

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION**

NABORS DRILLING TECHNOLOGIES
USA, INC.,

Plaintiff/Counter-Defendant,

vs.

HELMERICH & PAYNE INT’L. DRILLING
CO.; HELMERICH & PAYNE
TECHNOLOGIES, LLC; AND MOTIVE
DRILLING TECHNOLOGIES, INC.

Defendants/Counter-Claimants

Civil Action No. 3:20-cv-03126-M

H&P’S PATENT RULE 4-2 DISCLOSURE

Pursuant to the Court’s Second Amended Patent Scheduling Order dated April 23, 2021 (Dkt. 73) and Second Amended Miscellaneous Order 62, ¶ 4-2 (“Patent Rule 4-2” or “P.R. 4-2”), Defendants and Counter-Plaintiffs Helmerich & Payne Int’l. Drilling Co.; Helmerich & Payne Technologies, LLC; and Motive Drilling Technologies, Inc. (collectively, “H&P”) hereby provide their Disclosure of Preliminary Proposed Constructions and Identification of Extrinsic Evidence.

I. Exhibit A: Nabors Asserted Patents

Nabors asserts the following claims from U.S. Patent No. 7,802,634 (“the ’634 Patent”), U.S. Patent No. 7,823,655 (“the ’655 Patent”) U.S. Patent No. 7,860,593 (“the ’593 Patent”), U.S. Patent No. 8,360,171 (“the ’171 Patent”), U.S. Patent No. 8,510,081 (“the ’081 Patent”), U.S. Patent No. 8,528,663 (“the ’663 Patent”), U.S. Patent No. 10,672,154 (“the ’154 Patent”), (collectively “Nabors Asserted Patents”):

- ’634 Patent Claims 1, 2, 3, 5, 6, and 7;
- ’655 Patent Claims 1, 17, and 19;

- '593 Patent Claims 19-27;
- '171 Patent Claims 13-20, and 22-26;
- '081 Patent Claim 1;
- '663 Patent Claims 12, 14, 15, 17, and 20; and
- '154 Patent Claims 1-4, 6, 20-22, and 24-25.

In its November 25, 2020 Infringement Contentions, Nabors previously asserted Claims 1-4 of U.S. Patent No. 7,938,197 (“the ’197 Patent”). In its April 28, 2021 Expert Declaration and Supplemental Preliminary Infringement Contentions, Nabors no longer identifies the ’197 Patent, claims 21-22 and 23-24 of the ’154 Patent, or claim 27 of the ’593 Patent as infringed. H&P wrote Nabors on May 5, 2021, seeking to clarify whether Nabors intends to assert those claims, to which Nabors responded that it no longer intends to assert claims of infringement for Claims 1-4 of the ’197 Patent. Relying on Nabors’ representation that it is no longer asserting Claims 1-4 (the only asserted claims) of the ’197 Patent, H&P does not identify preliminary proposed constructions or extrinsic evidence for the ’197 Patent.

Pursuant to P.R. 4-2, H&P provides preliminary proposed constructions of terms, phrases, and clauses and a preliminary identification of extrinsic evidence for claim terms, phrases, and clauses from the Nabors Asserted Patents that should be construed by the Court in **Exhibit A**.

II. Exhibit B: Motive Asserted Patents

H&P has asserted the following claims from U.S. Patent No. 8,210,283 (“the ’283 Patent”), U.S. Patent No. 9,865,022 (“the ’022 Patent”), U.S. Patent No. 10,726,506 (“the ’506 Patent”), and U.S. Patent No. 10,208,580 (“the ’580 Patent”), (collectively “Motive Asserted Patents”):

- '283 Patent Claims 15-24;
- '022 Patent Claims 1-24;

- '506 Patent Claims 1-12; and
- '580 Patent Claims 1-22.

Pursuant to P.R. 4-2, H&P provides preliminary proposed constructions of terms, phrases, and clauses and a preliminary identification of extrinsic evidence for claim terms, phrases, and clauses from the Motive Asserted Patents that Nabors has identified for construction in **Exhibit B**.

