# Government of India Ministry of Jal Shakti, Department of Water Resources, River Development and Ganga Rejuvenation Central Ground Water Board Bhujal Bhawan, NH-IV, Faridabad, Pin - 121001

#### **E-TENDER INQUIRY**

FOR CONSTRUCTION OF PIEZOMETERS 1508 NOS IN SOFT ROCK/
HARD ROCK AND SUPPLY, INSTALLATION, COMMISSIONING OF
DWLRS AND TELEMETRY, ESTABLISHMENT OF DATA ACQUISITION
SYSTEM & ITS MAINTENANCE FOR REAL TIME GROUND WATER
LEVEL MONITORING AND SUPPLY OF GROUND WATER LEVEL,
GROUND WATER TEMPERATURE DATA FROM SITE AND RECEIPT OF
DATA AT NATIONAL DATA CENTRE, CHQ, FARIDABAD, IN A DESIRED
FORMAT FROM 1508 NOS CONSTRUCTED PIEZOMETERS WELLS
THROUGH TELEMETRY SYSTEMS WITH 05 YEARS WARRANTY AND
02 YEARS AMC IN STATES OF RAJASTHAN

e-Tender Inquiry Number : NIET No. 11/2022-23/MMS-I

### TENDER DOCUMENT

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## SECTION-I

# NOTICE INVITING TENDERS (NIT)

#### **Government of India**

Ministry of Water Resources, River Development and Ganga Rejuvenation Bhujal Bhawan, NH-IV, Central Ground Water Board,

Faridabad, Pin - 121001 Phone:0129247721 Email: seop-cgwb@nic.in

e-Tender Inquiry No. NIET No. 11/2022-23/MMS-I

# NOTICE INVITING TENDERS (National Competitive Bidding)

For and on behalf of President of India, The Chairman, Central Ground Water Board, invites online bid under two-bid system (technical bid and financial bid) at CPP portal <a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a> from eligible and qualified bidders for Construction of PIEZOMETERS (1508 Nos) in SOFT ROCK/HARD Rock and Supply, Installation, Commissioning of DWLRs and telemetry, Establishment of Data Acquisition system & its maintenance for Real Time Ground Water Level monitoring and supply of Ground water level, ground water temperature data from site and receipt of data at National Data Centre, CHQ, Faridabad, in a desired format from 1508 Nos CONSTRUCTED Piezometers wells Through telemetry systems with 05 years warranty and 02 years AMC in STATES of RAJASTHAN.

2					
	Tender ID	Name of Package	Region	Estimated Cost in INR excluding GST	EMD in INR
		Package 5	RAJASTHAN	1 10 45 28 000/-	2.76.13.000/-

Critical Dates			Date	Time
1	Dates of Online Publication of Tender Documents in CPP portal		03.03.2023	18:00
2	Dates of Tender Document  Download	Start	04.03.2023	09:00
3	Download	End	27.03.2023	09:00
4	Deadline for seeking further information/ clarifications through email		27.03.2023	09:00
5	Date of Pre-Bid Meeting		16.03.2023	11:00
6	Dates of Online Submission of	Start	04.03.2023	09:00
7	Tender	End	27.03.2023	09:00
8	Deadline for Physical Submission of Cost of Tender Documents and EMD/ Bid Security		27.03.2023	9:00
9	Time and Date for Opening of Technical Bid		28.03.2023	15:30
10	Time and Date for Opening of Financial Bid		Will be commu after technical	

- Interested tenderer may obtain further information about these requirements from the above office during working hours or through email and/or from the websites http://cgwb.gov.inand https://eprocure.gov.in/eprocure/app
- Tender documents may be downloaded from the above websites. The bidders must pay non-refundable fee of Rs.5000/- (Five Thousand ) only in the form of Account Payee Demand Draft from any of the commercial bank in India, in favour of Drawing & Disbursing Officer, Central Ground Water Board, payable at Faridabad on or before the deadline fixed.
- All tenders must be accompanied with EMD/ Bid Security as mentioned in Para 2 in favour of The Drawing & Disbursing Officer, Bhujal Bhawan, NH-IV, Central Ground Water Board, payable at Faridabad, in the manner prescribed in bidding documents, on or before the deadline fixed.
- In the event of any of the above mentioned tender opening date being declared as a holiday/ closed day or the purchase organization, the tenders will be opened on the next working day at the appointed time.
- 7 Bids shall be received online only at the website of CPP portal <a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a>.
- Aspiring bidders who have not enrolled/ registered in CPP portal are advised to enrol/ register before participating through the portal. The portal enrolment is free of cost. The bidders are advised to go through the instructions provided at section-XV: 'Instructions for online bid submission'.
- The bidders will be at liberty to be present either in person or through an authorised representative, who must carry 'Bid Acknowledgement Receipt', at the time of opening of bid or can view the bid opening event online at their remote end.
- 10 This Tender can be Cancelled/Withdrawn any time without assigning any reasons to bidders/ tenderers

Superintending Engineer Bhujal Bhawan, NH-IV, Central Ground Water Board, Faridabad, Pin - 121001

# SECTION- II INSTRUCTIONS TO BIDDERS (ITB)

	SECTION- II		
	INSTRUCTIONS TO BIDDERS (ITB)		
1.	General		
	The Employer wishes to receive bids for the Construction of Piezometers in Soft Rock/ Hard Rock and Supply, Installation, Commissioning of DWLRs and telemetry, Establishment of Data Acquisition system & its maintenance for Real Time Ground Water Level monitoring and supply of Ground water level, ground water temperature data from site and receipt of data at National Data Centre, CHQ, Faridabad, in a desired format from1508 Nos CONSTRUCTED Piezometers wells Through telemetry systems with 05 years warranty and 02 years AMC in STATE of RAJASTHAN.Throughout these bidding documents, the terms bid and tender and their derivatives (bidder/tenderer, bid/tendered, bidding/tendering, etc.) are synonymous		
1.1	The Employer has issued these tender enquiry documents for the Construction Of Piezometers in Soft Rock/ Hard Rock and Supply, Installation, Commissioning of DWLRs and telemetry, Establishment of Data Acquisition system & its maintenance for Real Time Ground Water Level monitoring and supply of Ground water level, ground water temperature data from site and receipt of data at National Data Centre, CHQ, Faridabad, in a desired format from 1508 Nos CONSTRUCTED Piezometers wells Through telemetry systems with 05 years warranty and 02 years AMC in STATE of RAJASTHAN. and related services as mentioned in Section–V: "Scope of Work and Technical Specifications", which also indicates, <i>interalia</i> , the Tentative List of Locations.		
1.2	This section (Section II: "Instructions to Bidders") provides the relevant information as well as instructions to assist the prospective tenderers in preparation and submission of tenders. It also includes the mode and procedure to be adopted by the Employer for receipt and opening as well as scrutiny and evaluation of tenders and subsequent placement of contract.		
1.3	Before formulating the tender and submitting the same to the Employer, the tenderer should read and examine all the terms, conditions, instructions etc. contained in the tender documents. Failure to provide and/ or comply with the required information, instructions incorporated in these tender documents may result in rejection of its tender.		
2	Eligibility Criteria of Bidder		
2.1	This invitation to bid is open to any bidder meeting the following requirements :		
	(a) The bidder shall be qualified for the contract as notified by the Employer in subsequent clauses.		

- (a) Any tenderer, (proprietorship firms, partnerships firms, companies, corporations, joint ventures) registered with Central or State Government or the Central Ground Water Authority (CGWA) are eligible to participate in the tender. A self attested copy in respect of valid registration/ enlistment with the respective authorities is to be submitted
  - (b) Bidders are permitted to form consortium. The clauses as given below shall be applicable for consortium.
    - i. In case of a consortium /Joint Venture, certified copy of the agreement between various partners shall be submitted with the tender.
    - ii. The consortium /Joint Venture shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution.
    - iii. The consortium /Joint Venture will identify a lead partner who will be authorised to execute the contract with the department. All financial transactions and liabilities shall rest with the lead partner.
    - iv. In the case of a consortium /Joint Venture, all members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms.
    - v. JV members are jointly and severally responsible and liable for the contract. For pre- qualification, the JV should fulfil the criteria specified in the pre-qualification document. The attributes to be evaluated will be the same as for individual contractors; however, certain parameters up to the specified limits have to be essentially met by them collectively, some by the lead partner, and some by the other partner, as briefly described below:

#### X. Qualifying factors to be met collectively:

- (A) Annual turnover from construction;
- (B) Particular construction experience

#### Y. Qualifying factors for lead partner:

- (A) Annual Turnover from Construction;
- (B) particular construction experience;

Not less than of 50 (fifty) percent of the respective limits of above criteria prescribed in case of individual contractors may be accepted;

#### Z. Qualifying factors for other partner:

Same as for lead partner except that for the factors specified in (Y) above, a lower limit of 25 (twenty-five) per cent

- vi. A tenderer shall submit only one bid in the same tendering process, either individually as a tenderer or as a partner of a consortium /Joint Venture.
- vii. Number of the members/firms in a joint venture shall not be more than two including the lead partner
- (c) A Bidder shall not have a conflict of interest. Any Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this bidding process, if the Bidder:
  - directly or indirectly controls, is controlled by or is under common control with another Bidder or
  - ii. receives or has received any direct or indirect subsidy from any other Bidder; or
  - iii. has the same legal representative as another Bidder; or
  - iv. has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the bid of another Bidder, or influence the decisions of the Purchaser regarding this bidding process; or
  - v. participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which such Bidder is involved. However, this does not limit the inclusion of the same subcontractor in more than one bid

- (d) Either the lead partner or the other member of the Joint Venture/Consortium should be a manufacturer of the DWLR or be a dealer authorised by the Principal/ OEM in respect of DWLRs and telemetry, and, either the lead partner or the other member shall have experience in drilling where construction of water well is component of scope of work
- (e) Bidders will be required to employ at least one ground water professional with minimum qualification of graduate degree in engineering/master's degree in geosciences with minimum 3 years of experience in construction of exploratory & observation, Piezometer wells and similar works. The undertaking for employment of these ground water professional be given.
- (f) Bidder will be required to deployat least one dedicated Service Engineer cum operator at the Regional office Data Center for Operation of DWLR system and ensure seamless data transfer from remote DWLR stations to National data Center through GSM/GPRS network & then to India WRIS/WIMS software through internet. The processed data from India WRIS/ WIMS in the form of reports/ bulletins will be transmitted to Regional & National Data Centre as per technical specifications. The undertaking for employment of these ground water professional be given.
- (g) Bidders will be required to deploy at least 27 rigs for the package along with submersible pumps of various capacities, ancillaries equipments tools accessories required for construction of well and pumping test as mentioned in the section V, Scope of Work and Technical specification. An undertaking in this regard should be submitted in the technical Bid.
- (h) Bidder should be in continous business of supplying and /or after sale services of real time telemetry, hydrometrological instrucments and systems for surface and/ or ground water during the last three years prior to date of bid submission

Average annual financial turnover during the last three years, ending 31st March of the financial year i.e. 2019-20, 2020-21, 2021-22 should be at least 30% of the estimated cost. The applicant should have achieved minimum annual value of Water Well construction work (as certified by Chartered Accountant), and at least 30 (thirty) percent of which is for Supply and Installation of DWLR and Telemetry carried out in any of the year over a stated period.

- The bidder should have experience of having successfully completed similar works during last 7 years ending last day of month previous to the one in which tenders are invited:
  - (a) Three similar completed works costing not less than the amount equal to 40% of the estimated cost.

Or

Two similar completed works costing not less than the amount equal to 50% of the estimated cost.

or

One similar completed work costing not less than the amount equal to 80% of the estimated cost.

or

Sum total of similar completed works costing not less than the amount equal to 100% of the estimated cost in a single financial year.

(b) Defination of Similar works:

#### For Part A: Construction Of Piezometers

Similar works are defined as 'any work in which drilling for exploration/explotation of natural resources is component of scope of work.

#### For Part B: Construction Of Piezometers

For component of supply, installation and commissioning of Digital Water Level Recorder alongwith Telemetry , Bidder may associate with original manufacturer or authorized agent of original manufacturer. In case of authorized agent, an authorization letter from original manufacturer shall be submitted along with bid. The so associated original manufacturer or authorized agent should have minimum 03 years overall experience for supply, installation, commissioning, and maintenance of Digital Water Level Recorder. Experience certificate certified by an officer not below the rank of Executive Engineer or equivalent shall be submitted with the bid.

- (c) The value of the executed work shall be brought to the current costing level by enhancing the actual value of works at simple rate of 7% per annum calculated from the date of completion to last date of submission of bid.
- (d) The tenderer shall submit details of works executed by them in last 7 years for qualification of work experiences criteria, documentary proof such as completion certificate & other documents from client clearly indicating the nature/scope of work, contract number, contract amount and actual date of completion, of such works. Rig deployment /copy of work order cannot be considered as work completion. Work completion certificate or part completion certificate is to be submitted.
- (e) In case the work is done for private/ Government clients, details as per table at In case the work is done for private/ Government clients, details as per table at SI.No.3 (a) & 3 (b) of Section XI are to be submitted. Documents are to be submitted. Documents establishing receipt of payment for such works are to be submitted. For this purpose TDS certificate or Form 26 AS of Income Tax department or copy of Bank statement or any other document clearly indicating name of organisation making payment, amount of payment shall be submitted.
- (f) The tenderer or their principal/ collaborator should have supplied and commissioned at least 30 % of the Digital Water Level Recorders stations with GSM / GPRS based telemetry during last 7 (Seven) years (i.e.April 2015-16, 2016-17, 2017-18, 2018-19, 2019-20, 2020-21 and 2021-22 and thereafter to Central Government/ State Government Departments or Public Sector Undertakings or any Project/ any other Public/ Private Customers in India. Note: The proof of supply as per supply order along with delivery challan and Commissioning report/ Installation report/ Performance certificate in respect of successful commissioning
- (g) The bidder should have after sales support in the region (within a radius of 500 km from the State Capital) for Digital Water Level Recorders stations with GSM / GPRS based telemetry. If bidder does not have any after sales support office within 500 km from state Capital at the time of bidding, he shall be required to establish the same within one month after successful award of contract.
- (h) The bidder shall submit the product brochure/literature, compliance statement duly signed by the bidder and other supporting document if any to establish the claim that the offered equipment meets the technical specifications provided in tender document. If there is any deviation in specification it should be mentioned in separate column of compliance statement
- The bidder must submit an undertaking for carrying out chemical analysis of water samples from any NABL accredited lab/labs. The Lab/labs shall have combined capacity of analyzing at least 300 water samples in a month.

#### 2.6 Experience in Soft/Alluvial formation

Bidders applying for soft/alluvial formation

- (a) Must have previously drilled pilot hole to a depth of at least 200 m. Number of such wells should not be less than 10% of number of wells to be constructed in a particular package in Soft/Alluvial formation. (in case of core drilling the depth of bore hole shall be minimum 200m)
- (b) Must have previously completed tubewells up to a depth of 170 m. Number of such wells should not be less than 5% of number of wells to be constructed in Soft/Alluvial formation.

#### **Experience in Hard rock formation**

Bidders applying for hard rock formation

(a) They must have drilled/completed wells to a depth of at least 200 m. Number of such wells should not be less than 10% of number of wells to be constructed in Hard rock formation.

# Experience For DWLR and Telemetry (Without Quality Probe)

The bidder must have supplied, tested, and commissioned the Digital/ Automatic Water Level Recorder stations with GSM / GPRS and Digital Water Level Sensor (Non Vented, Submersible temperature Sensor) based telemetry to the extent of at least 30% stations (comprising of minimum 1 data logger and sensor at each station) in total in any two of the year during a period of last 7 years from the last date of submission of bid document and should be in use satisfactorily with no adverse report for atleast one year preceding the date of bid opening.

#### (With Quality Probe)

The bidder must have supplied, tested, and commissioned the Digital/ Automatic Water Level Recorder stations with GSM / GPRS and Digital Water Level Sensor (Non Vented, Submersible temperature Sensor) and with electrical conductivity based telemetry to the extent of at least 30% stations (comprising of minimum 1 data logger and sensor at each station) in total in any two of the year during a period of last 7 years from the last date of submission of bid document and should be in use satisfactorily with no adverse report for atleast one year preceding the date of bid opening.

After approval of Technical bid, the Financial bid will be opened only after qualifying the Technical Bid. The Financial bid will be evaluated considering the Gross total amount of BOQ including GST. Note: 1. The bidders are requested to quote the rate (excluding GST) against the item in BOQ (Financial bid). The tax (GST) is taken during uploading of the tender document in CPPP is 18%. This helps in uniform comparison of bids. The actual Tax (GST) as applicable will be reimbursed only after producing the following proof of tax amount paid to Government (i) A copy of GSTR-1, (ii) A copy of GSTR-3B, (iii) CA certificate indicating details of invoices against which the payment under GSTR-3B has been made and any other relevant document.

**2.8** Criteria under Clause 2.1,2.2, 2.3, 2.4, 2.5 & 2.6 should be fulfilled by any/ some/ all the members of the consortium in individual/combined capacity.

#### **Illustration with Example:**

Suppose the estimated cost of package is Rs.18,00,00,000/- & bidder has executed three works 40% of Rs.18,00,00,000/-= Rs.7,20,00,000/-, then: to be considered responsive/qualifying

At least One work done by A, B, C each should be more than Rs.7,20,00,000/-Or,

One Work done by A, Two works done by B should be more than Rs.7,20,00,000/- even if no work is done by C is also be considered.

Or

Three works done by A each costing more than Rs.7,20,00,000/- and no work by B & C is also be considered.

- 2.9 Tenderers are required to submit duly self attested following documents:-
  - (a) Copy of valid registration/ enlistment with the respective authorities (Reference: clause 2.2 of eligibility criteria). (SI.No.1 of Section XI)
  - (b) In case of a consortium, certified copy of the agreement between various partners. (Reference : Clause 2.2 of eligibility criteria)
  - (c) Scanned copy of undertaking of having employed the ground water professional during execution of work. (Reference : Clause 2.2 (c ) of eligibility criteria)
  - (d) Scanned copy of undertaking as per eligibility criteria 2.2 (d).
  - (e) Turnover for last three years **duly certified by Chartered Accountant**. (Reference: Clause 2.3 of eligibility criteria). **(SI.No.2 of Section XI)**
  - (f) Details of works completed as per table at SI. No.3 (a) of Section XI along with documentary proof. (Reference: Clause 2.4 of eligibility criteria)
  - (g) Details of payment received for completed works alongwith documentary proofas per table at SI. No 3(B) of Section XI (Reference : Clause 2.4 of eligibility criteria)
  - (h) Scanned copy of undertaking as per eligibility criteria 2.5
  - (i) Details of Borewells/ Tubewells constructed as per table at **SI. No.4 of Section XI.**(Reference : Clause 2.6 of eligibility criteria)
  - (j) Scanned copy of EMD: As per clause 13 of Section II Instructions to Bidders.
  - (k) Scanned copy of tender fee
  - (I) Scanned copy of Tender Acceptance letter: As per format in Section XIV
  - (m) Undertaking as per clause 2.5 of eligibility criteria
  - (n) The proof of supply in respect of DWLR and telemetry as per supply order along with delivery challan and Commissioning report/ Installation report/ Performance certificate in respect of successful commissioning.(Reference: Clause 2.4 of eligibility criteria) along with documentary proof.
  - (o) Certificate for After Sales support certificate. (Reference: Clause 2.4 of eligibility criteria) along with documentary proof in respect of DWLR and telemetry.
  - (p) Details fo DWLR's supplied installed and commissioned alongwith undertaking for no adverse report for atleast 1 year
  - (q) Descriptive Documents, drawings, notes and references of operating and assembly of mechanical parts in respect of DWLR and telemetry alongwith detailed description of the goods' essential technical and performance characteristics.
  - (r) A clause-by-clause commentary on the Purchaser's technical specifications demonstrating substantial responsiveness of the Goods and Services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications. For purposes of the commentary to be furnished above, the Bidder shall note that standards for workmanship, material and goods, and references to brand names or catalogue numbers designated by the Purchaser in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specification along with the certificates/ documents as specified in the Scope of Work and Technical Specifications Part C, para 1.0 Scope of Work (xix)
  - (s) Non-manufacturer biddersin respect of DWLR and telemetry will submit the manufacturer's authorization Form as per Proforma in Section XIX
  - (t) Tender document duly signed in all pages, scan and submit online along with above.
  - (u) Duly Signed copy of Integrity Pact as per format in Section XIV

2.10	Bidders have the option to submit the documents listed above in Clause 2.9 online only. In
	addition, original EMD & Tender Fee to be submitted to Superintending Engineer, Central Ground
	Water Board, Bhujal Bhawan, NH-IV Faridabad, Haryana 121001on or before deadline of tender
	submission.
	Note: Documents listed above at Clause 2.9 are to be mandatorily submitted online along
	with the bid.
2.11	Deleteds
2.12	Non-submission of any document listed in clause 2.9 & 2.10 above, will lead to rejection of the bid
	of the bidder.
2.13	The eligibility of the bidder shall be decided only as per Section-II Clause 2 Eligibility Criteria of
	Bidder (Clause 2.1 to 2.12), irrespective of whatsoever elsewhere is mentioned in the tender
	document.
3	Cost of Bidding Document/ Tendering Expense
3.1	The tenderer shall bear all costs and expenditure incurred and/ or to be incurred by it in connection
	with its tender including preparation, mailing and submission of its tender and for subsequent
	processing the same. The Employer will, in no case be responsible or liable for any such cost,
	expenditure regardless of the conduct or outcome of the tendering process.
4	One Bid per Bidder
4.1	Each bidder shall submit only one bid either by himself or as a partner in a Joint Venture.
5	Site Visit
5.1	The bidder is advised to visit and examine the site of work and its surroundings and obtain for itself
	on its own responsibility all information that may be necessary for preparing the Bid and entering
	into a contract for construction of the wells. The costs of visiting the site shall be at the bidder's
	own expense.
6	Contents of Bidding Documents

6.1	In addition to S	Section I: "Notice inviting Tender" (NIT) the tender enquiry documents include:
6.1	Section II:	Instructions to Bidders (ITB)
	Section III:	General Conditions of Contract (GCC)
	Section IV:	` ,
	Section V:	Special Conditions of Contract (SCC) Scope of Work and Technical Specifications
	Section VI:	Tentative List of Locations
	Section VII:	Bill of Quantities and Summary of Packages
	Section VIII:	Formats for Submission of Data
	Section VIII.	Drawings
	Section X:	Bidding Data
	Section XI:	Formats for Qualification Information
	Section XII:	Bank Guarantee Form for EMD
	Section XIII:	Bank Guarantee Form for Performance Security
	Section XIV:	Tender Acceptance Form
	Section XV:	Instructions for Online Submission of Tenders
	Section XVI:	
		Safety Code  Model Dules for the Protection of Health and Sonitory Arrangement for Workers
	Section XVII:	Model Rules for the Protection of Health and Sanitary Arrangement for Workers
	Section XVIII:	Contractor's Labour Regulations
	Section XIX:	Checklist.
	Section XX:	Contract form.
7	Pre-Bid Meeti	ng and Clarification of Bidding Documents
7.1	The bidder or I	his official representative is invited to attend a pre-bid meeting which will take place
	at Central Grou	und Water Board, Bhujal Bhawan, NH-IV Faridabad, Haryana 121001 on <b>at</b>
	hours.	
7.2	The purpose of	of the meeting will be to clarify issues and to answer questions on any matter that
	may be raised	at that stage.
7.3	The bidder is r	requested to submit any questions in writing/ FAX/e-mail to reach the Employer not
	later than " <u>Dea</u>	dline for seeking further information/ clarifications through email".
7.4	Any modification	on of the bidding documents listed in Clause 6.1 which may become necessary as a
	result of the pr	re-bid meeting shall be made by the Employer exclusively through the issue of an
	Addendum/ Co	orrigendum and the same will be available in the web site and not through the
	minutes of the	pre-bid meeting.
7.5	·	uiring any clarification or elucidation on any issue of the tender enquiry documents
	· ·	ne same with the Employer in writing or by fax/ e-mail provided that such request is
	•	ne critical date mentioned in Para 2 of Section I (Notice Inviting Tenders). The
		publish the response to such queries on CPP portal prior to the prescribed date of
	submission of t	tender.

7.6	To assist in the examination, evaluation and comparison of bids, the Employer may at its discretion, ask any bidder for clarification of its bid, including breakdown of unit, rate. The request for clarification and the response shall be in writing, but no change in the price or substance of the bid shall be sought or offered or permitted.
8	Amendments to Bidding Documents
8.1	At any time prior to the deadline for submission of tenders, the Employer may, for any reason deemed fit by it, modify the tender enquiry documents by issuing suitable amendment(s) to it.
8.2	Such an amendment will be notified through website <a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a> and will be binding on them. The tenderers are advised to visit this website from time to time till the bid submission end date and take note of amendment(s) before uploading their tender.
8.3	In order to provide reasonable time to the prospective tenderers to take necessary action in preparing their tenders as per the amendment, the Employer may, at its discretion extend the deadline for the submission of tenders and other allied time frames, which are linked with that deadline.
9	Language of the Bid
9.1	The tender submitted by the tenderer and all subsequent correspondence and documents relating
	to the tender exchanged between the tenderer and the Employer, shall be written in the English language.
9.2	The tender submitted by the tenderer and all subsequent correspondence and documents relating
	to the tender exchanged between the tenderer and the Employer, may also be written in the Hindi
	language, provided that the same are accompanied by English translation, in which case, for purpose of interpretation of the tender, the English translations shall prevail.
10	Bid Prices
10.1	Unless stated otherwise in the bidding document, the contract shall be for the whole Work based
	on the unit rates and prices in the Bill of Quantities submitted by the bidder.
	The bidder shall fill in rates for all items of the Work described in the Bill of Quantities in financial bid. The rate filled in POO against the item wise should be evaluative of tay (CST) The CST is at
	bid. The rate filled in BOQ against the item wise should be exclusive of tax (GST). The GST is at 18% as on date of uploading the tender through CPPP.
	<b>Note</b> : Bidders are requested not to fill any rates in the technical bid section otherwise the bid will summarily be rejected.

10.2	Prices payable to the Contractor as stated in the contract are firm and not subject to adjustment during the performance of the contract. Prices quoted in rate should be cost per unit against each item in BOQ without GST.
	The actual Tax GST amount as applicable shall be reimbursed to the contractor only after
	producing the following proof of tax amount paid to Government (i) A copy of GSTR-1, (ii) A copy
	of GSTR- 3B, (iii) CA certificate indicating details of invoices against which the payment under
	GSTR-3B has been made and any other relevant document.
	Service has assirmade and any outer relevant assument.
11	Currency of Bid and Payment
11.1	The tenderer shall quote only in Indian Rupees.
12	Bid Validity
12.1	If not mentioned otherwise in the ITB, the tenders shall remain valid for acceptance for a period of 120 days (one hundred and twenty days) after the date of tender opening prescribed in the tender document. In case the last date of submission of bid has been extended, 120 days shall be counted from extended date. Any tender valid for ashorter period shall be treated as unresponsive and rejected.
12.2	If any tenderer withdraws his tender before the said period, then the Employer shall, without prejudice to any other right or remedy, be at liberty to forfeit the said Earnest Money.
12.3	In exceptional cases, the tenderers may be requested by the Employer to extend the validity of
	their tenders up to a specified period. Such request(s) and responses thereto shall be conveyed by
	post or by fax/ email followed by post. The tenderers, who agree to extend the tender validity, are
	to extend the same without any change or modification of their original tender and they are also to
	extend the validity period of the EMD accordingly. A tenderer, however, may not agree to extend its tender validity without forfeiting its EMD.
12.4	In case the day up to which the tenders are to remain valid falls on/ subsequently declared a
	holiday or closed day for the Employer, the tender validity shall automatically be extended up to the next working day.
13	Bid Security/ Earnest Money Deposit (EMD)
13.1	Pursuant to ITB clauses 6.1 the tenderer shall furnish along with its tender, earnest money for
	amount as shown in the NIT. The earnest money is required to protect the Employer against the
	risk of the tenderers unwarranted conduct as amplified under sub-clause 13.7 below.
12.2	The earnest money shall be denominated in Indian Rupees.
13.2	The earnest money shall be denominated in indian Rupees.

The earnest money shall be furnished in one of the following forms: 13.3 (a) Account Payee Demand Draft (b) Fixed Deposit Receipt (c) Banker's cheque and (d) Bank Guarantee The demand draft, fixed deposit receipt or banker's cheque shall be drawn on any commercial bank in India, in favour of the authority specified in the Para 5 of NIT. In case of bank guarantee, the same is to be provided from any commercial bank in India as per the format specified under Section XII in these documents. The earnest money shall be valid for a period of 60 (sixty) days beyond the validity period of the 13.5 tender. Unsuccessful tenderers' earnest money will be returned to them without any interest, after expiry of 13.6 the tender validity period, but not later than 30 days after conclusion of the resultant contract. Successful tenderers earnest money will be returned without any interest, after receipt of performance security from that tenderer. Earnest money of a tenderer will be forfeited, if the tenderer withdraws or amends its tender or 13.7 impairs or derogates from the tender in any respect, withdraws its tender, or fails to sign the contract within the period of validity of its tender. The successful tenderers earnest money will be forfeited if it fails to furnish the required performance security within the specified period. 14 Bid Submission CPP Tenders shall received online only the website portal 14.1 be at http://eprocure.gov.in/eprocure/app. All the scanned copies of documents comprising the bid shall be serially numbered and mentioned in the checklist provided in section XIX which should be the first document of the bid. The hard copy of the technical bid with all documents uploaded online shall be sent through 14.2 registered post/ courier/ by hand so as to reach the Employer within the date of opening of technical bidto facilitate tender evaluation process as sometimes the scanned copies of documents are not legible. In case any discrepancy is observed between the text of the original copy uploaded online and that in the hard copy of the same tender set submitted by registered/ speed post/ courier/ by hand, the text of the uploaded copy shall prevail. The tenderer, after submitting its tender, is permitted to alter/ modify its tender within the deadline 14.3 for submission of tender through online only.

No tender should be withdrawn after the deadline for submission of tender and before expiry of the 14.4 tender validity period. If a tenderer withdraws the tender during this period, it will result in forfeiture of the earnest money furnished by the tenderer in its tender. Documents Comprising the Tender 14.5 The tender to be submitted by tenderer shall contain the following documents, duly filled in, as required: Cover 1 (Technical Bid) (a) Scanned copy of Tender Fee and EMD (b) Documentary evidence, as necessary in terms of clauses 2 and 16.3 establishing that the tenderer is eligible to submit the tender and, also, qualified to perform the contract if its tender is accepted. (c) Tender Acceptance Letter (d) Scanned copy of GST Registration/ TIN/ TAN/ PAN (e) Mandate form as per prescribed format for electronic clearing service. Cover 2 (a) Financial Bid. Note: (1) Only rates without GST against each item in BOQ shall be filled up. The GST @ 18% taken at the time of tender publishing in CPPP. (2) All BOQs will be evaluated put together as a single package. The bids will be summarily rejected if the bidder does not quote for all the BOQ's of the Package. If the bidder does not quote rate for any item of the BOQ, it will be deemed to be covered under the total cost of the BOQ. A tender, which does not fulfil any of the above requirements and/ or gives evasive information/ 14.6 reply against any such requirement, shall be liable to be ignored and rejected. The tender shall either be typed or written in indelible ink and the same shall be signed by the 14.7 tenderer or by a person(s) who has been duly authorized to bind the tenderer to the contract. The letter of authorization shall be by a written power of attorney, which shall also be furnished along with the tender.

The tender shall be duly signed at the appropriate places as indicated in the tender documents and

all other pages of the tender including printed literature, if any shall be initialled by the same person(s) signing the tender. The tender shall not contain any erasure or overwriting, except as necessary to correct any error made by the tenderer and, if there is any such correction; the same

#### 15 | Bid Opening

14.8

shall be initialled by the person(s) signing the tender.

The Employer will open the tenders at the specified date and time and at the specified place as indicated in the Para 2 of NIT (Section I).

In case the specified date of tender opening falls on/ is subsequently declared a holiday or closed day for the Employer, the tenders will be opened at the appointed time and place on the next working day.

The bidders will be at liberty to be present either in person or through an authorised representative, who must carry 'Bid Acknowledgement Receipt', at the time of opening of bid or can view the bid opening event online at their remote end.

The tender opening official(s) will prepare a list of the representatives attending the tender opening. The list will contain the representatives' names and signatures and corresponding tenderers' names and addresses.

The technical bids through online in CPPP shall be opened in the first stage, at the prescribed time and date. These bids shall be scrutinized and evaluated by the competent committee/ authority with reference to parameters prescribed in the tender document. Thereafter, in the second stage, the financial bids of only the technically acceptable offers (as decided in the first stage) shall be opened for further scrutiny and evaluation.

Note: No bidders shall write the amount in anywhere in technical bid. If so the bid will be treated as non responsive and rejected such bids.

16 Examination of Bids and Determination of Responsiveness

#### **16.1** | Scrutiny and Evaluation of Tenders

Tenders will be evaluated on the basis of the terms and conditions already incorporated in the tender enquiry document, based on which tenders have been received and the terms, conditions mentioned by the tenderers in their tenders. No new condition will be brought in while scrutinizing and evaluating the tenders.

#### **16.2** Preliminary Scrutiny of Tenders

The tenders will first be scrutinized to determine whether they are complete and meet the essential and important requirements, conditions as prescribed in the tender enquiry document. The tenders that do not meet the basic requirements are liable to be treated as unresponsive and ignored.

The following are some of the important aspects, for which a tender may be declared unresponsive and ignored:

- (a) Tender is unsigned.
- (b) Tenderer is not eligible.
- (c) Tender validity is shorter than the required period.
- (d) Required Tender Fee and EMD have not been provided.
- (e) Tenderer has not agreed to give the required performance security.
- (f) Tenderer has not agreed to essential condition(s) specially incorporated in the tender enquiry.

#### **16.3** Documents Establishing Tenderer's Eligibility and Qualifications

The documentary evidence needed to establish the tenderer's qualifications shall fulfil the following requirements:

- (a) Self attested copy in respect of valid registration/ enlistment with relevant authorities as mentioned in clause 2.2.
- (b) Audited Balance Sheet of last three financial years (i.e., 2019-20, 2020-21, 2021-22)
- (c) Self attested copy of 'Acceptance of Tender'/ 'Notice of Award'/ 'Contract' of similar works, as defined in clause 2.4, during the last seven years (ending on the last day of the month previous to the one in which the tenders are invited) and 'Work Completion Certificate' from the Employer for those works/ documents establishing receipt of payment for such works.
- (d) List of wells constructed by the contractor where depth of pilot hole drilling is 200 m (for soft rock/ alluvial formation) or more with supporting documents in the format prescribed in Section XI(4).
- (e) List of wells constructed by the contractor where depth of drilling is 200 m and above (hard rock/ boulder formation) or more with supporting documents in the format prescribed in Section XI(4).
- (f) All the documents as mentioned in the clause 2.9

#### **16.4** Tenderers Capability to Perform the Contract

The Employer, through the above process of tender scrutiny and tender evaluation will determine to its satisfaction whether the tenderer, whose tender has been determined as the lowest evaluated responsive tender is eligible, qualified and capable in all respects to perform the contract satisfactorily.

The above mentioned determination wills, interalia, take into account the tenderers financial, technical and execution capabilities for satisfying all the requirements of the Employer as incorporated in the tender document. Such determination will be based upon scrutiny and examination of all relevant data and details submitted by the tenderer in its tender as well as such other allied information as deemed appropriate by the Employer.

#### **16.6** | Contacting the Employer

From the time of submission of tender to the time of awarding the contract, if a tenderer needs to contact the Employer for any reason relating to this tender enquiry and/ or its tender, it should do so only in writing.

In case a tenderer attempts to influence the Employer in the Employer's decision on scrutiny, comparison and evaluation of tenders and awarding the contract, the tender of the tenderer shall be liable for rejection in addition to appropriate administrative actions being taken against that tenderer, as deemed fit by the Employer.

#### 17 | Award Criteria

17.1	Subject to ITB clause 17.2, the contract will be awarded to the lowest evaluated responsive tenderer decided by the Employer. All BOQs will be evaluated put together as a single package. The bids will be summarily rejected if the bidder does not quote for all the BOQ's of the Package. If the bidder does not quote rate for any item of the BOQ, it will be deemed to be covered under the total cost of the BOQ's.  Employer's Right to Accept Any Tender and to Reject Any or All Tenders
	The Employer reserves the right to accept in part or in full any tender or reject any tender without assigning any reason or to cancel the tendering process and reject all tenders at any time prior to award of contract i.e. signing of contract, without incurring any liability, whatsoever to the affected tenderer or tenderers.
17.3	Variation of Quantities at the Time of Award and during the execution of work  At the time of awarding of contract and during the execution of work, the Employer reserves the right to increase or decrease, the quantities of works maximum up to 20% without any change in the unit price and other terms and conditions quoted by the tenderer.
18	Notification of Award and Signing of Agreement
18.1	Before expiry of the tender validity period, the Employer will notify the successful tenderer(s) in writing, by registered/ speed post or by email/ fax (to be confirmed by registered/ speed post) that its tender for works, also briefly indicating there in the essential details like description, specification and quantity of the works and related services and corresponding prices are accepted. The successful tenderer must furnish to the Employer the required performance security within 21 days from the date of issue of letter of acceptence. Relevant details about the performance security have been provided under GCC Clause 3 under Section III.
18.2	Issue of Contract  Promptly after notification of award, the Employer will mail the contract form (as per Section XX) along with bank guarantee form in duplicate, to the successful tenderer by registered/ speed post.
18.3	Within 21 (twenty-one) days from the date of the contract notification, the successful tenderer will return the original copy of the contract, duly signed and dated, to the Employer by registered/speed post.
18.4	Non-Receipt of Performance Security and Contract by the Employer  Failure of the successful tenderer in providing performance security and/ or returning contract copy duly signed in terms of ITB clause 18.1, 18.2 and 18.3 above shall make the tenderer liable for forfeiture of its EMD and, also, for further actions by the Employer against it.
18.5	Failure of the successful Tenderer to furnish the performance Security shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid security, in which event the employer may make the award to the next lowest evaluated Tenderer or call for new tenders.

18.6	Return of E M D
	The earnest money of the successful tenderer and the unsuccessful tenderers shall be returned to
	them without any interest, whatsoever, in terms of ITB Clause 13.6.
18.7	Publication of Tender Result
	The result of technical evaluation, financial evaluation and award of contract shall be uploaded on
	CPP portal.
	or i portai.
10	Dispute Resolution Mechanism
19	•
19.1	The method of dispute resolution is as indicated in the bidding document.
20	Corrupt and Fraudulent Practices
20.1	It is expected that bidders/suppliers/contractors under this contract observe the highest standard of
	ethics during the procurement and execution of this contract. In pursuance of this policy, the
	employer
	(a) Defines for purpose of these provisions, the terms set forth below as follows:
	i. 'Corrupt practice' means the offering, giving, receiving or soliciting of any thing of
	value to influence the action of a public official in the procurement process or in
	contract execution, and
	ii. 'Fraudulent practice' means a misrepresentation of facts in order to influence a
	procurement process or the execution of a contract to the detriment of the employer,
	and includes collusive practice among Bidders (prior to or after bid submission)
	designed to establish bid process at artificial non-competition levels and to deprive the
	employer of the benefits of free and open competition.  (b) Will reject a proposal for award of work if he determines that the bidder recommended for
	award has engaged in corrupt or fraudulent practices in competing for contract in question.
	Bidders shall be aware of the provision stated in clause 4.3 of the general condition of the contract.
	bladers shall be aware of the provision stated in clause 4.5 of the general condition of the contract.
21	This Tender can be Cancelled/Withdrawn any time without assigning any reasons
	to bidders/ tenderers

**SECTION-III** 

GENERAL CONDITIONS
OF
CONTRACT
(GCC)

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		SECTION- III
Ī		GENERAL CONDITIONS OF CONTRACT
	1	Definition and Interpretation
	1.1	Definition

In this Contract, unless the context requires otherwise, the following terms shall have the meaning ascribed to them hereunder:

- (i) Works or work means the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional.
- (ii) **Site** means the land/or other places on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.
- (iii) The Contractor means the individual, firm or company, whether incorporated or not, undertaking the works and includes the legal representative of such individual, or the successors of such firm or company and the permitted assignees of such individual, firm or company.
- (iv) The expression **President**, Government or Government of India means the President of India and his successors in office.
- (v) The contract agreement is being carried out through the Chairman, CGWB on behalf of the President of India,.
- (vi) The **Employer** means Superintending Engineer, CGWB acting on behalf of the Chairman, CGWB
- (vii) The **Engineer in charge** who is a representative of the Executive Engineer, concerned Division, CGWBshall supervise the work.
- (viii) Accepting Authority means the authority mentioned in Bidding Data.
- (ix) Accepted Risks are risks due to riots (other than those on account of contractor's employees),war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion, revolution, insurrection, military or usurped power, any acts of Government, damage from aircraft, acts of God such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting Authority or causes solely due to use or occupation by Government of the part of the works in respect of which a certificate of completion has been issued or a cause solely due to Employer's faulty design of works.
- (x) **Market Rate** shall be the rate as decided by the Employer on the basis of the cost of materials and labour at the site where the work is to be executed plus the percentage mentioned in Bidding Data to cover all overheads and profits.
- (xi) **Schedule(s)** referred to in these conditions shall mean the relevant schedule(s) annexed to the bid papers or the standard Schedule of Rates of the Government mentioned in Bidding Data hereunder, with the amendments thereto issued up to the date of receipt of the bid.
- (xii) Bid Amount means the value of the entire work as stipulated in the letter of award.
- (xiii) Employer site representative means Hydrogeologist of the Regional office & Engineer of the Divisional office, nominated by concern Regional Director of

#### **CGWB**

(xiv) **GST** shall mean Goods and Service Tax - Central, State and Inter State.

#### 1.2 Interpretation

- (i) The Contract means and includes the documents forming the bids and acceptance thereof and the formal agreement executed between the competent authority on behalf of the President of India and the bidders, together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Employer and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.
- (ii) Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.
- (iii) Headings and Marginal notes to these General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.
- (iv) The original Contract shall remain with the Employer. The contractor shall be furnished, free of cost one certified copy of the contract documents together with all drawings as may be forming part of the bidding documents except standard specifications, Schedule of Rates and similar other printed and published documents. None of these documents shall be used for any purpose other than that of this contract.

#### 1.3 Discrepancies & Adjustment of Errors

The several documents forming Contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and special conditions in preference to General Conditions.

In the case of discrepancy between the schedule of Quantities, the Specifications and/or the Drawings, the following order of preference shall be observed:

- (i) Description of Schedule of Quantities.
- (ii) Particular Specification and Special Condition, if any.
- (iii) Drawings.
- (iv) Technical Specifications.
- (v) Indian Standard Specifications of B.I.S.

If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the Contractor.

Any error in description, quantity or rate in Schedule of Quantities or any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract.

#### 1.4 Sufficiency of Tender

The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender information for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the works.

#### 1.5 | Signing of Contract

The successful bidder, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign and execute the Contract consisting of:

- (i) the invitation for bids, all the documents including drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto, and
- (ii) Standard Form as mentioned in Bidding Data consisting of:
  - a) Various standard clauses with corrections up to the date along with annexure thereto.
  - b) Safety Code.
  - c) Model Rules for the protection of health, sanitary arrangements for workers employed; and
  - d) Contractor's Labour Regulations.

#### 1.6 Works to be carried out

The work to be carried out under the Contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the Schedule of Quantities shall, unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good industry practice and recognized principles.

#### 2 General Obligations

# 2.1 Work not to be Sublet and Action in Case of Insolvency or Attempt to influence contract:

The contract shall not be assigned or sublet without the prior written approval of the Employer. If the contractor shall assign or sublet his contract, or attempt to do so, or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so, or if any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or otherwise, shall either directly or indirectly, before or after the execution of the contract be given, promised or offered by the contractor, or any of his servants or agent or associate to any public officer or person in the employ of Government in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Employer shall have power to adopt the course specified in Clause 8.3 hereof in the interest of Government and in the event of such course being adopted, the consequences specified in the said Clause

shall ensue.

#### 2.2 Changes in Contractor's organization to be approved:

Where the contractor is a partnership firm, the previous approval in writing of the Employer shall be obtained before any change is made in the constitution of the firm. Where the Contractor is an individual or a Hindu undivided family business concern such approval as aforesaid shall likewise be obtained before the Contractor enters into any partnership agreement where-under the partnership firm would have the right to carry out the works undertaken by the Contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of Clause 2.1 hereof and the same action may be taken, and the same consequences shall ensue as provided in the said Clause.

#### 2.3 | Contractor to Indemnify Government Against Patent Rights:

The Contractor shall fully indemnify and keep indemnified the Employer against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights or Intellectual Property Rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claims made under or action brought against the Employer, in respect of any such matters as aforesaid, the contractor shall be notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise there from, provided that the contractor shall not be liable to indemnify the Employer if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Employer in this behalf.

#### 2.4 Withholding and Lien in Respect of Sums Due from Contractor:

(i) Whenever any claim or claims for payment of a sum of money arises out of or under the contractor against the contractor, the Employer or the Government shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any deposited by the contractor and for the purpose aforesaid, the Employer or the Government shall be entitled to withhold the security deposit, if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, the Employer or the Government shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which may at any time thereafter become payable to the contractor under the same contract or any other contract with the Employer or the Government or any contracting person through the Employer pending finalization of adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Employer or Government will be kept withheld or retained as such by the Employer or Government till the claim arising out of or under the contract is determined by the arbitrator (if the contract is governed by the arbitration clause) or by the competent court, as the case may be

and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the Employer or the Government shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company as the case may be, whether in his individual capacity or otherwise.

(ii) Government shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract, etc., to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over-payment and it shall be lawful for Government to recover the same from him in the manner prescribed in sub-clause (i) of this clause or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by Government to the contractor, without any interest thereon whatsoever.

Provided that the Government shall not be entitled to recover any sum overpaid, nor the contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between Employer on the one hand and the contractor on the other under any term of the contract permitting payment for work after assessment by the Employer.

Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Employer or the Government or any other contracting person or persons through Employer against any claim of the Employer or Government or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Employer or the Government or with such other person or persons.

It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Employer or the Government will be kept withheld or retained as such by the Employer or the Government or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration clause or by the competent court, as the case may be and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

#### 2.5 | Levy/ Taxes Payable By The Contractor:

(i) GST, Building and other Construction Workers Welfare Cess or any other tax, levy or Cess in respect of input for or output by this contract shall be payable by the contractor and Government shall not entertain any claim whatsoever in this respect.

- (ii) The Contractor shall deposit royalty and obtain necessary permit for supply of the materials from local authorities.
- (iii) If pursuant to or under any law, notification or order any royalty, cess or the like becomes payable by the Employer and does not any time become payable by the contractor to the State Government or Local authorities in respect of any material used by the contractor in the works then in such a case, it shall be lawful to the Employer and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from the dues of the contractor.

#### 2.6 Conditions for Reimbursement of Levy/ Taxes, if Levied after Receipt of Tenders

All tendered rates shall be inclusive of all taxes (Excluding GST) and leviespayable under respective statutes.

However, pursuant to the Constitution (46th Amendment) Act, 1982, if any further tax or levy is imposed by Statute, after the last stipulated date for the receipt of tender including extensions if any and the contractor thereupon necessarily and properly pays such taxes/levies, the contractor shall be reimbursed the amount so paid, provided such payment, if any, is not, in the opinion of the Employer (whose decision shall be final and binding on the contractor) attributable to delay in execution of work within the control of the contractor.

The contractor shall keep books of accounts and other documents for the purpose of this condition as may be necessary to clearly arrive at such amounts and shall allow inspection of the same by a duly authorized representative of the Employer and further shall furnish such other information/ document as the Employer may require from time to time.

#### 2.7 | Relative Working in the Department:

The Contractor shall not be permitted to tender for works with the Employer office in which his near relative is posted as Divisional Accountant or as an officer in any capacity as Engineer. He shall also intimate the names of persons who are near relatives to any Gazetted Officer in the department or in the Ministry who are working with him in any capacity or are subsequently employed by him. Any breach of this condition by the Contractor shall render him liable to be removed from the approved list of contractors of the Department. If, however, the contractor is registered in any other department, he shall be debarred from tendering for any breach of this condition.

NOTE: By the term "near relatives" is meant wife, husband, parents and grandparents, children and grand children, brothers and sisters, uncles, aunts and cousins and their corresponding in-laws.

#### 2.8 Prohibition to Work as Contractor

No engineer of gazetted rank or other gazetted officer employed in engineering or administrative duties in an engineering department of the Government of India shall work as a Contractor or employee of a Contractor for a period of two years after his retirement from government service without the previous permission of Government of India in writing. This contract is liable to be cancelled if either the Contractor or any of his employees is found at any time to be such a person who had not obtained the permission of Government of India as aforesaid, before submission of the tender or engagement in the contractor's service, as the case may be.

#### 2.9 Provisions of the Apprentices Act to be Complied with

The Contractor shall comply with the provisions of the Apprentices Act, 1961 and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Employer may, in his discretion, cancel the contract. The Contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

#### 3.0 | Security for performance:

#### 3.1 Performance Guarantee:

- (i) The Contractor shall submit an irrevocable Performance Guarantee of 10% (Ten percent) of the tendered amount in addition to other deposits mentioned elsewhere in the contract for his proper performance of the Contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within 21 days of issue of letter of Acceptence. This period can be further extended by the Employer up to a maximum period of 7 days on written request of the contractor stating the reason for delays in procuring the Bank Guarantee, to the satisfaction of the Employer. This guarantee shall be in the form of Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or State Bank India in accordance with the form annexed hereto. In case a fixed deposit receipt is furnished by the contractor to the Government as part of the performance guarantee and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the Government to make good the deficit.
- (ii) A letter of intent shall be issued in the first instance information the successful tenderer of the decision of the competent authority to accept his tender and the award letter shall be issued only after the Performance Guarantee in any of the prescribed form is received. In case of failure by the contractor to furnish the performance guarantee within the specified period, Government shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money absolutely.
- (iii) The Performance Guarantee shall be initially valid up to the stipulated date of completion plus 12months beyond that. In case the time for completion of work gets enlarged, the Contractor shall get the validity of Performance Guarantee extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the contractor, without any interest.
- (iv) The Employer shall not make a claim under the performance guarantee except for amounts to which the President of India is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the Contract agreement) in the event of:
  - a) Failure by the Contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Employer may claim the full amount of the Performance Guarantee.
  - b) Failure by the Contractor to pay President of India any amount due, either as agreed by the contractor or determined under any of the Clauses/ Conditions of the

Contract, within 30days of the serving of notice to this effect by Employer.

(v) In the event of the Contract being determined or rescinded under provision of any of the Clause/ Condition of the agreement, the performance guarantee shall stand forfeited in full and shall be absolutely at the disposal of the President of India, the employer.

#### 3.2 | Recovery of Security Deposit:

Deleted

#### 4 Execution of Work

#### 4.1 Works To Be Executed In Accordance With Specifications, Drawings, Orders Etc.:

The Contractor shall execute the whole and every part of work i.e. all items of BOQ in the most substantial and workmanlike manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The Contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work signed by the Employer and the Contractor shall be furnished free of charge one copy of the contract documents together with specifications, designs, drawings and instructions as are not included in the standard specifications specified in Bidding Data or in any Bureau of Indian Standard or any other, published standard or code or, Schedule of Rates or any other printed publication referred to elsewhere in the contract.

The contractor shall comply with the provisions of the contract and with the care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract. The Contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction.

#### 4.2 Deviations/Variations Extent and Pricing:

The Employer shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the Contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Employer and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the Contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the Contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.

The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, be extended, if requested by the Contractor, as follows:

- (i) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus
- (ii) 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Employer.

In the case of extra item(s) the Contractor may within fifteen days of receipt of order or occurrence of the item(s) claim rates, supported by proper analysis, for the work and the Employer shall within one month of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the Contractor, determine the rates on the basis of the market rates and the Contractor shall be paid in accordance with the rates so determined.

In the case of substituted items, the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the aforesaid para.

- (i) If the market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted) the rate payable to the Contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).
- (ii) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted) the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).

In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in Bidding Data, the contractor may within 15 days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis, for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities the Employer shall within **one** month of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the limits laid down in Bidding Data, and the Employer shall after giving notice to the contractor within **one** month of occurrence of the excess and after taking into consideration any reply received from him within 15 days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of 15 days having regard to the market rates.

The Contractor shall send to the Employer once every 3 months an up to date account giving complete details of all claims for additional payments to which the Contractor may consider himself entitled and of all additional work ordered by the Employer which he has executed during the preceding quarter failing which the Contractor shall be deemed to have waived his right. However, the Employer may authorize consideration of such claims on merits.

#### 4.3 Action in Case Work not Done as per Specifications:

All works under or in course of execution or executed in pursuance of the contract shall at all times be open and accessible to the inspection and supervision of the Employer, his authorized subordinates incharge of the work and all the superior officers, officer of the Quality Control Organization of the Department and of the Chief Technical Examiner's Office, and the Contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the Contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the Contractor himself.

If it shall appear to the Employer or his authorized subordinates in-charge of the work or to the Engineer in charge of Quality Control or his subordinate officers or to the Chief Technical Examiner or his subordinate officers, that any work has been executed with unsound, imperfect, or unskilful workmanship, or with materials or articles provided by him for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract the Contractor shall, on demand in writing which shall be made within 6 months of the completion of the work from the Employer specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of the failing to do so within a period specified by the Employer in his demand aforesaid, then the Contractor shall be liable to pay compensation at the same rate as under clause 8.2 of the contract (for noncompletion of the work in time) for this default.

