Glossary of Terms

The following are abbreviations and definitions of terms commonly used in the oil and gas industry and this website.

1P: Proved reserves only

2P: Proved and probable reserves

3P: Proved, probable and possible reserves

Abandonment of a well (also known as Plug & Abandonment or P&A): When a well is depleted of economically recoverable oil and/or gas, a permanent plug is set to seal the bottom of the well. A report is then filed with the governing authority.

Bbl : One barrel of crude oil or NGL or 42 gallons of liquid volume.

Bcf: One billion cubic feet of natural gas volume.

Bcfe: One billion cubic feet of natural gas equivalent.

Boe: Barrel(s) of oil equivalent - Converting gas volumes to the oil equivalent, usually calculated at 1.0 boe = 6.0 mcf

Btu: British thermal unit. One British thermal unit is the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit.

Completion: Refers to the work performed and the installation of permanent equipment for the production of natural gas and crude oil from a recently drilled well.

Casing: Pipe cemented in the well to seal off formation fluids or keep the hole from caving in.

Condensate: Hydrocarbons which are in the gaseous state under reservoir conditions and which become liquid when temperature or pressure is reduced. A mixture of pentanes and higher hydrocarbons.

Coring: Taking rock samples from a well by means of a special tool -- a "core barrel".

Development well: A well drilled in a field or reservoir with proven hydrocarbons to further the recovery of those hydrocarbons.

EBITDA: Earnings before interest, taxes, depreciation and amortization is financial measure commonly used to assess a company's financial performance.

E&P: Exploration and Production

EUR: Estimated Ultimate Recovery is an approximation of the quantity of oil or gas that is potentially recoverable or has already been recovered from a reserve or well.

Exploratory well: A well drilled to find a new field or to find a new reservoir in a field previously found to be productive of oil or gas in another reservoir.

F&D: Finding and development costs or costs incurred when a company purchases, researches and develops properties in an effort to establish oil and gas reserves and production.

Farm-in: An arrangement whereby an Operator buys in or acquires an interest in a lease owned by another Operator on which oil or gas has been discovered or is being produced. Often farm-ins are negotiated to help the original owner with development costs and to secure for the buyer a source of crude oil or natural gas.

FDM: Freedom Oil & Gas or the Company, and also Freedom Oil & Gas's stock trading symbol on the Australian Stock Exchange.

Field: A geographical area under which an oil or gas reservoir lies.

Fracture, fractionate or fracturing (fracing): Procedure to stimulate production by forcing a mixture of fluid and proppant into the formation under high pressure. Fracturing creates artificial fractures in the reservoir rock to increase permeability and porosity, thereby allowing the release of trapped hydrocarbons.

HBP: Held by production – reference to the status of an oil and gas lease. A lease held by production does not expire will it is producing.

Horizontal drilling: A drilling technique that permits the operator to drill a horizontal well shaft from the bottom of a vertical well and thereby to contact and intersect a larger portion of the producing horizon than conventional vertical drilling techniques and may, depending on the horizon, result in increased production rates and greater ultimate recoveries of hydrocarbons.

Hydrocarbon: An organic chemical compound containing only a hydrogen and carbon atom. These compounds form the basis of all petroleum products. Hydrocarbons can be liquid, solid, or gaseous.

Lease (oil and gas): An agreement between parties to allow a Lessee (the oil and gas company and their production crew) to have access to the property and minerals (oil and gas) on the property of the Lessor. The lease agreement is a legal contract of terms.

LOE (Lease operating expenses): The costs of maintaining and operating property and equipment on a producing oil and gas lease.

MBbls: One thousand barrels of crude oil.

MBoe: One thousand barrels of oil equivalent.

Mcf: One thousand cubic feet of natural gas volume.

MMBoe: One million barrels of oil equivalent.

MMcf: One million cubic feet of natural gas volume.

Natural gas liquid(s) or NGL(s): Hydrocarbons which can be extracted from wet natural gas and become liquid under various combinations of increasing pressure and lower temperature. NGLs include ethane, propane, butane, and other natural gasolines.

Net production: Natural gas and crude oil production that is owned, less royalties and production due to others.

Oil: Crude oil or condensate.

Offset acreage: Acreage adjacent to or very nearby Freedom Oil & Gas's acreage that is held by another operator.

Operator: The individual or company responsible for the exploration, development and/or production of an oil or gas well or lease.

