



**ECONOMIC  
PROSPERITY**



**ENVIRONMENTAL  
STEWARDSHIP**



**SOCIAL  
WELL-BEING**

# SUSTAINABLE DEVELOPMENT REPORT

2005

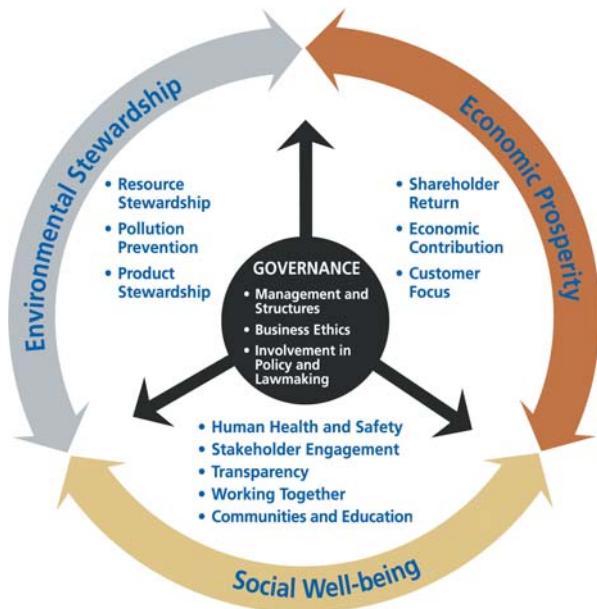
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## CONTINUING TO CONTRIBUTE TO SUSTAINABLE DEVELOPMENT

At Kennecott Utah Copper (KUC), contributing to Sustainable Development is integral to our success as a mining, smelting, and refining company, and to the social and financial investment our stakeholders and surrounding communities have made in us.

By incorporating sustainable development into our corporate philosophy and daily practices we are able to not only strengthen our operations and products, but also provide lasting benefits for our employees and stakeholders. Those benefits, which flow from our overall Mission “to maximize the long-term value of the resources under our stewardship,” extend beyond economic prosperity to involve social well-being and environmental stewardship.



The purpose of this 2005 Sustainable Development Report is to inform interested stakeholders of our commitment to sustainable development, and to highlight the ways in which we contribute to sustainable development through current actions and future plans. The report is organized around the pillars of Sustainable Development and the associated Business Principles that guide our daily work.

### HOW CAN MINING CONTRIBUTE TO SUSTAINABLE DEVELOPMENT?

Mining may seem inconsistent with the concept of sustainable development given that we excavate ‘non-renewable’ resources. However, through our mining and processing activities, we transform these valuable resources into materials that are essential to life. These materials, in turn, make a significant contribution to the social and economic prosperity of our shareholders and the communities in which we operate.

We, therefore, believe mining can make a positive contribution to sustainable development provided we:

- Look after our people and stay safe
- Protect and where possible enhance the environment
- Support the communities surrounding our operations
- Ensure our products are safe and useful to society, and
- Remain profitable



## An Open Letter to the Community and Employees:

Our ongoing sustainable development focus resulted in some major achievements for Kennecott Utah Copper (KUC) in 2005. First and foremost, I would like to congratulate all employees and contractors for working together to achieve our best ever safety performance. This team effort has resulted in KUC being recognized as an industry leader in workplace safety.

Our commitment to work safely—combined with record high metal prices and efficient operations—helped generate profits of just over \$1 billion. After enduring several lean years, these outstanding results will allow us to reinvest in new equipment, upgrade plants, and continue to provide quality training for our workforce. Among other things, we plan a major overhaul of our Smelter this fall to ensure it remains the cleanest and most energy efficient in the world, at a cost of tens of millions of dollars.

An example of how management's focus on integrating the pillars of sustainable development into all business decisions led to a win-win situation is the Molybdenum Plant expansion. Adding molybdenum processing capacity at the Copperton Concentrator allowed us to recover a larger percentage of this metal from the ore and send less waste material to our Tailings Impoundment for storage. Simultaneously, we capitalized on market demands for molybdenum by selling a record amount for top-dollar prices.

KUC's parent company, Rio Tinto, is a major supporter of our efforts in all areas of sustainable development. Case in point is their implementation of a business improvement program to share best practices among nearly 30 business units on five continents dubbed "Improving Performance Together." By taking a leadership role in this program, KUC has gained invaluable access to financial resources and human expertise in the areas of mining, mineral and metal processing, asset management, and marketing. While daunting at times, this work will give us a competitive edge and allow us to truly manage our own destiny.

Although we are proud of our success this year, we have identified the following key focus areas for 2006:

**Economic Prosperity:** we will continue to explore options to increase the productive life of Bingham Canyon Mine, either by further expanding our open-pit or by developing an underground mine. The longer we operate successfully, the longer we can continue to offer high paying jobs, purchase goods and services from our contractors and suppliers, and pay taxes that help finance schools, roads, and social services.

**Social Well-Being:** we recognize that our employees are our best asset and keeping them safe remains our number one goal. We also plan to step up training to help employees understand how they can contribute to sustainable development.

**Environmental Stewardship:** we recognize the needs of our neighbors and are committed to exceeding their expectations by ensuring we operate in a safe, clean, and efficient manner. To this regard, we are intensifying our efforts to improve our energy efficiency and cut our greenhouse gas emissions. We are also continuing our efforts to clean up and remove historic mining wastes on our property and to restore and revegetate the impacted lands.

Most importantly, we know that all of our stakeholders have been instrumental in our success to date and we ask for your continued support of and engagement with Kennecott Utah Copper.

*Bill Champion*

Kenecott Utah Copper (KUC) is a mining, smelting, and refining company committed to integrating sustainable development into every facet of its business. For over 100 years, KUC has been mining and processing the rich minerals found in the huge ore body of the Bingham Canyon Mine. Nearly everything people do today relies on materials that are mined—from minerals we use daily in medicine, food, shampoo and soap, to metals used to conduct heat and electricity, as well as those used for CAT scans and in the space shuttle.

Bingham Canyon Mine is located approximately 28 miles southwest of Salt Lake City. In addition to the Bingham Canyon Mine, KUC's operations include the Copperton Concentrator, Smelter, Refinery, Tailings Impoundments, a Power Plant, and several other facilities. KUC produces about 300,000 tons (273,000 metric tonnes) of copper cathode annually. That production is about 17% of the United States' copper output and makes KUC the country's second-largest copper producer. KUC also produces molybdenum, gold, silver, and sulfuric acid, a byproduct of pollution-control equipment at the Smelter.

