

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6254281

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
NCS MULTISTAGE HOLDINGS, INC	08/06/2020
NCS MULTISTAGE INC.	08/06/2020

RECEIVING PARTY DATA

Name:	WELLS FARGO BANK NATIONAL ASSOCIATION
Street Address:	1000 LOUISIANA STREET, 9TH FLOOR
City:	HOUSTON
State/Country:	TEXAS
Postal Code:	77002

PROPERTY NUMBERS Total: 58

Property Type	Number
Patent Number:	9593542
Application Number:	15421222
Patent Number:	10465445
Application Number:	16851667
Application Number:	16824596
Patent Number:	9982512
Patent Number:	8931559
Patent Number:	9140098
Patent Number:	10151162
Application Number:	15348867
Patent Number:	8490702
Patent Number:	9334714
Patent Number:	10180046
Patent Number:	9970262
Patent Number:	10161220
Application Number:	16179471
Patent Number:	8201631
Patent Number:	10612353
Application Number:	16802809

PATENT

Property Type	Number
Patent Number:	10161207
Patent Number:	10030479
Application Number:	16019350
Patent Number:	8794331
Patent Number:	9745826
Application Number:	15652750
Application Number:	16399489
Patent Number:	10066467
Application Number:	16051391
Patent Number:	10227845
Patent Number:	9234412
Application Number:	16451604
Patent Number:	10208564
Patent Number:	10689950
Patent Number:	10329867
Application Number:	16406800
Patent Number:	10428613
Patent Number:	10458195
Application Number:	16574842
Application Number:	16333845
Application Number:	16491966
Application Number:	15911871
Application Number:	16485485
Application Number:	16466191
Application Number:	16345647
Application Number:	15982678
Application Number:	15902671
Application Number:	16491981
Patent Number:	9594070
Patent Number:	10017684
Application Number:	16002215
Application Number:	16262165
Application Number:	62946155
Application Number:	16557885
Application Number:	16713606
Application Number:	62954222
Application Number:	16858418
Application Number:	62951307

Property Type	Number
Application Number:	63002271

CORRESPONDENCE DATA

Fax Number: (800)404-3970

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

Phone: 7132213306

Email: maribel.torres@bracewell.com

Correspondent Name: CONSTANCE GALL RHEBERGEN

Address Line 1: 711 LOUISIANA STREET, STE. 2300

Address Line 4: HOUSTON, TEXAS 77002

ATTORNEY DOCKET NUMBER:	0088599.000095
NAME OF SUBMITTER:	CONSTANCE GALL RHEBERGEN
SIGNATURE:	/Constance Gall Rhebergen/
DATE SIGNED:	08/17/2020

Total Attachments: 15

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**THIRD AMENDED AND RESTATED
PATENT AND TRADEMARK SECURITY AGREEMENT**

This Third Amended and Restated Patent and Trademark Security Agreement dated as of August 6, 2020 (this “Patent and Trademark Security Agreement”), is made by and among each Subsidiary of the Parent (as defined below) party hereto (each a “Grantor” and, collectively, the “Grantors”), and Wells Fargo Bank, National Association, as US administrative agent (the “US Administrative Agent”) for the ratable benefit of the Secured Parties. Capitalized terms used herein and not otherwise defined herein shall have the meanings assigned to such terms in the Credit Agreement (as defined below) and the Pledge and Security Agreement (as defined below), as applicable.

Preliminary Statement

Pioneer Investment, Inc., a Delaware corporation (the “US Borrower”) is a party to that certain Second Amended and Restated Credit Agreement, dated as of May 1, 2019 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the “Existing Credit Agreement”), among NCS Multistage Holdings, Inc., a Delaware corporation (the “Parent”), the US Borrower, NCS Multistage Inc., a corporation amalgamated under the laws of the Province of Alberta, Canada (the “Canadian Borrower”; and together with the US Borrower, collectively, the “Borrowers”), Pioneer Intermediate, Inc., a Delaware corporation (“Intermediate Parent”), the lenders party thereto from time to time, Wells Fargo Bank, National Association, as the US administrative agent (in such capacity, the “US Administrative Agent”), as an issuing lender, and as swing line lender, and Wells Fargo Bank, National Association, Canadian Branch, as the Canadian administrative agent (in such capacity, the “Canadian Administrative Agent”, and together with the US Administrative Agent, collectively, the “Administrative Agents”).

