

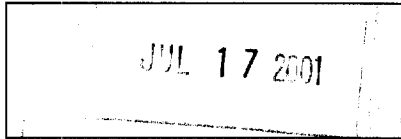
07-31-2001

FORM PTO-1619A

Expires 06/30/99

OMB 0651-0027

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RECORDATION FORM COVER SHEET PATENTS ONLY

TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

Submission Type

- ☒ New
- ☐ Resubmission (Non-Recordation)
Document ID #
- ☐ Correction of PTO Error
Reel # Frame #
- ☐ Corrective Document
Reel # Frame #

Conveyance Type

- ☒ Assignment ☐ Security Agreement
- ☐ License ☐ Change of Name
- ☐ Merger ☐ Other

U.S. Government

(For Use ONLY by U.S. Government Agencies)

- ☐ Departmental File ☐ Secret File

Conveying Party(ies)☒ Mark if additional names of conveying parties attached

Name (line 1) Shah, Vimal V.

Execution Date
Month Day Year
06062001

Name (line 2)

Second Party

Name (line 1) Birchak, James R.

Execution Date
Month Day Year
06082001

Name (line 2)

Receiving Party☐ Mark if additional names of receiving parties attached

Name (line 1) Halliburton Energy Services, Inc.

Name (line 2)

Address (line 1) 4100 Clinton Drive

Address (line 2)

Address (line 3) Houston Texas 77020
City State/Country Zip Code

- ☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment)

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name

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Address (line 2)

Address (line 3)

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07/31/2001 6TON11 00000017 032769 09850962

01 FC:581 40.00 CH

Mail documents to be recorded with required cover sheet(s) information to:
Commissioner for Patents and Trademarks, Box Assignments, Washington, D.C. 20231
50130.01/1391.21200

**PATENT
REEL: 12009 FRAME: 0800**

Correspondence Name and Address

Area Code and Telephone Number (713) 238-8000

Name Marcella D. Watkins
Address (line 1) CONLEY, ROSE & TAYON, P. C.
Address (line 2) P. O. Box 3267
Address (line 3) Houston, Texas 77253-3267
Address (line 4)

PAGES Enter the total number of pages of the attached conveyance document
Including any attachments # 7

Application Number(s) or Patent Number(s)☐ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)
09/850,962

Patent Number(s)

If this document is being filed together with a new Patent Application, enter the date the patent application was
signed by the first named executing inventor. Month Day Year

Patent Cooperation Treaty (PCT)

Enter PCT Application number
only if a U.S. Application Number
has not been assigned

PCT

PCT

PCT

PCT

PCT

PCT

Number of Properties

Enter the total number of properties involved. # 1

Fee Amount

Fee Amount for Properties Listed (37 CFR 3.41): \$ 40.00

Method of Payment:

Enclosed ☐Deposit Account ☒

Deposit Account

(Enter for payment by deposit account or if additional fees can be charged to the account.)

Deposit Account Number: # 03-2769

Authorization to charge additional fees: Yes ☒ No ☐**Statement and Signature**

To the best of my knowledge and belief, the foregoing information is true and correct and any
attached copy is a true copy of the original document. Charges to deposit account are authorized, as
indicated herein.

Marcella D. Watkins

Name of Person Signing


SignatureJuly 13, 2001
Date

RECORDATION FORM COVER SHEET

CONTINUATION
PATENTS ONLY

U.S. Department of Commerce

Patent and Trademark Office

PATENT

Conveying Party(ies)☒ Mark if additional names of conveying parties attached*Enter additional Conveying Parties*

Name (line 1) Han, Wei

Name (line 2)

Execution Date
Month Day Year
06132001

Name (line 1) Storm, Bruce H.

Name (line 2)

Execution Date
Month Day Year
06062001

Name (line 1) Amin, Rajnikant M.

