## UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY

IN THE MATTER OF	STIPULATION AND
RIO ALGOM MINING LLC	CONSENT AGREEMENT
BHP BILLITON	
8950 N. ORACLE ROAD, SUITE 150	
TUCSON, AZ 85704 USA	

# A. STATUTORY AUTHORITY

This **STIPULATION AND CONSENT AGREEMENT** (**AGREEMENT**) is hereby made between Rio Algom Mining LLC (**RAML**) and the Director (**DIRECTOR**) of the Utah Division of Radiation Control (**DRC**) under the Utah Radiation Control Act, Utah Code Ann. §§ 19-3-101 to -320 (**ACT**), including Utah Code Ann. §§ 19-3-103.5, 108 to -109. This **AGREEMENT** is also made in accordance with the Utah Administrative Procedures Act, Utah Code Ann. §§ 63G-4-101 to -601. The **DIRECTOR** is authorized to review and approve plans and issue administrative authorizations and orders in accordance with § 19-3-108 of the Utah Code.

#### B. <u>APPLICABLE STATUTORY AND REGULATORY PROVISIONS</u>

- 1. Radioactive Materials License UT 1900481 (**LICENSE**) Condition 53 requires **RAML** to implement a groundwater compliance monitoring program containing elements outlined therein which include compliance with maximum groundwater concentrations for distinct parameters, listed as *Alternate Compliance Limits*, *Compliance Limits*, and *Target Action Levels* for specific monitoring wells.
- 2. The **LICENSE**, Amendment 4, Condition 56, requires **RAML** to submit a work plan and schedule to "collect additional field data in the area of the former uranium mill property and provide an analysis of the existing data to be used for subsequent technical evaluation of the Licensee's Application for Alternate Concentration Limits and Long Term Ground Water Monitoring Plan . . . ."

## C. FINDINGS OF FACT

1. **RAML** was issued the **LICENSE** by the Executive Secretary of the Utah Radiation Control Board for the **RAML** facility located in the Lisbon Valley, San Juan County on February 8, 2005. The **LICENSE** was amended on March 6, 2006, January 2, 2010, and most recently, on February 6, 2012 (Amendment 4).

<sup>&</sup>lt;sup>1</sup> Effective May 8, 2012, and in accordance with Utah Code Ann. § 19-3-108, the Director of the Division of Radiation Control was granted the authority to issue or enter into such agreements.

- 2. **RAML** submitted written notification to the **DIRECTOR**, dated May 19, 2010, that the April 2010 uranium concentrations in groundwater from Well RL-1 exceeded the uranium Target Action Level, or TAL (42.1 mg/L).
- 3. The **DIRECTOR** subsequently found during review of **RAML** Groundwater Monitoring Reports (and discussions with **RAML** representatives) that the uranium concentration in the quarterly sample taken during August 2010 (3<sup>rd</sup> Quarter Monitoring Report) was again above the Target Action Level. This resulted in "Out of Compliance" Status (OOC) for monitoring well RL-1. An apparent rising concentration trend was also noted for uranium at monitoring well RL-1. The **DIRECTOR** noted that **RAML** was required to initiate OOC License Conditions 53.C.(1), (2) and (3) based on the OOC status, but failed to provide the actions and deliverables required therein.
- 4. The **DIRECTOR** issued a Notice of Enforcement Discretion and Confirmatory Action Letter to **RAML** (**Letter**), dated February 7, 2011, which provided enforcement discretion for violations of the **LICENSE**, Conditions 53.C.(1), (2) and (3), with the provision that **RAML** agree to "provide additional investigation/deliverables regarding the apparent increasing uranium concentration trend at RL-1 as outlined in the "Confirmatory Action" Section" of the **Letter**. This included providing a detailed action plan and schedule for **RAML** investigation of OOC status for RL-1 and of apparent non-conformance with approved contaminant transport model predictions for RL-1, which predicted a decreasing concentration trend for uranium.
- 5. In response to the **Letter** requirements, **RAML** contracted with a consultant, Montgomery and Associates (**M&A**), in order to prepare a work plan for the ground water investigation. The **DIRECTOR** received confirmation of the contract, as well as **M&A** member biographies and qualifications, by letter on June 2, 2011.
- 6. In response to the **Letter**, an Action Plan to Study the OOC Status at RL-1 (Dated 6/2/2011 and prepared by **M&A**) was submitted by **RAML** to the **DIRECTOR** for review and approval (submitted on June 2, 2011, via e-mail).
- 7. The June 1, 2011 **RAML** Action Plan was subsequently approved by the **DIRECTOR** by letter to **RAML** on June 23, 2011. The approval letter also provided an extension of time for **RAML** to provide a final report (required date of June 2, 2011, by the **Letter**) to August 12, 2011.
- 8. Subsequent to this, another groundwater monitoring well at the Lisbon facility, EF-8, went into OOC status (reported to the **DIRECTOR** September 20, 2011), and it was agreed that a response to OOC status of this well would be included with the Work Plan Final Report.
- 9. A meeting was held on October 13, 2011, with **RAML**, **DRC** and **M&A** in attendance. Discussion took place regarding a general approach for **RAML** to develop and implement a Work Plan.