In order to secure the obligations under the Existing Credit Agreement and the other Credit Documents (as defined in the Existing Credit Agreement), (i) NCS Multistage, LLC, a Texas limited liability company (“NCS US”), Spectrum Tracer Services, LLC, an Oklahoma limited liability company (“Spectrum”), and the other Grantors party thereto (together with NCS US and Spectrum, collectively, the “Pledge and Security Grantors”) executed and delivered to the US Administrative Agent that certain Second Amended and Restated Pledge and Security Agreement, dated as of May 1, 2019 (as it has been amended, restated, amended and restated, supplemented or otherwise modified from time to time, the “Pledge and Security Agreement”), and (ii) NCS US and Spectrum executed and delivered to the US Administrative Agent that certain Second Amended and Restated Patent and Trademark Security Agreement, dated as of May 1, 2019 (as it has been amended, restated, amended and restated, supplemented or otherwise modified from time to time, the “Existing PTSA”).

Pursuant to that certain Agreement and Plan of Merger dated December 16, 2019, Spectrum merged with and into NCS US.

Since the date of the Existing PTSA, the Canadian Borrower has come to own Patent and Trademark Collateral (as defined below) and desires to grant a security interest in such Patent and Trademark Collateral to the US Administrative Agent.

The parties to the Existing Credit Agreement have agreed to amend the Existing Credit Agreement pursuant to that certain Amendment No. 1 to Second Amended and Restated Credit Agreement, dated as of August 6, 2020 (the “Amendment”; and the Existing Credit Agreement, as amended by the Amendment and as further amended, restated, amended and restated, supplemented, or otherwise modified from time to time, the “Credit Agreement”), by and among the Parent, the US Borrower, the Canadian Borrower, Intermediate Parent, the lenders party thereto from time to time, (the

“Lenders”), Wells Fargo Bank, National Association, as US Administrative Agent, issuing lender and swing line lender, and Wells Fargo Bank, National Association, Canadian Branch, as Canadian Administrative Agent.

It is a condition precedent to the effectiveness of the Amendment that each Grantor execute and deliver this Patent and Trademark Security Agreement in order to amend and restate the Existing PTSA.

It is in the best interests of each Grantor to execute this Patent and Trademark Security Agreement inasmuch as each Grantor will derive substantial direct and indirect benefits from (i) the transactions contemplated by the Credit Agreement, (ii) the Hedging Arrangements entered into by the Borrowers or any other Grantor with a Swap Counterparty, and (iii) the Banking Services provided by any Banking Services Provider to any Grantor, and each Grantor is willing to execute, deliver and perform its obligations under this Patent and Trademark Security Agreement to secure the Secured Obligations.

The Grantors own the patents, patent registrations, patent applications, trademarks, trademark registrations, and trademark applications listed on Schedule I (annexed hereto and by this reference incorporated herein) unless otherwise noted on Schedule I.

Pursuant to the terms of the Pledge and Security Agreement, the Pledge and Security Grantors have granted a security interest in the Collateral, including, without limitation, all right, title and interest of the Grantors in, to, and under all now owned and hereafter acquired Patent Collateral and Trademark Collateral, set forth on Schedule I attached hereto, to secure the payment of all Secured Obligations.

Agreement

Section 1.1 NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each Grantor hereby grants to the US Administrative Agent for the ratable benefit of the Secured Parties a security interest in all its right, title, and interest in, to, and under the following, whether presently existing or hereafter created or acquired (the “Patent and Trademark Collateral”):

(a) (A) all inventions and discoveries, whether patentable or not, all letters patent and applications for letters patent throughout the world, including without limitation those patents referred to in Schedule I, and any patent applications in preparation for filing, (B) all reissues, divisions, continuations, continuations-in-part, extensions, renewals and reexaminations of any of the items described in clause (A), (C) all patent licenses, and other agreements providing any Grantor with the right to use any items of the type referred to in clauses (A) and (B) above, and (D) all proceeds of, and rights associated with, the foregoing (including licenses, royalties income, payments, claims, damages and proceeds of infringement suits), the right to sue third parties for past, present or future infringements of any patent or patent application, and for breach or enforcement of any patent license;

