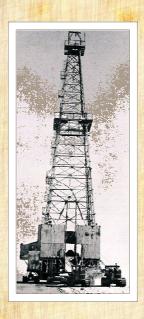


# Oil & Gas Investment Guide



A Reference to Commonly Used Oil Field Investment Terminology

**TerraFina Energy LLC** has prepared this guide to help you better understand the oil and gas industry and its unique language.

## Intangible Drilling Cost Tax Deduction

The intangible expenditures of drilling (services, labor, chemicals, mud, lease and rentals, etc.) are usually represent about (66 to 80%) of the cost of a well. These expenditures are considered Intangible Drilling Cost (IDC)', which is considered a "Tax Preference item' that Is 100% deductible during the first year. For example, a \$200,000 investment would yield up to \$180,000 in tax deductions during the first year of the venture. These deductions are available in the year the money was invested, even if the well does not start drilling until March 31 of the year following the contribution of capital. (See Section 263 of the Tax Code.)

#### Tangible Drilling Cost Tax Deduction

The total amount of the Investment allocated to the equipment 'Tangible Drilling Costs (TDC)" is 100% tax deductible. In the example above, the remaining tangible costs (\$20,000) may be deducted as depreciation over a five-year period. (See Section 263 of the Tax Code.)

#### Active vs. Passive Income

The Tax reform Act of I 986 Introduced Into the Tax Code consists of "Passive" Income and "Active" income. The Act prohibits the offsetting of losses from Passive activities against income from Active businesses. The Tax Code specifically states that a Working interest In an oil and gas well is not a "Passive" Activity, therefore, deductions can be offset against income from active stock trades, business income, salaries, etc. (See Section 469(c)(3) of the Tax Code).

Small Producers Tax Exemption The 1990 Tax Act provided some special tax advantages for small companies and individuals. This tax Incentive, known as the Percentage Depletion Allowance, is specifically intended to encourage participation In oil and gas drilling. This tax benefit is not available to large oil companies, retail petroleum marketers, or refiners that process more than 50,000 barrels per day. It is also not available for owning more than 1,000 barrels of oil (or 6,000,000 cubic feet of gas) average daily production. The Small Producers Exemption allows 16% of the Gross Income (not Net income) from an oil and gas producing property to be tax-free. It is possible for small investors to structure their Investments so that 100% of their net income is tax-free. (See Section 613A of the Tax Code.)

#### **Lease Acquisition Costs**

Lease costs (purchase of leases, minerals, etc.) sales expenses, legal expenses, administrative. accounting, and Rights Lease Operating Costs (RLOC) are also 100% tax deductible through cost depletion.

#### **Alternative Minimum Tax**

Prior to the 1992 Tax Act, working interest participants in oil and gas ventures were subject to the normal Alternative Minimum Tax to the extent that this tax exceeded their regular tax. This Tax Act specifically exempted Intangible Drilling Cost as a Tax Preference Item. "Alternative Minimum Taxable" income generally consists of adjusted gross income, minus allowable Alternative Minimum Tax itemized deduction, plus the sum of tax preference items and adjustments. Tax preference items are preferences existing In the Code to greatly reduce or eliminate regular income taxation. Included within this group are deductions for excess intangible Drilling and Development Costs and the deduction for depletion allowable for a taxable year over the adjusted basis in the Drilling Acreage and the wells thereon.

TerraFina Energy has defined seven steps to developing a prospect. We hope this help you understand the process oil exploraiton.

#### **Step I: Lease Acquisition**

This involves a standup title opinion and a title opinion.

#### Step II: Geological Interpretation

The operator and the geologist do an evaluation of the area looking for faulting between producing horizons and appraising these producing horizons. Once completed the site is staked for the drilling location.

### Step III: Engineering

The Petroleum Engineer assigned to the project evaluates the logs on the offset production, and prepare reserve calculations. They then determine the recovery procedures along with the drilling and completion program.

