

Potential Base Case Operating Cost of US\$17.28/lb U₃O₈ & US\$300 M Initial Capex

TORONTO, ONTARIO--(Marketwired - Jan 25, 2016) - [Plateau Uranium Inc.](#) ("Plateau Uranium" or the "Company") (TSX VENTURE:PLU)(FRANKFURT:QG1) is pleased to announce results from the Company's updated Preliminary Economic Assessment ("PEA") for the Macusani Plateau uranium project, located in the Puno Department of southeastern Peru. The PEA was completed by UK based, mining engineering consultants Wardell Armstrong International ("WAI") and GBM Minerals Engineering Consultants Limited ("GBM"), and contains a detailed base case as well as four alternate development scenarios using higher grade feed material.

A copy of the updated PEA will be filed and available for viewing and download at www.sedar.com.

Key Highlights of PEA (at US\$50/lb U₃O₈ life of mine uranium price)

- Cash operating costs to average US\$17.28/lb U₃O₈ over the life of mine ("LOM"), placing it in the lowest quartile of uranium producers in the world using 2015 production figures.
- Initial capital expenditures ("CAPEX") have been estimated at US\$249.7 M plus US\$50.1 M contingencies, to construct the mine and a 10.9 M tonne per annum ("tpa") heap leach process plant using standard, off-the-shelf equipment and technology. Total sustaining capital costs for LOM are estimated at US\$43.9 M.
- Net Present Value ("NPV") at an 8% discount rate of US\$852.7 M pre-tax / US\$603.1 M post-tax
- Internal Rate of Return ("IRR") of 47.6% pre-tax / 40.6% post-tax with capital payback estimated at 1.69 years pre-tax / 1.76 years post-tax.
- Conservative uranium selling price of US\$50/lb U₃O₈ used, which is well below the US\$65-70/lb long-term price consensus forecasted by industry analysts, and utilized by peer comparables of the Company.
- LOM U₃O₈ production estimated to average 6.09 Mlbs/yr by processing 109.0 Mt at 289 ppm U₃O₈ over a 10-year LOM, which would rank within the top five largest uranium operations in the world.
- Standard open pit mining approach with a relatively small, higher grade underground operation contemplated with an average LOM stripping ratio of 2:1 (waste to ore).
- Optimized base case includes only 3 of the 5 main mineralized complexes with current mineral resource estimates identified to date at the Macusani Plateau uranium project. This and the Company's largely un-explored 910 km² land package leaves substantial upside to further extend the potential resource base.
- High grade scenarios were also considered with both heap leach and tank leach processing options, all with potentially positive economic results.

Ted O'Connor, CEO of Plateau Uranium, commented: *"Completing the updated PEA is a very important milestone for Plateau Uranium. The new PEA results show the significant potential of the Macusani Plateau uranium district to become a future uranium production centre. Using a currently realistic, albeit conservative US\$50/lb U₃O₈ future price, both the estimated NPV and IRR for the project are excellent."*

The low cost potential of the Macusani Plateau uranium project, with estimated production costs similar to some of the best uranium operations in the Athabasca Basin and Kazakhstan, combined with significant estimated annual production levels, and estimated capital costs of less than US\$300 million, near significant infrastructure in mining friendly Peru, all highlight the potential strategic nature of our project to supply the growing near-term uranium demand expected within the next 4 years.

The strong PEA results further validate the merits of the Company's consolidation and organic growth strategy to control all defined uranium resources in Peru.

Our plan is to move the Macusani Plateau uranium project further along the path to development by progressing our environmental permitting strategy in Peru, initiating further delineation, expansion and exploration drilling, and following through with additional pre-feasibility metallurgical and engineering study work over the coming year. The work completed on the high-grade heap leach and tank leach scenarios has provided up-front, potentially economic options to consider in the future pre-feasibility work.

We are seeing signs that uranium demand is increasing as nuclear reactors are being built around the world, and economic supply has not increased. We believe that the uranium market is in the early stages of its inevitable long term recovery, and are positioning Plateau Uranium to be ready to capitalize on this anticipated recovery with an incredibly robust project."

