

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY AGREEMENT
CONVEYING PARTY DATA	
Name	Execution Date
PA LLC	12/28/2011
RECEIVING PARTY DATA	
Name:	LV Administrative Services, Inc.
Street Address:	420 Lexington Ave.
Internal Address:	Suite 2840
City:	New York
State/Country:	NEW YORK
Postal Code:	10170
PROPERTY NUMBERS Total: 10	
Property Type	Number
Application Number:	61380640
Application Number:	11959417
Application Number:	12441115
Application Number:	13050931
Application Number:	61120742
Application Number:	13133651
PCT Number:	US1038426
PCT Number:	US1031811
PCT Number:	US1139883
PCT Number:	US0967205
CORRESPONDENCE DATA	
Fax Number:	(312)896-9012
Phone:	3124643114
Email:	nleith@loeb.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.

Correspondent Name: Nancy J. Leith
Address Line 1: Loeb & Loeb LLP
Address Line 2: 321 North Clark Street; Suite 2300
Address Line 4: Chicago, ILLINOIS 60654

ATTORNEY DOCKET NUMBER:	211158-10052
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NAME OF SUBMITTER:	Nancy J. Leith
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Total Attachments: 14

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This INTELLECTUAL PROPERTY SECURITY AGREEMENT (as from time to time amended, restated, supplemented or otherwise modified, the "Agreement"), dated as of December 28, 2011, is made by PA LLC, a Delaware limited liability company (the "Company") and each other party (other than the Agent) at any time signatory hereto (each a "Grantor" and, collectively, "Grantors"), in favor of LV Administrative Services, Inc., a Delaware corporation, as administrative and collateral agent for the Creditor Parties (as defined below) (the "Agent").

WHEREAS, pursuant to that certain Second Amended and Restated Term Note dated as of July 24, 2009 in the principal amount of \$417,511.92 (as amended, restated, modified and/or supplemented from time to time, the "Note") made by the Company in favor of Valens U.S. SPV I, LLC ("Lender" and together with the Agent, individually, each a "Creditor Party" and collectively, the "Creditor Parties"), the Lender agreed to provide financial accommodations to the Company; and

WHEREAS, in connection with the Notes, the Grantors have agreed to execute such further documentation, including this Agreement, as the Creditor Parties may from time to time request in connection with the preservation and perfection of Agent's security interests described in the Master Security Agreement (as defined below).

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each Grantor hereby agrees as follows:

Section 1. DEFINED TERMS; RULES OF CONSTRUCTION.

- (a) Capitalized terms used in this Agreement but not otherwise defined herein have the meanings given to them in the Master Security Agreement.
- (b) When used herein the following terms shall have the following meanings:

"Copyrights" means all copyrights arising or protected under the laws of the United States, any other country or any political subdivision thereof, whether registered, or unregistered and whether published or unpublished, all registrations and recordings therefor, and all applications in connection therewith, including but not limited to all registrations, recordings and applications in the United States Copyright Office, any State, or any similar office or agency of the United States, any State, any other country or political subdivision, or any other registry.

"Copyright Licenses" means all agreements pursuant to which any Grantor is licensor or licensee, granting any right under any Copyright, including but not limited to, rights to manufacture, reproduce, display, distribute, perform, modify or otherwise exploit, and sell materials embodying or derived from, any Copyrighted work.

"Intellectual Property" means any and all of the following, throughout the world: Patents, Trademarks, Copyrights, mask works, designs, trade secrets, information, databases, rights of publicity, software, and any other proprietary rights and processes; any licenses to use

any of the foregoing owned by a third party including Patent Licenses, Trademark Licenses and Copyright Licenses; and registrations, applications and recordings pertaining to any of the foregoing on any registry.

"Master Security Agreement" means that certain Amended and Restated Master Security Agreement dated as of July 24, 2009 between the Company, PetroAlgae Inc. and Agent, as the same may be amended, restated, modified and/or supplemented from time to time.

"Obligations" shall have the meaning provided thereto in the Master Security Agreement.

"PTO" means the United States Patent and Trademark Office and any successor office or agency.

"Patents" means all patents issued by the PTO, any similar office or agency of the United States, any State, or any other country or political subdivision or other registry, all recordings thereof, and all applications therefor.

"Patent Licenses" means all agreements pursuant to which any Grantor is licensor or licensee, granting any right to manufacture, have made, import, use, or sell any invention covered in whole or in part by a Patent.