# **Step IV: Drilling Procedure**

The list of tasks involved in drilling a well are:

Survey the location, Stake the well site, Build the ;location, Drill the rate hole and mouse hole, Set conductor pipe, Rig up drilling rig, Drill out, Set Surface Casing, Cement surface pipe, Drill out to total depth, Samples of well bore cutting are evaluated for hydrocarbons and porosity, Drill stem testing, Log the well, Long interpretation by the Engineer to see if well contains commercial quantities of hydrocarbons to complete the well

Step V: Oil Well Completion (different procedure for gas )

Set completion casing, Cement production casing, Run
cement bond long to evaluate the cement bonding to casing,
Set wellhead, Run string of production tubing, Perforate
potential pay zone, Swab well or flow well to ascertain oil
and gas volume pressures of the well (this includes both the

shut-in and working pressures), Acidize to clean

perforations, Frac well if oil volume should be increased without damage to the pay zone, Set the Christmas Tree for flowing oil well, Run sucker rods for pumping well (if water develops), Set production equipment to include tank battery and still water tank, Evaluate well for 2-weeks for stabilized production, Well is complete and should be online.

### Step VI: Pre-Production—Stimulation

Most wells require an initial stimulation or treatment to "jump start" a well to begin flowing. The turn-key agreement allows for the first stimulation. Additional stimulations, treatments or fractures may be deemed necessary and are paid but the working interest holders.

This is when the expertise and experience of the logging service company (i.e. Slumberger), the geologist, the operator, and any other independent consultants are fully utilized. Intense scrutiny and analysis are necessary to formulate the best course of action to maximize production of the well while maintaining stabilized production.

Stimulation methods can range from simple acid treatments to complex design fractures by the above mentioned geologist and engineers. However, as all companies involved have working interest, return on investment is always paramount.

# STEP VII: Begin Sell Oil

Division orders are field with the respective County Clerk. The oil production purchaser cuts checks to the well operator and the well operator makes payments working interest investors.

disbursements

1031 Exchange: The sale or disposition of real estate or personal property (relinquished property) and the acquisition of like-kind qualified use real estate or personal property (replacement property) in a transaction structured as a tax-deferred, like-kind exchange pursuant to Section 1031 of the Internal Revenue Code and Section 1.1031 of the Treasury Regulations. The purpose of a 1031 exchange is to defer Federal, and in most cases state, depreciation recapture and capital gain income tax liabilities.

Barrel of Oil: 42 U.S. gallons of oil at 60 degrees Fahrenheit.

<u>Crude Oil</u>: Oil in its natural state of composition. "Crude" is classified according to its physical properties: Paraffin Based, Asphaltic Based, Mixed Based

<u>Depletion</u>: The reduction in value of mineral deposits as it is produced. Oil is a wasting asset, in that proceeds from the well represent both income and return of capital.

<u>Developmental Well</u>: A well drilled to a known producing formation in an existing oil field.

<u>Discovery Well:</u> An exploratory well which encounters production in a previously unknown deposit.

<u>Division Order</u>: A contract with a purchaser of oil and gas which directs the payments of oil and gas revenues to the interest owners of a well.

Drilling: The act of boring into the earth.

<u>Drilling Rig</u>: The equipment used to bore into the earth. There are two types of drilling rigs: Rotary, Cable tools. The rotary type is more modern and efficient.

D&A: Dry and abandoned.

<u>Electric Log</u>: An electrical survey made on uncased holes. A special tool is lowered into the hole which ejects an electrical current into the rock and records its resistance to the current. The data from the survey is used by the geologist to determine the nature of the rock and its contents.

Exchange: The sale or disposition of real estate or personal property (relinquished property) and the acquisition of like-kind qualified use real estate or personal property (replacement property) in a transaction structured as a tax-deferred, like-kind exchange pursuant to Section 1031 of the Internal Revenue Code and Section 1.1031 of the Treasury Regulations. The purpose of a 1031 exchange is to defer Federal, and in most cases state, depreciation recapture, depletion, and capital gain income tax liabilities.

<u>Exploration</u>: A general term referring to all efforts made in the search and discovery for new oil and gas deposits.