PEA Base Case Details

The updated PEA contemplates the construction of a conventional open pit mining operation with a centralized processing facility operating over a 10-year life with a throughput of approximately 30,000 tonnes per day ("tpd"). Heap leach processing is planned to be used to extract uranium into a weakly acidic aqueous leach solution with uranium recovery through exchange ("IX") and a solvent extraction ("SX") acid recovery circuit.

Table 1 - Key Production & Financial Parameters - Base Case (in US\$)

Mine life	10 years
Average annual throughput	10.9 million tonnes
Processing methodology	Heap Leach
Processing recovery rate	88%
Acid consumption	9 kg/t
Open pit strip ratio (waste:ore)	2.05
Average diluted feed grade	289 ppm U ₃ O ₈
Average annual production (LOM)	6.09 million lbs U ₃ O ₈
Financial Parameters - Base Case	
Uranium price	\$50 / lb U ₃ O ₈
Average operating cost	\$17.28 / lb U ₃ O ₈
Start-up CAPEX (including \$50.1 M contingencies)	\$299.8 million
Sustaining CAPEX	\$43.9 million
	Pre-tax Post-tax
NPV (8% discount rate)	\$852.7 M \$603.1 M
IRR	47.6% 40.6%
Payback period	1.69 years 1.76 years

Note: Readers are cautioned that a PEA should not be considered to be a pre-feasibility or feasibility study. The PEA is preliminary in nature and uses inferred mineral resources which are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. At this stage, the mineral resources cannot be converted to mineral reserves as the project has not been demonstrated to be technically and economically viable to a sufficient level. There is no certainty that the results predicted by this PEA will be realized. The mineral resource estimates, upon which the PEA is based, could be materially affected by environmental, geotechnical, permitting, legal, title, taxation, socio-political, marketing or other relevant factors.

Mineral Resource and Inventory Details

The mineral resources to be extracted, optimization and scheduling work was completed by WAI of the UK. Economic cut-offs and mill head grade figures were determined using a \$50/lb U₃O₈ selling price, LOM average mining cost of US\$2.40/t (ore and waste), 5% mining dilution, 95% mining recovery and a 3% royalty. The recovered U₃O₈ figures have been determined using 88% processing recovery.

The mineral resources to be extracted were derived by considering the most potentially economic deposits from the updated NI 43-101 mineral resource estimates completed by The Mineral Corporation of South Africa (for details see Plateau Uranium announcement, May 6, 2015).

The consolidated mineral resource estimates, based on a 75 ppm U cut-off grade, are as follows:

- Indicated: 95.19 M tonnes grading 248 ppm U₃O₈, containing 51.9 Mlbs (23.5 M kg) U₃O₈
- Inferred: 130.02 M tonnes grading 251 ppm U₃O₈, containing 72.1 Mlbs (32.7 M kg) U₃O₈

The consolidated mineral resource estimates, based on a 200 ppm U cut-off grade, are as follows:

- Indicated: 33.47 M tonnes grading 445 ppm U₃O₈, containing 32.8 Mlbs (14.9 M kg) U₃O₈
- Inferred: 41.62 M tonnes grading 501 ppm U₃O₈, containing 45.9 Mlbs (20.9 M kg) U₃O₈

Note: Readers are cautioned that mineral resources that are not mineral reserves do not have demonstrated economic viability. Mineral resources may not necessarily be converted into mineral reserves. In addition, "inferred mineral resources" have a great amount of uncertainty as to their existence, and as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher mineral resource category. In addition, the mineral resource estimates could be materially affected by environmental, geotechnical, permitting, legal, title, taxation, socio-political, marketing or other relevant factors.

