

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	DAVID JOHNSEN	10/25/2016
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	MARKWEST ENERGY PARTNERS, L.P.	
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<b>PROPERTY NUMBERS Total: 1</b>		
	<b>Property Type</b>	<b>Number</b>
	Application Number:	16003250
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<b>Fax Number:</b>		
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<b>ATTORNEY DOCKET NUMBER:</b>	019561.000075	
<b>NAME OF SUBMITTER:</b>	JEFFREY S. WHITTLE	
<b>SIGNATURE:</b>	/Jeffrey S. Whittle/	
<b>DATE SIGNED:</b>	06/08/2018	
<b>Total Attachments: 3</b>		
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**ASSIGNMENT**

WHEREAS, I, David Johnsen (hereafter "Assignor"), a citizen of the United States of America, am the sole inventor of a SYSTEM, METHOD, AND APPARATUS FOR DETERMINING AIR EMISSIONS DURING PIG RECEIVER DEPRESSURIZATION for United States Letters Patent No. 62/351,852 which was filed on June 17, 2016, and for which a second application for United States Letters Patent under a similar title also is filed herewith; and

WHEREAS, MarkWest Energy Partners, L.P., with a business address of 1515 Arapahoe Street, Tower 1, Suite 1600, Denver, CO 80202 (hereafter "Assignee"), is desirous of acquiring the entire right, title, and interest in and to the aforesaid inventions throughout the world, and all right, title, and interest in, to and under any and all Letters Patent of the United States and all other countries throughout the world;

NOW, THEREFORE, be it known that, for good and valuable consideration, the adequacy, receipt, and legal sufficiency of which from Assignee are each hereby acknowledged, I, as Assignor, sell, assign, transfer, and set over to Assignee, all right, title, and interest in and to the said inventions throughout the world, and said application for U.S. Letters Patent, and any and all additional provisionals, non-provisionals, divisions, continuations, continuations-in-part, reissues, extensions, reexaminations, post-grant proceeding, derivations, or other inter-parties review proceedings thereof, and any and all Letters Patent of the United States and foreign countries which may be granted therefor, the same to be held and enjoyed by them for their own use and benefit, and for the use and benefit of their successors, assigns, or other legal representatives, to the end of the term or terms for which said Letters Patent of the United States or foreign countries are or may be granted, reexamined, or reissued, as fully and entirely as the same would have been held and enjoyed by me if this assignment and sale had not been made.

And I hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all Letters Patent of the United States and any foreign patent offices on said inventions or resulting from said applications and from any and all additional provisional, non-provisionals, divisions, continuations, continuations-in-part, reissues, extensions, reexaminations, post-grant proceeding, derivations, or other inter-parties review proceedings thereof, to Assignee, as assignee of my entire interest, and hereby covenant that I have the full right to convey the entire interest herein assigned, and that I have not executed and will not execute any agreement in conflict herewith.

And I further hereby covenant and agree that I will, at any time, upon request, execute and deliver any and all papers that may be necessary or desirable to perfect the title of said inventions and to such Letters Patent as may be granted therefor, to Assignee or its successors, assigns, or other legal representatives and that if Assignee or its successors, assigns, or other legal representatives shall desire to file any additional provisional, non-provisional, divisional, continuation, continuation-in-part, or extension applications or to secure an ex parte or inter partes reexamination, reissue, post grant proceeding, or derivation proceeding of such Letters Patent, or to file a disclaimer relating thereto, will, upon request, sign all papers, make all rightful oaths, and do all lawful acts requisite for the filing of such divisional or continuation application, or such application for reissue and the procuring thereof, and for the filing of such disclaimer, without further compensation but at the expense of Assignee or its successors, assigns, or other legal representatives.

And I do further covenant and agree that I will, at any time upon request, communicate to Assignee or its successors, assigns, or other legal representatives, such facts relating to said inventions and Letters Patent or the file history thereof as may be known to us, and testify as to the same in any interference, litigation, or other proceeding when requested so to do, without further compensation but at the expense of Assignee or its successors, assigns, or other legal representatives.

EXECUTED THIS 25 day of October, 2016.

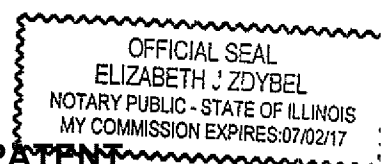
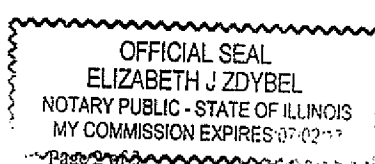
David Johnsen  
(Assignor)

Date: 10/25/16

Signature: David Johnsen

On this 25 day of October, before me, Elizabeth J. Zdybel the undersigned Notary Public, personally appeared David Johnsen ASSIGNOR, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same. WITNESS my hand and official seal in Cook County of IL on the date set forth in this certificate.

Elizabeth J. Zdybel  
Notary Public



**PATENT**

Docket No. 038078.000014

Mark West Energy Partners, L.P.  
(Assignee)

Date: October 25, 2016

Signature: [Signature]

Title: MANAGING COUNSEL

On this 25<sup>th</sup> day of October, 2016, ~~Christopher Linkus~~ Cheryl Hertel, the undersigned Notary Public, personally appeared Christopher Linkus ASSIGNEE, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same. WITNESS my hand and official seal in Denver County of Colorado on the date set forth in this certificate.

Cheryl Hertel  
Notary Public

