RECORDATION FORM COVER SHEET ${\bf PATENTS}$ ${\bf ONLY}$

Atty Ref/Docket No.: 3391.009US1 Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please		
Name of conveying parties:	2. Name and address of receiving party:	
Xionghou Gao, Dong Ji, Haitao Zhang, Hongchang Duan, Di Li, ZhengGuo Tan, Yi Su, Chenxi Zhang, Yi Wang, Yanqing Ma, Yanbo Sun	Name: PetroChina Company Limited	
	Street Address: No. 9 Dongzhimen North Street Dongcheng District	
Additional name(s) of conveying party(ies) attached?	City: Beijing, 100007 Country: China	
[]Yes [X]No	Additional name(s) & address(es) attached? []Yes	
3. Nature of conveyance:	[X]No	
[X] Assignment [] Merger		
[] Security Agreement[] Change of Name		
[] Other		
Execution Date: May 23, 2012, May 23, 2012		
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.	B. Patent No.(s)	
Serial No. 13/505,224, filed April 30, 2012		
Additional numbers attached? []Yes [X]No		
5. Name and address of party to whom correspondence	6. Total number of applications and patents involved: 1	
concerning document should be mailed:	7. Total fee (37 CFR 3.41):\$ <u>40.00</u>	
Name: Monique M. Perdok Shonka	[]Enclosed	
Address:	[X]Authorized to be charged to deposit account 19-0743	
Schwegman, Lundberg & Woessner, P.A. P.O. Box 2938		
Minneapolis, MN 554020938	8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743	
DO NOT USE THIS SPACE		
9. Statement and signature. To the best of my knowledge and belief, the foregoing informat of the original document.	ion is true and correct and any attached copy is a true copy	
Monique M. Perdok Shonka/Reg. No. 42,989 / Worugus J.	1. Paduk Shonka / November 1, 2012	
Name of Person Signing	Signature Date	
Total 1	number of pages including cover sheet: 14	
Mail documents to be recorded with required cover sheet inform	nation to:	

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Attorney Docket No. 3391.009US1 Client Ref. No. 720027CPUS

ASSIGNMENT

WHEREAS, Xionghou Gao, Dong Ji, Haitao Zhang, Hongchang Duan, Di Li, ZhengGuo Tan, Yi Su, Chenxi Zhang, Yi Wang, Yanqing Ma, Yanbo Sun (hereinafter the "Undersigned") have made one or more inventions and other subject matter (hereinafter collectively referred to as the "invention") which are described in a patent application filed on <u>April 30, 2012</u>, which application was assigned US patent application serial number <u>13/505,224</u>, and which is titled <u>MODIFIED MOLECULAR SIEVE CHARACTERIZED BY IMPROVED SODIUM-RESISTING CONTAMINATION ACTIVITY AND PREPARATION METHOD THEREOF; which are described in a patent application filed on December 1, 2009, which application was assigned PCT application serial number PCT/CN2009/001352, and which is titled MODIFIED MOLECULAR SIEVE CHARACTERIZED BY IMPROVED SODIUM-RESISTING CONTAMINATION ACTIVITY AND PREPARATION METHOD THEREOF; which are described in a patent application filed on October 30, 2009, which application was assigned CN application serial number 200910237006.X, and which is titled MODIFIED MOLECULAR SIEVE CHARACTERIZED BY IMPROVED SODIUM-RESISTING CONTAMINATION ACTIVITY AND PREPARATION METHOD THEREOF.</u>

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged by the Undersigned, the Undersigned do hereby irrevocably and unconditionally:

CONVEY, ASSIGN, AND TRANSFER to PetroChina Company Limited (the "Assignee"), a corporation of the country of China, having a place of business at No. 9 Dongzhimen North Street, Dongcheng District, Beijing 100007, China, the Undersigned's entire right, title, and interest for the United States and all foreign countries and jurisdictions in and to:

the Invention which is disclosed in the above-identified application or applications;

such application or applications, and all divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other applications for a patent or patents which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries and jurisdictions based in whole or in part on any of such Invention (including any application for a utility model or an innovation patent application);

all original and reissued patents which have been or shall be issued in the United States and all foreign countries and jurisdictions based in whole or in part on any of such invention;

including the right to claim priority to the above-identified patent application or applications in relation to subject matter based in whole or in part on the above-identified patent application or applications and any of the foregoing including the right to file foreign applications under the provisions of any convention or treaty;

and including the right to all causes of action, remedies, and other enforcement rights related to the above-identified application or applications, including without limitation the right to sue for past, present, or future infringement, misappropriation, or violation of any and all rights related to the above-

