

Figure 9-20: Chevron Jack/St. Malo cost profile

announcement, its subsea boosting system is ranked as the industry's largest seafloor boosting system, increasing power by 10% over the previous industry maximum and able to withstand 13,000 Psi of pressure. A single-trip multi-zone completion design is able to capture more layers of reservoir in significantly less time, saving \$25MM per well based on rig time operating costs. A 140-mile, 24-inch oil export pipeline marks the first large diameter, ultra-deep water pipeline in the Walker Ridge area of Lower Tertiary trend. Figure 9-20 shows that of the total \$12 billion estimated project cost, 60% will be spent on drilling and completion of subsea wells (each costing about \$240MM per well, which is a typical well cost for Lower Tertiary HPHT wells). A cost of \$1.5 billion is estimated for the semisubmersible platform. A \$2.5 billion subsea system cost is comprised of 4 subsea clusters, 3 flowlines connecting clusters to risers, 2 flexible risers reaching the platform, 6 water injection subsea manifolds, and one subsea pump. A HPHT resistant subsea pump costs around \$300MM.

D. Detail cost components and cost driver analysis

Drilling and Completion Cost

There are four major categories of deep water drilling and completion cost: (1) installation or rig and related cost; (2) materials such as casing and tubing; (3) equipment such as wellhead equipment (i.e. Christmas tree); and (4) insurance. Because deep water drilling requires a floating drilling rig, (i.e. semisubmersible or drillship) to perform the drilling operation, the day rate could be over \$500,000 during a period when demand is high. It is not surprising that the rig and its related cost could account for 89% of the total D&C cost (Figure 9-21).

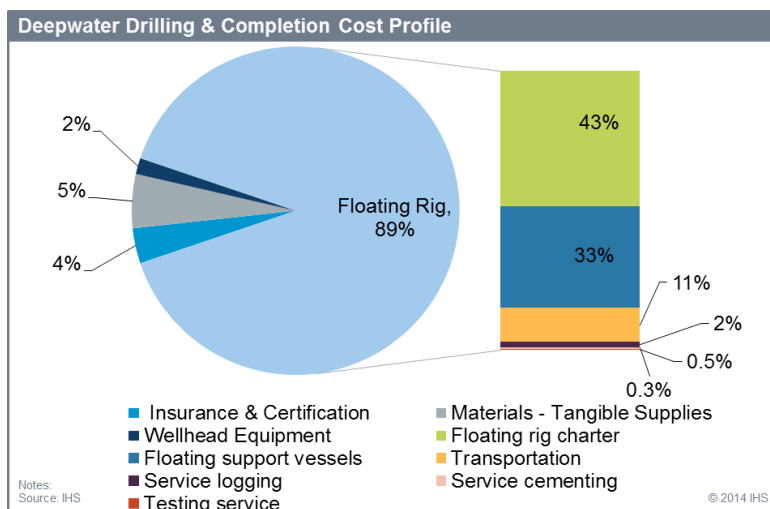


Figure 9-21: Drilling and completion cost component