KUC is owned by Rio Tinto, a world leader in discovering, mining, and processing the earth's mineral resources in a responsible economic, social, and environmentally-friendly manner. Rio Tinto is made up of 30 businesses that control more than 80 operations and six exploration regions. In addition to KUC, three other Rio Tinto companies have offices in Salt Lake City: Kennecott Land Company, Kennecott Minerals Company, and Kennecott Exploration, along with Rio Tinto Shared Services, which supports all four business units.

## SUMMARY OF MAJOR 2005 ACHIEVEMENTS AND 2006 GOALS

### 2005 ACHIEVEMENTS

#### CONTRIBUTING TO ECONOMIC PROSPERITY:

- High metal prices and increased recovery of molybdenum, thanks to a flexible, market oriented strategy, contributed to record earnings of \$1.037 billion.
- Invested approximately \$70 million in development projects including the expanded Molybdenum Plant, excavation of Bingham Canyon Mine's east face, building of the Copperton Concentrator's Pebble Crusher, and renovating and expanding the Mine Visitors Center and Mine Office Building.

#### CONTRIBUTING TO SOCIAL WELL-BEING:

- Achieved a total recordable incident rate (all injuries) of 1.42 and a lost time injury rate of 0.48. This is a 23 percent improvement over 2004 and four times better than the U.S. mining industry average.
- Achieved an annual average of 81 hours of training per employee compared to the goal of an average of 48 hours per employee.
- Engaged with stakeholders through our Sustainable Development stakeholder focus group and through numerous outreach presentations by senior managers to community, business, academic, regulatory, and environmental groups.
- Charitable contributions in 2005 amounted to approximately \$663,000, a 16 percent increase from 2004.

#### CONTRIBUTING TO ENVIRONMENTAL STEWARDSHIP:

- Maintained KUC's ISO14001 Environmental Management System (EMS) registration by successfully completing a third-party surveillance audit. KUC is one of only approximately 20 companies in Utah that has ISO14001 certification.
- Completed construction of the Reverse Osmosis Groundwater Treatment Plant that will provide drinking water to 4,300 Utah families (14,000 people).
- Completed remediation of 19,000 yd<sup>3</sup> of soils contaminated from historic mining activities in a slag lagoon area directly north of the Smelter.
- Rehabilitated 612 acres of land at the Tailings Impoundment and Bingham Canyon Mine.

### 2006 GOALS

#### CONTRIBUTING TO ECONOMIC PROSPERITY:

- Continue to focus on integrating sustainable development into all business decisions, project development, and evaluation.
- Complete construction of the Copperton Concentrator's Pebble Crusher, the renovated Mine Visitors Center, and Mine Office Building.
- Perform a safe and effective rebuild of the Smelter.

#### CONTRIBUTING TO SOCIAL WELL-BEING:

- Ensure there are zero fatalities. Achieve a total recordable incident rate (all injuries) of less than 1.42 and a lost time incident rate of less than 0.48.
- Achieve an annual average of 48 hours of training per employee.
- Achieve a rate of ethnic diversity in new hires of 15 percent and of gender diversity of nine percent.

#### CONTRIBUTING TO ENVIRONMENTAL STEWARDSHIP:

- Maintain KUC's ISO14001 Environmental Management System (EMS) registration.
- Provide drinking water to 4,300 Utah families (14,000 people) in the communities of Herriman, Riverton, South Jordan, and West Jordan.
- Make material progress towards achieving KUC's goal of a 16 percent reduction in greenhouse gas emissions per metric tonne of product by 2008.



A view of the Oquirrh Mountains from KUC's Inland Seashore Seabird Reserve.

# ECONOMIC PROSPERITY

**RECORD YEAR** – KUC achieved exceptional financial results in 2005, posting profits of just over \$1 billion. “Performance was driven primarily by record high metal prices which were largely influenced by continuing strong economic growth in China and its demand for raw materials,” said Bill Champion, President and CEO of KUC.

## SHAREHOLDER RETURN

We will maximize return on investment and reputation over the long term, thereby providing the resources necessary to maximize our contributions to shareholders and contribute to sustainable development.

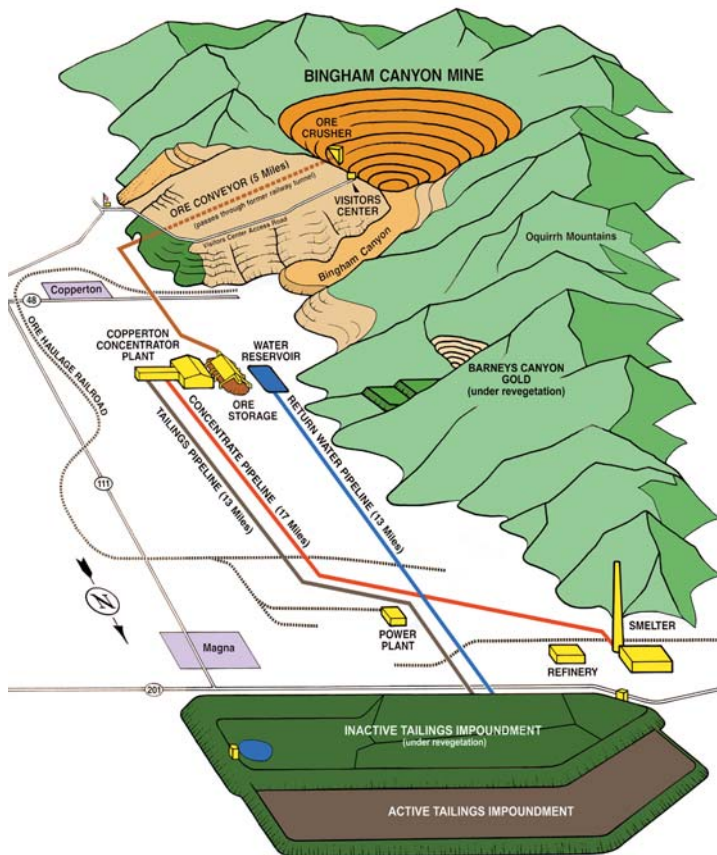
KUC capitalized on this period of high metal prices to re-invest in new equipment, upgrade plants, and improve training programs. The company is focusing on long term value creation by maintaining a flexible, market-oriented

strategy. For example, thanks to its construction of an additional molybdenum processing plant, KUC was able to more than double its production of the metal.

