



## Dept. of Energy Awards Up to \$1.5 Million to Port Tenant to Advance Technology and Reduce Cost of Geothermal Energy

Port tenant Potter Drilling, Inc., has received one of 32 grants issued in September by the U.S. Energy Secretary Steven Chu for projects to accelerate the development of promising geothermal energy technologies and help diversify America's sources of clean, renewable energy.

Thirty-two innovative projects in 14 states will develop and test new ways to locate geothermal resources and improve resource characterization, drilling, and reservoir engineering techniques, which will enable geothermal energy sources to help reduce the nation's reliance on fossil fuels.

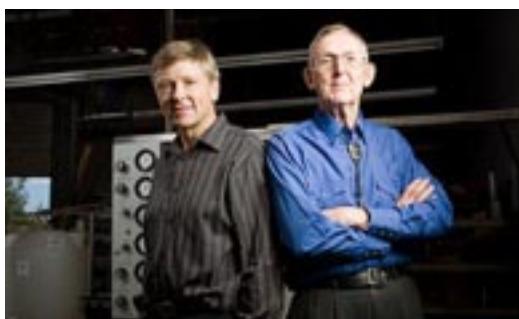
Funded through Department of Energy's Office of Energy Efficiency and Renewable Energy, these advances will play an important role in achieving the national goal of generating 80% of U.S. electricity from clean energy sources by 2035.

"The Department of Energy is investing in pioneering new technologies that will further develop the nation's geothermal resources, create skilled jobs for American workers, and help diversify our energy portfolio," said Secretary Chu. "The projects will provide opportunities for clean energy innovations

that will ensure the U.S. remains a global leader in geothermal energy development and expand the nation's use of this important renewable energy resource."

The selected projects will support the Department's goals of lowering the cost and financial risk associated with confirming and characterizing geothermal resources and will help to overcome key technical challenges to the reservoir creation and sustainability of enhanced geothermal systems.

According to the federal announcement, Potter Drilling is designated up to \$1.5 million for a project that will adapt hydrothermal spallation



Father son team of Jared and Bob Potter

drilling technology to increase the effective diameter of wells and increase their production capacity. Potter Drilling is focused on developing innovative drilling technologies that lower the cost and risk of developing geothermal and other hard rock resources.

Potter Drilling's patented and patent pending drilling and Hole



### PortFest II Highlights -- See Page 5

*City Council vs. Planning Commission in a rowing race with a WETA ferry boat in the background*

**Port to Receive Prestigious Chamber Award -- See Page 6**

Opening systems are based on thermal spallation. These systems will improve the economics of developing geothermal and other hard rock resources by reducing drilling cost and improving the productivity of new and existing wells. Thermal spallation is a continuous rock disintegration process that occurs when a high heat flux is applied to the surface of a hard or crystalline rock. The induced stress causes surface grains ("spalls") to break away from the underlying layers.

Potter Drilling was founded in 2004 by father-and-son team, Bob and Jared Potter. The ultimate goal of the company is to develop hard rock drilling technologies capable of dramatically expanding the availability of geothermal power by enabling Engineered Geothermal Systems (EGS).

Bob Potter, Potter Drilling's technical visionary, was one of the inventors of the EGS concept while at Los Alamos National Laboratory in the 1970s. His work set the stage for the Department of Energy's EGS program that aims to increase geothermal energy in the United States, according to Potter's website. All modern-day engineered geothermal systems are based on his pioneering, original work performed at the Fenton Hill Hot Dry Rock site. Since that time, Potter Drilling has grown and expanded in its development of technologies capable of improving the economics of conventional geothermal, oil and gas, and mining applications.

Since 2009 Potter has leased from the Port a 22,500 square-foot facility that previously had been used by the United States Geological Survey for marine geological research for 25 years before it vacated.

## **Polaris to Remain at Port Through 2021**

The Port and U.S. Geological Survey have agreed to a new 10-year lease to keep the research vessel Polaris at the Port. The 92-foot vessel conducts research in San Francisco Bay on seismic conditions, water quality, and geology.



When the U.S.G.S. relocated its facility to Santa Cruz in 2006, it continued to operate Polaris from the Port of Redwood City. The lease provides for wharf usage and a storage area for research equipment and vessel supplies.

The ship's hull is constructed of fir planking with oak and teak beams. The deck is teak plankings with fittings of teak and mahogany. She is powered by her original Atlas-Imperial diesel engine, rebuilt in 1960 and 1991.

The yacht was designed by A.E. Hudson and built by H.C. Carlson at the Wilmington Boat Works in Los Angeles, at a cost of \$150,000, for Lee Phillips. She was christened the "Pasada Mañana" and launched on May 12, 1927. Mr. Phillips was an engineer and building contractor who built the Los Angeles Biltmore Hotel, developed Wilshire Boulevard and superintended the construction of many of the levees in the Sacramento and San Joaquin River delta.

Mr. Phillips died in 1936 and the boat was sold, eventually ending up in the Navy's "Q-109" fleet in Seattle during World War II. During her service in the Navy, much of the boat's beautiful interior woods were covered over with layers of white paint. Following the war the yacht was sold to the Bechtel family and kept in northern waters. It was during that time that it was rechristened "Polaris," according to published documents.

