



CORRIGENDUM

ADDENDUM No.03 dated 26.04.2019

to

TENDER NO. SDG0379P19/09

This addendum is issued to extend the Bid Closing / Bid Opening date and to amend some of the existing Technical Specifications:

A) Extension of Bid Closing / Bid Opening dates as under:

Description	Existing Date & Time	Extended upto
Bid Closing Date & Time	08.05.2019 (at 11.00 Hrs. IST)	22.05.2019 (at 11.00 Hrs. IST)
Technical Bid Opening Date & Time	08.05.2019 (at 14.00 Hrs. IST)	22.05.2019 (at 14.00 Hrs. IST)

B) For amendment to Technical Specification and addition of new clauses, **Refer Annexure-AA (Page no 2 to 8 of this document).**

All other Terms & Conditions of the Bid Document remain unaltered.

sd/-
Amrit Loushon Bora
Manager Materials(FD)
For GM Materials (HOD)
For Resident Chief Executive

Amendment to Technical Specification against Tender SDG0379P19/09

Sr. No.	Clause Number	Existing clause description	Modified and New clause description
1	Annexure A1 Clause 1.3	Bidder's offer of the Quad combo tool string must be of an outer diameter of 2.35" or less . The tool string must be shorter, lighter having improved performance efficiency without compromising on operational range.	<p><u>Amended:-</u> <i>Bidder's offer of the Quad combo tool string must be of an outer diameter of 2.65" or less (except bidders offered battery unit when used in memory mode). The tool string must be shorter, lighter having improved performance efficiency without compromising on operational specification.</i></p> <p><i>Bidders Battery unit to be used with Memory mode logging to be compatible for deployment in 3" ID Drill Pipe.</i></p>
2	Annexure A1 Clause 1.4	The Quad combo logging string must be capable of "FOUR" different types of deployment/logging for data acquisition. [a] With Wire line in Open Hole - Real Time data acquisition in a single pass. [b] Wire line Through Drill pipe - Real Time data acquisition in a single pass. [c] Through Drill Pipe in difficult wells/highly deviated wells – Memory Logging data acquisition in a single pass. [d] By pumping out (gravity decent not possible) through Drill Pipe in Horizontal wells - Memory mode of Logging in a single pass.	<p><u>Amended:-</u> <i>The Quad combo logging string must be capable of "THREE" different types of deployment/logging for data acquisition.</i> <i>[a] With Wire line in Open Hole - Real Time data acquisition in a single pass.</i> <i>[b] Wire line Through Drill pipe - Real Time data acquisition in a single pass.</i> <i>[c] Through Drill Pipe in difficult wells/highly deviated wells – Memory Logging data acquisition in a single pass.</i></p> <p><u>Note:-</u> <i>[i] Bidder must provide Pack-off and Pump in Tee and other items one each with 1 Set of each Quad Combo string. Tee needs to be supplied with 2" hammer union connection.</i> <i>[ii] Bidder must provide SES (cable side entry sub for slammer cable) for pump-down operations (needed for drill pipe movements and also if fishing while logging through DP)</i></p>
3	Annexure A1 Clause 1.8	During Memory mode of logging the Quad Combo tool string must be accompanied by a "hang-off collar" sub below end of drill-pipe for precisely positioning the tool string when it is extended below drill-pipe. The sub should be a "NO-GO" collar near top of logging string to restrict travelling further down once the logging sensors are protruded into Open Hole.	<p><u>Amended:-</u> <i>During Memory mode of logging the Quad Combo tool string must be accompanied by a "hang-off collar" sub below end of drill-pipe for precisely positioning the tool string when it is extended below drill-pipe. The sub should be a "NO-GO" collar near top of logging string to restrict travelling further down once the logging sensors are protruded into Open Hole section having minimum OH ID of 8 1/2" or less.</i></p>

