YUKON

I. Administration

- Agency regulating oil and gas exploration/production: <u>Yukon Government</u>

 Oil and Gas Resources
 Suite 400, 211 Main Street, 4th Floor Shopper's Plaza Whitehorse, YT Y1A 2B2. Phone: (867) 667-3011. Fax: (867) 393-6262.
- 2. Contact for regulatory updates: Derek Fraser, Director. Email: <u>Derek.Fraser@gov.yk.ca</u> Phone: (867) 667-5026.
- 3. Docketing procedure:
 - a. Emergency orders:
 - b. Notice:
- 4. Agency regulating air emissions: <u>Yukon Government Department of Environment.</u>
- 5. Agency regulating water quality: <u>Department of Environment, Yukon</u> Water Board.

II. License

- 1. License required: Yes (geoscience exploration, well, pipeline, gas processing plant). §64 of the <u>Yukon Oil and Gas Act</u>.
- 2. Conditions of license: Terms and conditions of each license are specific in response to the environmental and socio-economic review of each project and its technical details.

III. Bond/Surety

- 1. Purpose of surety: Insurance that a well can be abandoned properly if company goes out of business.
- 2. Plugging and restoration: Plugging and restoration are the primary activities the well deposit is meant to cover.
- 3. Compliance bond required: None.
- 4. Types of surety accepted: Cash/Check held in account, Letter of Credit held in trust.
- Conditions of bond:

- a. Amount per well: Project specific.
- b. Amount of blanket bond: Project specific.

IV. <u>Land Leasing Information</u>

- 1. Leasing method: Land is available twice per year through a competitive bidding disposition process.
- 2. Notice method: Advertising and website.
- 3. Minimum bidding \$ (per acre): Minimum bid is \$400,000 per permit location. Minimum size of a permit location is 1 section to a maximum of 160 sections or 500 sq. km.
- 4. Qualification of the bidder: Name of the corporation is to be shown as the holder of the disposition and their specified undivided interests in the disposition. Name and official service address of the designated representative for the disposition. Bidder must also include a statement agreeing to the terms and conditions in the call for bids
- 5. State statutes: Yukon Oil and Gas Act, Yukon Oil and Gas Disposition Regulations.
- 6. Maximum acres: Maximum permit size is 500 km². There is no limit to the number of permits a company can hold.
- 7. Royalty rates: Price sensitive and range from 10% 25%. Select and reference prices are prescribed and are market dependent. Royalty allowances are prescribed and are proxies based on costs.
- 8. Agency in control of leasing: Yukon Government, Oil and Gas Resources.

V. Setbacks

- What rules/regulations/policies does your jurisdiction have in regard to well setbacks from private residences and/or other habitable structures for use by humans or animals? N/A
- 2. Are there other sources of information on this matter that you could identify? N/A

VI. Spacing

- 1. Spacing requirements:
 - a. Density:

Oil Well: 4 wells per section.

Gas Well: 1 well per section.

b. Lineal: Project specific

2. Exceptions:

a. Basis: Project specific

b. Approval: Approval is granted by the Chief Operations Officer.

VII. Pooling

- 1. Authority to establish voluntary: A working interest must apply to have a Pooling Order.
- Authority to establish compulsory: If the Pooling Order is passed by the Chief Operations Officer the effects are compulsory to all included in the order (even those working interests that may have been against it).

VIII. Unitization

- Compulsory unitization of all or part of a pool or common source of supply:
 A mandatory Unitization Order can be made if it is proven through a hearing process that unitization would prevent waste.
- 2. Minimum percentage of voluntary agreement before approval of compulsory unitization:
 - a. Working interest: No minimum set.
 - b. Royalty interest: No minimum set.

IX. Drilling Permit

- 1. Permits required for:
 - a. Drilling a producing or service well: Well license
 - Seismic drilling or geological operation: Geoscience exploration license
 - c. Recompletion: Well operation approval.
 - d. Plugging and abandoning: Well operation approval.

2. Permit fee:

a. Drilling: \$500

b. Seismic drilling: \$500

c. Geological operation: \$300

d. Recompletion: \$500

e. Plugging and abandoning: \$500

- 3. Require filing report of work performed: Yes, by way of either daily and/or summary reports depending on the operation.
- 4. Sundry notices used: Yes, by way of either daily and/or summary reports depending on the operation.

