



# OIL & GAS DEVELOPMENT COMPANY LIMITED

## Request For Quotation (Imports)

ANNEXURE 'A':

OGDCL House, Jinnah Avenue, Islamabad, Pakistan

Phone :

**Description:** Procurement of PDC & Tricone Bits  
**Tender Enquiry No:** OGDCL-SCM-FB-CB-D-6200000042/2022  
**Delivery Period:** 2-3 Months after LC Establishment  
**Mode of Shipment:** CFR by Sea and CPT by Air as mentioned in TOR's

**Mode of Procurement:** Press Tender

**Evaluation Criteria:** Item Wise Basis  
**Bid Bond Value:** USD 150,000/-  
**Bid Validity:** 120 Days beyond Technical Bid Opening Date

**Bidding Procedure:** Single Stage Two Envelope

**Purchase Req:** 20000243

**Attachments:** Yes

**Other Terms & Conditions:** Attached

SR NO	Material No	Material Description	Unit	Quantity	Unit Price (FOB)	Total Price (FOB)	Unit Price (CFR)	Total Price (CFR)	Deviation From Tender Spec. If Any
1.	16-00103	BIT ROCK 28" IADC 115M AS PER ANNEXURE A-I GROUP A	NO	2					
2.	16-00529	BIT ROCK 28" IADC 135 AS PER ANNEXURE A-I GROUP A	NO	4					
3.	16-00002	BIT ROCK 26" PIN IADC 115M AS PER ANNEXURE A-I GROUP A	NO	2					
4.	16-00015	BIT ROCK 26" IADC 135M AS PER ANNEXURE A-I GROUP A	NO	4					
5.	16-00104	BIT ROCK 22" IADC 115M AS PER ANNEXURE A-I GROUP A	NO	2					
6.	16-00105	BIT ROCK 22" IADC 135M AS PER ANNEXURE A-I GROUP A	NO	3					
7.	16-00009	BIT ROCK 17-1/2" IADC 115M AS PER ANNEXURE A-I GROUP A	NO	5					
8.	16-00010	BIT ROCK 17-1/2" IADC 135M AS PER ANNEXURE A-I GROUP A	NO	6					

## Tender Enquiry No: 6200000042 / SCM Import (061) / Korangi Base Store /

SR NO	Material No	Material Description	Unit	Quantity	Unit Price (FOB)	Total Price (FOB)	Unit Price (CFR)	Total Price (CFR)	Deviation From Tender Spec. If Any
9.	16-00107	BIT ROCK 17" IADC 115M AS PER ANNEXURE A-I GROUP A	NO	2					
10.	16-00106	BIT ROCK 17" IADC 135M AS PER ANNEXURE A-I GROUP A	NO	2					
11.	16-00035	BIT ROCK 12-1/4" IADC 117M AS PER ANNEXURE A-I GROUP A	NO	6					
12.	16-00039	BIT ROCK 12-1/4" IADC 137M AS PER ANNEXURE A-I GROUP A	NO	15					
13.	16-00552	BIT TRICONE 8-1/2" IADC 117M AS PER ANNEXURE A-I GROUP A	NO	4					
14.	16-00064	BIT ROCK 8-1/2" IADC 137M AS PER ANNEXURE A-I GROUP A	NO	15					
15.	16-00530	BIT ROCK 6" IADC 117M AS PER ANNEXURE A-I GROUP A	NO	2					
16.	16-00078	BIT ROCK 6" IADC 137M AS PER ANNEXURE A-I GROUP A	NO	10					
17.	16-00553	BIT TRICONE 5-7/8" IADC 117M AS PER ANNEXURE A-I GROUP A	NO	4					
18.	16-00096	BIT ROCK 5-7/8" IADC 137M AS PER ANNEXURE A-I GROUP A	NO	10					
19.	16-00101	BIT ROCK 4-1/8" IADC 137M AS PER ANNEXURE A-I GROUP A	NO	5					
20.	16-00100	BIT ROCK 4-1/8" IADC 236 AS PER ANNEXURE A-I GROUP A	NO	5					
21.	16-00531	BIT ROCK 28" IADC 435 AS PER ANNEXURE A-II GROUP B	NO	2					
22.	16-00532	BIT ROCK 28" IADC 515 AS PER ANNEXURE A-II GROUP B	NO	2					
23.	16-00533	BIT ROCK 26" IADC 435 AS PER ANNEXURE A-II GROUP B	NO	5					
24.	16-00534	BIT ROCK 26" IADC 515 AS PER ANNEXURE A-II GROUP B	NO	2					
25.	16-00535	BIT ROCK 26" IADC 535 AS PER ANNEXURE A-II GROUP B	NO	2					
26.	16-00536	BIT ROCK 22" IADC 435 AS PER ANNEXURE A-II GROUP B	NO	2					
27.	16-00537	BIT ROCK 22" IADC 515 AS PER ANNEXURE A-II GROUP B	NO	2					
28.	16-00538	BIT ROCK 22" IADC 535 AS PER ANNEXURE A-II GROUP B	NO	2					
29.	16-00528	BIT ROCK 17 - 1/2" IADC 435 AS PER ANNEXURE A-II GROUP B	NO	10					
30.	16-00005	BIT ROCK 17 - 1/2" IADC 515M AS PER ANNEXURE A-II GROUP B	NO	5					
31.	16-00554	BIT ROCK 17-1/2" IADC 535 AS PER ANNEXURE A-II GROUP B	NO	3					
32.	16-00556	BIT TRICONE 17-1/2" IADC 535 HEAL & LEG TAIL PROTECTION AS PER ANNEXURE A-II GROUP B	NO	6					

## Tender Enquiry No: 6200000042 / SCM Import (061) / Korangi Base Store /

SR NO	Material No	Material Description	Unit	Quantity	Unit Price (FOB)	Total Price (FOB)	Unit Price (CFR)	Total Price (CFR)	Deviation From Tender Spec. If Any
33.	16-00108	BIT ROCK 17" IADC 435M AS PER ANNEXURE A-II GROUP B	NO	2					
34.	16-00109	BIT ROCK 17" IADC 515M AS PER ANNEXURE A-II GROUP B	NO	2					
35.	16-00551	BIT ROCK 17" IADC 535 AS PER ANNEXURE A-II GROUP B	NO	2					
36.	16-00539	BIT ROCK 17" IADC 535 HEAL & LEG TAIL PROTECTION AS PER ANNEXURE A-II GROUP B	NO	2					
37.	16-00038	BIT ROCK 12-1/4" IADC 517M AS PER ANNEXURE A-II GROUP B	NO	5					
38.	16-00021	BIT ROCK 12-1/4" IADC 537M AS PER ANNEXURE A-II GROUP B	NO	10					
39.	16-00555	BIT ROCK 12-1/4" IADC 637 AS PER ANNEXURE A-II GROUP B	NO	5					
40.	16-00065	BIT ROCK 8-1/2" IADC 437M AS PER ANNEXURE A-II GROUP B	NO	10					
41.	16-00052	BIT ROCK 8-1/2" IADC 517M AS PER ANNEXURE A-II GROUP B	NO	10					
42.	16-00063	BIT ROCK 8-1/2" IADC 537M AS PER ANNEXURE A-II GROUP B	NO	10					
43.	16-00048	BIT ROCK 8-1/2" IADC 637M AS PER ANNEXURE A-II GROUP B	NO	5					
44.	16-00540	BIT ROCK 6" IADC 437 AS PER ANNEXURE A-II GROUP B	NO	5					
45.	16-00082	BIT ROCK 6" IADC 537 AS PER ANNEXURE A-II GROUP B	NO	5					
46.	16-00080	BIT ROCK 6" IADC 637 AS PER ANNEXURE A-II GROUP B	NO	5					
47.	16-00541	BIT ROCK 5-7/8" IADC 437M AS PER ANNEXURE A-II GROUP B	NO	10					
48.	16-00094	BIT ROCK 5-7/8" IADC 537M AS PER ANNEXURE A-II GROUP B	NO	10					
49.	16-00542	BIT ROCK 5-7/8" IADC 637M AS PER ANNEXURE A-II GROUP B	NO	10					
50.	16-00543	BIT PDC 26" 9 BLADE 16MM AS PER ANNEXURE A-III GROUP C	NO	8					
51.	16-00001	BIT PDC 26" 6 16 MM AS PER ANNEXURE A-III GROUP C	NO	3					
52.	16-00544	BIT PDC 22" 6 16MM AS PER ANNEXURE A-III GROUP C	NO	2					
53.	16-00166	BIT PDC 22" 6 19 MM AS PER ANNEXURE A-III GROUP C	NO	2					
54.	16-00147	BIT PDC 17-1/2" 6 19 MM AS PER ANNEXURE A-III GROUP C	NO	15					
55.	16-00148	BIT PDC 17-1/2" 5 19 MM AS PER ANNEXURE A-III GROUP C	NO	5					


