

‘A slow industrial genocide’:¹ tar sands and the indigenous peoples of northern Alberta

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In this article we discuss the impact of the tar sands development in northern Alberta on the indigenous communities of the Treaty 8 region. While the project has brought income to some, and wealth to the few, its impact on the environment and on the lives of many indigenous groups is profoundly concerning. Their ability to hunt, trap and fish has been severely curtailed and, where it is possible, people are often too fearful of toxins to drink water and eat fish from waterways polluted by the ‘externalities’ of tar sands production. The situation has led some indigenous spokespersons to talk in terms of a slow industrial genocide being perpetrated against them. We begin the article with a discussion of the treaty negotiations which paved the way for tar sands development before moving on to discuss the impacts of modern day tar sands extraction and the applicability of the genocide concept.

Keywords: indigenous peoples; tar sands; genocide; extreme energy

Introduction

The end of the Seven Years’ War and the signing of the Treaty of Paris in 1763 resulted in the British acquiring most of the French-claimed territory in North America. In the same year there followed the Royal Proclamation which organised Great Britain’s new North American empire and sought to soothe relations between the British Crown and the Indians through strict regulation of trade, settlement, and land acquisition on the western frontier. The proclamation also established a frontier between the colonies and ‘Indian Country’ and determined that only the Crown could acquire further territory, and only then with the *full consent* of the affected populations; and further stated that any ‘lands whatever, which, not having been ceded to, or purchased by Us, are reserved to them.’² While many colonists at the time dismissed the proclamation – in the manner of George Washington – as little more than ‘a temporary expedient to quiet the minds of the Indians’, it became the theoretical cornerstone for subsequent ‘Indian policy’ and the treaty was its instrument in both Canada and the United States.³

Underpinning the proclamation of 1763 was the colonial assertion of Crown sovereignty over all Indian lands. Within such a framework, the rights of indigenous peoples existed only on-sufferance from the Crown. Even so, the fact of prior aboriginal occupation was eventually deemed to result in an underlying ‘aboriginal title’ – a so-called ‘burden on the Crown’.⁴ During the nineteenth century this burden was supposedly discharged by the signing of a succession of numbered treaties, which were ‘negotiated’ between Treaty Commissioners – appointed by the Dominion of Canada – and a variety of designated

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aboriginal 'bands' created by the Euro-North American colonisers.⁵ In essence the treaties involved the natives extinguishing their 'underlying title' to their land, usually in return for a variety of economic and material benefits such as cash payments, hunting and fishing equipment, ammunition and the like. Treaties were most often deemed necessary when settlement had begun, or was about to begin, and when there was a desire to open up the land for development. As the people affected by the issues examined in this article predominantly fall within the boundaries of the Treaty 8 region,⁶ we will now briefly examine the construction and content of that particular treaty.

Treaty 8: 'taking without grabbing'⁷

In 1899, when Treaty 8 was signed, the Cree and Athapaskans (or Dene) peoples – including Beavers, Chipewyans, Dogribs, Slaveys, and Yellowknives – were the two major language groups in the region. The lives of these groups in the North – with its harsh climate and cyclical fluctuations of animal and plant life – differed dramatically from the 'Plains Indians' in the more temperate South.⁸ The fur trade apart, the Indians of the North led a subsistence lifestyle based on hunting, fishing and gathering with regional variations depending on available resources. The Chipewyans relied principally on caribou and fish; and the Slavey on moose, but both groups gathered birds eggs and berries and hunted small animals.⁹ Each grouping had its own territory but the boundaries were flexible and there was significant sharing of resources between them, as well as with non-Indians.¹⁰

A fur trade, principally between the Indians and British and French traders, allowed the Indians to develop their material culture while retaining substantial control over the terms and relations of the exchanges, and their access to natural resources. The levels of dependence on such economic relations varied between local indigenous groups, but at this stage none of them had lost the ability to subsist on their natural resources alone, which meant there was only a limited incentive to trade. Thus, the material basis for their traditional cultures remained largely intact despite the availability of economic development and outside cultural influences – for in the early stages of trade between indigenous and non-indigenous people, the social and cultural relations were essentially characterised by an interdependence based on equality and reciprocity rather than domination.¹¹ While the fur trade gave the Indians an understanding of European concepts of the right to control, buy and sell animals, prior to the treaty, they had no experience of land or animals as a commodity.

From 1870 until the treaty was eventually signed in 1899, the Canadian government received advice from missionaries, traders, geologists and geographers on the potential suitability of the proposed Treaty 8 area for settlement, resource extraction and economic development, and on the condition of the Indian population.¹² At various points in this period, reports of significant Indian hardship and pleas for aid were received by the government, but it invariably declined to offer assistance to Indian peoples with whom it had not signed a treaty. In lean years, such pleas sometimes came from the Indian 'bands' themselves, but in 1897 the Indian commissioner of the Northwest Territories reported that appeals for assistance from *non-treaty* areas were infrequent – as the Indians were still 'in an independent condition'.¹³

Seemingly more important to the government than reports of Indian hardships were the reports from field personnel of the Department of the Interior and the Geological Survey Department which indicated that parts of these territories might be richer in mineral resources than previously thought.¹⁴ As Daniel writes:

As early as 1793, the explorer Sir Alexander Mackenzie had mentioned that tar and oil could be found oozing from the banks of the Athabasca. Since that time, few explorers of the area failed to mention the tar sands or to speculate on its future potential. . . In 1875-76 A.R.C. Selwyn and Professor Macoun of the Geological Survey of Canada reported that petroleum existed in the Athabasca region in 'almost inexhaustible supplies' . . . and in 1890 and 1891 R.G. McConnell 'estimated that there were 4,700 million tons of tar in the region, as well as natural gas, bitumen, oil and pitch'.¹⁵

Such reports of plentiful Northern mineral resources convinced the government of the need for a treaty to be agreed with the Indians of the region in order to extinguish their aforementioned 'aboriginal title'. Furthermore, advances in transportation were opening up the territory to frontiersmen, a process which accelerated sharply in 1896 when gold was discovered in the Klondike region of north-western Canada. The resultant invasion of miners on a massive scale produced many conflicts with local Indian populations, as their acceptance of strangers was stretched to the limit, and their way of life seriously endangered.

The relatively slow pace of settlement and resource exploration, combined with the prairie treaties ultimately costing more than the government envisaged, meant that there was no rush to treaty negotiations in the North. Furthermore, reports from missionaries and Mounted Police suggested that the Indians were not well disposed to the idea of a treaty as they feared the loss of the ability to hunt, fish and trap.¹⁶ However, the reports of huge mineral wealth, and the relatively unregulated expansion of prospecting and settler mining, ultimately pressurised the government into action. A report for the government by former North West Mounted Police officer, James Walker, in 1897 made the point:

They (Indians) will be more easily dealt with now than they would be when their country is overrun with prospectors and valuable mines discovered.¹⁷

Finally, on 27 June 1898 the cabinet granted approval for treaty negotiations to commence. The expense of the preceding numbered treaties was ultimately not considered a pressing concern since the government anticipated that Treaty 8 would be significantly cheaper; a 'slimmed down' treaty based on the prior treaties but on account of the particular conditions of the North. The Indians, the government thought, would still be able to subsist adequately on the unoccupied lands of the North such that a governmental welfare safety net would not be needed as it was in the Prairie regions. Treaty 8 would also give less money to the Indians by way of compensation since they were not required to give up most of their land – unlike the Prairie treaties.

The Treaty 8 Commission opened negotiations with the Indians at Lesser Slave Lake on 20 June 1899. The records of the negotiations are incomplete and partial – largely deriving from the federal government side. However, there is some record of Indian oral history and testimony that offers an alternative view which is vital in understanding *the spirit* of the negotiations. In order to gain the extinguishment of aboriginal title they wanted, the primary task of the government negotiators was to reassure the Indians that their way of life would remain intact, they would not be confined to reserves and that they would be protected from the settlers. Commissioner Laird gave the opening speech which set the tone for the proceedings combining harsh realities with contradictory promises:

As white people are coming in to your country, we thought it well to tell you what is required of you. The Queen wants all white, half-breeds and Indians to be at peace with one another, and to

shake hands when they meet . . . We understand stories have been told you, that if you made a treaty with us you would become servants and slaves; but we wish you to understand that such is not the case, but that you will be just as free after signing the a treaty as you are now. . . One thing Indians must understand, that if they do not make a treaty they must obey the laws of the land – that will be just the same whether you make a treaty or not: the laws must be obeyed.¹⁸

Despite the last sentence above (which would apply to government-imposed hunting and fishing controls) Laird went on to say that ‘Indians who take treaty will be just as free to hunt and fish all over as they now are’.¹⁹ Bishop Breynat conveyed the corollary to the Indian desire to continue hunting and fishing; ‘the Crees and Chipewyans refused to be treated like Prairie Indians, and to be parked on reserves. . . It was essential to them to retain complete freedom to move around’.²⁰ The report of the commissioners refers to these Indian concerns and the difficulties they had in overcoming them:

