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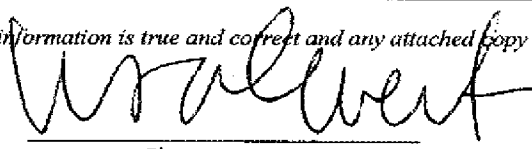
To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):  ISG Resources, Inc.  Additional name(s) of conveying party(ies) attached? _ Yes <input checked="" type="checkbox"/> No	2. Name and Address of receiving party(ies):  Name: Bank One, NA  Internal Address:  Street Address: 1 Bank One Plaza  City: Chicago State: IL  Country: USA ZIP: 60670  Additional name(s) & address(es) attached? _ Yes <input checked="" type="checkbox"/> No
3. Nature of conveyance:  - Assignment _ Merger  <input checked="" type="checkbox"/> Security Agreement _ Change of Name  _ Other  Execution Date: March 31, 2004	

4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is:	
A. Patent Application No.(s)  See Exhibit A	B. Patent No.(s)  See Exhibit A

Additional numbers attached? <input checked="" type="checkbox"/> Yes _ No	
5. Name and address of party to whom correspondence concerning document should be mailed:  Name: SIDLEY AUSTIN BROWN & WOOD LLP  Internal Address: Attn: Elisabeth A. Evert  Street Address: 717 North Harwood Suite 3400  City: Dallas State: TX ZIP: 75201-6507	6. Total Number of applications and patents involved: 19  7. Total fee (37 CFR 3.41).....\$ 760.00  _ Enclosed  <input checked="" type="checkbox"/> Authorized to be charged to deposit account  8. Deposit account number:  18-1260 (Attach duplicate copy of this page if paying by deposit account)

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9. Statement and signature: <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i>		
Elisabeth A. Evert Name of Person Signing	 Signature	April 23, 2004 Date
Total number of pages including cover sheet 26		

OMB No. 0651-0011 (exp. 4/94)

Do not detach this portion

Mail documents to be recorded with required cover sheet information to:

Exhibit A  
ISG Resources, Inc. – Patents

<u>Patent Title</u>	<u>Patent No.</u>	<u>Application No.</u>
Sludge Stabilizing Method & Apparatus	5040900	
Mixer Apparatus and Method of Blending Various Materials	5094541	
Artificial Reefs Manufactured from Coal Combustion By-Products	5199377	
Method & Apparatus for Reducing Carbon Content in Particulate Mixtures	5299692	
Asphaltic Roofing Material with Class F Fly Ash Filler	5391417	
Apparatus for Continuously Processing Particulate Cementitious Material & Fly Ash Solids, Etc.	5433520	
Use of Alumina Clay with Cement Fly Ash Mixtures	5693137	
Method & Apparatus for Reducing Carbon Content in Fly Ash	5513755	
Method of Making Asphaltic Roofing Material Containing Class F Fly Ash	5565239	
Ultrasonic & Conditioning & Wet Scrubbing of Fly Ash	5840179	
Ultrasonic Conditioning & Wet Fly Ash	5988396	
Masonry, Mortar and Stucco Cement Compositions		10/088,291
Fixation and Utilization of Ash Residue from the Incineration of Municipal Solid Waste	5196620	

<u>Patent Title</u>	<u>Patent No.</u>	<u>Application No.</u>
Control of Ammonia Emission from Ammonia Laden Fly Ash in Concrete		10/130333
Fiber Reinforced Aerated Cellular Concrete and Methods of Making Same		09/871,089
Method for Accelerating Setting of Cement and the Compositions Produced Therefrom		10/228,008
Method for Delaying the Set Time of Cement and the Compositions Produced Therefrom		10/228,009
Reduction of Ammonia in Flue Gas and Fly Ash		60/375,550
Cementitious Mixtures and Methods of Use Thereof		60/475,594

Execution Copy

## PATENT SECURITY AGREEMENT

THIS PATENT SECURITY AGREEMENT (as amended, restated or otherwise modified from time to time, this "Agreement") is entered into as of March 31, 2004 by and between Headwaters Incorporated, a Delaware corporation (the "Borrower"), each of the subsidiaries of the Borrower listed on the signature pages hereto (together with the Borrower, the "Grantors") and Bank One, NA (Main Office Chicago), as contractual representative (the "Agent") on behalf of itself and on behalf of the "Holders of Secured Obligations" (as such term is defined in the below described Credit Agreement).

### WITNESSETH:

WHEREAS, the Borrower, the Agent and certain financial institutions (the "Lenders") are parties to that certain Credit Agreement dated as of the date hereof (as the same may hereafter be modified, amended, restated or supplemented from time to time, the "Credit Agreement"), pursuant to which the Lenders may, from time to time, make loans, advances, and other financial accommodations to or for the benefit of the Borrower;

WHEREAS, the Grantors (other than the Borrower) and the Agent have entered into a certain Guaranty dated as of the date hereof (as the same may be amended, restated, supplemented or otherwise modified from time to time, the "Guaranty"), pursuant to which such Grantors have agreed to guarantee all of the Secured Obligations upon the terms and conditions set forth therein;

WHEREAS, the Grantors and the Agent are parties to that certain Pledge and Security Agreement dated as of the date hereof (as the same may hereafter be modified, amended, restated or supplemented from time to time, the "Pledge and Security Agreement"), pursuant to which each Grantor has granted a security interest in substantially all of its assets to the Agent for the benefit of the Agent and the Holders of Secured Obligations; and

WHEREAS, the Lenders have required the Grantors to execute and deliver this Agreement (i) in order to secure the prompt and complete payment, observance and performance of all of (a) the Secured Obligations and (b) all of the obligations and liabilities of the Grantors (other than the Borrower) under the Guaranty (such obligations and liabilities, together with the Secured Obligations, being hereinafter referred to as the "Liabilities"), and (ii) as a condition precedent to the making of any loans, advances and any other financial accommodations by the Lenders under the Credit Agreement.

