Date: December 17, 2013 Cliff No.: 82850

MINISTRY OF NATURAL GAS DEVELOPMENT

BRIEFING NOTE FOR INFORMATION

- I PREPARED FOR: Honourable Christy Clark, Premier of British Columbia
- II ISSUE: Premier Clark's meeting with Greg Ebel and Michael Phelps of Spectra Energy regarding update on Westcoast Connector Gas Transmission Project.

III BACKGROUND:

- Based in Houston, Texas, Spectra is a FORTUNE 500 company and is one of North America's largest pipeline and midstream companies.
 - o Their operations include more than 22,000 miles of natural gas, natural gas liquids, and crude oil pipelines.
- Spectra's pipeline system has been the backbone of British Columbia's natural gas industry since 1957.
- Spectra Energy and BG Group have partnered to propose a natural gas pipeline from northeast British Columbia to the Prince Rupert area to support the export of LNG.
 - o The project named the Westcoast Connector Gas Transmission Project.

s.13, s.17

- The Westcoast Connector Gas Transmission Project plans to develop a natural gas transmission system from the Cypress area in northeast BC (approximately 210 km south of Fort Nelson) to Ridley Island, on the north coast of BC near Prince Rupert (see attachments).
 - The first portion of the route will travel from Cypress to Cranberry Junction passing close to Mackenzie.
 - West of Cranberry Junction two routes are being considered the "Kitsault Route" and the "Nasoga Gulf Route" both of which have marine segments. A terrestrial route through the Kutzeymateen Park is no longer being pursued.
- Spectra Energy is committed to a high standard of safety and environmental performance, with a culture of continual improvement through its Safety Vision and Environmental, Health & Safety Policy.

s.13, s.17

- Capital costs are estimated to be in the s.13, s.17 , dependent on the route and pipeline design selected.
- Annual property tax is estimated to be s.13, s.17
- Following a Final Investment Decision on the Prince Rupert LNG project by BG, the Westcoast Connector pipeline project would proceed.

• For the 2013 LNG in B.C. conference, Spectra was a Gold Sponsor and for the 2014 conference has committed – in partnership with BG – to being a Platinum Sponsor.

IV DISCUSSION:

s.13, s.16

 Spectra expects to submit an application to the Environmental Assessment Office in mid-March 2014. If accepted this could mean that the project would be referred for Ministers' decision in November 2014.

s.13, s.16

V CONCLUSION:

• The Westcoast Connector Gas Transmission Project is well positioned to serve west coast LNG exports.

Attachments: Bios for Gregory Ebel and Michael Phelps; Maps describing pipeline route

REVIEWED BY: Brian Hansen, ADM APPROVED BY: Ines Piccinino, A/DM ✓

Date: December 17, 2013 Cliff No.: 82850

Gregory L. Ebel

President and Chief Executive Officer



Greg Ebel is president and chief executive officer of Spectra Energy Corp, a member of the company's board of directors and a board member of DCP Midstream.

s.22

s.22

s.22

Ebel has broad experience in both the finance and energy sectors.

s.22



Michael E.J. Phelps

Mr. Michael Phelps is Chairman of Dornoch Capital Inc., a private investment company.

s.22

Mr. Phelps chairs Spectra Energy's compensation committee and is a member of Spectra Energy's finance and risk management committee. Phelps serves on the board of Marathon Oil Corporation.

Date: December 17, 2013 Cliff No.: 82850

Figure 1 - Existing and Proposed Pipelines

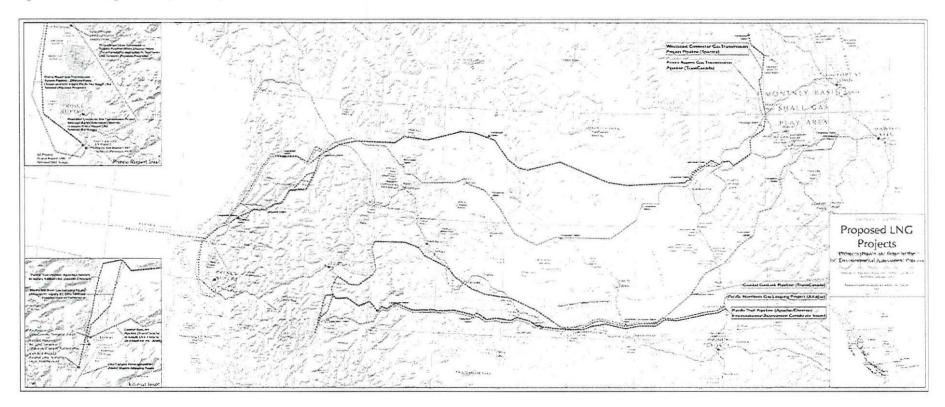
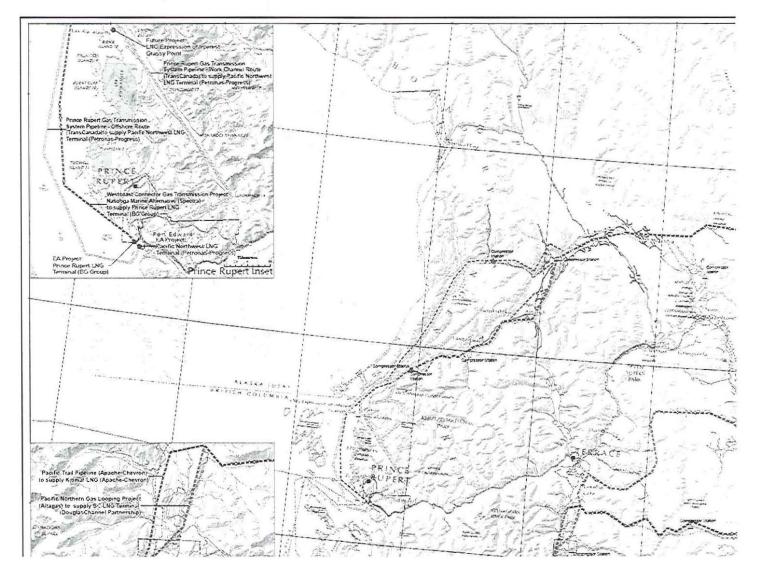