Name (line 2)

Execution Date
Month Day Year
06122001**Receiving Party**☐ Mark if additional names of receiving parties attached*Enter additional Receiving Party(ies)*

Name (line 1)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

Name (line 1)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

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States, an appointment
of a domestic
representative is attached.
(Designation must be a
separate document from
Assignment)☐ If document to be recorded
is an assignment and the
receiving party is not
domiciled in the United
States, an appointment
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representative is attached.
(Designation must be a
separate document from
Assignment)**Application Number(s) or Patent Number(s)**☐ Mark if additional numbers attached*Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).*

Patent Application Number(s)

Patent Number(s)

RECORDATION FORM COVER SHEET

CONTINUATION
PATENTS ONLYU.S. Department of Commerce
Patent and Trademark Office
PATENT

Conveying Party(ies)

☐ Mark if additional names of conveying parties attached*Enter additional Conveying Parties*

Name (line 1) Kalpakci, Bayram

Name (line 2)

Execution Date
Month Day Year
06062001

Name (line 1) Fleyfel, Fouad

Name (line 2)

Execution Date
Month Day Year
06112001

Name (line 1)

Name (line 2)

Execution Date
Month Day Year

Receiving Party

☐ Mark if additional names of receiving parties attached*Enter additional Receiving Party(ies)*

Name (line 1)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

Name (line 1)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

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representative is attached.
(Designation must be a
separate document from
Assignment)

Application Number(s) or Patent Number(s)

☐ Mark if additional numbers attached*Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).*

Patent Application Number(s)

Patent Number(s)

ASSIGNMENT

IN CONSIDERATION OF TEN DOLLARS (\$10.00) cash in hand paid to us by HALLIBURTON ENERGY SERVICES, INC. and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, we, Vimal V. Shah, James R. Birchak, Wei Han, Bruce H. Storm, Rajnikant M. Amin, Bayram Kalpakci, and Fouad Fleyfel ("ASSIGNORS"), having made an invention in Guided Acoustic Wave Sensor for Pipeline Build-Up Monitoring and Characterization while in the employ either as an employee or consultant of Halliburton Energy Services, Inc. a corporation organized and existing under the laws of the State of Delaware doing business at Houston, Texas (sometimes hereinafter called "ASSIGNEE"), do hereby ASSIGN, SELL and CONVEY to said Halliburton Energy Services, Inc., its successors and assigns, the entire right, title and interest throughout the world in and to:

1. Said invention in Guided Acoustic Wave Sensor for Pipeline Build-Up Monitoring and Characterization
2. United States of America patent application on said invention, Serial No. 09/850,962 filed May 8, 2001, Attorney's File No. 1391-21200 entitled Guided Acoustic Wave Sensor for Pipeline Build-Up Monitoring and Characterization
3. All applications for patent or like protection on said invention that have now been or may in the future be made by us or our legal representatives, including any continuation, continuation-in-part and any other utility applications that may be based on this invention, whether in the United States of America or any other place anywhere in the world;
4. All patents and like protection that have now been or may in the future be granted on said invention to us or our legal representatives, whether in the United States of America or in any other country or place anywhere in the world;
5. All substitutions for and divisions, continuations, continuations-in-part, renewals, reissues, extensions, and the like of said applications and patents and like grants, including without limitation, those

obtained or permissible under past, present and future laws and statutes;

6. All rights of action on account of past, present and future unauthorized use of said invention and for infringement of said patents and like protection;
7. The right in ASSIGNEE to file in its name applications for patents and like protection for said invention in any country or countries foreign to the United States; and
8. All international rights of priority associated with said invention, applications, patents and like protection;

and we covenant that we, and our heirs, legal representatives, assigns, administrators, and executors, will, at the expense of ASSIGNEE, its successors and assigns, execute all papers and perform such other acts as may be reasonably necessary to give ASSIGNEE, its successors and assigns, the full benefit of this Assignment.

EXECUTED at the place and on the date indicated below, opposite our signatures.