“Mining is a cyclical business and the copper industry experienced lean years from 1997 until 2004 with our shareholders realizing much lower investment returns during those years,” said Champion. “We are therefore pleased with this year’s outstanding results.”

Softening in metal prices is expected in 2006, which will impact future profits. “This will require ongoing commitment to contain costs and improve our efficiency and productivity,” said Champion.

KUC plans to reinvest significant sums to upgrade plants, facilities, and equipment in 2006. For example, later this year KUC will be spending tens of millions of dollars for a major overhaul of its Smelter, considered the cleanest and most energy efficient in the world.



**FUTURE PLANS** – In 2005, KUC received approval to invest over \$200 million to expand the Bingham Canyon Mine’s open pit, build a new crushing facility at the Copperton Concentrator, and complete additional expansion projects. Of these projects, the expansion of the Molybdenum Plant was completed in 2005 while work continues on modernizing the storage facility where tailings waste is stored, construction of a new truck shop at the mine, and on the Pebble Crusher, which is expected to increase throughput by 18 percent. The Mine Visitors Center and Mine Office Building will also be rebuilt to meet LEED standards (Leadership in Energy and Environmental Design). Overall, the expansion projects extend the life of the Bingham Canyon Mine from 2012 to 2018. KUC is also continuing to explore options to further extend the life of the Bingham Canyon Mine, either through an additional

Diagram of KUC’s facilities.

# ECONOMIC PROSPERITY

open pit expansion or by developing an underground mine. KUC is creating an exploration program to gain a better understanding of its underground resources and possible development options. As mine planning and engineering work continues, KUC hopes to continue to communicate its progress over the next few years.

KEY FINANCIAL STATISTICS		
	2004	2005
Total Sales (in millions)	\$1,091	\$2,134
Net Profits (in millions)	\$294	\$1,037
KEY PRODUCTION STATISTICS		
Copper Production	272,000 short tons	255,700 short tons
In Cathodes	(246,700 metric tonnes)	(232,000 metric tonnes)
Gold Production	300,000 troy oz	368,500 troy oz
Silver Production	3,344,000 troy oz	3,538,000 troy oz
Molybdenum Production	7,484 short tons (6,788 metric tonnes)	17,178 short tons (15,584 metric tonnes)



A haul truck that is three stories high and can carry more than 300 tons.

## CORPORATE GIVING –

Through its charitable contributions, KUC supports local charities, non-profit organizations, and community groups, especially those in Salt Lake and Tooele Counties that are near its operations. These charitable contributions are aligned with KUC's Business Plan and are part of KUC's Sustainable Development Program, which is designed to promote an economically strong, productive, and

responsible company in concert with a safe, vibrant community and a clean environment.

Overall, contributions in 2005 amounted to approximately \$663,000 from three sources: Matching Employee Gifts (\$18,000), Visitors Center Charity Fund administered by

the Kennecott Charitable Foundation (\$120,000), and Corporate Contributions from KUC (\$525,000). Overall, this is an increase of about \$93,000, or 16 percent more than 2004.

## ECONOMIC CONTRIBUTION

We offer good jobs, competitive compensation and skills development to our employees.

KUC also made a separate gift of \$50,000 to the National American Red Cross to benefit the victims of Hurricane Katrina and \$2,000 to support the Utah chapter of the American Red Cross. The \$50,000 was part

of a larger \$385,000 donation from Rio Tinto for Hurricane Katrina relief work.

In addition to monetary donations, in-kind donations included surplus railroad equipment, file cabinets, shelving, and medical equipment valued at about \$54,000. KUC also pays millions of dollars in wages, salaries, and benefits to employees, makes payments to vendors and suppliers, and pays taxes to finance schools, roads, and social services. The amounts are summarized below:

COMMUNITIES & EMPLOYEES		
	2004	2005
Employee Costs & Benefits (in millions)	\$171	\$193
Other Payments for Goods & Services (in millions)	Local	\$211
	State of Utah	\$68
	National	\$189
	International	\$29
TOTAL	\$668	\$900

SIX SIGMA – KUC has stepped up its commitment to the Six Sigma business improvement initiative. In 2006, all senior managers will partake in either a three week Green Belt course or a five-week Black Belt course while simultaneously applying the content to an important improvement project in their

area of accountability. Six Sigma takes a systematic approach to solving problems by putting the customer first and using facts and data to reduce process variation and defects

**CUSTOMER FOCUS**

We deliver to our customers high performance, quality products, and outstanding service. We search for and test every opportunity to build stronger customer relationships through proactive engagement, attentive listening, value enhancement of our product, and service excellence.

to drive better solutions. “Six Sigma represents ‘an attitude with a toolbox’—the attitude that all processes can be improved applying the Six Sigma tools and concepts,” said KUC’s Six Sigma Deployment Champion Lamar Nichols.

About 400 employees have been involved in Six Sigma projects as either team leaders or members. A major strength of the process is that it brings together employees from different backgrounds and roles, and capitalizes on their unique skills. “Six Sigma is not just about improving performance but also engaging people,” said Chris Crowl, Vice President of Human Resources.

A variety of projects have been completed at KUC, ranging from increasing the amount of scrap material that gets recycled back into the smelting process to how to extend the life of haul truck engines. To date, over \$15 million of value has been contributed to KUC as a result of Six Sigma projects completed from May 2003 to March 2006.

**QUALITY IMPROVEMENT PROJECT** – Copper is used in a myriad of applications and while meeting quality

standards for building wire is relatively simple, getting the formula just right for magnet wire is extremely difficult. This is because magnet wire, which can be as fine as human hair, requires a perfectly smooth surface. Any surface

imperfection can cause voltage faults, which increase electrical losses and shorten the life of the motor the wire is used in.

Superior Essex Group is considered the premium magnet wire manufacturer, and they have been buying copper cathode from KUC for more than 25 years. However, KUC is only able to meet their tough criteria for magnet wire 81 percent of the time because of an impurity called bismuth. The standard set

by the American Society of Testing Materials (ASTM) requires that Grade A copper contain less than 1 part per million bismuth, but the Essex specifications are even more demanding.

