

OIL INDIA LIMITED
RAJASTHAN PROJECT
JODHPUR

CORRIGENDUM

AMENDMENT No. 2 Dated 10.09.2018
To TENDER No. CJG8546P19

1.0 Amendment No. 2 dated 10.09.2018 to Tender No. CJG8546P19 has been issued to incorporate the following changes in clauses under SOW and also to extend the Bid Closing/Technical Bid Opening Date and Tender Document Sale Date as under :

Bid Closing Date & Time : 04.10.2018 at 11-00 hrs. (IST)

Technical Bid Opening Date & Time : 04.10.2018 at 15-00 hrs. (IST)

Tender Document Sale Date Extended to : 27.09.2018 at 17-30 hrs. (IST)

Srl. No.	Clause No.	Existing Clause	Amended Clause
1	B. SCOPE OF WORK 2.8 SAFETY, HEALTH AND ENVIRONMENT	2.8.3 All electrical equipment should be certified by DGMS for use in hazardous area	2.8.3 All electrical equipment should be certified by DGMS or any other standards as per GSR. 1359 (E) for use in hazardous area
2	Part 3 Section-I 4.0 GENERAL OBLIGATIONS OF THE COMPANY	4.1 Pay Contractor in accordance with terms and conditions of the contract. The period of time for which each rate shall be applicable shall be computed from and to the nearest an hour. The rates contained in the Contract shall be based on Contractor's operation being conducted on a seven (07) days week and a twenty-four (24) hours work day. Under the Contract, Contractor will be entitled to the applicable rate defined in PROFORMA-A . These rates are payable when the required condition has existed for a full 24 hours' period. If the required condition existed for less than 24 hours, then payments shall be made on pro-rata basis.	4.1 Pay Contractor in accordance with terms and conditions of the contract. The period of time for which each rate shall be applicable shall be computed from and to the nearest an hour. The rates contained in the Contract shall be based on Contractor's operation being conducted on a seven (07) days week and a twenty-four (24) hours work day. Under the Contract, Contractor will be entitled to the applicable rate defined in PROFORMA-B . These rates are payable when the required condition has existed for a full 24 hours' period. If the required condition existed for less than 24 hours, then payments shall be made on pro-rata basis.
3	B. SCOPE OF WORK 1.3	New clause	1.3.7 For J-Bend Drilling Section, Mud Engineering Services, Chemicals and Mud Engineer are to be provided under the scope of this contract in addition to J-Bend

			Service provider.
4	New	-	Brief on Baghewala Field provided in Document-A as given below.
5	New		Job Responsibility Matrix provided as given below.
6	Part-3 Section –II B. Scope of work 1.1 DESIGNING OF MUD PROGRAMME	<u>Table 1B</u>	<u>Revised Table 1B</u> As given below.
7	Part – 3 Section - IV	<u>C. DEMOBILIZATION CHARGES [FOR TOOLS / EQUIPMENT WITH ALL ACCESSORIES / CONSUMABLES]</u> c) The Company shall give notice to the Contractor to commence demobilization. The Contractor will ensure that demobilization is completed within 30 (thirty) days from the date of notice from the Company. f) The Contractor will ensure that demobilization is completed and Company’s work-site is cleared-off Contractor’s property within 30 (thirty) days of notice from the Company. Penalty will be imposed “@10% per day” of De-Mobilization Charges for every additional day consumed by Contractor beyond stipulated 30(thirty) days to complete De-Mobilization.	<u>C. DEMOBILIZATION CHARGES [FOR TOOLS / EQUIPMENT WITH ALL ACCESSORIES / CONSUMABLES]</u> c) The Company shall give notice to the Contractor to commence demobilization. The Contractor will ensure that demobilization is completed within 60 (sixty) days from the date of notice from the Company. f) The Contractor will ensure that demobilization is completed and Company’s work-site is cleared-off Contractor’s property within 60 (sixty) days of notice from the Company. Penalty will be imposed “@10% per day” of De-Mobilization Charges for every additional day consumed by Contractor beyond stipulated 60(sixty) days to complete De-Mobilization.
8	Part – 3 Section - IV	<u>K. DAY RATE FOR TOOLS/ EQUIPMENT / PERSONNEL DURING FORCE MAJEURE:</u> i) All rates quoted by the Bidder shall be restricted to 50% of respective charges under above circumstances. This will be considered as FORCE MAJEURE RATE . ii) The Force Majeure Rate shall be payable during the first 10 (ten) days period of force majeure condition. No payment shall accrue to the Contractor beyond the first 10 (ten) days period.	<u>K. DAY RATE FOR TOOLS/ EQUIPMENT / PERSONNEL DURING FORCE MAJEURE:</u> i) All rates quoted by the Bidder shall be restricted to 50% of respective charges under above circumstances. This will be considered as FORCE MAJEURE RATE . ii) The Force Majeure Rate shall be payable during the first 15 (fifteen) days period of force majeure condition. No payment shall accrue to the Contractor beyond the first 15 (fifteen) days period.
9	PROFORMA - B	PROFORMA – B (<u>FORMAT – A (EQUIPMENT)</u>)	Revised PROFORMA – B (<u>FORMAT – A (EQUIPMENT)</u>) As given below.