Only three of the five uranium deposit complexes with identified mineral resources included in the above mineral resource estimates have been used as potential mine feed in the PEA, leaving significant future upside to provide additional feed to an existing operation. The results of the base case mineral resources to be extracted by complex are as follows (Table 2; see also Plateau Uranium announcement, December 1, 2015):

Table 2 - Mineral Resources to be Extracted by Complex - Base Case (44% Ind; 56% Inferred)

Complex	Tonnage (Mt)	Grade U ₃ O ₈ (ppm)	Waste (Mt)	Strip Ratio (t _w :t _{ore})	Recovered U ₃ O ₈ Content (t)	Recovered U ₃ O ₈ Content
Colibri	40.1	232	9.9	0.25	7,760	17.1

Kihitian	45.7	309	170.0	3.72	11,800	26.0
Kihitian (UG)	8.2	475	0	-	3,440	7.6
Isivilla	15.0	373	48.8	3.25	4,670	10.3

Note: Readers are cautioned that mineral resources that are not mineral reserves do not have demonstrated economic viability. In addition, the mineral resource estimates could be materially affected by environmental, geotechnical, permitting, legal, title, taxation, socio-political, marketing or other relevant factors.

The proposed mine plans include predominantly open pit mining with underground mining proposed for some of the deeper high grade portions of the Kihitian complex to be accessed from the pit bottom. The conventional open pit mine design will produce 30,000 tpd and will be augmented with additional feed from the underground mine design that will produce 2,700 tpd through room and pillar mining methods, extracted by a continuous miner and conveyors accessed from the pit bottom. The mining methods proposed would use industry standard mining fleet equipment and mining technologies that are used in practice around the world and in Peru.

Processing Details

The proposed method of recovery is based on the developed production schedule summarized above. The proposed method includes crushing and stacking mineralized material onto a heap leach pad, which is irrigated with an acidic solution to dissolve the uranium. The leach solution would then pass through IX columns to recover the dissolved uranium and SX to recover uranium from the IX eluate to reduce acid consumption. The SX product solution then passes through precipitation to yield a yellowcake precipitate, which is thickened, filtered, dried and packaged for dispatch. Interpretation of metallurgical testwork results estimate sulphuric acid consumption at 9 kg/t and an estimated 88% processing recovery rate, resulting in an average estimated annual production of 6.09 Mlbs U₃O₈. The nominated process method utilizes industry standard equipment and extraction technologies that are used in practice around the world.

Sensitivity Analysis

Using the base case NPV at 8% discount rate a sensitivity analysis was conducted on key variables; namely, capital and operating costs, grade, recovery and U₃O₈ price using the ranges outlined in Table 3 to produce the following results (Figure 1 - Post-Tax Sensitivity Analysis).

Table 3 - Sensitivity Analysis Variables

Parameter	Base	Low	High
Total capital cost	0%	-15%	30%
Process operating cost	0%	-15%	30%
Mining operating cost	0%	-15%	30%
Uranium recovery	88.00%	82.00%	94.00%
U ₃ O ₈ price (US\$/lb)	\$50	\$35	\$65

To view "Figure 1 - Post-Tax Sensitivity Analysis" : <http://media3.marketwire.com/docs/Figure1PostTax.pdf>

The project is most sensitive to both uranium price and recovery, and gives encouragement for future development since the base case has used a conservative US\$50/lb unit price (see Table 4 - Base Case Uranium Price Sensitivity). The next most influential factor is the mining operating cost. To increase confidence in the rate used, further work needs to be completed in understanding the mining methodology and factors used. It should be noted that the open pit mining contract rate used in the financial model has been calculated in-house from first principles based on historical projects and a quote from the market is recommended for future PFS work. Major Peruvian mining contractors have been contacted and have substantiated the US\$1.85/t (ore & waste) mining cost figures used in the financial analysis. There is opportunity to reduce the capital and process operating expenditures, however the impact on project financials is limited. Similarly, the effect of capital cost estimate over-runs and higher operating costs is also limited.

Table 4 - Base Case Uranium Price Sensitivity

Case	U ₃ O ₈ Price Pre-Tax		Post-Tax	
	US\$/lb	NPV (M US\$)	IRR (%)	NPV (M US\$) IRR (%)
Base Case	\$50/lb	\$852.7	47.6%	\$603.1 40.6%
Low Case	\$35/lb	\$334.2	26.2%	\$236.2 22.5%
High Case	\$65/lb	\$1,371.3	65.1%	\$967.4 55.3%

High Grade Scenarios

As part of the 10.9 M tpa heap leach design GBM were requested to evaluate four additional scenarios. The estimates were conducted at a desktop level and based on the high-grade resource which used a 200 ppm U₃O₈ cut-off grade. The following four cases were investigated:

- Case 1: Heap leach, open pit mining only
- Case 2: Heap leach, open pit and underground mining
- Case 3: Tank leach, open pit mining only
- Case 4: Tank leach, open pit and underground mining

The tank leach option has been investigated due to the decreased plant footprint and the potential for increased uranium recoveries, with 93% process recovery used in the tank leach option cases. The same optimization parameters used in the base case were used for the high grade cases for the three complexes included in the PEA.