(b) (A) (i) all trademarks, trade names, corporate names, company names, business names, fictitious business names, trade styles, service marks, certification marks, collective marks, logos and other source or business identifiers, now existing or hereafter adopted or acquired, including without limitation those trademarks referred to in Schedule I, whether currently in use or not, all registrations and recordings thereof and all applications in connection therewith, whether pending or in preparation for filing, including registrations, recordings and applications in the United States Patent and Trademark Office or in any office or agency of the United States of America, or any State thereof or any other country or political subdivision thereof or otherwise, and all common-law rights relating to the foregoing, and (ii) the right to obtain all reissues, extensions or renewals of the foregoing (collectively referred to as

the "Trademark"), (B) all trademark licenses for the grant by or to any Grantor of any right to use any trademark, (C) all of the goodwill of the business connected with the use of, and symbolized by the items described in, clause (A), and to the extent applicable clause (B), (D) the right to sue third parties for past, present and future infringements of any Trademark Collateral described in clause (A) and, to the extent applicable, clause (B), and (E) all Proceeds of, and rights associated with, the foregoing, including any claim by any Grantor against third parties for past, present or future infringement or dilution of any Trademark, Trademark registration or Trademark license, or for any injury to the goodwill associated with the use of any such Trademark or for breach or enforcement of any Trademark license and all rights corresponding thereto throughout the world; and

(c) all rights with respect to the foregoing, including the right to sue for past, present and future infringements of any of the foregoing, all rights corresponding thereto, and all proceeds of the foregoing, including licenses, royalties, income, payments, claims, damages and proceeds of suit, which are owned or licensed by a Grantor.

Section 1.2 Notwithstanding anything to the contrary contained in Section 1.1 and other than to the extent set forth in this Section 1.2, the Excluded Collateral, including, without limitation, all United States intent to use trademark applications with respect to which the grant of a security interest therein would impair the validity or enforceability of said intent to use trademark application under US federal or Canadian law, shall be excluded from the lien and security interest granted hereunder; provided, however, that (x) the exclusion from the Lien and security interest granted by any Grantor hereunder of any Excluded Collateral shall not limit, restrict or impair the grant by such Grantor of the Lien and security interest in any accounts or receivables arising under any such Excluded Collateral or any payments due or to become due thereunder unless the conditions in effect which qualify such Property as Excluded Collateral applies with respect to such accounts and receivables and (y) any proceeds received by any Grantor from the sale, transfer or other disposition of Excluded Collateral shall constitute Collateral unless the conditions in effect which qualify such Property as an Excluded Collateral applies with respect to such proceeds.

Section 1.3 This Patent and Trademark Security Agreement has been executed and delivered by the Grantors for the purpose of recording the security interest granted hereunder with the United States Patent and Trademark Office. This security interest is granted in conjunction with the security interests granted to the US Administrative Agent for the ratable benefit of the Secured Parties pursuant to the Pledge and Security Agreement. The Grantors hereby acknowledge and affirm that the rights and remedies of the Secured Parties with respect to the security interest in the Patent and Trademark Collateral made and granted hereby are more fully set forth in the Pledge and Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

Section 1.4 The Grantors authorize and request that the United States Patent and Trademark Office and any other applicable government officer record this Patent and Trademark Security Agreement.

Section 1.5 This Patent and Trademark Security Agreement is an amendment and restatement of the Existing PTSA and supersedes the Existing PTSA in its entirety; provided, however, that (i) the execution and delivery of this Patent and Trademark Security Agreement shall not effect a novation of the Existing PTSA but shall be, to the fullest extent applicable, a modification, renewal, confirmation and extension of such Existing PTSA, and (ii) the Liens, security interests and other interests in the collateral as described in the Pledge and Security Agreement and the Existing PTSA (the "Original Collateral") granted under the Pledge and Security Agreement and the Existing PTSA are and shall remain legal, valid, binding and enforceable with regard to such Original Collateral. Each Grantor party to the Existing PTSA hereby acknowledges and confirms the continuing existence and effectiveness of such Liens,

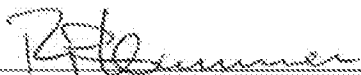
security interests and other interests in the Original Collateral granted under the Pledge and Security Agreement and Existing PTSA, and further agrees that the execution and delivery of this Patent and Trademark Security Agreement and the other Credit Documents shall not in any way release, diminish, impair, reduce or otherwise affect such Liens, security interests and other interests in the Original Collateral granted under the Pledge and Security Agreement or Existing PTSA.

[Remainder of this page intentionally left blank. Signature pages to follow.]

IN WITNESS WHEREOF, the US Administrative Agent and each Grantor has caused this Patent and Trademark Security Agreement to be duly executed by its officer duly authorized as of the date first above written.

GRANTORS:

NCS MULTISTAGE, LLC

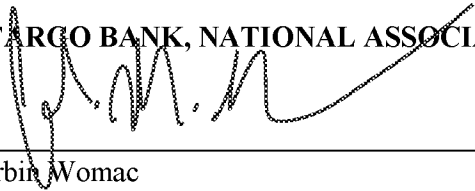
By: 
Name: Ryan Hummer
Title: Chief Financial Officer

NCS MULTISTAGE INC.

