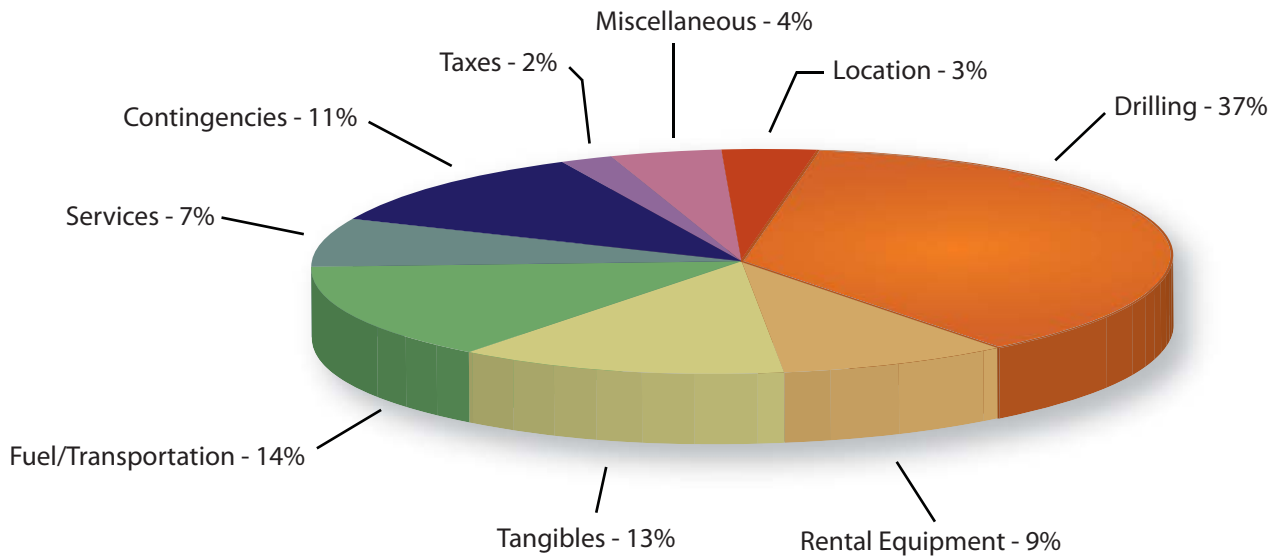


# AFE Cost Breakdown

The Authority for Expenditure (AFE) is a line item breakdown which encompasses the costs for the drilling operations of an exploration project. Below are the summarized breakdowns of a typical project.



## Drilling - 37%

Drilling costs cover payments to drilling contractors for providing the drilling rig and personnel to conduct the drilling operations. Rig rates tend to be very dynamic and localized, dependent primarily on utilization rates. Historically, drilling utilization rates follow oil and natural gas prices closely. At current product prices utilization rates are very high and are approaching 100%. During the past 4-5 years, drilling day rates have doubled. In some cases they have quadrupled, depending on the area and type of rig.

*Examples: Fuel to power the drilling rig (diesel engines), labor and insurance for crews, replacement parts (steel, parts, etc.).*

## Location - 3%

Location costs cover payments to contractors for constructing the surface site for the drilling operations. Dependent on local conditions, this can be as simple as leveling and clearing the site and adding a base aggregate foundation for the drilling equipment. These costs tend to be highly variable dependent on the weather, terrain and soil conditions at the location.

*Examples: Cost of fuel to run equipment to build the location, cost of aggregate and materials, surface damages paid due to increased land costs, cost of steel for entrance to location, etc.*

## Miscellaneous - 4%

This is a catch-all category which often includes blow-out and liability insurance, quarters for the crews, communications, legal services, permits, and on site engineering supervision.

*Examples: Cost of insurance premiums, legal costs (increased), labor and management costs.*

## Taxes - 2%

Tangibles and services are taxed by the states, local, and federal governments.

*Note: Slight increase in tax rates over the last few years due to an overall increase in rig expenses.*

## Contingencies - 11%

Unforeseen conditions, situations or circumstances that may arise during the exploration process. These include, but are not limited to hole instability, well control, weather, stuck drillstrings, mechanical problems, and hard abrasive formations. Typically these risks are taken into account by applying a contingency factor to the intangible cost. This factor usually ranges from 10% to 50% of the costs, dependent upon the perceived risk profile.

*Notes: Includes overall percentage of cost of drilling, less experienced crews make for more mistakes, deeper wells and less favorable locations factor in higher costs.*

## Services - 7%

Service expenses are for specialized equipment and services not provided by the drilling contractor that are necessary to get the well drilled. These are such items as drilling bits, drilling mud, cementing services, logging, casing crews and other specialized items. These cost track general inflation trends.

*Notes: Third party vendor services have increased in demand which has in turn, raised bid prices and has shortened supplies of needed equipment, labor costs have increased base prices.*

% Indicates the percentage of the AFE cost for the example well as it relates to each category.

### ■ Fuel/Transportation - 14%

These are costs for diesel fuel to run the rig and trucking charges to move the rig and associated equipment on and off the location. These costs have increased with the current increasing energy costs.

*Notes: Drilling rigs and vehicles used in the process are affected by the same increasing price of diesel as daily consumers, all associated costs with fuel have risen along with oil and gas prices.*

### ■ Tangibles - 13%

These items are for casing and tubing to equip the well and surface production equipment. The items track the cost of steel which has doubled in the past three years.

*Notes: Steel prices have sky rocketed, therefore also increasing pipe prices. Manufacturing is at full capacity which also stimulates the increase in equipment prices.*

### ■ Rental Equipment - 9%

These costs are for equipment not normally included with the drilling rig such as mud processing equipment, monitoring equipment, forklifts, pumps, etc.

*Notes: Transport costs to and from location, third party vendor prices have risen, demand for equipment has increased prices.*

*Summaries are for illustrative purposes and may vary substantially from what has been provided.*

*% Indicates the percentage of the AFE cost for the example well as it relates to each category.*

