Crazy Horse Resources Inc.: Pre-Feasibility Study on Taysan Copper-Gold Project Shows Post-Finance After-Tax IRR of 49% and NPV at 10% of US$503 Million

30.04.2012 | Marketwired

Highlights

- A pre-feasibility study ("PFS") on the Taysan Copper-Gold Project ("Project") has been completed to support a trade sale or a joint venture of the Project.

- The PFS forecasts average annual payable production of 76 million pounds of copper (34,432 t Cu), 30 thousand ounces of gold, 93 thousand ounces of silver and 476 thousand tonnes of magnetite over the 24 year mine life.

- Average operating costs for the Project are estimated at US$1.68 per pound of copper equivalent(i) over the life of the mine and US$1.18 per pound of copper equivalent(i) during the first five years of production.

- Initial capital costs are estimated at US$502 million (excluding VAT).

- The Project has an estimated net present value (NPV) at a 10% discount rate of US$503 million and an internal rate of return (IRR) of 49.2%, both calculated on after tax, post-financing cash flow including metal by-products.

VANCOUVER, April 30, 2012 - Crazy Horse Resources Inc. (TSX VENTURE:CZH) (the "Company") announces the completion of a pre-feasibility study, prepared by AMEC Minproc Limited ("AMEC Minproc"), on its 100%-held Taysan Copper-Gold Project located on Luzon Island in the Philippines.

Mitch Alland, Chairman and CEO of Crazy Horse Resources commented:

"We are excited about the attractiveness and the financial robustness of the Taysan Project with its estimated NPV of US$503 million and IRR of 49%, assuming a 65:35 debt to equity ratio and a US$3.00/lb copper price. The large Measured and Indicated Resource of 1.2 Mt of contained copper will provide the basis for the Stage 1 project (15Mtpa operation for 24 years) which can then be followed by the Stage 2 expansion to either double the throughput rate or extend the mine life to up to 40 years. An operation with this long term horizon will be attractive to the local community in terms of continuing future employment and to potential buyers or joint venture partners that are looking for a long-term source of copper concentrate. Now that the pre-feasibility study has been completed, the Company intends to embark on an aggressive campaign to pursue a trade sale or joint venture with a view to maximizing the return to shareholders."

Summary of the Pre-feasibility Study

The PFS has been prepared by the following independent consultants under the lead of AMEC Minproc of Brisbane, Australia:

Consultant	Areas of Responsibility
Aboitiz	Logistics
AMEC Minproc	Metallurgical test work, Metallurgy, Process and Study Management
GAIA South Incorporated	Socio-Environmental Assessment
GHD Engineering	Tailings Storage Facility, Infrastructure Hydrology, Water Supply, Communications Site Buildings and Camp, Power and Ports
IMC Mining Group Pty Ltd	Mineral Reserves, Mining Studies and Optimization
Mining Associates Pty Ltd	Geology and Resource Estimation
Resource Development Consultants Ltd.	Geotechnical, Hydrogeology and Pit Stability

Mineral Resources

Taysan is a typical porphyry copper-gold project hosted by several quartz-diorite intrusive bodies at the margin of the large San Juan Diorite batholith. The Project is hosted by several intrusive bodies with a high grade core consisting of breccias and quartz-magnetite vein stockworks. Emplacement of the diorite and ore is controlled by regional, cross cutting faults. Geological mapping and ground geophysics (magnetics and induced polarization surveys) indicate that exploration potential exists in the Company's land holdings to discover new deposits.

The copper mineralization is controlled by fault zones dipping between 30 and 60 degrees that crosscut the intrusive bodies. There is potential to expand resources at depth along this structural zone.