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

1. Defined Terms.

(i) Unless otherwise defined herein, each capitalized term used herein that is defined in the Credit Agreement shall have the meaning specified for such term in the Credit Agreement. Unless otherwise defined herein or in the Credit Agreement, each capitalized term used herein that is defined in the Pledge and Security Agreement shall have the meaning specified for such term in the Pledge and Security Agreement.

(ii) The words "hereof," "herein" and "hereunder" and words of like import when used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement, and section references are to this Agreement unless otherwise specified.

(iii) All terms defined in this Agreement in the singular shall have comparable meanings when used in the plural, and vice versa, unless otherwise specified.

2. Incorporation of Premises. The premises set forth above are incorporated into this Agreement by this reference thereto and are made a part hereof.

3. Security Interest in Patents. To secure the complete and timely payment, performance and satisfaction of all of the Liabilities, each Grantor hereby grants to the Agent, for the benefit of the Holders of Secured Obligations, a security interest in, as and by way of a first mortgage and security interest having priority over all other security interests (except any Lien permitted under Section 6.15 of the Credit Agreement), with power of sale to the extent permitted by applicable law, all of such Grantor's now owned or existing and hereafter acquired or arising:

(i) patents and patent applications, and the inventions and improvements described and claimed therein, including, without limitation, those patents and patent applications listed on Schedule A attached hereto and made a part hereof, and (a) the reissues, divisions, continuations, renewals, extensions and continuations-in-part thereof, (b) all income, royalties, damages and payments now and hereafter due and/or payable under and with respect thereto, including, without limitation, payments under all licenses entered into in connection therewith and damages and payments for past or future infringements thereof, (c) the right to sue for past, present and future infringements thereof, and (d) all of such Grantor's rights corresponding thereto throughout the world (all of the foregoing patents and applications, together with the items described in clauses (a)-(d) in this paragraph 3(i) are sometimes hereinafter individually and/or collectively referred to as the "Patents"); and

(ii) rights under or interests in any patent license agreements with any other party, whether such Grantor is a licensee or licensor under any such license agreement, including, without limitation, those patent license agreements listed on Schedule B attached hereto and made a part hereof, and after the occurrence and during the continuance of a Default the right to prepare for sale and sell any and all inventory now or hereafter owned by such Grantor and now or hereafter covered by such licenses (all of the foregoing are hereinafter referred to collectively as the "Licenses"). Notwithstanding the foregoing or anything herein or in any other Loan Document to the contrary, nothing

hereunder or thereunder constitutes or shall be deemed to constitute the grant of a security interest in favor of Agent or any Holder of Secured Obligations with respect to such Grantor's interest in any License, contract right, license agreement or any other general intangible (each such License, contract right, license agreement and other general intangible being hereinafter referred to as "Excluded Property"), if the granting of a security interest therein by such Grantor to Agent or any Holder of Secured Obligations is prohibited by the terms and provisions of the agreement, document or instrument creating, evidencing or granting a security interest in such Excluded Property or rights related thereto; provided, however, that if and when the prohibition which prevents the granting by such Grantor to Agent of a security interest in any Excluded Property is removed or otherwise terminated, the Agent will be deemed to have, and at all times to have had, a security interest in such Excluded Property.

4. Restrictions on Future Agreements. Except as otherwise permitted by the Credit Agreement, no Grantor shall, without the Agent's prior written consent, enter into any agreement, including, without limitation, any license agreement, which is inconsistent with this Agreement or the other Loan Documents, and each Grantor further agrees that it will not take any action, and will use all reasonable efforts not to permit any action to be taken by others, including, without limitation, licensees, or fail to take any action, which would in any respect affect the validity or enforcement of the rights transferred to the Agent under this Agreement or the rights associated with the Patents or Licenses.

5. New Patents and Licenses. Each Grantor represents and warrants that, as of the Closing Date, (i) the Patents listed on Schedule A include all of the patents and patent applications now owned or held by such Grantor, (ii) the Licenses listed on Schedule A include all of the patent license agreements under which such Grantor is the licensee or licensor and (iii) except for any Lien permitted by Section 6.15 of the Credit Agreement, no liens, claims or security interests in such Patents and Licenses have been granted by such Grantor to any Person other than the Agent. Each Grantor hereby authorizes the Agent to modify this Agreement unilaterally (i) by amending Schedule A to include any future patents and patent applications of such Grantor, and by amending Schedule B to include any future patent license agreement of such Grantor, which are Patents or Licenses under paragraph 3 above or under this paragraph 5, and (ii) by filing in the United States Patent and Trademark Office, in addition to and not in substitution for this Agreement, a duplicate original of this Agreement containing on Schedule A or B thereto, as the case may be, such future patents, patent applications and license agreements.

6. Royalties. Each Grantor hereby agrees that the use by the Agent of the Patents and Licenses as authorized hereunder in connection with the Agent's exercise of its rights and remedies to the extent expressly permitted under paragraph 14 or pursuant to the Pledge and Security Agreement after the occurrence of a Default shall be coextensive with such Grantor's rights thereunder and with respect thereto and without any liability for royalties or other related charges from the Agent or any other Holder of Secured Obligations to such Grantor.

7. Nature and Continuation of the Agent's Security Interest; Termination of the Agent's Security Interest. This Agreement is made for collateral security purposes only. This Agreement shall create a continuing security interest in the Patents and Licenses and shall

terminate only when the Liabilities have been paid in full and the Credit Agreement and the other Loan Documents have been terminated. When this Agreement has terminated, the Agent shall promptly execute and deliver to each Grantor, at such Grantor's expense, all termination statements and other instruments and take such other actions as may be necessary or proper to terminate the Agent's security interest in the Patents and the Licenses, subject to any disposition thereof which may have been made by the Agent pursuant to this Agreement or the Pledge and Security Agreement.