4	Annexure A1 Clause 1.11	Bidder must quote all items necessary to allow mud circulation and rotation of drill-pipe and ensure well control in case well kick is observed during logging with the drill-pipe. Bidder must quote surface equipment (packing unit required to close around wireline along with T-connection and all crossovers to drill pipe) used to close the well and permit pumping cable head.	<u>Amended:-</u> <i>Bidder must quote all items necessary to allow mud circulation of drill-pipe and ensure well control in case well kick is observed during logging with the drill-pipe. Bidder must quote surface equipment (packing unit required to close around wireline along with T-connection and all crossovers to drill pipe) used to close the well and permit pumping cable head.</i>
5	Annexure A1 Clause 1.19	Bidder must quote all equipment and accessories, wherever necessary, for smooth operation compatible with size of the quad combo tool string. Bidder quote must contain Swivels (Qty-03 nos.), Knuckles (Qty-04 nos.), Flex joints (Qty-03 nos.), Inline Bow Springs (Qty-02 nos. each for hole sizes from 8.1/2" to 20"), Weight bars (Qty- 12 nos.), Cable heads (Qty - 10 nos.), Cable Head Weak points for logging with wire line cable (8K & 10K Qty- 20 nos. each), Latches (Qty -06 nos.), Tool end Bull Plugs (Qty-05 nos.) and any other items required for successful quad combo logging operations in sufficient quantity (Min 02 quantity each item).	<u>Amended:-</u> <i>Bidder must quote all equipment and accessories, wherever necessary, for smooth operation compatible with size of the quad combo tool string. Bidder quote must contain Swivels (Total Qty-03 nos.), Knuckles Joints / Flex joints (Total Qty-04 nos.), Inline Bow Springs centralizers (Total Qty.= 05nos.) capable of extension from 6 1/2" up to 13"-14" or more, Weight bars-TPL Type or other (Total Qty- 8 nos.), Cable heads (2 Cable Head for Real-time operation and 2 Memory based operation Cable Heads against each tool string. i.e., Total 8 nos. of Cable head), Cable Head Weak points for logging with wire line cable (Weak Point 05 nos. of 6K, 15 nos. of 9K), Latches/Running & Retrieving subs (Total 4 running subs & 4 retrieving subs to be quoted), Tool end Bull Plugs (If any) total Qty-04 nos. with both Quad strings, Overbody Centralizers (Total Qty.= 04nos.) for Realtime logging, Slip on de-centralizer (Total Quantity=4 nos.) for running Quad Combo tool string in Real time mode. And any other items required for successful quad combo logging operations in sufficient quantity (Min 02 quantity of each item) against both Quad strings.</i>
6	Annexure A1 Clause 1.20	Bidder must quote all items necessary (whether mentioned explicitly or not in this document) for logging with above tools in wireline or memory mode. If any of the items are quoted in lesser quantity or not quoted and is required for operation with logging tool string the said item shall have to be provided FOC to OIL.	<u>Amended:-</u> <u>Bidder must quote all items necessary</u> (whether mentioned explicitly or not in this document including items mentioned below) for logging with above tools in wireline or memory mode. If any of the items are quoted in lesser quantity or not quoted and is required for operation with logging tool string the said item shall have to be provided FOC to OIL. <i>"Bidder to provide necessary equipment for recording Drilling pipe deployment in well i.e., DEPTH-TIME RECORDER, IN-SLIPS INDICATOR ASSEMBLY, DEPTH ENCODER ASSY PROXIMITY and other associated cables and connectors. This drilling rig data acquisition system shall be able to put together a log from memory mode with Drill Pipe- Time-Depth file (min 1 sec sampling rate or better)."</i>

7	Annexure A1 Clause 1.21.3	Low Friction or Low contact Area Stand-off, etc.	Bidder must quote 08 items each for Open Hole logging operation from 8.1/2" TO 17.1/2" OD	MUST quote in requisite quantity all items	<u>Amended:</u> <i>Low Friction or Low contact Area Stand-off, etc. up to bore hole size 12 ¼" shall be required for Quad combo tool string while logging with Wireline in Real time. Total Qty. =06 nos. for both the quad combo tool string.</i>
8	Annexure A1 Clause 1.21.5	Quad combo tool string compatible tool body low friction rollers/Fly wheels, Roller Bottom nose etc. low-friction conveyance accessories to reduce frictional drag forces/contact friction acting on the low side of the tool string. <i>(While lowering the string without drill-pipe conveyance by using wire line only).</i>	Low friction rollers/ Fly wheels=Qty-10 ----- Roller Bottom nose= Qty-02 ----- Any other conveyance accessories if reqd. to be quoted Qty-02 EA.	Bidder MUST quote tool body rollers, roller bottom nose & all low friction conveyance accessories.	<u>Clause Deleted</u>

