IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TANKLOGIX, LLC,

Petitioner,

v.

SITEPRO, INC.,

Patent Owner.

PTAB Case No. PGR2025-00060

Patent No. 12,321,184

PATENT OWNER'S PRELIMINARY RESPONSE

TABLE OF CONTENTS

I. INTRODUCTION 1

II. BRIEF SUMMARY OF THE '184 PATENT, LEVEL OF ORDINARY SKILL IN THE ART, AND CLAIM CONSTRUCTION 3

A. Brief Summary of the '184 Patent. 3

B. Level of Ordinary Skill in the Art. 4

C. Claim Construction. 4

III. THE '184 PATENT IS NOT ELIGIBLE FOR PGR 5

A. The '184 Patent Is a Pre-AIA Patent. 5

B. Ground 3 Fails Because the 112-Challenged Claims Are Fully Supported by the Pre-AIA Specification of the '184 Patent's Parent Application. 9

1. Claim 2 11

2. Claim 11 14

3. Claim 14 17

4. Claim 31 23

IV. GROUND 2 FAILS: THE CHALLENGED CLAIMS ARE PATENTABLE OVER THE COMBINED TEACHINGS OF KAHN, ALMADI, GUTIERREZ, AND SCADA 25

A. Gutierrez Is Not Prior Art 25

B. Multiple Claimed Limitations of Claim 1 Lack any Mapping or Clear Mapping to the Cited References in the Combination 30

1. No Mapping in [1.c] 31

2. Failed Mapping in [1.b] 31

3. Inconsistent Mapping of "*first computing system*" 34

C. Multiple Claimed Limitations of Claims 30 and 31 Also Lack any Mapping or Clear Mapping to the Cited References in the Combination 35

1. Features of System Claims 30 and 31 Are Unaddressed 35

D. There is No Motivation to Combine Kahn, Gutierrez, Almadi, and SCADA 37

V. GROUND 1 FAILS: THE CHALLENGED CLAIMS ARE NOT ABSTRACT AND ARE DIRECTED TO PATENT ELIGIBLE SUBJECT MATTER 45
A. The Challenged Claims Are Not Directed to An Abstract Idea.....46
1. The Claims Are Not Abstract Ideas 46
2. Petitioner Fails to Properly Apply *Alice/Mayo* Step One 48
B. The Challenged Claims Provide Significantly More Than a Judicial Exception.....50
1. Petitioner Failed to Properly Apply *Alice/Mayo* Step Two 50
2. The Claims Embody a Meaningful Technical Solution.....52
VI. CONCLUSION.....55

EXHIBIT LIST

No.	Exhibit Description
Ex. 2001	File History of U.S. Patent No. 12,321,184 ("the '184 Patent)
Ex. 2002	Screenshots of '184 Patent File History and Front Pages of '184 Patent
Ex. 2003	Scheduling Order for *SitePro, Inc. v. TankLogix, LLC*, 7:25-cv-00266-XR-DTG (Paper 20), pending in the United States District Court for the Western District of Texas
Ex. 2004	SitePro's Preliminary Infringement Contentions, *SitePro*, 7:25-cv-00266-XR-DTG, pending in the United States District Court for the Western District of Texas
Ex. 2005	Comparison Table of Petition's and Wooley Declaration's Discussion of Almadi in [1.b] of Claim 1
Ex. 2006	Declaration of Dr. Robert A. Durham, Ph.D., FIEEE
Ex. 2007	U.S. Patent Application No. 13/708,557 ("the '557 Application") as filed on December 7, 2012
Ex. 2008	File History of U.S. Patent Application No. 12/794,898
Ex. 2009	File History of U.S. Patent Application No. 14/579,141
Ex. 2010	Screenshots of Patent Center website of U.S. Patent Application No. 12/794,898
Ex. 2011	October 2019 Patent Eligibility Guidance Update, 84 Fed. Reg. 55942, 18-29, Oct. 18, 2019 ("October 2019 Update"), online at: https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_app1.pdf

I. INTRODUCTION

Patent Owner, SitePro, Inc., submits this Preliminary Response under 35 U.S.C. § 323 and 37 C.F.R. § 42.207 in response to the Petition for Post Grant Review ("Petition") challenging Claims 1-31 ("Challenged Claims") of U.S. Patent No. 12,321,184 (the "'184 patent") on three grounds: subject matter eligibility (Ground 1), obviousness (Ground 2), and written description support (Ground 3).

The Board should deny institution of the Petition because the '184 patent is not eligible for post grant review (PGR). And even if it were, which Patent Owner does not concede, each of Petitioner's grounds fails to demonstrate a likelihood of prevailing, warranting denial on the merits.

PGR is only available for AIA patents, not pre-AIA patents like the '184 patent. PGR proceedings only apply to patents "that contain[] or contained at any time – (A) a claim to a claimed invention that has an effective filing date" after March 15, 2013 or "(B) a specific reference…to any patent or application that contains or contained at any time such a claim." AIA § 6(f)(2)(A); AIA § 3(n)(1). The '184 patent does not meet either of these requirements, and, through a series of continuation applications, has a pre-AIA priority date of December 7, 2012. Petitioner's sole reason for PGR eligibility hinges on Petitioner's erroneous assertion that Claims 2, 11, 14 and 31 of the '184 patent contain new matter not supported by the earlier applications in its priority chain.

Petitioner is legally and factually wrong, and under no plausible scenario is the '184 patent PGR-eligible. Notably, even if Claims 2, 11, 14, and 31 recite subject matter that is unsupported by the earliest patent application in the '184 priority chain, those claims were introduced during the prosecution of the '184 patent, many months after its initial filing. Introduction of claims containing new subject matter during the prosecution does not render an otherwise pre-AIA patent PGR-eligible. Alternatively, as explained in connection with Ground 3, Claims 2, 11, 14, and 31 are in fact supported by the disclosure of the earliest pre-AIA patent in the '184 patent's priority chain. Therefore, in either scenario—whether the claims recite new matter or don't—the '184 patent does not meet the PGR eligibility criteria.

Not only the Petition fails on the threshold issue of PGR eligibility, the Petition's substantive grounds also fail to establish it is more likely than not that at least one claim of the '184 patent is unpatentable. Specifically, Petitioner's subject matter ineligibility ground (Ground 1) misapplies the *Alice*/*Mayo* test by disregarding the claimed subject matter as a whole. Also, Petitioner's obviousness ground (Ground 2) fails to identify any disclosure from the cited references that would map to certain claim features in the independent claims of the '184 patent, with one reference (Gutierrez) not even being prior art.

In sum, because the '184 Patent is a pre-AIA patent and does not meet any of the requirements for PGR eligibility, and because the Petition's grounds are severely lacking merit, the Board should deny institution.

II. BRIEF SUMMARY OF THE '184 PATENT, LEVEL OF ORDINARY SKILL IN THE ART, AND CLAIM CONSTRUCTION

A. Brief Summary of the '184 Patent.

The '184 patent is a continuation in a series of granted patents directed to the remote control of fluid-handling devices, such as valves, pumps, process chambers, process filters, level switches, and the like for various oil and gas industrial systems. *See* Ex. 1001, 2:17-20, 6:3-15. The systems described in the '184 patent provide the computing infrastructure for users to remotely receive and analyze data of monitoring and control equipment for fluid-handling devices and to remotely command and control them via an interface (*e.g.*, web browser in some embodiments) over a network. *See id*., 3:24-56, FIG. 1. The fluid-handling devices are thereby "controlled remotely without the need to install special-purpose software on the computing device through which remote control is exercised" (*id*., 3:46-53), which solves several deficiencies in the art at the time of the '184 patent, including manual on-site control or specialized software required for devices on a site-by-site basis. *See id*., 1:57-2:9. Furthermore, the systems and methods of the '184 patent enable an advantageous user authorization and management scheme where certain

users are allowed to monitor and control the fluid-handling devices, while other users are only permitted to view data associated with the fluid-handling devices for a particular oil and/or gas facility or facilities. *See id*., 3:24-4:4, 4:40-60.

B. Level of Ordinary Skill in the Art.

The Petition does not describe a person of ordinary skill in the art (POSITA), but relegates this task to its Petitioner's expert declaration ("the Wooley Declaration"), which describes a POSITA as a person having "at least a bachelor's degree in engineering (electrical, chemical, or mechanical), computer science, or a related field and significant experience with remotely controlling fluid-handling devices, like SCADA systems." Ex. 1005, ¶33.

Patent Owner believes a POSITA would have had at least a bachelor's degree in engineering (electrical, chemical, petroleum or mechanical), computer science, or a related field and at least two years of experience designing control systems for remotely controlling fluid-handling devices, like SCADA systems. Ex. 2006, ¶49. Alternatively, a POSITA would have had at least six years of experience in designing control systems for remotely controlling fluid-handling devices, such as SCADA systems. *Id*.

C. Claim Construction.

Patent Owner believes all claim terms should be interpreted in their plain and ordinary meaning. *Id*., ¶75.

III. THE '184 PATENT IS NOT ELIGIBLE FOR PGR

A. The '184 Patent Is a Pre-AIA Patent.

The '184 patent is a Pre-AIA patent ineligible for PGR because it has an effective priority date of December 7, 2012 that is before the earliest date of PGR eligibility, i.e., March 15, 2013. *See* AIA § 6(f)(2)(A); AIA § 3(n)(1). The '184 patent's effective filing date is established through a chain of continuation applications that each call priority to U.S. Patent Application No. 13/708,557 ("the '557 Application"), which was filed December 7, 2012. *See* Ex. 2001, 51 ('184 patent's filing receipt).

Petitioner contends the '184 patent is eligible for PGR based solely on an incorrect allegation that the '184 patent's "Pre-AIA specification fails to support the subject matter claimed," naming four claims (Claims 2, 11, 14, and 31) as allegedly "includ[ing] subject matter that is not supported by the Pre-AIA application." *Id*., 8-9.