8. Duties of the Grantors. Each Grantor shall have the duty, to the extent reasonably necessary or otherwise desirable in the normal conduct of such Grantor's business, as determined in the reasonable discretion of such Grantor, to: (i) reasonably prosecute diligently any patent application that is part of the Patents pending as of the date hereof or hereafter until the termination of this Agreement, and (ii) apply for registration for unpatented but patentable inventions. Each Grantor further agrees (i) not to abandon any Patent or License, to the extent reasonably necessary or otherwise desirable in the normal conduct of such Grantor's business, as determined in the reasonable discretion of such Grantor, without the prior written consent of the Agent, which consent shall not be unreasonably withheld, and (ii) to use commercially reasonable efforts to maintain in full force and effect the Patents and the Licenses that are or shall be necessary or otherwise desirable, as determined in the Grantor's reasonable discretion, in the operation of such Grantor's business. Any expenses incurred in connection with the foregoing shall be borne by the applicable Grantor. Neither the Agent nor any of the Holders of Secured Obligations shall have any duty with respect to the Patents and Licenses. Without limiting the generality of the foregoing, neither the Agent nor any of the Holders of Secured Obligations shall be under any obligation to take any steps necessary to preserve rights in the Patents or Licenses against any other parties, but the Agent may do so at its option from and after the occurrence of a Default, and all reasonable expenses incurred in connection therewith shall be for the sole account of the applicable Grantor and shall be added to the Liabilities secured hereby.

9. The Agent's Right to Sue. Following the occurrence and during the continuance of a Default, the Agent shall have the right, but shall not be obligated, to bring suit in its own name to enforce the Patents and the Licenses and, if the Agent shall commence any such suit, each Grantor shall, at the request of the Agent, do any and all lawful acts and execute any and all proper documents reasonably required by the Agent in aid of such enforcement. The applicable Grantor shall, upon demand, promptly reimburse the Agent for all reasonable costs and expenses incurred by the Agent in the exercise of its rights under this paragraph 9 (including, without limitation, reasonable fees and expenses of attorneys and paralegals for the Agent).

10. Waivers. The Agent's failure, at any time or times hereafter, to require strict performance by any Grantor of any provision of this Agreement shall not waive, affect or diminish any right of the Agent thereafter to demand strict compliance and performance therewith nor shall any course of dealing between any Grantor and the Agent have such effect. No single or partial exercise of any right hereunder shall preclude any other or further exercise thereof or the exercise of any other right. None of the undertakings, agreements, warranties, covenants and representations of any Grantor contained in this Agreement shall be deemed to have been suspended or waived by the Agent unless such suspension or waiver is in writing

signed by an officer of the Agent and directed to the Grantor specifying such suspension or waiver.

11. Severability. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but the provisions of this Agreement are severable. If any clause or provision shall be held invalid and unenforceable in whole or in part in any jurisdiction, then such invalidity or unenforceability shall affect only such clause or provision, or part hereof, in such jurisdiction, and shall not in any manner affect such clause or provision in any other jurisdiction, or any other clause or provision of this Agreement in any jurisdiction.

12. Modification. This Agreement cannot be altered, amended or modified in any way, except as specifically provided in paragraph 5 hereof or by a writing signed by the parties hereto.

13. Cumulative Remedies; Power of Attorney. Following the occurrence and during the continuance of a Default, each Grantor hereby irrevocably designates, constitutes and appoints the Agent (and all Persons designated by the Agent in its sole and absolute discretion) as such Grantor's true and lawful attorney-in-fact, and authorizes the Agent and any of the Agent's designees, in such Grantor's or the Agent's name, to take any action and execute any instrument which the Agent may deem necessary or advisable to accomplish the purposes of this Agreement, including, without limitation, after the giving by the Agent of written notice to such Grantor of the Agent's intention to enforce its rights and claims against such Grantor, to (i) endorse such Grantor's name on all applications, documents, papers and instruments necessary or otherwise desirable for the Agent in the use of the Patents or the Licenses, (ii) assign, pledge, convey or otherwise transfer title in or dispose of the Patents or the Licenses to anyone on commercially reasonable terms, (iii) grant or issue any exclusive or nonexclusive license under the Patents or, to the extent permitted, under the Licenses, to anyone on commercially reasonable terms, and (iv) take any other actions with respect to the Patents or the Licenses as the Agent deems in its own or the Holders of Secured Obligations' best interest. Each Grantor hereby ratifies all that such attorney shall lawfully do or cause to be done by virtue hereof. This power of attorney is coupled with an interest and shall be irrevocable until all of the Liabilities shall have been paid in full and the Credit Agreement and the other Loan Documents shall have been terminated. Each Grantor acknowledges and agrees that this Agreement is not intended to limit or restrict in any way the rights and remedies of the Agent or the other Holders of Secured Obligations under the Pledge and Security Agreement, but rather is intended to facilitate the exercise of such rights and remedies.

The Agent shall have, in addition to all other rights and remedies given it by the terms of this Agreement, all rights and remedies allowed by law and the rights and remedies of a secured party under the Uniform Commercial Code as enacted in any jurisdiction in which the Patents or the Licenses may be located or deemed located. Upon the occurrence and during the continuance of a Default and the election by the Agent to exercise any of its remedies under the Uniform Commercial Code with respect to the Patents and Licenses, each Grantor agrees to assign, convey and otherwise transfer title in and to the Patents and the Licenses to the Agent or any transferee of the Agent and to execute and deliver to the Agent or any such transferee all



such agreements, documents and instruments as may be necessary, in the Agent's sole discretion, to effect such assignment, conveyance and transfer. All of the Agent's rights and remedies with respect to the Patents and the Licenses, whether established hereby, by the Pledge and Security Agreement, by any other agreements or by law, shall be cumulative and may be exercised separately or concurrently. Notwithstanding anything set forth herein to the contrary, it is hereby expressly agreed that upon the occurrence and during the continuance of a Default, the Agent may exercise any of the rights and remedies provided in this Agreement, the Pledge and Security Agreement and any of the other Loan Documents. Each Grantor agrees that any notification of intended disposition of any of the Patents and Licenses required by law shall be deemed reasonably and properly given if given at least thirty (30) days before such disposition.

