

# **CANADA-NOVA SCOTIA BENEFITS**

# **2013 SEMI-ANNUAL REPORT**

Encana Corporation Halifax, Nova Scotia

June 30, 2013

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# I. Executive Summary

In the first six months of 2013, activities continued to support the achievement of first gas from Deep Panuke including:

- Project transition from construction to operations phases.
- With Single Buoy Moorings (SBM), commissioning activities on the Deep Panuke production field centre (PFC) offshore.
- Preparations for the 2013 subsea asset integrity survey.

The following report provides an overview of Encana's activities in Nova Scotia from January 1, 2013 until June 30, 2013.

Highlights of the report include:

- Total spending by Encana on Deep Panuke was \$39 million Canadian dollars.
- 357,310 person hours of work by Nova Scotians.
- 48,559 person hours of work by Canadians from other provinces.
- 452,321 person hours of work carried out within Nova Scotia.

### Person Hours (January-June 2013) & Cumulative Hours

	2013	CUMULATIVE
CATEGORY BY RESIDENCE	PERSON HOURS	PERSON HOURS
Nova Scotia Residents	357,310	3,989,506
Canadian Residents from other provinces	48,559	597,337

Note: Table above includes all Nova Scotian and all Canadian Person Hours for all elements of the project.

#### II. Introduction

The following report is filed in compliance with Condition 10 (Monitoring, Reporting and Auditing) of the Canada-Nova Scotia Benefits Plan Decision Report ("the Decision Report") for the Deep Panuke Offshore Gas Development as issued by the Canada-Nova Scotia Offshore Petroleum Board (CNSOPB). This report covers the period from January 1, 2013 to June 30, 2013.

### II.I Local Office

Encana's local office for the Deep Panuke project is located in Founders Square at 1701 Hollis Street in Halifax. Resident in the office is the project general manager and an interdisciplinary project management team, supported by teams of employees and contract staff.

Appropriate levels of decision-making are directed from or take place in the office including project management, engineering, procurement, commercial arrangements, accounting, human resources, legal, regulatory, communications and community relations, and environment, health, safety and quality.



Through the first six months of 2013, Encana PFC contractor SBM maintained its office in Dartmouth, NS near the offshore supply base.

At June 30, 2013, the total complement of Encana employees and contract staff supporting the Deep Panuke project was 41. During the year, Encana personnel worked at the Encana office, at Deep Panuke pipeline landfall in Goldboro, the offshore supply base in Dartmouth or offshore at the PFC in the Deep Panuke field.

# III. Business Opportunities & Supplier Development

### III.I Communication of Business Opportunities

In the first six months of 2013, Encana and SBM continued to share business opportunities for Deep Panuke activities with the local supply community. Information regarding Expressions of Interest (EOI), Bidders' Lists and Contract Awards were included in postings to the Business Opportunities section of the Deep Panuke pages on the Encana website, postings to the electronic bulletin board BIDS Nova Scotia and an email distribution list comprised of disadvantaged group representatives. As well, Encana used social media, particularly Twitter, to notify followers of business opportunities released by Encana for Deep Panuke.

The link to the Encana website for Deep Panuke business opportunities is <a href="http://www.encana.com/communities/canada/atlantic/business-opportunities/">http://www.encana.com/communities/canada/atlantic/business-opportunities/</a>. Deep Panuke business opportunities are also reported through third party organizations. For example, information on EOIs, Requests for Proposal (Bidders' Lists) and Contract Awards typically are posted the day of issue by The Maritimes Energy Association for its members. Media in Nova Scotia have reported on Deep Panuke business opportunities as well.

#### **III.II Stakeholder Communications**

One of the key Project Management Principles contained in The Benefits Plan (Volume 3, Deep Panuke Development Plan Application) described Encana's commitment to developing relationships with stakeholders to inform and involve them in the Deep Panuke project.

In the first six months of 2013, Encana continued to liaise with stakeholders to share information on Deep Panuke. Methods of liaison included meetings, presentations and/or participation at conferences and workshops, phone calls, email notices, social media (Twitter, Facebook and Linked In), information mailings, print material distribution, media relations, participation and/or support of community events and website updates to <a href="https://www.encana.com/deeppanuke">www.encana.com/deeppanuke</a> (Deep Panuke pages).

