#### 504376728 05/19/2017

### PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
PETRO-CANADA	07/30/2009

#### **RECEIVING PARTY DATA**

Name:	SUNCOR ENERGY INC.
Street Address:	PO BOX 2844 150-6TH AVE SW
City:	CALGARY, ALBERTA
State/Country:	CANADA
Postal Code:	T2P 3E3

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15272147

#### **CORRESPONDENCE DATA**

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ATTORNEY DOCKET NUMBER:	18694-0011004
NAME OF SUBMITTER:	ELIZABETH A. BAUER
SIGNATURE:	/Elizabeth A. Bauer/
DATE SIGNED:	05/19/2017

#### **Total Attachments: 7**

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> **PATENT** REEL: 042441 FRAME: 0399

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PATENT REEL: 042441 FRAME: 0400

THIS PATENT ASSIGNMENT (the "Assignment") is effective August 1, 2009 (the "Effective Date"), by and between:

PETRO-CANADA, a Canadian Corporation (the "Assignor") at P.O. Box 2844, 150-6<sup>th</sup> Avenue S.W., Calgary, Alberta T2P 3E3 AND

SUNCOR ENERGY INC., a Canadian Corporation ("Amalco" and the "Assignee") at P.O. Box 38, 112 - 4 Avenue S.W., Calgary, Alberta T2P 2V5

- A. The Assignor and Suncor Energy Inc. ("Suncor") a Canadian Corporation, entered into an arrangement agreement dated March 22, 2009 (the "Arrangement Agreement"). Pursuant to the terms of the Arrangement Agreement and the Canada Business Corporations Act, R.S.C. 1985, c. C-44, as amended, the Parties agreed that, at the Effective Date, the Assignor and Suncor would amalgamate and continue as Amalco.
- B. The Assignor is owner or co-owner of the patents and patent applications, designs and design patents set forth in <u>Schedule A</u> attached hereto (the "Patents"), and of any and all inventions disclosed in said Patents (the "Inventions"). The Assignor and Assignee are aware that some Patents and Inventions may have been omitted through inadvertence and thus the Patents and Inventions includes any other patents, patent applications, designs and design patents and inventions owned by the Assignor and which may not be expressly listed in Schedule A including family members of listed Patents and Inventions and other Patents and Inventions not otherwise or previously identified in Schedule A;
- C. As a result of the amalgamation, the entirety of the Assignor's right, title and interest in the Patents and Inventions shall be sold, transferred and assigned to the Amalco as Assignee.

NOW THEREFORE, for the consideration set forth in the Arrangement Agreement, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

- 1. The Assignor does hereby sell, assign and transfer to Assignee the entire right, title and interest in, to and under:
  - i. the Patents and all continuations, divisionals and related children thereof, all patents, registrations and other rights granted thereon in Canada or any other country and all reissues, re-examinations and extensions thereof;
  - ii. the Inventions and all patent applications describing or claiming the Inventions in Canada or any other country, including all applications filed pursuant to the Patent Cooperation Treaty, and including all rights of priority under the Paris Convention, and any and all patents, registrations and other rights granted thereon in Canada or any other country and all reissues, reexaminations and extensions thereof; and
  - iii. any other Patents or Inventions to which the Assignor has a right, title and interest, and which have not already been identified in Schedule A, so that the Assignee receives the same entirety of the rights and privileges enjoyed by the Assignor, or which would have been enjoyed by the Assignor had the Assignor not hereby assigned.

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2. The Assignor shall do such acts and execute such papers, as from time to time may be necessary or useful to secure for said Assignee the full benefits of said Patents or Inventions, or otherwise to carry into full force and effect the text and intent of this assignment.