ASSIGNORS

Date: June 6, 2001

Vimal V. Shah
Name: Vimal V. Shah

Executed at: Houston

THE STATE OF Texas §
§
COUNTY OF Harris §

BEFORE ME, the undersigned authority, on this day personally appeared Vimal V. Shah, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

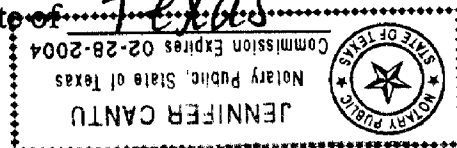
GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 6th day of June, 2001

[SEAL]

46534.01/1391.21200

2

Jennifer Cantu
Notary Public in and for
the State of Texas



My Commission Expires:

02-28-2004

Date: June 8, 2001

James R. Birchak

Executed at: Houston, TX

Name: James R. Birchak

THE STATE OF Texas §

COUNTY OF Harris §

BEFORE ME, the undersigned authority, on this day personally appeared James R. Birchak, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 8th day of June, 2001

[SEAL]

Jennifer Cantu
Notary Public in and for
the State of Texas

My Commission Expires:

02-28-2004

Date: June 13, 2001

Wei Han
Name: Wei Han

Executed at: Houston

THE STATE OF TX §

COUNTY OF Harris §

BEFORE ME, the undersigned authority, on this day personally appeared Wei Han, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 13th day of June, 2000.

[SEAL]

My Commission Expires:

02-28-2004

Jennifer Cantu
Notary Public in and for
the State of Texas

Date: 6 June 2001

Bruce H. Storm
Name: Bruce H. Storm

Executed at: Houston

THE STATE OF TX §

COUNTY OF Harris §

BEFORE ME, the undersigned authority, on this day personally appeared Bruce H. Storm, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 6th day of June, 2001

[SEAL]

My Commission Expires:

02-28-2004

Jennifer Cantu
Notary Public in and for
the State of Texas

46534.01/1391.21200

Date: 06-12-01

Rajnikant M. Amin
Name: Rajnikant M. Amin

Executed at: Houston

THE STATE OF Texas §
COUNTY OF Harris §

BEFORE ME, the undersigned authority, on this day personally appeared Rajnikant M. Amin, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

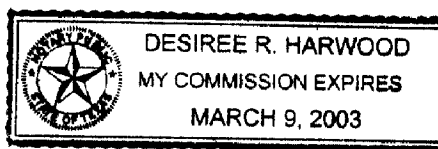
GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 12th day of June, 2001

[S E A L]

Desiree R. Harwood
Notary Public in and for
the State of Texas

My Commission Expires:

3/9/2003



Date: 6/6/2001

Bayram Kalpakci
Name: Bayram Kalpakci

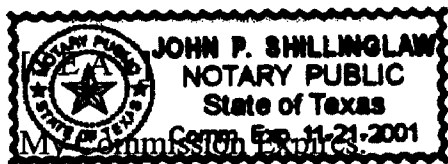
Executed at: HOUSTON

THE STATE OF TEXAS §

COUNTY OF HARRIS §

BEFORE ME, the undersigned authority, on this day personally appeared Bayram Kalpakci, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 6th day of June, 2001



John P. Shillinglaw
Notary Public in and for
the State of TEXAS

11-21-2001

Date: 6-11-01

Fouad Fleyfel
Name: Fouad Fleyfel

Executed at: HOUSTON

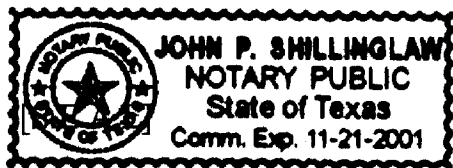
THE STATE OF TEXAS §

§

COUNTY OF HARRIS §

BEFORE ME, the undersigned authority, on this day personally appeared Fouad Fleyfel, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 11th day of JUNE, 2001



My Commission Expires:

Nov. 21, 2001

John P. Shillinglaw
Notary Public in and for
the State of Texas