OIL & GAS DEVELOPMENT COMPANY LIMITED

TENDER ENQUIRY NO. PROC-SERVICES/CB/WL-5140/2021

WIRELINE LOGGING & PERFORATION SERVICES IN THE REGION OF PUNJAB & SINDH PROVINCE

Note:

Bid bond of **USD 240,000/- (US Dollar Two Hundred Forty Thousand Only)** to be submitted with the technical bid.

The master set of tender documents (services) uploaded on OGDCL website (www.ogdcl.com) is the integral part of this TOR.

Annexure-A1

TOR for hiring of Wireline Logging and Perforating Services

1. SCOPE OF WORK

1.1 Wireline logging, perforating and log data processing / interpretation services are required on "CALL OUT" basis for a period of three years from the issuance of LOI (subject to clause # 4 of TOR) on Exploratory, Appraisal, Development and Work over wells of OGDCL in the region of Sindh & Punjab provinces of Pakistan. The estimated number of wells is 100 (Rig and Rigless) with 300 jobs for the above mentioned period.

2. ELIGIBILITY REQUIREMENTS

The bidder:

2.1 must have minimum 10 years international experience of providing above mentioned services.

2.2 must have dedicated team of experienced professionals to handle technical matters relating to all types of wireline logging operations, perforations and logs data processing/interpretation services.

2.3 must be capable of providing required services / equipment as per Annexure-A2.

2.4 must be capable of providing Wireline logging & perforating services simultaneously on **at least four OGDCL wells** located in the region.

2.5 must confirm to carry out jobs at locations where OGDCL is active in operations.

3. TOOLS/EQUIPMENT/NOC's

3.1 Tools specified in Annexure-A2 should be suitable to perform services within temperature range of 300°F to 350 °F. Tools having temperature rating more than 350 °F should also be made available as and when required for logging on high temperature wells. H2S & CO2 rated tools/equipment should also be available when required.

3.2 The bidder should provide the latest tools/surface acquisition and allied equipment for performing logging and perforating services as per annexure-A2.

3.3 The bidder will ensure the availability of sufficient tools and equipment (for four simultaneous jobs) with backup support to carry out logging operations & perforating services simultaneously at different locations without rig time loss.

3.4 Provision of equipment for logging with TLC, through drill pipe, coil tubing or tractors should also be available when required.

3.5 All types of permits / NOCs, security clearances required for operations especially pertaining to manpower, radioactive sources / explosive import, storage, transportation etc. to any location of OGDCL will be the responsibility of the bidder.

3.6 OGDCL technical evaluation team may visit bidder's operational bases to physically verify the presence of quoted tools as part of technical evaluation process.

4. BASE FACILITIES

The bidder must have its suitably equipped base facilities for repair / maintenance, data processing / interpretation etc. and back up equipment/system support for smooth execution of logging and perforating services. Any bidder willing to avail extra time for the arrangement of tools, equipment, explosives and allied accessories etc. will be allowed 90 days period for arrangements from the issuance of LOI (90 days' time period will only be applicable for those bidders who ask for the same in writing along with the technical bid). For bidders availing 90 days period, the contract will start after 90 days from the issuance of LOI.

5. PERSONNEL

The bidder shall provide experienced professionals to perform logging, perforating and data processing/interpretation services. CVs to be submitted with the bid to appraise the competency level.

6. PREPARATION OF BIDS

6.1 The bidders shall prepare their bid in two parts i.e. Technical proposal (part-I) one original & one copy accompanied by soft copy on CD and Financial proposal (part-2) original.

6.2 The Technical proposal shall contain the details as per annexure-A2.

6.3 The bidders shall prepare their bids in line with given **wireline services / nomenclature or equivalent** services as per Annexure A2 & A3.

6.4 The Financial proposal should indicate all prices/rates as specified in Annexure-A3. Any Hi-Tech/New Technology service which can be used to achieve the objective and not part of the financial model may also be quoted separately on the similar format. However financial evaluation will be strictly based on given financial model (Cost Summary at Annexure-A3).

6.5 POL such as HSD (Diesel) and lubricants will be issued by OGDCL (if required) to wireline units during logging operations and the same will be adjusted / deducted from the service company invoices at the time of payment.

6.6 OGDCL shall provide accommodation and messing for contractor's personnel during stay at field.

7. BID VALIDITY

7.1 The bid shall remain valid and open for acceptance for a period of 180 days from the specified date of tender opening.

8. WIRELINE DELIVERABLES

8.1 One (1) set of rush prints along with one CD containing digital data at well site right after completion of the job.

8.2 Seven (7) sets of prints of all the logs within 5 days after completion of the job.

8.3 Three (3) CD's containing DLIS, LAS, LIS and PDF formats within 5 days after completion of the job.

9. DATA PROCESSING / INTERPRETATIONS DELIVERABLES

9.1 Four (4) sets of comprehensive reports with interpretation plots.

9.2 One (1) CD with each report containing digital data of final report in PDF format.

10. EVALUATION OF PROPOSALS

10.1 The technical proposal shall be reviewed first to determine the responsiveness according to the information required vide Annexure-A2. Technical proposals not conforming to and **deviating materially from the specifications and the conditions laid down in the Tender Documents shall be determined to be non-responsive and shall be rejected by the Company.**