- 10. The **LICENSE** (Amendment Four) was issued to clarify objectives and timelines regarding the Work Plan as agreed to during the Meeting and to specify a due date for the Work Plan (December 16, 2011).
- 11. **RAML** submitted a Work Plan for **DIRECTOR** review and approval on December 16, 2011. The **DIRECTOR** subsequently submitted a Request for Information Letter on February 6, 2012. A revised Work Plan was submitted by **RAML** on April 13, 2012. The **DIRECTOR** responded with a Request for Information Letter on May 1, 2012. Another revised Work Plan was submitted by **RAML** on July 13, 2012. The **DIRECTOR** responded to this with an additional Request for Information Letter dated July 27, 2012. **RAML** submitted another revision of the Work Plan on August 2, 2012 (Phase 1 Work Plan). RAML submitted the Phase 1 Report on March 7, 2013.
- 12. RAML submitted the Phase 2 Work Plan for **DIRECTOR** review and approval on March 7, 2013.
- 13. Corrective action for the out-of-compliance wells/parameters will be in accordance with the terms of this **AGREEMENT**, and based on studies, objectives and schedules outlined in the approved Phase 2 Work Plan.

#### **D. AGREEMENT**

- 1. **RAML** will complete all studies and activities according to the schedules listed in the approved Phase 2 Work Plan and the schedules in this **AGREEMENT**, unless an extended schedule has been previously approved in writing by the **DIRECTOR**, in which case **RAML** agrees to follow that modified schedule.
- 2. **RAML** will submit a Final Report for the Supplemental Site Assessment to Address Outof-Compliance Status at Trend Wells RL-1 and EF-8 within 365 calendar days from the effective date of this **AGREEMENT** unless an extended schedule has been previously approved in writing by the **DIRECTOR**, in which case **RAML** agrees to follow that modified schedule. The Final Report will include geologic logs, and well schematics for all Phase 1 and 2 wells; interpretation, tabulation, and mapping of new water level and water quality data obtained in 2012 and 2013; geologic/hydrogeologic cross-sections; analysis of Phase 1 and 2 slug testing including the calculation of local hydrogeologic parameters; results of the Phase 2 groundwater modeling including revised uranium breakthrough curves for all monitoring wells; proposed revised ACLs and Long Term Groundwater Monitoring Plan or other proposed compliance actions for **DIRECTOR** review and approval. The Final Report will include a detailed breakdown of long term associated costs of all proposed compliance activities (e.g. costs of long term groundwater monitoring, costs of reclamation systems and long term maintenance, costs of additional required land acquisition, etc.)

#### E. STIPULATED PENALTIES

In signing this **AGREEMENT**, **RAML** agrees to pay stipulated penalties upon written determination by the **DIRECTOR** that **RAML** has violated provisions of this **AGREEMENT** as described below. The penalty amounts stipulated below are consistent with penalties for groundwater permit violations administered by the **DRC** under the Utah Water Quality Act, Utah Code Ann. (UCA) §§ 19-5-101 to -124.

