



जैव प्रौद्योगिकी एवं भू-विवर्तनिक अध्ययन संस्थान (इन्बिग्रा)
 INSTITUTE OF BIOTECHNOLOGY & GEOTECTONIC STUDIES (INBIGS)
 (आईएसओ 9001:2008 प्रमाणित)

(ISO 9001:2008 Certified)

आयल एण्ड नैचुरल गैस कार्पोरेशन लिमिटेड
 OIL & NATURAL GAS CORPORATION LTD
 ऐएंडऐऐ बेसिन, सिनामारा, जोरहट-785704, असम

A&AA Basin, Cinnamara, JORHAT-785704, Assam

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No INB/JRT/Collab.-MEOR/TU/2018-19

Date 23.10.2018

From Head-INBIGS,A&AAB,Jorhat

To Dr. Tapas Medhi, Principal Investigator,MBBT, TU

Sub:- MEOR collaborative project start and kickoff meeting


As per resolution of review committee meeting held on 28.12.2017 at ONGC,A&AAB, Jorhat the project proposal titled "Formulation of a MEOR slug for Enhanced Oil Recovery of Upper Assam Basin (MEOR)" submitted by Dr. Tapas Medhi, Principal Investigator, was discussed elaborately and approved by ED-Basin manager, A&AA Basin, Jorhat. The Memorandum of Agreement (MoA) was signed on 07.09.2018 between MBBT, Tezpur University & INBIGS and necessary sanction was obtained on 11.10.2018.

With reference to the mail dated 10.10.2018 from Dr.Medhi(PI), researchers started working on the MEOR collaborative research project with a kickoff meeting taking place in the Conference Hall of Tezpur University premises on 12th October,2018.

Throughout the meeting, participants discussed the status of the research area, project goals, and the expectations of the various stakeholders with respect to the project outcome and it was declared the project start date as 12.10.1018 for this MEOR collaborative project.

Participants of the meeting were optimistic that outcome of proposed MEOR project will be an enabling technology as novel process for Enhanced Recovery.

Therefore requested that Principal Investigator (PI) may please take the necessary activities as per MoA to achieve the desired objectives.


 (Harendra Singh)
 General Manager & Head-INBIGS-
 Project Coordinator
 23.10.2018



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MEMORANDUM OF AGREEMENT

This MEMORANDUM OF AGREEMENT is made on the 7th day of September, 2018 between Oil and Natural Gas Corporation Limited, a company established under the Laws of India having its registered office at Deendayal Urja Bhavan, 5 Nelson Mandela Marg, Vasant Kunj, New Delhi-110070, and one of its offices named as Institute of Biotechnology and Geo-tectonic Studies (INBIGS), Oil and Natural Gas Corporation Ltd., Cinnamara, Jorhat – 785704 (Assam) (hereinafter referred to as “ONGC, INBIGS-Jorhat” which expression shall unless repugnant to the context include all its representatives, successors, administrators, executors and permitted assignees) of the ONE PART;

AND

Tezpur University, established by an Act of Parliament on 21st January 1994 at Napaam, Tezpur-784028, District; Sonitpur, Assam (hereinafter referred to as Tezpur University or TU which expression shall unless repugnant to the context include its representatives, successors, administrators, executors and permitted assignees) of the OTHER PART.

WHEREAS ONGC, INBIGS-Jorhat and TU shall be individually referred to as “Party” and collectively as “Parties”.

WHEREAS ONGC, INBIGS-Jorhat being desirous of Microbial Enhanced Oil Recovery (MEOR) decided to support a project submitted by Molecular Biology and Biotechnology Department (hereinafter referred to as MBBT), Tezpur University for the attainment of the objectives, hereinafter described;

[Signature]

Tapas Mishra

WHEREAS this Memorandum of Agreement (hereinafter referred to as MoA) defines the role and responsibilities of the participating agencies, monitoring and other matters related to the **Formulation of a MEOR slug for Enhanced Oil Recovery of Upper Assam Basin (MEOR).**

NOW THE PARTIES HERETO AGREE AS FOLLOWS:-

1.0. ROLE OF ONGC, INBIGS-Jorhat (Funding agency)

1.1. To provide funds to the extent of Rs. 40.95/- lakh (Rupees Forty Lakhs and Ninety Five Thousand only) over a period of three years from the date of sanction of the project as per project proposal.

1.2 MODE OF PAYMENT

1.2.1. All the payments shall be made to MBBT, TU. MBBT, TU will be responsible for proper custody of equipments/ materials and expenditure on the Project Work as defined in this MoA.