Executed by the Assignor in the City of Calgary, Alberta, CANADA on the 30th of July, 2009:

PETRO-CANADA By:	
Name: Hugh L, Hooker Title: Chief Compliance Officer Corporate Secretary Associate General Counsel	
DECLARED BEFORE ME at the City of Calgary, in the Province of Alberta, this 30 <sup>th</sup> day of July, 2009.  )  Jamie L. Gagner A Notary Public in and for the	HUGHT. HOOKER
Province of Alberta  Executed by the Amaleo and Assignee in the City of SUNCOR ENERGY INC.	of Calgary, Alberta CANADA on of August, 2009:
Name: PAUL MATTHEWS Title: Director, Legal Affairs, IP	Suncer Energy Services Inc. an behalf of Suncer Energy Inc.
DECLARED BEFORE ME at the City of Calgary, in the Province of Alberta, this: 4 day of August, 2009.	Tan Dank
	PAUL MATTHEWS

A Notary Public in and for the Programs of Alexitator 1400, 350 - 7th Avenue SW Calgary, Alberta T2P 3N9

SCHEDULE A - ATTACHED HERETO

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# SCHEDULE A - PATENTS AND INVENTIONS

Country	Patent/Publication No.	Title
	,	AT - AUSTRIA
AT	AT330990T	Weissoel schmiermittel bei der extrusion
		AU - AUSTRALIA
AU	AU2001280838B2	White oil extrusion lubricant
AU	AU2002240350B2	Emulsifiers for highly saturated hydroisomerized fluids and methods for minimizing pest infestation in agriculture
AU	AU2007308682A1	Herbicidal composition with increased herbicidal efficacy
itristiniuteireennennennennennennen		BR - BRAZIL
BR	BR200112767A	White oil extrusion lubricant
BR	BR203937A	Metodo e aparelho para estimular uma forma o furo abaixo
BR	BR9612270A	Craqueamento hidráulico de hidrocarbonetos pesados com controle de aromáticos polares.
BR	BR9708193A	Hydrotreating of heavy hydrocarbon oils with control of particle size of particulate additives
		CA - CANADA
CA	CA2000984C	Mixer circuit for oil sand
CA	CA2015784C	Low temperature version of the hot water extraction process for oil sand
CA	CA2029795C	Pipeline conditioning process for mined oil-sand
CA	CA2043469C	Method for producing superior quality paving asphalt and product prepared therefrom
ĆA	CA2093934C	In situ primary froth quality measurements
CA	CA2098622A1	Process for reducing sludge accumulation in the hot water extraction process for oil sands
CA	CA2104526C	Oil sand extraction process with in-line middlings aeration and recycle
CA	CA2128481C	Well test imaging
CA	CA2143396A1	Increasing settling rate of fine solids in oil sand tailings
CA	CA2149737C	Solvent process for bitumen separation from oil sands froth
CA	CA2159857C	Hydrocarbon processing apparatus and method
CA	CA2183113A1	Well test imaging
CA	CA2195604A1	Slurrying oil sand for hydrotransport in a pipeline
CA	CA2217300A1	Solvent process for bitumen separation from oil sands froth
CA	CA2217623A1	Cold dense slurrying process for extracting bitumen from oil sand
CA	CA2224615C	Nozzle for atomizing liquid in two phase flow
CA	CA2227667C	Agitated slurry pump box for oil sand hydrotransport
CA	CA2240376C	Hydrocracking of heavy hydrocarbon oils with conversion facilitated by control of polar aromatics
CA	CA2246841C	Cycloseparator for removal of coarse solids from conditionedoil sand slurries
CA	CA2248342C	Hydrotreating of heavy hydrocarbon oils with control of particle size of particulate additives

Assignment: Petro-Canada to Suncor Energy Inc.