- 1. If the **DIRECTOR** determines that any of the required reports listed in the **AGREEMENT** section above have omitted any information or content requirements or failed to provide any of the study elements mandated by the **AGREEMENT**, the **DIRECTOR** will notify **RAML** in writing and **RAML** shall be required to remedy such omissions or failures on or before a due date as determined appropriate by the **DIRECTOR**, provided that such due date shall allow **RAML** a reasonable timeframe within which to remedy such omissions or failures. If **RAML** fails to remedy such omissions or failures on or before the due date, **RAML** agrees to pay stipulated penalties in the amount of \$500 per calendar day for every day a required report remains incomplete.
- 2. **RAML** agrees to the following milestones, schedules and associated stipulated penalties:
  - A. As described in the approved Phase 2 Work Plan RAML agrees to drill and complete a minimum of 14 new wells at the specified locations during calendar year 2013. RAML agrees that the 2013 Phase 2 field program will also include slug testing and groundwater sampling in all 14 Phase 2 new wells. RAML will provide at least a 14 calendar day written notice to allow the DIRECTOR to observe all drilling and well installation activities. RAML agrees to finish Phase 2 field work within 90 calendar days from the effective date of this AGREEMENT unless an extended schedule is previously approved in writing by the DIRECTOR. If RAML fails to drill, complete and test wells in conformance with this AGREEMENT, or an extended schedule approved by the DIRECTOR, then, for each well, RAML agrees to pay stipulated penalties in the amount of \$500 per calendar day per violation.
  - B. RAML agrees to conduct groundwater sampling as outlined in the Phase 2 Work Plan, using the same sampling methods and protocols as Phase 1, within 90 calendar days of the effective date of this AGREEMENT or a later date approved in writing approved by the DIRECTOR. RAML agrees that results from the Phase 1 and Phase 2 sampling will be submitted to the DRC for review and approval at least seven calendar days prior to commencement of future compliance groundwater sampling in accordance with a new groundwater monitoring plan prepared after completion of the final Phase 2 Report and approved by the DIRECTOR. RAML agrees that once one or more sampling methods are approved by the DIRECTOR, groundwater from each well will be sampled in accordance with a DIRECTOR approved quality assurance plan. If RAML fails to conduct the preliminary test and provide results to DIRECTOR from each well on schedule with this AGREEMENT or a later date approved in writing approved by the DIRECTOR, then, for each well, RAML agrees to pay stipulated penalties in the amount of \$500 per calendar day per violation.
  - C. **RAML** agrees to install new groundwater monitoring wells as described in the approved revised Phase 2 Work Plan. As discussed therein, all wells will be screened over the

entire saturated thickness of the aquifer (either as individual wells or in combination with one or more nearby pre-existing cluster wells) or screened over a different portion of the aquifer as approved in writing by the **DIRECTOR**. All wells will be installed and developed in accordance with the final approved Phase 2 Work Plan or before another date approved in writing by the **DIRECTOR**. If **RAML** fails to install and screen wells as specified by this **AGREEMENT**, and in conformance with the schedules in this **AGREEMENT** or other agreement approved in writing by the **DIRECTOR**, then, for each well, **RAML** agrees to pay stipulated penalties in the amount of \$500 per calendar day per violation.

- **D. RAML** agrees to submit the Final Report for the Supplemental Site Assessment to Address Out-of-Compliance Status at Trend Wells RL-1 and EF-8 within 365 calendar days from the effective date of this **AGREEMENT**. If **RAML** fails to submit the Final Report as specified by this **AGREEMENT**, **RAML** agrees to pay stipulated penalties in the amount of \$500 per calendar day per violation.
- E. **RAML** agrees to pay any required penalties within 30 calendar days of written notice from the **DIRECTOR**, in the form of a check, made payable to the State of Utah, and delivered or mailed to:

Division of Radiation Control Utah Department of Environmental Quality P.O. Box 144850 195 North 1950 West Salt Lake City Utah, 84114-4850

### F. FORCE MAJEURE

The **DIRECTOR** and **RAML** agree to perform all requirements of this **AGREEMENT** within the time limits established under this **AGREEMENT**, unless the performance is delayed by a *force majeure*. For purposes of this **AGREEMENT** with respect to **RAML**, a *force majeure* is defined as any event arising from causes beyond the control of RAML or of any entity controlled by **RAML** including but not limited to their contractors and subcontractors that delays or prevents performance of any obligation under this **AGREEMENT** despite **RAML's** best efforts to fulfill the obligation.

#### G. NOTICE

**RAML** agrees to comply with each of the provisions of this **AGREEMENT**. Providing false information shall subject **RAML** to additional civil penalties or criminal fines in excess of those stated in this document, up to the maximum allowable by law.

AGREED to this 23 day of UTAH DIVISION OF RADIATION CONTROL RIO ALGOM MINING LLC Rusty Lundberg Director Billy Ray, Manager Closure Execution Lisbon Site Manager for this agreement

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