

# **BC Petroleum and Natural Gas Tenure Regulations Seminar Presentation to CAPL October 2015**

**Geoff Turner  
Amy Teucher  
Terry Branscombe**

# SEMINAR OUTLINE

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## PART 1 – MINISTRY UPDATES

- Ministry Structure / Organization
- Acquiring Petroleum and Natural Gas (PNG) Tenure in BC
- Resource Development
- Royalty Programs
- Policy and Regulatory Updates
- Jobs and the Economy

# SEMINAR OUTLINE

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## PART 2 – TENURE MANAGEMENT

- Resources for administrators
- General Introduction to Key Tenure Concepts
  - Land systems
  - Spacing
  - Rentals
  - Geological zones in BC
- Tenure Types and Options
  - Permits (Features)
  - Drilling Licences (Features, Extensions, Earnings, Groupings)
  - Leases (Features, Continuation Options, Land Plats)

# SEMINAR OUTLINE

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## PART 3 – GENERAL ADMINISTRATION

- e-Payments
  - Training Resources
  - Payment Types and when to use them
  - Tenure Cancellation
  - Letters of Authority
- Instruments Affecting Title
  - Transfers (assignments)
  - Encumbrances
  - Pooling Agreements
  - Name Changes/Amalgamation

# KEY CONTACTS

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GEOLOGY, ZONE DESIGNATION, TENURE AREAS AND LAND PLATS  
Dave Richardson, *Manager, Geology* 250-952-0359

DRILLING LICENCE EXTENSIONS, LEASE SELECTIONS, LEASE CONTINUATIONS  
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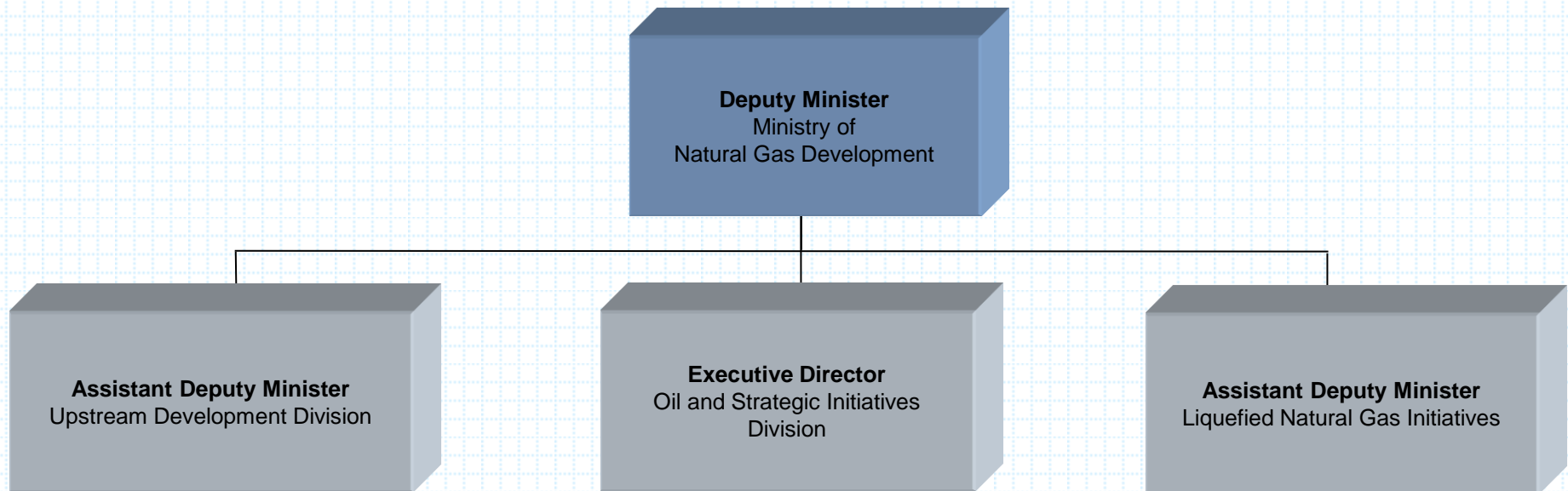
LEASE CONTINUATIONS, TRANSFERS, SPLIT TRANSFERS, ENCUMBRANCES  
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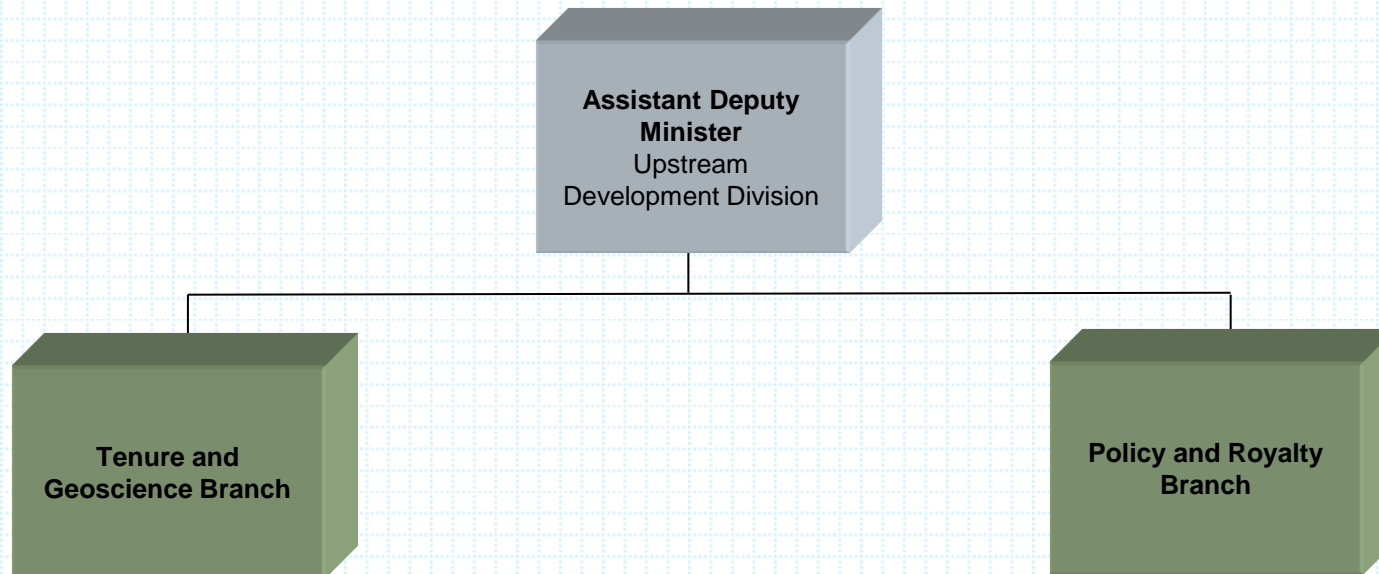
# MINISTRY STRUCTURE

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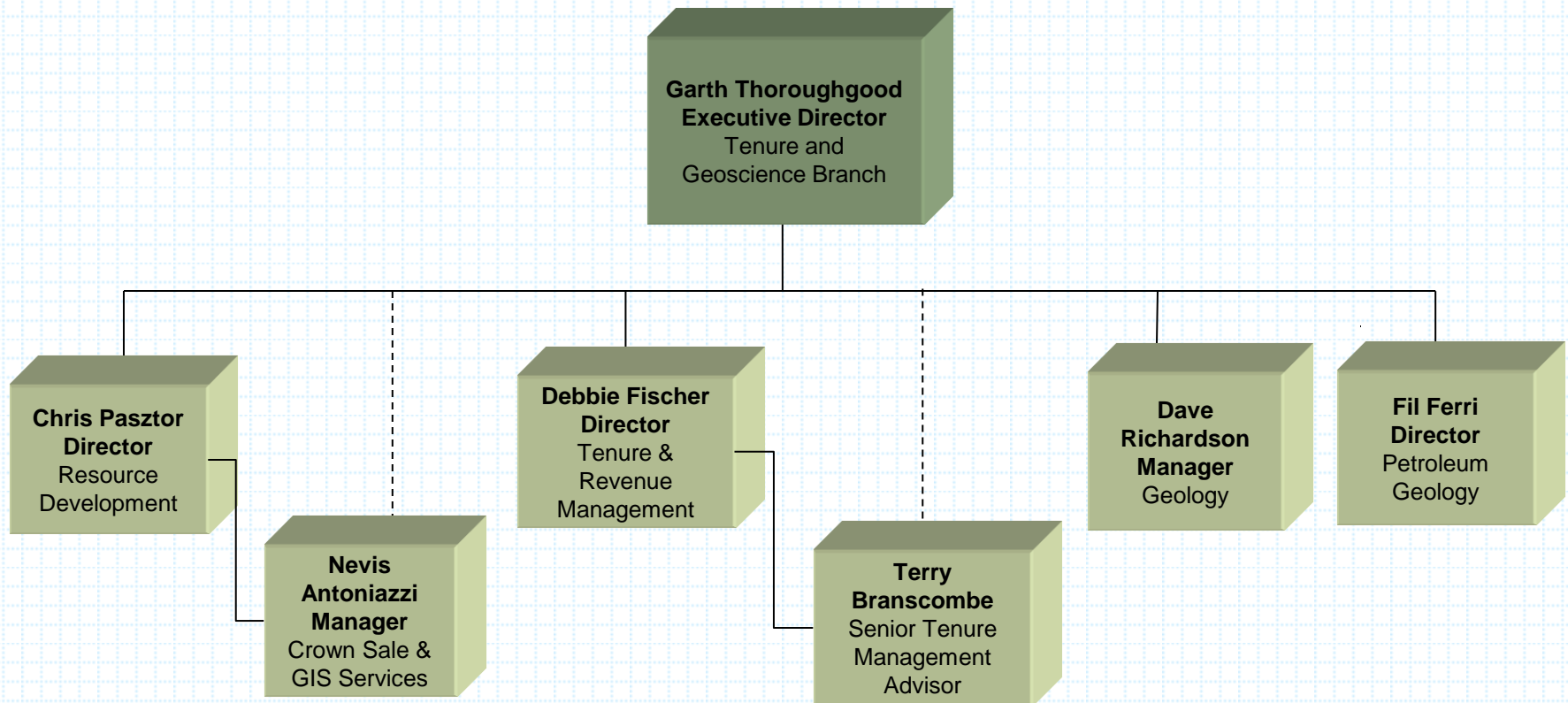


# UPSTREAM DEVELOPMENT DIVISION

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# TENURE AND GEOSCIENCE BRANCH



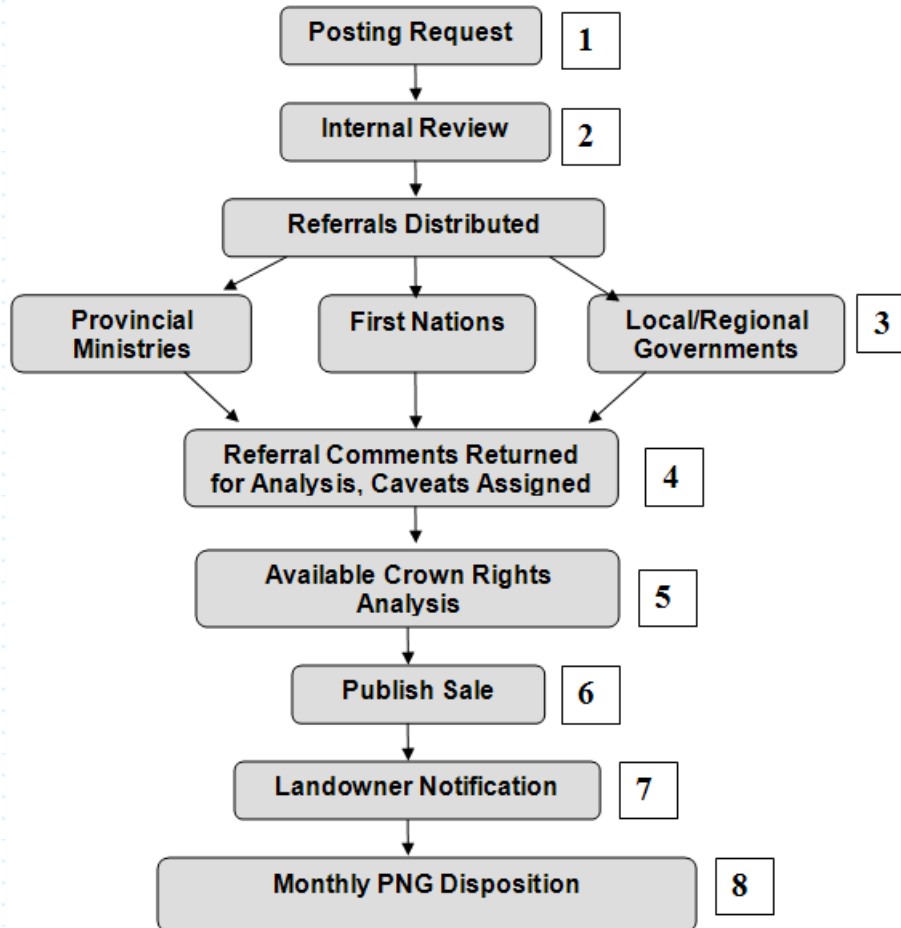


# ACQUIRING PNG TENURE IN BC

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# DISPOSITION PROCESS



12 sales per year  
106 day process

# PNG TENURE

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- Tenure **does** provide:
  - exclusive rights to the subsurface resource
  - right to apply to the OGC for activities approval
  
- Tenure **does not** provide:
  - the authority to conduct any activities on lands (e.g., drilling)

# ONLINE RESOURCES – Crown Sales

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## Petroleum and Natural Gas Tenure –START HERE

<http://www2.gov.bc.ca/gov/content/industry/natural-gas-oil/petroleum-natural-gas-tenure>

**Publications**



**Crown Sales**



Posting Request Guide  
Bidding and Disposition Guide

**Information Letters**



**Crown Sales**



2015 – 2016 Petroleum and  
Natural Gas Disposition Dates



# RESOURCE DEVELOPMENT UPDATES

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- First Nations Engagement
- Community Engagement
- Caribou



# FIRST NATIONS ENGAGEMENT

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- Role of the Crown
  - The Crown has a fiduciary duty to consult First Nations about decisions which may impact their rights and, where possible, accommodate their interests.
- Role of the proponent
  - Build and maintain good relationships with First Nations in the areas you operate.
  - In some cases a proponent may be able to facilitate the conclusion of consultation through direct engagement (this is most likely to succeed if coordinated with MNGD).