"Trademarks" means all trademarks, trade names, corporate names, business names, fictitious business names, Internet Domain Names, trade styles, services marks, logos and other source or business identifiers, arising or protected under the laws of the United States, any State any other country or political subdivision thereof, whether registered or unregistered, and all goodwill connected with the use of and symbolized thereby, all registrations and recordings thereof, and all applications therefor, in the PTO, in any similar office or agency of the United States, any State, any other country or political subdivision, any Internet Domain Name registrar, or any other registry.

"Trademark Licenses" mean all agreements pursuant to which any Grantor is licensor or licensee, granting any right to use a Trademark.

"UCC" shall have the meaning provided thereto in the Master Security Agreement.

- (c) All Schedules, Addenda, Annexes and Exhibits hereto or expressly identified to this Agreement are incorporated herein by reference and taken together with this Agreement constitute but a single agreement. The words "herein", "hereof" and "hereunder" or other words of similar import refer to this Agreement as a whole, including the Exhibits, Addenda, Annexes and Schedules thereto, as the same may be from time to time amended, modified, restated or supplemented, and not to any particular section, subsection or clause contained in this Agreement. Wherever from the context it appears appropriate, each term stated in either the singular or plural shall include the singular and the plural, and pronouns stated in the masculine, feminine or neuter gender shall include the masculine, the feminine and the neuter. The term "or" is not exclusive. The term "including" (or any form thereof) shall not be limiting or exclusive. All references to statutes and related regulations shall include any amendments of same and any successor

statutes and regulations. All references in this Agreement or in the Schedules, Addenda, Annexes and Exhibits to this Agreement to sections, schedules, disclosure schedules, exhibits, and attachments shall refer to the corresponding sections, schedules, disclosure schedules, exhibits, and attachments of or to this Agreement. All references to any instruments or agreements, including references to any of this Agreement, the Note and the other Documents shall include any and all modifications or amendments thereto and any and all extensions or renewals thereof.

- (d) The parties acknowledge that each party and its counsel have reviewed this Agreement and that the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Agreement or any amendments, schedules or exhibits thereto.
- (e) In the event of an irreconcilable conflict between the terms of this Agreement and the terms of the Master Security Agreement, the Agent shall have the right to determine which Agreement shall govern with respect to each such conflict.

Section 2. GRANT OF SECURITY INTEREST IN INTELLECTUAL PROPERTY COLLATERAL. To secure the prompt payment to the Creditor Parties of the Obligations of the Grantors now or hereafter existing from time to time, each Grantor hereby pledges and grants to the Agent, for the ratable benefit of the Creditor Parties, a continuing security interest in and Lien upon all of such Grantor's right, title and interest in, to and under the following, whether presently existing or hereafter created or acquired (collectively, the "Collateral");

- (a) Trademarks and Trademark Licenses to which it is a party including those referred to on Schedule I hereto;
- (b) Patents and Patent Licenses to which it is a party, including those referred to on Schedule II hereto;
- (c) Copyrights and Copyright Licenses to which it is a party, including those referred to on Schedule III hereto;
- (d) Intellectual Property not covered by the foregoing, including those referred to on Schedule IV hereto;
- (e) Renewals, reissues, continuations, divisions, or extensions of any of the foregoing;
- (f) Rights to sue third parties for past, present or future infringement, dilution, misappropriation, or other violation of rights in any Intellectual Property, including injury to the goodwill associated with any Trademark, and all causes of action for the same;
- (g) All products and Proceeds of all or any of the foregoing, tort claims and all claims and other rights to payment including (i) insurance claims against third parties for

loss of, damage to, or destruction of, the foregoing Collateral and (ii) payments due or to become due under licenses of any or all of the foregoing and Proceeds payable under, or unearned premiums with respect to policies of insurance in whatever form; provided, however, that the Collateral shall not constitute a grant of a security interest in (a) any property to the extent that such grant of a security interest is prohibited by any rule of law, statute or regulation, requires a consent not obtained of any government, governmental body or official or is prohibited by, or constitutes a breach or default under or results in the termination of or requires any consent not obtained under, any contract, license, agreement, instrument or other document evidencing or giving rise to such property, except to the extent that such rule of law, statute or regulation or the term in such contract, license, agreement, instrument or other document or shareholder or similar agreement providing for such prohibition, breach, default or termination or requiring such consent is ineffective under applicable law; and (b) any trademark or service mark applications filed in the PTO on the basis of any Grantor's intent to use such trademark or service mark, unless and until a statement of use or amendment to allege use is filed in the PTO, in which event, such trademark or service mark shall automatically be included in the Collateral.

Section 3. REPRESENTATIONS AND WARRANTIES.

