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Mr. Al Cox
Homestake Mining Company of California
P.O. Box 98
Grants, NM 87020

SUBJECT: STABILITY ANALYSIS OF THE LARGE TAILING IMPOUNDMENT HOMESTAKE GRANTS PROJECT GRANTS, NEW MEXICO

Dear Mr. Cox:

On December 7, 2009 the undersigned submitted the report of the annual visual inspection of the tailing impoundments and evaporation ponds at the Homestake Grants Project located at Grants, New Mexico. As the Responsible Engineer for these impoundments, I am required to annually inspect the stability and functionality of the impoundments. One of the recommendations in my report was

"The slope stability analysis of the large impoundment should be updated this year because of the substantial rise in the saturated zone within the tailings"

Subsequent to that report, you requested that I perform the recommended stability analysis. That analysis has been completed, and this letter reports the results. Stability analysis was performed on cross-sections of the north and south slopes of the impoundment. The analyzed cross-sections are north-south lines that intercept piezometers CN1 and CS1 on the north and south slopes, respectively (Figure 1).

The computer code SLIDE was used to perform the analysis of each slope. Input parameters included the tailing and cover properties used in the tailing closure design contained in *Reclamation Plan, Homestake Mining Company of California Grants Operation, 10/93, Vol. 1 and 2.* The computer models were run with a seismic coefficient of 0.1, representing the worst-case load that would be imposed by the design earthquake with a peak ground acceleration of 0.1g. The model also included a phreatic surface at the base of the radon barrier below the most recently measured piezometric elevations in CN1 and CS1, as depicted in the attached figures.

The potential failure surface limits were set to search 1) potential global failure surfaces throughout the entire length of slope as well as above the top and below the toe of the slope (Figure 2 and 3) and 2) shallower potential failure surfaces within the slope (Figures 4 and 5). The attached figures display the potential failure surface with the lowest factors of safety, rounded to the nearest tenth, against rotational failure in each slope analysis. The lowest factors of safety for the north slope section are 2.0 and 2.3 for deep-seated global slope failure and for shallower failures within the slope,

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respectively. The lowest factors of safety for the south slope section are 1.8 and 2.1 for deep-seated global slope failure and for shallower failures within the slope, respectively. All of these factors of safety are well above the minimum required value of 1.0.

The results of the slope stability analysis indicate that the rise in phreatic levels associated with the tailing flushing program has not reduced the stability of the slopes, as predicted by the SLIDE stability modeling, at these locations below factors of safety consistent with license conditions and closure design.

This stability analysis did not address the potential for seeps of tailing water to the surface of the slopes. Such seeps can occur if the phreatic levels intercept the slope surface and should be avoided by limiting injection of water in wells close to the impoundment slopes.

Please contact me if you have any questions regarding the slope stability analysis.

Respectfully submitted,
KLEINFELDER WEST, INC.