Petitioner's contention is based on a misunderstanding or unawareness of the law. Petitioner appears to believe that introducing unsupported subject matter through amendment during the prosecution (after the filing date) of a patent application will make an otherwise pre-AIA patent PGR-eligible. This is flatly wrong. Rather, "*an amendment (other than a preliminary amendment filed on the same day as such application) seeking to add a claim to a claimed invention that is*

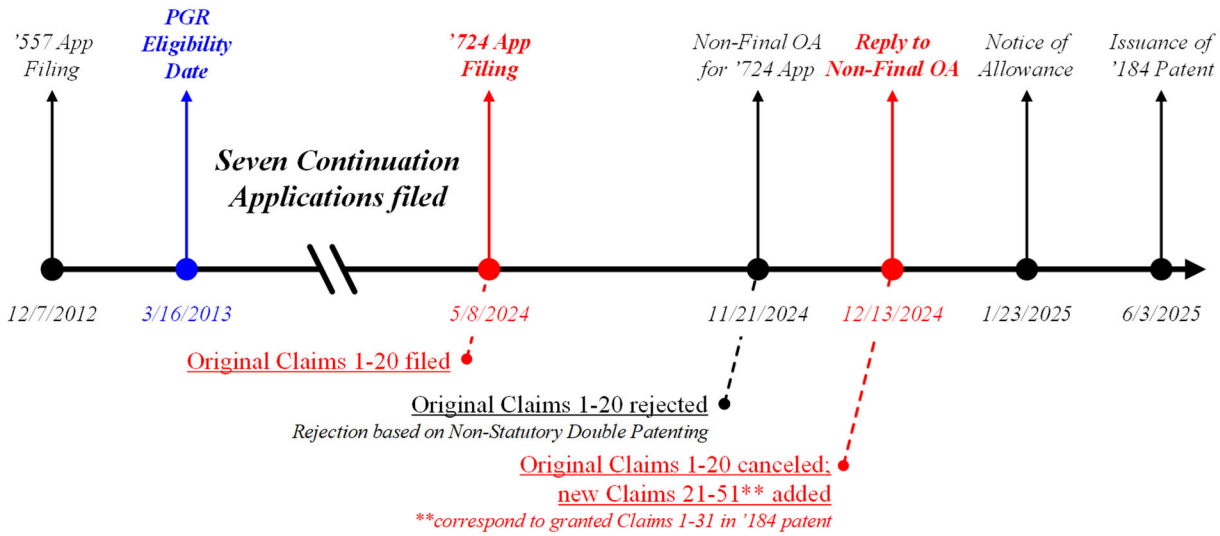
directed to new matter ***would not change the later filed application from a pre-AIA application into an AIA application***." MPEP § 2159.02 (emphasis added). The Board has firmly upheld this provision in multiple decisions. *See Rockwool International A/S v. Knauf Insulation, Inc. et al.*, PGR2022-00022, Paper 10 at 6-9 (PTAB July 6, 2022), denying institution of a PGR based on a petitioner's incorrect assertions that claims presented during prosecution lacked written description. *Also see Intex Recreation Corp. v. Team Worldwide Corp.*, PGR2019-00015, Paper 7 at 12-14 (PTAB May 14, 2019), determining claims added to an application during prosecution do "not convert a pre-AIA application into a first-inventor-to-file application."

The claims at issue, Claims 2, 11, 14, and 31 (hereinafter, "the 112-Challenged Claims"), have a fact pattern like in *Rockwool*, where the allegedly unsupported subject matter was introduced during the prosecution several months after the filing date of U.S. Patent Application No. 18/658,724 (the "'724 Application"), which matured into the '184 patent. *See* Ex. 2001, 88, 98. Petitioner acknowledges these facts. *See* Petition, 5, noting "[i]n response, on December 13, 2024, the applicant, SitePro, cancelled all then-pending claims (claims 1–20) and submitted a new claim set (claims 21–51)." Thus, like in *Rockwool*, PGR should not be instituted for the same reasons.

The following diagram illustrates the timeline of the 112-Challenged Claims with respect to the '724 Application and the parent '557 Application (i.e., the earliest pre-AIA application in the priority chain).

112-Challenged Claims Timeline of the '184 Patent

(not to scale)



Specifically, the '724 Application was filed on May 8, 2024 as a continuation application of then-pending U.S. Patent Application No. 18/212,131 (now U.S. Patent No. 12,019,461), which is a continuation of several earlier continuation applications that ultimately claim priority to the '557 Application, filed on December 7, 2012. Ex. 2001, 43-44 (Domestic Benefit Information in ADS), and 51 (page 1 of Filing Receipt). The '724 Application included twenty claims on its filing date. *Id.*, 29-33. The twenty original claims of the '724 Application were canceled on December 13, 2024 in response to a Non-Final Office Action (mailed by the Office on November 21, 2024), and thirty-one new claims were filed in the response. *Id.*,

88-98. The thirty-one new claims added in response to the Office Action were allowed on January 23, 2025, and directly correspond to Claims 1-31 of the '184 patent that issued on June 3, 2025. *Compare*, *id*. with Ex. 1001, 14-17. Specifically, Claims 2, 11, 14, and 31 of the '184 patent at issue in the Petition correspond to Claims 22, 31, 34, and 51 filed during the prosecution of the '724 Application.[1]

Turning to the Petition, Petitioner cites two cases—*PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306 (Fed. Cir. 2008) and *In re Gosteli*, 872 F.2d 1008, 1010-1011 (Fed. Cir. 1989)—to argue PGR eligibility. Petition, 8-9. While both *PowerOasis* and *Gosteli* involved § 112 issues where claimed subject matter lacked written description in the specification of the earliest claimed priority patent documents, these cases are dissimilar to the § 112 issue argued against the '184 patent because they involved continuation-in-part (CIP) applications or foreign patent applications in their respective claimed priority chains. *See PowerOasis*, 522 F.3d 1301 ("[the] patents stem from a series of continuation and continuation-in-part applications" and "[the] CIP application added considerable new language to the specification, which the district court characterized as "substantial new matter.""). *See also Gosteli*, 522 872 F.2d 1009 ("Gosteli claimed the benefit, under 35 U.S.C. § 119 (1982), of their Luxembourg patent application's foreign priority date [where

[1] The Petition does not discuss the original twenty claims of the'724 Application.

t]he disclosure of the Luxembourg application is not as complete as that of Gosteli's United States application."). In both cases cited by Petitioner, the controversial subject matter was added at the filing of the patent application at issue (*Gosteli*) or at the filing date of an intervening CIP application (*PowerOasis*). That is not the case for the '184 patent, as the above discussion clearly demonstrates the subject matter in controversy was added after the filing date of the '184 patent. Therefore, the '184 patent is a pre-AIA patent that cannot be PGR-eligible, consistent with both the MPEP and multiple Board decisions. MPEP 2159.02; *Rockwool*, PGR2022-00022, Paper 10 at 6-9; *Intex*, PGR2019-00015, Paper 7 at 12-14.

Thus, the Board should deny the instant PGR.

B. Ground 3 Fails Because the 112-Challenged Claims Are Fully Supported by the Pre-AIA Specification of the '184 Patent's Parent Application.

Petitioner is also incorrect on the merits of the Petition's § 112 allegations raised in Ground 3. As demonstrated below, all of the claims of the '184 patent are in conformance with pre-AIA § 112, 1st paragraph, and are fully supported by the original specification and claims of the earliest patent application (the '557 Application) in the priority chain. Therefore the '184 patent is not PGR eligible for these reasons as well. And, Ground 3 fails on the merits.

The touchstone for written description support of claimed subject matter is whether a POSITA would recognize that the inventor was in possession of the

claimed invention. That is, for the claims of the '184 patent to satisfy the written description requirement under pre-AIA § 112, 1st paragraph, the disclosure of the priority application (the '557 Application) must "convey with reasonable clarity to those skilled in the art that, as of the filing date sought, [the inventor] was in possession of the invention." *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991). "[T]he test for sufficiency of support in [the] parent application is whether the disclosure of the application relied upon 'reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter.'" *Ralston Purina Co. v. Far-Mar-Co, Inc.*, 772 F.2d 1570, 1575 (Fed. Cir. 1985) (quoting *In re Kaslow*, 707 F.2d 1366, 1375 (Fed. Cir. 1983)). While the prior application need not contain precisely the same words as are found in the asserted claims [*see Eiselstein v. Frank*, 52 F.3d 1035, 1038 (Fed. Cir. 1995); *see also Purdue Pharma LP v. Faulding Inc.*, 230 F.3d 1320, 1323 (Fed. Cir. 2000) (holding that the disclosure does not have to provide in *haec verba* support in order to satisfy the written description requirement)], the prior application must indicate to a person skilled in the art that the inventor was "in possession" of the invention as later claimed. *Ralston*, 772 F.2d at 1575.

A POSITA would clearly recognize the inventor of the '184 patent was in possession of the claimed subject matter for each of the 112-Challenged Claims as of December 7, 2012 priority date.

1. Claim 2

Claim 2 recites "*wherein: other user accounts in the data store indicate* ***other users are not authorized to issue commands*** *to the first computing system; and the other user accounts indicate the* ***other users are authorized to view reports*** *from the first computing system*." Ex. 1001, 17:36-41 (emphasis added). Petitioner argues that the emphasized recitation "goes beyond the basic system outlined within the [Pre-AIA] specification." Petition, 9-10. This is incorrect.

A POSITA would recognize the inventor of the '557 Application (and, thus, the '184 patent) was in possession of the subject matter recited in Claim 2 of the '184 patent from at least the following disclosures in the '557 Application: Ex. 2007, 18 (¶[0015] of the '557 Application); *id.*, 19-20 (¶[0018] of the '557 Application); and *id.*, 41 (original claim 18 of the '557 Application).

