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[Continued on next page]

- (54) Title:** SMALL CORE GENERATION AND ANALYSIS AT-BIT AS LWD TOOL

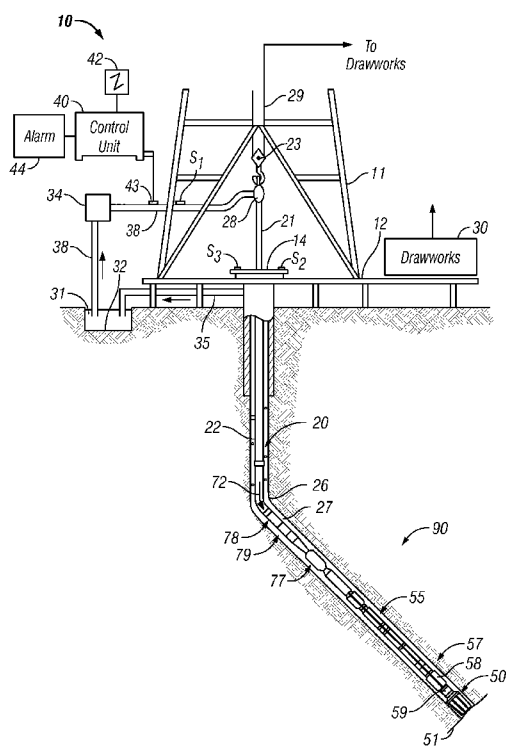


FIG. 1

- (57) Abstract:** The present disclosure is related to an apparatus for taking a sample in a wellbore during drilling operations. The apparatus may include a drill bit configured to form a core and at least one retractable cutter internal to the drill bit for taking the sample from the core. The apparatus may also include equipment for analyzing the sample, extracting fluid from the sample, testing fluid from the sample, encapsulating the sample, and/or tagging the sample. The present disclosure is also related to a method for taking a core sample without interrupting drilling operations. The method includes taking a core sample using a drill bit configured to take a core sample using internal cutters. The method may also include analyzing the sample, extracting fluid from the sample, analyzing fluid from the sample, encapsulating the sample, and/or tagging the sample.



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