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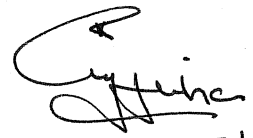
SR NO	Material No	Material Description	Unit	Quantity	Unit Price (FOB)	Total Price (FOB)	Unit Price (CFR)	Total Price (CFR)	Deviation From Tender Spec. If Any
56.	16-00182	BIT PDC 17-1/2'' 6 16 MM AS PER ANNEXURE A-III GROUP C	NO	10					
57.	16-00545	BIT PDC 17-1/2" 7 16MM AS PER ANNEXURE A-III GROUP C	NO	10					
58.	16-00155	BIT PDC 17'' 6 19 MM AS PERANNEXURE A-III GROUP C	NO	2					
59.	16-00153	BIT PDC 17'' 5 19 MM AS PER ANNEXURE A-III GROUP C	NO	2					
60.	16-00546	BIT PDC 17" 6 16MM AS PER ANNEXURE A-III GROUP C	NO	2					
61.	16-00547	BIT PDC 17" 7 16MM AS PER ANNEXURE A-III GROUP C	NO	2					
62.	16-00156	BIT PDC 12-1/4'' 5 19 MM AS PER ANNEXURE A-III GROUP C	NO	5					
63.	16-00174	BIT PDC 12-1/4'' 6 19 MM AS PER ANNEXURE A-III GROUP C	NO	10					
64.	16-00557	BIT PDC 12-1/4" 6 19MM AS PER ANNEXURE A-III GROUP C	NO	5					
65.	16-00173	BIT PDC 12-1/4'' 6 16 MM AS PER ANNEXURE A-III GROUP C	NO	7					
66.	16-00558	BIT PDC 12-1/4" 6 16MM AS PER ANNEXURE A-III GROUP C	NO	3					
67.	16-00164	BIT PDC 12-1/4'' 7 16 MM AS PER ANNEXURE A-III GROUP C	NO	7					
68.	16-00564	BIT PDC 12-1/4" 7 16MM AS PER ANNEXURE A-III GROUP C	NO	3					
69.	16-00123	BIT PDC 8-1/2'' 6 16 MM AS PER ANNEXURE A-III GROUP C	NO	7					
70.	16-00559	BIT PDC 8-1/2" 6 16MM AS PER ANNEXURE A-III GROUP C	NO	3					
71.	16-00124	BIT PDC 8-1/2'' 7 16 MM AS PER ANNEXURE A-III GROUP C	NO	7					
72.	16-00560	BIT PDC 8-1/2" 7 16MM AS PER ANNEXURE A-III GROUP C	NO	3					
73.	16-00125	BIT PDC 8-1/2'' 6 13 MM AS PER ANNEXURE A-III GROUP C	NO	7					
74.	16-00561	BIT PDC 8-1/2" 6 13MM AS PER ANNEXURE A-III GROUP C	NO	3					
75.	16-00116	BIT PDC 8-1/2'' 7 13 MM AS PER ANNEXURE A-III GROUP C	NO	10					

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SR NO	Material No	Material Description	Unit	Quantity	Unit Price (FOB)	Total Price (FOB)	Unit Price (CFR)	Total Price (CFR)	Deviation From Tender Spec. If Any
76.	16-00126	BIT PDC 8-1/2'' 8 13 MM AS PER ANNEXURE A-III GROUP C	NO	10					
77.	16-00130	BIT PDC 6'' 6 13 MM AS PER ANNEXURE A-III GROUP C	NO	10					
78.	16-00131	BIT PDC 6'' 7 13 MM AS PER ANNEXURE A-III GROUP C	NO	5					
79.	16-00136	BIT PDC 5-7/8'' 6 13 MM AS PER ANNEXURE A-III GROUP C	NO	7					
80.	16-00563	BIT PDC 5-7/8'' 6 13MM AS PER ANNEXURE A-III GROUP C	NO	3					
81.	16-00137	BIT PDC 5-7/8'' 7 13 MM AS PER ANNEXURE A-III GROUP C	NO	4					
82.	16-00562	BIT PDC 5-7/8'' 7 13MM AS PER ANNEXURE A-III GROUP C	NO	1					
83.	16-00548	BIT PDC 5-7/8'' 7 11MM AS PER ANNEXURE A-III GROUP C	NO	5					
84.	16-00135	BIT PDC 5-7/8'' 8 11 MM AS PER ANNEXURE A-III GROUP C	NO	3					
85.	16-00549	BIT PDC 4-1/8'' 5 11MM AS PER ANNEXURE A-III GROUP C	NO	1					
86.	16-00550	BIT PDC 4-1/8'' 4 8MM AS PER ANNEXURE A-III GROUP C	NO	1					

Netted.

  
 17/11/2022  
**Shahid Ali Khan**  
 Asstt. Engineer (Drilling)  
 Extn: 2336

  
 17/11/22  
**ALI IFTIKHAR**  
 Manager (DMP)  
 Ext: 3724

**PROCUREMENT OF PDC & TRICONE BITS ON OUTRIGHT PURCHASE  
BASIS**

## **SCOPE OF WORK**

The scope of work includes provision of All sizes & types drill bits as listed below along with Bit engineering services for upcoming drilling campaign of OGDCL. OGDCL would drill circa 20 - 25 wells per year and this scope would also vary depending upon Company's overall yearly plans. All wells are located in three different regions of Country namely North, Centre & South throughout the country. All wells can be classified into deep high pressure high temperature wells, Medium to shallow well depths involving the drilling of hard Limestone, Clay/Clay stone, abrasive sand, sticky & sloughing shales, chert and pyritic environment. Wells will be drilled either vertical or deviated depending upon the surface terrain and subsurface target.

The wells include exploratory, appraisal and development having medium to deep depths. The depth range of the wells is up to 6000 meters.

Bidders will prepare and submit their bid based on the technical information provided herein as well as the Bidder's own experience. Bidders are encouraged to ask questions and seek clarification as required.

Bidders will ensure to quote its latest and proven technology bits.

Successful Manufacturers/Bidders will supply bits on direct/outright sale basis for the wells in North, Centre and South.

## **TERMS OF REFERENCE (TOR)**

### **Manufacturers/Bidders to comply following mandatory requirements for acceptance:**

1. Manufacturers/Bidders will be technically qualified as per Technical qualification criteria at "Annexure A-I, Annexure A-II & Annexure A-III".
2. Technical Literature in original for all offered bits specifying comprehensive details as per manufacturer standards should be submitted with bid.
3. Bidder to submit latest and consecutive 15 years back API certification of the manufacturing facility of with proof. Manufacturer plant must have valid API spec 7-1 certification in the name of the original manufacturer of quoted bits.
4. All bits should be new / unused and must be clearly written in the technical proposal. PDC bits with reclaimed cutters will not be acceptable and will lead to disqualification of the bidder. Bidder to confirm that type, size, serial number, country of origin / manufacture must be engraved on each bit.
5. Bidders must offer latest technology bits and Cutters. Cutter brand name must be provided in the bid. Bidder is required to provide on original cutter manufacturer's letterhead regarding cutter type, brand name, deep leached, size, cutter content. However, serial number of installed cutters to be provided on cutter manufacturer's letterhead before shipment of bits. Failure to provide this letter in original before shipment will lead to rejection of material by OGDCL and disqualification of the bidder. Bidder is required to share and submit the certificate of conformance (COC) of installed cutters on the original letter head of manufacturer plant. Letter from agent / local branch will not be acceptable.
6. Bidders to provide bit supply record of last 5 years to various clients in Pakistan.
7. It is mandatory for the bit company to have a local office in Pakistan. At least 2 people should be available 24/7 in Pakistan for assistance for OGDCL to guide the right bit to be used for their current operation. Experience should be at least three years.
8. Each Manufacturer must have its Bit Application Engineers available in Pakistan for bit planning and recommendations.
9. Each Manufacturers/Bidder will supply the necessary engineering support like Bit selection for the

X *OS* ↻

application, hydraulics and nozzle selection, drilling parameters, proposing suitable drive for application and BHA selection & post run analysis supported with Rock Strength Analysis free of cost to OGDCL.

10. Each Successful Manufacturer/Bidder will provide the required nozzles (three sets of nozzles, with each ordered bit along with all the necessary accessories which includes wrenches, nozzle pliers, bit breakers, ring gauges, etc.) and other necessary items required for its bits free of cost. Bits to be provided with standard regular and IF connections depending upon size. Nozzles to be provided preferably along with the main shipment of the drilling bits. However, OGDCL may accept separate shipment of the nozzles.

11. Each Successful Bit supplier/Manufacturer will at its sole cost and upon Company's justified request, will replace unsuitable/poor run/failed bit at no cost to OGDCL with appropriate bit. The Bit run criteria will be mutually agreed before each bit run and consent will be sought from the bit supplier that will be according to the international applied practices and IADC procedures. Additionally, Bit failure investigation results will be shared by the bit Manufacturer.

12. Each Successful Manufacturer/ Bidder will provide following Services as part of the proposal;

- I. One in-house training session per year for OGDCL employees.
  - II. Visit of 2 x Technical staff of OGDCL to bit manufacturing plant. OGDCL will bear all necessary logistics expenditure for such visits.
13. The scope of work for the prospective bidders for provision of Drilling Bits and Bit Application Engineering Services include Exploratory, appraisal and development having medium to deep depths.
14. Detail specification of the drill bits are mentioned at Annexure A-I, A-II & A-III to this Scope of work.
15. Bidders are requested to prepare and submit their bid based on the technical information provided herein.
16. Bidders to submit detailed information about the bit runs for the underlisted regions of Pakistan as per following template for the offered PDC bits:
- a. Five (05) best runs in Dakhni, Chanda, Mela, Kohat, Nashpa, Wali & offset Areas for North region wells.  
(Potohar, Tolanj, Margalla, TAL Block, Adhi, Karak etc)
  - b. Five (05) best runs in Qadirpur, UCH, Zin, Rajjan, Loti & offset Areas for Centre region wells.  
(Latif, Sawan, Naushero feroz, kandkot, mubarik, Gambat, Hala, Miano etc)
  - c. Five (05) best runs in Kunnar, Pasakhi, Tando Allah yar, Thal & offset Areas for South region wells.  
(Gambat South, Mirpur Khas, Badin, Sajjawal, Sirani Kotri Khepro, bela west etc)
  - d. If above mention runs are not available, Bidders can furnish five (05) best runs for proposed bits in Potohar/North, South & Centre region accordingly in similar formations mention in Annexure B.
  - e. In addition to supply proof for supplying bits to various clients in Pakistan all bidders are required to supply only 5 relatives best PDC bit runs for well proposed in point "h" preferably complete section (verifiable) to be submitted along with proposed bench mark ROP for each proposed bit/section as per template in table 1.
  - f. Any other offset well data supporting the offered/proposed bits.
  - g. Bit record of other E&P companies in Pakistan operating in North, Centre and South.





h. Bits will be purchased for lithologies encountered in wells drilled in following areas. Well names are provided for reference only and could change. However, bidder to review the lithology column information provided under Annexure C for information

- a) Wali # 2 (Appraisal)
- b) Wali Deep # 01 (Exploratory)
- c) Shahpurabad X1
- d) Chanda 7
- e) Naspha 11
- f) Gurgalot X-1
- g) Soghri North - 1
- h) Bitrisim X-1
- i) TAY X1
- j) Mari East X-1

Table No 1 – For Bit Run Records

BIT RUNS RECORD																				
BIT SIZE	SER. NO.	MAKE	IADC CODE	BIT TYPE	DEPTH IN (m)	DEPTH OUT (m)	(m/hr) ROP	BIT HRS	REV. (k)	WOB (Ton)	RPM	FLOW (GPM)	MUD TYPE	MUD WT. (S.G)	PUMP PRESS (PSI)	JETS (1/32") / T.F.A (m <sup>2</sup> )	I O D L B G O R	BHA	Proposed Bench mark ROP for OGDCL	
WELL NAME																				
HOLE SECTION e.g (26", 17-1/2", 12-1/4", 8-1/2" & 6")																				
1																				
2																				

17. The Manufacturers/Bidders will submit the detailed bit runs record based on the template provided above with similar litho-column as stated in Annexure-B

18. Bidder will be required to provide qualified and well experienced Bit Engineer to provide engineering support from the office or sometimes at the rig site to manage the applied bit technology on Run bit while maintaining conformance with best drilling parameters in collaboration with OGDCL rig team and

office.

