

OIL INDIA LIMITED

(A Government of India Enterprise)

P.O. Duliajan, Pin – 786602

Dist-Dibrugarh, Assam

AMENDMENT NO. 2 DATED 05.05.2016

TO TENDER NO SDG0385P16/07

This Amendment no. 2 dated 05.05.2016 to tender no. SDG0385P16/07 for 01(one) Nos of **Static Gel strength Analyzer** is issued to read the **Technical Specification** of the tender document as under in lieu of the existing: –

A. Technical Specification of Static Gel strength Analyzer :

Page No	Clause No	Existing Tender Clauses	Amended Tender Clauses
Page 1 of 16	Point No 1. Scope of supply :	<p>1. Scope of Supply The scope of supply would cover supply, installation, commissioning, testing and training of Static Gel strength analyser. The Static Gel Strength Analyzer used in laboratory for measurement of Static gel strength of oil well cement slurries under certain specified conditions of pressure and temperature in accordance with relevant API specification 10B-6 standards. The cement slurry compressive strength and its static gel strength development are recorded as a function of time. The system should have modular design so that it can be easily repairable and upgradable in future.</p>	<p>1. Scope of Supply The scope of supply would cover supply, installation, commissioning, testing and training of Static Gel strength analyser. The Static Gel Strength Analyzer used in laboratory for measurement of Static gel strength of oil well cement slurries under certain specified conditions of pressure and temperature in accordance with relevant API specification 10B-6 and ISO 10426-6 standards" The cement slurry compressive strength and its static gel strength development are recorded as a function of time. The system should have modular design so that it can be easily repairable and upgradable in future.</p>
Page 2 of 16	Point No 3. Technical features	<p>3. Technical features Codes and Standard: (Applicable for procedure): The equipment shall be designed, constructed, tested and function as per API Spec 10B-6 standards.(Latest version will form the part of Specification).</p>	<p>3. Technical features Codes and Standard: (Applicable for procedure): The equipment shall be designed, constructed, tested and function as per API Spec RP 10B-6 and ISO10426-6 standards .(Latest version will form the part of Specification).</p>

<p>Page 2 of 16</p>	<p>Point No 5. Working principle of the equipment</p>	<p>5. Working Principle of the equipment:</p> <p>The instrument should work using both the Ultrasonic method and the Mechanical Method for determining Gel Strength.</p> <p>i. An ultrasonic-type ii. An intermittent rotation-type/Mechanical Type</p> <p>The system should have continuous and intermittent method for determining Gel Strength using the mechanical method.</p>	<p>5. Working Principle of the equipment:</p> <p>The instrument shall be designed in such a way that it can measure both STATIC GEL STRENGTH & COMPRESSIVE STRENGTH of cement slurry as per latest version of API RP 10B-6 and ISO 10426-6 standards in single test run.</p>
<p>Page 2 of 16</p>	<p>Point No 6. System Configuration Sub point II</p>	<p>6. System Configuration</p> <p>II. The equipment shall be capable to measure simultaneously both the slurry's compressive strength development and its static gel strength development, while it is cured under downhole temperature & pressure conditions. The cement properties shall be inferred by measuring the change in the energy level of an ultrasonic signal transmitted through the cement specimen as it cures. The proprietary algorithms for SGS measurement shall be applicable to a wide range of cement slurry densities and compositions.</p>	<p>6. System Configuration</p> <p>II. Deleted</p>
<p>Page 2 of 16</p>	<p>Point No 7. System Configuration For an intermittent rotation-type:</p>	<p>Point No.7: System Configuration For an intermittent rotation-type:</p> <p>The cement slurry being tested shall be maintained in a static condition in a pressure chamber at a controlled temperature and pressure. The SGS shall be calculated from the torque required to rotate the paddle of known geometry intermittently at very low speed. The apparatus shall operate intermittently at very low speed after an interval of time adjustable between 1</p>	<p>Point No.7 Testing Phase :</p> <p>The equipment shall be capable to measure simultaneously both the slurry's compressive strength development and its static gel strength development, while it is cured under downhole temperature & pressure conditions .The SGS shall be calculated from the torque required to rotate the paddle of known geometry intermittently at very low speed. The</p>

		minute and 10 minute during SGS testing phase.	apparatus shall operate intermittently at very low speed after an interval of time adjustable between 1 minute and 10 minute during SGS testing phase.
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All other terms and condition of the tender remain unchanged.

Sd/-

(S.K.SAHU)

SPO (FP)

FOR DGM MATERIALS

FOR RESIDENT CHIEF EXECUTIVE