Figure ( ) ... abstract

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RETRIEVABLE WELL PACKER

ABSTRACT

A retrievable packer for service at high temperatures and pressures has sealing provided by a seal element prop surface (56) of larger diameter than the seal element support surface (48) of a body mandrel (34). At least one element (30A) of a seal assembly (30) is supported on the prop surface and is subjected to a radial squeeze in the set configuration, even though a lowermost seal element (30C) may be subject to longitudinal separation. The split level support arrangement provides an annular pocket (62) into which the elements can be retracted upon release of the packer, thereby providing clearance for retrieval. In releasing the packer, a retainer collar (68) is shifted away from a metal backup shoe (64), thereby providing an annular pocket into which the shoe is deflected, so that it does not obstruct the drift clearance during retrieval. The seal element assembly is preloaded by a cover sleeve (50) which releases when a predetermined compression has been achieved. The controlled preloading of the seal elements assists movement of the elements to the larger diameter prop surface, and the seal elements are forced to expand into the annulus uniformly to prevent the formation of uneven extrusion gaps.

(Fig. 1)

This Sheet Has Been Replaced