The Project has been extensively drilled since 1968, with 302 holes for 82,583 meters, of which the Company has drilled 99 drill holes for 36,445 meters between October 2010 and October 2011 as shown in the table below:

Drilling at Taysan Project between 1968 and 2011

Company	Drill Hole Type	No. of Drill Holes	Drill Meters
	Resource	91	34,709
Crazy Horse	Exploration	2	828
	Geotechnical	6	908
Previous Companies	Resource	141	36,253
	Exploration	62	9,885
Total Drilling		302	82,583

The following table summarizes the Mineral Resource estimate at the 0.1% copper cut-off grade used, including the estimates for gold, silver and magnetite:

Taysan Mineral Resource Estimate at 0.1% Cu Cut off, February 2012

Resource tonnes (Mt)	M Cu (%)	Au (g/t)	Ag (g/t)	Magnetite (%)	Cu (M lbs)	Au (M oz)	Ag (M oz)	Magnetite (Mt)
Measured	156	0.31	0.12	1.2	3.3	1,077		
Indicated	303	0.23	0.09	0.7	3.2	1,502		
Inferred	509	0.18	0.08	0.5	2.7	2,065		

The large Measured and Indicated Mineral Resource of 459 Mt at 0.26% Cu, 0.10 g/t Au, 0.8 g/t Ag and 3.3% magnetite, which contains 1.2 Mt of copper (2.6 billion lbs) provides the basis for the Stage 1 project (15 Mtpa operation for 24 years) that can be followed by the Stage 2 expansion to potentially double the throughput rate or extend the mine life to up to 40 years.

Mineral Reserves

The Taysan Project will be a conventional open pit operation, using bulk mining methods involving a drill, blast, load and haul operation. Open pit mining will use backhoe excavators and rigid frame dump trucks to mine and haul the ore. The life of mine waste to ore ratio is approximately 1:1.

The cut-off grade optimization studies undertaken by IMC Mining Group Pty Ltd led to a variable cut-off grade strategy to maximize the project cash flows. The cut-off grade optimization, which resulted in an improvement in project NPV by approximately 5%, was achieved by:

- Optimizing the mine production schedule;
- Altering the processing cut-off grade for ore mined during each mining stage; and
- Stockpiling lower grade material to increase head grade delivered to the mill.

The mining studies were based on a long term copper price of US$3.00/lb and included gold, silver and magnetite credits.

The Probable Mineral Reserve estimate by IMC Mining Group Pty Ltd is 353 Mt at 0.27% Cu, 0.11 g/t Au, 0.9 g/t Ag and 3.4% magnetite, and is based on variable cut-off grades for each stage of mining. The estimate is based on commodity prices of US$3.00/lb Cu, US$1,000/oz Au, US$26/oz Ag and US$100/t magnetite concentrate. Details of the Mineral Reserve estimate will be provided in the NI43-101 report that will be issued within 45 days of this news release.

Nine pit stages were chosen with the purpose of improving the project value by deferring waste and targeting higher grade and higher margin areas earlier in the mining schedule while providing regular mine stages with a minimum mining width of 50 meters.

High grade starter pits give an average grade (before recovery) of 0.39% Cu, 0.17 g/t Au, 1.5 g/t Ag and 4.2% magnetite for the first five years, compared to the averages of 0.27% Cu, 0.11 g/t Au, 0.9 g/t Ag and 3.4% magnetite over the life of the mine.

As illustrated below, Measured and Indicated Mineral Resources virtually fill the entire 24-year pit shell. However, some of the resources in the overall pit are in the Inferred category, which is not included in the Mineral Reserve base and is classified as waste. A minimal drilling program may convert this material to Indicated Mineral Resources, allowing the resources to be converted to Mineral Reserves. This potential conversion of waste to Mineral Reserves would decrease the strip ratio, thereby potentially lowering capital and operating costs.

To view the figure associated with this release, please visit the following link: http://media3.marketwire.com/docs/czh0430fig1.pdf.