10.2 Technical evaluation will be based on the following criteria.

DETAIL OF TECHNICAL BID EVALUATION CRITERIA

Descriptions	Point Value	
	Score	Section %
Equipment & Services		55%
Equipment, tools & services quoted by Contractor to meet OGDCL job requirements for: i. Intermediate Logging ii. Reservoir Section Logging iii. Perforating Services iv. Auxiliary Services v. Production Logging	 05 20 10 10 10	
Contractor's Experience		15%
• Contractor's International experience & reputation in equipment and related services (11 points for 10-15 years, 15 points for 15+ years)	15	
Contractor's Services Base		10%
Contractor's Wireline Services Base in Pakistan. • Upto one existing base / assurance of establishing base = 7 • Upto two existing bases = 10	10	
Personal Qualification & Experience		10%
Qualification, Training and Experience of Contractor's proposed key personnel. • Experience > 8 years = 10 • Experience upto 8 years = 7	10	
HSE System		10%
Contractor's HSE Standards and Processes verification/ rating for the last five years.	10	
TOTAL POINT VALUE	100	100%
TECHNICAL QUALIFICATION (Minimum Score)	75	

10.3 The financial bids of the bidders obtaining less than 75% marks on the aggregate will not be opened.

10.4 The bidder must get minimum 70% marks in each category. Any bidder getting less than 70% marks in any category will be disqualified.

10.5 After completion of Technical Evaluation, the financial proposal of technically qualified bidders will only be opened and examined to determine the lowest evaluated bid.

10.6 The bidder must provide un-priced copy of their financial proposal as per given format with the technical bid.

10.7 For the purpose of determining the lowest evaluated bid, cost as per financial model at Annexure-A3 will be taken into consideration. Optional equipment will not be considered for financial evaluation. However; bidder(s) should quote their firm prices on the similar format for any auxiliary / additional equipment / techniques or services not included in the schedule of requirement or financial evaluation model but required for Wireline logging & perforation operations as per technical requirement. **Firm prices & clear discounts / rebates (if any) for all the services referred in the proposal may be quoted.** ***Conditional prices or rebates will not be considered for evaluations.*** Bidders are required to quote all items as per Annexure-A3. Incomplete bids will be rejected and not considered for the financial evaluation.

11. Payment Terms

11.1 Service Company will submit the invoices duly signed and stamp by OGDCL representatives after completion of job & submission of final data to OGDCL head office Islamabad.

11.2 The invoices will be submitted in US Dollars. However payment will be made in equivalent Pak Rupees at the prevalent rate on the date of payment after technical and contractual verification.

DETAIL OF WELL LOGGING AND PERFORATING SERVICES

Conventional and Slim Tools	
Equipment /Tools	**Specification /Features**
Logging Unit	• Truck / Skid mounted Wireline Logging Unit for carrying out all type of Open Hole, Cased Hole Logging, Perforations services etc. on OGDCL wells.
Intermediate Section	
Spontaneous Potential	• Spontaneous Potential Tool
Temperature	• Temperature Tool measuring min. 300°F
Induction Tool	• Induction Tool with 5 curves output data • Minimum Depth of Investigation: 85 inch deep curve • Range of Measurement: 0.1-2000 ohm-m • Vertical Resolution = 4 ft
Sonic Tool	• High resolution Bore hole Compensated Sonic tool • Minimum Depth of Investigation: 3 inch • Range of Measurement: 40-240 usec / ft • Vertical Resolution compressional = 2ft • Accuracy = +/- 2 us/ft
Gamma Ray	• Gamma Ray Tool • Minimum Depth of Investigation:12 inch • Vertical Resolution = 1 ft • Range of Measurement: 400 API
Borehole Geometry tool	• Standalone proper caliper tool (4 & 6 Arm) is required for 24”, 17-1/2”, 12-1/4”, 8-1/2”, 6” and 5-7/8” hole. • Minimum Depth of Investigation: Hole diameter
Cement Evaluation	• Cement Bond / Variable Density logging tool is required • Minimum Depth of Investigation: Casing to cement interface
Reservoir Section	
Resistivity Tool	• High Resolution Laterolog Tool with 4 curves output • Minimum Depth of Investigation: 48 inch • Range of Measurement: 0.2-2000 ohm-m • Vertical Resolution = 24 inch
Micro Resistivity Tool	• Micro Spherical Focused Tool • Minimum Depth of Investigation: 03 inch • Range of Measurement: 0.2-2000 ohm-m • Vertical Resolution = 18 inch
Navigation Tool	• Navigation Tool is required for Deviation & Azimuth survey
Neutron Porosity Tool	• High resolution Compensated neutron porosity tool with TNPH and NPHI outputs. • Minimum Depth of Investigation: 10 inch • Range of Measurement: 0-60 pu
Spectral Natural Gamma Ray	• Natural Gamma Ray is required for Potassium, Thorium and Uranium measurements. • Range of Measurement: 0-1000 API • Vertical Resolution = 15 inch • Depth of Investigation = 9.5 inch

