

PLANE-WAVE ANALYSIS OF FREE-REMOVAL BY ITERATIVE SUBTRACTIONND

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ABSTRACT

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For a horizontally layered medium in the absence and **forward models of the pressure responses in terms of plane waves.** free-surface multiples to exist. Without any information about

predicted amplitudes of the free-surface multiples of order n . The free-surface multiple is predicted with unit amplitude strength. In multiples are predicted with amplitudes increasing with order. up to order n to the measured data cancels all free-surface the resulting data free-surface multiples of order greater than n those in the measured data. The free-surface multiple of order n with negative polarity. strength

KEY WORDS: multiple suppression, seismic model, inversion, iterative prediction and subtraction.

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INTRODUCTION

During the last two decades, a considerable effort problem of attenuating multiples related to the sea surface, reflector for all upgoing energy. **Surface multiples** are one downward reflection from the sea surface. Their order number of bounces at the free surface. In general, the n th multiple has n downward reflections. One wave equation multiple removal algorithm that has received much predict and then subtract free-surface multiples from the (1979), Berkhout (1982), Verschuur et al. (1992), (1990), Carvalho et al. (1992), Weglein et al. (1997), Lokshtanov (1999), and Ziolkowski et al. (1999)]. accomplished with no information about the medium