## The Fracking Patent Landscape

Visualization of the top 965 patents, of 32,719 , and their inter-relationships based on citation similarity.
We identified three high level technology areas, key connections between these areas, as well as leading patent owners.
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B. Liquefaction of hydrocarbons,1991
A. Stabilization,1996
C. Viscosity Control,1991

1 HALLIBURTON (incl. BAKER HUGHES) 2 SCHLUMBERGER EXXONMOBIL DOW CHEMICAL

Patents owned by other organisations
Size of patents indicates the overall as well as local dominance of the patent
Relationships reflect direct citation relationships between patent A and patent B. The stronger the line between two patents, the more of the same third patents ( $C, D, E, e t c$.) both reference.