<u>Flowing Well</u>: A oil or gas well capable of producing oil or gas by its own energy without the aid of a mechanical pump. Normally a pump is put on the well after the pressure reduction inhibits the rate of production.

<u>Fracing</u>: The process of pumping fluids into a productive formation at high rates of injection to hydraulically break the rock. The "fractures" which are created in the rock act as flow channels for the oil and gas to the well.

Gas Well: A well that produces natural gas which is not associated with crude oil.

<u>IDC</u>: Intangible Drilling Costs. All cost incurred in drilling a well other than equipment or leasehold interests. These expenses are 100% tax deductible even if the well is productive.

<u>Initial Production (IP)</u>: Production from a well is generally broken down into three categories: a. Flush or Initial b. Settled c. Stripper. It is important for investors to realize that a well cannot maintain the flow rates it made during the first stages of its life.

Intangible Drilling Costs (IDC): All cost incurred in drilling a well other than equipment or leasehold interests. These expenses are 100% tax deductible even if the well is productive.

Intermediary: An unrelated third party (i.e. Exeter 1031 Exchange Services, LLC) that administers the tax-deferred, like-kind exchange transaction in order to facilitate the disposition of the Investor's relinquished property and the acquisition of the Investor's like-kind replacement property. The Intermediary has no economic interest except for any compensation (exchange fee) it may receive for acting as an Intermediary in facilitating the exchange as defined in Section 1031 of the Internal Revenue Code. The Intermediary is technically referred to as the Qualified Intermediary, but is also known as the Accommodator, Facilitator or Intermediary.

<u>IP</u>: Initial Production. Production from a well is generally broken down into three categories: a. Flush or Initial b. Settled c. Stripper. It is important for investors to realize that a well cannot maintain the flow rates it made during the first stages of its life.

<u>Mousehole:</u> an opening in the rig floor, usually lined with pipe, into which a length of drill pipe is place temporarily for later connection to the drill string.

Net Revenue Interest (NRI): That percent of the production revenue allocated to the working interest after first deducting proceeds allocated to royalty and overriding interest.

Non-Commercial: A well that is not capable of producing enough oil to pay for the drilling.

NRI: Net Revenue Interest. That percent of the production revenue allocated to the working interest after first deducting proceeds allocated to royalty and overriding interest.

Oil: A liquid hydrocarbon. (also see "Crude Oil")

<u>Oil Gravity</u>: The most widely used indicator of a crude oil's value or worth to the producer is its API gravity. Normally, the price which a producer receives for his oil depends on its gravity, the less dense oils (higher API gravity) being the most valuable. This price schedule is based on the premise that the lighter oil contains higher percentages of the more valuable products such as gasoline.

Oil and Gas Leases: A contract between an oil operator and a landowner which gives the operator the right to drill for oil and gas on his property for a consideration. It is simply a "ticket to hunt".

On the Pump: An expression that means a well is incapable of flowing and that the oil is being pumped to the surface by a "pumping unit".

<u>Operating Expense</u>: The expenses incurred through the operation of producing properties.

<u>Payout</u>: When the costs of drilling, producing and operating have been recouped (cost recovery) from the sale of products on a well.

<u>Permeability</u>: A measure of the resistance of rock to the movement of fluids. Rocks may have holes or void spaces in them (porosity), but if these holes do not connect, the permeability can be drastically reduced. A measure of the relative volume of void space in rock to the total rock volume. These spaces or pores are where oil and gas accumulate; therefore, a formation containing a high percentage of porosity can contain more hydrocarbons.

<u>Proven Reserves</u>: Oil and gas which has not been produced but has been located and is recoverable.

<u>Pumper</u>: An employee of an operator who is responsible for gauging the oil and gas sold off the leases he has been assigned and who is also responsible for maintaining and reporting the daily production.