Each Grantor represents and warrants to Agent, in addition to the representations and warranties in the Master Security Agreement and the Documents, that:

- (a) Such Grantor does not own, in whole or in part, any Patent, Trademark, Copyright, or other Intellectual Property which is the subject of a registration or application in the United States Patent and Trademark Office, United States Copyright Office, any similar office or agency of the United States, any State, any other country or political subdivision, any Internet Domain Name registrar, or any other registry, except as set forth in Schedule I, Schedule II, Schedule III, and Schedule IV, respectively, hereto.
- (b) such Grantor is the sole owner of the Intellectual Property listed on Schedules I to IV hereto (as such schedules may be amended or supplemented from time to time) identified as owned by such Grantor, and all registrations and applications for such Intellectual Property are standing in the name of such Grantor.
- (c) no Intellectual Property has been licensed or sublicensed by any Grantor to any Affiliate or third party, except under the licenses disclosed in Schedules I to IV hereto.
- (d) all Intellectual Property owned by such Grantor, including the items set forth on Schedules I to IV, and, to such Grantor's knowledge, all Intellectual Property licensed to such Grantor, is subsisting in good standing, valid, and enforceable and such Grantor performed all acts and has paid all renewal, maintenance, and other fees and taxes required to maintain, each registration and application for Intellectual Property owned by such Grantor in full force and effect.

- (e) such Grantor has been using statutory notice of registration in connection with its use of registered Trademarks, proper marking practices in connection with the use of Patents, and appropriate notice of copyright in connection with the publication of Copyrighted material ;
- (f) such Grantor has taken all actions necessary to insure that all licensees of Trademarks owned by such Grantor use consistent standards of quality as directed by Grantor in connection with their licensed products and services;
- (g) this Agreement is effective to create a valid security interest in favor of Agent, for the benefit of the Creditor Parties, in all of Grantor's Intellectual Property. Upon the (i) filing of this Intellectual Property Security Agreement in the PTO (with respect to the United States Patents set forth on Schedule I hereto and the United States Trademarks set forth on Schedule II hereto), and in the United States Copyright Office (with respect to the United States Copyrights set forth on Schedule III hereto), and (ii) the filing of all appropriate UCC-1 financing statements, such security interest will be enforceable as such as against any and all creditors of, and purchasers from, Grantor. Upon the making of such filings set forth above, all action necessary or desirable to protect and perfect Agent's Lien on each Grantor's United States and State Patents, Trademarks, and Copyrights, shall have been taken.

Section 4. COVENANTS. Each Grantor covenants and agrees with Agent, from and after the date of this Agreement, and in addition to the covenants in the Master Security Agreement and the Documents, that:

- (a) Such Grantor shall notify Agent immediately if it knows or has reason to know that any application or registration relating to any Intellectual Property owned by such Grantor may become abandoned, dedicated to the public, placed in the public domain or otherwise invalidated or unenforceable, or of any adverse determination or development in any proceeding (including the institution of any proceeding) in the PTO, the United States Copyright Office, or any similar agency of the United States, any State, or other country or political subdivision thereof, any Internet Domain registry or other registry, or any court, regarding Grantor's ownership of or right to use register, keep and/or maintain any Intellectual Property;
- (b) Such Grantor shall take all actions necessary, or requested by Agent, to maintain and pursue each application, for registration in respect of the Intellectual Property owned by Grantor from time to time, by including filing applications for renewal, affidavits of use, affidavits of noncontestability and the commencement and prosecution of opposition and interference and cancellation proceedings;
- (c) In the event that any Intellectual Property owned by or exclusively licensed to such Grantor is infringed, diluted, misappropriated, or otherwise violated by a third party, such Grantor shall notify Agent promptly after such Grantor learns thereof and shall promptly take all reasonable actions to stop the same and

enforce its rights in such Intellectual Property and to recover all damages therefor, including, but not limited to, the initiation of a suit for injunctive relief and damages and shall take such other actions as are reasonable, or as Agent shall deem appropriate under the circumstances to protect such Grantor's rights in such Intellectual Property;

- (d) Such Grantor shall use statutory notice of registration in connection with its use of registered Trademarks, proper marking practices in connection with the use of Patents, appropriate notice of copyright in connection with the publication of Copyrighted materials, and other legends or markings applicable to other Intellectual Property;
- (e) Such Grantor shall maintain the level of the quality of products sold and services rendered under any Trademarks owned by such Grantor at a level at least consistent with the quality of such products and services as of the date hereof, and such Grantor shall adequately control the quality of goods and services offered by any licensees of its Trademarks; and
- (f) Such Grantor shall take all steps necessary to protect the secrecy of all trade secrets material to its business.