The high grade mineral resource scenarios are presented below for open pit only (Table 5) and open pit with underground option (Table 6). Mineral resources to be extracted in the following Tables are 44% Indicated and 56% Inferred (see Company announcement, December 1, 2015).

Table 5 - Mineral Resources to be Extracted in LOM Plan - High Grade Open Pit Only

Parameter	Unit	Value
Mine Production Life	year	10
Diluted Process Feed Material	Mt	50.6
Diluted U ₃ O ₈ grade (mill head grade)	ppm	434
Recovered U ₃ O ₈ (88% process recovery - Heap Leach: Case 1)	MLbs	42.6
Recovered U ₃ O ₈ (93% Process Recovery - Tank Leach: Case 3)	MLbs	45.0
Waste Material	Mt	225
Strip Ratio	t waste : t ore	4.45

Note: Please see the cautions in note to Table 1 above, which are also applicable to the estimates in this table.

The open pit only high grade scenarios (Cases 1 & 3) have a higher strip ratio than the base case and would produce 25% less uranium over the planned 10 year LOM, however the mineral resource tonnage to be extracted, moved and processed represents only 50% of the base case and only 62% of the total ore and waste tonnes, yet yields a 50% increase in grade.

Table 6 - Mineral Resources to be Extracted in LOM Plan - High Grade Open Pit & UG

Parameter	Unit	Value
Mine Production Life	year	10
Diluted Process Feed Material	Mt	58.8
Diluted U ₃ O ₈ grade (mill head grade)	ppm	440
Recovered U ₃ O ₈ (88% Process Recovery - Heap Leach: Case 2)	MLbs	50.1
Recovered U ₃ O ₈ (93% Process Recovery - Tank Leach: Case 4)	MLbs	53.0
Waste Material	Mt	225
Strip Ratio	t waste : t ore	3.83

Note: Please see the cautions in note to Table 1 above, which are also applicable to the estimates in this table.

The addition of the proposed underground mineral resources to the high grade open pit scenarios (Cases 2 & 4) increases the average grade marginally, but increases the potential LOM average uranium production to over 5 MLbs U₃O₈ per year.

Both high grade potential development scenarios above were considered as options within the current PEA update as feed for both the heap leach and tank leach processing options.

The capital and operating estimates produced as part of the high grade option analyses have utilized key inputs established as part of the base case project. However, where information was not available, historical and industry factors were used. The results of the option analyses are presented below in Tables 7 & 8.

Table 7 - Capital and Operating Cost Estimates

Case	Initial Capital (millions US\$)	LOM Capital (millions US\$)	US\$/t ROM	US\$/lb U ₃ O ₈
Base Case	\$299.9	\$358.5	\$9.60	\$17.28
Case 1	\$247.5	\$279.4	\$14.60	\$17.39
Case 2	\$247.5	\$291.4	\$13.60	\$15.95
Case 3	\$267.4	\$299.3	\$17.60	\$19.73
Case 4	\$267.4	\$311.3	\$17.00	\$18.81

Table 8 - Financial Model Estimate Results

Case	Recovered U ₃ O ₈ MLb/a	Pre-Tax				Post-Tax			
		NPV (M US\$)		IRR (%)		NPV (M US\$)		IRR (%)	

Base Case	6.08	\$852.7	47.6%	\$603.1	40.6%
Case 1	4.26	\$544.4	41.2%	\$417.4	37.3%
Case 2	5.01	\$733.5	49.4%	\$550.9	43.7%
Case 3	4.50	\$510.2	36.8%	\$397.2	33.9%
Case 4	5.30	\$679.9	43.2%	\$516.1	28.9%

It is evident in the financial analysis that the better options in either the heap leach or tank leach scenarios include processing of the high grade material from both open pit and underground (Cases 2 & 4). Similar to the base case, heap leach processing presently remains the more favourable financial option over tank leach processing, however, more work is required to rule this out at this stage.