In March 2013, a project newsletter was distributed to provide stakeholders with updated information on Deep Panuke. The newsletter is posted to the Deep Panuke pages on the Encana website at <a href="www.encana.com/deeppanuke">www.encana.com/deeppanuke</a>, and distributed to a wide audience through mailings and insertion in publications as well as distribution at meetings, conferences and other business and/or community events attended by representatives of Encana or supported by Encana.

The Deep Panuke web pages include information on project procurement activities, community information and links to relevant web sites. In the first six months of 2013, updates were posted to the Business Opportunities pages and the page for the Deep Panuke Education & Training and R&D Fund. As well, new offshore video from Deep Panuke was posted to the Encana Multimedia Gallery at <a href="http://www.encana.com/news-stories/multimedia-gallery/">http://www.encana.com/news-stories/multimedia-gallery/</a> and Deep



Panuke information was featured in the Our Stories area of the site at <a href="http://www.encana.com/news-stories/our-stories/">http://www.encana.com/news-stories/our-stories/</a>

Through the first six months of 2013, there were 6,628 unique visitors and 8,313 visits (includes repeat visitors) to Deep Panuke web pages on the Encana website. The web pages recording frequent visits during the period were those for project business opportunities, project newsletters, contact information, filings and applications and community information.

Encana also monitors a general project information email box (<a href="mailto:dpinfo@encana.com">dpinfo@encana.com</a>), and members of the Deep Panuke team respond regularly to unsolicited inquiries about employment and business opportunities with the project.

# IV. Business Expenditures and Project Employment

# IV.I Business Expenditures

The total expenditure for Deep Panuke during the period of January 1-June 30, 2013 was \$39 million Canadian.

#### IV.II 2013 Person Hours

Total Nova Scotia Person Hours from January 1 to June 30, 2013 for Deep Panuke were 357,310 and Other Canadian hours were 48,559 with 452,321 hours of work performed within the Province of Nova Scotia during the period.

Nova Scotia person hours focused on support for the commissioning of the Deep Panuke production field centre, and for ongoing project management.

The cumulative Nova Scotia Person Hours to date are recorded as 3,989,506. Total cumulative hours of work performed within the Province of Nova Scotia was 5,236,941.

# V. Disadvantaged Groups

#### V.I Sharing Business and Employment Opportunities

As directed by the CNSOPB in the Decision Report, the four disadvantaged groups engaged for the Deep Panuke project are:

- Aboriginal people
- Members of visible minorities
- Persons with disabilities
- Women

In the first six months of 2013, contact has been maintained with groups and organizations representing the business, employment and educational/training interests of these groups including the Black Business Initiative, the Encana Native Council Opportunities Fund, Entrepreneurs with Disabilities Network, Nova Scotia Advisory Council on the Status of Women, the Centre for Women in Business at Mount Saint Vincent University, the Mi'kmaq Rights Initiative and Immigrant Settlement and Integration Services or ISIS.

In February 2013, Encana supported the participation of representatives of Immigrant Settlement and Integration Services, NSERC Women in Science and Engineering (WISE)



Atlantic Region program at Mount Saint Vincent University, NS Advisory Council on the Status of Women, Easter Seals, the Centre for Women in Business, the Black Business Initiative and the Entrepreneurs with Disabilities Network to attend Oil and Gas 101 in Halifax, a learning opportunity regarding the offshore oil and gas industry hosted by The Maritimes Energy Association.

As well, in the first six months of 2013, Encana continued to support the four designated disadvantaged groups and their delivery of core programs and services to members by purchasing tickets for or donating items to be auctioned at fundraising events and activities. Among the groups receiving support were:

- CACL Antigonish
- Atlantic Provinces Special Education Authority
- Sunnyville Multicultural Festival
- Black Educators Association
- Micmac Benevolent Society

#### V.II Aboriginal Liaison

In the first six months of 2013, Encana liaised with representatives of the Mi'kmaq Rights Initiative and the Encana Native Council Opportunities Fund.