# FIRST NATIONS ENGAGEMENT

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- Monthly Referral Process
  - Initial Impact Assessments
  - Responsive to First Nation comments
  
- Deferred Parcels
  - Meet to resolve area-specific issues
  - Shapefile and PDF map of currently deferred parcels:
    - (<http://www2.gov.bc.ca/gov/content/industry/natural-gas-oil/petroleum-natural-gas-tenure/crown-sales-notice>)
  - Strategic First Nations Negotiations
  - Consultation Process Agreements
  - Strategic Engagement Agreements

# FIRST NATIONS ENGAGEMENT

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- Emerging Issues - *Cumulative Effects*
  - The Auditor General released a report in May, 2015 that made a series of recommendations for the incorporation of the consideration of cumulative effects in natural resources decision-making
  - The BRFN have launched a lawsuit claiming that B.C. has infringed their Treaty Rights through the cumulative effects of development



# FIRST NATIONS ENGAGEMENT

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- Emerging Issues - *Cumulative Effects*
  - The LNG Environmental Stewardship Initiative is a collaboration between the Province, FNs and industry that has been launched to partially address the concerns of FNs with respect to oil & gas development including cumulative effects
    - Current provincial funding commitment for the LNG EIS is \$30 million over three years
    - The first project in the Northeast is a Regional Strategic Environmental Assessment focused on cumulative effects to values associated with Treaty Rights

# FIRST NATIONS ENGAGEMENT

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- Emerging Issues - *Beaver River case*
  - Concluded that there was no duty to consult on PNG tenuring in a situation that is quite similar to that in B.C.
  - We are reviewing our approach to consultation with FNs in B.C. in the light of that decision (keeping in mind that we have obligations under the existing CPAs)

# COMMUNITY ENGAGEMENT

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- Referral packages and discussions on deferred parcels with local government
- Landowner Notification Program
- Farmers' Advocacy Office renewed

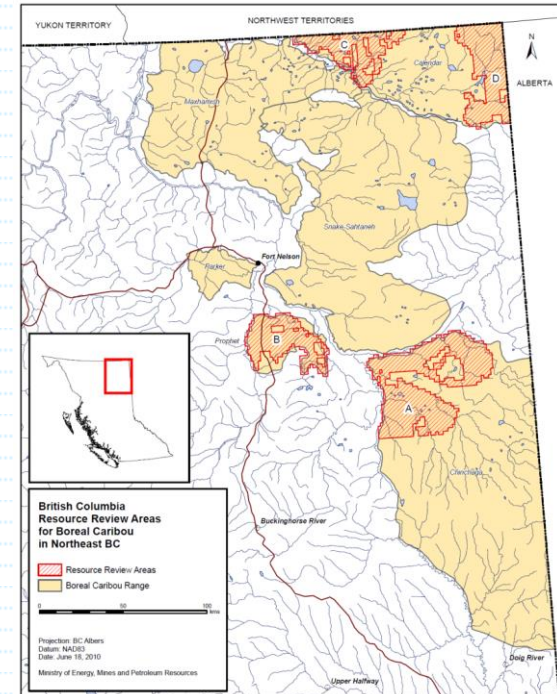
# CARIBOU

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# BOREAL CARIBOU RRAs

- To support government's Boreal Caribou Implementation Plan (BCIP), 500,000 hectares of boreal caribou habitat were set aside as "resource review areas" (RRAs) where no PNG tenure requests would be accepted for a minimum of five years.
- A memorandum of understanding (MOU) between industry and government was signed in 2011 to fund research and implementation of the BCIP.
- The RRAs are currently being assessed as part of government's broader review and potential revision of the BCIP.





# BOREAL CARIBOU – UPDATES

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- Over 160 boreal caribou have been collared to support research and management
- 16 projects valued at \$1M to improve our understanding of Boreal Caribou ecology
- Planning investments of more than \$2M in new and ongoing initiatives
- Improving research capacity through new partnerships with academia and agencies
- Providing expertise to government to support revised management planning
- Partnering with First Nations to learn and share launching restoration planning in critical areas

# PEACE NORTHERN CARIBOU

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- Provincial implementation plan has been completed for Peace Northern Caribou
- Established RRAs where no PNG tenure requests would be accepted for high elevation winter ranges for Peace Northern Caribou Herds
- Planning requirements have been established for activities taking place in high elevation winter ranges
- Work underway to establish operating practices for low elevation habitat for the Peace Northern Caribou

# ROYALTY PROGRAMS

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# TARGETED ROYALTY PROGRAMS

## Challenge

## Solution

Western Canada sedimentary basin deepens towards the West

Deep Royalty Credit Program

New, conventional wells with lower productivity

Marginal Royalty Program

Tight gas development

Ultra-marginal (tight gas) Royalty Program

“White spaces” and areas with limited infrastructure (roads/pipes) available

Infrastructure Royalty Credit Program

Huge potential in new, remote, high-risk unconventional resources

Net Profit Royalty Program

# TARGETED ROYALTY PROGRAMS

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- These programs can be combined in many cases, thus providing enough margin to move certain projects to economic territory
- Example - a well that:
  - ✓ is a road project (an infrastructure credit),
  - ✓ is deep, and
  - ✓ is marginalcan receive all the associated benefits for those programs
- More information:
  - <http://www2.gov.bc.ca/gov/content/industry/natural-gas-oil/royalties-royalty-programs>

# ROYALTY PROGRAM UPDATES

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- *Petroleum and Natural Gas Act* was amended to allow the province to enter into a Long Term Royalty Agreement (LTRA)
- First LTRA completed by the Province and North Montney Joint Venture
- More Information:
  - <http://www2.gov.bc.ca/gov/content/taxes/natural-resource-taxes/oil-natural-gas/oil-gas-royalty>

# ROYALTY PROGRAM UPDATES

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- 2015 Infrastructure Royalty Credit Program
  - \$115 million in royalty credits supporting 14 infrastructure projects in northeast BC, which will help the advancement of an LNG industry
  - The 2015 credits are expected to generate almost \$288 million in revenue for the province and over \$448 million in new capital spending by industry
  - More information:
    - <http://www2.gov.bc.ca/gov/content/taxes/natural-resource-taxes/oil-natural-gas/oil-gas-royalty/reduce>

# POLICY & REGULATORY UPDATES

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- BC Tenure Working Group
- PNG Act Amendments
- Website



# BC TENURE WORKING GROUP

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- The BC Tenure Working Group includes participants from government and industry
- Engage in collaborative discussions about petroleum and natural gas tenure issues
- Topics discussed include:
  - Improved communication
  - Legislation and Regulations
  - Opportunities to work more efficiently and effectively

# PNG ACT AMENDMENTS

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- Petroleum and Natural Gas Act Amendments introduced as part of Bill 12, Natural Gas Development Statutes Amendment Act, 2014
  - Portions pertaining to PNG Act are not yet in force
- Objectives
  - Update and modernize the Act
  - Better accommodate unconventional development
  - Streamline tenure administration

# PNG ACT AMENDMENTS

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- Key changes to Permits
  - Size of a permit
  - Dimensions/configuration of a lease selected from a permit
  - Review of permit provisions is underway
- Key changes to Leases
  - Penalty year in Area 1
  - Flexibility to introduce more classes of leases with different terms and different continuation options
  - Reinstatement power
  - Other than normal spacing does not affect lease continuation



# PNG ACT AMENDMENTS

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- Other key changes:
  - Director of Petroleum Lands may delegate to Ministry employees with or without conditions
  - Specifically allows electronic issuance of permits, drilling licences and leases
  - Allows regulation to establish circumstances and application process for tenure extensions and rent relief
  - Increase in fines for an offence from between \$500 and \$5000 to between \$5000 and \$100,000

# PNG ACT AMENDMENTS - Regulations

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- Some PNG Act amendments require updates to the Regulations before Bill 12 is brought into force
- These include prescribing:
  - details for leases such as terms and continuation options
  - details to support new drilling licence section
  - types of special projects that make a spacing area eligible for lease continuation
  - a penalty continuation for five year leases

# PNG ACT AMENDMENTS - Regulations

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- The Ministry is planning additional regulatory updates that require further analysis and consultation
- These regulatory updates are not required before Bill 12 is brought into force
- Bill 12 included the repeal of many details around permits and the power to set the details in the regulations
- Bill 12 also introduced a framework for providing relief from rent and extensions for both drilling licences and leases

# NEW GOVERNMENT WEBSITE

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- BC Government web update in Spring 2015
- Improvements include
  - Topic based navigation
  - Right side topic boxes with important links
  - Faster keyword and phrase search

# NEW GOVERNMENT WEBSITE

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## New Website Navigation

Gov.bc.ca



Farming, Natural Resources & Industry



Natural Gas & Oil



Petroleum & Natural Gas Tenure

# NEW GOVERNMENT WEBSITE

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- Policy guides are continuing to replace info letters as the main source of detailed information on BC tenure policy and legislation
  - Guides are updated each time there is a change eliminating the need to refer to multiple info letters
  - Guides available online:
    - <http://www2.gov.bc.ca/gov/content/industry/natural-gas-oil/petroleum-natural-gas-tenure/publications>
  - Info letters are still used for announcements
- Subscribers will receive notifications when a guide is issued or updated  
(to subscribe, send a request to [PNGTitles@gov.bc.ca](mailto:PNGTitles@gov.bc.ca))

# NEW GOVERNMENT WEBSITE

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- Published policy guides include
  - Guidelines for Registering a Transfer of Subsurface Interest in Title
  - Guide to BC Petroleum and Natural Gas Act Lease Continuations
  - Guide to Bidding and Disposition of Crown Petroleum and Natural Gas Rights
  - Guide to the Petroleum and Natural Gas Drilling Licence Regulation
  - Natural Gas and Oil Tenure Rents, Fees and Penalties

# JOBS & THE ECONOMY

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# CROWN SALES

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	2015 (Calendar to September)	2014 (Calendar)	2013 (Calendar)
# parcels offered	120	261	231
# parcels disposed	68	209	188
# hectares offered	73,557	183,571	141,084
# hectares disposed	37,454	148,705	119,095
Total tender bonus	\$ 9,027,861	\$ 382,792,573	\$ 224,684,728
Average price/hectare	\$ 241	\$ 2,574	\$ 1,887

# NATURAL GAS STRATEGY

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- Ensure an effective royalty regime
- Ensure Infrastructure is available to encourage investment
- Amend the *Petroleum and Natural Gas Act* and regulations
- New Jobs for BC
- Engaging with First Nations and Communities
- Ensuring environmental responsible development

# LIQUEFIED NATURAL GAS (LNG)

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- In September 2011, the Premier confirmed Provincial commitment to the development of LNG export capacity in BC
- The announcement included commitments in four areas:
  - Greater emphasis on the permitting and decision making processes
  - Skills training and development
  - Investment and attraction
  - International marketing

# LNG UPDATE

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- The Premier has continued to lead trade missions to Asia to promote trade and cultivate business relationships
- BC has hosted three international LNG conferences – most recently in October 2015
- First LNG Project Development Agreement signed in July 2015
- LNG Income Tax Legislative Framework introduced in Fall 2014
- The NEB has issued 12 export licences
- Several proponents have come forward with proposals for LNG facilities and transportation systems – 20 proposed LNG projects

# PNG OPPORTUNITIES

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- Continue to develop and implement strategies to make PNG tenure available
- Continue to create and implement progressive and innovative strategies and approaches for effective policy, legislation and regulations that support a modernized tenure issuance and management system
- Continue to provide an attractive investment environment through royalty and infrastructure programs

# QUESTIONS?

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# PART 2

# Tenure Management

# Tenure Management Online

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- Tenure and Geoscience Branch main page
  - Legislation
  - Guides
  - Reference materials
- IPS-Web
  - Online title and titleholder searches
- e-Payments
  - Tenure rentals
- DataBC – iMap 2.0 tool
  - View & analyze all BC Data Warehouse map layers
  - Accepts custom data layers (ArcGIS, shapefiles, csv)
  - MNGD/OGC: wells, facilities, pipelines, tenure, sales parcels, land plats, and many more
- DataBC - Catalogue
  - Monthly tenure registry extract



# Tenure and Geoscience Branch



The screenshot shows the British Columbia government website. At the top left is the British Columbia logo. To its right is a search bar with the placeholder text "Enter a keyword or phrase to search". Below the search bar is a navigation menu with links for "Careers", "Services A-Z", "Organizations A-Z", "Forms A-Z", "News", and "Contact Us". A secondary navigation bar contains links for "Agriculture & Seafood", "Construction Industry", "Electricity & Alternative Energy", "Forestry", "Mineral Exploration & Mining", "Natural Gas & Oil" (which is highlighted), "Service Industries", and "Natural Resource Use". Below this is a third navigation bar with links for "Petroleum Geoscience", "Land Use", "Petroleum & Natural Gas Tenure" (which is highlighted), "Responsible Oil & Gas Development", "Royalties & Royalty Programs", and "Statistics".

The main content area has a breadcrumb trail: [Home](#) / [Farming, Natural Resources & Industry](#) / [Natural Gas & Oil](#) /

**Petroleum & Natural Gas Tenure**

The majority of subsurface petroleum and natural gas resources in British Columbia are owned by the Province. By entering into a tenure agreement with the Province, private industry can develop these resources.

**Subsurface Rights**

Tenure agreements with the Province give private developers rights to petroleum and natural gas resources. Typically, agreements are for three to ten years and can be renewed or extended, require exploration or development, and call for payment of rents and royalties to the Province. Rights are provided to specific areas and may include rights to all depths, or may be restricted to certain geological formations.

- [Find out more about acquiring subsurface petroleum and natural gas rights](#)

**Pre-Tenure Review**

Before tenures are issued, the Province conducts a pre-tenure review. This may include gathering information from provincial agencies, local governments and First Nations. The purpose of this review is to determine whether a requested parcel should be made available for disposition.

**Tenure Dispositions**

The Province holds monthly petroleum and natural gas tenure dispositions. Interested parties submit sealed bids and each tenure is awarded to the party that submits the highest bid, provided the bid offers fair value.

- [See sales notices with disposition dates, organized by year](#)
- [See historical information and statistics about past dispositions](#)
- [Find out more about the bidding process](#)

**Consulting First Nations**

Consultation with First Nations is an important part of issuing permits and licences related to water and land use, or when a development project may impact the environment.

- [Find out more about this process](#)

**IPSWeb Title Search**

IPSWeb is an online title search application with public access.

- [IPSWeb Title Search](#)

**ePayments**

Pay fees and rentals associated with other title maintenance activities online, using a BCeID.

- [Acquire a BCeID](#)
- [Information about ePayments](#)
- [Sign into ePayments](#)

**Left sidebar menu:**

- ▶ Crown Sales Notices
- ▶ Sales Results & Statistics
- ▶ Posting Request Maps
- ▶ Information Letters
- Publications
- ▶ ePayments
- Legislation
- Treaty 8 Tribal Association
- Working with First Nations
- Information for Landowners

# Key Acts and Regulations

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- Petroleum and Natural Gas Act
  - Grid Regulation
  - Drilling Licence Regulation
  - Fee, Rental and Work Requirement Regulation
  - Storage Reservoir Regulation

# Guides and References

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- Key Guides

- Guide to Drilling Licence Regulation
- Earning Wells and Evaluation of Zones
- Lease Continuations
- Recommended Technical Package Contents
- Land Plats and Tenure Areas
- Tenure Rents, Fees, and Penalties
- Registering a Transfer (assignment)

- Key References

- NTS Unit Areas
- Term Boundaries (DL and Lease)
- Gas Spacing Areas and Hectarage in Peace River Block

# Online Title Searches

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- Getting there:
  - From the Branch homepage, click “**IPSWeb Title Search**”
  - e-mail support: **ptsweb\_support@gov.bc.ca**
- Content:
  - Up-to-the minute title status and descriptions for active title
  - Primary Term (years), Area (hectares), Key Dates: Issuance, Effective, Expiry
  - Tracts – Lands and Rights held
  - Groupings (Drilling Licences)
  - Owners, with undivided interest percentage
  - Term History (continuations, extensions, etc.)
  - Transfers and Encumbrances
  - Special Projects (OGC), Wells (UWIs), Unit Agreements



BRITISH  
COLUMBIA




[B.C. Home](#)  
[IPSWeb Home](#)  
[Client Info Query](#)  
[Quick Title Query](#)  
[Multiple Title Query](#)  
[Code Legend](#)

## Multiple Title Query

The Multiple Title Report query allows you to search the Tenure Registry for multiple titles at a time and report in the same format and with the same content as a Quick Title Query report.

You can upload a file in a comma separated value format with a list of titles. 

