INVESTIGATION WORK PLAN; CONTINUING REVIEWS

Task	Activity	URS/EC SLC		URS/E SLC				Total-EC	Total-IE	Total Hours	Labor Cost	ODCs		Total Cost	SCHEDULE	
		Baird	Admin-01	Blitter	Cox	Admin-02	Singleton					Item	Cost		Start	Finish
Second Meeting: UDRC & DUSA 4/20/11		4	2	3	4	4	0	0	6	7	13	Vehicle	\$51	\$1,714		
Review Phase I Work Plan		4	2	3	4	4	0	0	6	7	13				5/0	
Review				2	3	1			0	6	6					
Submit Comments to UDRC				1	2				0	3	3					5/10 date approximate
Teleconference with UDRC		2	1	3	3				3	6	9					5/10 date approximate
Respond to UDRC Comments				1	2				2	3	5					
Teleconference with UDRC & DUSA (assumed)		2		3	3				2	6	8					5/11 date approximate
Review Phase II - V Work Plan		6	1	10	13	1	0	0	7	24	31	\$3,880	\$0	\$3,880		
Review				5	8	2	4		0	19	19				6/3	
Submit Comments to UDRC				3	5		4		0	12	12					6/15
Teleconference with UDRC		2	2	3	3		2		4	8	12					6/20 date approximate
Respond to UDRC Comments				1	3		2		2	6	8					6/22
Teleconference with UDRC & DUSA (assumed)		2		5	5		4		2	14	16					6/29 date approximate
		6	2	17	24	2	16		8	50	67	\$8,615	\$0	\$8,615		
	Total (hr)	10	5	30	41	3	10		21	90	111					
	Rate	\$ 180	\$ 63	\$ 144	\$ 98	\$ 48	\$ 160									
	Cost	\$ 2,884	\$ 314	\$ 4,320	\$ 3,836	\$ 144	\$ 2,580		\$ 3,198	\$ 10,960	\$ 14,158	\$ 14,158	\$ 51	\$ 14,208		

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<b>SUBJECT: MAY 19, 2011 FINAL MEMORANDUM / TR David C. Frydenlund</b>		
<b>St Vice President, Regulatory Affairs Counsel</b>		
<b>St Denison Mines (USA) Corp. (DUSA)</b>		
<b>or 1050 Seventeenth Street, Suite 950</b>		
<b>St Denver, CO 80265</b>		