19. Bidder is required to enclose CV's of 2 Bit application Engineers covering the following details.
- a. Technical and academic qualification
  - b. Technical and field experience (Minimum 3 years as Bit Engineer experience) Training /Cross-training/Courses/Seminars.
  - c. Languages spoken (English as minimum requirement).
20. Bidder proposed 'bit program proposal' for Bits on Provided well data on as and when required basis according to the information given in "Annexure B" has to be prepared both for top drive / rotary drilling and motor/turbine/RSS driven performance drilling options.
21. Bidder to provide complete list of the offered bits proposed on Direct Sales basis along with their specs sheet as per "Annexure A-I, A-II and A-III" without prices.
22. Technical information for the bits offered to be provided in the bid document.
23. The successful bidder will provide mill test certificates of the offered bits with shipping documents.
24. Third party inspection by internationally reputed inspection company will be required for each consignment against the issued purchase order on direct sale basis. TPI will be arranged by OGDCL from any of the OGDCL's nominated TPI Company. Bidder will assist and make necessary arrangement for TPI. Bidder to confirm that the Third-Party Inspection (TPI) report verified by OGDCL will be provided with the shipping documents for LC encashment.

**Scope of work for TPI of Bits on Direct Sale basis will be as follows.**

TPI Company will perform the following task.

- a. Visual inspection for any defects.
- b. Verification that cutters installed on the PDC bits supplied to OGDCL are of US Synthetic / equivalent.
- c. Cutters diamond table thickness should be minimum 3mm for PDC bits
- d. Verification that all equipment is brand new and unused.
- e. Verification that all the materials (quantity & specifications) & documents are in accordance with Purchase order & API 7-1 Specifications.

OGDCL reserves the right to do more extensive TPI at its discretion during anytime for any direct sales order.

25. For traceability of documents successful bidder will fill out full / complete information in the below table on official letter head of the manufacturer with sign / stamped and provide it to TPI inspector before shipment in original. (This official letter is required with shipping documents for LC encashment).

Applicable only for PDC bits not for Roller Cone bits



Index # / Sr # of PO	Size	Bit Type	Serial Number	Installed Cutter Name	Installed Cutters are deep leached or not	Installed Manufacturer Name (US Synthetic / Equivalent)

26. Delivery time: within two – three months through C&F by sea and by air freight after establishment of LC. The bidder to quote both sea and air freight charges. OGDCL to decide the mode of freight.
27. Bidder will study terms of reference/scope of work along with the tender documents and generally obtain all information required to enable it to submit its Quote and will be deemed to have satisfied itself as to the correctness and sufficiency of its Quote prior to submitting the bid.
28. Prospective Bidders shall take no advantage of any apparent errors or omissions in the Terms of Reference/SCOPE OF WORK Documents. In the event that any errors or omissions are discovered, prospective Bidder/Bidders shall immediately notify OGDCL and specifically set forth any such errors or omissions in its quotation. Prospective Bidder/Bidders will not make any assumption in preparation of its quotation/Bid and must seek appropriate clarification from OGDCL.
29. The order will be placed to technically acceptable and commercially best bit based on the rating of scoring matrix for each and individual drilling bit mentioned in Annexure-B for Group A, B & C respectively. The technical weighted score will be 40% and Commercial weighted score will be 60%. Order will be placed to according to each line item of drilling bits attaining highest score and obtaining first rating.


**ANNEXURE A-I – Group A**

The tables below show the assortment of drill bits that are expected to be used for OGDCL's drilling operations and need to be available for direct sale. The additional features required for bits of any Size, IADC code & type can be provided as an additional sheet.

**ROLLER CONE (TRICONE) MILL TOOTH BITS FOR DIRECT SALE**

**Premium Bits Only with IADC between 115 – 3X7; Sealed Bearing**

Sr #	Bit Size	IADC	QTY	Abrasion Resistance cutting structure	Heel (Outer) Row Protection	Leg /Shirt tail Protection	Bearing Reliability	Center Jet(s) For Size 12 1/4" and above	Teeth Counts	Gauge Protection	Bit Family/ Technology (</=5 years old)	Premium bits with Sealed Bearing
				Required	Required	Required	Mention Max (Krevs*) @85% reliability	Required		Required	Required	Required
1	28"	115	2									
2	28"	135	4									
3	26"	115	2									
4	26"	135	4									
5	22"	115	2									
6	22"	135	3									
7	17 1/2"	115	5									
8	17 1/2"	135	6									
9	17"	115	2									
10	17"	135	2									
11	12 1/4"	117	6					Not Applicable				
12	12 1/4"	137	15					Not Applicable				
13	8 1/2"	117	4					Not Applicable				
14	8 1/2"	137	15					Not Applicable				
15	6"	117	2					Not Applicable				
16	6"	137	10					Not Applicable				
17	5-7/8"	117	4					Not Applicable				
18	5-7/8"	137	10									
19	4-1/8"	137	5					Not Applicable				
20	4-1/8"	236	5					Not Applicable				

\* Krevs to be defined for all hole sizes of supplied bits. Bearing reliability must be minimum 85%

**ANNEXURE -A-II – Group B**

**ROLLER CONE (TRICONE) INSERT BITS FOR DIRECT SALE**

**Premium Bits Only with IADC 4x5x6 and above; Sealed Bearing**

Sr #	Bit Size	IADC	QTY	Enhanced Heel (Outer) Row Protection	Enhanced Leg /Shirt tail Protection	Diamond Enhanced Heel & Leg tail Protection	Bearing Reliability	Hydraulically Enhanced cutting structure cleaning (bit balling prevention) Required	Center Jet(s) For Size 12 1/4" and above	Insert Count	Gauge Protection	Performance Data provided in each region of Country i.e. (North, Centre & South) ** Yes/No	Bit Family/ Technology (</=5 years old) Required	Premium bits with Sealed bearing / Sealed friction bearing Required
				Required	Required		Mention Max (Krevs*) @85% reliability		Required		Required			
1	28"	435	2			N/A								
2	28"	515	2			N/A								
3	26"	435	5			N/A								
4	26"	515	2			N/A								
5	26"	535	2			N/A								
6	22"	435	2			N/A								
7	22"	515	2			N/A								
8	22"	535	2			N/A								
9	17 1/2"	435	10			N/A								
10	17 1/2"	515	5			N/A								
11	17 1/2"	535	3			N/A								
12	17 1/2"	535	6			Required								
13	17"	435	2			N/A								
14	17"	515	2			N/A								
15	17"	535	2			N/A								
16	17"	535	2			Required								
17	12 1/4"	517	5			Required			Not Applicable					
18	12 1/4"	537	10			Required			Not Applicable					

19	12 ¼"	637	5			Required			Not Applicable					
20	8 ½"	437	10			Required			Not Applicable					
21	8 ½"	517	10			Required			Not Applicable					
22	8 ½"	537	10			Required			Not Applicable					
23	8 ½"	637	5			Required			Not Applicable					
24	6"	437	5			Required			Not Applicable					
25	6"	537	5			Required			Not Applicable					
26	6"	637	5			Required			Not Applicable					
27	5-7/8"	437	10			Required			Not Applicable					
28	5-7/8"	537	10			Required			Not Applicable					
29	5-7/8"	637	10			Required			Not Applicable					

\* Krevs to be defined for all hole sizes of supplied bits. Bearing reliability must be minimum 85%

\*\* Performance data of bits should be accompanied as per template provided in the bid document; failure to provide performance data will result in bit rejection

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ANNEXURE A-III – Group C

PDC BITS DIRECT SALE - Premium Bits Only

Sr #	Bit Size	Matrix / Steel body	No. of Blades - Cutter Sizes	QTY	Back up / Back Row cutting structure on blades	Cutter Type (High Tier) Mention Premium Name [Abrasion & Impact Resistance] (</= 3 years old)	New Bit Family/ Technology (</= 3 years Old)	Bit to be equipped with next Generation Cutters (Special Geometrical Shape / latest technology) mention TM name (</= 3 year old)	Deep Leached	No of Cutters	Directional Control and Stability on motor / RSS	Anti- balling feature	Back reaming,	Thermal Stability (TSP) gauge protection features	Performance Data in each region of Country i.e. (North, Centre & South) ROP (m/hr) ** (Yes/No)	Junk Slot Area (JSA) (in2)	Gauge Length (in)	Quoted Bit Family Brand Name (Please Specify) Only Premium type acceptable
1	26"	Steel	9 blades 16mm	8	Single Row				Yes	195+					Min 175	4 - 6		
2	26"	Steel	6 blades 16mm	3	Single Row				Yes	115+					Min 175	4 - 6		
3	22"	Steel	6 blades 16mm	2	Single Row				Yes	105+					Min 175	4 - 6		
4	22"	Steel	6 blades 19mm	2	Double Row				Yes	100+					Min 175	4 - 6		
5	17 1/2"	Steel	6 blades 19mm	15	Double Row				Yes	80+	Required	Required	Required	Required	130-140	3.5 – 4.5		
6	17 1/2"	Steel	5 blades 19mm	5	Single Row				Yes	50+	Required	Required	Required	Required	130-140	3.5 – 4.5		
7	17 1/2"	Matrix	6 blades 16mm	10	Double Row				Yes	100+	Required		Required	Required	130-140	3.5 – 4.5		
8	17 1/2"	Matrix	7 blades 16mm	10	Double Row				Yes	115+	Required		Required	Required	130-140	3.5 – 4.5		
9	17"	Steel	6 blades	2	Double				Yes	80+	Required	Required	Required	Required	130-	3.5 –		