> **[0015]** In some embodiments, the command-center server 14 includes a web server 32, a data store 34, and a site server 36. The command-center server 14 may act as a central node through which any of a plurality of user devices, such as user devices 26 and 28 (e.g., laptops, tablets, desktop computers, smartphones, and the like), issue commands to any of a plurality site master-controller 16, **provided that such access is authorized**. Only two user devices and three site master-controllers are shown for simplicity of explanation, but implementations including substantially more of each are envisioned, such as more than several hundred or several thousand user devices and

more than several hundred or several thousand site master-controllers, for example. That said, embodiments are also consistent with a single user device and a single site master-controller. Ex. 2007, 18 (emphasis added).

[0018] In the data store 34 of some embodiments, the site master-controllers 16 may be organized according to user accounts, with each site master-controller 16 corresponding to at least one user account and some user accounts corresponding to multiple site master-controllers 16, as some users may have, for example, a plurality of oil wells or other facilities which the user wishes to control or monitor. In some embodiments, the data store 34 includes a plurality of account records, each account record having one or more user names, one or more user passwords, billing information (e.g., billing address, subscription price, and invoicing data), and **identifiers of one or more site master-controllers (e.g. an IP address of each site master-controller) with which users under the corresponding account are authorized to interact (e.g., issue commands or view reports of data from the site master-controller)**. The data store 34 may encode such arrangements of data in a variety of formats, including a relational database, program state, hierarchical key-value pairs, a flat file, or other information encoded in a tangible, non-transitory, machine-readable medium, such as a hard drive or random access memory. Ex. 2007, 19-20 (emphasis added).

18. The system of claim 17, wherein the remote server comprises a user account data store storing data associating each of the respective

> systems with a single user account **distinct from a plurality of other user accounts in the data store**. Ex. 2007, 41 (emphasis added).

From these disclosures, a POSITA would understand that (1) a user account must be authorized to issue commands to a site master-controller (Ex. 2007, 18), (2) account records for each user account include identifiers for site-master controllers that the user account has authorization to interact (i.e., issue commands or view reports of data from the site master-controller), and (3) user accounts in the data store are distinct from other user accounts, i.e., not authorized with the same authorization as the other accounts. That is, a POSITA reading this portion of the specification would recognize that some user devices are authorized to issue commands, and others are not. Ex. 2006, ¶77. For instance, some user accounts would be authorized to issue commands, while other user accounts would be authorized to view data reports, and still other user accounts would be authorized to do both. *See id*., ¶78 (discussing ¶[0018] of the '557 Application). In other words, the '557 Application was clear that there was a distinction between user accounts that were given different types of authorization to different actions: some to issue commands and some to view reports. *Id*., ¶77-79.

Thus, Claim 2 of the '184 patent is clearly supported by the '557 Application and thereby benefits from its priority claim to the '557 Application's filing date, December 7, 2012. *Id*., ¶¶80-81.

2. Claim 11

Claim 11 recites "*wherein the fluid-handling site is* ***a water handling facility***." Ex. 1001, 18:6-7 (emphasis added). Petitioner argues that a POSITA would not reasonably conclude the inventor of the '184 patent was in possession of the emphasized recitation because the specification fails to discuss water handling, merely reciting water as a byproduct or something to handle with relation to oil (e.g., petro water disposal and oil/water separation)." Petition, 11-12. This is incorrect.

A POSITA would recognize the inventor of the '557 Application was in possession of the subject matter recited in Claim 11 of the '184 patent from at least the following disclosures in the '557 Application: Ex. 2007, 16 (¶[006] of the '557 Application); *id.*, 21-22 (¶[0025] of the '557 Application); *id.*, 38 (original claim 1 of the '557 Application); and *id.*, 40 (original claim 14 of the '557 Application).

> **[006]** In some aspects, the present techniques include **a system for remotely controlling fluid-handling device of** an oil well, **a petro water disposal** or re-injection **facility**, or a petroleum pumping station, the system including: an input/output module operable to communicate with a fluid-handling device; a network interface; memory; and one or more processors communicatively coupled to the input/output module, the network interface, and the memory, wherein the memory stores instructions that when executed by the processors cause the processors to effectuate steps including: receiving, via the network interface, from a remote user device, a command to change a state of the fluid-handling

device to a target state; translating the received command into a translated command operative to cause a local controller of the fluid-handling device to drive the fluid-handling equipment to the target state, the local controller being responsive to the command and feedback from the fluid-handling device indicative of whether the fluid-handling device is in the target state; and sending the translated command to the local controller.. Ex. 2007, 16 (emphasis added).

[0025] The fluid-handling devices may be any of a variety of different types of devices that handle fluids. For example, the fluid-handling devices may be a valve, a pump, **a process chamber (for instance a oil/water separation tank)**, or a process filter, or level switch. In some cases, the fluid-handling device may include an actuator, for instance an electric motor or a hydraulic drive, by which fluid flow or other parameters are manipulated, a sensor 56 by which process parameters are measured, or a local controller 58 by which power to the actuator 54 is modulated. Fluid-handling devices 38 may include a variety of types of sensors, for instance, a temperature, viscosity, flowrate, fluid level, pressure, conductivity, or other parameter sensor. Ex. 2007, 21-28 (emphasis added).

1. A system for remotely controlling fluid-handling device of **an oil well, a petro water disposal or re-injection facility**, or a petroleum pumping station, the system comprising: an input/output module operable to communicate with a fluid-handling device; a network interface; memory; and one or more processors communicatively coupled to the input/output module, the network interface, and the

> memory, wherein the memory stores instructions that when executed by the processors cause the processors to effectuate steps comprising: receiving, via the network interface, from a remote user device, a command to change a state of the fluid-handling device to a target state; translating the received command into a translated command operative to cause a local controller of the fluid-handling device to drive the fluid-handling equipment to the target state, the local controller being responsive to the command and feedback from the fluid-handling device indicative of whether the fluid-handling device is in the target state; and sending the translated command to the local controller. Ex. 2007, 38 (emphasis added).

> 14. The system of claim 1, comprising one of the following coupled to the fluid-handling device: an oil well, **a salt water disposal well**, a carbon-capture well, or a pump station. Ex. 2007, 40 (emphasis added).

From these disclosures, a POSITA would recognize multiple examples of a water handling facility are described, such as an oil well station or a petro water disposal or re-injection facility. Ex. 2006, ¶83. For instance, the "petro water disposal or re-injection facility" recited in ¶[006] and original Claim 1 of the '557 Application is a water handling facility well known to persons of ordinary skill in the fluid-handling arts, such as oil and gas processing. Petro water disposal facilities handle water recovered during oil extraction. Petro water disposal facilities do not handle oil, except for residual oil as a byproduct, and their primary purpose is to dispose of salt water that was produced alongside oil (and separated, for example,

from the oil by an oil/water separation tank, like that mentioned in the '557 Application at ¶[0025]). *See id.*, ¶¶66-69, ¶¶83-84. Notably, original Claim 14 of the '557 Application discloses "a salt water disposal well" as a claimed embodiment of the claimed "fluid-handling device" of the system for the disclosed petro water handling site. *Id.*, ¶85.

Also, for example, the "oil well" facility recited in ¶[006] and original Claim 1 of the '557 Application is a water handling facility well known to persons of ordinary skill in the fluid-handling arts. Because water is a common byproduct of oil production at oil well facilities, a POSITA would understand that an oil well facility must handle water and thus would be considered as a water handling facility. *See id.*, ¶¶62-65, ¶83.

Thus, Claim 11 of the '184 patent is clearly supported by the '557 Application and thereby benefits from its priority claim to the '557 Application's filing date, December 7, 2012. *Id*., ¶¶86-87.

3. Claim 14

Claim 14, when analyzed by including relevant Claim 1 limitations, recites "*... for at least some of the plurality of commands, determining ... a plurality of different target states of a given one of the fluid handling devices over time ... wherein* ***one of*** *the plurality of* ***different target states that change over time*** *is determined by the first computing system* ***in response to a rate of change in a level***

of a fluid in a tank." Ex. 1001, 18:19-23 (emphasis added). Petitioner argues that "Pre-AIA specification fails to support changing target states "in response to a rate of change in a level of a fluid in a tank" as it does not mention "rate of change" a single time." Petition, 12. This is incorrect.

There are multiple ways a POSITA would recognize the inventor of the '557 Application was in possession of the subject matter recited in Claim 14 from the original specification and original claims of the '557 Application. One source of written description support is in ¶[0027] of the '557 Application, which describes feed-forward control of fluid-handling devices by the site master controller. Ex. 2007, 22 (reproduced below, with emphasis added). Here, the specification teaches the site master controller commands a fluid-handling device, such as tank,[2] to "adjust" to a new target setpoint (i.e., claimed "*target state*"), receives data from a sensor of the fluid-handling device, and provides a subsequent command for the fluid-handling device to make a further adjustment to the setpoint (i.e., a different target state) based on the site master controller's determination from the sensor data that a change is required. *Id*. *See* Ex. 2006, ¶90. The last sentence in ¶[0027] gives an example scenario for "actions that affect the system," where the sensor data and

[2] The '557 Application's ¶[0025] and ¶[0053] each expressly discloses that an embodiment of a fluid-handling device is an "oil/water separation tank."

target setpoints pertain to a fluid level in a tank and particularly based on "a relatively drastic or rapid reduction in a specific tank level" (i.e., claimed "*a rate of change in a level of a fluid in a tank*"), which directly tie to the language of Claim 14. Incorporating this example into the feed-forward control disclosure, the controller determines a tank fluid level state change over time from the "relatively drastic or rapid reduction in a specific tank level, which may indicate … a leak in [the] tank." The POSITA reading ¶[0027] as a whole would readily recognize the "determination made by the site master-controller" of the leak is to determine an adjusted setpoint (new target state) of the fluid level in the tank based on the sensor data, i.e., in response to the rate of change in the level of the fluid in the tank indicative of the "relatively drastic or rapid reduction in the specific tank level." *See* Ex. 2006, ¶90.