Qualified Intermediary: An unrelated third party (i.e. Exeter 1031 Exchange Services, LLC) that administers the tax-deferred, like-kind exchange transaction in order to facilitate the disposition of the Investor's relinquished property and the acquisition of the Investor's like-kind replacement property. The Intermediary has no economic interest except for any compensation (exchange fee) it may receive for acting as an Intermediary in facilitating the exchange as defined in Section 1031 of the Internal Revenue Code. The Intermediary is technically referred to as the Qualified Intermediary, but is also known as the Accommodator, Facilitator or Intermediary.

<u>Rathole:</u> a hole in the rig floor of a diameter smaller than the main hole and drilled in the bottom of the main hole.

Real Estate Investment Trust (REIT): A trust or association that invests in a variety of real estate investment assets. REITs are managed by one or more trustees, like a mutual fund, and trade like a stock. No federal income tax is paid by the trust if at least 75% of the income is real-estate related and 95% of the income is distributed to investors. Individual investors can be taxed.

Rework Operations: Any major operation performed on a well after its completion in an attempt to restore or improve its ability to produce.

<u>Salt Water Disposal Well</u>: Many wells produce salt water while producing oil. The disposal of this water is a problem to an operator because of pollution. The best solution to the problem is to pump the waste back into a formation that is deep enough not to pollute shallow water sands. Many stripper wells which are no longer commercial are converted for this purpose.

<u>Secondary Recovery</u>: A broad term encompassing any method of extracting oil from a reservoir after a well or field has exhausted its primary production.

<u>Sedimentary Rocks</u>: Rock is generally classified in one of three categories: a. Sedimentary; b. Igneous; c. Metamorphic.

<u>Settled Production</u>: The second phase of production in the producing life of a well. (also see "IP").

Stripper Well: The final state in the life of a producing well.

Structural Trap: A fold or break (or both) in the earth's crust which creates an impervious trap for oil and gas. Oil will migrate underground through rock until it is "trapped".

<u>Surface Pipe</u>: Pipe which is set with cement through the shallow water sands to avoid polluting the water and keep the sand from caving in while drilling a well.

<u>Swab</u>: A tool which is lowered down the pipe on a wire line. The "swab" is then pulled out of the hole. As it travels up the pipe, rubber elements expand so that the fluid in the pipe is trapped above the swab and pushed to the surface. This operation is necessary when the formation pressure is not high enough to blow the fluids in the pipe to the surface.

<u>Tank Battery</u>: A group of tanks at a well site used to store oil prior to sale to a pipeline company.

<u>Testing</u>: When each new well is competed, a series of tests are run on the well. The various tests are used to estimate the daily deliverability, payout, and reserves.

<u>Tubing</u>: Small diameter pipe which is installed in the casing. Oil is produced through tubing because it increases the viscosity of fluid and a well's flow capabilities.

<u>Turnkey Contract</u>: A contract in which an operator or drilling contractor agrees to furnish all labor and materials necessary to drill a well to a certain depth or stage of completion for a specified sum of money. The operator or contractor assumes all of the responsibility and risks involved in completing the operation.

<u>Viscosity</u>: The resistance of fluid to flow. A high viscosity fluid will not flow as easily as a low viscosity fluid (Mud will not move as easily as water).

<u>Water Flooding</u>: A secondary recovery method for the production of oil from a formation. Oil will float on water. When water is injected into some formations, the oil will float or be washed to the surface, thereby, increasing the amount of production from a well or field. Some formations will not react to this type of stimulation.

Wild Cat: A well that is drained one or more miles from a proven well.

Working Interest: Oil and Gas Working Interests.

A working interest in an oil or gas property held by the taxpayer directly or through an entity that does not limit the liability of the taxpayer is not treated as a passive activity, whether or not the taxpayer materially participates in the activity. Thus, an owner of a working interest in oil or gas property is permitted to deduct otherwise allowable losses attributable to the working interest against other income without limitation under the passive loss rule.

A working interest in an oil or gas property is one that is burdened with the cost of development and operation of the property, such as the responsibility to share expenses of drilling completed or operating oil and gas property, according to working or operating mineral interest in any tract or parcel of land. Rights to overriding royalties, production payments, and the like do not constitute working interests because they are not burdened with the responsibility to share expenses of drilling, completing, or operating oil and gas property. Likewise, contract rights to extract or share in oil and gas, or in the profits from extraction, without liability to share in the costs of production do not constitute working interests. Income from such interests is generally considered to be portfolio income.