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			19mm		Row					ired			red		140	4.5	
10	17"	Steel	5 blades 19mm	2	Single Row			Yes	50+	Required	Required	Required	Required		130- 140	3.5 - 4.5	
11	17"	Matrix	6 blades 16mm	2	Double Row			Yes	100+	Required		Required	Required		130- 140	3.5 - 4.5	
12	17"	Matrix	7 blades 16mm	2	Double Row			Yes	110+	Required		Required	Required		130- 140	3.5 - 4.5	
13	12 1/4"	Steel	5 blades 19mm	5	Single Row			Yes	40+	Required	Required	Required	Required		40 - 50	3 - 4	
14	12 1/4"	Matrix	6 blades 19mm	10	Double Row			Yes	70+	Required		Required	Required		40 - 50	3 - 4	
15	12 1/4"	Matrix	6 blades 19mm	5	Double Row		Required	Yes	70+	Required		Required	Required		40 - 50	3 - 4	
16	12 1/4"	Matrix	6 blades 16mm	7	Double Row			Yes	80+	Required		Required	Required		40 - 50	3 - 4	
17	12 1/4"	Matrix	6 blades 16mm	3	Double Row		Required	Yes	80+	Required		Required	Required		40 - 50	3 - 4	
18	12 1/4"	Matrix	7 blades 16mm	7	Double Row			Yes	100+	Required		Required	Required		40 - 50	3 - 4	
19	12 1/4"	Matrix	7 blades 16mm	3	Double Row		Required	Yes	100+	Required		Required	Required		40 - 50	3 - 4	
20	8 1/2"	Matrix	6 blades 16mm	7	Double Row			Yes	60+	Required		Required	Required		10 - 15	2.5 - 3.5	
21	8 1/2"	Matrix	6 blades 16mm	3	Double Row		Required	Yes	60+	Required		Required	Required		10 - 15	2.5 - 3.5	
22	8 1/2"	Matrix	7 blades 16mm	7	Double Row			Yes	75+	Required		Required	Required		10 - 15	2.5 - 3.5	
23	8 1/2"	Matrix	7 blades 16mm	3	Double Row		Required	Yes	75+	Required		Required	Required		10 - 15	2.5 - 3.5	
24	8 1/2"	Matrix	6 blades 13mm	7	Double Row			Yes	70+	Required		Required	Required		10 - 15	2.5 - 3.5	
25	8 1/2"	Matrix	6 blades 13mm	3	Double Row		Required	Yes	70+	Required		Required	Required		10 - 15	2.5 - 3.5	



26	8 1/2"	Matrix	7 blades 13mm	10	Double Row				Yes	80+	Required		Required	Required		10 - 15	2.5 - 3.5	
27	8 1/2"	Matrix	8 blades 13mm	10	Double Row				Yes	85+	Required		Required	Required		10 - 15	2.5 - 3.5	
28	6"	Matrix	6 blades 13mm	10	Double Row				Yes	45+	Required		Required	Required		5 - 10	2 - 3	
29	6"	Matrix	7 blades 13mm	5	Double Row				Yes	50+	Required		Required	Required		5 - 10	2 - 3	
30	5-7/8"	Matrix	6 blades 13mm	7	Double Row				Yes	40+	Required		Required	Required		5 - 8	1.5 - 3	
31	5-7/8"	Matrix	6 blades 13mm	3	Double Row			Required	Yes	40+	Required		Required	Required		5 - 8	1.5 - 3	
32	5-7/8"	Matrix	7 blades 13mm	4	Double Row				Yes	45+	Required		Required	Required		5 - 8	1.5 - 3	
33	5-7/8"	Matrix	7 blades 13mm	1	Double Row			Required	Yes	45+	Required		Required	Required		5 - 8	1.5 - 3	
34	5-7/8"	Matrix	7 blades 11mm	5	Double Row				Yes	55+	Required		Required	Required		5 - 8	1.5 - 3	
35	5-7/8"	Matrix	8 blades 11mm	3	Double Row				Yes	60+	Required		Required	Required		5 - 8	1.5 - 3	
36	4-1/8"	Matrix	5 blades 11mm	1	Single Row				Yes	25+	Required		Required	Required		2 - 5	1 - 2.5	
37	4-1/8"	Matrix	4 blades 8 mm	1	Single Row				Yes	20+	Required		Required	Required		2 - 5	1 - 2.5	

\*PDC Bits are required with Directional Control and Stability on motor / RSS, Anti- balling feature (for steel body only), Back reaming, Thermal Stability (TSP) gauge protection features

\*\* Performance data of bits should be accompanied as per template provided in the bid document; failure to provide performance data will result in bit rejection

\*\*\* PDC bit for 17-1/2" and 12-1/4" sizes should be provided with optimized spiral blades, aggressive cutters back rack angle or equivalent features. The nozzles placement should be optimized for efficient hydraulics, cleaning and cooling of cutters.

\*\*\*\* PDC bits for 8-1/2" sizes must have optimized spiral blades and forward rake back geometry or equivalent feature. The nozzles placement should be optimized for efficient hydraulics, cleaning and cooling of cutters.

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\*\*\*\*\* The installed cutters on PDC bit must be of US Synthetic / equivalent. Cutters diamond table thickness should be minimum 3mm for PDC bits.

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**TECHNICAL EVALUATION CRITERIA – SCORING MATRIX (FOR TRICONE BITS – MILL TOOTH BITS – Annexure A-I- Group A – Applicable to Individual bit size & type)**

**Each bit size and type in the group will be individually evaluated technically and commercially based on scoring matrix**

Sr.#	Description	Max allotted points	Point Allocation	Bidder 1	Bidder 2	Bidder 3	Bidder 4	Bidder 5
General Criteria Point No. 1 to 4 will be evaluated one time for each bidder. Total score obtained by a bidder will be added to individual bit evaluation.								
1	Bidder's continuous operating experience: a) Above 20 years Pakistan experience (10 points) b) Between 15 to 20 years experience within Pakistan (7.5 points) c) Between 10 to 15 years experience within Pakistan (5 points) d) Between 10 to 20 years global only and no Pakistan experience (2.5 points) e) Less than 10 years Global experience (Zero point) Bidder to submit verified data e.g., client testimonial, letters etc.	10	a) >20 years =10, b) 15-20 years =7.5, c) 10 – 15 years =5 d) 10-20 years = 2.5, e) <10 years = Zero The points will be allocated on a sliding scale based on the experience e.g 14 years' experience in c) above will get 4 points					
2	Drilling Bits supplied to Various Clients in Pakistan in the last 5 years	10	> 4 clients = 10, 2 to 4 clients = 5, 1 client = 2.5 <1 = Zero					
3	Minimum Two (02) Senior Bit Engineers having relevant work experience and bit related training completed for each person. Points will only be allocated if both "a" and "b" below are met: a) Work experience and bit school training criteria are fulfilled (in country). b) Bidder to confirm that it has an in-house "Employee Competency and Training System". Training matrix to be submitted as part of verification process. Training transcript/certificates of trainings by bit company for bit engineer based in Pakistan office.	5	work experience: >8 yrs = 5 Point, b/w 05 to 8 yrs = 3 Point, b/w 03 to 5 yrs = 1 Point < 3 years = Zero					

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4	Bidder's Quality Management System is in compliance with API Spec 7-1 for the last continuous 15 years with current valid certification	5	(If YES=5, No=Zero)					
<b>Technical Criteria</b>								
5	New Bit Family/ Technology (</=5 years old) for Tricone. Provided information to be supported / Backed up by Company's website, otherwise Zero	35						
6	Abrasion Resistance cutting structure, Heel (Outer) Row Protection, Leg / Shirttail protection, Gauge Protection and premium bits with sealed bearing / sealed friction bearing	35						
<b>Total Points - Technical Evaluation Computation (Max available 100 points)</b>		<b>100</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Any Zero in any of the above evaluation criteria will result in technical disqualification in that particular size for the bidder**

**Note**

OGDCL reserves the right to verify any data provided herein. However, it is Bidder's responsibility to provide verified data.

