



*Annual Performance Report Form*

**Facility Name:** U.S. Borax, Inc., Owens Lake Operations

**Performance Track ID #:** A09-0017

**Annual Performance Report #:** 1

**Reporting Year:** 2001

**Due Date:** April 1, 2002

## Section A

# General Facility Information

To the extent possible, EPA will pre-complete items A.1-A.8 for you. Please ensure that the information in A.1-A.8 below is accurate, complete, and up to date. Please supply or revise any information as necessary and then check the box to the left of the item(s) to indicate where changes have been made. Items A.9 and A.10 cannot be pre-completed; please respond as directed in A.9 and A.10 below.

*Did you make changes? If so, check box.*

- A.1  Name of your facility: U.S. Borax, Inc.- Owens Lake Operations
- A.2  Name of your parent company: Rio Tinto Ltd
- A.3  Facility contact person for the Performance Track program  
Name: Mr./Mrs./Ms./Dr. Mr. Gerald M. Pepper  
Title: Manager, Environmental Affairs  
Phone: 661 287-5788 Fax: 661 287-5566 E-mail: gerry.pepper@borax.com
- A.4  Facility's location  
Street Address: 209 N. Main Street  
Street Address (cont.): P.O. Box 37  
City/State/Zip Code: Lone Pine, CA 93545
- A.5  Facility's website address (if any):
- A.6  Number of employees (full-time equivalents) who currently work in the facility:  
 Fewer than 50  50 - 99  100 - 499  500 - 1000  More than 1000
- A.7  Does your company meet the Small Business Administration definition of a small business for your sector?  Yes  No
- A.8  North American Industrial Classification System (NAICS) Code(s) that are used to classify business at the facility: 212 391
- A.9  In your application and, perhaps, in previous annual performance reports, you described what your facility does or makes. Have there been any (additional) changes to your facility's list of products and/or activities? If so, please list them in the space below.  Yes  No
- A.10  Please update the list of environmental requirements that apply to your facility. In the space below, indicate any changes that have taken place during this reporting period. If you have no changes to report, please write "No changes."  
"No Changes"

## Section B

# Environmental Management System

**B.1 Environmental Management System Assessment.** Please summarize EMS assessments conducted *during the year*. Attach additional sheets as necessary.

a. Was an EMS audit or other assessment done by an independent third party?

Yes  No

If yes, please provide the *type* (e.g., ISO 14001 certification), the *scope*, and the *dates* (mo/yr) of each assessment.

ISO 14001 - June 2001 and December 2001 - Surveillance Audits

June - Enviro Aspects,- Structure & Responsibility,- Training, Awareness, & Competence, -Enviro Management Programs,- Enviro Mgmt. System Audit,- Nonconformance, Corrective, & Preventive Action,- Management Review.

December - Environmental Policy,- Legal & Other Requirements,- Objectives & Targets,- Enviro. Mgmt. Programs,-Enviro. Mgmt. System Documentation,- Document Control,- Emergency Preparedness/Response,- Nonconformance, Corrective & Preventive Action.

b. Was an internal or corporate EMS audit conducted?  Yes  No

If yes, please provide the *scope* and the *dates* (mo/yr) of each audit.

ISO 14001 - March 2001, September 2001 - Surveillance Audits

March - Record Mgmt. Procedures,- EMS Audit Procedures,- Mgmt. Review Procedures.

September - Owens Lake Environmental Statement, - Environmental Aspects Procedure,- Enviro. Mgmt. Program,- EMP #1.

c. Was a compliance audit conducted?  Yes  No

If yes, please provide the *scope* and the *dates* (mo/yr) of each audit, and indicate *who* conducted the audit(s) (e.g., facility staff, corporate groups, third party).

December 2001 - Corporate Hazardous Waste Audit, Dave Parker, Boron Operations  
Checked to verify disposal policy in place and operating as directed.

d. (Optional) If you would like to describe any other audits or inspections that were conducted at your facility, please do so here.

# Section B

(continued)

## B.1

e. Briefly summarize corrective actions taken and other improvements made as a result of your EMS assessments and compliance audits.

ISO 14001 - External Audits, No Nonconformances. A recommendation to expand Objectives and Targets possibly with an outreach program to the public.

ISO 14001 - Internal Audits, One minor Nonconformance, Text indicated 2 year audit schedule and needed to be corrected to an annual schedule.

Compliance Audit - One discrepancy, waste oil pickup was several days past due.

f. Has your facility corrected all instances of potential non-compliance and EMS non-conformance identified during your audits and other assessments?

Yes  No  No such instances identified

If no, please explain your plans to correct these instances.

g. When was the last Senior Management review of your EMS completed? *mo/yr* 06/02

Who headed the review?