9	Annexure A1 Clause 1.21.6	Tool Centralizers or any other accessory required for running offered Open Hole logging tools in Wire line and Drill-pipe conveyance mode.	As required for running offered tools in vertical, high deviated through horizontal wells. Qty-16 nos. (Open Hole section hole size 8.1/2" OD to 17.1/2" OD)	Bidder MUST quote centralizers for vertical, high deviated through horizontal wells compatible to Quad combo tool string.	<p><u>Amended:-</u></p> <table border="1" data-bbox="1176 151 2150 462"> <tr> <td data-bbox="1176 151 1456 462">Tool Centralizers or any other accessory required for running offered Open Hole logging tools in Wire line and Drill-pipe conveyance mode.</td> <td data-bbox="1467 151 1814 462">As required for running offered tools in vertical, high deviated wells. (Open Hole section hole size 8.1/2" OD to 12 1/4" OD) Total Qty. =06 nos. against both the quad combo tool string.</td> <td data-bbox="1825 151 2150 462">Bidder MUST quote centralizers for vertical, high deviated wells compatible to Quad combo tool string.</td> </tr> </table>	Tool Centralizers or any other accessory required for running offered Open Hole logging tools in Wire line and Drill-pipe conveyance mode.	As required for running offered tools in vertical, high deviated wells. (Open Hole section hole size 8.1/2" OD to 12 1/4" OD) Total Qty. =06 nos. against both the quad combo tool string.	Bidder MUST quote centralizers for vertical, high deviated wells compatible to Quad combo tool string.
Tool Centralizers or any other accessory required for running offered Open Hole logging tools in Wire line and Drill-pipe conveyance mode.	As required for running offered tools in vertical, high deviated wells. (Open Hole section hole size 8.1/2" OD to 12 1/4" OD) Total Qty. =06 nos. against both the quad combo tool string.	Bidder MUST quote centralizers for vertical, high deviated wells compatible to Quad combo tool string.						
10	Annexure A1 Clause 1.22.8	Necessary centralizers / stand-offs for logging in standard open hole sizes 6 inches to 20 inches OD should be provided. (Quantity defined in clause 1.21)			<u>Amended:</u> Necessary centralizers / stand-offs for logging in standard open hole sizes 6 inches to 12 1/4 inches OD should be provided. (Quantity defined in clause 1.21)			
11	Annexure A1 Clause 1.22.10	Well-site log products must include Invasion Images, Raw curves , Resistivity profiles at 10",20",30",60",90" for different vertical resolution, Coherence map of arrays, Rt, Rxo, flushed zone diameter and invaded zone diameter.			<u>Amended:</u> <i>Well-site log products must include Invasion Images, Raw curves, Resistivity profiles at 10", 20", 30", 60", 90" for different vertical resolution, Rt, Rxo, flushed zone diameter and invaded zone diameter.</i>			
12	Annexure A1 Clause 1.23.2	The measurement range of the tool should be from 1.0 gram/cc to 3.0 gram/cc for bulk density and Pe of range 0 to 20.			<u>Amended:</u> <i>The measurement range of the tool should be from 1.2 gram/cc to 3.0 gram/cc for bulk density and Pe of range 0 to 10.</i>			
13	Annexure A1 Clause 1.23.3	The tool caliper should have measuring range from 6 inches to 17.1/2 inches or more.			<u>Amended:</u> The tool calliper should have measuring range from 6 inches to min 16 inches.			
14	Annexure A1 Clause 1.24.3	Measuring range of the tool should be -2 PU to 100 PU (Porosity Unit) with an accuracy of +/- 5% or better. The tool should be calibrated to Limestone porosity along with a provision to change over to Sandstone/Dolomite porosity scales.			<u>Amended:</u> <i>Measuring range of the tool should be -3 PU to 60 PU (Porosity Unit) with an accuracy of +/- 6% or better. The tool should be calibrated to Limestone porosity along with a provision to change over to Sandstone/Dolomite porosity scales.</i>			

