

APPENDIX C

Patents Resulting From Activities Supported by the National Science Foundation

The Foundation, since its last annual report, has received notification of the issuance of the following eight patents by the U.S. Patent Office covering inventions arising out of Foundation-supported activities. Seven of these patents derived from the contract with Brown & Root, Inc., for work on Project Mohole, and one resulted from a grant to Washington University. Title to the seven inventions developed under the Brown & Root contract is in the U.S. Government, and the Government has a non-exclusive, irrevocable, nontransferable, royalty-free, worldwide license in the other patent.

Patent No. 3,344,872 entitled "Apparatus for Indicating the Length of Core in a Core Barrel" was issued on October 3, 1967, on an invention made by Reuben A. Bergan during the course of work performed under NSF-C260 with Brown & Root, Inc. This invention relates to apparatus for indicating at the surface the length of core in a core barrel as the core is being cut from a subterranean formation.

Patent No. 3,349,856 entitled "Bumper Sub Position Indicator" was issued on October 31, 1967, on an invention made by Vernon C. H. Richardson during the course of work performed under NSF-C260 with Brown & Root, Inc. This invention relates generally to apparatus for providing a surface indication when the two telescoping sections of a bumper sub located in a string of drill pipe are in a preselected position relative to each other.

Patent No. 3,359,782 entitled "Well Bore Inclinometer Apparatus" was issued on December 26, 1967, on an invention made by Luong Van Bey during the course of work performed under NSF-C260 with Brown & Root, Inc. This invention relates to apparatus for measuring the inclination from the vertical of a well bore.

Patent No. 3,365,081 entitled "Pipe Elevator and Positioning Apparatus Therefor" was issued on January 23, 1968, on an invention made by Archie R. McLerran during the course of work performed under NSF-C260 with Brown & Root, Inc. This invention relates to apparatus which guides and positions a pipe elevator for receiving pipe from either a horizontal pipe rack or a well bore.

Patent No. 3,367,422 entitled "Bumper Sub Position Indicator" was issued on February 6, 1968, on an invention made by Darrell L. Sims during the course of work performed under NSF-C260 with Brown & Root, Inc. This invention relates generally to apparatus for providing a surface indication when the two telescoping sections of a bumper sub located in a string of drill pipe are in a preselected position relative to each other.

Patent No. 3,373,827 entitled "Apparatus for Coring Subterranean Formations Under a Body of Water" was issued on March 19, 1968, on an invention made by Jules N. Biron, Durward B. Jones and Darrell L. Sims during the course of work performed under NSF-C260 with Brown & Root, Inc. This invention relates generally

to apparatus for obtaining cores of subterranean formations below a body of water, and, in particular, to such apparatus that is lowered to the bottom on a flexible line or cable.

Patent No. 3,379,867 entitled "Electronic Network Synthesis of Mathematical Matric Equations" was issued on April 23, 1968, on an invention made by Pierre M. Honnell during the course of research supported by a grant to Washington University, University City, Mo. This invention relates to electronic devices for the synthesis of matric calculus equations.

Patent No. 3,383,122 entitled "Angular Breakaway Pipe Joint" was issued on May 14, 1968, on an invention made by Vernon C. H. Richardson during the course of work performed under NSF-C260 with Brown & Root, Inc. This invention relates generally to a joint for connecting together two pipe sections, and in particular to such a joint that will release the connection when the pipe sections are misaligned a predetermined amount.