In such case the Employer may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates as the competent authority may consider reasonable during the preparation of on account bills or final bill if the item is so acceptable without detriment to the safety and utility of the item and the structure or he may reject the work outright without any payment and/or get it and other connected and incidental items rectified, or removed and re-executed at the risk and cost of the Contractor. Decision of the Employer to be conveyed in writing in respect of the same will be final and binding on the Contractor.

#### 4.4 Contractor Liable For Damages, Defects During Defects liability period:

The work or any part is being executed, or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within the period as specified in the Bidding Document after a certificate final or otherwise of its completion shall have been given by the Employer as aforesaid arising out of defect or improper materials or workmanship the Contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense or in default the Employer cause the same to be made good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the Contractor, or **from his security deposit or the proceeds of sale thereof** or of a sufficient portion thereof. The security deposit of the Contractor shall not be refunded before the expiry defects

liability period after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later.

#### 4.5 Contractor Shall Supply Tools & Plants, etc. :

The Contractor shall provide at his own cost all materials, plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specifications or other documents forming part of the contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Employer as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage thereof to and from the work. The Contractor shall also supply without charge the requisite number of persons with the means and materials, necessary for the purpose offsetting out works, and counting, weighing and assisting the measurement for examination at any time and from time to time of the work or materials. Failing his so doing, the same may be provided by the Employer at the expense of the Contractor and the expenses may be deducted, from any money due to the Contractor, under this contract or otherwise and/or from his security deposit or the proceeds of sale thereof, or of a sufficient portions thereof.

#### 4.6 | Employment of Technical Staff and Employees:

Contractors Superintendence, Supervision, Technical Staff & Employees

(i) The contractor shall provide all necessary superintendence during execution of the work and all along thereafter as may be necessary for proper fulfilling of the obligations under the contract. The contractor shall immediately after receiving letter of acceptance of the Bid and before commencement of the work, intimate in writing to the Employer the name(s), qualifications, experience, age, address(s) and other particulars along with certificates of the principal technical representative to be in charge of the work and other technical representative(s) who will be supervising the work. Minimum requirement of such technical representative(s) and their qualifications and experience shall not be lower than specified in Bidding Document. The Employer shall within 3 days of receipt of such communication intimate in writing his approval or otherwise of such representative(s) to the contractor. Any such approval may at any time be withdrawn and in case of such withdrawal, the contractor shall appoint another such representative(s) according to the provisions of this clause. Decision of the bid accepting authority shall be final and binding on the contractor in this respect. Such a principal technical representative and other technical representative(s) shall be appointed by the contractor soon after receipt of the approval from Employer and shall be available at site before start of work. All the provisions applicable to the principal technical representative under the clause will also be applicable to other technical representative(s). The principal technical representative and other technical representative(s) shall be present at the site of work for supervision at all times when any construction activity is in progress and also present himself/themselves, as required, to the Employer and/or his designated representative to take instructions. Instructions given to the technical representative(s) shall be deemed to have the same post as if these have been given to the contractor. The principal technical representative(s) shall be actually available at site fully during all stages of execution of work, during recording/checking/test checking of measurement of works and whenever so required by the Employer and shall also note down instructions conveyed by the Employer or his designated representative(s) in the Site Order Book and shall affix his/their signature(s) in token of noting down the instructions and in token of acceptance of measurements/ checked measurements/ test checked measurements. The representative(s) shall not look after any other work. Substitutes, duly approved by Employer of the work in similar manner as aforesaid shall be provided in event of absence of any of the representative(s) by more than two days. If the Employer, whose decision in this respect is final and binding on the contractor, is convinced that no such technical representative(s) is/are effectively appointed or/is/are effectively attending or fulfilling the provision of this clause, a recovery (non-refundable) shall be effected from the contractor as specified in Bidding Data and the decision of the Employer as recorded in the Site Order Book and measurements recorded, checked/test checked in Measurement Books shall be final and binding on the contractor. Further if the contractor fails to appoint a suitable principal technical representative and/or other technical representative(s) and if such appointed persons are not effectively present or are absent by more than two days without duly approved substitute or do not discharge their responsibilities satisfactorily, the Employer shall have full powers to suspend the execution of the work until such date as a suitable other technical representative(s) is/are appointed and the contractor shall be held responsible for the delay so caused to the work. The contractor shall submit a certificate of employment of the technical representative(s) along with every on account bill/final bill and shall produce evidence if at any time so required by the Employer.

- (ii) The contractor shall provide and employ on the site only such technical assistants as are skilled and experienced in their respective fields and such foremen and supervisory staff as are competent to give proper supervision to the work. The contractor shall provide and employ skilled, semiskilled and unskilled labour as is necessary for proper and timely execution of the work. The minimum strength of trained and certified workers shall be 5 % of the total strength employed. The accepted certification shall be granted by government authorize organizations.
- (iii) The Employer shall be at liberty to object to and require the Contractor to remove from the works any person who in his opinion misconducts himself, or is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by the Employer to be undesirable. Such person shall not be employed again at works site without the written permission of the Employer and the persons so removed shall be replaced as soon as possible by competent substitutes.

#### 5.0 | Materials and Machineries

#### 5.1 | Materials to be Provided by the Contractor :

(i) The Contractor shall, at his own expense, provide all materials, required for the works other than those which are stipulated to be supplied by the Employer.

The Contractor shall, at his own expense and without delay, supply to the Employer samples of materials to be used on the work and shall get these approved in advance. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the contract. The Contractor shall, if requested by the Employer furnish proof, to the satisfaction of the Employer that the materials so comply.

The Employer shall within 10 days of supply of samples or within such further period as he may require intimate to the Contractor in writing whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Employer for his approval fresh samples complying with the specifications laid down in the contract. When materials are required to be tested in accordance with specifications, approval of the Employer shall be issued after the test results are received.

The Contractor shall at his risk and cost submit the samples of materials to be tested or analysed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by the Employer. The Contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.

The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Employer may require for collecting, and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Employer and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The Employer or his authorized representative shall at all times have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the Contractor shall afford every facility and every assistance in obtaining the right to such access.

The Employer shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default, the Employer shall be at liberty to employ at the expense of the Contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Employer shall also have full powers to require other proper materials to be substituted thereof and in case of default, the Employer because the same to be supplied and all costs which may attend such removal and substitution shall be borne by the Contractor.

#### (ii) Mobilization advance

Mobilization advance not exceeding 10% of the tendered value may be given, if requested by the contractor in writing within one month of the order to commence the work. Such advance shall be in two or more installments to be determined by the Engineer-in- Charge at his sole discretion. The first installment of such advance shall be released by the Engineer-in-charge to the contractor on a request made by the contractor to the Engineer-in-Charge in this behalf. The second and subsequent installments shall be released by the Engineer-in- Charge only after the contractor furnishes a proof of the satisfactory utilization of the earlier installment to the entire satisfaction of the Engineer-in-Charge. Before any installment of advance is released, the contractor shall execute a Bank Guarantee Bonds not more than 6 in number from Scheduled Bank for the amount equal to 110% of the amount of advance and valid for the period till recovery of advance. This (Bank Guarantee from Scheduled Bank for the amount equal to 110% of the balance amount of advance) shall be kept renewed from time to time to cover the balance amount and likely period of complete recovery.

#### (iii) Interest & Recovery

The mobilization advance in (ii) above bear simple interest at the rate of 10 percent per annum and shall be calculated from the date of payment to the date of recovery, both days inclusive, on the outstanding amount of advance. Recovery of such sums advanced shall be made by the deduction from the contractors bills commencing after first ten percent of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross value of the work billed beyond 10% in such a way that the entire advance is recovered by the time eighty percent of the gross value of the contract is executed and paid, together with interest due on the entire outstanding amount up to the date of recovery of the installment.

If the circumstances are considered reasonable by the Engineer-in-Charge, the period mentioned in (ii) and (iii) for request by the contractor in writing for grant of mobilization advance may be extended at the discretion of the Engineer-in-Charge.

#### 5.2 Dismantled Material Government Property:

The Contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work, etc. as Government's property and such materials shall be disposed off to the best advantage of Government according to the instructions in writing issued by the Employer.

# 5.3 Arrangement for Water for Construction:

The contractor(s) shall make his/ their own arrangements for water required for the workand nothing extra will be paid for the same. This will be subject to the following conditions.

- (i) That the water used by the contractor(s) shall be fit for construction purposes to the satisfaction of the Engineer-in-Charge.
- (ii) The Engineer-in-Charge shall make alternative arrangements for supply of water at the risk and cost of contractor(s) if the arrangements made by the contractor(s) for procurement of water are in the opinion of the Engineer-in- Charge, unsatisfactory.

#### **5.4** Deleted

## 6.0 Measurement and Payment

#### 6.1 Measurements of Work Done:

Engineer in charge shall, except as otherwise provided, ascertain and determine by measurement the value in accordance with the contract of work done.

All measurement of all items having financial value shall be entered in Computerized Measurement Book and/or level field book so that a complete record is obtained of all works performed under the contract.

All measurements and levels shall be taken jointly by the Engineer in charge or his authorized representative and by the contractor or his authorized representative from time to time during the progress of the work and such measurements shall be signed and dated by the Engineer and the contractor or their representatives in token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties.

If for any reason the contractor or his authorized representative is not available and the

work of recording measurements is suspended by the Employer or his representative, the Employer shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorized representative does not remain present at the time of such measurements after the contractor or his authorized representative has been given a notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the Engineer in Charge or his representative shall be deemed to be accepted by the Contractor.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.

The Contractor shall give not less than seven days' notice to the Employer or his authorized representative in-charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Employer or his authorized representative in-charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice having been given or the Employer's consent being obtained in writing the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Employer or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the Contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

#### 6.2 Deleted

# 6.3 Completion Certificate And Completion Plans:

Within 10 days of the completion of the work, the Contractor shall give notice of such completion to the Employer and within 30 days of the receipt of such notice the Employer shall inspect the work and if there is no defect in the work, shall furnish the Contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates, shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall be executed all scaffolding, surplus

materials, rubbish and all huts and sanitary arrangements required for his/their work people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of the building, in, upon, or about which the work is to be executed or of which he may have had possession for the purpose of the execution thereof, and not until the work shall have been measured by the Employer. If the contractor shall fail to comply with the requirements of this Clause as to removal of scaffolding, surplus materials and rubbish and all huts and sanitary arrangements as aforesaid and cleaning off dirt on or before the date fixed for the completion of work, the Employer may at the expense of the contractor remove such scaffolding, surplus materials and rubbish etc., and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

#### 6.4 | Payment of Final Bill:

The final bill shall be submitted by the Contractor in the same manner as specified in interim bills within one months of physical completion of the work or within one month of the date of the final certificate of completion furnished to the Employer whichever is earlier. No further claims shall be made by the Contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Employer, will, as far as possible be made within a period of three months, the period being reckoned from the date of receipt of the bill by the Engineer, complete with account of dismantled materials.

#### 6.5 Advance:

Advance as per extant rule in GFR and procurement manual will be admissible.

#### 6.6 Deleted

#### 6.7 Deleted

# 7.0 Observance of Labour Regulation

# 7.1 Recovery Of Compensation Paid To Workmen:

In every case in which by virtue of the provisions sub-section (1) of Section 12, of the Workmen's Compensation Act, 1923, Government is obliged to pay compensation to a workman employed by the contractor, in execution of the works, Government will recover from the contractor, the amount of the compensation so paid; and, without prejudice to the rights of the Government under sub-section (2) of Section 12, of the said Act, Government shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by Government to the contractor whether under this contract or otherwise. Government shall not be bound to contest any claim made against it under sub-section (1) Section 12, of the said Act, except on the written request of the contractor and upon his giving to Government full security for all costs for which Government might become liable in consequence of contesting such claim.

# 7.2 Ensuring Payment and Amenities To Workman, If Contractor Fails:

In every case in which by virtue of the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and of the Contract Labour (Regulation and Abolition) Central Rules, 1971, Government is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works, or to incur any expenditure in providing welfare and health amenities required to be provided under the above said Act and the rules under Clause 7.10 or under the Contractor's Labour Regulations, or under the Rules framed by Government from time to time for the protection of health and sanitary arrangements for workers employed by Contractors, Government will recover from the contractor, the amount of wages so paid or the amount of expenditure so incurred; and without prejudice to the rights of the Government under sub-section(2) of Section 20, and sub-section (4) of Section 21, of the Contract Labour (Regulation and Abolition) Act, 1970, Government shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by Government to the contractor whether under this contract or otherwise Government shall not be bound to contest any claim made against it under subsection (1) of Section 20, sub-section (4) of Section 21, of the said Act, except on the written request of the contractor and upon his giving to the Government full security for all costs for which Government might become liable in contesting such claim.

## 7.3 | Labour Laws to be Complied

The Contractor shall obtain a valid licence under the Contract Labour (R&A) Act 1970, and the Contract Labour (Regulation and Abolition) Central Rules 1971, before the commencement of the work, and continue to have a valid license until the completion of the work. The contractor shall also abide by the provisions of the Child Labour (Prohibition and Regulation) Act, 1986.

The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996.

Any failure to fulfil these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.

No labour below the age of fourteen years shall be employed on the work.

# 7.4 Payment of Wages:

- (i) The Contractor shall pay to labour employed by him either directly or through subcontractors, wages not less than fair wages as defined in Contractor's Labour Regulations or as per the provisions of the Contract Labour (Regulation and Abolition) Act 1970 and the contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.
- (ii) The Contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid fair wage to labour indirectly engaged on the work, including any labour engaged by his subcontractors in connection with the said work, as if the labour had been immediately employed by him.
- (iii) In respect of all labour directly or indirectly employed in the works for performance of the contractor's part of this contract, the Contractor shall comply with or cause to be complied with the contractor's Labour Regulations made by Government from time to time in regard to payment of wages, wage period, deductions from wages

recovery of wages not paid and deductions unauthorisedly made, maintenance of wage books or wage slips, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of the like nature or as per the provisions of the Contract Labour (Regulation and Abolition) Act 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.

- (iv) (a) The Employer concerned shall have the right to deduct from the moneys due to the contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfilment of the conditions of the contract forth benefit of the workers, non-payment of wages or of deductions made from his or their wages which are not justified by their terms of the contract or non-observance of the Regulations.
  - (b) Under the provision of Minimum Wages (Central) Rules 1950, the contractor is bound to allow to the labours directly or indirectly employed in the works one day rest for 6 days continuous work and pay wages at the same rate as for duty. In the event of default, the Employer shall have the right to deduct the sum or sums not paid on account of wages for weekly holidays to any labours and pay the same to the persons entitled thereto from any money due to the contractor by the Employer concerned.
- (v) The contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefits Act, 1961, and the Contractor's Labour (Regulation and Abolition) Act 1970, or the modifications thereof or any other laws relating thereto and the rules made there under from time to time.
- (vi) The contractor shall indemnify and keep indemnified Government against payments to be made under and for the observance of the laws aforesaid and the Contractor's Labour Regulations without prejudice to his right to claim indemnity from his sub-contractors.
- (vii) The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.
- (viii) Whatever is the minimum wage for the time being, or if the wage payable is higher than such wage, such wage shall be paid by the Contractor to the workmen directly without the intervention of Jamadar and that Jamadar shall not be entitled to deduct or recover any amount from the minimum wage payable to the workmen as and by way of commission or otherwise.
- (ix) The contractor shall ensure that no amount by way of commission or otherwise is deducted or recovered by the Jamadar from the wage of workmen.

# 7.5 Arrangement for Safety Provisions

In respect of all labour directly or indirectly employed in the work for the performance of the Contractor's part of this contract, the Contractor shall at his own expense arrange for the safety provisions as per. Safety Code framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the Contractor fails to make arrangement and provide necessary facilities as aforesaid, he shall be liable to pay a penalty of Rs.500/- for each default and in addition the Employer shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the Contractor.

#### 7.6 | Submission Of Labour Return

The contractor shall submit on or before the 1<sup>st</sup> day ofFebruary following the end of year to which it relates, to the Employer a true statement showing in respect of thesecondhalfoftheprecedingmonthandthefirsthalfofthecurrentmonthrespectively:

- (1) the number of labourers employed by him on the work,
- (2) their working hours,
- (3) the wages paid to them,
- (4) the accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them, and
- (5) the number of female workers who have been allowed maternity benefit according to Clause 7.8 and the amount paid to them.

Failing which the Contractor shall be liable to pay to Government, a sum not exceeding Rs.500/- for each default or materially incorrect statement. The decision of the Employer shall be final in deducting from any bill due to the Contractor the amount levied as fine and be binding on the contractor.

# 7.7 Rules Framed By Govt. To Be Complied

In respect of all labour directly or indirectly employed in the works for the performance of the Contractor's part of this contract, the Contractor shall comply with or cause to be complied with all the rules framed by Government from time to time for the protection of health and sanitary arrangements for workers employed by the contractors.

#### 7.8 | Leave And Pay Regulations

Leave and pay during leave shall be regulated as follows:

- Leave:
  - (i) in the case of delivery maternity leave not exceeding 8 weeks, 4 weeks up to and including the day of delivery and 4 weeks following that day,
  - (ii) in the case of miscarriage up to 3 weeks from the date of miscarriage.
- 2. Pay:
  - (i) in the case of delivery leave pay during maternity leave will be at the rate of the women's average daily earnings, calculated on total wages earned on the days when full time work was done during a period of 3 months immediately preceding the date on which she gives notice that she expects to be confined or at the rate of Rupee one only a day whichever is greater.
  - (ii) in the case of miscarriage leave pay at the rate of average daily earning calculated on the total wages earned on the days when full time work was done during a period of three months immediately preceding the date of such miscarriage.
- Conditions for the grant of Maternity Leave:
   No maternity leave benefit shall be admissible to a woman unless she has been employed for a total period of not less than six months immediately preceding the

- date on which she proceeds on leave.
- 4. The contractor shall maintain a register of Maternity (Benefit) in the Prescribed Form, and the same shall be kept at the place of work.

# 7.9 Default of any of the Provisions of Contractors' Labour Regulations

In the event of the contractor(s) committing a default or breach of any of the provisions, Contractor's Labour Regulations and Model Rules for the protection of health and sanitary arrangements for the workers as amended from time to time or furnishing any information or submitting or filing any statement under the provisions of the above Regulations and Rules which is materially incorrect, he/they shall, without prejudice to any other liability, pay to the Govt. a sum not exceeding Rs500/- for every default, breach or furnishing, making, submitting, filing such materially incorrect statements and in the event of the contractor(s) defaulting continuously in this respect, the penalty may be enhanced to Rs.200/- per day for each day of default subject to a maximum of 5 per cent of the estimated cost of the work put to tender. The decision of the Employer shall be final and binding on the parties.

Should it appear to the Employer that the contractor(s) is/ are not properly observing and complying with the provisions of the Contractor's Labour Regulations and Model Rules and the provisions of the Contract Labour (Regulation and Abolition) Act 1970, and the Contract Labour (R& A) Central Rules 1971, for the protection of health and sanitary arrangements for work-people employed by the contractor(s) (hereinafter referred as "the said Rules") the Employer shall have power to give notice in writing to the contractor(s) requiring that the said Rules be complied with and the amenities prescribed therein be provided to the workpeople within a reasonable time to be specified in the notice. If the contractor(s) shall fail within the period specified in the notice to comply with and/ observe the said Rules and to provide the amenities to the work-people as aforesaid, the Employer shall have the power to provide the amenities hereinbefore mentioned at the cost of the contractor(s). The contractor(s) shall erect, make and maintain at his/their own expense and to approved standards all necessary tents and sanitary arrangements required for his/their work-people on the site in connection with the execution of the works, and if the same shall not have been erected or constructed, according to approved standards, the Employer shall have power to give notice in writing to the contractor(s) requiring that the said tents and sanitary arrangements be remodelled and/or reconstructed according to approved standards, and if the contractor(s) shall fail to remodel or reconstruct such huts and sanitary arrangements according to approved standards within the period specified in the notice, the Employer shall have the power to remodel or reconstruct such huts and sanitary arrangements according to approved standards at the cost of the contractor(s).

# 7.10 Provision Of Tents, Water Supply to the Labourer

The contractor(s) shall at his/their own cost provide his/their labour with following facilities

- a) Sufficient numbers of tents.
- b) Sufficient numbers of latrines and urinals covered by tents.
- c) Sufficient quantity of water for drinking and other purposes.
- d) Proper drainage and sanitation.

#### 7.11 Removal of Contractor's Employee

The Employer may require the contractor to dismiss or remove from the site of the work any person or persons in the contractors' employ upon the work who may be incompetent or misconduct himself and the contractor shall forthwith comply with such requirements.

#### 8.0 Operation of contract

#### 8.1 | Time and Extension for Delay

The time allowed for execution of the Works as specified in the Bidding data or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence from such time period as mentioned in letter of acceptance or from the date of handing over of the site whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid, Government shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money & performance guarantee absolutely.

As soon as possible after the Contract is concluded the Contractor shall submit a Time and Progress Chart and get it approved by the Employer. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Employer and the Contractor and further to ensure good progress during the execution of the work, the contractor shall in all cases complete the work as per the schedule.

If the work(s) be delayed by:

- (i) force majeure events, or
- (ii) abnormally bad weather, or
- (iii) serious loss or damage by fire, or
- (iv) civil commotion, local commotion of workmen, strike (excluding by Party's employees) or lockout (excluding by Party's employees), affecting any of the trades employed on the work, or
- (v) delay on the part of other contractors or tradesmen engaged by Employer in executing work not forming part of the Contract, or
- (vi) any other cause which, in the absolute discretion of the authority mentioned in Bidding Data is beyond the Contractor's control and not brought about at the instance of the Contractor claiming to be affected by such event.

then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Employer but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Employer to proceed with the works.

Request for rescheduling of work and extension of time, to be eligible for consideration, shall be made by the Contractor in writing within 14 days of the happening of the event causing delay on the prescribed form. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired.

In any such case the authority mentioned in Bidding Data may give a fair and reasonable extension of time. Such extension shall be communicated to the Contractor by the Employer in writing, within 2 months of the date of receipt of such request. Non application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the Employer and this shall be binding on the contractor.

#### 8.2 Compensation For Delay

If the contractor fails to maintain the required progress in terms of clause 8.1 or to complete the work and clear the site on or before the contract or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to the Government on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as the competent authority(whose decision in writing shall be final and binding) may decide on the amount of tendered value of the work for every completed day/week (as applicable) that the progress remains below that specified in Clause 8.1 or that the work remains incomplete.

This will also apply to items or group of items for which a separate period of completion has been specified.

Compensation @ 0.5% (zero point five percent) of the total contract value per week of delay and part thereof subject to maximum of 10% of contract value.

#### 8.3 When Contract Can Be Determined

Subject to other provisions contained in this clause, the Employer may, without prejudice to his any other rights or remedy against the Contractor in respect of any delay, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:

- (i) If the contractor having been given by the Employer a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workman like manner shall omit to comply with the requirement of such notice for a period of 7 days thereafter.
- (ii) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
- (iii) If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Employer (which shall be final and binding) he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the Employer.
- (iv) If the contractor fails to complete the work within the stipulated date or items of work with individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Employer.
- (v) If the contractor persistently neglects to carry out his obligations under the contract and/or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Employer.
- (vi) If the contractor commits any acts mentioned in Clause2.1 hereof; or
- (vii) If the work is not started by the contractor within 1/8th of the stipulated time. When the contractor has made himself liable for action under any one or more of the

cases aforesaid, the Employer on behalf of the President of India shall have powers:

- a) To determine or rescind the contract as aforesaid (of which termination or rescission notice in writing to the contractor under the hand of the Employer shall be conclusive evidence).
  - Upon such determination or rescission, the Earnest Money Deposit, Security Deposit already recovered and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the Government/ the Employer.
- b) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be un-executed out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined or rescinded as above, shall not be allowed to participate in the tendering process for the balance work.

In the event of above courses being adopted by the Employer, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Employer has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

## 8.4 | Foreclosure of Contract due to Abandonment or Reduction In Scope of Work

If at any time after acceptance of the bid, the Employer/ Government shall decide to abandon or reduce the scope of the works for any reason whatsoever and hence not require the whole or any part of the works to be carried out, the Employer shall give notice in writing to that effect to the contractor and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.

The contractor shall be paid at contract rates full amount for works executed at site and, in addition, reasonable amount as certified by the Engineer for the items hereunder mentioned which could not be utilised on the work to the full extent in view of the foreclosure:

- (i) Any expenditure incurred on preliminary site work,
- (ii) Government shall have the option to take over contractor's materials or any part thereof either brought to site or of which the contractor is legally bound to accept delivery from suppliers (for incorporation in or incidental to the work) provided, however, Government shall be bound to take over the materials or such portions thereof as the contractor does not desire to retain. For materials taken over or to be taken over by Government, cost of such materials as detailed by Engineer shall be

- paid. The cost shall, however, take into account purchase price, cost of transportation and deterioration or damage which may have been caused to materials whilst in the custody of the contractor.
- (iii) Reasonable compensation for transfer of T & P from site to contractor's permanent stores or to his other works, whichever is less. If T & P are not transported to either of the said places, no cost of transportation shall be payable.
- (iv) Reasonable compensation for repatriation of contractor's site staff and imported labour to the extent necessary.

The contractor shall, if required by the Engineer furnish to him books of account, wage books, time sheets and other relevant documents and evidence as may be necessary to enable him to certify the reasonable amount payable under this condition.

The reasonable amount of items on (i), (iii) and (iv) above shall not be in excess of 2% of the cost of the work remaining incomplete on the date of closure, i.e. total stipulated cost of the work as per accepted bid less the cost of work actually executed under the contract and less the cost of contractor's materials at site taken over by the Government as per item (ii) above. Provided always that against any payments due to the contractor on this account or otherwise, the Employer shall be entitled to recover or be credited with any outstanding balances due from the contractor for advance paid in respect of any tool, plants and materials and any other sums which at the date of termination were recoverable by the Government from the contractor under the terms of the contract.

#### 8.5 Cancellation Of Contract In Full Or Part

#### If Contractor:

- (i) at any time makes default in proceeding with the works or any part of the work with the due diligence and continues to do so after a notice in writing of 7 days from the Employer; or
- (ii) commits default to complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Employer; or
- (iii) fails to complete the works or items of work with individual dates of completion, on or before the date(s) of completion, and does not complete them within the period specified in a notice given in writing in that behalf by the Employer; or
- (iv) shall offer or give or agree to give to any person in Government service or to any other person of his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for Government; or
- (v) shall enter into a contract with Government in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Accepting Authority/Employer; or
- (vi) shall obtain a contract with Government as a result of wrong tendering or other non-bonafide methods of competitive tendering; or
- (vii) being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than

a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors; or

- (viii) being a company, shall pass a resolution or the Court shall make an order for the winding up of the company, or a receiver or manager on behalf of the debenture holders or otherwise shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or manager; or
- (ix) shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days; or
- (x) assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Accepting Authority;

The Accepting Authority may, without prejudice to any other right or remedy which shall have accrued or shall accrue hereafter to Government, by a notice in writing to cancel the contract as a whole or only such item of work in default from the Contract.

The Employer shall on such cancellation by the Accepting Authority have powers to:

- (i) take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or
- (ii) carry out the incomplete work by any means at the risk and cost of the contractor.

On cancellation of the contract in full or in part, the Employer shall determine what amount, if any, is recoverable from the contractor for completion of the works or part of the works or in case the works or part of the works is not to be completed, the loss or damage suffered by Government. In determining the amount, credit shall be given to the contractor for the value of the work executed by him up to the time of cancellation, the value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor.

Any excess expenditure incurred or to be incurred by Government in completing the works or part of the works or the excess loss or damages suffered or may be suffered by Government as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to Government in law be recovered from any moneys due to the contractor on any account, and if such moneys are not sufficient, the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the contractor shall fail to pay the required sum within the aforesaid period of 30 days, the Employer shall have the right to sell any or all of the contractors' unused materials, constructional plant, implements, temporary buildings, etc. and apply the proceeds of sale thereof towards the satisfaction of any sums due from the contractor under the contract and if thereafter there be any balance outstanding from the contractor, it shall be recovered in accordance with the provisions of the contract.

Any sums in excess of the amounts due to Government and unsold materials,

constructional plant, etc., shall be returned to the contractor, provided always that if cost or anticipated cost of completion by Government of the works or part of the works is less than the amount which the contractor would have been paid had he completed the works or part of the works, such benefit shall not accrue to the contractor.

#### 8.6 Termination Of Contract After Death Of Contractor

Without prejudice to any of the rights or remedies under this contract if the Contractor dies, the Employer on behalf of the President of India shall have the option of terminating the contract without compensation to the Contractor.

## 9.0 Dispute Resolution Mechanism

Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here-in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter:

## 9.1 Dispute Resolution Board

If any dispute arises between the Employer and the Contractor in connection with, or arising out of, the Contract or the execution of the Works, whether during the execution of the Works or after their completion and whether before or after the repudiation or other termination of the Contract, including any disagreement by either party with any action, inaction, opinion, instruction, determination, certificate or valuation of the Engineer, the matter in dispute shall, in the first place, be referred to the dispute resolution board here in after called "the board."

The board shall comprise of members as defined in the bidding data. The board at its discretion may co-opt any other officer if in its opinion it may help in resolving the dispute. Either party may refer a dispute to the Board. The board shall give a decision in writing within 30 days of reference of dispute.

Either party may refer a written decision of the board. If neither party refers the disputes to arbitration within 30 days, the board's decision will be final and binding.

Employer at its discretion may change any of the member of the board.

#### 9.2 | Arbitration

Any dispute in respect of which the recommendation, if any, of the dispute resolution board has not become final and binding shall be finally settled in accordance with the provisions of the Arbitration and Conciliation Act, 1996 or any statutory modifications or re-enactment thereof and the rules made there under and for the time being in force. The arbitrator shall

have full power to open up, review and revise any decision, and any recommendation of the conciliator related to the dispute.

A Sole Arbitrator shall be appointed by the appointing authority as defined in contract data within 30 days of receipt of request from either party. If the arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever, another arbitrator shall be appointed in the manner aforesaid. Such person shall be entitled to proceed with same reference from the stage at which it was left by his predecessor.

It is a term of this contract that the arbitrator shall adjudicate only such disputes as are referred to him by the appointing authority and give separate award against each dispute and claim referred to him and in all cases the arbitrator shall give reasons for the award. If any fees is payable to the arbitrator, these shall be paid equally by both the parties.

It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their statement of claims and counterstatement of claims. The venue of the arbitration shall be such place in India as may be fixed by the arbitrator in his sole discretion.

Neither party shall be limited in the proceedings before such arbitrator to the evidence or arguments put before the conciliator for the purpose of obtaining its recommendation/decision. No recommendation shall disqualify conciliator or Employer from being called as a witness and giving evidence before the arbitrator on any matter whatsoever relevant to the dispute.

## 10 Miscellaneous provisions

- (i) "Nothing contained in this Contract shall be construed as establishing or creating between the Parities, a relationship of master and servant or principal and agent.
- (ii) Any failure or delay on the part of any Party to exercise right or power under this Contract shall not operate as waiver thereof.
- (iii) The Contractor/Consultant shall notify the Employer/ the Government of India of any material change in their status, in particular, where such change would impact on performance of obligations under this Contract.
- (iv) Each member/constituent of the Contractor/Consultant, in case of a consortium, shall be jointly and severally liable to and responsible for all obligations towards the Employer/Government for performance of works/services including that of its Associates/Sub Contractors under the Contract.
- (v) The Contractor/Consultant shall at all times indemnify and keep indemnified the Employer/Government of India against all claims/damages etc. for any infringement of any Intellectual Property Rights (IPR) while providing its services under the Project.
- (vi) The Contractor/Consultant shall at all times indemnify and keep indemnified the Employer/Government of India against any claims in respect of any damages or compensation payable in consequences of any accident or injury sustained or suffered by its (the Contractor's/Consultant's) employees or agents or by any other third Party resulting from or by any action, omission or operation conducted by or on behalf of the Contractor/Consultant.
- (vii) The Contractor/ Consultant shall at all times indemnify and keep indemnified the Employer/Government of India against any and all claims by Employees, Workman, Contractors, sub-contractors, suppliers, agent(s), employed engaged or otherwise working for the Contractor, in respect of wages, salaries, remuneration, compensation or the like.
- (viii) All claims regarding indemnity shall survive the termination or expiry of the

## Contract.

(ix) It is acknowledged and agreed by all Parties that there is no representation of any type, implied or otherwise, of any absorption, regularization, continued engagement or concession or preference for employment of persons engaged by the (Contractor/Consultant) for any engagement, service or employment in any capacity in any office or establishment of the Government of India or the Employer.

# 11 Laws Governing the Contract:

This contract shall be governed by the Laws of India for the time being in force.

**SECTION-IV** 

SPECIAL CONDITIONS
OF
CONTRACT
(SCC)

	SECTION- IV					
	SPECIAL	SPECIAL CONDITIONSOFCONTRACT(SCC)				
	conditions will Contract (GCC)	The following Special conditions of contract shall apply for this Contract. These special conditions will modify/ substitute/ supplement the corresponding General Conditions of Contract (GCC) incorporated in Section III. The corresponding GCC clause numbers have also been indicated.				
		conflict between the personal conflict between the personal prevail.	provision in the GCC and that in the SCC, the provision			
S. No.	GCC Clause Number	Subject Matter	SCC Provision			
1.	1.5	Signing of Contract	In addition to safety code provided in Section- XVI, the guidelines issued by Honourable Supreme Court in case No. WP(C) 36/2009 on 11.02.2010 shall be applicable for this contract.			
2.	2.6	Conditions for Reimbursement of Levy/Taxes, if Levied after Receipt of Tenders	Any modification of GST by the Government the difference will be paid/ recovered to/from the contractor.			
3.	3.1	Performance Guarantee	The following is incorporated. The Performance Security/ Guarantee shall be 10% of the Contract Price. The Performance Security shall be valid up to the stipulated date of completion of performance obligations including warranty obligations and AMC period plus twelve months thereafter.  The performance security shall be released upon fulfilment of the following conditions/ submission of following documents:  a. Work Completion certificate. b. No Claim Certificate. c. Satisfactory completion of Defect Liability Period. d. Any other documents required as per contract agreement and government norms.			

4.	4.	Execution of	In addition to the compliance under GCC Clause 4,
		Work	Scope of work, relavent technical specifications, the
			contractor shall extend full cooperation with CGWB to
			achieve the deliverables as per the best workmanship
			is up to the standards followed in the Industry with
			following QAP.
			Quality Assurance Plan (QAP)
			Following guidelines will be followed by CGWB in
			execution of works:-
			1. The work will be executed through the
			Regional Directors and Executive Engineers
			of the concerned Regions and Divisions.
			2. The 'Executive Engineers will depute suitable
			persons not below the rank of Junior Engineer for measurement of work as per bill
			of quantities (BOQs) in Measurement Books
			in accordance with CPWD accounting
			system.
			3. The Regional Directors will depute suitable
			persons for supervision of works involving
			scientific inputs such as assembly design,
			pumping tests, and collection of water
			samples etc. and countersign the
			measurements pertaining to these items and
			such other items which were measured
			during their presence.
			4. The Measurement of work will be test checked by CGWB officials/officers of
			respective RPMU and NPMU in following
			manner:-
			S.No Designation/level of % of Work to be
			Officers/Officials test checked
			1. Junior Engineer level 100%
			(or above)
			officials/officers
			*Will also record
			measurement.  2. Assistant Engineer 30%
			2. Assistant Engineer 30% level (or above)
			officers.
			3. Assistant Executive 20%
			Engineer (or above).
			4. Executive 10%
			Engineer/HOO of
			concerned Division
			5. Regional 5%
			Director/HOO of
			concerned Region     Office.
			6. Officers from NPMU 2%
			Note: A Site Hydro geologist of concerned Region
			Office (AHG or above) will supervise applicable
			scientific component of BoQ like Assembly Design &
			Lowering, Pump Test ,PYT, Slug Test, Logging,
			Water sampling etc.

5. The final payment for work will be made only on the personal certificate of the Executive Engineer/ Officer-In-Charge of the execution of the work in the format given below:

"I, (Name of the Executive Engineer/ Officer-In-Charge), Executive Officer of (Name of the Work), am personally satisfied that the work has been executed as per the specifications laid down in the Contract Agreement and the workmanship is up to the standards followed in the Industry."

The certificate will be countersigned by the concerned Regional Director.

- The work is to be monitored on regular basis by an Empowered Committee a Status Report has to be submitted by CGWB to MoWR, RD & GR on monthly basis, along with reasons to address the delay involved, if any.
- 7. The composition of Empowered Committee(s) has been decided by the Competent Authority is as under:

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I.	Member under whose administrative control the Region falls.	Chairman of the Committee
II.	Regional Director of the concerned Region	Member
II.	Superintending Engineer (to be nominated on case to case basis)	Member

The Empowered Committee(s) shall:

- Closely monitor the progress of each work
- Assess the reasons for delays, if any
- Recommend condonation of delays, if it is not due to fault of the contractor.
- Recommend extension of time that is beyond the power!, of Regional Director/ Member.
- Ensure that the work is being executed strictly as per the conditions of the contract.

All matters connected with any problems/ bottlenecks in execution of work should be reported to the Chairman of the Empowered Committee.

- 8. National Project Monitoring Unit (NPMU) for monitoring and implementation of the PIB project in CGWB has been constituted. The NPMU will function under the overall Guidance and Control of Member (South). The following broad activities will be carried out by the NPMU:-
- I. Develop, implement and maintain Project Management information System (MIS).
- II. Prepare the list of the Monitoring indicators for the project
- III. Prepare the packages for implementation of the activities under the project.
- IV. Monitor and evaluate the internal operations of the Project
- V. Guide the operations of the Regional Project Monitoring Unit( RPMU) through providing advice and operating as a clearing house for issues (problems and solutions) raised by the RPMU/Field units
- VI. Monitor status of monitoring indicators
- VII. Evaluate the performance of the RPMU and the field offices of CGWB
- VIII. Develop procedures for regular monitoring of performance of the field units of CGWB
- IX. Preparation of procurement documents and certify technical specifications
- X. Act as a support and reference point for all Project-related procurement tasks.
  - 9. On lines of the NPMU, a Regional Project Monitoring Unit (RPMU) will be constituted in each of the Regional Offices where the PIB activities are proposed to be implemented. RPMU will function under the concerned Regional Director. The following major activities will be carried out by the RPMU:
- I. Provide data and other inputs to NPMU for the Project Management Information System (MIS)
- II. Implementation of the project activities at the field level
- III. Monitoring and Evaluation of the internal operations of the Project and providing regular feedback to NPMU
- IV. Evaluate the performance of the contractors/ implementing agency and highlight the issues, if any, related to Project implementation
  - 10. The progress reports concerning outsourcing works shall be sent to the Regional Director, who will coordinate with all the Empowered Committees and submit the status report to MoWR, RD & GR on monthly basis, along with reasons and remedial measures taken to address the delay involved, if any.

5.	4.2	Deviations/Variati ons Extent and Pricing	incre up to other The and Auth items S.	ase or decrea 20% without terms and co total number 1508 DWLR ar ority to give	he employer reserves the right to se the quantity of works maximum any change in the unit price and nditions. of wells is 1508 Piezometer wells and telemetry as per BOQ. approval for variation/deviation in atity with cost implications.  Variation/ Deviation
			N. 1. 2	Chairman, CGWB DoWR, RD&GR	20 % (Subject to revised cost within the awarded value.) Full Powers

6.	4.6	Employment of Technical Staff and Employees	The contractor will have to employ at least one groundwater professionalwith minimum qualification of graduate degree in engineering/ master's degree in geosciences with minimum 3 years of experience in construction of water wells, borehole logging, conducting pumping tests, interpreting/ analysing related data and preparation of reports. Sufficient technical staff of skilled, semiskilled man power is required to be engaged in Rigs/ pump units deployed for construction of wells.  The contractor shall provide at least one dedicated Service Engineer cum operator at the Regional Office Data Center for Operation of DWLR system and ensure seamless data transfer from remote stations to Regional & National Data Center (NDC), CGWB, Faridabad FTP server through GSM / GPRS network & from RODC to NDC &India WRIS/ WIMS software through internet. And also the processed data India WRIS/ WIMS in the form of reports/ bulletins will be transmitted to Regional & National Data Centre which should be stored in a proper manner and easy to access.  In the event if contractor fails to employ the technical staff, recovery at the rate of Rs 2000 per day will be made from the bills submitted. In the event if contractor fails to employ the technical staff within 10 days of intimation, the employer reserves right to terminate the contract.  Penalty for Faulty Stations/ Data Centres in respect of DWLR and Telemtry:  1. For Remote site Rs 500/- per day (i.e per remote site)  2. For Data Centre Rs 1000/- per day
7.	5.1	Materials to be Provided by the Contractor	Advance samples need to be submitted for approval before in use. However, no well construction materials such as pipes, screens, and gravel shall be used in construction unless inspected and approved by Engineer-In-Charge.
		Rigs to be deployed by the contractor	The rigs to be deployed by the contractor for the drilling works shall be duly registered with either Central Ground Water Authority or State Ground Water Authority and document of registration to be submitted to the concerned Executive Engineer/ Head of Office of Division before deployment of rig for the works.

8.	6	Measurement and Payment	The payment in respect of Piezometer wells shall be made by Executive Engineer/ Head of Office of DivisionXI,Jodhpur for Rajasthan State in respect of wells constructed in their respective states.  The payment of the DWLR and Telemetry, Operation and Maintenance cost for 5 years, Training cost and AMC cost shall be made by the Executive Engineer/ Head of Office Division, XI,Jodhpurfor all states/ UT.  Payment for the Construction of Piezometer wells The payment to the contractor will be made at each milestone for completed number of wells on the basis of actual measurements/verification done by CGWB. On completion of each milestone the contractor shall submit the bill along with all data and BDR in prescribed format provided in the tender document. The bill submitted by the contractor shall be supported by verified well wise works executed. The Well is treated as complete only when all items of BOQ (including pumping test if specified in BOQ, BDR etc.) as ordered by employer site representative have been carried out and completed in all aspect and well is handed over to employer. In case of non achievement of milestone, the amount equivalent to 10% of the running bill amount passed for payment by the concerned Executive Engineer will be withheld. Data generation is the essence of this contract. In respect of completed wells, the 100% payment will be released for the executed work. The necessary deductions towards non achievement of milestone, income tax, labour cess etcwill be applicable on this payment.  In case of wells where compressor development has been completed by employer have been completed. In respect of partially completed wells, only 70% payment against executed work up to well Development shall be made subject to submission of BOQ as ordered by employer have been completed, the well will be treated as partially completed.  In respect of partially completed wells, only 70% payment against executed work up to well Development shall be made subject to submission of all data pertaining to work execute

# <u>Payment for the Construction of DWLR and Telemetry</u>

- a) The Bidder shall be paid 50% of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry excluding AMC cost upon the supply, installation, testing and commissioning of the DWLR and Telemetry in the constructed Piezometers on a prorata basis for the actual executed quantities only and upon providing the requisite training as specified in the tender document.
- b) The Bidder shall be paid balance 50% of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry excluding AMC cost over the next five years @ 10 % per year on half yearly basis (@5% each per half year).

The Conditions (applicable for this payment) shall be governed by Service Level Conditions as mentioned in SCC. Data generation is the essence of this contract

c) Disbursement of Payment shall be as per the achievement of the milestones. The payment to the contractor will be made at each milestone for successfully supplied, installed, tested and commissioned DWLR with telemetry on the constructed Piezometers on the basis of actual measurements/verification done by CGWB. On completion of each milestone the contractor shall submit the bill along with all the deliverables mentioned in the tender documents in prescribed format.

In case of non-achievement of milestone, the amount equivalent to 10% of the running bill amount passed for payment by the concerned Executive Engineer will be withheld.

d) AMC cost inclusive of GST payable on it shall be paid on half yearly basis after 5 years of years of onsite manufacturer warranty period after completion of every six months.

The Conditions (applicable for this payment) shall be governed by Service Level Conditions as mentioned in SCC.

e) The actual Tax (GST) as applicable will be reimbursed against the valid invoice only after producing the following proof of tax amount paid to Government (i) A copy of GSTR-1, (ii) A copy of GSTR-3B, (iii) CA certificate indicating details of invoices against which the payment under GSTR-3B has been made and any other relevant document.

Pi a cc ap cc pa qu te vii ar st ba fro be	After final quantities of various items of BOQ of Piezometers and DWLR and telemetry are executed, vitiation statement shall be prepared by the oncerned Executive Engineer and submitted for pproval of Chairman CGWB clearly bringing out omparison of total amount of various tenderers who articipated in the tender "as per finally executed uantities multiplied by itemise rates quoted by the enderers in respect of various items of BOQ". If any itiation in contract is found then the difference of mount between lowest cost as per vitiation tatement and the total value of actual BOQ arrived ased on item wise contract price, will be recovered om the contractors bills or final bill as the case may e. Final payment amounting to 20% of the total ontract value shall not be released by the concerned executive Engineer without prior approval of vitiation tatement by Chairman CGWB.
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9.	6.5	Advance	Advance as per extant rule in GFR and procurement manual will be admissible.
10.		Suppliers Responsibilities for DWLR with Telemetry.	The supplier is responsible for and obliged to conduct all contracted activities in accordance with the contract using state- of- the- art methods and economic principles and exercising all means available to achieve the performance specified in the Contract. The Supplier is obliged to work closely with the Purchaser's staff, act within its own authority and abide by directives issued by the Purchaser and implementation activities. The Supplier will abide by the job safety measures prevalent in India and will free the Purchaser from all demands or responsibilities arising from accidents or loss of life the cause of which is the supplier's negligence. The Supplier will pay all indemnities arising from such incidents and will not holding the activities of its personnel or sub- contracted personnel and will hold itself responsible for any misbehavior /misconduct. The Supplier will treat as confidential all data and information about the purchaser, obtained in the execution of his responsibilities, in strict confidence and will not reveal such information to any other party without the prior written approval of the Purchaser. The bidder is responsible for following all Labour Laws, any other expenses applicable on the Service Engineer.

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11.		Suppliers Responsibilities for DWLR with Telemetry. (Inspection and Test)	manufacturer's works or at the premises of supplier

specification.

Warranty for DWLR with Telemetry  The period of validity of the Warranty shall be (60) months after successful installation, te commissioning and acceptance. Warranty period be followed by 2 years comprehensive AMC includes seamless communication of data the telemetry system to National Data Centre, Faridabad, India WRIS/ WIMS platform and National data center .The AMC period can be suextended as per mutually acceptable terms conditions.  After completion of contract, the equipments accessories used for this contract Shall be had over to the purchaser in running condition i.e. flat.	sting, shall This rough CHQ, tional itable and with nded
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DWLR Telemetry  with Telemetry  with Telemetry  with Telemetry  Bidder shall provide at least one dedicated Servi Engineer cum operator at the Regional office Dicenter for Operation of DWLR system and ensiseamless data transfer from remote DWLR stations National data Center through GSM/GPRS network then to India WRIS/ WIMS software through interm The processed data from India WRIS/ WIMS in the form of reports/ bulletins will be transmitted Regional & National Data Centre as per technispecifications. The maximum allowed period for report preparement (maintenance) shall be 7 Days. It the responsibility of the bidder to rectify/ replace the equipment without any notice from purchaser and in the duty of its personnel i.e. dedicated serving energineer cum data entry operator to notice that subscome non-operational or become faulty.  A remote site shall be treated as faulty if it fails respond or transmits erroneous data equal to or more than 8 data measurement i.e. equal to or more than 8 data measurement i.e. equal to or more than 8 data measurement i.e. equal to or more than 8 data measurement i.e. equal to or more than 1 transmission cycles /2 days. The decision of CGV about errors in data shall be final and binding. It remote site continues to remain "fail" for more than days in excess of the maintenance time schedule of days in a year, the contractor is liable to pay pena @ Rs. 500/- per Day per remote site. The Day the purpose of penalty shall be taken as failure perior 24 hours or part thereof for a particular remote sithe amount of penalty will be recovered from performance bank guarantee or payment due bidder during warranty period or AMC period.  The penalty for faulty data centers beyond Maximi Response Time would be Rs 1000/- per day. If supplier fails to remedify the defect within maximi of 14 days, the purchaser may proceed to take su remedial action as may be necessary. At the supplier fails to remedify the defect within maximi period in the days in the period or AMC period.		Tara	
Center for Operation of DWLR system and ensiseamless data transfer from remote DWLR stations National data Center through GSM/GPRs network then to India WRIS/ WIMS software through interm The processed data from India WRIS/ WIMS in the form of reports/ bulletins will be transmitted Regional & National Data Centre as per technispecifications. The maximum allowed period for repor replacement (maintenance) shall be 7 Days. It the responsibility of the bidder to rectify/ replace the equipment without any notice from purchaser and it the duty of its personnel i.e. dedicated serving engineer cum data entry operator to notice that subcome non-operational or become faulty.  A remote site shall be treated as faulty if it fails respond or transmits erroneous data equal to or more than 8 data measurement i.e. equal to or more than 8 data measurement i.e. equal to or more than transmission cycles /2 days. The decision of CGV about errors in data shall be final and binding. It remote site continues to remain "fail" for more than days in excess of the maintenance time schedule of days in a year, the contractor is liable to pay penal @ Rs. 500/- per Day per remote site. The Day the purpose of penalty shall be taken as failure perior 24 hours or part thereof for a particular remote site amount of penalty will be recovered for performance bank guarantee or payment due bidder during warranty period or AMC period. The penalty for faulty data centers beyond Maximin Response Time would be Rs 1000/- per day. If the supplier fails to remedify the defect within maximum of 14 days, the purchaser may proceed to take su remedial action as may be necessary. At the supplier	13.	DWLR with	The warranty for the Part B i.e DWLR and Telemetry shall commence from the date of installation, testing, commissioning and acceptance of the last DWLR at the constructed Piezometer  Bidder shall provide at least one dedicated Service Engineer cum operator at the Regional office Data
A remote site shall be treated as faulty if it fails respond or transmits erroneous data equal to or more than 8 data measurement i.e. equal to or more than 8 data measurement i.e. equal to or more than transmission cycles /2 days. The decision of CGV about errors in data shall be final and binding. It remote site continues to remain "fail" for more than days in excess of the maintenance time schedule of days in a year, the contractor is liable to pay pena (a) Rs. 500/- per Day per remote site. The Day the purpose of penalty shall be taken as failure perion of 24 hours or part thereof for a particular remote site. The amount of penalty will be recovered from performance bank guarantee or payment due bidder during warranty period or AMC period. The penalty for faulty data centers beyond Maximus Response Time would be Rs 1000/- per day. If the supplier fails to remedify the defect within maximus of 14 days, the purchaser may proceed to take suremedial action as may be necessary. At the supplier			Center for Operation of DWLR system and ensure seamless data transfer from remote DWLR stations to National data Center through GSM/GPRS network & then to India WRIS/ WIMS software through internet. The processed data from India WRIS/ WIMS in the form of reports/ bulletins will be transmitted to Regional & National Data Centre as per technical specifications. The maximum allowed period for repair or replacement (maintenance) shall be 7 Days. It is the responsibility of the bidder to rectify/ replace the equipment without any notice from purchaser and it is the duty of its personnel i.e. dedicated service engineer cum data entry operator to notice that site
			become non-operational or become faulty.  A remote site shall be treated as faulty if it fails to respond or transmits erroneous data equal to or more than 8 data measurement i.e. equal to or more than 2 transmission cycles /2 days. The decision of CGWB about errors in data shall be final and binding. If a remote site continues to remain "fail" for more than 2 days in excess of the maintenance time schedule of 7 days in a year, the contractor is liable to pay penalty @ Rs. 500/- per Day per remote site. The Day for the purpose of penalty shall be taken as failure period of 24 hours or part thereof for a particular remote site. The amount of penalty will be recovered from performance bank guarantee or payment due to

14.	Site preparation and installation for DWLR with Telemetry	Site preparation and installation:  The supplier is responsible for associated civil work required for installation and commissioning of the supplies in the Schedule of Requirement under the heading of Relative services in respect of for DWLR with Telemetry
15.	Hardware installation for DWLR with Telemetry	Hardware installation: The Supplier is responsible for all unpacking, assemblies, wiring, installations, cabling between hardware units and connecting to power supplies. The Supplier will test all hardware operations and accomplish all adjustments necessary for successful and continuous operation of the hardware at all installation sites.
16.	Document to be furnished by supplier	In respect of DWLR and Telemetry, Manufactures's/ Suppliers Warranty Certificate, Certificate of Country of Origin, Inspection Certificate and Suppliers's factory inspection report. etc to be submitted.

17.		SERVICE LEVEL CONDITIONS FOR DWLR AND TELEMETRY	1. The bidder is fully responsible to keep the system functional during installation, warranty and AMC period. The bidder should take suomotu action to repair any faulty instrument and should not wait for a complaint from purchaser to initiate action  2. DEFINITIONS  i) REMOTE SITE  Remote site is the site at remote location where Digital water level recorder (DWLR) systems are installed. The Remote site DWLR generally installed within the Pyrometers' headwork, dug wells (openwells), Ground water level monitoring site or any combination of these sites  ii) DATA CENTRE  Data centre is the respective server where data is expected to be received. In case of GSM & GPRS based telemetry, the data centre is the server installed in National data centre for receiving GSM & GPRS transmission.  iii) INVALID DATA  A data would be considered invalid if  a) The value recorded / transmitted is beyond permissible limit for that variable. The valid permissible upper limits and lower limits for each monitoring variable for each site would be provided to bidder by the purchaser.  b) If the sensor value recorded / transmitted are absurd values or sudden variation in the value (maybe within the specified limits) which is not in-line with the actual physical parameter. (e.g. If the Water level sensor recorded/ transmitted value is showing absurd sudden variation of 2mts (beyond the limits of rate of change of sensor value) with respective to the previous measurement interval, then this data is the invalid data).
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- c) If the sensor value recorded/transmitted is having frequent/periodic gaps then the data will be considered as invalid data.
- d) If the sensor value recorded/transmitted is remain constant, even if there is variation in the physical parameters. (e.g. If the Water level recorded / transmitted value is showing constant/fix value even there is variation in the water level, then this data is the invalid data)
- e) If the sensor value recorded / transmitted is not in line with the value of co-located automatic /manual observation of the same sensor parameter.