Figure 2 - Proposed Routes after Cranberry Junction



Date: January 8, 2014 Date of Previous Note: Cliff No.: 83126

MINISTRY OF NATURAL GAS DEVELOPMENT BRIEFING NOTE FOR INFORMATION

I PREPARED FOR: Honourable Rich Coleman, Minister of Natural Gas Development

II ISSUE: Revision of Resource Review Areas to protect high elevation winter range for South Peace Northern Caribou

III BACKGROUND:

The seven South Peace Northern Caribou herds (Attachment 1) are currently listed as Threatened under the federal *Species at Risk Act* (SARA) and are of great importance to local First Nations for hunting.

Recent case law interpreting the Treaty 8 right to hunt caribou has presented a significant challenge to statutory decision-making in the area. A planning process was initiated in 2012 for the South Peace Northern Caribou herds to address their conservation, the Province's interests with respect to SARA and the accommodation of the treaty right to hunt caribou.

On November 8, 2012 the Province announced the strategic elements of a plan including a goal to increase the current population of Northern Caribou in the South Peace from 1,100 animals to 1,200 animals within three caribou generations (Attachment 2). The announcement commits government to:

- Protect 90% (approximately 400,000 hectares) of identified high elevation winter caribou habitat across the South Peace through a combination of existing and new habitat protections.
- Implement caribou population management activities to support population recovery and opportunities of First Nations' caribou harvest.
- Develop management objectives and best management practices in lower-elevation winter caribou habitat to minimize habitat fragmentation and support long-term habitat conditions.
- Allow some resource development opportunities such as mining, to move forward in certain areas of high-elevation winter caribou habitat.
- Develop funding opportunities to support the implementation of management activities over the long-term.

Following this announcement the ministry established Resource Review Areas (RRAs) over all of the high elevation winter range that did not have any existing tenure. RRAs are established by policy as areas where petroleum and natural gas rights will not be disposed (in this case, as in many, to be reviewed within five years).

..../2

In early 2013 improved high elevation winter range mapping was developed for six of the seven herds. Industry and local First Nations were consulted on the adoption of the new mapping and there were no significant objections raised.

IV DISCUSSSION

The new high elevation winter range includes new areas that are not covered by the existing RRAs and excludes some areas that are covered.

The Tenure and Geoscience Branch (TAG) intends to revise the RRAs to be consistent with the new high elevation winter range mapping. No existing tenures would be impacted and the geological potential of the areas to be added is minimal and potentially exceeded by the areas to be removed. TAG has discussed this approval with Canadian Association of Petroleum Producers and no concerns were raised.

s.13, s.17, s.21

APPROVED BY:

Garth Thoroughgood, ED/TGB ✓
Ines Piccinino, ADM
Steve Carr, DM, MNGD ✓

Peace Northern Caribou Plan Area - Overview Map Graham NKA Fort St. VolunFORT idson's Hope & Taylor Moberly HORE DAWSON Dawson Cree Pouce Coupe Scott Chetwynd East POUCE COUPE CHETWYND Scott West **Burnt Rine** MACKENZIE NATI chentlo Kennedy umbler R Quintette Narraway Stuart Fort St. James MON FORT ST JAMES Ranges STUARI Fraser Lake Vanderhoo VANDERHOOF Fraser Prince George GEORGE Provincial Key Map Legend Data Sources and Notes Caribou Herd Boundaries - Ministry of Forests. Ministry of Environment, Elena Jones Peace Northern Caribou Plan Area (DRAFT) Plan Areas - Based on discussions with Planning Team Provincial Parks, ERs, etc. BC Geographic Warehouse: Base mapping Caribou Herd Areas Graham Burnt Pine Narraway Produced for Kennedy Quintette Peace Northern Caribou Planning Team Moberly / Hart Ranges - (Covered by existing plan) Produced by BRITISH COLUMBIA Scott FLNRO - Geospatial Services h: granite lwork/sminnlarcproj/s/P11_0010A_NCVP/mxd Overview, NCMP_Herds_2012_06_08 mxd NCGPU2_04_06_09_FFRSNAD83 Date Created_June 8_2012 Cre#-809_080spatial Services NE, Ft. St. John 1:1,800,000



INFORMATION BULLETIN

2012ENV0076-001743 Nov. 8, 2012 Ministry of Environment Ministry of Forests, Lands and Natural Resource Operations

B.C. government commits to protect Northern Caribou in the South Peace

VICTORIA – Ninety per cent of identified high-elevation winter caribou habitat across the South Peace area will be protected to support the recovery of Northern Caribou, Environment Minister Terry Lake and Forests, Lands and Natural Resource Operations Minister Steve Thomson announced today.