**TECHNICAL EVALUATION CRITERIA – SCORING MATRIX (FOR TRICONE BITS – INSERT BITS – Annexure A-II- GROUP B – Applicable to Individual bit size & type)**

**Each bit size and type in the group will be individually evaluated technically and commercially based on scoring matrix**

Sr.#	Description	Max allotted points	Point Allocation	Bidder 1	Bidder 2	Bidder 3	Bidder 4	Bidder 5
<b>General Criteria: Point No. 1 to 4 will be evaluated one time for each bidder. Total score obtained by a bidder will be added to individual bit evaluation.</b>								
1	Bidder's continuous operating experience: a) Above 20 years Pakistan experience (10 points) b) Between 15 to 20 years experience within Pakistan (7.5 points) c) Between 10 to 15 years experience within Pakistan (5 points) d) Between 10 to 20 years global only and no Pakistan experience (2.5 points) e) Less than 10 years Global experience (Zero point) Bidder to submit verified data e.g., client testimonial, letters etc.	10	a) >20 years =10, b) 15-20 years =7.5, c) 10 – 15 years =5 d) 10-20 years = 2.5, e) <10 years = Zero The points will be allocated on a sliding scale based on the experience e.g 14 years' experience in c) above will get 4 points					
2	Drilling Bits supplied to Various Clients in Pakistan in the last 5 years	10	> 4 clients = 10, 2 to 4 clients = 5, 1 client = 2.5 <1 = Zero					
3	Minimum Two (02) Senior Bit Engineers having relevant work experience and bit related training completed for each person. Points will only be allocated if both "a" and "b" below are met: a) Work experience and bit school training criteria are fulfilled (in country). b) Bidder to confirm that it has an in-house "Employee Competency and Training System". Training matrix to be submitted as part of verification process. Training transcript/certificates of trainings by bit company for bit engineer based in Pakistan office.	5	work experience: >8 yrs = 5 Point, b/w 05 to 8 yrs = 3 Point, b/w 03 to 5 yrs = 1 Point < 3 years = Zero					

4	Bidder's Quality Management System is in compliance with API Spec 7-1 for the last continuous 15 years with current valid certification	5	(If YES=5, No=Zero)					
<b>Technical Criteria</b>								
5	Applicable to individual sizes separately Performance summaries to be supplied for 28", 26", 22", 17- 1/2", 17", 12-1/4" 8-1/2", 6" and 5-7/8" bits with type and size as per Annexure- A II- Group B with meterage drilled as follows per single bit run in the any region of Pakistan 28" / 26" / 22" = 150 – 250m 17-1/2" / 17" = 200 – 350 m 12-1/4" = 100 – 150 m 8-1/2" = 75 - 150m 5-7/8" / 6" = 75 – 100m	40	>3 Docs = 40, 2 - 3 Docs = 20, 1 - 2 Docs = 10, No Document = Zero					
6	New Bit Family/ Technology (<=5 years old) for Tricone. Provided information to be supported / Backed up by Company's website, otherwise Zero	15	(If YES=15, No=Zero)					
7	Enhanced heel and Row Protection, Enhanced diamond heel and leg tail protection, Gauge Protection and premium bits with sealed bearing / sealed friction bearing	15	(If YES=15, No=Zero)					
<b>Total Points - Technical Evaluation Computation (Max available 100 points)</b>		<b>100</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Any Zero in any of the above evaluation criteria will result in technical disqualification in that particular size for the bidder**

**In case of no performance data / record / documents furnished as highlighted in criteria # 5 by all the bidder for any particular size and type of the bit then all the bidders will be given maximum marks for that particular bit size and type.**

**Note**

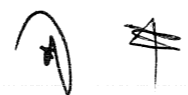
OGDCL reserves the right to verify any data provided herein. However, it is Bidder's responsibility to provide verified data.

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**TECHNICAL EVALUATION CRITERIA – SCORING MATRIX (FOR PDC BITS – Annexure A-III – Group C - Applicable to Individual bit size & type)**

**Each bit size and type in the group will be individually evaluated technically and commercially based on scoring matrix**

Sr.#	Description	Max allotted points	Point Allocation	Bidder 1	Bidder 2	Bidder 3	Bidder 4	Bidder 5
<b>General Criteria Point No. 1 to 4 will be evaluated one time for each bidder. Total score obtained by a bidder will be added to individual bit evaluation.</b>								
1	Bidder's continuous operating experience: a) Above 20 years Pakistan experience (10 points) b) Between 15 to 20 years experience within Pakistan (7.5 points) c) Between 10 to 15 years experience within Pakistan (5 points) d) Between 10 to 20 years global only and no Pakistan experience (2.5 points) e) Less than 10 years Global experience (Zero point) Bidder to submit verified data e.g., client testimonial, letters etc.	10	a) >20 years =10, b) 15-20 years =7.5, c) 10 – 15 years =5 d) 10-20 years = 2.5, e) <10 years = Zero The points will be allocated on a sliding scale based on the experience e.g 14 years' experience in c) above will get 4 points					
2	Drilling Bits supplied to Various Clients in Pakistan in the last 5 years	10	> 4 clients = 10, 2 to 4 clients = 5, 1 client = 2.5 <1 = Zero					
3	Minimum Two (02) Senior Bit Engineers having relevant work experience and bit related training completed for each person. Points will only be allocated if both "a" and "b" below are met: a) Work experience and bit school training criteria are fulfilled (in country). b) Bidder to confirm that it has an in-house "Employee Competency and Training System". Training matrix to be submitted as part of verification process. Training transcript/certificates of trainings by bit company for bit engineer based in Pakistan office.	5	work experience: >8 yrs = 5 Point, b/w 05 to 8 yrs = 3 Point, b/w 03 to 5 yrs = 1 Point < 3 years = Zero					
4	Bidder's Quality Management System is in compliance with API Spec 7-1 for the last continuous 15 years with current valid certification	5	(If YES=5, No=Zero)					



Technical Criteria								
5	Applicable to individual sizes separately Performance summaries to be supplied for 26", 22", 17- 1/2", 17", 12-1/4", 8-1/2", 6" and 5-7/8" bits with type and size as per Annexure- A III-Group C with meterage drilled as follows per single bit run in the North of Pakistan. Best ROP and meterage runs will qualify for scoring as follows 26" / 22" = 150 – 250m 17-1/2" / 17" = 300 - 500m 12-1/4" = 400 – 600 m 8-1/2" = 100 - 150m 6" / 5-7/8" = 75 – 100m	40	>5 Docs = 40, 3-5 Docs = 25, 2 Docs = 10 <2 = Zero					
6	Drilling bit equipped with next Generation Cutters (Special Geometrical Shape & 3D / 4D shaped, Abrasion & Impact Resistance, Deep Leached If yes, then mention Trademark name (</=3 years old) – Provided Information to be supported / Backed up by Company's website, otherwise zero	10	(If YES= 10, No=Zero)					
7	New Bit Family/ Technology (</=3 years old) for PDC. PDC bits should be provided with optimized spiral blades, aggressive cutters back rack angle or equivalent features. The nozzles placement should be optimized for efficient hydraulics, cleaning and cooling of cutters Provided information to be supported / Backed up by Company's website, otherwise Zero	10	(If YES=10, No=Zero)					
8	Directional Control and Stability Capability on motor / RSS (Yes/No) + Anti- balling feature (Applicable for Steel body bits). Back reaming, Gauge features (Yes/No) + Thermal Stability (TSP) gauge protection features. Bits capable of only tangential drilling are not acceptable	10	(If YES=10, No=Zero)					
<b>Total Points - Technical Evaluation Computation (Max available 100 points)</b>		<b>100</b>	-	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Any Zero in any of the above evaluation criteria will result in technical disqualification in that particular size for the bidder**



In case of no performance data / record / documents furnished as highlighted in criteria # 5 by all the bidder for any particular size and type of the bit then all the bidders will be given maximum marks for that particular bit size and type.

**Note**

OGDCL reserves the right to verify any data provided herein. However, it is Bidder's responsibility to provide verified data.

**Annexure- B – Commercial Evaluation – Mill Tooth Bits - Group A - Individual Bit Size**

Sr #	Bit Size	IADC	QTY	Bidder 1											
				General Criteria				Technical Criteria		Technical Score	Weighted Technical Score	Commercial Score	Weighted Commercial Score	Total Score	Rating
				Criteria-1	Criteria-2	Criteria-3	Criteria-4	Criteria-5	Criteria-6	A	B= A x 40%	C	D= C x 60%	E = B+D	
				10	10	5	5	35	35						
1	28"	115	2												
2	28"	135	4												
3	26"	115	2												
4	26"	135	4												
5	22"	115	2												
6	22"	135	3												
7	17 ½"	115	5												
8	17 ½"	135	6												
9	17"	115	2												
10	17"	135	2												
11	12 ¼"	117	6												
12	12 ¼"	137	15												

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13	8 1/2"	117	4																
14	8 1/2"	137	15																
15	6"	117	2																
16	6"	137	10																
17	5-7/8"	117	4																
18	5-7/8"	137	10																
19	4-1/8"	137	5																
20	4-1/8"	236	5																

**Mechanism for Techno-commercial calculation. Below is an example for explanation purpose only:**

Description	Cheapest	Bidder 1	Bidder 2	Bidder 3	Bidder 4	Bidder 5
Each Bit Value	\$ 35,000.00	\$ 50,000.00	\$ 45,000.00	\$ 40,000.00	\$ 52,500.00	\$ 35,000.00
Commercial Score		70%	78%	88%	67%	100%

- Commercial Lowest Bidder will get 100%
- Commercially Higher Bidders will get score as per below formula
- $[(\text{Lowest Bidder Value}) / (\text{Highest Bidder Value})] * 100$

**Techno-Commercial Evaluation**

Description	Weight	Bidder 1	Bidder 2	Bidder 3	Bidder 4	Bidder 5
Technical Score		90%	80%	85%	95%	70%
Weighted Technical Score	40%	36.00%	32.00%	34.00%	38.00%	28.00%
Commercial Score		70%	78%	88%	67%	100%
Weighted Commercial Score	60%	42.00%	46.80%	52.80%	40.20%	60.00%
<b>Total Score</b>		<b>78.00%</b>	<b>78.80%</b>	<b>86.80%</b>	<b>78.20%</b>	<b>88.00%</b>
<b>Rating</b>		<b>5</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>1</b>

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**Annexure- B – Commercial Evaluation – Insert Bits - Group B- Individual Bit Size**

Sr #	Bit Size	IADC	QTY	Bidder 1												
				General Criteria				Technical Criteria			Techni cal Score	Weighted Technical Score	Comme rcial Score	Weighted Commercia l Score	Total Score	Ratin g
				Criteria-1	Criteria-2	Criteria-3	Criteria-4	Criteria-5	Criteria-6	Criteria-7	A	B= A x 40%	C	D= C x 60%	E = B+D	
				10	10	5	5	40	15	15						
1	28"	435	2													
2	28"	515	2													
3	26"	435	5													
4	26"	515	2													
5	26"	535	2													
6	22"	435	2													
7	22"	515	2													
8	22"	535	2													
9	17 ½"	435	10													
10	17 ½"	515	5													
11	17 ½"	535	3													
12	17 ½"	535	6													
13	17"	435	2													
14	17"	515	2													
15	17"	535	2													
16	17"	535	2													
17	12 ¼"	517	5													
18	12 ¼"	537	10													
19	12 ¼"	637	5													
20	8 ½"	437	10													