Density Log	• High resolution Litho-density with Photoelectric Absorption Coefficient tool • Minimum Depth of Investigation: 5 inch • Vertical Resolution = 19 inch
Array Sonic Tool	• Mono/Dipole Sonic with Cross dipole, P and S, Stonely, Full wave array sonic tools are required. • Minimum Depth of Investigation: 09 inch • Range of Measurement: As fast as for P waves 40 us/ ft and slowness as 700 us/ ft • Accuracy = 2 us/ft
Acoustic Scanning Tool	• Acoustic scanning tool is required to measure borehole compensated monopole with long and short spacing, cross dipole
Electric Micro Imager Tool	• Electric Micro Imager with Navigation tool • Minimum Depth of Investigation: 0.2 inch • Vertical Resolution = 0.2 inch • Minimum Range of Measurement: 70% borehole coverage in 8.5" hole
Electric Micro Imager Tool (OBM)	• Electric Micro Imager for Oil Base Mud • Minimum Depth of Investigation: 0.3inch • Range of Measurement: Provide maximum borehole coverage
Acoustic Bore Hole Imager	• Acoustic Bore hole Image tool with inclinometer tool • Minimum Depth of Investigation: Bore hole wall • Range of Measurement: 12 inch • Vertical Resolution = 0.4 inch
Ultra Sonic Image Tool	• Ultra sonic Image {Cement & Corrosion Evaluation} tool • Standard and High Resolution modes / images • Minimum Depth of Investigation: Casing to cement interface for bond and corrosion evaluation. • Vertical Resolution = 4 inch • Range of Measurement: Acoustic impedance 0 to 10 Mrayl (0 to 10 MPa s/m)
Litho Scanner / Geochemical Spectroscopy Instrument / FLeX or equivalent	• Should measure minimum 14 elements (Al, Ca, C, Cl, Gd, H, Fe, Mg, Mn, O, K, Si, S, Ti) for enhanced reservoir characterization
Nuclear Magnetic Resonance (CMR+ AT / FMR / MReX or equivalent	• For complex fluid characterization and tight rock / unconventional evaluation. • For wide range of T1/T2, diffusion application along with conventional bound/free and total porosity.
Mechanical / Rotary Sidewall Coring	• Minimum core capacity per run = 25 • Minimum core length = 1.75 inch • Minimum Core Diameter = 0.9 inch
Wireline BOP + Stuffing Box	• Wireline BOP and stuffing box required during logging in different sections and perforation jobs with min rating of 3000 psi
Vertical Seismic Profile / Imager	• Borehole tool has to be a three-component system compatible of performing services with vibrators as well as air guns, providing tight coupling between tool and casing. VSI tool with up to 8 shuttles required.

Wireline Formation Tester	Wireline Formation Tester including (but not limited to) • Pressure & Temperature recording with quartz/strain/sapphire gauges (min two gauges required). • Single and Dual Probe for Pressure points and sampling with standard/Large Diameter/ Extra Large Diameter probe. • Dual Packer module for pressure transient testing and sampling • Sampling Module (min 6 samples per run) • Live Fluid analyzer Module (Resistivity & Optical Based) • Pump out Module for sampling (including high pressure displacement unit)
Formation evaluation using slim hole tools	• Slim Resistivity Tool (Maximum OD 2.75") • Slim Density (Maximum OD 2.75") • Slim Neutron Porosity (Maximum OD 2.75") • Slim Sonic (Maximum OD 2.75") • Slim Gamma Ray (Maximum OD 2.75") • Slim tools utility is not limited to slim holes only. They can also be utilized in bigger hole sizes depending on borehole conditions as per OGDCL requirements to minimize operational risks.
Behind Casing Reservoir Evaluation Tools	• Resistivity • Density • Neutron Porosity • Sonic • Gamma Ray
Auxiliary Services	
Well Head Pressure Control Equipment	• Well Head Pressure Control Equipment (10k to 15k psi) required for logging in different sections, production logging, perforation& other jobs
Casing collar locator tool	• Casing collar locator tool for detecting collars of different casings
Free Point indicators	• Free point Indicator services for different drill collars, drill pipes & Tubings.
Back Off Service	• Back off Service for all sizes of drill collars, drill pipes & Tubings.
RCT / Power Cutter	• For cutting Tubings of all sizes.
Tubing Puncher	• Tubing Puncher Tools for tubular, ID ranging from 12.347" to 2-1/16".
Drill Pipe Colliding/ Severing Tool	• Drill pipe Colliding/Severing Tool is required for the following tubular: • DC's from 11" to 3-1/8" • HWDP's of 6-5/ 8" to 3 ½" • DP's of 5-1/2", 5", 3-1/2" & 2-7/8"
Wireline Fishing Tools	• The Contractor shall maintain its fishing equipment inventory being capable of fishing all downhole wire line tools.
GR-CCL / TCP Correlation	• 1-11/16" tool (stand alone or combinable) with Gamma ray and CCL for depth correlation inside 9-5/8", 7" and 5" casings / liners / through DST strings and completions.