Today's announcement comes as a result of ongoing consultation and collaboration with First Nations and industry representatives on the development of a plan with a goal to increase the current population of Northern Caribou in the South Peace from 1,100 animals to 1,200 animals within three caribou generations. Without this collaborative effort this population is expected to decrease to approximately 800 animals over the next 21 years.

The details of this plan will be formalized in an implementation plan document to be released over the next several months. The plan commits government to:

- Protect 90 per cent (approximately 400,000 hectares) of identified high-elevation winter caribou habitat across the South Peace through a combination of existing and new habitat protections.
- Implement caribou population management activities to support population recovery and opportunities of First Nations' caribou harvest.
- Develop management objectives and best management practices in lower-elevation winter caribou habitat to minimize habitat fragmentation and support long-term habitat conditions.
- Allow some resource development opportunities such as mining, to move forward in certain areas of high-elevation winter caribou habitat.
- Develop funding opportunities to support the implementation of management activities over the long-term.

Northern Caribou in the South Peace are part of a larger population that ranges throughout British Columbia, from the Alberta border west to the coastal mountain ranges and north into the Yukon.

Approximately 17,000 Northern Caribou live in British Columbia. Northern Caribou in the South Peace are declining and are currently listed as "threatened" under the federal Species at Risk Act.

Learn More:

- Information on Northern Caribou management and recovery in British Columbia can be found at http://www.env.gov.bc.ca/wld/speciesconservation/nc/index.html
- BC Newsroom Ministry of Environment: http://www.newsroom.gov.bc.ca/ministries/environment-1

A backgrounder follows.

Contact:

Communications

Ministry of Environment

250 387-9745

Connect with the government of B.C. at: www.gov.bc.ca/connect

BACKGROUNDER

2012ENV0076-001743 Nov. 8, 2012 Ministry of Environment Ministry of Forests, Lands and Natural Resource Operations

Northern Caribou recovery actions

Government's recovery plan for the Northern Caribou in the South Peace will be a collaborative effort with First Nations and various industry sectors.

Recovery will be achieved by:

1. Protecting caribou habitat from industrial development:

High-elevation winter habitat

Habitat fragmentation and alteration from industrial development is believed to be the ultimate cause of Northern Caribou population declines in the South Peace.

To support recovery, 90 per cent of the high-elevation winter habitat will be protected across the South Peace using new and existing habitat protections. This goal is expected to be achieved over the next 12 to 18 months by protecting 90 per cent or greater of the high-elevation winter habitat in the Graham, Moberly, Burnt Pine, Kennedy Siding, Scott and Narraway herd ranges and 80 per cent in the Quintette range.

Achieving the above protection objectives in high-elevation winter habitat across caribou ranges will require protecting all currently untenured areas from surface disturbance, consider cancelling and deferring certain tenure applications, working with industry to identify areas where tenures can be relinquished voluntarily, and developing best practices for minimizing or eliminating surface disturbance.

2. Managing caribou habitat in low elevation forests:

Low-elevation winter habitat

Currently, 90 per cent of the low elevation winter habitat is legally designated as either Ungulate Winter Range or Wildlife Habitat Area under the Forest and Range Practices Act (FRPA) and Oil and Gas Activities Act (OGAA). Over the next 12 to 18 months, the boundaries and practice requirements managed under FRPA and OGAA will be reviewed to ensure that they are consistent with current research regarding caribou habitat use and predator-prey relationships. This review will determine where requirements for applications such as mineral exploration can be extended and or modified to other sectors to ensure consistency, and more importantly, support sustainable caribou habitat conditions by restoring and rehabilitating habitat and deactivating roads.

3. Caribou population management:

The direct cause of the declining Northern Caribou population in the South Peace is predation. Wolves and other predators can have significant impacts on caribou populations, particularly if herd size is small.

To support Northern Caribou population recovery and to ensure First Nations have the ability to harvest caribou in the future, caribou population enhancement programs will be established. Government staff will work with First Nations and industry to develop a caribou population enhancement program. Such a program may involve rearing caribou through maternal pens, transplants and captive breeding.

4. Funding Recovery:

Implementation of mitigation management plans to support recovery efforts will be funded through financial offsetting administered by a third-party trust.

The amount of the financial offset will be determined by the size of the development and quality of the habitat being affected. It is anticipated that financial offsetting will generate approximately \$20-30 million (based on current market prices) over the next 21 years to fund implementation activities.