In 1963 the Bechtels, unable to find a buyer for the boat, donated her to the University of California at Berkeley. The USGS purchased the yacht for a nominal sum (less than \$10,000) in 1966, and subsequently retrofitted the upper salon into a water-quality laboratory.

Each month the Polaris completes several cruises on San Francisco Bay, collecting water and sediment samples that are taken back to USGS labs in Menlo Park for analyses.

The Polaris was featured in the Nova television series, "Inside the Golden Gate," and has been featured in articles in Sunset Magazine and National Geographic.

## Port Tonnage Up 63% in First Quarter of New Fiscal Year

Total tonnage for all commodities crossing over the docks at the Port of Redwood City during the 1st quarter of fiscal year 2012 was 296,234 metric tons (MT), an increase of 63% over the same period a year earlier.

Port Operations Manager Don Snaman reported that the approximate percentage breakdowns by commodities: imported aggregates 33%; imported sand 31%; exported scrap metal 26%; imported gypsum 8%; and the remaining 2% consisted of domestic sand.

There were 99,017 metric tons of imported aggregates and 91,244 metric tons of imported sand during the 1st quarter of 2012, nearly 150,000 MT more than the same period in FY 11. The fiscal year at the Port goes from July 1 to June 30.

"In July, there was a mechanical problem with one of the self-discharging vessels used to routinely haul construction materials from British Columbia to the SF Bay Area," Snaman said. "Other self-discharging vessels were put into service to cover for the damaged vessel until its repairs were completed.

"Due to some of these other vessels' dimensions and characteristics, the Richmond Eagle Rock facility was not able to handle some of these vessels and they were diverted to the Port of Redwood City," Snaman continued. "The vessel has now been repaired and the Richmond facility is back on-line at full capacity, and we do not anticipate the continued pace of these sand/aggregate imports."

Fifteen vessels (12 ships, 3 barges) made calls during the 1st quarter of FY 12 compared to 12 vessels (8 ships, 4 barges) during the 1st quarter of FY 11.

## Claire, Dodge, Cronin Elected Officers by Port Commission

The Port Commission has elected its officers for the period through next July.

- Dick Claire, Chairman
- Dick Dodge, Vice Chairman
- Tom Cronin, Secretary

Claire, appointed to the Port Commission in 2007, succeeds Ralph Garcia as Chairman.

Claire had served 21 years on the Redwood City Council, including four as mayor, and seven years on the Redwood City Planning Commission. His other community activities have included formerly being a board member of the local Little League, Sequoia YMCA, and Big Sisters; as well as former chair of the Housing and Human Concerns Committee and chair of the San Mateo Council of Mayors.



*Dick Dodge*



*Dick Claire*

Claire is a financial and accounting professor emeritus at Canada College in Redwood City, where he taught for 35 years. He holds an M.B.A. in finance from University of Santa Clara and a B.A. in accounting from San Francisco State. He has served as corporate controller or other financial management positions for several companies, including Raychem and National Semiconductor.

Dodge, who originally was appointed in 1980 and reappointed six times since, is one of the longest current consecutive serving port commissioners in the United States. Dodge has owned and operated THE Office City since 1976, turning it into one of the largest independent office products dealers in Northern California. He has a B.S. in business administration from USC.

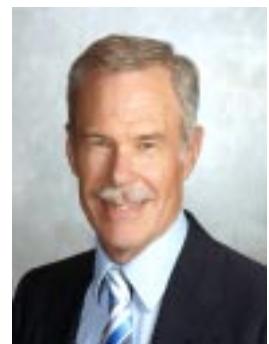
Dodge has been involved in numerous maritime organizations, including past president and current first vice president of the Association of Pacific

Ports. He has been called upon to make numerous presentations before the American Association of Port Authorities (AAPA).

Cronin was named to the Commission two years ago after six years on the city's planning commission. He was named executive director of the Redwood City Police Athletic League in 2009 after three years as operations director for The Riekes Center for Human Enhancement in Menlo Park. Prior to that, he held non-profit consulting and management positions at Sequoia Hospital Foundation, Peninsula Conflict Resolution Center, Committee for Green Foothills, and Foundation for Global Community.

Prior to his work in the non-profit sector he had a 20 year career at Hewlett Packard. Cronin has a degree in business administration from University of Minnesota.

Besides the three new officers, other commissioners include outgoing Chairman Garcia, owner of Ralph's Vacuum & Sewing Center in Redwood City, and Lorianna Kastrop, vice president and controller of The Kastrop Group, Inc. Architects in Redwood City.



*Tom Cronin*

## **2012 Marks**

### **Ports 75th**

### **Anniversary**

2012 will mark the Port's 75<sup>th</sup> anniversary as an official port established in the Redwood City Charter by a vote of the people. February 18, 1937, was the first Commission meeting after voters passed the 1936 bond issue to expand the port and make it an official entity of the city. Watch our website ([www.redwoodcityport.com](http://www.redwoodcityport.com)) and follow us on Facebook and Twitter for special activities and announcements in 2012.