Our chief difficulty was the apprehension that the hunting and fishing privileges were to be curtailed. The provision in the treaty under which ammunition and twine is to be furnished went far in the direction of quieting the fears of the Indians, for they admitted that it would be unreasonable to furnish the means of hunting and fishing if laws were to be enacted which would make hunting and fishing so restricted as to render it impossible to make a livelihood by such pursuits. . . they would be as free to hunt and fish after the treaty as they would be if they never entered into it. . . the Indians were generally adverse to being placed on reserves. It would have been impossible to make a treaty if we had not assured them that there was no intention of confining them to reserves. We had to very clearly explain to them that the provision for reserves and allotments of land were made for their protection and to secure to them in perpetuity a fair portion of the land ceded, in the event of settlement advancing.²¹

And yet, despite such assurances, in the same meetings Commissioner Ross talked about the inevitability of the country being ‘opened up’ for development by the Whiteman.²² Ross was also aware that parliament was intending to extend, in duration and scope, an existing prohibition on killing buffalo (which was causing real concern amongst the Indians) but chose not to discuss this during the negotiations since ‘our mission would likely have been a failure if we had opened up the question’.²³

Such manipulative contradictions and intentional avoidance certainly secured Indian agreement, but the Indians took the assurances on face value as guarantees of freedom to hunt, fish and trap throughout the area and as guaranteeing primary rights over fish and wildlife.²⁴ Thus, today Indian Elders of the Fort Chipewyan area still maintain that the treaty guaranteed their rights to hunt, fish and trap without restriction.²⁵ That this understanding endures is unsurprising since at the time it was repeatedly bolstered by the interventions of several missionaries who accompanied the commissioners – allegedly to act as translators and intermediaries but behaving more like salesmen. For example, Father Lacombe (speaking in Cree) stated ‘Your forest and river life will not be changed by the Treaty, and you will have your annuities, as well, year by year, as long as the sun shines and the earth remains. Therefore I finish my speaking by saying, Accept.’ The missionaries undoubtedly played a vital role in convincing the Indians that the treaty was in their own interests.²⁶ Some missionaries, such as Constant Falher – who was present at the negotiations – subsequently reflected on this role. In a letter to Bishop Breynat he wrote: ‘if Bishop Grouard had not advised the chiefs to sign the treaty, telling them that there was nothing which was not to their advantage; the treaty would still be waiting to be signed today’.²⁷

Ultimately, for a specified list of gifts and reserved land, the ‘bands’ that were signatories to Treaty 8 at Lesser Slave Lake in 1899 had to ‘CEDE, RELEASE, SURRENDER

AND YIELD UP to the Government of the Dominion of Canada, for Her Majesty the Queen and Her successors for ever, all their rights, titles and privileges whatsoever, to the lands included within the following limits...’ (capitals in the original).²⁸ ‘Reserves’ were included for the Cree, Beaver and Chipewyan Indians but the treaty simultaneously demanded that ‘such portions of the reserves and lands...as may at any time be required for public works, buildings, railways, or roads of whatsoever nature may be *appropriated* by Her Majesty’s Government of the Dominion of Canada...’ subject to ‘due compensation’.²⁹

The great difficulty with seeing such a treaty as a legitimate surrender of rights of course derives from the fact that native peoples did not know what the treaties signified to the whites, especially seeing as so many had no concept of private, let alone state, property, so could only guess at what the agreement meant.³⁰ As Brody writes: ‘[T]here is a world of difference between the terms of [Treaty 8] and the understanding the Indian signatories had of it...Indians did not understand Treaty 8 to be a surrender of rights’.³¹ Moreover, as Fumoleau writes:

Most treaties and land surrenders were signed after the Indians had lost control of their territory. Their only choice was to lose their land with a treaty, or to lose it without one. Usually they were guaranteed official use of a ‘reserve’, which was held in Trust by the Crown. This was a measure to protect the Indians from further encroachments, and to offer them security against the aggressiveness of their white neighbours. Other treaty gifts: free education, free medical care, cash annuities, groceries etc., also helped to win the Indian people’s good will. Protecting the Indian was not the main reason for treaties, however. Overriding all other considerations was the land: the Indians owned it and the white people wanted it. Even when the Indians posed no threat, treaties were still signed, as a moral or ethical gesture: a gentleman’s way to take without grabbing.³²

Today Canada plays a colonial trick arguing that via treaties the British Crown extinguished ‘aboriginal title’, and when it is challenged over its failure to honour the range of obligations specified in the treaties it argues that it was the British Crown and not Canada that negotiated the agreements.³³ This colonial trick, combined with the treaty extinguishment provisions and the ability to encroach upon reserved land, paved the way for modern industrial development on Treaty 8 Indian lands. It is to this that we now turn.

The tar sands and the Indians of Treaty 8

What are tar sands?

Canada’s tar sands are widely considered to be the most destructive industrial project on earth by environmental, human rights, and indigenous activists alike.³⁴ The expression ‘tar sands’ is a colloquial term used to describe sands that are perhaps more accurately described as bituminous sands. They constitute a naturally occurring mixture of sand, clay, water, and bitumen – an exceptionally viscous and dense form of petroleum – which has, since the late nineteenth and early twentieth century, been referred to as ‘tar’ due to its similar viscosity, odour and colour. However, naturally occurring bitumen is chemically more similar to asphalt than to tar, and the term *oil* sands is now more commonly used by industry and in the producing areas than *tar* sands since synthetic oil is what is manufactured from the bitumen. Even so, the term oil sands fails to convey the constituent complexity of the sands, and moreover, serves to sanitise the environmentally destructive industrial processes intrinsic to this particular form of oil production. Indeed the environmental costs (externalities) of this form of unconventional oil production are enormous.

Tar sands-derived oil must be extracted by strip mining or the oil made to flow into wells by ‘in situ’ techniques, which reduce the viscosity by injecting steam, solvents, and/or hot air into the sands. These processes use much more water than conventional oil extraction – three barrels of water are used to process one barrel of oil³⁵ – and produce huge ‘tailings ponds’ (‘tailings lakes’ would be more accurate) into which over 480 million gallons of contaminated toxic waste water are dumped daily.³⁶ Some of these tailings ponds are so toxic that the energy companies employ people to scoop dead birds off the surface; and most are unlined.³⁷ Taken together, these waste lakes ‘cover more than 50 square kilometres (12,000 acres) and are so extensive that they can be seen from space’.³⁸ In addition, producing liquid fuels from such sands requires huge amounts of energy for steam injection and refining processes which generate considerably higher levels of greenhouse gases per barrel of final product than the production of conventional oil.³⁹ If combustion of the product itself is included – known as the ‘well to wheels’ – approach, bituminous sands extraction, upgrade and use generates eight to 37 per cent higher emissions than conventional oil.⁴⁰ Thus, if one is not seeking to minimise the impact of these externalities the term ‘tar sands’ is preferable: it suggests the sand has a more complex constitution and that useable oil must be *extracted* from the sticky, heavy, viscous base material (bitumen) through industrial processes which have huge environmental and human costs. It is on these costs, and the nature of their lethal ramifications on the indigenous peoples of North America, that we now focus our attention.

Genocide and the right to exist: the tar sands are killing us⁴¹

Our message to both levels of government, to Albertans, to Canadians and to the world who may depend on oil sands for their energy solutions, is that we can no longer be sacrificed.⁴²
(Chief Roxanne Marcel, Mikisew Cree First Nation)

As Native author and activist Andrea Smith noted,⁴³ ‘when Native peoples fight for cultural/spiritual preservation, they are ultimately fighting for the landbase which grounds their spirituality and culture’. That is, the land or ‘specific geographical setting’⁴⁴ with which many⁴⁵ indigenous nations/communities identify themselves, fundamentally embodies their ‘historical narrative’⁴⁶ and who they are as peoples; with both their ‘practices, rituals, and traditions’,⁴⁷ and their political and socio-economic cohesion as a group, inextricably bound to the surrounding landscape. Alienation from that landscape, therefore, inevitably results in the dissolution of an indigenous peoples’ ‘network of practical social relations’,⁴⁸ for they will no longer be able to carry out, develop, and preserve their ‘cultural heritage and traditions’, or ‘pass these traditions on to subsequent generations’ – thereby rendering them ‘socially dead’.⁴⁹ It is Native peoples’ recognition of this point that has led some indigenous peoples to refer to the concept of genocide to describe their past and present day experiences at the hands of the colonial states in which they live.⁵⁰ Short has argued at length, in this journal and others, that this understanding is in keeping with that of the term’s originator, Raphael Lemkin. Lemkin viewed physical genocide and cultural genocide, not as two distinct phenomena, but rather *one process that could be accomplished through a variety of means*. This position, based on a functional understanding of national/group structure, whereby the physical and cultural aspects are seen as interdependent and indivisible, appreciates that the destruction of a nation/group could occur when *any* structural element was destroyed. Even if the national group’s sovereignty was not recognized by the state, Lemkin thought it had *an inherent right to exist* just like the sovereign individual – and that such groups provided

the essential basis of human culture as a whole. Thus, he *specifically* designed his concept of ‘genocide’ to protect that life.⁵¹

In other words, Lemkin defined genocide in terms of the violation of a nation’s right to its *collective existence* – and so genocide in this sense is quite simply the destruction of a nation. Such destruction can be achieved through the ‘mass killings of all members of a nation’; *or* through ‘a coordinated plan of different actions aiming at the destruction of essential foundations of the life of national groups’. It is this latter point that is missed or ignored by those genocide scholars who insist on the centrality of mass killing to the concept of genocide.⁵² With such understandings, as Dirk Moses suggests, the extraordinary implication is ‘that Lemkin did not properly understand genocide, despite the fact that he invented the term and went to great trouble to explain its meaning. Instead, most scholars presume to instruct Lemkin, retrospectively, about his concept, although they are in fact proposing a different concept, usually mass murder’.⁵³ It is a focus on *social death* (as opposed to mass killing) which allows us to distinguish the peculiar evil of genocide from crimes against humanity and mass murder.⁵⁴ Genocidal murders are but an extreme means to achieve social death, which *can* be produced without specific ‘intent to destroy’ – occurring, for instance, through sporadic and uncoordinated action or as a by-product of an incompatible expansionist economic system.⁵⁵ They might even result from attempts to do good: to enlighten, to modernise, to evangelise.⁵⁶

Up until the end of the frontier era in the late nineteenth century, genocidal processes in North America were largely geared toward, and derived from, expansionist policies opening up Indian land for a seemingly limitless influx of settlers. In the post-frontier period, settlement has unquestionably continued to be a pressing factor – however, following the industrial revolution, the Euro-North American genocidal logic became increasingly focused on the elimination of Indian peoples in order to gain access to their territory for the purpose of *resource extraction*.