Or you can click the icon to  to add new lines of input fields. Click Submit to generate the report for all added titles

**Email Address**

**Upload File**  No file selected.

**Title Number**    

**Output as**  Text  Pdf

# e-Payments

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- Getting there:
  - From the Branch homepage, click “**Sign into ePayments**”
- Content
  - Statements
  - Submissions: Conversion and Continuation/Extension
  - Payor
  - Corporate contact and banking information
  - Corporate user security roles
- Help
  - Online: Help icon (manuals, slides, tutorials)
  - E-mail: *png.epayments@gov.bc.ca*
  - Call: (250) 953-3388



# Geography and Geology

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- Dominion Land Survey (DLS)
- Petroleum Grid (NTS)
- Spacing Areas
- Well Locations
- Stratigraphy & Zones

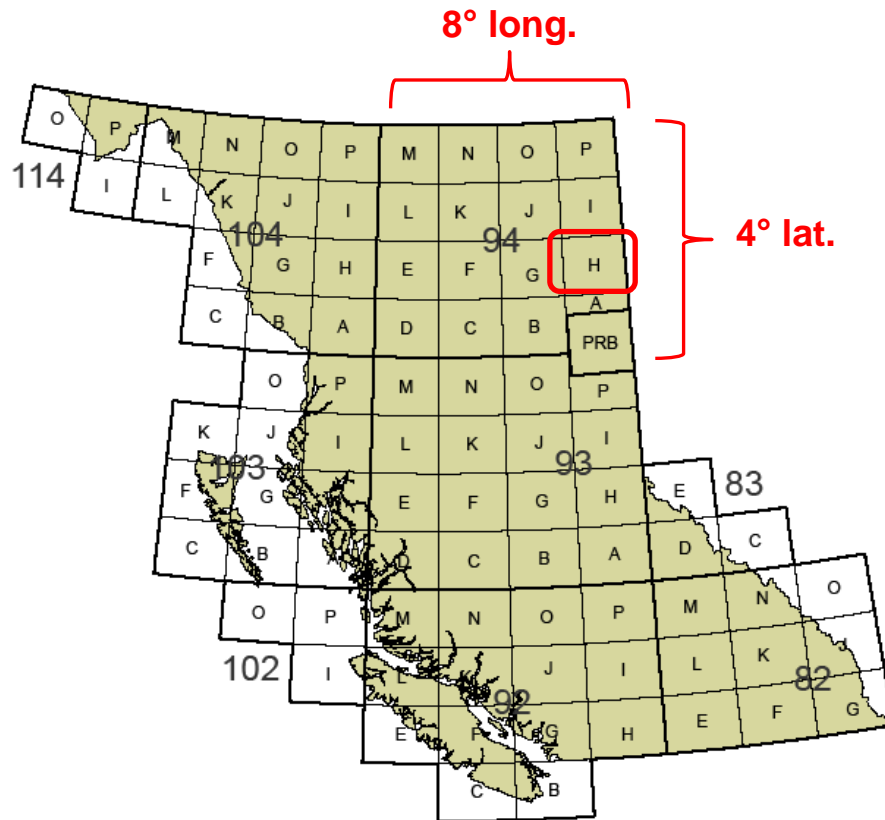
- Normal gas spacing area (GSA) = 1 section
- Peace River Block
  - *Corners defined in PNG Grid Regulation Schedule 1*
  - Spans TWP 76 – 88, RGE 13 – 26 W6M
- Section size is not standardized in BC
- Make tenure size estimates from the downloadable reference “**Gas Spacing and Hectarage Map for the Peace River Block**”
  - Includes fractional NTS areas where DLS and NTS meet

# Petroleum Grid (NTS)

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- Normal gas spacing area (GSA) = 4 NTS Units
- Applies everywhere in NEBC, but PRB
  - *PNG Grid Regulation Schedule 3*
- Based on longitude and latitude, so all subdivisions are trapezoidal and all Units on same latitude are identical
- Make tenure size estimates from the downloadable reference “**NTS Unit Areas**”

# Petroleum Grid (NTS) Sample

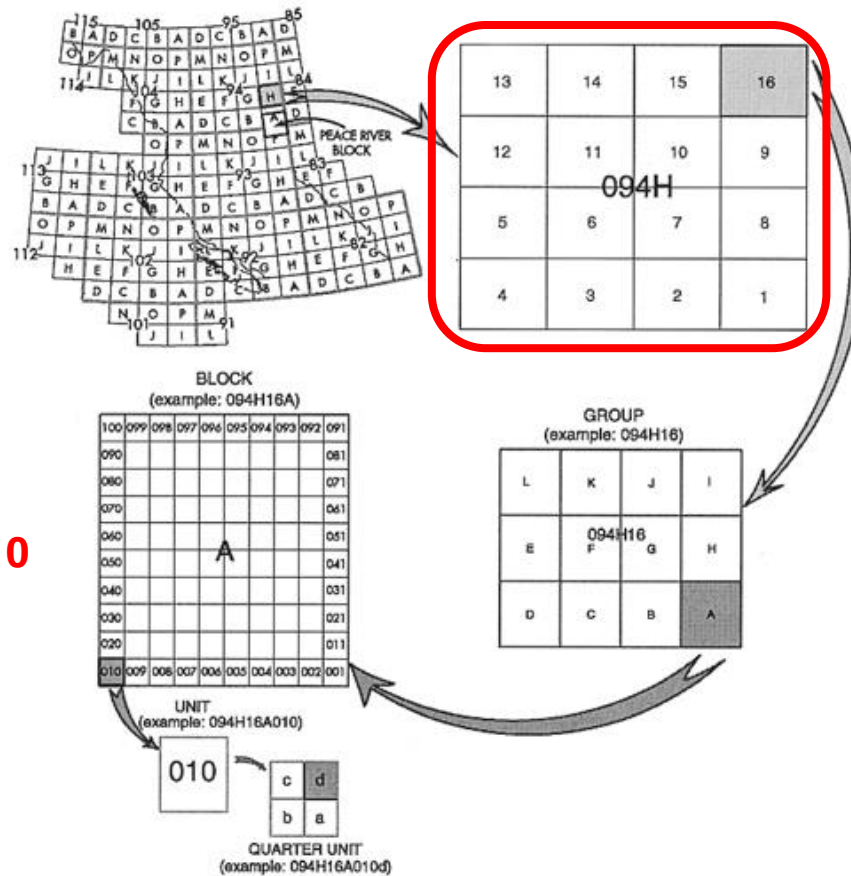


Well location example:  
**d-010-A/094-H-16**

Title description example:  
**094-H-16 Blk A Unit 10**

# Petroleum Grid (NTS) Sample

## PETROLEUM AND NATURAL GAS GRID

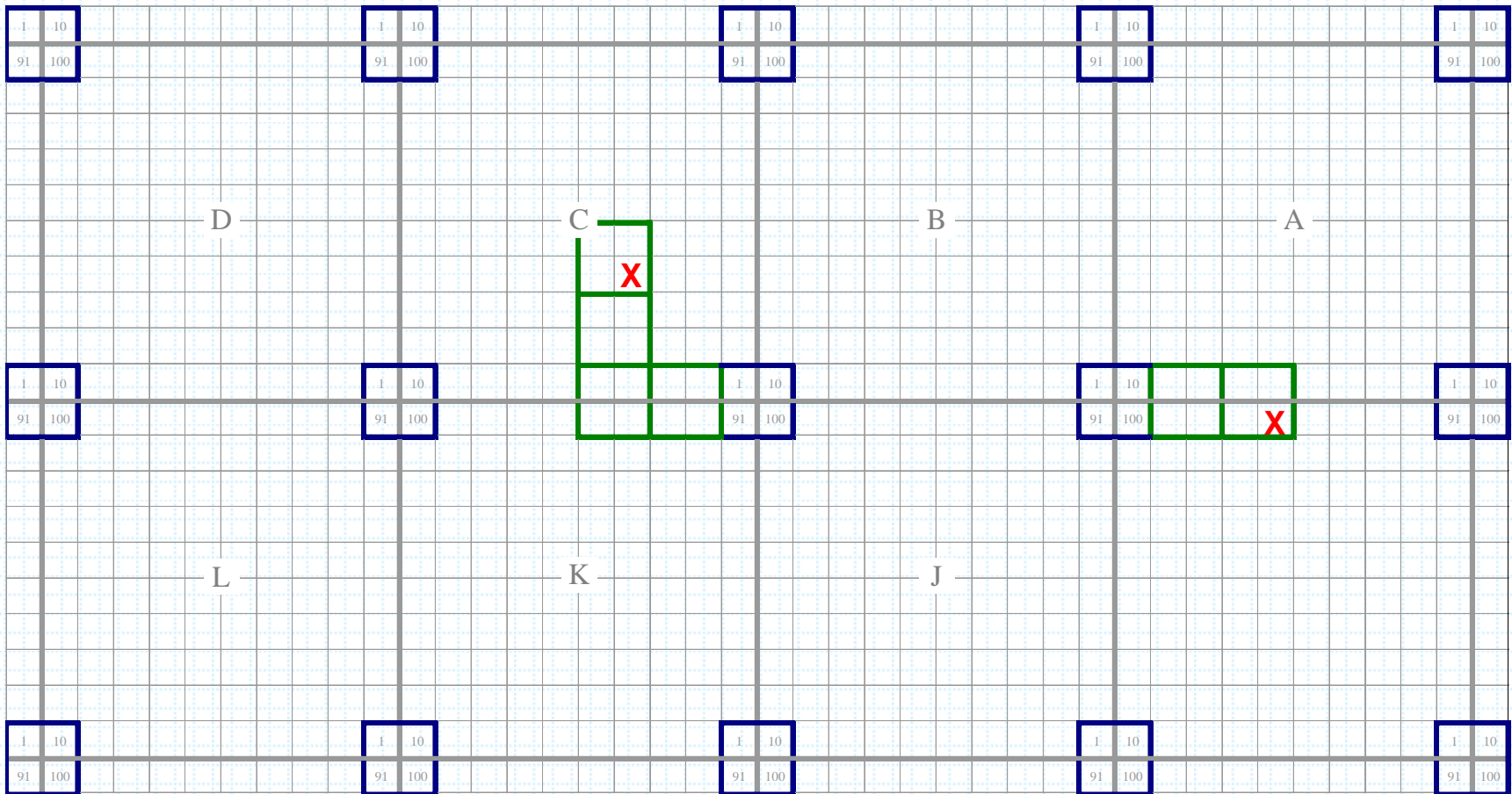


d-010-A/094-H-16  
094-H-16 Blk A Unit 10

d-010-A/094-H-16  
094-H-16 Blk A Unit 10

d-010-A/094-H-16  
094-H-16 Blk A Unit 10

# Normal Spacing – NTS





# Other-than-Normal Spacing (OTN)

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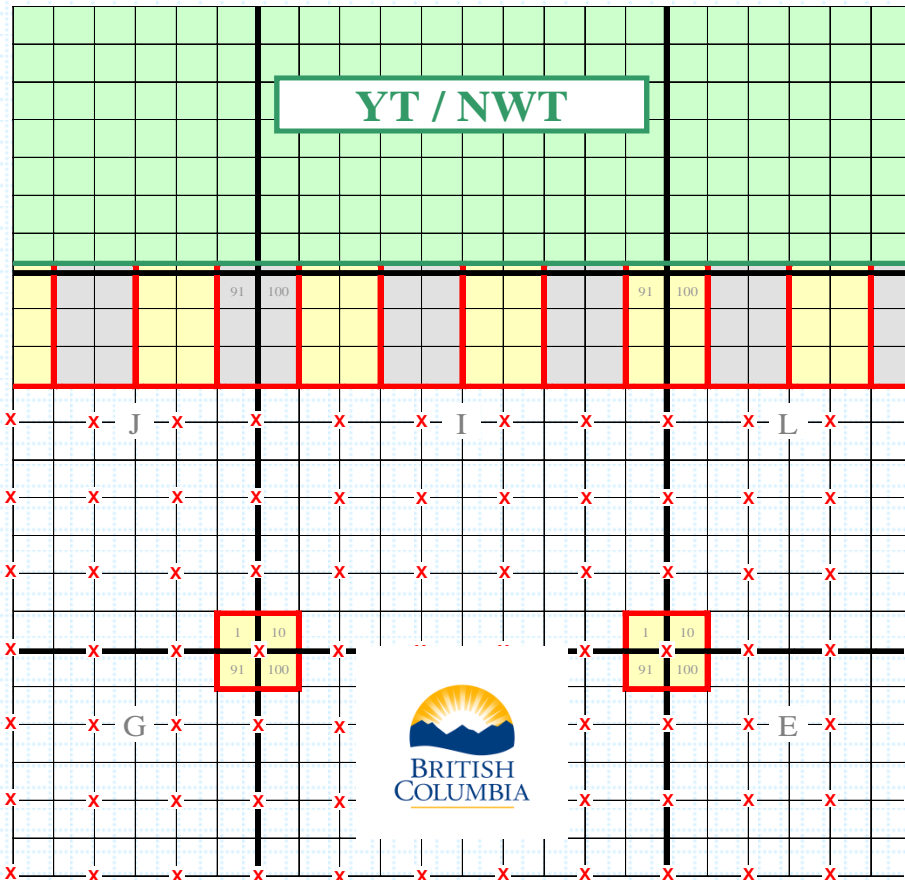
- *OGAA: Drilling and Production Regulation*
- *Requires OGC approval*
  - PNG Act – section 65.1
- Generally larger than normal spacing areas
- Some are already declared adjacent to:
  - Peace River Block – Petroleum Grid
  - BC – YT, NWT, AB boundaries
  - BC – USA
  - Protected Areas
- 1 OTN gas spacing = 1 gas spacing for calculating earnings from Drilling Licences

# OTN – Peace River Block





# OTN – Territorial boundaries



# Tenure Size (hectares)

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- Tenure always issued in **whole hectares**
- Petroleum Grid (NTS)
  - “**NTS Unit Areas**” (Excel; download)
  - For NWT/YT and other areas, call
- Peace River Block (DLS)
  - “**Gas Spacing and Hectarage Map ...**” (PDF; download)
- Calculating method
  - Sum all individual source values
  - No intermediate sums are rounded, only the final sum
  - Round sum to nearest whole hectare

# Tenure Area Calculation – NTS

- Exercise; find the combined area of NTS Units 42-47 of Block E in 094-H-06
- Map 94 EFGH
- Group 5 to 8
- Block E F G H
- Unit 41-50

**Total**  
**6 X 69.8 or 418.8**  
**Rental Size: 419 ha.**

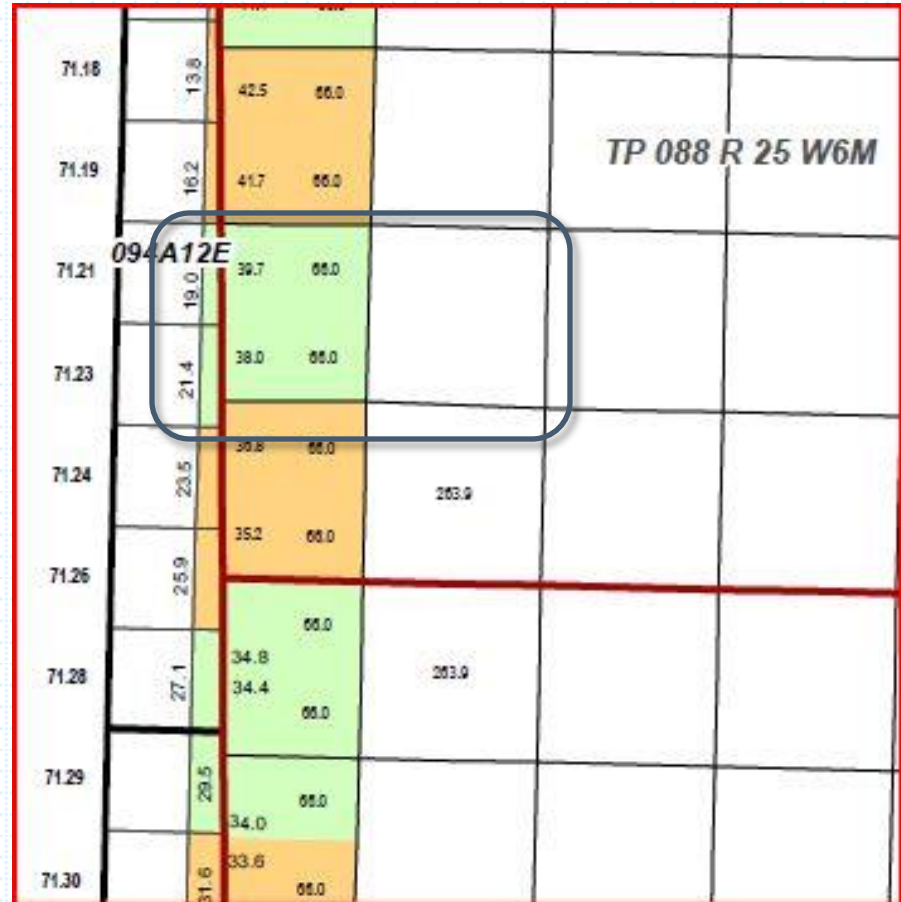
MAP		LATITUDE 57° - 58°															
94 EFGH		Areas of centizone units in hectares to nearest 1/100 hectare															
BLOCK	1 to 4				5 to 8				9 to 12				13 to 16				
	Unit	Ha.	57° 00'		Unit	Ha.	57° 20'		Unit	Ha.	57° 35'		Unit	Ha.	57° 50'		
A	1-10	70.49			1-10	70.02			1-10	69.55			1-10	69.08			
	11-20	.48			11-20	.01			11-20	.54			11-20	.06			
	21-30	.46			21-30	69.99			21-30	.52			21-30	.05			
	31-40	.45			31-40	.98			31-40	.50			31-40	.03			
B	41-50	.43			41-50	.96			41-50	.49			41-50	.02			
	51-60	.41			51-60	.94			51-60	.47			51-60	.00			
C	61-70	.40			61-70	.93			61-70	.45			61-70	68.99			
	71-80	.38			71-80	.91			71-80	.44			71-80	.97			
D	81-90	.37			81-90	.90			81-90	.43			81-90	.95			
	91-100	.35	57° 05'		91-100	.88	57° 20'		91-100	.41	57° 35'		91-100	.94	57° 50'		
BLOCK	1-10	.34			1-10	.86			1-10	.39			1-10	.92			
E	11-20	.32			11-20	.85			11-20	.38			11-20	.90			
	21-30	.31			21-30	.84			21-30	.36			21-30	.89			
	31-40	.29			31-40	.83			31-40	.35			31-40	.87			
	41-50	.28			41-50	.80			41-50	.33			41-50	.86			
F	51-60	.26			51-60	.79			51-60	.31			51-60	.84			
	61-70	.24			61-70	.77			61-70	.30			61-70	.83			
G	71-80	.23			71-80	.75			71-80	.28			71-80	.81			
	81-90	.21			81-90	.74			81-90	.26			81-90	.79			
H	91-100	.20	57° 10'		91-100	.73	57° 25'		91-100	.25	57° 40'		91-100	.78	57° 55'		
BLOCK	1-10	.18			1-10	.71			1-10	.24			1-10	.76			
I	11-20	.17			11-20	.69			11-20	.22			11-20	.75			
	21-30	.15			21-30	.68			21-30	.20			21-30	.73			
J	31-40	.13			31-40	.66			31-40	.19			31-40	.71			
	41-50	.12			41-50	.64			41-50	.17			41-50	.70			
K	51-60	.10			51-60	.63			51-60	.16			51-60	.68			
	61-70	.09			61-70	.62			61-70	.14			61-70	.67			
L	71-80	.07			71-80	.60			71-80	.12			71-80	.65			
	81-90	.05			81-90	.58			81-90	.11			81-90	.63			
	91-100	.04	57° 15'		91-100	.57	57° 30'		91-100	.09	57° 45'		91-100	.62	58° 00'		