15	Annexure A1 Clause 1.25.4	The tool must be able to measure Transit Time in Open Hole: 40µs /ft - 190µs/ft or better.	<u>Amended:</u> <i>The tool must be able to measure Transit Time in Open Hole: 40µs /ft - 160µs/ft or better.</i>
16	Annexure A1 Clause 1.25.5	Slim borehole compensated sonic tool must have accuracy of +/- 1µs /ft or better.	<u>Amended:</u> <i>Slim borehole compensated sonic tool must have accuracy of +/- 2µs /ft or better.</i>
17	Annexure A1 Clause 1.26.4	The scintillation gamma detector should be calibrated in API with measuring range of minimum 0 to 1000 API and having accuracy of (+/-) 5 API units.	<u>Amended:</u> <i>The scintillation gamma detector should be calibrated in API with measuring range of minimum 0 to 1000 API and having accuracy of (+/-) 5% or (+/-) 5 API units or as per bidder tool specs.</i>
18	Annexure A1 Clause 1.27.1	To monitor and record slim quad combo tool string tension/compression.	<u>Amended:</u> <i>To monitor and record slim quad combo tool string tension during Real time Wireline logging operation (not required in memory mode). For Memory Logging mode to record accelerator only.</i>
19	Annexure A4 Clause 1.32.1	The bidder must provide fishing kit equipment required for slim quad-combo tools fishing through cut-and-thread in open hole.	<u>Amended :</u> <i>The bidder must provide fishing kit equipment required for slim quad-combo tools fishing for different fishing scenarios: -</i> <ul style="list-style-type: none"> - Real time standard - Real time thru DP - Memory Logging SBHA
20	Annexure A5 Clause 1.33.1	The bidder is required to quote all spares, consumables and accessories required for <u>50 runs of operation</u> for the following items. The quote must contain Part Number, description of each item, recommended quantity for 50 runs of operation, unit price, and extended price of each quoted item.	<u>Amended:</u> The bidder is required to quote all spares, consumables (except Lithium Battery) and accessories required for <u>50 runs of operation</u> for the following items. The quote must contain Part Number, description of each item, recommended quantity for 50 runs of operation, unit price, and extended price of each quoted item. <i>Bidder must quote 12 nos. of Lithium Battery required for carrying out logging operation with Quad combo tool (under Max load) operation sufficient for min 20 memory mode runs to be expended within min. 02 years.</i>
21	Annexure A8 Clause 1.2	The bidder must confirm in writing along with their bid that they <i>possess all standard testing & calibration facilities at their manufacturing Base / Testing centre</i> , including pressure / temperature testing etc., for all the tools offered by them against this tender.	<u>Amended:</u> The <u>bidder/OEM</u> must confirm in writing along with their bid that they <i>possess all standard testing & calibration facilities at their manufacturing Base / Testing centre</i> , including pressure / temperature testing etc., for all the tools offered by them against this tender.