Notwithstanding anything herein to the contrary, in no event shall the rights and remedies of Agent, any Holder of Secured Obligations or any of their respective designees or representatives, granted hereunder or any other Loan Document, be construed to permit any such Person to take any action or fail to act in violation of any law or the terms and conditions of any License or other agreement or document covering any of the collateral granted to the Agent hereunder.

14. Successors and Assigns. This Agreement shall be binding upon each Grantor and its successors and assigns, and shall inure to the benefit of each of the Holders of Secured Obligations and their respective nominees, successors and assigns. Each Grantor's successors and assigns shall include, without limitation, a receiver, trustee or debtor-in-possession of or for such Grantor; provided, however, except as otherwise permitted by the Credit Agreement, that no Grantor shall voluntarily assign or transfer its rights or obligations hereunder without the Agent's prior written consent.

15. Governing Law. This Agreement shall be construed in accordance with the internal laws of the State of New York.

16. Notices. All notices or other communications hereunder shall be given in the manner and to the addresses set forth in the Credit Agreement and the Pledge and Security Agreement.

17. Section Titles. The section titles herein are for convenience of reference only, and shall not affect in any way the interpretation of any of the provisions hereof.

18. Execution in Counterparts. This Agreement may be executed in any number of counterparts and by different parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement.

19. Merger. This Agreement represents the final agreement of each Grantor and the Agent with respect to the matters contained herein and may not be contradicted by evidence of prior or contemporaneous agreements, or subsequent oral agreements, between any Grantor and the Agent or any Holder of Secured Obligations.


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IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the day and year first above written.

HEADWATERS INCORPORATED, as Grantor

By   
Name: Steven G. Stewart  
Title: Chief Financial Officer

COVOL SERVICES CORPORATION,  
HEADWATERS CLEAN COAL CORP.,  
HEADWATERS HEAVY OIL, INC.,  
HEADWATERS NANOKINETIX, INC.,  
HEADWATERS OLYSUB CORPORATION,  
HEADWATERS TECHNOLOGY INNOVATION  
GROUP, INC.,  
HTI CHEMICAL SUBSIDIARY, INC.,  
HYDROCARBON TECHNOLOGIES, INC.,  
each as a Grantor

By   
Name: Nathan M. Hatfield  
Title: Vice President, General Counsel and Secretary

Signature Page to Patent Security Agreement

ACM GEORGIA, INC.,  
AMERICAN CONSTRUCTION MATERIALS,  
INC.,  
GLOBAL CLIMATE RESERVE  
CORPORATION,  
ISG LIBERTY, INC.,  
ISG RESOURCES, INC.,  
BEST MASONRY & TOOL SUPPLY, INC.,  
LEWIS W. OSBORNE, INC.,  
UNITED TERRAZZO SUPPLY CO., INC.,  
MAGNA WALL, INC.,  
ISG MANUFACTURED PRODUCTS, INC.,  
ISG PARTNER, INC.,  
ISG SERVICES CORPORATION,  
ISG SWIFT CRETE, INC.,  
DON'S BUILDING SUPPLY, L.P.,  
PALESTINE CONCRETE TILE COMPANY, L.P.,  
each as a Grantor

By 

Name: Brett A. Hickman

Title: Senior Vice President, General Counsel and  
Secretary

Signature Page to Patent Security Agreement

Accepted and agreed to as of the day and year first  
above written.

BANK ONE, NA, (MAIN OFFICE CHICAGO),  
as Agent

By:

  
Name: Tony C. Nielsen  
Title: First Vice President

Signature Page to Patent Security Agreement

**Schedule A**

**to**

**Patent Security Agreement**

**Dated as of March 31, 2004**

**Patents and Patent Applications**

**Schedule A to the  
Patent Security Agreement**

**REGISTERED PATENTS & PATENT APPLICATIONS**

<u>Grantor</u>	<u>Patent Titles</u>	<u>Country</u>	<u>Patent No.</u>	<u>Applic. No.</u>	<u>Filing Date</u>	<u>Issue Date</u>
ISG Resources, Inc.	Sludge Stabilizing Method & Apparatus	U.S.A.	5,040,900			08/20/91
ISG Resources, Inc.	Sludge Stabilizing Method & Apparatus	U.S.A.	4,943,165			07/24/90
ISG Resources, Inc.	Mixer Apparatus and Method of Blending Various Materials	U.S.A.	5,094,541			03/10/92
ISG Resources, Inc.	Artificial Reefs Manufactured from Coal Combustion By-Products	U.S.A.	5,199,377			04/06/93
ISG Resources, Inc.	Method & Apparatus for Reducing Carbon Content in Particulate Mixtures	U.S.A.	5,299,692			04/05/94
ISG Resources, Inc.	Asphaltic Roofing Material with Class F Fly Ash Filler	U.S.A.	5,391,417			02/21/95
ISG Resources, Inc.	Apparatus for Continuously Processing Particulate Cementitious Material & Fly Ash Solids, Etc.	U.S.A.	5,433,520			07/18/95
ISG Resources, Inc.	Use of Alumina Clay with Cement Fly Ash Mixtures	U.S.A.	5,693,137			01/16/96
ISG Resources, Inc.	Method & Apparatus for Reducing Carbon Content in Fly Ash	U.S.A.	5,513,755			05/07/96
ISG Resources, Inc.	Method of Making Asphaltic Roofing Material Containing Class F Fly Ash	U.S.A.	5,565,239			10/15/96
ISG Resources, Inc.	Ultrasonic & Conditioning & Wet Scrubbing of Fly Ash	U.S.A.	5,840,179			11/24/98

