

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM509103

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------|--------------------------|
| SUBMISSION TYPE: | NEW ASSIGNMENT | | |
| NATURE OF CONVEYANCE: | SECURITY INTEREST | | |
| CONVEYING PARTY DATA | | | |
| Name | Formerly | Execution Date | Entity Type |
| APS TECHNOLOGY, INC. | | 02/06/2019 | Corporation: CONNECTICUT |
| APS INDUSTRIES, INC. | | 02/06/2019 | Corporation: TEXAS |
| APST INTERNATIONAL, INC. | | 02/06/2019 | Corporation: CONNECTICUT |
| RECEIVING PARTY DATA | | | |
| Name: | KEYBANK NATIONAL ASSOCIATION | | |
| Street Address: | 195 CHURCH STREET | | |
| City: | NEW HAVEN | | |
| State/Country: | CONNECTICUT | | |
| Postal Code: | 06510 | | |
| Entity Type: | NATIONAL ASSOCIATION: UNITED STATES | | |
| PROPERTY NUMBERS Total: 3 | | | |
| Property Type | Number | Word Mark | |
| Registration Number: | 2991025 | ENGINEERING SOLUTIONS FOR HARSH ENVIRONM | |
| Registration Number: | 3900006 | RSM | |
| Registration Number: | 4519931 | APS TECHNOLOGY | |
| CORRESPONDENCE DATA | | | |
| Fax Number: | 2149326499 | | |
| <i>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.</i> | | | |
| Phone: | 2149326400 | | |
| Email: | sshernandez@mcguirewoods.com | | |
| Correspondent Name: | SUSAN DIAMOND | | |
| Address Line 1: | 2000 MCKINNEY AVENUE, SUITE 1400 | | |
| Address Line 2: | MCGUIREWOODS LLP | | |
| Address Line 4: | DALLAS, TEXAS 75201 | | |
| ATTORNEY DOCKET NUMBER: | 2069107-0012 | | |
| NAME OF SUBMITTER: | Stephanie Hernandez | | |
| SIGNATURE: | /Stephanie Hernandez/ | | |
| DATE SIGNED: | 02/07/2019 | | |

OP \$90.00 2991025

Total Attachments: 15

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (this "**Agreement**") is entered into as of February 6, 2019, by and among (i) APS TECHNOLOGY, INC., a Connecticut corporation ("**Borrower**"), and (ii) APS INDUSTRIES, INC., a Texas corporation, and APST INTERNATIONAL, INC., a Connecticut corporation (each individually referred to herein as a "**Guarantor**" and collectively, the "**Guarantors**"; and together with Borrower and any other Person that becomes a party hereto as provided herein, each individually a "**Grantor**" and collectively, the "**Grantors**"), in favor of KEYBANK NATIONAL ASSOCIATION (the "**Lender**").

RECITALS

A. Lender has agreed to make certain advances of money and to extend certain financial accommodations to Borrower in the amounts and manner set forth in that certain Credit Agreement, dated as of the date hereof, by and between Borrower and Lender (as amended, restated, supplemented, or otherwise modified from time to time, the "**Credit Agreement**"). Capitalized terms used but not otherwise defined herein are defined in the Credit Agreement. Lender is willing to advance such money and provide such financial accommodations, but only upon certain conditions, including, among others, that Grantors grant to the Lender a security interest in certain Intellectual Property to secure the obligations of Borrower under the Credit Agreement and Grantors under that certain Guaranty and Collateral Agreement, dated as of the date hereof (the "**GCA**"), by and among the Grantors and the Lender.

B. Pursuant to the terms of the GCA, Grantors have granted to the Lender a security interest in all of each Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of its Obligations under the Credit Agreement and GCA, Grantor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

To secure its Obligations under the Credit Agreement and GCA, each Grantor grants and pledges to the Lender, a security interest in all of such Grantor's right, title and interest in, to and under its Intellectual Property which constitutes Collateral (including without limitation Intellectual Property listed on **Exhibit A** hereto), and including without limitation all proceeds thereof (such as, by way of example but not by way of limitation, license royalties and proceeds of infringement suits), the right to sue for past, present and future infringements, all rights corresponding thereto throughout the world and all re-issues, divisions continuations, renewals, extensions and continuations-in-part thereof, in each case to the extent constituting Collateral.