The Company intends to continue along the development path by enhancing the present environmental monitoring program, and returning to active exploration/development work on the project with initial plans to restart drilling activities aimed at in-fill drilling on and between known deposits. This drilling would serve to further increase resource confidence and would also include initial drilling on several of the untested, shallow, high grade uranium showings on the extensive 910 km² land position at the Macusani Plateau uranium project. The Company has an excellent long-standing relationship with the local communities near the project, with existing community agreements and environmental permits to allow the restart of exploration activity when needed. Excellent progress is also being made navigating Peru's mine permitting regime and the path towards future uranium production.

Qualified Persons

The scientific and technical information contained in this press release relating to the PEA was prepared by or under the supervision of, or reviewed and approved by: Mr. Michael J Short, BE (Civil Eng), CEng FIMMM, FAusIMM(CP), FIEAust CPEng, of GBM Minerals Engineering Consultants Limited; Mr. Thomas Apelt, BEng, PhD (Chem Eng), CEng MIChemE, MAusIMM(CP), of GBM Minerals Engineering Consultants Limited; Mr. Mark Mounde, BEng, CEng, MIMMM of Wardell Armstrong International; and Mr. David Young, B.Sc. (Hons), FGSSA, FSAIMM, FAusIMM, Pr Sci Nat (No 400989/83) of The Mineral Corporation, South Africa, who are independent technical consultants to the Company and all of whom are "Qualified Persons" under NI 43-101 *Standards of Disclosure for Mineral Projects*. Mr. Ted O'Connor, P.Geo., CEO and Director of Plateau Uranium and a qualified person as defined by National Instrument 43-101 *Standards of Disclosure for Mineral Projects*, has reviewed and approved the scientific and technical information contained in this release.

About Plateau Uranium

[Plateau Uranium Inc.](http://www.plateauuranium.com) is a Canadian uranium exploration and development company focused on the exploration of its properties on the Macusani Plateau in southeastern Peru. The Company controls all reported uranium resources known in Peru and mineral concessions that cover over 910 km² situated near significant infrastructure. Plateau Uranium is listed on the TSX Venture Exchange under the symbol 'PLU' and quoted on the US OTC under the symbol 'PLUUF' and the Frankfurt Exchange under the symbol 'QG1'. The Company has 40,639,863 shares outstanding. For more information please visit www.plateauuranium.com.

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Forward Looking Information

This news release includes certain forward-looking statements concerning the future performance of Plateau Uranium's business, operations and financial performance and condition, as well as management's objectives, strategies, beliefs and intentions, including statements with respect to estimated production, capital costs and mine life; the future price of uranium; the estimation and/or realization of Mineral Resources; the timing and amount of estimated future production; costs of production; success of exploration activities; and future demand for uranium. Forward-looking statements are frequently identified by such words as "would", "may", "will", "plan", "expect", "anticipate", "estimate", "intend" and similar words referring to future events and results. Forward-looking statements are based on the current opinions and expectations of management. All forward-looking information is inherently uncertain and subject to a variety of assumptions, risks and uncertainties, including the speculative nature of mineral exploration and development, fluctuating commodity prices, competitive risks, general business, economic, competitive, political and social uncertainties and the availability of financing, as described in more detail in the Company's recent securities filings available at www.sedar.com. Actual events or results may differ materially from those projected in the forward-looking statements and Plateau cautions against placing undue reliance thereon. Neither the Company nor their management assume any obligation to revise or update these forward-looking statements whether as a result of new information, future events or otherwise, except as required by law.

Contact

[Plateau Uranium Inc.](#)

Ted O'Connor, CEO

+1-416-628-9600

ted@plateauuranium.com

Website: www.plateauuranium.com

Facebook: www.facebook.com/plateauuranium/

Twitter: www.twitter.com/plateauuranium/