Encana maintains contact with the Kwilmu'kw Maw-Klusaqn Negotiation Office (KMKNO) Mi'kmaq Benefits Officer on behalf of the Assembly of Nova Scotia Mi'kmaq Chiefs (the Assembly). In the first six months of 2013, activity under the five-year agreement between Encana and the Assembly regarding education and training and related opportunities from the Deep Panuke project included steps toward the development of a Mi'kmaq strategy for increased engagement in the oil and gas industry. A Request for Proposals relating to this project was subsequently released in July 2013. In addition, funding was provided in the first six months of 2013 for three Mi'kmaq high school students from Eskasoni and Waycobah to attend the Canada-Wide Science Fair in Lethbridge, Alberta where one of their science projects received a bronze medal. As well, work continued in the first six months of 2013 on three initiatives:

- A provincial skills database of Mi'kmaq individuals and businesses to assist with tracking capacity and training to respond to the needs of the offshore oil and gas industry by allowing front-line workers to match people and businesses for individual hiring and contracting opportunities. A proposal for database development is being developed by Membertou Geomatics.
- A welding program for the Mi'kmaw at the Nova Scotia Community College, with 16 students including one female participant. Classes began in February 2013 with training completion slated for the fall of 2013.
- An electrical construction and industrial program run by the Nova Scotia Community College with 12 students participating. In June 2013, student work placements were nearing completion to be followed by graduation from the program.

Through the first six months of 2013, Encana continued to monitor the progress with the Encana Native Council Opportunities Fund (ENCOF), a fund established to help off-reserve Aboriginal people in Nova Scotia engage in employment and business opportunities related to the offshore oil and gas industry. During the year, the focus for ENCOF was on tuition disbursements for technical schools and university studies. As well, networking increased in 2013 between ENCOF and programs and organizations related to trades apprenticeships. Since January 2013, 16 individuals were continuing to undertake post-secondary training (including University,



Nova Scotia Community College, Atlantic Petroleum Training College, Commercial Safety College, Operating Engineers Training Institute and Maritime Environmental Training Institute) in fields related to the offshore oil and gas industry such as Bachelor of Arts - Aquatic Resources, Natural Resources Environmental Technology, entry level floorhand, electrician apprenticeship, environmental health and safety and marine engineering. In the first six months of 2013. ENCOF received six applications for funding, including four renewal applications in the areas of Engineering, Building Systems Technician, Business Administration and Marine Engineering for September 2013. The two new applications were in the areas of Engineering and Mobile Crane. ENCOF representatives continued to support careers fairs, and made presentations at Native Council zone meetings and other community gatherings to explain ENCOF and the educational opportunities that could be supported by it. ENCOF representatives continued to meet with potential employers and labour organizations of relevance to the offshore oil and gas industry to share employment information on students who have completed training and to discuss possible partnerships and employment requirements. ENCOF representatives also continued to meet with representatives of training organizations such as Survival Systems, the Atlantic Petroleum Training College, Pipe Trades College, Carpenter Millwrights Trade College (Electrical) and the Operating Engineers Training Institute to discuss entrance requirements and training programs offered. Career Industry Exploratories attended by ENCOF took place in Sydney, Dartmouth and Truro in May 2013 and Yarmouth in June 2013. Industries involved in these exploratories included: Welding, Steamfitting/Pipefitting, Electrical, Earth Moving & Mobile Crane, Class 1 Trucking, Oil and Gas Skilled Worker Program, Sheet Metal and Small Business Development.

#### **V.III** Persons with Disabilities

In 2013, Encana continued to work with the Entrepreneurs with Disabilities Network (EDN). EDN promotes and facilitates entrepreneurship among persons with disabilities and has approximately 500 members across Nova Scotia. Encana's support in the first six months of 2013 was directed to EDN's emerging entrepreneur award. Encana also supported the attendance by an EDN staff member at the Oil and Gas 101 learning day hosted by The Maritimes Energy Association.

Encana also liaised with representatives of Easter Seals in Nova Scotia and the Canadian Paraplegic Association (Nova Scotia) to provide support for fundraising activities.

In the first six months of 2013, Encana continued to utilize the services of New Leaf Enterprises, a division of Easter Seals that works with adults with physical disabilities to develop job skills and to support employment opportunities. New Leaf coordinates the mail-out of the Deep Panuke project newsletter.