This security interest is granted in conjunction with the security interest granted to the Lender under the GCA. The rights and remedies of Lender with respect to the security interest granted hereby are more fully set forth in the Credit Agreement and GCA, the terms and

provisions of which are incorporated by reference herein as if fully set forth herein. Lender's rights and remedies under this Agreement, the Credit Agreement and the Loan Documents shall be cumulative, and Lender shall have all other rights and remedies not inconsistent with this Agreement, the Credit Agreement and GCA as provided by law or in equity. In the event of any conflict or inconsistency between this Agreement and the GCA (or any portion hereof or thereof), the terms of the GCA shall prevail.

Each Grantor represents and warrants that **Exhibit A** attached hereto sets forth, as of the date hereof, any and all intellectual property rights constituting Intellectual Property which constitutes Collateral in connection to which such Grantor has registered or filed an application with either the United States Patent and Trademark Office or the United States Copyright Office, as applicable.

This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute the same instrument.

[Signature pages follow.]

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTORS:

Address of Grantors:

APS TECHNOLOGY, INC.

APS Technology, Inc.
7 Laser Lane
Wallingford, CT 06492
Attention: Lawrence S. Weiner
Email: lweiner@aps-tech.com
Telephone: (860) 613-4450, ext. 104

By: Christopher Abbamonte
Name: Christopher Abbamonte
Its: CFO

With a copy to (which shall not constitute notice):

Shipman & Goodwin LLP
300 Atlantic Street, 3rd Floor
Stamford, CT 06901-3522
Attention: Scott M. Gerard, Esq.
Email: sgerard@goodwin.com
Telephone: (203) 324-8195 (Stamford)
(212) 376-3020 (New York)

STATE OF CONNECTICUT
) ss.
COUNTY OF New Haven

On this the 2nd day of December, 2018, before me, the undersigned officer, personally appeared Christopher Abbamonte, who acknowledged himself to be the CFO of APS TECHNOLOGY, INC., a Connecticut corporation, and that he, as such officer, being authorized so to do, executed the foregoing instrument for the purposes therein contained and acknowledged the same to be his free act and deed as such officer and the free act and deed of the corporation, by signing the name of the corporation by himself as such OFFICER.

Renay Wright
Name:
Notary Public/Commissioner of the Superior Court
My Commission Expires: August 31, 2023

RENAY J. WRIGHT
NOTARY PUBLIC
STATE OF CONNECTICUT
MY COMMISSION EXPIRES AUG. 31, 2023

1967871

TRADEMARK

REEL: 006554 FRAME: 0125

GRANTORS:

APS INDUSTRIES, INC.

By: 

Name: Lawrence S. Weiner
Its: Vice President

STATE OF CONNECTICUT)
) ss.
COUNTY OF New Haven

On this the 27th day of December, 2018, before me, the undersigned officer, personally appeared Lawrence Weiner, who acknowledged himself to be the Vice President of APS INDUSTRIES, INC., a Texas corporation, and that he, as such officer, being authorized so to do, executed the foregoing instrument for the purposes therein contained and acknowledged the same to be his free act and deed as such officer and the free act and deed of the corporation, by signing the name of the corporation by himself as such Officer.



Name:
Notary Public/Commissioner of the Superior Court
My Commission Expires: August 31, 2023

RENAY J. WRIGHT
NOTARY PUBLIC
STATE OF CONNECTICUT
MY COMMISSION EXPIRES AUG. 31, 2023

GRANTORS:

APST INTERNATIONAL, INC.

By: Christopher Abbamonte
Name: Christopher Abbamonte
Its: CFO

STATE OF CONNECTICUT)
) ss.
COUNTY OF New Haven

On this the 27th day of December, 2018, before me, the undersigned officer, personally appeared Christopher Abbamonte who acknowledged himself to be the CFO of APST INTERNATIONAL, INC., a Connecticut corporation, and that he, as such officer, being authorized so to do, executed the foregoing instrument for the purposes therein contained and acknowledged the same to be his free act and deed as such officer and the free act and deed of the corporation, by signing the name of the corporation by himself as such officer.