By: 
Name: Ryan Hummer
Title: Chief Financial Officer

US ADMINISTRATIVE AGENT:

WELLS FARGO BANK, NATIONAL ASSOCIATION

By:  _____

Name: Corbin Womac

Title: Director

Schedule I Item A-Patent Collateral
 Item B-Trademark Collateral

Schedule I

Item A – Patent Collateral

Item A. Patent Collateral.

U.S. Patents and Patent Applications

Patent: Patent ID	Country	Application Number	Filing Date	Publication Number	Issue Date	Patent Number	All Inventors	Current Owner - unused	Status (Prosecution)	Title
P101US1	US	13/930,683	6/28/2013	20140216756	3/14/2017	9,593,542	Stromquist, Marty; Ravensbergen, John; Devlin, David; Braden, Douglas; Harris, Travis; Getzlaf, Don	NCS Multistage Inc. (CA)	Issued	Casing Float Tool
P101US2	US	15/421,222	1/31/2017	20170138153			Ravensbergen, John; Devlin, David; Harris, Travis; Stromquist, Marty; Getzlaf, Don; Braden, Douglas	NCS Multistage Inc. (CA)	Allowed	Casing Float Tool
P101US3	US	15/919,370	3/13/2018	20180202260	11/5/2019	10,465,445	Getzlaf, Don; Stromquist, Marty; Ravensbergen, John; Devlin, David; Braden, Douglas; Harris, Travis	NCS Multistage Inc. (CA)	Issued	Casing Float Tool
P101US5	US	16/851,667	4/17/2020				Braden, Douglas; Harris, Travis; Ravensbergen, John; Stromquist, Marty; Getzlaf, Don	NCS Multistage Inc. (CA)	Filed	Casing Float Tool

Patent: Patent ID	Country	Application Number	Filing Date	Publication Number	Issue Date	Patent Number	All Inventors	Current Owner - unused	Status (Prosecution)	Title
P101US6	US	16/824,596	3/19/2020				Ravensbergen, John; Devlin, David; Harris, Travis; Stromquist, Marty; Getzlaf, Don; Braden, Douglas	NCS Multistage Inc. (CA)	Filed	Casing Float Tool
P103US1	US	14/830,507	8/19/2015	20160076335	5/29/2018	9,982,512	Getzlaf, Don; Ravensbergen, John	NCS Multistage Inc. (CA)	Issued	Apparatus, System and Method for treating a reservoir using re-closable sleeves
P104US1	US	13/709,908	12/10/2012	20130248181	1/13/2015	8,931,559	Ravensbergen, John; Laun, Lyle; Stromquist, Marty; Getzlaf, Don; Schmeitzl, Eric	NCS Multistage Inc. (CA)	Issued	Downhole Isolation and Depressurization Tool
P104US2	US	14/559,567	12/3/2014	20150075809	9/22/2015	9,140,098	Getzlaf, Don; Stromquist, Marty; Ravensbergen, John; Laun, Lyle; Schmeitzl, Eric	NCS Multistage Inc. (CA)	Issued	Downhole Isolation and Depressurization Tool
P109US1	US	14/867,726	9/28/2015	20160090803	12/11/2018	10,151,162	Getzlaf, Don; Ravensbergen, John	NCS Multistage Inc. (CA)	Issued	Hydraulic Locator
P110US1	US	15/348,867	11/10/2016	20170183929			Werties, Michael; Montero, Juan	NCS Multistage Inc. (CA)	Allowed	Apparatuses and Methods for Locating Within a Wellbore
P113US1	US	12/708,709	2/19/2010	20110198082	7/23/2013	8,490,702	Getzlaf, Don; Nipper, Robert; Stromquist, Marty	NCS Multistage Inc. (CA)	Issued	Downhole Tool Assembly with Debris Relief, and Method for Using Same
P113US2	US	13/919,821	6/17/2013	20130299173	5/10/2016	9,334,714	Getzlaf, Don; Stromquist, Marty; Nipper, Robert	NCS Multistage Inc. (CA)	Issued	Downhole Assembly with Debris Relief, and Method for Using Same
P114US1	US	14/978,102	12/22/2015	20160273319	1/15/2019	10180046	Getzlaf, Don; Getzlaf, Nick; Werties, Michael; Ravensbergen, John; Brunskill, Doug	NCS Multistage Inc. (CA)	Issued	Downhole Flow Control Apparatus with Screen

