

West Kirkland brings new life to Hasbrouck, Three Hills



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Standing on the Hasbrouck peak at West Kirkland Mining's gold project in Nevada, from left: Frank Hallam, CFO; Richard Histed, U.S. exploration manager; Michael Jones, president and CEO; Kevin Falcon, director; Pierre Lebel, director; Michael Allen, vice-president of exploration; and Sandy McVey, COO.

SITE VISIT



BY MATTHEW
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TONOPAH, NEVADA — There's a wealth of history in the ground at **West Kirkland Mining's** (TSXV: WKM; US-OTC: WKLDF) recently acquired Hasbrouck and Three Hills gold properties in Esmeralda county, Nev., but new ideas are what the company hopes

can bring the long-dormant deposits into production.

West Kirkland picked up a 75% interest in the twin projects in early 2014 from **Allied Nevada Gold** (TSX: ANV; NYSE-MKT: ANV) for US\$30 million in cash, and if all goes according to plan, the company is aiming to break ground on mine development in late 2015. After 30 months there is a clause wherein Allied Nevada could sell the remaining 25% for US\$10 million, or form a 75-25 joint venture.

Cruising along Nevada's Highway 95 — 8 km south of the historic town of Tonopah — it's easy to understand why Hasbrouck has received so much exploration attention over the past 40 years. The project boasts easy access, nearby power lines, and a fairly

sizable occurrence of oxidized gold mineralization.

Hasbrouck lies within the Walker Lane structural domain of the Basin and Range physiographic province. Walker Lane's strike-slip faulting dominates the structural features and trends northwest, with offsets ranging from ten to several-hundred metres. This structural domain includes numerous epithermal precious metal deposits in western Nevada and eastern California.

"The orientation we're seeing here is reflective of the trend of mineralization we're seeing in the Hasbrouck deposit," U.S. exploration manager Richard Histed points out during a tour. "The Walker Lane structural domain plays an important role in the mineral controls. Across the valley you

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West Kirkland Mining COO Sandy McVey gives a presentation at the Three Hills gold property in Nevada.

can see nearly 1,000 metres of volcanics, tuffs and water lanes.”

Both Hasbrouck and Three Hills are defined as oxidized, low-sulphidation, epithermal vein systems that are potentially suitable for open-pit, heap-leach mining. Mineralization is at surface and near-surface, so West Kirkland’s project plan anticipates a minimal stripping ratio.

Hasbrouck rises up to cast a shadow over Highway 95 and evidence of historic mining is still present on the rust-coloured hillside. Silver and gold mineralization was first discovered on Hasb-

rouck Mountain in 1902. Early mining exploited the Kernick vein on a small scale through the mid-1920s.

many unknowns. What is a bit unusual is that it sits up on a hill, which is pretty nice from a mining perspective,” presi-

‘There’s beauty in how these two projects are split up.’

— SANDY McVEY, COO, WEST KIRKLAND MINING

“The clay minerals are at lower temperatures outside the core of the system. Hot water brings silica into the system and mobilizes gold into the deposit. The key takeaway is that we’re talking about a classic gold deposit type with not very

dent and CEO R. Michael Jones adds.

The only recorded production from Hasbrouck totals 670 tonnes of ore that averaged 19 grams gold per tonne. The early miners completed 2 km of adits and 305 metres of raises.

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Drilling at Hasbrouck has been conducted by six companies from 1974 through 2012, and totals 324 holes over 66,800 metres.

West Kirkland boosted Hasbrouck's resources by 10% shortly after acquiring the project. The deposit now hosts 63.2 million measured and indicated tonnes grading 0.41 gram gold and 8.91 grams silver for 811,000 contained oz. gold and 18 million contained oz. silver. Inferred resources total 53.5 million tonnes of 0.24 gram gold and 6.48 grams silver for 412,000 contained oz. gold and 11 million contained oz. silver.

Walking nearly 100 metres down a drill road at the site, it's possible to see how the high-grade mineralization at the project outcrops at surface. Jones points out that one of the main mining benefits is that as soon as the company begins blasting it will be right into economic material.