Name: Mr./Mrs./Ms./Dr. Mr. Gerry Pepper

Title: Manager, Enviromental Affairs

# Section B

(continued)

**B.2 ISO 14001 Certification.** Is your facility currently certified to ISO 14001?  Yes  No

**B.3 Environmental Aspects Identification.** When did your facility last conduct a systematic identification and/or review of your environmental aspects? *mo/yr* 06/01

**B.4 Progress Toward Achieving Objectives and Targets.** In the table below, please provide a narrative summary of progress made toward EMS objectives and targets. **You may limit the summary to environmental aspects that are *significant* and towards which *progress* has been made during the *reporting year*.** In cases where progress relates specifically to a Performance Track performance commitment, complete the *Environmental Aspect* column, but in the *Progress* column simply refer to the performance commitment tables in Section C, i.e. "See Section C." Attach additional sheets as necessary.

<i>Environmental Aspect</i>	<i>Progress Made This Year</i> (e.g., quantitative or qualitative improvements, activities conducted)
Emissions to Air	We have capped approximately 1500 feet of road with 100 tons of gravel to increase the integrity of the roadway and reduce out use of water on the haul road for dust control. It is impossible to quantify how much dust was eliminated. Watering on that section of road is less intense which means less water is used, less truck and pump fuel is used, etc.
No other aspects were rated significant.	

# Section C

## Environmental Performance Commitments

Please use the tables on pages 6-9 to summarize your facility's environmental performance against your Performance Track performance commitments. Complete only those boxes related to the baseline, current year, and performance commitment. If any of the boxes have been pre-completed for you, please verify the information. If you find information that is incorrect, cross it out and write in the correct information. **Leave blank any columns for future reporting years.**

C.1

### Performance Commitment 1

a. Use this table to report data related to your first performance commitment.

<b>Category</b> (see page 16 of the instructions): Air Emissions					
<b>Aspect</b> (see page 16 of the instructions): Emissions of Particulate Matter					
	<i>Baseline</i> <i>(as stated in</i> <i>your application)</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Performance</i> <i>Commitment</i> <i>(the goal stated</i> <i>in your</i> <i>application)</i>
<i>Calendar Year</i>	2000	2001			2003
<i>Actual Quantity</i> <i>(per year)</i>	58.1	63.0			(optional)
<i>Measurement Units</i>	Short Tons				
<i>Normalizing</i> <i>Factor*</i>	1.0	1.3			(optional)
<i>Basis for your</i> <i>Normalizing Factor*</i>	Shipments increased in 2001 by 9,111 tons (39,954 vs 30,843)				
<i>Normalized Quantity*</i> <i>(per year)</i>	58.1	48.5			54.6
*See pages 17-19 of the instructions for more information					

b. Briefly describe how you achieved improvements for this aspect or, if relevant, any circumstances that delayed progress.

In our original application we said we would reduce emissions by 31% over 20% of the haul road or a reduction of 6% overall from the haul road. A 6% reduction from the 58.1 baseline would reduce our emissions to 54.6 tons per year by 2003.

We received help developing the baseline numbers for this aspect from Mr. Mike Kirbey in U. S. Borax's Environmental Department. We believe he used EPA AP-42 guidelines to establish the baseline. We cannot find the calculation he used and he has moved to another location. We have redeveloped the baseline using what we believe to be a more up-to-date EPA AP-42 standard as described below.

Particulate matter emissions (PM-30) from the Owens Lake haul road were estimated using the EPA's AP-42 calculation procedure, which consisted of using an equation presented in AP-42. The equation requires that the mean vehicle weight representative of the traffic on the road being calculated. The data used to calculate the mean weight was obtained from information on the number and weight of haul trucks on the road and the number of light truck trips on the road. It was assumed that the haul trucks carried 25 tons per load and weighed 40 tons when fully loaded. The empty truck weight was, therefore, assumed to be 15 tons. The total travel distance of the haul trucks per year was obtained from operational records. It was assumed that half of this distance was traveled with a full load (40 tons total) and the other half was traveled while empty (15 tons total). The light duty trucks were estimated to weigh 2 tons and make 10 round trips every 200 days. This results in 150 miles per year of light truck travel on the 4 miles of unpaved roads. The mean truck weight was calculated based on the distance each type of truck traveled. This resulted in a mean truck weight of 27.4 tons. The equation also requires that the surface material silt content percentage be estimated. The various recommended values are presented in Table 13.2.2-1 of AP-42. The equation also requires that the surface material silt content percentage be estimated. The various recommended values are presented in Table 13.2.2-1 of AP-42. The last input required for the equation is the surface material moisture content percentage. Since the haul roads are watered regularly and this value represents a daily average, the value was taken as 20%. Once all of these inputs were determined, they were entered into equation (1) of AP-42 Section 13.2.2 Unpaved Roads. This equation also requires several constants which are presented in AP-42 Table 13.2.2-2. The equation gives an estimate of the PM30 emissions factors from both unpaved dirt and gravel roads in units of pounds per vehicle mile traveled. The emission factor was then multiplied by the vehicle miles traveled on each road type. This allowed the yearly emission rate of particulate matter from the road to be calculated. This resulted in a value of 58.1 tons per year for 2000 and 63.0 tons per year for 2001. The increase in 2001 was due to the greater number of vehicle miles traveled on the unpaved road. The normalizing factor was calculated based on the amount of product hauled. This conforms with the EPA's preferred basis of product throughput.