21	8 ½"	517	10																
22	8 ½"	537	10																
23	8 ½"	637	5																
24	6"	437	5																
25	6"	537	5																
26	6"	637	5																
27	5-7/8"	437	10																
28	5-7/8"	537	10																
29	5-7/8"	637	10																

**Mechanism for Techno-commercial calculation. Below is an example for explanation purpose only:**

Description	Cheapest	Bidder 1	Bidder 2	Bidder 3	Bidder 4	Bidder 5
Each Bit Value	\$ 35,000.00	\$ 50,000.00	\$ 45,000.00	\$ 40,000.00	\$ 52,500.00	\$ 35,000.00
Commercial Score		70%	78%	88%	67%	100%

- Commercial Lowest Bidder will get 100%
- Commercially Higher Bidders will get score as per below formula
- $[(\text{Lowest Bidder Value}) / (\text{Highest Bidder Value})] * 100$

**Techno-Commercial Evaluation**

Description	Weight	Bidder 1	Bidder 2	Bidder 3	Bidder 4	Bidder 5
Technical Score		90%	80%	85%	95%	70%
Weighted Technical Score	40%	36.00%	32.00%	34.00%	38.00%	28.00%
Commercial Score		70%	78%	88%	67%	100%
Weighted Commercial Score	60%	42.00%	46.80%	52.80%	40.20%	60.00%
<b>Total Score</b>		<b>78.00%</b>	<b>78.80%</b>	<b>86.80%</b>	<b>78.20%</b>	<b>88.00%</b>
<b>Rating</b>		<b>5</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>1</b>

**Annexure- B – Commercial Evaluation – PDC Bits - Group C - Individual Bit Size)**

Sr #	Bit Size	Matrix / Steel body	No. of Blades - Cutter Sizes	QTY	Bidder 1													
					General Criteria				Technical Criteria				Techn ical Score	Weighte d Technic al Score	Comm ercial Score	Weighte d Comme rcial Score	Tota l Scor e	Rating
					Criteria-1	Criteria-2	Criteria-3	Criteria-4	Criteria-5	Criteria-6	Criteria-7	Criteria-8	A	B= A x 40%	C	D= C x 60%	E = B+D	
					10	10	5	5	40	10	10	10						
1	26"	Steel	9 blades 16mm	8														
2	26"	Steel	6 blades 16mm	3														
3	22"	Steel	6 blades 16mm	2														
4	22"	Steel	6 blades 19mm	2														
5	17 ½"	Steel	6 blades 19mm	15														
6	17 ½"	Steel	5 blades 19mm	5														
7	17 ½"	Matrix	6 blades 16mm	10														
8	17 ½"	Matrix	7 blades 16mm	10														
9	17"	Steel	6 blades 19mm	2														
10	17"	Steel	5 blades 19mm	2														

11	17"	Matrix	6 blades 16mm	2															
12	17"	Matrix	7 blades 16mm	2															
13	12 ¼"	Steel	5 blades 19mm	5															
14	12 ¼"	Matrix	6 blades 19mm	10															
15	12 ¼"	Matrix	6 blades 19mm	5															
16	12 ¼"	Matrix	6 blades 16mm	7															
17	12 ¼"	Matrix	6 blades 16mm	3															
18	12 ¼"	Matrix	7 blades 16mm	7															
19	12 ¼"	Matrix	7 blades 16mm	3															
20	8 ½"	Matrix	6 blades 16mm	7															
21	8 ½"	Matrix	6 blades 16mm	3															
22	8 ½"	Matrix	7 blades 16mm	7															
23	8 ½"	Matrix	7 blades 16mm	3															
24	8 ½"	Matrix	6 blades 13mm	7															
25	8 ½"	Matrix	6 blades 13mm	3															
26	8 ½"	Matrix	7 blades 13mm	10															
27	8 ½"	Matrix	8 blades 13mm	10															

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28	6"	Matrix	6 blades 13mm	10														
29	6"	Matrix	7 blades 13mm	5														
30	5-7/8"	Matrix	6 blades 13mm	7														
31	5-7/8"	Matrix	6 blades 13mm	3														
32	5-7/8"	Matrix	7 blades 13mm	4														
33	5-7/8"	Matrix	7 blades 13mm	1														
34	5-7/8"	Matrix	7 blades 11mm	5														
35	5-7/8"	Matrix	8 blades 11mm	3														
36	4-1/8"	Matrix	5 blades 11mm	1														
37	4-1/8"	Matrix	4 blades 8 mm	1														

**Mechanism for Techno-commercial calculation. Below is an example for explanation purpose only:**

Description	Cheapest	Bidder 1	Bidder 2	Bidder 3	Bidder 4	Bidder 5
Each Bit Value	\$ 35,000.00	\$ 50,000.00	\$ 45,000.00	\$ 40,000.00	\$ 52,500.00	\$ 35,000.00
Commercial Score		70%	78%	88%	67%	100%

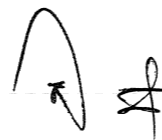
- Commercial Lowest Bidder will get 100%
- Commercially Higher Bidders will get score as per below formula
- $[(\text{Lowest Bidder Value}) / (\text{Highest Bidder Value})] * 100$

**Techno-Commercial Evaluation**

Description	Weight	Bidder 1	Bidder 2	Bidder 3	Bidder 4	Bidder 5
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*Handwritten marks: a checkmark, the name 'Ali', and a signature.*

Technical Score		90%	80%	85%	95%	70%
Weighted Technical Score	40%	36.00%	32.00%	34.00%	38.00%	28.00%
Commercial Score		70%	78%	88%	67%	100%
Weighted Commercial Score	60%	42.00%	46.80%	52.80%	40.20%	60.00%
<b>Total Score</b>		<b>78.00%</b>	<b>78.80%</b>	<b>86.80%</b>	<b>78.20%</b>	<b>88.00%</b>
<b>Rating</b>		<b>5</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>1</b>





**ANNEXURE C  
(NORTH REGION)**

IT INCLUDES FOLLOWING BUT NOT LIMITED TO THESE CONCESSIONS I-E, NASHPA; MELA; KOHAT; GURGALOT; DAKHINI; SOGHRI; FIMKASAR; CHAKNAURANG; KAL AND MIANWALI ETC.

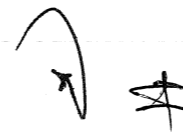
S.No.	Formation	Interval MD(m)	Lithology
1	CHINJI	000-1998	Sandstone and Clay/Claystone
2	KAMLIAL	1998-2296	Sandstone and Clay/Claystone
3	MURREE	2296-3882	Sandstone and Clay/Claystone
4	KOHAT	3882-3998	Limestone, Marl and Shale
5	KULDANA	3998-4075	Claystone, Marl and Shale
6	CHORGALI	4075-4118	Limestone and Dolomite
7	SAKESSAR	4118-4278	Limestone with thin beds of Marl
8	NAMMAL	4278-4350	Shale with thin bands of Marl
9	PATALA	4350-4472	Limestone with alternations of Shale
10	LOCKHART	4472-4637	Limestone
11	LUMSHIWA	4637-4659	Shale with thin beds of Sandstone
12	CHICHALI	4659-4677	Shale with traces of Sandstone
13	SUMANASU	4677-4689	Limestone with streaks of Shale
14	SHINWARI	4689-4717	Alternate beds of Sandstone, Shale
15	DATTA	4717-4789	Sandstone with streaks of Shale and Clay/Claystone
16	KINGRIALI	4789-4811	Dolomite with thin beds of Shale and Marl.
17	TRIDIAN	4811-4828	Shale with intercalations of Sandstone and Clay/ Claystone



**(CENTER REGION)**

IT INCLUDES FOLLOWING BUT NOT LIMITED TO THESE CONCESSIONS1 -, PIRKOH; UCH; LOTI; ZIN; DHODAK; BAHU; MARI AND, QADIRPUR ETC.

S.No.	Formation	Interval(m)	Lithology
1	DRAZINDA	000-204	Shale and Limestone
2	PIKOH	204-270	Limestone
3	SIRKI	270-540	Shale and Limestone
4	HABIBRAHI	540-570	Limestone and Shale
5	ALBASTER	570-715	Shale, Gypsum, Limestone and Marl
6	RUBBLY LIMESTONE	715-1020	Limestone and Marl
7	GHAZI SHALE	1020-1870	Shale, Marl and Limestone
8	DUNGAN	1870-1895	Limestone and Shale
9	UPPER RANI KOT	1895-1968	Shale, Marl
10	LOWER RANI KOT	1968-2134	Sandstone, Shale
11	PAB SANDSTONE	2134-2528	Sandstone, Shale
12	FORTMUNRO	2528-2858	Limestone, Marl
13	MUGHALKOT/ PARH	2858-3001	Limestone, Marl and Shale
14	UPPERGORU	3001-3185	Limestone, Marl, Shale and Siltstone
15	LOWERGORU	3185-3388	Limestone, Marl, Shale and Siltstone
16	SEMBAR	3388-3804	Shale, Sandstone and Siltstone
17	CHILTAN	3804-4150	Limestone, Marl and Shale



**(SOUTH REGION)**

IT INCLUDES FOLLOWING BUT NOT LIMITED TO THESE CONCESSIONS I-E, KUNNER; PASAHKI;SINJHORO;  
TANDOALLAHYAR;TANDOALAM;GUDDU;THAL;THORA;LASHARI; BITRISIM; SARA; KHEWARI;TEGAN AND NIM ETC.