For more Information on Northern Caribou management and recovery in British Columbia can be found at: http://www.env.gov.bc.ca/wld/speciesconservation/nc/index.html

Contact:

Communications

Ministry of Environment

250 387-9745

Connect with the government of B.C. at: www.gov.bc.ca/connect

Date: January 10, 2014 Cliff No.: 83141

MINISTRY OF NATURAL GAS DEVELOPMENT

BRIEFING NOTE FOR INFORMATION

- I PREPARED FOR: Honourable Rich Coleman, Minister of Natural Gas Development, Minister Responsible for Housing and Deputy Premier
- II ISSUE: Proposal to develop Anyox site for sale to LNG proponent.

III BACKGROUND:

- The Hidden Creek Mine and Anyox town site are located approximately 150 kilometers north of Prince Rupert and 60 km south of Stewart. The area is very remote and accessible only via air or water.
- The Hidden Creek deposit was discovered in 1901 and the mine operated for over 20 years from 1914 to 1935.
- The town of Anyox included a hydroelectric facility, town site next to Granby Bay, and the mine, foundry, coke plant, sawmill, and substantial dock works.
- At its peak, roughly 3000 people lived in the community. At present the town site is abandoned, largerly devastated by a fire that swept through the community in the 1940s.

s.13, s.17, s.21

IV DISCUSSION:

 The surface and subsurface tenures over this site are quite complex due to the numbers of past and current owners and operators.

s.13, s.17, s.21

- o The site is composed of at least 22 *Mineral Tenure Act* surveyed parcels with various current owners and a Mining Lease (ML 254533) that is currently held by Tru-Grit Abrasives for mining the slag pile on the site.
- In 2010, Confederation Power proposed a Brownfield Renewal Strategy for the 30 MW Anyox hydro electric project; however, no further action has been taken.
 - At present it appears that the dam structure may have sustained damage.

s.13, s.17, s.21

 The site also has environmental concerns primarily associated with mine wastes producing acid rock drainage/metal leaching (ARD/ML) and impacts from the smelting of ore.

- Environment Canada indicated in 2010 that they were prepared to issue an Inspector's Direction to the Province directing work to stop the deposit of deleterious substance into water frequented by fish.
 - O An Inspector's Direction is generally used where immediate action is necessary to counteract adverse effects from the deposit of deleterious substance, or to prevent a serious and imminent deposit of a deleterious substance. The Direction may require the person to whom it is directed to take all reasonable measures, consistent with safety and conservation of fish habitat.

V CONCLUSION:

- Given the significant environmental issues on the site and range of mineral tenures on the site, it is not recommended that the Minister endorse this site as a site recommended for LNG development; s.13, s.17, s.21 should rely on their own assessment of the viability of this site for the purposes of LNG development, including port suitability for LNG cargos, and requisite steps to address the environmental concerns listed above.
- With respect to potential investors s.13, s.17, s.21 could also be encouraged to attend the second international LNG in B.C. conference in Vancouver, B.C. in May 2014.

Attachments: Map of Anyox, current and past images of Anyox.