Alan K. Kuhn, Ph.D., P.E., R.G.
Senior Principal Consultant

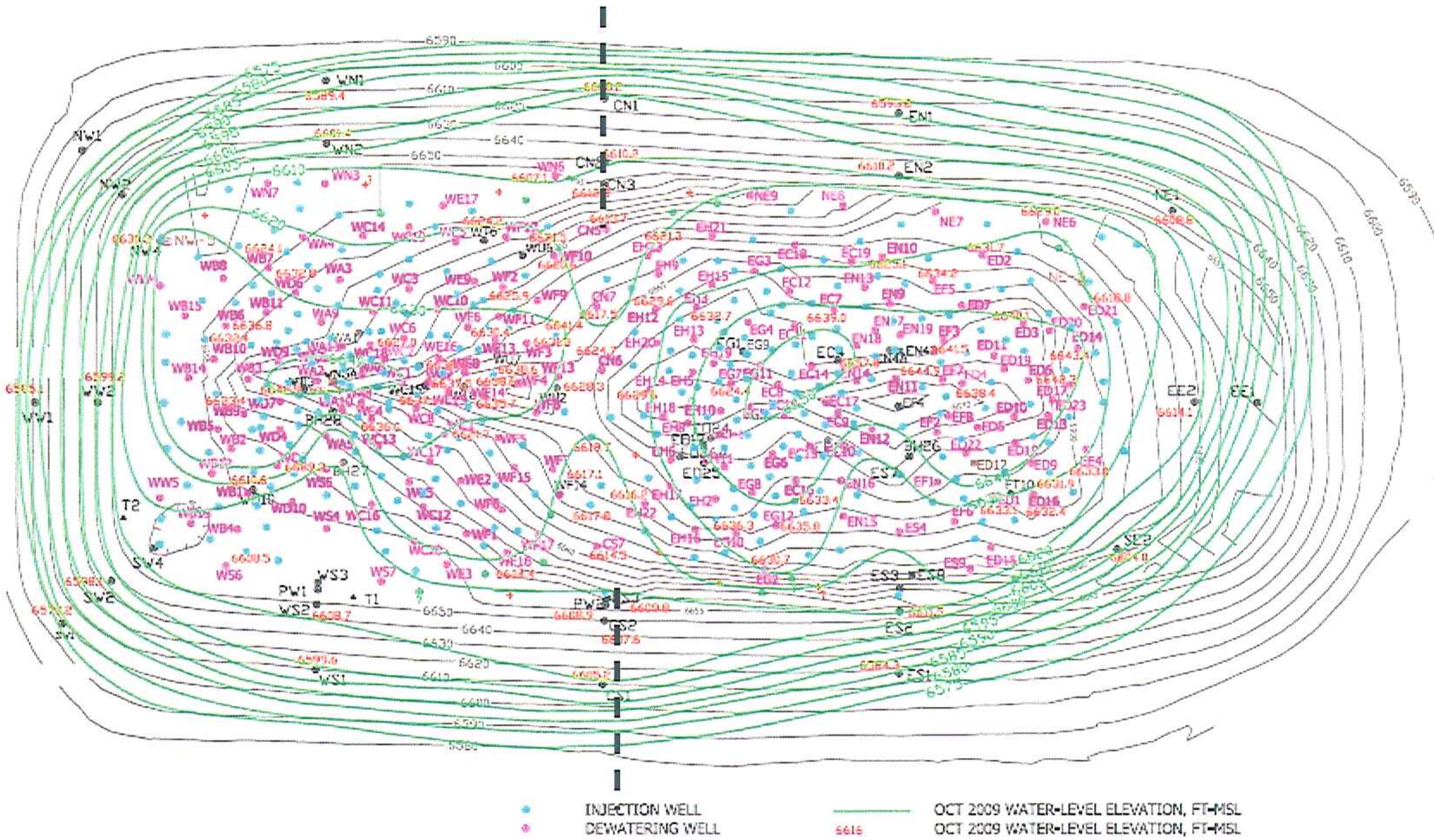

Figure 1 – Locations of CN1 and CS1 Cross-sections of Large Tailing Impoundment

