

## **INVITATION TO SUBMIT TECHNICAL AND COMMERCIAL OFFERS**

### **Supply of Drilling Tools and Drill Bits Services**

We hereby invite qualified and experienced companies to submit their technical and commercial proposals for the provision of drilling tools and drill bits supply services in accordance with the scope of work outlined below.

### **Scope of Work**

The scope includes the supply of various types of drill bits and associated drilling tools required for exploration activities. The contractor shall provide equipment suitable for different formations and drilling conditions, ensuring compatibility with rig specifications.

### **Bit Specifications**

The contractor shall supply drill bits with the following general specifications:

- Fixed Cutter Bits (PDC) and Roller Cone Bits
- Sizes ranging from 6" to 26"
- API standard connections
- Suitable for soft, medium, and hard formations
- Equipped with anti-whirl and gauge protection features
- Include bit records and IADC codes for each bit

### **Optimization Services**

The contractor shall provide bit optimization services including:

- Bit selection based on offset well data
- Hydraulic and mechanical performance analysis
- Recommendations for bit parameters (WOB, RPM, flow rate)
- Post-run performance evaluation and reporting

### **Personnel Requirements**

The contractor shall assign qualified personnel with experience in bit selection and performance analysis. CVs of proposed personnel must be submitted along with the technical proposal.

### **Submission Guidelines**

Interested companies are requested to submit their technical and commercial proposals in sealed envelopes waxed in red, no later than five (5) days from the date of this announcement.

Important Notes:

- Offers must include both technical and commercial proposals.
- Pricing details must be confined to the commercial offer only.

---

**SPECIFICATIONS OF EQUIPMENT AND SERVICES PROVIDED BY THE  
Contractor**

**4.2.14 SUPPLY OF DRILLING TOOLS (DRILL BITS)**

---

**Table of Contents**

**4.2.14.1. Drill Bits Supply Services**

**4.2.14.2. Optimization Services**

**4.2.14.3. Personnel**

#### 4.2.14.1. Drill Bits Supply Services

The supply of drilling tools in this Contract is carried out on a direct service basis. The supply of tools will be indicative based on the IADC codes below; however, the CONTRACTOR is responsible for their selection based on offset wells and their experience in tool engineering to improve the drilling rate and hole quality. Proposed IADC codes:

Well	Bit size	TD (ft)	BHA TYPE	Primary Bit Type	WOB	Back-up Bits
					RPM	
					Flow Rate	
Well1	8-1/2"	8440	Packed Hole	New PDC 7 blade 16 mmcutter	5-15 t 60-120 RPM 1600-1800 lpm	PDC RR 8 1/2" New Rock bit insert (537) New mill tooth for drill out
	6"		Packed Hole and Slick BHA	PDC /Tricôn	2-8 t 60-80RPM 800-1000 lpm	New mill tooth for drill out <b>MT-RR:</b> IADC: 115C
Well2	26"	250	Pendulum	MT-NEW: IADC: 115C 3*20/32 + 1*18/32	0-15t 60-80 RPM 1000-2500 lpm	<b>MT-RR:</b> IADC: 115C <b>TCI-RR:</b> IADC: 415C
					15-25T 100-120 RPM 3200 LPM	
	16"	3300	Packed Hole	TCI-NEW: IADC: 435 or 515 1*16/32 + 3*18/32	10-20t 100-140 RPM 2800 lpm	<b>TCI-RR TCI:</b> IADC: 435 or 515 <b>MT:</b>
	12-1/4"	6150	Packed Hole	PDC-NEW: 8 Blade 16mm Cutters 8*13/32	10-20t 100-160 RPM 2600-2800 lpm	PDC-RR: 7 Blade 16mm Cutters PDC-RR: 8 Blade 13mm Cutters MT:
	8-1/2"	9422	Packed Hole	PDC-NEW: 7 Blade 16mm Cutters 4*16/32 + 3*14/32	8-15 t 80-110 RPM 1600-1800 lpm	PDC-NEW: 9 Blade 13mm Cutters PDC-NEW: 8 Blade 13mm Cutters Hybrid Bit: (Kymera) for Dolerites PDC-RR: 7 Blade 16mm Cutters PDC-RR: 8 Blade 13mm Cutters TCI- NEW: MT- NEW: 6" MT Bit (for cleanout)
	6"		Packed Hole and Slick BHA	PDC /Tricôn	5-8 t 80-110 RPM 800-1000 lpm	6" MT Bit (for cleanout)

---

#### **4.2.14.2. Optimization Services :**

The Contractor will propose, through its engineering, drilling parameters and bit designs to achieve the best possible hole geometry to minimize drilling fluid volume and allow for better casing cementing to isolate layers effectively, thereby avoiding annular pressure issues.

#### **4.2.14.3. Personnel**

##### **I. Basic Team**

<b>Description</b>	<b>Quantity</b>
Senior Bit Engineer	1
Junior Bit Engineer	1

##### **II. Additional Personnel:**

Operators or engineers may be required for optimization, control, and support.

Service Company: .....

Well	Hole section	Bit proposed	Type	Numbre Requested	Unite price (us\$)	Total cost for section (us\$)	total well (us\$)	Total project (us\$)
Re-entry	26"		tricôn	0				
	16/ 17-1/2"		PDC	0				
			ticôn	0				
	12-1/4"		PDC	0				
			tricôn	0				
	8-1/2"		PDC	2				
			tricôn	2				
	6"		PDC	1				
		tricôn	1					
Well 1	26"		triôn	1				
	16/ 17-1/2"		PDC	1				
			ticôn	1				
	12-1/4"		PDC	1				
			tricôn	1				
	8-1/2"		PDC	2				
			tricôn	1				
Well 2	6"		PDC	1				
			tricôn	1				
	26"		triôn	1				
			PDC	1				
16/ 17-1/2"		ticôn	1					
12-1/4"		PDC	1					
		tricôn	1					
8-1/2"		PDC	2					
		tricôn	1					
6"		PDC	1					
		tricôn	1					