David Marcaurele, manager of Essex’s Vincennes Concast Plant, notes that his plant currently operates at full capacity. If the plant loses production time due to poor quality copper, he has to run the plant through the weekend to meet customer demands. “This is not positive from a cost perspective and certainly isn’t good for employee morale,” said Marcaurele. “So, I have to have the confidence that if I put cathode in the process, it will perform.”

Given both companies experience with the Six Sigma business improvement system, KUC and Superior Essex mutually agreed this was the right vehicle to address the quality challenge. The team, co-led by Marcaurele and Shane Rice, Process Engineer for KUC, is using the Six Sigma DMAIC process that refers to the phases define, measure, analyze, improve, and control. The team has

defined the issue and is currently going through the measurement and analysis phases. Even though they have yet to start working on the improvement phase, mutual understanding of the cathode and wire quality issues has improved. The team ultimately aims to meet Essex’s criteria 100 percent of the time.



A close-up view of corrugated copper cathodes, KUC’s finished product.



Kennecott punches 1-inch samples out of every other copper cathode as part of its Quality Assurance Program.

# SOCIAL WELL-BEING

Employees specialized in refining precious metals pour gold bars.



**SAFETY RECORD** – KUC’s unwavering focus on safety training, equipment maintenance and upgrades, Six Sigma projects, and other initiatives have led to continued improvements in safety. In 2005, the company recorded its lowest ever number of Lost Time Injuries (LTI) since it began including contractors in its statistics. It recorded 13 LTIs versus 14 in 2004, and a Lost Time Injury Rate of 0.48 versus 0.62 in 2004. This is a 23 percent improvement and four times better than the industry average.

## HUMAN HEALTH AND SAFETY

We are concerned for the health and safety of everyone here, as well as our neighbors and local communities. We will monitor, report, and improve on health and safety achievements with an ultimate goal of providing a workplace that is free from harmful exposures, that is free from workplace incidents, and that does not adversely impact the health and safety of our neighbors.

KUC’s safety culture is embedded in personal behavior: all meetings start with a “safety share,” all employees must write their own personal safety plans and most people are required to perform one safety interaction per week. In 2005, KUC increased its focus on occupational health by implementing stricter standards on noise exposure, dust exposure, and fitness for duty, among other things.

KUC has received several awards honoring its commitment to safety. The mine won the prestigious Sentinel of Safety award, the highest recognition for safety in the mining industry. The award was presented by the United States Department of Labor to KUC’s Bingham Canyon Mine for logging 1,221,562 man-hours without a lost time injury during 2004. In 2005, KUC’s Smelter achieved a million man hours without a lost time injury.

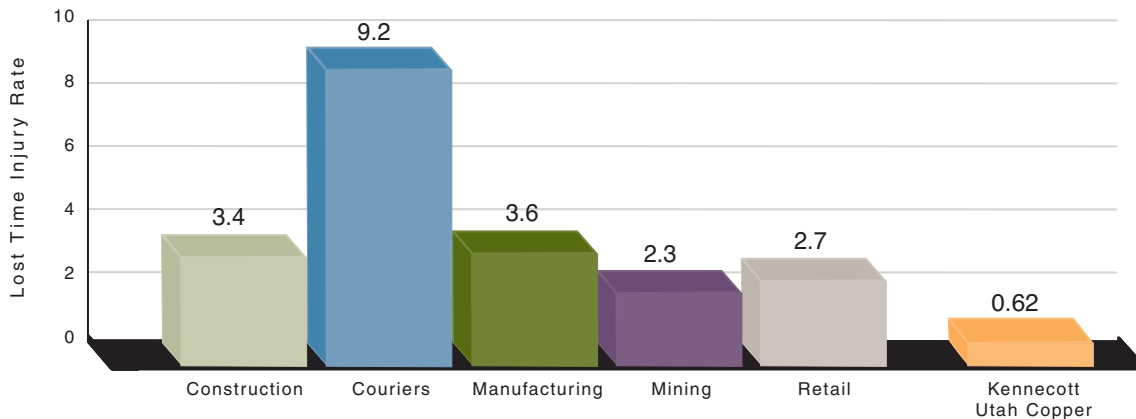
**SAFETY AT HOME** – KUC’s operations group kicked off the TRACK at HOME project this fall with a lot of help from a group of South Jordan 5th graders. Mrs. Jones’ class took on the challenge of developing a Halloween TRACK card. TRACK stands for Think through the Task(s); Recognize the Hazards; Assess the Risks; Control the Hazards; Keep Safety First in all Tasks.

“It was fun to see TRACK through the eyes of children,” said Jeane Hull, Vice President of Operations at KUC. The cards were completed just before Halloween and handed out to KUC employees. Some plant managers also took the cards out to Kennecott Land’s development at Daybreak so they could distribute them at their Halloween party. To finish the year, a TRACK at Home contest focused on holiday safety. Employees and their families submitted a number of outstanding entries, making the judges’ job a real challenge.

The idea came from a safety share where plant managers were reflecting on the importance of family and how their own recognition of risks and hazards through the TRACK program had changed the way they approached tasks at home. The more the group talked, the more convinced they became they needed to share the TRACK program with the entire family.

## COMPARISON OF SAFETY PERFORMANCE

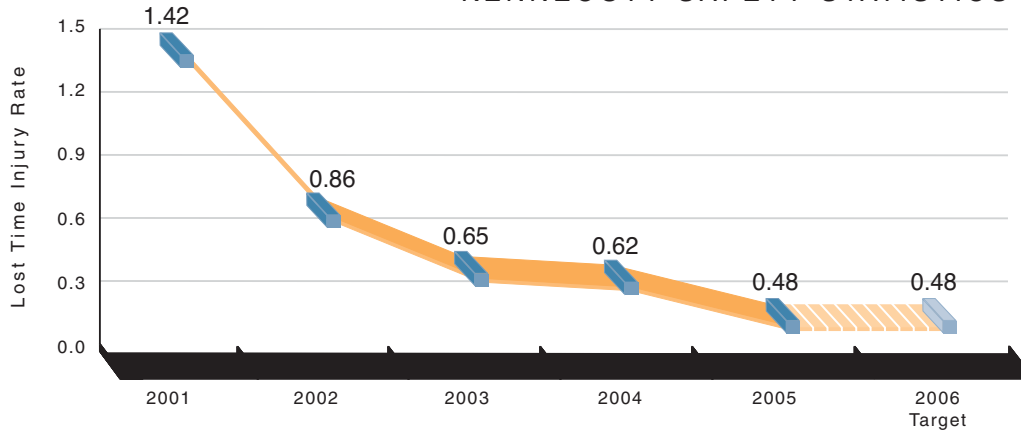
Selected Industry Averages vs. KUC



These are 2004 industry averages based on data published by the Bureau of Labor Statistics. KUC data is provided by the company.