22	Annexure A8 Clause 1.3	The bidder should also have proper R & D facilities for development and up-gradation of their equipment.	<u>Amended:</u> <i>1.3 (a) The bidder/OEM should also have proper R & D facilities for development and up-gradation of their equipment.</i> <i>1.3 (b) As on the bid closing date of this Tender, the bidder must have its base in India with capability to provide immediate support / solutions to the Tools, if required by OIL.</i>
23	Annexure A9 Clause 1.1	The successful bidder will have to provide training for 2 (TWO) Field Engineers and 2 (TWO) Maintenance Engineers at their premises/works which should be equipped with Test Well and all other requisite facilities. The training charges, if any, should be quoted separately which shall be considered for evaluation of the bid. However, passage and living expenses, including accommodation charges of OIL Engineers nominated for the training shall be borne by OIL.	<u>Amended:</u> The successful bidder will have to provide training for 2 (TWO) Field Engineers and 2 (TWO) Maintenance Engineers at their premises/works/ <i>OEM premises</i> which should be equipped with Test Well and all other requisite facilities. The training charges, if any, should be quoted separately which shall be considered for evaluation of the bid. However, passage and living expenses, including accommodation charges of OIL Engineers nominated for the training shall be borne by OIL.
24	Annexure A9 Clause 1.3	FIELD ENGINEERS' TRAINING: This should include detailed aspects of Slim Quad-Combo logging operations using both wire line and drill-pipe conveyance methods. Basic equipment trouble shooting at Base and at Field. The training curriculum should include theoretical and practical training for Field Engineers' Training Course covering Slim Quad-Combo logging operations including complete training on the software. Duration of the training period, location of training and prerequisite of the trainees, if any, etc. should be clearly specified in the bid document.	<u>Amended:</u> FIELD ENGINEERS' TRAINING: This should include detailed aspects of Slim Quad-Combo logging operations using both wire line and drill-pipe conveyance methods. <i>For drill conveyance purpose practical training conducted shall be done on surface simulation method.</i> Basic equipment trouble shooting at Base and at Field. The training curriculum should include theoretical and practical training for Field Engineers' Training Course covering Slim Quad-Combo logging operations including complete training on the software. Duration of the training period, location of training and prerequisite of the trainees, if any, etc. should be clearly specified in the bid document.
25	AnnexureA10 Clause 1.2	The commissioning charges quoted will be considered for bid evaluation. Contractor shall have to bear all expenses related to Train/Air/Sea travel, local transportation expenses, transit insurance and boarding and lodging expenses etc., for their personnel deployed during commissioning. Immediately after receipt of all the materials by OIL at Duliajan, a written advice will be issued to the supplier asking them to commence installation and commissioning, which must be promptly acknowledged by the supplier.	<u>Amended:</u> The commissioning charges quoted will be considered for bid evaluation. Contractor shall have to bear all expenses related to Train/Air/Sea travel, local transportation expenses, transit insurance and boarding and lodging expenses etc., for their personnel deployed during commissioning. Immediately after receipt of all the materials by OIL at Duliajan, a written advice will be issued to the supplier asking them to commence installation and commissioning, which must be promptly acknowledged by the supplier. Commissioning of the Slim Quad-Combo logging tools along with other accessories is to be completed <i>within 03 (Three) months</i> from the date of

	<p>Commissioning of the Slim Quad-Combo logging tools along with other accessories is to be completed within 04 (Four) months from the date of receipt of such an advice from OIL (this four months period excludes the waiting time for well readiness).</p> <p>In the event of extension of commissioning period by more than 04 months due to non-availability of wells, the bidder may replace its commissioning engineers with engineers having commensurate experience of logging operation (Both Wire line Logging & drill-pipe conveyed) and having requisite maintenance background only to the satisfaction of OIL.</p> <p>Bidder's inability to provide requisite engineers during equipment failure or during any time of the commissioning period resulting in delay in commissioning of the logging tool shall make it liable to LD as per clause 2.0 below.</p> <p>Supply of short-shipped and warranty replacement items is to be arranged, including Customs Clearance etc. by the supplier at their cost within 03 (three) months from the date of completion of commissioning of the entire equipment. The bidder will be held responsible for any further delay in completion of commissioning of the goods at site and Liquidated Damage Clause (Clause 2.0 below) shall be made applicable in case of any delays.</p>	<p>receipt of such an advice from OIL (this three months' period excludes the waiting time for well readiness).</p> <p>In the event of extension of commissioning period by more than 03 months due to non-availability of wells, the bidder may replace its commissioning engineers with engineers having commensurate experience of logging operation (Both Wire line Logging & drill-pipe conveyed) and having requisite maintenance background only to the satisfaction of OIL.</p> <p>Bidder's inability to provide requisite engineers during equipment failure or during any time of the commissioning period resulting in delay in commissioning of the logging tool shall make it liable to LD as per clause 2.0 below.</p> <p>Supply of short-shipped and warranty replacement items is to be arranged, including Customs Clearance etc. by the supplier at their cost within 03 (three) months from the date of completion of commissioning of the entire equipment. The bidder will be held responsible for any further delay in completion of commissioning of the goods at site and Liquidated Damage Clause (Clause 2.0 below) shall be made applicable in case of any delays.</p>
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