2.0 All other terms & Conditions remain unchanged.

Revised Table 1B

Table 1B

Sl. No.	Mud property	Unit	Laboratory Testing		Remarks
			Before Hot roll	After Hot Roll at 180F	
1	Mud weight				
2	Plastic Viscosity				
3	Yield Point				
4	10s Gel.				
5	10m Gel				
6	API filtration loss/Cake				
7	pH				
8	Lubricity Coefficient				
9	Solids uncorrected				
10	PHPA concentration				
11	Any other properties				

PRICE BID FORMAT**Tender No. : CJG8546P19****Currency Quoted: _____****FORMAT – A (EQUIPMENT)**

Sl.No.	DESCRIPTION	UNIT	QTY	Unit Rate	Total Amount
A	EQUIPMENT				
a	Mud Lab & Accessories				
1	Mobilization Charges	LS	2		
2	Demobilization Charges	LS	2		
3	Rental Charges	Days	1460		
4	ILM Charges up to 50 km	LS	11		
5	ILM Charges beyond 50 km	KM	300		
b	DWM-1				
6	Mobilization Charges	LS	2		
7	Demobilization Charges	LS	2		
8	Rental Charges	Days	1460		
9	ILM Charges up to 50 km	LS	11		
10	ILM Charges beyond 50 km	KM	300		
c	DWM-2 (On Call Out Basis)				
11	Mobilization Charges	LS	3		
12	Demobilization Charges	LS	3		
13	Rental Charges	Days	730		
14	Interim Demobilization - Remobilization Charges for Mud Lab & Accessories	LS	2		
15	Interim Demobilization - Remobilization Charges for DWM Unit 1	LS	2		
	TOTAL EQUIPMENT CHARGES, A = a + b + c				

FORMAT – B (PERSONNEL)

B	PERSONNEL				
a	Lead Mud Engineer				
16	Mobilization Charges	LS	13		
17	Demobilization Charges	LS	13		
18	ODRP	Days	1280		
19	SDRP	Days	180		
b	Second Mud Engineer				
20	Mobilization Charges	LS	13		
21	Demobilization Charges	LS	13		
22	ODRP	Days	1280		
23	SDRP	Days	180		
c	DWM Supervisor				
24	Mobilization Charges	LS	13		
25	Demobilization Charges	LS	13		
26	ODRP	Days	1280		
27	SDRP	Days	180		
d	DWM Operator x 2 nos.				

28	Mobilization Charges	LS	13		
29	Demobilization Charges	LS	13		
30	ODRP	Days	1280		
31	SDRP	Days	180		
TOTAL PERSONNEL CHARGES, B= a + b + c + d					

FORMAT - C (CHEMICALS)

Sl. No.	Chemical	Brand Name	Unit	Quantity	Unit Rate	Total Amount	Specs enclosed	MSDS enclosed
							Yes/No	Yes/No
32	Barytes		MT	500				
33	Bentonite		MT	4100				
34	Caustic Soda		MT	160				
35	CMC(HVG)		MT	200				
36	CMC(LVG)		MT	200				
37	Geltax		MT	25				
38	PAC (R)		MT	70				
39	PAC(SL)		MT	70				
40	XC Polymer		MT	200				
41	Resinated Lignite		MT	130				
42	Linseed Oil		KL	800				
43	NaCl		MT	5500				
44	Cal Carb (F/M/C)		MT	800				
45	Pipelax		KL	15				
46	Mica		MT	25				
47	Saw dust		MT	25				
48	Jel flake		MT	25				
49	Walnut shell		MT	25				
50	Defoamer		KL	5				
51	Biocide (ENV)		KL	8				
52	Soda ash		MT	25				
53	Sodium bicarb		MT	10				
54	Teepol		KL	3				
55	Mud Detergent		KL	35				
56	Polyol		MT	400				
57	PGS		MT	130				
58	SAPP		MT	5				
59	PHPA		MT	65				
60	CI(amine based)		KL	7				
Total cost of chemicals (C)								

Note:

1. Chemical names shown above are generic in nature. The bidder may quote for equivalent/substitute chemicals with proper technical literatures.
2. Successful bidder has to keep a minimum stock of the all the chemicals for two well

operations with adequate stock of contingency chemicals in case of down hole problems.