c. Please list any other EPA voluntary programs to which you are also reporting these data (e.g., Energy Star, Project XL).

# Section C

(continued)

## C.2 Performance Commitment 2

a. Use this table to report data related to your second performance commitment.

<b>Category</b> (see page 16 of the instructions): Energy Use					
<b>Aspect</b> (see page 16 of the instructions): Total Energy Use					
	<i>Baseline (as stated in your application)</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Performance Commitment (the goal stated in your application)</i>
<i>Calendar Year</i>	2000	2001			2003
<i>Actual Quantity (per year)</i>	94,275,000	107,775,000			(optional)
<i>Measurement Units</i>	Btu				
<i>Normalizing Factor*</i>	1.0				(optional)
<i>Basis for your Normalizing Factor*</i>					
<i>Normalized Quantity* (per year)</i>					77,305,500
*See pages 17-19 of the instructions for more information					

b. Briefly describe how you achieved improvements for this aspect or, if relevant, any circumstances that delayed progress.

In the original application we used 2,570 Btu per cubic foot of propane. In this report we have corrected that number for the altitude (3,700 feet) in Lone Pine to 2,500 btu per cubic foot of propane gas. Our commitment was to save 18% per year of propane or 16,969,500 Btu per year. This yields a target of 77,305,500 Btu per year. There is no way to normalize the amount of gas used as winters vary in temperature, wind and duration. We have not increased the hours of operation per week.

Progress has been delayed on this aspect since we are dependent on a landlord's cooperation. He underwent open heart surgery recently and it stalled the request. He has requested us to resubmit the proposal and will possibly meet our request during 2002.

c. Please list any other EPA voluntary programs to which you are also reporting these data (e.g., Energy Star, Project XL).

# Section C

(continued)

## C.3 Performance Commitment 3

a. Use this table to report data related to your third performance commitment.

<b>Category</b> (see page 16 of the instructions): Waste					
<b>Aspect</b> (see page 16 of the instructions): Total Solid Waste					
	<i>Baseline (as stated in your application)</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Performance Commitment (the goal stated in your application)</i>
<i>Calendar Year</i>	2000	2001			2003
<i>Actual Quantity (per year)</i>	0	80			(optional)
<i>Measurement Units</i>	lbs.				
<i>Normalizing Factor*</i>	1.0	.83			(optional)
<i>Basis for your Normalizing Factor*</i>	Number of employees				
<i>Normalized Quantity* (per year)</i>		80			96
*See pages 17-19 of the instructions for more information					

b. Briefly describe how you achieved improvements for this aspect or, if relevant, any circumstances that delayed progress.

We are not able to recycle our office paper locally. We devised a plan to recycle it at corporate headquarters in Valenica or the Boron facility. It is stored in bags onsite and later hauled to one of the other Borax facilities in conjunction with visits. We are currently recycling only white paper. This has probably reduced our solid waste from the office by half.

We share a dumpster with the thrift shop next door and we do not have a baseline amount of solid waste the office generates. We estimate we recover about eight pounds per month of shredded white paper or 96 lbs per year 80 lbs in 10 months of 2001).

We also recycle used printer cartridges in the same manner, they are refilled and reused in Valenica.

c. Please list any other EPA voluntary programs to which you are also reporting these data (e.g., Energy Star, Project XL).

# Section C

(continued)

## C.4 Performance Commitment 4

a. Use this table to report data related to your fourth performance commitment.