KENNECOTT SAFETY STATISTICS



**STAKEHOLDER FORUM** – To engage its stakeholders in two-way conversations about its sustainable development activities, KUC has formed a stakeholder engagement focus group that includes federal and state regulators, federal, state, and local elected officials, community leaders, environmental and conservation organizations, employees and retirees, customers, suppliers, and academic institutions.

KUC turns to this group to seek feedback on its current and planned operations as well as to relay information on future plans and activities that may impact surrounding communities. The group convened in May 2005 to provide feedback on a revised external stakeholder engagement strategy, and to comment on a new stakeholder engagement activity the company was preparing to launch—a presentation entitled “Kennecott’s Future.” The concept for sharing KUC’s future with stakeholders developed in

**STAKEHOLDER ENGAGEMENT AND TRANSPARENCY**

We will continue to develop partnerships and seek input from key stakeholders, be willing to listen to divergent points of view, and provide stakeholders with information relevant to their needs and interests through timely and open reporting.

response to comments received at a November 2003 stakeholder focus group meeting.

Bill Champion, President and CEO of KUC, and Peter McMahon, President of Kennecott Land, gave the “Kennecott’s Future” presentation to the focus group. Later in the year, KUC’s senior managers began taking the presentation to local groups such as the Magna Community Council and the Copperton Town Council. A total of seven presentations were made in 2005 and more will be made in 2006.

Also in 2005, Bill Champion and members of the senior leadership team spoke at 48 employee forums held at each of KUC’s plants at various times of the day to ensure both day and night shift workers could attend. The half-hour presentation on KUC’s

achievements and future challenges was followed by a question and answer session where employees had the opportunity to interact with senior leaders.



Operator Jeff Bingham is maneuvering the shovel to remove overburden at the mine.

**IMPROVING PERFORMANCE TOGETHER**

KUC’s parent company, Rio Tinto, launched a major business improvement initiative in 2005 to create a collaborative organization that systemizes common best practice and delivers measurable improvements to the bottom-line. The initiative, known as Improving Performance Together (IPT), focuses on the core elements of Mining, Processing, Marketing, and Asset Management across Rio Tinto’s 30 business units. These are areas of high potential value where historically the focus on collaboration and a common approach has been limited.

**WORKING TOGETHER**

We involve all Employees, working together as a team, to achieve our strategic business objectives. We lead by example.

what’s being done at KUC is the IPT Processing Group’s development of a model to better predict, plan, and increase the value of the product mix that goes to market.

Given its large size and drive to be a market leader, KUC was chosen as a pilot site for all four focus areas. An example of

A crucial step in ensuring the model delivers what it's meant to is listening to the workers who face the processing issues and problems on a daily basis. "It's hard to quantify the value of stakeholder engagement," said Billy Lamb, the Implementation Leader for IPT Processing. "But the intent of the process is to bring together the key stakeholders within KUC so decisions aren't made in isolation."

Another aspect of IPT Processing is providing employees with value awareness training to help them understand that value is more than just a return on investment. For example, value can be created by establishing oneself as a leader in environmental responsibility, which in turn increases a company's reputation and therefore its value to stakeholders.

Rio Tinto plans to begin introducing the solutions devised during the pilot phase of IPT across business units in 2006.

**CAREER DEVELOPMENT** – KUC's extensive career development program includes an array of on- and off-site training that ranges from learning to use computer software

**PARTNERSHIPS** – KUC supports local communities in many ways, such as by providing good jobs and benefits to employees, making charitable contributions to local groups, offering academic scholarships, and through numerous long-term partnerships. Three of these are summarized below:

**KUED** – KUC has had an active partnership with KUED for many years. This has included sponsorship of several KUED special productions such as "Copper Canyon, American Dream" and ongoing programs such as "The Governor's Monthly News Conference." Many KUC employees have also supported KUED through the company's Matching Gift Program.

In 2005, 25 KUC volunteers participated in KUED's "Utah World War II Stories"—a public television program that premiered as the annual fundraiser for Utah's PBS affiliate. KUC employees assembled at the television station, answered telephone calls, and solicited pledges during the broadcast. The show highlighted KUC's important role as a producer of copper for the Allies during World War II, and

to improving presentation skills. In 2005, KUC averaged 81 hours of training per employee, by far exceeding its goal of 48 hours per employee.

More than 30 KUC employees, primarily managers and superintendents, participated in Rio Tinto-sponsored training programs delivered by Duke Corporate Education. In addition, all supervisors went through a 360-degree appraisal process with the intent of better understanding their strengths and weaknesses and improving their management skills. KUC also began introducing competency models developed by Rio Tinto for all functions across the organization, including one for leadership, and will complete the roll out in 2006.

To strengthen the link between a worker's skills and their aspirations, KUC now requires its professional and managerial workforce to create personal development plans. "These help identify personal development needs, which may be met through internal assignments, coaching, special projects, courses, or by going back to school," said Chris Crowl, Vice President of Human Resources.

the large number of company employees and family members who served in the United States Armed Forces.

**Clark Planetarium** – KUC made a two-year pledge of \$20,000, with \$10,000 contributed in 2005 to the Clark Planetarium. This was KUC's first major donation since the Hansen Planetarium was relocated, modernized, and renamed the Clark Planetarium. Kennecott historically sponsored the Hansen Planetarium's Star Shows and numerous educational programs the Planetarium offered to local schools. This new partnership and contribution will fund and sponsor "Black Holes," a full-feature cinematic three-dimensional star show that will be shown about 1,100 times annually.