FORMAT – D (DWM CHEMICALS & CONSUMABLES)

Sl. No.	Consumables	Brand Name	UOM	Qty	Unit Rate	Total Amount	Specs/MSDS submitted?
Chemicals for DWM							
61	Flocculent		MT	42			
62	Coagulant-1		MT	160			
63	Coagulant-2		MT	42			
Other Consumables for DWM							
64	10 micron absolute Cartridges		No	1200			
65	5 micron absolute Cartridges		No	1200			
66	25 micron bag filters		No	120			
67	40 micron bag filters		No	120			
Total Cost of DWM Chemical and Other Consumables, D= 61+ 62 + 63 + 64 + 65 + 66 + 67							

Note: Chemicals/consumables indicated in table ‘D’ are required for Drilling Waste Management Service. Contractor has to optimize the chemical treatment and process system of the Company based on lab studies in its laboratory based on actual effluent encountered at well site.

FORMAT – E (CONSUMABLES & CHEMICALS PROPOSED BY CONTRACTOR)

Item	Consumables	Brand Name	Unit	Qty	Unit Rate	Total Amount	Spec/MSDS submitted?
68							
69							
70							
.....							
Total Cost of Consumables & Chemicals, E= 68+69+70+....							

TOTAL ESTIMATED CONTRACT VALUE [T] = A + B + C + D + E

Where,

T= TOTAL ESTIMATED CONTRACT COST FOR TWO YEARS

A= TOTAL EQUIPMENT CHARGES

B= TOTAL PERSONNEL CHARGES

C= TOTAL COST OF DRILLING FLUID CHEMICALS

D= TOTAL COST OF DWM & OTHER CHEMICALS

E= TOTAL COST OF CONSUMABLES AND CHEMICALS PROPOSED BY CONTRACTOR

NOTE:

i) The items mentioned in above clause are to be read in conjunction with Schedule of Rates in Section IV, Part-3.

ii) The bidder has to quote for all the items. The Bids in which the rates for any part of the work are not quoted shall be rejected. However, if no charge is

involved for any of the work, 'FOC' (Free of Cost) should be mentioned against such part of work.

- III) The quantities indicated above are tentative requirement for two years and considered for evaluation purpose of bids/estimation of total contract value only. Payment shall, however, be made at actual use against which the units rates have been asked for. No charges other than indicated above are payable.
- IV) All taxes, duties and levies excluding GST shall be borne by the Contractor. The quoted price shall be exclusive of GST. GST as applicable shall be on Company's account and as per GST Act.
- V) Bid evaluation will be carried out based on the sum total of prices of the price bid format as shown above against srl. Nos. 1 to 70. i.e, $T = A + B + C + D + E$

Authorised Person's Signature: _____

Name: _____

Seal of the Bidder:

RESPONSIBILITY MATRIX FOR MATERIAL AND SERVICES:

The brief responsibility matrix but not limited to the followings:

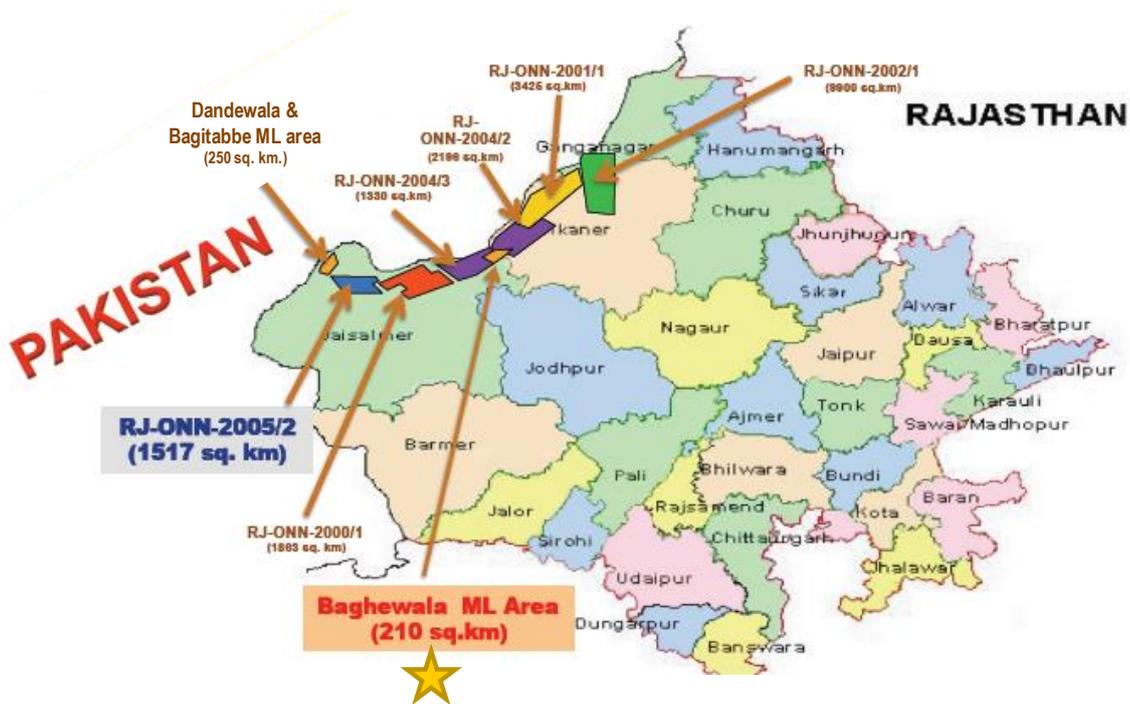
SL no	Item	Provided by		At the cost of	
		Bidder	OIL	Bidder	OIL
1	Transportation of Chemicals up to Rig site (Godown to site)	√		√	
2	Provide access to utilize Rig equipment for preparation of drilling fluid		√		√
3	Catering and transportation of Bidder's personnel from drilling base camp to Rig site and back		√		√
4	Laboratory equipment required for determination of Mud parameters	√		√	
5	Warehouse facility for bidders materials	√		√	
6	Accommodation of bidder's personnel		√		√
7	Unskilled manpower required for handling and mixing of mud chemical at drilled site	√		√	
8	Mud laboratory at the drill site to be provided for testing of Mud parameters	√		√	
9	Loading, unloading, mixing of Chemicals & cleaning of Mud handling equipment's at each drill site.	√		√	
10	Transportation of chemicals from one location to other location.	√		√	
11	Water supply for Mud preparation and laboratory		√		√
12	Power supply		√		√
13	Disposal of empty bags, drums and other left over of Chemicals	√		√	
14	Mud chemical storage facilities at drill site		√		√
15	PPE and insurance over of bidders personnel and equipment	√		√	

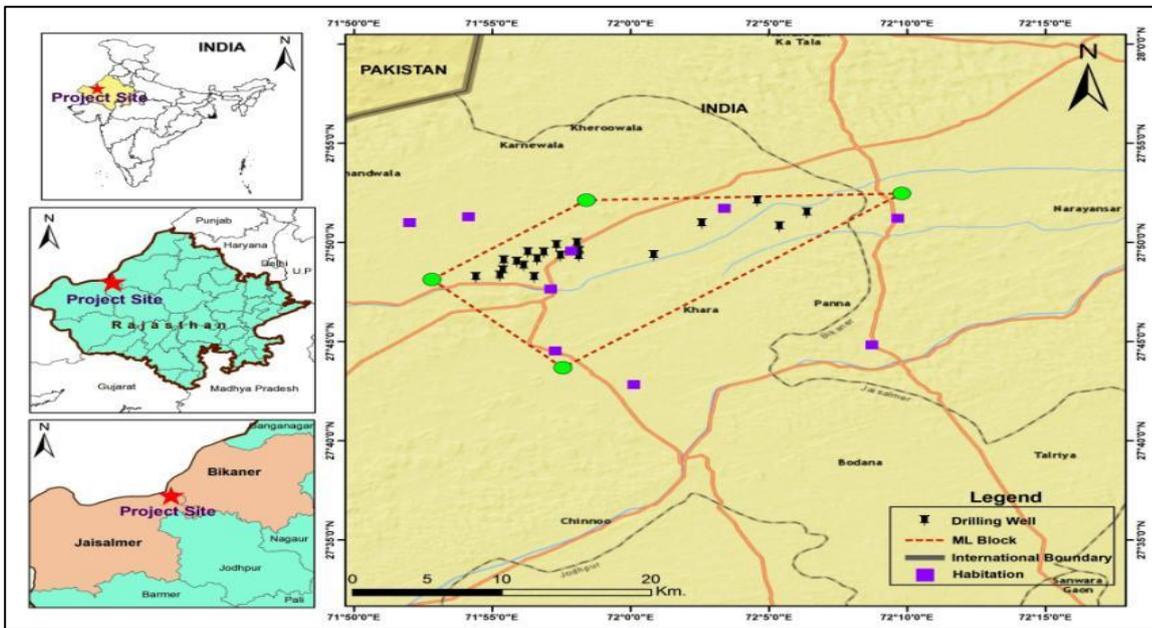
DOCUMENT – A

(Tender No. CJG8546P19)