This compulsion intensified dramatically during the ‘Cold War’ era,⁵⁷ spurred on by an escalating ‘need’ for both energy resources and nuclear weapons production⁵⁸ in the face of mounting fears (fabricated or otherwise) regarding aggression/subterfuge emanating from the ‘Communist Bloc’. Given that it would be impossible to sustain ‘popular enthusiasm’ for this military/technological build-up if mainstream North American society were exposed to the brunt of the carcinogenic and mutagenic contamination resulting from such extraction – ‘thereby suffering the endemic health consequences’⁵⁹ – and given that the majority of the required energy resources were to be found on Indian land anyway, the literal sacrifice of Native North American peoples was yet again ‘deemed necessary, useful, or at least acceptable’⁶⁰ in the interests of furthering Euro-North American expansionist/economic endeavors.⁶¹

Canada and the United States entered this energy race with one of the world’s largest pools of oil and natural gas, and the exploitation of these valuable and versatile commodities has long contributed to their economic and political power, as well as to the profitability of large transnational energy corporations (TNECs) such as BP and Exxon.⁶²

In the process, however, most of North America’s easily accessible onshore oil and gas reservoirs have been all but exhausted. And so to guarantee a continuous supply of oil and gas, and the continued profitability of the large TNECs, successive governments have promoted the exploitation of... ‘*extreme energy*’ options seemingly without a care for the resulting dangers.⁶³

In recent years, the demand for plentiful and ‘secure’ energy resources has become greater than ever with the governments of the US *and* Canada engaged in their ‘war on terror’,⁶⁴

resulting in ‘the single largest energy policy shift in North America since. . . production peaked in 1971’.⁶⁵ As Macdonald Stainsby argues:

Having failed to pacify Iraq and having engendered new regional opposition in Africa, South America, and the Middle East, the US empire has driven oil prices up to new heights – a trend which will continue into the future. Though peak oil has profound implications for the US dollar and the militarized global economy, these prices have, in the short-term, been masterfully recast as US imperialism’s latest and greatest asset: *the creation of massive new oil ‘reserves’ in a politically friendly region which can feed the US domestic oil market.* (Emphasis added)⁶⁶

Namely, the tar sands in Northern Alberta, Canada,⁶⁷ where, once again, the desired energy resource lies almost entirely within the traditional territories of Native North Americans. This ‘reserve’ is not exactly new, however. Canada initiated oil production in the tar sands in 1967 – ‘after decades of research and development that began in the early 1900s.’⁶⁸ – with Suncor Energy Inc generating roughly 12,000 barrels per day. Even so, the tar sands were not regarded as a significant player in North America’s bid to prolong the life of its petroleum-based economy until 2003 – around the time of the American invasion of Iraq.

Before this period the extremely difficult extraction and production processes involved in developing tar sands was considered too expensive to be economically viable, but with oil prices heading toward \$150 per barrel, the tar sands not only became viable but the basis for a sudden American reliance on North American petroleum as a source of fuel.⁶⁹

We can therefore see how, as during the Cold War, the rhetoric of ‘national security’ is being used in this situation ‘as a pretext to increase energy resource extraction’⁷⁰ in North America, and – in turn – as a justification to once again ‘sacrifice’ the lives and lands of Native peoples to the ‘needs’ of the dominant Euro-North American capitalist society; making it clear that, then as now, ‘consolidating (the North American) empire abroad is predicated on consolidating (the North American) empire *within* (North American) borders.’⁷¹ Furthermore, it illustrates how, what Wolfe has called, ‘the logic of elimination’⁷² that informed frontier massacres, and the formulation of the assimilationist agenda in the mid-late nineteenth century, has, over the last hundred years or so, transmuted into perhaps history’s ‘subtlest’⁷³ form of physical biological, and cultural extermination yet: ‘invasive industrial interventions’.⁷⁴

As previously stated, many, if not most, indigenous peoples indefatigably avow that their relationship with their traditional landbases is vital to their physical and cultural survival as discrete, autonomous groups – that it is ‘constitutive of the Indian cultural identity and designative of the boundaries of the Indian cultural universe’⁷⁵ – and that, consequently, they cannot be forcibly alienated from their land *without* genocide being committed.⁷⁶ Large-scale resource extraction processes not only alienate Native peoples from their land by driving them off of it in order to make room for industrial activities, but also by way of the concomitant toxic by-products that put water supplies, land cover and wildlife at serious risk, gravely jeopardizing the lives, cultures, and health of indigenous communities who depend on these resources for their continued existence. As such, these processes both personify the driving *purpose behind* the North American genocide (i.e.: the appropriation and pilfering of Indian land), and also in and of themselves *beget* and *require* further *acts* of genocide.

This has been corroborated by testimony from indigenous peoples around the world (which) indicate that they perceive themselves as having been ‘pushed to the edge of a cliff’ by the environmental problems caused by industrialism.⁷⁷ As Davis and Zannis

note, ‘after 1945 traditional colonial terror was transformed into a “genocide machine” as the nature of capitalist domination became less overtly racist and more attuned to American corporate imperatives’.⁷⁸

The ongoing tar sands mining ‘project’ in Northern Alberta is, without a doubt, the most disastrous instance of this specifically contemporary⁷⁹ genocidal phenomenon in North America to date, producing a ‘virtual catalog of environmental destruction’⁸⁰ and a attendant litany of social ills.⁸¹

This project creates chronic pollution of the lower Athabasca River and adjacent western Lake Athabasca emanating ‘from licensed discharges; from above-ground and below-ground pipeline leaks and breaks; and from tailings pond leaks’.⁸² These leaks and breaks date back to the initial stages of production in 1967, and finding information to document them is an arduous task.⁸³

One of the largest early spills occurred in February 1982,⁸⁴ with a minimum of 42 tonnes of oil and contaminant discharged into the Athabasca River from tar sands company Suncor’s ‘tailings ponds’. Whilst a federal expert at the time noted that a even a 20 tonne spill could be ‘extremely catastrophic’ to the river system,⁸⁵ there is no evidence that this incident gave any cause for concern to the employees of Suncor – no data on contaminants such as mercury and arsenic in the spill can be found, nor can any study of the ecological and human health impacts be located.⁸⁶ Consequently, ascertaining what exactly were the downstream effects on the ecosystem and local people is not possible.⁸⁷

The present situation is also difficult to determine accurately due to ‘the veil that has been drawn down over provincial river monitoring activities’⁸⁸ However, an indication of the true gravity of the situation can be found in an admission from Suncor in 1997, in which they stated that their Tar Island Pond... ‘leaks approximately 1,600 cubic metres of toxic fluid into the Athabasca River every day’:⁸⁹

That volume is 1,600 tonnes, roughly 38 times the size of the big spill in 1982 described above. If that statement is even remotely accurate, the Athabasca River is in trouble.⁹⁰

What’s more, this rampant poisoning of the watershed and landbase is matched only by their depletion, for simply making room for tar sands mining activities involves the draining of rivers, lakes and wetlands to subsidize the ‘enormous quantities of water needed to force the bitumen from the ground’;⁹¹ the diversion of rivers; and stripping of all trees and vegetation from the forest’.⁹² Over the last forty years of its production, tar sands mining has changed Northern Alberta ‘from a pristine environment rich in cultural and biological diversity to a landscape resembling a war zone marked with 200-foot-deep pits and thousands of acres of destroyed boreal forests’⁹³ – and now that Canada is the US’s largest source of ‘foreign’ oil⁹⁴, and production has correspondingly intensified, this destruction is accelerating at a startling rate.

Indigenous peoples living close to and in the midst of tar sand deposits⁹⁵ have been expressing concern over the lethal impacts that these industrial events have had on their communities for years, with elders citing caustic changes to river water quality, meat quality and to the availability of wild fish and game.⁹⁶ Concern is growing recently as health professionals and community members witness more and more friends and family fall ill with a variety of serious illnesses, and local fish populations inflicted with ever more severe deformities.⁹⁷

In 2006, local doctor John O’Connor was the first medical professional to publicly call attention to these issues. In his own downstream community of Fort Chipewyan, he cited disturbingly disproportionate levels of deadly diseases such as leukemia, lymphoma,

lupus, colon cancer, and Graves disease. He also noted five cases of an extremely rare cancer of the bile duct – cholangiocarcinoma – occurring in the past five years within Fort Chip’s population of 1,200; normally, only one in 100,000 people contracts it.⁹⁸ He concluded that these abnormally elevated levels of disease were the direct consequence of steadily rising carcinogens in the sediments and waterways emanating from industrial activities associated with tar sands mining.

