

Enbridge Pipelines Inc.

**Application Pursuant to Section 58 of the *National Energy Board*
(*NEB*) Act**

**Line 9B Reversal and Line 9 Capacity Expansion Project
("Project")**

NEB File OF-Fac-Oil-E101-2012-10 02

**Written Evidence of
Aamjiwnaang First Nation**

Affidavit of Chris Plain, Chief of Aamjiwnaang First Nation

AFFIDAVIT OF CHRIS PLAIN

I, **CHRIS PLAIN**, Chief of the Aamjiwnaang First Nation, **MAKE OATH AND SAY:**

1. I am a citizen and the duly elected Chief of the Aamjiwnaang First Nation (“AFN”), and as such I have personal knowledge of the facts set out herein, except where the facts are stated to be based on information and belief, in which case I believe that the facts as stated are true.

2. AFN is an Indian “Band” as defined by the *Indian Act*, R.S.C. 1985, C.I-5, as amended and our members are “aboriginal peoples of Canada” within the meaning of section 35 of the *Constitution Act, 1982*. Our reserve is located in southwestern Ontario in the City of Sarnia in part of our traditional territory.

3. I was first elected Chief of AFN on January 14, 2005. I have since been re-elected for four consecutive terms. As Chief of the community, I am involved in many initiatives aimed at asserting and protecting our Aboriginal and treaty rights and promoting the health of our community members. I am also involved in many environmental initiatives and strive to ensure that our youth and Elders are made aware of important issues that currently affect us. I am authorized to speak on behalf of AFN in these matters, and all references to “we”, “us”, and “our” within this affidavit refer to the AFN community.

4. I understand that Enbridge Pipelines Inc. (“Enbridge”) has applied to the National Energy Board (“NEB”) for authorization to reverse a section of Line 9 between North Westover, Ontario and Montréal, Québec, expand the annual capacity of Line 9 from 240,000 bpd to 300,000 bpd, and allow heavy crude to be shipped on Line 9 (collectively, the “Project”).¹

¹ Application by Enbridge Pipelines Inc. filed with the National Energy Board for the Project (“Enbridge Application”), page 18 of 54.

5. Enbridge has stated that the purpose of the Project is to respond to requests from eastern Canadian refineries to have access to growing and less expensive supplies of crude oil from western Canada and the Bakken region in the United States.²

6. Line 9 is located in our traditional territory and Enbridge's Sarnia Terminal ("Terminal") is located within a kilometer or two of our reserve lands. We and our ancestors have lived in and harvested resources from our traditional territory since time immemorial, including from Talfourd Creek, which flows through our reserve and into the St. Clair River. We assert that we have Aboriginal and treaty rights throughout our traditional territory which are recognized, affirmed, and protected by s. 35 of the *Constitution Act, 1982*.

7. Line 9 was built without consulting us. The federal Crown and/or Enbridge are not sharing the revenues that are being generated by shipping oil through our traditional territory despite the fact that construction and operation of Line 9 constitutes an ongoing infringement of our Aboriginal and treaty rights.

8. I am swearing this affidavit in support of our assertion that the Project triggers the federal Crown's duties to consult and accommodate us, to outline our concerns about the Project, to provide the NEB with our community's unique perspective on how the Project may impact our constitutionally protected rights, and to explain why we are taking the position that we have not been adequately consulted about the Project.

9. For the reasons that I set out below, we are concerned that the Project, including its operational phase, will cause significant new socio-economic, health, and environmental effects on our reserve and throughout our traditional territory, and serious impacts on our Aboriginal and treaty rights.

² *Ibid.*

10. In particular, because of the proximity of the Terminal to our reserve and the Cole Drain, which flows through the Terminal and discharges into Talfourd Creek and the St. Clair River,³ toxic air emissions caused by storing crude oil at the Terminal, and the risk of spills, leaks, and discharges of crude oil at the Terminal itself have the potential to seriously impact our health, as well as our Aboriginal and treaty rights.

11. More generally, a spill, leak, or discharge from Line 9 into our traditional territory risks causing new and further serious impacts to our way of life.

Aamjiwnaang First Nation's Aboriginal and treaty rights

12. In the context of the Project, we asserts that we have:

- (a) a solemnly negotiated treaty right to exclusively use and enjoy our reserve lands;
- (b) Aboriginal harvesting rights in our traditional territory to hunt, fish, trap, gather or collect any or all species or types of animals, plants, minerals and oil, for any purpose, including for food, social and ceremonial purposes, trade, exchange for money, or sale (including commercial sale);
- (c) the right to access, preserve, and conserve sacred sites for traditional, social, and ceremonial purposes;
- (d) Aboriginal title to the bed of the St. Clair River, as well as the airspace over our reserve, the St. Clair River, and other lands throughout our traditional territory; and

³ Enbridge's Application, Attachment 9, ESEIA Part I, Page 41 of 72.

- (e) in the alternative to (d), an Aboriginal right to use the water and resources in the St. Clair River and the air space over the lands in our traditional territory.

13. As a corollary of our rights, we claim that a part of any revenues generated by transporting oil through our traditional territory should be shared with us.

14. We are descendents of a part of the Anishinaabe Nation in southwestern Ontario (sometimes collectively referred to as the Chippewa or Ojibwa peoples). AFN is part of the Mississauga Chippewas who have occupied present day southwestern Ontario since time immemorial.

15. I am aware that the archaeological literature observes that there has been continual human occupation in this area over the past 10,600 years, and occupation by a mobile people, thought to be the Chippewas, who used lands and resources on a seasonal basis throughout a vast territory beginning in approximately A.D. 600.

16. **Exhibit “A”** contains excerpts from Dr. Neal Ferris’ 1989 University of Toronto Master’s thesis *Continuity Within Change: Settlement-Subsistence Strategies and Artifact Patterns of the Southwestern Ontario Ojibwa, 1780-1861* where, at pages 20-22, the author makes the following observations:

Archaeological evidence from southwestern Ontario documents a continuing occupation of the region by Native peoples from approximately 10,600 B.P. to the 16th century A.D. [...] Of most concern here is the Late Woodland period (ca. A.D. 600-1550). Archaeological materials related to this period have been identified as being part of the Western Basin Tradition (Fitting 1970; Murphy and Ferris in press), an archaeological complex documented around the western drainage of Lake Erie into southeastern Michigan and northwestern Ohio. In southwestern Ontario this Tradition's eastern boundary moved westward during the Late Woodland, originally extending as far east as the western half of Middlesex County, then ultimately moving to the Detroit - St. Clair River corridor by the end of the 16th century.