<u>Grantor</u>	<u>Patent Titles</u>	<u>Country</u>	<u>Patent No.</u>	<u>Applic. No.</u>	<u>Filing Date</u>	<u>Issue Date</u>
ISG Resources, Inc.	Ultrasonic Conditioning & Wet Fly Ash	U.S.A.	5,988,396			11/23/99
ISG Resources, Inc.	Asphaltic Roofing Material and Method with Fly Ash Filler	Canada	2,068,362		05/11/92	05/31/94
ISG Resources, Inc.	Use of Alumina Clay with Cement Fly Ash Mixtures	Australia	683,101		10/17/94	10/30/97
ISG Resources, Inc.	Ultrasonic Conditioning and Wet Scrubbing of Fly Ash	Mexico		9911702	12/14/99	
ISG Resources, Inc.	Masonry, Mortar and Stucco Cement Compositions	U.S.A.		10/088,291	03/14/02	
ISG Resources, Inc.	Masonry, Mortar and Stucco Cement Compositions	Canada	2,385,606			9/21/00
ISG Resources, Inc.	Fixation and Utilization of Ash Residue From the Incineration of Municipal Solid Waste	Canada		2,071,139	06/12/92	
ISG Resources, Inc.	Fixation and Utilization of Ash Residue from the Incineration of Municipal Solid Waste	U.S.A.	5,196,620			3/23/93
ISG Resources, Inc.	Control of Ammonia Emission from Ammonia-Laden Fly Ash in Concrete	Int'l		PCT US01/07207	03/07/01	
ISG Resources, Inc.	Control of Ammonia Emission from Ammonia Laden Fly Ash in Concrete	U.S.A.		10/130333	09/23/02	
ISG Resources, Inc.	Control of Ammonia Emission from Ammonia Laden Fly Ash in Concrete	European		01916439.1	03/07/01	
ISG Resources, Inc.	Ultrasonic Conditioning and Wet Scrubbing of Fly	Canada		2,292,634	06/17/98	

<u>Grantor</u>	<u>Patent Titles</u>	<u>Country</u>	<u>Patent No.</u>	<u>Applic. No.</u>	<u>Filing Date</u>	<u>Issue Date</u>
	Ash					
ISG Resources, Inc.	Fiber Reinforced Aerated Cellular Concrete and Methods of Making Same	U.S.A.		09/871,089	05/31/01	
ISG Resources, Inc.	Method for Accelerating Setting of Cement and the Compositions Produced Therefrom	U.S.A.		10/228,008	8/26/02	
ISG Resources, Inc.	Method for Delaying the Set Time of Cement and the Compositions Produced Therefrom	U.S.A.		10/228,009	08/24/01	
ISG Resources, Inc.	Reduction of Ammonia in Flue Gas and Fly Ash	U.S.A.		60/375,550	04/24/02	
ISG Resources, Inc.	Cementitious Mixtures and Methods of Use Thereof	U.S.A.		60/475,594	06/04/03	
Headwaters Incorporated	Reclaiming and Utilizing Discarded and Newly formed Coke Breeze, Coal Fines, and Blast Furnace Revert Materials and Related Methods	U.S.A.	5,453,103			09/26/95
Headwaters Incorporated	Reclaiming and Utilizing Discarded and Newly formed Coke Breeze, Coal Fines, and Blast Furnace Revert Materials and Related Methods	U.S.A.	5,487,764			01/30/96
Headwaters Incorporated	Process for Recovering Iron from Iron-Containing Material	U.S.A.	5,589,118			12/31/96
Headwaters Incorporated	Reclaiming and Utilizing Discarded and Newly formed Coke Breeze, Coal	U.S.A.	5,599,361			02/04/97



<u>Grantor</u>	<u>Patent Titles</u>	<u>Country</u>	<u>Patent No.</u>	<u>Applic. No.</u>	<u>Filing Date</u>	<u>Issue Date</u>
	Fines, and Blast Furnace Revert Materials and Related Methods					
Headwaters Incorporated	Process for Recovering Iron from Iron-Containing Material	U.S.A.	5,738,694			04/14/98
Headwaters Incorporated	Blast Furnace Fuel From Reclaimed Carbonaceous Materials and Related Methods	U.S.A.	5,752,993			05/19/98
Headwaters Incorporated	Process for Reduction of Iron with Solid Fuel Objects as Amended by Exam	U.S.A.	5,807,420			09/15/98
Headwaters Incorporated	Process of Coal Agglomeration	U.S.A.	5,238,629			08/24/93
Headwaters Incorporated	Process for Recovering Iron From Iron-Rich Matl	U.S.A.	5,922,261			07/13/99
Hydrocarbon Technologies, Inc.	Method for the Removal of Volatile Organic Compounds from Water	U.S.A.	5,190,668			03/02/93
Hydrocarbon Technologies, Inc.	One Step Carboxylic Acid Production Process	U.S.A.	5,210,319			03/11/93
Hydrocarbon Technologies, Inc.	Process for Co-Recycling Tires and Oil	U.S.A.	5,389,691			02/14/95
Hydrocarbon Technologies, Inc.	Process for Co-Recycling Tires and Oil	U.S.A.	5,470,384			11/28/95
Hydrocarbon Technologies, Inc.	Process for Co-Recycling Tires and Oil	U.S.A.	5,735,948			04/07/98
Hydrocarbon Technologies, Inc.	Supported Catalyst and Process for Catalytic Oxidation of Volatile Organic Compounds	U.S.A.	5,851,948			12/22/98
Hydrocarbon Technologies,	Dispersed Anion-Modified Iron Oxide	U.S.A.	5,866,501	08/609759	02/23/96	02/02/99