**KUC Nature Center** – KUC has had a partnership with the City of Murray, Utah, the Murray School District, the Murray Education Foundation, and the Murray community for about 10 years. Initially, KUC made a gift of \$100,000 that helped finance the building of the first major environmental education complex on the Jordan River Parkway. The complex was dedicated in September 1999 and named the Kennecott Nature Center of Murray. The Center serves as a natural classroom where thousands of students, teachers, and the public study biology, ecology, and conservation. In 2005, KUC continued to sponsor the Murray Education Foundation with a \$10,000 gift for the ninth consecutive year.

Visit [www.KUC.com/pdf/2005\\_communityplan.pdf](http://www.KUC.com/pdf/2005_communityplan.pdf) for more information on KUC's community work.

## COMMUNITIES

Good relations with our neighbors are fundamental to our long-term success. We will actively participate in the affairs of the communities in which we operate by partnering with our local communities for long-term mutual benefit.

**SCHOLARSHIPS** – KUC awarded 64 scholarships in 2005 to students at the University of Utah, Westminster College, Brigham Young University, The College of Eastern Utah, and Utah State University for a total of \$144,500. Of that total, \$105,000 went to the University of Utah for the Society of Kennecott Scholars, which KUC launched in 1990. KUC also funded the renovation of the Kennecott House with a one time contribution of \$250,000. The Kennecott House serves as a residence and meeting place for Kennecott Scholars.

**GREEN BUILDING** – As part of its mine expansion, KUC has to remove the overburden (waste rock) to eventually excavate the ore underneath the Mine Visitors Center, which must therefore be relocated. KUC took this opportunity to redesign the visitor center complex and adjacent mine office to meet LEED (Leadership in Energy and Environmental Design) standards. LEED is a voluntary green building rating system developed by the US Green Building Council. Only a handful of buildings in Utah are LEED certified.

LEED buildings save energy, conserve resources, protect people’s health, and improve property values. The LEED system takes into account the entire building approach, addressing the building materials’ lifecycles and evaluating five key areas: sustainable sites, water efficiency, energy and atmosphere, indoor environmental quality, and materials and resources. The Mine Visitors Center will also include a full-scale cutaway exhibit of a house explaining the minerals and metals that are used daily while in your home, as well as those used in the construction of sustainable building products.

For more information on LEED, visit [www.usgbc.org](http://www.usgbc.org)

**EDUCATION**

We actively support a minerals and mining education program designed to educate the public about our philosophy of balancing society’s need for metals with an environmentally responsible approach to mining. We support broader education and training that is relevant to our business and builds alignment with the communities in which we operate.

**BIRDLIFE INTERNATIONAL PARTNERSHIP** – Rio Tinto has a global partnership with BirdLife International and each year business units around the globe celebrate birds. “We are trying to raise awareness of birds because they are bio-indicators of the health of the planet,” said Ann Neville, Senior Advisor, Biological Resource for KUC and manager of the Inland Seashore Seabird Reserve (ISSR). “If a bird population goes down we know there is a problem somewhere in the migratory pass and we try to address it.”



*KUC employees and their families enjoy Bird Week at the Inland Seashore Seabird Reserve.*

During KUC’s 2005 Bird Week, more than 1,000 employees received daily emails with photos and facts about local birds. The week culminated with a field trip day where Kennecott Utah Copper, Kennecott Land, and Rio Tinto Shared Services employees and their families participated in bird watching at the ISSR. Volunteer

bird watching experts from the local Audubon and Birding chapters led the field trips. More than 120 people, including 40 children, turned out and 58 species were observed—both records for KUC. Additionally, scientists from BirdLife International use species data collected at the event to analyze long-term trends. The activities would have been impossible without the collaboration and help of 25 volunteers from across the Rio Tinto businesses in Salt Lake City.



*Juvenile Burrowing Owl siblings on the Tailings Impoundment.*

**DRINKING WATER FOR COMMUNITY** – In 2005, KUC completed construction of the Bingham Canyon Water Treatment Plant that will produce 3,500 acre feet of drinking water each year—enough to supply approximately 4,300 homes or 14,000 residents. Starting in May 2006, the water will be delivered to the Jordan Valley Water Conservancy District, who will distribute it to the cities of West Jordan, South Jordan, Riverton, and Herriman at discounted wholesale water rates.

KUC will operate the plant for 40 years at no cost to the community as part of an integrated groundwater remediation effort. The plant is part of a project approved in August 2004 by the State of Utah to compensate for damage to groundwater in the southwestern Salt Lake Valley. “Construction and operation of this plant demonstrate KUC’s long-held commitment to responsibly managing, controlling, and mitigating past environmental impacts,” said Paula Doughty, KUC’s Director of Environment.

The Bingham Canyon Water Treatment Plant is the first reverse osmosis municipal treatment plant in the state of Utah. Reverse osmosis uses high pressure to push water through a membrane and remove dissolved minerals—especially sulfate salts—from groundwater contaminated by historic leach water management practices. The dissolved minerals that are left behind will be disposed of in KUC’s Tailings Impoundment. This technology, coupled with rigorous control and monitoring, will ensure that water delivered to the public meets state and federal drinking water standards.

**LAND RECLAMATION** – In an effort to increase wild-life habitat, enhance visual aesthetics, and improve water management, KUC continued reclaiming land disturbed by mining activities. KUC’s Environmental Department worked to establish a sustainable vegetative cover on 200<sup>1</sup> acres of waste rock in 2005 to reach a total of 3,561 hectares reclaimed of the 5,415 hectares disturbed over the life of KUC. The 2005 work involved re-grading non-active waste rock slopes, seeding and fertilizing contoured waste rock surfaces and tailings, and planting of over 3,000 native seedlings.

To increase the rate of successfully establishing a plant cover, KUC tested three new reclamation technologies in 2005. First, KUC

tried using insects to control the spread of a weed called Dalmatian Toadflax, which is commonly found on waste rock. Approximately 300 weevils, or *Mecinus janthinus*, were released onto a site containing Dalmatian Toadflax. Weevils eat plant’s leaves and also bore into their stems, severely stressing or killing them. KUC expects this type

of biological control will prove effective in managing Dalmatian Toadflax, as it has with other exotic perennial weeds in western North America.