In the early part of the Western Basin Tradition, encompassing the Riviere au Vase (ca. A.D. 600-900) and Youngs (ca. A.D. 900-1200) phases, settlement-subsistence patterns are characterized by seasonal mobility around resource availability. This is marked by a summer focus along rivers and lakeshores, with fishing and hunting the major activities. Group composition was likely informal, extending from camps of one to several families. This period was followed in the fall by a band or larger group gathering to take advantage of fall resources such as nuts, and perhaps to harvest small plots of maize, which had been planted around summer camp sites. During and after this period, groups would also hunt game such as deer, intensifying the activity during the rutting season by moving to special purpose camps (perhaps occupied by a single family). From such camps these groups would stage hunts, and process and render the kill into supplies for the upcoming winter. Following this families moved to winter camp areas, living primarily on yields from hunting and existing food stores. In the spring these groups may have moved to sugaring camps, or directly to fish spawning run locales.

The following Springwells phase (ca. A.D. 1200-1400) was characterized by a shift in warm weather settlement-subsistence practices, with an increasing emphasis on maize horticulture and an increased focus on fixed settlements during the summer, apparently situated so as to provide easy access to crop areas as well as continued use of marsh, river and/or lakefront environmental locales. However, winter patterns of dispersal appear to have been maintained from earlier times. By the final period of the Western Basin Tradition, the Wolf phase (ca. A.D. 1400 - 1550), these summer settlements had evolved into fairly substantial warm weather villages [...] On a broad level, these Western Basin archaeological manifestations are thought to be a product of Algonquian speaking peoples (Brose 1978; Murphy and Ferris in press). Settlement-subsistence patterns in particular seem to reflect known patterns for other Great Lakes Algonquian groups and certainly vary significantly from the patterns documented for contemporaneous Ontario Iroquoian groups occupying areas to the east [...] [emphasis added]

17. The seasonally mobile Algonquian-speaking people described in this literature are indeed our ancestors. The traditional territory that our ancestors inhabited covers much of southwestern Ontario and the Great Lakes Region, including significant territory in what is now Michigan.

18. Our ancestors survived off the land by seasonally hunting, trapping, fishing, gathering, growing corn and squash, and harvesting maple sugar. The general seasonal cycle or pattern in which lands and resources were used is sometimes referred to as an “annual round.”

19. Historically, groups of families or clans referred to as bands shared a territory which supplied them with sufficient food, shelter, and clothing to survive and prosper. Trade and intermarriage between clans and bands was commonplace, and we still consider other Mississauga Chippewa peoples in the region to be our direct relations. Dr. Ferris describes our mobile way of life at page 58 of his thesis, which is also included in Exhibit A:

Rather than attempting to identify village centers for specific Ojibwa groups, the preference here is to consider available evidence for suggesting different regional groups, and attempting to identify their territorial range, similar to the distinction maintained by the British Indian Department during the late 18th and early 19th centuries. The territorial extent for each group can be considered to represent community "home ranges", common areas of shared land utilized by a number of individual families over the course of a season. Rather than thinking of these groups as nomadic or wandering from locale to locale, movement within each territory was highly directed, and based on the group's intimate knowledge of the territory. Movement within a territory followed a well known schedule based on resource availability through the annual seasonal round, instead of being based on aimless wandering. [emphasis added]

20. In his book *Canada's Indigenous Constitution*, Professor John Borrows, who I understand is himself Anishinaabe, accurately explains the system of land and territorial resource use management mandated by our laws, its importance to us, and how it has generally been implemented by us historically. I have included an excerpt from his book as **Exhibit "B"**, part of which explains how our ancestors managed, allocated, and conserved resources in our traditional territory:

The Anishinabek often manage their resources through kinship allocations, agreed upon through discussion and consensus. In some locations, these kin-based allocations have been confirmed, overlain, or displaced by band council-sanctioned certificates of possession under the *Indian Act* [...]. A person's *dodem* creates reciprocal obligations among fellow clan members, thereby establishing a horizontal relationship with different communities and creating allegiances that extend beyond the confines of the home village [...]. Totemic obligations have helped [us] allocate resources to [our] hunting grounds, fishing grounds, village sites, and harvesting/gathering sites. A conservation ethic is apparent in resource allocations [under this system]. Historically, this system of resource use combined common stewardship with exclusive rights:

Among the Ottawas and Chippewas, the band – a group of extended families identified with a specific locale – was the centre of the allocation system ... [The band] owned the common goods on which their members subsisted [...] they owned the right to harvest wild animals, fruits of the land and fish. The band apportioned this general right among its members by assigning to families and groups of families 'territory' in which they harvested common goods. The right to take the scarcest and most crucial goods – animals for winter hunting – was assigned to small groups as an exclusive right to harvest game within a specified territory. Rights to more abundant goods, maple sugar and fish for example, were assigned to larger groups on a less exclusive basis ... Family hunting territories grew out of scarcity as a way to increase efficiency and decrease competition for food. [citations omitted]

21. Our ancestors' seasonal harvesting cycle is depicted in a research paper prepared by Professor Neal Ferris describing our ancestors' way of life and seasonal harvesting cycles attached as **Exhibit "C"**.

22. Our ancestors continued to harvest locally and seasonally abundant resources throughout the 19th century following contact and settlement by Europeans. Our ancestors incorporated European goods into their traditional harvesting practices. They did not, however, abandon their harvesting practices or the worldview that is directly tied to our traditional harvesting practices. At page 8 of Exhibit C, Professor Ferris concludes that:

...the Ojibwa were clearly conservative to change beyond innovative adaptation, reluctant to abandon an historically constructed sense of self that came from the seasonal scheduling of livelihood and daily life across their territorial "home range", and not from fixed locales within it.