S.No.	Formation	Interval(m)	Lithology
1	ALLUVIUM	0-88	Lose Clay and rare Conglomerate
2	LAKI	88-600	Limestone {Chalky, mud stone)and Shale
3	RANIKOT	600-900	Sand, Sandstone, Shale, Clay and minor Limestone
4	KHADRO	900-1000	Basalt (hard) inter bedded with Sand and minor Clay.
5	PARH	1000-1100	Chalky Limestone
6	UPPERGORU	1100-2100	Marl with minor Shale and rare Limestone beds.
7	LOWER GORU	2100-3400	Sandstone, Shale, Marl and rare Limestone and Siltstone beds
8	SEMBAR	3400-4000	Same as above except relatively more Siltstone.
9	CHILTON	Below 4000	Limestone

**GDO Of Wells to be drilled**

Tentative GDO		<b>WALI # 02 (Appraisal)</b>		Appraisal / Wali E.L / FR Lakki, Khyber Pakhtunkhwa		OGDCL (100%)		Coordinates Surface UTM-42: X : 625564.89518 N Y : 3611265.45765 E	
				Coordinates Sub-Surface UTM-42: X : 625463.27N Y : 3611435.32 E		G.L = 1183.490 m AMSL K.B = 1184 m AMSL			
DEPTH (M)	CASING	AGE	FORMATION TOPS & THICKNESS	LITHOLOGY	NO SHOWS & CORES	FP (SG)	LOGGING	REMARKS	
0 - 400	27" Casing shoe at 400m	PLIOCENE	DHOK PATHAN (1320m)			1.03 - 1.05	NO LOGGING	TIGHT HOLE CONDITIONS, CAVING & SLOUGHING ARE EXPECTED IN CLAY INTERVALS. SEVERE PARTIAL / COMPLETE MUD LOSSES ARE EXPECTED.	
400 - 1320									
1320 - 1840	14 + 13 1/2" Casing shoe at 2750m	MIOCENE	NAGRI (520m)			1.05	MDA1-GR CBL-VOL-CCL-GR	TIGHT HOLE CONDITIONS, EXCESSIVE TORQUE DURING & SLOUGHING ARE EXPECTED IN CLAY & SHALE INTERVALS. SEVERE PARTIAL / COMPLETE MUD LOSSES ARE EXPECTED.	
1840 - 2460			CHINJI (620m)			1.40			
2460 - 2800			KAMLIAL (140m)						
2800 - 3300			MURREE (700m)			1.40 - 1.50			CBL-VOL-CCL-GR MDA1-GR
3300 - 3400	15 1/2" Casing shoe at 3000m	EOCENE	KOHAT (100m)			1.50 - 1.60	CBL-VOL-CCL-GR MDA-GR	TIGHT HOLE CONDITIONS ARE EXPECTED IN SHALE INTERVALS.	
3400 - 3675			KULDANA (275m)						
3675 - 4225	7" Hole shoe at 4225m (Top of Location)	PALEOCENE	PANOBA / PATALA (500m)				CBL-VOL-CCL-GR MDA-GR	TIGHT HOLE CONDITIONS ARE EXPECTED IN SHALE INTERVALS.	
4225 - 4530			LOCKHART (305m)						
4530 - 4500			HANGLU (60m)						
4500 - 4500	5 1/2" Hole shoe at TD	CRETACEOUS	KAWAGARH (250m)				BHV-UGR, CXL-CAL-UGR MU-SP-UGR, FLM-GR, VSI CBL-VOL-CCL-GR	TIGHT HOLE CONDITIONS ARE EXPECTED IN SHALE INTERVALS. PARTIAL / COMPLETE MUD LOSSES ARE EXPECTED. Cores may be cut in reservoir sections.	
4500 - 4500									

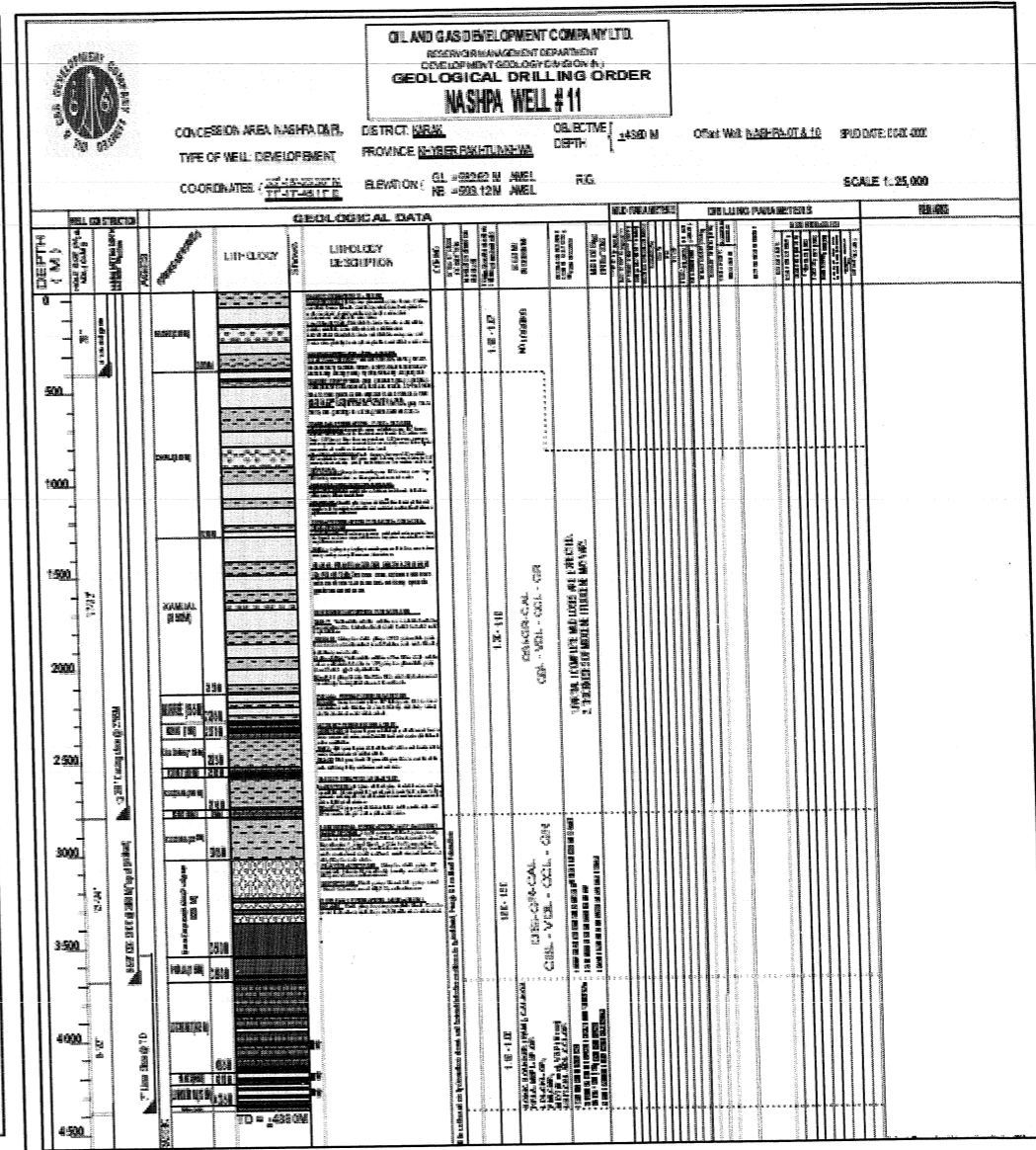
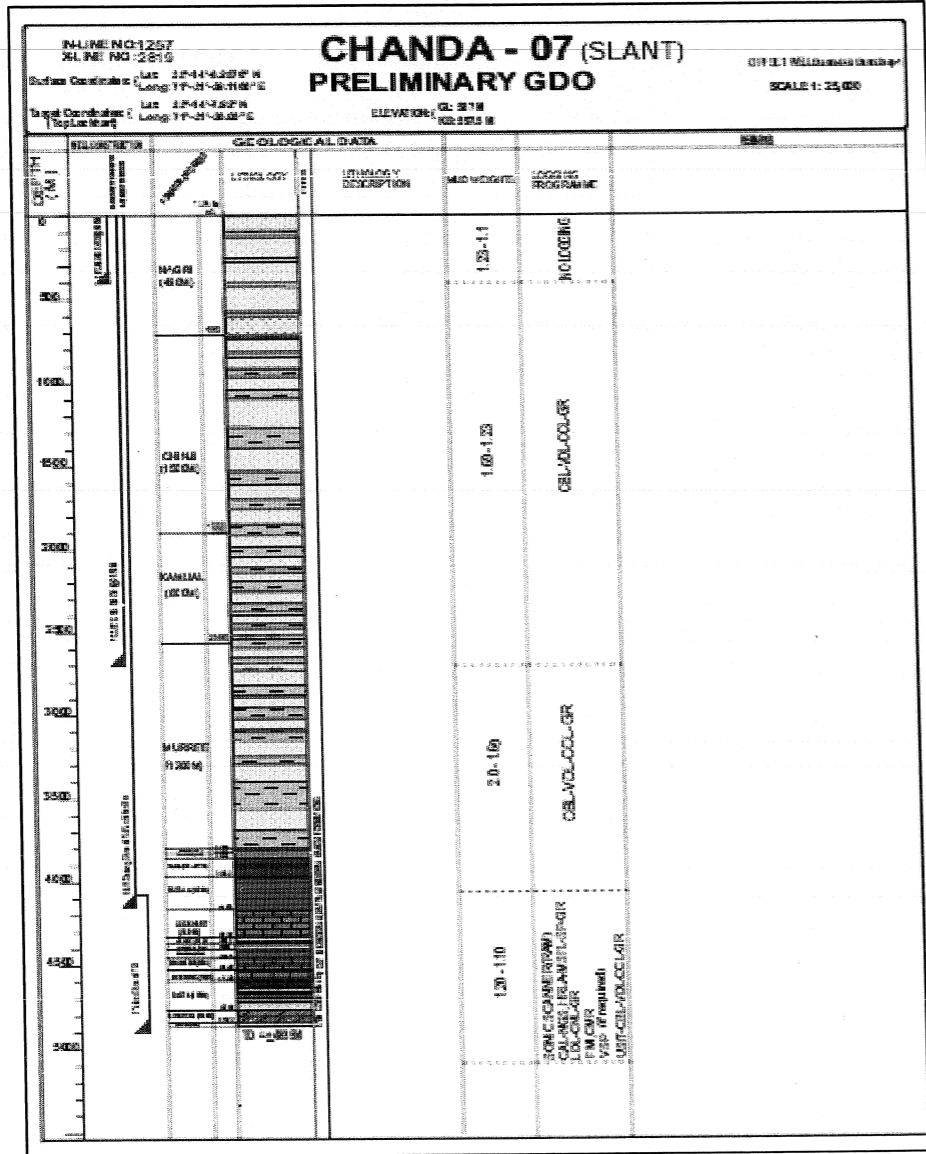
TD: +4860m

\*\* CASING SETTING DEPTHS ARE TENTATIVE AND SUBJECT TO CHANGE.

