504930488 05/24/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4977234

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CONSTANTINOS TSINGAS	05/10/2018
WOODON JEONG	05/10/2018
YOUNG SEO KIM	05/24/2018

RECEIVING PARTY DATA

Name:	SAUDI ARABIAN OIL COMPANY
Street Address:	1 EASTERN AVENUE
City:	DHAHRAN
State/Country:	SAUDI ARABIA
Postal Code:	31311

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15598030

CORRESPONDENCE DATA

Fax Number: (877)769-7945

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 214-292-4039 Email: APSI@fr.com

FISH & RICHARDSON P.C. Correspondent Name:

Address Line 1: P.O. BOX 1022

Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

ATTORNEY DOCKET NUMBER:	38136-0317001
NAME OF SUBMITTER:	PEGGY C. HARRIS
SIGNATURE:	/Peggy C. Harris/
DATE SIGNED:	05/24/2018

Total Attachments: 4

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> **PATENT REEL: 045897 FRAME: 0313** 504930488

Attorney Docket No.: 38136-0317001 / SA7298

ASSIGNMENT

For valuable consideration, the receipt of which we acknowledge, and intending to be bound legally, we, <u>CONSTANTINOS TSINGAS</u>, <u>WOODON JEONG</u>, and <u>YOUNG SEO KIM</u>, each individually assign to <u>SAUDI ARABIAN OIL COMPANY</u>, a corporation formed under the laws of <u>Saudi Arabia</u> and having a principal place of business at <u>1 Eastern Avenue</u>, <u>Dhahran</u>, <u>Saudi Arabia 31311</u>, and its successors, transferees, and assignees (collectively the "Assignee"), all of our individual and joint right, title, and interest throughout the world in the subject matter (the "Subject Matter") of a patent application that names us as inventors, is titled "<u>GENERATING A VELOCITY MODEL USING SUBSURFACE AZIMUTH AND</u>

<u>REFLECTION ANGLE DEPENDENT FULL WAVEFORM INVERSION</u>," and was filed in the United States Patent and Trademark Office on <u>May 17, 2017</u>, as application <u>15/598,030</u> (the "Application").

This Assignment assigns (a) the Application and all other applications that may be made for, and all patents, utility models, design registrations, and other rights of exclusion and inventors' certificates for, any of the Subject Matter (collectively the "Applications and Granted Rights") in every country or region, (b) the right to claim priority based on and the benefit of the filing date of any of the Applications and Granted Rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other applicable treaties or conventions, and (c) the right to pursue, collect, and retain in the Assignee's name or otherwise, damages and any other remedies arising from any past, present, or future infringement of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment.

We authorize the Assignee to apply for and pursue protection for any or all of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment in all countries, regions, and territories of the world, in our names or in the Assignee's name.

We represent and warrant that we have the right and power to make this Assignment and that we have not made and will not make any other assignment that conflicts with this Assignment.

We will communicate to the Assignee (or at the request of the Assignee to other parties) all known facts in any form relating to the Subject Matter, will execute and provide all oaths and

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declarations, statements, testimony, assignments, powers of attorney, applications, and documents, and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

The second secon	
F	Date: 05/10/2018
Constantinos Tsingas	
	Date: 05/10/20/8
Woodon Jeong	
	Date:
Young Seo Kim	
The Assignee hereby acknowledges a	nd accepts the foregoing assignment.
Assignee: SAUDI ARABIAN OIL CO	OMPANY:
Signature:	Date:
Name:	
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REEL: 045897 FRAME: 0315

declarations, statements, testimony, assignments, powers of attorney, applications, and documents, and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

		Date:	
Constantinos	Tsingas		:
		Date:	
Woodon Jeor	ng		
Varia Saa V	47	Date: 05/22	4/2018
Young Seo K	ım /		
The Assigned	e hereby acknowledg	ges and accepts the foregoing ass	ignment.
Assignee: SA	AUDI ARABIAN OI	L COMPANY	
Signature:		:	Date:
Name:			
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declarations, statements, testimony, assignments, powers of attorney, applications, and documents, and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

Constantinos Tsingas	Date:		
	Date:		
Woodon Jeong			
	Date:		
Young Seo Kim			
The Assignee hereby acknowled	lges and accepts the foregoing	assignment.	
Assignee: SAUDI ARABIAN C	OIL COMPANY		
Signature:	<u> </u>	Date: M	ay 21, 2017
_{Name:} Melton E. Kr	notts		
Title: Assistant Co	orporate Secretary	/	

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RECORDED: 05/24/2018

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