#### iv) FAILED DATA TRANSMISSION

For each remote station, each scheduled transmission (for all variables including battery voltage) would consist of one data transmission. A data transmission would be considered *failed* if any of the following conditions are true

- There is no transmission of data from remote site
- Data is transmitted from remote site but not received at data centre/ India WRIS/ WIMS
   Data is recorded in data logger but not transmitted
- Data is not recorded by data logger
- Battery voltage not transmitted
- Only battery voltage is transmitted without any actual data from sensors
- Data is transmitted but data values are invalid.

#### v) FAULTY STATION

A station would be considered faulty if:
In case of DWLR data received at National
Data Center, if there is ≥8 data measurement
(≥2 Transmission cycles/2days) are
failed/invalid data receptions.

#### vi) FAULTY DATA CENTRE

A Data Centre shall be treated as Faulty if

- Vital Hardware Equipment's installed by bidder at Data Centre Viz. Server ,GSM modem, online3KVA UPS , FTP Server services, Firewall system etc. are not functioning properly.
- Bidder has failed to pay the communication charges (SIM, internet, GSM/ GPRS etc.)& system is not in function due to unpaid communication charges.
- UnauthorizedabsenceofBiddersOperatorServi ceengineeratDataCentre.

# vii) MAXIMUM RESPONSE TIME FOR REPAIR (MRTR)

- The MRTR for Remote station would be 7 days
- The MRTR for Data Centre would be 2 days

# viii) MINIMUM TIME BETWEEN REPAIRS PER STATION

 The minimum time between repairs is six months. If a station went faulty for reasons attributed to bidder and availed of MRTR once, it would not be eligible to avail the free repair period within payment period (six months)

#### 2. PAYMENT FOR DATA RECEPTION

 The payment would be released proportion to data received at the Data centre. A table below presents the percentage of data reception and corresponding payment

100% of (5 % of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry excluding AMC cost) 19.99% 90 % of (5 % of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry excluding AMC cost ) 19.99% 80 % of (5 % of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry excluding AMC cost ) 19.99% 180 % of (5 % of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry excluding AMC cost ))
for the Part B of the BOQ i.e for DWLR and Telemetry excluding AMC cost)  19.99% 90 % of(5 % of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry excluding AMC cost )  19.99% 80 % of(5 % of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry
9.99% 90 % of (5 % of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry excluding AMC cost ) 9.99% 80 % of (5 % of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry
9.99% 80 % of (5 % of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry
Excluding AMC COSt ))
9.99% 70 % of (5 % of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry excluding AMC cost )
9.99% 60 % of (5 % of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry excluding AMC cost )
9.99% 40 % of (5 % of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry excluding AMC cost )
9.99% 25 % of (5 % of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry excluding AMC cost )
ow30% NIL of (5 % of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry excluding AMC cost )

The calculations for data reception percent age are as below

Data reception percentage for each station=

[1-(No of Failed transmissions/No of transmissions expected)]\*100

Data reception percentage for each station is calculated for payment period(sixmonths)

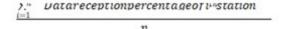
Number of transmissions expected is calculated based on transmission cycle. For 6-hourly transmission cycle, if there are 182 days in six months period,

The no. of expected transmissions=182(days)\*4(transmissions per day) for a given station.

If a station went faulty during payment period of six months and availed of free time of MRTR (7 days), the 7 days period would be subtracted from no. of expected transmissions. For example, if a station went faulty and payment period is for 182 days, the number of transmissions expected would be calculated as:

Number of transmissions expected = (182-7) \* 4; here 7 days time to repair. However, this deduction would be allowed only once in six months period for any given station.

#### Total data Reception percentage =



Where n is number of remote stations

In case the percentage of data reception is below 50% continuously for 3 months, the Purchaser may initiate termination process as per Tender Conditions

18.	8.0	Operation of	Milestone/ Deliverables/Period of completion
10.	0.0	Contract	The total Time period for the completion of this
		Contract	Package shall be 630 days as below:
			(A) For Construction of the Piezometer Wells
			Milestone is as follows: Total number of wells
			should be completed on or before 360 days from
			the date of issue of Work Order by the The
			Supertending Engineer, Central Ground Water
			Board, Bhujal Bhawan, NH-IV, Faridabad, 121001.
			The well will be treated as complete only when all
			the ordered items of BOQ including pumping tests
			if specified in the BOQ (i.e. items as ordered by
			CGWB representative as per site condition for each
			well) are complete including submission of item
			wise data and BDR. Against each milestone, the
			cumulative progress of works in percentage (i.e.
			number of wells in percentage) to be achieved and
			amount to be withheld (in percentage) in case of
			non -achievement against each milestone are
			furnished in the table given below. In case the
			bidder accelerate the cumulative progress of work
			and completes the work within stipulated period,
			the withheld amount if any will be released without any interest
			In case of wells where pumping test (if specified in
			BOQ), water sample analysis and BDR are not
			completed due to genuine reasons duly accepted
			by Regional Director and all other items of BOQ
			including well development as ordered by employer
			have been completed, the well will be treated as
			partially completed. The partially completed wells
			will not be counted for milestone i.e, for cumulative
			progress of work. Only completed wells in all
			respect will be counted for milestone.
			In case the contractor does not achieve a particular
			milestone mentioned the percentage/ amount
			shown against that milestone shall be withheld, to
			be adjusted against the compensation levied at the
			final grant of extension of time. Withholding of this
			amount on failure to achieve a milestone, shall be
			without any notice to the contractor. However, if
			the contractor catches up with the progress of work
			on the subsequent milestone(s), the withheld amount shall be released. In case the contractor
			fails to make up for the delay in the subsequent
			milestone(s), percentage/ amount mentioned
			against each milestone missed subsequently also
			shall be withheld. No interest, whatsoever, shall be
			payable on such withheld amount.
			payable on each maniora amount.
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Milestone	Time since award of work (in days)	Cumulative progress of works(i.e. number of wells) to be	Amount to be withheld in case of non-achievement of milestone
1	60	completed 5%	10% of the
2	90	10%	running bill amount passed
3	120	20%	for payment by the concerned
4	150	30%	Executive
5	180	40%	Engineer.
6	210	50%	
7	240	60%	
8	270	70%	
9	300	80%	
10	330	90%	
11	360	100%	

In case, the contractor completes the Work before the milestone deadline, then he shall be paid by the employer upon submission of bills irrespective of the milestone deadline.

# B) For Supply, Commissioning, Installation and Training of DWLR with telemetery.

Milestone is as follows: Total number of DWLR and telemetry including the supply, commisioning, installation and training should be completed on or before 630 days from the date of issue of Work Order by the The Supertending Engineer, Central Ground Water Board, Bhujal Bhawan, NH-IV, Faridabad, 121001.

Milestone	Time since award of work (in days)	Cumulative progress of works(i.e. number of DWLR's installed, commissioned alongwith training) to be completed	Amount to be withheld in case of non-achievement of milestone
1	450	25%	10% of the running bill
2	510	50%	amount passed
3	570	75%	for payment by the concerned
4	630	100%	Executive Engineer.

The running bill as per above milestone shall be raised for 50% of the Total Price for the Part B of the BOQ i.e for DWLR and Telemetry Training cost, excluding AMC cost and then submitted to the Regional Director of the concerned RODC where server and other accessories are installed for verification.

Upon verification of the above, the payment will be released by the Executive Engineer under the jurisdiction of Concerned Regional Director of the RODC.

1st (First) Milestone shall only be considered achieved when 25 % of DWLR with telemetry are installed and data alongwith other deliverables as per the tender document are successfully received and validated by the Regional Director of the concerned RODC.

In case, the contractor completes the Work before the milestone deadline, then he shall be paid by the employer upon submission of bills irrespective of the milestone deadline.

			In case the contractor does not achieve a particular milestone mentioned the percentage/ amount shown against that milestone shall be withheld, to be adjusted against the compensation levied at the final grant of extension of time. Withholding of this amount on failure to achieve a milestone, shall be without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall
			be released. In case the contractor fails to make up for the delay in the subsequent milestone(s), percentage/ amount mentioned against each milestone missed subsequently also shall be withheld. No interest, whatsoever, shall be payable on such withheld amount
19.	8.2	Compensation for Delay	Liquidated damage as per G.C.C 8.2 shall be applicable.
20.	9.1	Dispute Resolution Board	The Dispute Resolution Board shall comprise  i) The concerned Member, CGWB under whose jurisdiction the work is being executed  ii) The FAO, CGWB  iii) The Regional Director, CGWB of the concerned region/s.  iv) The Superintending Engineer, CGWB under concerned Member
21.	9.2	Arbitration	The Chairman, CGWB shall appoint the Arbitrator.In case of any dispute, it will be settled within the jurisdiction of Faridabad, Haryana.
22.	11	Laws Governing the Contract:	In addition to existing conditions in G.C.C, the contractor shall assist the employer throughout continuation of contract in respect of all matters arising out of contract, serve all notices and obtain all consents, approval and permission on behalf of employer required to be taken under any regulation and by laws of the local or other authority which shall be applicable to work.

# **SECTION- V**

SCOPE OF WORK AND TECHNICAL SPECIFICATIONS

# SECTION-V – PART A- SOFT ROCK

# SCOPE OF WORK AND TECHNICAL SPECIFICATIONS

#### 1 General

The locations for construction of wells provided in the section- VII are tentative. The contractor on award of work shall confirm the locations from concerned Regional Director, CGWB before deputing manpower and machinery for undertaking the work. In case work could not be carried out at a particular site due to a genuine reason like non approachability, land dispute, etc. alternate site will be provided.

The Contractor shall have to furnish in writing to the concerned Regional Director & Executive Engineer, CGWB, a programme of drilling of wells within a week of handing over the pin pointed sites to the Contractor.

The location/sites furnished are tentative. The Employer reserves the right to modify or change the location as well as the depth of construction as per the local prevailing conditions and no additional cost will be paid in this regard.

For the purpose of drilling, approach road, water for drilling, crew, camp and other infrastructure, preparation of the site and placing the rig etc, are to be arranged by the drilling contractor at his own cost. At each site, a tent with furniture should be provided to facilitate the CGWB representative to discharge his duties.

No payment shall be made against shifting of rig unit with accessories for construction of Piezometers

Technical problems during drilling like jamming of drill string, damages to drilling tool, stoppage of work due to unforeseen reasons etc would be the responsibility of the drilling contractor and no compensation of any kind would be paid by the department. In case the well could not be completed and had to be abandoned due to contractor's fault, no payment will be made for that well. In case the well is abandoned due to geological condition such aspoor discharge, inadequate depth of good quality water bearing formation, etc, duly certified by representative of CGWB and on approval of Regional Director, payment for executed works will be made. The decision of Regional Director/Executive Engineer will be binding on contractors in deciding whether the well is abandoned due to contractor's fault or due to hydro geological conditions.

Drilling Fluid (Bentonite Mud fluid) required for drilling and for efficient removal of cuttings to reach the targeted depth and saving borehole from collapsing will be the responsibility of the contractor.

# 2 Scope of Work and Overview

# 2.1 Scope of Work

The scope involves drilling of pilot hole, collection of samples for preparation of lithology,, electrical logging(SP, Resistivity & Natural Gamma), preparation of composite log, design

of well assembly, enlargement of hole size by reaming, lowering of well assembly, gravel shrouding, cement sealing, clay packing, development, pumping test and data analysis, collection of water samples for chemical analysis, chemical analysis of water sample and preparation of Basic Data Report .

The details of all the activities to be carried out by the contractor including methodology to be adopted and reporting formats are discussed in this section SI. No 3.0 to 17.0.

The contractor should deploy minimum \_\_\_\_\_ Nos of Rig unit attached with pump unit [ No of rig unit to be calculated based on formula given below:

 $R = (W \times D)/T$ 

Where,

R is the minimum number of Rig unit required

W is the total No of wells

D is the average number of days required to complete one well (i.e. D=3 in case of 200m well in Hard rock and D=20 in case of 300m well in soft rock)

And T is the scheduled time period for completion of the project in days]

#### 3. Construction of Piezometer Wells

The number of Peizometer wells to be constructed is given in Section VI.Tentative locations of Peizometer wells is given in section VII. The employer reserves the right to change the location in case of non availability of site clearance or any other reasons and no additional cost will be paid for change in locations.

For Piezometer drilling of pilot hole of 216 mm( 8 ½") by RR/ Drag bit using Bentonite drilling fluid shall be carried out. The targeted depth of pilot hole is as per BOQ, however it may vary from about 100 m to 305m or as specified in the BOQ depending upon geology.

Formation strata samples should be collected after proper washing adopting standard procedure for sample collection for every 3 m or in the event of change in formation.

Electrical logging and natural gamma logging as specified in BOQ shall be carried out upto bottom of pilot hole. Logging Report alongwith Zone wise water quality shall be submitted. In case the logging could not be completed to desired depth in 8 ½" pilot hole after repeated attempts, logging in larger dia hole may be allowed by site hydrogeologist and no additional payment will be made for enlargement of hole for logging purpose and for additional attempts of logging.

The depth of blank pipe and slotted pipe with bail plug (well assembly) will be decided by the employer's site Hydro Geologist/representative of Regional Director, according to the formation encountered during drilling. The depth of well assembly may vary from 100 m to 300m or as per BOQ

The bill of quantity should contain only final reamed size of the Piezometer wells and its depth and hence rate should be quoted for final reamed size and its depth only i.e. the final reamed rate deemed to cover the intermediate reaming sizes. The reaming with intermediate sizes should not be included in the bill of quantity.

As per recommendation of assembly chart, casing pipe/slotted pipe as mentioned in this section SI. No 5 should be lowered. After assembly lowering, back washing should be carried out.

Gravel shrouding should be carried out as mentioned in this section Sl. No 7.

Cement Sealing and Clay packing shall be provided as mentioned in this section Sl.No 8.

Well development should be carried out as mentioned in this section Sl. No 10.

Water samples as specified in BOQ should be collected during well development from Piezometer in good qualitypolypropylene bottles using standard procedures for Basic parameter analysis and for heavy metals as per direction of representative of CGWB as per the BOQ Document.

Analysis of sample as per BOQ shall be carried out by Contractor from NABL accredited lab and shall be submitted to the Regional Director, CGWB, Concerned Region. One set of sample (Basic and heavy metal) from Piezometer shall be submitted to the Regional Director, CGWB, Concerned Region ..

# 4 Methodology / Approach

# 4.1 Process /Methodology Involved In Construction Of Wells In Soft Rock Up To 300 M Depth

#### **Piezometer Wells**

- (i) Site selection and pinpointing of site
- (ii) Shifting of Rig
- (iii) Site preparation
- (iv) Pilot hole drilling [using 216mm (8½")diameter RR Bit/ Drag Bit] as per BOQ
- (v) Sample collection & preparation of litholog
- (vi) Bore hole logging (Resistivity, SP, Natural Gamma)
- (vii) Preparation of E log Report including Zone wise quality
- (viii) Preparation of Composite log using data of (v) & (vi) above
- (ix) Designing of Well assembly
- (x) Reaming of Bore hole (by using appropriate size of RR bits based on recommended well assembly size, giving a margin for minimum 100mm thickness for gravel packing ) as per BOQ
- (xi) Lowering of well assembly
- (xii) Back washing, shrouding of gravel and Clay packing (cement sealing, if required). Cement sealing should be done by tremie pipe. Adequate rest shall be provided after cement sealing. Clay balls should be used clay packing.
- (xiii) Verticality test of well(if required)
- (xiv) Zone wise Development of well by air compressor, overpumpingor by any other means till the water is clear and sand free

- (xv) Pumping Test if specified in BOQ
  - a. Water sample collection for analysis of Basic & Heavy metals under guidance of CGWB site Hydrogeologist/ Chemist.
- (xvi) Construction of platform, well capping and installation of protection box
- (xvii) Preparation of Basic Data Report & submission
- (xviii) Clrearance of site and bringing it to original natural condition
- (xix) Handing over of well

#### 4.2 Deleted

# 5 Well Assembly

- (i) M.S Casing pipes used for well assembly should confirm to the specification given below.
  - (a) BIS marked steel tubes plain ended with bevelled edges on both ends, for water wells of type ERW conforming to Table No 3 of IS: 4270/2001 (third revision). The steel for the ERW casing pipes shall be of Make Tata, Jindal, SAIL, Essar and test certificate of material from Tata/Jindal/SAIL/Essar shall mandatorily be submitted to the Engineer-Incharge at the time of Inspection.
- (ii) LCG V-wire screen pipe with slot opening as mentioned BOQ should confirm to latest version of IS:8110-2000. The LCG V Wire screen shall be of Make Appollo/, Johnsons/ and test certificate from Make Apollo/ Johnsons/Super shall mandatorily be submitted to the Engineer-Incharge at the time of Inspection
- (iii) A length of 0.50 m of casing pipe should be left above the ground level.
- (iv) Well cap should be securely sealed to the pipe after tube well is checked by the Engineer-In-Charge.

#### 6 Data Collection

Drilling contractor will

- (i) Maintain a drill time log for every 3 m for wells drilled or in the event of change in formation in soft rock formations.
- (ii) Collect formation samples of minimum 500g mass at an interval of 3m or change of formation during drilling and properly pack in polythene bags and label with date/ depth/ location.
- (iii) Carry out geophysical logging (SP, Resistivity & Natural Gamma)
- (iv) Measure discharge over 90° V notch plate during development of well.
- (v) Collect 1 litre water sample after development is complete and during test for wells drilled in soft rock formations in good quality polypropylene bottles using standard procedures for basic analysis and heavy metals. Two sample (one for basic parameters and one for heavy metals) or as specified in BOQ

Necessary arrangements are to be made for verification by Engineer-In-Charge/ CGWB site Hydrogeologist for checking of depth of borehole, length of casing, static water level, discharge and any other requirement as shall be felt necessary from time to time. A guest tent should be pitched at the site during drilling/ testing and provided with table and chairs for the Site Hydrogeologist/ Engineer-In-Charge.

# 7 Gravel Packing of Tubewell

After the well assembly has been placed in position, the Pea gravel as per specification mentioned in BOQ has to be shrouded in the annular space between the well assembly pipe and the boreholeby adopting reverse fluid circulation methodupto the depth as mentioned in assembly chart recommendation. The gravel should be of rounded to subrounded shape and shall be supplied by the Contractor. Before shrouding, the pea gravel must be got inspected and approved by CGWB site representative. Sufficient care should be taken so that gravel packing is proper and no bridging takes place during gravel shrouding. If necessary, in case of bridging of gravel, air compressor of appropriate capacity should be used for proper gravel shrouding as per instruction of employer's site representative for which no additional cost will be paid. After gravel packing, sounding should be carried out to ascertain the correct depth of gravel packing. As a cross check, the theoretical annular volume of gravel packing and volume of actual gravel consumed should be compared to ascertain that gravel shrouding is without bridging. In case of EW the gravel packing shall be measured in meters from the bottom of Reamed depth or from Assembly depth+ 5 m, which ever is less. In case of OW, gravel pack shall be measured from bottom depth of hole or from Assembly depth+ 5 m, which ever is less. If gravel packing is not carried out properly, no payment will be made till rectification.

# 8 Cement Sealing and clay packing of Tube Well:

After Gravel shrouding is done cement sealing (if required) shall be done using tremie pipe. Cement sealing of 5 m thickness shall be provided. Before cement sealing 1 m thick clay shall be provided above gravel. Adequate rest(minimum 10 hrs) shall be provided after cement sealing.

Annular space between borehole and pipe above cement seal (if provided) shall be filled with clay balls. If cement sealing is not provided clay packing shall be provided above gravels.

# 9 Verticality Test

The vertical test shall be carried out in wells where pump/eduction pipe cannot be lowered smoothly to the desired depth and the contractor shall carry out the vertical test at his cost as per the decision of the Employer side representative. The well assembly shall be placed vertically inside the borehole. Verticality test as per IS: 2800 (Part 2) -1979 must be arranged by the Contractor with standard equipment at his cost. In case of deviation beyond the permissible limit, the well will be treated as vertically out. The acceptance of suitability of the well will be purely at the discretion of CGWB. The well will not be accepted in case pump could not be lowered to desired depth due to non-verticality of well and no payment will be made.

#### 10 | Well Development

Zone wise development of wells shall be carried out by air compressor of appropriate capacity i.e. minimum 1723.69 KPa(250 Psi) and minimum 21.23 cubic meter per minute (750 cfm) immediately after construction within 5 days of construction of well. Subsequently well should be developed by over pumping by VT/Submersible pump or by any other means till the water is free from mud and fine sand. In case development is not carried out in time resulting in poor yield or in case the well is not properly developed, no payment will be made till recification is carried out.

# 11 Construction of Platform and installation of Well Cap, Protection Box and Display BOARD

After completion of well in all aspects, the well should be provided with well cap using MS plate of minimum thickness 6mm and protection box made of minimum 3.00 mm GI sheets with Brass lock (7 lever) with all common keys (One Key for multiple locks) preferably Make: Godrej/Harrison/Link with three individual keys for each well.

A concrete platform using concrete mix of 1:2:4 should be provided around the well pipe welded with minimum 6 No's of 38mm (1  $\frac{1}{2}$ ") L angle as per the drawing specification given in the tender. Schematic diagram of well is given in section IX.

A Display Board as per drawing in the section IX with details of wells should be installed near the well. On completion of well, the site around the well should be brought to previous natural condition

## 12 | Successful and Unsuccessful Well

Success of well will be decided by the Representative of Regional Director. In case of non-availability of minimum thickness of aquifer capable of yielding expected discharge, the bore hole may be abandoned and payment based on actual work carried out will be made at quoted rates. The well abandonment committee will be constituted by respective Regional Director and will consist of two officers of hydrogeological discipline and one officer of engineering discipline to decide upon the measurement of unsuccessful well. If the well is abandoned due to the fault of the contractor or due to the limitations of the machinery, borehole fishing etc, **no payment shall be made**.

#### 13 | Mode of Measurement

The Contractor shall be paid on actual Computerised Measurement Books (CMB) of finished work on the basis of quoted rates. The Contractor shall be eligible for payment of full length drilling of pilot hole irrespective of the design of tube well assembly provided the more drilling necessitated in search of a suitable aquifer and as per the advice of Engineer-In-Charge.

# 14 The Surrounding Area After Well Completion

The area surrounding the well site has to be levelled, pits to be filled and the area to be restored to the original condition i.e. as before start of drilling operation.

## 15 | Handing Over of Tubewell

The well must be properly handed over to the CGWB along with hard and soft copy of BDR in triplicate. The wells will be treated as completed and handed over only on submission of Basic Data report along with all data, analysis, Graph sheet etc (Hard copy in triplicate & soft copy) and upon the installation of DWLR and telemetry systems, duly accepted by the Regional Director, CGWB, Concerned Region. The copy of the accepted BDR and related document, if any, is to be submitted to concerned Executive Engineer for payment purpose.

16	Monitoring and Measurement of Work		
16.1	The monitoring and measurement of different activities for PIEZOMETER drilling shall be as specified in below table		
	S. Parameter No.		Monitoring Mechanism / Measurement Criteria
	1)	Location of site	Site selection report(s) duly signed by the representatives of contractor, state government and regional office CGWB.
	2)	a)Depth/ Diameter of pilot hole in Piezometer	Sounding should be carried out in the presence of the Engineer-In-Charge. In wells wherever logging is conducted, the logged depth will be taken as pilot hole depth in case of variation between pilot hole depth and logging depth.
		b) Depth of reaming	Depth of reaming shall be assembly depth plus 5m or actual which ever is less.
	3)	Inspection of assembly pipes, screen pipes, gravel etc. as per specification	Pipes used for assembly, screen pipes, gravel etc. should be pre-inspected and approved by Engineer-In-Charge. Assembly lowering should be carried out in the presence of CGWB Hydro geologist/Engineer-in- Charge. On completion of gravel shrouding sounding should be carried out before cement sealing and it should be ensured that gravel shrouding and cement sealing are in correct depth.
	4)	Litholog/ Electrical log/ Composite log/ Well Design	Verification/ validation by the Regional office
	5)	Installation of well assembly and gravel shrouding	Should be carried out in the presence of Engineer-In-Charge/CGWB site Hydro geologist.
	6)	Development of well	Development should be carried out in the presence of CGWB site Hydro geologist/Engineer–in Charge. Sand content of water will be verified by CGWB site Hydro geologist/Engineer-In-Charge.
	7)	Testing of well	PYT and Slug test (if specified in the BOQ) should be carried out by the contractor in the presence of CGWB Hydro geologist/Engineer- In-Charge. Analysis and evaluation report to be prepared by the contractor and to be validated by the Regional office.
	8)	Well capping/ construction of platform and installation of protection box	Physical inspection by the Engineer- In-Charge
	9)	Supply , Installation and Commissioning of DWLR and Telemetry	Physcial Inspection by the Engineer- In-Charge and data generation report
	PS: 1	he contractor will repo	rt to the Engineer-In-Charge via e-mail/phone the daily

progress at each site and submit status report on weekly basis to Executive Engineer.

# 18 | Preparation and Submission of BDR

The contractor is required to prepare the basic data report (BDR) for the wells as per the format provided in Section-VIII. The BDR along withlitholog, loggingdata, test data, graph sheet, analysis report shall be submitted to CGWB in soft as well as hard copy (in triplicate). In site where more than one well is constructed, one BDR should be prepared for all the wells constructed in the site and the litholog, well diagram, time log, static water level etc for EW and OW should be furnishedseperately in the BDR.

# 19 | Specification and Drawings

The specifications for drilling and construction of wells shall be as specified in the bill of quantities. The drawings for Well cap, Protection Box, Cement concrete platform, Display Board and Display Board platform is provided in Section-IX.

# SECTION-V – PART B- HARD ROCK

# SCOPE OF WORK AND TECHNICAL SPECIFICATIONS

#### 1 General

The locations for construction of wells provided in the section- VII are tentative. The contractor on award of work shall confirm the locations from concerned Regional Director, CGWB before deputing manpower and machinery for undertaking the work. In case work could not be carried out at a particular site due to a genuine reason like non approachability, land dispute, etc. alternate site will be provided.

The Contractor shall have to furnish in writing to the concerned Regional Director & Executive Engineer, CGWB, a programme of drilling of wells within a week of handing over the pin pointed sites to the Contractor.

The location/sites furnished are tentative. The Employer reserves the right to modify or change the location as well as the depth of construction as per the local prevailing conditions and no additional cost will be paid in this regard.

For the purpose of drilling approach road, water for drilling, crew, camp and other infrastructure, preparation of the site and placing the rig at the site etc., are to be arranged by the drilling contractor at his own cost. At each site, a tent with furniture should be provided to facilitate the CGWB representative to discharge his duties

Technical problems during drilling like jamming of drill string, damages to drilling tool, stoppage of work due to unforeseen reasons etc would be the responsibility of the drilling contractor and no compensation of any kind would be paid by the department. In case the well could not be completed and had to be abandoned due to contractor's fault, no payment will be made for that well. In case the well is abandoned due to geological condition such as poor discharge, inadequate depth of good quality water bearing formation, etc, duly certified by representative of CGWB and on approval of Regional Director, payment for executed works will be made. The decision of Regional Director/Executive Engineer will be binding on contractors in deciding whether the well is abandoned due to contractor's fault or due to hydro geological conditions

# 2 Scope of Work and Overview

## 2.1 Scope of Work

The scope involves drilling and casing of overburden, drilling in hard rock up to the targeted depth, identification of depth of each fracture, assessment of yield after encountering of each fracture, development and testing of Piezometers Wells if specified in BOQ, collection of lithlog samples and water samples, chemical analysis of water samples, preparation of lithlogy and preparation of Basic Data report.

The contractor shall be required to carry out drilling and construction of Piezometer Wells as per tender, development by air compressor and conducting preliminary yield of wells, , slug test and data analysis if specified in BOQ, preparation of basic data reports

along with site location map, and submission to CGWB in prescribed format (section-VIII &IX) in triplicate along with well diagram in details of reaming diameter, well size and depth, cement sealing depth if any, clay packing depth etc.

The details of all the activities to be carried out by the contractor including methodology to be adopted and reporting formats are discussed in following section 3.0 to 17.0. Tentative list of locations has been provided in section-VI.

The contractor should deploy minimum \_\_\_\_\_ Nos of Rig unit attached with pump unit [ No of rig unit to be calculated based on formula given below:

 $R = (W \times D)/T$ 

Where,

R is the minimum number of Rig unit required

W is the total No of wells

D is the average number of days required to complete one well (i.e. D= 3 in case of 200m well in Hard rock and D = 20 in case of 300m well in soft rock)

And T is the scheduled time period for completion of the project in days]

#### 3. Construction of Piezometer Wells

It is proposed to construct Piezometer well for 200m or depth as specified in BOQ.).

Tentative locations of Piezometer wells are given **in section VII**. The employer reserves the right to change the location in case of non availability of site clearance or any other reasons and no additional cost will be paid for change in locations

#### The number of Piezometer well to be constructed shown in Section- VI.

Water sample should be collected in 1litre HDPE bottles using standard procedures as specified in the BOQ. BDR along with litholog, logging data and report, test data and report etc. along with well diagram incorporating all details should be submitted. On completion of well, the site should be brought to the previous natural condition.

The well should be provided with well cap using MS plate of minimum thickness 6mm and protection box made of **3.00 mm** GI sheets with Brass lock (7 lever) with all common keys (One Key for multiple locks) preferably Make: Godrej/Harrison/Link with three individual keys for each well. A concrete platform (using concrete mix of 1:2:4) as per drawing should be provided around the well housing pipe as per the specification given in the tender.

The Engineer in charge will decide the actual casing length at site based on overburden encountered. Lithologs samples should be collected after proper washing adopting standard procedure for sample collection for every 3m or in the event of change in formation.

Also Preliminary Yield Test (PYT) should be conducted if specified in the BOQ or if required as per instruction of site officer on encountering each fracture with substantial discharge. For conducting PYT, 75mm diameter M.S Pipe (Eduction pipe) up to 1m above bottom level of drilling and 25mm dia airline should be lowered inside eduction pipe up to approximately 1m above bottom level of eduction pipeor the air line should be

placed in eduction pipe so that the discharge is optimum. 20mm MS/ PVC pipe should be lowered for measuring water level. Slug test has to be conducted on need based or if specified in BOQ, on instruction of site geologist. The proper jigs and fixture or anchoring of pipes during the test... Water sample should be collected during pumping test and during drilling in 1 litre HDPE bottles and handed over to the Regional Director with receipt. The nomenclature should be made on the bottle to identify the site where the water is collected. BDR along with litho log, logging data and report, test data and report, water sample analysis report etc should be submitted. Also well diagram with details such as overburden drilling diameter and its depth, casing pipe lowered and its diameter and depth, naked bore diameter, depth at which fractures encountered, static water level, V notch discharge on encountering each fractures and depth, its size and depth clay packing, cement sealing if required, concrete platform etc should be submitted. The well should be provided with well cap using M.S plate of minimum thickness 6mm and protection box as per drawing. A concrete platform should be provided around the well housing pipe welded with minimum 6 Nos. of anchoring plateausas per the drawing specification given in the tender. Schematic diagram of well is given in section-IX.On completion of well, the site around the well should be brought to previous natural condition.

# 4 Methodology / Approach

# 4.1 Process/ Methodology Involved In Construction Of Wells In Hard Rock Up To 300/200 M Depth

#### **Piezometer Wells**

- Site selection and pinpointing of site.
- ii) Shifting of Rig (shortest approachable route)
- iii) Site preparation
- iv) Overburden drilling (using Button Bit/RR Bit)
- v) Installation of casing pipe in the overburden and surface grouting.
- vi) Telescopic Drilling using DTH method up to targeted depth
- vii) Measurement of yield using V notch/volumetric method after encountering each fracture zone and simultaneous water sample collection and quality analysis for individual fracture zone
- viii) Sample collection and preparation of litholog
- ix) PYT/Slug test (need based if specified in BOQ)
- **x)** Development by air compressor

- **xi)** Verticality test of well if required.
- xii) Water sample collection
- **xiii)** Construction of platform, well capping and installation of protection box.
- **xiv)** Preparation of Basic Data Report
- **xv)** Handing over of well

# 5 Casing

- (i) M.S Casing pipes used for well assembly should confirm to the specification given below.
  - (a) BIS marked steel tubes plain ended with bevelled edges on both ends, for water wells of type ERW conforming to Table No 3 of IS: 4270/2001 (third revision). The steel for the ERW casing pipes shall be of Make Tata, Jindal, SAIL, Essar and test certificate of material from Tata/Jindal/SAIL/Essar shall mandatorily be submitted to the Engineer-Incharge at the time of Inspection.
- (ii) LCG V-wire screen pipe with slot opening as mentioned BOQ should confirm to latest version of IS:8110-2000. The LCG V Wire screen shall be of Make Appollo/, Johnsons/ and test certificate from Make Apollo/ Johnsons/Super shall mandatorily be submitted to the Engineer-Incharge at the time of Inspection
- (iii) M.S Casing pipes as specified in above should confirm to the specification given below.
- (iv) BIS marked steel tubes plain ended for water wells of type ERW conforming to Table No 3 of IS:4270/2001 (third revision).
- (v)A length of 0.50 m of casing pipe should be left above the ground level.
- (vi) MS Casing pipe should be installed perfectly vertical on the consolidated rock basement in such a manner that there should not be leakage of air during drilling. The annular space between the casing and the borehole wall should be grouted with cement slurry to avoid entry of local foreign material in the borehole in consolidated formations.
- (vii) Well cap should be securely sealed to the pipe after bore hole is checked by the Engineer-In-Charge. The well cap should be fabricated as per the provided specifications by CGWB.

## 6 Well Development

In respect of borehole drilled in hard rock formations, well should be washed/ developed using compressor thoroughly after completion of the drilling operation till clear water comes.

# 7 Construction of Platform, Well Cap, Protection Box and Display BOARD

After the completion of well in all respects described above, the contractor shall fabricate and install well cap using MS plate of minimum thickness 6mm, make platform around well, and install Display Board and Protection Box as described in the Drawings in section-IX

.

#### 8 Data Collection

Drilling contractor will

- i. Maintain a drill time log for every meter of drilling for wells drilled in hard rock formation.
- ii. Measure discharge over 90° V notch plate during drilling on every increase/decrease of yield at various depths for wells drilled in hard rock formations.
- iii. Collect formation samples of minimum 500 g mass at an interval of 3m or change of formation during drilling and properly pack in polythene bags and label with date/ depth/ location.
- Collect 1 litre water sample for every water-bearing zone encountered for wells drilled in hard rock formations.

Necessary arrangements are to be made for verification by Engineer-In-Charge for checking of depth of borehole, length of casing, static water level, discharge and any other requirement as shall be felt necessary from time to time. A guest tent should be pitched at the site during drilling/ testing and provided with table and chairs for the Engineer-In-Charge.

# 9 Verticality Test

If required, the vertical test shall be carried out in wellswhere pump/eduction pipe cannot be lowered smoothly to the desired depth and the contractor shall carry out the vertical test at his cost as per the decision of the Employer side representative. The well assembly shall be placed vertically inside the borehole. Verticality test as per IS: 2800 (Part 2) -1979 must be arranged by the Contractor with standard equipment at his cost. In case of deviation beyond the permissible limit, the well will be treated as vertically out. The acceptance of suitability of the well will be purely at the discretion of CGWB. The well will not be accepted in case pump could not be lowered to desired depth due to nonverticality of well and no payment will be made.

#### 10 Successful and Unsuccessful Well

Success of well will be decided by the Employer authorized officer. In case of non-availability of minimum thickness of aquifer capable of yielding expected discharge, the bore hole may be abandoned and payment based on actual work carried out will be made at quoted rates. The tube well abandonment committee will be constituted by respective Regional Director and will consist of two officers of hydrogeological discipline and one officer of engineering discipline to decide upon the measurement of unsuccessful well. If the well is abandoned due to the fault of the contractor or due to the limitations of the machinery, borehole fishing etc., **no payment shall be made**.

#### 11 Submission of reports in the prescribed formats

The following reports are required to be submitted by the contractor in the format prescribed in relevant Annexure in hard as well as soft copies:

- (i) Litholog
- (ii) PYT and Slug test (if specified in BOQ) Data as per proforma
- (iii) Logging data as per proforma and analysis
- (iv) Water sample chemical analysis report.
- (v) Consolidated statement of test (As per proforma in section VIII)
- (vi)BDR as per proforma enclosed in section VIII

# 12 Preliminary yield Test (PYT) ) if specified in BoQ

The contractor has to carry out the PYT as per instruction of employer site representative in order to determine aquifer parameter (Transmissivity, Specific capacity)

# 12.1 Methodology/Approach

Transmissivity may be determined by conducting Preliminary Yield Test in wellshaving discharge around 1 lps to 1.5 lps or based on hydrogeological condition, as per the instruction of employer site representative.

#### Method/Procedure:

- (i) For conducting PYT, 75mm dia or higher dia GI/ MS/ (Eductor pipe) upto 1m above bottom level of drilling and 25mm dia airline should be lowered inside eduction pipe up to 1m above bottom level of eductor pipe or the air line should be placed in such a way that the discharge of water is optimum. 20 mm GI/ MS/ PVC pipe should be lowered for measuring water level and using water level sounders, the water level should be measured.
- (ii) Pre pumping water level is to be measured in the pumping well.
- (iii) The well is to be pumped at a constant discharge for long duration (100 min) and water level during recuperation (recovery) should be are measured periodically (Section-VIII). The discharge should be measured using 90° V Notch
- (iv) Recovery water level is to be recorded as per data sheet (Section-VIII) after stopping the pump until the pumped water level reaches static water level or 90% of the static water level.

The data recorded shall be analysed by using Jacob straight line method.

# 13 Slug Test )(if specified in BoQ)

The contractor shall conduct slug test in piezometers (if specified in BOQ) as and when required by the employer.

# 13.1 Methodology/ Approach

Slug tests is to be conducted in wells as per the decision of employer, where conventional aquifer performance tests cannot be conducted due to constraints of yield. In this method, a known volume or Slug of water (maximum 20 litre) is instantaneously injected into the well and the water level is measured at periodic intervals till the preinjection water level returns to the pre-injection level or for a pre-determined period, whichever is less.

# Procedure for conducting slug test:

- (i) Collect and record all available information (depth, diameter, yield, aquifer type, lithology etc.) about the tube well / bore well to be tested
- (ii) Measure the static water level before the injection of slug.
- (iii) Inject a known volume (slug) of water (not more than 20 litres) into the bore well/tube well.
- (iv) Measure the water level at closely spaced intervals (once every minute up to 10 minutes, once every 2 minutes up to 20 minutes and then on once every 5 minutes till completion).
- (v) Continue recording depth/time measurements until the water level returns to pre-injection level or a sufficient number of readings have been made to clearly show a trend on a plot of water level recovery versus the logarithm of time.
- (vi) Estimate the value of change in head (H<sub>0</sub>) in response to injection of slug (H0). Compute also the change in water levels (H) for each subsequent measurement.
- (vii) Compute the values of H/H<sub>0</sub> for each measurement.

## **Analysis of Data**

Field data generated need to be analysed using standard methods

- (i) For Unconfined aquifer Hvorslev method (1951)/Bouwer and Rice method (1976).
- (ii) For confined aquifers Cooper et al (1967) method

## 13.2 Technical Specifications

- (i) Slug test is to be conducted in Piezometers (only if specified in BOQ)
- (ii) Conducting test with slug injection (20 litres)
- (iii) Slug injected should be of potable water quality.
- (iv) Recording water level data in periodic time steps (minute recording upto 10 min, 2 minute recordings upto 20 minutes and then on 5 minute recordings till completion)

Analysis of data generated using following method for unconfined aquifer by

- (i) Hvorslev method(1951) and
- (ii) Bouwer and Rice method (1976)

For Confined aquifer by - Cooper et al (1967)

Submission of report in prescribed format (Hard and Soft copy) containing

- (i) Site location details (Section-VI)
- (ii) raw data sheet ( Section-VIII )
- (iii) Processed graph sheet
- (iv) Calculation details and results
- (v) Consolidated statement of slug test ( Section-VIII)

#### 14 Mode of Measurement

The Contractor shall be paid on actual Computerised Measurement Books (CMB) of finished work on the basis of quoted rates. The Contractor shall be eligible for payment of full length drilling of bore hole.

# 15 The Surrounding Area After Well Completion

The area surrounding the well site has to be levelled, pits to be filled and the area to be restored to the original condition i.e. as before start of drilling operation.

### 16 Handing Over of well

The tube/bore well must be properly handed over to the CGWB along with hard and soft copy of BDR in triplicate. The wells will be treated as completed and handed over only on submission of Basic Data report along with all data, analysis, Graph sheet etc (Hard copy in triplicate & soft copy) and upon the installation of DWLR and telemetry systems duly accepted by the concerned Regional Director, CGWB. The copy of the accepted BDR and related document, if any, is to be submitted to Executive Engineer for payment purpose

## 17 Monitoring and Measurement of Work:

17.1 The monitoring and measurement of different activities for PIEZOMETER drilling shall be as specified in below table

S. No.	Parameter	Monitoring Mechanism / Measurement Criteria		
1)	Location of site	Site selection report(s) duly signed by the representatives of contractor, state government and regional office CGWB.		
2)	Depth/ Diameter of pilot hole	Sounding should be carried out in the presence of the Engineer-In-Charge. In wells wherever logging is conducted, the log depth will be taken as pilot depth in case of variation between pilot hole depth and logging		

		depth for payment purpose.
3)	Litholog/ Electrical log/ Composite log/Well Design	Verification/ validation by the Regional office.
4)	Development of well	Should be carried out in the presence of Engineer-In-Charge/Regional office site hydro geologist.
5)	Testing of well	PYT and Slug test ( if specified in BOQ) whereever applicable should be carried out by the contractor in the presence of Engineer- In-Charge. Analysis and evaluation report to be prepared by the contractor and to be validated by the Regional office
6)	Well capping/ construction of platform and installation of protection box	Physical inspection by the Engineer- In-Charge
7)	Supply , Installation and Commissioning of DWLR and Telemetry	Physcial Inspection by the Engineer- In-Charge and data generation report

PS: The contractor will report to the Engineer-In-Charge via e-mail/phone the daily progress at each site and submit status report on weekly basis to Executive Engineer.

# 18.2 Preparation and Submission of BDR

The contractor is required to prepare the basic data report (BDR) for the wells as per the format provided in Section-VIII. The BDR along with data, graph sheet, analysis report for each of the well shall be submitted to CGWB in soft as well as hard copy (in triplicate). In site where more than one well is constructed, one BDR should be prepared for all the Piezometers constructed in the site. The litholog, well diagram, time log, static water leveletc for the Piuezometers should be furnished seperately in the BDR.

# 18.3 Specification and Drawings

The specifications for drilling and construction of wells shall be as specified in the bill of quantities. The drawings for Display Board and Display Board platform is provided in Section-IX.

# **SECTION-V - PART C-**

Supply, Installation, Commissioning of DWLRs and telemetry, Establishment of Data Acquisition system & its maintenance for Real Time Ground Water Level monitoring and supply of Ground water level, ground water temperature data from site and receipt of data at National Data Centre, CHQ, Faridabad, in a desired format from Nos CONSTRUCTED Piezometers wells Through telemetry systems with 05 years warranty and 02 years AMC

SCOPE OF WORK AND TECHNICAL SPECIFICATIONS

# SCOPE OF WORK AND TECHNICAL SPECIFICATIONS

# TECHNICAL SPECIFICATIONS WITHOUT QUALITY PROBE

# 1.0 SCOPE OF WORK

- (i) Complete supply, installation, testing, commissioning of remote stations including associated civil works, sensors, data logger, software, hardware and ancillaries' equipment, etc.
- (ii) Clean well to be ensured by the contractor before lowering the instrument and its accessories.
- (iii) The scope of work also includes supply of data during Five (5) years comprehensive warranty period and two (2) years AMC period to commence immediately after the expiry of warranty period.
- (iv) Technical design, supply, installation, testing, commissioning of Digital Water Level Recorder(DWLR) for the real time ground water level data collection network and establish data communications using GSM & GPRS telemetry between the remote stations and existing National data centre, CGWB, Faridabad and through the India WRIS/ WIMS at NewDelhi. This includes, but is not limited to acquiring service, and maintaining all aspects of the service during the Comprehensive warranty period.
- (v) Establish communication between remote DWLR stations with existing GSM & GPRS receivingsystem along with all required arrangement at National Data Centre, CHQ, Faridabad to collect GSM &GPRS data from DWLR station network. And required all acquiring hardware and software, installation, configuration. The data is to be submitted in the requisite format and hence no data processing software has to be provided by the bidder at National data centre
- (vi) Perform on-site assembly, start-up of the supplied goods.
- (vii) Complete commissioning integration, testing & organization of the whole system.
- (viii) Provide operation & maintenance services during Five (5) years comprehensive warranty period and two (2) years AMC period to commence immediately after the expiry of warranty period, which shall include all components at the remote DWLR stations as well as all newly acquired equipment's in the existing data center. The **AMC** must be comprehensive without any exclusion except from force majeure will be permitted.
- (ix) Provide installation and maintenance reports as required by the Purchaser and any delay is not acceptable in time schedule provided by supplier.
- (x) Supply detailed operation and maintenance manual for each component in the system and compile Knowledge and working supply type Manual for training purpose (including multimedia training kits).
- (xi) Provide classroom and field training to the sufficient number of **CGWB** personnel on the DWLR data acquisition system. This includes operation and maintenance procedures. Training will also occur at selected field locations as selected by the Purchaser.
- (xii) A guarantee by the manufacturer that all equipment being provided will be supported for a minimum of ten years after the commissioning of the Digital Water Level Recorder (DWLR) Systems.
- (xiii) Calibration and validation of the installed system shall continue during the entire **Warranty** period on half yearly basis.
- (xiv) The remote stations shall store the data for at least one year.
- (xv) Supply a detailed operation and maintenance manual for each appropriate unit of supplied goods.
- (xvi) Security of installed equipment's against theft and vandalism will be the responsibility of the Bidder till successful installation, commissioning, and successful site acceptance testing.

- (xvii) Although all accessories and fixtures required for installation of the equipment & their specifications have been specified in technical specifications however, bidder shall ensure the satisfactory performance & functioning of DWLR system complete, for this if any accessory or items are required that shall be provided by bidder, the cost towards that is deemed to be included in the cost tendered by the bidder, no extra cost shall be paid to the bidder on this account.
- (xviii) Ensure that all software licenses and maintenance agreements are in the name of Purchaser and should seek full support and updates for such software for the duration of the warranty period and Annual Maintenance Services Period. All the software licenses should be valid for the design life of the system that is 10 years from date of commissioning.
- The DWLR shall be preferably from the manufacturers/suppliers viz Aaxis Nano Technologies / Swan Environmental / Encardio-Rite Electronics and shall be certified preferably from BIS / IS or other renowned National / International (Developed Nations) testing and certification institutions. The satisfactory performance certificate for performance of Hydrostatic Pressure based DWLR and telemetry from Government organization to which these items were provided shall be furnished. The make of the DWLR and the above certifications shall mandatorily be submitted alongwith the Bid document and also to the Engineer-Incharge at the time of Inspection during the execution of the contract. The batteries and other external items in the DWLR system accessories shall be BIS/IS certified (Certificate Required). Alternatively, if certified items are not available in the market, then Reputed brands of standard quality items which have been in operation with continued unhindered period for past 5 years are to be provided. The satisfactory performance certificate from government organization to which these items were provided shall be furnished. The above certifications shall mandatorily be submitted alongwith the Bid document and also to the Engineer-Incharge at the time of Inspection during the execution of the contract.

# **2.0** Technical Specifications of Equipment

The Goods and Related Services shall comply with following Technical Specifications and Standards:

(A) Specifications of the DWLR, hydrostatic Type (GW) with Telemetry System Specifications for Water Level and Temperature sensor

Feature	Value
Site Conditions	
Ambient Temperature	From 0 to 60 °C
Humidity	5-100%
Altitude	0-2500 meter
DWLR Water Level Sensor	with Temperature Sensor
Sensor Type	Submersible pressure transducer with Non-Vented Pressure Sensor with Barometric Pressure Correction for Individual Sensor
Range	(30m, 60m, 120m, 200m, 300m)
Installation Depth (Cable length)	Tentative depth as per the attached list.  Concerned Regional Director will decide the depth of installation at the time of drilling of piezometer
Dimension	Outer dia meter of sensor unit:<80mm,(for sensor)

Material	Stainless Steel (SS-316) or other better corrosion resistant material	
Ingress Protection	IP 68 for sensor	
Accuracy	0.2% FSO	
Resolution	3mm	
Reproducibility	0.1% full scale or better	
Long Term Stability	0.1% Full scale and should ensure long term stability without any field calibration requirements except barometric compensation	
Temperature Measuring Range	0 to 50°C	
Temperature Measuring Accuracy	Better than ± 0.3°C	
Burst Pressure	>=2 Time Full scale	
Overload Pressure	1.5 Time full scale without effect on calibration	
Over-voltage Protection on supply & sensor wires	Should include lightening, over-voltage and surge protection	
Out put	SDI-12,RS-485,4-20mAor compatible with data logger.	
Installation	The system should be provided with a suspension bracket, Wellen closure / canopy & junction boxes (if required) allowing secure installation within the Piezometers' headwork, including appropriate cable mounting accessories to allow the sensor to be adjusted to the required depth.	
Direct Read <u>Sensor</u>	The cable shall have following features:	
Cable	<ul> <li>Strength members for good longitudinal stability of cable</li> <li>The cable and contacts should be fixed or quick connect</li> <li>Cable screen to be connected to the data logger ground terminal to minimize electrical interference.</li> <li>A cable suspension bracket allowing the DWLR to be adjusted to the required depth in a stable and reproducible manner.</li> <li>Corrosion and moisture free as the equipment has to work under water condition.</li> <li>Cable should have good flexibility.</li> <li>Should be of Polyurethane Jacket or better</li> <li>The electrical wires shall have sufficient conductivity to allow for extension of the cable to up to 200m without degrading accuracy, stability and data communication.</li> <li>In case of Single Cable, No PVC pipe is needed. However if there is more than one Cable, 25mm dia PVC pipe with BIS mark should be provided for housing the cables to avoid tangling.</li> </ul>	
Data logger		

Atmoonhoule Dueses	Atmospharia Drassura samastiana ta ha mada antamatianila
Atmospheric Pressure correction	Atmospheric Pressure corrections to be made automatically
Data Logger Input	Level sensor*,Temperature sensor
	* only compensated water levels need to transmitted to data base, however barometric pressure/uncompensated water levels may be stored in data logger and shall be transferred to the data base periodically.
Resolution of Measurement	16-bit ADC with +/- 1 LSB accuracy
Measuring interval land measuring modes	Should be programmed to store data from 1 minute one reading to 24 hours one reading.
Settling up Time	<30 minutes
Recording Capacity	Shall store data of at least 1 year
Memory Type	Non-Volatile flash memory that can store one year of data (with15 minute logging interval ) & expandable up to minimum1GB using USB/SD Card
Power Supply	Should be equipped with lithium or alkaline battery pack giving at least 2 years operation (with one transmission and four recordings per day). Battery must be replaceable in the field or in local office soft he implementing Agency or supplier. Replacement of batteries must be readily available in India.
Battery Voltage Monitoring	Monitoring and transmission of Battery Voltage level
Data logger Location	Data logger should be located on top (on ground surface).
Built in clock	Accurateto±1minute per year
Displayed Time Resolution	1 second or better
Over-voltage Protection on supply & sensor wires	Should include lightening over-voltage and surge protection
Protection	IP68 with Impact Resistant for Water level sensor IP65 (for data logger)with Impact Resistant
Port for configuration	One serial port for communication with laptop for programming
Ports for telemetry	Port for communication with GSM & GPRS telemetry
Operating System	Windows based software for system configuration/communication
Licenses	All required licenses shall be included
Real time clock	Time synchronization facility shall be provided with IST

Communication Interface	
Computer Interface	The Logger must be capable of connection to a computer via USB 2.0/ USB 3.0 and supply should include the necessary interface cables.
File Format	The format of the data downloaded by communication interface shall be in standard CSV format (as specified in technical Specifications) which is compatible with India WRIS/ WIMS software.
GSM & GPRS Transmitter	
Transmission System	GSM / GPRS/ edge-based data transmission system
Frequency range	900 MHz:824-960 MHz / 1800MHz:1710-1880 MHz 4G and better
Performance	Data Reception availability of 95 % or better
Communication Direction	Utilize GPRS network for two-way connection with connection with FTP,TCP/IP(INTERNET) connection and SMS server
Transmission trigger	Data collection to be triggered by interrogation from DataC enter,or by event-based transmission triggered by remote site
Power Saving	Ability to disable interrogation system in order to save power at remote site
Communication Protocol	Data transmission to execute HTTP Post or FTP,SMS to transmit data to the Data Center
Accessories	Allassociatedequipment,includingAntennaallcablesandmountinghardware
Software for Data logger	I
Operating System	Windows based software for system configuration transfer and analysis of data to computer
Version	English language version
License	All required licenses included
General Features	
Battery	The battery should be easy to replace, and easily available in the market.
Tools	Complete tool kit for installation and routine maintenance
Manuals	Full documentation and maintenance instructions in English
Training	As per mutual consent at the time of installation of telemetry system

# Specifications for Data Services

Bidder is to acquire, manage, and operate data collection, storage and dissemination to support the following activities during 5 years warranty period and 2 years comprehensive AMC period or DWLRs with telemetry system.