23. Our traditional harvesting practices and worldview continue to be unique and essential features of our culture today. Our assertions of Aboriginal harvesting rights and title are based on our ancestors' traditional harvesting practices on, and exclusive occupation of, our traditional territory prior and subsequent to the arrival of Europeans.

24. At the time of first contact with European explorers, our ancestors had established several villages in southwestern Ontario, including one on the St. Clair River on the site of what is now known as Sarnia. A copy of AFN's Consultation Protocol is attached as **Exhibit "D"**, which includes a map of our traditional territory.

25. With the encroachment of European settlers on our traditional territory, our ancestors entered into solemn, nation-to-nation negotiations with the British Crown from 1818 to 1825. These negotiations were intended to provide the Crown land for settlement and to guarantee our ancestors that their descendants would always have lands on which to carry out their traditional lifestyle.

26. In 1825, negotiations with the British Crown culminated with the signing of Treaty 27½. The terms of Treaty 27½ provided the British with the rights to some 2.2 million acres of land in our territory in exchange for recognizing and affirming our ancestors' exclusive rights to four specific areas. One of these areas was allocated specifically to us, and makes up the present day reserve which is located directly adjacent to the Project.

27. Once the four areas identified in the provisional treaty had been surveyed, the Chippewas and the British Crown finalized the agreement by signing Treaty 29. Treaty 29 states that the British were setting aside the land and "...expressly reserving to the said Nation of Indians and their posterity at all times hereafter, for their own exclusive use and enjoyment". A copy of Treaty 29 dated July 10, 1827 and duly signed by the Chippewas and the Crown representatives is attached as **Exhibit "E"**.

28. The Crown's negotiation and execution of Treaties Nos. 27½ and 29, in which our ancestors agreed to a limited surrender of the lands under their control, confirms that the Crown recognized that our ancestors owned and controlled the lands in our traditional territory.

29. Although the text of Treaty 29 does not explicitly address harvesting rights, the practices that comprise the seasonal rounds that sustained our ancestors since time immemorial that I have described above, and the mobility necessary to carry out those practices at a variety of sites throughout our traditional territory, is as integral to us now as it was to our ancestors. It is an essential part of the traditional lifestyle that makes us who we are as indigenous peoples.

30. Our ancestors retained the right to harvest resources throughout our traditional territory leading up to and after the treaties were executed. There was no discussion of ceding our harvesting rights or control and ownership over parts of our our traditional territory (lakes, rivers, lakebeds, and riverbeds, subsurface resources which lay under our lands below the depth of a plow, and the air space above our lands) during the treaty-making process. Our ancestors never agreed to surrender those rights.

31. It would be inconceivable to me that our ability to continue to carry out these important practices in the manner we have since time immemorial would be voluntarily surrendered or otherwise “bargained away” by my political predecessors as a practical matter, and in any event my belief is that our bargaining position vis-à-vis the British Crown at the time would not have required them to do so.

32. The original territory that was set aside for our exclusive use was approximately 10,000 acres. However, through the sale of reserve lands this figure has been substantially reduced. Beginning in the 1950s, we began to experience encroachment by large scale industrial development.

33. We now find ourselves in the unfortunate position of being located in the heart of Canada’s “Chemical Valley”. New industrial developments continue to adversely impact the day-to-day lives of our community members.

34. Today, we have a reserve and a permanent community. The availability of resources, the industrial development of our traditional territory, the forcible imposition of various restrictive colonial laws and policies on us by the Crown, and other factors have made it impossible for us to sustain ourselves solely by harvesting resources in our territory.

35. Nevertheless, we do not consider our harvesting rights “boxed in” by the borders of our reserve, and we have never made any bargain with the Crown that would support such a perspective.

36. Rather, we continue to carry out harvesting and other traditional activities at various sites throughout our traditional territory, including several that are in the immediate vicinity of the Terminal and other locations along Line 9’s right-of-way, as we have for countless generations.

37. All of the practices associated with our annual rounds and the territorial perspective we view land and resource use management with continue to survive and are applicable to our activities at various sites throughout the territory today.

38. Our community members have a deep spiritual connection to our territory, and our legal traditions also convey a duty on us to ensure that the land we leave for future generations is better than what we inherited.

Use of lands and resources by AFN members that could be adversely impacted by the operation of Line 9

39. We engaged Eagle Sun Consulting to perform a “preliminary” traditional land use study (“TLUS”) to document and describe the use of lands and resources by AFN members in proximity of Line 9 or that otherwise may be affected by the Project, including by spills, leaks, and discharges from Line 9 during its operational phase. The TLUS is attached as **Exhibit “F”**.

40. I am informed by Eagle Sun that the TLUS is “preliminary” in the sense that it focuses on our use of lands and resources in proximity to the Line 9 right-of-way, and a smaller number of land and resource users were interviewed during the TLUS than would typically be interviewed in a more fulsome TLUS.