III. Reservation of Rights

H&P's preliminary proposed constructions and identification of extrinsic evidence are based on information currently available to H&P. H&P has not completed discovery and has not received Nabors' proposed constructions. H&P, therefore, reserves the right to amend or otherwise supplement its preliminary proposed constructions as appropriate in light of their plain and ordinary meaning and Nabors' proposed constructions, including but not limited to in the parties' forthcoming Local Patent Rule 4-3 joint claim construction statement. Nothing in this submission should be construed to be an admission by H&P. H&P specifically reserves the right to argue that any claim term identified herein need not be construed by the Court. H&P's preliminary proposed constructions do not waive any argument regarding the construction of any claim. For example, H&P does not waive any argument that a claim of the Nabors Asserted Patents is indefinite or is otherwise invalid under one or more of 35 U.S.C. §§ 101, 102, 103, and 112.

H&P further reserves the right to offer evidence and argument regarding the construction of any terms or elements that are identified by Nabors, or to argue for a plain meaning where it is evident that Nabors' apparent interpretation deviates from that plain meaning. H&P is producing copies of its identified extrinsic evidence concurrently with this disclosure at HPI00006561-70. H&P reserves the right to amend or otherwise supplement its identification of extrinsic evidence

as appropriate to support its preliminary proposed constructions or rebut the proposed constructions of Nabors.

As set forth in H&P's April 27, 2021 letter to Nabors, Nabors' P.R. 4-1 disclosure does not provide fair notice for what specific claim terms or elements are in dispute, prejudicing H&P's ability to properly identify proposed constructions and extrinsic evidence in its P.R. 4-2 statement. As H&P indicated, H&P specifically reserves the right to later identify additional proposed constructions or extrinsic evidence for the terms of the Motive Asserted Patents once Nabors appropriately narrows its claim terms.

H&P does not contend presently that live expert testimony is necessary, but H&P reserves the right to present the testimony of Vinod Sharma and Robert Schaaf via sworn declaration regarding the indefiniteness of the claims of the Nabors Asserted Patents identified in the attached **Exhibit A**. H&P will provide such sworn declarations at the time identified by the Court's Second Amended Scheduling Order. If Nabors asserts expert testimony or takes claim construction positions that otherwise necessitate such testimony, H&P reserves the right to provide rebuttal testimony.

H&P will identify intrinsic evidence support at the time identified by the Court's Second Amended Scheduling Order, including references to the claims, specification, prosecution history, and prior art cited on the face of the Nabors Asserted Patents and/or Motive Asserted Patents.

Claim construction discovery is ongoing, and H&P reserves the right to supplement or amend its preliminary constructions and evidence in light of further claim construction discovery. Also, if Nabors later amends or supplements its infringement contentions, or seeks an improper interpretation of a term phrase, or clause that has not been identified by the parties, H&P reserves the right to seek the construction of that term, phrase, or clause.

Dated: May 6, 2021

Respectfully submitted,

/s/ Douglas M. Kubehl

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**ATTORNEYS FOR DEFENDANTS
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PAYNE TECHNOLOGIES, LLC; AND
MOTIVE DRILLING TECHNOLOGIES,
INC.**

CERTIFICATE OF SERVICE

The undersigned attorney certifies that on the May 6, 2021, a copy of this was served on all counsel of record via electronic mail.

/s/ Douglas M. Kubehl

Douglas M. Kubehl

Exhibit A

Claim Term	Patent(s) and Claim(s)	Preliminary Proposed Construction	Extrinsic Evidence
“the electronic data”	’634 Patent: Claim 1-3, 5-7	“data including quill position data, magnetic-based toolface orientation data and gravity-based toolface orientation data”	
“at least one of gravity-based toolface orientation data and magnetic-based toolface orientation data”	’634 Patent: Claim 1	“at least one gravity-based toolface orientation data and at least one magnetic-based toolface orientation data”	Strunk & White, The Elements of Style (4th ed. 2000), Section 19.
“user-viewable display”	’634 Patent: Claim 1	“display viewable to the directional driller”	<i>User and Use</i> , Merriam-Webster’s Collegiate Dictionary (11th ed. 2007).
“a plurality of drilling operation parameters”	’655 Patent: Claim 1, 19	“two or more parameters of a drilling operation other than actual toolface orientation”	
“detecting a plurality of drilling operation parameters”	’655 Patent: Claim 19	The “plurality of drilling operation parameters” “detected” in the first claim element is the antecedent basis for “the plurality of monitored drilling operation parameters” recited in the second claim element.	
“a drilling operation parameter”	’655 Patent: Claim 17	“a parameter of a drilling operation other than actual toolface orientation”	
“receiving a well prog”	’593 Patent:	“receiving a document in a	