Renay J. Wright
Name:
Notary Public/Commissioner of the Superior Court
My Commission Expires: August 31, 2023

RENAY J. WRIGHT
NOTARY PUBLIC
STATE OF CONNECTICUT
MY COMMISSION EXPIRES AUG. 31, 2023


[Signature Page to Intellectual Property Security Agreement]
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LENDER:

Address of Lender:

KEYBANK NATIONAL ASSOCIATION

KeyBank, National Association
195 Church Street
New Haven, CT 06510
Attn: Robert Dellatorre, Senior Vice President

By: 
Name: Robert Dellatorre
Title: Senior Vice President

With a copy to (which shall not constitute
notice):

Updike, Kelly & Spellacy, P.C.
100 Pearl Street, 17th Floor
Hartford, CT 06103
Attn: R. Alisha Verdone, Esq.

EXHIBIT A

Trademarks:

| | | | | | | |
|----------------------------------------------|----------|---------|------------|------------|---------------------|---------------|
| ENGINEERING SOLUTIONS FOR HARSH ENVIRONMENTS | 76528767 | 2991025 | 07/09/2003 | 09/06/2005 | APS TECHNOLOGY, INC | United States |
| RSM | 85038780 | 3900006 | 05/14/2010 | 01/04/2011 | APS TECHNOLOGY, INC | United States |
| APS | 85668761 | 4519931 | 07/04/2012 | 04/29/2014 | APS TECHNOLOGY, INC | United States |

Patents

| | | | | | | | |
|---------------|------------|------------|-----------|-----------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------------|
| United States | 08/950,993 | 10/15/1997 | 6,102,681 | 8/15/2000 | STATOR ESPECIALLY ADAPTED FOR USE IN A HELICOIDAL PUMP/MOTOR | GRANTED | 103439.000007 |
| United States | 09/064,898 | 4/23/1998 | 5,931,000 | 8/3/1999 | COOLED ELECTRICAL SYSTEM FOR USE DOWNHOLE | GRANTED | 103439.000008 |
| United States | 09/086,418 | 5/29/1998 | 6,105,690 | 8/22/2000 | METHOD AND APPARATUS FOR COMMUNICATING WITH DEVICES DOWNHOLE IN A WELL ESPECIALLY ADAPTED FOR USE AS A BOTTOM HOLE MUD FLOW SENSOR | GRANTED | 103439.000011 |
| United States | 09/115,031 | 7/14/1998 | 6,123,561 | 9/26/2000 | ELECTRICAL COUPLING FOR A MULTISECTION CONDUIT SUCH AS A DRILL PIPE | GRANTED | 103439.000009 |

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|---------------|------------|------------|-----------|------------|------------------------------------------------------------------------------------------------------------------------|---------|---------------|
| United States | 09/243,768 | 2/3/1999 | 6,134,892 | 10/24/2000 | COOLED ELECTRICAL SYSTEM FOR USE DOWNHOLE | GRANTED | 103439.000040 |
| United States | 09/413,111 | 10/6/1999 | 6,257,356 | 7/10/2001 | MAGNETORHEOLOGICAL FLUID APPARATUS, ESPECIALLY ADAPTED FOR USE IN A STEERABLE DRILL STRING, AND A METHOD OF USING SAME | GRANTED | 103439.000044 |
| United States | 09/453,003 | 12/2/1999 | 6,507,401 | 1/14/2003 | APPARATUS AND METHOD FOR ANALYZING FLUIDS | GRANTED | 103439.000006 |
| United States | 09/676,379 | 9/29/2000 | 6,714,138 | 3/30/2004 | METHOD AND APPARATUS FOR TRANSMITTING INFORMATION TO THE SURFACE FROM A DRILL STRING DOWN HOLE IN A WELL | GRANTED | 103439.000048 |
| United States | 09/734,983 | 12/12/2000 | 6,547,016 | 4/15/2003 | APPARATUS FOR MEASURING WEIGHT AND TORQUE ON A DRILL BIT OPERATING IN A WELL | GRANTED | 103439.000054 |
| United States | 09/896,020 | 6/29/2001 | 6,622,803 | 9/23/2003 | IMPROVED STABILIZER FOR USE IN A DRILL STRING | GRANTED | 103439.000129 |
| United States | 10/062,118 | 1/31/2002 | 6,916,248 | 7/12/2005 | FLEXIBLE COUPLING | GRANTED | 103439.000060 |
| United States | 10/095,174 | 3/11/2002 | 6,634,427 | 10/21/2003 | DRILL STRING SECTION WITH INTERNAL PASSAGE | GRANTED | 103439.000059 |
| United States | 10/247,192 | 9/19/2002 | 6,707,556 | 3/16/2004 | APPARATUS AND METHOD FOR ANALYZING FLUIDS | GRANTED | 103439.000067 |
| United States | 10/439,078 | 5/15/2003 | 6,896,050 | 5/24/2005 | LATCHING SYSTEM FOR MAINTAINING | GRANTED | 103439.000068 |