"We're getting into the high-grade core of the Hasbrouck deposit. You can see the intense zone of silicification and multi-phased brecciation. The system here was long enough lived that you'd have a silicification event to precipitate gold and seal the rock up," vice-president of exploration Michael Allen explains.

"The system was still going after that so you'd build up enough pressure to shatter the rock again, and allow another round of silica and gold. Surface samples along here run between 1 and 7 grams gold per tonne. And most of this stuff starts at surface, so first bucket you're into the ore," he adds.

Chief operating officer Sandy McVey stands on a rocky edge overlooking the proposed Hasbrouck mine site and highlights a potential heap-leach scenario West Kirkland is modelling. He speculates that the mine would run at between 15,000 and 20,000 tonnes per day, with



PHOTO BY MATTHEW KEEVIL

Drill roads at West Kirkland Mining's Hasbrouck gold project.

material moved down the hilltop to leach pads below. He labels it a "standard operation" that the company would likely run through mine contractors.

"We like that idea because we have enough experience doing these things to recognize what we don't know," McVey says. "If we're on a short timeline and looking at a relatively short mine life then ramp-up is critical. There's no time for learning curves here."

The metallurgy of the Hasbrouck ore is quite well understood. Allied Nevada conducted column and bottle-roll tests on 35 core samples that indicate 60.3% gold recoveries and 13.8% silver recoveries assuming a 3/8-inch crush.

Jones says that more crushing could increase recoveries, and West Kirkland is investigating whether high-pressure rolls crushers are "worth it to take it down another step."

Another boon for project economics could be an unexplored area on the northeast flank of Hasbrouck Peak. The area is within 100 metres of the company's conceptual pit outline and could

lead to a bump in resource tonnage, or even a pit extension.

West Kirkland's early work at the target has paid dividends. Drill highlights to date include: 6.1 metres of 0.38 gram gold and 6.48 grams silver from 6.1 metres deep in hole 14R-9; and 4.6 metres of 0.66 gram gold with 12.2 grams silver from 7.6 metres deep in hole 14R-10.

"You can see by the drill roads that a lot of the north area of the project hasn't been drill-tested. Previous operators didn't take that next step out to see if there could be that pushback to the pit wall," Jones comments.

"Part of what we're trying to do here is demonstrate that we can add ounces right in tight to the resource, so what else is there on the property package? People saw the big hill and the heavy part of the silica system, and drilled the heck out of it. We're taking a fresh approach to go back and map all those alteration signatures, lithologies and controls."

Standing on top of Hasbrouck Peak, one can look north and see the rugged

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Three Hills deposit against a cloud-speckled horizon. Over the flat Nevada terrain runs a razor-straight line that appears to link the two projects, which is actually 1940s-era groundwork by the U.S. Army Corps of Engineers for a telegraph line.

Though Hasbrouck is the larger deposit that would fuel most of the mine life, it is Three Hills that could provide West Kirkland the opportunity to quickly bring the assets into production.

McVey says that the “magic element” about the company’s strategy involves permitting the two projects separately, which means the smaller Three Hills deposit could go into production a lot sooner than Hasbrouck.

Allied Nevada released a hybrid preliminary economic assessment on Hasbrouck and Three Hills in February 2012 that proposed a combined heap-leach facility to process both deposits.

The catch for the company was that the plan meant the two assets would have been regulated under a single permit, which triggers a time-consuming environmental impact statement (EIS) review.

West Kirkland is hoping that the scope of its Three Hills development will allow it to move through a much faster process under an environmental assessment (EA) review through the Bureau of Land Management (BLM) and the Nevada Department of Environmental Protection (NDEP). The difference could mean getting into production within months instead of years.

“There’s really a beauty in how these two projects are split up. We’ve seen previously these EA processes take as little as nine months to work out from the time we put our plan of operation in,” McVey says during the drive through Tonopah en route to Three Hills. “It’s a significantly cheaper and



At an outcrop along the drill road, West Kirkland Mining president and CEO Michael Jones explains the geology seen at the Hasbrouck gold project.

shorter process, and if we make the EA cut we could have the permit to build in late 2015. There are obviously no guarantees, but we’ve got a real shot at it.”