After Dr O’Connor made his findings public the federal and provincial governments of Canada not only ignored and dismissed his report,⁹⁹ but went on to attack his credibility – even going as far as to have a formal complaint brought against him in tandem with the Alberta College of Physicians and Surgeons (ACPS) for ‘causing undue alarm’.¹⁰⁰ However, these charges were subsequently dismissed in 2009 when, after years of lobbying by health officials and community members in Fort Chipewyan,¹⁰¹ Alberta Health Services finally reviewed cancer rates in Fort Chipewyan with a new study, which confirmed much of O’Connor’s original medical findings, showing that the number of cancer cases observed in Fort Chipewyan were in fact ‘higher than expected for all cancers combined and for specific types of cancer, such as biliary tract cancer and cancers in the blood and lymphatic system’.¹⁰²

Even so, the study declined to make any pronouncements as to the cause,¹⁰³ claiming that ‘an increase in observed cancers over expected could be due to chance, to increased detection, or to increased risk (lifestyle, environmental or occupational) in the community’. They went on to again assure Fort Chipewyan residents that ‘there is no cause for alarm’, and therefore no need for immediate action, yet indicated that ‘continued monitoring and analysis are warranted’.¹⁰⁴ Whilst community members felt vindicated by the confirmation of elevated cancer rates, they still roundly rejected the report on the basis of its questionable research methods, its failure to designate a cause, and ‘because they felt researchers didn’t spend enough time talking to people who live in Fort Chipewyan’.¹⁰⁵

There have been a number of reports published since O’Connor’s 2006 findings, however, which not only corroborate his original medical conclusions, but his conviction ‘that the governments of Alberta and Canada have been deliberately ignoring evidence of toxic contamination on downstream indigenous communities’ as a result of tar sands mining.¹⁰⁶ In 2007, Kevin Timoney, on behalf of the Nune Health Board Society, released a study on water and sediment quality as it pertains to wildlife contaminants, the ecosystem and public health in Fort Chipewyan.¹⁰⁷ Along with providing further hard scientific evidence supporting the claims of the residents of Fort Chipewyan, it heavily criticised previous reports undertaken by the Alberta government,¹⁰⁸ emphasising their dubious research methods and the government’s vested interests in the tar sands industry. Timoney¹⁰⁹ also called to account the screening procedures of the Regional Aquatics Monitoring Program (RAMP), arguing that they cannot possibly be impartial when much of the information gathered is then classified as ‘private data’, and when RAMP has as its funding source a steering committee which is dominated by the oil industry and the Albertan government – both of which have nothing to gain, and everything to lose should tar sands mining be definitively connected to serious public health risks. ‘The result is the *appearance* of monitoring and management of environmental concerns in the public interest. The *reality* is a lack of timely publicly available information and the perpetuation of business as usual’ (emphasis added).¹¹⁰

Timoney concluded that ‘based on the contaminant spill documentation, data, and observations of elders’ it is reasonable to ‘deduce that inadvertent and intentional pollution’ events associated with the explosive growth of the tar sands industry in north-eastern Alberta ‘have and will continue to impact the aquatic health of the lower Athabasca River and adjacent Lake

Athabasca,¹¹¹ – posing grave risks to ‘environmental and public health that demand immediate attention independent of provincial and industrial oversight’.¹¹² The most authoritative water quality research to date was conducted by Kelly et al and published in the *Proceedings of the National Academy of Sciences (PNAS)* in 2010 entitled ‘Oil sands development contributes elements toxic at low concentrations to the Athabasca River and its tributaries’.¹¹³ The study argues that tar sands mining is a greater source of air, land and water pollution in the Athabasca region than industry and government sources would have us believe. As one of the authors, David Schindler, summarises:

We have shown the assumption of industry and government, that all pollution of the oil sands comes from natural sources, is false. . . Some of the chemicals we document are known carcinogens. The concentrations as a result of industry are high enough to harm fish. So there is good reason to be concerned.¹¹⁴

The report found that water pollution levels were 10 to 50 times higher than normal downstream of tar sands mining, and that a major oil spill’s worth of bitumen is deposited on the land each year.¹¹⁵ The report also criticised the government of Alberta and RAMP’s previous findings and the methods used to gather them.¹¹⁶ Kelly *et al* concluded ‘contrary to claims made by industry and government in the popular press, the oil sands industry substantially increases loadings of toxic (‘priority pollutants’) to the (Athabasca River) and its tributaries via air and water pathways’.¹¹⁷

The report caused significant ‘controversy’ and resulted in the inevitable questioning of ‘methodology’. For example, a report by the Royal Society of Canada (RSC) on the ‘Environmental and Health Impacts’ of the tar sands¹¹⁸ included an implicit criticism of Kelly et al’s methodology.¹¹⁹ Even so, a recently convened government of Alberta panel, the Water Monitoring Data Review Committee nevertheless concluded that:

Taking into consideration all data and critiques, we generally agree with the conclusion of Kelly et al. that PACs (polycyclic aromatic compounds) and trace metals are *being introduced into the environment by oil sands operations*. . . The Royal Society of Canada (2010) noted that Kelly et al. (2009) sampled at only one location in the river at each site (although at two depths). Kelly et al. have subsequently elaborated upon details of the sample collection protocols in written comments submitted to this Committee (E. Kelly, pers. comm. 2011). *There is nothing to suggest that the methods they used in sample collection were not scientifically rigorous.* (Emphasis added)¹²⁰

Crucially, it should also be noted that the Royal Society team did not conduct their own original scientific research and in the usual western ‘scientific’ fashion, as Chief Allan Adam of the Athabasca Chipewyan First Nation points out, completely ignored indigenous peoples’ experiences and traditional knowledge of the environment.¹²¹

Thus, the Kelly et al. findings could yet prove to be a key instrument in the struggle to bring about decisive action on tar sands mining. Indeed, taken together with the rest of the studies published in recent years, industry or government claims that the current level of rising carcinogens have been produced ‘naturally’ have been refuted.¹²² Furthermore, the media attention given to these reports has increased pressure on the Alberta government such that they recently committed to undertake another investigation into the cancer rates in Fort Chipewyan.¹²³

Bearing all the evidence in mind, especially the views of indigenous peoples from the affected communities, it could be argued that a kind of reckless ‘biological warfare’ is being conducted. It certainly would not be the first time in North American history that indigenous

people were knowingly or even intentionally exposed to disease. To be sure, the spread of disease has been employed as part of the Euroamerican/Eurocanadian campaign to bring about the disappearance of Native North America at least as early as 1763, ‘when Lord Jeffery Amherst ordered small-pox infected blankets to be distributed to the Ottawas as a means of “extirpat[ing] this execrable race”’.¹²⁴ As Andrea Smith asserted, Native peoples ‘will continue to be seen as expendable and inherently violable as long as they continue to stand in the way of the theft of Native lands’.¹²⁵ Although strategy has varied over the centuries, adapting ‘to the times and regions in which it played out’, North American ‘logic of elimination’ – namely to eliminate ‘all indigenous populations that would not leave their lands and resources’ and ‘abolish their own cultures and languages’¹²⁶ – has never wavered.

What’s more, the situation is only set to worsen further, as the US is soon hoping to ‘extract up to 25 percent of their daily oil needs from tar sands-based operations in the region’¹²⁷: a plan that will involve the decimation of ‘an area the size of Florida’¹²⁸ in Northeastern Alberta, and the construction and expansion of colossal pipelines that will extend across unceded indigenous territory in BC and the North West Territories, before heading south and through Indian Country in US¹²⁹ – consequently impacting indigenous communities not only in Canada, but *across the continent*.

Whilst the US has been receiving oil from Northern Alberta tar sands operations via its pipeline infrastructure at varying levels for decades now, up until recently, the overwhelming majority of it was transported in the form of synthetic crude oil, a substance similar to conventional crude oil produced by putting the thick, raw bitumen through an ‘upgrading’ process.

Historically, this process has taken place in refineries in Canada that have developed the capacity to handle exceptionally heavy crudes.¹³⁰ However, with Canadian processing operations running at full capacity, oil companies have started transporting more of the raw tar sands to US refineries that can either already take the heavier oil or which need upgrading.¹³¹

This heavier tar sands derived crude, referred to as ‘DilBit’ (diluted bitumen), is different from conventional oil in important ways. It is ‘a highly corrosive, acidic, and potentially unstable blend of thick raw bitumen and volatile natural gas liquid condensate’,¹³² characteristics which can lead to major weakening of pipelines, giving rise to significantly higher risks whilst transporting it.