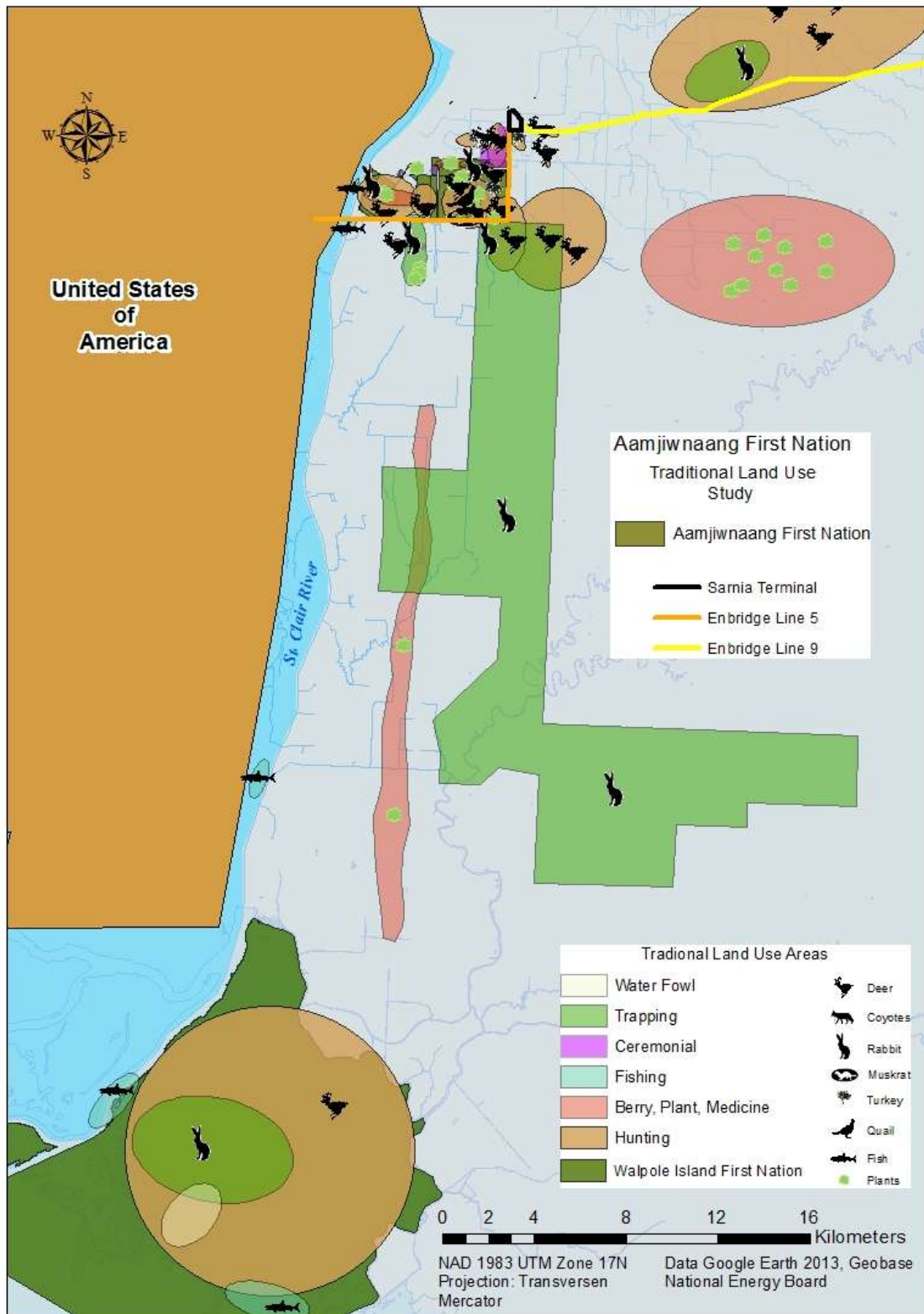
41. However, despite its “preliminary” nature, Eagle Sun states on page 4 of its report that the TLUS nevertheless provides “a robust preliminary description of the use of lands and resources by AFN’s members that can be used to understand how the Project and the operation of Line 9 following Project completion may adversely impact AFN’s traditional land and resource use practices.”

42. The results of the TLUS confirm that AFN members harvest a variety of locally and seasonally abundant resources, including fishes, deer, muskrats, raccoons, rabbits, squirrels, birds, medicinal plants, berries, fruits, nuts, and vegetables in the locations show on the following two maps which I have reproduced from Figures 3a and 3b of the TLUS:

Figure 3a from TLUS



Figure 3b from TLUS



43. The following is an excerpt from the Executive Summary of the TLUS, where Eagle Sun concludes that AFN members make significant use of lands and resources in close proximity to both sides of the Line 9 right-of-way:

Preliminary research and elder interviews indicate that AFN's ancestors used, occupied, and controlled lands extending from the St. Clair River eastward between Lake Huron and Lake Erie. AFN's ancestors used lands and resources in a cycle typical of hunter-gatherer societies sometimes referred to as "annual rounds".

They used the rivers and the lakes for fishing, and low-lying lands and wetlands for trapping muskrats and other furbearing animals. They would have gathered various berries and medicines and nuts and used trees for wood and bark.

They also would have hunted deer over a relatively large area extending well up the peninsula of southwestern Ontario. AFN author and historian David Plain (2009) describes how the same lands were used by AFN after the War of 1812.

The data gathered and presented in this report indisputably establish that AFN members continue to teach and carry out an annual round of seasonal land and resource use similar in kind to the annual round followed by their ancestors.

A number of interviewees identified specific sites and hunting grounds within AFN's traditional territory where they continue to harvest a variety of species of fish, birds, and mammals and gather medicine, maple sap, and other flora, including at sites that are directly adjacent to the Line 9 right-of-way.

In addition to providing sustenance, these practices and the land and water bodies they are carried out on have deep spiritual significance to the interviewees.

AFN members made significant use of lands and resources in their traditional territory, including in close proximity to where Line 9 leaves the Sarnia Terminal and heads eastward. In particular, AFN members hunt, trap, and harvest plants over relatively large areas east of the Sarnia Terminal on both sides of the Line 9 right-of-way. Important and intensive land and resource use is also occurring on AFN's reserve. The locations of current land and resource use, and the users themselves, have been clearly impacted by large-scale industrial development that encircles all four corners of AFN's reserve. [emphasis added]

Enbridge's Line 9 is infringing our Aboriginal and treaty rights

44. In addition to infringing our Aboriginal and treaty rights, the construction and operation of Line 9 also constitutes an unauthorized taking up of our traditional territory by the federal Crown. Adverse impacts on our Aboriginal and treaty rights caused by this unauthorized taking up include ongoing infringements of our Aboriginal title and harvesting rights, and depriving us of meaningfully sharing in the wealth created by the commercial development of our traditional territory.

45. The Crown did not consult with AFN before Line 9 was built in 1975 and put into service in 1976. The federal Crown and/or Enbridge are not sharing the revenues generated by the transportation of oil through our traditional territory with AFN despite the fact that the construction and operation of the Line 9 constitutes an ongoing infringement of our Aboriginal and treaty rights.

Our reserve and traditional territory are already highly impacted by industrial activities, including Line 9

46. Industrial development continues to erode the Crown's solemn promise in Treaty 29 that we would have the right to exclusively use and enjoy our reserve lands.