Three Hills is a quick ride on Highway 95 and sits on county-maintained roads on the northwest edge of Tonopah. Old silver workings dot the hills that surround the town. The Tonopah Historic Mining Park still stands on the site of the original mining claims that began the rush that made the town the “queen of the silver camps.”

West Kirkland plans to run at a similar throughput rate at Three Hills, which would again peg it between 15,000 and 20,000 tonnes per day. At that rate the current resource would likely support a two- to three-year mine life, which the company hopes will give it time to score an EIS at Hasbrouck.

There are 243 holes representing 22,700 metres of drilling in the Three Hills database. The project’s history

includes 11,166 samples with a gold assay, which were drilled by various companies between 1974 and 1997.

Three Hills hosts 7.8 million measured and indicated tonnes averaging 0.62 gram gold for 151,000 contained oz. Inferred resources total 10 million tonnes of 0.48 gram gold for 154,000 contained oz.

“The mine will focus on the south hill, with the north hill sitting behind us. We’re standing right near the heap-leach area, which is located on patented land we own,” McVey says. “We’ll sort of be stacking waste up against the lower part of the hill. There’s very little pre-strip, so as we go along we’ll be mining ore and waste simultaneously. I’d also like to mention that everything is above the water table.”

On Nov. 25 West Kirkland submitted its mine plan of operations at Three Hills to the BLM and NDEP. The project could qualify for the expedited EA pro-

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cess due to its small footprint, which is well under the 2.5 sq. km cut-off. McVey notes that the mine wouldn't disturb a large area or have "significant impacts," and that no sensitive areas or local communities would be affected.

The company expects a decision from the BLM early next year, which means it could have its permit to build Three Hills in late 2015.

Meanwhile, West Kirkland is also pursuing exploration based on its new interpretations of the deposit. Allen points out where the company punched four exploration holes on the eastern flank of Three Hills to test for structural preparation zones near the contact between the Siebert formation and the Fraction Tuff.

Three Hills hosts disseminated, low-grade, epithermal, volcanic-hosted, quartz-adularia gold mineralization. Most of that mineralization is in silicified parts of the Siebert Formation and upper parts of the Fraction Tuff.

In September West Kirkland released assays from Three Hills that confirmed the deposit is open to the east, and uncovered a high-grade structural mineralization corridor that the company intends to test with follow-up drilling.

Drilling was highlighted by hole 14R-4, which returned 50.3 metres grading 0.73 gram gold and 3.22 grams silver within a zone of intersecting structures starting at 172 metres deep. Mineralization reportedly started 26 metres above the contact between the Siebert and Fraction Tuff and continued 24.4 metres below the contact.

"In Nevada people tend to be good at drilling holes and mapping out results," Jones says. "And they can map the major rock types, but it's really more about where there was movement in between those rock types. If you know you have a young rock juxtaposed against an older rock, you know there will be movement in that unit, and the structural break can be really important for gold discoveries."

In mid-November the company released results of drill hole 14-1, which cut 39.6 metres of 1.36 grams gold and 5.10 grams silver from 54.9 metres down hole. Drilling was collared 300 metres east of the Three Hills resource.

West Kirkland hopes to benefit from run-of-mine ore from the deposit that also boasts better recoveries. Previous column tests indicated material from the deposit features 84% gold recover-

ies assuming a 1.5-inch crush. In June the company fast-tracked an 11-tonne bulk sample at the site to confirm gold recoveries from run-of-mine material.

On Dec. 3 West Kirkland released results from its bulk run-of-mine column test. The company revealed that it had achieved 81% gold recovery after 133 days of leach and rinse, and 75% gold recovery after 100 days of leach.

McVey noted that the "potential removal of crushing costs at Three Hills is significant, as it can reduce capital and operating costs in the critical early years of the project."

In early May West Kirkland closed an overallotment option of an offering that saw it issue 221 million units at 15¢ for gross proceeds of \$33 million.

Each unit consists of a share and one 30¢ purchase warrant exercisable until April 2019. The company paid Allied Nevada \$21.4 million in accordance with its purchase agreement.

The company shares have moved within a 52-week window of 5¢ to 29¢, and traded relatively flat over the past six months en route to a 9¢ close at press time. West Kirkland has 294 million shares outstanding for a \$26.5-million market capitalization.