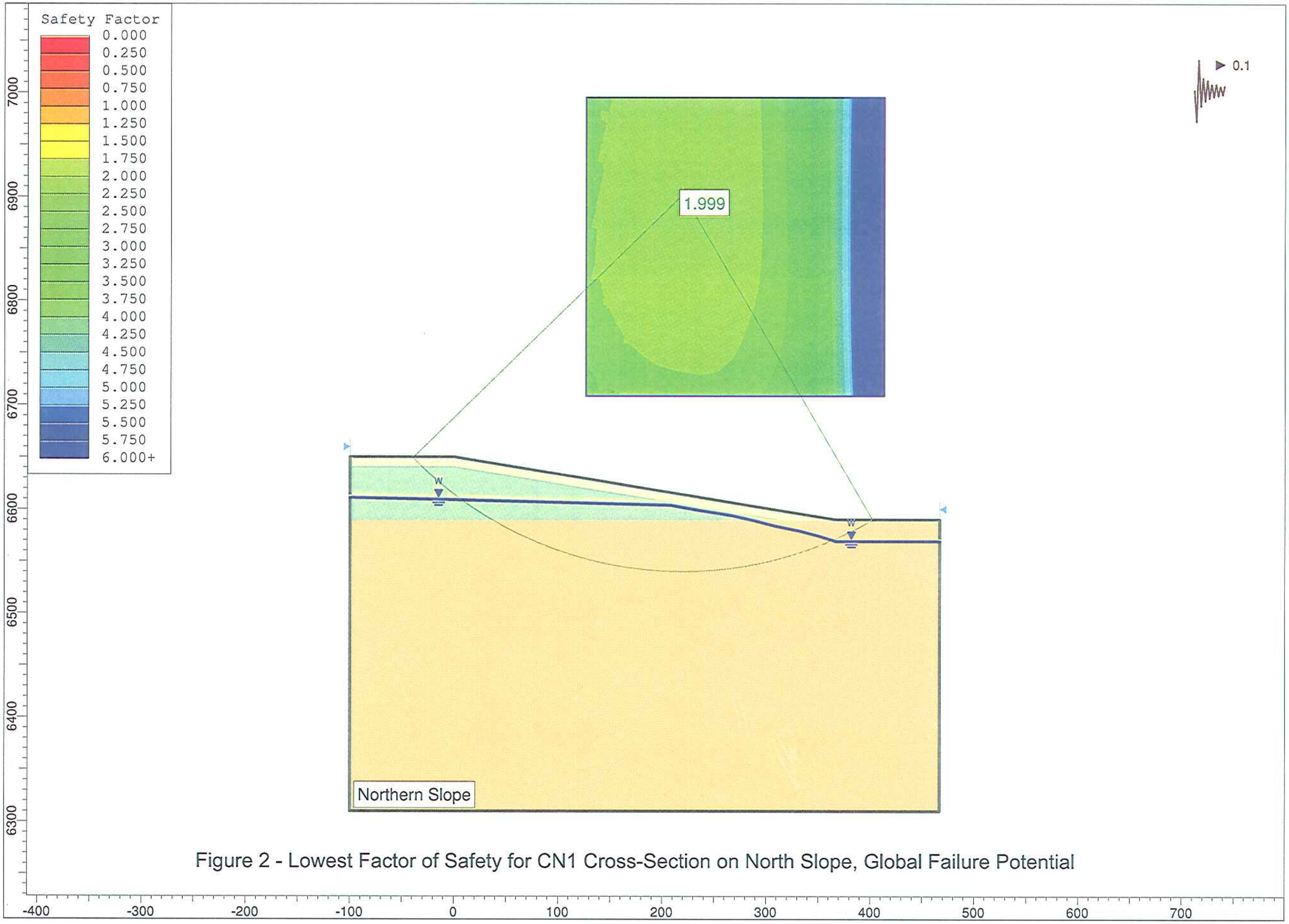

Figure 2 - Lowest Factor of Safety for CN1 Cross-Section on North Slope, Global Failure Potential