| | | | | | POSITION OF COMPONENT WITHIN A DOWNHOLE DRILL STRING SECTION | | |
|---------------|------------|-----------|-----------|-----------|---------------------------------------------------------------------------------------------------|---------|---------------|
| United States | 10/837,727 | 5/3/2004 | 7,201,239 | 4/10/2007 | POWER-GENERATING DEVICE FOR USE IN DRILLING OPERATIONS | GRANTED | 103439.000077 |
| United States | 10/888,312 | 7/9/2004 | 7,327,634 | 2/5/2008 | ROTARY PULSER FOR TRANSMITTING INFORMATION TO THE SURFACE FROM A DRILL STRING DOWN HOLE IN A WELL | GRANTED | 103439.000080 |
| United States | 10/919,633 | 8/16/2004 | 7,249,968 | 7/31/2007 | ELECTRICAL CONNECTIONS FOR HARSH CONDITIONS | GRANTED | 103439.000081 |
| United States | 10/983,486 | 11/8/2004 | 7,219,752 | 5/22/2007 | SYSTEM AND METHOD FOR DAMPING VIBRATION IN A DRILL STRING | GRANTED | 103439.000083 |
| United States | 11/117,802 | 4/29/2005 | 7,389,830 | 6/24/2008 | ROTARY STEERABLE MOTOR SYSTEM FOR UNDERGROUND DRILLING | GRANTED | 103439.000072 |
| United States | 11/416,009 | 5/1/2006 | 7,681,663 | 3/23/2010 | METHOD AND SYSTEMS FOR DETERMINING ANGULAR ORIENTATION OF A DRILL STRING | GRANTED | 103439.000091 |
| United States | 11/737,400 | 4/19/2007 | 7,377,339 | 5/27/2008 | SYSTEM AND METHOD FOR DAMPING VIBRATION IN A DRILL STRING | GRANTED | 103439.000106 |
| United States | 12/109,328 | 4/24/2008 | 7,997,357 | 8/16/2011 | SYSTEM AND METHOD FOR DAMPING VIBRATION IN A DRILL STRING | GRANTED | 103439.000113 |

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|---------------|------------|-----------|-----------|------------|---------------------------------------------------------------------------------------------|---------|---------------|
| United States | 12/125,747 | 5/22/2008 | 7,762,356 | 7/27/2010 | ROTARY STEERABLE MOTOR SYSTEM FOR UNDERGROUND DRILLING | GRANTED | 103439.000109 |
| United States | 12/389,950 | 2/20/2009 | 8,525,690 | 9/3/2013 | SYNCHRONIZED TELEMETRY FROM A ROTATING ELEMENT | GRANTED | 103439.000114 |
| United States | 12/398,983 | 3/5/2009 | 8,087,476 | 1/3/2012 | SYSTEM AND METHOD FOR DAMPING VIBRATION IN A DRILL STRING USING A MAGNETORHEOLOGICAL DAMPER | GRANTED | 103439.000103 |
| United States | 12/512,740 | 7/30/2009 | 8,397,562 | 3/19/2013 | APPARATUS FOR MEASURING BENDING ON A DRILL BIT OPERATING IN A WELL | GRANTED | 103439.000116 |
| United States | 12/563,007 | 9/18/2009 | 8,666,908 | 3/4/2014 | SYSTEM AND METHOD FOR ACQUIRING INFORMATION DURING UNDERGROUND DRILLING OPERATIONS | GRANTED | 103439.000122 |
| United States | 12/698,125 | 2/1/2010 | 8,453,764 | 6/4/2013 | SYSTEM AND METHOD FOR MONITORING AND CONTROLLING UNDERGROUND DRILLING | GRANTED | 103439.000105 |
| United States | 13/041,863 | 3/7/2011 | 9,458,679 | 10/4/2016 | Apparatus and Method for Damping Vibration in a Drill String | GRANTED | 103439.000133 |
| United States | 13/098,246 | 4/29/2011 | 8,919,457 | 12/30/2014 | APPARATUS AND METHOD FOR DETERMINING AXIAL FORCES ON A DRILL STRING DURING | GRANTED | 103439.000143 |