A special rule applies in any case where, for a prior tax year, net losses from a working interest in a property were treated by the taxpayer as non-passive losses by reason of the working interest exception. In such case, any net income realized by the tax payer from the property (or any substituted basis property) in a subsequent year also is treated as active income. For example, suppose a taxpayer claims losses with regard to a working interest that starts to generate net income. If he transfers the interest to an S corporation in which he is a shareholder

or to a partnership in which he is a limited partner, the income will continue to be non-passive. The income from that interest may not be offset by other passive activity deductions.

IN GENERAL -- The term "passive activity" shall not include any working interest in any oil or gas property which the taxpayer holds directly or through any entity which does not limit the liability of the taxpayer with respect to such interest.

INCOME IN SUBSEQUENT YEARS -- If any taxpayer has any loss for any taxable year from a working interest in any oil or gas property which is treated as a loss and is not from a passive activity, then any net income such as property (or any property the basis of which is determined in whole or in part by reference to the basis of such property) for any succeeding taxable year shall be treated as income of the taxpayer which is not from a passive activity. If the preceding sentence applies to the net income from any property for any taxable year, any credits allowable under subpart B (other than section 27(a) or D of part IV of subchapter A for such taxable year which are attributable to such property shall be treated as credits not from a passive activity to the extent that the amount of such credits does not exceed the regular tax liability of the taxpayer for the taxable year which is allocable to such net income.

<u>Write-Offs</u>: That portion of an oil investment which is deductible for tax purposes. All intangibles are deductible.



A/	Acidized with	CAOF	calculate absolute open flow	EL	east line	Hr(s)	hour, hours
Abd	abandoned	CD	contract depth	Elev	elevation	Hvy	heavy
Ac	acres	CFG	cubic feet gas	E Log	electric log	lg	igneous
Bbl	barrel	Chk	choke	<b>個與國際國際的</b>	/Least of west line	Incl	inclusion, including
b/d	barrels per day	CIBP	cast iron bridge plug	Est	estimate	IP	initial production
Bpd	barrels per day	Circ	circulate or circulation	f	fine	КО	kicked off
BCPD	barrels condensate per d	lay Clng	cleaning	FIH	fluid in hole	КВ	Kelly bushing
BCDH.	harrols condensate nor	СО	clean out	F	flowed or flowing	Loc	located or location
ВСРН	barrels condensate per hour	Com	completed, completion	fluor	fluorescence	Ls, Im	limestone, lime
BFPH	barrels fluid per hour	Cond	condensate	Fm	formation	Lse	lease
внс	bottom-hole choke	Cong	conglomerate	Fos	fossils, fossiliferous	Mass	massive
вна	bottom –hole assembly	Cont	contractor	EP FP	flowing pressure	MCF	thousand cubic feet
ВНР	bottom-hole pressure	Cor	corner	Fr E/L	from east line		D MCF of gas per day
BHPSI	bottom-hole pressure	Corr	corrected	Frac	fractured		thousand cubic feet per day
	shut in	СР	casing pressure	GA	gallons acid	md	millidarcies
Bl	black	CPSI	casing pressure shut in	Gal(s)	gallon, gallons	mi	miles
期间的技术	k building derrick	Crd	cored	G&0	gas and oil	MI	moving in
<b>原建設(計畫主任)</b>	s building roads	Crg	coring	G&OCI	M gas and oil cut mud	MICT	moving in cable tools
Blk	black	Crse	course	GC	gas cut	MIR	moving in rig
ВО	barrels oil	Cag	casing	GCM	gas cut mud	MIRT	moving in rotary tools
BOPD	barrels oil per day	CSL	Center Section Line	GCR	gas condensate ratio	MIRU	move in rig up
BP	back pressure	СТ	cable tools	GIH	go in hole	MIST	moving in standard tools
BPD	barrels per day	Ctg	cutting	GO	gas order	MIT	moving in tools
BPH	barrels per hour	DC	Drill Collar	G/H	gas and oil	МО	moving out
BPM	barrels per minute	DD	Drilling (drilled) deeper	GOR	gas-oil ratio	Nat	natural
B/W/D	barrels per well per day	DF	derrick floor	Gr	gray	NL	north line
Brkn	broken	Dk	dark	Gran W	granite wash	NS	no show
BS	basic sediment	DO	drilled out	Grav	gravity	O&G	oil and gas
BS&W	basic sediment & water	dol	dolomite	# Grd	ground	O&GCN	1 oil and gas cut mud
Btm	bottom	DP	drill piped	Grn	green	O&SW	oil and salt water
B.T.U.	British Thermal Unit	D/P	drill plug	Hd	hard	со	oil cut
BW	barrels water	Drk	derrick	HFO	hole full oil	ОСМ	oil cut mud
BWPD	barrels water per day	drld	drilled	HFW	hole full water	OF	open flow
WBPH	barrels water per hour	Drlg	drilling	HGOR	high gas-oil ratio	ОН	open hole
C	center	DST	drill-stem test				