Assignment Docket No: 3391.069US1
Assignors: Xionghou Gao et al. Client Ref. No. 720027CPUS
Title: MODIFIED MOLECULAR SIEVE CHARACTERIZED BY IMPROVED SODIUM-RESISTING CONTAMINATION ACTIVITY
AND PREPARATION METHOD THEREOF

Page 2 of 13

identified patent application or applications and any of the foregoing, including the right to obtain and collect damages for past, present, or future infringement;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such Invention to the Assignee;

AUTHORIZE AND REQUEST that any attorney associated with U.S. Patent and Trademark Office (USPTO) Customer No. 21186 may (directly or through his/her designee) delete, insert, or alter any information related to the above-identified patent application or applications or any of the foregoing, after execution of this Assignment;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or shall be made to others by the Undersigned, and that the full right to convey the same as herein expressed is possessed by the Undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the Undersigned shall (1) execute all provisional, non-provisional, divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other patent applications for the Invention; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers for the Invention; (3) communicate to the Assignee all facts known to the Undersigned relating to the Invention and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for the Invention; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such Invention in the Assignee, or for securing, maintaining and enforcing proper patent protection for the Invention;

COVENANT, that should any provision of this agreement be held unenforceable by an authority of competent jurisdiction, such a ruling shall not affect the validity and enforceability of the remaining provisions. To the extent that any such provision is found to be unenforceable, the Undersigned, when requested and without compensation shall act in good faith to substitute for such provision a new provision with content and purpose as close as possible to the provision deemed unenforceable.

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives, and successors of the Undersigned, and is to extend to the benefit of the successors, assigns, and nominees of the Assignee.

AGREED as of the date of my signature below:

Assignment Assignors: Xionghou Gao et al. Title: MODIFIED MOLECULAR SIEVE CHARACTER AND PREPARATION METHOD THEREOF Page 3 of 13	Docket No: 3391.009U Client Ref. No. 720027CP RIZED BY IMPROVED SODIUM-RESISTING CONTAMINATION ACTIVITY
Assignor:	
(Signature): Vionghon G	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Name: Xionghou Gao	
Date: 2012.5.23	
<u>Gao,</u> to me known and known to me to be	before me personally appeared <u>Xionghou</u> the person described in and who executed the foregoing ed to me that he/she executed the same for the uses and
	jn) ie zhao
	Witness

Assignment Assignors: Xionghou Gao et al. Client Ref. No. 720027CPUS Title: MODIFIED MOLECULAR SIEVE CHARACTERIZED BY IMPROVED SODIUM-RESISTING CONTAMINATION ACTIVITY AND PREPARATION METHOD THEREOF Page 4 of 13
Assignor:
(Signature): Name: Dong Ji
Date: 2012.5.23
On this
jinjie zhao Witness

Assignment Docket No: 3391,009US1 Assignors: Xionghou Gao et al. Client Ref. No. 720027CPUS Title: MODIFIED MOLECULAR SIEVE CHARACTERIZED BY IMPROVED SODIUM-RESISTING CONTAMINATION ACTIVITY AND PREPARATION METHOD THEREOF
Page 5 of 13
Assignor:
(Signature): Haiten 2hang
Name: <u>Haitao Zhang</u>
Date: 7017-5-23
On this day of
<u>Zhang,</u> to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and
purposes therein set forth.
jinjik zhao
Witness

Assignment Assignment Docket No: 3391,009US1 Assignment Client Ref. No. 720027CPUS Title: MODIFIED MOLECULAR SIEVE CHARACTERIZED BY IMPROVED SODIUM-RESISTING CONTAMINATION ACTIVITY AND PREPARATION METHOD THEREOF Page 6 of 13	
Assignor:	
(Signature): Hong Chang Duan	
Name: <u>Hongchang Duan</u>	
Date: 2012.5.23	
On this	
jinjie zhao	
Witness	

Assignment Assignors: Xionghou Gao et al. Title: MODIFIED MOLECULAR SIEVE CHAR. AND PREPARATION METHOD THEREOF Page 7 of 13	Docket No: 3391,009US Client Ref. No. 720027CPU ACTERIZED BY IMPROVED SODIUM-RESISTING CONTAMINATION ACTIVITY
Assignor:	
(Signature): Dì Lì	
Name: <u>Di Li</u>	
Date: 2012 . 5 - 23	
known and known to me to be the pe	///// , 20 / 2 before me personally appeared <u>Di Li</u> , to me erson described in and who executed the foregoing instrument, and at he/she executed the same for the uses and purposes therein set
	jinjie zhoo
	Witness