# Tenure Area Calculation – DLS

- Exercise; find the total area of the two gas spacing areas outlined at right
- OTN:  $19.0 + 21.4 + 39.7 + 38.0 + 66.0 + 66.0 = 250.1$  ha.
- Sec 8-88-25: infer 263.9

**Total**  
 $250.1 + 263.9 = 514.0$   
**Rental Size: 514 ha.**



# Well IDs and Locations

---

- Well Authorization (WA)
  - Simple 5-digit number assigned to each OGC well permit
  - **Please use wherever possible in correspondence**
  
- Unique Well Identifier (UWI)
  - 16-digit code issued at spud
  - Examples
    - DLS: 102041308617W603
    - NTS: 200D024H094H1604
  - Digit 1: DLS (1) or NTS (2)
  - Digit 2: Always zero
  - Digit 3: Sequence of the well at that bottom-hole location
    - Value of 1 never used
  - Digits 4-14: Approved (then actual) bottom-hole location
  - Digits 15-16: drilling or completion event sequence
    - First CE gets same code as its DE
  
- Well Name
  - Operator(s), HZ, and surface location

# BC Stratigraphic Chart

ZONE DESIGNATION SERIES	ERA	PERIOD & EPOCH	NORTHERN REGION OF N.E.B.C.				SOUTHERN REGION OF N.E.B.C.			
			ROCKY MOUNTAINS AND FOOTHILLS		PLAINS		PLAINS		ROCKY MOUNTAINS AND FOOTHILLS	
			BOULDER CLAYS, SAND AND GRAVEL, VARIED CLAYS, SILTS	BOULDER CLAYS, SAND AND GRAVEL, VARIED CLAYS, SILTS	BOULDER CLAYS, SAND AND GRAVEL, VARIED CLAYS, SILTS	BOULDER CLAYS, SAND AND GRAVEL, VARIED CLAYS, SILTS	BOULDER CLAYS, SAND AND GRAVEL, VARIED CLAYS, SILTS	BOULDER CLAYS, SAND AND GRAVEL, VARIED CLAYS, SILTS	BOULDER CLAYS, SAND AND GRAVEL, VARIED CLAYS, SILTS	BOULDER CLAYS, SAND AND GRAVEL, VARIED CLAYS, SILTS
600	CENOZOIC	QUATERNARY	RECENT TUFAS		RECENT TUFAS		RECENT TUFAS		RECENT TUFAS	
		TERTIARY	LEWISTON AND CLAY OF GOALS							
580	MESOZOIC	CRETACEOUS	SOUTH PART OF AREA		NORTH PART OF AREA		SOUTH PART OF AREA		NORTH PART OF AREA	
560					WAPTITI GROUP		PINE RIVER SECTION		PEACE RIVER SECTION	
540					KOTANIBELLE		PUSKAWASKAU		WAPTITI GROUP	
520					DUNVEGAN		DUNVEGAN		DUNVEGAN	
500					SULLY		SULLY		SULLY	
480					SCATTER		SCATTER		SCATTER	
460					GARBUITT		GARBUITT		GARBUITT	
440					GETHING		GETHING		GETHING	
420					BULLHEAD GROUP		BULLHEAD UNDIVIDED		BULLHEAD UNDIVIDED	
400			JURASSIC	UPPER	FERNIE GROUP		FERNIE GROUP		FERNIE GROUP	
380	JURASSIC	MIDDLE	PASSAGE BEDS		PASSAGE BEDS		PASSAGE BEDS			
360	JURASSIC	LOWER	POKER CHIP		POKER CHIP		POKER CHIP			
340	TRIASIC	UPPER	UNNAMED POST-LIARD BEDS		UNNAMED POST-LIARD BEDS		UNNAMED POST-LIARD BEDS			
320	PERMIAN		ISHBEL GROUP		ISHBEL GROUP		ISHBEL GROUP			

AGE	ERA	GRATLING				GRATLING				
		PERMIAN	ISHBEL GROUP	FANTASQUE	ISHBEL GROUP	FANTASQUE	ISHBEL GROUP	BELLOY	ISHBEL GROUP	FANTASQUE
320	PALAEOZOIC	PERMIAN	ISHBEL GROUP	FANTASQUE	ISHBEL GROUP	FANTASQUE	ISHBEL GROUP	BELLOY	ISHBEL GROUP	FANTASQUE
300		MISSISSIPPIAN	UPPER		MATTSON		MATTSON		MATTSON	
280		MISSISSIPPIAN	LOWER		BESA RIVER		BESA RIVER		BESA RIVER	
260		MISSISSIPPIAN	LOWER		BESA RIVER		BESA RIVER		BESA RIVER	
240		MISSISSIPPIAN	UPPER		BESA RIVER		BESA RIVER		BESA RIVER	
220		MISSISSIPPIAN	UPPER		BESA RIVER		BESA RIVER		BESA RIVER	
200		MISSISSIPPIAN	UPPER		BESA RIVER		BESA RIVER		BESA RIVER	
180		MISSISSIPPIAN	UPPER		BESA RIVER		BESA RIVER		BESA RIVER	
160		DEVONIAN	MIDDLE		BESA RIVER		BESA RIVER		BESA RIVER	
140		DEVONIAN	MIDDLE		BESA RIVER		BESA RIVER		BESA RIVER	
120	DEVONIAN	MIDDLE		BESA RIVER		BESA RIVER		BESA RIVER		
100	DEVONIAN	LOWER		BESA RIVER		BESA RIVER		BESA RIVER		
080	SILURIAN	LOWER		BESA RIVER		BESA RIVER		BESA RIVER		
060	OROVICANIAN	LOWER		BESA RIVER		BESA RIVER		BESA RIVER		
040	CAMBRIAN	LOWER		BESA RIVER		BESA RIVER		BESA RIVER		
020	PRECAMBRIAN	LOWER		BESA RIVER		BESA RIVER		BESA RIVER		

<http://www2.gov.bc.ca/gov/content/industry>

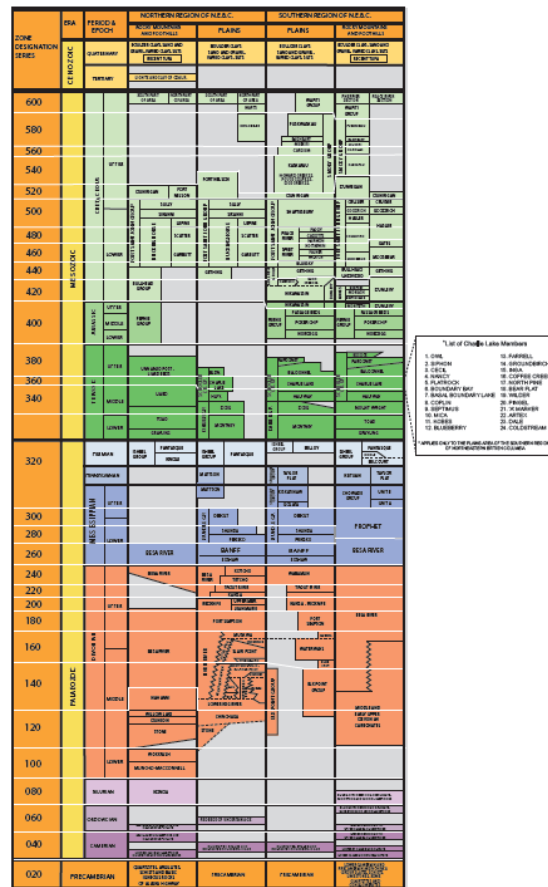
Natural Gas & Oil > Petroleum & Natural Gas Tenure > Publications > Stratigraphic Correlation Chart

# BC Stratigraphic Chart

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- The Stratigraphic Chart illustrates standard geological formation names used in British Columbia.
- Overlaid on the Stratigraphic Chart are major horizontal intervals, lying between white lines, each containing from one to several major geological formations. These horizontal bands represent slices of rock that are used in the standard Zone Designation System.
- The Stratigraphic Chart is a guide for Zone Designations and is not a comprehensive list of all Formations or Zones.

# Zone Designation System



## DEFINE RIGHTS

- Zones are packages of one or more geological formations that define the rights issued for PNG tenure (marked in white on the diagram)
- Zones are defined by specific intervals on specific logs of a reference well
- Zones are carefully selected to avoid disputes; primarily widespread markers in non-productive strata

## 5 DIGIT CODE

- Digits 1-3: Stratigraphic package
- Digits 4-5: Geographic Area
- Code value increases as age decreases

# Zone Designation System

---

## ZONE BOUNDARIES

- Zone boundaries between layers are chosen at points where geological correlations are clear. Conflicts between companies over geological correlations, rights held, and vertical pooling are minimized.
- **20002 Jean Marie**
- **33013 Montney (excluding Basal Lag)**
- **34011 Artex-Halfway-Doig (base A marker to base Doig)**
- **44018 Bluesky – Gething**

# Zone Designation System

---

## USE TYPE WELLS

- Standard reference descriptions of geological intervals (Zone Designations) with well-chosen type wells are used to ensure consistency in the administration of rights.
- **38013 PARDONET-BALDONNEL:** ZONE IDENTIFIED IN THE INTERVAL FROM 3,615.7M TO 3,724.0M MEASURED DEPTHS OF THE COMPENSATED NEUTRON - LITHO DENSITY LOG (RUN 2) RECORDED 1991-JUN-25 IN THE WELL W.A. 7591 SHELL ESSO GWILLIM A-51-H/93-P-5.



# Zone Designation System

---

- In a PNG Lease, when hydrocarbons are found in any part of a standard Zone Designation layer, then the entire Zone is eligible for lease continuation.  
(e.g. 34011 Artex – Halfway - Doig)
  
- In a Drilling Licence, if any formation in a Zone is evaluated, the entire Zone will be convertible to Lease.
  
- PNG rights are usually described in relation to a zone base:
  - PNG **Down to Base 36002**
  - PNG **From Base 38001 To Base 36002**
  - PNG **Below Base 36002**
  - PNG **In 36002**

# QUESTIONS?

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# BC's Oil and Gas Tenures

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- Storage and Special Agreements
  - PNG Act sections 126 – 132
  - PNG Act section 72
- Permits
- Drilling Licences
- Leases

# Permits

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- A right to explore for oil and gas
- Available only by Crown sale
  - Postings up to one NTS block accepted, with cause
- One year primary term
- Term renewal requires annual exploration spending
  - Actual exploration spending or cash-in-lieu payment
  - Rates defined in Fee, Rental and Work Req. Reg.
  - Renewal options and work requirements vary by class



**Drilling Licence  
(DL)**

# Drilling Licences - Main Features

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- A right to explore for oil and gas by drilling wells
- Not a right to take production (for sale); testing OK
- Acquired only from Crown Sale
  - Postings: 1 – 36 gas spacing areas
- Term is 3, 4, or 5 years; “Prescribed Area” (Schedule 2 of the DL Regs)
- Term may be extended, at least once, more depending on circumstances
- Splits not allowed; but partial surrenders OK
- Convertible to Lease by drilling or grouping
- May convert some GSAs to Lease for production and defer any unused entitlement to later in DL term

# DL - Term Extensions

---

- Section 3(5) - “Standard Extension”
  - One year period
  - Available once – after all primary term years
  - Pre-requisite for some other extension types
  - \$500 fee; double rent (\$7/ha)
  - Written application not required
    - Apply from e-Payments Statement, unless you wish to reduce the area of the DL before extension
    - Available on or before the DL expiry date **only**



# DL - Term Extensions

---

- Section 3(5.1) - “Special Extension”
  - Available after term expiry or another extension
  - Renewable for one year or less, by application
  - Approval is discretionary
    - Decisions will be based on policies in Information Letter TACRD-11-02
  - Requires:
    - Application submitted to the Director before expiry
    - WA application filed with OGC at least 30 days before expiry
    - Start of drilling is delayed by one of:
      - Environmental or socio-economic study
      - Public hearing
      - Planning or consultation process
  - Application
    - Standard DL rental (\$3.50/ha) by ePayments Submission (not Statement)

# DL - Term Extensions

---

- Section 3(5.3) - “Coal Bed Gas Extension”
  - Applies only to land and rights within a coalbed gas project approved by the OGC under s.75 of OGAA
  - Available only after standard extension
  - May be used up to 5 times
  - Requires:
    - Application submitted to the Director before expiry
    - Lands and zones remain subject to OGC special project
  - Application
    - Standard DL rental (\$3.50/ha) by ePayments Submission (not Statement)

# DL - Term Extensions

---

- Sections 3(7) – “Drilling past expiry”
  - DL expiry date is extended to the date the earning well is released from drilling operations. Where two or more earning wells are drilling past expiry on one DL, the expiry date is extended to the date the last rig is released from drilling operations.
  - Drilling on each earning well has reached at least 150m (from surface) at midnight of original expiry date and must be diligently pursued during the extension.
  - No other earning well may be started during the extension, unless it is a replacement well due to mechanical well failures.
  - DL must have been previously extended under 3(5)
- Section 3(10): “Extension by Grouping”
  - Other DLs expiring on or after a DL extended under 3(7) may be grouped with that DL and extended to the same date if they too have already been extended under 3(5) and lie within 4 kms. of the DL extended under 3(7).