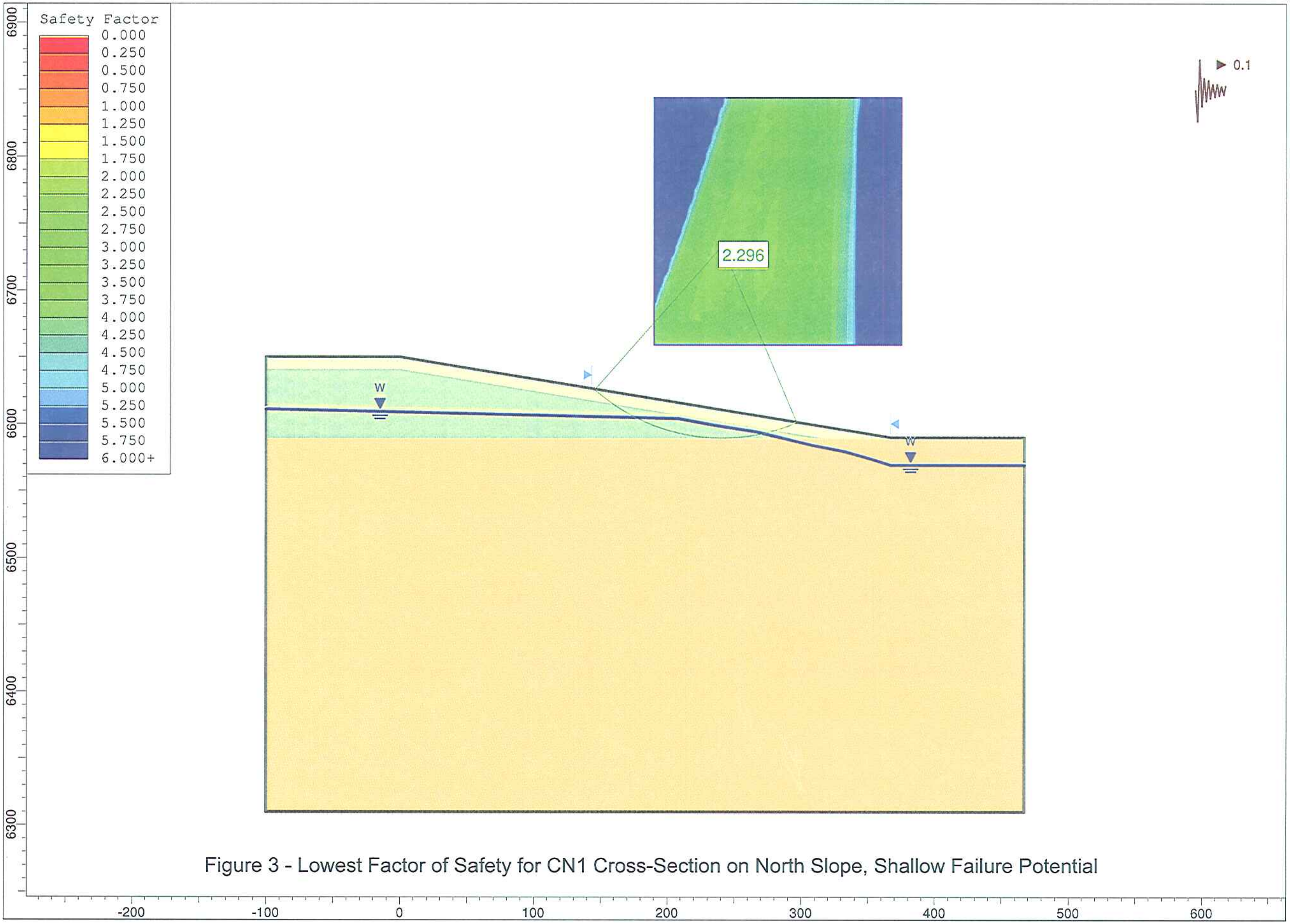

Figure 3 - Lowest Factor of Safety for CN1 Cross-Section on North Slope, Shallow Failure Potential

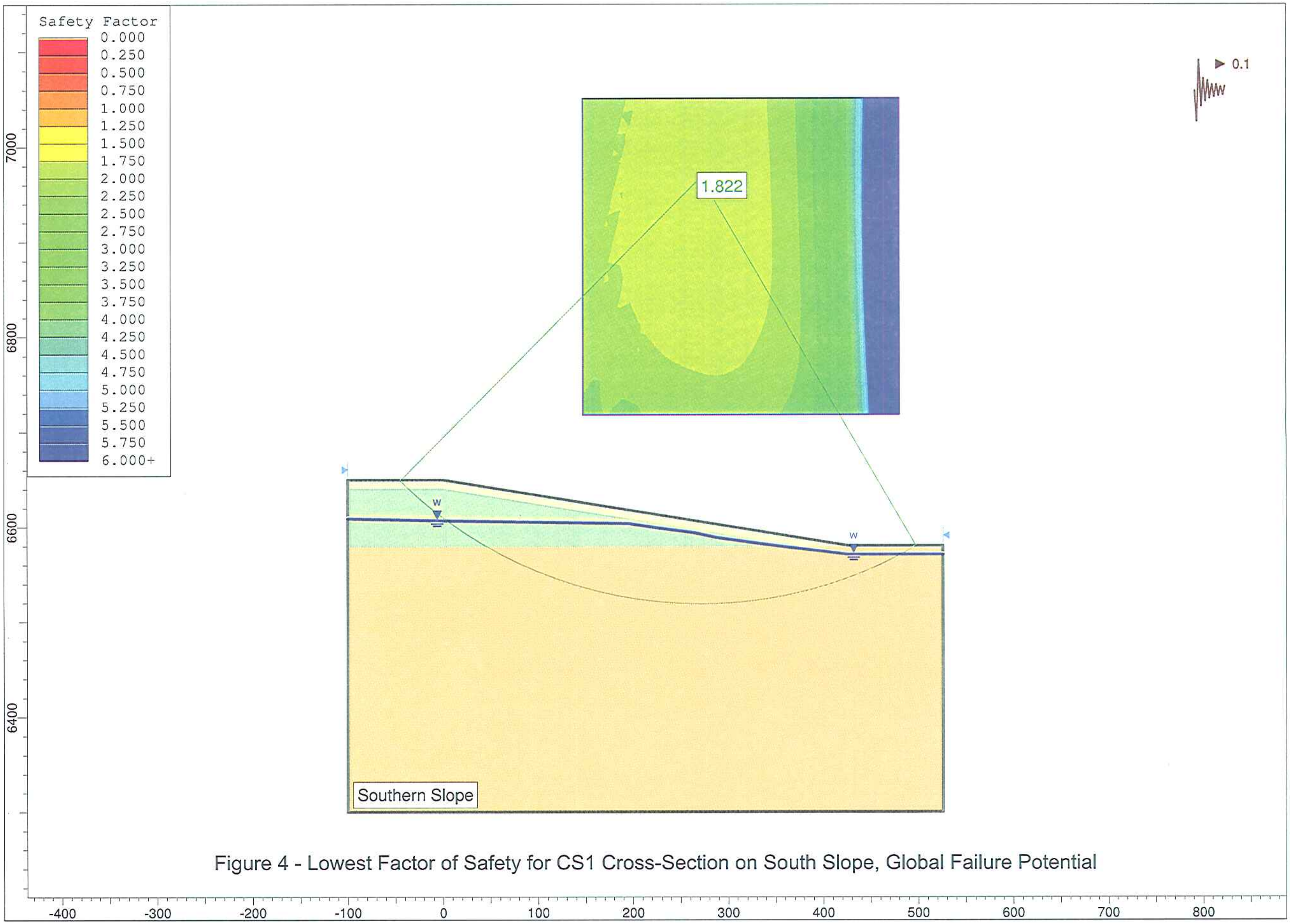

Figure 4 - Lowest Factor of Safety for CS1 Cross-Section on South Slope, Global Failure Potential