Page 1 of 5

Country	Patent/Publication No.	Title
CA	CA2254048C	Process for pumping bitumen froth through a pipeline
CA	CA2263858C	Mechanical deaeration of bituminous froth
CA	CA2269710C	Dual pump gravity separation system
CA	CA2272035C	Process for recovery of hydrocarbon diluent from tailings
CA	CA2272045C	Method for recovery of hydrocarbon diluent from tailings
CA	CA2350001C	Staged settling process for removing water and solids from oil sand extraction froth
CA	CA2350180C	Process for reducing sulphur emissions from a fluidized bed coke burner
CA	CA2368788A1	Hydrocracking of heavy hydrocarbon oils with improved gas and liquid distribution
CA	CA2404798C	Nozzle/mixer assembly
CA	CA2405391C	Method for acid stimulating a subterranean well formation for improving hydrocarbon production
GA	CA2416268A1	White oil extrusion lubricant
CA	CA2420034C	Jet pump system for forming an aqueous oil sand slurry
CA	CA2434848C	Technique for emulsifying highly saturated hydroisomerized fluids
CA	CA2445645C	Apparatus and process for coalescing bitumen in an oil sand slurry
CA	CA2453697C	At the mine site oil sands processing
CA	CA2455487C	Gas lift apparatus for a well
		Utilizing heat at a steam assisted gravity drainage oil recovery
CA	CA2461237C	operation
CA	CA2480122A1	Compact slurry preparation system for oil sand
CA	CA2498073A1	Lightweight wear-resistant weld overlay
CA	CA2506398C	Improved low energy process for extraction of bitumen from oil sand
CA	CA2507482A1	Spray oil and method of use thereof for controlling turfgrass pests
CA	CA2520046A1	Process for reducing the level of sulfur compounds from liquid hydrocarbon streams
CA	CA2520821A1	Relocatable oil sand slurry preparation system
CA	CA2550623A1	Relocatable countercurrent decantation system
CA	CA2591437A1	Heating system for outdoor conveyors in a carwash
CA	CA2600740A1	Discharge pressure actuated pump
CA	CA2605092A1	Herbicidal composition with increased herbicidal efficacy
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CN - CHINA
CN	CN1042174A	Hydrocracking of heavy oil in presence of ultrafine iron sulphate
CN	<u>CN1071370C</u>	Hydrocracking of heavy hydrocarbons with control of polar aromatics
CN	CN1077591C	Hydrotreating of heavy hydrocarbon oils with control of particle size particulate additives
CN	CN1280521C	Device and method for acid exciting of underwell structure layer
		DE - GERMANY
DE	DE60120992T2	Weissoel schmiermittel bei der extrusion
DE	DE60227224D1	Stimulierung durch saeurebehandlung mit schaummischung im

Assignment: Petro-Canada to Suncor Energy Inc.

Page 2 of 5

Country	Patent/Publication No.	Title
kur June	DE0010000170	bohrloch
DE	DE69106934T2	Paving asphalt cement and its production.
DE	DE69609355T2	Hydrocracken von schweren kohlenwasserstoffoelen mit kontrolle von polare aromaten
DE	DE69701088T2	Hydrotreating of heavy hydrocarbon oils with control of particle size of particulate additives
		DK - DENMARK
DK	DK1298281T3	Stimulering ved syrebehandling med en skumblanding i borehullet
DK	DK1309652T3	White oil extrusion lubricant
	, months renembles of the second of the seco	EP – EUROPEAN PATENT
EP	EP0888420A1	Hydrotreating of heavy hydrocarbon oils with control of particle size of particulate additives
EP	EP0888420B1	Hydrotreating of heavy hydrocarbon oils with control of particle size of particulate additives
EP	EP0912658A1	Hydrocracking of heavy hydrocarbons with control of polar aromatics
EP	EP0912658B1	Hydrocracking of heavy hydrocarbons with control of polar aromatics
EP	EP1298281A1	Acid stimulating with downhole foam mixing
EP	EP1298281B1	Acid stimulating with downhole foam mixing
EP ·	EP1309652B1	White oil extrusion lubricant
		ES - SPAIN
ES	ES2144847T3	Hydrotreating of heavy hydrocarbon oils with control of particle size of particulate additives
ES	ES2149512T3	Hydrocracking of heavy hydrocarbon oils with conversion facilitated by recycle of both heavy gas oil and pitch
ES	ES2267802T3	White oil extrusion lubricant
SCHOOL AND	The state of the s	GB – UNITED KINGDOM
GB	GB2281971B	Well test imaging
·		JP - JAPAN
JP.	JP02187495A	Hydrocracking of heavy oil
JP	JP2004505150T	White oil extrusion lubricant
		Emulsifiers for highly saturated hydroisomerized fluids and
JP.	JP2004532189T	methods for minimizing pest infestation in agriculture
JР	JP4234495A	Lubricating oil composition containing new combination of stabilizers
	<u></u>	MX - MEXICO
	(manuscript	Method for acid stimulating a subterranean well formation for
MX	MXPA02009368A	improving hydrocarbon production.
MX	MXPA03000847A	White oil extrusion lubricant
		NO - NORWAY
NO	NO20024284D0 -	Acid stimulating with downhole foam mixing
МО		Well test imaging
NO	NO943060A	Well test imaging

Assignment: Petro-Canada to Suncor Energy Inc.