> **[0027]** In some cases, the local controllers 58 may have relatively limited processing power, such that more complicated changes in state are executed responsive to multiple commands to the respective fluid-handling device 38. For example, **a fluid-handling device 38 with feed-forward control may receive a command to adjust to a target setpoint, return sensor data to the site master-controller 18, and received a subsequent command to adjust further based on a determination made by the site master-controller 18 based on the sensor data**. In another example, a stuck-valve may be loosened by a series of commands issued from the site master-controller 18 causing a local controller 58 to oscillate between states, working the stuck-valve loose. Similarly, shocks to up-stream or down-stream fluid-handling

> devices may be mitigated by a series of commands gradually changing the state of a given fluid-handling device, for instance gradually ramping up or down the speed of a pump or gradually opening or closing a valve. In some embodiments, **an action that affects the system, yet originates from outside the system, may use logic from a controller in the local system, such as a relatively drastic or rapid reduction in a specific tank level, which may indicate that a leak in a tank may exists, and the outside logic may provide which tank is experiencing the leak**. Ex. 2007, 22 (emphasis added).

Another source of support for Claim 14 by the original written description of the '557 Application is by the combined teaching of ¶[0044], ¶¶[0052]-[0053], and ¶[0027] describing feedback control of fluid-handling devices by the controller. *See* Ex. 2007, 28-29 (¶[0044] of the '557 Application); *id.*, 30-31 (¶¶[0052]-[0053] of the '557 Application); and *id*., 22 (¶[0027] of the '557 Application), each reproduced below (with emphasis added).

> **[0044]** Some embodiments may include controllers 82 operative to execute control routines implicated by the translated commands on an individual device 38, actuator 54, or sensor 56. To this end, the commands translator 74, in addition to transmitting commands, may also route the translated command to a controller 82 corresponding to the specific device, actuator, or sensor to which the command is directed. The controllers 82 may determine set points corresponding to (or conveyed in) the command, send control signals configured to drive the fluid-handling device to the set points, and receive feedback from

the fluid-handling device 38 indicative of whether the fluid-handling device 38 has achieved the target set point. In some embodiments, **the controllers 82 include proportional-integral-derivative controllers for exercising feedback control, or the controllers 82 may include feed forward control algorithms (e.g., look-up tables or formulas for calculating commands based on set points).** Further, in some embodiments, the **controllers 82 may change the set point over time in accordance with the received command, for example a command to gradually ramp up a motor speed, a command to gradually open a valve, or a command to oscillate the position of a valve to dislodge a stuck valve**. Algorithms for changing the set point may be stored in memory accessible to the controllers 82 responsive to a translated command implicating the specific algorithm. Ex. 2007, 28-29 (emphasis added).

[0052] The process 104 may also include sending the translated command to a local controller of the fluid-handling device via the identified control bus, as illustrated by block 112. Sending the translated command may include **exercising feedback control of the fluid-handling device based on sensor data received from the fluid-handling device by adjusting a set point sent to the local controller**. Or in some use cases, **sending the translated command may include sending a sequence of set points that change over time**. Ex. 2007, 30-31 (emphasis added).

[0053] In some embodiments, the process 104 includes receiving sensor data from the fluid-handling device confirming that the command was

> executed, as illustrated by block 114. As with the other features described herein, not all embodiments include this step. Using this data, some embodiments may exercise feedback control or may retrieve sensor measurements following the execution of a command for reporting to the user device. In some cases, the sensor data is retrieved regardless of whether a command was issued, for example periodically to monitor the state of the fluid-handling device. **In one example, the fluid-handling device is an oil/water separation tank, and a set point of a pump is adjusted to change a fluid level in the tank, e.g., a level at which oil meets water or a level of the oil**. Ex. 2007, 31 (emphasis added).

A POSITA would understand from these disclosures that a rate of change of a measured value, such as a fluid level in a tank, can be determined by taking the derivative at a point in time. Ex. 2006, ¶89 (citing the Petition and Wooley Declaration directly). It was well known to a POSITA at the time of the '557 Application that proportional-integral-derivative (PID) controllers measure the rate of change of a variable (like fluid level values) by taking the derivative. Ex. 2006, ¶55, ¶89. The '557 Application discloses that "the controllers 82 include proportional-integral-derivative [PID] controllers for exercising feedback control." Ex. 2007, 28 (¶[0044]). The '557 Application also discloses that "a set point of a pump is adjusted to change a fluid level in the tank." *Id*., 31 (¶[0053]). Thus, a POSITA would have understood the inventor of the '557 Application (and, thus, the

'184 patent) possessed the claimed feature (*one of the plurality of different target states that change over time is determined by the first computing system* ***in response to a rate of change in a level of a fluid in a tank***) because the '557 Application's teaches how PID controllers exercise feedback control of the fluid-handling devices, like an oil/water separation tank, based on sensor data received from the tank, by determining the derivative of a fluid level (rate of change over time) to adjust a set point (target state) sent to the local controller.

The POSITA would then understand from the illustrative example of ¶[0027] that the controller responds to a "relatively drastic or rapid reduction" in the fluid level of the fluid tank to determine a subsequent target state to send to the local controller. *See* Ex. 2007, 22 (¶[0027]). From this, a POSITA would understand that the target state is determined by the first computing system (controller) in response to the rate of change in the level of a fluid in a tank, which is reported by the local controller. *See* Ex. 2006, ¶90.

Thus, Claim 14 of the '184 patent is clearly supported by the '557 Application in multiple ways and thereby benefits from its priority claim to the '557 Application's filing date, December 7, 2012. *Id*., ¶¶91-92.

4. Claim 31

The Petition addresses Claim 31 alongside Claim 11, asserting the specification fails to support the recited "water handling facility." Petition, 11-12.

While Claim 11's "water handling facility" was addressed above, Petitioner's assertion regarding Claim 31 is an apparent error because the subject matter in controversy ("*a water handling facility*") is not recited in Claim 31. Ex. 1001, 20:54-22:38. Therefore, Petitioner's assertions against Claim 31 are unfounded and should be dismissed.

Nonetheless, analysis of the claimed subject matter in Claim 31 finds a similar recitation to Claim 2's controversial subject matter, where Claim 31 recites: "*wherein: other user accounts in the data store indicate other users are not authorized to issue commands to the first computing system; the other user accounts indicate the other users are authorized to view reports from the first computing system*." *Id*., 22:5-11. To the extent the Petition intended to group Claims 2 and 31 together, Petitioner's assertions against Claim 31 fail because of the same reasons discussed in connection with Claim 2. *Id*., ¶93. Accordingly, Claim 31 is fully supported and in accordance with pre-AIA 35 U.S.C. § 112, 1st paragraph, and AIA 35 U.S.C. § 112(a).

Therefore, on the merits, the '184 patent is not eligible for PGR, and the Board should deny institution. Moreover, the above demonstrates why Ground 3 of the Petition fails.

IV. GROUND 2 FAILS: THE CHALLENGED CLAIMS ARE PATENTABLE OVER THE COMBINED TEACHINGS OF KAHN, ALMADI, GUTIERREZ, AND SCADA

Petitioner asserts in Ground 2 of the Petition that the combination of "Kahn and Gutierrez in further view of Almadi and SCADA" renders obvious the Challenged Claims under pre-AIA 35 U.S.C. § 103. *See* Petition, 15. This is incorrect. First, Guitierrez is not prior art, so Ground 2 necessarily fails. Moreover, the Petition fails to show the requisite disclosure, teaching, or suggestion in the prior art for several claimed features of independent Claims 1, 30, and 31 and provides no explanation or reasoning for why these features or the claim as a whole would have been obvious.

A. Gutierrez Is Not Prior Art

Ground 2 of the Petition relies on Gutierrez as prior art for its obviousness assertion based on the four-reference combination of Kahn, Almadi, Gutierrez, and SCADA. However, Gutierrez is not prior art under any subsection of 35 U.S.C. § 102, leaving Ground 2 effectively nullified. Patent Owner notes that the Board in multiple prior IPRs filed by the same Petitioner against parents of the '184 patent determined that "Gutierrez … cannot serve as prior art" to patents in the priority chain of the '184 patent. Notably, the Board "determine[d] that the priority date of Gutierrez is December 22, 2014," which is after the December 7, 2012 earliest priority date of the '184 patent. *See TankLogix, LLC v. SitePro, Inc.*, IPR2025-

00651, Paper 11 (Decision Denying Institution) at 30-31 (PTAB October 10, 2025). *See also TankLogix, LLC v. SitePro, Inc.*, IPR2025-00650, Paper 11 (Decision Denying Institution) at 24-25 (PTAB October 10, 2025) (stating "we determine that the priority date of Gutierrez is December 22, 2014[, and] therefore, cannot serve as prior art to the … patent). Other than Claims 2, 11, 14 and 31, Petitioner has not challenged the December 7, 2012 priority date of the remaining claims of the '184 patent. And, as explained above, Claims 2, 11, 14 and 31 are in fact fully supported by the original specification and claims of the '557 Application filed on December 7, 2012. Thus, the Gutierrez reference in the instant Petition is not a prior art against the claims of the '184 patent for the same reasons as in the aforementioned non-instituted IPRs (and as explained below).

In particular, this Petition relies on U.S. Patent No. 9,709,995 B2 (referred to as "Gutierrez") as alleged prior art under § 102(a)(2) or § 102(a)(1). Petition, 16, 18, respectively. Gutierrez cannot be prior art under any subsection of § 102 because ***Gutierrez's priority chain was broken*** at the time of Gutierrez's filing due to Gutierrez's parent application having gone abandoned.

