

Searchlight Minerals Corp. Successfully Completes Continuous Autoclave Tests

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HENDERSON, NV -- (Marketwire - May 7, 2012) - [Searchlight Minerals Corp.](#) (OTCBB: SRCH) ("Searchlight" or the "Company") today announced the results of tests conducted by an independent Australian metallurgical testing firm (the "Australian Testing Firm") at its facility in Western Australia.

Summary Results

The Australian Testing Firm conducted autoclave tests under various conditions, using the pressure oxidative leach ("POL") testing methodology. The completion of these tests demonstrated the ability of a pilot autoclave to process the Clarkdale slag material on a continuous basis. The pilot multi-compartment autoclave is routinely used to simulate operating performance in a full-scale commercial autoclave as part of a bankable feasibility study.

Test Methods and Results Obtained

Previously, the Company repeatedly demonstrated the ability to successfully extract gold into solution in values approximating 0.5 ounces per ton utilizing the POL method. All previous tests by the Company, its third-party consultants and internationally recognized labs that demonstrated the successful extraction of gold into solution and the robustness of the POL process were conducted in a single compartment autoclave on a batch basis. The most recent tests, however, occurred in a four-compartment autoclave on a continuous basis.

The Company's objectives of the most recent tests conducted by the Australian Testing Firm were: being able to operate the autoclave on a continuous basis utilizing the slag material; demonstrating the robustness and sustainability of the POL process; investigating the effects of changing major process parameters for a subsequent longer test in a larger autoclave; and producing representative samples of the final product (a gold-bearing solution) for extraction tests designed to remove the gold from solution. Removing the gold from solution represents the final step in any hydrometallurgical process.

In the Company's opinion, the success of these tests demonstrates the ability of a pilot autoclave to process the Clarkdale slag material on a continuous basis and extract gold values consistent with our previous results. In addition, these tests as well as other tests performed by the Company's consultants have provided the Company with pregnant solution from which it is currently recovering physical gold which will ultimately form the basis for all economic assessments of the Clarkdale project.

The POL method consists of a multi-stage autoclave process wherein chlorine compounds and moderate pH are used to selectively extract gold into solution. Testing was conducted in a four-compartment titanium pilot autoclave, with a 25-liter capacity, which is a small scale version of a large commercial autoclave. This type of pilot autoclave is routinely used in feasibility studies to design and predict the performance of large commercial autoclaves prior to construction.

James Murray of Arrakis, Inc., and Project Manager for Searchlight Minerals, managed and coordinated the test work with the testing lab. Richard Kunter, Project Metallurgist, provided technical direction to the testing program and observed all results by the lab. Arrakis' Laboratory Manager, Kathy Wakeman, with over 35 years experience, provided analytical input to the Australian Testing Firm's laboratory personnel.

The POL Process on a Continuous Basis

Commercial autoclaves need to be operated on a continuous basis to be economically feasible. It is the Company's opinion that the tests performed by the Australian Testing Firm is an important milestone in showing that the POL autoclave process can be operated on a continuous basis.

The testing performed by the Australian Testing Firm consisted of two distinct continuous operation runs. Since all previous testing had been conducted in a single compartment autoclave on a batch basis, the first

continuous run was devoted to the identification and solution of inevitable first attempt problems, regarding mechanical and chemistry issues, when moving from a batch to a continuous test mode. The first test run was operated by the Australian Testing Firm for a period of 54 hours with only 27% mechanical process availability (i.e., the autoclave was only able to operate in a continuous mode for 27% and not the goal of 100% of the total test time). Based on information gleaned from the first test run, and after modification of the reagent feed system and a reduction in the particle size of the slag, a second test run was conducted by the Australian Testing Firm for a continuous period of 14 hours with 100% mechanical process availability. The Company believes that these test runs demonstrate the viability of continuous operation of the autoclave with the Clarkdale slag.

Extracting Gold into Solution on a Continuous Basis

In addition to demonstrating the sustainability of the POL process on a continuous basis, it was also important for the Company to achieve gold extraction into solution consistent with previous batch tests. The Australian Testing Firm utilized different analytical methods to evaluate the amount of gold in the solution produced by the continuous run. Consistent with all of the Company's previous test results, gold values varied depending on the method used to analyze the solution.

The first analytical method was the Atomic Absorption Spectroscopy/Inductively Coupled Plasma Optical Emission Spectroscopy, or the AAS/ICP-OES, method ("Method 1"). This method was developed by commercial laboratories in the US in the 1980's to overcome interferences in solutions with high levels of dissolved solids. Method 1 resulted in approximately 0.2 - 0.6 opt (ounces per ton) of gold extracted into solution. The 0.2 opt was achieved during the startup of the second test run and, after making adjustments to the pH and volume of the leach solution, the higher 0.6 opt was obtained toward the completion of the test. This analytical method uses manual adjustments to correct for interferences present in the pregnant leach solution ("PLS") that tend to mask or hide gold values. The correction factors are determined by measuring the interfering elements by utilizing Inductively Coupled Plasma Optical Emission Spectroscopy ("ICPOES") and then applying certain resultant factors to the gold analysis of the PLS obtained by Atomic Adsorption. This was the same method successfully used in the Company's previous autoclave work in Chile, as reported by the Company in 2011. This method was also recommended and used on all previous test work by the Company's independent consultant Arrakis Inc. ("Arrakis"). Although the Method 1 values were derived by the Australian Testing Firm and not by the Company or Arrakis, the efficacy of Method 1 for accurately determining the gold content of Clarkdale slag has not been independently validated by the Australian Testing Firm. The Australian Testing Firm has advised the Company that Method 1 does not conform to any ISO, ASTM analytical procedures for the determination of gold.