Dummy / Depth Determination	• For any hole/casing/tubing/drill pipe size with active sensors like GR or/and CCL.
Bridge Plug Setting	• Bidder to provide bridge plug setting tool for 9-5/8", 7" & 5" bridge plugs.
Production Packer Setting	• Bidder to provide bridge plug setting tool for 9-5/8", 7" & 5" production packers.
Through Tubing Bridge Plug Setting	• Through tubing bridge plug setting tool (1-11/16" & 2-1/8") and inflatable plugs (1-11/16" & 2-1/8") capable of setting inside 9-5/8", 7" & 5" casings/liners.
Cementing Dumping	• Wireline conveyed cement dumping services (1-11/16" & 2-1/8") above through tubing bridge plugs.
Gauge Ring & Junk Basket	• Wireline conveyed gauge ring and junk basket services for all casing & liner sizes.
Corrosion Monitoring Tools	• Tools for corrosion monitoring and integrity of tubing and casings of different sizes.
Tough Logging	• TLC equipment is required for deviated / slant wells.
Logging While Fishing	• Equipment/subs for logging while fishing.
Coiled Tubing Logging	• CTL compatible equipment for real time data acquisition.
Perforating Services (RDX, HMX, HNS & PYX Explosive)	
HSD Gun System	• Gun sizes 2-7/8" to 4-1/2" • Deep penetrating charges with advanced applications. • Conventional and high end technology
Spiral / Strip Gun System	• Gun sizes 1-11/16" & 2-1/8" with magnetic positioning devices. • Deep penetrating charges with advanced applications. Conventional and high end technology
Production Logging Services	
Production Logging	• Standard Production logging suite includes but not limited to pressure / temperature / fluid density / flow meter / GR / CCL inside 9-5/8", 7" & 5" casings / liners. • Water Hold up, Gas Hold up, Water flow log. **Other Services** • Production logging suite for highly deviated wells. • 3-phase water holdup (horizontal, highly deviated and vertical well with conveyance method. • Production logging in conveyance method with CT and tractor in real time.
Cased Hole Reservoir Saturation Tool	• Cased hole reservoir saturation tool to measure porosity, sigma, water velocity, phase velocity and bore hole holdup • Minimum Depth of Investigation: 10 inch

Spectral Noise Log	• For identifying water channeling behind casing and for determining dual string flow, fracture flow, leak detection, cement seal integrity and packer seal integrity.
Multi Barrier Corrosion Monitoring Tool	• To detect multi-barrier tubing and casing thickness / metal loss using electromagnetic principle.
Downhole Camera	• High resolution cameras for providing vivid, high frame rate color videos in real-time, enabling rapid and effective evaluation of complex well issues like imaging dropped objects and wellbore fish, mechanical inspection of wellbore hardware, inspection and monitoring of corrosion and erosion, perforation inspection to measure perforation size and optimize frac/perf programs, detecting water entry in gas wells and oil entry in high water cut wells, gas storage inspection, open hole imaging of barefoot completions, leak and cross-flow detection, sand entry detection etc.
Tractor	• Conveyance for wireline string in highly deviated and horizontal wells.
Data Processing / Interpretations	
Data Output, Interpretations And Reports	• Rush prints at well site, processed data within 24hrs and interpretation reports (when required) within due time.

Wireline Services & Allied Cost
Depth = 4000M, Survey Interval = 1000M

Annexure-A3

		A	B	C	D	E	F	G	H	I
Sr No	**Service**	**Depth Charge US $/M**	**Survey Charge US $/M**	**Special Conveyance (TLC, PCL etc) Depth Surcharge US $/M**	**Deviation Depth Surcharge US $/M (>35°)**	**H2S / CO2 Depth Surcharge US $/M**	**Sub-Total US $ =[(A*4000)+(B*1000)+{(C+D+E)*4000}]**	**Job Frequency multiplication factor**	**Standby /Rental US $/day (If any)**	**Total US $ = (F*G)+(5*H)**
1	Bore hole Compensated Sonic							10		
2	Cement Bond Log							67		
3	Acoustic Borehole Imager / Ultrasonic Mud Imager							1		
4	Ultrasonic Cement Imager							5		
5	Ultrasonic Casing Corossion Imager							1		
6	Dipole Shear Imager / Monopole-Cross Dipole Sonic with Navigation	N/A								
	P & S							30		
	Dipole							30		
	Anisotropy							30		
	Stonely							30		
7	Sonic Scanner / Compact Cross Dipole	N/A								
	P & S							20		
	Dipole							20		
	Stonely							20		
	Anisotropy							20		
8	Bore Hole Geometry log / Caliper Log (2-Axis)							40		
9	Bore Hole Geometry log / Caliper Log (3-Axis)							50		