# DL - Grouping

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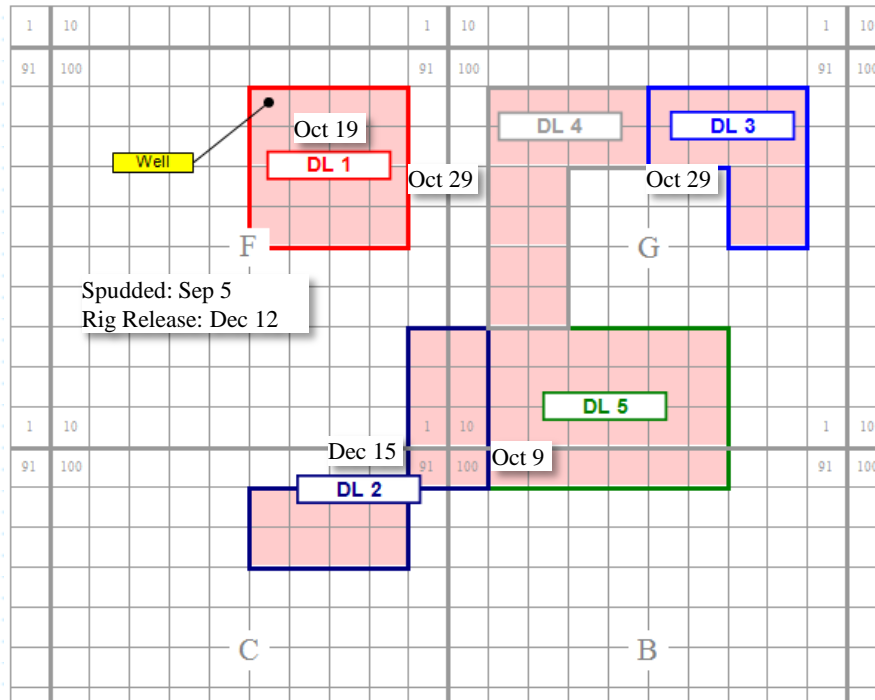
## ● Section 4.1

- One DL must have, in the Director's opinion, an earning well not previously used as an earning well for grouping or selection
- Any number of qualified DLs may now be grouped
- To qualify, a DL must lie within 4 km. of the DL to which the grouping well is associated.
  - Verify using GIS measurement tools, such as iMap 2.0.

## ● Application:

- Submitted to Director before earliest expiry date of the DLs to be grouped.
- Written authority of one titleholder of each DL to be grouped when the applicant is neither the Payor nor a titleholder of all DLs in the proposed group.

# Drilling Past Expiry



## Exercise:

If today is Oct 20, DL 1 is extended under 3(7); all other DLs here reach the end of their s. 3(5) extension on the dates indicated

1. When does DL 1 expire?  
✓ Dec 12
2. Which of the five DLs qualify to be extended under section 3(10)?  
✓ DL 4
3. Why not DL 2?  
✓ Expires after DL 1 extension ends
4. Why not DL 3?  
✓ > 4 km from DL 1
5. Why not DL 5?  
✓ Expires before DL 1 is extended

# Lease Earnings

---

- Requires an “earning well”, one that has drilled and evaluated at least one GSA held or shared by the Drilling Licence
- Awarded in terms of whole GSAs
- Entitled to deepest zone evaluated, so long as designated GSA includes same zone
- GSAs awarded depends on:
  - Area 1, 2, or 3 (defined in DL Reg Schedule 2, not Grid Reg)
    - When DL spans two or more Areas, earnings are based on the Area with the greatest earnings
    - Information Letter TITLES-05-03
  - Combined lengths of drilling events
    - Less any length drilled through rights held by lease that are not necessary for the purpose of evaluating the DL

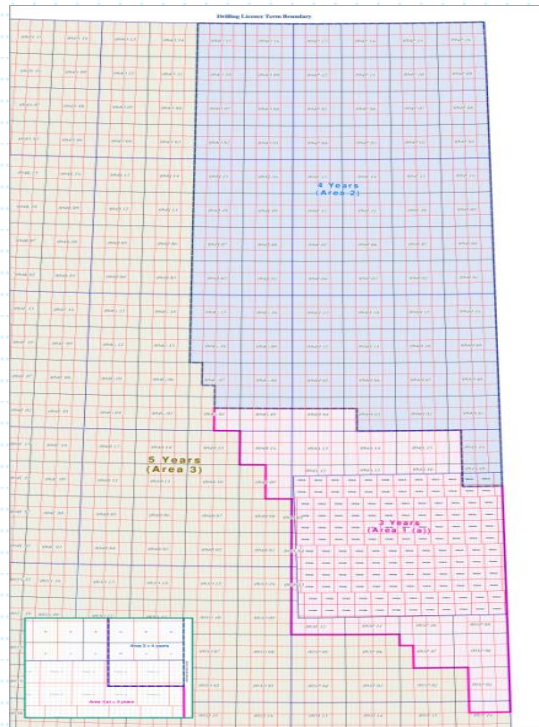
# Lease Earnings

---

- Zones awarded are to the base of the deepest zone "evaluated"
  - Applicants must designate one of the DL's GSAs evaluated by the earning well in this zone
  - A GSA may only be designated once during the life of the DL.
- If the well penetrates 2 or more DLs
  - Licensee must nominate one to be the 'drilled' DL
  - Earnings, extensions, and grouping rights attach to 'drilled' DL only



# DL Term – Prescribed Areas



- Download “Drilling Licence Term Boundaries” from Publications

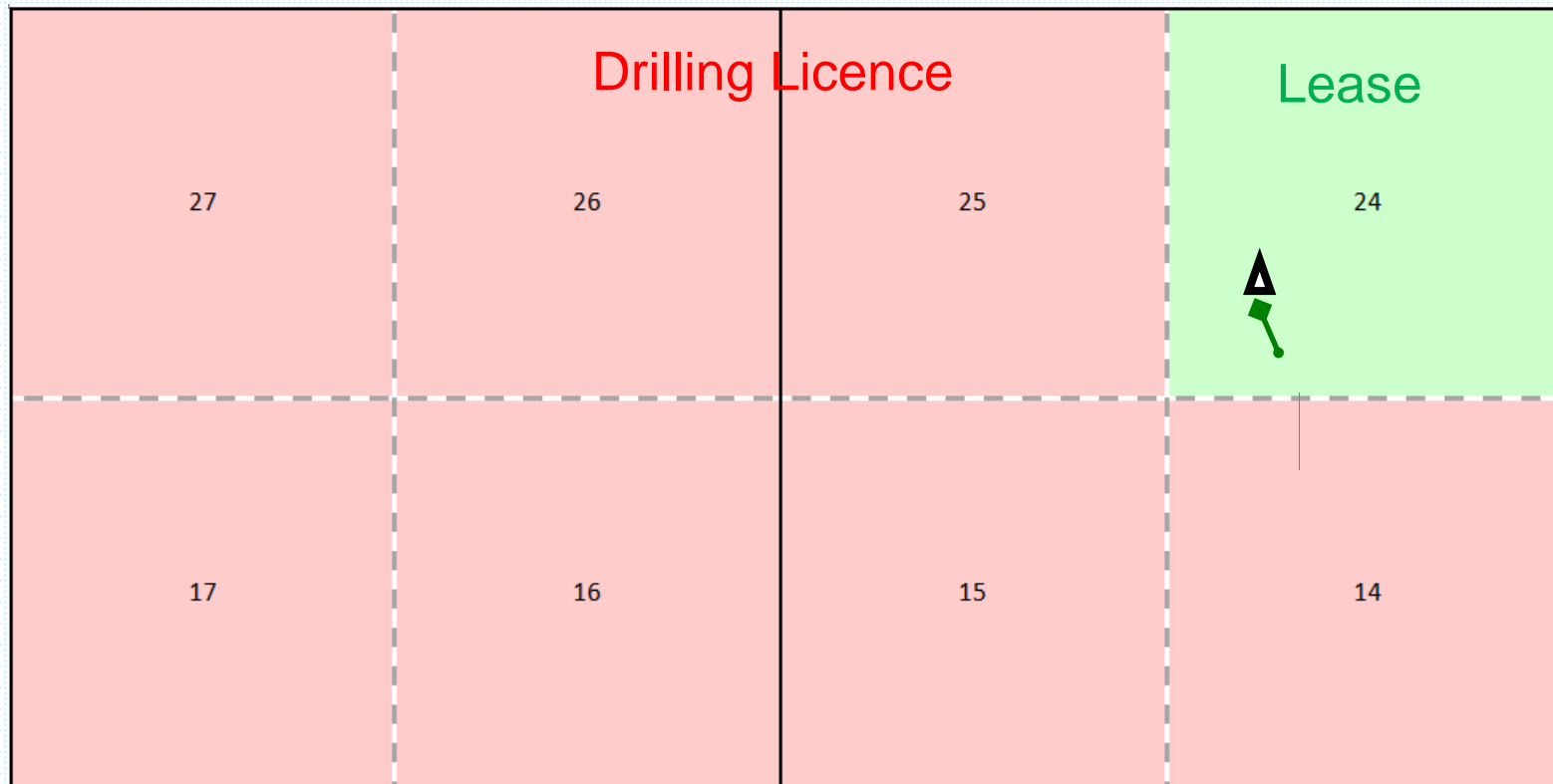
Measured Wellbore Length (meters)	Primary Term		
	Column 2 3 years	Column 3 4 years	Column 4 5 years
less than 1001	2	2	3
1 001 to 1 300	3	3	4
1 301 to 1 500	4	5	6
1 501 to 1 800	5	6	8
1 801 to 2 100	6	7	9
2 101 to 2 400	7	8	10
2 401 to 2 600	8	9	11
2 601 to 2 800	9	10	12
2 801 to 3 000	10	12	14
3 001 to 3 200	11	13	16
3 201 to 3 400	12	14	18
3 401 to 3 600	13	15	20
3 601 to 3 800	14	16	22
3 801 to 4 000	15	18	24
4 001 to 4 200	16	20	26
4 201 to 4 400	17	22	28
4 401 to 4 800	18	24	30
4 801 to 5 200	18	25	31
over 5 200	18	25	32

# Earning Wells – Redrilled Wells

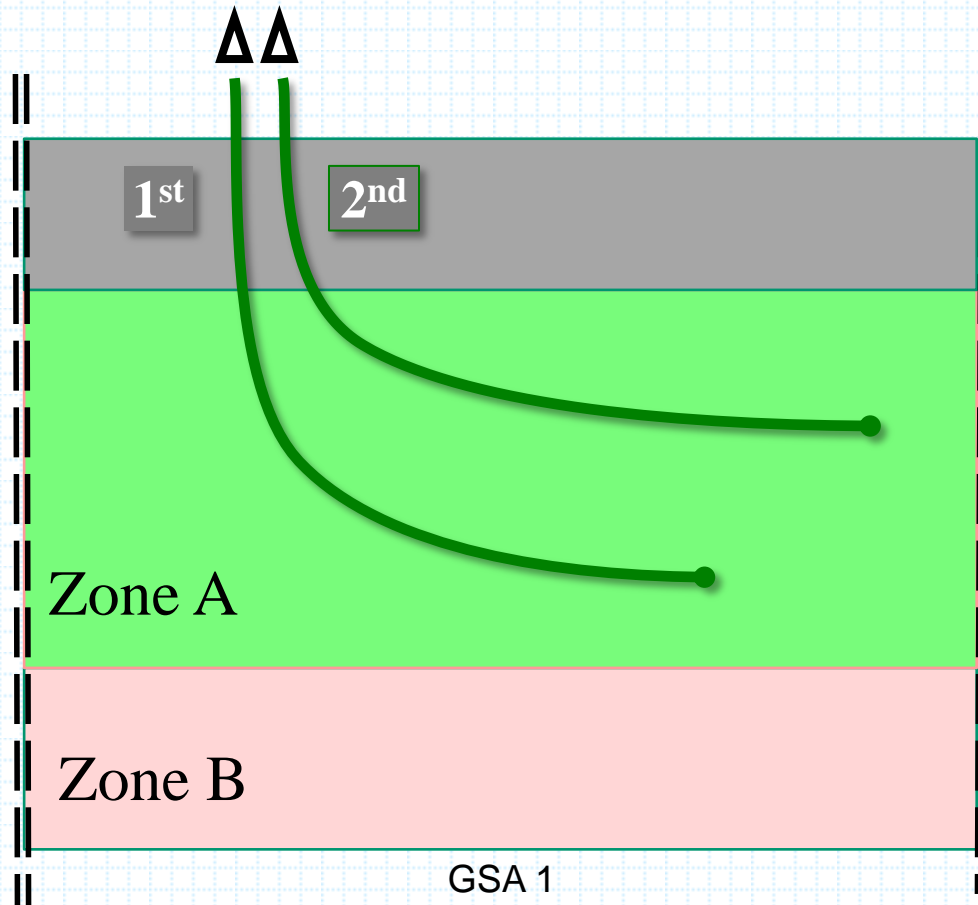
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- Redrilled wells may be used as earning wells
- A "redrilled" well is one where the work carried out consisted of:
  - deepening the existing well to evaluate one or more underlying zones; or,
  - completing a previously uncompleted interval in the well; or,
  - re-completing one or more intervals in the well in a manner that provides significant new information about the formation
- The total wellbore length for such wells is measured from surface to the base of the new bottom-hole location or from surface to the base of the deepest new completion interval, whichever is applicable