X. Vertical Deviation

- 1. Regulation requirement:
 - a. When is a directional survey necessary: Intervals less than 150
 meters apart or sufficient for the well bore to be calculated within 15
 meters (whichever is less or by instruction of the COO).
 - b. Filing of survey required: Yes.
 - c. Format of filing: Electronic (PDF) or a format capable of importing into Wellview software.

XI. Casing and Tubing

- 1. Minimum amount required:
 - a. Surface casing:

For non-exploratory well: Not less than 150 meters and not more than four times the setting depth of the conductor pipe or 500 meters whichever is greater.

For an exploratory well: Not less than 100 meters and not more than 300 meters below the base of the permafrost.

- b. Production casing: Project specific.
- 2. Minimum amount of cement required:
 - a. Surface casing: To surface or not less than 25 meters above the base of any previous casing string.
 - b. Production casing: Enough to isolate all formations containing oil, gas or water to a minimum of 60 meters above those formations

- and isolate any abnormally pressured intervals from normally pressured intervals.
- c. Setting time: Regulations state a minimum of 12 hour wait or varied by Chief Operations Officer to be however long it takes to reach 3.5 MPa compressive strength.

3. Tubing requirements:

- a. Oil wells: Must be designed to permit installation of artificial lift equipment or other equipment to maintain flow rates.
- b. Gas wells: If a sour well, must meet the requirements of sour service equipment.

XII. Hydraulic Fracturing

N/A. Currently prohibited in Yukon.

XIII. <u>Underground Injection</u>

1. Agencies that control the underground injection of fluid by well class: Yukon Government, Oil and Gas Resources.

XIV. <u>Completion</u>

- 1. Completion report required:
 - a. Time limit: Daily and Summary Reporting.
 - b. Where submitted: Chief Operations Officer at Oil and Gas Resources.
- 2. Well logs required to be filed:
 - a. Time limit: Part of Summary Report 30 to 60 days after operation (depending on type of operation).
 - b. Where submitted: Chief Operations Officer at Oil and Gas Resources.
 - c. Confidential time period:

Step-out: 3 months.

Delineation: 6 months.

Wildcat: 12 months.

- d. Available for public use: Yes.
- e. Log catalog available: Energy, Mines & Resources, Oil & Gas Resources website.
- 3. Multiple completion regulation:
 - a. Approval obtained: Well operations approval.
- 4. Commingling in well bore:
 - a. Approval obtained: Typically no. Scheme approval in some cases.

XV. Oil Production

- 1. Definition of an oil well: Oil Well means a well that produces oil from an oil pool.
- 2. Potential tests required:
 - a. Time interval: Formation, flow tests and production tests (bimonthly).
 - b. Witness required: No.
- Maximum gas-oil ratio:
 - a. Provision for limiting gas-oil ratio:

$$F_{GOR} = \frac{C}{GOR \div 0,0257 \text{ x S}}$$

Where F GOR = Gas-oil ratio adjustment factor calculated to the nearest 2 decimals

C = Constant, 177.3

GOR = Net calculated gas-oil ratio (m³/m³)

S = Average separator pressure (kPa)

- b. Exception to limiting gas-oil ratio: On approval of the Chief Operations Officer.
- 4. Bottom-hole pressure test reports required:
 - a. Periodical bottom-hole pressure surveys: Yes.
- Commingling oil in common facilities: Yes.
- 6. Measurement involving meters: Yes.

- 7. Production reports:
 - a. By lease: No.
 - b. By well: Yes.
 - c. Time limit: 21 days.

XVI. Gas Production

- 1. Definition of a gas well: Gas Well means a well that produces gas from a pool or from the gas cap portion of an oil pool.
- 2. Pressure base __101.325_ psia @ __59_degrees F.
- 3. Initial potential tests:
 - a. Time interval: Formation flow tests, production tests and completion and Test Report.
 - b. Witness required: No.
- 4. Bottom-hole pressure test reports required:
 - a. Periodical bottom-hole pressure surveys: Yes.
- 5. Commingling of gas in common facilities: Yes.
- 6. Measurement involving meters: Yes.
- 7. Production reports:
 - a. By lease: No.
 - b. By well: Yes.
 - c. Time limits: 21 days.