Assignment Assignors: Xionghou Gao et al. Title: MODIFIED MOLECULAR SIEVE CHARACTERIZED BY II AND PREPARATION METHOD THEREOF	Docket No: 3391,009U; Client Ref. No. 720027CPI MPROVED SODIUM-RESISTING CONTAMINATION ACTIVITY
Page 8 of 13	
Assignor:	
(Signature): Theny Tour	
Name: ZhengGuo Tan	
Date: 2012, 5, 23	
On this 23 day of May	, 20 / 2 before me personally appeared ZhengGuo
Tan, to me known and known to me to be the person instrument, and he/she duly acknowledged to me to purposes therein set forth.	on described in and who executed the foregoing
Mandamini mining dan manan	jihjie zhao
	Witness

Assignment Assignors: Xionghou Gao et al. Title: MODIFIED MOLECULAR SIEVE CHAI AND PREPARATION METHOD THEREOF Page 9 of 13	Docket NO; 3391,00905 Client Ref. No. 720027CPU RACTERIZED BY IMPROVED SODIUM-RESISTING CONTAMINATION ACTIVITY
Assignor:	
(Signature): Y; Su	
Name: <u>Yi Su</u>	
Date: 2012 . 5 , 23	
known and known to me to be the p	person described in and who executed the foregoing instrument, and hat he/she executed the same for the uses and purposes therein set
	jinjie zhop
	Witness

Assignment Docket No: 3391,009US1 Assignors: Xionghou Gao et al. Client Ref. No. 720027CPUS Fille: MODIFIED MOLECULAR SIEVE CHARACTERIZED BY IMPROVED SODIUM-RESISTING CONTAMINATION ACTIVITY AND PREPARATION METHOD THEREOF Page 10 of 13
Assignor:
Signature): Chen Xi, Though, Name: Chenxi Zhang
Date: 7012, 5.73
On this day of, 20_/2_before me personally appeared <u>Chenxi</u> <u>Chang</u> , to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.
inile zhao
jinjie zhao Witness

Assignment Assignors: Xionghou Gao et al. Title: MODIFIED MOLECULAR SIEVE CHARAC' AND PREPARATION METHOD THEREOF Page 11 of 13	Docket No: 3391.009US1 Client Ref. No. 720027CPUS TERIZED BY IMPROVED SODIUM-RESISTING CONTAMINATION ACTIVITY
Assignor:	
(Signature): Yi Wang	
Name: Yi Wang	
Date: 20(2, 5, 2)	_
me known and known to me to be the p	herson described in and who executed the foregoing instrument, at he/she executed the same for the uses and purposes therein
	jinjæ zhoo
	Witness

Assignment Assignors: Xionghou Gao et al. Title: MODIFIED MOLECULAR SIEVE CHARA- AND PREPARATION METHOD THEREOF Page 12 of 13	Docket No: 3391.009US1 Client Ref. No. 720027CPUS CTERIZED BY IMPROVED SODIUM-RESISTING CONTAMINATION ACTIVITY
Assignor:	
(Signature): Yanging Ma Name: Yanging Ma	19 Notes and the Control of Management of the Control of the Contr
Date: <u>ンペレ、5、 ン</u> ろ	
<u>Ma,</u> to me known and known to me to	be the person described in and who executed the foregoing dged to me that he/she executed the same for the uses and
	jinjie Zhao
	Witness

Assignment Assignors: Xionghou Gao et al. Title: MODIFIED MOLECULAR SIEVE CHARACTERIZED BY IMPROVED S AND PREPARATION METHOD THEREOF Page 13 of 13	Docket No: 3391.009US1 Client Ref. No. 720027CPUS ODIUM-RESISTING CONTAMINATION ACTIVITY
Assignor:	
(Signature): Yanbo Shh	
Name: <u>Yanbo Sun</u>	
Date: 2012 5. 23	
On this day of May 20/2 to me known and known to me to be the person described in	before me personally appeared <u>Yanbo Sun.</u>
instrument, and he/she duly acknowledged to me that he/sh purposes therein set forth.	
<u> </u>	njie zhoo
Witr	ness