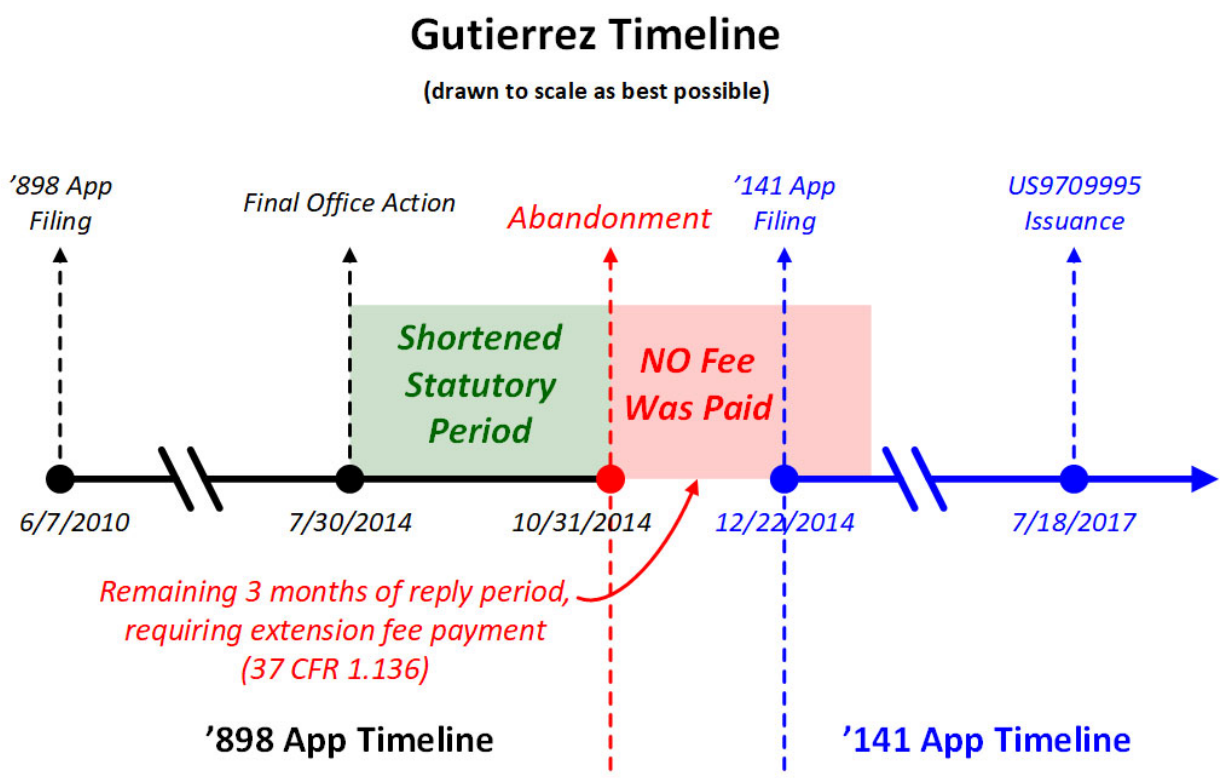
Gutierrez is the U.S. patent issued from U.S. Application No. 14/579,141 ("the '141 Application"), which was filed December 22, 2014 as a continuation of U.S. Application No. 12/794,898 ("the '898 Application"), which was filed June 7, 2010. The '898 Application went abandoned on October 31, 2014 after the applicant

failed to reply to an Office Action[3] within the fixed statutory period. *See* MPEP 711.04(a) ("the date of the abandonment is after midnight of the date on which the set shortened statutory period, including any extensions under 37 CFR 1.136, expired. This is normally the end of the 3-month shortened statutory period."). *See also* MPEP 711.02 (citing 37 CFR 1.135(a): "[i]f an applicant of a patent application fails to reply within the time period provided under § 1.134 and § 1.136, the application will become abandoned unless an Office action indicates otherwise.").

The applicant of the '898 Application did not pay an extension fee in accordance with § 1.136 between expiration of the shortened statutory period (October 31, 2014) and the filing of the '141 Application (December 22, 2014); and there was no further "Office action" indicating otherwise.[4] Ex. 2008; Ex. 2009. The diagram below illustrates these events chronologically.

[3] The '898 Application received a Final Office Action dated July 30, 2014, to which no response was filed and no extension fees were paid after the three-month shortened statutory period expired. *See* Ex. 2008, 198-199.

[4] The only action by the U.S. Patent and Trademark Office after the July 30, 2014 Final Office Action was the Notice of Abandonment of the '898 App, which was mailed on February 4, 2015. *See* Ex. 2008, 230-231.



As the above diagram illustrates, the '141 Application (which issued as Gutierrez) was filed after the parent '898 Application was abandoned. Therefore, the '141 Application (and the patent that issued as Gutierrez) is only entitled to a priority date of December 22, 2014, which is after the December 7, 2012 priority date of '184 patent.

Notably, the consequence of the applicant's non-responsiveness to the Office Action within the shortened statutory period for reply rendered the '898 Application abandoned, and any continuation application filed after abandonment, i.e., the '141 Application that resulted in the Gutierrez patent, is not entitled to an earlier priority date for failing the copendency requirement of 35 U.S.C. § 120. *See Urologix, Inc.*

v. Prostalund AB, 227 F. Supp. 2d 1033, 1035-1040 (E.D. Wis. 2002). The *Urologix* court also made clear that the burden is on the applicant to have "evidence" of the extension of time. *Id.*, 1038. Here, like in *Urologix*, the record shows no payment or petition for an extension of time after expiration of the shortened statutory period for the '898 Application (*see* Ex. 2008), thus cementing its abandonment immediately after the period's three-month duration elapsed.[5]

Furthermore, the prosecution file history of the parent '898 Application includes no statements or authorizations for payment of the missed extensions of time. *See id*.

Thus, Gutierrez's actual priority date is December 22, 2014, more than two years after the '184 patent's priority date of December 7, 2012. Accordingly, the Petition's sole prior art-based invalidity ground (Ground 2) fails because Gutierrez is not prior art.

[5] Patent Center website for the '898 Application shows no evidence of payment or petition for an extension of time after the July 30, 2014 Final Office Action: https://patentcenter.uspto.gov/applications/12794898/ifw/docs?application=

See also, Ex. 2010, which shows screen captures of the Documents and Transactions listing for the '898 Application.

B. Multiple Claimed Limitations of Claim 1 Lack any Mapping or Clear Mapping to the Cited References in the Combination

A finding of obviousness under § 103 requires an objective analysis of a claim within the framework articulated in *Graham v. John Deere Co*., 383 U.S. 1 (1966) and reiterated in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). The court has "repeatedly emphasized that an obviousness inquiry requires examination of all four *Graham* factors and that an obviousness determination can be made only after consideration of each factor." *Nike, Inc. v. Adidas AG*, 812 F.3d 1326, 1335 (Fed. Cir. 2016). Among many shortcomings, the Petition does not fulfill this obligation because it neglects the second *Graham* factor (ascertaining the differences between the claimed invention and the prior art) for each element of the challenged claims in Ground 2.

Not only does the Petition fail to satisfy the requisite legal standard, Petitioner's element-by-element mappings are faulty. The combination of Kahn, Gutierrez, Almadi, and SCADA (hereinafter, the "Combination") does not disclose, teach, suggest, or otherwise render obvious each claimed limitation in Claims 1, 30, and 31. Petitioner either fails to map or provides unclear and/or incorrect element mappings to the Combination for at least several limitations among the eight claim sections of Claim 1 (parsed as claim elements [1.a] to [1.f]), the ten claim sections

of Claim 31 (parsed as claim elements [31.a] to [30.h]) and the twenty claim sections of Claim 31 (parsed as claim elements [31.a] to [31.o3]), as explained below.

1. No Mapping in [1.c]

Petitioner fails to map the claimed feature in [1.c] of "*the feedback being indicative of whether the given fluid-handling device is in targeted states among the plurality of different target states*." Petition, 48-50. The Petition does not address Kahn and SCADA at all for any aspect of limitation [1.c]. *Id*. For Gutierrez and Almadi, the Petition's [1.c] section mentions the term "*feedback*" only once pertaining to Gutierrez's single statement about translation module 145 allowing an operator to receive feedback data from controller 130. *See id*., 49, referencing Ex. 1009, 9:54-59. Notably, there is no discussion in the Petition (and likewise Gutierrez) of the "*feedback*" being indicative of the fluid-handling device being in a "*target state*," as required by the claim. Ex. 2006, ¶137. And, Petitioner's discussion of Almadi supposedly teaching a fluid-handling device's target state lacks any connection to Gutierrez's feedback. Thus, this claim feature is totally neglected in Petitioner's obviousness ground against Claim 1.

2. Failed Mapping in [1.b]

Petitioner fails to properly map any disclosure from each of Kahn, Gutierrez, Almadi, and SCADA to the claimed feature in [1.b] of "*wherein the first computing system is operative to maintain control of the fluid handling devices in an absence*

of an external network connection." None of Kahn, Almadi, Gutierrez, or SCADA actually disclose, teach, suggest, or otherwise render obvious this limitation. Ex. 2006, ¶121.

The Petition points only to Almadi[6] by alleging, without any support, that a POSITA would understand Almadi's "intelligent field devices" maintain such control without an external network connection. Petition, 47. Almadi does not disclose or teach this, and Petitioner fails to identify or explain what in Almadi's disclosure provides a POSITA to understand the claimed capability in Almadi's system. *Id*. Instead, the Petition merely points to Petitioner's expert declaration ("Wooley Declaration"), which does nothing more than repeat verbatim the same baseless conclusion about a POSITA's knowledge without even citing a single statement in Almadi.[7] The Petition and Wooley Declaration both point to "Almadi's disclosure of monitoring and collecting data, such as measurements of fluid pressure, temperature, or flow" as "determining a plurality of different target states of a given

[6] There is no discussion or mention in Petition's [1.b] of Kahn, Gutierrez, and SCADA disclosing a computer system that maintains control of the fluid handling devices in an absence of an external network connection. *See* Petition, 45-48.