Patent: Patent ID	Country	Application Number	Filing Date	Publication Number	Issue Date	Patent Number	All Inventors	Current Owner - unused	Status (Prosecution)	Title
P115US1	US	14/867,753	9/28/2015	20160090814	5/15/2018	9,970,262	Ravensbergen, John; Brunskill, Doug; Weries, Michael; Getzlaf, Don	NCS Multistage Inc. (CA)	Issued	Downhole Valve Apparatus
P116US1	US	15/136,000	4/22/2016	20160341004	12/25/2018	10,161,220	Getzlaf, Don; Ravensbergen, John; Gillis, Brock; Johnson, Timothy	NCS Multistage Inc. (CA)	Issued	Plug and Shift - Plug- Actuated Flow Control Member
P116US2	US	16/179,471	11/2/2018	20190120017			Gillis, Brock; Ravensbergen, John; Getzlaf, Don; Johnson, Timothy	NCS Multistage Inc. (CA)	Allowed	Plug and Shift - Plug- Actuated Flow Control Member
P117US1	US	13/078,584	4/1/2011	20120055671	6/19/2012	8,201,631	Getzlaf, Don; Stromquist, Marty Ravensbergen, John; Gillis, Brock; Weries, Michael; Getzlaf, Don	NCS Multistage Inc. (CA)	Issued	Multi-Functional Isolation Tool and Method of Use
P118US1	US	15/151,799	5/11/2016	20160333679	4/7/2020	10,612,353	Ravensbergen, John; Gillis, Brock; Weries, Michael; Getzlaf, Don	NCS Multistage Inc. (CA)	Issued	Downhole Flow Control Apparatus
P118US2	US	16/802,809	5/11/2016	US 20200190954			Ravensbergen, John; Gillis, Brock; Weries, Michael; Getzlaf, Don	NCS Multistage Inc. (CA)	Published	Downhole Flow Control Apparatus
P119US1	US	14/978,483	12/22/2015	20160215590	12/25/2018	10,161,207	Ravensbergen, John; Getzlaf, Don	NCS Multistage Inc. (CA)	Issued	Apparatus, System and Method for treating a Reservoir Using Re- Closeables Sleeves and Novel Use of a Shifting Tool
P120US1	US	14/982,820	12/29/2015	20160251939	7/24/2018	10,030,479	Johnson, Timothy; Getzlaf, Don	NCS Multistage Inc. (CA)	Issued	Tool for Opening and Closing Sleeves within a Wellbore
P120US2	US	16/019,350	6/26/2018	20190003285A1			Johnson, Timothy; Getzlaf, Don	NCS Multistage Inc. (CA)	Allowed	Apparatus and Method for treating a reservoir using re-closeable sleeves, and actuating the sleeves with bi-directional slips
P121US1	US	13/100,796	5/4/2011	20120090847	8/5/2014	8,794,331	Stromquist, Marty; Getzlaf, Don; Nipper, Robert; Willemis, Timothy	NCS Multistage Inc. (CA)	Issued	Tools and Methods for Use in Completion of a Wellbore

Patent: Patent ID	Country	Application Number	Filing Date	Publication Number	Issue Date	Patent Number	All Inventors	Current Owner - unused	Status (Prosecution)	Title
P121US2	US	14/317,975	6/27/2014	20140305648	8/29/2017	9,745,826	Nipper, Robert; Willems, Timothy; Getzlaf, Don; Strongquist, Marty	NCS Multistage Inc. (CA)	Issued	Tools and Methods for Use in Completion of a Wellbore
P121US6	US	15/652,750	7/18/2017	20170314364			Getzlaf, Don; Strongquist, Marty; Nipper, Robert; Willems, Timothy	NCS Multistage Inc. (CA)	Published	Tools and Methods for Use in Completion of a Wellbore
P121US8	US	16/399,489	4/30/2019	20190353006			Getzlaf, Don; Willems, Timothy; Strongquist, Marty; Nipper, Robert	NCS Multistage Inc. (CA)	Published	Tools and Methods for Use in Completion of a Wellbore
P123US1	US	15/068,282	3/11/2016	20160265310	9/4/2018	10,066,467	Getzlaf, Don; Ravensbergen, John; Gillis, Brock	NCS Multistage Inc. (CA)	Issued	Electrically Actuated Downhole Flow Control Apparatus
P123US2	US	16/051,391	7/31/2018	20180334889			Getzlaf, Don; Gillis, Brock; Ravensbergen, John	NCS Multistage Inc. (CA)	Allowed	Electrically Actuated Downhole Flow Control Apparatus
P124US3	US	14/855,089	9/15/2015	20160010429	3/12/2019	10227845	Willems, Timothy; Nipper, Robert; Getzlaf, Don; Strongquist, Marty	NCS Multistage Inc. (CA)	Issued	Tools and Methods for Use in Completion of a Wellbore
P124US7	US	13/612,185	9/12/2012	20130068451	1/12/2016	9,234,412	Willems, Timothy; Nipper, Robert; Getzlaf, Don; Strongquist, Marty	NCS Multistage Inc. (CA)	Issued	Tools and Methods for Use in Completion of a Wellbore
P124US8	US	16/451,604	6/25/2019	20190316441			Getzlaf, Don; Strongquist, Marty; Nipper, Robert; Willems, Timothy	NCS Multistage Inc. (CA)	Published	TOOLS AND METHODS FOR USE IN COMPLETION OF A WELLBORE
P127US1	US	15/286,306	10/5/2016	20170096875	2/19/2019	10,208,564	Ravensbergen, John; Montero, Juan	NCS Multistage, LLC. (US)	Issued	Tubular Airlock Assembly
P128US1	US	15/494,617	4/24/2017	20170306722	6/23/2020	10,689,950	Johnson, Timothy; Ravensbergen, John	NCS Multistage Inc. (CA)	Issued	Apparatus, systems and methods for controlling flow communication with a subterranean formation