A clear indication of the exceptionally caustic nature of DilBit is the fact that, despite its relatively recent construction,¹³³ between 2002–2010 Alberta’s pipeline network had a rate of spills due to internal corrosion sixteen times higher than that in the US¹³⁴ This disparity is almost certainly the result of the considerably higher quantity of DilBit being funneled through Alberta pipelines – for, as mentioned above, DilBit has not been common in the US until recently.¹³⁵

Nonetheless, US pipelines are carrying increasing amounts of this corrosive raw form of tar sands oil without any proper review or change of pipeline/spill response safety standards that take would into account the different traits and properties of DilBit, as compared with conventional oil. On the contrary, in October 2009 the US Pipeline and Hazardous Materials Safety Administration – the agency charged with oversight of the nation’s 2.1 million miles of pipeline – actually loosened safety regulations pertaining to pipe strength.¹³⁶ This in spite of the fact that, ‘over the last 10 years, DilBit exports to the United States have increased almost fivefold, to 550,000 barrels per day (bpd) in 2010 – more than half of the approximately 900,000 bpd of tar sands oil currently flowing into the United States – and by 2019 Canadian tar sands producers plan to triple this amount’.¹³⁷

In addition to the caustic effect on internal pipeline infrastructure, this volatile and gummy substance, also decreases the ability of engineers to detect leaks,¹³⁸ and makes any clean up excruciatingly difficult – the consequences have already been catastrophic, with perhaps the worst example to date in the US being the 800,000 gallon spill caused by a ruptured Enbridge pipeline carrying DilBit in southwestern Michigan on the 25 July 2010, which devastated local communities and the Kalamazoo River. The federal government called it the ‘*worst oil spill in Midwestern history*’ (emphasis added).¹³⁹ and over a year on, clean up efforts are still ongoing.¹⁴⁰ This spill was followed on 1 July 2011 by a spill of 42,000 gallons of oil into the Yellowstone River in Montana caused by ruptured Exxon pipeline carrying DilBit.¹⁴¹ These disasters have brought heightened media attention to the issue of tar sands oil mining generally and to the issue of its transport throughout the US in unsafe pipelines specifically. In recent months, attention has turned to these issues as a result of opposition and protests surrounding the extension of the Keystone XL pipeline. A potentially enormous new line slated to run from Hardisty, Alberta, through the southwest corner of Saskatchewan and across the US border, thence diagonally across Montana, South Dakota, and Nebraska, to the Steele City-to-Cushing segment.¹⁴² John Stansbury, a University of Nebraska water resources engineer who conducted an independent assessment argues that a pipeline of this nature is likely to average some 91 major spills, and since the proposed pipeline will transect at least 11 major river crossings, such spills could contaminate the Ogallala Aquifer, a major Great Plains watershed, the Missouri and Mississippi Rivers, and the Yellowstone River with such deadly toxins as benzene¹⁴³ – and be yet another contributor to the ‘slow industrial genocide’ being inflicted on many indigenous peoples in these regions.¹⁴⁴

The perilous position of tar sands affected indigenous communities has been greatly facilitated by the governments of the US and Canada failing to comply with many of their own laws and through the de facto extinguishment of treaty rights, prioritising mining over local concerns.¹⁴⁵ The text of Treaty 8 suggests that the lands of First Nations would not be compromised by uncontrolled development which threatened First Nations culture and ways of life, and yet the remote community of Fort Chipewyan relied on an 80 per cent subsistence diet until tar sands pollution, boreal forest and ecosystem destruction, and loss of habitat made it impossible to sustain.¹⁴⁶ Thus, the tar sands now directly threatens the cultural survival of Fort Chipewyan and other First Nation peoples living within the so-called tar sands ‘sacrifice zone’. Many people are simply too afraid to drink the water or harvest plants and rear animals, while others value their traditional knowledge so much that they are prepared to take the risks.¹⁴⁷ While some First Nations have legally forced the government of Canada to consult with Indigenous communities about development projects they have no ability to veto such development of their land. So called ‘consultation’ processes invariably mean simply telling a community a project is being proposed which may or may not have impacts on a First Nation and the recognition of its Treaty rights. To date there is no legal framework within the Constitution of Canada that recognizes the international principle of Free, Prior and Informed Consent (FPIC) for the right of First Nations to say ‘no’ to a proposed development, a central tenet of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

As George Poitras, a member of the Mikisew Cree First Nation in Fort Chipewyan, states:

There’s been a de facto extinguishment of our treaty rights because the government continues to take up land without any consideration or consultation with the First Nations¹⁴⁸ . . . (The treaty) obligates the government to consult with us any time there is a potential or adverse impact on

our treaty rights—to hunt, fish, trap and so on. Historically they attempted to colonize us through policies and legislation that are paternal, colonial, imperial and they continue that attitude. . . [the government is] simply not dealing with us as priority rights holders of these lands.¹⁴⁹

Just as earlier genocidal policies of assimilation disguised themselves as philanthropic instruments of ‘progress’ and ‘material advancement’ for Native North Americans, resource extraction initiatives have professed an interest in ‘helping’ Native communities by way of offering them ‘steady employment’ and ‘economic development’. This is exactly how the Alberta government first ‘enticed First Nations council leadership to lease their treaty reserve lands to the tar sands industry’ in the 1960s – allowing ‘the first tier of tar sands operations. . . to come into a region mostly inhabited by Dene, Cree and Métis’.¹⁵⁰ In reality, this mega-project has paid such a meagre fraction of prevailing market royalty rates that no such advancement has been discernable, rather it has only brought more death and ruin. Moreover, the loss of land and the ensuing physical and cultural erosion has led to a loss of hope and growing apathy, with many not speaking out ‘because of the perceived inevitability of tar sands mining’.¹⁵¹ And so, ‘the battle over the ongoing mining comes down to the *fundamental right to exist*’ (emphasis added).¹⁵² As George Poitras of the Mikisew Cree First Nation asserted:

If we don’t have land and we don’t have anywhere to carry out our traditional lifestyles, we lose who we are as a people. So, if there’s no land, then its equivalent in our estimation to genocide of a people.¹⁵³

Conclusion

This article began with a discussion of the history of treaty making and highlighted the differing views of the Indians and the settlers. The primary concern for the Indians was the continuation of their traditional way of life, to be able to hunt, fish and roam their territories as they always had done. For the settlers the primary concern was the ‘extinguishment’ of any underlying Indian rights to land and the opening up of the area to settler populations and industrial exploitation. That the treaties were ‘agreed’ and signed despite these contradictory objectives is testament to the duplicitous nature of the settler led ‘negotiations’. Empty promises were made by priests and the Commissioners themselves, e.g. Commissioner Laird; the ‘Indians who take treaty will be just as free to hunt and fish all over as they now are’.¹⁵⁴ Any rights seemingly conferred by the terms of the treaties were always subject to the Crown’s assertion of underlying sovereignty. This is acutely evident in the following passage of Treaty 8:

And Her Majesty the Queen HEREBY AGREES with the said Indians that they shall have right to pursue their usual vocations of hunting, trapping and fishing throughout the tract surrendered as heretofore described, **subject to** such regulations as may from time to time be made by the Government of the country, acting under the authority of Her Majesty, and saving and excepting such tracts as may be required or taken up from time to time for settlement, mining, lumbering, trading or other purposes.¹⁵⁵

Thus, in the text of the treaty, rights to continue traditional practices were subordinate to settler property interests such as mining leases and the like. Rights to hunt, trap and fish could only operate around the fringes of such property interests. And with the inevitability of settler colonial expansion the treaties afforded the Indians very little protection indeed. Much like the diseases both inadvertently and deliberately forced on their communities by settlers, they have been unable to resist development on their traditional lands and have had

little or no say in mining projects that nonetheless have an enormous impact on their way of life, and cultural and physical health and well-being.

The tar sands mega-project is undoubtedly the worst offender in this regard. As we have seen, the environmental impact of the tar sands is enormous and the impact on the lives of the indigenous peoples is equally dramatic. As George Poitras writes:

... if Canada and Alberta today ignore and repeatedly, knowingly infringe on our Constitutionally protected Treaty Rights, will our future generations be able to meaningfully exercise their right to hunt, fish and trap? Will our people in 20 years from now be able to enjoy a traditional diet of fish, moose, ducks, geese, caribou?¹⁵⁶

Tar sands development has entirely changed the Athabasca delta and watershed landscape with massive de-forestation of the boreal forests, open-pit mining, depletion of water systems and watersheds, toxic contamination, destruction of habitat and biodiversity, and the severe forcible disruption of the indigenous Dene, Cree and Métis trap-line cultures.¹⁵⁷

The river used to be blue. Now it's brown. Nobody can fish or drink from it. The air is bad. This has all happened so fast.

Elsie Fabian, (an elder in a Native Indian community along the Athabasca River).¹⁵⁸

Many people in indigenous communities feel that they are in the final stages of a battle for survival that began in North America in the seventeenth century, and have called their past and present situation, brought on by settlers and colonial governments, genocide. Their use of the term is not emotive or imprecise, but rather, as we have argued, is in keeping with Lemkin's concept and highlights the enormity of what the tar sands are doing to the Indians of Treaty 8 and beyond.

Thus, the Alberta government should halt tar sands expansion, clean up and address the root causes of tar sands associated pollution and environmental degradation, ameliorate the effects of the health issues facing indigenous peoples as a result of tar sands operations. National and international financial and banking institutions should immediately withdraw funding from the tar sands expansion and operations.¹⁵⁹ If these steps are not taken, it behoves the international community to intervene and force the hands of both the Canadian and US governments, and the financial and banking institutions, to take these necessary steps.