10	Dual Induction Log / Simultaneous Triple Induction							2		
11	Array Induction Log							4		
12	Dual Laterolog							3		
13	Hi Resolution Laterolog							40		
14	Microspherically / Micro Cylindrically Focused Log							40		
15	Compensated Density / Spectral Pe Density							45		
16	Hi Resolution Litho-Density							45		
17	Compensated Neutron log							45		
18	Formation Resistivity Imaging							5		
19	Formation Resistivity Imaging (for high resistivity formations)							15		
20	Oil Base Mud Formation Resistivity Imaging							1		
21	Formation Dip Measurement / Inclinometry							1		
22	GPIT (IS)							7		
23	Advanced Magnetic Resonance Tool							10		
24	Litho Scanner / Geochemical spectroscopy instrument (all modes)							1		
25	Natural Gamma Ray Spectroscopy							48		
26	Open Hole Gamma Ray log (all open hole sizes)							115		
27	Cased Hole Gamma Ray log (for all							115		

	casing/tubing/ Drill pipe)									
28	Dummy / Depth Determination							115		
29	GR-CCL/TCP Correlation							25		
30	Casing Collar Locator (CCL)							150		
31	Formation Tester	N/A								
	Single Probe (20 Pretests)		US $/ Pretest				=[(A*4000)+(B*20)+{(C+D+E)*4000}]	15		
	Dual Probe (20 Pretests)		US $/ Pretest				=[(A*4000)+(B*20)+{(C+D+E)*4000}]	15		
	Live Fluid Analyzer (6 Samples)		US $/ Sample				=[(A*4000)+(B*6)+{(C+D+E)*4000}]	15		
	Live Fluid Analyzer (6 Cleanout)		US $/ Cleanout				=[(A*4000)+(B*6)+{(C+D+E)*4000}]	15		
	Pump Out (6 Samples)		US $/ Sample				=[(A*4000)+(B*6)+{(C+D+E)*4000}]	15		
	Pump Out (6 cleanout)		US $/ Cleanout				=[(A*4000)+(B*6)+{(C+D+E)*4000}]	15		
	Multi Sampling (6 Samples)		US $/ Sample				=[(A*4000)+(B*6)+{(C+D+E)*4000}]	15		
	Dual Packer (6 Samples)		US $/ Sample				=[(A*4000)+(B*6)+{(C+D+E)*4000}]	15		
32	Vertical Seismic Imager-4 Shuttles (300Levels)		US $ / level				=[(A*4000)+(B*300)+{(C+D+E)*4000}]	15		

33	Vertical Seismic Imager-8 Shuttles (300Levels)		US $ / level				=[(A*4000)+(B*300)+{(C+D+E)*4000}]	5		
34	Mechanical/Rotary sidewall coring (25 cores)		US $/ core				=[(A*4000)+(B*25)+{(C+D+E)*4000}]	1		
35	Slim Neutron Tool (Max OD 2.75 inches)							10		
36	Slim Density Tool (Max OD 2.75 inches)							10		
37	Slim GR Tool (Max OD 2.75 inches)							10		
38	Slim Sonic Tool (Max OD 2.75 inches)							10		
39	Slim Resistivity Tool (Max OD 2.75 inches)							10		
40	Cased Hole Resistivity log (all casing/liner sizes)							1		
41	Pressure / Temperature Log	N/A								
	Pressure							15		
	Temperature							15		
42	Production Services (PSP / PLT)	N/A								
	Temperature		N/A					15		
	- Flowing	N/A		N/A				15		
	- Shut in	N/A						15		
	Continuous flowmeter		N/A					15		
	- Flowing	N/A		N/A				15		
	- Shut in	N/A						15		
	Gradiomanometer		N/A					15		
	- Flowing	N/A		N/A				15		
	- Shut in	N/A						15		

	Full Bore Spinner		N/A					15		
	- Flowing	N/A		N/A				15		
	- Shut in	N/A						15		
	Fluid Imager/Flow View		N/A					15		
	- Flowing	N/A		N/A				15		
	- Shut in	N/A						15		
	X-Y caliper		N/A					15		
	- Flowing	N/A		N/A				15		
	- Shut in	N/A						15		
	Quartz pressure gauge		N/A					15		
	- Flowing	N/A		N/A				15		
	- Shut in	N/A						15		
	Water and Gas hold up		N/A					15		
	- Flowing	N/A		N/A				15		
	- Shut in	N/A						15		
43	Reservoir Saturation/Pulsed Neutron Decay		N/A					3		
	Carbon / Oxygen	N/A		N/A				3		
	Sigma	N/A						3		
	Water Flow	N/A						3		
44	Spectral Noise Log (SNL)							1		
45	Multi Finger Imaging Tool							3		
46	Multi Barrier Corrosion Monitoring Tool							1		
47	Downhole Camera							1		
48	Free Point Indicator (10 points)		US $ / Point				=[(A*4000)+(B*10)+{(C+D+E)*4000}]	5		

49	Back Off		US $ / Shot				=[(A*4000) +(B)+{(C+D +E)*4000}]	5		
50	Severing Colliding / Dual End Severing Tool		US $ / Shot				=[(A*4000) +(B)+{(C+D +E)*4000}]	5		
51	Power Cutter		US $ / Shot				=[(A*4000) +(B)+{(C+D +E)*4000}]	3		
52	Radial Cutting Torch		US $ / Shot				=[(A*4000) +(B)+{(C+D +E)*4000}]	3		
53	Tubing Puncher (04 shots)		US $ / Shot				=[(A*4000) +(B*4)+{(C +D+E)*400 0}]	5		
54	Through Tubing Bridge Plug		US $ / Plug				=[(A*4000) +(B)+{(C+D +E)*4000}]	25		
55	Through Tubing Dump Bailer / Gravity Dump Bailer(03 runs)		US $ / Cement Dump				=[(A*4000) +(B*3)+{(C +D+E)*400 0}]	25		
56	Customer Instrument Survey		N/A					10		
57	Junk Basket / Gauge Ring		N/A					55		
58	Bridge Plug setting		US $ / Setting				=[(A*4000) +(B)+{(C+D +E)*4000}]	25		
59	Production Packer setting		US $ / Setting				=[(A*4000) +(B)+{(C+D +E)*4000}]	30		
60	Electrically Controlled Weak Point (Hepta/Mono Cable)		US $ / Activation & Release				=[(A*4000) +(B)+{(C+D +E)*4000}]	1		
61	Wireline Crew Rental Charges per day	NA								I=H*50
62	Logging Unit Rental Charges per day									I=H*50

