

"PRELIMINARY EXPERIMENTS IN THE USE OF SMALL EXPLOSIVE CHARGES TO DEVELOP UNIDIRECTIONAL FORCES FOR SEISMIC PURPOSES"

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ABSTRACT

The use of explosive charges for generating seismic energy has been around for a long time. For oil-field work or crustal studies, when the target of interest is many thousands of feet deep, the surface waves and similar phenomena are of little consequence. In mining applications, however, when the target is a few tens or hundreds of feet deep, the return signals are often masked by these waves and an accurate interpretation is difficult or impossible.

Some of the experimental work conducted by our geophysical group during the past few years has been directed towards mitigating the undesirable aspects of explosive charges while enhancing the directionality of the force.

This paper describes some of the methods which have been tried and reports on their relative effectiveness.