REVIEWED BY: Brian Hansen, ADM APPROVED BY: Steve Carr, DM✓

Figure 1 - Map of Anyox

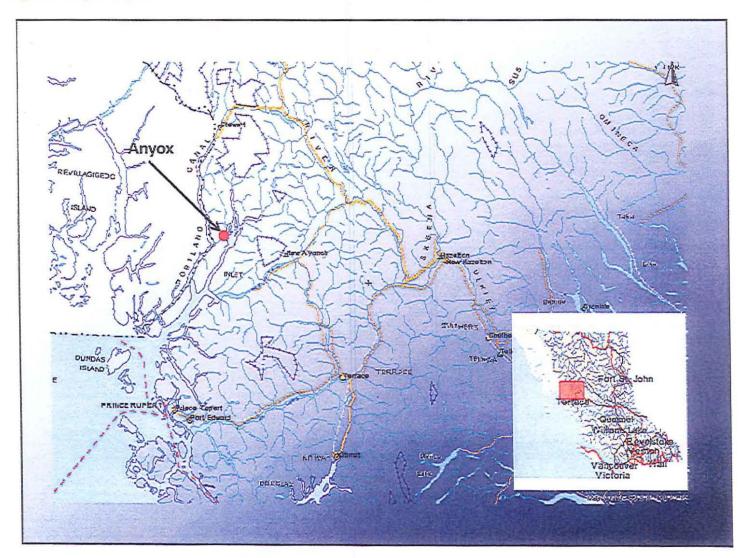


Figure 2 - Current photo of Anyox

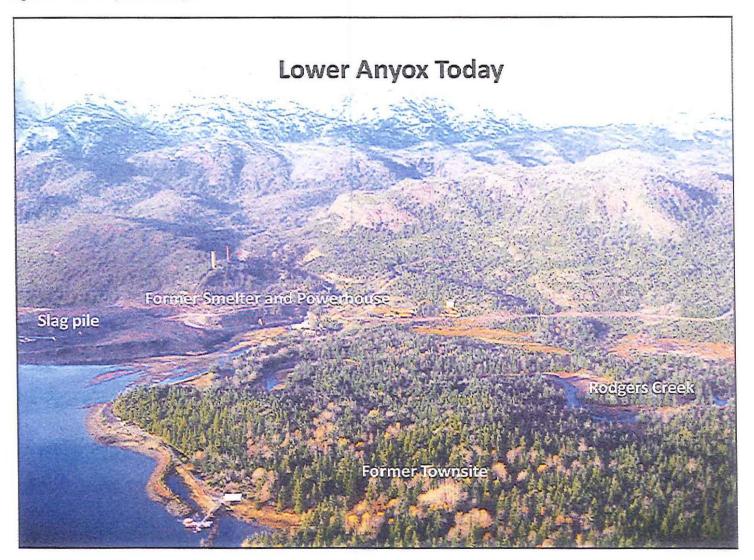


Figure 3 - Historical photo of Anyox town

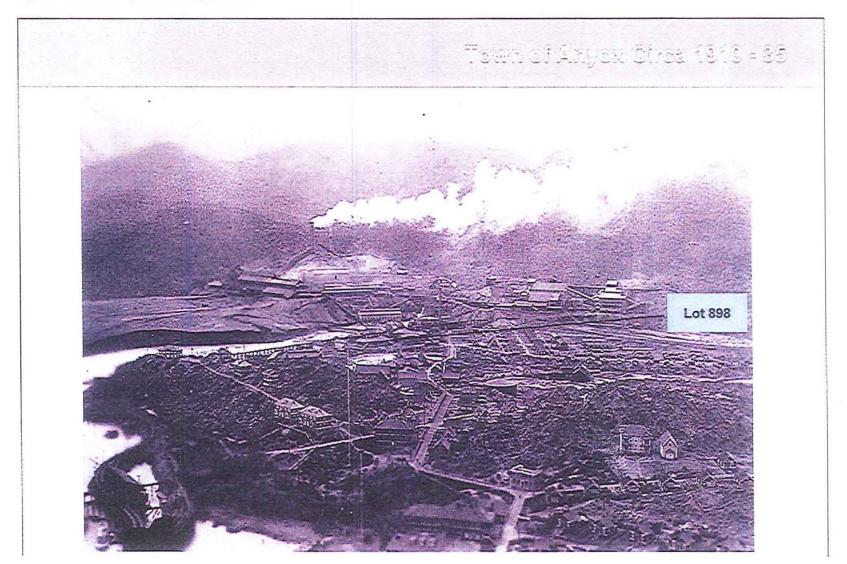
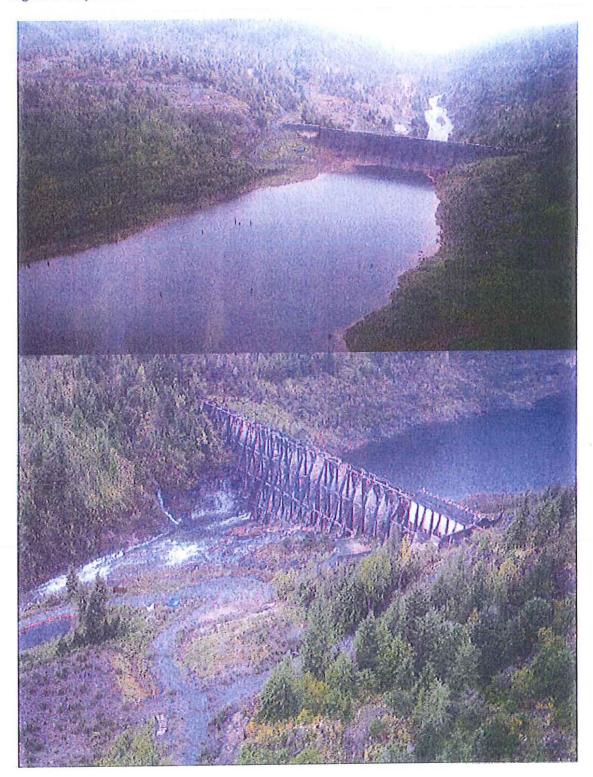


Figure 4 - Anyox Dam



Date: January 8, 2014 Cliff No.: 83142

MINISTRY OF NATURAL GAS DEVELOPMENT

BRIEFING NOTE FOR INFORMATION

I PREPARED FOR: Honourable Rich Coleman, Minister of Natural Gas Development, Minister Responsible for Housing and Deputy Premier

II ISSUE: Sole Proponent Agreement with Woodside re: Crown Land for LNG Facility Development on Grassy Point South Site.

III BACKGROUND:

- In February 2013, the Province issued a Request for Expressions of Interest (REOI) to establish a list of prequalified proponents interested in pursuing long term Crown land tenure within the Tsimshian peninsula (Grassy Point) for the potential development of a natural gas liquefaction facility and export terminal.
- Of the four proponents that responded to the REOI to the satisfaction of the Province, one (Nexen Energy ULC) entered into a sole proponent agreement with the Province in November 2013, for the north site at Grassy Point.
- Woodside Energy Ltd. has now completed negotiations with the Province for a sole proponent agreement for the south site at Grassy Point.
 - Woodside Energy is Australia's largest independent exploration and production company and is among the world's largest LNG operators.
 - Woodside Energy has 24 years experience as one of the partners and project operators of the North West Shelf project – the largest resource development project in Australian history and the largest engineering project in the world.