#### **V.IV** Members of Visible Minorities

In the first six months of 2013, Encana engaged with representatives of the Black Business Initiative (BBI), Immigrant Settlement and Integration Services (ISIS) and Imhotep Legacy Academy to support their programming and to share information on Deep Panuke.

Encana's work with ISIS included support for a team of students to participate in Junior Achievement's Company Program during the 2012-2013 school year, thus helping to foster entrepreneurial and business skills among immigrant youth.

Encana's support for Imhotep saw the program delivered at Saint Andrew Junior School in Antigonish, NS (students in Grades 6 to 8) and at Sir John Hugh Gillis Regional High School (students in Grade 9). The Imhotep program encourages youth of African Nova Scotian heritage



to pursue careers in sciences, technology, engineering and mathematics, fields that are key to careers in the offshore petroleum industry in Nova Scotia and areas of study in which African Nova Scotian youth are under-represented.

As well, Encana's support for the SuperNOVA program at Dalhousie University in 2013 supports the delivery of summer science camps for students of African Nova Scotian heritage in four Nova Scotian communities. SuperNOVA worked closely with existing community programs like Imhotep to recruit participants for the camps.

#### V.V Women

Encana recognizes that attracting more women to careers in sciences, trades, technology and engineering will help to increase their participation in the offshore oil and gas industry. To help achieve this goal, Encana engaged in several initiatives in 2013.

Funding from Encana for Techsploration's Women in Action web video series supported the addition of two new videos to the series in the first six months of 2013. The videos are of the former President of ExxonMobil Canada and a Marine Survey Technician. Techsploration encourages girls in Nova Scotia to consider educational paths in sciences, trades and technology that could lead to a career in the offshore oil and gas industry. The videos utilize a medium preferred by youth to convey career and educational information and can be viewed via www.youtube.com/techsploration.

As well, a female engineer with Encana attended the career retreat in June 2013 hosted by the Chair's office, Women in Science and Engineering (WISE) Atlantic Region program based at Mount Saint Vincent University.

Encana also continued to support the programming offered by the Centre for Women in Business at Mount Saint Vincent University, sharing information on procurement for the offshore oil and gas industry and inviting a Centre representative to the Oil and Gas 101 learning day hosted by The Maritimes Energy Association.

#### V.VI Diversity Training and Reporting

In the first six months of 2013, new hires to Deep Panuke were required to participate in on-line Aboriginal Awareness Training offered by Encana.

Data from Encana's contractors for the first six months of 2013 with respect to diversity is reported as the following:

Group	Number of Positions
Aboriginal persons	3
Women	35
Members of Visible Minorities	2
Persons with Disabilities	
TOTAL (January-June 2013)	40



# VI. OSEA – Offshore Strategic Energy Agreement

# VI.I Update on Activities

The OSEA signed between the Province of Nova Scotia and Encana in 2006 outlined certain commitments made by Encana with respect to specific industrial and employment opportunities for Nova Scotians resulting from the development of the Deep Panuke project.

From January 1 to June 30, 2013, 46,171 hours of work were conducted in Nova Scotia with 44,153 of these hours being Nova Scotia Person Hours on initiatives described in the OSEA. From the commencement of the OSEA, 2,055,200 hours of work have been conducted in Nova Scotia with 1,855,424 of these hours being Nova Scotia Person Hours.

In addition to the OSEA hours, additional Nova Scotia hours were recorded in the first six months of 2013 for work activities such as helicopter and supply vessel support for offshore hook-up and commissioning. During this period, 406,150 hours of work were conducted in Nova Scotia with 313,157 of these hours being Nova Scotia Person Hours.

Activities on the following OSEA commitments have been completed, thus updates on these activities are not provided: developing skills initiative, offshore supply vessel, onshore drilling rig program, subsea protection structures, export pipeline coating and the flare tower.

Engineering, Procurement and Management Activities

Encana's office in Halifax continues to be the centre of project management activity for Deep Panuke, as well as engineering and procurement management.

# VII. Education & Training/ Research & Development

In the first six months of 2013, Encana continued to invest in research and development, education and training initiatives in Nova Scotia with a focus on advancing the development of the offshore oil and gas industry.

