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Case Study

INVALIDATION SEARCH

WELLBORE PLUGGING TOOL STRING

Given our reputation and expertise in invalidation search, the client approached us to invalidate a patent in the specific field of wellbore plugging. The subject patent claims a unique tool designed for the purpose of plugging abandoned wells. The tool string used for the abandonment of the well had three main elements: (a) a cementing tool, (b) a casing cutter, and (c) a spear.

Challenges Faced:

Our IP experts understood the task and performed an invalidation search to collect evidence to uncover any prior art that might challenge the novelty or non-obviousness of the tool claimed in the patent. During our invalidation search, we faced the following challenges:

- The main restriction was that the casing cutter was situated between the cementing tool and the spear, constituting an arrangement of the tools on the tool string. This particular arrangement was also challenging to locate.
- The cementing tool was situated at least partially within the cement before moving the tool up in the wellbore for casing cutting.
- We did not find any promising prior art disclosing all three elements in itself.

info@wissenresearch.com
www.wissenresearch.com

Invalidation Search Summary

- Upon receiving an invalidation search request from the client, we performed a search aimed to uncover prior art disclosing all elements claimed.

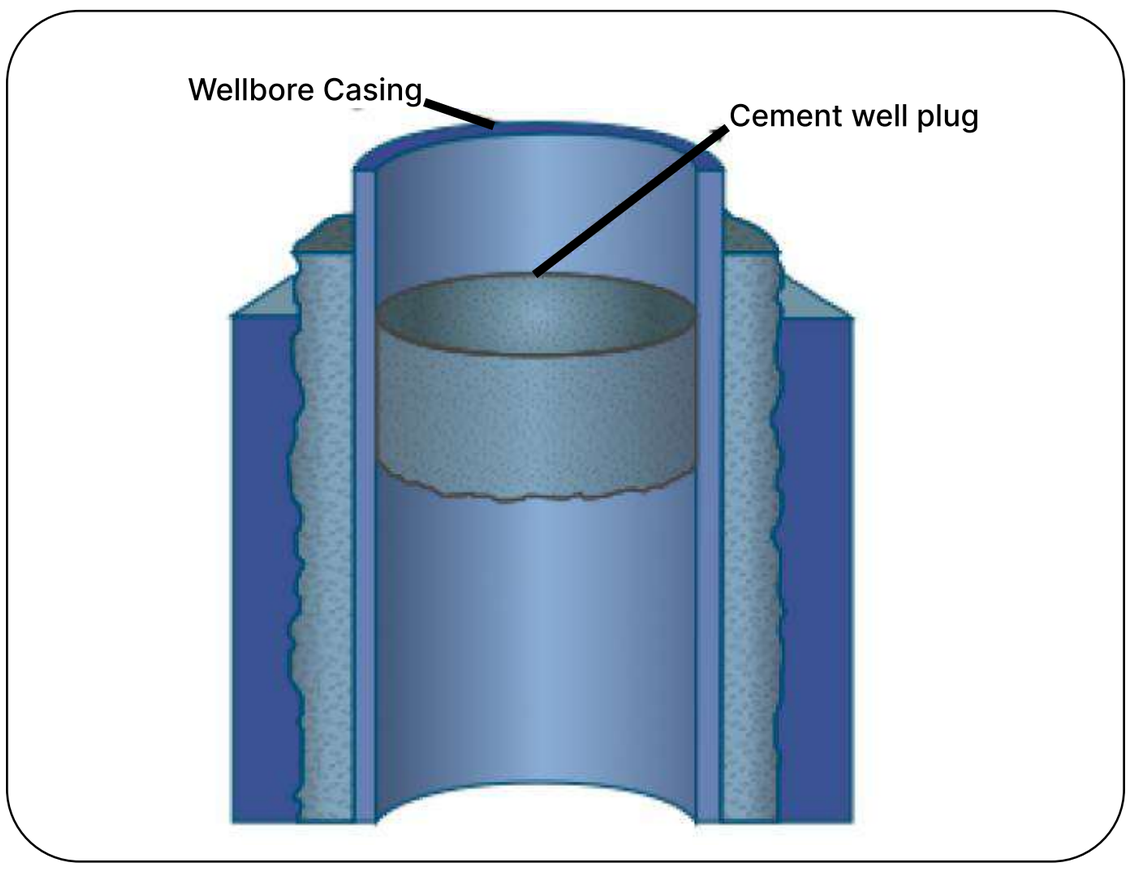
- Initially, we identified some of the prior arts associated with cementing tools featuring cutting strings only, and some other prior arts related to tool strings incorporating a cementing tool.

- However, we were unable to uncover any promising prior art disclosing all elements in itself i.e. a tool string comprising a cementing tool, casing cutter, and spear, wherein the casing cutter was situated between the cementing tool and the spear.

- We discussed our initial findings in a virtual meeting with the client, he suggested focusing on the key manufacturers that are engaged in the development of tools for well abandonment and plugging. We shifted our attention towards identifying products and patents associated with these manufacturers.

- After an in-depth analysis, we found a promising lead for the search. This provided us with two references disclosing all claim elements i.e. a tool string comprising a cementing tool, casing cutter, and spear, wherein the casing cutter was situated between the cementing tool and the spear. By using these references, we successfully invalidated the subject claims comprehensively.

- The findings were mapped in the report and presented to the client. The client appreciated our work and provided us a positive feedback. The team was elated upon receiving the feedback from the client, which was a testament to the hard work and dedication put into the project.



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Conclusion

- This invalidation search project proved to be one of our toughest challenges, from which we learned a lot.
- The synthesis of these diverse findings formed the basis to build a compelling case for invalidation on behalf of the client.
- The comprehensive approach to patent analysis involves a meticulous and targeted search process that considers all relevant prior art to provide a thorough and accurate assessment of a patent's validity.
- By getting the identified prior arts, we were able to construct a compelling case that effectively invalidated the novelty and non-obviousness of the claimed invention.

Pro Tip

When conducting an invalidation search for wellbore plugging technology, we should adopt a comprehensive approach by exploring diverse sources of prior arts. Instead of relying solely on traditional patent databases, we should also consider mining technical literature, industry publications, conference proceedings, and products related to the companies active in the particular field. Additionally, we should leverage the insights from experts in the particular field who might have published/ unpublished knowledge.

Expert

She holds a degree in Mechanical Engineering and 4.5 years of expertise in patent research. Her specialized areas include aviation, turbine technology, and the automotive industry. She has successfully completed projects in novelty/ patentability search, invalidation search, freedom-to-operate search, state-of-the-art search, landscape analysis, and portfolio analysis.