IV DISCUSSION:

- The sole proponent agreement with BC will provide Woodside with exclusive rights to pursue long term Crown land tenure for a LNG facility development within a certain area (see attached map of Grassy Point South Site).
- The agreement is for the southern part of Grassy Point which covers a total of 937.5 hectares (693.6 upland and 243.9 of submerged land).
- Woodside will be examining the viability of constructing a liquefied natural gas plant and export terminal.
- The agreement is subject to terms and conditions in order to facilitate First Nations consultation, project planning, and environmental and other regulatory reviews.
 - o Consultations are proceeding with the Lax Kw'alaams, Metlakatla, Kitsumkalum and Kitselas, all of which are Tsimshian First Nations.
- As part of the agreement, specific milestones must be achieved:

- O Woodside must obtain an export licence from Canada's National Energy Board on or before the first anniversary of the agreement for the export of not less than 15 million metric tonnes per annum (MTPA) for a term of not less than 15 years.
- On or before the first anniversary of the agreement Woodside must have received order under s. 11 of the *Environmental Assessment Act* setting out project scope and procedures for review of an LNG facility development on the South Site.
- On or before the second anniversary of the agreement Woodside must have received Application Information Requirements pursuant to the Environmental Assessment Act for its proposed LNG facility development on the South Site.
- The Agreement is a three year term with payments totalling \$17M.
 - A \$4M payment upon signing, a \$6M payment on or before the first anniversary of the Agreement and a \$7M payment on or before the second anniversary.
 - Applicable GST must be applied to each payment.

V CONCLUSION:

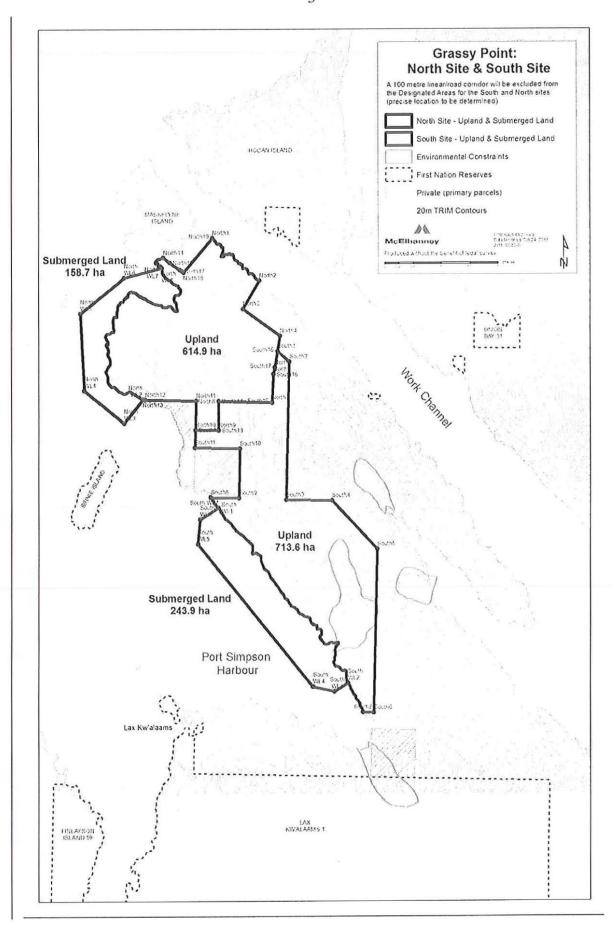
• The Province and Woodside have negotiated the sole proponent agreement.

s.13, s.17, s.21

- It is anticipated that the Agreement will be signed on January 15, 2014.
- Upon execution of the agreement, the Province will (in collaboration with Woodside) announce the agreement.
- Woodside has indicated their plan to follow shortly after the announcement with confirmation of their s.13, s.17, s.21 which would provide for a new announcement of a major s.13, s.17, s.21

Attachments: Map of Grassy Point

REVIEWED BY: Brian Hansen, ADM APPROVED BY: Steve Carr, DM✓



Date: February 25, 2014 Cliff No.:83721

MINISTRY OF NATURAL GAS DEVELOPMENT

BRIEFING NOTE FOR INFORMATION

I **PREPARED FOR:** Honourable Christy Clark, Premier

ISSUE: Meeting with Matthias Bichsel, Director of the Projects & Technology, Shell, to discuss s.13

III BACKGROUND:

s.13

- LNG Canada (Shell Canada, Korea Gas (KOGAS), Mitsubishi Corporation and PetroChina Company Limited) has proposed the construction and operation of natural gas treatment facilities, LNG liquefaction and storage facilities (four trains to produce 24 million tonnes per annum of LNG), marine terminal facilities, an interconnecting cryogenic LNG transfer pipeline, and supporting facilities/infrastructure.
- LNG Canada has been awarded a 25-year export license by the National Energy Board. In 2013, the Canadian Environmental Assessment agency approved the substitution of the British Columbia Environmental Assessment process for the federal process_{s.13, s.17, s.21} s.13, s.17, s.21
- The province of BC and BC Hydro are in negotiations with Shell on electricity supply and load interconnection agreements for LNG Canada's, 13, s.17, s.2 of energy required for the four trains.
- TransCanada Corporation (TransCanada) was selected to build the 1.7 billion cubic feet per day Coastal GasLink pipeline that will supply feed gas from the Dawson Creek gas processing facility to the proposed plant. TransCanada has filed their EA application with the EAO and a decision on whether to proceed to application review is expected Friday, February 28, 2014.

s.13, s.16, s.17, s.21

- Over the past year, Government has been consulting with the LNG industry on a number of key policy issues (specifically GHGs and Air Quality impacts) and the LNG tax.
 These meetings have included group and one-on-one meeting.
- In February 2014, Government consulted with the LNG industry on the proposed LNG Policy and Fiscal Framework. Discussions are continuing.