[7] Petition cites Ex. 1005 at ¶124 (*see* Petition, 47), which is a verbatim copy of the same statements made in the Petition at p. 47 without any citation to Almadi.

one of the fluid-handling devices over time." Petition, 47; Ex. 1005, ¶124. However, monitoring and collecting sensor data is not determining a plurality of different target states of the fluid handling devices over time, based on the received command. Ex. 2006, ¶127. At most, this disclosure of Almadi is teaching monitoring the present state of the fluid handling devices, not determining a plurality of different target states. *Id*.

Petitioner's arguments for Gutierrez "disclos[ing] determining … a plurality of different target states" also fail. Neither the Petition nor the Wooley Declaration attempts to show how Gutierrez's controller 130 could perform such determination and instead points to a "VFD" (which is part of Gutierrez's motor controller 15) as allegedly doing so. Petition, 45-46, Ex. 1005, ¶120. But Petitioner's mapping stops there without explanation of how a VFD (Gutierrez's motor controller 15) determines these states over time based on the received commands or why its being done by the motor controller, and not Gutierrez's controller 130 supposedly mapped to the claimed "*first computing system*." Ex. 2006, ¶¶122-123. These stark discrepancies illustrate that Gutierrez is significantly different than limitation [1b].

Both Kahn and SCADA do not compensate for these deficiencies. Kahn contains no teaching of remote control, which would have been required for the claimed "*first computing system*" to effectuate any command of a fluid-handling device, much less one that "*maintain[s] control of the fluid handling devices in an*

absence of an external network connection" as required in [1b]. Ex. 2006, ¶¶124-126. For SCADA, neither the Petition or the Wooley Declaration articulate what SCADA is allegedly teaching that pertains to limitation [1b]. Ex. 2006, ¶¶131-132. Both change their position on the claimed "first computing system" from SCADA's Remote Terminal Units (RTUs) (in limitation [1a]) to SCADA's Master Terminal Unit (MTU) (in limitation [1b]) to allege the MTU determines a plurality of target states. *Compare* Petition, 47-48 to *id*., 40; *also compare* Ex. 1005, ¶125 to *id*., ¶104.

Thus, Petitioner makes no showing that the Combination discloses, teaches, suggests, or otherwise renders obvious limitation [1.b].

3. Inconsistent Mapping of "*first computing system*"

Yet further, Petitioner fails to cogently and consistently map any computerized system of Kahn, Gutierrez, Almadi, or SCADA that meets the limitations of the claimed "*first computing system*" in Claim 1. The claimed "*first computing system*" is introduced in claim element [1.a]. Petitioner does not map anything in [1.a] to Kahn. Petition, 39-40. For Gutierrez, the Petition first maps the claimed "*first computing system*" to Gutierrez's controller 130 in [1.a] (*id*.) but later to Gutierrez's base transceiver 325 to attempt to map the claimed "*sending*" step in [1.f] carried out by the claimed "*first computing system*." *Id*., 52-53. For Almadi, Petitioner first maps the claimed "*first computing system*" to Almadi's protocol translator or translation server 102 (i.e., a particular module or computer of Almadi's

integrated node 100) in [1.a], only to later map other functional features of the claimed "*first computing system*" to other components of Almadi's integrated node 100, such as in [1.a.2], or remote subsystems 120, such as in [1.b]. *Compare id*., 40 to *id*., 44 and 46-47, respectively. For SCADA, Petitioner first maps the claimed "*first computing system*" to SCADA's Remote Terminal Units (RTUs) in [1.a] (*id*. at 40) but later to SCADA's Master Terminal Units (MTUs) in [1.b], [1.d], and [1.f]. *Id*. at 47, 51, and 53, respectively. *See also*, Ex. 2006, ¶135-136 (Table 1). Petitioner's inconsistent mapping of the claimed "*first computing system*" illustrates that the Petition has failed to meet its burden, and makes it impossible for a fact finder to determine how the various components are mapped, and how the Combination renders Claim 1 allegedly obvious.

C. Multiple Claimed Limitations of Claims 30 and 31 Also Lack any Mapping or Clear Mapping to the Cited References in the Combination

1. Features of System Claims 30 and 31 Are Unaddressed

Furthermore, like for Claim 1, Petitioner also fails to make a sufficient obviousness showing for the other independent claims of the '184 patent: ***Claim 30*** and ***Claim 31***. Claim 30 is directed to a system claim with similar but not "identical" limitations as elements [1.a]-[1.f] of Claim 1. yet the Petition fails to explain or account for any such differences with Claim 1. Petition, 83. For instance, elements [30.a] and [30.b] of Claim 30 recite the actual fluid handling devices and the

connections to the first computing device that are not mapped by the Petition. *Id.* Claim 31 is also directed to a system claim, but with far more limitations than in Claim 1. For elements [31.j]-[31.o], Petitioner relies on the same faulty arguments from Claim 1 combined with disparate arguments spread out over other dependent claims. Petition, 84-87. Nothing Petitioner argues for Claims 30 and 31 remedy the Petition's gross deficiencies discussed above for Claim 1. Thus, the Petition also fails to demonstrate independent Claims 30 and 31 are disclosed, taught, suggested, or rendered obvious by the Combination.

As these isolated examples illustrate, the merits of the Petition are far from compelling, and these examples are far from exhaustive. The Board has previously discretionarily denied Petitions with weak invalidity grounds that could only meet the "reasonable likelihood of prevailing" threshold for a handful of claims ("RLP claims"). For instance, the Board has exercised its statutory discretion elucidated by the court in *SAS Inst. v. Iancu*, 138 S. Ct. 1348 (2018) on multiple occasions. *See*, IPR2018-00923, *Chevron Oronite Company LLC v. Infineum USA L.P.*, Paper 9, Institution Decision at 10-11, and IPR2018-01310, *Deeper, UAB v. Vexilar, Inc.*, Paper 7, Institution Decision at 42-43, both denying institution despite two RLP

claims for "not [being] an efficient use of the Board's time and resources."[8] Here the Petition fails to meet the threshold for ***any*** claim, which strongly favors discretionary denial.

D. There is No Motivation to Combine Kahn, Gutierrez, Almadi, and SCADA

There is no motivation to combine Kahn, Gutierrez, Almadi, and SCADA because the systems of these references are fundamentally different. *See* Ex. 2006, ¶95.

Kahn is directed to *displaying*, in a web application, sensor data collected at water handling sites belonging to different entities, without any capability for remote control of the equipment at the handling sites. It lacks *remote control* features, thus, the Petitioner's assertions that the proposed combined system using Kahn would

[8] *See* Q9 in FAQs for Interim Processes for PTAB Workload Management (https://www.uspto.gov/patents/ptab/faqs/interim-processes-workload-management), stating that "the Board panel will not address discretionary considerations, except where the petition presents an insufficient number of challenges that meet the reasonable likelihood standard indicating that institution is an inefficient use of resources, as explained in *Chevron* … and *Deeper* … ."

have "remote monitoring and control" is simply wrong.[9] *Id*.

Gutierrez is a completely different type of system that has both monitoring and control capabilities of fluid handling devices. It operates through a private network that is not web-based at all. *See id.*, ¶96. While Gutierrez discloses a control and monitoring system on an "enterprise or secured network" and suggests that the system may utilize portions of the Internet (Ex. 1009, 12:55-57), Gutierrez makes it clear that this is through the use of a virtual private network (VPN) (*id*., 12:48-64), rather than a web browser-based system as disclosed by Kahn (Ex. 1007, 26:3-19). *See* Ex. 2006, ¶97. While the Internet facilitates both VPN and the World Wide Web (known as the "web"), they are completely different networks. *Id*., ¶¶98-99.

VPN is a technology that, in addition to keeping a user's identity private and anonymous, allows a user to "tunnel" through the Internet and log in to a private network (such as an enterprise or secure network) as if the user was physically present and connected to the network. *Id*., ¶¶97, 100. The key to a VPN is that it is "private." *Id.*, ¶97. In other words, "[t]he traffic originating and terminating within a private network traverses only those nodes that belong to the private network.

[9] Petition's assertion that "Kahn teaches a remote monitoring and control fluid delivery system" is incorrect. *See* Petition, 17; *see also id*., 35.

Further, there is traffic isolation. That is, the traffic corresponding to this private network does not affect nor is it affected by other traffic extraneous to the private network." *Id*. On the contrary, the World Wide Web is a service that displays information on 'pages' in a web browser using, for example, the hypertext transfer protocol (HTTP), allowing anyone with Internet access to vast amounts of information stored on public web servers or other web data storage structures. *Id*., ¶99.

A VPN utilizes the physical infrastructure of the Internet to establish a private network, but unlike the web, information is not stored on public web servers or similar structures and instead on private servers that are not accessible to anyone outside of authorized users. *Id*., ¶¶100-101. Thus, there are significant technical and practical "distinction[s] between a private network, such as a VPN, and a web-based system [that are] important in understanding the technology behind references such as Kahn and Gutierrez, as well as the '184 Patent." *Id*., ¶100.

Further, there is no discussion in Almadi of using the World Wide Web, or even internet infrastructure, for communications. Although Almadi references using an "Internet Protocol" (IP)[10] (*see* Ex. 1008, 3:13-20), it does not disclose using the

[10] "Internet Protocol," or IP is referred to as the "internet protocol suite" when combined with the Transmission Control Protocol (TCP). Ex. 2006, ¶102.

