The wireline coring system collects core in a steel inner tube that is "latched" inside an outer core barrel attached to rotating, advancing drill pipe. Core samples are typically collected continuously at 5′ intervals as drilling progresses. After each coring "run", the inner barrel is lifted to the surface by a retrieval device connected to a steel wireline cable. The wireline retrieval method greatly improves production rates compared to sonic drilling by not requiring the removal of the entire downhole tooling assembly for each core sample.

Primarily used for alluvial coring applications, the wireline coring system excels where site conditions, boring depths or geologic formations exclude the use of direct push/geoprobe, sonic, hollow stem auger or other commonly used coring methods. The tooling and bit configurations can also be adapted to collect HQ hard rock core samples, or to "drill-ahead" in rotary fashion when core sampling is not required.

Boring depths are limited by the rotational torque and/or hoisting pullback capabilities of the drilling rig. Depths to 1000′ are commonly reached using readily available equipment. The coring system is readily adapted to operate with many types of drilling rigs including CME manufactured rotary and hollow stem auger drilling rigs.

WIRELINE CORING

The coring method is particularly effective when high recovery core samples are desired to depths far exceeding the capabilities of sonic, direct push or hollow stem auger. Drill cuttings are removed from borings by the flushing action of drilling fluid or filtered compressed air, with fluid circulation being the preferred method of cuttings removal and boring stabilization. The capability to use drilling fluid as a circulation medium can eliminate difficulties caused by heaving, flowing sand or artesian geologic conditions.