Patent: Patent ID	Country	Application Number	Filing Date	Publication Number	Issue Date	Patent Number	All Inventors	Current Owner - unused	Status (Prosecution)	Title
P129US1	US	15/348,398	11/10/2016	20170159398	6/25/2019	10,329,867	Getzlaf, Don; Johnson, Timothy; Gills, Brock	NCS Multistage Inc. (CA)	Issued	Apparatuses and Methods for Enabling Multistage Hydraulic Fracturing
P129US2	US	16/406,800	5/8/2019	20200131878			Getzlaf, Don; Johnson, Timothy; Gills, Brock	NCS Multistage Inc. (CA)	Published	Apparatuses and Methods for Enabling Multistage Hydraulic Fracturing
P132US1	US	15/430,645	2/13/2017	20170247965	10/1/2019	10,428,613	Marty; Ravensbergen, John; Laun, Lyle; Werries, Michael; Standen, Rob; Johnson, Timothy	NCS Multistage Inc. (CA)	Issued	Wellbore Characteristic Measurement Assembly
P134US1	US	15/586,975	5/4/2017	20180171734	10/29/2019	10,458,195	Werries, Michael; Johnson, Timothy	NCS Multistage Inc. (CA)	Issued	Apparatuses and Methods for Locating and Shifting a Downhole Flow Control Member
P134US3	US	16/574842	9/18/2019	US20200063513			Werries, Michael; Johnson, Timothy	NCS Multistage Inc. (CA)	Published	Apparatuses and Methods for Locating and Shifting a Downhole Flow Control Member
P135US1	US	16/333845	9/15/2017	US-2019- 0264533			Werries, Michael; Whyte, Rio; Ellis, Dustin	NCS Multistage Inc. (CA)	Published	Wellbore Flow Control Apparatus with Solids Control
P137US1	US	16/491966	3/8/2018				Wages, David; Werries, Michael; Whyte, Rio	NCS Multistage Inc. (CA)	Filed	A Process for Producing Hydrocarbon Material from a Subterranean Formation while Employing Solids Control
P139US1	US	15/911,871	3/5/2018	20180252079			Laun, Lyle; Ravensbergen, John; Stromquist, Marty; Johnson, Timothy	NCS Multistage Inc. (CA)	Published	Apparatuses, Systems and Methods for Hydrocarbon Material from a Subterranean formation using a displacement process
P140US1	US	16/485485	2/13/2018				Laun, Lyle; Tajallipour, Ramin; Werries, Michael; Vakulin, Roman	NCS Multistage Inc. (CA)	Filed	System and Method for Wireless Control of Well Bore Equipment