Internet. *See* Ex. 2006, ¶102. IP is a protocol for communications between networked devices and is equally applicable to "the internet" and to a corporate intranet, including private Local Area Networks. *Id*. There is no requirement for IP communications to use the public internet infrastructure, and there is no description of using the public internet infrastructure in Almadi's system. *Id*. Importantly, there is no reference to the World Wide Web, the web, or any suggestion that Almadi's system would have been implemented using the web. *Id*. Almadi simply discloses a system for using corporate networks (*e.g.*, an intranet) for communications between its various components. *Id*.

Yet further, a POSITA would not only lack motivation but be discouraged from combining SCADA with the combined teaching of Kahn, Gutierrez, and Almadi. *Id*., ¶107. SCADA teaches away from web-based approaches to fluid-handling device control due to significant security concerns of SCADA control systems being accessed by unauthorized actors. *See*, Ex. 1008, 179-185 (Chapter 12 "Security"). Specifically, SCADA teaches that "[k]eeping the SCADA system as isolated as possible from other networks is important[, and] **[k]eeping it isolated from the Internet is the most important**." *Id*., ¶107 (emphasis added). As discussed above, Kahn's system is reliant on world wide web based communications over the Internet between remote user computers and a server, but Kahn lacked remote control, thereby mitigating security risks. Ex. 2006, ¶96, ¶103, ¶107. Even

Gutierrez, while advocating the use of a VPN, still relied on the infrastructure of the Internet, thus presenting vulnerabilities that SCADA warned about. SCADA, on the other hand, disclosed a closed network. A POSITA would recognize that the components, systems, processes, and protocols described in SCADA—some of which relied on by Petitioner—would not be suited for use or integration with other systems that operated over a public network, like Kahn, or even private networks that utilized the infrastructure of the Internet, like Gutierrez. Therefore, a POSITA would not have been motivated to combine SCADA with any of the other references in the Combination. *Id*., 107.

Notably, it is unclear if the Petitioner is advocating to abandon the goals of SCADA (use of a closed network) by using the web-based structure of Kahn, and, if so, how or why a POSITA would make such a significant modification. Alternatively, it is also unclear if the Petitioner is proposing to abandon the web-based structure of Kahn, and, instead, use the closed system of SCADA. In either case, or in some unknown scenario in between, the Petitioner has failed to clearly articulate the proposed system or modification of the Combination. In any such modification, the POSITA would need to make significant changes to one, some, or all four systems to even attempt to harmonize their differences. For instance, a POSITA would have had to modify the core communication architecture of Gutierrez's system with Kahn's web approach, which would constitute a change in

its principle of operation. This is contrary to obviousness. As MPEP § 2143.01.VI states, "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious." *See Adidas AG. v. Nike, Inc.*, IPR2016-00922, Paper 31 at 46 (PTAB Feb. 19, 2019), citing the Federal Circuit stating "combinations that change the "basic principles under which the [prior art] was designed to operate," or that render the prior art "inoperable for its intended purpose," may fail to support a conclusion of obviousness" (*Plas-Pak Industries, Inc. v. Sulzer Mixpac AG*, 600 F. App'x 755, 757–758 (Fed. Cir. 2015) (non-precedential) (citations omitted)).

Moreover, the implications of a combination of Kahn, Gutierrez, Almadi, and SCADA would dissuade a POSITA from making such modifications. Notably, there would have been serious security risks to Petitioner's hindsight-created Kahn-Gutierrez-Almadi-SCADA combination. *See* Ex. 2006, ¶¶106-107. The Gutierrez and Almadi systems describe a private network-based system for an individual entity to monitor and control equipment owned by that entity, which is entirely different from the system in Kahn, where the public nodes of the web are used. For instance, if an unauthorized user accessed Kahn's system, that intruder would become aware of water quality information at various locations, which constitutes a security breach, but likely poses no physical danger to the system as Kahn lacks any remote control.

Id., ¶103. In contrast, unauthorized access to Gutierrez's system poses extreme risk due to its control capability, which could result in production loss from the various facilities to far worse, such as terrorism. *Id*. And SCADA expressly warned of this, noting "[r]isk to the system is a function of how accessible it is to interference from potential attackers, and the Internet includes an almost limitless number of potential attackers." *Id*., ¶107. This is why, prior to the '184 patent, no such computer products or systems as in Claims 1, 30 and 31 were shown in prior art, and why Kahn, Gutierrez, Almadi, and SCADA are starkly different in their architectures and functionalities.

Petitioner neither posits any meaningful reasons why a POSITA would combine the teachings of the prior art references, nor explains how a POSITA would make such a combination. Petitioner's arguments can be distilled to three conclusory statements in the Petition and the Wooley declaration. Petitioner argues (1) it "would have been obvious to try" (alleging both Kahn, Almadi, and Gutierrez (and presumably SCADA) describe similar systems for remote monitoring and control of fluid handling). *See* Petition, 35; *see also* Ex.1005, ¶¶53-59. Petitioner also argues (2) a POSITA's motivation to combine would be drawn from presumed desire to "achieve the efficiency and safety benefits automating fluid handling systems provided across the system" that Petitioner argues would be gained from Almadi's or Gutierrez's disclosure of oil and gas systems and SCADA's disclosure

of fluid processing and remote control when implementing remote systems disclosed by Kahn. *See* Petition, 36-37; *see also* Ex.1002, ¶58. Finally, Petitioner argues (3) the Combination "would lead to predictable results" with no difficulty because "these references do not describe alternative systems or methods, but rather the disclosures of Almadi and Gutierrez provide additional details rather than a different approach to solving problems in the underlying technology addressed by Kahn." *See* Petition, 37; *see also* Ex.1002, ¶59.

Petitioner's arguments for alleging motivation to combine fall flat because they merely repeat boilerplate case law principles and generalities, without any of meaningful analysis of how those boilerplate "reasons" such as achieving safety or efficiency would be effectuated based on the purported combination. As explained earlier, the Petition does not provide a consistent mapping of the prior art components to the claim limitations; it additionally fails to explain whether the mapping entails using one component from one prior art reference, or a combination of components from multiple prior art references.

Moreover, Petitioner's conclusory motivations to combine are not based on the actual knowledge and skill level of a POSITA at the time of the '184 patent and do not address, let alone overcome, the incompatibilities between Kahn's, Gutierrez's, Almadi's, and SCADA's respective approaches.

All in all, a POSITA would have multiple reasons not to combine Kahn,

Gutierrez, Almadi, and SCADA if attempting to create a method like in the '184 patent. Because there is no motivation to combine, Petitioner's obviousness contentions in Ground 2 based on the Combination necessarily fails.

V. GROUND 1 FAILS: THE CHALLENGED CLAIMS ARE NOT ABSTRACT AND ARE DIRECTED TO PATENT ELIGIBLE SUBJECT MATTER

Petitioner asserts in Ground 1 of the Petition that Claims 1-31 are unpatentable under 35 U.S.C. § 101 because they are directed to unpatentable subject matter. Petition, 15. Specifically, Petitioner argues that all of the claims are "unpatentable abstract ideas" (*id*., 19, 22) that "do not add substantially more than the abstract idea." *Id*., 27. Petitioner makes these incorrect assertions based on a misapplication of the *Alice*/*Mayo* test that neglects any analysis of the claimed subject matter as a whole and ignores the clear practical applications of the claims even if they were directed to a judicial exception, namely an abstract idea—which they are not. Additionally, the Petition lacks any arguments against Claims 30 and 31 despite their additional subject matter beyond Claim 1 and being different claim types. The Petition thus fails to demonstrate the Challenged Claims are likely patent-ineligible under § 101 for at least the reasons below.

A. The Challenged Claims Are Not Directed to An Abstract Idea

1. The Claims Are Not Abstract Ideas

Petitioner's assertion that the "claims are directed to the abstract idea of controlling fluid-handling devices" is flatly wrong. The '184 patent claims are directed to computer product and system for remotely controlling fluid-handling devices at, for example, oil wells, petro water disposal or re-injection facilities, or petroleum pumping stations. Ex 1001, 2:17-20. The claimed invention solves longstanding problems for remotely operating pumps and valves at such fluid-handling sites, including overcoming controller device failure when a network connection is lost (which prior to the '184 patent prohibited reliance on conventional SCADA systems that depended on network connections which frequently disconnected in the event of a network failure, thereby causing the SCADA systems to fail). *Id*., 1:65-2:4, 5:21-36. Notably this technical advantage is recited directly in the claims. *Id*., 17:5-11 (Claim 1); 20:22-29 (Claim 30); 21:13-19 (Claim 31).

Petitioner's argument that controlling the operations of such tangible and physical objects amounts to an abstract idea simply defies common sense. The patented technology of the '184 patent is relied on in a multitude of practical applications for the oil and gas industry that has enhanced safety and reduced costs for fluid-handling sites. Not only are the claims directed to the statutory categories without a judicial exception, they solve a fundamental technical problem for reliable

remote control of fluid-handling devices through interrelated claim elements that render the claimed technique and system significantly more than a judicial exception.

The merits of Petitioner's § 101 arguments are inadequate and the Petition provides no reasoning as to how or why Patent Office could have erred in the first place in recognizing the subject matter eligibility of the claims by granting the '184 patent. The Examiner understood the claims were not abstract, as a § 101 rejection was never raised during prosecution of the '184 patent. *See generally* Ex. 2001. What's more, the Office has consistently (and correctly) recognized the claims of the entire patent family of the '184 patent as patent eligible, as none of the nine patents in this family have ever been rejected under § 101 as directed to ineligible subject matter.[11] The Petition shows nothing from the case law or the '184 patent claims to explain how the Office erred over the past decade in granting "the abstract idea of controlling fluid-handling devices." Petition, 22.

Ground 1's thus fails because the '184 patent claims are not abstract ideas.