Many indigenous peoples have been calling for this kind action from the international community for some time now – feeling that they will not find remedy or justice from the very institutions that are committing these crimes. To be sure, they 'have been very interested in engaging international law, arguing that as descendants of indigenous nations, they deserve protection under international human rights laws'.¹⁶⁰ The clearest recent example of this to date being the indigenous participation and willpower behind the drafting and passing of the UN Declaration on the Rights of Indigenous Peoples, which arguably allows their sovereign rights to take precedent over US or other nation-states domestic laws',¹⁶¹ so long of course that the 'territorial integrity' (Article 46) of the colonial nation state is not compromised.

The time for action to halt tar sands expansion is long overdue for the reasons discussed herein but also because of the wider issue of anthropogenic climate change. Indeed, if we take the latest climate science,¹⁶² or even the warnings of the notoriously conservative International Energy Agency,¹⁶³ seriously then indigenous peoples and the rest of us are fast approaching the 'tipping point' of runaway climate change (likely to result in an 'extinction

event') such that investing further in tar sands production is tantamount to throwing bucketfuls of petrol on a fire.¹⁶⁴

Notes

1. M. Mercredi, 'Slow Industrial Genocide', *The Dominion*, 23 November 2009, http://www.dominionpaper.ca/audio/mike_mercredi.
2. C. Samson, *A Way of Life that Does Not Exist*, London: Verso, 2003, 42. Further citations to this work are given in the text.
3. *Ibid.*, 42.
4. *St. Catherine's Milling and Lumber Co. v. The Queen* (1888) 14 App. Cas. 46 (J.C.P.C.), summary available at <http://www.bloorstreet.com/200block/rstctth.htm>.
5. Treaty negotiations, and the ultimate extinguishment of Indian title, were facilitated by the imposition on the natives of coloniser forms of social and political organisation. In the years following 1867, the new Dominion of Canada sought to 'enfranchise' Indians through a succession of Indian Acts which 'registered' Indians, gave them band numbers, defined them as 'wards of the state', created Indian 'reserves' under Crown title and arranged native-controlled local government. See Samson, *A Way of Life that Does Not Exist*, 42.
6. The treaty area most affected by tar sands projects.
7. René Fumoleau, *As Long as this Land Shall Last*, 2nd edition (Calgary, Alberta: University of Calgary Press, 2004), 18.
8. A.D. Fisher, 'The Cree of Canada: some ecological and evolutionary considerations', in *Cultural Ecology: readings on the Canadian Indians and Eskimos*, ed. B. Cox (Toronto: McClelland and Stewart, 1973), 126–39.
9. R. Daniel, 'The spirit and terms of Treaty 8', in *The Spirit of the Alberta Treaties*, ed. R. Price, (Alberta: University of Alberta Press, 1999), pp. 47–100, 49.
10. *Ibid.*
11. *Ibid.*, 53.
12. *Ibid.*, 55.
13. Record Group 10, Public Archives of Canada, Ottawa, 3708: 19502-1.
14. Daniel, 'The spirit and terms of Treaty 8', 58.
15. *Ibid.*
16. Fumoleau, *Land Shall Last*, 65–66.
17. *Ibid.*, 65.
18. Daniel, 'The spirit and terms of Treaty 8', 75.
19. *Ibid.*, 76.
20. Fumoleau, *Land Shall Last*, 78.
21. Canada, Treaty 8, 6–7.
22. Daniel, 'The spirit and terms of Treaty 8', 77.
23. 26 July 1899, Record Group 10, Public Archives of Canada, Ottawa, 6732: 420–2.
24. See Daniel, 'The spirit and terms of Treaty 8', 83; and the interviews with Elders 144–160.
25. Fumoleau, *Land Shall Last*, 78.
26. Daniel, 'The spirit and terms of Treaty 8', 84.
27. Fumoleau, *Land Shall Last*, 67.
28. Fumoleau, *Land Shall Last*, 71,
29. Treaty 8, <http://www.solon.org/Aboriginal/Canada/Treaty-8.html>.
30. Samson, *A Way of Life that Does Not Exist*, 43.
31. Brody, *M Maps and Dreams*, 1981, 68.
32. Fumoleau, *Land Shall Last*, 18.
33. Samson, *A Way of Life that Does Not Exist*, 44.
34. The United Nations Environment Program, for example, has identified the tar sands 'as one of the world's top 100 hotspots of environmental degradation'. See International Boreal Conservation (IBCC), *Canada's Tar Sands: America's #1 Source of Oil Has Dangerous Global Consequences*, 2008, <http://www.borealbirds.org/resources/factsheet-ibcc-tarsands.pdf>.
35. WWF, 'Scraping the bottom of the barrel?', 2008, 27, http://assets.panda.org/downloads/unconventional_oil_final_lowres.pdf.
36. IBCC, *Canada's Tar Sands*, 3.

37. G. Monbiot, 'The urgent threat to world peace is . . . Canada', 1 December 2009, <http://www.monbiot.com/2009/12/01/the-urgent-threat-to-world-peace-is-%E2%80%A6-canada/>.
38. 'The Syncrude tailings pond is now the largest dam on earth, to be rivalled only by China's Three Gorges Dam', IBCC, *Canada Tar Sands*, 3.
39. See for a conservative estimate see the citation of a US Department of Energy study in Natural Resources Defence Council, 'Setting the Record Straight: Lifecycle Emissions of Tar Sands', 2, www.docs.nrdc.org/energy/files/ene_10110501a.pdf; and for the upper range see Joseph J. Romm, *Hell and High Water: The Global Warming Solution* (New York: Harper Perennial, 2008), 181–82; and <http://www.greenpeace.org/france/PageFiles/266537/dirtyoil.pdf>.
40. Natural Resources Defence Council, 'Setting the record straight: lifecycle emissions of tar sands', 2, www.docs.nrdc.org/energy/files/ene_10110501a.pdf.
41. Quoted from Liv Inger Somyby's article, published on Galdu (Resource Centre for the Rights of Indigenous Peoples), 3 November 2009, <http://www.galdu.org/web/index.php?odas=3757&giella1=eng>.
42. Kim Peterson, 'Oil Versus Water: Toxic Water Poses Threat to Alberta's Indigenous Communities', *The Dominion*, <http://www.dominionpaper.ca/articles/1429>.
43. A. Smith, *Conquest: Sexual Violence and American Indian Genocide* (Cambridge, MA: South End Press, 2005), 121.
44. W. Churchill, *Since Predator Came: Notes from the Struggle for American Indian Liberation*, 2nd ed., (Oakland, CA, and Edinburgh, UK: AK Press, 2005), 168.
45. But of course not all people who define themselves as indigenous have a strong physical or spiritual connection to land generally or to a specific geographical setting. As Yin C. Paradies writes: 'although the poor and the rich Indigene, the cultural reviver and the quintessential cosmopolitan, the fair, dark, good, bad and disinterested may have little in common, they are nonetheless all equally but variously Indigenous' (2006, p 363). Yin C. Paradies, 'Beyond black and white: essentialism, hybridity and Indigeneity,' *Journal of Sociology* 42 (2006): 355–367.
46. M. Abed, 'Clarifying the concept of genocide', *Metaphilosophy* 37, nos. 3–4 (2006): 308–330, 326.
47. Abed, 'Clarifying the concept of genocide', 327.
48. C. Powell, 'What do genocides kill? A relational conception of genocide. *Journal of Genocide Research* 9, no. 4 (2007): 527–547, 538.
49. Abed, 'Clarifying the concept of genocide', 327. As Abed has so poignantly argued, 'social death is the harm that makes genocide an ethically unique form' of destruction (38).
50. D. Short, 'Cultural genocide and indigenous peoples: a sociological approach', *The International Journal of Human Rights* 14, no. 6 (2010): 831–846; and D. Short, 'Australia: a continuing genocide?', *Journal of Genocide Research* 12, nos.1–2, (2010) : 45–68.
51. C. Powell, 'What do genocides kill? A relational conception of genocide', *Journal of Genocide Research* 9, no. 4 (2007): 527–547, 534.
52. Two examples of this perspective are Frank Chalk and Kurt Jonassohn, *The History and Sociology of Genocide: Analyses and Case Studies* (New Haven: Yale University Press, 1990), 25; and Adam Jones in his textbook *Genocide: A Comprehensive Introduction* (New York: Routledge, 2006). Jones wrote; 'I consider mass killing to be definitional to genocide. . . in charting my own course, I am wary of labelling as "genocide" cases where mass killing has not occurred'(22).
53. A. Dirk Moses, 'Raphael Lemkin, culture, and the concept of genocide', in *Oxford Handbook of Genocide Studies*, ed., Donald Bloxham and A. Dirk Moses, Oxford: Oxford University Press, 2010, 3.
54. See Short, 'Cultural genocide and indigenous peoples'; and Abed, 'Clarifying the concept of genocide', on this point.
55. See Patrick Wolfe, 'Settler colonialism and the elimination of the native', *Journal of Genocide Research* 8, no. 4 (2008): 387–409.
56. Powell, (2007: 538).
57. The 'Cold War' era roughly began circa 1945, 'pitting the US and its 'Free World' allies against the "Communist Bloc" . . .'. See W. Churchill, *A Little Matter of Genocide: Holocaust and Denial in the Americas, 1492 to the Present* (San Francisco, CA: City Light Books, 1997), 289.
58. Indian land was also used extensively for nuclear weapons testing during this period.
59. Churchill, *A Little Matter of Genocide*, 304.