#### VII.I Deep Panuke Education & Training and Research & Development Fund (the Fund)

To June 30, 2013, Encana confirms spending of approximately \$7.1 million to date on education & training and research & development projects under the Fund.

# **VII.II Calls for Proposals**

Thirteen submissions were received in response to the fourth call under the Fund. The call theme was environment for the offshore oil and gas industry. Five submissions were shortlisted for submission of full proposals. Subsequently, the proposal review committee recommended funding for four of the projects. Information on all Calls for Proposals under the Fund is posted on the Encana website at:

http://www.encana.com/communities/canada/atlantic/training-research-fund.html

### **VII.III Education & Training Funded Projects**

The following updates are provided for selected education & training initiatives approved by the CNSOPB under the Fund:



### Techsploration

Encana is supporting a three-year extension to the Women in Action web video series featuring women in fields where they are under-represented, in particular careers related to the offshore oil and gas industry. It is anticipated that three oil and gas industry careers will be added to the series each year over the three years of the commitment. In the first six months of 2013, two new videos were added to the series, one of the former President of ExxonMobil Canada and one of a Marine Survey Technician. By the end of May 2013, there were nearly 100,000 views of the videos in the series, with the video of the Encana drilling engineer the most frequently viewed of all the videos. Also in the first six months of 2013, an Encana engineer mentored a Techsploration school team from Springhill, NS, escorting them during a tour of Encana's offices and industry facilities such as a site where survival training is conducted for offshore helicopter transport. The mentor also visited the students' school in Springhill to conduct a learning session with all students in grades 8-10, and participated in a Techsploration year-end conference where she met with approximately 55 young women in a round robin career session. To view the web video series, see <a href="https://www.techsploration.ca">www.techsploration.ca</a> and click on the Women in Action Web Video Series.

### • Imhotep Legacy Academy (ILA)

With support from Encana, this science and mathematics enrichment program for students of African Nova Scotian heritage expanded to Saint Andrew Junior School in Antigonish, NS. Imhotep encourages participants to consider careers in science, technology, engineering and mathematics fields (STEM), core fields for a career in the offshore oil and gas industry in Nova Scotia and fields in which African Nova Scotians are under-represented. During the 2012-13 school year, nine students in Grades 6 to 8 from Saint Andrew and Grade 9 at Dr. John Hugh Gillis High participated in the After-School program. Three of these students attended the African Nova Scotian Youth Engagement Conference in Halifax at Mount Saint Vincent University on March 25. In addition, seven other students were enrolled in the Virtual School tutoring program which offers daily online tutoring to African Nova Scotian students in grades 9-12 across Nova Scotia. One of these students also participated in a math and science tutoring workshop at Dalhousie University on May 4 which was organized by ILA's Virtual School. The Antigonish After-School program was led by three science students from St. Francis Xavier University.

#### Youth Projects – Skills Canada-Nova Scotia

Encana supported Skills Youth Projects offered by Skills Canada-Nova Scotia at the Nova Scotia Community College (NSCC) to encourage high school students from across the province to consider a skilled trade or technology career – a key educational path for work in the offshore oil and gas industry. Participating students have the opportunity to work with a college instructor and a student mentor who is currently enrolled in a skilled trade or technology program at the college. In the first six months of 2013, Encana supported four youth projects: TechShops at NSCC Lunenburg Campus and NSCC Akerley Campus in Dartmouth, and two Young Women's Conferences at NSCC Truro Campus and NSCC Burridge Campus (Yarmouth). During the events, 205 students were introduced to skilled trade and technology careers and participated in a range of interactive and hands-on workshops.

#### Encana High School Scholarship

Funding from Deep Panuke will support students from seven public school boards in Nova Scotia to receive the scholarship beginning in the fall of 2013. Each school board selected one



graduating student to receive the \$2,500 annual scholarship renewable for up to four years. All seven students are expected to pursue studies in engineering at Nova Scotia universities. Since 2010, Encana has supported 29 Nova Scotia students pursuing post-secondary studies through the scholarship program. The majority of participating students are studying engineering at Nova Scotia universities.