Patent: Patent ID	Country	Application Number	Filing Date	Publication Number	Issue Date	Patent Number	All Inventors	Current Owner - unused	Status (Prosecution)	Title
P142US1	US	16/466,191	12/2/2017	US20200063538			Brunskill, Doug; Maezel, Jason; Whyte, Rio	NCS Multistage Inc. (CA)	Published	Apparatus, Systems and Methods for Isolation During Multistage Hydraulic Fracturing with Flow Control Member Having Impedance Feature
P143US1	US	16/345647	10/27/2017	US 20190284904			Gillis, Brock; Johnson, Timothy; Tajalipour, Ramin; Werries, Michael	NCS Multistage Inc. (CA)	Published	Apparatus, Systems and Methods for Isolation During Multistage Hydraulic Fracturing
P144US1	US	15/982,678	5/17/2018	20180334871			Cooper, Kurt	NCS Multistage Inc. (CA)	Allowed	Apparatus, Systems and Methods for Mitigating Solids Accumulation Within the Wellbore During Stimulation of Subterranean Formations
P145US1	US	15/902,671	2/22/2018	20180238140			Ravensbergen, John	NCS Multistage Inc. (CA)	Allowed	Apparatuses, Systems and Methods for Treating and Producing from Multiple Zones in a Subterranean Formation
P146US1	US	16/491981	3/6/2018				Werries, Michael; Johnson, Timothy; Laun, Lyle; Ravensbergen, John; Montero, Juan; Gillis, Brock	NCS Multistage Inc. (CA)	Filed	Apparatus, Systems and Methods for Producing Hydrocarbon Material from a Subterranean Formation
P148US1	US	14/072,556	11/5/2013	20150323515	3/14/2017	9,594,070	Rule, Jeffrey; Faurot, Steve	NCS Multistage, LLC, successor by statutory merger to Spectrum Tracer Services, LLC (US)	Issued	Method using halogenated benzoic acid esters and aldehydes for hydraulic fracturing and for tracing petroleum production
P149US1	US	15/133,465	4/20/2016	2017306217	7/10/2018	10,017,684	Rule, Jeffrey; Faurot, Steve	NCS Multistage, LLC, successor by statutory merger to Spectrum Tracer Services, LLC (US)	Issued	Methods and compositions for hydraulic fracturing and for tracing formation water

Patent: Patent ID	Country	Application Number	Filing Date	Publication Number	Issue Date	Patent Number	All Inventors	Current Owner unused	Status (Prosecution)	Title
P149US2	US	16/002,215	6/7/2018	20180282612			Rule, Jeffrey; Faurot, Steve	NCS Multistage, LLC, successor by statutory merger to Spectrum Tracer Services, LLC (US)	Published	Methods and compositions for hydraulic fracturing and for tracing formation water
P154US1	US	16/262,165	1/30/2019	20190235007			Williamson, Patrick; Tajallipour, Ramin	NCS Multistage Inc. (CA)	Published	Method of Fault Detection and Recovery in a Tubing String Located in a Hydrocarbon Well, and Apparatus for Same
P165USPR2	US	62/946,155	12/10/2019				Mberia, Stanley; Brunskill, Doug; Werties, Michael; Gillis, Brock; Tajallipour, Ramin; Ravensbergen, John; Laun, Lyle; Vakulin, Roman	NCS Multistage Inc. (CA)	Filed	DOWNHOLE FLOW CONTROLLER
P166US1	US	16/557,885	8/30/2019	US 2020/0190942 A1			King, James; Mickey, Clint; Gillis, Brock; Williamson, Patrick	NCS Multistage Inc. (CA)	Published	Apparatus, systems and methods for actuation of downhole tools
P167US1	US	16/713,606	12/13/2019	US 2020/0190928 A1			Whyte, Rio; Brunskill, Doug; Wages, David; Cooper, Kurt	NCS Multistage Inc. (CA)	Published	Rescue Dart for Pre-Set Frac Plug and Related Methods
P169USPR1	US	62/954,222	12/27/2019				Johnson, Timothy; Laun, Lyle; Werties, Michael	NCS Multistage Inc. (CA)	Filed	Systems and Methods for Producing Hydrocarbon Material from Unconsolidated Formations IN SITU INJECTION OR PRODUCTION VIA A WELL USING SELECTIVE OPERATION OF MULTI- VALVE ASSEMBLIES WITH CHOKED CONFIGURATIONS
P172US1	US	16/858,418	4/24/2020				MacPhail, Warren; Powell, Jesse	NCS Multistage Inc. (CA)	Filed	Asynchronous Frac-to-Frac Operations for Hydrocarbon Recovery
P174USPR1	US	62/951,307	12/20/2019				Stannus, Daniel; Krishna, Srinivas; Kalandari, Masoud; Johnson, Timothy	NCS Multistage Inc. (CA)	Filed	Rupture Disc Assembly
P176USPR1	US	63/002,271	3/30/2020							