Hiring of mud engineering & drilling waste management services along with chemicals

MAP of Baghewala STRUCTURE





Generalised Stratigraphy of Baghewala Field

AGE	FORMATION	DEPTH (m)	LITHOLOGY (Average)	REMARKS
QUARTERNARY + TERTIARY	Alluvium / Shumar	Surface	Sand/Sandstone (50%-60%) + Clay/Claystone (40%-50%)	
MESOZOIC	Jaisalmer + Lathi	~500	Sand/Sandstone (20%-30%) + Clay/Claystone (40%-50%) + Limestone (20%-30%)	
PERMIAN	Bap and Badhaura	~550	Sand/Sandstone (20%-30%) + Clay/Claystone (40%-50%) + Dolomite(30%-40%)	
INFRA-CAMBRIAN	Upper Carbonate	~600	Sand/Sandstone (30%-35%) + Clay/Claystone (20%-30%) + Dolomite(40%-50%) +Traces of Limestone	Potential loss circulation zone
	Nagaur	~800	Dolomite(20%-25%) + Clay/Claystone (35%-40%) + Sand/Sandstone(30%-35%) + Siltstone (5%-10%) + Anhydrite (Trace -5%)	
	HEG	~1100	Clay/Claystone(35%) + Sand/Sandstone(35%) + Dolomite(25%) + Anhydrite(5%-10%) + Traces of Halite & Siltstone	Potential over gauge zone
	Bilara	~1200	Sand/Sandstone(40%-45%) + Clay/Claystone(50%-55%) + Dolomite (2%-5%)	Over gauge zone
	Jodhpur	~1270	Sand/Sandstone(95%) + Clay/Claystone(4%) + Siltstone(1%)	Over gauge zone

Challenges

- ✓ **Mud loss/ total mud loss:** Frequent mud loss encountered in the range 520m-900m in the previous wells. These losses were arrested by spotting 10-12% LCM pills, cement plugs.
- ✓ **Stuck pipe:** During PO from drilled depth 793m string got stuck at 668m & it was freed by working on string by 45T of over pull in Baghewala#3.
- ✓ **Poor ROP:** Observed poor ROP in the dolomite formation in the wells.
- ✓ **Hole over gauge:** Mainly in the Halite formation.

Planning

- **OIL is planning for drilling and testing of 13(Thirteen) well in Baghewala structure, Rajasthan Project. All wells are designated as exploratory/development wells, vertical and / or deviated (J Bend). The maximum TVD is 1200 m to 1500m.**

Proposed casing policy

<u>Hole Size(inches)</u>				<u>Shoe Depth(meters)</u>
<u>Size(Inch)</u>	<u>Type of csg</u>	<u>Wt (ppf)</u>	<u>Open Hole size (Inch)</u>	-
<u>20</u>	<u>K-55</u>	<u>94</u>	<u>26</u>	<u>100/150/200/250</u>
<u>13 3/8</u>	<u>N-80</u>	<u>68</u>	<u>17 ½</u>	<u>650/750</u>
<u>9 5/8</u>	<u>L-80</u>	<u>47</u>	<u>12 1/4</u>	<u>1000/1050</u>
<u>7 or 5 1/2</u>	-		<u>8 1/2</u>	<u>1150/1200</u>

Proposed Mud systems:

Hole Size	Mud System	Mud Density (ppg)	MF Viscosity (sec)	PV (cp)	YP (lb/100 sq.ft)	Gel (0'/10')	F/loss (cc)
26"	Bentonite gel Spud mud	8.7-8.9	65-60	ALAP	20-24	20/30	<18
17 1/2"	Lightly treated water based system	8.9-9.1	60-50	ALAP	18-22	10/35	<15
12 ¼"	NaCl Saturated Mud System	9.3-9.6	50-45	ALAP	16-20	8/12	<10
8 ½"	NDDF mud system	8.5-8.6	45-40	ALAP	22-28	10/12	<7

- Present Rig: Jhon#29
- Rig Capacity: 1000 HP
- Tank Capacity: 1500 bbls
- Mud pump: 02 Triplex pump
- Technical water storage tank: 1200 bbls
- Solid Control: 03 nos LMS, 01 no Mud cleaner.
- Average Days required to complete a well: 50 days.

N.B: Mobilization and demobilization for Mud Engineering and Drilling Waste Management (DWM) shall be done as per requirement for 02 (two) rig operation.