Pilot Hole: A vertical well that is drilled through the entire Eagle Ford and Buda layers to insure calibration & gather geologic information, and is normally not used for production. The pilot hole is usually abandoned and the well converted to a horizontal well after extensive logging, coring or other data gathering in the vertical portion is complete.

Payzone: Rock in which oil and gas are found in exploitable quantities.

Permeability: The property of a formation which quantifies the flow of a fluid through the pore spaces and into the wellbore.

Play: A term used to describe an accumulation of hydrocarbons that is being developed by the oil and gas industry.

Porosity: The percentage of void in a porous rock compared to the solid formation.

Possible reserves: Those reserves which at present cannot be regarded as 'probable' but are estimated to have a significant but less than 50% chance of being technically and economically producible.

Prospect: A location where hydrocarbons such as oil and gas are believed to be present in quantities which are economically feasible to produce.

Probable reserves: Those reserves which are not yet proven but which are estimated to have a better than 50% chance of being technically and economically producible.

Proved developed reserves: The combination of proved developed producing and proved developed non-producing reserves.

Proved reserves: Those quantities of crude oil, natural gas, NGLs and condensate, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible—from a given date forward, from known reservoirs, and under existing conditions, operating methods, and government regulations—prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation.

Proved undeveloped reserves or PUDs: Proved reserves that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.

Proved reserves to production ratio: The ratio of proved developed reserves to total net production for the year ended December 31st, or other specified period.

Recomplete or recompletion: The modification of an existing well for the purpose of producing natural gas and crude oil from a different producing formation.

Refrac or refracture: A refrac is when we stimulate the present producing zone of a well to increase production, using hydraulic, acid, gravel, etc. fracture techniques.

Reserves: Estimated remaining quantities of crude oil, natural gas, NGLs and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. In addition, there must exist, or there must be a reasonable expectation that there will exist, the legal right to produce or a revenue interest in the production, installed means of delivering crude oil, natural gas, NGLs or related substances to market, and all permits and financing required to implement the project.

Reservoir: The underground formation where oil and gas has accumulated. It consists of a porous rock to hold the oil or gas, and a cap rock that prevents its escape.

Royalty: An interest in a natural gas and crude oil lease that gives the owner of the interest the right to receive a portion of the production from the leased acreage (or of the proceeds of the sale thereof), but generally does not require the owner to pay any portion of the costs of drilling or operating the wells on the leased acreage. Royalties may be either landowner's royalties, which are reserved by the owner of the leased acreage at the time the lease is granted, or overriding royalties, which are usually reserved by an owner of the leasehold in connection with a transfer to a subsequent owner.

SEC: The United States Securities and Exchange Commission.

Seismic data: A principal source of information to locate oil and natural gas deposits, both to aid in exploration for new deposits and to manage or enhance production from known reservoirs. To gather seismic data, an energy source is used to send sound waves into the subsurface strata. These waves are reflected back to the surface by underground formations, where they are detected by geophones which digitize and record the reflected waves. Computers are then used to process the raw data to develop an image of underground formations.

3-D Seismic data: Seismic data collected using a grid of energy sources, which are generally spread over several miles. A 3-D survey produces a three dimensional image of the subsurface geology by collecting seismic data along parallel lines and creating a cube of information that can be divided into various planes, thus improving visualization. Consequently, 3-D seismic data is generally considered a more reliable indicator of potential oil and natural gas reservoirs in the area evaluated.

Spudding or spud: The operation of drilling the first part of a new well or the act of beginning to drill a borehole, usually starting with driving a piece of large diameter pipe (casing) into the ground to guide the bit and protect the surface immediately surrounding the borehole.

Undeveloped acreage/properties: Leased acreage on which wells have not been drilled or completed to a point that would permit the production of commercial quantities of natural gas and crude oil, regardless of whether such acreage contains proved reserves.

Upstream: The oil and gas industry is usually divided into three major sectors: upstream, midstream and downstream. The upstream oil sector is also commonly known as the exploration and production (E&P) sector.

Wellhead: A component at the surface of an oil or gas well that provides the structural and pressure-containing interface for the drilling and production equipment.

Working interest: An interest in a natural gas and crude oil lease that gives the owner of the interest the right to drill and produce natural gas and crude oil on the leased acreage. It requires the owner to pay all of their share of the costs of drilling and production operations.

Workover: Remedial work to the equipment within a well, the well pipework, or relating to attempts to increase the rate of flow.

WTI: West Texas Intermediate – benchmark for U.S. crude oil pricing.