47. Our environment is already extremely polluted. Attached to my affidavit as **Exhibit "G"** is an October 2007 report prepared by Ecojustice entitled *Exposing Canada's Chemical Valley: An Investigation of Cumulative Air*

Pollution Emissions in the Sarnia, Ontario Area (“Report”). The Report describes the cumulative air pollution in Sarnia and on AFN’s reserve based on air pollution data from Canada’s National Pollutant Release Inventory (“NPRI”) and the U.S. Toxic Release Inventory. Some of the Report’s key findings include:

- “Residents of Sarnia and the Aamjiwnaang First Nation face a grave air pollution problem. There are 62 large industrial facilities in this border region [within 25 kilometres of AFN’s reserve, about half of which are within 5 kilometres of the reserve], quite literally in their backyards. Approximately 40 per cent of Canada’s chemical industry is clustered near Sarnia in an area known as “Chemical Valley.” Located at the southernmost tip of Lake Huron on the border between Ontario and Michigan, the area has become one of the most polluted hotspots in Canada.” (p. 5)
- “On the Canadian side there are 46 facilities listed under the NPRI within 25 kilometres of the Sarnia area. In 2005, these facilities emitted more than 131 million kilograms of NPRI air pollutants. Although these facilities represent only 2 per cent of Ontario’s NPRI-listed facilities, they contribute 16 per cent of Ontario’s NPRI air pollution – almost as much as the entire Province of New Brunswick’s NPRI releases.” (p. 5)
- “What is particularly striking about the air pollution in the Sarnia area is the amount of toxic pollutants released. In 2005, the NPRI facilities in the Sarnia area emitted 5.7 million kilograms of “Toxic Air Pollutants,” including numerous chemicals associated with reproductive and developmental disorders and cancer among humans. These toxic air emissions are more than the NPRI releases from the entire provinces of Manitoba, New Brunswick or Saskatchewan and greater than any other community in Ontario.” (p. 5)
- “Sarnia is home to three of the top 10 air polluters in Ontario from 2005...Imperial Oil’s Sarnia Refinery ranked number six and Shell Canada’s Sarnia Manufacturing Centre, ranked number 10. It also has eight additional facilities that released over 1 million kilograms of combined air releases: Suncor Energy Products Sarnia Refinery, Cabot Canada plant, NOVA Chemicals Corunna Site, Fibrex Installations Sarnia Plant, Transalta Energy Sarnia Regional Cogeneration Plant, Terra International Canada Terra Nitrogen Plant, and Lanxess East Plant.” (p. 6)
- “It is the cumulative impact of emissions from these 62 facilities on both sides of the border that has made the Sarnia area Ontario’s worst air pollution hotspot.” (p. 6)

- “The toll these emissions are taking is dramatic and there is growing evidence that the health of the residents of Sarnia and the Aamjiwnaang First Nation and the local environment has been severely compromised.” (p. 6)
- The report also recommends that “no additional sources be added to the airshed and calls on the federal, provincial and local governments and First Nations to work together to take the necessary steps to improve and protect the health of the community.” (p. 6)

48. A list of the NPRI facilities in the Sarnia Area with the largest combined air releases is set out on page 13 of the Report. Significantly, Enbridge’s Sarnia Terminal for Line 9 is ranked 32nd on the list, having released a total of 18,233 kg of air pollutants in 2005.

49. The Ontario Ministry of Environment recently identified that there are ongoing air pollution problems on our reserve. Attached to my affidavit as **Exhibit “H”** is a January 5, 2011 Technical Memorandum prepared by the Ontario Ministry of Environment entitled *Aamjiwnaang First Nation Community Air Monitoring Station, Results for September 2008 – August 2009* (“Technical Memorandum”).

50. The Technical Memorandum identifies that there were exceedances of the Ministry of Environment’s ambient air quality criteria for ground level ozone and fine particulate matter or PM_{2.5} on our reserve from September 2008 – August 2009. The Technical Memorandum describes the potential health effects of the observed exceedances as follows:

- For ground level ozone, “Sensitive people may experience irritation when breathing and possible lung damage when physically active; people with heart/lung disorders at greater risk; damage to some plants.” (p. 47)
- “The term PM_{2.5} (respirable particulate) refers to that fraction of particulate whose diameter is 2.5 microns or less. PM_{2.5} is able to penetrate deeper into the lungs, into regions where there are no cilia...PM_{2.5} is more closely linked with negative health effects...Several recently published community health studies indicate that significant respiratory and cardiovascular-related problems are associated with exposure to particulate levels well

below the existing particulate matter standards. These negative effects include premature death, hospital admissions from respiratory causes, and increased respiratory symptoms.” (p. 51)

The pollution of the environment on our reserve and in our traditional territory has caused direct and serious health impacts in our community

51. The polluted environment on our reserve and traditional territory has caused direct and serious health impacts on many of our community members. Attached to my affidavit as **Exhibit “I”** is an article entitled “Declining Sex Ratio in a First Nation Community” that was published in *Environmental Health Perspectives* in October 2005. The authors of the article identified that there was a pronounced, statistically significant decrease in the number of males born in our community from 1994 - 2003. The portion of the abstract reproduced below summarizes the key findings of the study:

...we assessed the sex ratio (proportion of male births) of the Aamjiwnaang First Nation over the period 1984-2003 as part of a community-based participatory research project. The trend in the proportion of male live births of the Aamjiwnaang First Nation has been declining continuously from the early 1990s to 2003, from an apparently stable sex ratio prior to this time. The proportion of male births (m) showed a statistically significant decline over the most recent 10-year period (1994-2003) ($m = 0.412$, $p = 0.0008$) with the most pronounced decrease observed during the most recent 5 years (1999-2003) ($m = 0.348$, $p = 0.006$). Numerous factors have been associated with a decrease in the proportion of male births in a population, including a number of environmental and occupational chemical exposures...Although there are several potential factors that could be contributing to the observed decrease in sex ratio of the Aamjiwnaang First Nation, the close proximity of this community to a large aggregation of industries and potential exposures to compounds that may influence sex ratios warrants further assessment into the types of chemical exposures for this population. (p. 1295) [emphasis added]

52. Other health impacts were documented in a survey conducted by the AFN Environment Committee that was carried out in 2006, referenced in the October 2007 report prepared by Ecojustice entitled *Exposing Canada's Chemical Valley: An Investigation of Cumulative Air Pollution Emissions in the Sarnia, Ontario Area*, attached as Exhibit G to my affidavit. The health impacts are set out on page 9 of the report and include the following statistics regarding our community, taken from the 2006 survey:

- 17% of adults and 22% of children surveyed have asthma;
- 26% of adults surveyed experienced high blood pressure;
- 23% of children age 5 to 16 struggle with learning and behavioral problems;
- 13% of children age 5 to 16 struggle with attention deficit hyperactivity and disorder;
- 16% of adults experience skin rashes (including eczema and psoriasis); 27% of children are also affected;
- 39% of women surveyed have experienced miscarriage or stillbirth;
- 5% of those surveyed have thyroid problems; and
- 9 to 11% of those surveyed experienced kidney problems.