IV DISCUSSION:

s.13, s.17, s.21

V CONCLUSION:

- The Province continues to assess our competitive position and recent meetings between LNG Canada and the Province have been helpful. We appreciate the willingness of Shell to share information and work together to build an LNG industry in BC.
- The Province is actively engaged with First Nations as we pursue benefit agreements on pipeline routes, including ar s.13, s.16, s.17 and

s.13, s.16, s.17

• The 2014 budget signaled a LNG tax rate of "up to 7 percent" as well as a commitment to continue to work with industry on our competitiveness framework.

Appendix I: Matthias Bichsel Biography

DRAFTED BY: Brian Hansen, ADM 250-952-0124 APPROVED BY: Steve Carr, DM ✓

Appendix I

Matthias Bichsel BIO

Matthias Bichsel became Director of the Projects & Technology business on July 1, 2009.

s.22

s.22

He

is member of the industry advisory board of the Society of Petroleum Engineers.

Date: February 13, 2014 Cliff No.: 83461

MINISTRY OF NATURAL GAS DEVELOPMENT BRIEFING NOTE FOR INFORMATION

- I PREPARED FOR: Honourable Rich Coleman, Minister of Natural Gas Development
- II ISSUE: Honourable Coleman's Meeting with Doctor Andrew Walker, Vice President Global LNG for BG Energy Group

III BACKGROUND:

- Doctor Andrew Walker will be visiting British Columbia (BC) to meet with a number of people associated with the Prince Rupert LNG project, including the Mayors of Prince Rupert and Port Edward, as well as the Chiefs of the Metlakatla and Lax Kw'alaams First Nations.
- With this visit, Doctor Walker, through an informal discussion, would like to provide BG Group's views on the global LNG market.
- BG Group is an integrated oil and gas company, headquartered in the United Kingdom.
 BG Group is active in more than 25 countries with a broad portfolio of exploration and production, LNG, and transmission and distribution business interests.
- BG Group is proposing the "Prince Rupert LNG" terminal on Ridley Island federal Crown land administered by the Prince Rupert Port Authority. In April 2013, the project entered both the federal and provincial Environmental Assessments (EA) processes. On June 19, 2013, BG submitted an application to the National Energy Board for a 25-year export license for 21.6 million tons per annum of LNG.

 s.13, s.17, s.21

s.13, s.17, s.21

• In September 2012, Spectra and BG announced a 50/50 joint venture partnership for a pipeline to support Prince Rupert LNG. The pipeline project entered the BC EA process in October 2012. The expected in-service date for the pipeline is 2019.

s.13, s.17, s.21

IV DISCUSSION:

Regulatory Process - Environmental Assessment

The Prince Rupert LNG project is primarily located on federal lands within the

Port of Prince Rupert. Its potential environmental, social and economic impacts spread beyond federal lands so triggers federal and provincial environmental assessments. The Canadian Environmental Assessment Agency will be the lead and each government will make its own decisions about issuing an EA Certificate. A work plan has been agreed upon for a coordinated process that provides efficiency and avoids, where possible, duplication of process.

s.13, s.17, s.21

s.13, s.17, s.21

Prince Rupert Port

- The Ministry of Natural Gas Development (MNGD) is leading negotiations between the provincial and federal government on a Memorandum of Understanding that establishes regulatory clarity for proposed LNG facilities in the Prince Rupert Port Authority.
- BG Group supports having BC's Oil and Gas Commission as the primary regulator for their proposed facility and has been informed that the province and the federal government are contemplating a regulation to enable their role as a regulator.

First Nations

s.13, s.16, s.17

Fiscal Framework

- During the early part of February 2014, BG and other LNG project proponents have had
 an opportunity to meet with senior government executives for a review of the full LNG
 policy framework and the impacts of each element on the over competitiveness of BC,
 including such items as; First Nation's benefits, Carbon tax, LNG Tax, Municipal Tax,
 GHGs, Airshed, among others.
- On February 13, 2014, BG executives met with Minister Coleman and senior executives to advance their issues with respect to the overall policy framework.

V CONCLUSION:

• The Province is very pleased that BG Group is in the planning process for an LNG project in BC and that they are working closely with officials in MNGD.

s.13, s.17, s.21

 MNGD is actively engaged advancing consideration of the issues raised by BG during the February 2014 meetings with Minister Coleman and senior executives and look forward to continuing discussions directly with BG executives advancing the project in BC.