60. Ibid., 324.
61. In this way, the concept of a 'national sacrifice area' was first established in official North American governmental policy, whereby certain areas of the U.S./Canada could be demarcated for over-development and exploitation in the name of so-called 'national priorities', 'irrespective of the resulting permanent environmental damages'. See J. Higgins-Freese and J. Tomhave, 'Race, sacrifice, and native lands', *Earth Light Magazine* 46 (2002), http://www.earthlight.org/2002/essay46_sacrifice.html. As Churchill attested, 'having the last of their territory zoned 'so as to forbid human habitation' would' obviously 'precipitate (the) ultimate dispersal' of the impacted Native group, thus 'causing its disappearance as a 'human group' per se'. See Churchill, *A Little Matter of Genocide*, 185. We must therefore conclude that this *policy* is genocidal, 'no more...no less'. In addition, one can see how 'colonizers attempt to deny...reality by forcing those people who have already been rendered dirty, impure, and hence expendable to face the most immediate consequences of environmental destruction'. See Smith, *Conquest*, 57.
62. M.T. Klare, (2010) 'The relentless pursuit of extreme energy: a new oil rush endangers the Gulf of Mexico and the planet', *The Huffington Post*, 19 May 2010, http://www.huffingtonpost.com/michael-t-klare/the-relentless-pursuit-of_b_581921.html.
63. Ibid.
64. 'Although Canada is often seen as a junior partner in many imperial ventures, it has taken the lead in the subjugation of the people of Afghanistan and Haiti. Perhaps more significant, if less well known, is Canada's role in subordinating the planet to the needs of the oil and gas industry'. See M. Stainsby, 'Into a black hole', *Upping the Anti: A Journal of Theory and Action* 5 (2007): 87–100, 89.
65. Ibid., 89.
66. Ibid., 89.
67. 'The recoverable oil reserves in Alberta's tar sands are so bountiful that they vie with oil reserves in Saudi Arabia and Venezuela for top status'. See K. Peterson, 'Oil versus water: toxic water poses threat to Alberta's indigenous communities', *The Dominion: A Grassroots News Cooperative*, (tar sands special issue) 48 (2007): 12–31, 12.
68. M. Humphries, 'Congressional Research Service', *North American Oil Sands: History of Development, Prospects for the Future* (US:CRS, 2008), <http://www.fas.org/sgp/crs/misc/RL34258.pdf>.
69. E. Black, 'America with no plan for oil interruption: ironically, as price per barrel drops, American oil supply from Canada imperiled', *The Cutting Edge News*, 3 November 2008, <http://www.thecuttingedgenews.com/index.php?article=896>.
70. Smith, *Conquest*, 180.
71. Smith, *Conquest*, 179. This is sometimes referred to as 'internal colonialism'.
72. Patrick Wolfe, 'Settler colonialism and the elimination of the native', *Journal of Genocide Research* 8, no. 4, (2006): 387–409, 388.
73. Churchill, *A Little Matter of Genocide*, 319; emphasis added.
74. W. LaDuke, *All Our Relations: Native Struggles for Land and Life* (Cambridge, MA: South End Press, 1999), 2.
75. W.C. Bradford, *Beyond Reparations: An American Indian Theory of Justice* (The Berkeley Electronic Press, 2004):7, <http://law.bepress.com/expresso/eps/170>.
76. Smith, *Conquest*, 122; and on the 'forcible' point see Short, D (2010) 'Cultural Genocide...'
77. H. Zinn, 'Introduction', in *Ecocide of Native America: Environmental Destruction of Indian Lands and Peoples*, eds., D.A. Grinde and B.E. Johansen (Santa Fe, NM: Clear Light Publishers, 1995), 1.
78. In A. Dirk Moses, 'Conceptual blockages and definitional dilemmas in the 'racial century': genocides of indigenous peoples and the Holocaust', *Patterns of Prejudice* 36, no. 4 (2002): 7–36, 24.
79. Churchill, *A Little Matter of Genocide*, 9.
80. Zinn, 'Introduction', 3.
81. The first 40 years of its operation has already seen an incredible 'influx of workers, machinery and infrastructure' into the area, which has had severely detrimental impacts on local Native communities 'socially, politically, and culturally'. See LaDuke, *All Our Relations*, 84. This has included rises in alcohol and drug abuse, 'violence, prostitution, elder and spousal abuse', and abandoned children 'fathered by workers who are long gone'. See M. Stainsby, 'The richest

- first nation in Canada: ecological and political life in Fort McKay', *The Dominion: A Grassroots News Cooperative* 48 (2007): 18– 35, 35. Sociologists have referred to these particular 'ramifications of...development as the **'boom town syndrome'**. It is not considered to be a healthy environment for the host population and is exacerbated when the local host community is a different colour, race, and culture from the newcomers'. See LaDuke, *All Our Relations*, 84 (emphasis added).
82. K.P. Timoney, on behalf of the Nunece Health Board Society, *A Study of Water and Sediment Quality Related to Public Health Issues, Fort Chipewyan, Alberta* (Nunece Health Board Society: Fort Chipewyan, Alberta, 2007), <http://www.borealbirds.org/resources/timoney-fortchipwater-111107.pdf>, 54.
 83. *Ibid.*, 50.
 84. *Ibid.*, 52.
 85. *Ibid.*, 53.
 86. *Ibid.*, 53.
 87. 'As a result of this spill, commercial fishing by local people was cancelled due to an oily taste in the fish'. *Ibid.*, 53.
 88. *Ibid.*, 53.
 89. *Ibid.*, 53; furthermore, 'a 2008 study by Environmental Defense showed that the tailings ponds were leaking 11 million litres of liquid into the surrounding environment everyday'. See I. Willms, 'Photo Essay: Fort Chipewyan lives in the shadow of Alberta's oil sands', *This Magazine*, 1 November 2011, <http://this.org/magazine/2011/11/01/fort-chipewyan-photo-essay/>.
 90. *Ibid.*, 53.
 91. IBCC, *Canada's Tar Sands*, 3. 'Tar sands companies are currently licensed to use over 90 billion gallons of water from the Athabasca River per year – enough water to satisfy the needs of a city of two million people' (*ibid.*, 3), furthermore, 'most if not all of this water is taken out of the natural cycle and never replaced'. See K. Thomas, 'A new wave of exploitation: Canada, Alberta Defy UN, sell off rights to disputed Lubicon land', *The Dominion: A Grassroots News Cooperative* 48, (2007): 24–38, 38.
 92. IBCC, *Canada's Tar Sands*, 1.
 93. C. Thomas-Muller, 'We speak for ourselves: indigenous peoples challenge the fossil fuel regime in Alberta', *The Dominion: A Grassroots News Cooperative* 48 (2007): 13.
 94. IBCC, *Canada's Tar Sands*, 1.
 95. 'These are the communities of Mikisew Cree First Nation and the Athabasca Chipewyan First Nation at Fort Chipewyan, Fort McMurray First Nation, Fort McKay First Nation, and to the south, the Chipewyan Prairie First Nation. They are all members of the Athabasca Tribal Council' (Indigenous Environmental Network (ca.2008) *Information Sheet No. 1, Tar Sands: Indigenous Peoples and the Giga Project*, http://dirtyoilsands.org/files/IEN_CITSC_Tar_Sands_Info_Sheet.pdf).
 96. 'The observations of the elders are remarkably consistent. They say that the river water tastes differently now – oily, sour, or salty. When the river water is boiled, it leaves a brown scum in the pot. Fish (and muskrat) flesh is softer now, and watery. Ducks, muskrats, and fishes taste differently now. There is now a slimy, sticky, or gummy material...in their fishing nets in winter; this started in perhaps the mid-1990s'. See Timoney, *A Study of Water and Sediment Quality*, 46.
 97. 'Oilsands poisoning fish, say scientists, fisherman', *CBC News*, 16 September 2010, <http://www.cbc.ca/news/canada/edmonton/story/2010/09/16/edmonton-oilsands-deformed-fish.html>.
 98. M. Rolbin-Ghanie, 'What in tar nation? Life amongst the tar sands', *The Dominion: A Grassroots News Cooperative* 48 (2007): 2–38; 21.
 99. In response to O'Connor's findings, *Alberta Health and Wellness* released their own report in 2006 which 'declined to conclude the cancer rate in Fort Chipewyan was elevated' (*ibid.*, 6). Timoney suggests that this was perhaps due to the fact that the government 'used questionable statistical methods and assumptions and underestimated levels of arsenic in water and sediment and the fish consumption rate of many Fort Chipewyan residents (*ibid.*, 4).
 100. 'Will Dr. John O'Connor ever be cleared?', *Tar Sands Watch*, 20 July 2009, <http://www.tarsandswatch.org/will-dr-john-o-connor-ever-be-cleared>.
 101. 'Fort Chip cancer rates higher than expected: report', *CBC News*, 6 February 2009, <http://www.cbc.ca/news/health/story/2009/02/06/edm-fort-chip-cancer.html>.

