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## **VSP for Salt Flank Delineation**

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### **Abstract**

Vertical Seismic Profiles (VSPs) are usually acquired using down-hole tools and active sources at the surface. Most commonly they supply well depth tie and higher resolution reflection images than surface seismic close to the receiver borehole. Accurate salt flank delineation is essential for oil and gas, solution mining and cavern storage operations. Two main methods for VSP salt flank delineation are reviewed here from pre-survey planning, through acquisition to processing, with an emphasis on planning and acquisition. VSP is not a full solution for salt flank delineation but in some cases VSPs can provide salt edge information hidden from surface seismic datasets. If the salt dome shape and available boreholes allow, VSPs can provide a localized high resolution image of the salt flank and thus augment other geophysical methods such as surface seismic.

**Key words:** Borehole Seismic Profile, Geophysics, Salt Domes, Seismic, Vertical Seismic Profile, VSP

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