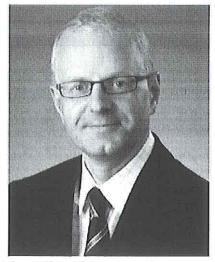
Attachments: Bio for Andrew Walker

REVIEWED BY:

APPROVED BY:

Brian Hansen, ADM √

Steve Carr, DM ✓



Executive Management.

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Dr Andrew Walker is BG's Vice President for Global LNG and is located in Reading, UK.

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moving into his present role as VP Global LNG. He has largely focused on LNG during his time in BG and has worked directly on the delivery of numerous LNG projects, including Atlantic LNG in Trinidad and Tobago, Egyptian LNG and Dragon LNG in the UK. He is responsible for BG's ongoing analysis of the LNG industry, its LNG outlook, as well as the provision of guidance on LNG to its

s.22

Date: February 17, 2014 Cliff No.:80695

MINISTRY OF NATURAL GAS DEVELOPMENT

BRIEFING NOTE FOR INFORMATION

- I PREPARED FOR: Honourable Rich Coleman, Minister of Natural Gas Development
- II ISSUE: Geoscience BC is meeting with Minister Coleman to provide a briefing on their existing projects and to discuss the Ministry's perspective on priorities for new geoscience research in support of development of the LNG industry in British Columbia (BC).

III BACKGROUND:

Geoscience BC is an industry-led, industry-focused, not-for-profit, non-government organization with a mandate to collect, interpret and market geoscience data to help ensure that BC's mineral exploration and mining and oil and gas industries remain innovative, competitive and sustainable. Geoscience BC has no in-house expertise or capacity to undertake geoscience projects, but awards grants to contractors and consultants to do the work.

Geoscience BC has received \$48.7 million in grants from the BC government to fund minerals and oil and gas related geoscience since 2005. Platform 2013 commits to working with Geoscience BC to establish long term and predictable funding.

On July 26, 2013, Geoscience BC sent a letter to the Minister congratulating him on his appointment and thanking him for the province's continued financial support to Geoscience BC. Geoscience BC indicated that it is looking forward to continuing to work with the government to ensure that it can deliver on its mandate of attracting investment to the province's oil & gas and mineral sectors.

IV DISCUSSION:

- Geoscience BC's key roles are to:
 - Take advantage of emerging opportunities by funding large, multi-million dollar geoscience projects;
 - Design and deliver high-profile geoscience programs in response to immediate industry needs and priorities;
 - o Rapidly release project results and data with industry, academia, governments, First Nations, and communities;
 - o Undertake community outreach and promote awareness of geoscience;
 - Market material and work with the Province in trade shows and trade missions to attract more resource investment to BC.
- BC is the only jurisdiction in Canada that uses a non-governmental organization like Geoscience BC to assist in the delivery of public geoscience:
 - o Benefit: Emerging opportunities may be targeted for immediate geoscience work.
 - o Drawback: Government has no oversight over the geoscience projects and plays no role in deciding which projects are selected;

- Consequently, Geoscience BC projects are not considered government geoscience and are ineligible for matching federal funds for programs such as Geo-Mapping for Energy and Minerals (GEM2).
- Unlike a geological survey, Geoscience BC employees do not undertake technical geoscience work—all project work is contracted out.

V GEOSCIENCE BC MAJOR PROJECTS

On the Geoscience BC website there are over 200 projects listed under 6 project types (Data Compilations, Geochemistry, Geophysics, Mapping and Mineral Potential, Mineral Deposits and Oil & Gas) with 10 listed as 'Major Projects':

- 1. QUEST Project: Regional geophysics (airborne gravity and electromagnetics) and geochemistry in the Williams Lake-Prince George-Mackenzie region. Subsequent follow-up work has included analysis and inversion of datasets and updating the regional bedrock geology map. Project started in 2007.
- 2. <u>QUEST-West Project</u>: Regional geophysics (airborne gravity and electromagnetics) and geochemistry in the Terrace-Burns Lake-Vanderhoof region. Project started in 2008.
- 3. <u>Horn River Basin Project</u>: Aquifer study of the Horn River Basin. This project is a partnership project with the Horn River Basin Producers Group. Project started in 2009.
- 4. QUEST-South Project: Regional geophysics (airborne gravity) and geochemistry in the Willams Lake-Kamloops-Princeton region. Project started in 2009.
- 5. <u>Montney Water Project</u>: Database compilation of surface water, ground water and deep saline aquifers in the Montney Shale Gas Play area. Project started in 2010.
- 6. <u>Porphyry Integration Project</u>: Study of geochemical, geological and geophysical signatures for select alkalic and calc-alkalic porphyry districts. Project started in 2010.
- 7. QUEST-Northwest Project: Regional geophysics, geochemistry and geological mapping in northwestern BC. Project started in summer 2011.
- 8. <u>Northern Vancouver Island Project</u>: Regional geophysics and geochemistry on northern Vancouver Island. Project started in summer 2012.
- 9. TREK Project: Regional geophysics, geochemistry and mapping in central BC. The project also has a geothermal component. Project started in spring 2013.
- 10. NEBC Seismographic Network: Seismicity study in Northeast BC to understand the relationship between hydraulic fracturing and recent low magnitude seismic events. Started in 2013.

VI CONCLUSION

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