# Earning Well – Off DL

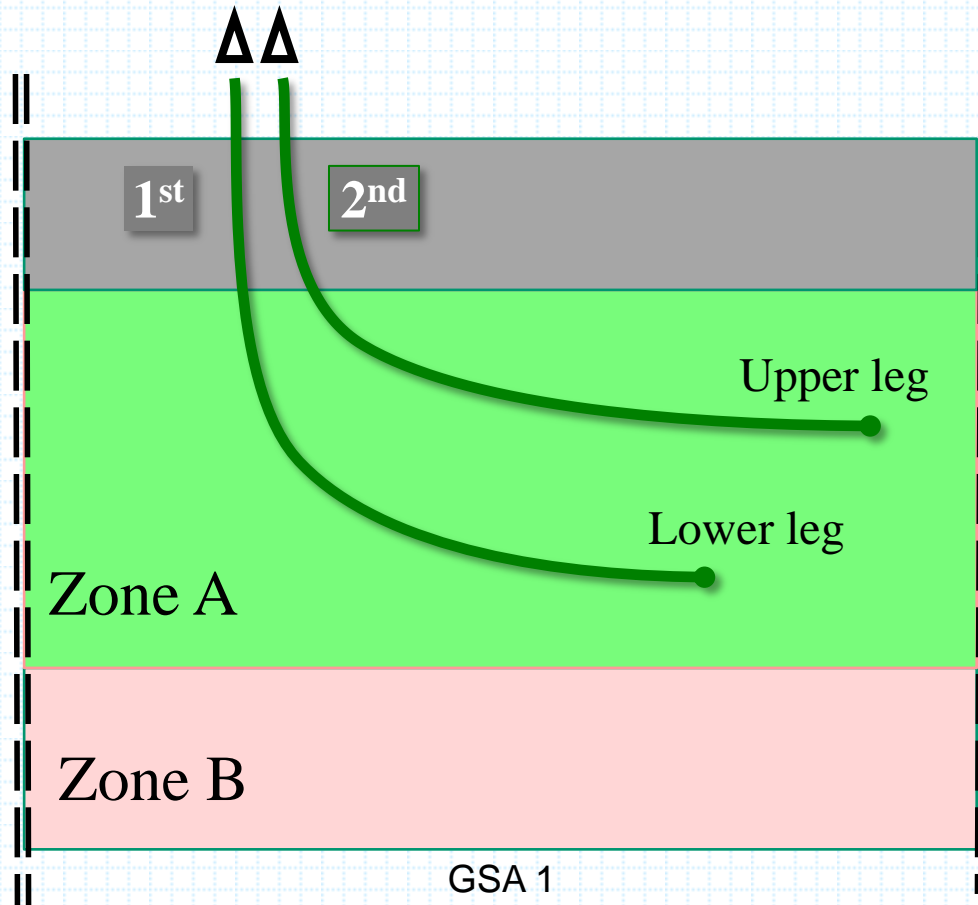


# Earning Well Scenario A



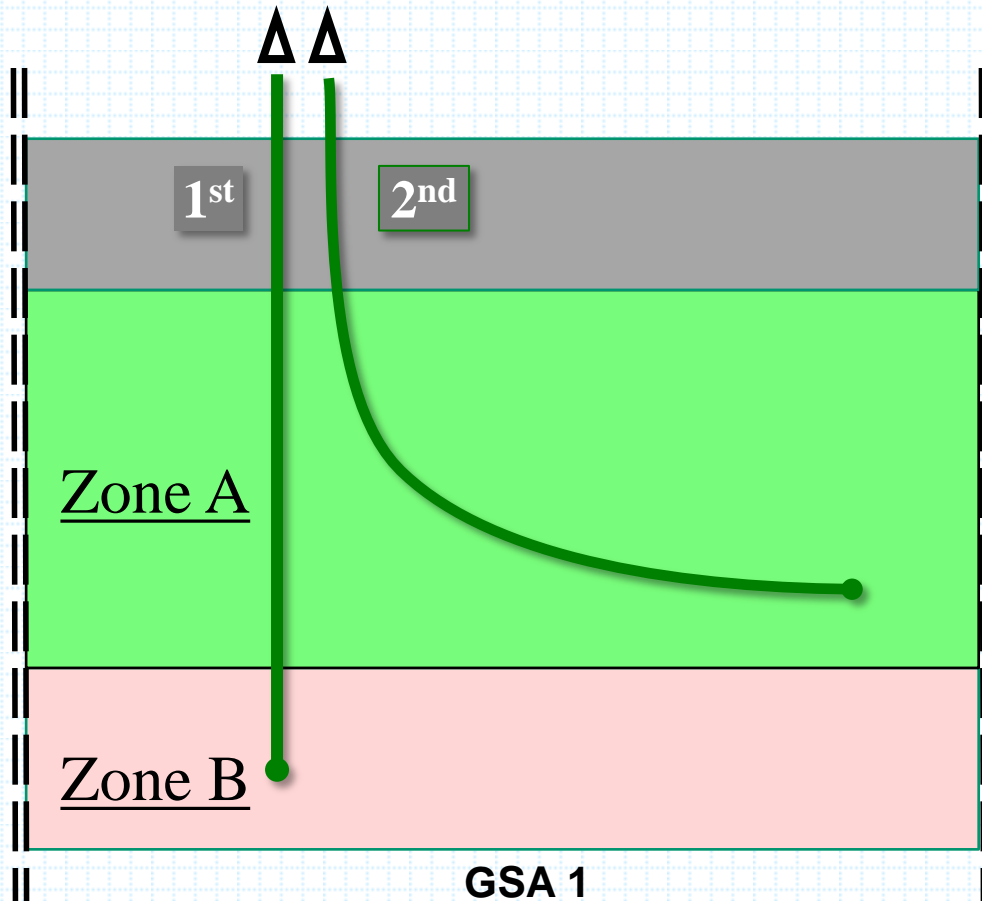
- Drilling order does not matter
- Each well evaluates the same zones
- One well not an earning well; choice is applicant's
- Applicant designates GSA1/ZoneA

# Earning Well Scenario B



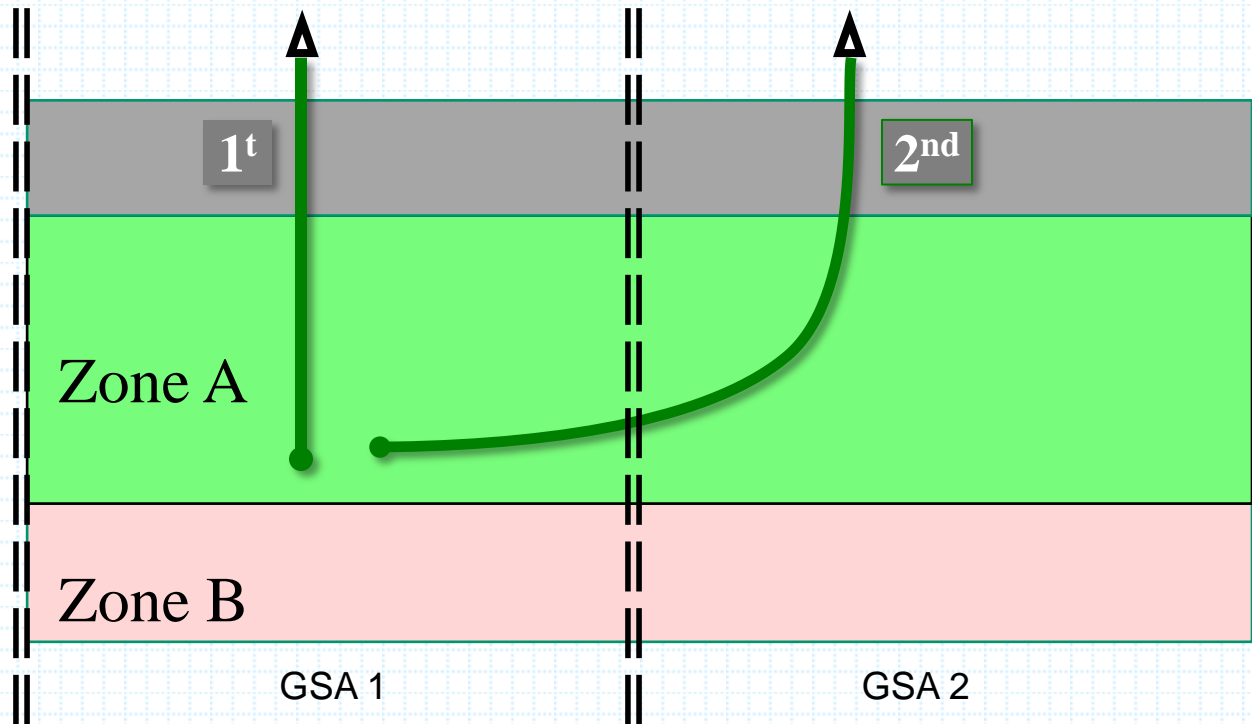
- Drilling order does not matter
- Each well drills a distinct 'formation', but in same zone
- Applicant designates which well is the earning well
- Applicant designates GSA1/ZoneA

# Earning Well Scenario C



- Drilling order does not matter; both wells qualify as earning wells
- Well #1 designates GSA/ZoneB
- Well #2 designates GSA/ZoneA

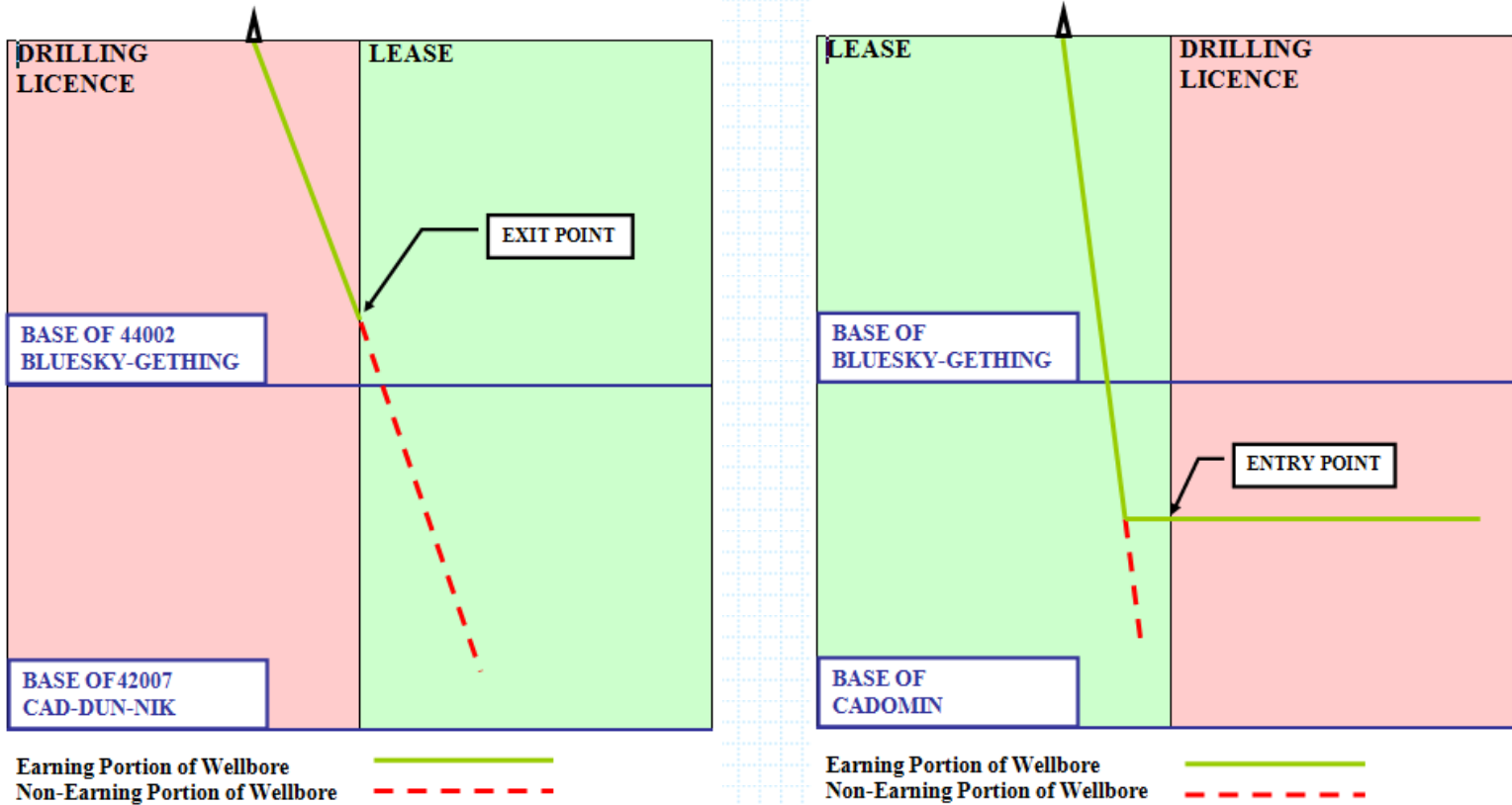
# Earning Well Scenario D



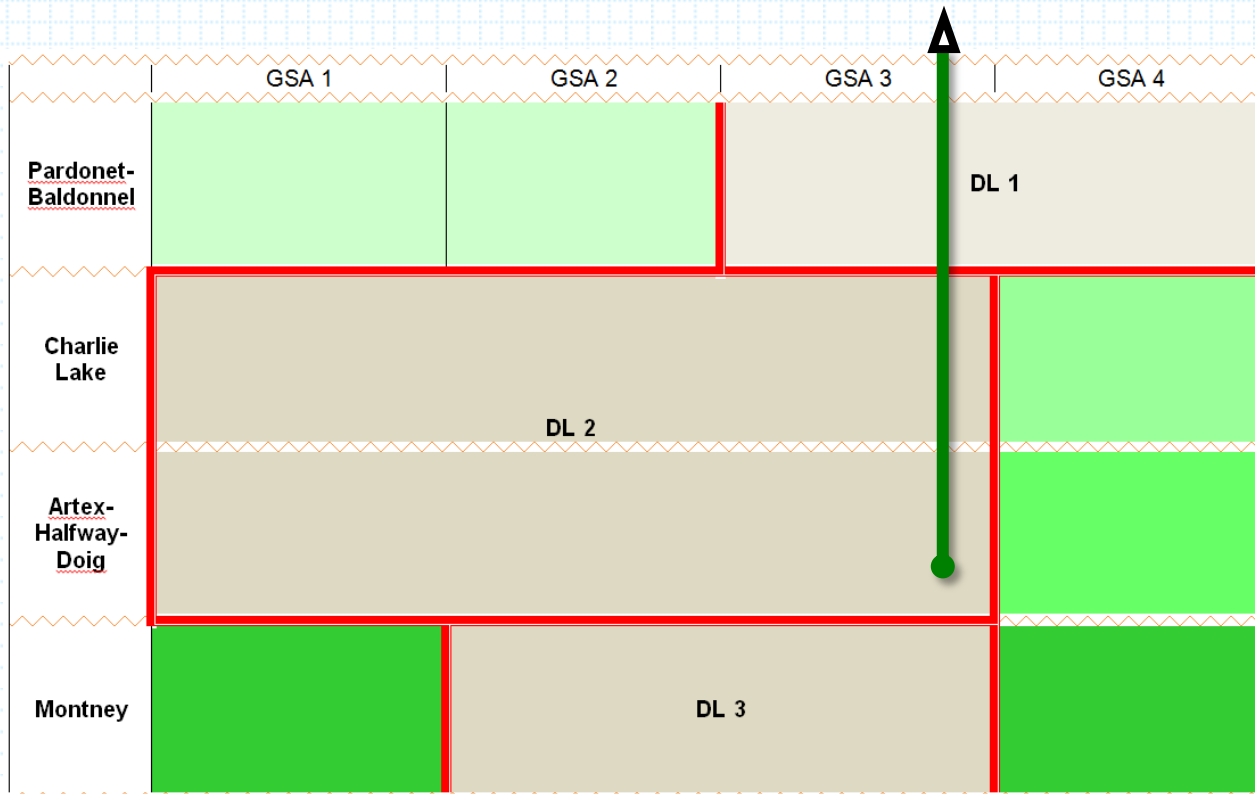
- Drilling order does not matter; both wells qualify as earning wells
- Well #1 designates GSA1/ZoneA
- Well #2 designates GSA2/ZoneA



# Earning Wells Scenario E

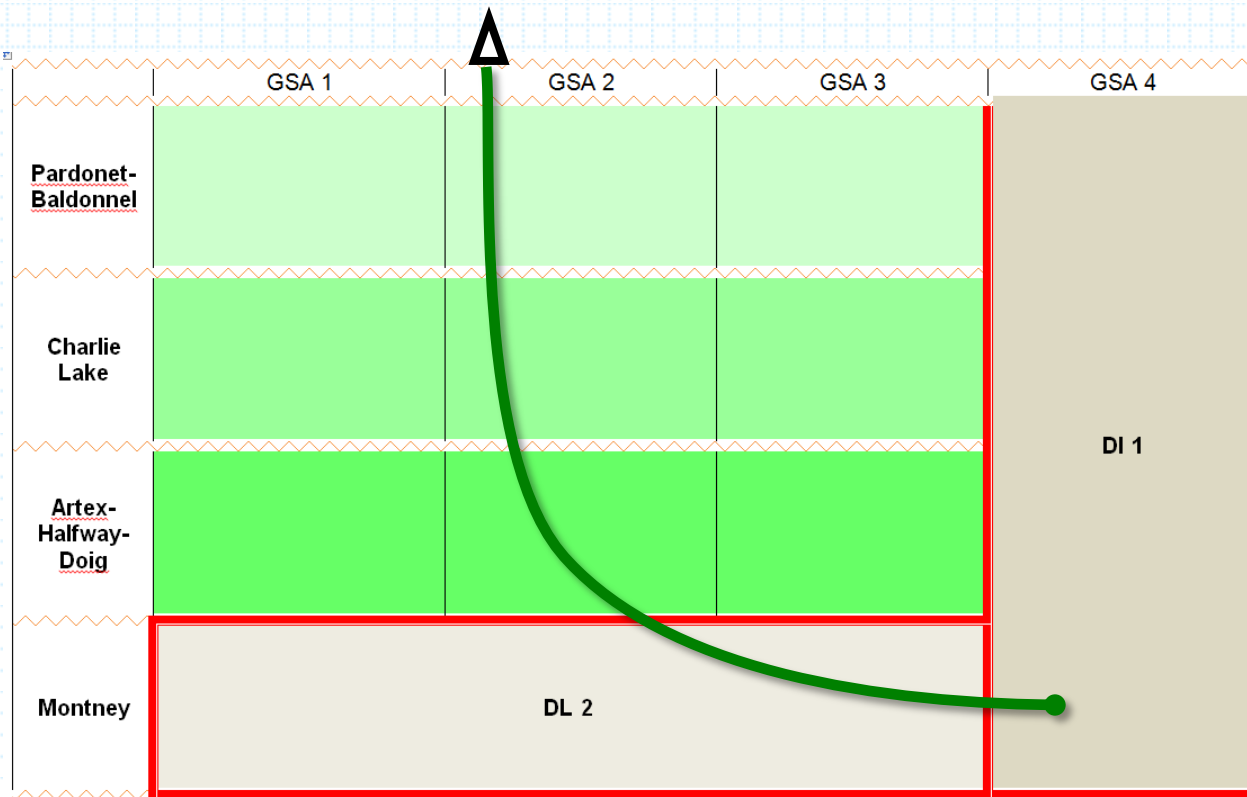


# Earning Wells Scenario F



- If DL 1 and 2 are grouped, common GSAs like GSA 3 count as a single GSA deducted from earnings