Second, KUC collaborated with the reclamation company Bitterroot Restoration to establish an experimental plot to test if seedlings in containers—versus seeds—help establish growth of Curl Leaf Mountain Mahogany. This plant is prime feed for deer and elk, and its seeds are eaten by birds and

small mammals. However, while KUC includes Curl Leaf Mountain Mahogany in its reclamation seed mix, the plant often fails to establish itself from seeds. Approximately 900 seedlings were planted in the spring of 2005 and 51 to 90 percent of the plants successfully established themselves, depending on the container type. Due to this relatively high success rate, KUC will continue using containers to grow Curl Leaf Mountain Mahogany.

Finally, an organic fertilizer called Biosol<sup>®</sup> was applied to approximately 50 acres and seeded with a native seed mix. Biosol<sup>®</sup> provides organic matter and nitrogen to waste rock that is typically void of essential minerals. In addition, it releases nutrients slowly and is applied in much smaller quantities than traditional fertilizers. The low application rate reduces costs while the slow release promotes the establishment of native vegetation rather than weedy species. If a post-seeding evaluation shows that Biosol<sup>®</sup> was effective in improving growth rates, KUC will use the organic fertilizer in more of its reclamation.

<sup>1</sup> Not all this acreage was first-time reclamation.

## RESOURCE STEWARDSHIP

We will maximize efficiency in our mining and process operations, minimize product losses, and maximize efficient use of water, energy, and raw materials.



Vicky Peacey of KUC’s Environmental Department and a USDA employee release Weevils to control Toadflax.

*A Short-eared Owl takes flight at the Inland Seashore Seabird Reserve.*



**LAND-USE STEWARDSHIP** – In 2005, KUC and sister company Kennecott Land Company (KLC) began a collaborative process of developing a comprehensive land use management plan. Collectively, the companies own approximately 93,000 contiguous acres in southwestern Salt Lake County. Less than 15 percent of that land has been impacted by mining and mineral processing operations. Some of the property has been or is being reclaimed and put to beneficial use, such as the Daybreak community in South Jordan.

KUC's parent company, Rio Tinto, developed the Land-Use Stewardship Standard that will guide the planning process. The standard is meant to help Rio Tinto companies develop a thorough understanding of current land uses, as well as potential uses.

## ENVIRONMENTAL STEWARDSHIP

“We’ve never had a comprehensive, overall land-management plan for the entire property,” says Ann Neville, KUC’s Senior Advisor, Biological Resource. “We want to make sure that we all understand the risks involved with managing so much land, and also capitalize on the opportunities.”

A joint working group was formed and is developing and implementing the procedures mandated in the Land-Use Stewardship Standard. There is also a steering committee that is responsible for deciding how the systems are developed, implemented, and maintained. The whole process is overseen by a team of senior executives from KUC and KLC who have the final say on issues impacting the companies’ long-term strategy.

The team is currently developing a set of goals that take into consideration Rio Tinto’s Sustainable Development and Biodiversity Strategies, both company’s business goals, and changing land uses over time.

“This process contributes to sustainable development by balancing the needs of our businesses, the environment, and the surrounding community,” said Neville.

**CLIMATE CHANGE** – KUC is developing a three-year climate change program drawing on the experience of a cross-functional team of internal experts. This program is aligned with Rio Tinto’s overarching climate change themes—reducing emissions at operations, understanding and developing low-emission product use pathways, and engaging with governments and stakeholders.

At KUC, the team is reviewing how energy use and greenhouse gas emissions are measured, metered, and calculated at each plant. It is also developing internal improvement targets and working to raise awareness. Finally, it is working with internal groups such as Six Sigma project leaders, resource development and procurement, as well as external stakeholders to share information and collaborate on energy and greenhouse gas reduction programs and initiatives.

KUC’s three primary energy consumers are the large diesel truck fleet at the Bingham Canyon Mine, the Copperton Concentrator, which uses electricity to drive massive SAG and Ball mills, and boilers and furnaces burning natural gas at the Smelter. KUC believes there are energy reduction opportunities in each of the three key areas that could simultaneously reduce operating costs and greenhouse gas emissions.

KUC is aiming for a 14 percent reduction in energy use per metric tonne of copper cathode and a 16 percent reduction in greenhouse gas emissions per metric tonne of copper cathode

between 2003 and 2008. Since 2003, KUC has reduced energy consumption by one percent to 18 million Giga Joules (17 trillion BTU). Over the same period, green-

house gas emissions increased 10 percent to 1.9 million tonnes of carbon dioxide equivalent (2.1 million tons CO<sub>2</sub> equivalent).

Currently, the company is in line with the trajectory to meet its 2008 energy reduction target but behind trajectory for its greenhouse gas target. “These are going to be challenging targets given our expanding operation, but we are committed to achieving them through Kennecott’s Climate Change Program” said Kirsten Gollgoly, KUC’s Climate Change Champion.

### POLLUTION PREVENTION

*We strive to minimize releases of pollutants to the environment and minimize waste through the pursuit of source-control technology, technical innovation, best management practices, and employee involvement.*



*Two haul trucks at Bingham Canyon Mine.*

# ENVIRONMENTAL STEWARDSHIP

*Super sacks of Molybdenum Sulfate Concentrate ready for shipment.*

## ENVIRONMENTAL PROFILE DECLARATIONS –

After years of work, KUC completed Environmental Profile Declarations for its three main products in 2005. The profiles are based on Life Cycle Assessment (LCA) studies that help KUC understand how its products affect water, hazardous waste, smog, acid rain, energy, and greenhouse gases.

KUC began exploring the idea of creating LCAs for its copper, molybdenum, and sulfuric acid in 2003 when LCAs were still a relatively new concept, particularly in the mining industry. The project quickly jumped from an idea to a reality when CargillDow approached KUC and asked for a supply of sulfuric acid—with one special request:

would KUC perform and supply an LCA of its acid? CargillDow uses KUC's sulfuric acid for production of NatureWorks™ polymerized lactic acid (PLA). This is the raw material used to manufacture corn-based food containers that are biodegradable and considered more ecologically friendly than plastic containers.

“It all comes down to product differentiation,” says Jim Cowley, KUC's Vice President of Sales and Marketing. “They're using our LCA information to demonstrate that their products are more ecologically efficient than plastics.”