Note: A server and storage system for additional backup shall be provided at National Data Center

S.No.	Parameter	Functionality requirement
1	Data collection	Bidder should be seamless data and responsible for
	performance	Real-time data collection at all DWLR stations & shall ensure seamless data transfer.
		The data from DWLR stations will be transmitted through GSM / GPRS in the standard CSV format (as specified in technical Specifications) to FTP server at National Data Center (NDC), Faridabad and India WRIS/ WIMS.
		Data Transfer to NDC server &India WRIS/ WIMS software through internet. This data will be processed and disseminated via India WRIS/ WIMS cloud.
		The processed data from India WRIS/ WIMS in the form of reports/ bulletins will be transmitted to existing National Data Centre.
2	Data maintenance	All activities pertaining to installation, data services, Operation &maintenance at the remote DWLR station will be maintained by the bidder during the warranty and maintenance period and will include a log of activities during every station visit.
3	Reports &Bulletins Storage system	Storage of all data, reports & bulletins in the proper manner and easy to access. This data will be backed up in such a way that it is not possible to lose data that has already been stored with the use of mirrored or replicated storage in such a way that no data is lost.
4	Help desk	Bidder to operate help desk to respond to queries from the purchaser. Help desk will be able to solve any problems related to data collection, processing, and dissemination to the purchaser. Help desk shall be available from 8am to 6pm, Monday–Sat.

# 4.0 Specifications for Data Transmission System (Telemetry)

The transmission system should be tightly integrated with the DWLR System ( DAS), along with compact remote / field mounted systems consisting of sensor, data logger, modem and antenna.

- (i) The system should be water tight (IP 68 for sensor & IP65 for data logger or equivalent) and impact resistant;
- (ii) The system should allow easy access for monitoring measurements without removing complete system.
- (iii) System must be power-supplied by standard lithium / alkaline batteries for operation time of at least, **Two years** by one set of batteries (one transmission per day,4 measurements per day)and must be Placed in a water resistant (IP 65 or equivalent) enclosure. The replacement of batteries during **five years** warranty would be responsibility of the bidder, **at bidder's cost**.

- (iv) The system must have integrated energy management system using free programmable time slots for measurement and transmission to minimize power consumption;
- (v) The connectors should be water-tight (IP68 or equivalent).
- (vi) An alarm notification must be sent by the system via SMS to user defined phone numbers through suitable means of communication for user defined parameters. This includes battery performance (battery voltage).
- (vii) Standard USB / RS232 communication interface should be available for set up and configuration and must be easily accessible.
- (viii) Data logger shall be provided with Atmospheric Pressure sensor at individual station, & Atmospheric Pressure correction shall applied automatically on the raw water level reading from non-vented water level sensor. The details of correction procedure shall be fully documented in user manual. Provision shall be made to view and store the raw and compensated water level data along with atmospheric pressure and Water Temperature data in data logger memory.
  - Only compensated water level need to transmit to data base, however barometric pressure / uncompensated water levels may be stored in data logger and shall be transferred to the data base periodically.
- (ix) All measurement and set up options, data download and programming of data logger shall also be done by online session similar to all functions at site by direct connection to a PC.
- (x) Data download / retrieval from remote DWLR station to central server PC via GSM & GPRS network shall be provided. The data from remote station should be in standard CSV format (as specified in technical Specifications) which is compatible with India WRIS/ WIMS software
- (xi) The software should be provided to allow download of the data from the DWLR data logger to a Laptop / hand held devices in the field. The downloaded data shall be in standard CSV format (as specified in technical specifications) which is compatible with India WRIS/ WIMS software.

# 5.0 Specifications for Data Processing Hardware at Data Centre

The Bidder shall provide one high end server with monitor and 3KVA online UPS with power backup of 4 hour and one computer node (workstation) at the Data Center along with A3 size color printer & 42"LED display. All the consumables (including batteries) except cartridge and papers shall be responsibility of the Bidder during the entire period of warranty and AMC. The minimum specifications of server, computer node, Display system areas below:

Hardware at National Data Centre, CHQ, Faridabad should have following major equipment;

- a) Server with monitor as per the following specifications
- b) Necessary data switch, router and fire wall for minimum 8 Mbps internet speed, static IP
- c) 3 KVA online UPS with 4 hours backup time
- d) Computer Node (Workstation) PC
- e) A 3 Size color Printer
- f) 42" LED Display unit

### **<u>5.1</u>** Server Technical Specification:

- a) Server having two nos. of x 8664-bit processor (Intel Xeon E5-2620 v 4 or better)
- b) 64 GB DDR III expandable to 256 GB or more
- c) Integrated Graphics Controller
- d) SASRAID Controller supporting RAID0,1,
- e) 2\*600GB SAS Hot Swap HDD (10 K or higher RPM),
- f) Dual 1 Gbps Network port,

- g) DVD writer,
- h) 23" LED Monitor with a resolution1920 X 1080 or better,
- i) OEM Keyboard and OEM Mouse
- j) Server Chassis having Redundant Hot Swappable Power Supply with 8 Hot Swap drive bays,
- k) Certification for Linux and Windows,
- I) All required device drivers for System Configuration and Server Management Support including additional data storage facility of 8 TB for 5 years and all accessories.
- m) Software: Perpetual license for window server (2012 or later) ,perpetual license for MS Office, firewall system with Good antivirus etc.

# 5.2 Computer Node (Work station)

Operating system	Windows10 Home / Professional	
Chipset	Intel H270 and above or equivalent	
Processor	Intel®Core™i7-6700T with Intel ®HD Graphics 530 (2.8GHz, upto 3.6GHz,8 MB cache, 4cores) and above or equivalent	
Memory	8 GB DDR3Lr and above or equivalent (RAM)	
Hard drive description	1 TB 7200rpm SATA or better	
Display	58.42cm(23) diagonal WLED- back lit (1920x1080).Touch-enabled (optional)	
Optica Idrive	DVD-Writer	
Network interface	Integrated10 /100/ 1000 Gigabit Ethernet LAN	
Wireless	802.11b/g/n(1x1)andBluetooth®4.0combo(Optional)	
Port	4 USB 2.0;2 USB 3.0;1 head phone / microphone combo	
Pointing device	USB wired / wireless optical mouse	
Key board	USB wired / wireless standard key board	
Pre-installed software	Preinstalled MSOffice Life time with Good antivirus is preferred.	

# 5.3 Printers Specifications

A 3 size color printer shall be procured for National Data Center from a reputed manufacturer.

i. A3 coulor printer

ii. Functions: Print, Copy, Scan

iii. Printing Upto 20 page / minute

iv. Black & color printing: As fast as 9.5 sec per page

v. Recommended monthly page volume: 250 to 2000

vi. Processor speed: 600 MHz

vii. Connectivity: e-Print capability

viii. Paper handling input, standard:100 sheet input tray

ix) Paper handling output, standard: 100-sheet face-down bin

# 5.4 DISPLAY UNIT (LED)

i) Screen Type: 42"Screen LED

ii) Display resolution:1920x1080

iii) Colors: 256 K colors

iv) Interfaces: 1x Ethernet (RJ45) (max.12Mbit/s), HDMI port, USBport1x USB, Multimedia card / SD card slot combined.

iv) Industrial Ethernet: 1x Ethernet (RJ45)

v) Protocols: Protocol (Ethernet) TCP / IP

vi) Image formats Supported: JPEG, JPS, MPO

v)Sound technology: Dolby digital

# 6.0 Transmission of Data format to RODC, NDC, Faridabad &India WRIS/ WIMS Software: The format

# for GSM / GPRS communication nis as specified below

Table below gives the GSM /GPRS data parameters and their identification code format which is required to transmit the data from data logger to FTP server.

## **FORMAT:**

& Station ID, Date and Time, Mobile Number, Battery, Water Temp, Corrected Water Level

Above data string will be ended with New-Line character and a separated at a string will be for each measurement cycle.

## Example Data Spring:

& 738 D1E76,07/01/1900: 00,9849556430,13.5,22.3,26.347 
& 738 D1E76,07/01/1906: 00,9849556430,13.5,24.5,26.347 
& 738 D1E76,07/01/1912: 00,9849556430,13.5,26.8,26.347 
& 738 D1E76,07/01/1918: 00,9849556430,13.5,24.3,26.347

SI.No.	Channel no.	Parameter	
1.	Station ID	Start of String should be '&" and Eight Characters Station ID provider by bidder	
2.	Date and Time	Measurement date and Time in DD/MM/YYHH: MMin IST of the measurement cycle	
3.	Mobile Number	Mobile no (10 digit ) of remote station SIM	
4.	Battery	Battery voltage in Volts with1 right digital measurement date and time	
5.	Water Temp	Water Temperature in ⁰C with1 right digitat Measurement date and time	
6.	Corrected Water Level	Water level after atmospheric pressure compensation in Mts. With 3 right digitat measurement date and time	

#### Note:

- 1. If any sensor is not connected then it should transmit'--'characters in place of the sensor value.
- 2. Attached format is indicative, recommended for standardized data acquisition for development of unified Water Information System.

### 7.0 TRAINING AND DOCUMENTATION

The Bidder is required to provide an extensive training programme for the system. The training set forth in the following paragraphs is a minimum requirement and the bidder should propose any additional training that he considers critical for long term success of the system operations.

The Bidder is expected to provide an outline or table indicating the contents of each of the required courses. The table shall describe the specific topics to be covered for each day of the training period.

The Bidder is responsible for the salaries of the training instructors and all training materials. The costs of travel, transportation and per diem for the trainees shall be borne by the Purchaser.

Training shall be provided by the bidder in several phases. The training shall include both class room and field trainings and will be continued during all five years. The bidder is required to have DWLR equipmentspecialists.

7.1 The Bidder shall provide mandatory trainings as training modules as part of the Tender given as under:

S. No.	Description	Numbers of trainings	Number of Participants per session
1	Two types of trainings are to be organised.  (i) Onsite training to be organised in each State where DWLRs are to be installed. Three onsite trainings for each State (ii) Training at concerned Regional Office Data Center (RODC) of CGWB. Two trainings at concerned RODC.	As specified in BOQ	15

All aspects of the electrical, instrumentation and telemetry equipment being supplied shall be covered in the courses and full documentation shall be provided. The documentation and kits shall be got approved from purchaser in advance. The course shall provide detail documentation and shall ensure that the purchaser's personnel shall be able to modify settings/parameters without reference back to the Supplier. The places /sites where this training will be decided later by the purchaser.

The training course will take place as decided by the Purchaser. In case of formal training, the Purchaser will provide classroom and other logistics. The Bidder will facilitate the professional and the training material. On-the-job training will be provided by the Bidder in conjunction with the installation of the DWLRs and during the course of maintenance as required.

- 7.2 TA / DA of the trainees shall be borne by the purchaser.
- 7.3 Training kit containing course material in soft as well as hard copy shall be provided by the Bidder.
- 7.4 All logistial arrangement such as projector, training space etc. for training is to be made by purchaser

#### 8.0 PREVENTIVE MAINTENANCE

The bidder shall be responsible for operation and maintenance of all stations /components of installations, commissioning, site acceptance and operation tests. All equipment maintenance cost, repairs, replacements and repairs to civil work shall be borne by the bidder during the warranty AMC Period. The scope of O&M support would include all materials and services including major replacement of components, mandatory spare parts required to ensure smooth and sustainable operations of the entire system. The bidder shall provide monthly maintenance reports during the course of maintenance. The bidder shall supply a Manual specifying all the faults experienced by the system together with an account of how such faults have been rectified. Bidder shall provide the list of mandatory spare parts & shall ensure the availability of sufficient mandatory spare parts in its godown for fulfilling its service obligations during warranty and AMC period. The same can be inspected by Engineer-in Charge or its authorized representative.

The bidders shall ensure the following visits at remote site for preventive maintenance. The bidder should take time stamped geo tagged photographs of the equipment during each maintenance visit (either scheduled or unscheduled visit). The photographs should show the condition of equipment before maintenance, during maintenance and after maintenance.

## SCHEDULE SHOWING FREQUENCY OF SCHEDULED VISITS FOR ROUTINE AND PREVENTIVE MAINTENANCE

SI.No.	Station Category	MinimumA nnual Preventive Visits	Remarks
1	Data Server maintenance	4	Every Quarter and also on need basis
2	DWLR stations	4	Every Quarter and also on need basis

# 8.1 Operation & Maintenance

- Bidder shall provide at least one dedicated Service Engineer cum operator at the Regional Office Data Center for
  Operation of DWLR system and ensure seamless data transfer from remote stations to Regional & National Data Center
  (NDC), CGWB, Faridabad FTP server through GSM / GPRS network & from RODC to NDC &India WRIS/ WIMS
  software through internet. And also the processed data from India WRIS/ WIMS in the form of reports/ bulletins will be
  transmitted to Regional & National Data Centre which should be stored in a proper manner and easy to access.
- Operation and Maintenance shall include free of cost repairs/ replacement of hardware and Software necessary to keep the system functional for the period of five years from Date of Installation and further during 2 years of AMC.

#### TECHNICAL RESPONSIVENESS FORM

Bidder shall furnish clause by clause commentary against the laid down technical specification and standards as per the format given below:

#### (A) Summary of Instructions

- (i) Particulars of Manufacturer and local agent cum representative are to be given under rows Model and Address.
- (ii) All entry boxes in column "Specification and Standards as offered in by Bidder" shall be filled-in accurately and comprehensively. Quantitative fields shall be filled in accurately. It is not acceptable to use 'Yes', No, Compliant or similar evading words. Following format is designed to help the Bidder to understand the requirements of the equipment being procured. The Bidder must describe in the format how his bid responds to the technical requirements of the equipment. Bidder to note that one or two word responses (e.g. "Yes", "No" "will comply" or similar evading words) are normally not sufficient to confirm the responsiveness with the technical requirements, hence elaborate responses are sought from the bidders. In case deviation on the following technical requirements of equipment is not as per the minimum criteria mentioned, the bids may be declared "non-responsive".
- (iii) Requested materials and information shall be enclosed with the bid and be unambiguously associated with instruments as offered in the bid
- (iv) Negligence to comply with the instructions and requirements as stated above makes the bid liable to be rejected.
- (v) Abbreviations: OD-Outer Diameter; ID-Inner Diameter; FS-Full Scale; Pa-Pascal (unit of pressure), DWLR-Digital Water Level Recorder; DRS-Data Retrieval System; HHT-Hand HeldTerminal, DCP-DataCollectionPlatform, AWLR-AutomaticWaterLevelRecorder
- (vi) Sample interval is the interval at which samples or sensor readings are taken. The recording /measurement interval defines the interval at which the data records are stored in memory. A data record can represent a single sample or the average of a number of samples. In particular the result of the wave suppression filter is a single record representing the average value of a number of samples.

#### **B)** Entries requiring special attention:

(i) The longitudinal properties of the suspension cable affect the accuracy directly. Bidder to specify all factors affecting the longitudinal properties of the suspension cable: e.g. length creeps due to sensor and cable weight (submerged) longitudinal temperature coefficient, uncoiling after installation, expansion /contraction of jack due to temperature and aging, etc.

## **(C)** Bidder shall provide information in the formats given below:

(i) Make /Model/ Local Agent etc.:

Mal	VLR Sensor ike / model	Data Logger make/ model	Local Agent
Name / Complete Address/ Website/ Email  Mai Na Pla Tel Fax	odel: anufacturer: ame: ace: al: ux: mail:	Model: Manufacturer: Name: Place: Tel: Fax: E-mail: Web:	Name: Address: Tel: Fax: E-mail: Web:

(ii) Clause by Clause Commentary against laid down technical specifications: Specifications of the DWLR, hydrostaticType (GW) with telemetry system

Name of Goods-Its Features	Required Specifications and standards as per bidding document	
Site Conditions		
Ambient Temperature	From 0 to 60 degree	
Humidity	5-100%	
Altitude	0-2500meter	

**DWLR—Water level and Temperature Sensor** 

Sensor Type	Submersible pressure transducer with Non-Vented Pressure Sensor with	
	Barometric Pressure Correction for Individual Sensor.	
Range	(30m, 45m,75m,105m,120m)	
Installation Depth (Cable	Tentative depth as per the attached list.	
	Concerned Regional Director will decide the depth of installation at the time of drilling of piezometer	
length)		
Dimension	Outer diameter of sensor unit:<80mm,(for sensor)	
Material	Stainless Steel (SS-316)or other better corrosion resistant material	
Ingress Protection	IP68 for sensor	
Over all Accuracy	0.20% FSO	

Resolution	3mm	
Reproducibility	0.1% full scale or better	
Long Term Stability	0.1% Full scale and should ensure long term stability without any field calibration requirements except barometric compensation.	
Temperature Measuring Range	0 to 50°C	
Temperature Measuring Accuracy	Better than ± 0.3°C	
Burst Pressure	>=2 Time Full scale	
Overload Pressure	1.5 Time full scale without effect on calibration	
Over-voltage Protection on supply & sensor wires	Should include lightening ,over-voltage and surge protection	
Output	SDI-12,RS-485,4-20mAor compatible with data logger.	
Installation	The system should be provided with a suspension bracket, Well enclosure / canopy & junction boxes (if required) allowing secure installation within the Piezometers' head work, including appropriate cable mounting accessories to allow the sensor to be adjusted to the required depth.	
Direct Read <u>Sensor</u> Cable	The cable shall have following features:	
	<ul> <li>The cable shall have following features:</li> <li>Strength members for good longitudinal stability of cable</li> <li>The cable and contacts should be fixed or quick connect</li> <li>Cable screen to be connected to the data logger ground terminal to minimize electrical interference.</li> <li>A cable suspension bracket allowing the DWLR to be adjusted to the required depth, in a stable and reproducible manner.</li> <li>Corrosion and moisture free as the equipment has to work under water condition.</li> <li>Cable should have good flexibility.</li> <li>Should be of Polyurethane Jacket or better. The electrical wires shall have sufficient conductivity to allow for extension of the cable to up to 200 m without degrading accuracy, stability and data communication.</li> </ul>	

## DWLR Data logger

Atmospheric Pressure correction	Atmospheric Pressure corrections to be applied automatically
Resolution of measurement	16-bit ADC with +/-1 LSB accuracy
Measuring interval	Should be programmed to store data from 1 minute one reading to 24 hours one reading.
Settling up Time	< 30 minutes after submersion.

Recording Capacity	Shall store the data for at least 1 year		
Memory Type	Non-Volatile flash memory that can store one year of data (with15 minute logging interval)		
Power Supply	Should be equipped with lithium or alkaline battery pack, giving at least 2 years operation (with one transmission and four recordings per day). Battery must be replaceable in the field or in local offices of the implementing Agency or supplier. Replacement of batteries must be readily available in India.		
Battery Voltage Monitoring	Monitoring and transmission of Battery Voltage level		
Data logger Location	Data logger should be located on top (on ground surface).		
Built in clock	Accurate to ± 1 minute per Year		
Displayed time resolution	1 second or better		
Over-voltage Protection on supply & sensor wires	Should include lightening, over- voltage and surge protection		
Protection	IP 68 with Impact Resistant for Water level sensor IP 65 (for data logger) with Impact Resistant		
Port for configuration	One serial port for communication with laptop for programming		
Ports for telemetry	Port for communication with GSM & GPRS telemetry		
Operating System	Windows based software for system configuration / communication		
Licenses	All required licenses shall be included		
Real time clock	Time synchronization facility shall be provided with IST		
Accessories	Serial cable and adaptor if required alongwith all accessories and fixing units etc.		

### **Communication Interface**

Computer Interface	The Logger must be capable of connection to a computer via USB 2.0/ USB 3.0 and supply should include the necessary interface cables.
File Format	The format of the data downloaded by communication interface shall be in standard CSV format (as specified in technical Specifications) which is compatible with India WRIS/WIMS software.

## GSM &GPRS Transmitter

Transmission System	GSM /GPRS / edge-based data transmission system	
Frequency range	900 MHz: 824-960 MHz/ 1800 MHz:1710-1880 MHz 4G and better	
Performance	Data Reception availability of 95 % or better	

Communication Direction	Utilize GPRS network for two-way connection with connection with FTP ,TCP/ IP (INTERNET)connection and SMS server
Transmission trigger	Data collection to be triggered by interrogation from Data Center or by event-based transmission triggered by remote site
Power Saving	Ability to disable interrogation system in order to save power at remote site
Communication Protocol	Data transmission to execute HTTP Post or FTP, SMS to transmit data to the Data Center
Accessories	All associated equipment, including Antenna all cables and mounting hardware

Software for Data logger

Operating System	Windows based software for system configuration, transfer and analysis of data to computer
Version	English language version
License	All required licenses included

### General Features

Battery	The battery should be easy to replace, and easily available in the market.	
Tools	Complete tool kit for installation and routine maintenance	
Manuals	Full documentation and maintenance instructions in English	
Training	As per mutual consent at the time of installation of telemetry system	
GSM/GPRS transmission format	As specified in the technical Specification table for GSM /GPRS communication format	

**Specifications of Data Acquisition Software (DAS):** 

SI	Required Specification and Standards as per Bidding Document	Specification and Standards as offered in by Bidder	Remarks
1	Data collection performance:		
	Bidder should ensure seamless data and responsible for		
	<ul> <li>Real-time data collection at all DWLR stations &amp; shall ensure seamless data transfer.</li> <li>The data from DWLR stations will be transmitted through GSM/GPRS in the standard CSV format (as specifiedin Technical Specifications) to FTP server</li> </ul>		

	at the National Data Centre, CHQ, Faridabad  • From RODC, the data will be transmitted to NDC, Faridabad &India WRIS/ WIMS software through internet. This data will be processed and disseminated via India WRIS/ WIMS cloud.  The processed data from India WRIS/ WIMS in the form of reports/ bulletins will be transmitted to National Data Centre, CHQ, Faridabad & National Data Centre, Faridabad.	
2	Data maintenance:  All activities pertaining to installation, data services, Operation & maintenance at the remote DWLR station will be maintained by the bidder during the warranty and maintenance period and will include a log of activities during every station visit.	
3	Reports &Bulletins Storage system: Storage of all data, reports& bulletins in the proper manner and easy to access. This data will be backed up in such a way that it is not possible to lose data that has already been stored with the use of mirrored or replicated storage.	
4	Helpdesk:  Bidder to operate help desk to respond to queries from the purchaser. Help desk will be able to solve any problems related to data collection, processing, and dissemination to the purchaser. Help desk shall be available from 8am to 6 pm,Monday–Sat.	

## **Specifications for Data Transmission System:**

SI.No:	Required Specification and Standards as per Bidding Document	Specification and Standards as offered in by Bidder	Remarks
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	The transmission system should be tightly integrated with the DWLR System, along with compact remote / field mounted consisting of sensor, data logger, modem and antenna and other accessories complete.	
1	The system should be watertight (IP 68 for sensor & IP 65 for data logger or equivalent) and impact resistant;	
2	The system should allow easy access for monitoring measurements without removing complete system.	
3	System must be power-supplied by standard lithium /alkaline batteries for operation time of at least <b>two years</b> by one set of batteries (one transmission per day,4 measurements per day) and must be placed in a water resistant (IP65 or equivalent) enclosure. The replacement of batteries during five <b>years</b> warranty and two years of O&M would be responsibility of the bidder, <b>at bidder's cost</b> .	
4	The system must have integrated energy management system using free programmable time slots for measurement and transmission to minimize power consumption;	
5	The connectors should be water-tight (IP 68 or equivalent).	
6	An alarm notification must be sent by the system via SMS to user defined phone numbers through suitable means of communication for user defined parameters. This includes battery performance (battery voltage).	
7	Standard USB /RS 232 communication interface should be available for set up and configuration and must be easily accessible.	
8	Data logger shall be provided with Atmospheric Pressure sensor at individual station, & Atmospheric Pressure correction	

	shall applied automatically on the raw water level reading from non-vented water level sensor. The details of correction procedure shall be fully documented in user manual. Provision shall be made to view and store the raw and compensated water level data along with atmospheric pressure and Water Temperature data in data logger memory	
9	Allmeasurementandsetupoptions,datadownloadandp rogrammingofdataloggershallalsobedonebyonlineses sionsimilartoallfunctionsatsitebydirectconnectiontoa PC	
10	Data download /retrieval from remote DWLR station to central server PC via GSM & GPRS network shall be provided. The data from remote station should be in standard CSV format (as specified in technical Specifications) which is compatible with India WRIS/ WIMS software	
11	The software should be provided to allow download the data from the DWLR data logger to a Laptop / hand held devices in the field. The downloaded data shall be in standard CSV format (as specified in technical specifications) which is compatible with India WRIS/ WIMS software.	

Specifications of Data Server		Make:  Model No:  Manufacturer Name,a ddress, email, phone,	website, fax
S.No:	Required Specification and Standards as per Bidding Document	Specification and Standards as offered in by Bidder	Remarks
1.	<ul> <li>Server having two nos. of x86 64-bit processor (Intel Xeon E5-2620 v4 or better),</li> <li>64 GB DDRIII expandable to 256 GB or more,</li> <li>Integrated Graphics Controller,</li> <li>SAS RAID Controller supporting RAID0,1,</li> </ul>		

• 2*600 GB SAS Hot Swap HDD (10 K or higher	
RPM),	
<ul> <li>Dual 1 Gbps Network port,</li> </ul>	
DVD WRITER,	
<ul> <li>23" LED Monitor with a resolution 1920 X1080 or better,</li> </ul>	
<ul> <li>OEM Key board and OEM Mouse,</li> </ul>	
<ul> <li>Server Chassis having Redundant Hot Swappable Power Supply with 8 Hot Swap drive bays,</li> </ul>	
<ul> <li>Certification for Linux and Windows,</li> </ul>	
<ul> <li>All required device drivers for System Configuration and Server Management Support including data storage facility of 8 TB for 5 years and all accessories and</li> </ul>	
<ul> <li>Perpetual license for window server (2012 or later), perpetual license for MS Office, firewall system with Good antivirus etc.</li> </ul>	

Specifications of Computer node (Work station)  Required Specification and Standards as per Bidding  Document		Make:  Model No:  Manufacturer Name, address,e mail, phone,	website, fax
		Specification and Standards as offered in by Bidder	Remarks
1	Windows10 Home / Professional or above		
2	Intel H 270 and above or equivalent		
3	Intel® Core™i7-6700T with Intel ®HD Graphics 530 (2.8 GHz, up to 3.6 GHz, 8 MB cache, 4cores) and above or equivalent		
4	8GB DDR 3L and above or equivalent (RAM)		
5	1TB 7200 rpm SATA or better		
6	58.42cm (23) diagonal WLED-backlit (1920x1080).Touch-enabled (optional)		
7	DVD-Writer		
8	Integrated 10/ 100/ 1000 Giga bit Ethernet LAN		

9	802.11b/g/n(1x1) and Blue tooth ®4.0 combo(Optional)	
10.	4 USB 2.0; 2 USB 3.0; 1 Head phone / microphone combo	
11.	USB wired / wireless optical mouse	
12	USB wired / wireless standard key board	
13	Preinstalled MS Office Lifetime with Good antivirus is preferred.	

Specifications of Color printer	Make:  Model No:  Manufacturer Name, address, email, phone, website, fax	
Required Specification and Standards as per Bidding Document	Specification and Standards as offered in by Bidder	Remarks
A 3 Size color printer		
Functions: Print, Copy, Scan		
Printing Upto 20 page/minute		
Black & color printing: As fast as 9.5 sec per page		
Recommended monthly page volume: 250 to 2000		
Processor speed: 600 MHz		
Connectivity: e-Print capability		
Paper handling input, standard:100 sheet input tray		
Paper handling output, standard:100-sheet face-downbin		

Specifications of Display Unit LED)	Make:  Model No:  Manufacturer Name, address, email, phone, website, fax	Remarks		
Required Specification and Standards as per Bidding Document	Specification and Standards as offered in by Bidder	Remarks		
Screen Type: 42"Screen LED				
Display resolution:1920x1080				
Colors: 256 K colors				

Interfaces:1x Ethernet (RJ45) (max.12Mbit/s),HDMI port, USB port1x USB Multimedia card/SD card slot combined	
Industrial Ethernet:1x Ethernet (RJ 45)	
Protocols: Protocol (Ethernet)TCP/ IP	
Image formats Supported: JPEG,JPS,MPO	
Sound technology: Dolby digital	

### 4. DRAWINGS

Deleted

### 5. INSPECTIONS AND TESTS

The following inspections and tests shall be performed:

General:

- 1. After manufacture, the supplier shall get each equipment/item of Goods inspected in manufacturer's works as per approved data sheets and QAP and forward to the Purchaser along with his letter seeking to inspect an equipment/item of Goods conform to contract specifications.
- 2. Upon receipt of the test certificate and calibration certificates, the purchaser or its representative shall arrange for inspection and/or test of any or part or all the equipment / Goods prior to issuance of dispatch clearance. In cases where the supplies are received from abroad, the purchaser may waive the pre-dispatch inspection.
- 3. However, the inspection and dispatch clearance by the Purchaser or the waiver thereof shall not prejudice the right of the Purchaser or its consignee to test the equipment/goods on receipt at destination. Upon receipt of the goods at final destination, the Purchaser shall have the right to inspect and/or test the equipment/Goods to confirm their conformity to contract specifications.
- 4. If the equipment fails to meet the contract specifications during inspection, whether pre dispatch or upon receipt of at final destination, the supplier shall take immediate steps to remedy the deficiency or replace the defective equipment to ensure that all supplies meet with the specifications specified in the contract

Inspection and tests prior to shipment of Goods and at final acceptance are as follows:

- 1. The inspection of the Goods shall be carried out to check whether the Goods are in conformity with the approved technical specifications attached to the contract and shall be in line with the inspection / test procedures laid down in the Technical Specifications and the General Conditions of contract. Following broad test procedure will generally be followed for inspection and testing of instruments. The supplier may dispatch the goods to the ultimate consignee after internal inspection testing along with the supplier's inspection report and manufacturer's warranty certificate based on the inspection waiver from purchaser. The purchaser will test the equipment after completion of the installation and commissioning at the site of the installation.
  - a. Site Preparation and Installation: The Purchaser will designate the installation sites before the scheduled installation date to allow the Supplier to perform a site inspection before the installation of the DWLRs and associated telemetry system. In case there is a delay in handing over the site by the purchaser, appropriate extension of time shall be granted without imposition of liquidated damages in accordance with the provisions of contract.
  - b. For site preparation, the supplier should furnish all details (installation drawings) to the purchaser sufficiently in advance so as to get the works completed before receipt of the equipment.
- 2. Complete hardware and software as specified in 'List of Goods and Delivery Schedule' Under the Schedule of Requirement

- should be supplied, installed and commissioned properly by the supplier prior to commencement of performance tests.
- 3. The acceptance test will be conducted by the purchaser/their consultant or any other person nominated by the purchaser, at its option. The acceptance will involve trouble-free operation for seven consecutive days. There shall not be any additional charges for carrying out acceptance tests. No malfunction, partial or complete failure of any part of hardware attached to printers, drivers etc. or bugs in the software should occur. All the software should be complete and no missing modules /sections will be allowed. The supplier shall maintain necessary login respect of the results of the tests to establish to the entire satisfaction of the purchaser, the successful completion of the test specified. An average uptake efficiency of 90% for the duration of test period shall be considered as satisfactory.
- 4. In the event of the hardware and software failing to pass the acceptance test, a period not exceeding **two weeks** will be given to rectify the defects and clear the acceptance test, failing which the purchaser reserves the rights to get the equipment replaced by the supplier at no extra cost to the purchaser.
- 5. DWLRs procured would be subject to the Acceptance Protocol given below

#### ACCEPTANCE PROTOCOL

#### 1. General

- a. The delivery of goods/equipment and software should be in accordance with the contractagreementandtheprocessofdeliverywilladheretothefollowing 'Acceptance Protocol'. The Acceptance Protocol shall serve as a formal guidance during delivery of the DWLRs. Its primary goals are twofold.
  - i. Ascertain the delivery and completeness of all ordered products and related documents.
  - **ii.** Check the functioning of the equipment and software in a formal way against the specifications by application of Acceptance Tests. The tests also verify the accuracy and stability of the equipment.
- b. The Acceptance Protocol shall be executed in close co-operation between the Supplier and the Client.
- c. Products shall be accepted only if they meet the requirements and are functioning in compliance with the technical specifications, and the related documents are complete and correct. Defective products and any other discrepancies shall have to be replaced/resolved, within a pre-defined time frame as specified in bid document.

#### 2. Documents

- a. The following documents shall accompany the delivery of the instruments and software:
  - i. Administrative and Quality Assurance (QA) documents
  - ii. Test and calibration documents
  - iii. Manuals and Guidelines

All documents shall have identification and references to subject or instrument, date, time, location and officer-in-charge.

- b. The Acceptance Report lays down the findings and observations during the execution of the Acceptance Protocol and is a formal document to record the acceptance or rejection of any item as covered in the Bid document. Any flaws or findings are to be reported. The forms and check lists filled out during the execution of the Acceptance Protocol are to be enclosed with the Acceptance Report. The Supplier receives a signed copy of the Acceptance Report, which the Supplier can use as proof that the items listed in the report were accepted.
- c. The content of the various documents shall be as follows:

#### **2.1** Administrative and QA documents: These QA documents shall include:

- i) Production documents associated with the instruments.
- ii) Type codes, serial numbers and other identification data on, possibly externally procured, sensors and major

- assemblies, to clearly demarcate the sensors /major assemblies associated with each DWLR.
- iii) Shipping documents indicating instrument/product type, serial number, measuring range, cable length and other similar data.

#### **2.2** Test and calibration documents:

- i) A comprehensive Method Statement on the applied calibration and in-factory test procedures shall accompany the bid. The Method Statement should define the test and calibration methods applied on the instruments and the components thereof. The Method Statement shall also include, for each calibrated product, an audit trail to national standards on all instruments and facilities used for testing and calibration. The Audit Trail Report shall associate the calibration of the reference instruments and test equipment to the national calibration standards.
- ii) If the Supplier or Manufacturer is not in a position to deliver an Audit Trail Report to the national standards, the Manufacturer shall explain what the guality standards are and how they are maintained and monitored.
- iii) Conditions during calibration, such as room and /or instrument temperature, equipment and facilities used, shall be included in the calibration and test documents.
- iv) The test and calibration documents shall contain the data generated during calibration and testing, including:
  - Calibration data supplied by the Manufacturer of pressure sensor
  - Calibration and test data of the data-logger electronics
  - Calibration data on overall DWLR calibration, i.e. comprising both pressure sensor and electronics. A
    table listing applied reference pressures versus instrument readings is to be delivered for each
    sensor and instrument. Further more, that table shall also show the test conditions during calibration
  - Data on hysteresis test, temperature tests, zero stability test, scale stability test
  - Humidity test, in particular for vented gauge pressure sensors
  - Temperature cycling of sensor and electronics
  - Spray test on enclosure(s), connectors and cables

#### 2.3 Manuals and Guidelines

- i) The manuals shall meet the requirements on style and clarity, completeness, preciseness, detail and accessibility. This includes:
  - System manual,
  - Operation, Maintenance and Service manuals,
  - Observation guideline, and
  - Training handouts.

#### 3. Acceptance Tests

#### 1. General

- Qualified engineers under responsibility of a test manager shall execute the Acceptance Tests. The progress of the Acceptance Tests would be monitored and supervised by the Client and/or his authorised representative. The Client may have any tests redone or additional tests executed as deem required based on the results of previous tests conducted. The Client's and/or his authorised representative shall have the right of access to any instrument and may request any data or information at any time. The Supplier has the obligation to deliver requested information without delay; i.e. collected test data and documents must be available at the test site.
- ii) It is important that all activities (what, when, where, who, which instrument, etc.) are annotated and uniquely linked to the

individual instruments.

- iii) The Acceptance Tests mainly comprise three levels viz.:
  - <u>Functional Tests</u>: The Functional Tests shall verify the proper functioning of the instruments and the associated software. Primary goal is to verify that the instrument performs its functions according to the bid specifications.
  - <u>Accuracy Tests</u>: The Accuracy Tests shall verify that each individual instrument is functional and operates according to the bid specifications. A number of relatively simple accuracy tests are routinely exercised on the instruments.
  - Overall Test: The main purpose of the Overall Test is to verify the common features that are identical to all the
    instruments in a series. Typical components of the Overall Test are: in-built software functions, materials of the
    instrument, cables, connectors, etc. Further tests include battery and memory autonomy, details of sensor
    specifications like temperature effects, hysteresis, long term stability etc.
  - The above tests can be executed at any one of the following locations:-Premises of the Manufacturer /Supplier; Premises
    of the Client; Independent organisation; at Site of installation
- iv) The charges for testing shall be borne by the Manufacturer/Supplier. The Client and/or hisauthorisedrepresentativemayathiscostopttobepresentduringtheperformancesofthetests.
- v) If the tests are executed at the Client's premises, the charge for testing shall be borne by the Client and the Supplier shall be responsible for conducting the tests. The bidder in his bid shall indicate the name of independent organisation and the charges for testing. The Client reserves the right to accept the independent organisation and its charges or get the tests done by any other agencies. However, the Supplier would be permitted to be present at these tests.
  - (Explanatory Note: Test report from manufacturer would be acceptable. In case purchaser desires to test the system from independent agency (ies), testing charges would be borne by purchaser.)
- vi) The details of these tests are as follows
  - **1.1. Functional Tests:** The Functional Tests include: visual inspection, and user tests.
  - **1.1.1 Visual Inspection:** Visual inspection includes the following activities.
    - i) All items are visually checked for damage, e.g. on cables, sensor and housing.
    - ii) Availability of non-removable identification codes and specifications are verified, e.g. serial number, type identification, manufacturer and measuring range.
    - iii) Cables have to be marked: each cable is to have an identification code and name.
    - iv) Cable connectors shall have their ends marked suitably to indicate the device to which it is to be connected, e.g. PC, HHT, Power Supply etc. Suitable precaution shall be taken so that the connectors are not connected to wrong terminals, i.e. it shall be impossible to connect a power cable to a communication bulk head socket.

#### 1.1.2 User tests

- All instruments have to be identical except for measuring range, cable length, identification code and similar aspects. Consequently, there is no need to check the functionality of all systems. It is assumed that the functional compliance with the specifications is tested under the Overall Tests. The objective of the user test is to detect any malfunction and/ or defect. From practical point of view, the user tests can be coupled with other test, e.g. the stability tests.
- ii) Basic functions to be tested are:
  - Pre-deployment preparation, e.g. setting of clock, erasing of memory, setting data logging parameters, entry of identification data
  - Facilities for execution of on-site functional checks
  - Data retrieval and data transfer to PC

- Battery status and voltage
- Simple output test by observing pressure reading while the sensor is immersed in a bucket filled with water

#### **1.2 AccuracyTests:** The Accuracy tests include:

- Accuracy tests on clock,and
- Accuracy tests on pressure measurement

#### **1.2.1** Accuracy tests on clock

- i) The clock of the data logger shall be carefully checked against national time, e.g. taking the radio broadcast time beeps as a reference. The data logger clock is set precisely and checked at the start of the individual tests and upon instrument and/or data retrieval. In between, the clock should not be readjusted.
- ii) The clock test shall cover at least 3 days to get sufficient time resolution. The reference clock, e.g. a watch, must be carefully tuned against national time prior to and during the tests. The clock drift, converted to seconds per month (31 days) shall comply with the defined specifications. This test method makes use of the specified time resolution of 1s.

#### **1.2.2** Accuracy tests on pressure measurement

- i) The accuracy test on the pressure sensor is an overall accuracy test covering both the pressure and electronics systems. The pressure tests are to be executed against accurately known reference pressure(s). Pressure can be generated from compressed air (gas) or by submerging the sensor to known depths in water.
  - ii) Reference pressure may be created via a precision pressure reduction valve from a source of compressed air. A high precision sensor like a Digi Quartz pressure sensor or a Dead Weight Tester can be implemented to quantify the applied pressure. Pressure should be measured in kPa (or mbar).
  - When applying the immersion method it is much more difficult to check the instruments because water density affects the reading. Moreover, it is not simple to establish the exact depth of sensor immersion. And especially in narrow wells, while immersing a pressure sensor on its cable into a well, the water level will rise due to the additional volume of the immersed pressure sensor and cable. The water level will gradually fall again, when the well level adjusts again to equilibrium with the ground water level. In order to achieve a high accuracy these effects have to be assessed.
  - iv) The pressure sensor tests include:
    - Zero stability test
    - Scale test
    - Scale stability test
  - v) The pressure sensor tests shall focus on temperature effects on zero, scale and cable length, and in addition to that establish quantitative data on drift of zero, scale and creep of cable length.

#### **1.2.2.1** Zero stability test

- i) During the zero-test the instruments are in logging mode, say at an interval of 30 minutes, and shall be kept in a separate room where they will not be touched for at least 3 days. The instruments must be dry, i.e. not in a bucket of water, to exclude any water effect on the sensor, and hence, the instrument reading is expected to be 0.0.
- ii) Under this test, each instrument will record its short term zero drift and inherently the effectiveness of the air-pressure compensation method. During the zero-test, the instruments shall be in the same and constant position, vertical or horizontal. The room temperature shall vary over 5 °C or more, e.g. due to daily temperature fluctuation, this to assess temperature effects on the instrument reading. This requirement may affect the choice of venue for the zero-tests. To avoid any adverse temperature strain, no direct

sunlight shall fall on the instruments. At the end of the test, the collected data are off loaded from the data logger memory and analyzed for zero stability. As the instruments are kept in air and are not touched, the reading shall be stable and not change over time that is not beyond permissible limits.

- Room temperature is to be logged against time, preferably by digital method. In case the DWLR has a built-in temperature sensor, that sensor may be used for temperature logging. The pressure sensors shall not be tested in an air-conditioned room for several reasons. First, temperature fluctuations may be so rapid that the sensor temperature compensation scheme may not be able to cope with it. Moreover, rapid air-pressure fluctuations may not be handled properly by the air-vent system and/or the pressure measurement method. This is to be understood from the perspective that the instruments are designed to operate in wells where changes occur but not rapidly. One or more fans may be operated continuously to minimize temperature gradient across the test room.
- iv) To test the creep and elongation of the electrical cum suspension cable some vertical open space is required, e.g. a stair well can be used for this purpose. However, it is important that the cable is protected against touch to avoid interference with the

measurements. The cable is loaded with some weight to emulate the weight of cable and sensor. The length of cable under tests shall be as long as possible, i.e. 10 m or more, to get the best accuracy of the tests. The lowest point is suspended to about 0.15 m above the floor. The gap between lowest point and floor is monitored against time. Initially readings are taken every 30 minutes for 12 hours, subsequently the reading interval may be increased to 6 hours. The cable test shall be executed during 7 days. Resolution of measurement should be 1 mm or better. The result is to be presented in mm length change per meter suspended cable length. Only one cable is to be tested.

- 1.2.2.2 Scale test: A precisely known pressure is applied on the instrument and the instrument reading is taken. The instrument reading is converted into level or pressure whatever is applicable. The calculated value is compared with the applied value; the difference is regarded as the FS error. In case the specifications of the applied pressure sensor may give reason to doubt the instrument's linearity, then a mid-scale test is to be executed as well.
- **1.2.2.3 Scale stability test:** Scale stability is tested by subjecting the instrument to the full-scale pressure for at least 24 hours. During the test, the applied pressure/ level is to be accurately monitored by taking reference readings either by a reference logger of high accuracy or by manual readings. The accuracy and resolution of the reference measurement must be 1 mm water column or 0.01 kPa (0.1 mbar).
- 1.3 Overall Test: Part of the Overall Test is also covered under the Functional Tests and Accuracy Tests. The Overall Test comprises tests on:
  - autonomy
  - fitness for environment
  - functionality
  - calibration
  - stability
  - reproducibility, and
  - main power failure

Details of the various tests are as follows.

- 1.3.1 **Autonomy:** Two autonomy tests shall be conducted:
  - Battery capacity versus the power consumption per measurement, and
  - Memory capacity
- i) Battery autonomy test: To execute the test, the instrument is set to a fast data collection interval and the

capacity, i.e. the number of samples, is established by a continuous process of data collection until the batteries are depleted. The test shall be executed on new batteries. In this context, the batteries are deemed depleted when the instrument stops functioning because the battery voltage watch-dog function detects a too low battery voltage or the normal operation of the instrument stops.

ii) Memory capacity verification: The memory is filled at the highest data-recording rate and the volume of collected data is verified against the bid specification. This test could be combined with the battery autonomy test and the samples are taken at a high rate to minimize the test duration.

#### 1.3.2 Fitness for environment

- i) Connectors, cable glands, cables and housing must be suitable for the environment of operation, be it submersed, in a well or above the ground. Water ingress can be assessed by visual inspection and / or by insulation measurement. Visual inspection may only reveal ingress of a significant amount of water. The insulation measurement is more sensitive, especially for cables, connectors and encapsulated electronics, but requires specialized equipment.
- ii) The above-surface components have to be compatible with IP5 standard and shall be tested accordingly by exposing them to a heavy shower for 3 minutes. Subsequently the ingress of water is assessed by opening of the instrument and connectors.
- iii) The submersible components must comply with IP 68 standards. To verify this, the instrument shall be suspended in a well for at least one week, to a maximum depth, without affecting the calibration of the pressure sensor and not exceeding 2 times the rated measuring range. Although most pressure sensors can withstand considerably more than 2 times the rated measuring range, there is no need to exceed this. Prior to this test, the zero and scale of the sensor have to be established and verified again upon recovery.

#### 1.3.3 Functionality

- Functionality has to be verified for all requirements for operation of the DWLR with reference to the bid specifications and the instrument specifications as given by the Manufacturer. Missing functionality shall be reported.
- ii) All (software) functions as stated in the instrument manual(s) and the instrument specifications are tested for correct functioning. Any detected flaws are reported which shall be repaired / rectified by the Manufacturer / Supplier within seven days.

#### 1.3.4 Calibration

- i) The instrument calibration is checked for compliance with the bid specifications. In particular accuracy, stability, linearity, hysteresis and reproducibility are verified.
- The scale or sensitivity of the complete instrument, including sensor and electronics, is to be checked for at least 11 pressures, equally distributed over the full measuring range. Furthermore, the calibration data as delivered with the instrument are verified for accuracy and consistency with data obtained from the calibration tests. The calibration may be executed by application of accurately known air-pressure or by immersion in a well. The temperature effects on the calibration should also be verified at low, mid and maximum range temperatures.
- Note: Prior to execution of immersion tests, the effective position of the sensor membrane relative to the sensor housing is to be assessed and measured, e.g. by execution of a bucket experiment. In this experiment, the sensor is partly immersed in a water filled bucket to a depth where the related reading has changed by several centimeters, relative to the 'in-air' reading. During the test, the position of the water surface on the sensor's body shall be observed and marked accordingly. The 'effective-sensor-zero' lies below the water surface during the test. The position of the effective-sensor-zero is below the above mentioned water-surface mark by the equivalent of the sensor reading expressed in centimeters. The effective-sensor-zero may be close to the sensor membrane but not necessarily coincides with it.

- 1.3.5 **Stability:** Stability related to the DWLR is defined as a variation over time of the instrument specifications, whereas the circumstances and pressure do not vary. Parameters to be checked are:
- zero: offset stability
- scale: fullscale stability
- cable: length (extension/contraction) and creepstability

The methods to assess these stability factors are explained under the section on Accuracy Tests.

- 1.3.6 **Reproducibility:** The sensor reading in air is annotated, subsequently the sensor is immersed to the rated measuring depth, and a stable reading is collected. Then the sensor is recovered to the surface and again a stable reading is taken. This process is repeated 5 times and results are duly annotated. It is important that during the complete test the instrument is kept in the same, vertical position.
- 1.3.7 Main power failure:
- Some instruments operate on replaceable batteries or even external power and have a built-in back-up facility, usually based on a Lithium battery. It is quite possible that on some instruments the external power supply or the replaceable batteries fail because of total depletion, disconnection, defect on the cable or connector etc. In such an event, the instrument must retain its clock, its program setting and most importantly all the collected data.
- ii) The Functional Tests are executed in conjunction with the stability test. Upon finalizing these tests and after successful retrieval of all test data the power is disconnected by removing the main power batteries and/or disconnecting the power cable. The instrument is to be left in that state for at least 24 hours. Then the power shall be connected again and clock, program settings and recorded data are checked for availability and correctness.
- iii) Instruments with entirely built-in factory replaceable batteries cannot be tested in this way. In such case, the Manufacturer shall provide a technical description of the method applied to avoid loss of clock, program and collected data.
- **4.** Test Execution: Two test programmes are to be executed:
  - All Units Test Programme
  - Single Unit Test Programme

Prior to execution of the tests, a detailed test script has to be drafted and agreed upon. The test script shall define:

- Test sequence.
- The test conditions and requirements for each test.
- Place of the test.
- person(s)responsible for conducting the tests.
- Reporting requirements.
- Handling failures and problems.
- **4.1 All Units Test Programme:** The All Units Test Programme aims to identify the malfunctioning instruments and those not compliant with the bid specifications. The Functional Tests, the Clock Accuracy Test and the Zero Stability Test must be executed on each instrument. The design of the tests shall be selective and practical and enable execution with simple means, preferably at the Client's premises.
- **4.2** Single Unit Test Programme
  - i) A full system shall be tested, that is: pressure sensor, electronics, cable, power supply, DRS, software and manuals. The Single Unit Test Programme is a combination of the Functional Tests, the Accuracy Tests and the Overall Test. The Client shall randomly select an instrument for testing from the instruments delivered.

The Single Unit Test Programme can only be started after verification that all documents related to the order/delivery, including manuals, calibration data, QA data etc., are delivered to the Client. Any other unit, for which doubts arise on its compliance with the bid specifications, shall also be tested on the client's request.

- ii) Failing to pass the Single Unit Test Programme results in rejection of the entire delivery until the defective units have been repaired to meet the technical specifications and such to the satisfaction of the Client.
- **5.** Evaluation of test results: The test results have to be evaluated and results and conclusion shall be reported. Instruments that do not meet the bid specifications, shall be replaced by properly functioning and satisfactorily tested instruments.
- **6.** Post acceptance performance monitoring
  - i) After installation and field deployment the instrument performance shall be continuously monitored by taking manual observations, initially at a relatively high rate, e.g. every 3 hours, gradually migrating towards the normal monitoring interval. The level comparisons are required for reference and validation purposes. Manual observations and automatic readings shall be taken at short intervals after each other, in practice the time difference shall be kept to less than 15 minutes. The primary criterion though, is that the manual reading shall be taken before the water level changes more than 1 mm.
  - ii) Other checks are on functioning of the internal clock, data recording and retrieval, battery discharge, siltation of the sensor, moisture ingress and any development of corrosion.
  - The tape used for taking the reference readings shall be of high accuracy, considerably better than the accuracy of the DWLR, only then the performance of the high accuracy instruments can be monitored. However, an accuracy of 1 mm over the full measuring range is enough. Only best quality tapes, e.g. the electric types, come close to this requirement. The tapes shall be checked for accuracy against a precise reference,
    - e.g. over 10 or 20 m on a single stretch. Verification by a standard ruler will not reveal to overall accuracy of a tape. The 'tape verification reference' could be prepared using high accuracy geodetic equipment. Along, straight corridor, or a quiet stretch of road, could accommodate the length reference marks, the accuracy should be 1 mm relative to the reference point (0.000m).
- 7. Instrument History File: For each instrument, an individual History File shall be opened and maintained (The Instrument history file shall be suppliers' scope.). In the History File the full instrument history and all documents generated shall be stored. This also includes any changes, adaptations, repairs etc. made to the instruments. The products and results of the execution of the Acceptance Protocol shall be included in the Instrument History File. Some document types and entries are listed below:

- 7.1 **Instrument identification:** The instrument identification uniquely defines the instrument particulars.
  - Make, vendor, service provider, date of manufacturing, date of delivery
  - · Instrument make, model and serial number
  - Instrument configuration
  - Measuring range
  - Cable type, length
  - Manual version
  - Instrument status: e.g. working, under calibration, under repair
- 7.2 **Functional, Accuracy and Over-all tests:** For each of the three test categories, a separate and unambiguous record shall be maintained. The test conditions and results shall be duly recorded. Obviously any failures or irregularities shall be annotated accurately and comprehensively, as well as the actions taken and their results. At least the following data shall be recorded:
  - Administrative data: what, when, where, who, which instrument and configuration
  - List of tests
  - · Specifications for each test
  - Results of each test
  - Failures, actions, conclusions

#### **8.0** Acceptance Certificates:

• On successful completion of acceptability test, receipt of deliverables etc., and after the purchaser is satisfied with the working of the <u>DWLR</u> system, the acceptance certificate signed by the supplier and the representative of the purchaser will be issued. The date on which such certificate is signed shall be deemed to be the date of successful commissioning of the systems

## **SECTION-VI**

BILL OF QUANTITIES AND SUMMARY OF PACKAGES

#### **SECTION-VI**

## BILL OF QUANTITIES AND SUMMARY OF PACKAGES BILL OF QUANTITIES

FINANCIAL TENDER FORMAT PACKAGE-5 HAS BEEN UPLOADED IN THE BOQ SECTION IN THE E-TENDERING SYSTEM WHICH IS AN INTEGRAL PART OF THIS TENDER DOCUMENT.