At the assumed treatment rate of 15 million tonnes per annum, the expected mine life of the Project is 24 years and the forecast production is as shown in the table below:

	Recovered Metal		Payable Production#		Cu Equivalent* (M lbs)	Cu Equivalent* (tonnes)	
	Avg/Year	LOM	Total	LOM	Avg/Year	LOM	Total
Copper (M lbs)	79	1,899	76	1,822	1,822		
Gold ('000 oz)	35	833	30	720	240	108,798	
Silver ('000 oz)	233	5,604	93	2,242	19		
Magnetite ('000 t)	476	11,416	476	11,416	381		
Total Copper Equivalent (LOM)		2,462		1,116,581			

 # Payable production is the amount of metal produced net of treatment and metal refining deductions.
** Copper equivalent is calculated on the basis of payable production (net of deductions) and commodity prices of US$3.00/lb Cu, US$1,000/oz Au, US$26/oz Ag and US$100/t magnetite.*
LOM = Life of Mine

Processing

The proposed plant design is a single train process plant to treat ore to a maximum head grade of 0.6% copper with an expected LOM copper recovery of 90% producing copper concentrates with an average grade of 24.5% copper that contain gold and silver credits. Gold has a LOM recovery of 69% and silver has a LOM recovery of 55%. Magnetite concentrate is produced as a by-product and has a LOM recovery rate of 94%.

The Project process flow sheet is assembled from unit processes used commonly throughout the minerals processing industry. The processing circuit consists of a primary gyratory crusher discharging to a coarse ore stockpile of approximately 25,000t live capacity. The grinding circuit consists of a single semi-autogenous grinding (SAG) mill and ball mill with pebble-to-pebble crushers. The copper flotation circuit consists of a rougher, cleaner, cleaner-scavenger and re-cleaner circuit. The magnetite recovery circuit treats the copper flotation tails stream using rougher and cleaner magnetic separators. Concentrates are thickened using high rate thickeners prior to filtration in pressure filters. The tailing streams are combined and thickened in a thickener prior to being discharged to the tailings storage facility ("TSF").

The crushing and comminution flow sheets are conventional in design, based on both historical testwork and metallurgical testwork performed during the pre-feasibility phase. In addition, a benchmarking exercise was performed using data from other similar operations as a design check.

The copper flotation circuit design consists of rougher flotation, regrind and two stages of cleaning, which is again based on both historical testwork and metallurgical testwork performed during the prefeasibility phase. Preliminary flotation tails settling testwork was performed to estimate the size of the flotation tails thickener. The preliminary data was benchmarked with other operations of a similar size.

The remaining unit processes in the flow sheet such as magnetite recovery, concentrate thickening, filtration, tailings disposal and air and water services are based on design data from similar plants and are considered by AMEC Minproc to be suitable for the Taysan Process Plant at a pre-feasibility study level of accuracy.

Infrastructure

Located on Southern Luzon, the Taysan Project is accessible from Manila by 106 km of expressway followed by 7 km on sealed provincial roads. It is 20 km from the provincial capital on sealed provincial roads. Close to Batangas, a major industrial area and port of the Philippines, the Project benefits from existing infrastructure and from the nearby availability of a skilled workforce.

The Project is designed as largely self-contained, with mine, mill, maintenance facilities, administration and fully serviced accommodation camp located in close proximity to the mine site.

Existing sealed roads will be used for site access and for concentrate export. Some upgrading of road surfaces and bridges will be required to be done in cooperation with the provincial and municipal

governments, particularly with regard to the export road to Batangas Port. Within the mine site, 14.2 km of roads will be built during the construction phase of the Project, including haul roads within the pit and from the pit to the TSF. Other access roads suitable for general mine equipment will also be constructed. Another 16.3 km of haul and access roads will be built in Year 5 to extend access to the TSF embankment areas and provide access around the TSF perimeter to allow tailings disposal and monitoring activities.

Sufficient water is available within the mine area. The estimated water requirement for a 15 Mtpa operation is approximately 31,820 m3/day. It is proposed that 75% of the process water demand will be met through return of decant water from the TSF and the remaining 25% will be supplied from available fresh water sources. The TSF will be built immediately to the south of the open pit in a wide valley that allows for slurry transport and a short pumping distance for return make-up water to the plant. A water supply dam will be built to the southwest of the Project site that will supply fresh makeup water for the plant and will be used to replace the water supply of any communities who are affected by groundwater drawdown in the areas surrounding the open pit mine. A capital expenditure allowance has also been made for a bore field to supplement the water from the water supply dam.