The second analytical method used by the Australian Testing Firm was the Inductively Coupled Plasma Mass Spectroscopy, or ICPMS, method ("Method 2"). Fire assay (performed by the Australian Testing Firm), as well as Neutron Activation (performed by an independent third party consulting agency), was also used to perform analyses of the raw slag. All of the above methods indicated different quantities of gold in the slag, but at values substantially below the results achieved by Method 1.

The variance in the results independently obtained between the different analytical methods is consistent with previous tests and analyses conducted by the Company, Arrakis, and other independent consultants. These analyses of gold in solution, as well as solid slag analysis, are not in agreement with fire assay analyses or other commonly used test methods, all of which are prone to analytical difficulties due to the refractory nature of the slag.

Next Steps and Future Testing

Based on hundreds of tests performed by Arrakis, the Company, and other Company-engaged independent consultants, coupled with the recent test work demonstrating the feasibility of processing the Clarkdale Slag in a continuous autoclave, further tests are underway to recover gold from solution, using carbon, ion exchange resin technologies, or other commonly used methods of extracting gold from solution. The Company believes recovery of metallic gold will not only define the most cost-effective method of such recovery, but will also provide a better definition to the total process system mass balance and help eliminate the discrepancy in our current analytical tests.

To that end, the Company has commenced gold recovery tests. The Company has engaged Arrakis to assemble a multinational project team to specifically determine the most efficient method of extracting gold from solution. Arrakis has performed 63 ion exchange resin and carbon tests resulting in the production of gold dore beads using a variety of resins and carbon. Resin and carbon tests conducted thus far on POL leach solution, consisting of 63 individual column tests, indicate an approximate 45% average recovery of gold from solution with any single resin or carbon. It should be noted that this testwork results in gold metal

beads obtained from the resin or carbon and when the head ore grade is back calculated from these beads it is within the previously stated ranges of 0.2 to 0.6 opt., with an arithmetic average of 0.42 opt. As larger volumes of POL leach solution are generated and resin tests are optimized these initial gold recovery values may improve.

"While there continues to be conflicting analytical data, the fact that we are now recovering physical gold from our pregnant solution gives us added comfort that the head grade values reported in our earlier reports and in Method 1 of this latest set of tests more closely reflects the head grade of the Clarkdale ore," noted Martin Oring, Chief Executive Officer of Searchlight. "In addition, the success of the continuous run demonstrates the robustness and commercial viability of the POL process, a big step forward for the Company as we move toward a bankable feasibility study. On a near-term basis, we are focused on optimizing the autoclave POL protocols and extracting gold from solution in order to commence the continuous pilot tests in a larger multi-compartment autoclave, that are necessary to obtain a bankable study. To expedite the gold recovery tests and commercial viability of the project, we are seeking to acquire an existing large batch titanium autoclave (greater than 500 liter) which we will use to provide additional PLS. The greater quantity of PLS able to be generated with the large batch autoclave will allow the use of multiple resins and multiple stages to more closely model a full-scale commercial system and optimize recovery of gold from solution. The Company also continues to examine other methods of extracting gold from solution in an effort to determine the most cost-effective and efficient method of recovering the gold."

About Searchlight Minerals Corp.

[Searchlight Minerals Corp.](#) is an exploration stage company engaged in the acquisition and exploration of mineral properties and slag reprocessing projects. The Company holds interests in two mineral projects: (i) the Clarkdale Slag Project, located in Clarkdale, Arizona, which is a reclamation project to recover precious and base metals from the reprocessing of slag produced from the smelting of copper ore mined at the United Verde Copper Mine in Jerome, Arizona; and (ii) the Searchlight Gold Project, which involves exploration for precious metals on mining claims near Searchlight, Nevada. The Clarkdale Slag Project is the more advanced of two ongoing projects that the Company is pursuing. The Searchlight Gold Project is an early-stage gold exploration endeavor on 3,200 acres located approximately 50 miles south of Las Vegas, Nevada.

Searchlight Minerals Corp. is headquartered in Henderson, Nevada, and its common stock is listed on the OTC Bulletin Board under the symbol "SRCH." Additional information is available on the Company's website at www.searchlightminerals.com and in the Company's filings with the U.S. Securities and Exchange Commission.

Forward-Looking Statements

This Press Release may contain, in addition to historical information, forward-looking statements. Statements in this Press Release that are forward-looking statements are subject to various risks and uncertainties concerning the specific factors disclosed under the heading "Risk Factors" in the Company's periodic filings with the Commission. When used in this Press Release in discussing the recent developments on the Project, including, without limitation, the resolution of certain issues relating to the operation of the production module, the words such as "believe," "could," "may," "expect" and similar expressions are forward-looking statements. The risk factors that could cause actual results to differ from these forward-looking statements include, but are not restricted to technical issues on the Project that may affect the production module and its primary process components, challenges in moving from pilot plant scale to production scale, the risk that actual recoveries of base and precious metals or other minerals re-processed from the slag material at the Clarkdale site will not be economically feasible, uncertainty of estimates of mineralized material, operational risk, the Company's limited operating history, uncertainties about the availability of additional financing, geological or mechanical difficulties affecting the Company's planned mineral recovery programs, the risk that actual capital costs, operating costs and economic returns may differ significantly from the Company's estimates and uncertainty whether the results from the Company's feasibility studies are not sufficiently positive for the Company to proceed with the construction of its processing facility, operational risk, the impact of governmental and environmental regulation, financial risk, currency risk volatility in the prices of precious metals and other statements that are not historical facts as disclosed under the heading "Risk Factors" in the Company's periodic filings with securities regulators in the United States. Consequently, risk factors including, but not limited to the aforementioned, may result in significant delays to the projected or anticipated production target dates.

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