[11] Only one parent patent of the '184 patent, U.S. Patent No. 11,726,504, has been rejected under 35 U.S.C. § 101 for *statutory double patenting* in a first Office Action, initially claiming the same invention as its direct parent, U.S. Patent No. 11,294,403.

2. Petitioner Fails to Properly Apply *Alice/Mayo* Step One

Step one of the *Alice/Mayo* test is to "determine whether the claims at issue are directed to" a judicial exception, i.e., an abstract idea, a law of nature, or a natural phenomenon. *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 217 (2014). *Also see Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012). Step one involves looking at the "focus" of the claims at issue and their "character as a whole." *Simio, LLC v. FlexSim Software Prods., Inc.*, 983 F.3d 1353, 1359 (Fed. Cir. 2020); *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018). When applying *Alice/Mayo* step one, eligibility challenges should "consider the patent's written description, as it informs our understanding of the claims." *CardioNet, LLC v. InfoBionic, Inc.*, 955 F.3d 1358, 1368 (Fed. Cir. 2020).

Petitioner did none of these. The Petition's *Alice/Mayo* step one analysis provides little more than a piecemeal listing of isolated claim features and brief summaries of case law holdings without any significant comparison of the cited cases to the noted claimed features or explanation as to their relevance to the claims. From the start, the Petition mischaracterizes the specification of the '184 patent, e.g., wrongly stating "[t]he background section … explains controlling-fluid handling devices in oil wells *is a mental process*" (it makes no such statement), or "the '184 Patent counsels against the need for specific computer system hardware," which is also incorrect. Petition, 23. The Petition then argues Claim 1 is abstract because

"fluid-handling devices," ""remote" functions," "authorizing users," and "translation" are also themselves abstract ideas or mental processes and cannot otherwise make the claim any less abstract. *Id*., 24-27. Petitioner analyzes none of these claim features in connection with their own limitations or with each other. And Petitioner provides no articulation why the cited cases demonstrate the individual features or the features collectively as abstract ideas. *Id*.

Contrary to Petitioner's assertions, Claim 1 recites a specific, interrelated sequence of operations for the claimed "first computing system" to effectuate remotely controlling (at least) one "given fluid-handling device" among a plurality of different fluid-handling devices at a fluid-handling site. These intricate operations involve, *inter alia*, translating a plurality of commands encoded in a plurality of protocols so as to cause a local controller of the given fluid-handling device to be at different target states over time, determined by the first computing system. Through these operations, the first computing system is required to maintain control of the fluid handling devices in an absence of an external network connection. Ex. 1001, 16:52-22:38 (Claim 1). It is the specific combination of features in the specified order that gives meaning to the claim. *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1313 (Fed. Cir. 2016) ("in determining the patentability … a court must look to the claims as an ordered combination, without ignoring the requirements of the individual steps."). The Petition disregarded *McRO* and ignored

the individual steps of Claim 1.

Put simply, Petitioner's step one arguments both ignore and trivialize the specific claim elements and completely neglect the requisite "focus" and "character" of the claims "as a whole" under *Alice/Mayo* step one. The Petition's over-generalizing of Claim 1 and the '184 patent in general disregards prior precedent. *Enfish, LLC v. Microsoft Corp*., 822 F.3d 1327, 1337 (Fed. Cir. 2016) ("describing the claims at such a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule").

Gound 1 thus fails to demonstrate the '184 patent claims are more likely than not ineligible under § 101.

B. The Challenged Claims Provide Significantly More Than a Judicial Exception

1. Petitioner Failed to Properly Apply *Alice/Mayo* Step Two

Even if the Challenged Claims were directed to an abstract idea, which Patent Owner does not concede, these claims would still be patent eligible under *Alice/Mayo* step two.

Step two of the *Alice/Mayo* test "consider[s] the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements" add enough to transform the "nature of the claim" into "significantly more" than the judicial exception. *Alice*, 573 U.S. at 217–18, 221–22 (quoting *Mayo*, 566 U.S. at 78–79). Step two involves the search for an "inventive concept."

Alice, 573 U.S. at 217–18, 221; *Univ. of Fla. Research Found., Inc. v. Gen. Elec. Co.*, 916 F.3d 1363, 1366 (Fed. Cir. 2019); *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) ("an inventive concept must be evident in the claims"). One way to determine an inventive concept is by evaluating "whether the claim as a whole integrates the recited judicial exception into a practical application of the exception." 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50, 54 (Jan. 7, 2019) ("2019 Guidance").

The Petition all but ignores the practical application evaluation of Claim 1. At most, the Petition makes a single statement—notably, in the wrong Alice/Mayo step section[12]—that "involving a fluid-handling device of an oil well, a petro water disposal or re-injection facility, or a petroleum pumping station, does not make the claim patent-eligible." Petition, 27. Perhaps if that was all Claim 1 did, i.e., "involv[e] a fluid-handling device," Petitioner could be right. However, Claim 1 does far more than "involv[e]" fluid-handling devices; Claim 1 provides techniques and systems that overcome the shortcomings of conventional fluid monitoring and control systems, like SCADA systems (Ex. 1001, 1:65-2:9), and augment prior state-of-the-art fluid-handling facilities by providing much-needed failsafe features to

[12] Petitioner's arguments against Claim 1 applying to a "practical field of use" is made solely in the last paragraph of "Alice Step 1." Petition, 27.

ensure control operations even when a network connection is lost. *Id*., 1:65-2:4, 5:21-36. The inventive concept(s) of Claim 1 are rooted in the practical application of remotely controlling operations of fluid-handling devices, which is directly expressed in the claim language.

The Petition's step two analysis fails in the same manner as step one. Petitioner again parses features of the claim in their barest form, such as "remote control" "access control" (authorization), divorcing the features from the numerous limitations and interrelations with other claim features. Petitioner's discussion of these isolated claim features provides nothing more than conclusory statements, which cite to case law without any analysis of the respective holdings on the language and meaning of the claim features themselves and Claim 1 as a whole. *See* Petition, 28-31. Thus, contrary to the unsupported *Alice/Mayo* step two assertions in the Petition, the '184 patent claims embody inventive techniques for improving operations in remote controlling fluid-handling devices at a fluid-handling site.

2. The Claims Embody a Meaningful Technical Solution

Claim 1 is eligible for the reasons above, as well as because it recites other meaningful limitations that, even if *arguendo* the claim is directed to an abstract idea, use abstract ideas to improve previous fluid-handling control technology, such that the claim integrates the exceptions into a practical application. In this manner, Claim 1 of the '184 patent is like Claim 2 of Example 45 (Controller for Injection

Mold), explained as being patent-eligible under the Office guidelines. *See* Ex. 2011: October 2019 Patent Eligibility Guidance Update, 84 Fed. Reg. 55942, 18-29 (Oct. 18, 2019) ("October 2019 Update").

Example 45's Claim 2 of the October 2019 Update recites a controller that "send[s] control signals to the injection molding apparatus once the polyurethane has reached a target percentage, [where] the control signals instruct[] the apparatus to open the mold and eject the molded polyurethane from the mold." *Id*., 20. This example claim was found eligible at Step 2A Prong Two because the limitations of claim 2 ("limitation (d)") adds a meaningful limitation employing information from the judicial exception limitations of its claim 1 (i.e., the information being "the calculated percentage of the extent of cure") to **control the operation** of the injection molding apparatus. *Id*., 24. The October 2019 Update explains that a POSITA would recognize limitation (d), in combination with other claimed limitations in its claim 1, as providing a technical advantage and improving upon previous controllers in its technical field of injection molding. *Id*. Example claim 2 is eligible because it recites an "other meaningful limitation" that integrates the judicial exception into the overall control scheme and practically applies the exception so that the claim is not directed to the judicial exception. *Id*.

Claim 1 of the '184 patent is similar to this example. Claim 1 recites analogous 'meaningful information', e.g., such as "*translated commands encoded in*

a plurality of protocols different from the first protocol," and uses this to **control the operation** of the "*given fluid-handling device*," e.g., "*to cause a local controller of the given fluid-handling device to the plurality of different target states*." Ex. 1001, 17:12-22. As discussed above, the specification of the '184 patent explains technical solutions that overcome technical problems with conventional controllers for fluid-handling devices, much like the 2019 October Update's example 45's specification did for conventional injection molding apparatuses and techniques. Also as mentioned above, some of the technical solutions discussed in the '184 patent are in fact recited in the claims, which is another step further than 2019 October Update's example 45. Thus, because the claims of the '184 patent embody meaningful technical solutions for practical applications of the claimed subject matter, they must be patent eligible under § 101.

In sum, the Petition's § 101 ground attempts a legally-improper 'divide and conquer' strategy in applying the *Alice/Mayo* test by discussing claim elements in isolation and out of context without recognizing their interplay that create the technical effect of the claims as a whole. In doing so, Petitioner neglects addressing significant features in Claim 1 and outright ignores the other claims, the scope of which Claim 1 does not represent. Ground 1 is thus substantively flawed on the merits and without a reasonable likelihood of prevailing, warranting denial of the Petition for Post Grant Review.

VI. CONCLUSION

Patent Owner respectfully requests that the Board deny institution of the Petition for Post Grant Review for the reasons presented above.

Dated: October 20, 2025

Respectfully submitted,

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CERTIFICATE OF WORD COUNT UNDER 37 CFR § 42.24(d)

Under 37 C.F.R. § 42.24(d), the undersigned certifies that the word count for this *Patent Owner's Preliminary Response* to the Petition for Post Grant Review totals 12,503 words, excluding the parts exempted by 37 C.F.R. § 42.24(a). The word count was made using the built-in word count function in the Microsoft® Word software used to prepare this document.

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), I certify that I caused to be served a true and correct copy of the foregoing PATENT OWNER'S PRELIMINARY RESPONSE and accompanying exhibits by email to the electronic service addresses for Petitioner on the date indicated below:

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