Claim Term	Patent(s) and Claim(s)	Preliminary Proposed Construction	Extrinsic Evidence
	Claim 19	non-computer readable format that contains specifications, goals, and plans for drilling and completing a well”	
order of claim steps	’593 Patent: Claim 19	The method steps must occur in the order that they are written.	
“comparable operating parameter”	’171 Patent: Claim 13-20, 22-26	Indefinite.	Comparable and Compare, Merriam-Webster’s Collegiate Dictionary (11th ed. 2007). Expert Testimony of Vinod Sharma, who will testify that this claim term is an indefinite subjective term of degree, and that the specification and file history do not provide objective boundaries for determining the scope of “comparable operating parameter.”
“a toolface advisory”	’081 Patent: Claim 1	“recommended toolface orientation”	
“a method of direction a drilling operation in a wellbore”	’663 Patent: Claim 12	Preamble is limiting.	
“the recommended toolface orientation”	’663 Patent: Claim: 12, 14, 15, 17, 20	“displayed recommended toolface orientation that depends on the recommended toolface orientation data”	
“configured to”	’154 Patent: Claim 1-4, 6	“actually configured to and not merely capable to”	
“optimized path”	’154 Patent:	Indefinite.	Expert Testimony of Robert Schaaf,

Claim Term	Patent(s) and Claim(s)	Preliminary Proposed Construction	Extrinsic Evidence
	Claim 20-22, 24-25		who will testify that this claim term is an indefinite subjective term of degree, and that the specification and file history do not provide objective boundaries for determining the scope of "optimized path."

Exhibit B

Claim Term	Claim(s)	Preliminary Proposed Construction	Extrinsic Evidence
“calculating ... a plurality of solutions”	’283 Patent: Claim 15-24	Ordinary Meaning	
wherein each of the plurality of solutions defines a path from the estimated position to the planned path”		Ordinary Meaning	
“calculating ... a cost of each of the plurality of solutions”		Ordinary Meaning	
“producing ... control information representing the first solution”		Ordinary Meaning	
“outputting ... the control information for the drilling rig;”		Ordinary Meaning	
“drilling, by the drilling rig, at least a portion of the borehole based on the control information.”		Ordinary Meaning	
“one of the plurality of cost elements is time and another of the plurality of cost elements is a financial cost.”		Ordinary Meaning	
“calculating a drift of the drill bit based on information about the formation”	’283 Patent: Claim 18	Ordinary Meaning	
“calculating ... a second plurality of solutions if the comparison indicates that he estimated position is outside a defined margin of error relative to the desired position”	’283 Patent: Claim 19	Ordinary Meaning	
“the plurality of solutions defines a path from a projected position ... wherein each projected position is determined by extending current trajectory of the bit from the estimated	’283 Patent: Claim 22-23	Ordinary Meaning	
		Ordinary Meaning	

Claim Term	Claim(s)	Preliminary Proposed Construction	Extrinsic Evidence
position”			
“calculating the second plurality of solutions includes”	’283 Patent: Claim 24	Ordinary Meaning	
“identifying ... a plurality of geometric convergence paths”/	’022 Patent: Claim 1-24	Ordinary Meaning	
“convergence solution from a defined bottom hole assembly (BHA) location to a target drilling path of a well plan”		Ordinary Meaning	
“calculating ... an offset distance”		Ordinary Meaning	
“determining ... a drill path curvature associated with drilling each of the geometric convergence paths”		Ordinary Meaning	
“determining ... a time required for drilling each of the geometric convergence paths		Ordinary Meaning	
“determining ... an optimal geometric convergence path of the plurality of geometric convergence paths”		Ordinary Meaning	
“automatically controlling, by the controller device, the drilling rig, to drill in accordance with the determined optimal geometric convergence path.”		Ordinary Meaning	
“obtaining, by the computer system, drill plan information relating to a well plan”	’022 Patent: Claim 2-6 & 14-18	Ordinary Meaning	
“geometric drift associated with the plurality of convergence paths” / “drift information”	’022 Patent: Claim 3, 7, 15, 19	Ordinary Meaning	
“determining ... a peak drill path curvature associated with drilling each	’022 Patent: Claim 10 & 22	Ordinary Meaning	

