## 8. Conclusions

After conducting laboratory mechanical tests on all samples thermally treated and compare the results before and after thermal treatment it can be conclude the following:

1. Capability of tensile strength has been improved due reducing the size of the granules, which led to increased grain boundaries.
2. Increasing in fatigue life of the thermally treated alloy
3. The appearance of roughness on the surface treated thermally, which led in increasing the friction in addition to the deposition of carbides toward the surface which contributed emerging a coherent surface layer resulting in an increase in the rate of wear
4. Exciting excess in fatigue cycles because of the metaphase changes for the basis of the alloy.

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