OIH	oil in hole	RDMO	rig down move out
00	order oil	Rec	recovered
ool	oolitic	Refl	reflection
Ор	opaque	Refr	refraction
O sd	oil sand	Rmg	reaming
OTD	old total depth	Rng	running
OWDD	oil well drilled deeper	ROP	rate of penetration
OWPD	old well plugged back	RRC	Railroad Commission
owwo	oil well worked over	RU	rig up
Р	pump	RT	rotary table
P&A	plugged and abandoned	RUCT	rigging up cable tools
PB	plugged back	RUP	rigging up pump
PBTD	plugged back total depth	RUR	rigging up rotary
PD	per day	RUST	rigging up standard tools
Perf	perforated	Sat	saturated or saturation
Perf csg	ferforated casing	SC **	show condensate
Perm, k	permability	SD	shut down
Pkr	packer	SDO	shut down for orders
PL	pipeline	SD rep	shut down for repairs
Pld	pulled	Sd SO	sand showing oil
PLO pipe-line oil		Sdy	sandy
РООН	pull out of hole	SDFN	shut down for night
POP	putting on pump	SDFWE	shut down for weekend
Por, Ø	porosity, porous	SE	southeast
Psi	pounds per square inch	Sec	section
Psia	pounds per square inch,	Sed	sediment
	Absolute	Seis	seismograph
Psig	pound per square inch, gauge	SG, S/G	Show gas
Pt	part	SG&C	show gas & condensate
р	pressure	Sh	shale
qtz	quartz	SI	shut-in
qtse	quartzite	SIBHP	shut-in bottom hole pressure
R, Rge	range	SICP	shut-in casing pressure
RD	rig down	SIFWE	shut –in for weekend

SIP	shut-in pressure
SITP	shut-in tubing pressure
SI	slight
SL	south line
SLM	steel-line measurement
so, s/o	show oil
so&g	show oil and gas
so&w	show oil and water
SP	self-potential (electric log)
Spd	spudded
Sqz	squeeze or squeezed
Ss, sd	sandstone, sand
SSO	slight show oil
S/T	sample tops
Stds	stands
Stn	stain, stained
Strks	streaks
Sul	sulphur
Sul wtr	sulphur water
Sur	survey
Surf	surface
sw	southwest, sale water
Swbd	swabbed
Swbg	swabbing
SWC	sidewall core
WI	shut well in
SWIFN	shut well in for night
SWIFWE	shut well in for weekend
Sx	sacks
T	temperature
TA	temporarily abandoned
T, twp	township
Τ/	top of
Tbg	tubing

Tbg chk tubing choke TD total depth Temp temporary TIH trip in hole TOOH trip out of hole TP tubing pressure T/Pay top pay TPSI tubing pressure shut in T/sd top sand Tstg testing UR under-reaming W, wtr water WIH went in hole woc waiting on cement