Claim Term	Claim(s)	Preliminary Proposed Construction	Extrinsic Evidence
of the plurality of geometric convergence paths”			
“identifying a plurality of convergence paths”	’506 Patent: Claim 1-12	Ordinary Meaning	
“convergence solution from a bottom hole assembly (BHA) location to a target path for a borehole”		Ordinary Meaning	
“calculating an offset distance for drilling by the BHA each of the convergence paths to the target path”		Ordinary Meaning	
“identifying a drill path curvature of each convergence path”		Ordinary Meaning	
“identifying an amount of time needed to drill each convergence path”		Ordinary Meaning	
“controlling the drilling system to drill in accordance with the selected convergence path.”		Ordinary Meaning	
“receives drill plan information relating to a well plan”	’506 Patent: Claim 2	Ordinary Meaning	
“identifies a plurality of convergence paths responsive to the drill plan formation”		Ordinary Meaning	
“drift information” / “drift associated with each of the plurality of convergence paths”	’506 Patent: Claim 3 & 7	Ordinary Meaning	
“instructions for determining ... a peak drill path curvature associated with drilling each of the plurality of convergence paths.”	’506 Patent: Claim 10	Ordinary Meaning	
“instructions for determining a time required for drilling a plurality of	’506 Patent: Claim 11	Ordinary Meaning	

Claim Term	Claim(s)	Preliminary Proposed Construction	Extrinsic Evidence
segments making up a convergence path of the plurality of convergence paths”			
“the instructions for the step of determining the time required for drilling each of the plurality of convergence paths comprise instructions responsive to at least one of a rate of penetration (ROP) for a slide, a slide distance, an ROP for rotation, a rotation distance, and a setup time for the slide.”	’506 Patent: Claim 12	Ordinary Meaning	
“the slide estimator detects a mode responsive to detection of a flow rate of drilling mud, a stationary BHA, and an on bottom condition of the BHA” / “the step of detecting further comprises detecting a flow rate of a drilling mud, a stationary BHA and an on bottom condition of the BHA” / “detecting a flow rate of drilling mud, a stationary BHA and an on bottom condition of the BHA to determine whether the BHA is in the slide mode or the rotary mode of operation”	’580 Patent: Claim 1-22	Ordinary Meaning	
“wherein the detection of the flow rate of drilling mud is determined by detection of a standpipe pressure exceeding a standpipe pressure circulation threshold” / “wherein the step of detecting the flow	’580 Patent: Claim 1-22	Ordinary Meaning	

Claim Term	Claim(s)	Preliminary Proposed Construction	Extrinsic Evidence
rate further comprises determining whether a standpipe pressure exceeds a standpipe pressure circulation threshold”/ “wherein the step of detecting the flow rate of drilling mud further comprises determining if the flow rate of the drilling mud exceeds a predetermined flow circulation threshold”			
“controlling the operation of the drilling rig responsive to the detected slide mode or rotary mode of operation”	’580 Patent: Claim 11-22	Ordinary Meaning	
“wherein the standpipe pressure circulation threshold comprises 100 PSI”	’580 Patent: Claim 2 & 12	Ordinary Meaning	
“wherein the detection of stationary BHA detects a surface rotary speed of zero.”	’580 Patent: Claim 3 & 13	Ordinary Meaning	
“wherein the detection of the stationary BHA detects a surface rotary speed less than a rocking threshold value” / “wherein the step of detecting the stationary BHA further comprises the step of detecting a surface rotary speed less than a rocking threshold value.”	’580 Patent: Claim 4-5 & 14-15 & 21	Ordinary Meaning	
“wherein detection of the stationary BHA detects a difference between successive toolface reading being less than a stationary threshold value.”	’580 Patent: Claim 6 & 16	Ordinary Meaning	

Claim Term	Claim(s)	Preliminary Proposed Construction	Extrinsic Evidence
“wherein detection of the stationary BHA detects a toolface quality value greater than a near stationary toolface quality threshold value.”	’580 Patent: Claim 7 & 17	Ordinary Meaning	
“wherein detection of the stationary BHA detects oscillation of rotary torque between zero and a non-zero torque.”	’580 Patent: Claim 8 & 18	Ordinary Meaning	
“wherein detection of the on bottom condition tracks a total amount of drilling within a borehole.”	’580 Patent: Claim 9 & 19	Ordinary Meaning	
“wherein detection of the on bottom condition is based upon a predetermined differential standpipe pressure value” / “wherein the step of detecting the on bottom condition further comprises detecting a predetermined differential standpipe pressure value to detect the on bottom condition”	’580 Patent: Claim 10, 20 & 22	Ordinary Meaning	