63	1-11/16" Spiral (Min. penetration: 18 inch)		HMX Cost US $/M	HNS Cost US $/M	200	20	F = (B*D)+(C*E)	15		I = (A*4000*G) + F + (H*5)
64	2-1/8" Spiral (6SPF) (Min. penetration: 25 inch)		HMX Cost US $/M	HNS Cost US $/M	70	7	F = (B*D)+(C*E)	5		I = (A*4000*G) + F + (H*5)
65	2-7/8" HSD (6SPF) (Min. penetration: 35 inch)		HMX Cost US $/M	HNS Cost US $/M	40	4	F = (B*D)+(C*E)	1		I = (A*4000*G) + F + (H*5)
66	3-1/8" to 3-1/2" HSD (6SPF) (Min. penetration: 36 inch)		HMX Cost US $/M	HNS Cost US $/M	10	1	F = (B*D)+(C*E)	1		I = (A*4000*G) + F + (H*5)
67	4-1/2" HSD (5SPF) (Min. penetration: 65 inch)		HMX Cost US $/M	HNS Cost US $/M	800	80	F = (B*D)+(C*E)	70		I = (A*4000*G) + F + (H*5)
68	4-1/2" HSD (12SPF) (Min. penetration: 33 inch)		HMX Cost US $/M	HNS Cost US $/M	10	1	F = (B*D)+(C*E)	1		I = (A*4000*G) + F + (H*5)
69	4-1/2" Big hole entry charge (Min. penetration: 5 inch)		HMX Cost US $/M	HNS Cost US $/M	10	1	F = (B*D)+(C*E)	1		I = (A*4000*G) + F + (H*5)
70	Standard BOP for Openhole/Cased hole/Perforation (for over balanced wells)	NA						50	US $ / Job	I = G*H
71	Pressure Control Equipment rated 10000 psi							45	US $ / Job	I = G*H
72	Pressure Control Equipment rated 15000 psi							1	US $ / Job	I = G*H
73	Service Charge							470	US $ / Job	I = G*H

74	Mob/Demob (Equipment, Crew, 3rd Party etc)					470	US $ / Job	I = G*H
75	Wireline Tractoring Charge					1	US $ / Run	I = G*H
76	Coil Tubing Compatibility Surcharge					1	US $ / Run	I = G*H
77	Crane Charges					60	US $ / Job	I = G*H
78	Incomplete Operation					10	Maximum charge per run	I = G*H
79	Resistivity Imager (FMI / FMI-HD /HMI / CMI / OBMI or Equivalent) - Image processing	NA		NA	F = B*1000	22	NA	I = F*G
80	Resistivity Imager (FMI / FMI-HD /HMI / CMI / OBMI or Equivalent) - Interactive dip picking & Classification				F = B*1000	22		I = F*G
81	Resistivity Imager (FMI / FMI-HD /HMI / CMI / OBMI or Equivalent) - Structural analysis & Classification				F = B*1000	22		I = F*G
82	Resistivity Imager (FMI / FMI-HD /HMI / CMI / OBMI or Equivalent) - Sedimentary analysis & Classification				F = B*1000	22		I = F*G
83	Resistivity Imager (FMI / FMI-HD /HMI / CMI / OBMI or Equivalent) - Fracture & Statistical analysis				F = B*1000	22		I = F*G

84	Resistivity Imager (FMI / FMI-HD /HMI / CMI / OBMI or Equivalent) - Geological / Induced feature classification				F = B*1000	22		I = F*G
85	Resistivity Imager (FMI / FMI-HD /HMI / CMI / OBMI or Equivalent) - Advanced structure modelling				F = B*1000	22		I = F*G
86	Resistivity Imager (FMI / FMI-HD /HMI / CMI / OBMI or Equivalent) - Any other processing				F = B*1000	22		I = F*G
87	Ultrasonic Imager(UBI / UMI or Equivalent) - Image processing				F = B*1000	1		I = F*G
88	Ultrasonic Borehole Imager(UBI / UMI or Equivalent) - Interactive dip picking & Classification				F = B*1000	1		I = F*G
89	Ultrasonic Borehole Imager(UBI / UMI or Equivalent) - Structural analysis & Classification	NA		NA	F = B*1000	1	NA	I = F*G
90	Ultrasonic Borehole Imager(UBI / UMI or Equivalent) - Sedimentary analysis & Classification				F = B*1000	1		I = F*G
91	Ultrasonic Borehole Imager(UBI / UMI or Equivalent) -				F = B*1000	1		I = F*G