# SUMMARY OF PACKAGE IN RESPECT OF TENDER FOR CONSTRUCTION OF PIEZOMETERS WELLS and SUPPLY AND INSTALLATION OF DWLR AND TELEMETERY

PACKAGE	PACKAGE		BOQ Number	Items			nber of WLR	
NO	DETAIL	State				With Quality Probe	Without Quality Probe	
			RJ PZ BOQ 1	SR (100 m)	16			
			RJ PZ BOQ 2	SR (200 m)	277	-	-	
			RJ PZ BOQ 3	HR (100 m)	351			
	PART A	Rajasthan	RJ PZ BOQ 4	HR (150 m)	280			
5	(PIEZOMETER)		RJ PZ BOQ 5	SRHR(150 m)	347			
			RJ PZ BOQ 6	SRHR(200				
				m)	237			
	PART B	Rajasthan	DWLR BOQ	DWLR and				
	(DWLR)	- tajaotitui		Telemtry	-		1508	
TOTAL					1508	0	1508	

#### NOTE common for BOQ

- 1. While quoting the rates unit cost should be given for all the items. The items of work in BOQ deemed to be cover all kind of works/ items involved in construction of a well as mention in section V, Scope of Work and Technical specification, even though if any specific item is not mentioned in the BOQ. Hence no payment will made for works/ items not mentioned in the BOQ separately.
- 2. The quantities envisaged in the BOQs are tentative and may vary from site to site the payments will be made on actual basis.
- 3. No payment will be made for shifting of rig unit and goods required for construction of wells.
- 4. Unit rates and prices shall be quoted by the bidder in Indian rupee. Amounts must be quoted in full rupees by ignoring fifty paisa and considering more than fifty paisa as rupee one. Bidders have to quote for all items of works of the BOQ. The item for which no rate or price has been entered in, will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.
- 5. Any modification of GST by the Government the difference will be paid/ recovered to/from the contractor.

- 6. The contractors are advised to fill the BOQ in financial bid carefully as the system is digital and it is on line. The rate without GST should be entered against the item in BOQ. The GST at 18% is taken during publishing of this tender document. The payment of GST as applicable will be paid to the contractor on proof of such payment made to the Government.
- 7. Successful bidder is to comply with the Public Procurement (Preference of Make in India), Order 2017 dated 15.06.2017 as amended upto date, while executing the contract.

# **BOQ for RAJASTHAN State**

RJ PZ BOQ 1		
BOQ for construction of Piezo Meter Rajasthan (Soft Rock 100 m)		
Soft Rock (Shallow Piezometers)	Shallow (Soft Rock)	
State(s) Rajasthan (Period 2022-26)		
Number of Piezometers	16	Number
Depth of pilot hole	105	Meter
Average depth of well construction	100	Meter
Diameter of housing pipe	150	MM
Length of housing pipe (should be left blank if the diameter of housing and intake pipe is		Meter
same)		
Diameter of intake pipe	150	MM
Average Length of intake pipe	100	Meter
Length of Screen (Stainless steel of SS304 grade)	20	Meter
Slot opening	0.75	MM
Average Development of Piezometer by air compressor	5	Hours
Collection of water samples per site	2	Number
Number of samples per well to be tested for Basic Parameters	1	Number
Number of samples per well to be tested for Heavy Metals	1	Number

S.	Item of work	Un	Rate/	Total	Total
No		it	Unit	Meterag	Amt.
.			Quantit	e/Total	(Excludin
			у	no.	g GST)
			(Exclu		
			ding		
			GST)		
1	Drilling of pilot hole for PZ from	Me		1680	
	228.60 mm (9 - 7/8") to	ter			
	342.90mm (13 ½") by rock				
	roller/ drag bit including				
	Enlargement of hole by drilling				
	& reaming to accommodate				
	150mm (6") dia well assembly				
	and recommended size of pea				
	gravel envelop of minimum 100				
	mm thickness and sample				
	collection and preparation of				
	litholog				
2	Electrical logging using 406 mm	Job		16	
	and 1626 mm (16" and 64") SP				
	resistivity probe, Natural Gamma				
	Logging to target depth of max.				
	155 m, submission of report				
	including zone-wise water				
	quality, logging graph,				

	interpretation of graph,			
	generation of composite log			
	along with video recording			
	along with video recording			
4	Supply and installation of ERW			
	casing pipe conforming to latest			
	version of IS: 4270-2001 of			
	diameter and thickness given			
	below			
4.1	150 mm (4") Nominal Bore,	Me	1280	
	thickness 5.4 mm	ter		
5	Supply and installation of LCG			
	V- wire screen conforming to			
	latest version of IS: 8110-2000 of			
	dimensions given:150 mm (6")			
	Nominal Size thicnkness 5.4mm			
	with slot opening size given			
	below	1	220	
5.1	Slot opening 0.75 mm (Stainless	Me	320	
	Steel SS304 Grade)	ter		
6	Supply and shrouding of pea			
	gravel confirming to latest			
(1	version of IS: 4097-1967	CU	114.24	
6.1	Particle size range 2.00 mm to 3.35 mm for 1.0 mm and 0.75	M	114.24	
	mm slot opening	IVI		
7	Supply and filling up borehole/	Job	16	
'	annular space between casing	300	10	
	pipe and bore hole wall with local			
	clay, if required			
8	Development by Air Compressor	Job	16	
	of adequate capacity for			
	minimum 5 hours, over pumping			
	and by other means till discharge			
	water is clear and free of sand			
	including collection of two water			
	samples from PZ well adopting			
	standard procedure in 1 litre			
	HDPE bottle, along with video			
	recordings of compressor hour			
	meter, discharge etc.			
9	Chemical analysis of water	Job	16	
	samples for 15 parameters pH,			
	EC, TH, TDS, Ca, Mg, Na, K,			
	CO <sub>3</sub> , HCO <sub>3</sub> , SO <sub>4</sub> , NO <sub>3</sub> , Cl, F &			
10	Fe in NABL accredited labs	T -	1.6	
10	Chemical analysis of water	Job	16	
	samples for Heavy metals (As, U)			
	in NABL accredited labs and			
	submission of report from NABL			

	accredited lab			
11	Construction of cement concrete platform of dimension 0.70 X 0.70 X 0.60 m (0.30 m above ground level) using concrete mix of 1:2:4 around the around the Piezometer well welded with minimum 6 Nos of anchoring plate as per drawing	Job	16	
12	Supply and fitting of well cap as per drawing with Allen Keys.  MS Plate size 5 mm embossed & welded with permanent marking of "CGWB PZ" should be carved with welding on outer surface of casing pipe	Job	16	
13	Supply and installation of protection box made of 3 mm GI sheet of Size: 550mm X450mm X530mm along with Brass lock (7 lever hardened) and three keys for each lock as per drawing	Job	16	
14	Supply and installation of Display Board as per drawing	Job	16	
15	Preparation and submission of basic data report per site in triplicate along with data sheets, analysis sheet, chemical analysis report from NABL lab, site location map and approachability with landmarks, photographs and videos of activities of drilling, assembly lowering, gravel measurement and gravel packing, well development using compressor and well water discharge, water sample collection, well discharge with discharge measurement, well site with display board, well cap, protection box for each site, etc. The soft copy as well as hard copy should be submitted. Summary of Piezometer details in xls format (as per proforma given by CGWB) including details of dia and depth of assembly pipe, screen pipe, static water level, gravel packing depth and thickness, Litholog etc. should	Job	16	

	be also submitted.					
	Total					
	GST @ 18%					
	Grand Total inclusive of Taxes					
No	1. The Pilot Hole drilling should be	carri	ed out to t	arget depth	of 100 m plu	s 5 m or to the depth of bed
te:	rock.					
	2. Reaming depth for Housing pipe					
	3. Total Reaming depth in a well s					
	made as actual reaming depth or as 4. No payment shall be made if well					
	depth citing formation problem.	ii is ai	Januoneu	williout lov	vernig assemi	bry upto the recommended
	5. No payment shall be made if any	well	is abando	ned due to	fault of contra	actor or due to machinery.
	bore hole fishing, etc citing format					
	objection by the Local Government	Bod	ies or publ	lic agitation	against drilli	ng leading to law and order
	problems, etc.			0		10 11 1 0
	6. Payment for Gravel packing shal Reamed depth. Also gravel in terms					
	volume of gravel packing to ensure					
	gravel used and theorical annular ve					_
	7. Water samples shall be collected	l as p	er the stan	dard proced	dures at the cl	osure of well development
	as per the standard procedures. Wa					`
	no. of 1 litre capacity container for		-			
	heavy metals). The samples for ars the samples for other heavy/ trace r	-	•			- · · · · · · · · · · · · · · · · · · ·
	8. All the collected water samples					1 ,
	sealed and labelled with the relevan					
	type, date and time of sampling, sta	ige of	pumping	test/ well d	evelopment,	details of acidification, water
	temperature at the time of sample c					
	9. The water samples collected at t					
	analysed for basic parameters and hone more set of these water sample	•			•	•
	report of NABL Lab.	5 511a1	i de sudi	inited to CC	JWD IOI Valle	dation along with original
	10. Well development will be treate	ed as	completed	only when	water is clea	r and free of suspended
	particles during pumping. Well wi	ll be t	reated as c	completed of	only after con	struction of well as per the
	recommended well assembly and a		_			
	in the BOQ including logging, subr					
	shall be made only when the well is	cons	tructed as	per the BO	Q specificati	on.

- 11. Litholog collected (minimum 250 g) as per BOQ should be properly packed in good quality packing cover and should be tagged with details of sample No, site name, well type, depth range of litholog, etc and should be submitted to CGWB Regional office along with drill time log and logging details including logging graph.
- 12. If additional quantity of any item is needed as per technical requirement at site, the same shall be decided by CGWB, WR in concurrence with the PMC, CGWB, CHQ.
- 13. CGWB CHQ / CGWB, WR will not be responsible for any site related issues like rig / manpower, transportation, local disputes etc. at any point of time.

RJ PZ BOQ 2			
BOQ for construction of Piezo Meter Rajasthan (Soft Rock 200 m)			
Soft Rock (Shallow Piezometers)	Shallow (Soft Rock)		
State(s) Rajasthan (Period 2022-26)			
Number of Piezometers	277	Number	
Depth of pilot hole	205	Meter	
Average depth of well construction	200	Meter	
Diameter of housing pipe	150	MM	
Length of housing pipe (should be left blank if the diameter of housing and intake pipe		Meter	
is same)			
Diameter of intake pipe	150	MM	
Average Length of intake pipe	200	Meter	
Length of Screen (Stainless steel of SS304 grade)	20	Meter	
Slot opening	0.75	MM	
Average Development of Piezometer by air compressor	5	Hours	
Collection of water samples per site	2	Number	
Number of samples per well to be tested for Basic Parameters	1	Number	
Number of samples per well to be tested for Heavy Metals	0	Number	

S.	Item of work	Uni	Rate/	Total	Total Amt.
No		t	Unit	Meterage	(Excluding
			Quanti	/Total no.	GST)
			ty		
			(Exclu		
			ding		
			GST)		
1	Drilling of pilot hole for PZ	Me		56785	
	from 228.60 mm (9 - 7/8")	ter			
	to 342.90mm (13 ½") by				
	rock roller/ drag bit				
	including Enlargement of				
	hole by drilling & reaming				
	to accommodate 150mm				
	(6") dia well assembly and				
	recommended size of pea				
	gravel envelop of minimum				
	100 mm thickness and				
	sample collection and				
	preparation of litholog				

	T		
2	Electrical logging using 406	Job	277
	mm and 1626 mm (16" and		
	64") SP resistivity probe,		
	Natural Gamma Logging to		
	target depth of max. 155 m,		
	submission of report		
	including zone-wise water		
	quality, logging graph,		
	interpretation of graph,		
	generation of composite log		
	1 2		
4	along with video recording		
4	Supply and installation of		
	ERW casing pipe		
	conforming to latest version		
	of IS: 4270-2001 of		
	diameter and thickness		
	given below		
4.1	150 mm (4") Nominal Bore,	Me	49860
	thickness 5.4 mm	ter	
5	Supply and installation of		
	LCG V- wire screen		
	conforming to latest version		
	of IS: 8110-2000 of		
	dimensions given:150 mm		
	(6") Nominal Size		
	thicnkness 5.4mm with slot		
	opening size given below		
5.1	Slot opening 0.75 mm	Me	5540
	(Stainless Steel SS304	ter	
	Grade)	101	
6	Supply and shrouding of pea		
	gravel confirming to latest		
	version of IS: 4097-1967		
6.1	Particle size range 2.00 mm	CU	3955.56
0.1	to 3.35 mm for 1.0 mm and		3933.30
	I .	M	
7	0.75 mm slot opening	T ~ 1.	277
7	Supply and filling up	Job	277
	borehole/ annular space		
	between casing pipe and		
	bore hole wall with local		
	clay, if required		
8	Development by Air	Job	277
	Compressor of adequate		
	capacity for minimum 5		
	hours, over pumping and by		
	other means till discharge		
	water is clear and free of		
	sand including collection of		
	two water samples from PZ		
	well adopting standard		
	procedure in 1 litre HDPE		
L	I *	1	L

9	bottle, along with video recordings of compressor hour meter, discharge etc.  Chemical analysis of water	Job	277	
	samples for 15 parameters pH, EC, TH, TDS, Ca, Mg, Na, K, CO <sub>3</sub> , HCO <sub>3</sub> , SO <sub>4</sub> , NO <sub>3</sub> , Cl, F & Fe in NABL accredited labs			
10	Chemical analysis of water samples for Heavy metals (As, U) in NABL accredited labs and submission of report from NABL accredited lab	Job	573	
11	Construction of cement concrete platform of dimension 0.70 X 0.70 X 0.60 m (0.30 m above ground level) using concrete mix of 1:2:4 around the around the Piezometer well welded with minimum 6 Nos of anchoring plate as per drawing	Job	277	
12	Supply and fitting of well cap as per drawing with Allen Keys. MS Plate size 5 mm embossed & welded with permanent marking of "CGWB PZ" should be carved with welding on outer surface of casing pipe	Job	277	
13	Supply and installation of protection box made of 3 mm GI sheet of Size: 550mm X450mm X530mm along with Brass lock (7 lever hardened) and three keys for each lock as per drawing	Job	277	
14	Supply and installation of Display Board as per drawing	Job	277	

15	Preparation and submission	Job	2	:77		
	of basic data report per site					
	in triplicate along with data					
	sheets, analysis sheet,					
	chemical analysis report					
	from NABL lab, site					
	location map and					
	approachability with					
	landmarks, photographs and					
	videos of activities of					
	drilling, assembly lowering,					
	gravel measurement and					
	gravel packing, well development using					
	compressor and well water					
	discharge, water sample					
	collection, well discharge					
	with discharge					
	measurement, well site with					
	display board, well cap,					
	protection box for each site,					
	etc. The soft copy as well as					
	hard copy should be					
	submitted. Summary of					
	Piezometer details in xls					
	format (as per proforma					
	given by CGWB) including					
	details of dia and depth of					
	assembly pipe, screen pipe,					
	static water level, gravel					
	packing depth and					
	thickness, Litholog etc.					
	should be also submitted.					
	Total					
	GST @ 18%					
	Grand Total inclusive of					
	Taxes					
No	1. The Pilot Hole drilling sho	uld be	carried out	to target o	lepth of 100 m	plus 5 m or to the depth of bed
te:	rock.					
	2. Reaming depth for Housing	g pipe s	shall be Ho	using dep	th plus 5 m.	
	3. Total Reaming depth in a v	well sh	all not exce	ed total a	ssembly depth j	plus 5 m and payment shall be
	made as actual reaming depth	or ass	embly deptl	h plus 5 n	n whichever is l	ess.
	4. No payment shall be made	if well	is abandon	ed withou	it lowering asse	mbly upto the recommended
	depth citing formation proble	m.			_	-
	5. No payment shall be made	if any	well is abar	ndoned du	e to fault of co	ntractor or due to machinery,
	bore hole fishing, etc citing f	ormati	on problem	except un	nder extraordina	ary situations like interference/
	objection by the Local Gover	nment	Bodies or p	ublic agit	ation against dr	illing leading to law and order
1	problems ata					

problems, etc.

6. Payment for Gravel packing shall be in terms of meterage height measured from the bottom of						
Reamed depth. Also gravel in terms of volume consumed should be cross checked with theoritical						
volume of gravel packing to ensure there is no bridging during gravel packing. The actual volume of						
gravel used and theorical annular volume of gravel should be provided for each wells.						
7. Water samples shall be collected as per the standard procedures at the closure of well development						
as per the standard procedures. Water samples will be collected in 3 pre-treated HDPE containers (1						
no. of 1 litre capacity container for Basic parameters, 2 nos. of 250ml/500ml capacity containers for						
heavy metals). The samples for arsenic parameter should be acidified with ultrapure HCl (1:1 HCl) and						
the samples for other heavy/ trace metals should be acidified with ultrapure HNO <sub>3</sub> (1:1 HNO <sub>3</sub> ).						
8. All the collected water samples shall be submitted to CGWB and water samples should be properly						
sealed and labelled with the relevant details like location (including Lat and Long), well number and						
type, date and time of sampling, stage of pumping test/ well development, details of acidification, water						
temperature at the time of sample collection, etc.						
9. The water samples collected at the last stage of well developement in case of Piezometer shall be						
analysed for basic parameters and heavy metals as per BOQ by the contractor through NABL Lab and						
one more set of these water samples shall be submitted to CGWB for validation along with original						
report of NABL Lab.						
10. Well development will be treated as completed only when water is clear and free of suspended						
particles during pumping. Well will be treated as completed only after construction of well as per the						
recommended well assembly and after conducting the well development and all other items mentioned						
in the BOQ including logging, submission of BDRs duly validated by CGWB. Payment for the well						
shall be made only when the well is constructed as per the BOQ specification.						
11. Litholog collected (minimum 250 g) as per BOQ should be properly packed in good quality						
packing cover and should be tagged with details of sample No, site name, well type, depth range of						
litholog, etc and should be submitted to CGWB Regional office along with drill time log and logging						
details including logging graph.						
12. If additional quantity of any item is needed as per technical requirement at site, the same shall be						
decided by CGWB, WR in concurrence with the PMC, CGWB, CHQ.						
13. CGWB CHQ / CGWB, WR will not be responsible for any site related issues like rig / manpower,						
transportation, local disputes etc. at any point of time.						

RJ PZ BOQ 3				
BOQ for construction of Piezo Meter Rajasthan (Hard Rock 100 m)				
Piezometers in Hard Rock	Shallo	Shallow (Hard		
	Rock)	)		
State(s) Rajasthan (AAP 2022-26)				
Number of Piezometers	351	Number		
Depth of pilot hole	100	Meter		
Average depth of well construction	100	Meter		
Diameter of housing pipe	178	MM		
Length of housing pipe (should be left blank if the diameter of housing and intake pipe	25	Meter		
is same)				
Diameter of intake pipe	0	MM		
Average Length of intake pipe (screen)	0	Meter		
Type of screen Stainless steel of SS304 grade	0	Meter		
Slot opening	0	MM		
Average Development of Piezometer by air compressor	5	Hours		
Collection of water samples per site	2	Number		

Number of samples per well to be tested for Basic Paramers		1	Number
Number of samples per well to be tested for Heavy metals	_	1	Number

S.	Item of work	U	Rate/	Total	Total
N		nit	Unit	Metera	Amt.
0.			Quant	ge/Tot	(Excludin
			ity	al no.	g GST)
			(Excl		
			uding		
			GST)		
1	Drilling of over burden using	M		8775	
	rock roller/ drag bit/Buton bit	ete			
	to accommodate casing pipe of	r			
	178 mm (7") dia up to bed rock				
	including formation sample				
	collection at every 3m and				
	change in formation,				
	preparation and submission of				
	litholog along with video				
	recordings				
1.	Drilling by DTH method using	M		26325	
1	appropriate sizes of button bits	ete			
	so as to reach targeted depth	r			
	with diameter of hole not less				
	than 165 mm at 100 m depth				
	and final diameter not less than				
	152 mm at bottom of holes/150				
	m depth including sample				
	collection and prepartion of				
	litholog				
2	Caliper logging to decipher the	Jo		351	
	depth and width of fracture	b			
	zones, submission of report				
	including logging graph,				
	interpretation of graph,				
	generation of composite log				
	along with video recording				
3	Supply and installation of ERW				
	casing pipe conforming to latest				
	version of IS: 4270-2001 of				
	diameter and thickness given				
	below				
3.	178 mm (7") Nominal Bore,	M		8775	
1	thickness 7.1 mm	ete			
		r			
4	Development by Air	Jo		351	
	Compressor of adequate	b			
	capacity for minimum 5 hours,				
	over pumping and by other				
	means till discharge water is				
	clear and free of sand including				
	collection of two water samples				
		Ī			

	from PZ well adopting standard procedure in 1 litre HDPE bottle, along with video recordings of compressor hour meter, discharge etc.			
5	Chemical analysis of water samples for 15 parameters pH, EC, TH, TDS, Ca, Mg, Na, K, CO <sub>3</sub> , HCO <sub>3</sub> , SO <sub>4</sub> , NO <sub>3</sub> , Cl, F & Fe in NABL accredited labs	Jo b	351	
5	Chemical analysis of water samples for Heavy metals (As, U) in NABL accredited labs and submission of report from NABL accredited lab	Jo b	351	
7	Construction of cement concrete platform of dimension 0.70 X 0.70 X 0.60 m (0.30 m above ground level) using concrete mix of 1:2:4 around the around the Piezometer well welded with minimum 6 Nos of anchoring plate as per drawing	Jo b	351	
8	Supply and fitting of well cap as per drawing with Allen Keys.  MS Plate size 5 mm embossed & welded with permanent marking of "CGWB PZ" should be carved with welding on outer surface of casing pipe	Jo b	351	351
9	Supply and installation of protection box made of 3 mm GI sheet of Size: 550mm X450mm X530mm along with Brass lock (7 lever hardened) and three keys for each lock as per drawing	Jo b	351	351
10	Supply and installation of Display Board as per drawing	Jo b	351	351

11	Preparation and submission of	Jo		351		351			
**	basic data report per site in	b		331		331			
	triplicate along with data								
	sheets, analysis sheet, chemical								
	analysis report from NABL lab,								
	site location map and								
	approachability with landmarks,								
	photographs and videos of								
	activities of drilling, assembly								
	lowering, gravel measurement								
	and gravel packing, well								
	development using compressor								
	and well water discharge, water								
	sample collection, well								
	discharge with discharge								
	measurement, well site with								
	display board, well cap,								
	protection box for each site,								
	etc.The soft copy as well as hard								
	copy should be submitted.								
	Summary of Piezometer details								
	in xls format (as per proforma								
	given by CGWB) including								
	details of dia and depth of								
	assembly pipe, screen pipe,								
	static water level, gravel								
	packing depth and thickness,								
	Litholog etc. should be also								
-	submitted.								
	Total								
	GST @ 18%								
	Grand Total inclusive of Taxes								
N	1. The Pilot hole drilling should b	e car	ried out t	to target d	epth of 150 r	n in bed rock.			
ot									
e:									
					t lowering su	urface casing upto the depth of bed			
	rock/recommended depth citing for				2 1 2				
	3. No payment shall be made if an								
	bore hole fishing, etc citing form								
	objection by the Local Government Bodies or public agitation against drilling leading to law and order								
	<ul><li>problems, etc.</li><li>4. Water samples shall be collected as per the standard procedures at the closure of well development as</li></ul>								
	_		-	_		-			
	per the standard procedures. Water samples will be collected in 3 pre-treated HDPE containers (1 no. of 1 litre capacity container for Basic parameters, 2nos. of 250ml/500ml capacity containers for heavy metals). The samples for arsenic parameter should be acidified with ultrapure HCl (1:1 HCl) and the								
	samples for other heavy/ trace me								
	5 All the collected water samples shall be submitted to CGWB and water samples should be properly sealed and labelled with the relevant details like location (including Lat and Long), well number and type, date and time of sampling, stage of pumping test/ well development, details of acidification, water temperature at the time of sample collection, etc.								
1	1 1 1 1 0 1	11		-	en de velopii	ient, detains of defamication, water			

- 6 The water samples collected at the last stage of well developement in case of Piezometer shall be analysed for basic parameters and heavy metals as per BOQ by the contractor through NABL Lab and one more set of these water samples shall be submitted to CGWB for validation along with original report of NABL Lab.
- 7. Well development will be treated as completed only when water is clear and free of suspended particles during pumping. Well will be treated as completed only after construction of well as per the recommended well assembly and after conducting the well development, pumping test and all other items mentioned in the BOQ and submission of BDRs duly validated by CGWB. Payment for the well shall be made only when the well is constructed as per the BOQ specification.
- 7. Litholog collected (minimum 250 g) as per BOQ should be properly packed in good quality packing cover and should be tagged with details of sample No, site name, well type, depth range of litholog, etc and should be submitted to CGWB Regional office along with drill time log and logging details including logging graph.
- 8. If additional quantity of any item is needed as per technical requirement at site, the same shall be decided by CGWB, WR in concurrence with the PMC, CGWB, CHQ.
- 9. CGWB CHQ / CGWB, WR will not be responsible for any site related issues like rig / manpower, transportation, local disputes etc. at any point of time.

RJ PZ BOQ 4						
BOQ for construction of Piezo Meter Rajasthan (Hard Rock 150 m)						
Piezometers in Hard Rock	Shallov Rock)	v (Hard				
State(s) Rajasthan (AAP 2022-26)						
Number of Piezometers	280	Number				
Depth of pilot hole	150	Meter				
Average depth of well construction	150	Meter				
Diameter of housing pipe	178	MM				
Length of housing pipe (should be left blank if the diameter of housing and intake pipe	25	Meter				
is same)						
Diameter of intake pipe	0	MM				
Average Length of intake pipe (screen)	0	Meter				
Type of screen Stainless steel of SS304 grade	0	Meter				
Slot opening	0	MM				
Average Development of Piezometer by air compressor	5	Hours				
Collection of water samples per site	2	Number				
Number of samples per well to be tested for Basic Paramers	1	Number				
Number of samples per well to be tested for Heavy metals	1	Number				

S.	Item of work	Un	Rate/	Total	Total Amt.
No		it	Unit	Meterag	(Excluding
			Quanti	e/Total	GST)
			ty	no.	
			(Exclu		
			ding		
			GST)		
1	Drilling of over burden	Me		7000	
	using rock roller/ drag	ter			
	bit/Buton bit to				
	accommodate casing pipe of				
	178 mm (7") dia up to bed				
	rock including formation				

	sample collection at every 3m and change in formation, preparation and submission of litholog along with video recordings			
1.1	Drilling by DTH method using appropriate sizes of button bits so as to reach targeted depth with diameter of hole not less than 165 mm at 100 m depth and final diameter not less than 152 mm at bottom of holes/150 m depth including sample collection and prepartion of litholog	Me ter	35000	
2	Caliper logging to decipher the depth and width of fracture zones, submission of report including logging graph, interpretation of graph, generation of composite log along with video recording	Job	280	
3	Supply and installation of ERW casing pipe conforming to latest version of IS: 4270-2001 of diameter and thickness given below			
3.1	178 mm (7") Nominal Bore, thickness 7.1 mm	Me ter	7000	
4	Development by Air Compressor of adequate capacity for minimum 5 hours, over pumping and by other means till discharge water is clear and free of sand including collection of two water samples from PZ well adopting standard procedure in 1 litre HDPE bottle, along with video recordings of compressor hour meter, discharge etc.	Job	280	
5	Chemical analysis of water samples for 15 parameters pH, EC, TH, TDS, Ca, Mg, Na, K, CO <sub>3</sub> , HCO <sub>3</sub> , SO <sub>4</sub> , NO <sub>3</sub> , Cl, F & Fe in NABL accredited labs	Job	280	

5	Chaminal analysis of western	Tolo	200	
5	Chemical analysis of water	Job	280	
	samples for Heavy metals			
	(As, U) in NABL accredited			
	labs and submission of report			
	from NABL accredited lab			
7	Construction of cement	Job	280	
	concrete platform of			
	dimension 0.70 X 0.70 X			
	0.60 m (0.30 m above ground			
	level) using concrete mix of			
	1:2:4 around the around the			
	Piezometer well welded with			
	minimum 6 Nos of			
	anchoring plate as per			
0	drawing	т 1	200	
8	Supply and fitting of well cap	Job	280	
	as per drawing with Allen			
	Keys. MS Plate size 5 mm			
	embossed & welded with			
	permanent marking of "			
	CGWB PZ" should be carved			
	with welding on outer			
	surface of casing pipe			
9	Supply and installation of	Job	280	
	protection box made of 3			
	mm GI sheet of Size: 550mm			
	X450mm X530mm along			
	with Brass lock (7 lever			
	hardened) and three keys for			
	each lock as per drawing			
10	Supply and installation of	Job	280	
10	Display Board as per	300	200	
	drawing			
11	Preparation and submission	Job	280	
11	*	100	200	
	of basic data report per site in			
	triplicate along with data			
	sheets, analysis sheet,			
	chemical analysis report from			
	NABL lab, site location map			
	and approachability with			
	landmarks, photographs and			
	videos of activities of			
	drilling, assembly lowering,			
	gravel measurement and			
	gravel packing, well			
	development using			
	compressor and well water			
	discharge, water sample			
	collection, well discharge			
	with discharge measurement,			
	well site with display board,			
	well cap, protection box for			
	" on oup, protection box for			

	each site, etc. The soft copy as well as hard copy should be submitted. Summary of Piezometer details in xls format (as per proforma given by CGWB) including details of dia and depth of assembly pipe, screen pipe, static water level, gravel packing depth and thickness, Litholog etc. should be also submitted.							
	Total							
	GST @ 18%							
	Grand Total inclusive of							
	Taxes							
No	1. The Pilot hole drilling should	d he o	  arried out	to target de	enth of 150 m	in bed rock		
te:	1. The First hole drilling should	a oc c	arried out	i to target a	epth of 150 m	in oca rock.		
	2. No payment shall be made it	f well	is abando	ned withou	t lowering sur	face casing upto the depth of		
	bed rock/recommended depth of							
	<ul> <li>3. No payment shall be made if any well is abandoned due to fault of contractor or due to machinery, bore hole fishing, etc citing formation problem except under extraordinary situations like interference/objection by the Local Government Bodies or public agitation against drilling leading to law and order problems, etc.</li> <li>4. Water samples shall be collected as per the standard procedures at the closure of well development</li> </ul>							
	as per the standard procedures.							
	no. of 1 litre capacity container heavy metals). The samples for the samples for other heavy/ tra	r arse	nic paran	neter should	be acidified v	with ultrapure HCl (1:1 HCl) and		
	5 All the collected water sample							
	sealed and labelled with the rel							
					ell developme	nt, details of acidification, water		
	temperature at the time of samples collected				valanamant in	aggs of Diagramatar shall be		
	6 The water samples collected analysed for basic parameters a					tractor through NABL Lab and		
	one more set of these water sar		•		` •	C		
	report of NABL Lab.	•						
	7. Well development will be tro			•		*		
	particles during pumping. Well recommended well assembly a			_	•	-		
				-	•	y CGWB. Payment for the well		
	shall be made only when the w	ell is	constructe	ed as per the	e BOQ specifi	cation.		
	cover and should be tagged with and should be submitted to CG	h det	ails of sai	mple No, si	te name, well	packed in good quality packing type, depth range of litholog, etc e log and logging details		
	including logging graph.  8. If additional quantity of any	item	is needed	as per techi	nical requirem	ent at site, the same shall be		
	o. 11 additional qualitity of ally	IIIII .	is inccutu	as per tecili	mear requirelli	one at one, the same shall be		

decided by CGWB, WR in concurrence with the PMC, CGWB, CHQ.

9. CGWB CHQ / CGWB, WR will not be responsible for any site related issues like rig / manpower, transportation, local disputes etc. at any point of time.

RJ PZ BOQ 5							
BOQ for construction of Piezo Meter Rajasthan (SRHR Rock 150 m)							
Piezometers in SRHR	Shallov Rock)	w (Hard					
State(s) Rajasthan (AAP 2022-26)							
Number of Piezometers	347	Number					
Depth of pilot hole	150	Meter					
Average depth of well construction	150	Meter					
Diameter of housing pipe	178	MM					
Length of housing pipe (should be left blank if the diameter of housing and intake pip	pe 25	Meter					
is same)							
Diameter of intake pipe	0	MM					
Average Length of intake pipe (screen)	0	Meter					
Type of screen Stainless steel of SS304 grade	0	Meter					
Slot opening	0	MM					
Average Development of Piezometer by air compressor	5	Hours					
Collection of water samples per site	2	Number					
Number of samples per well to be tested for Basic Paramers	1	Number					
Number of samples per well to be tested for Heavy metals	1	Number					

S.	Item of work	Un	Rate/	Total	Total Amt.
No		it	Unit	Meterag	(Excluding
			Quanti	e/Total	GST)
			ty	no.	
			(Exclu		
			ding		
			GST)		
1	Drilling of over burden using	Me		17350	
	rock roller/ drag bit/Buton bit	ter			
	to accommodate casing pipe				
	of 178 mm (7") dia up to bed				
	rock including formation				
	sample collection at every 3m				
	and change in formation,				
	preparation and submission				
	of litholog along with video				
	recordings				
1.1	Drilling by DTH method	Me		34700	
	using appropriate sizes of	ter			
	button bits so as to reach				
	targeted depth with diameter				
	of hole not less than 165 mm				
	at 100 m depth and final				
	diameter not less than 152				
	mm at bottom of holes/150 m				
	depth including sample				
	collection and prepartion of				

	litholog			
2	Caliper logging to decipher the depth and width of fracture zones, submission of report including logging graph, interpretation of graph, generation of	Job	347	
	composite log along with			
2	video recording			
3	Supply and installation of ERW casing pipe conforming to latest version of IS: 4270-2001 of diameter and thickness given below			
3.1	178 mm (7") Nominal Bore,	Me	17350	
4	thickness 7.1 mm	ter	247	
5	Development by Air Compressor of adequate capacity for minimum 5 hours, over pumping and by other means till discharge water is clear and free of sand including collection of two water samples from PZ well adopting standard procedure in 1 litre HDPE bottle, along with video recordings of compressor hour meter, discharge etc.  Chemical analysis of water samples for 15 parameters pH EC TH TDS Ca Mg	Job	347	
	pH, EC, TH, TDS, Ca, Mg, Na, K, CO <sub>3</sub> , HCO <sub>3</sub> , SO <sub>4</sub> , NO <sub>3</sub> , Cl, F & Fe in NABL accredited labs		245	
5	Chemical analysis of water samples for Heavy metals (As, U) in NABL accredited labs and submission of report from NABL accredited lab	Job	347	
7	Construction of cement concrete platform of dimension 0.70 X 0.70 X 0.60 m (0.30 m above ground level) using concrete mix of 1:2:4 around the around the Piezometer well welded with	Job	347	

				I
	minimum 6 Nos of			
	anchoring plate as per			
	drawing			
8	Supply and fitting of well cap	Job	347	
	as per drawing with Allen			
	Keys. MS Plate size 5 mm			
	embossed & welded with			
	permanent marking of "			
	CGWB PZ" should be carved			
	with welding on outer surface			
	of casing pipe			
9	Supply and installation of	Job	347	
	protection box made of 3			
	mm GI sheet of Size: 550mm			
	X450mm X530mm along			
	with Brass lock (7 lever			
	hardened) and three keys for			
	each lock as per drawing			
10	Supply and installation of	Job	347	
	Display Board as per drawing		317	
11	Preparation and submission	Job	347	
	of basic data report per site in		.,	
	triplicate along with data			
	sheets, analysis sheet,			
	chemical analysis report from			
	NABL lab, site location map			
	and approachability with			
	landmarks, photographs and			
	videos of activities of			
	drilling, assembly lowering,			
	gravel measurement and			
	gravel packing, well			
	development using			
	compressor and well water			
	discharge, water sample			
	collection, well discharge			
	with discharge measurement,			
	with discharge measurement, well site with display board,			
	well cap, protection box for			
	each site, etc. The soft copy as			
	well as hard copy should be			
	submitted. Summary of			
	Piezometer details in xls			
	format (as per proforma			
	given by CGWB) including			
	details of dia and depth of			
	_			
	assembly pipe, screen pipe,			
	static water level, gravel			
	packing depth and thickness,			
	Litholog etc. should be also			<u> </u>

	submitted.							
	Total							
	GST @ 18%							
	Grand Total inclusive of							
	Taxes							
	Tunes							
No	1. The Pilot hole drilling should b	e c	arried out	to target de	epth of 150 m	in bed rock.		
te:	1. The They here unming should s		arriod out	to target a		m ocu room.		
	2. No payment shall be made if w	ell	is abando	ned withou	t lowering sur	face casing upto the depth of		
	bed rock/recommended depth citi				S			
	3. No payment shall be made if an				e to fault of co	ontractor or due to machinery,		
	bore hole fishing, etc citing form	atio	n problei	n except un	der extraordin	ary situations like interference/		
	objection by the Local Governme	nt E	odies or	public agita	ation against d	rilling leading to law and order		
	problems, etc.							
	4. Water samples shall be collect							
	as per the standard procedures. W					`		
	no. of 1 litre capacity container for		-			- ·		
	heavy metals). The samples for a		-			• • • • • • • • • • • • • • • • • • • •		
	the samples for other heavy/ trace							
	5 All the collected water samples							
	sealed and labelled with the relevant				•	<u> </u>		
	type, date and time of sampling, s temperature at the time of sample				en developme	in, details of acidification, water		
-	6 The water samples collected at				velonement in	case of Piezometer shall be		
	analysed for basic parameters and		_					
	1 2		•		•	•		
	one more set of these water samples shall be submitted to CGWB for validation along with original report of NABL Lab.							
	7. Well development will be treat	ed a	ıs comple	ted only w	hen water is cl	ear and free of suspended		
	particles during pumping. Well w			•		*		
	recommended well assembly and after conducting the well development, pumping test and all other							
	items mentioned in the BOQ and submission of BDRs duly validated by CGWB. Payment for the well							
	shall be made only when the well							
	7. Litholog collected (minimum 2			-				
	cover and should be tagged with o							
	and should be submitted to CGW	B R	egional c	ffice along	with drill time	e log and logging details		
	including logging graph.							
	8. If additional quantity of any ite					ent at site, the same shall be		
	decided by CGWB, WR in concu					1. 1.1 . /		
L	9. CGWB CHQ / CGWB, WR will not be responsible for any site related issues like rig / manpower,							

transportation, local disputes etc. at any point of time.

RJ PZ BOQ 6							
BOQ for construction of Piezo Meter Rajasthan (SRHR Rock 200 m)							
Piezometers in SRHR	Shallov Rock)	w (Hard					
State(s) Rajasthan (AAP 2022-26)							
Number of Piezometers	237	Number					
Depth of pilot hole	200	Meter					
Average depth of well construction	200	Meter					
Diameter of housing pipe	178	MM					
Length of housing pipe (should be left blank if the diameter of housing and intake pip	e 25	Meter					
is same)							
Diameter of intake pipe	0	MM					
Average Length of intake pipe (screen)	0	Meter					
Type of screen Stainless steel of SS304 grade	0	Meter					
Slot opening	0	MM					
Average Development of Piezometer by air compressor	5	Hours					
Collection of water samples per site	2	Number					
Number of samples per well to be tested for Basic Paramers	1	Number					
Number of samples per well to be tested for Heavy metals	1	Number					

S.	Item of work	Un	Rate/	Total	Total Amt.
No		it	Unit	Meterag	(Excluding
			Quanti	e/Total	GST)
			ty	no.	·
			(Exclu		
			ding		
			GST)		
1	Drilling of over burden using	Me		14220	
	rock roller/ drag bit/Buton bit	ter			
	to accommodate casing pipe				
	of 178 mm (7") dia up to bed				
	rock including formation				
	sample collection at every 3m				
	and change in formation,				
	preparation and submission				
	of litholog along with video				
1 1	recordings	3.4		22100	
1.1	Drilling by DTH method	Me		33180	
	using appropriate sizes of	ter			
	button bits so as to reach				
	targeted depth with diameter of hole not less than 165 mm				
	at 100 m depth and final				
	diameter not less than 152				
	mm at bottom of holes/150 m				
	depth including sample				
	collection and prepartion of				
	litholog				
	Hillotog				

3	Caliper logging to decipher the depth and width of fracture zones, submission of report including logging graph, interpretation of graph, generation of composite log along with video recording Supply and installation of ERW casing pipe conforming	Jo b	237	
	to latest version of IS: 4270- 2001 of diameter and thickness given below			
3.1	178 mm (7") Nominal Bore, thickness 7.1 mm	Me ter	14220	
4	Development by Air Compressor of adequate capacity for minimum 5 hours, over pumping and by other means till discharge water is clear and free of sand including collection of two water samples from PZ well adopting standard procedure in 1 litre HDPE bottle, along with video recordings of compressor hour meter, discharge etc.	Jo b	237	
5	Chemical analysis of water samples for 15 parameters pH, EC, TH, TDS, Ca, Mg, Na, K, CO <sub>3</sub> , HCO <sub>3</sub> , SO <sub>4</sub> , NO <sub>3</sub> , Cl, F & Fe in NABL accredited labs	Jo b	237	
5	Chemical analysis of water samples for Heavy metals (As, U) in NABL accredited labs and submission of report from NABL accredited lab	Jo b	237	
7	Construction of cement concrete platform of dimension 0.70 X 0.70 X 0.60 m (0.30 m above ground level) using concrete mix of 1:2:4 around the around the Piezometer well welded with minimum 6 Nos of anchoring plate as per drawing	Jo b	237	

8	Supply and fitting of well cap	Jo	237	
	as per drawing with Allen	ь		
	Keys. MS Plate size 5 mm			
	embossed & welded with			
	permanent marking of "			
	CGWB PZ" should be carved			
	with welding on outer surface			
0	of casing pipe	Т.	227	
9	Supply and installation of protection box made of 3	Jo b	237	
	mm GI sheet of Size: 550mm	D		
	X450mm X530mm along			
	with Brass lock (7 lever			
	hardened) and three keys for			
	each lock as per drawing			
10	Supply and installation of	Jo	237	
	Display Board as per drawing	ь		
11	Preparation and submission	Jo	237	
	of basic data report per site in	b		
	triplicate along with data			
	sheets, analysis sheet,			
	chemical analysis report from			
	NABL lab, site location map			
	and approachability with			
	landmarks, photographs and videos of activities of drilling,			
	assembly lowering, gravel			
	measurement and gravel			
	packing, well development			
	using compressor and well			
	water discharge, water			
	sample collection, well			
	discharge with discharge			
	measurement, well site with			
	display board, well cap,			
	protection box for each site,			
	etc. The soft copy as well as			
	hard copy should be			
	submitted. Summary of Piezometer details in xls			
	format (as per proforma given			
	by CGWB) including details			
	of dia and depth of assembly			
	pipe, screen pipe, static water			
	level, gravel packing depth			
	and thickness, Litholog etc.			
	should be also submitted.			
	Total			
	GST @ 18%			
	Grand Total inclusive of		 	
	Taxes			

No	1. The Pilot hole drilling should be carried out to target depth of 150 m in bed rock.
te:	
	2. No payment shall be made if well is abandoned without lowering surface casing upto the depth of
	bed rock/recommended depth citing formation problem.
	3. No payment shall be made if any well is abandoned due to fault of contractor or due to machinery,
	bore hole fishing, etc citing formation problem except under extraordinary situations like interference/
	objection by the Local Government Bodies or public agitation against drilling leading to law and order
	problems, etc.
	4. Water samples shall be collected as per the standard procedures at the closure of well development
	as per the standard procedures. Water samples will be collected in 3 pre-treated HDPE containers (1
	no. of 1 litre capacity container for Basic parameters, 2nos. of 250ml/500ml capacity containers for heavy metals). The samples for arsenic parameter should be acidified with ultrapure HCl (1:1 HCl) and
	the samples for other heavy/ trace metals should be acidified with ultrapure HNO <sub>3</sub> (1:1 HNO <sub>3</sub> ).
	5 All the collected water samples shall be submitted to CGWB and water samples should be properly
	sealed and labelled with the relevant details like location (including Lat and Long), well number and
	type, date and time of sampling, stage of pumping test/ well development, details of acidification, water
	temperature at the time of sample collection, etc.
	6 The water samples collected at the last stage of well developement in case of Piezometer shall be
	analysed for basic parameters and heavy metals as per BOQ by the contractor through NABL Lab and
	one more set of these water samples shall be submitted to CGWB for validation along with original
	report of NABL Lab.
	7. Well development will be treated as completed only when water is clear and free of suspended
	particles during pumping. Well will be treated as completed only after construction of well as per the
	recommended well assembly and after conducting the well development, pumping test and all other
	items mentioned in the BOQ and submission of BDRs duly validated by CGWB. Payment for the well
	shall be made only when the well is constructed as per the BOQ specification.
	7. Litholog collected (minimum 250 g) as per BOQ should be properly packed in good quality packing
	cover and should be tagged with details of sample No, site name, well type, depth range of litholog, etc and should be submitted to CGWB Regional office along with drill time log and logging details
	including logging graph.
	8. If additional quantity of any item is needed as per technical requirement at site, the same shall be
	decided by CGWB, WR in concurrence with the PMC, CGWB, CHQ.
	9. CGWB CHQ / CGWB, WR will not be responsible for any site related issues like rig / manpower,
	transportation, local disputes etc. at any point of time.
	1 , 1

#### **EXPLANATORY NOTE FOR BOQ's (Soft Rock)**

**PRICE:** This is a works contract involving construction of wells as mentioned in the tender. The price is to be paid for supply and execution of work of various items or for materials

Explanatory notes in respect of each item of BOQ are given below. The BOQ shall be read in conjunction with explanatory notes of the concerned item along with Tender documents. The price shall be quoted accordingly.

#### 1. **Drilling of Pilot Hole** in BOQ includes

- i. Site preparation and erection of tent with furniture to facilitate CGWB representative to discharge his duties at each site.
- ii. Drilling with 216mm(8 ½") RR/DRAG Bit to the targeted depth of 300m plus5m, using bentonite mud.
- iii. Formation Sample collection (minimum 500g) during drilling for every 3m interval depth and also at the instance of change of formation during drilling (depth of change in formation to be recorded) and properly washed, dried and packed in polythene bags and labeled with date/ depth/ location
- iv. Maintain a drill time log for every 3 m and at depth where there is a change in formation(i.e. within 3m internal of litho log sample collection)
- v. Preparation and submission of litholog along with drill time log.
- vi. Any other activities pertaining to above drilling activity & recording of important information during drilling

#### 2. Reaming of Hole in BOQ: includes

- i. Drilling with suitable minimum 381 mm (15")size RR/DRAG Bit to accommodate 150 mm (NB)casing pipes to the targeted depth(assembly depth plus 5m),as decided by CGWB site representative. Payment shall be restricted to actual depth of drilling or assembly depth plus 5m whichever is less.
- ii. CGWB site representative will decide the depth of assembly to be lowered.
- iii. If required, Formation Sample collection (minimum 500g) during drilling for every 3m interval depth and also at the instance of change of formation during drilling (depth of change in formation to be recorded) and properly washed, dried and packed in polythene bags and labeled with date/ depth/ location.
- iv. Maintain a drill time log for every 3 m and at depth where there is a change in formation (i.e. within 3m internal of litho log sample collection).
- v. Preparation and submission of litholog along with drill time log.
- vi. Any other activities pertaining to above drilling activity & recording of important information during drilling

#### 3. Logging in BOQ: includes

- (i) electrical logging using 406mm and 1626mm (16" & 64") resistivity probe, SP and natural gamma logging up to the targeted depth (up to bottom depth of pilot hole).
- (ii) In case the logging could not be completed to desired depth in 8 ½" pilot hole after repeated attempts, logging in larger dia hole may be allowed by site hydrogeologist and no additional payment will be made for enlargement of hole for logging purpose and for additional attempts of logging.
- (iii) Preparation of composite log and submission of report along with data and analysis as Proformagiven in section VIII
- (iv) Report should also include zonewise water Quality. The logging should decipher all the zones having at least one meter thickness.
- (v) Graph sheet, analysis etc. should be provided
- (vi) Any other related activities.

#### 4. Enlargement of Hole in BOQ: includes

- i. Enlargment of hole with suitable minimum 508mm (20") size RR Bit to accommodate 250 mm (NB) (10") well assembly pipes to the targeted depth(assembly depth plus 5m), as decided by CGWB site representative in EW
- ii. CGWB site representative will decide the depth of assembly to be lowered.
- iii. Any other related activities

#### 5. Supply and Installation of ERW Caing Pipes in BOQ: Includes

- i. Supply of 250mm (NB) (10")dia with thickness of 7.1mm(for EW) and 150mm(NB) (6")dia(for OW) with thickness of 5.4mm ERW casing pipe confirming to latest version of IS: 4270-2001 with pipe ends edges beveled, and the same should be inspected by Executive Engineer or the CGWB representative and accepted by him.
- ii. Lowering and Installation of the casing pipe including welding of pipes in the well
- iii. CGWB site representative will decide the assembly size and the depth to be lowered.
- iv. Any other related activities required for supply and installation of casing pipe.

#### 6. Supply and Installation of LCG V-wire Screen in BOQ: includes

- i. Supply and installation of 250mm (NB) (10")with thickness of 10 mm (for EW)and 150mm(NB) (6")(for OW)with thickness of 7.0 mm, LCG V-Wire screen with slot opening 1.0mm confirming to latest Version of IS:8110-200.
- ii. The material should be inspected by and approved by Executive Engineer or CGWB representative before lowering.
- iii. The length of slot and position of slot in the well assembly will be decided by CGWB representative.
- iv. Any other related activities requiredfor supply and installation of LCG pipe.

#### 7. Supply and Shrouding by Pea Gravel in BOQ includes

- i. Supply and shrouding with pea gravel confirming to latest version of IS: 4097-1967 The Particle size range 2.0 mm to 3.35 mm for 1.0 mm slot opening.
- ii. The gravel before shrouding should be inspected and approved by the Executive Engineer or CGWB representative.
- iii. The depth up to which gravel shrouding is to be carried out will be decided by CGWB representative. The gravel shrouding shall be carried out after thinning the mud fluid using reverse fluid flow (back washing method).
- iv. Sufficient care should be taken so that gravel packing is proper and there is no bridging during gravel packing. If necessary, in case of bridging of gravel, air compressor of appropriate capacity should be used for proper gravel shrouding as per instruction of employer's site representative for which no additional cost will be paid. As a cross check, the theoretical annular volume of gravel packing and volume of actual gravel consumed shall be compared.
- v. Any other related activities

#### 8. Cement Sealing in BOQ includes

- i. Before cement sealing, sounding should be carried out to ascertain correct depth of gravel shrouding.
- ii. Before cement sealing 1 m thick clay shall be provided above gravel.
- iii. Supply and cement sealing using 53 grade cement of 5m thickness.
- iv. Adequate rest(minimum 10 hrs) shall be provided after cement sealing.
- v. Any other related activities.

#### 9. Supplying and filling up of borehole/ Annular space with clay in BOQ: includes

- i. Supply and filling up of bore hole/annular space between casing pipe and bore hole wall with clay balls as per the instruction of CGWB representative.
- ii. Any other related activities

#### 10. Development by Air Compressor in BOQ: includes

- (i) Development of well by air compressor of adequate capacity, over pumping with VT/Submersible pump and/ or any other means till the water is clear and free from sand.
- (ii) Each slotted zones should be developed till discharge water becomes clear as decided by the CGWB representative.
- (iii) The two water samples (one for basic parameters analysis &one for heavy metals) shall be collected from OW following standard procedure in Polypropylene bottle( 1 litre capacity) as per instruction CGWB representative.
- (iv)The water discharge from well during well development should be measured using V notch and recorded in the site register.

#### 11. Chemical Analysis in BOQ: includes

- i. Supply of Polypropylene bottle( 1 litre capacity) by the contractor
- ii. Collection of water samples in 1 litre Polypropylene bottles for analysis of basic parameters following standard procedure as per direction of CGWB site representative.
- iii. Transportation and chemical analysis of water sample in NABL accredited Lab
- iv. Each water sample shall be analysed for 15 parameters pH, EC, Total Hardness, Ca, Mg, Na,K,CO<sub>3</sub>, HCO<sub>3</sub>, SO<sub>4</sub>, NO<sub>3</sub>,Cl, F, PO4 & Si
- v. Collection of water samples has to be carried out in all wells except dry wells
- vi. Submission of chemical analysis report (soft and hard copies) duly validated by employer
- vii. Any other activities pertaining to collection of water samples and water sample analysis

#### 12. Chemical Analysis in BOQ: includes

- i. Supply of Polypropylene bottle( 1 litre capacity) by the contractor
- ii. Collection of water samples in 1 litre Polypropylene bottles for analysis of heavy metals following standard procedure as per direction of CGWB site representative.
- iii. Transportation and chemical analysis of water sample in NABL accredited Lab
- iv. Each water sample shall be analysed for for heavy metals Fe, Cu, Pb, Cd, Zn, Cr, Co and Ni
- v. Submission of chemical analysis report (soft and hard copies) duly validated by employer
- vi. Any other activities pertaining to collection of water samples and water sample analysis

#### 13. Supply and Fiiting of Well Cap in BOQ: includes:

- i. Supply and fitting of well cap in all wells as per specifications given in tender.
- ii. CGWB marking on pipes using welding.
- iii. Any other related activities

#### 14. Construction of Cement concrete platform in BOQ: includes

- i. Construction of cement concrete platform measuring 0.70 X 0.70 X 0.60 m (0.30 m above ground level) using concrete mix of 1:2:4 around the housing pipe welded with anchoring plate 6 Nos as per drawing given in the section IX
- ii. The area surrounding the well site has to be leveled, pits to be filled and the area to be restored to the original condition i.e. as before start of drilling operation and ensure all safety precautions.
- iii. Any other activities required for well completion as mentioned in the section VII-Work requirements

#### 15. Supply and installation of protection box in BOQ: includes

- i. Supply and installation of protection box as per specification given in tender document
- ii. Supply of Brass lock (7 lever) with all common keys (One Key for multiple locks) preferably Make: Godrej/Harrison/Link with three individual keys for each well
- iii. The above work is to be carried out in all wells
- iv. Any other related activities

#### 16. Supply and Installation of Dispay board in BOQ: includes

- Supply of Display Board as per Drawing: Display Board should be coated (minimum two coating) with antirust paint
- ii Installation of Display Board using concrete as per drawing. Each site will have one display board.
- iii Incorporation of details of well in the Display Board. In case of OW, details pertaining OW should be also incorporated in addition to Piezometer details as per the proforma given by the Employer's site representative. Any other information as desired by employer should also be incorporated in the Display Board.
- iv Any other activities related to supply and installation of Display Board.