<u>Grantor</u>	<u>Patent Titles</u>	<u>Country</u>	<u>Patent No.</u>	<u>Applic. No.</u>	<u>Filing Date</u>	<u>Issue Date</u>
Inc.	Catalysts for Hydroconversion Process					
Hydrocarbon Technologies, Inc.	Dispersed Anion-Modified Phosphorus-Promoted Iron Oxide Catalysts	U.S.A.	5,871,638	08/742541	11/01/96	02/16/99
Hydrocarbon Technologies, Inc.	Iron-Based Ionic Liquid Catalyst for Hydroprocessing Carbonaceous Feeds	U.S.A.	6,139,723	09/238310	01/28/99	10/31/00
Hydrocarbon Technologies, Inc.	Catalyst and Process for Direct Catalytic Production of Hydrogen Peroxide	U.S.A.	6,168,775	09/140265	08/26/98	01/02/01
Hydrocarbon Technologies, Inc.	Catalytic Multi-Stage Hydrogenation of Hydrocarbon Feed Materials	U.S.A.	6,190,542	09/241505	02/01/99	02/20/01
Hydrocarbon Technologies, Inc.	Catalytic Hydroconversion of Chemically Digested Organic-Municipal Solid Waste Materials	U.S.A.	6,270,655	09/533300	03/22/00	08/07/01
Hydrocarbon Technologies, Inc.	Skeletal Iron Catalyst and Its Preparation for Fischer-Tropsch Synthesis Processes	U.S.A.	6,265,451	09/399853	09/21/99	07/24/01
Hydrocarbon Technologies, Inc.	Skeletal Iron Catalyst Having Improved Attrition Resistance and Product Selectivity in Slurry-Phase Synthesis Processes	U.S.A.	6,277,895	09/399852	09/21/99	08/21/01
Hydrocarbon Technologies, Inc.	Catalytic Multi-Stage Process for Hydroconversion and Refining Hydrocarbon Feeds	China		00130567.0	09/28/00	
Hydrocarbon Technologies, Inc.	"Dispersed Anion-Modified Phosphorus-Promoted Iron Oxide Catalysts"	China		98122746.5	11/30/98	

<u>Grantor</u>	<u>Patent Titles</u>	<u>Country</u>	<u>Patent No.</u>	<u>Applic. No.</u>	<u>Filing Date</u>	<u>Issue Date</u>
Hydrocarbon Technologies, Inc.	Catalytic oxidation of volatile organic compounds	U.S.A.	5,851,948	08/700201	08/20/96	12/22/98
Hydrocarbon Technologies, Inc.	Treating Municipal Solid Waste for Producing Hydrocarbon Fuel Products	U.S.A.	6,000,639	09/099981	06/19/98	12/14/99
Hydrocarbon Technologies, Inc.	"Dispersed Anion-Modified Phosphorus-Promoted Iron Oxide Catalysts"	Hong Kong		00105424.5	08/30/00	
Hydrocarbon Technologies, Inc.	Method for the Removal of Volatile Organic Compounds from Water	Canada		2,120,364	09/29/92	
Hydrocarbon Technologies, Inc.	One Step Carboxylic Acid Production Process	Canada		2,102,119	03/01/93	
Hydrocarbon Technologies, Inc.	Catalyst and Process for Oxidative Removal of NO <sub>x</sub> from Combustion Gases	U.S.A.		10/038,120	11/09/01	
Hydrocarbon Technologies, Inc.	Catalyst and Process for Oxidative Removal of NO <sub>x</sub> from Combustion Gases	U.S.A.	Abandoned	09/225082	01/04/99	
Hydrocarbon Technologies, Inc.	Regeneration of Used Supported Noble Metal Catalysts	U.S.A.		09/745,510	12/22/00	
Hydrocarbon Technologies, Inc.	Separation of Fischer-Tropsch Catalyst from Liquid/Wax Products	U.S.A.	6,476,086	09/825,802	04/04/01	11/05/02
Hydrocarbon Technologies, Inc.	Process for Selective Oxidation of Organic Feed Stocks with Hydrogen Peroxide	U.S.A.	6,500,968	09/733,154	12/08/00	12/31/02
Hydrocarbon Technologies, Inc.	Integrated Process and Dual-Functional Catalyst for Olefin Epoxidation	U.S.A.	6,532,661	09/996,920	11/30/01	03/18/03
Hydrocarbon	Stable Carbonous	U.S.A.		10/014,955	12/11/01	

<u>Grantor</u>	<u>Patent Titles</u>	<u>Country</u>	<u>Patent No.</u>	<u>Applic. No.</u>	<u>Filing Date</u>	<u>Issue Date</u>
Technologies, Inc.	Catalyst Particles and Method for Making and Using Same					
Hydrocarbon Technologies, Inc.	Catalytic Direct Production of Hydrogen Peroxide from Hydrogen and Oxygen Feeds	U.S.A.	6,576,214	09/867,190	05/29/01	06/10/03
Hydrocarbon Technologies, Inc.	Integrated Hydrogen Peroxide Production and Organic Chemical Oxidation	U.S.A.	6,500,969	10/014,068	12/11/01	12/31/02
Hydrocarbon Technologies, Inc.	Catalytic Hydrogenation of Digested Municipal Solid Waste Material	U.S.A.	Abandoned	09/099982	06/19/98	
Hydrocarbon Technologies, Inc.	Catalyst Particles with Controlled Coordination Number - PCT	U.S.A.		02/32622	10/11/02	
Hydrocarbon Technologies, Inc.	Promoted Skeletal Iron Catalyst for Slurry-Phase Fischer-Tropsch Synthesis	U.S.A.		10/107,915	03/27/02	
Hydrocarbon Technologies, Inc.	Supported Noble Metal Catalyst Particles Containing Controlled (111) Crystal Face Exposure	U.S.A.		10/066,289	01/31/02	
Hydrocarbon Technologies, Inc.	Method for the Production of Percarboxylic Acids	U.S.A.	Abandoned	60/387,751	Provisional appl. Filed 06/11/02	
Hydrocarbon Technologies, Inc.	Integrated Process for the Production of Hydrocarbon Liquids and Ammonia	U.S.A.	6,586,480	10/212,534	08/01/02	07/01/03
Hydrocarbon Technologies, Inc.	Catalyst Particles With Controlled Coordination Number	U.S.A.	Abandoned	10/205,881	07/26/02	
Hydrocarbon Technologies, Inc.	Supported solid superacid catalysts and method for making	U.S.A.	Possibly Abandoned	08/559,819	11/17/95	