| | | | | | UNDERGROUND DRILLING | | |
|---------------|------------|------------|-----------|------------|--------------------------------------------------------------------------------------------------------------|---------|---------------|
| United States | 13/206,445 | 8/9/2011 | 8,240,401 | 8/14/2012 | SYSTEM AND METHOD FOR DAMPING VIBRATION IN A DRILL STRING | GRANTED | 103439.000145 |
| United States | 13/228,376 | 9/8/2011 | 9,976,360 | 05/22/2018 | SYSTEM AND METHOD FOR DAMPING VIBRATION IN A DRILL STRING USING A MAGNETORHEOLOGICAL DAMPER | GRANTED | 103439.000146 |
| United States | 13/283,518 | 10/27/2011 | 9,057,245 | 6/16/2015 | METHODS FOR OPTIMIZING AND MONITORING UNDERGROUND DRILLING | GRANTED | 103439.000152 |
| United States | 13/427,593 | 3/22/2012 | 9,238,965 | 1/19/2016 | Rotary Pulser and Method for Transmitting Information to the Surface from a Drill String Down Hole in a Well | GRANTED | 103439.000158 |
| United States | 13/557,072 | 7/24/2012 | 8,662,205 | 3/4/2014 | SYSTEM AND METHOD FOR DAMPING VIBRATION IN A DRILL STRING | GRANTED | 103439.000175 |
| United States | 13/646,505 | 10/5/2012 | 8,684,108 | 4/1/2014 | SYSTEM AND METHOD FOR MONITORING AND CONTROLLING UNDERGROUND DRILLING | GRANTED | 103439.000176 |
| United States | 13/646,540 | 10/5/2012 | 8,640,791 | 2/4/2014 | SYSTEM AND METHOD FOR MONITORING AND CONTROLLING UNDERGROUND DRILLING | GRANTED | 103439.000177 |
| United States | 13/674,872 | 11/12/2012 | 9,500,031 | 11/22/2016 | ROTARY STEERABLE DRILLING APPARATUS | GRANTED | 103439.000144 |

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|---------------|------------|------------|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------|
| United States | 13/776,705 | 2/26/2013 | 9,279,903 | 3/8/2016 | Apparatus For Measuring Bending On A Drill Bit Operating In A Well | GRANTED | 103439.000184 |
| United States | 29/460,812 | 7/15/2013 | | | Display Screen or Portion Thereof with a Graphical User Interface for Analyzing and Presenting Drilling Data | FILED | 103439.000189 |
| United States | 14/026,332 | 9/13/2013 | | | Drilling System and Method for Monitoring and Displaying Drilling Parameters for a Drilling Operation of a Drilling System | FILED | 103439.000191 |
| United States | 14/036,486 | 9/25/2013 | | | Drilling System and Associated System and Method for Monitoring, Controlling, and Predicting Vibration in an Underground Drilling Operation | FILED | 103439.000190 |
| United States | 14/036,577 | 9/25/2013 | | | Drilling System and Associated System and Method for Monitoring, Controlling, and Predicting Vibration in an Underground Drilling Operation | FILED | 103439.000192 |
| United States | 14/087,637 | 11/22/2013 | | | System, Apparatus, and Method for Drilling | FILED | 103439.000201 |
| United States | 14/155,220 | 1/14/2014 | 8,944,190 | 2/3/2015 | SYSTEM AND METHOD FOR DAMPING VIBRATION IN A DRILL STRING | GRANTED | 103439.000207 |
| United States | 14/171,261 | 2/3/2014 | 9,927,310 | 03/27/2018 | Strain Sensor Assembly | GRANTED | 103439.000179 |
| United States | 14/186,928 | 2/21/2014 | 9,969,198 | 7/4/2017 | System and Method for Monitoring and Controlling Underground Drilling | GRANTED | 103439.000214 |
| United States | 14/195,217 | 3/3/2014 | 9,765,613 | 09/19/2017 | Drilling System and Electromagnetic | GRANTED | 103439.000200 |