The federal Crown has a constitutional duty to consult and accommodate AFN in respect of the Project

53. Given the pre-existing pollution of the air, water, and land on our reserve and in our traditional territory, and the corresponding health, cultural, and economic impacts of that pollution, we are seriously concerned that the Project, including its construction and operational phases, risks causing additional, direct, and cumulative health and environmental impacts and corresponding adverse impacts on our Aboriginal and treaty rights.

54. In the Line 9 Reversal Phase I Project (Hearing Order OH-005-2011), which involved an application to reverse the flow of Line 9 between Sarnia Terminal and North Westover (“Line 9A”), Enbridge submitted that:

- (a) the anticipated average daily volume of crude oil shipped on Line 9A between 2012 and 2020 would be 50,000 bpd;
- (b) the target annual capacity of Line 9A was 152,000 bpd;
- (c) the initial design capacity of Line 9A was 169,000 bpd, expandable to 250,000 bpd; and
- (d) it only planned to ship products classified as light crude oils following reversal of flow on Line 9A, including Light Sour Blend, Edmonton High Sour, Edmonton Low Sour and Mixed Blend Sour.⁴

55. If the NEB approves the Project, Enbridge will be able to ship a larger volume of crude and heavy crude on parts of Line 9 in AFN’s traditional territory.

56. Information submitted by Enbridge in its application, which indicates that the total supply of heavy crude oil from western Canada will increase by 1,837,000 bpd between 2012 and 2020,⁵ strongly suggests that heavy crude will represent an increasingly larger portion of the commodities shipped on Line 9 in the future.

⁴ National Energy Board Letter of Decision, Enbridge Pipelines Inc. Line 9 Reversal Phase I Project, File OF-Fac-Oil-E101-2011-01 01, pages 3, 14 of 28.

⁵ Enbridge Application, page 50 of 54.

57. Line 9 is an old pipeline that was built using pipeline technology that I understand is now obsolete. It was constructed in 1975 according to construction specifications and requirements of the day, and placed into service in 1976. The pipeline's main protection against external corrosion is a single layer of polyethylene tape and, according to Enbridge's own submissions in the Line 9 Phase I Hearing, it has been well-documented that other polyethylene tape-coated pipelines within the industry have exhibited moderate to high susceptibility to stress corrosion cracking.

58. We are concerned that increased rates of corrosion as a result of the combined effects of the age and design of Line 9, as well as shipping larger volumes of more corrosive commodities, are likely to increase the frequency and magnitude of spills, leaks, and discharges from Line 9 following implementation of the Project. Larger and more frequent spills, leaks, and discharges may result in larger and more serious health, environmental, and socio-economic effects in our community.

59. I have read the affidavit of Chief Joe Miskokomon, Chief of Chippewas of the Thames First Nation, which I understand is being submitted to the NEB in this Hearing. Based on the issues set out in paragraphs 48-80 of his affidavit and the scientific and government reports that are attached as exhibits, our concern that the Project will result in more frequent and larger spills, leaks, and discharges from Line 9 and cause more serious health, environmental, and socio-economic effects remain unaddressed by the information provided by Enbridge in this Hearing for the following reasons:

- (A) there is an inherent risk of spills, leaks, and discharges with any pipeline;
- (B) the Project will increase the frequency of spills, leaks, and discharges occurring on Line 9;
- (C) the impacts from spills, leaks, and discharges are serious in any context;

- (D) spills, leaks, and discharges of heavy crude and diluted bitumen are more serious than spills of other types of crude;
- (E) spills, leaks, and discharges of heavy crude and diluted bitumen are more difficult to clean up; and
- (F) shipping diluted bitumen will cause leaks to be more difficult to detect on Line 9.

60. The above concerns are enhanced by our close proximity to the Sarnia Terminal due to the additional volume of oil that will be stored there on an ongoing basis and our community's close proximity to both Line 9 and other elements of Enbridge's pipeline network that will feed the Terminal and Line 9.

61. The "Project" will require additional infrastructure and changes to other components of the Enbridge pipeline network, all of which either taken alone or together could cause new, additional health and environmental effects and adverse impacts to our Aboriginal and treaty rights.

62. With respect to the Project's requirement for the delivery of higher volumes of crude oil to the Terminal, in its response to NEB IR No. 1, IR 1.7, Enbridge has stated that it will enhance the capacity of its pipeline network on Lines 5 and 6B by more than 310,000 bpd to provide the additional crude oil to its Sarnia Terminal to feed Line 9:

Two pipelines on the Enbridge Mainline System feed Sarnia: Line 5 and Line 6B. Enbridge plans to expand the capacity of both Line 5 and Line 6B in the near future. The capacity of Line 5 will be expanded from approximately 490,000 bpd to approximately 540,000 bpd in Q2 2013. Line 6B capacity will be expanded (in phases) from approximately 240,000 bpd to a capacity of approximately 500,000 bpd in Q1 2014. The incremental capacity associated with the Line 5 expansion and the Line 6B expansion is approximately 310,000 bpd, which is greater than the required 300,000 bpd for Line 9 into Montreal. In addition, it is important to note that the current capacity of Line 6B into Sarnia is underutilized. Accordingly, effective capacity growth is in excess of the 310,000 bpd described above.