Electric power is available from the local grid, and there is sufficient excess power produced in Batangas Province to supply the Project's operations. There is an existing 69kV line and right of way to the Taysan Municipality currently servicing the local population, and this right of way may potentially be used to build a second 69kV line. There also exists a 69kV substation at the mine site and, although this substation is unsuitable for the mine operation, there is potential to use this facility during construction. The plan is to construct a 69kV power line of 18.6 km length from the Batangas substation to the mine site.

The Company holds an option to purchase a 16 hectare deep water port facility on a major transport route. The site has existing concrete pads ready for construction of magnetite concentrate storage buildings. A new copper concentrate storage shed and load out facility will have to be constructed. The existing jetty and loading dolphins will be replaced with a more cost effective facility.

The close proximity of the tailings dam to the open pit source, as does the availability of waste rock from tailings, reduces capital costs for construction of the TSF embankments. Two TSF starter embankments will be constructed in narrow valleys in the headwaters of the Rosario River catchment. The two ponds will join to form a single pond in subsequent raises. A longer embankment will be constructed on the catchment divide to the north. The TSF is largely bounded by natural surfaces to the east and south. At mine closure, the tailings surface will be stabilized and re-vegetated, potentially into productive cropping areas such as rice growing. The tailings have a low potential to form acid mine drainage which will be controlled by sub-aerial deposition. The mine closure plan envisages a central clean water pond discharging to the pit to be flooded to form a pit lake on closure.

Environmental Considerations

The mine site is situated in an area of agricultural land with low density inhabitation owing to the poor agricultural performance of the soil, which is comprised of tuff (volcanic ash). There is no potential for destruction of sensitive habitats and no unique or endangered animal species or community within the project site that might be affected. The Project has been planned to meet the highest standards of environmental protection, and World Bank standards have been applied to all planned aspects of environmental protection and social responsibility.

Financial Analysis

The estimated initial capital costs are US$502 million and, including value-added taxes (VAT), are estimated at US$521 million. Average operating costs per pound of copper equivalent* are forecast at US$1.68 for the life of mine and US$1.18 for the first five years of production.

Total gross revenue comprises 74% from copper, 15% from magnetite, 10% from gold and 1% from silver, based on prices of US$3.00/lb (US$6,614/tonne) for copper, US$100/tonne for magnetite, US$1,000/oz for gold and US$26/oz for silver.

The Taysan Project is financially attractive and robust with an NPV (after tax and at a 10% discount rate) of US$503 million and an IRR of 49.2%, both calculated on leveraged cash flow assuming a 65:35 debt to equity ratio, which produces adequate debt service coverage to be able to secure project financing. In addition, the financial analysis assumes a fiscal regime under a Financial or Technical Assistance Agreement (FTAA) with the government of the Philippines, which has been applied for in respect of the Project. The Project is currently operating under an exploration permit.

The following table summarizes the economics of the Taysan Project at various metal prices:

Taysan Project Economics, April 2012

Copper Price	US$/lb	$ 2.50	$ 3.00	
Gold Price	US$/oz	$ 850	$ 1,000	
Silver Price	US$/oz	$ 24	$ 26	
Magnetite Concentrate Price	US$/tonne	$ 80	$ 100	$ 110
Discount Rate	%	10	%	10 %
Project Pre-tax NPV	US$M	$ 245	$ 695	
Project Pre-tax IRR	%	20.1 %	33.5	
Project Post-tax NPV	US$M	$ 185	$ 512	
Project Post-tax IRR	%	18.6 %	30.4	
Project Post-finance** NPV	US$M	$ 175	$	
Project Post-finance** IRR	%	26.6 %	49.2	