| | | | | | Telemetry Tool with an Electrical Connector Assembly and Associated Methods | | |
|---------------------------|--------------------|------------|------------|------------|---------------------------------------------------------------------------------------------------------------------------|---------|---------------|
| United States | 14/282,262 | 5/20/2014 | 9,790,784 | 10/17/2017 | Telemetry System, Current Sensor, and Related Methods for a Drilling System | GRANTED | 103439.000213 |
| United States | 14/529,899 | 10/31/2014 | 9,746,080 | 08/29/2017 | HIGH PRESSURE SEAL ASSEMBLY FOR A MOVEABLE SHAFT | GRANTED | 103439.000226 |
| United States | 14/536,379 | 11/7/2014 | 10,113,363 | 10/30/2018 | SYSTEM AND RELATED METHODS FOR CONTROL OF A DIRECTIONAL DRILLING OPERATION | GRANTED | 103439.000196 |
| United States | 14/613,342 | 2/3/2015 | | | System, Apparatus and Method for Guiding a Drill Bit Based on Forces Applied to a Drill Bit, and Drilling Methods to Same | FILED | 103439.000239 |
| United States | 14/627,806 | 2/20/2015 | 9,976,413 | 05/22/2018 | Pressure Locking Device for Downhole Tools | GRANTED | 103439.000202 |
| United States | 14/628,902 | 2/23/2015 | 9,540,926 | 1/10/2017 | MUD-PULSE TELEMETRY SYSTEM INCLUDING A PULSER FOR TRANSMITTING INFORMATION ALONG A DRILL STRING | GRANTED | 103439.000241 |
| United States | 14/675,378 | 3/31/2015 | | | Downhole Drilling Motor with an Adjustment Assembly | FILED | 103439.000235 |
| United States | 14/849,490 | 9/9/2015 | 10,047,602 | 08/14/2018 | Antennas For a Drilling System and Method of Making Same | GRANTED | 103439.000199 |
| Patent Cooperation Treaty | PCT/US2016/0199 96 | 2/28/2016 | | | Monitoring System With An | FILED | 103439.000263 |

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|---------------------------|-------------------|------------|------------|------------|-------------------------------------------------------------------------------------------------|---------|----------------|
| | | | | | Instrumented Surface Top Sub | | |
| United States | 15/153,579 | 5/12/2016 | 10,184,304 | 01/22/2019 | Downhole Drilling Tools and Connection System for Same | GRANTED | 103439.000245 |
| United States | 15/345,380 | 11/7/2016 | | | Mud-Pulse Telemetry System Including a Pulsar for Transmitting Information Along a Drill String | FILED | 103439.000268 |
| Patent Cooperation Treaty | PCT/US2016/069457 | 12/30/2016 | | | System And Method For Processing Downhole Data In A Drilling Operation | FILED | 103439.000284 |
| United States | 15/433,412 | 2/15/2017 | | | Dual Rotor Pulsar For Transmitting Information In A Drilling System | FILED | 103439.000167 |
| Patent Cooperation Treaty | PCT/US2017/032402 | 5/12/2017 | | | Downhole Drilling Tools and Connection System for Same | FILED | 103439.000288 |
| United States | 15/618,646 | 6/9/2017 | | | System And Method For Monitoring Mud Flow In A Component Of Drilling System | FILED | 103439.000274 |
| United States | 15/640,792 | 7/3/2017 | | | System and Method for Monitoring and Controlling Underground Drilling | FILED | 103439.000292 |
| United States | 15/557,846 | 09/13/2017 | | | MONITORING SYSTEM WITH AN INSTRUMENTED SURFACE TOPO SUB | FILED | 103439.000300 |
| United States | 62/542,607 | 08/08/2017 | | | Acoustic Logging Tool | Expired | 103439.000246 |
| United States | 62/254,637 | 08/08/2017 | | | Downhole Measurement Tools With Multiple Welded Sections | Expired | 103439.000293 |
| United States | 16/067,369 | 06/29/2018 | | | SYSTEM AND METHOD FOR PROCESSING DOWNHOLE DATA IN A DRILLING OPERATION | FILED | 04840002.00304 |

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|---------------|------------|-------------|--|--|--------------------------------------------|-------|----------------|
| United States | 16/057,863 | 08/08/2018 | | | ACOUSTIC LOGGING TOOL | FILED | 04840002.00305 |
| United States | 16/058,073 | 08/08/20108 | | | Downhole Tool With Multiple Welded Section | FILED | 04840002.00306 |
| United States | 16/126,414 | 09/10/2018 | | | BATTERY SYSTEM FOR DOWNHOLE DRILLING TOOLS | FILED | 04840002.00261 |

4829-2664-8710, v. 1