# Earning Wells Scenario G



- Grouping is NOT mandatory
- Designating which DL 'contains' the well is mandatory

# Earning Wells – “Evaluation”

---

- A selected Lease may include rights down to the base of the deepest geological zone “*evaluated*” by the earning well
- This standard is applied in a broad, exploratory sense. The well must at least drill into and find *significant or substantial new geological information* about a zone. Typically, the information could establish that the well encountered a:
  - wet reservoir; or
  - tight reservoir; or,
  - hydrocarbon-bearing reservoir

# Earning Wells – “Evaluation”

---

- Alternately, evaluation may also mean determining
  - The definitive absence of a reservoir; or,
  - The geological character of a zone in a new area
- The existing state of exploration of a zone in a particular geographic area is an important factor, for example:
  - If drilling takes place in a remote or wildcat exploratory area, or if little is known about the zone of interest, then smaller amounts of new information will be considered significant in the evaluation of the zone
  - Similarly, a zone known to have a great degree of local geological variability will require only a small amount of new significant drilling information in order to be considered evaluated

# Earning Wells – Online Guide

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## ● Access the Online Guide

- Go to BC Farming, Natural Resources and Industry site:  
<http://www2.gov.bc.ca/gov/content/industry>
- Natural Gas & Oil > Petroleum & Natural Gas  
Tenure>Publications>Administration
- Earning Wells – Guide to Geological Evaluation of Zones

# Lease Selection Applications

---

- First, e-Payments Submission; then Application Letter
  - Ensure you Payor of all DLs in the application
  - Create a Conversion Submission
  - If a grouping is needed, add each DL to be grouped to the Sub
  - For each DL, create a row for each new Lease to be issued from that DL, with its expected area, in hectares
- Application Letter must include:
  - The e-Payments Submission number in subject line



# Lease Selection Applications

---

- Application Letter (continued)
  - Include a table with rows for each earning well, containing:
    - OGC Well Permit (WA)
    - Spud and Rig release dates
    - Estimated total length of all eligible wellbore segments
      - Do not include lengths drilled after leaving the Drilling Licence rights
    - Expected number of GSAs earned
    - Name of the deepest formation “evaluated” by the well
    - Location of designated GSA
  - Desired configuration of Leases
    - Use legal descriptions that match formats used in the Drilling Licence
    - Keep identical rights in the same tract

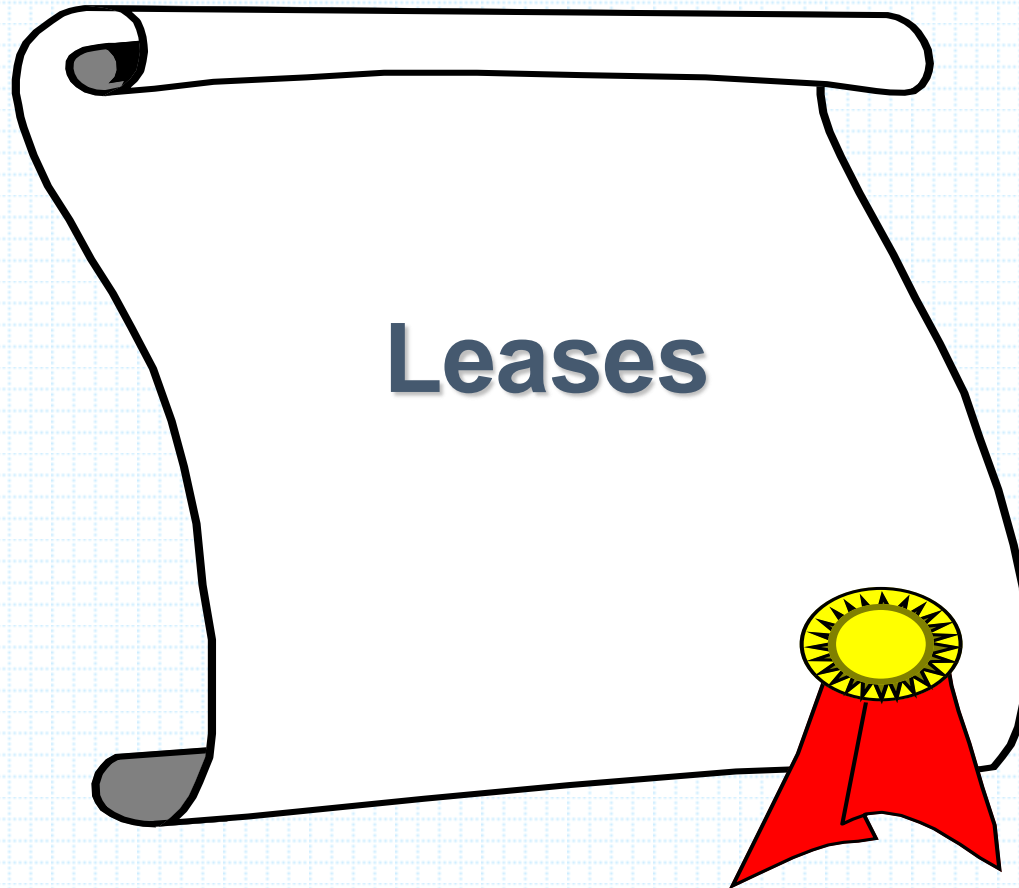
# Lease Configuration

---

- Basic restrictions on selected Leases:
  - Must include all spacing areas that will be on production
  - Each Lease must be located entirely within one DL
  - Must not result in new split gas spacing areas, unless you have an oil well and want to split the gas spacing area
- Options for selected Leases:
  - Regardless of zones earned, earnings from two or more wells may be combined into one lease

# QUESTIONS?

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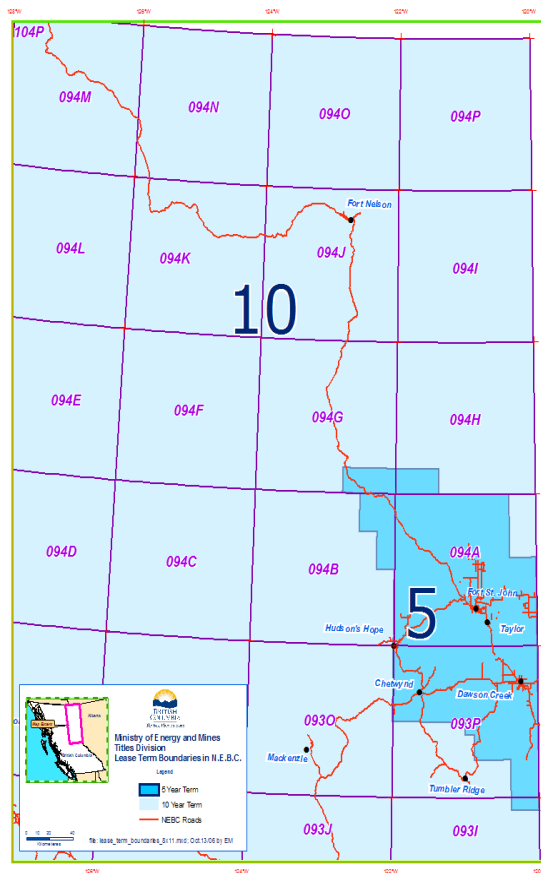


# Leases

---

- A right to explore for and produce oil and gas
- Available from
  - Crown Sale
  - Converting Permits and Drilling Licences
  - Split from another Lease (transfer)
- May be continued beyond initial primary term

# Leases – Term



- Inside Area 1: 5 years
- Outside Area 1: 10 years
- A Lease overlapping both areas has a 5-year term
- Posting requests and Lease selections intersecting the boundary should be done carefully: Term is the shorter of 5 or 10 years if Lease straddles boundary

# Leases – Continuations

---

- Several forms
  - *Section 62*
  - *Section 61*
  - *Section 61.1*
  - *Section 58*
- One year, in all cases
- Guides available online (“Publications” page)
  - *“Guide to BC Petroleum and Natural Gas Act Lease Continuations”*
  - *“Recommended Technical Package Contents for Section 58 Applications”*



# s. 62 Continuation

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- Available three times for any 10-year Lease
  - Year 1                                   \$15.00 / Ha
  - Years 2 or 3                           \$25.00 / Ha
- Need not be used in consecutive years
- No rights reversion
- Application and rental payment
  - Use the ePay Statement when the whole Lease is to be continued; or,
  - Use an ePay Continuation Submission and written application when other continuation types (splits) are anticipated or you wish to reduce the area of the Lease

# s. 61 Continuation

---

- Continuation by Written Drilling Commitment
    - Well must be designed to generate sufficient data to delimit a pool of hydrocarbons in at least one zone within a single GSA held by each Lease that will be drilled into by the well
    - Application must be in writing and submitted prior to expiry
  - Available for any Lease that is expiring
  - Lease will not subject to rights reversion
  - May be used more than once, but spacing area(s) of successful commitment wells will be split out under s.58 and the rights severed pursuant to s.59 or s.59.1
  - Applies only to Lease(s) that will be drilled into
  - Director may cancel Lease for non-performance
  - Applications made through e-Payments
    - The *Act* requires sending written application
-

# s. 61.1 Continuation

---

- Eligibility is through one of two routes:
  - spacing areas subject to an existing OGC approved made under the OGAA *Drilling and Production Regulation*; or,
  - spacing areas the Director believes will be required for effective future disposal
- Disposal must be restricted to water, CO<sub>2</sub>, and waste fluids from oil and gas exploration, production, and processing
- Written application for first approval must provide technical support and must accompany e-Payments Submission of first year rental
- Once approved, subsequent continuations are secured by paying annual rental
- Lease split required if other locations are continued

# s. 61.1 Continuation

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- Designed to allow the Director a discretionary power to continue rights for the purpose of disposal, **existing or planned**, over areas where an OGC Oil and Gas Activities Act Section 75 Disposal approval has not been granted
- Allows for legitimate planning of future disposal necessary to allow development and production to proceed
- Avoids conflicts between two operators in a single Gas Spacing Area
- Title is continued IN the disposal zone (not DB disposal zone)

# s. 58 Continuation

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- Four sub-types:
  - 58(3)(a): Eligible Spacing Areas
  - 58(3)(b): Unit and Royalty Agreements
  - 58(3)(c): Work Programs
  - 58(3)(d): Establishing a Well Over Expiry
- All s.58 continuations subject to rights reversion: deep rights or zone-specific (s.59)
- Leases approved under two or more s.58 subsections, or a combination of s.58 and another section, will be split.

# s. 58 Continuation

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- Section 58(3)(b) - “unit or royalty agreements”
  - Portions of Lease subject to Unit or Royalty Agreements
  - Once approved, continuation is by rental payment until further notice; subject to annual review under the *Act*
- Section 58(3)(c) - “work programs”
  - Must be designed to delimit a pool or field of oil or natural gas
  - May include multiple Leases
  - Not intended for multi-year exploration programs, depends on circumstances (e.g., access, scope)
- Section 58(3)(d) – “drilling incomplete”
  - The drilling or work on the establishment of a well is incomplete on the expiry date
  - The Director is satisfied that the drilling or work will continue

# s. 58(3)(a) - Eligibility

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- Eligible Spacing Area:
  - May refer to oil spacing or gas spacing
  - Contains a “petroleum well” or “gas well”
  - Is subject to an approval issued under s.75 of the *Oil and Gas Activities Act* by the Oil and Gas Commission
  - Is, in Director’s opinion, at least 50% covered by a ‘pool’ of hydrocarbons
  - May, in Director’s opinion, be ‘adequately drained’ by a well in an adjacent spacing area
- Once approved, continuation is made by annual rental payment until further notice; subject to annual review under the *Act*

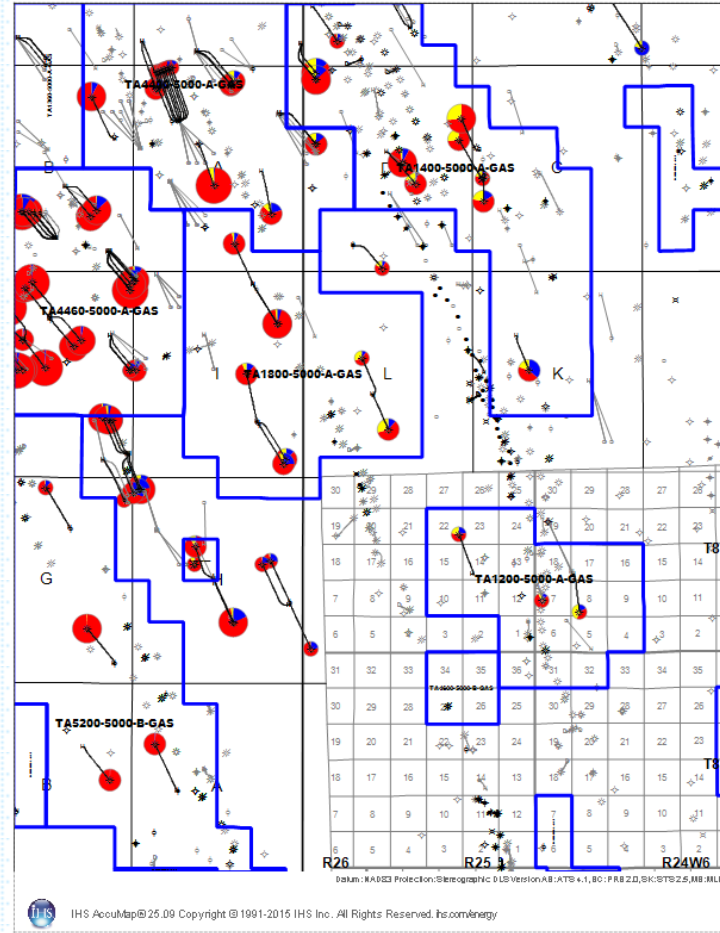
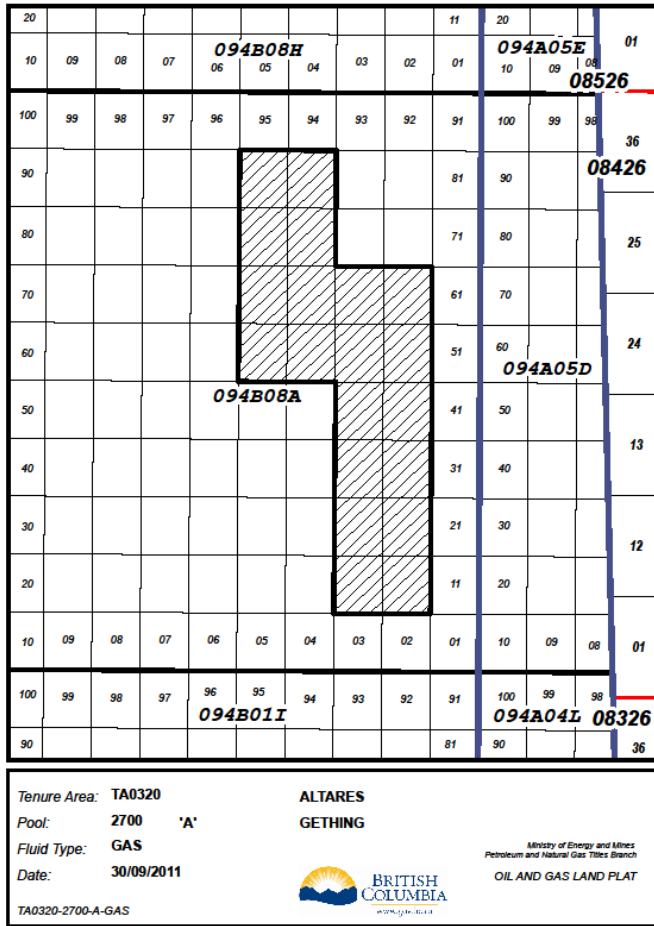


# s. 58(3)(a) – Land Plats

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- Depict where the Director of Petroleum Lands recognises that a pool of natural gas or petroleum has been *delimited* through the exploration and development work of industry
- Illustrates, in map view, the gas or oil *Spacing Areas* delimited in a pool, and names the geological formation in which the pool is recognized
- Referred to by combining the Tenure Area (oil or gas field name), Geological Formation, Sequence Letter, and Fluid Type (oil or gas).
  - **TA0320-2700-A-GAS (Altares Gething ‘A’ Gas)**
- *Land Plats* (MNGD) are distinct from the *Oil and Gas Pools* defined by the Oil and Gas Commission (OGC); the latter have no bearing on continuation decisions.