GDO Of Wells to be drilled

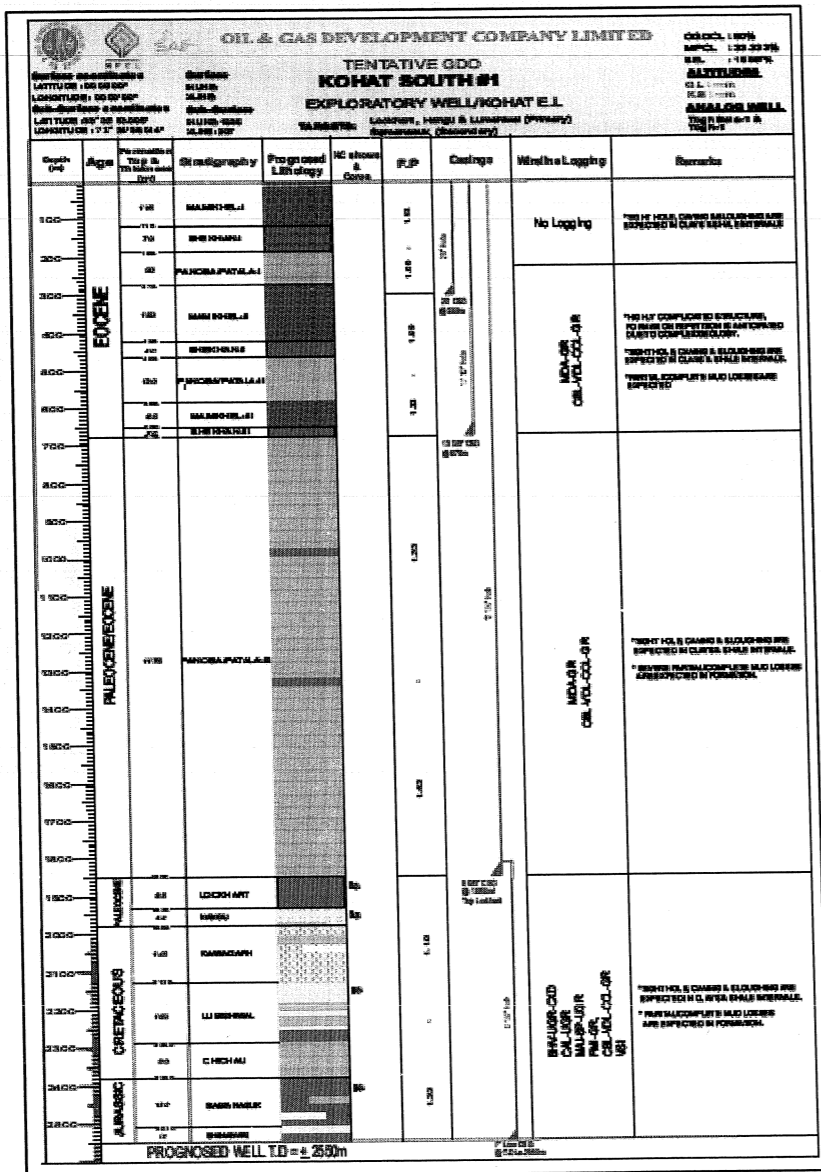
<b>WALI Deep # 01 (Exploratory)</b>		Wali E.L / FR Lakki, Khyber Pakhtunkhwa		OGDCL (100%)		Coordinates: Lat : 32 - 37 - 20" N Long : 70 - 10' - 16.41" E		Dip Lens : WM-17 Strike Lens : Wali-01	
				G.L = 151.530 m AMSL K.B = 1323.90 m AMSL					
DEPTH (M)	CASING	AGE	FORMATION TOPS & THICKNESS	LITHOLOGY	NO SHOWS & CORES	FP (SG)	LOGGING	REMARKS	
0 - 100	10 1/2" Casing shoe at 100m	PLIOCENE	DHOK PATHAN (1320m)			1.03 - 1.05	NO LOGGING	TIGHT HOLE CONDITIONS, CAVING & SLOUGHING ARE EXPECTED IN CLAY INTERVALS. SEVERE PARTIAL / COMPLETE MUD LOSSES ARE EXPECTED.	
100 - 1320									
1320 - 1840	14 + 13 1/2" Casing shoe at 2750m	MIOCENE	NAGRI (520m)			1.05	MDA1-GR CBL-VOL-CCL-GR	TIGHT HOLE CONDITIONS, EXCESSIVE TORQUE DURING & SLOUGHING ARE EXPECTED IN CLAY & SHALE INTERVALS. SEVERE PARTIAL / COMPLETE MUD LOSSES ARE EXPECTED.	
1840 - 2460			CHINJI (620m)			1.40			
2460 - 2800			KAMLIAL (140m)						
2800 - 3300			MURREE (700m)			1.40 - 1.50			CBL-VOL-CCL-GR MDA1-GR
3300 - 3400	15 1/2" Casing shoe at 3000m	EOCENE	KOHAT (100m)			1.50 - 1.60	CBL-VOL-CCL-GR MDA-GR	TIGHT HOLE CONDITIONS ARE EXPECTED IN SHALE INTERVALS.	
3400 - 3675			KULDANA (275m)						
3675 - 4225	7" Hole shoe at 4225m (Top of Location)	PALEOCENE	PANOBA / PATALA (500m)				CBL-VOL-CCL-GR MDA-GR	TIGHT HOLE CONDITIONS ARE EXPECTED IN SHALE INTERVALS.	
4225 - 4530			LOCKHART (305m)						
4530 - 4500			HANGLU (60m)						
4500 - 4500	5 1/2" Hole shoe at TD	CRETACEOUS	KAWAGARH (250m)				BHV-UGR, CXL-CAL-UGR MU-SP-UGR, FLM-GR, VSI CBL-VOL-CCL-GR	TIGHT HOLE CONDITIONS ARE EXPECTED IN SHALE INTERVALS. PARTIAL / COMPLETE MUD LOSSES ARE EXPECTED. Cores may be cut in reservoir sections.	
4500 - 4500									

TD: 5920m

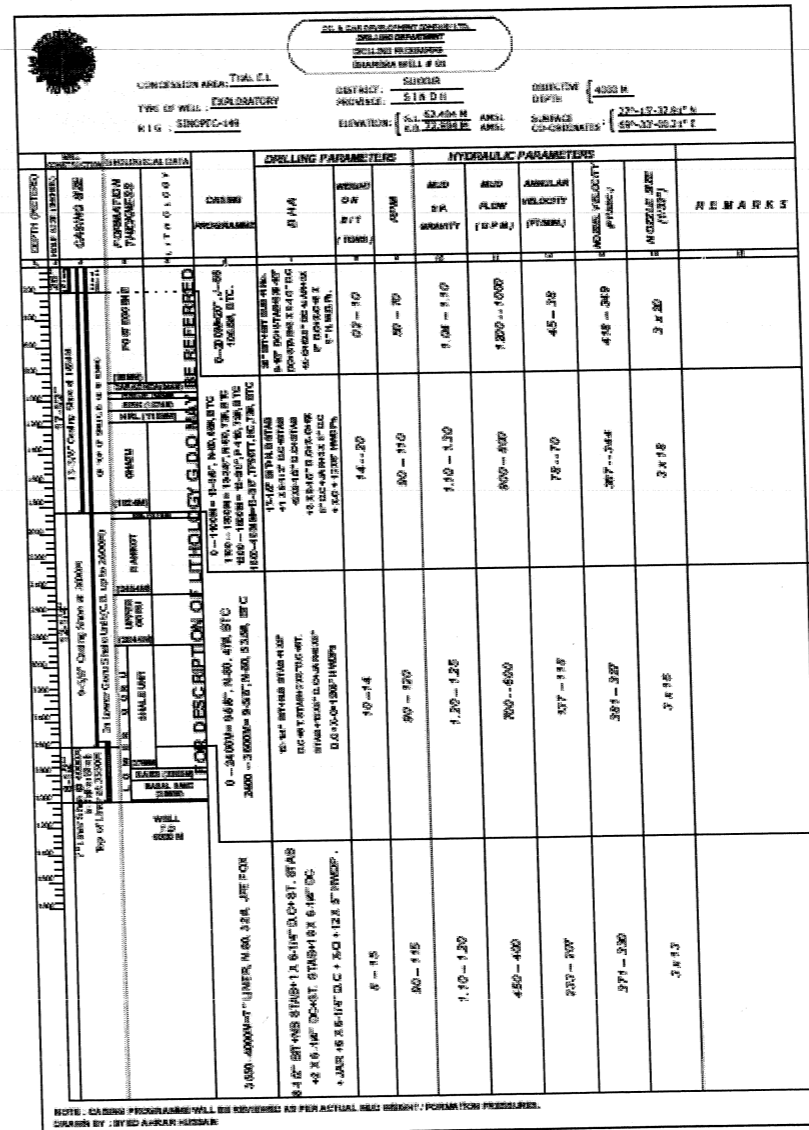


GDO of Wells to be drilled

Handwritten mark: a circle with an arrow pointing right, followed by a star-like symbol.



GDO Of Wells to be drilled



Handwritten marks: a circle with an arrow and a star.