102. Alberta Cancer Board, *Cancer Incidents in Fort Chipewyan, Alberta, 1995–2006*, February 2009 (Alberta Cancer Board, Division of Population Health and Information Surveillance: Alberta, Canada), <http://www.ualberta.ca/~avnish/rls-2009-02-06-fort-chipewyan-study.pdf>. The report concluded that levels of the rare cancer cholangiocarcinoma were *not* higher than expected, however (*ibid.*).
103. However, ‘according to Natural Resources Defence Council senior scientist Dr. Gina Solomon...almost all of the cancer types that were elevated have been linked scientifically to chemicals in oil or tar’. See D. Droitsch and T. Simieritsch, on behalf of The Pembina Institute, *Canadian Aboriginal Concerns with Oil Sands: A compilation of key issues, resolutions and legal activities*, September 2010, <http://www.pembina.org/pub/2083>.
104. Alberta Health Services, *Fort Chipewyan Cancer Study Findings Released*, 6 February 2009, <http://www.albertahealthservices.ca/500.asp>.
105. CBC News, *Fort Chip Cancer Rates Higher Than Expected*.
106. IEN, *Information Sheet No. 1, 2*.
107. Timoney, *A Study of Water and Sediment Quality*.
108. *Ibid.*
109. Timoney, *A Study of Water and Sediment Quality*, 71 & 72.
110. *Ibid.*, 72.
111. *Ibid.*, 56, 73.
112. *Ibid.*, 73.
113. E.N. Kelly, D.W. Schindler, P.V. Hodson, J.W. Short, R. Radmanovich, and C.C. Nielsen, *Oil sands development contributes elements toxic at low concentrations to the Athabasca River and its tributaries*, Proceedings of the National Academy of Sciences PNAS, US, 2 July 2010, <http://www.pnas.org/content/early/2010/08/24/1008754107.full.pdf>.
114. S. Bell, S., ‘Oilsands pollution worse than expected’, *Slave River Journal*, 7 December 2009, <http://srj.ca/oilsands-pollution-worse-than-expected-p4362.htm>.
115. *Ibid.*
116. As mentioned above, so did Timoney’s 2007 report, *A Study of Water and Sediment Quality*
117. Kelly et al., *Oil sands development contributes*, 5.
118. Royal Society of Canada, ‘Expert Panel Report: Environmental and Health Impacts of Canada’s Oil Sands Industry’, www.rsc.ca/.../RSC%20report%20complete%20secured%209Mb.pdf.
119. *Ibid.*, 107, 148.
120. Water Monitoring Data Review Committee, ‘Evaluation of Four Reports on Contamination of the Athabasca River System by Oil Sands Operations’, http://environment.alberta.ca/documents/WMDRC_-_Final_Report_March_7_2011.pdf.
121. Sierra Club Prairie, ‘Royal Society Report on Tar Sands ignores Traditional Knowledge Indigenous Peoples, Community Members and Allies raise concerns’, <http://www.sierraclub.ca/en/node/3554>.
122. ‘Making “cents” of the tar sands’, *Respecting Aboriginal Values and Environmental Needs*, 20 September 2011, <http://raventrust.com/blog/2011-09/making-cents-of-the-tar-sands.html>.
123. ‘Cancer Rates Downstream from Oilsands to be Probed’, *CBC News*, 19 August 2011, <http://www.cbc.ca/news/canada/edmonton/story/2011/08/19/edm-cancer-oilsands-fort-chipewyan-study.html>.
124. W. Churchill, *Kill the Indian, Save the Man: The Genocidal Impact of American Indian Residential School* (San Francisco, CA: City Light Books, 2004), 34. Another case in point, and contrary to popular belief, is that the expression ‘Final Solution’, in a genocidal sense, was not, in fact, coined by the Nazis, but by Canadian Indian Affairs Superintendent Duncan Campbell Scott in a letter from April of 1910 written ‘in response to a concern raised by a west coast Indian Affairs official about the high level of death in the coastal residential schools’. Scott wrote: ‘It is readily acknowledged that Indian children lose their natural resistance to disease by habituating so closely in these schools, and that as a consequence they die at a much higher rate than in their villages. But this alone does not justify a change in the **policy** of this Department, which is **geared towards a final solution to our Indian Problem**’. See K.D. Annett, *Hidden from History: The Canadian Holocaust – The Untold Story of the Genocide of Aboriginal Peoples by Church and State in Canada*. 2nd ed. (Vancouver: The Truth Commission into Genocide in Canada and Unceded Coast Salish Territory, 2005), 15 (emphasis added). That these deaths were the result of *intentional* infliction of disease was

further corroborated by contemporary top Canadian Indian Affairs medical officer, Doctor Peter Bryce, who stated in an official report in 1907: 'I believe the conditions are being *deliberately* created in our residential schools to spread infectious diseases. . . The mortality rate in the schools often exceeds fifty percent. *This is a national crime*'. See Annett, *Hidden from History*, 20 (emphasis added).

125. Smith, *Conquest*, 69.
126. Annett, *Hidden From History*, 44.
127. Stainsby, 'Into a black hole', 89.
128. IBCC, *Canada's Tar Sands*, 1; This will give Alberta the fastest rate of deforestation in the world outside the Amazon.
129. Stainsby, 'Into a black hole', 89.
130. National Resource Defense Council, et al. (2011) *Tar Sands Pipelines Safety Risks* [Online] NRDC, et al.: USA. February 2011. Available at: <http://www.nrdc.org/energy/files/tarsandssafetyrisks.pdf> [Retrieved August 2011].
131. *Ibid.*, 5.
132. *Ibid.*, 4.
133. *Ibid.*, 9; 'Over half of the pipelines currently operating in Alberta have been built in the last twenty years as the tar sands region developed', *ibid.*, 8.
134. *Ibid.*, 9.
135. *Ibid.*, 8.
136. STL Today (2010) *Worries over defective steel force TransCanada to check oil pipeline* [Online] (Posted 10th December 2010) Available at: http://www.stltoday.com/news/local/metro/article_c0b2c3a6-ef66-532b-9266-2dd501b8df75.html.
137. NRDC, et al., *Tar Sands Pipelines Safety Risks*, 5.
138. '...as DilBit flows through a pipeline, pressure changes within the pipeline can cause the natural gas liquid condensate component to move from liquid to gas phase. This forms a gas bubble that can impede the flow of oil. Because this phenomenon—known as column separation—presents many of the same signs as a leak to pipeline operators, real leaks may go unnoticed. Because the proper response to column separation is to pump more oil through the pipeline, misdiagnoses can be devastating', *ibid.*, 6–7.
139. *Onearth Magazine*, NRDC, 'Michigan spill increases concern over tar sands pipelines', 6 August 2010, <http://www.onearth.org/article/michigan-oil-spill-tar-sands-concerns>.
140. *Onearth Magazine*, NRDC, 'A year after pipeline spill, tar sands oil still plagues a Michigan community', 25 July 2011, <http://www.onearth.org/article/tar-sands-oil-plagues-a-michigan-community>.
141. *Onearth Magazine*, NRDC, 'Montana's Yellowstone River oil spill: the shape of things to come?', 6 July 2011, <http://www.onearth.org/article/yellowstone-river-oil-spill>.
142. See 'Stop tar sands: scars upon sacred land iv: 'a slow industrial genocide'', <http://www.dailykos.com/story/2011/08/19/1007991/-Stop-Tar-Sands:-Scars-Upon-Sacred-Land-IV:-A-Slow-Industrial-Genocide>.
143. See this report on a recent Benzene leak, http://switchboard.nrdc.org/blogs/aswift/suncor_spill_reveals_gaps_in_s.html.
144. Mecredi, 'Slow Industrial Genocide'.
145. For an in-depth discussion of this see Stainsby's article, 'Into a black hole'.
146. IEN Tar Sands and Indigenous Rights Briefing, 6.
147. IEN Tar Sands and Indigenous Rights Briefing, 6.
148. K. Petersen, 'Oil Versus Water: Toxic water poses threat to Alberta's Indigenous communities', *The Dominion* 48, (2007).
149. *Ibid.*
150. EIN, ca. 2008, 3.
151. Stainsby, 'The richest first nation in Canada, 18.
152. K. Petersen, 'Oil Versus Water, 31.
153. K. Petersen, 'Oil Versus Water, 31.
154. Daniel, 'The spirit and terms of Treaty 8', 76.
155. See Treaty 8, <http://www.ainc-inac.gc.ca/eng/1100100028813>.
156. G. Poitras, 'Why am I attending?', 24 September 2011, <http://edmortimer.wordpress.com/2011/09/24/cree-george-poitras-ottawa-tarsands-action-monday/>

157. C. Thomas-Muller, 'Tar sands: environmental justice, treaty rights and indigenous peoples', 2008, at <http://canadiandimension.com/articles/1760>.
158. Ibid.
159. See for example this damning expose of the Royal Bank of Scotland's funding of the tar sands industry <http://peopleandplanet.org/dl/cashinginontarsands.pdf>.
160. Smith, *Conquest*, 182.
161. Ibid.
162. For example see K. Anderson and A. Bows, 'Beyond "dangerous" climate change: emission scenarios for a new world', *Philosophical Transactions of the Royal Society*, 369 no. 1934 (2011): 20-44, <http://rsta.royalsocietypublishing.org/content/369/1934/20.full>.
163. See IEA's latest report at <http://www.worldenergyoutlook.org/>.
164. See D. Carrington, 'The burning issue of energy cannot wait for economic good times', *The Guardian*, November 2011, <http://www.guardian.co.uk/environment/damian-carrington-blog/2011/nov/09/iea-energy-outlook-carbon-climate-change?INTCMP=SRCH>.

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