Item B - Trademark Collateral**U.S. Trademarks and Trademark Applications**

Trademark ID	Mark Name	Application Number	Application Date	Registration Number	Registration Date	Legal Owner	High-Level Status
T201US1	Anderson Reservoir Strategies Thompson	87/689664	11/17/2017	5625568	12/11/2018	NCS Multistage, LLC. (US)	In Force
T203US	AirLock	86/041178	8/19/2013	4900077	2/16/2016	NCS Multistage, LLC. (US)	In Force
T205US	BallShift	86/369760	8/18/2014	4995759	7/12/2016	NCS Multistage, LLC. (US)	In Force
T207US	Blue Anchor Seal	86/943058	3/16/2016	5357507	12/19/2017	NCS Multistage, LLC. (US)	In Force
T215US	Leave Nothing Behind	85/489730	12/7/2011	4266971	1/1/2013	NCS Multistage, LLC. (US)	In Force
T220US	Mongoose Frac	77/922511	1/28/2010	4040166	10/18/2011	NCS Multistage, LLC. (US)	In Force
T221US	MultiCycle	86/776940	10/2/2015	5,304,158	10/10/2017	NCS Multistage, LLC. (US)	In Force
T223US	Multistage Unlimited	85/489636	12/7/2011	4310801	3/26/2018	NCS Multistage, LLC. (US)	In Force
T225US	NCS (word mark)	86/369834	8/18/2014	5380900	1/16/2018	NCS Multistage, LLC. (US)	In Force
T227US	NCS Multistage (green logo)	86/775710	10/1/2015	5080497	11/15/2016	NCS Multistage, LLC. (US)	In Force
T229US	Shift Frac Close	86/528820	2/9/2015	5061844	10/18/2016	NCS Multistage, LLC. (US)	In Force
T231US	SimpleStart	86/369865	8/18/2014	4975908	6/14/2016	NCS Multistage, LLC. (US)	In Force
T233US	SpotFrac	86/292232	5/27/2014	5380871	1/16/2018	NCS Multistage, LLC. (US)	In Force
T236US	Trident	86/037608	8/14/2013	4865211	12/8/2015	NCS Multistage, LLC. (US)	In Force
T247US	OST	86/187783	2/7/2014	4822973	9/29/2015	NCS Multistage, LLC. (US)	In Force

Trademark ID	Mark Name	Application Number	Application Date	Registration Number	Registration Date	Legal Owner	High-Level Status
T201US1	Anderson Thompson Reservoir Strategies	87/689664	11/17/2017	5625568	12/11/2018	NCS Multistage, LLC. (US)	In Force
T203US	Airlock	86/041178	8/19/2013	4900077	2/16/2016	NCS Multistage, LLC. (US)	In Force
T205US	BallShift	86/369760	8/18/2014	4995759	7/12/2016	NCS Multistage, LLC. (US)	In Force
T207US	Blue Anchor Seal	86/943058	3/16/2016	5357507	12/19/2017	NCS Multistage, LLC. (US)	In Force
T215US	Leave Nothing Behind	85/489730	12/7/2011	4266971	1/1/2013	NCS Multistage, LLC. (US)	In Force
T248US	FFI	86/187869	2/7/2014	4822975	9/29/2015	NCS Multistage, LLC. (US)	In Force
T249US	NANO TRACER	86/259057	4/22/2014	4823092	9/29/2015	NCS Multistage, LLC. (US)	In Force
T251US	WST	87/477465	6/6/2017	5,692,489	3/5/2019	NCS Multistage, LLC. (US)	In Force
T254US	NCS Multistage (word mark)	87/744676	1/5/2018	5559819	9/11/2018	NCS Multistage, LLC. (US)	In Force
T257US	Sequential Sweep	87/815251	2/28/2018	5841354	8/20/2019	NCS Multistage, LLC. (US)	In Force
T258US	VECTRASET (word mark)	87/843124	3/21/2018			NCS Multistage, LLC. (US)	Pending
T262US	GoPort	88/305915	2/18/2019			NCS Multistage, LLC. (US)	Pending
T270US	QUMULUS	88/320134	2/28/2019			NCS Multistage, LLC. (US)	Pending
T271US	MBED	88/388372	4/16/2019			NCS Multistage, LLC. (US)	Pending
T275US	FORCELLANT	88/639453	10/2/2019			NCS Multistage, LLC. (US)	Pending
T279US	INNOVUS	88/820919	3/4/2020			NCS Multistage, LLC. (US)	Pending
T280US	TERRUS	88/808293	2/24/2020			NCS Multistage, LLC. (US)	Pending