

Exploration Strategies in the Cook Inlet Basin, Alaska

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Relative to other hydrocarbon producing basins in North America the Cook Inlet Basin is underexplored. Although it contains several giant oil and gas fields, the basin has not been thoroughly evaluated. The estimated ultimate recovery from existing Cook Inlet gas fields is approximately 8.5 TCF, whereas a total of 35 TCF OGIP is postulated to exist. These resources are expected to be distributed in yet-to-be-found fields ranging in size from 100 BCF to 1TCF. Finding them will require more drilling, creative explorers, access to promising acreage, re-evaluation of existing data and acquisition of new data, mainly seismic. Cook Inlet exploration strategies have historically included surface and subsurface mapping to locate giant anticlines and structural highs, dryhole re-evaluation and application of new technology. While these strategies may still work, new ideas, new play types and fresh exploration thinking is needed. Data from producing and non-producing wells in the Cook Inlet point the way forward. Dry holes are teachers. Exploration strategies today need greater emphasis on play types that have not yet been tested. Hydrocarbon bearing stratigraphic traps, unconformity traps and subtle anomalies need to be discovered and the production potential of shale needs to be understood.