#### 17. Preperation and Submission of BDR in BOQ: includes

- i. Basic Data Report (BDR) along with data, graph sheet, analysis etc. as per proforma given in section VIII should be prepared for each site separately and submitted both in soft and hard copies. In site having both EW & OW the details (Litholog, static water level, drill time log etc.) pertaining to both EW & OW should be incorporated in the BDR.
- ii. In case of site having more than one well, one BDR only be prepared but all the wells detail should be incorporated in that BDR.
  - BDR Data and analysis should be duly validated and accepted by the Regional Director
- iv. Any other activities

#### Note:

- 3. No payment will be made for the shiting of the rig unit and goods required for the construction of the wells as it is deemed to be inclused in the items cost of BOQ.
- 4. Wherever logging is conducted, the pilot hole depth in EW will be restricted to logging depth in case of variation between pilot hole depth and logging depth.

#### **EXPLANATORY NOTE FOR BOQ's (Hard Rock)**

**PRICE:** This is a works contract involving construction of wells and carrying out pumping test as mentioned in the tender. The price is to be paid for supply and execution of work of various items or for materials

Explanatory notes in respect of each item of BOQ are given below. The BOQ shall be read in conjunction with explanatory notes of the concerned item along with Tender documents. The price shall be quoted accordingly.

#### Drilling of Overburden in BOQ: includes

- i. Drilling with suitable size RR/DRAG/BUTTON Bit to accommodate suitable casing pipes as per BOQ to a depth till hard rock formation is encountered as decided by CGWB site representative
- ii. Formation Sample collection (minimum 250g) during drilling for every 3m interval depth
- iii. Recording of water discharge using V-notch on encountering formation with significant discharge. Depth at which formation with discharge encountered should be recorded,
- iv. Preparation and submission of litholog
- v. Providing tent along with table chairs etc. for employer site representative for discharging his duties smoothly
- vi. Any other activities pertaining to above drilling activity

#### 2. Supply and Installation of ERW casing pipe of BOQ: includes

- i. Supply of suitable ERW casing pipe as per BOQ confirming to latest version of IS: 4270-2001 with thickness 5.4mm and the same should be inspected by the CGWB officer and accepted by him
- ii. Installation of 175mm casing pipe in the overburden
- iii. CGWB site representative will decide the length of casing pipe to be lowered
- iv Any other activities pertaining to above activity

#### 3. Drilling by DTH method in BOQ: includes

- i. Drilling by DTH method using appropriate sizes of button bit so as to reach targeted depth with diameter of hole not less than 165mm up to 100m depth and final diameter not less than 152mm up to targeted depth (200m).
- ii. Formation Sample collection (minimum 250g) during drilling for every 3m interval depth or in the event of change in formation
- iii. Recording of water discharge using 90 degree V-notch (to be supplied by contractor) on encountering formation with significant discharge. Depth at which formation with discharge encountered should also be recorded
- iv. Preparation of litholog
- v. Above drilling by DTH had to be carried out in all 200m (EW & OWs)/ PZ of Package (Hard Rock)
- vi. Any other activities pertaining to above drilling activity

#### 4. Collection of Water Sample in BOQ: includes

- i. Collection of water sample in 1 litre HDPE bottle during drilling i.e. on encountering formation with significant discharge, pumping tests, following standard procedure as per direction of CGWB site representative.
- ii. Supply of HDPE bottle( 1 litre capacity) by the contractor
- iii. Transportation and chemical analysis of water sample in NABL accredited Lab
- iv. Each water sample shall be analysed for 15 parameters pH, EC, Total Hardness, TDS, Ca, Mg, Na,K,Co<sub>3</sub>, HCO<sub>3</sub>, SO<sub>4</sub>, NO<sub>3</sub>,Cl, F, Fe
- v. Collection of water samples has to be carried out in all wells except dry wells
- vi. Submission of chemical analysis report (soft and hard copies) duly validated by employer
- vii. Any other activities pertaining to collection of water samples and water sample analysis

#### 5. Supply and fitting of Well Cap in BOQ: includes:

- i) Supply and fitting of well cap in all wells as per drawing,
- ii) Any other activities pertaining to supply and fitting of well cap

#### 6. Construction of Cement Concrete Paltform in BOQ: includes:

- i . Construction of cement concrete platform measuring 0.70 X 0.70 X 0.60 m (0.30 m above ground level) using concrete mix of 1:2:4 around the housing pipe welded with anchoring plate 6 Nos as per drawing given in the tender document.
- ii. Restoration of ground to previous natural condition

#### 7. Supply and Installation of Protection box in BOQ: includes

- i. Supply and installation of protection box as per specification given in tender document
- ii. Supply of Brass lock (7 lever) with all common keys (One Key for multiple locks) preferably Make: Godrei/Harrison/Link with three individual keys for each well
- iii. Any other activities pertaining to installation of protection box

#### 8. Preperation adn submission of BDR in BOQ: includes

- i. Basic Data Report (BDR) along with data, graph sheet, analysis etc. should be prepared for each site separately and submitted both in soft and hard copies. In site having both EW & OW/ PZ the details (Litholog, static water level, depths at which discharge encountered and respective discharge measured using V-notch) pertaining to both EW & OW/ PZ should be incorporated in the BDR.
- ii. In case of site having more than one well, one BDRonly be prepared butall the wells detail should be incorporated in that BDR.
- iii. BDR Data and analysis should be duly validated and accepted by the Regional Director.

#### 9. **PYT in BOQ**: includes

- i. Supply of Infrastructure required for Preliminary Yield test eduction pipe, airline, steel tape of appropriate length for measuring the depth of well or water level recorder etc.
- ii. Lowering of education pipe and airline as per procedure mentioned in the tender document.
- iii. Conducting PYT as per procedure/methodology mentioned in the tender document
- iv. Measurement of water level at intervals as per procedure given in the pumping
- v. Installation of 20mm pipe for water level measurement
- vi. Recording of data and analysis of PYT Data generated as per proforma given in tender document
- vii. Arrangement for draining of discharge during pumping test to nearest drain safely through channels of pipes without creating hindrance to public
- viii. The PYT shall be carried out as decided by CGWB's site representative.
- ix. Submission of Data and analysis (Soft and hard copy) report duly validated by employer

#### 10. Slug test in BOQ: includes

- i. Supply of Infrastructure required for slug test including arrangement of water needed for slug test, water level recorder etc.
- ii. Conducting Slug test as per the procedure given in the tender.
- iii. Measurement of static water level and also measurement of water level at closely spaced interval I during the test
- iv. The slug test shall be carried out in low yielding borewell/tubewells as decided by CGWB's site representative.

#### 11. Supply and installation of Display Board in BOQ: includes

- i Supply of Display Board as per Drawing: Display Board should be coated (minimum two coating) with antirust paint
- ii Installation of Display Board using concrete as per drawing. Each site will have one display board.
- iii Incorporation of details of well in the Display Board. In case of OW, details pertaining OW should be also incorporated in addition to EW details as per the proforma given by the Employer's site representative. Any other information as desired by employer should also be incorporated in the Display Board.
- iv Any other activities related to supply and installation of Display Board.

#### Note:

No payment will be made for mobilization of rig unit and goods required for construction of wells as it is deemed to be included in the item's cost of BOQ.

# PART B

## Package 5- DWLR BOQ

## PRICE SCHEDULE

(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevent columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER	NUMBER #
SI. No.	Item Description	Quantity	Units	Rate in Rs. P	TOTAL AMOUNT Without GST in Rs. P
0	Supply, Installation,testingandCommissioning of DWLRs and telemetry, establishment of Data Acquisition system & its maintenance for Real Time Ground Water Level monitoring and supply of Ground water level, ground water temperature from site and receipt of data at concerned Regional Office Data Centre (RODC) and subsequently to National Data Center of CGWB at Faidabad in a desired format from 1508 Piezometers wells in the states of Rajasthan through telemetry systems with 05 years warranty and 02 years AMC. (RODC at CGWB, WR, Jaipur, Rajasthan)				

1.1	Without Quality Probe:	1508	Nos	
	Without Quality Probe: Supply,			
	Installation, testing, commissioning,			
	training for Digital Water Level			
	Recorders (DWLRs) with non-vented			
	hydrostatic pressure type sensorand			
	barometric pressure correction and, with			
	temeprature sensor for individual			
	station with desired measurement range			
	and standard sensor cable along with			
	junction boxes and 5 meter signal cable,			
	to be installed at depth as per list and			
	necessary accessories with battery			
	operated data logger and telemetry			
	System based on GSM & GPRS as per			
	the technical specifications (As the			
	tender document) to be installed at			
	designated locations as per list in tender document.			
	This includes 05 years comprehensive			
	warranty andO&M which also includes			
	replacement of batteries as & when			
	required, replacement of			
	spares/parts/equipments/consumables,			
	periodic inspections, repairing/service			
	charges, the cost of Communication			
	using GSM & GPRS SIM and other			
	related charges. Minimum One Service			
	Engineer shall be placed at concerned			
	RODC for Operation of DWLR system			
	with Telemetry. This is a Continuous			
	activity for five years after successful			
	commissioning and final acceptance			
	certificate of DWLR.			
	This also includeTraining of the			
	purchaser's personnel by the supplier on			
	assembly, startup, operation,			
	maintenance and/or repair of DWLR			
	with telemetry and relevant software			
	and supplied goods. Two types of trainings are to be organised. (i) Onsite			
	trainings are to be organised. (1) Onsite training to be organised in each State			
	where DWLRs are to be installed. One			
	onsite trainings for each State (ii)			
	Training at concerned Regional Office			
	Data Center( RODC) of CGWB. Two			
	trainings at concerned RODC. Course			
	topics will include sensor calibration,			
	data logger configuration, data			
	downloading, data retrieval, collection,			
	Trouble shooting, processing			

	maintenance requirements and procedure for equipment configuration, installation, site testing and commissioning including training kit containing course material in soft and hard copies as per technical specification.  Note: For Validation of data, Physical measurement shall be cross checked with the data generated from DWLR.			
1.2	With Quality Probe: Digital Water Level Recorders (DWLRs) with non- vented hydrostatic pressure type sensorand barometric pressure correction and, with temeprature sensor and with electrical conductivity for individual station with desired measurement range and standard sensor cable along with junction boxes and 5 meter signal cable, 25mm dia PVC pipe (BIS standard) for housing the cable, to be installed at depth as per list and necessary accessories with battery operated data logger and telemetry System based on GSM & GPRS as per the technical specifications (As per the tender document) to be installed at designated locations as per list in tender document. per list in tender document.	-	Nos	
2	Server of reputed brand with accessaries, work station and 3 KVA online UPS as per tender document. (One set up to be created at the concerned RODC and one at NDC Faridabad)	2.0	Nos	
3	IT hardware which includes required static, IP, router, switch, firewall system & A3 size color printer.	2.0	Nos	
4	42" LED Display system as per technical specifications.	2.0	Nos	
	1	<u>                                     </u>	I	

5	High Speed Interned Connection (minimum 8 mbps upload and 8 mbps download) for five years.	2.0	Nos	
6	GSM & GPRS data receiving system with all ancillary equipment as per technical specifications.	2.0	Nos	
7	Installation, Testing and Commissioning of Server along with monitor, Computer node (Workstation) and 3 KVA online UPS as per technical specifications	2.0	Nos	
8	Installation, testing & commissioning of IT hardware which includes required static IP, router, switch, firewall system & A3 Size Color Printer.	2.0	Nos	
9	Installation, testing & commissioning of 42" LED Display system as per technical specifications.	2.0	Nos	
10	Installation, testing & commissioning & charges of High Speed Internet Connection (minimum 8 mpbs upload and 8 mbps download) for 5 years.	2.0	Nos	
11	Installation, testing & commissioning GSM & GPRS data receiving system with all ancillary equipment as per technical specifications.	2.0	Nos	
12	Comprehensive AMC for DWLR with telemetry System along with all accessories, installed at designated locations and Data Centerequipments as specified in schedule of requirement after 5 years warranty period. This includes the replacement of batteries as and when required, replacement of spares/parts/equipments/consumables, periodic inspections, repairing/service charges, the cost of communication using GSM & GPRS, SIM and High Speed Internet charges and other related charges. Note: Continuous activity for Two year after five years comprehensiveO&M and warranty period.	24	Months	

Total in			
Figures			

# **SECTION-VII**TENTATIVE LIST OF LOCATIONS

#### **SECTION-VII**

#### **TENTATIVE LIST OF LOCATIONS**

Tentative list for Construction of Piezometer Wells and Installation of DWLR and Telemetry through Out-sourcing in STATES of Rajasthan.

RJ PZ and DWLR BOQ 1 and 2

<u>RJ</u>	PZ and D	WLR BOQ 1 a										
S r. N o	State	BLOCK	DG_Typ e	VILLAG E	GP/TOW N	TEHSIL	Latitu de	Longit ude	HR/ SR	Dep th (m)	Inhouse/Ou tsourcing	Tent ative DWL R Dept
												h (mbg l)
1	Rajas than	Sagwara	Internati onal Bounda ry	26 A	90 Gg	Anupgar h	29.19 897	73.13 737	SR	100	OUTSOURCI NG	80
2	Rajas than	Anupgar h		25 Apd(A)	4 Ksm	Anupgar h	29.27 339	73.19 526	SR	100	OUTSOURCI NG	80
3	Rajas than	Raisingh nagar	OCS Area	Nanau	Nanau	Nohar	29.08 229	74.52 6	SR	100	OUTSOURCI NG	80
4	Rajas than	Nohar		20 Rwd- B	17 Rw Thalka	Nohar	29.24 457	74.58 76	SR	100	OUTSOURCI NG	80
5	Rajas than	Rawatsa r	Area	Rekh Ghariasa r	Malasar	Rawatsa r	28.80 63	74.11 498	SR	100	OUTSOURCI NG	80
6	Rajas than	Rawatsa r	OCS Area	Lunasar	Neyasar	Rawatsa r	28.84 956	74.18 547	SR	100	OUTSOURCI NG	80
7	Rajas than	Rawatsa r	ocs	Bisarasa r	Bisrasar	Rawatsa r	28.84 956	74.25 108	SR	100	OUTSOURCI NG	80
8	Rajas than	Rawatsa r	OCS Area	Kallasar	Kelnia	Rawatsa r	28.85 992	74.35 468	SR	100	OUTSOURCI NG	80
9	Rajas than	Rawatsa r		Dhani Mahela	Jaidasar	Rawatsa r	28.89 963	74.31 497	SR	100	OUTSOURCI NG	80
10	Rajas than	Rawatsa r	OCS Area	Mahela	Jaidasar	Rawatsa r	28.90 481	74.24 59	SR	100	OUTSOURCI NG	80
11	Rajas than	Rawatsa r		Gulabga rh	Pallu	Rawatsa r	28.91 69	74.19 065	SR	100	OUTSOURCI NG	80
12	Rajas than	Rawatsa r		Gulabga rh	Pallu	Rawatsa r	28.96 697	74.24 763	SR	100	OUTSOURCI NG	80
13	Rajas than	Rawatsa r	OCS Area	Motair	Moter	Rawatsa r	28.97 043	74.12 676	SR	100	OUTSOURCI NG	80
14	Rajas than	Rawatsa r	OCS Area	Mahela	Jaidasar	Rawatsa r	28.97 043	74.31 669	SR	100	OUTSOURCI NG	80
15	Rajas than	Rawatsa r		Udasar Chhota	Moter	Rawatsa r	28.97 215	74.08 359	SR	100	OUTSOURCI NG	80
16	Rajas than	Rawatsa r	ocs	Dhirdesa r	Moter	Rawatsa r	29.01 359	74.08 359	SR	100	OUTSOURCI NG	80
17	Rajas than	Rawatsa r		Rekh	Daniyas ar	Rawatsa r	29.02 568	74.24 763	SR	200	OUTSOURCI NG	80
18	Rajas than	Rawatsa r	OCS	Dhandhu sar	Dhandus ar	Rawatsa r	29.03 431	74.12 676	SR	200	OUTSOURCI NG	80

19	Rajas	Rawatsa	ocs	Chak	Nayolak	Rawatsa	29.03	74.47	SR	200	OUTSOURCI	80
00	than	r	Area	Nyolakhi	hi	r	604	382	0.0	000	NG	00
20	Rajas than	Rawatsa r	OCS Area	Dhandhu sar	Dhandus ar	Rawatsa r	29.08 093	74.18 892	SR	200	OUTSOURCI NG	80
21	Rajas than	Rawatsa	OCS Area	Bangasa r	Dhandus ar	Rawatsa r	29.08 438	74.24 245	SR	200	OUTSOURCI NG	80
22	Rajas	Rawatsa	ocs	5 Prkm	Pohrka	Rawatsa	29.12	74.39	SR	200	OUTSOURCI	80
00	than	r	Area	Handanii	Handanii	r Dt	375	808	0.0	000	NG	00
23	Rajas	Rawatsa	OCS	Hardasw	Hardasw ali	Rawatsa	29.13	74.30 288	SR	200	OUTSOURCI NG	80
24	than	r Rawatsa	Area OCS	ali Hardasw	Hardasw	Powetce	791 29.14	74.24	SR	200	OUTSOURCI	80
24	Rajas than	r	Area	ali	ali	Rawatsa r	482	59	SK	200	NG	00
25	Rajas	Rawatsa	OCS	1 Hlm	Modhun	Rawatsa	29.31	74.41	SR	200	OUTSOURCI	80
20	than	r	Area	1111111	agar	r	058	684	OI C	200	NG	00
26	Rajas	Tibi	ocs	3 Brn	Girjawali	Tibi	29.30	74.53	SR	200	OUTSOURCI	80
	than		Area		Gair		194	598			NG	
27	Rajas than	Balotra	Industri al Cluster	Tapra	Tapra	Pachpad ra	25.70 598	72.14 542	SR	200	OUTSOURCI NG	130- 150
28	Poice	Balotra	Cluster	Kitpala	Sinli	Pachpad	25.75	72.02	SR	200	OUTSOURCI	130-
20	Rajas than	Daiotia	Industri al Cluster	Kitpaia	Jageer	ra	691	775	SK	200	NG	150
29	Rajas than	Balotra	Industri	Variya Tagji	Kaloori	Pachpad ra	25.75 867	72.09 098	SR	200	OUTSOURCI NG	130- 150
			Cluster	0,5								
30	Rajas than	Balotra	Industri al Cluster	Asara	Asara	Pachpad ra	25.76 921	72.20 865	SR	200	OUTSOURCI NG	130- 150
31	Rajas than	Balotra	Industri al Cluster	Mewa Nagar	Mewa Nagar	Pachpad ra	25.77 797	72.15 237	SR	200	OUTSOURCI NG	130- 150
32	Rajas than	Balotra	Industri al	Sinli Jageer	Sinli Jageer	Pachpad ra	25.79 336	71.99 463	SR	200	OUTSOURCI NG	130- 150
33	Rajas than	Balotra	Cluster Industri al	Mewa Nagar	Mewa Nagar	Pachpad ra	25.81 838	72.14 191	SR	200	OUTSOURCI NG	130- 150
34	Rajas than	Balotra	Cluster Industri al Cluster	Janiyana	Janiyana	Pachpad ra	25.82 014	72.32 633	SR	200	OUTSOURCI NG	130- 150
35	Rajas than	Balotra	Industri al Cluster	Rikarlai	Sinli Jageer	Pachpad ra	25.82 19	72.03 126	SR	200	OUTSOURCI NG	130- 150
36	Rajas than	Balotra	Industri al Cluster	Sinli Chausee ra	Tilwara	Pachpad ra	25.82 19	72.08 922	SR	200	OUTSOURCI NG	130- 150
37	Rajas than	Balotra	Industri al Cluster	Parloo	Parloo	Pachpad ra	25.82 365	72.38 78	SR	200	OUTSOURCI NG	130- 150
38	Rajas than	Balotra	Industri al Cluster	Ramsee n	Ramsee n	Pachpad ra	25.82 717	72.26 31	SR	200	OUTSOURCI NG	130- 150
39	Rajas than	Balotra	Industri al Cluster	Gol Soda	Gol Station	Pachpad ra	25.87 283	72.03 126	SR	200	OUTSOURCI NG	130- 150

40	Rajas than	Balotra	Industri al Cluster	Borawas	Balotara( N.P)	Pachpad ra	25.87 635	72.08 219	SR	200	OUTSOURCI NG	130- 150
41	Rajas than	Balotra	Industri al Cluster	Moongra	Moongar a	Pachpad ra	25.87 635	72.27 013	SR	200	OUTSOURCI NG	130- 150
42	Rajas than	Balotra	Industri al Cluster	Chaukriy a Ki	Gol Station	Pachpad ra	25.87 81	71.97 506	SR	200	OUTSOURCI NG	130- 150
43	Rajas than	Balotra	Industri al Cluster	Botala	Chandes ara	Pachpad ra	25.87 986	71.92 061	SR	200	OUTSOURCI NG	130- 150
44	Rajas than	Balotra	Industri al Cluster	Jerla	Ramsee n	Pachpad ra	25.88 337	72.21 392	SR	200	OUTSOURCI NG	130- 150
45	Rajas than	Balotra	Industri al Cluster	Kher	Kher	Pachpad ra	25.88 57	72.15 237	SR	200	OUTSOURCI NG	130- 150
46	Rajas than	Balotra	Industri al Cluster	Doodhw a	Doodhw a	Pachpad ra	25.91 648	72.01 002	SR	200	OUTSOURCI NG	130- 150
47	Rajas than	Balotra	Industri al Cluster	Sambhra	Sajiyali	Pachpad ra	25.93 255	72.15 421	SR	200	OUTSOURCI NG	130- 150
48	Rajas than	Balotra	Industri al Cluster	Bagundi	Doodhw a	Pachpad ra	25.93 606	72.09 098	SR	200	OUTSOURCI NG	130- 150
49	Rajas than	Balotra	Industri al Cluster	Sambhra	Sajiyali	Pachpad ra	25.93 957	72.21 041	SR	200	OUTSOURCI NG	130- 150
50	Rajas than	Balotra	Industri al Cluster	Lachhar	Doodhw a	Pachpad ra	25.94 133	71.96 627	SR	200	OUTSOURCI NG	130- 150
51	Rajas than	Balotra	OCS Area	Sajiyali Moolraj- li	Sajiyali Roopji	Pachpad ra	26.06 653	72.12 544	SR	200	OUTSOURCI NG	130- 150
52	Rajas	Balotra	ocs	Bagawa	Bagawa	Pachpad	26.17	72.39	SR	200	OUTSOURCI	130-
53	than Rajas than	Balotra	Area OCS Area	Barnama Jageer	s Barnama	ra Pachpad ra	425 26.20 118	72.27 549	SR	200	NG OUTSOURCI NG	150 130- 150
54	Rajas than	Barmer	Industri al Cluster	Sanawar	Sanawar a	Barmer	25.46 836	71.38 596	SR	200	OUTSOURCI NG	130- 150
55	Rajas than	Barmer	Internati onal Bounda ry	Jaisar	Ratasar	Chohtan	25.51 062	70.80 329	SR	200	OUTSOURCI NG	130- 150
56	Rajas than	Barmer	Industri al Cluster	Garal	Garal	Barmer	25.52 404	71.46 754	SR	200	OUTSOURCI NG	130- 150
57	Rajas than	Barmer	Industri al Cluster	Alika Tala	Rani Gaon	Barmer	25.54 713	71.36 75	SR	200	OUTSOURCI NG	130- 150
58	Rajas than	Barmer	OCS Area	Gidaliyo n Ka	Chadi	Ramsar	25.57 021	70.97 122	SR	200	OUTSOURCI NG	130- 150

59	Rajas than	Barmer	Industri al Cluster	Meethra	Meethra	Barmer	25.58 45	71.44 505	SR	200	OUTSOURCI NG	130- 150
60	Rajas than	Barmer	Industri al Cluster	Dhandhu Pura	Undkhla	Barmer	25.59 468	71.33 095	SR	200	OUTSOURCI NG	130- 150
61	Rajas than	Barmer	Industri al Cluster	Mahabar	Mahbar	Barmer	25.64 358	71.38 392	SR	200	OUTSOURCI NG	130- 150
62	Rajas than	Barmer	Internati onal Bounda ry	Ubhreka Par	Gardiya	Ramsar	25.64 503	70.78 835	SR	200	OUTSOURCI NG	130- 150
63	Rajas than	Barmer	OCS Area	Para	Jasai	Barmer	25.67 794	71.19 822	SR	200	OUTSOURCI NG	130- 150
64	Rajas than	Barmer	Industri al Cluster	Danta	Ati	Barmer	25.69 656	71.27 39	SR	200	OUTSOURCI NG	130- 150
65	Rajas than	Barmer	Industri al Cluster	Barmer (M)	Barmer (M)	Barmer	25.70 267	71.39 207	SR	200	OUTSOURCI NG	130- 150
66	Rajas than	Barmer	Industri al Cluster	Loonoo Khurd	Chooli	Barmer	25.75 361	71.27 39	SR	200	OUTSOURCI NG	130- 150
67	Rajas than	Barmer	OCS Area	Virmiyar	Kantal Ka Par	Ramsar	25.78 951	70.80 579	SR	200	OUTSOURCI NG	130- 150
68	Rajas than	Barmer	OCS Area	Nopatiya	Babugalr iya	Ramsar	25.79 721	70.92 121	SR	200	OUTSOURCI NG	130- 150
69	Rajas than	Barmer	Industri al Cluster	Chooli	Ćhooli	Barmer	25.81 677	71.32 891	SR	200	OUTSOURCI NG	130- 150
70	Rajas than	Barmer	Industri al Cluster	Bhadres	Bhadres	Barmer	25.82 288	71.26 779	SR	200	OUTSOURCI NG	130- 150
71	Rajas than	Barmer	Industri al Cluster	Prajawat on Ki	Vishala	Barmer	25.87 382	71.28 205	SR	200	OUTSOURCI NG	130- 150
72	Rajas than	Barmer	Industri al Cluster	Vishala Agor	Vishala Agor	Barmer	25.87 789	71.21 685	SR	200	OUTSOURCI NG	130- 150
73	Rajas than	Barmer	Industri al Cluster	Sura Charnan	Sura	Barmer	25.88 401	71.14 961	SR	200	OUTSOURCI NG	130- 150
74	Rajas than	Barmer	Industri al Cluster	Andaniy on Ka	Doodabe ri	Barmer	25.92 417	71.08 28	SR	200	OUTSOURCI NG	130- 150
75	Rajas than	Barmer	Industri al Cluster	Janiyaw as	Nand	Barmer	25.92 417	71.20 207	SR	200	OUTSOURCI NG	130- 150
76	Rajas than	Barmer	Industri al Cluster	Satal Bhakhri	Vishala Agor	Barmer	25.92 883	71.27 39	SR	200	OUTSOURCI NG	130- 150
77	Rajas than	Barmer	Industri al Cluster	Doodabe ri	Doodabe ri	Barmer	25.93 291	71.04 366	SR	200	OUTSOURCI NG	130- 150

78	Rajas than	Barmer	Industri al Cluster	Shiv Bhakhri	Nand	Barmer	25.98 996	71.09 867	SR	200	OUTSOURCI NG	130- 150
79	Rajas than	Baytoo	Industri al Cluster	Bhurtiya	Bhurtiya	Barmer	25.76 176	71.52 451	SR	200	OUTSOURCI NG	130- 150
80	Rajas than	Baytoo	Industri al Cluster	Nathoni Joniyon Ki Dhani	Nathoni Joniyon Ki Dhani	Baytoo	25.78 951	71.72 146	SR	200	OUTSOURCI NG	130- 150
81	Rajas than	Baytoo	Industri al Cluster	East Matasar	Bhurtiya	Barmer	25.79 336	71.60 604	SR	200	OUTSOURCI NG	130- 150
82	Rajas than	Baytoo	Industri al Cluster	Alaniyon Ki	Bandra	Barmer	25.80 106	71.45 984	SR	200	OUTSOURCI NG	130- 150
83	Rajas than	Baytoo	Industri al Cluster	Bhurtiya	Bhurtiya	Barmer	25.81 269	71.56 73	SR	200	OUTSOURCI NG	130- 150
84	Rajas than	Baytoo	Industri al Cluster	Purohitio n Ki	Moodon Ki	Barmer	25.82 084	71.39 004	SR	200	OUTSOURCI NG	130- 150
85	Rajas than	Baytoo	Industri al Cluster	Sar Ka Par	Bandra	Barmer	25.87 178	71.51 432	SR	200	OUTSOURCI NG	130- 150
86	Rajas than	Baytoo	Industri al Cluster	Bhation Ka Der	Moodon Ki	Barmer	25.87 382	71.43 894	SR	200	OUTSOURCI NG	130- 150
87	Rajas than	Baytoo	Industri al Cluster	Rojiya Nadi	Madhas ar	Baytoo	25.88 864	71.85 211	SR	200	OUTSOURCI NG	130- 150
88	Rajas than	Baytoo	OCS Area	Hemji Ka Tala	Baytoo Chimanji	Baytoo	25.91 648	71.72 531	SR	200	OUTSOURCI NG	130- 150
89	Rajas than	Baytoo	Industri al Cluster	Ladhaniy on Ki	Akdara	Baytoo	25.94 309	71.85 738	SR	200	OUTSOURCI NG	130- 150
90	Rajas than	Baytoo	Industri al Cluster	Bhadarw a	Bharkha	Barmer	25.99 811	71.33 706	SR	200	OUTSOURCI NG	130- 150
91	Rajas than	Baytoo	OCS Area	Sardarp ura	Jajawa	Baytoo	26.03 959	71.87 536	SR	200	OUTSOURCI NG	130- 150
92	Rajas than	Baytoo	Industri al Cluster	Khariya Tala	Bharkha	Barmer	26.05 108	71.44 912	SR	200	OUTSOURCI NG	130- 150
93	Rajas than	Baytoo	OCS Area	Kumpali ya	Kumpali ya	Baytoo	26.18 579	72.14 083	SR	200	OUTSOURCI NG	130- 150
94	Rajas than	Baytoo	OCS Area	Kharda Bharat Singh	Kharda Bharat Singh	Baytoo	26.19 349	71.99 848	SR	200	OUTSOURCI NG	130- 150
95	Rajas than	Baytoo	OCS Area	Joraniyo Ki	Kasoom bala	Baytoo	26.29 737	71.86 767	SR	200	OUTSOURCI NG	130- 150
96	Rajas than	Chohtan	Internati onal Bounda ry	Mogawa	Hathla	Chohtan	24.86 842	71.10 198	SR	200	OUTSOURCI NG	130- 150
97	Rajas than	Chohtan	Internati onal	Harpaliy a	Harpaliy a	Chohtan	24.99 786	71.06 713	SR	200	OUTSOURCI NG	130- 150

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98	Rajas than	Chohtan	Internati onal Bounda ry	Sayed Mozali Ka	Gohar Ka Tala	Chohtan	25.15 316	70.96 223	SR	200	OUTSOURCI NG	130- 150
99	Rajas than	Chohtan	Internati onal Bounda ry	Meethe Ka Tala	Meethe Ka Tala	Chohtan	25.24 677	70.93 77	SR	200	OUTSOURCI NG	130- 150
10 0	Rajas than	Dhorima nna	OCS Area	Bheruri	Bheruri	Chohtan	25.00 465	71.44 83	SR	200	OUTSOURCI NG	130- 150
10 1	Rajas than	Dhorima nna	OCS Area	Kekar	Kekar	Chohtan	25.10 853	71.34 057	SR	200	OUTSOURCI NG	130- 150
10 2	Rajas than	Dhorima nna	OCS Area	Kundaw a	Loharwa	Gudha Malani	25.24 703	71.47 523	SR	200	OUTSOURCI NG	130- 150
10 3	Rajas than	Dhorima nna	OCS Area	Tardon Ka Tala	Nawataa Ia	Chohtan	25.25 088	71.19 437	SR	200	OUTSOURCI NG	130- 150
10 4	Rajas than	Dhorima nna	OCS Area	Mokhaw a Khurd	Mokhaw a Khurd	Gudha Malani	25.25 473	71.60 604	SR	200	OUTSOURCI NG	130- 150
10 5	Rajas than	Dhorima nna	OCS Area	Bhedana	Bhedana	Gudha Malani	25.25 473	71.84 458	SR	200	OUTSOURCI NG	130- 150
10 6	Rajas than	Sheo	Internati onal Bounda ry	Jaisindh ar	Jaisindh ar	Sheo	25.79 438	70.38 013	SR	200	OUTSOURCI NG	130- 150
10 7	Rajas than	Sheo	Internati onal Bounda ry	Munaab a	Jaisindh ar	Sheo	25.80 434	70.26 563	SR	200	OUTSOURCI NG	130- 150
10 8	Rajas than	Sheo	OCS Area	Dedariya r	Balewa	Sheo	25.93 187	70.92 121	SR	200	OUTSOURCI NG	130- 150
10 9	Rajas than	Sheo	OCS Area	Turbi	Harsani	Sheo	25.93 571	70.68 267	SR	200	OUTSOURCI NG	130- 150
11 0	Rajas than	Sheo	Internati onal Bounda ry	Sagorali ya	Rohiri	Sheo	25.93 875	70.27 559	SR	200	OUTSOURCI NG	130- 150
11 1	Rajas than	Sheo	OCS Area	Bahla	Chetrori	Sheo	25.94 726	70.54 416	SR	200	OUTSOURCI NG	130- 150
11 2	Rajas than	Sheo	OCS Area	Drabha	Drabha	Sheo	25.97 419	70.42 105	SR	200	OUTSOURCI NG	130- 150
11 3	Rajas than	Sheo	Industri al Cluster	Khejarali	Neemla	Sheo	25.99 403	71.27 594	SR	200	OUTSOURCI NG	130- 150
11 4	Rajas than	Sheo	Internati onal Bounda ry	Panchla	Sundra	Sheo	26.04 827	70.27 559	SR	200	OUTSOURCI NG	130- 150
11 5	Rajas than	Sheo	Industri al Cluster	Thoomb ali	Neemla	Sheo	26.05 108	71.28 205	SR	200	OUTSOURCI NG	130- 150
11 6	Rajas than	Sheo	OCS Area	Suwala	Balasar	Sheo	26.05 883	71.06 741	SR	200	OUTSOURCI NG	130- 150
11 7	Rajas than	Sheo	OCS Area	Sargeela par	Junejo Ki Bati	Sheo	26.06 653	71.19 052	SR	200	OUTSOURCI NG	130- 150

11	Rajas	Sheo	OCS	Nohdiyal	Drabha	Sheo	26.09	70.41	SR	200	OUTSOURCI	130-
8	than		Area	а			346	72			NG	150
11	Rajas	Sheo	ocs	Pabu	Mokhab	Sheo	26.18	71.45	SR	200	OUTSOURCI	130-
9	than		Area	Mali			579	984			NG	150
12	Rajas	Sheo	OCS	Balai	Balai	Sheo	26.18	71.33	SR	200	OUTSOURCI	130-
0	than		Area				964	288			NG	150
12	Rajas	Sheo	ocs	Sitaramk	Pusar	Sheo	26.32	71.32	SR	200	OUTSOURCI	130-
1	than	000	Area	i Dhani		000	045	518	•••		NG	150
12	Rajas	Sindhari	OCS	Panyla	Payla	Gudha	25.38	71.87	SR	200	OUTSOURCI	130-
2	than	Ciriariari	Area	Kalan	Kalan	Malani	554	536	011	200	NG	150
12	Rajas	Sindhari	OCS	Ed	Ed	Gudha	25.48	71.82	SR	200	OUTSOURCI	130-
3	than	Siliulian	Area	Amarsin	Sindhri	Malani	557	534	JIX.	200	NG	150
"	uiaii		Alea	gh	Ollidilli	IVIAIAIII	337	334			110	130
12	Rajas	Sindhari	ocs	Motiyoni	Sanjata	Barmer	25.51	71.60	SR	200	OUTSOURCI	130-
	than	Siliuliali	Area	yon Ka	Sanjala	Dailliei	25.51	22	SK	200	NG	150-
12		Sindhari	1		Sarli	Darman			CD	200	OUTSOURCI	130-
	Rajas	Sindhan	Industri	Lookhon	Sam	Barmer	25.58	71.62	SR	200		1
5	than		al	Ka			653	027			NG	150
10	Daine	Circ alla a mi	Cluster	Camaaa	0	Dames a.r.	25.50	74.00	CD	200	OUTCOURCE	120
12	Rajas	Sindhari	Industri	Sarnoo	Sarnoo	Barmer	25.58	71.68	SR	200	OUTSOURCI	130-
6	than		al	Chimanji			653	14			NG	150
10	<b>D</b> .	0: "	Cluster	D "	<b>D</b> .	-	05.50	74.50	0.0	000	OLITO OLIDOL	400
12	Rajas	Sindhari	Industri	Dudiyo	Rawatsa	Barmer	25.59	71.56	SR	200	OUTSOURCI	130-
7	than		al	Ki Dhani	r		061	119			NG	150
		<del> </del>	Cluster									
12	Rajas	Sindhari	Industri	Sangana	Rawatsa	Barmer	25.64	71.56	SR	200	OUTSOURCI	130-
8	than		al	Kua	r		97	322			NG	150
			Cluster		_							
12	Rajas	Sindhari	Industri	Raikon	Sarnoo	Barmer	25.64	71.68	SR	200	OUTSOURCI	130-
9	than		al	Ki Dhani			97	343			NG	150
			Cluster									
13	Rajas	Sindhari	Industri	Shivkar	Shivkar	Barmer	25.65	71.47	SR	200	OUTSOURCI	130-
0	than		al				101	138			NG	150
			Cluster									
13	Rajas	Sindhari	OCS	Evadi	Kamthai	Gudha	25.65	71.87	SR	200	OUTSOURCI	130-
1	than		Area			Malani	87	151			NG	150
13	Rajas	Sindhari	OCS	Bhooka	Karna	Gudha	25.66	71.99	SR	200	OUTSOURCI	130-
2	than		Area			Malani	255	078			NG	150
13	Rajas	Sindhari	ocs	Bhooka	Karna	Gudha	25.69	72.02	SR	200	OUTSOURCI	130-
3	than		Area			Malani	895	248			NG	150
13	Rajas	Sindhari	OCS	Somesar	Nosar	Baytoo	25.78	71.88	SR	200	OUTSOURCI	130-
4	than		Area	a Naya		,	951	305			NG	150
13	Rajas	Siwana	ocs	Kundal	Kundal	Siwana	25.51	72.27	SR	200	OUTSOURCI	130-
5	than		Area				635	164			NG	150
13	Rajas	Siwana	ocs	Loodrara	Arjiyana	Siwana	25.65	72.54	SR	200	OUTSOURCI	130-
6	than		Area		,,,		254	774			NG	150
13	Rajas	Siwana	OCS	Goliya	Khandap	Siwana	25.66	72.67	SR	200	OUTSOURCI	130-
7	than		Area	Chaudha			64	946			NG	150
				riyan			•					
13	Rajas	Siwana	ocs	Thapan	Thapan	Siwana	25.69	72.32	SR	200	OUTSOURCI	130-
8	than	Sividia	Area	Парин	Παραπ	Cittulia	368	458	511		NG	150
13	Rajas	Siwana	Industri	Moothli	Thapan	Siwana	25.69	72.27	SR	200	OUTSOURCI	130-
9	than	Jiwana	al	IVIOULIIII	ιπαμαπ	Oiwaila	895	364	JIX	200	NG	150-
9	uiaii		Cluster				030	004			110	150
14	Doigo	Siwana		Kumnow	Kumnaw	Siwana	25.75	72.38	SR	200	OUTSOURCI	130-
	Rajas	Siwaria	Industri	Kumpaw	Kumpaw	Siwana		078	SK	200		1
0	than		al	as	as		34	0/0			NG	150

			Cluster									
14	Rajas than	Siwana	OCS Area	Dev Nagar	Majal	Siwana	25.79 721	72.67 177	SR	200	OUTSOURCI NG	130- 150
14 2	Rajas than	Siwana	Industri al Cluster	Jethanta ri	Jethanta ri	Siwana	25.82 365	72.44 928	SR	200	OUTSOURCI NG	130- 150
14 3	Rajas than	Siwana	OCS Area	Rani Deshipur a	Ranides hpura	Siwana	25.88 185	72.57 558	SR	200	OUTSOURCI NG	130- 150
14 4	Rajas than	Siwana	OCS Area	Tejsingh Ki	Khejdiyal i	Siwana	25.91 263	72.66 023	SR	200	OUTSOURCI NG	130- 150
14 5	Rajas than	Bikaner	OCS Area	Amarpur a	Amarpur a	Poogal	28.20 839	72.81 159	SR	200	OUTSOURCI NG	130- 150
14 6	Rajas than	Bikaner	OCS Area	Bhanipur a	Amarpur	Poogal	28.21 147	72.94 435	SR	200	OUTSOURCI NG	130- 150
14 7	Rajas than	Bikaner	OCS Area	Kawni	Kawni	Poogal	28.21 765	73.07 711	SR	200	OUTSOURCI NG	130- 150
14	Rajas than	Bikaner	OCS Area	4 Rm(Raw at	Amarpur a	Poogal	28.22 074	72.68 5	SR	200	OUTSOURCI NG	130- 150
14 9	Rajas than	Bikaner	OCS Area	Soorasar	Karnisar	Poogal	28.33 188	72.94 743	SR	200	OUTSOURCI NG	130- 150
15 0	Rajas than	Bikaner	OCS Area	Sawaisa r	Kalasar	Poogal	28.34 732	73.34 263	SR	200	OUTSOURCI NG	130- 150
15 1	Rajas than	Bikaner	OCS Area	Gogliwal	Adoori	Poogal	28.35 041	72.81 159	SR	200	OUTSOURCI NG	130- 150
15 2	Rajas than	Bikaner	OCS Area	Satasar	Dandi	Chhatarg arh - B	28.58 506	73.17 282	SR	200	OUTSOURCI NG	130- 150
15 3	Rajas than	Bikaner	OCS Area	Kakrala	Dandi	Chhatarg arh - B	28.59 432	72.94 126	SR	200	OUTSOURCI NG	130- 150
15 4	Rajas than	Bikaner	OCS Area	8 Dkd	Dandi	Poogal	28.61 284	72.83 011	SR	200	OUTSOURCI NG	130- 150
15 5	Rajas than	Bikaner	OCS Area	Kishanp ura (14	Lunkha	Chhatarg arh - B	28.71 164	72.85 481	SR	200	OUTSOURCI NG	130- 150
15 6	Rajas than	Bikaner	OCS Area	1 Chtm	Chhatar garh - C	Chhatarg arh - B	28.71 164	73.17 899	SR	200	OUTSOURCI NG	130- 150
15 7	Rajas than	Bikaner	OCS Area	1 Chtm	Chhatar garh - C	Chhatarg arh - B	28.71 782	73.11 725	SR	200	OUTSOURCI NG	130- 150
15 8	Rajas than	Dungarg arh	OCS Area	Dhaneru	gam o	Dungarg arh	27.84 153	74.18 929	SR	200	OUTSOURCI NG	130- 150
15 9	Rajas than	Dungarg arh	OCS Area	Abhaisin gh Pura		Dungarg arh	28.04 528	74.11 798	SR	200	OUTSOURCI NG	130- 150
16 0	Rajas than	Khajuwal	Internati onal Bounda ry	Akasar	Dantaur	Khajuwal	28.46 77	72.41 126	SR	200	OUTSOURCI NG	130- 150
16 1	Rajas than	Khajuwal	Internati onal Bounda ry	Ballar	Baller	Khajuwal	28.47 268	72.29 676	SR	200	OUTSOURCI NG	130- 150
16 2	Rajas than	Khajuwal	OCS Area	Siyasar	7 Ssm	Khajuwal	28.57 271	72.58 62	SR	200	OUTSOURCI NG	130- 150
16 3	Rajas than	Khajuwal	Internati onal	1 Alm (Aldin)	Allahdee n Ka	Khajuwal	28.60 212	72.43 615	SR	200	OUTSOURCI NG	130- 150

			Bounda ry									
16 4	Rajas than	Khajuwal	Internati onal Bounda ry	28 Kyd	14 Bd	Khajuwal	28.71 746	72.51 077	SR	200	OUTSOURCI NG	130- 150
16 5	Rajas than	Khajuwal	OCS Area	7 Kld	6 Phm	Khajuwal	28.71 782	72.70 661	SR	200	OUTSOURCI NG	130- 150
16 6	Rajas than	Kolayat	Internati onal Bounda ry	Gajjewal a	Ranjeetp ura	Kolayat	27.91 311	71.90 416	SR	200	OUTSOURCI NG	130- 150
16 7	Rajas than	Kolayat	Internati onal Bounda ry	Ranjeetp ura	Ranjeetp ura	Kolayat	28.05 451	72.00 802	SR	200	OUTSOURCI NG	130- 150
16 8	Rajas than	Kolayat	Internati onal Bounda ry	Ranjeetp ura	Ranjeetp ura	Kolayat	28.13 44	72.06 07	SR	200	OUTSOURCI NG	130- 150
16 9	Rajas than	Kolayat	Internati onal Bounda ry	Akhoosa r	Barsalpu r	Kolayat	28.18 892	72.14 742	SR	200	OUTSOURCI NG	130- 150
17 0	Rajas than	Kolayat	Internati onal Bounda ry	Kabrawa Ia	Barsalpu r	Kolayat	28.31 311	72.22 402	SR	200	OUTSOURCI NG	130- 150
17 1	Rajas than	Nimbahe ra	OCS Area	Jasasar	Jasasar	Churu	28.24 198	74.71 31	SR	200	OUTSOURCI NG	130- 150
17	Rajas than	Churu	OCS Area	Dhadhari ya	Nakrasar	Churu	28.30 99	74.73 139	SR	200	OUTSOURCI NG	130- 150
17	Rajas	Churu	OCS Area	Khandw a Patta	Khandw a Patta	Churu	28.47 707	74.83 587	SR	200	OUTSOURCI NG	130- 150
17 4	Rajas than	Churu	OCS Area	Narsipur	Chalkoi	Churu	28.49 013	74.96 386	SR	200	OUTSOURCI NG	130- 150
17 5	Rajas than	Rajgarh	OCS Area	Dadrewa	Dadarew a	Rajgarh	28.64 685	75.25 119	SR	200	OUTSOURCI NG	130- 150
17 6	Rajas than	Rajgarh	OCS Area	Hansiya was	Dhigaral a	Rajgarh	28.79 836	75.41 314	SR	200	OUTSOURCI NG	130- 150
17	Rajas	Rajgarh	ocs	Sidhmuk	Sidhmuk	Rajgarh	28.86	75.25	SR	200	OUTSOURCI	130-
7	than Rajas	Ratangar	Area OCS	h Noonwa	h Noonwa	Ratangar	627 28.03	119 74.52	SR	200	NG OUTSOURCI	150 130-
8	than	h	Area			h	563	242			NG	150
17 9	Rajas than	Sujangar h	OCS Area	Telap	Baghsar a Athuna	Sujangar h	27.54 069	74.15 514	SR	200	OUTSOURCI NG	130- 150
18	Rajas	Sujangar	OCS	Amarsar	Amarsar	Sujangar	27.65	73.91	SR	200	OUTSOURCI	130-
0	than	h	Area			h	165	642			NG	150
18	Rajas than	Sujangar h	OCS Area	Parewar	Parewar a	Sujangar h	27.67 754	74.15 832	SR	200	OUTSOURCI NG	130- 150
18	Rajas	Sujangar	OCS	a Meegna	Lodhsar	Sujangar	27.70	74.55	SR	200	OUTSOURCI	130-
2	than	h	Area			h	128	115			NG	150
18	Rajas	Sujangar	ocs	Tada	Badabar	Sujangar	27.79	74.54	SR	200	OUTSOURCI	130-
3	than	h	Area			h	532	593			NG	150

18	Rajas	Sujangar	ocs	Beer	Dewani	Sujangar	27.80	74.41	SR	200	OUTSOURCI	130-
4	than	h	Area	Chhapar	Domaiii	h	315	271	0.1		NG	150
18	Rajas	Sujangar	OCS	Ghantiya	Ghantiya	Sujangar	27.80	74.29	SR	200	OUTSOURCI	130-
5	than	h	Area	l Bari	I Bari	h	576	778			NG	150
18	Rajas	Sujangar	OCS	Khuri	Khuri	Sujangar	27.84	74.64	SR	200	OUTSOURCI	130-
6	than	h	Area			h	756	78			NG	150
18	Rajas	Taranag	ocs	Dhani	Hadiyal	Taranag	28.47	75.21	SR	200	OUTSOURCI	130-
7	than	ar	Area	Motising		ar	446	724			NG	150
18	Rajas	Taranag	OCS	h Satyoo	Satyun	Taranag	28.55	75.05	SR	200	OUTSOURCI	130-
8	than	ar	Area	,	,	ar	074	918			NG	150
18	Rajas	Taranag	OCS	Buchaw	Buchaw	Taranag	28.61	74.96	SR	200	OUTSOURCI	130-
9	than	ar	Area	as	as	ar	551	386			NG	150
19	Rajas	Taranag	ocs	Madawa	Poonras	Taranag	28.62	74.83	SR	200	OUTSOURCI	130-
0	than	ar	Area	S		ar	335	326			NG	150
19	Rajas	Taranag	ocs	Kohina	Kohina	Taranag	28.64	74.73	SR	200	OUTSOURCI	130-
1	than	ar	Area			ar	685	922			NG	150
19	Rajas	Taranag	ocs	Jigsana	Alayla	Taranag	28.65	75.12	SR	200	OUTSOURCI	130-
2	than	ar	Area	Teeba		ar	208	32			NG	150
19	Rajas	Taranag	ocs	Dhana	Gajoowa	Taranag	28.69	74.93	SR	200	OUTSOURCI	130-
3	than	ar	Area		S	ar	477	916			NG	150
19	Rajas	Taranag	ocs	Sarayan	Somsisa	Taranag	28.72	74.76	SR	200	OUTSOURCI	130-
4	than	ar	Area		r	ar	985	189			NG	150
19	Rajas	Taranag	ocs	Pandreu	Pandreu	Taranag	28.74	75.10	SR	200	OUTSOURCI	130-
5	than	ar	Area	Tal	Tal	ar	873	23			NG	150
19	Rajas	Taranag	ocs	Jhanjhan	Nethwa	Taranag	28.76	74.95	SR	200	OUTSOURCI	130-
6	than	ar	Area	1		ar	179	342		000	NG	150
19	Rajas	Taranag	ocs	Punsisar	Somsisa	Taranag	28.80	74.72	SR	200	OUTSOURCI	130-
7	than	ar	Area	D - i -	r Dain	ar	741	127	00	000	NG	150
19	Rajas	Taranag	OCS	Bain	Bain	Taranag	28.84	75.12	SR	200	OUTSOURCI	130-
8	than	ar	Area	Discourse	Discourse	ar	799	059	0.0	000	NG	150
19 9	Rajas than	Taranag	OCS Area	Dheerwa s Bara	Dheerwa s Bara	Taranag	28.86 366	74.97 17	SR	200	OUTSOURCI NG	130- 150
20		Toronog	OCS	Kalwas	Kalwas	ar Taranag	28.90	75.02	SR	200	OUTSOURCI	130-
0	Rajas than	Taranag ar	Area	Naiwas	Naiwas	ar	897	04	SIX	200	NG	150-
20	Rajas	Jaisalme	OCS	Chhatrel	Chhatrel	Jaisalme	26.99	70.66	SR	200	OUTSOURCI	130-
1	than	r	Area	Ciliatiei	Ciliatiei	r	375	343	JIX	200	NG	150
20	Rajas	Jaisalme	ocs	Away	Askandr	Pokaran	27.55	71.85	SR	200	OUTSOURCI	130-
2	than	r	Area	,	a		546	997			NG	150
20	Rajas	Gangana	Internati	12 F	Mirzewal	Gangana	29.97	73.75	SR	200	OUTSOURCI	130-
3	than	gar	onal		a	gar	114	041			NG	150
			Bounda									
			ry									
20	Rajas	Jaisalme	Internati	Hariyar	Nachna	Pokaran	27.64	71.46	SR	200	OUTSOURCI	130-
4	than	r	onal				629	539			NG	150
			Bounda									
00	<b>D</b> .	01	ry	71/ 1 ^	71/ 1 4	Ol	00.00	70.00	0.0	000	OUTOOUTO	400
20	Rajas	Gharsan	Internati	7 Knd-A	7 Knd-A	Gharsan	28.88	72.80	SR	200	OUTSOURCI	130-
5	than	а	onal			а	969	329			NG	150
			Bounda									
20	Rajas	Jaisalme	ry Internati	Bahla	Mohang	Jaisalme	27.65	71.18	SR	200	OUTSOURCI	130-
6	than	r	onal	Dania	arh	r	625	661	011	200	NG	150
			Bounda								'	.55
			ry									
			1.7	<u> </u>	1	1	l	1	1	1	I.	1