Section 5. SECURITY AGREEMENT. The security interests granted pursuant to this Agreement are granted in conjunction with the security interests granted by each Grantor to Agent, for the ratable benefit of the Creditor Parties, pursuant to the Master Security Agreement. Each Grantor hereby acknowledges and affirms that the rights and remedies of Agent with respect to the Collateral made and granted herein are more fully set forth in the Master Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. Any rights and remedies set forth herein are without prejudice to, and in addition to, those set forth in the Master Security Agreement.

Section 6. REINSTATEMENT. This Agreement shall remain in full force and effect and continue to be effective should any petition be filed by or against any Grantor for liquidation or reorganization, should any Grantor become insolvent or make an assignment for the benefit of any creditor or creditors or should a receiver or trustee be appointed for all or any significant part of such Grantor's assets, and shall continue to be effective or be reinstated, as the case may be, if at any time payment and performance of the Obligations, or any part thereof, is, pursuant to applicable law, rescinded or reduced in amount, or must otherwise be restored or returned by any obligee of the Obligations, whether as a "voidable preference," "fraudulent conveyance," or otherwise, all as though such payment or performance had not been made. In the event that any payment, or any part thereof, is rescinded, reduced, restored or returned, the Obligations shall be reinstated and deemed reduced only by such amount paid and not so rescinded, reduced, restored or returned.

Section 7. INDEMNIFICATION. Each Grantor assumes all responsibility and liability arising from the use of the Intellectual Property and Grants, jointly and severally, hereby indemnify and hold Agent and each other Creditor Party harmless from and against any claim, suit, loss, damage or expense (including reasonable attorneys' fees) arising out of any

Grantor's operations of its business from the use of the Intellectual Property. In any suit, proceeding or action brought by Agent under any Patent License, Trademark License, or Copyright License for any sum owing thereunder, or to enforce any provisions of such License, Grantors will, jointly and severally, indemnify and keep Agent and each other Creditor Party harmless from and against all expense, loss or damage suffered by reason of any defense, set off, counterclaim, recoupment or reduction or liability whatsoever of the obligee thereunder, arising out of a breach of any Grantor of any obligation thereunder or arising out of any other agreement, indebtedness or liability at any time owing to or in favor of such obligee or its successors from any Grantor, and all such obligations of Grantors shall be and remain enforceable against and only against Grantors and shall not be enforceable against Agent or any other Creditor Party.

Section 8. NOTICES. Whenever it is provided herein that any notice, demand, request, consent, approval, declaration or other communication shall or may be given to or served upon any of the parties by any other party, or whenever any of the parties desires to give and serve upon any other party any communication with respect to this Agreement, each such notice, demand, request, consent, approval, declaration or other communication shall be in writing and shall be given in the manner, and deemed received, as provided for in the Master Security Agreement.

Section 9. TERMINATION OF THIS AGREEMENT. Subject to Section 6 hereof, this Agreement shall terminate upon payment in full in cash of all Obligations and irrevocable termination of all of the Note and the Documents.

Section 10. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED AND ENFORCED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK APPLICABLE TO CONTRACTS MADE AND PERFORMED IN SUCH STATE, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW.

[Signature Page to Follow]

IN WITNESS WHEREOF, each Grantor has executed this Intellectual Property Security Agreement as of the date first written above.

PA LLC

By: James P. Dietz
Name: James P. Dietz
Title: CFO

PETROALGAE INC.

By: James P. Dietz
Name: James P. Dietz
Title: CFO

PETROTECH HOLDINGS, CORP.

By: _____
Name:
Title:

ACCEPTED and ACKNOWLEDGED by:

LV ADMINISTRATIVE SERVICES INC., as Agent

By: _____
Name:
Title:

SIGNATURE PAGE TO
INTELLECTUAL PROPERTY
SECURITY AGREEMENT

PATENT
REEL: 027727 FRAME: 0521

IN WITNESS WHEREOF, each Grantor has executed this Intellectual Property Security Agreement as of the date first written above.

PA LLC

By: James P. Dietz
Name: James P. Dietz
Title: CFO

PETROALGAE INC.

By: James P. Dietz
Name: James P. Dietz
Title: CFO

PETROTECH HOLDINGS, CORP.

