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Via Electronic Submission

James Goldstene
Air Resources Board
1001 I Street
Sacramento, CA

Re: Comments of Rio Tinto Minerals on Cap-and-Trade Program: Emissions Leakage Research and Monitoring

Dear Mr. Goldstene:

Rio Tinto Minerals (U.S. Borax), a Rio Tinto Company, is pleased to submit the following comments in response to the July 30, 2012 Public Workshop on the Cap-and-Trade Program: Emissions Leakage Research and Monitoring. Rio Tinto Minerals has been a leader in implementing voluntary strategies to reduce our greenhouse gas emissions. We are the only mining company in California to earn the designation of Climate Action Leader with the California Climate Action Registry and have verified greenhouse gas (GHG) emissions from 2000 to 2010. Current greenhouse gas emissions are now publically reported to California Air Resources Board (CARB) and the Environmental Protection Agency. We have been an active participant in ARB proceedings to implement AB-32 and commend efforts made to develop a cap-and-trade program that recognizes the competitive challenges facing California businesses in a global marketplace.

A California company since 1872, U.S. Borax mines and processes borate ore from one of the world's largest deposits in Boron, California. Current operations are expected to continue in Boron for at least 40 more years. The production of refined borate products is energy intensive and the global market for our product is highly competitive. U.S. Borax exports the majority of its production volumes to customers in more than 100 countries through Borax's distribution facility in the Port of Los Angeles. It is highly improbable that any of our international competitors will impose mandatory climate change requirements in the coming years so the free allocation of allowances is critical to ensuring the international competitiveness of the company in the future.

Analytical Research

With respect to ARB's proposed research projects focusing on emissions leakage, Rio Tinto Minerals notes that data gathered by these projects, and the resulting analysis by ARB staff, will be important not only in California but also anywhere in the world where climate policies are being implemented. Rio Tinto has operations in nearly two-thirds of the jurisdictions with cap-and-trade programs. Globally, decision makers are struggling with how best to address the issue of leakage and the leakage analysis being undertaken by ARB has the potential to provide useful evidence to inform future policy choices in California, and may also inform climate policy developments in other jurisdictions. We therefore welcome the fact that a program of analysis is being undertaken.

At the same time, a good deal of analysis of leakage risks from carbon pricing has already been carried out in a number of jurisdictions, and further work is expected over time as these programs are implemented and evaluated. We hope that the analysis to be carried out by ARB references this body of existing work; both in the detailed design of the analysis and as

a point of comparison for conclusions. ARB also should respond to new work as it becomes available.

It will, however, take a good deal of time for conclusions to be reached from the monitoring of leakage. In particular the effect of carbon pricing on investment will take a number of years to emerge as capital cycles in emissions intensive industries are often long at the same time as they are often large. It will be difficult to separate the effect of carbon policy from other factors that influence investment decisions, including changes in investment due to normal business cycles. ARB, and others relying on ARB's research, will need to be cautious when interpreting results of leakage monitoring. Similar caveats apply to the econometric analysis, especially as regards the difficulty of separating out the effect of energy price changes on investment, employment, and production from other compounding influences. These realities will create some difficult technical challenges for the analysis and may affect interpretation of results.

Rio Tinto Minerals offers the following two specific comments in response to the July 30, 2012 Public Workshop on emissions leakage.

Establishment of a Leakage Baseline

ARB's first research proposal will use econometric analysis to provide an estimate of the likely consequences of a given carbon price on California industries. We note that econometric analysis is based on the historical relationship between energy prices and production. We are concerned that this surrogate may mislead what will happen when a single jurisdiction imposes a price-based climate policy. The presentation by Resources for the Future calls the decision to use energy prices as a proxy for carbon prices a "natural experiment." ARB Public Workshop, *Cap-and-Trade Program: Emissions Leakage Research and Monitoring* at p. 26 (July 30, 2012). However, in fact, such studies are not measuring "a clearly defined change to a clearly defined sub-population" and have a great potential to misinform.

Because energy price shocks are highly correlated across all jurisdictions, including competitor jurisdictions, a study of the price-production relationship may be a reliable forecast of what happens to a jurisdiction's production when price shocks are widely shared. In some econometric studies, this correlation is ignored and researchers instead interpret findings as a 'natural experiment' with applications to unilateral carbon policy.¹ When energy price correlation across jurisdictions is ignored it results in an overstatement of the energy price change relative to competitors, and any measured production change expressed relative to the price change will be understated and estimates of potential leakage biased downwards.

There are two possible remedies for this problem: modify the model specification to include interaction terms that isolate price shocks across jurisdictions, or alternatively focus on events where unilateral price shocks are truly experienced. For example, ARB might learn from the impacts on competitiveness in states where a renewable portfolio standard (RPS) was imposed as opposed to states without an RPS or the competitiveness impacts associated with changes in electricity rates or variation in state-based fuel taxes where available. This approach may be more promising and lead to more reliable conclusions.

Leakage Monitoring

Critical to the successful implementation of California's cap-and-trade program will be the ability to measure and monitor leakage in a timely manner. During its July 30 presentation, ARB staff detailed the information it would propose to collect on a facility level basis. We appreciate that the requested information will be similar to information we must already provide to the U.S. Census pursuant to the Annual Survey of Manufacturers. To the extent

¹ Joseph E. Aldy, William A. Pizer, *The Competitiveness Impacts of Climate Change Mitigation Policies*, Pew Center on Global Climate Change (May 2009) available at: <http://www.c2es.org/docUploads/competitiveness-impacts-report.pdf>.

ARB can request information a facility must already provide to the U.S. Census, the compliance burden will be significantly less for all California businesses.

We do, however, want to stress the importance of ensuring the confidentiality of this information. By federal statute, the information provided to the U.S. Census in the Annual Survey of Manufacturers (or the five-year Economic Survey) is confidential and will only be used for statistical purposes.² The U.S. Census does not publish any facility or company level information. ARB needs to ensure that any and all non-emissions data it collects for purposes of leakage monitoring is treated as confidential and not subject to public release. For U.S. Borax, given its limited number of global competitors and the price sensitivity of its products, release of this data could have serious negative consequences on its business. Consistent with California statutes and regulations, ARB must guarantee that this confidential business information will not be disclosed or used in any manner that could cause adverse affects to our business.

Rio Tinto Minerals appreciates the opportunity to comment on the emissions leakage proposed research and monitoring program. We looking forward to working with ARB and staff on these issues and would be pleased to share our experiences as to the effects on production and investment decisions of carbon pricing in other jurisdictions.

Respectfully submitted,



Xiaoling Liu
President/CEO
Rio Tinto Minerals

Cc: Mary Nichols
Steven Cliff
The Houston Group

² 13 U.S.C. § 9 (2011).