63. A spill, leak, or discharge from Line 5 and/or Line 6B could adversely impact our reserve and Aboriginal and/or treaty rights.

64. Moreover, the additional volume of oil being shipped into the Terminal every day will need to be stored there, which will increase toxic air emissions being released from Enbridge's oil storage tanks at the Terminal. We are concerned that those emissions will increase air pollution and toxic air contaminants in our community.

65. Our concerns are confirmed and substantiated by documents filed by Enbridge with the NEB. For example, in a separate application to the NEB, Enbridge has sought approval to construct an additional storage tank at the Terminal. Enbridge's application is attached as **Exhibit "J"**. In that application, Enbridge describes the purpose of the Terminal Tank 217 Project as ensuring "the necessary infrastructure is in place to handle growing North American crude oil production".

66. The Environmental and Socio-Economic Impact Assessment ("ESEIA") submitted by Enbridge for the Sarnia Terminal Tank 217 Project, attached as **Exhibit "K"**, indicates that the new tank is expected to increase total benzene contribution of the Terminal by 6.2% of the total site emissions.⁶

67. It is clear from that ESEIA, and the need to store new, additional oil in Sarnia to ship on Line 9, that operation of Line 9 will cause additional toxic air contaminants, including benzene, which I understand is well-known to be a potent carcinogen, to be released into the already highly polluted airshed in our community.

68. Nevertheless, Enbridge has failed to assess the environmental and health effects of new, additional toxic air contaminants being released as a result of Project operations in the ESEIA that it filed for this Project.

⁶ See 6-2, 6-4 – 6-5 of ESEA.

Operating Line 9 after the construction phase of the Project has been completed could adversely impact our Aboriginal and treaty rights

69. Due to the close proximity of the Terminal to our community, and Line 9 crossing our traditional territory, toxic air emissions and spills, leaks, and discharges therefore risk causing direct health impacts to our members and impacts to our traditional territory.

70. Spills, leaks, and discharges from Line 9 during the operational phase of the Project have the potential to cause new adverse impacts on our use of lands and resources for traditional purposes, our members' health, and irreparably damage our traditional territory.

71. Larger and more frequent spills, leaks, and discharges of more toxic substances from Line 9 will contaminate the soil, water, and air on our reserve and in our traditional territory, as well as harm individual organisms and entire populations of species harvested by AFN members, which are important parts of our cultural, spiritual, and religious practices.

72. Harming or killing individual organisms and entire species of organisms will impair our ability to harvest those species in our traditional territory. Such impacts will directly infringe our Aboriginal harvesting rights and cause intergenerational impacts on our culture and way of life by decreasing our ability to educate and pass on our traditional knowledge and harvesting methods to our children.

73. Our concerns have been confirmed by the conclusions that Eagle Sun reaches in the TLUS. The following is an excerpt from the Executive Summary where Eagle Sun concludes that spills, leaks, and discharges from Line 9 carry a "serious risk of severely impairing the current exercise" of our rights and traditional practices associated with our traditional territory:

The environmental effects of spills, leaks, and discharges of crude oil have been well documented. Given the findings set out in this Study, it is my professional opinion that a release of crude oil from Line 9 in this area would directly impact the lands and waters historically used by AFN and would, therefore, carry with it a serious risk of severely impairing the current exercise of rights and traditional practices associated with those lands and waters.

AFN's membership is severely impacted by on-going industrial and refining operations located around the perimeter of their reserve. These sites continue to affect their quality of life and health. It is my opinion that further development of additional pipelines and facilities will contribute to the already significant negative cumulative effect on their reserve and traditional lands and waters, and will further impair their ability to carry out traditional practices. [emphasis added]

74. All of the impacts Eagle Sun describes will be new, additional impacts because Line 9 would be taken offline or decommissioned without the direction of flow being reversed.

75. Line 9A would have been taken offline or decommissioned without the direction of flow being reversed. We understand, based on Attachment 1 of Enbridge's response to MOE IR No. 1.1 that was filed in the Line 9A Hearing and which is attached as **Exhibit "L"**, that Enbridge shipped 133 bpd and 0 bpd from North Westover Station to the Sarnia Terminal in 2011 and 2012, respectively.

76. Enbridge confirmed in this Hearing that Line 9B would be taken offline or decommissioned without the reversal of flow:

When a reversed Line 9A comes into service and is at capacity (transporting crude from Sarnia Terminal into North Westover Station), it is anticipated that the majority if not all the crude demanded at North Westover Station will be sourced via Line 9A due to the dynamics associated with lower priced inland crude versus higher priced tidewater crude. Due to this pricing dynamic, if Line 9B were to not be reversed, the demand for crude sourced via Line 9B at North Westover Station would be minimal such that Line 9B would become deactivated or potentially decommissioned or

abandoned.⁷

The federal Crown has failed to consult and accommodate AFN

77. For the reasons set out above, operation of Line 9 following Project completion introduces significant risk of causing new adverse impacts on of our Aboriginal and treaty rights.

78. I am informed by AFN's lawyer in this matter, Mr. Scott A. Smith, and believe to be true that:

- (a) the federal Crown therefore has a constitutional duty to ensure that AFN is properly consulted and accommodated in respect of these potential impacts. In particular, the Crown is required to engage AFN in a meaningful and good faith consultation process that allows for an appropriate and thorough review of the potential impacts of the Project on our Aboriginal and treaty rights;
- (b) the consultation process requires the Crown to listen to our concerns and to take them into account in its decision-making process, and, under the circumstances, will likely lead to the need for accommodation; and
- (c) the NEB is legally required to assess whether AFN has been properly consulted and accommodated in respect of these potential impacts.

⁷ Enbridge Response to Aamjiwnaang First Nation ("AFN") and Chippewas of the Thames First Nation ("COTTFN") Information Request No. 1, IR Response 3.5

79. The federal Crown has not consulted AFN about the potential for the Project to adversely impact our Aboriginal and treaty rights. Our rights and interests have also not been accommodated by the federal Crown. In fact, *there has been no communication between AFN and the federal Crown about this Project whatsoever.*

80. Our own consultation process, which is set out in Exhibit D, seeks to ensure that Elders and youth provide information which the Crown can use to gain an understanding of how and where our rights are practiced, and to assess the impacts the Project will have on those rights. The consultation process mandated by our *Consultation Protocol* has not been followed, and no other process has been agreed to or carried out.