	Fracture & Statistical analysis							
92	Ultrasonic Borehole Imager(UBI / UMI or Equivalent) - Any other processing				F = B*1000	1		I = F*G
93	Ultrasonic Cement Bond & Casing Corrosion Image processing (Standard & High resolution)				F = B*1001	1		I = F*G
94	Seismic Imager -Stand alone edit from digital records (vertical well)	NA	(US $ / level)	No of Levels=300 Sonic/Density Interval = 2000m	F = B*300	20	NA	I = F*G
95	Seismic Imager -Stand alone edit from digital records (deviated well)		(US $ / level)		F = B*300	20		I = F*G
96	Seismic Imager - Geogram processing (P-Wave Geogram)		(US $ / level)		F = B*300	20		I = F*G
97	Seismic Imager -Time Base Log		(US $ / level)		F = B*300	20		I = F*G
98	Seismic Imager -Zero offset seismic profiling for vertical well-1 axis		(US $ / level)		F = B*300	20		I = F*G
99	Seismic Imager -Zero offset seismic profiling for vertical well-3 axis		(US $ / level)		F = B*300	20		I = F*G
100	Seismic Imager -Zero offset seismic profiling for deviated well-1 axis		(US $ / level)		F = B*300	20		I = F*G

101	Seismic Imager -Zero offset seismic profiling for deviated well-3 axis		(US $ / level)		F = B*300	20		I = F*G
102	Seismic Imager -Offset seismic profiling for vertical well-1/3 axis		(US $ / level)		F = B*300	20		I = F*G
103	Seismic Imager -Offset seismic profiling for deviated well-1/3 axis		(US $ / level)		F = B*300	20		I = F*G
104	Seismic Imager -Shear processing & analysis		(US $ / level)		F = B*300	20		I = F*G
105	Seismic Imager -Q-estimation		(US $ / level)		F = B*300	20		I = F*G
106	Seismic Imager -Inversion		(US $ / level)		F = B*300	20		I = F*G
107	Seismic Imager -Sonic or Density calibration vertical well		(US $ / M)		F = B*2000	20		I = F*G
108	Seismic Imager -Sonic or Density calibration deviated well		(US $ / M)		F = B*2000	20		I = F*G
109	Seismic Imager -Any other processing		(US $ / level)		F = B*300	20		I = F*G
110	Array Sonic Imager / Monopole-Dipole Imager - Compressional and Shear mode processing including slowness analysis	NA		NA	F = B*1000	30	NA	I = F*G
111	Array Sonic Imager / Monopole-Dipole Imager				F = B*1000	30		I = F*G

	-Dipole processing							
112	Array Sonic Imager / Monopole-Dipole Imager - Stonely reflectivity analysis				F = B*1000	30		I = F*G
113	Array Sonic Imager / Monopole-Diploe Imager -Anisotropy & Dispersion Analysis				F = B*1000	30		I = F*G
114	Array Sonic Imager / Monopole-Diploe Imager -Fracture analysis				F = B*1000	30		I = F*G
115	Array Sonic Imager / Monopole-Diploe Imager -Any other processing				F = B*1000	30		I = F*G
116	Sonic Scanner / Compact Cross Dipole - Compressional and Shear mode processing including slowness analysis	NA		NA	F = B*1000	20	NA	I = F*G
117	Sonic Scanner / Compact Cross Dipole - Dipole processing				F = B*1000	20		I = F*G
118	Sonic Scanner / Compact Cross Dipole - Stonely reflectivity/fracture analysis				F = B*1000	20		I = F*G
119	Sonic Scanner / Compact Cross Dipole - Anisotropy & Dispersion Analysis				F = B*1000	20		I = F*G

120	Sonic Scanner / Compact Cross Dipole - Fracture analysis				F = B*1000	20		I = F*G
121	Sonic Scanner / Compact Cross Dipole - Any other processing				F = B*1000	20		I = F*G
122	Production Logging - Production logging basic processing				F = B*1000	15		I = F*G
123	Production Logging -Flow view processing				F = B*1000	15		I = F*G
124	Production Logging -Gas holdup optical sensor				F = B*1000	15		I = F*G
125	Production Logging - Reservoir saturation- Time Lapse sigma log	NA		NA	F = B*1000	3	NA	I = F*G
126	Production Logging - Carbon/Oxygen ratio from Spectroscopy				F = B*1000	3		I = F*G
127	Production Logging - Water flow log				F = B*1000	3		I = F*G
128	Production Logging -Any other processing				F = B*1000	15		I = F*G
129	Miscellaneous Processing - Logs Processing ELAN or Equivalent (Conventional Reservoir)	NA		NA	F = B*1000	1	NA	I = F*G
130	Miscellaneous Processing - Logs Processing ELAN or Equivalent (Un-				F = B*1000	1		I = F*G

	Conventional Reservoir)							
131	Miscellaneous Processing - Cement evaluation log				F = B*1000	1		I = F*G
132	Miscellaneous Processing - Cased hole formation resistivity log				F = B*1000	1		I = F*G
133	Miscellaneous Processing - Multi Finger Imaging Tool Processing				F = B*1000	1		I = F*G
134	Miscellaneous Processing- CMR complete processing with all answer products				F = B*1000	5		I = F*G
135	Multi Barrier Corrosion Monitoring Tool - complete processing with all answer products				F = B*1000	1		I = F*G
136	Any other special processing / report / interpretation / real time support of any tools physically covered above.				F = B*1000	5		I = F*G
Grand Total US$								