# SuperNOVA

In the first six months of 2013, SuperNOVA at Dalhousie University moved forward with planning for the third and final year of four, week-long science day camps in Halifax, Sydney, Antigonish and Truro for students of African Nova Scotian heritage. It is anticipated that up to 150 students will participate in the camps, with many campers recruited through the Imhotep Legacy Academy program, ensuring continuity for these students in science-technology-engineering-mathematics (STEM)-related activities throughout the year. Students of African heritage are under-represented in STEM fields. The SuperNOVA programming focuses on supporting students with demonstrated interest in STEM, which is a key area of study for careers in the offshore oil and gas industry.

# **VII.IV Other Education & Training**

Encana actively supports local universities through the employment of students enrolled in coop programs at Nova Scotian institutions. Since May 2007, 40 students have joined the Deep Panuke team, generally on a four-month term. In January 2013, Encana advertised at Dalhousie University for a co-op engineering student position for the May-August 2013 work term. To date, Encana co-op students have been enrolled at Acadia, Dalhousie and Mount Saint Vincent universities, as well as the Nova Scotia Community College, in engineering, commerce and public relations fields of study.

In the first six months of 2013, Encana continued to provide energy information kits to educators, with three kits distributed. The kits include information on geology, careers in the offshore oil and gas industry and science education. Materials from the Atlantic Geoscience Society, the Canadian Centre for Energy, the Canadian Association of Petroleum Producers and the Petroleum Human Resources Council of Canada (now part of Enform) are included in the kit.

To support the development of staff at Deep Panuke, Encana funded training totaling \$27,929 from January 1 – June 30, 2013. Cumulative training now totals \$450,803.

In the area of education & training, in 2013 contractors reported 359 placements for training totaling \$141,236.

#### **VII.V Research & Development Funded Projects**

The following section provides an update on selected R&D projects approved under the Fund.

Produced Water – Pro-Oceanus

A project led by Pro-Oceanus of Bridgewater, NS, including partners at the Centre for Offshore Oil, Gas and Energy Research (COOGER), to develop a new ultraviolet (UV) fluorometry system to track oil dispersion in the ocean. In the first six months of 2013, the participants completed a journal article on the research and plan to submit it shortly for publication. It is anticipated that the article also will be posted to the Pro-Oceanus website.

• Integrated Bird Management at Offshore Installations



In 2013, researchers from Acadia University continued to progress the study investigating potential bird-platform interactions at Encana's Deep Panuke platform. During the winter they focused on data analysis and continued the development of new VHF receivers that will be used for bird tracking this year. In the spring of 2013 more than 100 birds, including sparrows, gulls and terns, were banded and had telemetry devices attached along the Eastern Shore of Nova Scotia and on Sable Island. These devices enable researchers to track bird movements during foraging trips and migration periods to identify potential interactions. To date, gull tracking has identified seasonal periods of bird associations with the platform and with supply vessels servicing the platform. Ipswich Sparrows were tracked from mainland Nova Scotia to determine the timing and routes of their migrations to Sable Island. Tern tracking will reveal the duration and direction of their foraging trips from nesting colonies on Sable Island. The researchers share information on the study via a blog, which also assists with receiving reports of sightings of the tagged birds. See <a href="http://sableislandgulls.wordpress.com/">http://sableislandgulls.wordpress.com/</a>

### Beached Bird Survey on Sable Island

This long-term study of seabird oiling rates and generic identification of oil contamination found on bird plumage and/or on the beach at Sable Island provides information on background levels of oiling and possible sources. The research enables the offshore oil and gas industry to assess its potential impact on seabirds in the region, and to investigate any changes in oiling rates or oiling events that may be attributed to oil and gas activities.

#### • Climate Technical Gear (formerly Helly Hansen Canada)

Progress continued with research to study clothing system improvements to provide added safety for offshore helicopter transport suit wearers. Four prototypes have been developed: Two summer weight and two winter weight. The technology uses moisture management techniques of water movement and water absorption to manage what happens to the ingress of water inside the helicopter transport suit. Initial in-water thermal manikin testing has been conducted at the CORD Group in Dartmouth, NS with various amounts of water leakage along with escape buoyancy tests using the HTS-1 helicopter passenger transport suit. Initial results show the summer weight clothing increases inwater thermal performance by approximately 0.1 clo with simulated leakage rates between 1,300 to 1,600 grams of water. Escape buoyancy of the summer weight garments are within the limits. The winter weight garments are slightly over the escape buoyancy limit but removing the water absorption feature lowers escape buoyancy by 5N and moves one of the winter concepts within the escape buoyancy requirement. Further in-water thermal manikin testing will be conducted in July 2013. Funding for the research was awarded by Encana under the second call for proposals to researchers in Nova Scotia under the Deep Panuke Education & Training and R&D Fund. The theme for the call was offshore safety and risk.