Choosing to do a cradle to gate study meant that data collection had to begin with process materials inputs used by KUC but produced off-site by vendors. Everything from the energy consumed to mine the lime used in the flotation

### PRODUCT STEWARDSHIP

We will operate our product stewardship program to promote the safe and environmentally responsible use of our products. Health, safety, and environmental research are priorities in planning for all existing and new products and processes.



process to the greenhouse gases emitted by the manufacturers of the steel balls used in the ball mills had to be accounted for. A model was built using GaBi 4.0™ LCA software showing the materials and energy going in to the processes and the products and emissions coming out. The model enabled very detailed analysis and the development of a report compliant with ISO 14040 standards.

However, KUC wanted a standardized way to communicate with its customers about LCAs so it transformed the massive report into more reader-friendly documents known as Environmental Profile Declarations (EPDs) for each of its products. The EPDs were developed consistent with ISO standards. The company now uses these EPDs when meeting with customers so they not only understand how KUC's products impact the environment, but also how KUC's products contribute to the impact of their own finished goods.

KUC also plans to use the LCA model to improve its own production processes and perform scenario analysis. For example, the model can help us understand how a change made in one area of our production process affects emissions from other production areas. Finally, the LCA model provides KUC with a way to benchmark the performance of its products from a sustainable development and continuous improvement perspective.

# GOVERNANCE

## ANTI-TRUST TRAINING –

Rio Tinto rolled out anti-trust compliance training in 2005 for employees who are likely to

run into anti-trust issues while performing their role. For KUC, this meant 106 employees were identified and required to take an online course. In addition, every other

### BUSINESS ETHICS

We are committed to high standards of corporate governance and conduct our business with honesty, integrity, fairness, and transparency. Consistent with this approach, we subscribe to the principles embodied in the Rio Tinto Statement of Business Practice—the “Way we Work.”

year, these employees are required to take part in face-to-face anti-trust compliance training from in-house or external legal counsel.

**ALIGNING BUSINESS SYSTEMS** – As part of the Rio Tinto-wide Improving Performance Together program, KUC has formed a team to work on establishing global business processes and a single business system across Rio Tinto. This initiative, known as Aligning Business Systems (ABS), aims to reduce redundancies, streamline reporting, and increase transparency.

KUC currently uses a variety of systems including Ellipse, spreadsheets, and other systems to manage key business functions such as purchasing, accounting and reporting, sales and marketing, health and safety, human resources, and planning for production and maintenance.

**MANAGEMENT STRUCTURES AND SYSTEMS**

We will utilize appropriate management systems, structures, incentives, performance measures, and other applicable governance systems in our business to effectively contribute to sustainable development.

When the global business solution is implemented, these systems will be replaced with an integrated system supported by SAP.

In 2006, KUC, Rio Tinto Procurement (RTP), and Rio Tinto Services Inc.(RTSI), will be working together to prepare for and implement the new global processes and system. KUC's project team, led by Bryan Pett, will be capturing user requirements, gaining feedback from previous implementations, and hosting a series of information and training sessions to familiarize users with the new system. The new system is scheduled to be on-line in late 2006.



*The Oquirrh Mountains in the fall.*

**KENNECOTT LAND COMPANY** – When Kennecott Land Company (KLC) was formed in 2001, it worked to build on Kennecott Utah Copper's 100-year legacy as a respected neighbor and partner in the Salt Lake community.

"We recognized that Kennecott Utah Copper had established substantial credibility and influence in the community. Therefore, Kennecott Land was able to build on KUC's legacy community trust as we started building our first enduring community on Salt Lake Valley's West Bench," said KLC President Peter McMahon.

KLC has made significant progress building partnerships that bode well for long-term community development. The programs that led to this success include the West Bench Planning and Outreach Program that encouraged partnering with community leaders on the development of a master plan for future development on the West

Bench. During the fall of 2005, KLC conducted a series of Planning Summits with more than 100 West Bench leaders. An external facilitator led the group through a collaborative

**EXTERNAL GOVERNANCE**

We will seek public input and foster opportunities to work with local, state, and federal governments to promote policies and laws that support our ability to successfully contribute to sustainable development.

process to guide the future of the West Bench Master Plan. The result was the development of 12 planning principles and a statement of support from West Bench leaders.

Another focus area was Education Leadership. KLC

partnered with the Jordan School District to create and fund Utah's most innovative school concept—a combination elementary school and community recreation center to serve as the social hub for Daybreak. KLC also partnered with the Olene Walker Scholarship Fund to provide scholarships to teachers in the Jordan School District. This financial gift will ensure that the District is equipped with five trained reading specialists for the next 10 years. For more information, visit [www.kennecottland.com](http://www.kennecottland.com)

*Scott Kaufman, Director Commercial Development, Kennecott Land, leads a small group of Salt Lake Valley Leaders through the proposed West Bench Master Plan at a Council of Governments planning summit in fall of 2005.*



# SAFETY AWARDS

- Sentinel for Safety Mine Award: the highest recognition for safety in the mining industry. The award was presented by the United States Department of Labor to KUC for logging 1,221,562 man-hours without a lost time injury during 2004.
- Union Pacific Chemical Transportation Safety Pinnacle Award: of 1,200 Union Pacific hazardous material shippers, KUC was among 30 companies with no non-accident releases and safe loading practices in 2005.



**Kennecott  
Utah Copper**

*A member of the Rio Tinto Group*

Through this Sustainable Development Report we aim to provide a comprehensive account of our economic, social, and environmental programs and performance. We would appreciate your help in assessing whether we have accomplished this. Please fill out our online survey at [www.kennecott.com](http://www.kennecott.com). Click on the icon that says "2005 Sustainable Development Report Survey."

To thank you for taking the time to provide us with this valuable feedback, Kennecott Utah Copper will donate \$25 to charity on behalf of the first 100 people who respond to the survey. You will have a choice of donating to one of the following three charities:



Through innovative partnerships and collaborations, United Way of Salt Lake strategically invests community resources to measurably improve the lives of people in need.



Kennecott Charitable Foundation, a non-profit foundation, provides help to the poor and needy with an emphasis on the disabled, children, and the elderly.



The largest workplace giving program dedicated solely to health causes. It connects employees across Utah with premiere health agencies that focus on the diseases and disabilities facing millions.

For additional feedback or questions, please contact:

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