# LAND PLATS - Example



# s. 58(3)(a) – Land Plats

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- Pools are delimited by Control Points of ‘hard’ and ‘soft’ data:
  - Well control and well tests
  - Production and pressure histories
  - Interpreted 2D and/or 3D seismic mapping
  - Geological mapping and geological formation characteristics

# s. 58(3)(a) – Land Plats

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- Sources of Evidence for Delimiting Land Plats:
  - Industry applications for continuation that interpret the results of drilling, well evaluation, and seismic work
  - Ministry evaluations of drilling reports, logs, samples, drillstem tests, completion and production results, posted at the specific well locations, combined with geophysical evidence extending pools beyond well control
  - Analogous wells, old and new, with similar properties
  - Evaluations and approvals received from the OGC
  - Thousands of geophysical and geological interpretations on file from all Crown title holders, representing decades of information and analyses
  
- Geological and Geophysical information and interpretations submitted with 58 (3) (a) applications are kept permanently confidential

# s. 58(3)(a) – Land Plats

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## CONVENTIONAL RESERVOIRS

- A control well will typically continue only the spacing area drained by that well
- If a spacing area has not been drilled, a line of correlation across the spacing area may help to delimit a pool over the undrilled spacing area, provided the offset wells demonstrate reservoir continuity and the presence of hydrocarbons
- In some cases, seismic data paired with well control may also be used to delimit a pool over an undrilled spacing area

# s. 58(3)(a) – Land Plats

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## RESOURCE PLAYS

- The Director's continuation criteria are more generous in an established resource play (e.g. Montney, Doig Phosphate, Jean Marie, Deep Basin Cadomin) than for a conventional reservoir
- The Director will allow continuation of a spacing area if a pool has been delimited by a control well drilled on the spacing area or in an adjacent spacing area
- A control well is one that has tested or produced hydrocarbons, or has certain log characteristics that are analogous to a nearby well that flowed hydrocarbons from the zone of interest. (e.g. *density log and mud gas detector log*)

# s. 58(3)(a) – Land Plats

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- All Analysed Spacing Area by Spacing Area
- For undrilled spacing areas, untested wells, or wells without a mud gas detector log, a more complex technical package will likely be needed. Applicants should include interpretations and conclusions drawn from geological, geophysical, production, completion and well evaluation information to support the case for delimiting a pool



# s. 58(3)(a) – Land Plat Only?

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- Clients that rely solely on an existing land plat to support a 58(3)(a) application, and do not include a supporting technical package or a contingent section 58(3)(c) application, will be notified if a land plat is reduced before the continuation is approved.
- Notification will be made by telephone and e-mail
- Applicants are granted one opportunity to make their case (58A or 58C) within 10 working days of that contact, regardless of how much time has elapsed after expiry.

# s. 58(3)(a) – Land Plats Online

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- ‘Off confidential’ Oil and Gas Land Plats are published **monthly** online
  
- Download the Land Plats as a shapefile:
  - Navigate to DataBC website ([www.data.gov.bc.ca](http://www.data.gov.bc.ca))
  - In the “Search DataBC Catalogue box” type “Oil and Gas Land Plats”
  - Click “Oil and Gas Land Plats” and choose “Oil and Gas Land Plats – Custom Download”
  - Specify the Projection and Format
    - For AccuMap choose Projection: Geographic Long/Lat (dd) and Format: ArcView Shape
  - Enter your email, accept the terms, and click “Submit Order”
  
- View the Land Plats online with the iMap tool:
  - <http://maps.gov.bc.ca/ess/sv/imapbc/>

# s. 58(3)(a) – Guides

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## ● Access the Online Guides

- Go to BC Farming, Natural Resources and Industry site:  
<http://www2.gov.bc.ca/gov/content/industry>
- Natural Gas & Oil > Petroleum & Natural Gas Tenure > Publications > Administration
  - Guide to Oil and Gas Land Plats and Tenure Areas
  - Guide to Petroleum and Natural Gas Lease Continuations
  - Recommended Technical Package Contents for Section 58 Applications

# s. 58(3)(a) – Reversion

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- Leases are subject to one of two types of rights reversion:  
**zone-specific or deep rights reversion**
- What is Zone-Specific Retention (ZSR)?
  - A ZSR-subject Lease is a PNG Lease that is a member of a chain of title originating with the purchase of a PNG title through a Crown sale held on or after March 29, 2007
  - ZSR is designed to return to the Province, at the end of the primary term of a subject Lease, all the zones that do not contain identified oil or natural gas deposits
  - All other zones will revert to the Crown unless they can be continued under other applicable sections of the Act, including sections 58(3)(c) and (d) and sections 61 and 62. These sections allow continuation based on drilling, completions, work programs, delimiting pools, and the simple payment of a penalty

# s. 58(3)(a) – Reversion

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- Benefits of Zone-Specific Retention
  - Increased investment opportunities for industry
  - Earlier discovery and development of new oil and gas pools, leading to earlier revenues for both industry and the Province
  - If well, geophysical, geological or engineering data shows that a pool of oil or gas exists in a zone in any spacing area, then it qualifies for continuation. This consideration is independent of the status of a well
  - The zone may be behind pipe, and in some cases the well may be abandoned, but well information proves a pool exists.

# s. 58(3)(a) – Zone Reversion

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- Standards for Zone-Specific Retention
  - Well information, combined with existing geological knowledge, are usually sufficient to determine whether a zone contains hydrocarbons
  - Modern well evaluation technologies, properly applied, are capable, in the vast majority of cases, of demonstrating the presence of hydrocarbons
  - Any remaining doubts should be resolved by completing the zone

# iMapBC 2.0 Land Plats Demo



# s. 58(3)(c) – Work Program

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## ● General Features

- May include multiple Leases, even multiple target zones, and with different but relatively close expiry dates
- Proposed work must, in the opinion of the division head, be designed to delimit one or more pools
- Approved non-optional work must be fully completed during the term of the continuation.
- Contingent work must be started during the term of the continuation, e.g., contingent wells must be spudded
- Majority of programs are one year only; exceptions may be considered due to very limited access or an unusually complex work program
- Non-performance jeopardizes future work programs

# s. 58(3)(c) – Work Program

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- Application must include a cover letter on company letterhead, and include:
  - A firm work commitment, e.g. “XYZ Corp. commits to carry out the following program of work: . . .”
  - A clear description of where the work will take place in relation to the Leases included in the application
  - The locations and formation names of the pools that will be delimited by the work program
- Technical package contents
  - Must demonstrate the current state of geologic knowledge of the pools to be delimited, and how the work is likely to further delimit those pools
  - May include any technical material, such as public and proprietary well data, geological x-sections, isopachs, interpreted seismic, remote sensing results, and field studies

# s. 58(3)(c) – Work Program

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- Where approved programs include seismic components (new or re-evaluated), an acceptable report of the geophysical results is required at the end of the continuation year
  - Refer to downloadable document entitled “Requirements for Affidavits and Reports”
  - Location: “Publications” page
- Reports held confidential for 10 years, then deposited with thousands of similar studies
- A cumulative index is published annually and available online from the same page

# s. 58(3)(d) – Establishing a Well

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- Designed to allow leaseholders to finish drilling or “establishing” a well that is clearly in progress
- More scrutiny will be applied if the well has not been spudded by expiry
- If the well drilled into or will drill into multiple Leases, all Leases may be approved
- All rights below the base of the deepest objective zone corresponding with the OGC well permit’s (WA) deepest “objective” formation are **not included**

# PART 3

## General Administration

# ePayments – Overview

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- Accepts rents, fees, and penalty payments
  - Requires self-managed BCeID, electronic passport to BC Gov
  - Mandatory for all PNG Leases and Drilling Licences
  - Client responsible to initiate payment; no invoice or auto-debit
  - Key components to remember: Payors, Statements, Submissions, Receipts, Refunds, Surrenders
  - Issues refunds electronically, requires separate registration; also mandatory
- e-Payments will not accept payments for:
  - Fees and prorated rents for split transfers of PNG Leases
  - PNG Permits
  - Section 72 Agreements
  - Underground Storage Leases

# ePayments – User Roles

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- BCeID Profile Manager
    - Appointments Company Administrator for each application accessed with BCeID
  - Company Administrator (e-Payments)
    - Assigns roles to other users; can perform function of any role
    - Users may be assigned multiple roles
  - Land Administrator
    - Creates and 'opens' submissions
  - Payment Administrator
    - Initiates payments from Statements or Open Submissions
  - Viewer
    - Read-only access
-



# ePayments – Which pay option?

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## Statements

- When written applications are not required, or when size is reduced during Primary Term
- Two types to monitor
  - Primary Term
  - Continuation/Extension
- For Leases:
  - Section 62, or
  - Section 58(3)(a), 58(3)(b), or 61.1 when this would repeat the previous continuation
- For Drilling Licences:
  - Section 3(5)

## Submissions

- When written applications are required or to reduce title area by partial surrender
- Use “Manage Expiring Titles” screen
  - Leases
    - 58(3)(a),(b) – first time
    - 58(3)(c),(d) – each time
    - 61 – each time
    - 61.1 – first time
  - Drilling Licences
    - Conversions to Lease
    - 3(5.1) – each time
    - 3(5.3) – each time

# ePayments - Submission payments

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- Distinct from payments made from a Statement
- Used when written applications are required
  - Certain DL extension and Lease continuation types
  - All DL groupings and lease conversions
  - When requested by the Crown
- An electronic “bucket” to hold a group of tenures related by their inclusion in a common application for extension, continuation, or conversion
- Designed to facilitate application tracking by industry and reduce need to contact Branch staff for updates
- e-Payments generates a Submission ID number; please reference it in all application correspondence
- Tracking with Milestones and Communication Log

# Managing Rental Deadlines

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- There are no rental invoices and no official notices of overdue payments.
- Manage expiries from the All Titles screen
  - e-Payments sends a monthly e-mail reminder to view your statements
  - Overdue titles are shown in purple and fall off ePayments 61 days past expiry

# Late Penalties

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- Late penalties are automatically calculated once the anniversary date has passed
- Leases
  - Day 1-30 - 1.5 %
  - Day 31-60 – 3.0 %
- Drilling Licence
  - Day 1-60 \$500.00

# Cancellations

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- Request from All Titles screen in ePayments
  - Ministry will cancel 60 days after anniversary date and send confirmation
- Check title to be cancelled
  - While the title remains visible, the cancellation request can be reversed with the Cancel Request function button
- Please use signed letters for tenure types not managed through e-Payments (may require letter of authorization from a titleholder)

# Letters of Authority

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- Letter of Authorization's are needed when you are neither an owner or payor
- Required for Titles not covered by e-Payments
- For e-Payments, the registered Owner's intent is implied by authorizing the Designated Payor to make decisions on the title

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# Other Instruments Affecting Title



# Power-of-Attorney

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- No fees required
- Cover letter is required
- Power of Attorney documents should have original signatures or be a Certified True Copy
- The document must clearly state the types of document that the person/position is authorized to sign on behalf of the company
- A registration number will be assigned to the company upon the initial registration, this number will be used for all future registrations

# Partnerships

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- Permitted to hold title in BC
- Partnership needs to provide documentation showing the partnership structure
- Documentation must be signed by all parties of the partnership

# Title Transfers

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- Our Guide is available from the Publications page
  - Guide to Registering a Transfer of Interest in PNG Title
- No fee (tenure issuance fees)
- Stale-dated transfers will be processed; but,
- Transfers are considered effective from the date they are received error-free, not the execution date
- Changes are recorded only against titles specified in the transfer document

# Title Transfers

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- Two or more titles will be accepted on a single transfer only if:
  - the transferor wishes to assign all its undivided interests in all the titles to the same transferee, i.e., the undivided interests may vary, but the transferor is assigning all of it to the transferee(s)
  - the transferor wishes to assign the same portions of its undivided interests in all titles and that undivided interest is identical across all titles

# Title Transfers

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- Submit with a cover letter
- Submit original transfer documents, using either:
  - Applicable templates (use links at the end of the Guide); or,
  - Your own format, but with same elements as our templates
- Ink colour is not an issue
- Electronic Signatures or signature stamps are not acceptable

# Title Transfers - Documents

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- Be executed by all transferors and all transferees
  - Subsequent edits must be initialled by all parties
  - Counterpart signatures are accepted
- A properly “executed” document is:
  - Dated, and
  - Signed by a signing officer of the firm or by a person with a Power of Attorney registered with Titles, Aboriginal and Corporate Relations Division, and
  - Witnessed or affixed with a corporate seal

# Title Transfers

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- Title schedules are permitted and should include only the title number and the company's file number
- Must not contain implied or explicit encumbrances, such as a "subject to" clause
- Transfer documents must use percentages only to refer to undivided interests
  - 8 decimal places (max)
  - Percentage not required when the request is to transfer "all" a company's undivided interest



# Title Transfers

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- Do not send title documents with your transfer request
- Use full legal name of companies
- If legal descriptions must be included for corporate reasons, they:
  - Must be identical to registered legal description
  - Must include complete tract rights

# Split Transfers

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- Divides one parent tenure into two or more child tenures, and assigns some portion of the original interests to the same or different partners
- Leases only
- \$500.00 fee for each new lease to be issued
- Leases may be divided by:
  - Surface hectares
  - Stratigraphic
  - A combination of both
- Prorated rentals are charged for portions split along stratigraphic boundaries, but not through ePayments

# Split Transfers

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- All criteria applicable to simple transfers are applicable to split transfers, plus:
  - “in and to a portion of....” must be used on the transfer documents”
- Legal descriptions of the transferred portion, including the rights held by that portion, must be specified
- Must not divide gas spacing areas containing gas wells
- May divide gas spacing areas if:
  - Contains an oil well; or
  - Spacing area already split

# Pooling Agreements

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- Purpose – joint development of a spacing area
- Recorded as an ‘encumbrance’ in the titles registry (will appear online in title searches)
- Letter contents:
  - Name all title holders
  - Title numbers
  - Well authorization No.
  - UWI of well
  - Date of Pooling Agreement
  - Signature of all title holders

# Encumbrances

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- Information Letter EMD02-01 (ignore stated fees; charge is \$50.00 to record and discharge per title)
- A claim or lien placed on a title by a third-party
- NOT a legal registry; information purposes only
- Encumbrances do not restrict the application of any provision of the Petroleum and Natural Gas Act
- Examples of types of documents:
  - Bank Act assignment
  - Deed of Trust
  - Debenture
  - Mortgage
  - Builder's Lien

# Recording Encumbrances

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- Requests must include:
  - Letter of instruction and fee
    - State the type of encumbrance
    - State the full legal names of the companies involved
  - Encumbrance document
    - Original or certified true copy
    - Document must be dated and signed by a signing officer of the company holding the encumbrance

# Discharging Encumbrances

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- Requests must:
    - Be dated and signed by a signing officer of the company holding the encumbrance
    - Include original encumbrance registration numbers
    - State the type of encumbrance
    - State full legal names of the companies named in the encumbrance
    - Include the date of the original encumbrance registration
    - Include the date of the encumbrance
    - Indicate if the discharge is full or partial
    - List only active title numbers to be discharged
    - Original signatures or certified true copy
  - Each encumbrance must be discharged with a separate document
-

# Copies of Encumbrances

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- Requests for copies of encumbrances to:
  - **E-mail:** pngtitles@gov.bc.ca
  - **Fax:** (250) 952-0331
- Fees – minimum charge of \$10.00, or .75 cents per page whichever is greater, an invoice will be sent with the documents
- If, in the Director's opinion, the copying or scanning of the requested document(s) would exceed our available resources, we will send you the first 6 pages of the document only, plus the signature page
- All documents may be viewed or photographed on-site by an authorized agent for a nominal room rental fee.



# Name Changes & Amalgamations

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- Requests must include the Certificate of Registration and associated articles of amendment
  - Photocopies acceptable
- Recorded only against “active” title
- Certificates from most jurisdictions are accepted where:
  - Jurisdiction and registration numbers are included
  - Full legal names of the parties are used

**THANK YOU**