#### VII.VI Other Research & Development

In the first six months of 2013, Encana continued to provide funding and/or participation through a number of task forces and committees on safety and environmental issues linked to the offshore such as the Sable Island Stakeholder Committee and the Gully Advisory Committee.

Encana has continued to participate in several technical advisory groups from the Environmental Studies Research Fund and represents the Canadian Association of Petroleum Producers as part of the CNSOPB's SARA (Species at Risk) Working Group.



In addition, a representative of Encana attended a NSERC research connector in April 2013 to explain the process for funding research and development at Deep Panuke. Encana also supported the annual meeting of the Fishermen and Scientists Research Society, held in February 2013 in Truro, NS.

# VIII. Activity Forecast for July 1 to December 31, 2013

In the first six months of 2013, Encana focused on:

- Project transition from construction to operations.
- With SBM, commissioning activities on the Deep Panuke PFC.
- Preparations for the 2013 subsea asset integrity survey.
- Preparations for rock placement maintenance in the Deep Panuke field.

Project activity at Deep Panuke is organized into functional elements. The following section describes activity anticipated from July 1 to December 31, 2013 for each of these elements.

#### **VIII.I** Project Management Element

Encana's Deep Panuke project team in Halifax will continue to manage and monitor progress on all project elements. The project team will continue transitioning to the operations phase of the project, working closely with SBM as the operations contractor for the offshore production facility.

### VIII.II Element 1 – Drilling and Completions

Activities under this element are now captured under Element 5, Ready for Operations and Operations.

#### VIII.III Element 2 - Subsea

Final commissioning activities for the interfield flowlines, umbilicals and the trees are expected to be completed in the second half of 2013. As part of Encana's ongoing asset integrity management plan for Deep Panuke, subsea inspections utilizing tools such as a remotely-operated vehicle will take place in the second half of 2013. Additional rock placement for erosion protection is planned to be installed around the flowlines in Q3 2103.

### **VIII.IV Element 3 – Export Pipeline**

Buy-back gas is currently being shipped through the pipeline from the Maritimes & Northeast Pipeline located in Goldboro to the PFC. The gas is being utilized for commissioning activities of the PFC equipment. The subsea section of the export pipeline is subject to Encana's ongoing asset integrity management plan for Deep Panuke, thus subsea inspections utilizing tools such as a remotely-operated vehicle will occur in the second half of 2013. In addition, an internal inspection of the gas export pipeline will be performed by in-line inspection tools launched from the PFC and received at the onshore facilities in Goldboro. Additional rock placement also is planned for erosion protection in a few locations. The onshore facilities will continue to be monitored and inspected in accordance with Encana's ongoing asset integrity management plan for Deep Panuke.

#### VIII.V Element 4 – Production Field Centre (PFC)



All construction work is essentially complete and the main focus is now on final commissioning of the PFC in readiness for startup. The offshore and onshore operations teams are fully in place, are ready for production, and are carrying out all routine operations activities.

### VIII.VI Element 5 – Ready for Operations (RFO) and Operations

The RFO team completed operational readiness activities during the first half of 2013 and are now in the final stages for the start-up of production operations. Logistics services including helicopter transport, support vessels, ROV services and supply base have been supporting offshore operations since the arrival of the PFC and will continue to support natural gas production operations.

The vast majority of facility systems have been handed over to SBM Operations team who are now leading the startup of production operations, and will be responsible for the management of operations on the PFC during the operations phase.

The Atlantic Condor continues to be the primary supply vessel in support of production operations. The vessel's ROV spread has been utilized for subsea asset integrity inspections and post storm surveys. The Ryan Leet continues as the primary stand-by vessel for the field.

Cougar Helicopters continue to provide helicopter transport services to the Deep Panuke field. Cougar averages four to five flights per week in support of production operations at Deep Panuke.