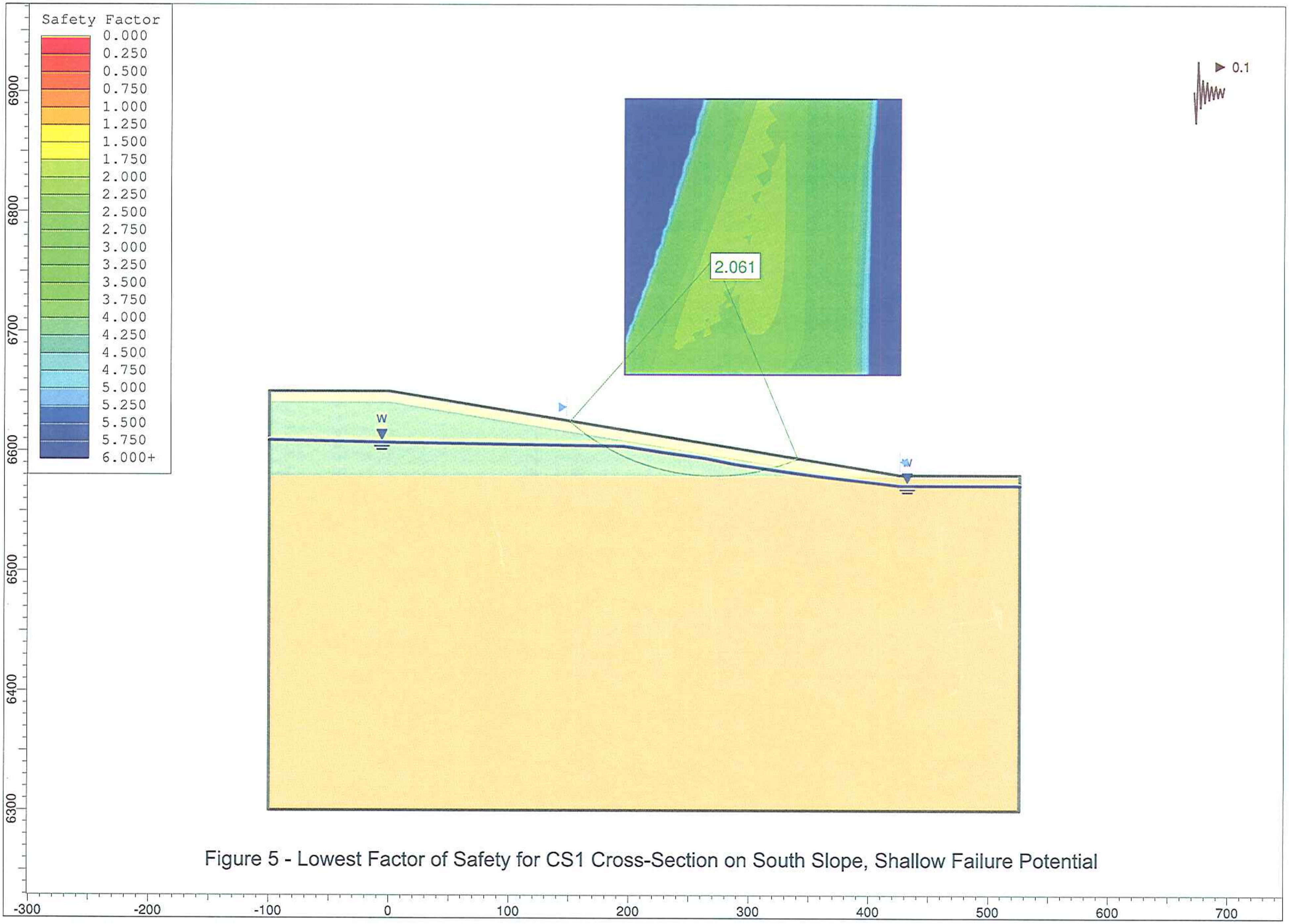

Figure 5 - Lowest Factor of Safety for CS1 Cross-Section on South Slope, Shallow Failure Potential