*** Calculated on net cash flow after taking into account debt financing at a debt-to-equity ratio of 65:35.*

Qualified Person

The Mineral Reserve estimate relating to the Taysan Project contained in this news release was estimated under supervision by Stewart Lewis BE (Mining). Mr. Lewis is a Chartered Professional member of the Australasian Institute of Mining and Metallurgy and is a Registered Professional Engineer (Qld). Mr. Lewis has over 25 years of experience in open pit mine planning and operations. The Mineral Reserve estimate is based on information reviewed by Mr. Lewis. He is the CEO and Principal Consultant of IMC Mining Group Pty. Ltd. and has suitable qualifications and sufficient specific experience in the estimation of mineral reserves to qualify as a Qualified Person as defined in the CIM Definition Standards (November 2010). Mr Lewis and IMC Mining Group Pty. Ltd. have each reviewed this press release and consent to the inclusion in the press release of the matters based on his information in the form and context in which this information appears.

Stock Option Repricing and Grant of New Options

Further to the receipt of disinterested shareholder approval at the Company's recent AGM held on April 4, 2012 and subject to the acceptance of the TSX Venture Exchange, the Company has agreed to amend the exercise price of 2,947,500 previously issued stock options granted to certain directors, officers, consultants and employees to C$0.30 per common share. In all other regards, the terms of these stock options remain the same.

The Company also announces the grant of new options to certain directors, officers, employees and consultants to purchase up to 1,490,000 common shares. Each option is exercisable to acquire one common share of the Company at a price of C$0.30 per common share until April 30, 2017, in accordance with the terms of the Company's stock option plan.

** Copper equivalent is calculated on the basis of payable production (net of deductions) and commodity prices of US$3.00/lb Cu, US$1,000/oz Au, US$26/oz Ag and US$100/t magnetite.*

Glossary

Ag = silver
Au = gold
Cu = copper
IRR = internal rate of return
km = kilometers
lb = pound(s)
LOM = life of mine
M = million
Mtpa = million tonnes per annum
NPV = net present value
oz = Troy ounce(s)
t = tonne(s)
tpa = tonnes per annum
TSF = tailings storage facility

VAT = value added taxes

ON BEHALF OF THE BOARD OF CRAZY HORSE RESOURCES INC.

MITCH ALLAND
President and C.E.O.

This news release includes "forward-looking statements" including forecasts, estimates, expectations and objectives for future operations that are subject to a number of assumptions, risks and uncertainties, many of which are beyond the control of the Company. The PFS described in this news release is not a production forecast by the Company. There remains at present insufficient certainty in the PFS to reliably estimate future production and economics; further engineering and geology studies are required. The scope of the PFS is to deliver an economic assessment of the Project with plus or minus 20% accuracy in its estimates. A full feasibility study, which provides a higher level of accuracy in engineering and economic estimates, may be required for the sale or joint venture of the Project. There are risks related to the assumptions used in preparation of the PFS, including uncertainties associated with the Company's reserve estimates and resource deposit information; and uncertainties regarding mining in general including global supply and demand for base and precious metals; political and economic risk in the Philippines, metallurgical uncertainties; environmental laws, regulations and permits relating to mine reclamation and restoration, climate change, emissions to the air and water and human exposure to hazardous substances used, released or disposed of by the Company; uncertainties associated with unanticipated geological conditions related to mining; and uncertainties associated with the fiscal regime that will be applicable to future mining operations. Investors are cautioned that any such statements are not guarantees of future performance and that actual results or developments may differ materially from those projected in the forward-looking statements. Such forward-looking information represents management's best judgment based on information currently available. No forward-looking statement can be guaranteed and actual future results may vary materially. The Company does not assume the obligation to update any forward-looking statement, except as required by applicable law.

NEITHER THE TSX VENTURE EXCHANGE NOR ITS REGULATION SERVICES PROVIDER (AS THAT TERM IS DEFINED IN THE POLICIES OF THE TSX VENTURE EXCHANGE) ACCEPTS RESPONSIBILITY FOR THE ADEQUACY OR ACCURACY OF THIS RELEASE.

Contact Information

KIN Communications Inc.
Investor Relations
1-866-684-6730
Ir@kincommunications.com

www.crazyhorseresources.com