Page 3 of 5

Country	Patent/Publication	Title
· NO	NO943060D0	Well test imaging
	AND THE PROPERTY OF THE PROPER	PT – PORTUGAL
PT	PT1309652E	Lubrificante de oleo branco para extrusao
	V 100 100 100 100 100 100 100 100 100 10	TR - TURKEY
TR	TR9801138T2	Hydrocracking of heavy hydrocarbon oils with conversion
	11(0)0110012	facilitated by recycle of both heavy gas oil and pitch
		Partikuellue katki maddelerinin partikuel bueyueklueguenuen
TR	TR9801830T2	kontrolue yoluyla agir hidrokarbon yaglarinin su ile islemden
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(16)		IS - UNITED STATES OF AMERICA
US	US2004165960A1	Jet pump system for forming an aqueous oil sand slurry
US	US2005261379A1	Spray oil and method of use therefor for controlling turfgrass pests
US	US2006185773A1	Lightweight wear-resistant weld overlay
US	US2007068769A1	Relocatable oil sand slurry preparation system
US	US2007289911A1	Relocatable countercurrent decantation system
US	US2008063544A1	Discharge pressure actuated pump
US	US2008080990A1	Discharge pressure actuated pump
US	US2008085832A1	Herbicidal composition with increased herbicidal efficacy
US	US2008121254A1	Heating system for outdoor conveyors in a carwash
US	US2009008297A1	Compact slurry preparation system for oil sand
US	<u>U\$5284509A</u>	Method for producing superior quality paving asphalt and product prepared therefrom
US	US5548563A	Well test imaging
US	US5624642A	Hydrocarbon processing apparatus
		Method for the production of improved paving asphalt and product
US	<u>US5695555A</u>	prepared therefrom
		Hydrocracking of heavy hydrocarbon oils with conversion
US	<u>US5755955A</u>	facilitated by control of polar aromatics
UŞ	US5787050A	Well test imaging
		Hydrotreating of heavy hydrocarbon oils with control of particle size
US	<u>US5972202A</u>	of particulate additives
US	US6003789A	Nozzle for atomizing liquid in two phase flow
LIO	11000044005	Hydrocracking of heavy hydrocarbon oils with conversion
US	<u>US6004453A</u>	facilitated by recycle of both heavy gas oil and pitch
US	US6196312B1	Dual pump gravity separation system
US	US6358403B1	Process for recovery of hydrocarbon from tailings
US	US6358404B1	Method for recovery of hydrocarbon diluent from tailing
US	US6391190B1	Mechanical deaeration of bituminous froth
US	US6410488B1	Drilling fluid
US	US6515031B2	Technique for emulsifying highly saturated hydroisomerized fluids
US		Hydrocracking of heavy hydrocarbon oils with improved gas and
	<u>US6517706B1</u>	liquid distribution
US	US6663931B2	White oil extrusion lubricant
US	US6673360B2	Technique for emulsifying highly saturated hydroisomerized fluids

Assignment: Petro-Canada to Suncor Energy Inc.

Page 4 of 5

Country	Patent/Publication No.	Title
		Method for acid stimulating a subterranean well formation for
US	<u>US6719054</u>	improving hydrocabon production
US	<u>US6719054B2</u>	Method for acid stimulating a subterranean well formation for Improving hydrocarbon production
US	<u>US6790386B2</u>	Dielectric fluid
US	US7025874B2	Nozzie/mixer assembly
US	US7048045B2	Gas lift apparatus for a well
US	US7431830B2	Compact slurry preparation system for oil sand
US	US7481318B2	Apparatus and process for coalescing bitumen in an oil sand slurry
US	<u>USD382070S1</u>	Fuel pump station
US	USD391646S1	Service station canopy
UŞ	USD398850S1	Ridge design for a bottle
US	USD399750S1	Combined bottle and cap
US	USD402771S1	Service station canopy
US	USD417917S1	Service station canopy
ZA – SOUTH AFRICA		
ZA	ZA200300720A	White oil extrusion lubricant.

Assignment: Petro-Canada to Suncor Energy inc.

Page 5 of 5

PATENT REEL: 042441 FRAME: 0407