## **Get Agendas & Minutes and See News**

### **About the Port of Redwood City as It**

#### **Happens at**



## **Port of Redwood City**

*San Francisco Bay*

### **Port Commissioners**

**Dick Claire**, Chairman  
**Richard Dodge**, Vice Chairman  
**Tom Cronin**, Secretary  
**Lorianna Kastrop**, Commissioner  
**Ralph Garcia**, Commissioner

**Michael J. Giari**, Executive Director

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## **Follow the Port of Redwood City on Facebook & Twitter**

The Port has opened its own Facebook page. There is a link on the Port's website at [www.redwoodcityport.com](http://www.redwoodcityport.com) or you can signup on Facebook by putting Port of Redwood City in the search box. Another way is through this link: <http://www.facebook.com/pages/Port-of-Redwood-City/219653294727822> We are looking for businesses/residents to "like us" so they can receive Facebook updates (postings) from the Port.

We also are on Twitter. These are the ways to find and follow us: twitter@redwoodcityport, or put RedwoodCityPort in your Twitter search box, or follow this link: <https://twitter.com/#!/RedwoodCityPort>

**Tell Your Friends About the Port of Redwood City Newsletter. They Can Easily Get Their Own Delivered to Their Emails by Making a Request at [portofrc@redwoodcityport.com](mailto:portofrc@redwoodcityport.com)**

## Pictures from PortFest II Oct. 1



Assemblyman Jerry Hill was among those who greeted the more than 2,000 visitors to the second annual PortFest, which was co-sponsored by the Redwood City Education Foundation and Port.



Left, people dancing to the Groove Kings Band, one of several bands that entertained.

Some of the winners of the Redwood City Council rowing team with the Golden Oar, as well as Miss California Outstanding Teen Jessa Carmack, Miss Redwood City/San Mateo County Sasha Hao, and Miss Santa Clara County Felicia Alvarez. The others left to right are Councilmember Barbara Pierce, Parks, Recreation & Community Services Director Chris Beth, Vice Mayor Alicia Aguirre, Jeff Birdwell (Bair Island Aquatic Center), Jerry Pierce (Barbara's husband).



Redwood City Police officers Dan Schillaci and Angela Wittman with her police canine, Prince. Prince gave demonstrations for the crowd.



To the left, a trolley took visitors on free tours of the Port's industrial businesses. Below, several people enjoying the events and ambience of PortFest II.

Winners of the City Council team in its second annual rowing race against the team of the Redwood City Planning Commission. This is a link to a great video by the Redwood City Patch on PortFest: <http://redwoodcity.patch.com/articles/video-portfest-delights-crowds-from-entire-bay#video-7985056>



## **Port Selected to Receive Prestigious Chamber's Golden Apple Award**

The Port of Redwood City has been selected as the recipient of the Redwood City-San Mateo County Chamber's Golden Apple Award. The award will be presented at the Chamber's Annual Dinner and Awards Recognition Banquet on February 1, 2012 at the Hotel Sofitel.

Chamber Executive Director Larry Buckmaster said that the Port is being recognized for its generous support of local schools through its partnership with the Redwood City Education Foundation. The Port was nominated by Jo-Ann Sockolov, president of the Redwood City Education Foundation.

The Golden Apple Award was established in 1995 by the Chamber's Education Committee to recognize business members of the Chamber of Commerce that have made significant contributions to support education in our community.

"As a Chamber of Commerce we are proud of the contributions that business quietly makes to improve the quality of life for others and particularly proud to recognize the Port of Redwood City for their commitment to support education," Buckmaster said.

The partnership between the Port and Redwood City schools is a long one.

Since 1998, the Port has been a sponsor of the Redwood City Education Foundation (RCEF), an all volunteer, community-based organization that raises funds to support education programs for the students in the Redwood City School District. RCEF works closely with the district to provide "music in the schools" and other education programs to meet the needs of children and better prepare them for high school, college, the work force, and life.

Last October, the RCEF co-sponsored with the Port the second annual PortFest. "With its participation in this event, RCEF helped expand the awareness of parents and children of the Port's activities and benefited from the fund-raising opportunity at PortFest," said Port Commissioner Lorianna Kastrop.

For many years, the Port has conducted its annual "Port Poster Contest" as an opportunity for Redwood City elementary school children to compete for prizes while learning about their hometown port. The "winning" school also receives a donation from the Port. The students' artwork each year is based on a theme about the Port, maritime shipping, recreational boating and other activities on Redwood City's waterfront. The winning posters have been displayed at Redwood City Hall and the Main Public Library.

The Port also sponsors regular visits by historic tall ships which offer educational tours and programs on their vessels to local school children.

"We are honored to be selected for the Chamber's recognition," Port Chairman Dick Claire said. "The partnering between the Port and our schools is something that all of the Commissioners promote."

**The Golden Apple Award was established in 1995 by the Chamber's Education Committee to recognize business members of the Redwood City-San Mateo County Chamber of Commerce that have made significant contributions to support education in our community**