Notes:

* Cost of the above mentioned services **or equivalent** may be quoted.
* A service charge will be applied only once under one MOB/DEMOB.
* Any other service / technology not covered above like Jars, latest tech. tools, special cutters etc may be mentioned separately as per above format as optional.
* Firm cost may be quoted and NIL may be mentioned whichever is not applicable
* In case of TLC, no deviation charge will be applicable.
* H2S / CO2 surcharge will only be applicable if H2S / CO2 is a known phenomenon in the concerned field and it must be quantified on the field ticket, duly signed by OGDCL field representative at site.

* Sub-Total of each service will be calculated assuming depth=4000M and survey interval=1000M. Total / service will be calculated by multiplying sub-total with job frequency multiplication factor.
* When a Natural Gamma Ray Spectroscopy is recorded, no Gamma Ray survey will be applied for Gamma Ray recorded in combination with several different services under same MOB/DEMOB charge.
* Any depth, survey, run charge etc where applicable will be applied once from surface to the actual deepest depth recorded with a service irrespective of number of runs made with that service under one MOB/DEMOB charge.
* For free point job both stretch and torque measurements are required for stations to be valid unless technically and operationally justified by OGDCL field representative on the field ticket.
* Resistivity data will be inclusive of SP curve.
* For dipole / BCR / Anisotropy jobs depth and survey charges will be inclusive of centralization and GPIT charges. However, data of caliper and GPIT will be provided. Depth and survey charges of all borehole imaging tools will be inclusive of GPIT charges
* During Formation Testing service no pressure charge will be made for setting when no seal is obtained. Each fluid sample will include a pressure recording at no extra charge. Sample charge will be valid only if sample is fully recovered as per specified volume. For LFA & Pump out modules, sample charge will be applicable only if sample is taken, however if only cleanout was the objective then cleanout charge will be applicable. In case both samples taken and cleanouts done, only one depth charge of Pumpout & LFA applicable. Probe charges quoted above will be same for all types of probes.
* VSI charges will be inclusive of cost for Vibros etc.
* Any allied accessories/tool jewellery needed for smooth operation of above mentioned services will be responsibility of service company at no extra charge.
* Above mentioned cost is for financial evaluation purpose only. However, payment will be made at actual against verified invoices and in Pak Rupees at exchange rate prevalent on the date of payment.
* All tools mentioned in the table above should be the latest generation, and price quoted above will be inclusive of all modes pertaining to that tool.
* Slim Tools utility is not limited to slim holes only. They can also be utilized in bigger hole sizes as per Annexure-2 depending upon borehole conditions.
* ECRD activation & release charge will only be applicable if the weak point is released successfully as per mutual consent of OGDCL & the contractor.
* Standby cost of the above mentioned equipment **or equivalent** may be quoted.
* Standby will start after 10 free days of each line item are consumed.
* Standby will be applicable after the equipment/crew arrives at the well site and released by the Company.
* Total cost of each perforating gun system is required assuming depth=4000M and perforating interval as mentioned above against each gun system
* Perforation depth charge will be measured to the deepest shot. It will be applied only once for a series of runs made under the same service charge
* Above perforation charges are inclusive of all types of blank guns, spacers, hardware charges and penetration analysis report.
* BOP / Pressure Control Equipment quoted rates will be inclusive of H2S / CO2 surcharge.
* BOP/Pressure Control Equipment charges will be applied once under one MOB/DEMOB charge.
* Mob/Demob charges include complete transportation of logging unit, personnel, equipment, Explosive, Radioactive material and related accessories/ third party transportation to and back from the wellsite.
* If an operation cannot be completed due to failure / malfunctioning of equipment no charge will be applied.
* If an operation is attempted but cannot be completed due to well conditions or if an operation is cancelled by the client while equipment is in the hole, IO will be applicable . Only one IO charge per toolstring will be applicable in one run. In case of I/O, minimum of following of the two charges will be applicable:

1) Maximum Charge per run quoted by bidder at serial # 78

OR

2) Maximum of the depth charges of the toolstring (as defined in Annexure-A3) to the depth reached.

* If crew and equipment reached well site and all operations are cancelled by client before start of rigup, it will be treated as cancelled operation. Only Mob/demob charges will be applicable as defined in Annexure-A3.
* Crane will be arranged by the service company for rigless operations when and where requested by OGDCL.
* "Any other processing" includes every possible additional processing pertaining to that tool not mentioned in above tables.
* Any other module of processing not covered above may be quoted separately as optional.
* Above charges are inclusive of Report writing
* Evaluation shall be carried out on complete package basis excluding optional services.
* Incomplete bids shall not be considered for evaluations and shall be rejected.

Note

- Bid bond of **USD 240,000/-** (US Dollar Two Hundred Forty Thousand Only) to be submitted with the technical bid.

- The master set of tender documents (services) uploaded on OGDCL website (www.ogdcl.com) is the integral part of this TOR.