By: Eugene Grin
Name: Eugene Grin
Title: President

ACCEPTED and ACKNOWLEDGED by:

LV ADMINISTRATIVE SERVICES INC., as Agent


By: Eugene Grin
Name: Eugene Grin
Title: Authorized Signatory

SIGNATURE PAGE TO
INTELLECTUAL PROPERTY
SECURITY AGREEMENT

SCHEDULE I
TO
INTELLECTUAL PROPERTY SECURITY AGREEMENT

[If there are multiple Grantors, identify which items are owned by which Grantor]

I. TRADEMARK REGISTRATIONS

<u>MARK</u>	<u>COUNTRY</u>	<u>REGISTRATION NUMBER</u>	<u>REGISTRATION DATE</u>	<u>OWNER</u>
PETROALGAE	US	3888161	12/7/2010	PetroTech Holdings, Corp.
PetroAlgae	US	3890445	12/14/2010	PA LLC DBA PA- MELBOURNE LLC
	US	3890444	12/14/2010	PA LLC DBA PA- MELBOURNE LLC
THINKING OUTSIDE THE BARREL	US	3944521	4/12/2011	PA LLC DBA PA- MELBOURNE LLC
PETROALGAE	WIPO	921 505	2/23/2007	PA LLC
PetroAlgae	WIPO	937,608	9/6/2007	PA LLC
PETROALGAE	Mexico	1,023,781	2/18/2008	PA LLC
PETROALGAE	India	1,534,808	2/23/2007	PA LLC

II. TRADEMARK APPLICATION

III. TRADEMARK LICENSES

IV. INTERNET DOMAIN NAMES

SCHEDULE II
TO
INTELLECTUAL PROPERTY SECURITY AGREEMENT

[If there are multiple Grantors, identify which items are owned by which Grantor]

V. PATENTS

None.

VI. PATENT APPLICATIONS

<u>Owner</u>	<u>Country</u>	<u>Application Title</u>	<u>Application/Serial No.</u>	<u>Filing Date</u>
PA LLC	US	Method for Combusting Biomass from Microcrops [ABANDONED]	61/380640	9/7/2010
PA LLC	US	System and Methods of Production and Harvesting of Oil-rich Algae	11/959417	12/18/2007
PA LLC	US Taiwan	Tubular Microbial Growth System	12/441115 096164247	12/10/2009 09/13/2007
PA LLC	US	Method and system for processing of aquatic species	13/050931	3/17/2010
PA LLC	PCT	Cultivation, Harvesting, and Processing of Floating Aquatic Species with High Growth Rates	PCT/US2010/031811	04/20/2010
PA LLC	PCT	Vegetation Indices for Measuring Multilayer Microcrop Density and Growth	PCT/US2010/038426	06/11/2010
PA LLC	PCT	Ash Removal from Biomass	PCT/US11/39883	06/09/2011

PATENT LICENSES

A. Company Rights in IP of Others

<u>Application Serial Number</u>	<u>Title</u>	<u>Filing Date</u>

<p>Transesterification of Biodiesel Feedstock Using a Gaseous Catalyst ("One-Step") (claims priority from US Application Number 61/073,930)</p> <p>* Referred to in the attached Licensing Agreement as: Application Number: 61/073,930 Title: Lipid Extraction from Biomass</p>	<p>PCT (international) filed Oct-Dec 2009. US09/67205 Received at international office Feb 2010</p>	<p>[XLTG – XL OneStep]</p>
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B. Company Grants of Licenses of Company IP

- a. AMENDED AND RESTATED LICENSE AGREEMENT by and between PA LLC and ASESORIAS E INVERSIONES QUILICURA S.A., as executed in October 2011
- b. PA SELECT MASTER FRAMEWORK AGREEMENT among PA LLC, the Ministry of Natural Resources for the Republic of Suriname, Staatsolie Maatschappij Suriname N.V., and N.V. Verenigde Cultuur Maatschappijen, as executed in May 2011

SCHEDULE III
TO
INTELLECTUAL PROPERTY SECURITY AGREEMENT

[If there are multiple Grantors, identify which items are owned by which Grantor]

VII. COPYRIGHT REGISTRATIONS

<u>Country</u>	<u>Copyright</u>	<u>Reg. No.</u>	<u>Date</u>
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VIII. COPYRIGHT APPLICATIONS

<u>Country</u>	<u>Copyright</u>	<u>Reg. No.</u>	<u>Date</u>
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III. COPYRIGHT LICENSES

<u>Copyright</u>	<u>Reg. No.</u>	<u>Date</u>
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SCHEDULE IV

TO

INTELLECTUAL PROPERTY SECURITY AGREEMENT

OTHER INTELLECTUAL PROPERTY REGISTRATIONS AND APPLICATIONS.