<u>Grantor</u>	<u>Patent Titles</u>	<u>Country</u>	<u>Patent No.</u>	<u>Applic. No.</u>	<u>Filing Date</u>	<u>Issue Date</u>
Hydrocarbon Technologies, Inc.	Regeneration of spent supported metal catalysts	U.S.A.		10/326,042	12/20/02	
Hydrocarbon Technologies, Inc.	Olefin Epoxidation with Dual Functional Catalyst -PCT	Not assigned yet		PCT/US02/29644	09/19/02	
Hydrocarbon Technologies, Inc.	Organic chemical oxidation during Hydroperoxide production-PCT	Not assigned yet		PCT/US02/32623	10/11/02	
Hydrocarbon Technologies, Inc.	Catalytic direct production of hydrogen peroxide from hydrogen and oxygen fees	U.S.A.		10/431,693	05/07/03	
Hydrocarbon Technologies, Inc.	Catalysts having controlled (111) crystal face exposure-PCT	Not assigned yet		PCT/US02/32326	10/09/02	
Hydrocarbon Technologies, Inc.	Hydrogen peroxide production using catalyst particles with controlled surface coordination	U.S.A.	Possibly Abandoned	10/357573	02/05/03	
Hydrocarbon Technologies, Inc.	Apparatus for Hydrocracking and/or Hydrogmatting Fossil Fuels - PCT	U.S.A.		02/36509	11/13/02	
Hydrocarbon Technologies, Inc.	Slurry-phase skeletal Iron catalyst process for synthesis gas conversion to hydrocarbon	U.S.A.		10/267,236	10/08/02	
Hydrocarbon Technologies, Inc.	Catalyst Particles with controlled Surface Coordination Number-PCT	Not assigned yet		PCT/US03/09052	03/25/03	
Hydrocarbon Technologies, Inc.	Apparatus for Hydrocracking and/or Hydrogenating Fossil Fuels	U.S.A.		10/225,937	08/22/02	
Hydrocarbon Technologies, Inc.	Direct hydrogen peroxide production using staged hydrogen addition	U.S.A.		10/401,351	03/28/03	

<u>Grantor</u>	<u>Patent Titles</u>	<u>Country</u>	<u>Patent No.</u>	<u>Applic. No.</u>	<u>Filing Date</u>	<u>Issue Date</u>
Hydrocarbon Technologies, Inc.	Improved Direct Hydrogen Peroxide Production Process- Provisional	U.S.A.		60/491,202	07/29/03	
Hydrocarbon Technologies, Inc.	Additive for Direct Catalytic Hydrogen Peroxide Production- Provisional	U.S.A.		60/491,144	07/29/03	
Hydrocarbon Technologies, Inc.	Intermediate precursor compositions used to make supported catalysts having a controlled coordination structure and methods for preparing such compositions	U.S.A.		10/618,909	07/14/03	
Hydrocarbon Technologies, Inc.	Supported Catalysts having a Controlled Coordination Structure and Methods for preparing Such Catalysts (CIP)	U.S.A.		10/618,808	07/14/03	
Hydrocarbon Technologies, Inc.	Supported Noble Metal Catalyst and Method for making It - Provisional	U.S.A.		60/491,203	07/29/03	
Hydrocarbon Technologies, Inc.	Supported Noble Metal Catalyst and Method for making It - Provisional	U.S.A.		60/491,146	07/29/03	
Hydrocarbon Technologies, Inc.	Hydrogen peroxide production using staged hydrogen addition - PCT	U.S.A.		03/13907	05/06/03	

**Schedule B**

**to**

**Patent Security Agreement**

**Dated as of March 31, 2004**

**License Agreement**

**Schedule B to the  
Patent Security Agreement**

**LICENSE AGREEMENTS**

**(1) Headwaters Licenses**

<i>Licensor</i>	<i>Licensee(s)</i>	<i>License</i>	<i>Term</i>
Headwaters	Adtech, Inc. / Carbontech	Coal Enhancement Licensing Agreement	
Headwaters	AJG Financial Services, Inc.	Agreement Concerning Additional Facilities	January 1, 2008 or the corresponding date under section 29 in the event of an extension.
Headwaters	Appalachian Synfuel, LLC	License Agreement	December 31, 2007 (licensee has the option extend until the earlier of 2015 or the expiration of the patents).
Headwaters	Clintwood Elkhorn Mining Company	Amended and Restated License and Reagent Purchase Agreement	The later of either December 31, 2007, the end of Section 29, or the expiration of the patents.
Headwaters	Coalescent Energy, LLC	Proprietary Reagent Supply Agreement	December 31, 2007 or expiration of Section 29.
Headwaters	Coaltech Utah Synfuel #1 LTD	License and Binder Supply Agreement	The later of December 31, 2007 or the end of Section 29 as it may be amended.
Headwaters	CoBon Energy, LLC  Central City Synfuel, LLC	PBS Additional License Agreement; and  Second Amended and Restated Sublicense Agreement and Binder Purchase and Sale Agreement	The later of December 31, 2007 or the extension period for Section 29.
Headwaters	DTE Buckeye, LLC	Proprietary Reagent Supply and License Agreement	December 31, 2007
Headwaters	DTE Clover, LLC	Proprietary Reagent Supply and License Agreement	December 31, 2007
Headwaters	DTE Energy Services, Inc.	Proprietary Binder Supply and License Agreement	
Headwaters	DTE Red Mountain, LLC	License and Binder Purchase Agreement	The later of either December 31, 2007, the end of Section 29, or the expiration of the patents.