20 7	Rajas than	Karanpur	Internati onal Bounda ry	62 F	Mukan B	Karanpur	29.71 498	73.36 726	SR	200	OUTSOURCI NG	130- 150
20 8	Rajas than	Jaisalme r	Internati onal Bounda ry	Bahla	Mohang arh	Jaisalme r	27.66 123	71.33 098	SR	200	OUTSOURCI NG	130- 150
20 9	Rajas than	Karanpur	Internati onal Bounda ry	39 H	Burajwal a	Karanpur	29.89 048	73.43 578	SR	200	OUTSOURCI NG	130- 150
21 0	Rajas than	Jaisalme r	Internati onal Bounda ry	Shekhon Ka	Nachna	Pokaran	27.66 123	71.58 985	SR	200	OUTSOURCI NG	130- 150
21 1	Rajas than	Karanpur	Internati onal Bounda ry	10 S	Dhanur	Karanpur	29.95 751	73.54 973	SR	200	OUTSOURCI NG	130- 150
21 2	Rajas than	Jaisalme r	Internati onal Bounda ry	Bharewa la	Bharewa la	Pokaran	27.68 612	71.73 422	SR	200	OUTSOURCI NG	130- 150
21 3	Rajas than	Raisingh nagar	Internati onal Bounda ry	14 Ptd	Sameja	Raisingh nagar	29.42 059	73.27 134	SR	200	OUTSOURCI NG	130- 150
21 4	Rajas than	Jaisalme r	Internati onal Bounda ry	Akal Ka Tala	Bharewa la	Pokaran	27.78 568	71.88 357	SR	200	OUTSOURCI NG	130- 150
21 5	Rajas than	Raisingh nagar	Internati onal Bounda ry	54 Np	Tatarsar	Raisingh nagar	29.43 349	73.35 215	SR	200	OUTSOURCI NG	130- 150
21 6	Rajas than	Jaisalme r	Internati onal Bounda ry	Kheroow ala	Tawariw ala	Pokaran	27.92 507	72.00 802	SR	200	OUTSOURCI NG	130- 150
21 7	Rajas than	Raisingh nagar	Internati onal Bounda ry	84 Rb-B	84 Rb B	Raisingh nagar	29.59 094	73.33 253	SR	200	OUTSOURCI NG	130- 150
21	Rajas	Sam	OCS	Khariya	Bersiyal	Jaisalme	26.32	70.64	SR	200	OUTSOURCI	130-
8 21	than Rajas	Sam	Area OCS	(Jethwi) Myajlar	a Myajlar	r Jaisalme	045 26.34	804 70.39	SR	200	NG OUTSOURCI	150 130-
9	than		Area			r	738	796			NG	150
22 0	Rajas than	Sam	OCS Area	Dav	Dav	Jaisalme r	26.46 665	70.39 411	SR	200	OUTSOURCI NG	130- 150
22	Rajas	Sam	ocs	Katha	Bersiyal	Jaisalme	26.46	70.65	SR	200	OUTSOURCI	130-
22	than	Com	Area OCS	Canaca	a Sangar	r Estabasar	665 26.50	189 71.16	SR	200	NG OUTSOURCI	150 130-
2	Rajas than	Sam	Area	Sangar	Sangar	Fatehgar h	851	112	J.	200	NG	150
22	Rajas than	Sam	OCS Area	Khoohri	Khoohri	Jaisalme	26.57 823	70.64 804	SR	200	OUTSOURCI NG	130- 150

22 4	Rajas than	Sam	OCS Area	Bhikasar	Rasla	Fatehgar h	26.60 131	71.34 827	SR	200	OUTSOURCI NG	130- 150
22 5	Rajas than	Sam	Internati onal Bounda ry	Dhanana	Ganana	Jaisalme r	26.62 077	70.13 62	SR	200	OUTSOURCI NG	130- 150
6	Rajas than	Sam	Internati onal Bounda ry	Nichoow ali	Harnau	Jaisalme r	26.64 566	70.01 174	SR	200	OUTSOURCI NG	130- 150
22 7	Rajas than	Sam	Internati onal Bounda ry	Mandhal wali	Harnau	Jaisalme r	26.71 536	69.85 244	SR	200	OUTSOURCI NG	130- 150
22 8	Rajas than	Sam	OCS Area	Rasla	Rasla	Fatehgar h	26.72 058	71.44 445	SR	200	OUTSOURCI NG	130- 150
22 9	Rajas than	Sam	OCS Area	Dhuliya	Sipala	Jaisalme r	26.72 443	70.65 574	SR	200	OUTSOURCI NG	130- 150
23 0	Rajas than	Sam	OCS Area	Dhanana	Ganana	Jaisalme r	26.73 212	70.24 407	SR	200	OUTSOURCI NG	130- 150
23 1	Rajas than	Sam	OCS Area	Rasla	Rasla	Fatehgar h	26.73 597	71.35 211	SR	200	OUTSOURCI NG	130- 150
23 2	Rajas than	Sam	Internati onal Bounda ry	Butoi Rahimw ali	Harnau	Jaisalme r	26.75 518	69.74 789	SR	200	OUTSOURCI NG	130- 150
23 3	Rajas than	Sam	OCS Area	Rahoon Ka Par	Ganana	Jaisalme r	26.79 666	70.44 363	SR	200	OUTSOURCI NG	130- 150
23 4	Rajas than	Sam	Internati onal Bounda ry	Badhwa	Shahgar h	Jaisalme r	26.85 475	69.71 803	SR	200	OUTSOURCI NG	130- 150
23 5	Rajas than	Sam	OCS Area	Meerwal a	Bandha	Jaisalme r	26.99 375	70.25 176	SR	200	OUTSOURCI NG	130- 150
23 6	Rajas than	Sam	OCS Area	Siyamba r	Khuiyala	Jaisalme r	26.99 759	70.37 103	SR	200	OUTSOURCI NG	130- 150
23 7	Rajas than	Sam	OCS Area	Nawatal a	Harnau	Jaisalme r	27.00 144	70.10 171	SR	200	OUTSOURCI NG	130- 150
23 8	Rajas than	Sam	OCS Area	Siyalon Ki Basti	Kanoi	Jaisalme r	27.00 144	70.52 493	SR	200	OUTSOURCI NG	130- 150
23 9	Rajas than	Sam	Internati onal Bounda ry	Meethat ala	Ghotadu	Jaisalme r	27.00 41	69.73 296	SR	200	OUTSOURCI NG	130- 150
24 0	Rajas than	Sam	OCS Area	Adkiya	Shahgar h	Jaisalme r	27.00 914	69.99 783	SR	200	OUTSOURCI NG	130- 150
24 1	Rajas than	Sam	Internati onal Bounda ry	Mahwa	Ghotadu	Jaisalme r	27.10 864	69.83 75	SR	200	OUTSOURCI NG	130- 150
24 2	Rajas than	Sam	OCS Area	Asoo Ka Tala	Bandha	Jaisalme r	27.12 456	70.13 634	SR	200	OUTSOURCI NG	130- 150
24 3	Rajas than	Sam	OCS Area	Bandha	Bandha	Jaisalme r	27.12 84	70.37 873	SR	200	OUTSOURCI NG	130- 150
24 4	Rajas than	Sam	OCS Area	Drablapa r	Ramgar h	Jaisalme r	27.21 159	70.47 244	SR	200	OUTSOURCI NG	130- 150

24 5	Rajas than	Sam	Internati onal Bounda ry	Ganeshi ya Kot	Ghotadu	Jaisalme r	27.23 31	69.86 737	SR	200	OUTSOURCI NG	130- 150
24 6	Rajas than	Sam	OCS Area	Hema	Sonoo	Jaisalme r	27.25 922	70.54 032	SR	200	OUTSOURCI NG	130- 150
24 7	Rajas than	Sam	OCS Area	Seuwa	Raghwa	Jaisalme r	27.40 157	70.66 343	SR	200	OUTSOURCI NG	130- 150
24 8	Rajas than	Sam	OCS Area	Kolootal a	Ramgar h	Jaisalme r	27.40 542	70.27 869	SR	200	OUTSOURCI NG	130- 150
24 9	Rajas than	Sam	Internati onal Bounda ry	Hingole wala	Ramgar h	Jaisalme r	27.40 734	70.12 624	SR	200	OUTSOURCI NG	130- 150
25 0	Rajas than	Sam	OCS Area	Ramgar h	Ramgar h	Jaisalme r	27.44 774	70.54 801	SR	200	OUTSOURCI NG	130- 150
25 1	Rajas than	Sam	Internati onal Bounda ry	Seuwa	Raghwa	Jaisalme r	27.64 131	70.69 376	SR	200	OUTSOURCI NG	130- 150
25 2	Rajas than	Sam	Internati onal Bounda ry	Buili	Tajpala	Jaisalme r	27.64 53	70.94 052	SR	200	OUTSOURCI NG	130- 150
25 3	Rajas than	Sam	Internati onal Bounda ry	Buili	Tajpala	Jaisalme r	27.66	71.05 785	SR	200	OUTSOURCI NG	130- 150
25 4	Rajas than	Sam	Internati onal Bounda ry	Ramgar h	Ramgar h	Jaisalme r	27.66 817	70.51 06	SR	200	OUTSOURCI NG	130- 150
25 5	Rajas than	Sam	Internati onal Bounda ry	Ramgar h	Ramgar h	Jaisalme r	27.67 737	70.29 736	SR	200	OUTSOURCI NG	130- 150
25 6	Rajas than	Sam	Internati onal Bounda ry	Tanot	Ramgar h	Jaisalme r	27.76 618	70.61 678	SR	200	OUTSOURCI NG	130- 150
25 7	Rajas than	Sankra	OCS Area	Netasar	Phalsoo nd	Pokaran	26.35 508	71.99 463	SR	200	OUTSOURCI NG	130- 150
25 8	Rajas than	Sankra	OCS Area	Sohanpu ra	Bhurajga rh	Pokaran	26.45 511	72.01 387	SR	200	OUTSOURCI NG	130- 150
25 9	Rajas than	Sankra	OCS Area	Maulana Azadnag ar	Balar	Pokaran	26.47 82	71.88 305	SR	200	OUTSOURCI NG	130- 150
26 0	Rajas than	Sankra	OCS Area	Jhalora Pokaran	Loona Kalan	Pokaran	26.58 977	71.73 301	SR	200	OUTSOURCI NG	130- 150
26 1	Rajas than	Sankra	OCS Area	Naiguddi	Modardi	Pokaran	26.75 521	71.71 762	SR	200	OUTSOURCI NG	130- 150
26 2	Rajas than	Sankra	OCS Area	Nananya	Modardi	Pokaran	26.87 063	71.73	SR	200	OUTSOURCI NG	130- 150
26 3	Rajas than	Sankra	OCS Area	Dholiya	Lathi	Pokaran	26.99 375	71.60 22	SR	200	OUTSOURCI NG	130- 150

A	26	Rajas	Sankra	ocs	Eta	Loharki	Pokaran	27.08	71.69	SR	200	OUTSOURCI	130-
Section								1	995				
Section	26	Rajas	Degana	ocs	Paliyas	Paliyas	Degana	26.73	74.28	SR	200	OUTSOURCI	130-
Fig.	5					'		169	602			NG	150
Facing	26	Rajas	Didwana	ocs	Berikala	Dabra	Ladnu	27.37	74.78	SR	200	OUTSOURCI	130-
Thishan	6	than		Area	n			703	984			NG	150
Bay   Bay	26	Rajas	Didwana	ocs	Palot	Palot	Ladnu	27.40	74.43	SR	200	OUTSOURCI	130-
B	7	than		Area				534	32			NG	150
26   Rajas   Jayal   OCS   Area   U   U   Ugasta   U   U   G66   S84   S84   S84   S87	26	Rajas	Jayal	ocs	Soneli	Soneli	Jayal	27.26	1	SR	200	OUTSOURCI	130-
9		than						665					
27   Rajas   Ladnu   OCS   Samarad   Ladnu   27.51   74.51   SR   200   OUTSOURCI   130-150   CS   Samarad   Ladnu   27.51   74.51   SR   200   OUTSOURCI   130-150   CS   Samarad   Ladnu   27.51   74.51   SR   200   OUTSOURCI   130-150   CS   Samarad   Ladnu   27.63   74.56   SR   200   OUTSOURCI   130-150   CS   Samarad   Ladnu   27.63   74.56   SR   200   OUTSOURCI   130-150   CS   Samarad   Ladnu   27.63   74.56   SR   200   OUTSOURCI   130-150   CS   Samarad   Ladnu   27.63   74.56   SR   200   OUTSOURCI   130-150   CS   Samarad   Ladnu   27.63   74.56   SR   200   OUTSOURCI   130-150   CS   Samarad   Ladnu   27.51   74.51   SR   200   OUTSOURCI   130-150   CS   Samarad   Ladnu   27.51   74.51   SR   200   OUTSOURCI   130-150   CS   Samarad   Ladnu   27.51   74.51   SR   200   OUTSOURCI   130-150   CS   Samarad   Ladnu   Ladnu   27.51   74.55   SR   200   OUTSOURCI   130-150   CS   Samarad   Ladnu   Ladnu   Ladnu   Ladnu   27.53   CS   SE2   SR   200   OUTSOURCI   130-150   CS   Samarad   Ladnu   Ladn	1		Jayal		Dugasta	Dugasta	Jayal			SR	200		
O													
27			Jayal		Jhareli	Jhareli	Jayal	I		SR	200		
1			1										
27			Ladnu		Sanwrad	Sanward	Ladnu		1	SR	200		
2					-	-				0.0	000		
27	1		Ladnu		Tanwara	Tanwara	Ladnu	1	1	SR	200		
3			Manta		D	D	D			0.0	000		
27			мепа		Ren	Ren	Degana			SK	200		
A			Mundwa		Rhadora	Manakn	Manaur			SR	200		
27         Rajas fuhan         Mundwa fuhan         OCS Area         Sowaon ki         Peepliya n ar         Kheenvs ar         26.99 (492)         17.22 (177)         SR         200 (2017SOURCI) (130-150)         130-150           27         Rajas fuhan         Nagaur Area         OCS Area         Paboosa Area         Kheenvs ar         38 (479)         Area         150 (178-15)         NG         150 (178-178-15)         NG         150 (178-178-15)         NG         150 (178-178-15)         NG         NG         150 (178-178-15)         NG         NG         150 (178-178-15)         NG         150 (178-178-15)         NG         NG         150 (178-178-15)         NG         NG         150 (178-178-15)         NG         NG         NG         NG </td <td>1</td> <td></td> <td>Iviuriawa</td> <td></td> <td>Diladora</td> <td></td> <td>INagaui</td> <td>I</td> <td></td> <td>OI V</td> <td>200</td> <td></td> <td></td>	1		Iviuriawa		Diladora		INagaui	I		OI V	200		
5         than         Area         Ki         n         ar         492         177         NG         150           27         Rajas (han)         Nagaur         OCS         Bamaniy         Deu         Kheenvs         27.11         73.20         SR         200         OUTSOURCI         130-NG           27         Rajas         Nagaur         OCS         Paboosa         Reboosa         Kheenvs         27.23         73.17         SR         200         OUTSOURCI         130-NG           27         Rajas         Nagaur         OCS         Surjana         Satheran         Nagaur         27.37         73.61         SR         200         OUTSOURCI         130-NG           27         Rajas         Nagaur         OCS         Teetari         Jodhiyas         Nagaur         27.39         73.75         SR         200         OUTSOURCI         130-NG           28         Rajas         Nagaur         OCS         Golsar         Chau         Nagaur         27.39         73.66         SR         200         OUTSOURCI         130-NG           10         than         Area         Area         Sathana         Algaur         27.39         73.66         SR         2			Mundwa		Sowaon		Kheenys			SR	200		
Rajas than   Nagaur than   N	1		Manawa							Oit	200		
6         thán         Area         ala         ar         38         479         NG         150           27         Rajas than         Nagaur         OCS         Paboosa r r r r r r r r r r r r r r r r r r r			Nagaur				-			SR	200		
27         Rajas than         Nagaur Area than         OCS Area r r r r r r r r r r r r r r r r r r			riagaar			Dou			1		200		
7         thán         Area         r         r         ar         834         931         NG         150           27         Rajas than         Nagaur Area         OCS Area         Surjana         Satheran Nagaur 986         803         Rajas Nagaur NG         OCS NG         Surjana Area         Nagaur 150         NAG         150           27         Rajas Pajas         Nagaur Nagaur Nagaur Area         OCS Area         Teetari Jodhiyas in Nagaur 19         119         672         SR         200         OUTSOURCI 130-NG         150           28         Rajas Rajas Rajas In than         Nagaur OCS Area         Sathani Area         Sathani Area         Degana Basa Area         865         428         SR         200         OUTSOURCI 130-NG         150           28         Rajas Rajas Piprali         OCS Asathani Area         Sathani Area         Degana Basa Area         26.57         74.31         SR         200         OUTSOURCI 130-NG         150           28         Rajas Piprali         OCS Asagarw Area         Sangarw Area         Degana Basa Area         27.56         75.30         SR         200         OUTSOURCI 150         NG         150           28         Rajas Rajas Fatehpur OCS Hahan Area         Area Area         Bathod Area			Nagaur			Paboosa	-			SR	200		
27         Rajas than         Nagaur Area         OCS Area         Surjana Area         Satheran Satheran         Nagaur Pake         27.37         73.61         SR 200         OUTSOURCI DISOURCI DISOURCI SURGI DISOURCI PARE			3.1										
8         than         Area         Area         986         803         NG         150           27         Rajas than         Nagaur DCS Area         Teetari Jodhiyas i Nagaur Inthan         130-19         73.75         SR         200         OUTSOURCI 130-150           28         Rajas Rajas         Nagaur OCS Area         Golsar Chau Nagaur Bara         Nagaur Bara         27.39         73.86         SR         200         OUTSOURCI 130-150           28         Rajas Rajas Riyan Area         CS Sathani Area         Sathana Kalan         Degana Bas Bas Bas Bas Bas Bas Bas Bas Bas Ba	27	Rajas	Nagaur		Surjana	Satheran	Nagaur	27.37	73.61	SR	200	OUTSOURCI	130-
9         thán         Area         i         1119         672         NG         150           28         Rajas o than         Nagaur Area         CS         Golsar Area         Chau         Nagaur C7.39 (685)         73.86 (885)         SR 200         OUTSOURCI 130-NG (150)           28         Rajas I than         Riyan OCS Area         Sathani Kalan         Degana Rajas (Alan)         26.57 (74.31)         SR 200         OUTSOURCI 130-NG (150)           28         Rajas (Area)         Piprali OCS Area a a Ramgarh Area (Area)         Sangarw Area (Area)         Danta Ramgarh (Area)         27.56 (75.30)         SR 200         OUTSOURCI 150 (150)         NG           28         Rajas (Area)         Fatehpur OCS (Area (Area)         Bathod (Area)         Fatehpur (Area)         27.96 (74.77)         SR 200         OUTSOURCI 150 (NG (Area)         NG           28         Rajas (Area)         Fatehpur (Area)         Bathod (Area)         Fatehpur (Area)         27.91 (74.93)         SR 200 (Area)         OUTSOURCI 150 (NG (Area)         NG           28         Rajas (Area)         Fatehpur (Area)         Fatehpur (Area)         Fatehpur (Area)         Fatehpur (Area)         27.97 (74.79)         SR 200 (Area)         OUTSOURCI 150 (Area)         NG         NG         NG         NG         NG         <	8	than		Area				986	803			NG	150
28         Rajas than         Nagaur than         OCS Area         Golsar Area         Chau Nagaur 685         428         Rajas 150         QUTSOURCI 130-150           28         Rajas than         Riyan OCS Area         Sathani Kalan         Degana Kalan Ramgarh 150         SR 200         OUTSOURCI 130-150           28         Rajas than         Piprali OCS Area         Sangarw Area         Danta Ramgarh 150         27.56         75.30         SR 200         OUTSOURCI 150-150           28         Rajas than         Fatehpur OCS Area         Chachee Biraniya wad         Biraniya Fatehpur Patehpur 1772         27.86         74.77         SR 200         OUTSOURCI 150-150           28         Rajas Rajas Fatehpur OCS Area         Chuwas Bathod Fatehpur 1772         P56         74.77         SR 200         OUTSOURCI 150-150           28         Rajas Rajas Fatehpur Area         Fatehpur Area         Patehpur Patehpur 1772         27.91         74.93         SR 200         OUTSOURCI 150-150           28         Rajas Rajas Fatehpur Area         Fatehpur Raea         Fatehpur Raea         Fatehpur Raea         Patehpur 27.97         75.11         SR 200         OUTSOURCI 150-150           28         Rajas Rajas Fatehpur Area         Fatehpur Area         Raea         Fatehpur Area         Raea         Fatehpur A	27	Rajas	Nagaur	ocs	Teetari	Jodhiyas	Nagaur	27.39	73.75	SR	200	OUTSOURCI	130-
0         than         Area         Area         685         428         NG         150           28         Rajas than         Riyan         OCS Area         Sathani Kalan         Degana Kalan         26.57         74.31         SR 200         OUTSOURCI 130-NG         150           28         Rajas than         Piprali         OCS Area         Sangarw Area         Danta Ramgarh 975         287         SR 200         OUTSOURCI 150-NG           28         Rajas than         Fatehpur Area         Area         Biraniya         Fatehpur 27.86         74.77         SR 200         OUTSOURCI 150-NG           28         Rajas than         Fatehpur OCS Area         Chuwas Bathod Fatehpur 27.91         Fatehpur 27.91         74.93         SR 200         OUTSOURCI 150-NG           28         Rajas Fatehpur Area         Fatehpur Area         Rajas Bheechri Fatehpur 27.97         75.11         SR 200         OUTSOURCI 150-NG           5         than         Fatehpur Area         Rajas Fatehpur Area         Rosawa Fatehpur Ratehpur (M)         27.97         75.11         SR 200         OUTSOURCI 150-NG           28         Rajas Fatehpur Area         OCS Area Rajas (M)         Fatehpur Area         Fatehpur Area         Rajas Rajas (M)         Fatehpur Area         Rajas Rajas (M)		than				i		119	672				
28         Rajas than         Riyan         OCS Area         Sathani Kalan         Degana Kalan         26.57         74.31         SR 200         OUTSOURCI 130-NG         150           28         Rajas than         Piprali OCS Area         Sangarw Area         Danta Ramgarh         27.56         75.30         SR 200         OUTSOURCI 150-NG         150-NG           28         Rajas than         Fatehpur OCS Area         Chachee Biraniya wad         Fatehpur Patehpur Pateh	28	Rajas	Nagaur	ocs	Golsar	Chau	Nagaur	I	1	SR	200		
1         thán         Area         Kalan         885         432         NG         150           28         Rajas         Piprali         OCS         Sangarw         Danta         27.56         75.30         SR         200         OUTSOURCI         150           28         Rajas         Fatehpur         OCS         Chachee         Biraniya         Fatehpur         27.86         74.77         SR         200         OUTSOURCI         150           3         than         Area         wad         Fatehpur         27.96         74.77         SR         200         OUTSOURCI         150           3         than         Fatehpur         OCS         Chuwas         Bathod         Fatehpur         27.91         74.93         SR         200         OUTSOURCI         150           4         than         Area         Fatehpur         Area         Fatehpur         27.97         75.11         SR         200         OUTSOURCI         150           5         than         Fatehpur         OCS         Rosawa         Fatehpur         Fatehpur         27.97         74.79         SR         200         OUTSOURCI         150           6         than													
28         Rajas than         Piprali         OCS Area         Sangarw a a a a a a a a a a a a a a a a a a			Riyan		Sathani		Degana	I	1	SR	200		
2         than         Area         a         a         Ramgarh         975         287         NG           28         Rajas         Fatehpur         OCS         Chachee         Biraniya         Fatehpur         27.86         74.77         SR         200         OUTSOURCI         150           28         Rajas         Fatehpur         OCS         Chuwas         Bathod         Fatehpur         27.91         74.93         SR         200         OUTSOURCI         150           28         Rajas         Fatehpur         OCS         Bhagasa         Bheechri         Fatehpur         27.97         75.11         SR         200         OUTSOURCI         150           5         than         Fatehpur         OCS         Rosawa         Fatehpur         Fatehpur         27.97         75.11         SR         200         OUTSOURCI         150           6         than         Area         (M)         Fatehpur         Fatehpur         27.97         74.79         SR         200         OUTSOURCI         150           7         than         Area         (M)         Fatehpur         27.97         74.82         SR         200         OUTSOURCI         150      <			<u> </u>										
28         Rajas than         Fatehpur Area         OCS wad         Chachee wad         Biraniya         Fatehpur 772         27.86 74.77 72         SR 200 NG         OUTSOURCI NG         150 NG           28         Rajas than         Fatehpur OCS Area         Chuwas Area         Bathod Fatehpur DCS Area         Fatehpur Patehpur			Piprali		_	_		I		SR	200		150
3         than         Area         wad         772         956         NG           28         Rajas than         Fatehpur OCS         Chuwas Area         Bathod         Fatehpur 27.91         74.93         SR 200         OUTSOURCI 150           28         Rajas than         Fatehpur OCS         Bhagasa ra         Bheechri Fatehpur Fatehpur S06         79.97         75.11         SR 200         OUTSOURCI 150           28         Rajas than         Fatehpur OCS         Rosawa Fatehpur (M)         Fatehpur Fatehpur S1.97         74.79         SR 200         OUTSOURCI 150           28         Rajas Rajas Fatehpur OCS         Rosawa Fatehpur (M)         Fatehpur S27.97         74.82         SR 200         OUTSOURCI 150           7         than         Area         Mandela (M)         Fatehpur S27.98         74.82         SR 200         OUTSOURCI 150           8         than         Area         Mandela Ura Bara         Fatehpur S27.98         74.89         SR 200         OUTSOURCI 150           28         Rajas than         Fatehpur OCS         Shekhis Hudera         Fatehpur S27.98         74.82         SR 200         OUTSOURCI 150           28         Rajas than         Fatehpur OCS         Shekhis Hudera         Fatehpur S27.98         74.82			□ -t-l					1		0.0	000		450
28         Rajas         Fatehpur         OCS         Chuwas         Bathod         Fatehpur         27.91         74.93         SR         200         OUTSOURCI         150           28         Rajas         Fatehpur         OCS         Bhagasa         Bheechri         Fatehpur         27.97         75.11         SR         200         OUTSOURCI         150           5         than         Fatehpur         OCS         Rosawa         Fatehpur         Fatehpur         27.97         74.79         SR         200         OUTSOURCI         150           28         Rajas         Fatehpur         OCS         Rosawa         Fatehpur         Fatehpur         27.97         74.79         SR         200         OUTSOURCI         150           6         than         Area         Rosawa         Fatehpur         Fatehpur         27.97         74.82         SR         200         OUTSOURCI         150           7         than         Area         Mandela         Fatehpur         27.98         74.89         SR         200         OUTSOURCI         150           8         than         Area         Area         Hudera         Fatehpur         28.02         74.82         SR </td <td>1</td> <td></td> <td>Fatenpur</td> <td></td> <td></td> <td>Biraniya</td> <td>Fatenpur</td> <td>I</td> <td>1</td> <td>SK</td> <td>200</td> <td></td> <td>150</td>	1		Fatenpur			Biraniya	Fatenpur	I	1	SK	200		150
4         than         Area         Bhagasa         Bheechri         Fatehpur         27.97         75.11         SR         200         OUTSOURCI         150           5         than         Fatehpur         OCS         Rosawa         Fatehpur         Fatehpur         27.97         74.79         SR         200         OUTSOURCI         150           28         Rajas         Fatehpur         OCS         Rosawa         Fatehpur         Fatehpur         27.97         74.79         SR         200         OUTSOURCI         150           28         Rajas         Fatehpur         OCS         Rosawa         Fatehpur         27.97         74.82         SR         200         OUTSOURCI         150           7         than         Area         (M)         Fatehpur         27.97         74.82         SR         200         OUTSOURCI         150           8         Rajas         Fatehpur         OCS         Sardarp         Mandela         Fatehpur         27.98         74.89         SR         200         OUTSOURCI         150           8         than         Area         ura         Bara         Fatehpur         28.02         74.82         SR         200			Eatabaur			Dathad	Estabaur			CD	200		150
28         Rajas than         Fatehpur Statehpur Stateh	1		rateripui		Chuwas	Dalilou	rateripui	I		SK	200		150
5         than         Area         ra         506         798         NG           28         Rajas than         Fatehpur Area         Rosawa Fatehpur (M)         Fatehpur Bratehpur (M)         27.97 (M)         74.79 (M)         SR (M)         200 (M)         OUTSOURCI (M)         150 (M)           28         Rajas than         Fatehpur (M)         Rosawa (M)         Fatehpur (M)         Fatehpur (M)         27.97 (M)         74.82 (M)         SR (M)         200 (M)         OUTSOURCI (M)         150 (M)           28         Rajas than         Fatehpur (M)         Fatehpur (M)         Fatehpur (M)         27.98 (M)         74.89 (M)         SR (M)         200 (M)         OUTSOURCI (M)         150 (M)         NG (M)         SR (M)         200 (M)         OUTSOURCI (M)         150 (M)         NG (M)         SR (M)         200 (M)         OUTSOURCI (M)         150 (M)         NG (M)         SR (M)         200 (M)         OUTSOURCI (M)         150 (M)         SR (M)         200 (M)         OUTSOURCI (M)         150 (M)         SR (M)         200 (M)         OUTSOURCI (M)         <			Eatobour		Phagasa	Phoochri	Eatohour			SD.	200		150
28Rajas 6Fatehpur thanGCS AreaRosawa (M)Fatehpur (M)Fatehpur 68827.97 23.0074.79 23.00SR 23.00200 OUTSOURCI NG150 NG28Rajas 7Fatehpur thanOCS AreaRosawa (M)Fatehpur (M)Fatehpur 8727.97 86974.82 74.89 869SR 74.89 869200 74.89 87OUTSOURCI NG150 NG28Rajas 8Fatehpur AreaOCS AreaShekhis AreaHudera arFatehpur 41928.02 50574.82 74.82 419SR 505200 505OUTSOURCI NG150 NG29RajasFatehpurOCSDabriBagdodaFatehpur 41928.0375.11SR200OUTSOURCI NG	1		i ateripui		_	Difectili	i atempui			SIX	200		130
6         than         Area         (M)         688         23         NG           28         Rajas         Fatehpur         OCS         Rosawa         Fatehpur         Fatehpur         27.97         74.82         SR         200         OUTSOURCI         150           7         than         Area         (M)         87         869         SR         200         OUTSOURCI         150           8         than         Fatehpur         OCS         Sardarp         Mandela         Fatehpur         27.98         74.89         SR         200         OUTSOURCI         150           8         than         Area         ura         Bara         Fatehpur         28.02         74.82         SR         200         OUTSOURCI         150           9         than         Area         ar         419         505         SR         200         OUTSOURCI         150           29         Rajas         Fatehpur         OCS         Dabri         Bagdoda         Fatehpur         28.03         75.11         SR         200         OUTSOURCI         150			Fatehnur			Fatehnur	Fatehnur			SR	200		150
28Rajas thanFatehpur AreaOCS AreaRosawa (M)Fatehpur (M)Fatehpur 8727.97 86974.82 869SR 489200 87OUTSOURCI NG150 150 150 150 15028Rajas 4Fatehpur AreaOCS AreaSardarp uraMandela BaraFatehpur 150 150 150 150 150 150 150 150 150Fatehpur 150 150 150 150Patehpur 150 150 150OUTSOURCI 150 150 15028Rajas 160Fatehpur 170OCS 170Shekhis 170 170Hudera 170 170 170Fatehpur 170 17028.02 170 170 17074.82 170 170 170SR 170 170 170OUTSOURCI 170 170 170150 170 170	1		i atempul		Nosawa		i atoripul			011	200		100
7         than         Area         (M)         87         869         NG           28         Rajas         Fatehpur         OCS         Sardarp ura         Mandela Bara         Fatehpur         27.98 052         74.89 237         SR NG         200         OUTSOURCI NG         150           28         Rajas         Fatehpur         OCS         Shekhis Area         Hudera ar         Fatehpur         28.02 419         74.82 505         SR SR         200 200         OUTSOURCI NG         150           29         Rajas         Fatehpur         OCS         Dabri         Bagdoda         Fatehpur         28.03         75.11         SR         200         OUTSOURCI         150			Fatehnur		Rosawa		Fatehnur			SR	200		150
28Rajas 8Fatehpur thanOCS AreaSardarp uraMandela BaraFatehpur 05227.98 23774.89 237SR 200200OUTSOURCI NG15028Rajas 9Fatehpur thanOCS AreaShekhis arHudera arFatehpur 41928.02 50574.82 505SR 505200 NGOUTSOURCI NG15029RajasFatehpurOCSDabriBagdodaFatehpur28.0375.11SR200OUTSOURCI150			. atompui		. 1304114		. atoripui		1				.55
8         than         Area         ura         Bara         052         237         NG           28         Rajas         Fatehpur         OCS         Shekhis         Hudera         Fatehpur         28.02         74.82         SR         200         OUTSOURCI         150           9         than         Area         ar         419         505         NG           29         Rajas         Fatehpur         OCS         Dabri         Bagdoda         Fatehpur         28.03         75.11         SR         200         OUTSOURCI         150			Fatehour		Sardarn		Fatehnur			SR	200		150
28RajasFatehpurOCSShekhisHuderaFatehpur28.0274.82SR200OUTSOURCI1509thanAreaar419505NG29RajasFatehpurOCSDabriBagdodaFatehpur28.0375.11SR200OUTSOURCI150	1					1							
9         than         Area         ar         419         505         NG           29         Rajas         Fatehpur         OCS         Dabri         Bagdoda         Fatehpur         28.03         75.11         SR         200         OUTSOURCI         150			Fatehpur				Fatehpur			SR	200		150
29 Rajas Fatehpur OCS Dabri Bagdoda Fatehpur 28.03 75.11 SR 200 OUTSOURCI 150	1												
			Fatehpur			Bagdoda	Fatehpur			SR	200	OUTSOURCI	150
	0	than		Area		_		147	07			NG	

29	Rajas	Fatehpur	OCS	Kayams	Kayams	Fatehpur	28.08	75.00	SR	200	OUTSOURCI	150
1	than		Area	ar	ar		969	881			NG	
29	Rajas	Fatehpur	OCS	Palas	Palas	Fatehpur	28.14	74.89	SR	200	OUTSOURCI	150
2	than		Area				609	237			NG	
29	Rajas	Fatehpur	OCS	Takhalsa	Takhalsa	Fatehpur	28.14	75.01	SR	200	OUTSOURCI	150
3	than		Area	r	r		973	245			NG	
2	Rajast	Fatehpur	OCS	Sigaro	Theemoli	i Fatehpu	28.15	75.05	SR	200	OUTSOUR	150
9	han		Area	Ki Dhani		r	337	975			CING	
4												

## Note: The location above are Tentative and may be changed

## RJ PZ and DWLR BOQ 3 and 4

S	STAT	DISTRICT	BLOCK	DG_Ty	VILLAGE	GP/TOW	TEHSIL	Latitu	Longi	HR/	De	Inhouse/	Tent
r.	E			pe		N		de	tude	SR	pth	Outsourci	ative
N				'							(m)	ng	DWL
0											` ′	5	R
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													\ \ I) \
1	Rajas	BHILWAR	Asind	ocs	Kharda	Ganglas	Asind	25.6	74.53	HR	10	OUTSOU	80
	than	Α		Area				4192	492		0	RCING	
2	Rajas	BHILWAR	Asind	ocs	Mohro	Jalariya	Asind	25.6	74.30	HR	10	OUTSOU	80
	than	Α		Area	Ka Khera	, , ,		4669	091		0	RCING	
3	Rajas	BHILWAR	Asind	ocs	Kanwlas	Kanwlas	Asind	25.6	74.37	HR	10	OUTSOU	80
	than	Α		Area				9604	414		0	RCING	
4	Rajas	BHILWAR	Asind	ocs	Sabdara	Negdiya	Asind	25.6	74.31	HR	10	OUTSOU	80
	than	Α		Area	0 0.10 0.011 0.			9763	365		0	RCING	
5	Rajas	BHILWAR	Asind	OCS	Kaliyas	Kaliyas	Asind	25.7	74.53	HR	10	OUTSOU	80
	than	Α	7 101110	Area		,	7 10	0082	333		0	RCING	
6	Rajas	BHILWAR	Asind	OCS	Barsani	Rooppur	Asind	25.7	74.47	HR	10	OUTSOU	80
	than	Α	7 10	Area	2000	а	7 10	5797	266		0	RCING	
7	Rajas	BHILWAR	Asind	OCS	Ambesar	Ambesar	Asind	25.7	74.42	HR	10	OUTSOU	80
	than	Α		Area				5813	031		0	RCING	
8	Rajas	BHILWAR	Asind	ocs	Garwai	Bajunda	Asind	25.7	74.24	HR	10	OUTSOU	80
	than	Α		Area		.,.		5972	997		0	RCING	
9	Rajas	BHILWAR	Asind	ocs	Samel	Ratanpur	Asind	25.8	74.23	HR	10	OUTSOU	80
	than	Α		Area		a '		2178	566		0	RCING	
1	Rajas	BHILWAR	Asind	ocs	Gobindp	Chatarpu	Asind	25.9	74.37	HR	10	OUTSOU	80
0	than	Α		Area	ura	ra		2569	422		0	RCING	
1	Rajas	BHILWAR	Banera	ocs	Chhatri	Chaman	Banera	25.4	74.61	HR	10	OUTSOU	80
1	than	Α		Area	Khera	pura		5885	77		0	RCING	
1	Rajas	BHILWAR	Banera	ocs	Balesariy	Balesariy	Banera	25.5	74.60	HR	10	OUTSOU	80
2	than	Α		Area	a	a		2411	338		0	RCING	
1	Rajas	BHILWAR	Banera	ocs	Lambia	Lambia	Banera	25.5	74.59	HR	10	OUTSOU	80
3	than	Α		Area	Kalan	Kalan		8613	898		0	RCING	
1	Rajas	BHILWAR	Banera	ocs	Dhamani	Nimbahe	Banera	25.6	74.65	HR	10	OUTSOU	80
4	than	Α		Area	ya	ra		4828	75		0	RCING	
1	Rajas	BHILWAR	Banera	OCS	Kotri	Nimbahe	Banera	25.6	74.71	HR	10	OUTSOU	80
5	than	Α		Area	-	ra		4858	149		0	RCING	
1	Rajas	BHILWAR	Banera	ocs	Jasoriya	Jasoriya	Banera	25.7	74.71	HR	10	OUTSOU	80
6	than	Α		Area	, ,	. ,		5797	149		0	RCING	
1	Rajas	BHILWAR	Hurda	OCS	Tonkarw	Tonkarw	Hurda	25.7	74.58	HR	10	OUTSOU	80
7	than	Α		Area	ad	ad		5992	899		0	RCING	

1	Rajas	BHILWAR	Hurda	OCS	Gulabpur	Gulabpur	Hurda	25.8	74.65	HR	10	OUTSOU	80
8	than	A		Area	a (M)	a (M)		7829	862		0	RCING	
1	Rajas	BHILWAR	Jahazp	ocs	Akheramj	Amargar	Jahazpu	25.3	75.19	HR	10	OUTSOU	80
9	than	A	ur	Area	i Ka Khera	h	r	9436	626		0	RCING	
2	Rajas	BHILWAR	Jahazp	ocs	Kishanga	Kishanga	Jahazpu	25.4	75.24	HR	10	OUTSOU	80
0	than	Α	ur	Area	rh	rh	r	668	492		0	RCING	
2	Rajas	BHILWAR	Jahazp	OCS	Shakar	Shakar	Jahazpu	25.4	75.29	HR	10	OUTSOU	80
1	than	Α	ur	Area	Garh	Garh	r ·	684	427		0	RCING	
2	Rajas	BHILWAR	Jahazp	ocs	Beri	Baori	Jahazpu	25.5	75.06	HR	10	OUTSOU	80
2	than	Α	ur	Area			r	8461	822		0	RCING	
2	Rajas	BHILWAR	Jahazp	OCS	Rawat	Rawat	Jahazpu	25.5	75.23	HR	10	OUTSOU	80
3	than	Α	ur .	Area	Khera	Khera	r '	8461	855		0	RCING	
2	Rajas	BHILWAR	Jahazp	ocs	Bijetha	Bijetha	Jahazpu	25.5	75.35	HR	10	OUTSOU	80
4	than	Α	ur	Area	, , , ,	, , , ,	r	8842	505		0	RCING	
2	Rajas	BHILWAR	Jahazp	OCS	Sarsiya	Sarsiya	Jahazpu	25.5	75.29	HR	10	OUTSOU	80
5	than	Α	ur	Area		J	r	9097	427		0	RCING	
2	Rajas	BHILWAR	Jahazp	OCS	Bheelri	Teetori	Jahazpu	25.6	75.12	HR	10	OUTSOU	80
6	than	A	ur	Area	Bricom	1001011	r	4032	393	1111	0	RCING	
2		BHILWAR	Jahazp	OCS	Dhandhol	Kuradiya	Jahazpu	25.6	75.29	HR	10	OUTSOU	80
7	Rajas than			Area		Kurauiya	Janazpu	4828	586	пп	0	RCING	00
		A	ur		a	A	l ala a marri			LID			00
2	Rajas	BHILWAR	Jahazp	OCS	Amarwas	Amarwas	Jahazpu	25.7	75.34	HR	10	OUTSOU	80
8	than	A	ur	Area		l l	ſ	0241	521		0	RCING	00
2	Rajas	BHILWAR	Kotri	OCS	Jeewakh	Jeewa	Kotri	25.2	74.89	HR	10	OUTSOU	80
9	than	A	16.41	Area	era	Ka Khera	16.4.1	312	31		0	RCING	
3	Rajas	BHILWAR	Kotri	ocs	Barla	Barla	Kotri	25.2	74.83	HR	10	OUTSOU	80
0	than	A		Area				8692	261		0	RCING	
3	Rajas	BHILWAR	Kotri	ocs	Gaphesa	Kishanga	Kotri	25.2	74.95	HR	10	OUTSOU	80
1	than	Α		Area	ra	rh		8692	519		0	RCING	
3	Rajas	BHILWAR	Kotri	OCS	Lasariya	Lasariya	Kotri	25.3	74.83	HR	10	OUTSOU	80
2	than	Α		Area				4741	58		0	RCING	
3	Rajas	BHILWAR	Kotri	OCS	Sangram	Kakroliya	Kotri	25.3	75.01	HR	10	OUTSOU	80
3	than	Α		Area	pura @	Ghati		5324	048		0	RCING	
3	Rajas	BHILWAR	Kotri	ocs	Dhokliya	Lasariya	Kotri	25.3	74.89	HR	10	OUTSOU	80
4	than	Α		Area		-		5506	198		0	RCING	
3	Rajas	BHILWAR	Kotri	OCS	Chohli	Kakroliya	Kotri	25.4	75.06	HR	10	OUTSOU	80
5	than	Α		Area		Ghati		0429	882		0	RCING	
3	Rajas	BHILWAR	Kotri	OCS	Sagatpuri	Birdhol	Kotri	25.4	74.95	HR	10	OUTSOU	80
6	than	Α		Area	ya			0975	396		0	RCING	
3	Rajas	BHILWAR	Kotri	OCS	Phalaser	Raser	Kotri	25.4	74.95	HR	10	OUTSOU	80
7	than	Α		Area				7174	761		0	RCING	
3	Rajas	BHILWAR	Kotri	OCS	Borda	Borda	Kotri	25.5	74.94	HR	10	OUTSOU	80
8	than	Α		Area				2093	882		0	RCING	
3	Rajas	BHILWAR	Mandal	OCS	Ummedp	Baori	Mandal	25.4	74.48	HR	10	OUTSOU	80
9	than	A		Area	ura			6203	557		0	RCING	
4	Rajas	BHILWAR	Mandal	OCS	Soji Ka	Chandra	Mandal	25.4	74.30	HR	10	OUTSOU	80
0	than	A	manaai	Area	Khera	S	····aiiaai	6428	134		0	RCING	
4	Rajas	BHILWAR	Mandal	OCS	Luhariya	Luhariya	Mandal	25.4	74.42	HR	10	OUTSOU	80
1	than	A	iviailaai	Area	Lananya	Lariarrya	iviariaar	6521	508	'''`	0	RCING	
4	Rajas	BHILWAR	Mandal	OCS	Mandal	Mandal	Mandal	25.4	74.54	HR	10	OUTSOU	80
2	than	A	ivialiual	Area	ivialiual	ivialiual	ivialiual	668	925	1111	0	RCING	00
4		BHILWAR	Mandal	OCS	Dannura	Gudha	Regioliy	25.0	75.41	HR	10	OUTSOU	80
3	Rajas than				Danpura	Guulia	Beejoliy	5609	048	HIL	0	RCING	00
		A DUIL WAD	garh	Area	Korkhara	Makrari	a Posioliv			ПD			90
4	Rajas	BHILWAR	Mandal	OCS	Kerkhera	Makreri	Beejoliy	25.0	75.35	HR	10	OUTSOU	80
4	than	Α	garh	Area			а	6246	794		0	RCING	

4	Rajas	BHILWAR	Mandal	OCS	Kharipur	Sukhpura	Beejoliy	25.1	75.24	HR	10	OUTSOU	80
5	than	Α	garh	Area	'	'	a	1658	014		0	RCING	
4	Rajas	BHILWAR	Mandal	OCS	Nayanag	Nayanag	Beejoliy	25.1	75.17	HR	10	OUTSOU	80
6	than	Α	garh	Area	ar	ar	a	1818	965		0	RCING	
4	Rajas	BHILWAR	Mandal	OCS	Motaron	Motaron	Mandal	25.1	75.00	HR	10	OUTSOU	80
7	than	Α	garh	Area	Ka	Ka	garh	6912	772		0	RCING	
4	Rajas	BHILWAR	Mandal	OCS	Mangarh	Bijoliyan	Beejoliy	25.1	75.24	HR	10	OUTSOU	80
8	than	Α	garh	Area		Khurd	a	723	014		0	RCING	
4	Rajas	BHILWAR	Mandal	OCS	Baroond	Barundni	Mandal	25.1	74.94	HR	10	OUTSOU	80
9	than	Α	garh	Area	ni		garh	7708	723		0	RCING	
5	Rajas	BHILWAR	Mandal	ocs	Nayanag	Nayanag	Beejoliy	25.1	75.18	HR	10	OUTSOU	80
0	than	Α	garh	Area	ar	ar	a	7708	283		0	RCING	
5	Rajas	BHILWAR	Mandal	ocs	Dhorela	Mohanpu	Mandal	25.2	75.24	HR	10	OUTSOU	80
1	than	Α	garh	Area		ra	garh	312	651		0	RCING	
5	Rajas	BHILWAR	Mandal	ocs	Nahargar	Suras	Mandal	25.2	74.94	HR	10	OUTSOU	80
2	than	Α	garh	Area	h		garh	3279	564		0	RCING	
5	Rajas	BHILWAR	Mandal	ocs	Mochariy	Dolpura	Mandal	25.2	75.18	HR	10	OUTSOU	80
3	than	Α	garh	Area	on Ka		garh	3598	283		0	RCING	
5	Rajas	BHILWAR	Mandal	OCS	Nawalpur	Dolpura	Mandal	25.2	75.12	HR	10	OUTSOU	80
4	than	Α	garh	Area	a		garh	4385	898		0	RCING	
5	Rajas	BHILWAR	Mandal	OCS	Beekran	Beekran	Mandal	25.2	75.23	HR	10	OUTSOU	80
5	than	Α	garh	Area			garh	9488	855		0	RCING	
5	Rajas	BHILWAR	Mandal	ocs	Nahargar	Thal	Mandal	25.3	75.12	HR	10	OUTSOU	80
6	than	Α	garh	Area	h	Kalan	garh	5219	075		0	RCING	
5	Rajas	BHILWAR	Suwana	OCS	Deoli	Deoli	Bhilwar	25.2	74.54	HR	10	OUTSOU	80
7	than	A	Carraina	Area		200	a	3655	305		0	RCING	
5	Rajas	BHILWAR	Suwana	OCS	Bholi	Bholi	Bhilwar	25.2	74.66	HR	10	OUTSOU	80
8	than	A	Carraina	Area	D.10.1	5.10	a	9169	068		0	RCING	
5	Rajas	BHILWAR	Suwana	OCS	Kanda	Kanda	Bhilwar	25.2	74.77	HR	10	OUTSOU	80
9	than	Α	Carraina	Area	randa	rtariaa	a	9169	849		0	RCING	
6	Rajas	BHILWAR	Suwana	OCS	Pansal	Pansal	Bhilwar	25.3	74.59	HR	10	OUTSOU	80
0	than	A	Ouwana	Area	i dilodi	i anoai	a	5219	86	1111	0	RCING	
6	Rajas	BHILWAR	Suwana	OCS	Bhilwara	Bhilwara	Bhilwar	25.3	74.66	HR	10	OUTSOU	80
1	than	A	Ouwana	Area	(Mci)	(Mci)	a	5219	228	1111	0	RCING	
6	Rajas	BHILWAR	Suwana	OCS	Kodu	Kodukota	Bhilwar	25.3	74.77	HR	10	OUTSOU	80
2	than	A	Cawana	Area	Kota	rtodditota	a	5855	849		0	RCING	
6	Rajas	BHILWAR	Suwana	OCS	Chhapri	Palri	Bhilwar	25.4	74.71	HR	10	OUTSOU	80
3	than	A	Cawana	Area	Omapii	' ' ' ' ' ' '	a	0631	481		0	RCING	
6	Rajas	BHILWAR	Suwana	OCS	Jeepiya	Malola	Bhilwar	25.4	74.60	HR	10	OUTSOU	80
4	than	A	Carraina	Area	ocop.ju	Maiola	a	079	815		0	RCING	
6	Rajas	BHILWAR	Suwana	OCS	Parliya	Mahuwa	Bhilwar	25.4	74.77	HR	10	OUTSOU	80
5	than	A	24	Area	Khera	Kalan	a	684	53		0	RCING	
6	Rajas	CHITTAU	Bari	OCS	Afron Ka	Rati	Bari	24.3	74.53	HR	10	OUTSOU	80
6	than	RGARH	Sadri	Area	Talab	Chandji	Sadri	1092	631	\	0	RCING	"
				•	. 5.100	Ka	25.0						
6	Rajas	CHITTAU	Bari	ocs	Ummedp	Khardewl	Bari	24.4	74.47	HR	10	OUTSOU	80
7	than	RGARH	Sadri	Area	ura	a	Sadri	8103	909	\	0	RCING	"
6	Rajas	CHITTAU	Begun	OCS	Kulatiya	Kulatiya	Begun	24.8	75.00	HR	10	OUTSOU	80
8	than	RGARH		Area	Nai	Nai		853	909		0	RCING	
6	Rajas	CHITTAU	Begun	OCS	Jandolya	Kulatiya	Begun	24.8	75.07	HR	10	OUTSOU	80
9	than	RGARH	239011	Area	Janaonya	Nai	209011	8848	116	\	0	RCING	"
7	Rajas	CHITTAU	Begun	OCS	Charchh	Anoppur	Begun	24.9	74.93	HR	10	OUTSOU	80
0	than	RGARH	239011	Area	a	a	209011	2986	269	\	0	RCING	"
7	Rajas	CHITTAU	Begun	OCS	Shyodars	Daulatpu	Begun	24.9	75.06	HR	10	OUTSOU	80
1	than	RGARH	209011	Area	hanpur	ra		3941	161		0	RCING	
_ '	GIGH			, u ou	Haripui	ı ıu		1 20-71	101		v	1.01110	