<b>Category</b> (see page 16 of the instructions): Accidental Releases					
<b>Aspect</b> (see page 16 of the instructions): Vulnerability and Potential for Releases					
	<i>Baseline</i> <i>(as stated in</i> <i>your application)</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Performance</i> <i>Commitment</i> <i>(the goal stated</i> <i>in your</i> <i>application)</i>
<i>Calendar Year</i>	2000	2001			2003
<i>Actual Quantity</i> <i>(per year)</i>	8.5	8.5			(optional)
<i>Measurement Units</i>	lbs of R-12				
<i>Normalizing</i> <i>Factor*</i>	1.0	1.0			(optional)
<i>Basis for your</i> <i>Normalizing Factor*</i>	No change to vehicle numbers this year				
<i>Normalized Quantity*</i> <i>(per year)</i>	8.5	8.5			4.25
*See pages 15-17 of the instructions for more information					

b. Briefly describe how you achieved improvements for this aspect or, if relevant, any circumstances that delayed progress.

We had four vehicles with R-12 air conditioning systems in the baseline year. These totaled 8.5 lbs of reffridgerant. Wwe have a recycle machine so there are no losses during maintenance, only on system failure.

We did not have occasion to convert any R-12 reffridgerant systems to R-134a in 2001 ourselves. We did replace a 1987 vehicle which used R-12 with a 2002 model which uses R-134a in the air conditioning early in 2002. The delivery of the vehicle was expected in 2001, however it did not arrive until early 2002.

c. Please list any other EPA voluntary programs to which you are also reporting these data (e.g., Energy Star, Project XL).

## Section D

# Public Outreach and Performance Reporting

**D.1** Please briefly summarize the public outreach and reporting activities that your facility has conducted during the year. Feel free, but not obligated, to attach supporting materials (e.g., meeting agendas, public announcements). The most significant public outreach was through the distribution of the "Rio Tinto Borax 2000 Social and Environmental Report". In this document available at Borax locations, Owens Lake Operations is listed as being ISO 14001 certified and being a Charter member of the U. S. EPA National Environmental Achievement Track program.

Internal environmental reporting is conducted monthly in a written activities report to management.

In the past we developed a "Community Advisory Committee" (CAG) to keep an informed public up to date on a soda ash project we were permitting. This group was facilitated by Martha Tableman of the Keystone Center in Keystone Colorado. It was disbanded in 1996, however interested participants still keep in touch about our operations activities.

Outside inquiries are encouraged. Questions and answers are recorded and necessary followup is tracked.

A new Environmental Management Program in the EMS is entitled "Public Outreach". This will require public discussion about the EMS, ISO 14001 program and our membership in NEPT.

**D.2** Please indicate which of the following methods your facility plans to use to make its Performance Track Annual Performance Report available to the public. Please check as many as are appropriate.

Website (URL )

Open House

Meetings

Press Releases

Community Advisory Panel

Other

# Section E

## Self-Certification of Continued Program Participation

On behalf of U.S. Borax, Inc.- Owens Lake Operations,  
(name of my facility)

I certify that

- ◆ I have read and agree to the terms and conditions specified in *the National Environmental Performance Track Program Guide*. This facility, to the best of my knowledge, continues to meet all program criteria;
- ◆ I have personally examined and am familiar with the information contained in this Annual Performance Report. The information contained in this report is, to the best of my knowledge and based on reasonable inquiry, true, accurate, and complete;
- ◆ My facility has an environmental management system (EMS), as defined in the Performance Track EMS criteria, including systems to maintain compliance with all applicable federal, state, tribal, and local environmental requirements in place at the facility, and the EMS will be maintained for the duration of the facility's participation in the program;
- ◆ My facility has conducted an objective assessment of its compliance with all applicable federal, state, tribal, and local environmental requirements; and the facility has corrected all identified instances of potential or actual noncompliance; and
- ◆ Based on the foregoing compliance assessments and subsequent corrective actions (if any were necessary), my facility is, to the best of my knowledge and based on reasonable inquiry, currently in compliance with applicable federal, state, tribal, and local environmental requirements.

I agree that EPA's decision whether to accept participants into or remove them from the National Environmental Performance Track is wholly discretionary, and I waive any right that may exist under any law to challenge EPA's acceptance or removal decision.

I am the senior manager with responsibility for the facility and am fully authorized to execute this statement on behalf of the corporation or other legal entity whose facility is part of the National Environmental Performance Track program.

Signature/Date \_\_\_\_\_ 11/26/02 \_\_\_\_\_

Printed Name Mr./Mrs./Ms./Dr.Mr. Paul Lamos, Superintendent, Owens Lake Operations, for Mr. Gerald M. Pepper

Title Manager, Environmental Affairs

Phone Number/E-mail Address 661 287 5788 / gerry.pepper@borax.com

Facility Name U.S. Borax, Inc.- Owens Lake Operations

Facility Street Address 209 N. Main Street

Performance Track Identification Number CAL 000202 796

### **Paperwork Reduction Act Notice**

The public reporting and recordkeeping burden for this collection of information is estimated to average 188 hours per respondent annually. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.