<b>Licensor</b>	<b>Licensee(s)</b>	<b>License</b>	<b>Term</b>
Headwaters	DTE River Hill, LLC	License and Binder Purchase Agreement	The later of either December 31, 2007, the extension period for Section 29, or the expiration of the patents.
Headwaters	DTE Smith Branch, LLC	Amended and Restated Proprietary Reagent Supply and License Agreement	December 31, 2007
Headwaters	DTE Utah Synfuels, LLC	License and Binder Purchase Agreement	The later of either December 31, 2007, the full term of Section 29, or the expiration of the patents.
Headwaters	Environmental Technologies Group, LLC	Technology License and Reagent Supply Agreement	December 31, 2007 or until Section 29 ends.
Headwaters	Iris Energy, LLC	Proprietary Chemical Reagent Supply Agreement	Either the earlier or later of December 31, 2007 or until Section 29 expires.
Headwaters	Marriott International, Inc. (Birmingham)	License and Binder Purchase Agreement	January 1, 2008 or the corresponding date under section 29 in the event of an extension.
Headwaters	Marriott International, Inc. (Brookwood)	License and Binder Purchase Agreement	January 1, 2008 or the corresponding date under section 29 in the event of an extension.
Headwaters	Marriott International, Inc. (PC1 & PC2)	License and Binder Purchase Agreement	January 1, 2008 or the corresponding date under section 29 in the event of an extension.
Headwaters	PC Virginia Synthetic Fuel #1, LLC	Amended and Restated License and Binder Purchase Agreement	January 1, 2008 or the corresponding date under section 29 in the event of an extension, whichever is later.
Headwaters	PC West Virginia Synthetic Fuel #1, LLC	Amended and Restated License and Binder Purchase Agreement	January 1, 2008 or the corresponding date under section 29 in the event of an extension, whichever is later.
Headwaters	PC West Virginia Synthetic Fuel #2, LLC	Amended and Restated License and Binder Purchase Agreement	January 1, 2008 or the corresponding date under section 29 in the event of an extension, whichever is later.
Headwaters	PC West Virginia Synthetic Fuel #3, LLC	Amended and Restated License and Binder Purchase Agreement	January 1, 2008 or the corresponding date under section 29 in the event of an extension, whichever is later.
Headwaters	Pelletco Corporation	Amended and Restated License Agreement	To the earlier of December 31, 2015 or the expiration of the last patent.
Headwaters	Premier Elkhorn Coal Company	Amended and Restated License and Reagent Purchase Agreement	The later of either December 31, 2007, the end of Section 29, or the expiration of the patents.

<i>Licensor</i>	<i>Licensee(s)</i>	<i>License</i>	<i>Term</i>
Headwaters	RC Synfuel LLC	Technology License Agreement	December 31, 2007 or expiration of Section 29.
Headwaters	RC Synfuel LLC	Proprietary Reagent Supply Agreement	December 31, 2007 or expiration of Section 29.

(2) HTIG Licenses

<i>Licensor</i>	<i>Licensee</i>	<i>License</i>	<i>Term</i>
Alberta Research Council	Headwaters Technology Innovation Group, Inc.	License Agreement	March 31, 2007
Hydro Dynamics, Inc.	Headwaters Technology Innovation Group, Inc.	Technology License and Joint Development Agreement	June 11, 2007
Lyondell Chemical Company	Headwaters Technology Innovation Group, Inc.	Sublicense	March 3, 2015
Shenhua Group Corporation, Ltd.	Headwaters Technology Innovation Group, Inc.	License Agreement	Ongoing.
Zibo Taiguang Chemical	Headwaters Technology Innovation Group, Inc.	Technology License	Life of patents.

(3) ISG Licenses

<i>Licensor</i>	<i>Licensee</i>	<i>License</i>	<i>Term</i>
Dynastone, L.C.	ISG Resources, Inc.	License Agreement	Life of patent.
ISG Resources, Inc.	Midland Products, Inc.	Sublicense Agreement	Life of the patent.
ISG Resources, Inc.	Hansen Pipe & Products, Inc.	Sublicense Agreement	Life of patent.
Magna Wall, Inc.	Acrocrete, Inc.	License Agreement	April 6, 2009
Mainland Laboratory, Ltd.	ISG Resources, Inc.	License Agreement	Life of patent.
Thermoflex, Inc.	ISG Resources, Inc.	License Agreement	Life of the patent.
William D. Kirkpatrick Family Limited Partnership	ISG Resources, Inc.	License Agreement	Life of patent.

(4) Special Corporate Software Licenses

<i>Licensor</i>	<i>Licensee</i>	<i>License</i>	<i>Term</i>
CIS	ISG Resources, Inc.	Scale Management System (used for billing loads of flyash)	
Kampdata	ISG Resources, Inc.	Quantum Cargo (3 <sup>rd</sup> party module for Great Plains)	
Radss Technologies	ISG Resources, Inc.	Trainspotter Rail Tracking System and BOL (rail tracking software used by Transportation Dept.)	