81. Enbridge's engagement activities have also been wholly inadequate to date and cannot substitute for or satisfy the federal Crown's constitutional duties. I understand from Enbridge's response to our information requests and believe to be true that:

- (a) the federal Crown has not delegated the procedural aspects of its constitutional duty to consult and accommodate AFN to Enbridge;⁸ and
- (b) Enbridge has not assessed whether the Crown has a duty to consult and accommodate AFN in respect of the Project.⁹

82. Enbridge's efforts to engage AFN about the Project have not meaningfully addressed our concerns about potential health impacts and impacts on our Aboriginal and treaty rights. Enbridge has not:

⁸ Enbridge Response to AFN and COTTFN Information Request No. 1, IR Response 1.1.

⁹ *Ibid.*, IR Response 1.5.

- (a) completed a pipeline integrity engineering assessment for Line 9A for the operating conditions that will exist following completion of the Project. The amount of crude oil shipped on Line 9A will increase by 150,000 bpd and will include heavy crude. The pipeline integrity engineering assessment submitted by Enbridge in the Line 9A hearing did not address or take these important factors into account, and the assessment submitted by Enbridge in this Hearing is limited to Line 9B; and
- (b) assessed the socio-economic and environmental effects of operating Line 9A after Project completion,¹⁰ including:
 - (i) whether there will be an increased frequency of spills, leaks, and discharges from Line 9A following Project completion;
 - (ii) whether larger volumes of commodities will be spilled, discharged and will leak from Line 9A following Project Completion;
 - (iii) the health, environmental, and socio-economic effects of such spills, leaks, and discharges; and
 - (iv) the amount of new, additional toxic air contaminants and air pollution that will be released at the Sarnia Terminal during and as a result of Line 9 operations.

83. Enbridge has also failed to assess the cumulative effects of operating Line 9 following Project completion in combination with other projects or activities that have been or will be carried out.

¹⁰ *Ibid.*, IR Response 2.10.

84. The only effects that Enbridge has assessed are those narrowly arising from the modifications to the pipeline that need to be carried out to enable the reversal of flow and to increase the capacity of Line 9.

85. Given Enbridge's failure to assess these effects, there is no basis for us to understand, or for Enbridge or the NEB to assess, how the Project may impact those living in our community and our Aboriginal and treaty rights. Needless to say, without this information Enbridge (or the federal Crown) cannot meaningfully engage (or consult) with us about the Project.

86. Enbridge states in its application that it does not anticipate that the Project will impact traditional land uses, and that it "has not been made aware of any current use of these lands for the purposes of exercising traditional rights or activities."¹¹

87. We have specifically told Enbridge that its members use lands and resources in the vicinity of Line 9, and that those uses will be adversely impacted by spills, leaks, or discharges of crude oil from Line 9 in those areas. Further, specific evidence of our current use of lands and resources is set out above and is documented in greater detail in the preliminary TLUS attached as Exhibit F.

Closing

88. In short, this regulatory process has not assisted in effecting the meaningful Crown consultation mandated and required by the constitution due to the novel impacts this Project risks causing to our Aboriginal and treaty rights.

89. Key steps that Enbridge and/or the federal Crown must take to address our concerns include:

¹¹ Enbridge Application, page 35 of 54.

- (a) complete a pipeline integrity engineering assessment for Line 9A based on the additional 150,000 bpd and the heavy crude that will be shipped on Line 9A following Project completion;
- (b) assess the potential environmental effects and cumulative environmental effects of operating Line 9 following Project completion, including:
 - (i) whether there will be an increased frequency of spills, leaks, and discharges from Line 9A following Project completion;
 - (ii) whether larger volumes of commodities will be spilled, discharged, and will leak from Line 9A following Project Completion;
 - (iii) the health, environmental, and socio-economic effects of such spills, leaks, and discharges; and
 - (iv) the amount of new, additional toxic air contaminants and air pollution that will be released at the Sarnia Terminal during and as a result of Line 9 operations.
- (c) consult AFN about the Project:
 - (i) provide us with all necessary information about the Project to understand and assess how the Project may adversely impact our Aboriginal and treaty rights;
 - (ii) provide the information to us in a timely way so that we have adequate time to process the information and understand the nature of the Project's impacts;

- (iii) provide funding to pay for all costs incurred by us in respect of the Project, including to hire consultants to help us understand and assess the information provided, and to assess how the Project may adversely impact our Aboriginal and treaty rights;
- (iv) provide us with the opportunity to make submissions for consideration after steps (a), (b), and (c)(i) – (iii) have been carried out;
- (v) take our concerns into account; and
- (vi) provide us with written reasons to show how our concerns were considered and to explain how they were taken into account and reflected in the Crown's decision.

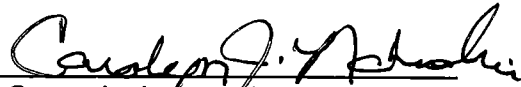
August 6, 2013

Affidavit of Chris Plain, Chief of AFN

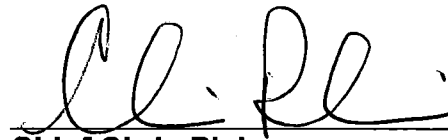
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90. Engagement must focus on accommodating our rights and interests. Appropriate accommodation in the circumstances of the Project involves economic compensation. We are entitled to share in the revenues generated by projects carried out on our traditional territory as a corollary of our Aboriginal and treaty rights and the potential for such projects to adversely affect our rights and interests. For this reason we are asking to be compensated by Enbridge on a go-forward basis for the shipment of crude oil on Line 9 following Project completion. We will address our concerns about compensation for historic infringements of our Aboriginal and treaty rights elsewhere.

SWORN before me in the traditional
Territory of Aamjiwnaang First Nation
this 6th day of August, 2013.


A Commissioner, etc.

Carolyn J. Nahmabin
Commissioner for the Taking of Oaths pursuant
to paragraph 108(a) of the Indian Act.


Chief Chris Plain