1.2.2. ONGC, INBIGS-Jorhat shall accord approval to make payment in installments on milestone achievement basis. The payment shall be released against completion of milestones mentioned in the proposal. The payment shall be made based on actuals subject to the upper limit mentioned in the budget.

1.2.3. MBBT, TU will be responsible for expenditure incurred on the project and shall maintain separate accounts and records for the project to be implemented under this MoA. All payments will be made by Finance & Accounts Office (FAO), ONGC, Jorhat to MBBT, TU by Electronic clearing system (ECS)/ RTGS/NEFT.

1.2.4. In case MBBT, TU is not in a position to implement or complete the project due to valid reasons accepted by INBIGS, Jorhat, it should, forthwith, refund to FAO, ONGC, Jorhat the total funds received by it or balance, thereof.

1.2.5. On completion of all steps relating to the purchase of capital equipment, the equipment must be entered into asset register to be maintained by MBBT, TU for this project.

1.2.6. MBBT, TU will submit the request for release of milestone based payment, in bill format along with the progress report and the latest statement of expenditure in the prescribed format including Committed Expenditure, duly audited by internal/external auditor, as the case may be.

1.2.7. On completion of the project, MBBT, TU shall submit full details of Assets acquired under the project utilizing INBIGS, Jorhat funds and copies of sanction orders and invoices of assets, along with Final audited Statement

ROLE OF TEZPUR UNIVERSITY

Tezpur University will be wholly responsible for the management of the project and successful completion of the project undertaken.

To provide existing facilities as mentioned in the project document. MBBT, Tezpur University shall undertake to carry out the Project Work and related studies, as per the scope of work and deliverables etc. defined in the project proposal within the agreed time frame and budget by employing competent personnel.

[Signature]

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- 2.4. To allow the Scientists authorized by ONGC, INBIGS-Jorhat to work with the Research & Development team of the said MEOR Project in all stages of process development and production.
- 2.5. To recruit all scientific and non-scientific staff as sanctioned by ONGC, INBIGS-Jorhat.
- 2.6. To prepare and submit all periodical reports and other documents that would be required by ONGC, INBIGS-Jorhat.
- 2.7. To submit an annual audited statement of expenditure incurred under the project.
- 2.8. To ensure effective utilization of the grant given by ONGC, INBIGS-Jorhat for the purpose for which it was granted and to ensure timely progress of project work.
- 2.9. The manpower, both scientific and non-scientific, recruited shall be purely on contractual terms & conditions such that the contract for engagement of the manpower shall run concurrently with the said project period only.
- 2.10. Tezpur University is free to take technical/research collaborations with any other university/institutes as per the requirement of the project.

3 PROJECT DETAILS

Title of the Project: 'Formulation of a MEOR slug for Enhanced Oil Recovery of Upper Assam Basin (MEOR).'

3.1 Cost of the Project: Rs.40.95 Lakhs

3.2 Full Name of the Principal Investigator (PI): Dr Tapas Medhi, Assistant Professor, MBBT Department, TU

3.3 Full Name of Co- Principal Investigator (Co-PI): Dr Subrata Borgohain Gogoi, Professor, Petroleum Technology Department, Dibrugarh University.

3.4 Name(s) of Project Coordinator from ONGC, INBIGS-Jorhat:

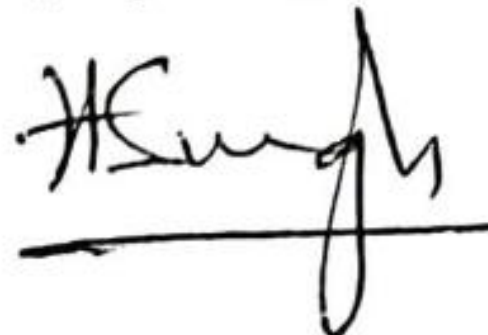
Shri Harendra Singh. General Manager & Head-INBIGS, ONGC, Jorhat

Dr. B. C. Dutta, Chief Chemist, INBIGS, ONGC, Jorhat

3.5 Project Duration: Duration of project shall be three years from the date the Project has been sanctioned by ONGC, INBIGS-Jorhat.

3.6 OBJECTIVE OF THE PROJECT.

- Developing a high temperature (upto 120⁰C) – high pressure(250 kg/cm²) tolerance microbial slug comprising of bio surfactants and biopolymers for MEOR application.
- A detail rheological study for determining the displacement efficiency of the reservoir crude oil.
- A detail IFT study for determining the sweep efficiency of the reservoir crude oil.
- Microscopic study for understanding the plugging phenomenon in the thief zones of the reservoir by bio polymers.





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