7	Rajas	CHITTAU	Begun	ocs	Nandwai	Nandwai	Begun	25.0	74.94	HR	10	OUTSOU	80
2	than	RGARH		Area				0308	702		0	RCING	
7	Rajas	CHITTAU	Begun	OCS	Ulloopura	Kerpura	Begun	25.0	74.88	HR	10	OUTSOU	80
3	than	RGARH		Area				5083	813		0	RCING	
7	Rajas	CHITTAU	Begun	OCS	Nal	Kheri	Begun	25.0	74.93	HR	10	OUTSOU	80
4	than	RGARH		Area				5878	906		0	RCING	
7	Rajas	CHITTAU	Begun	OCS	Dharla	Rawarda	Begun	25.0	75.12	HR	10	OUTSOU	80
5	than	RGARH		Area				5878	368		0	RCING	
7	Rajas	CHITTAU	Begun	OCS	Surajpur	Bansen	Bhades	24.7	74.40	HR	10	OUTSOU	80
6	than	RGARH		Area	a		ar	0057	793		0	RCING	
7	Rajas	CHITTAU	Begun	OCS	Gantheri	Akya	Bhades	24.7	74.46	HR	10	OUTSOU	80
7	than	RGARH		Area			ar	0863	635		0	RCING	
7	Rajas	CHITTAU	Begun	ocs	Kesar	Dheerji	Bhades	24.7	74.54	HR	10	OUTSOU	80
8	than	RGARH	3	Area	Pura	Ka	ar	1193	223		0	RCING	
7	Rajas	CHITTAU	Begun	OCS	Kasya	Leswa	Bhades	24.7	74.36	HR	10	OUTSOU	80
9	than	RGARH	3	Area	Khurd		ar	5797	29		0	RCING	
8	Rajas	CHITTAU	Begun	OCS	Delwas	Nahargar	Bhades	24.7	74.48	HR	10	OUTSOU	80
0	than	RGARH	Dogun	Area	Bomas	h	ar	6948	134		0	RCING	
8	Rajas	CHITTAU	Begun	OCS	Daulat	Rewaliya	Bhades	24.8	74.47	HR	10	OUTSOU	80
1	than	RGARH	Doguii	Area	Pura	Khurd	ar	1412	602	1111	0	RCING	
8	Rajas	CHITTAU	Bhainsr	OCS	Jheenkra	Kua	Rawatb	24.7	75.47	HR	10	OUTSOU	80
2	than	RGARH	orgarh	Area	onoonikia	Khera	hata	0705	564		0	RCING	
8	Rajas	CHITTAU	Bhainsr	OCS	Dotara	Barkhera	Rawatb	24.7	75.58	HR	10	OUTSOU	80
3	than	RGARH	orgarh	Area	Dotaid	Darkiicia	hata	1373	086	1111	0	RCING	
8	Rajas	CHITTAU	Bhainsr	OCS	Mohana	Eklingpur	Rawatb	24.7	75.70	HR	10	OUTSOU	80
4	than	RGARH	orgarh	Area	IVIOITATIA	a	hata	6383	611	1111	0	RCING	00
8	Rajas	CHITTAU	Bhainsr	OCS	Neemri	Deopura	Rawatb	24.7	75.35	HR	10	OUTSOU	80
5	than	RGARH	orgarh	Area	Necilli	Deopula	hata	7218	539	1111	0	RCING	00
8	Rajas	CHITTAU	Bhainsr	OCS	Kethoola	Barkhera	Rawatb	24.7	75.53	HR	10	OUTSOU	80
6	than	RGARH	orgarh	Area	Retrioola	Darkiiera	hata	7218	075	1111	0	RCING	00
8	Rajas	CHITTAU	Bhainsr	OCS	Banda	Eklingpur	Rawatb	24.7	75.59	HR	10	OUTSOU	80
7	than	RGARH	orgarh	Area	Danua	a	hata	7218	589	1111	0	RCING	00
8	Rajas	CHITTAU	Bhainsr	OCS	Arniya	Kua	Rawatb	24.7	75.47	HR	10	OUTSOU	80
8	than	RGARH	orgarh	Area	Ailiya	Khera	hata	7552	898	1111	0	RCING	00
8	Rajas	CHITTAU	Bhainsr	OCS	Gopalpur	Deopura	Rawatb	24.7	75.76	HR	10	OUTSOU	80
9	than	RGARH	orgarh	Area	a	Deopura	hata	7719	958	1111	0	RCING	00
9	Rajas	CHITTAU	Bhainsr	OCS	Manoli	Mandesa	Rawatb	24.8	75.58	HR	10	OUTSOU	80
0	than	RGARH		Area	IVIALIOII		hata	2563	75.56	ПК	0	RCING	00
9		CHITTAU	orgarh Bhainsr	OCS	Raipur	ra Barkhera	Rawatb	24.8	75.66	HR	10	OUTSOU	80
1	Rajas	RGARH		Area	Naipui	Daikileia	hata	4215	681	HIN	0	RCING	00
9	than	CHITTAU	orgarh Bhainsr	OCS	Channus	Mandesa	Rawatb	24.8	75.54	HR	10	OUTSOU	80
2	Rajas	RGARH		Area	Chenpua		hata	8241	578	1715	0	RCING	00
	than		orgarh		Umorobo	ra				Пυ			90
9 3	Rajas	CHITTAU RGARH	Bhainsr	OCS	Umarcha	Gopalpur	Rawatb	24.8 8909	75.36 708	HR	10 0	OUTSOU RCING	80
	than		orgarh	Area	Dalchter	Lubariya	hata			μn			90
9	Rajas	CHITTAU	Bhainsr	OCS	Bakhtpur	Luhariya	Rawatb	24.9	75.52	HR	10	OUTSOU	80
4	than	RGARH	orgarh	Area	A Mondoon	Manda	hata	4421	908	LID	10	RCING	00
9	Rajas	CHITTAU	Bhainsr	OCS	Mandesa	Mandesa	Rawatb	24.9	75.47	HR	10	OUTSOU	80
5	than	RGARH	orgarh	Area	ra	ra	hata	4588	23	ווח	0	RCING	00
9	Rajas	CHITTAU	Bhainsr	OCS	Jaora	Baroliya	Rawatb	24.9	75.64	HR	10	OUTSOU	80
6	than	RGARH	orgarh	Area	Khurd	Dharara	hata	4755	432	ווח	0	RCING	00
9	Rajas	CHITTAU	Bhainsr	OCS	Sukhpura	Dhangad	Rawatb	24.9	75.41	HR	10	OUTSOU	80
7	than	RGARH	orgarh	Area	Dhamin	Mau	hata	9264	05	רוח	0	RCING	00
9	Rajas	CHITTAU	Bhainsr	OCS	Bhoonjar	Shripura	Rawatb	24.9	75.47	HR	10	OUTSOU	80
8	than	RGARH	orgarh	Area	Khurd		hata	9598	564		0	RCING	

9	Rajas	CHITTAU	Bhainsr	ocs	Amba	Bhainsror	Rawatb	25.0	75.52	HR	10	OUTSOU	80
9	than	RGARH	orgarh	Area	I/I	garh	hata	0266	574	LID	0	RCING	00
1	Rajas	CHITTAU	Bhopals	OCS	Kankarw	Kankarw	Kapasa	24.8	74.14	HR	10	OUTSOU	80
0	than	RGARH	agar	Area	а	а	n	0843	726		0	RCING	
1	Doigo	CHITTAU	Chittaur	OCS	Chhaniva	Conogor	Chittaur	25.0	74.76	HR	10	OUTSOU	80
	Rajas				Chhapiya	Sonagar			398	пк	10		00
0	than	RGARH	garh	Area	Kheri		garh	6356	390		0	RCING	
1	Doigo	CHITTAU	Dungle	OCS	Dholodro	Phalodra	Dunala	24.4	74.41	HR	10	OUTSOU	80
0	Rajas than	RGARH	Dungla	Area	Phalodra	Pilaloura	Dungla	5527	472	пк	0	RCING	00
2	ulali	RUARII		Alea				3321	412		U	KUING	
1	Rajas	CHITTAU	Dungla	OCS	Alod	Alod	Dungla	24.5	74.42	HR	10	OUTSOU	80
0	than	RGARH	Durigia	Area	Alou	Alou	Durigia	2719	179	1111	0	RCING	00
3	ulali	NOANI		AlGa				2713	173		0	Nonvo	
1	Rajas	CHITTAU	Dungla	OCS	Biloda	Biloda	Dungla	24.5	74.29	HR	10	OUTSOU	80
Ö	than	RGARH	Durigia	Area	Dilodd	Dilodd	Durigia	3872	295	1111	0	RCING	00
4	ulali	110/1111		71100				0072	200			1101110	
1	Rajas	CHITTAU	Dungla	ocs	Neemga	Bhatoli	Dungla	24.5	74.35	HR	10	OUTSOU	80
0	than	RGARH	Dangia	Area	on	Direction .	Dungia	9563	972	、	0	RCING	
5	a ion	11071111		7 0	0				0.2			11010	
1	Rajas	CHITTAU	Gangrar	ocs	Bolo Ka	Bolo Ka	Gangar	24.9	74.59	HR	10	OUTSOU	80
0	than	RGARH	0 09. 0	Area	20.01.0	20.0.10	ar	9719	22		0	RCING	
6				7 00.			<b>-</b>	07.10					
1	Rajas	CHITTAU	Gangrar	ocs	Peepalya	Lalas	Gangar	25.0	74.70	HR	10	OUTSOU	80
0	than	RGARH	3 3	Area	Kalan		ar	6515	509		0	RCING	
7													
1	Rajas	CHITTAU	Kapasa	ocs	Karjali	Karjali	Kapasa	24.7	74.25	HR	10	OUTSOU	80
0	than	RGARH	'n	Area	,	,	'n	1022	308		0	RCING	
8													
1	Rajas	CHITTAU	Kapasa	OCS	Hapha	Roopa	Kapasa	24.8	74.35	HR	10	OUTSOU	80
0	than	RGARH	n	Area	Keri	Kheri	n .	2041	1		0	RCING	
9													
1	Rajas	CHITTAU	Kapasa	OCS	Kalyanpu	Pandoli	Kapasa	24.8	74.40	HR	10	OUTSOU	80
1	than	RGARH	n	Area	ra		n	5691	1		0	RCING	
0													
1	Rajas	CHITTAU	Kapasa	ocs	Kapasan	Kapasan	Kapasa	24.8	74.29	HR	10	OUTSOU	80
1	than	RGARH	n	Area	(M)	(M)	n	8052	924		0	RCING	
1													
1	Rajas	CHITTAU	Nimbah	ocs	Barwara	Bhagwan	Nimbah	24.5	74.59	HR	10	OUTSOU	80
1	than	RGARH	era	Area		pura	era	2229	969		0	RCING	
2													
1	Rajas	CHITTAU	Nimbah	ocs	Bhagal	Mindana	Nimbah	24.5	74.53	HR	10	OUTSOU	80
1	than	RGARH	era	Area			era	2529	377		0	RCING	
3	D-:	OUITTALL	NI:mal I-	000	D	Do-	NI:malI-	04.5	74.05	LID	40	OUTOOL	00
1	Rajas	CHITTAU	Nimbah	OCS	Bari	Bari	Nimbah	24.5	74.65	HR	10	OUTSOU	80
1	than	RGARH	era	Area			era	3356	257		0	RCING	
4	Doice	CUITTALL	Nimhah	000	Don:	Don:	Nimbah	24 5	74.65	חון	10	OUTCOLL	80
1 1	Rajas	CHITTAU	Nimbah	OCS	Rani	Rani	Nimbah	24.5 9404	74.65 257	HR	10 0	OUTSOU RCING	00
5	than	RGARH	era	Area	Khera	Khera	era	3404	231		U	RUING	
1	Rajas	CHITTAU	Nimbah	OCS	Bhat	Badoli	Nimbah	24.6	74.59	HR	10	OUTSOU	80
1	than	RGARH	era	Area	Kotri	Dauoii	era	5293	846	1117	0	RCING	30
6	ulall	NOANII	CIA	AICA	NOUL		GIA	0230	040		"	NOING	
1	Rajas	CHITTAU	Nimbah	OCS	Mailana	Kanera	Nimbah	24.6	74.88	HR	10	OUTSOU	80
1	than	RGARH		Area	ivialialia	Nancia		5712	732	1117	0	RCING	30
7	ulali	NOAKI	era	AI Ed			era	37.12	132		U	INDING	
					<u> </u>	<u> </u>	<u> </u>	l .					

1	Rajas	CHITTAU	Nimbah	OCS	Nimboda	Sarsi	Nimbah	24.7	74.94	HR	10	OUTSOU	80
1	than	RGARH	era	Area			era	1389	567		0	RCING	
8		OLUTTALI	AP I I	000		0 111 1	AP I I	04.7	74.04		40	OLITO OLI	00
1 1 1	Rajas	CHITTAU RGARH	Nimbah	OCS	Hasanpu	Satkhand	Nimbah	24.7 5749	74.64 912	HR	10	OUTSOU RCING	80
9	than	KGAKI	era	Area	ra	а	era	3749	912		0	ROING	
1	Rajas	DUNGAR	Aspur	ocs	Pal	Nithauwa	Aspur	23.9	74.29	HR	10	OUTSOU	80
2	than	PUR		Area	Nithauwa			5077	812		0	RCING	
0													
1	Rajas	DUNGAR	Dungar	ocs	Bagdari	Khempur	Dungar	23.9	73.89	HR	10	OUTSOU	80
2	than	PUR	pur	Area			pur	4789	712		0	RCING	
1	Rajas	DUNGAR	Sagwar	OCS	Dencha	Dencha	Sagwar	23.6	73.89	HR	10	OUTSOU	80
2	than	PUR	a	Area	Delicia	Dencha	a	6121	367	HIN	0	RCING	00
2			_	7 11 00			<u> </u>	0.2.				11010	
1	Rajas	DUNGAR	Sagwar	OCS	Bheemda	Padra	Sagwar	23.7	74.00	HR	10	OUTSOU	80
2	than	PUR	a	Area	ri		a	1302	592		0	RCING	
3		5111045							=4.04		40	01170011	
1	Rajas	DUNGAR	Sagwar	OCS	Parwa	Padwa	Sagwar	23.7	74.01	HR	10	OUTSOU	80
2 4	than	PUR	а	Area			а	7174	628		0	RCING	
1	Rajas	DUNGAR	Sagwar	OCS	Khemela	Mandwa	Sagwar	23.7	73.96	HR	10	OUTSOU	80
2	than	PUR	a	Area	1410111014	manana	a	7346	102	\	0	RCING	00
5													
1	Rajas	JHALAW	Sancho	ocs	Nanor	Nanor	Jhalrap	24.2	76.23	HR	10	OUTSOU	80
2	than	AR	re	Area			atan	3595	068		0	RCING	
6	Deise	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Daliani	000	Mani	Mani	ما ما ما ا	04.0	70.00	LID	40	OUTCOLL	00
1 2	Rajas than	JHALAW AR	Bakani	OCS Area	Mori	Mori	Jhalrap atan	24.2 3941	76.28 076	HR	10 0	OUTSOU RCING	80
7	ulali	AIN		Alea			alan	3941	070		"	KOING	
1	Rajas	JHALAW	Bakani	OCS	Bor Kheri	Bor Kheri	Aklera	24.2	76.52	HR	10	OUTSOU	80
2	than	AR		Area				4286	249		0	RCING	
8													
1	Rajas	JHALAW	Bakani	ocs	Kher	Umariya	Aklera	24.2	76.40	HR	10	OUTSOU	80
2	than	AR		Area	Danta			4631	507		0	RCING	
9	Rajas	JHALAW	Bakani	OCS	Dangal	Agariya	Jhalrap	24.2	76.34	HR	10	OUTSOU	80
3	than	AR	Dakani	Area	Dangai	Aganya	atan	4804	464	1111	0	RCING	00
0		7		7 11 00			ata					11010	
1	Rajas	JHALAW	Bakani	ocs	Moi	Moi	Aklera	24.2	76.58	HR	10	OUTSOU	80
3	than	AR		Area	Kalan	Kalan		4977	119		0	RCING	
1	D :	11.14.1.41.47	D 1 :	000	0: "	17 1 1	11 1	04.0	70.04		40	OUTOOLL	00
1	Rajas	JHALAW AR	Bakani	OCS	Girdharp	Kushalpu	Jhalrap	24.2 9984	76.34 637	HR	10 0	OUTSOU RCING	80
3 2	than	AN		Area	ura	ra	atan	9904	037		0	KUING	
1	Rajas	JHALAW	Bakani	OCS	Kherkher	Gul Kheri	Aklera	24.2	76.52	HR	10	OUTSOU	80
	than	AR		Area	a Near			9984	249		0	RCING	
3													
1	Rajas	JHALAW	Bakani	ocs	Baori	Binda	Aklera	24.3	76.41	HR	10	OUTSOU	80
3	than	AR		Area	Khera	Khera		0157	025		0	RCING	
1	Daige	Ιμλι λ\λ/	Pakani	OCS	Moru	Garwara	lhalran	24.3	76.28	HR	10	OUTSOU	80
3	Rajas than	JHALAW AR	Bakani	Area	Kheri	Galwala	Jhalrap atan	0502	421	ארו	0	RCING	OU
5	uiuii	/ Al X		, 11 CG	141011		atan	0002	741			1.0.110	
1	Rajas	JHALAW	Bakani	OCS	Amrit	Amrit	Aklera	24.3	76.52	HR	10	OUTSOU	80
3	than	AR		Area	Kheri	Kheri		62	076		0	RCING	

6													
1 3 7	Rajas than	JHALAW AR	Bakani	OCS Area	Kotra Kunja	Salawad	Jhalrap atan	24.3 6372	76.22 55	HR	10 0	OUTSOU RCING	80
1 3 8	Rajas than	JHALAW AR	Bakani	OCS Area	Parthipur a	Devri	Jhalrap atan	24.3 6545	76.34 119	HR	10 0	OUTSOU RCING	80
1 3 9	Rajas than	JHALAW AR	Bakani	OCS Area	Semal Khera	Jheejhani ya	Jhalrap atan	24.3 6545	76.40 162	HR	10 0	OUTSOU RCING	80
1 4 0	Rajas than	JHALAW AR	Dag	OCS Area	Magsi	Chara	Gangdh ar	23.7 8357	75.69 369	HR	10 0	OUTSOU RCING	80
1 4 1	Rajas than	JHALAW AR	Dag	OCS Area	Rajpura	Dudhaliy a	Gangdh ar	23.8 889	75.75 931	HR	10	OUTSOU RCING	80
1 4 2	Rajas than	JHALAW AR	Dag	OCS Area	Padma Kheri	Kachhnar a	Gangdh ar	23.8 9062	75.65 053	HR	10 0	OUTSOU RCING	80
1 4 3	Rajas than	JHALAW AR	Dag	OCS Area	Talawali	Talawali	Gangdh ar	23.8 9235	75.59 355	HR	10 0	OUTSOU RCING	80
1 4 4	Rajas than	JHALAW AR	Dag	OCS Area	Jagdishp ura	Jagdishp ura	Gangdh ar	23.8 9235	75.82 837	HR	10	OUTSOU RCING	80
1 4 5	Rajas than	JHALAW AR	Dag	OCS Area	Majanpur	Rawan Gurari	Gangdh ar	23.8 9926	75.53 484	HR	10	OUTSOU RCING	80
1 4 6	Rajas than	JHALAW AR	Dag	OCS Area	Parasli	Dori	Gangdh ar	23.9 4242	75.94 061	HR	10 0	OUTSOU RCING	80
1 4 7	Rajas than	JHALAW AR	Dag	OCS Area	Gangdha r	Gangdha r	Gangdh ar	23.9 4933	75.65 053	HR	10 0	OUTSOU RCING	80
1 4 8	Rajas than	JHALAW AR	Dag	OCS Area	Guwalad	Keloo Khera	Gangdh ar	23.9 4933	75.70 06	HR	10 0	OUTSOU RCING	80
1 4 9	Rajas than	JHALAW AR	Dag	OCS Area	Bishniya	Ranayra	Gangdh ar	23.9 5451	75.58 837	HR	10 0	OUTSOU RCING	80
1 5 0	Rajas than	JHALAW AR	Dag	OCS Area	Sikandar pura	Kyasra	Gangdh ar	23.9 5451	75.88 19	HR	10 0	OUTSOU RCING	80
1 5 1	Rajas than	JHALAW AR	Dag	OCS Area	Umariya	Peeplya Khurd	Gangdh ar	24.0 0285	75.77 657	HR	10 0	OUTSOU RCING	80
1 5 2	Rajas than	JHALAW AR	Dag	OCS Area	Fazilpur	Harnawa da	Gangdh ar	24.0 0458	75.93 37	HR	10 0	OUTSOU RCING	80
1 5 3	Rajas than	JHALAW AR	Dag	OCS Area	Harnawa da	Harnawa da	Gangdh ar	24.0 0631	75.87 845	HR	10 0	OUTSOU RCING	80
1 5 4	Rajas than	JHALAW AR	Dag	OCS Area	Kolvi	Harnawa da	Gangdh ar	24.0 0976	75.82 319	HR	10 0	OUTSOU RCING	80

1	Rajas	JHALAW	Dag	OCS	Binnayag	Guradiya	Pachpa	24.0	75.87	HR	10	OUTSOU	80
5	than	AR		Area	a	Kalan	har	5638	499		0	RCING	
5	Daina	11101 010/	Dan	000	Dhabla	I/aahhaaa	Carandla	04.0	75.00	LID	10	OUTCOLL	00
1 5	Rajas than	JHALAW AR	Dag	OCS Area	Dhabla	Kachhnar a	Gangdh ar	24.0 6156	75.93 715	HR	10 0	OUTSOU RCING	80
6	ulali	AIX		Alea		a	ai	0130	/ 13			Nonvo	
1	Rajas	JHALAW	Dag	OCS	Guradiya	Vistuniya	Pachpa	24.1	75.80	HR	10	OUTSOU	80
5 7	than	AR		Area	Khurd	-	har	2199	938		0	RCING	
					0			0.1.1			40	01170011	
1	Rajas	JHALAW AR	Dag	OCS	Shekhpur	Awar	Pachpa	24.1 2199	75.87 327	HR	10	OUTSOU RCING	80
5 8	than	AK		Area	а		har	2199	321		0	RUING	
1	Rajas	JHALAW	Dag	ocs	Karawan	Karawan	Pachpa	24.1	75.82	HR	10	OUTSOU	80
5	than	AR		Area			har	807	492		0	RCING	
9													
1	Rajas	JHALAW	Jhalrap	OCS	Amliya	Mishroli	Pachpa	24.2	75.83	HR	10	OUTSOU	80
6	than	AR	atan	Area			har	4631	528		0	RCING	
1	Rajas	JHALAW	Jhalrap	OCS	Semli	Kundi	Pachpa	24.3	75.87	HR	10	OUTSOU	80
6	than	AR	atan	Area	Jassa	Khera	har	62	499		0	RCING	
1													
1	Rajas	JHALAW	Jhalrap	ocs	Bambori	Guradiya	Pachpa	24.3	75.81	HR	10	OUTSOU	80
6 2	than	AR	atan	Area		Joga	har	6372	974		0	RCING	
1	Rajas	JHALAW	Jhalrap	OCS	Gurha	Gurha	Pachpa	24.3	75.75	HR	10	OUTSOU	80
6	than	AR	atan	Area	Junia	Junia	har	6545	585	1111	0	RCING	
3													
1	Rajas	JHALAW	Jhalrap	ocs	Nayapur	Jhoomki	Jhalrap	24.4	76.10	HR	10	OUTSOU	80
6	than	AR	atan	Area	а		atan	0689	636		0	RCING	
1	Rajas	JHALAW	Jhalrap	OCS	Sooliya	Sooliya	Pachpa	24.4	75.88	HR	10	OUTSOU	80
6	than	AR	atan	Area	Jooniya	Jooniya	har	1552	881	1111	0	RCING	00
5													
1	Rajas	JHALAW	Jhalrap	ocs	Semlibak	Alawa	Pachpa	24.4	75.94	HR	10	OUTSOU	80
6	than	AR	atan	Area	ta		har	1552	061		0	RCING	
1	Poice	JHALAW	lholron	OCS	Curadiva	Curadiva	Doobno	24.4	75.77	HR	10	OUTSOU	90
6	Rajas than	AR	Jhalrap atan	Area	Guradiya Mana	Guradiya Mana	Pachpa har	207	485	пк	0	RCING	80
7	uiaii	7413	dian	71100	Iviaria	Iviaria	l liai	207	100			ROING	
1	Rajas	JHALAW	Jhalrap	OCS	Semli	Salriya	Jhalrap	24.4	76.11	HR	10	OUTSOU	80
6	than	AR	atan	Area			atan	7596	672		0	RCING	
1	Deise	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ممامطا	220	lovel	Danda	lhalran	24.4	76 17	LID	10	OUTCOLL	00
6	Rajas than	JHALAW AR	Jhalrap atan	OCS Area	Jarel	Donda	Jhalrap atan	24.4 7596	76.17 888	HR	10 0	OUTSOU RCING	80
9	uiaii	7111	dian	71100			atan	7000				1101110	
1	Rajas	JHALAW	Jhalrap	OCS	Ramniwa	Ghatod	Pachpa	24.4	75.93	HR	10	OUTSOU	80
7	than	AR	atan	Area	S		har	7768	37		0	RCING	
0	Deiter	11.10.1.01.07	II. alaaa	000	0'4	Domestics	lla alaasa	04.4	70.05		40	OUTOOLL	00
1 7	Rajas than	JHALAW AR	Jhalrap atan	OCS Area	Sitaphal	Rundlao	Jhalrap atan	24.4 7768	76.05 456	HR	10 0	OUTSOU RCING	80
1	uiaii	/ N/ X	atan	/ 11 GCI			utan	1,100	750			TONO	
1	Rajas	JHALAW	Jhalrap	ocs	Iktasa	Iktasa	Jhalrap	24.4	76.29	HR	10	OUTSOU	80
7	than	AR	atan	Area			atan '	7941	457		0	RCING	
2	<b>D</b> .	11141 4141		0.00				04.4	75.00		40	OLITO OLI	00
1	Rajas	JHALAW	Jhalrap	OCS	Naharaw	Bhilwari	Pachpa	24.4	75.99	HR	10	OUTSOU	80
7	than	AR	atan	Area	ad		har	8114	068		0	RCING	

3													
1 7 4	Rajas than	JHALAW AR	Jhalrap atan	OCS Area	Bhanwar sa	Girdharp ura	Jhalrap atan	24.5 243	76.23 068	HR	10 0	OUTSOU RCING	80
1 7 5	Rajas than	JHALAW AR	Jhalrap atan	OCS Area	Panwasa	Panwasa	Jhalrap atan	24.5 2776	76.28 939	HR	10 0	OUTSOU RCING	80
1 7 6	Rajas than	JHALAW AR	Jhalrap atan	OCS Area	Kherasi	Govindpu ra	Jhalrap atan	24.5 7783	76.22 032	HR	10 0	OUTSOU RCING	80
1 7 7	Rajas than	JHALAW AR	Manoha r Thana	OCS Area	Laxmipur a	Dangipur a	Manoha rthana	24.1 289	76.81 084	HR	10 0	OUTSOU RCING	80
1 7 8	Rajas than	JHALAW AR	Manoha r Thana	OCS Area	Khoribor	Pindola	Manoha rthana	24.1 8588	76.76 076	HR	10 0	OUTSOU RCING	80
1 7 9	Rajas than	JHALAW AR	Manoha r Thana	OCS Area	Chhittora	Semlihat	Manoha rthana	24.1 8761	76.87 472	HR	10 0	OUTSOU RCING	80
1 8 0	Rajas than	JHALAW AR	Manoha r Thana	OCS Area	Bamla Beh	Kolookhe ri	Manoha rthana	24.1 8933	76.70 378	HR	10 0	OUTSOU RCING	80
1 8 1	Rajas than	JHALAW AR	Manoha r Thana	OCS Area	Manohart hana	Manohart hana	Manoha rthana	24.2 4631	76.81 602	HR	10 0	OUTSOU RCING	80
1 8 2	Rajas than	JHALAW AR	Manoha r Thana	OCS Area	Bishan Khera	Garboliya	Manoha rthana	24.2 4977	76.75 04	HR	10 0	OUTSOU RCING	80
1 8 3	Rajas than	JHALAW AR	Manoha r Thana	OCS Area	Poonya Khera	Banskher i	Manoha rthana	24.3 0847	76.69 342	HR	10 0	OUTSOU RCING	80
1 8 4	Rajas than	JHALAW AR	Manoha r Thana	OCS Area	Hanotya	Banskher i	Manoha rthana	24.3 102	76.75 386	HR	10 0	OUTSOU RCING	80
1 8 5	Rajas than	JHALAW AR	Manoha r Thana	OCS Area	Kachnari ya	Deori Kalan	Aklera	24.3 5164	76.58 983	HR	10 0	OUTSOU RCING	80
1 8 6	Rajas than	JHALAW AR	Manoha r Thana	OCS Area	Kotra Chamar	Baneth	Manoha rthana	24.3 5854	76.81 429	HR	10 0	OUTSOU RCING	80
1 8 7	Rajas than	JHALAW AR	Manoha r Thana	OCS Area	Motipura	Lahas	Aklera	24.3 6027	76.64 853	HR	10 0	OUTSOU RCING	80
1 8 8	Rajas than	JHALAW AR	Manoha r Thana	OCS Area	Kamkher a	Kamkher a	Manoha rthana	24.3 6027	76.70 896	HR	10 0	OUTSOU RCING	80
1 8 9	Rajas than	JHALAW AR	Manoha r Thana	OCS Area	Jatawa	Jawar	Manoha rthana	24.3 6718	76.75 558	HR	10 0	OUTSOU RCING	80
1 9 0	Rajas than	JHALAW AR	Manoha r Thana	OCS Area	Aklera (M)	Aklera (M)	Aklera	24.4 1207	76.57 601	HR	10 0	OUTSOU RCING	80
1 9 1	Rajas than	JHALAW AR	Pirawa	OCS Area	Sarwar	Sar Kheri	Pirawa	24.0 7537	76.05 629	HR	10 0	OUTSOU RCING	80

1	1	Rajas	JHALAW	Pirawa	OCS	Ramay	Ramay	Pirawa	24.1	75.93	HR	10	OUTSOU	80
1		than	AR		Area	Dalpat	Dalpat		2027	025		0	RCING	
1   Rajas JHALAW   Pirawa   Area		Doigo	ILIA1 A\A/	Dirowo	000	Kalvannu	Charpur	Dirowo	24.1	76.05	ЦΒ	10	OUTSOLL	90
1				riiawa			Sileipui	riiawa		1	пк			00
1		aiaii	7 4 4		71100	""			2012	100			1101110	
1   Rajas   JHALAW   Pirawa   OCS   Makirana   Khairana   Pirawa   24.1   75.88   HR   10   OUTSOU   80   RCING   Simpol   Rajas   JHALAW   Pirawa   AR   AR   AR   AR   AR   AR   AR   A	1	Rajas		Pirawa			Naulai	Pirawa			HR	10		80
1		than	AR		Area	Khurd			7897	233		0	RCING	
9		Poice	ΙΔΑΙ Α\Α/	Dirowo	000	Lidliya	Covindou	Dirowo	24.1	75 00	ЦΒ	10	OUTSOLL	90
S				Pilawa				Pilawa			пк			00
Rajas   JHALAW   Pirawa   Area   Ar			7.11.		7 11 0 4	141011			00.				11010	
6				Pirawa		Khairana	Khairana	Pirawa			HR	10		80
Rajas		than	AR		Area				3595	456		0	RCING	
9         thán         AR         Area         arh         arh         arh         3941         982         0         RCING           1         Rajas han         JHALAW         Pirawa         OCS Area         Jheekariy a         Kali Talai         Pirawa         24.2         76.11         HR         10         OUTSOU ON RCING         80           1         Rajas         JHALAW         Pirawa         OCS Area         Sirpoi         Sirpoi         Pirawa         24.2         75.93         HR         10         OUTSOU ON RCING           2         Rajas         JHALAW         Pirawa         OCS Area         Naklang Area         Mathaniy         Pirawa         24.2         75.93         HR         10         OUTSOU ON RCING           2         Rajas         JHALAW         Pirawa         Area         Area         Area         Area         Area         Area         Area         Pirawa         24.3         76.06         HR         10         OUTSOU ON RCING         80           1         Rajas         JHALAW         Pirawa         Area         Area         Area         Pirawa         24.3         76.16         HR         10         OUTSOU ON RCING           2		Raias	ΙΗΔΙ Δ\Λ/	Pirawa	000	Himmata	Himmata	Pirawa	2/1/2	76 10	HR	10	OUTSOU	80
7				illawa			_	THAWA			1111			00
9         than 8         AR         Area a         a         9811         845         0         RCING           1         Rajas yara         JHALAW AR         Pirawa AR         OCS Area         Sirpoi         Pirawa 9984         37         HR 10         OUTSOU 80           2         Rajas JHALAW AR         Pirawa AR         OCS Area         Naklang Area         Mathaniy AR         Pirawa 24.3         76.06 76         HR 10         OUTSOU 80           1         Rajas JHALAW AR         Pirawa AR         CS Area         Kadodiya Area         Pirawa 24.3         76.06 76         HR 10         OUTSOU 80           1         Rajas JHALAW AR         Pirawa AR         Area         Area         Raghuna thpura         Pirawa 24.3         76.16 76.16 HR 10         OUTSOU 80           1         Rajas JHALAW AR         Pirawa AR         Area         Area Area         Pirawa 24.3         76.16 HR 10         OUTSOU 80           1         Rajas JHALAW AR         Pirawa AR         Area         Are	7						-							
8		- 1		Pirawa		Jheekariy	Kali Talai	Pirawa			HR			80
1	9	than	AR		Area	а			9811	845		0	RCING	
9         than         AR         Area         Area         Mathaniy         Pirawa         24.3         76.06         HR         10         OUTSOU         80           0         than         AR         Pirawa         Acea         Pirawa         24.3         76.06         HR         10         OUTSOU         80           2         Rajas         JHALAW         Pirawa         OCS         Kadodiya         Pirawa         24.3         76.04         HR         10         OUTSOU         80           2         Rajas         JHALAW         Pirawa         OCS         Raghuna thpura         Raipur thpura         24.3         76.16         HR         10         OUTSOU         80           2         Rajas         JHALAW         Pirawa         OCS         Azampur thpura         Dubaliya         Pirawa         24.3         76.16         HR         10         OUTSOU         80           2         Rajas         JHALAW         Pirawa         OCS         Azampur thpura         Dubaliya         Pirawa         24.3         76.10         HR         10         OUTSOU         80           2         Rajas         JHALAW         Pirawa         OCS         Area		Raias	.IHAI AW	Pirawa	OCS	Sirnoi	Sirnoi	Pirawa	24.2	75 93	HR	10	OUTSOU	80
9				Tilawa		Cirpoi	Olipoi	1 II awa	1		1111			
0         than         AR         Area         Area         a         0675         665         0         RCING           2         Rajas of than         JHALAW         Pirawa         OCS Area         Kadodiya         Kadodiya         Pirawa         24.3         76.04         HR         10         OUTSOU         80           2         Rajas of than         JHALAW         Pirawa         OCS Area         Raghuna thpura         Raipur Area         Pirawa         24.3         76.16         HR         10         OUTSOU OUTSOU OUTSOU OUTSOU OUTSOU         80           2         Rajas JHALAW         Pirawa Area         Area         Area         Area         Pirawa Area         24.3         76.16         HR         10         OUTSOU	9													
0         Rajas than         JHALAW AR         Pirawa Area         Kadodiya Area         Pirawa 5682         938         HR 10 OUTSOU 80 RCING         80 RCING           2         Rajas othan AR         JHALAW Pirawa Area         OCS Area thpura         Raipur Area thpura         Pirawa 24.3 76.16 B682 852         HR 10 OUTSOU 80 RCING         80 RCING           2         Rajas JHALAW AR         Pirawa Area Area Area Area         Dubaliya Pirawa Area Area         24.3 76.10 HR 10 OUTSOU 80 RCING         80 RCING           2         Rajas JHALAW AR         Pirawa Area Area         Area Area Area         Pirawa Area Area         24.4 75.99 HR 10 OUTSOU 80 RCING         80 RCING           2         Rajas JHALAW AR         Pirawa Area Area Area Area Area Area Area Are		- 1		Pirawa		Naklang	1	Pirawa	1		HR			80
2         Rajas than than than than than than than than		than	AR		Area		a		06/5	665		0	RCING	
0         than 1         AR         Area         Area         5682         938         0         RCING           2         Rajas than 0         JHALAW AR         Pirawa Area         Area thpura         Raipur Area         Pirawa 5682         852         Work 10         Work 10 <td< td=""><td></td><td>Raias</td><td>JHAI AW</td><td>Pirawa</td><td>ocs</td><td>Kadodiya</td><td>Kadodiya</td><td>Pirawa</td><td>24.3</td><td>76 04</td><td>HR</td><td>10</td><td>OUTSOU</td><td>80</td></td<>		Raias	JHAI AW	Pirawa	ocs	Kadodiya	Kadodiya	Pirawa	24.3	76 04	HR	10	OUTSOU	80
2         Rajas than         JHALAW AR         Pirawa Area         CS Raghuna thpura         Raipur thpura         Pirawa 5682         24.3 76.16 852         HR 10 OUTSOU RCING         80           2         Rajas than AR         JHALAW AR         Pirawa Area         Azampur Area         Dubaliya Pirawa 6027         24.3 76.10 HR 10 OUTSOU 80 RCING         80           2         Rajas than AR         JHALAW AR         Pirawa Area         Asias JHALAW AR         Pirawa Area         24.4 75.99 HR 10 OUTSOU 80 RCING         80           2         Rajas than AR         JHALAW AR         Pirawa Area         Asias JHALAW Area         Pirawa Area         24.4 76.05 HR 10 OUTSOU 80 RCING         80           2         Rajas than AR         JHALAW Area         Pirawa Area         Salri Kanwari Pirawa 24.4 76.05 HR 10 OUTSOU 80 RCING         80           2         Rajas than AR         JHALAW Area         Area         Area         Salri Kalyan         Pirawa 24.4 76.05 HR 10 OUTSOU 80 RCING         80           2         Rajas than AR         JHALAW Area         Area         Area         Area         Ayani HPura         Pipalda 25.4 76.40 HR 10 OUTSOU 80 RCING         80           2         Rajas than AR         KOTA Itawa Area         Area         Durjanpu ra         Pipalda 25.4 76.32 HR 10 OUTSOU 80 RCING         Area				a.ra		radourya	radodija	a.va						
0         than 2         AR         Area thpura         5682         852         0         RCING           2         Rajas than AR         JHALAW AR         Pirawa AR         OCS Azampur Area         Dubaliya Salotya         Pirawa 24.3 Firawa 6027 Pirawa 6027 Pirawa 982         76.10 HR 10 OUTSOU 80 Pirawa 6027 Pirawa 982         No RCING           2         Rajas than AR         JHALAW AR         Pirawa OCS Area         Lal Gaon Area         Pirawa 24.4 Pirawa 0862 Pirawa 138														
2         Rajas than         JHALAW AR         Pirawa AR         OCS Area         Azampur AR         Dubaliya         Pirawa 6027         24.3 76.10 HR 6027         HR 10 OUTSOU 80 RCING         80           2         Rajas than         JHALAW AR         Pirawa AR         OCS Area         Lal Gaon Area         Pirawa 24.4 75.99 HR 00 RCING         HR 10 OUTSOU 80 RCING         80           2         Rajas than AR         JHALAW AR         Pirawa Area         Kanwari         Pirawa 24.4 76.05 HR 10 OUTSOU 138 HR 111         OUTSOU 80 RCING         80           2         Rajas than AR         JHALAW AR         Pirawa Area         Salri Pirawa 24.4 76.17 HR 10 OUTSOU 138 HR 111         OUTSOU 80 RCING         80           2         Rajas than AR         JHALAW AR         Pirawa Area         Salri Pirawa 24.4 76.17 HR 10 OUTSOU 80 RCING         80           2         Rajas than AR         KOTA Itawa Area th Pura Area th Pura         Ayani Pipalda 25.4 76.40 HR 10 OUTSOU 80 RCING         80           2         Rajas than Area than Area th Pura Area Tra         Rajas ROTA Itawa Area Area Area Area         Pipalda 25.4 76.52 HR 10 OUTSOU 80 RCING         80           2         Rajas than Area than Area Area Tra         Rajas ROTA Area Area Area Area Area Area Area Are				Pirawa			Raipur	Pirawa			HR			80
2         Rajas than         JHALAW AR         Pirawa Area         Dubaliya         Pirawa 6027         24.3 76.10 6027         HR 10 982         OUTSOU 80 RCING         80           2         Rajas 0 than AR         JHALAW AR         Pirawa Area         Salotya         Pirawa 24.4 75.99 RCING         HR 10 OUTSOU 80 RCING         80           2         Rajas 1 than AR         JHALAW Pirawa Area         OCS Area         Gadara Kanwari 138 HI11 RCING         Pirawa 24.4 76.05 HR 10 OUTSOU 138 HR 111 RCING         OUTSOU 80 RCING           2         Rajas 1 than AR         Pirawa Area         Area         Semli Kalyan         Pirawa 24.4 76.17 HR 10 OUTSOU 138 HR 111 RCING         OUTSOU 80 RCING           2         Rajas 1 than AR         KOTA Itawa Area         Area Area Ith Pura         Pipalda 25.4 76.40 HR 10 OUTSOU 174 S25         OUTSOU 80 RCING           2         Rajas 1 than 8 KOTA Itawa Area Raea         Durjanpu ra 1 ra         Pipalda 25.4 76.52 RCING RCING         HR 10 OUTSOU 80 RCING         OUTSOU 80 RCING           2         Rajas 1 than 8 KOTA Itawa Raea         Area Raea Raea         Pipalda 25.4 76.52 RCING RCING RCING         HR 10 OUTSOU 80 RCING         RCING RCIN		tnan	AK		Area	tnpura			5002	852		U	RUING	
0         than 3         AR         Area         Area         6027         982         0         RCING           2         Rajas than AR         JHALAW AR         Pirawa Area         Salotya Area         Pirawa 0862         241         75.99 AR         HR 10 AR         OUTSOU 80 AR         0         RCING         80           2         Rajas AR         JHALAW AR         Pirawa AR         Area         Kanwari         Pirawa 24.4 AR         76.05 AR         HR 10 AR         OUTSOU 80 AR         80           2         Rajas AR         JHALAW Pirawa Area         OCS AREA AREA Kalyan         Salri Kalyan         Pirawa 24.4 AR         76.17 AR         HR 10 AR         OUTSOU 80 AR         80           2         Rajas AR         KOTA Itawa Area Area Area         Area Area Area Area Area Area Area Area		Raias	JHALAW	Pirawa	ocs	Azampur	Dubaliva	Pirawa	24.3	76.10	HR	10	OUTSOU	80
2         Rajas than AR         JHALAW AR         Pirawa Area         Lal Gaon Area         Pirawa Area         24.4 75.99 (862) (241) (10 0)	0	- 1					, , ,		1					
0         than 4         AR         Area         Area         0862         241         0 RCING           2         Rajas than 5         JHALAW AR         Pirawa Area         Kanwari         Pirawa 24.4 Pirawa 138 Pirawa 111         HR 10 Pirawa 10 Pirawa 111         OUTSOU RCING           2         Rajas than 6         JHALAW AR         Pirawa Area         Semli Kalyan         Pirawa 24.4 Pirawa 138														
4         Rajas of than AR         JHALAW AR         Pirawa Area         Gadara Area         Kanwari         Pirawa 24.4 Pirawa 24.4 Pirawa 1138 Pirawa 1111         Pirawa 24.4 Pirawa 1138 Pirawa 1111         Pirawa 24.4 Pirawa 1138 Pirawa 1111         Pirawa 24.4 Pirawa 1138 Pirawa 11		Rajas		Pirawa		Lal Gaon	Salotya	Pirawa	1		HR			80
2         Rajas than AR         JHALAW AR         Pirawa Area         Gadara Area         Kanwari Pirawa Area         24.4 76.05 138 111         HR 10 OUTSOU RCING         80           2         Rajas than AR         JHALAW AR Area         Pirawa Kalyan         Salri S		uian	AK		Area				0002	241		0	ROING	
0         than 5         AR         Area         Area         138         111         0         RCING           2         Rajas than 6         JHALAW AR         Pirawa Area         Semli Kalyan         Salri Pirawa Salri 138         Pirawa 24.4 76.17 138         HR 10 OUTSOU 100 RCING         80 RCING           2         Rajas than 7         KOTA         Itawa Area         Area Raghuna th Pura         Ayani Pipalda 25.4 76.40 Pipalda 25.4 76.52 Pipalda 25.4 76.52 Pipalda 25.4 Fipalda 25.5 F		Rajas	JHALAW	Pirawa	ocs	Gadara	Kanwari	Pirawa	24.4	76.05	HR	10	OUTSOU	80
2         Rajas than AR         JHALAW AR         Pirawa Area         Semli Kalyan         Pirawa Salri Ralyan         Pirawa Salri Pirawa Salri Ralyan         Pirawa Salri Pirawa Salri Ralyan         Pirawa Salri Ralyan         HR         10         OUTSOU RCING OUTSOU RC	0	than	AR		Area				138	111		0	RCING	
0         than 6         AR         Area         Kalyan         138         543         0         RCING           2         Rajas than 7         KOTA         Itawa         OCS Area         Raghuna th Pura         Pipalda         25.4 76.40 HR 10 OUTSOU RCING         No RCING           2         Rajas than 8         KOTA         Itawa         OCS Area         Durjanpu ra         Pipalda         25.4 76.52 HR 6021         HR 10 OUTSOU RCING         80 RCING           2         Rajas than 8         KOTA         Itawa         OCS Area         Mundli Ranodiya         Pipalda         25.4 76.33 HR 10 OUTSOU RCING         80 RCING           2         Rajas than 8         KOTA         Itawa         OCS Bislai         Peepalda         Pipalda         25.5 76.51 HR 10 OUTSOU 80		Б.	11101 0107	D:	000	0 1	0.1.	D:	04.4	70.47	- 10	40	OUTOOU	00
6		- 1		Pirawa		1	Sairi	Pirawa			HK			80
2Rajas thanKOTAItawaOCS AreaRaghuna th PuraAyani thanPipalda25.4 174476.40 525HR10 0 RCINGOUTSOU RCING802Rajas than 8KOTAItawaOCS AreaDurjanpu raDurjanpu raPipalda 602125.4 34976.52 349HR10 0 RCINGOUTSOU RCING802Rajas than 9KOTAItawaOCS AreaMundli AreaRanodiyaPipalda 642825.4 80876.33 808HR10 0 RCINGOUTSOU RCING2RajasKOTAItawaOCSBislaiPeepaldaPipalda25.576.51HR10OUTSOU80		ulali	ΛI		AlGa	Raiyan			130	343			NOING	
7RajasKOTAItawaOCS AreaDurjanpu raDurjanpu raPipalda ra25.4 602176.52 349HR 0 0 10 <b< td=""><td></td><td>Rajas</td><td>KOTA</td><td>Itawa</td><td>OCS</td><td>Raghuna</td><td>Ayani</td><td>Pipalda</td><td>25.4</td><td></td><td>HR</td><td>10</td><td>OUTSOU</td><td>80</td></b<>		Rajas	KOTA	Itawa	OCS	Raghuna	Ayani	Pipalda	25.4		HR	10	OUTSOU	80
2Rajas 0 1KOTA 2Itawa 1 2OCS AreaDurjanpu raPipalda raPipalda 602125.4 34976.52 349HR 0 1 10		than			Area	th Pura			1744	525		0	RCING	
0         than         Area         ra         ra         6021         349         0         RCING           2         Rajas         KOTA         Itawa         OCS         Mundli         Ranodiya         Pipalda         25.4         76.33         HR         10         OUTSOU         80           0         than         Area         Area         Peepalda         Pipalda         25.5         76.51         HR         10         OUTSOU         80		Doigo	KOT A	Itouro	000	Durianni	Duriona	Dinolda	2F 4	76 50	Пυ	10	OUTCOLL	<u> </u>
8         Rajas         KOTA         Itawa         OCS Area         Mundli Ranodiya         Pipalda         25.4 76.33 Pipalda         HR 10 OUTSOU RCING         80 RCING           9         Pipalda         25.5 76.51 Pipalda         25.5 76.51 Pipalda         10 OUTSOU RCING         80 Pipalda		- 1	NOTA	ilaWd				ripalua			ПК			00
2RajasKOTAItawaOCS AreaMundli AreaRanodiyaPipalda25.4 642876.33 808HR10 0 RCINGOUTSOU RCING2RajasKOTAItawaOCSBislaiPeepaldaPipalda25.576.51HR10OUTSOU80					00	.~	"							
9   Rajas   KOTA   Itawa   OCS   Bislai   Peepalda   Pipalda   25.5   76.51   HR   10   OUTSOU   80	2		KOTA	Itawa		Mundli	Ranodiya	Pipalda			HR			80
2 Rajas KOTA Itawa OCS Bislai Peepalda Pipalda 25.5 76.51 HR 10 OUTSOU 80		than			Area				6428	808		0	RCING	
		Raias	K∩T∆	Itawa	OCS	Rielai	Peenalda	Pinalda	25.5	76 51	HP	10	OUTSOLL	ጸበ
	1	than	NOTA	ilawa	Area	Disial	Kalan	ι ιμαιμα	2098	638	ш	0	RCING	00

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2 1 1	Rajas than	KOTA	Itawa	OCS Area	Kherli Peepalda	Khyawad a	Pipalda	25.5 2337	76.46 848	HR	10 0	OUTSOU RCING	80
2 1 2	Rajas than	KOTA	Itawa	OCS Area	Jharol	Ganeshg anj	Pipalda	25.5 2745	76.40 736	HR	10 0	OUTSOU RCING	80
2 1 3	Rajas than	KOTA	Itawa	OCS Area	Karwar	Karwad	Pipalda	25.5 8246	76.46 237	HR	10 0	OUTSOU RCING	80
2 1 4	Rajas than	KOTA	Itawa	OCS Area	Bambooli ya	Bambooli ya	Pipalda	25.5 8857	76.34 827	HR	10 0	OUTSOU RCING	80
2 1 5	Rajas than	KOTA	Itawa	OCS Area	Kareela	Jorawarp ura	Pipalda	25.6 3951	76.46 644	HR	10 0	OUTSOU RCING	80
2 1 6	Rajas than	KOTA	Itawa	OCS Area	Ganeshk hera	Talab	Pipalda	25.6 4358	76.40 532	HR	10 0	OUTSOU RCING	80
2 1 7	Rajas than	KOTA	Itawa	OCS Area	Lakhni	Jatwara	Pipalda	25.6 9452	76.46 644	HR	10 0	OUTSOU RCING	80
2 1 8	Rajas than	KOTA	Itawa	OCS Area	Shripura	Dheepri	Pipalda	25.6 9656	76.40 939	HR	10 0	OUTSOU RCING	80
2 1 9	Rajas than	KOTA	Itawa	OCS Area	Dheepri	Dheepri	Pipalda	25.7 0134	76.35 254	HR	10 0	OUTSOU RCING	80
2 2 0	Rajas than	KOTA	Itawa	OCS Area	Miyana	Nimola	Pipalda	25.7 4953	76.40 939	HR	10	OUTSOU RCING	80
2 2 1	Rajas than	KOTA	Itawa	OCS Area	Bagli	Bagli	Pipalda	25.7 5361	76.45 626	HR	10	OUTSOU RCING	80
2 2 2	Rajas than	KOTA	Itawa	OCS Area	Chhapol	Balupa	Pipalda	25.7 5768	76.50 923	HR	10	OUTSOU RCING	80
2 2 3	Rajas than	KOTA	Itawa	OCS Area	Dhanwan	Kethuda	Pipalda	25.8 0873	76.47 921	HR	10	OUTSOU RCING	80
2 2 4	Rajas than	KOTA	Itawa	OCS Area	Bagawad a	Kethuda	Pipalda	25.8 1881	76.51 331	HR	10 0	OUTSOU RCING	80
2 2 5	Rajas than	KOTA	Khairab ad	OCS Area	Gola	Aranya Kalan	Ramgan j Mandi	24.5 8615	76.05 516	HR	10 0	OUTSOU RCING	80
2 2 6	Rajas than	KOTA	Khairab ad	OCS Area	Julmi	Julmi And	Ramgan j Mandi	24.5 8891	75.99 183	HR	10 0	OUTSOU RCING	80
2 2 7	Rajas than	KOTA	Khairab ad	OCS Area	Deoli Khurd	Deoli Khurd	Ramgan j Mandi	24.5 9717	75.94 364	HR	10 0	OUTSOU RCING	80
2 2 8	Rajas than	KOTA	Khairab ad	OCS Area	Undwa	Undwa	Ramgan j Mandi	24.5 9854	75.88 444	HR	10 0	OUTSOU RCING	80

2	Rajas	KOTA	Khairab	OCS	Ramganj	Ramganj	Ramgan	24.6	75.93	HR	10	OUTSOU	80
2	than		ad	Area	Mandi	Mandi	j Mandi	5086	676		0	RCING	
9	<b>5</b> .	LOTA	171 . 1	000	<b>D</b> "			04.0	75.00		40	OUTOOLL	00
3	Rajas	KOTA	Khairab	OCS Area	Boodhan Kheri	Goyanda	Ramgan	24.6 5912	75.88 168	HR	10 0	OUTSOU RCING	80
0	than		ad	Area	Kileli		j Mandi	3912	100		U	ROING	
2	Rajas	KOTA	Khairab	ocs	Rakba	Kookra	Ramgan	24.7	76.05	HR	10	OUTSOU	80
3	than		ad	Area	Pahar	Khurd	j Mandi	0731	241		0	RCING	
1							-						
2	Rajas	KOTA	Khairab	ocs	Dhakya	Reenchh	Ramgan	24.7	75.87	HR	10	OUTSOU	80
3	than		ad	Area		ariya	j Mandi	0869	893		0	RCING	
2	Rajas	KOTA	Khairab	OCS	Fatehpur	Budhkha	Ramgan	24.7	75.94	HR	10	OUTSOU	80
3	than	NOTA	ad	Area	i ateripui	n	j Mandi	0869	089	HIX	0	RCING	00
3				7 11 00			j mana					11010	
2	Rajas	KOTA	Khairab	OCS	Hirya	Hirya	Ramgan	24.7	76.00	HR	10	OUTSOU	80
3	than		ad	Area	Kheri	Kheri	j Mandi	1006	009		0	RCING	
4							_						
2	Rajas	KOTA	Khairab	OCS	Bholoo	Barodiya	Ramgan	24.7	75.94	HR	10	OUTSOU	80
3 5	than		ad	Area		Kalan	j Mandi	6238	364		0	RCING	
2	Rajas	KOTA	Khairab	OCS	Gadari	Kookra	Ramgan	24.7	76.05	HR	10	OUTSOU	80
3	than	110171	ad	Area	Oudan	Khurd	j Mandi	6238	516	1111	0	RCING	
6							,						
2	Rajas	KOTA	Khairab	ocs	Manpura	Kookra	Ramgan	24.7	75.99	HR	10	OUTSOU	80
3	than		ad	Area		Khurd	j Mandi	6376	871		0	RCING	
7	<b>5</b> ·	LOTA	171 1	000	01 1 1	01 1 1		04.7	75.00		40	OUTOOLL	
2 3	Rajas than	KOTA	Khairab	OCS	Chechat	Chechat	Ramgan	24.7 7204	75.88 67	HR	10 0	OUTSOU RCING	80
8	แลก		ad	Area	(Ct)	(Ct)	j Mandi	1204	67		U	ROING	
2	Rajas	KOTA	Khairab	OCS	Mukunda	Pipalda	Ramgan	24.8	75.98	HR	10	OUTSOU	80
3	than		ad	Area	ra	paaa	j Mandi	1536	602		0	RCING	
9													
2	Rajas	KOTA	Khairab	ocs	Arlai	Khera	Ramgan	24.8	75.83	HR	10	OUTSOU	80
4	than		ad	Area		Rudhda	j Mandi	2296	35		0	RCING	
2	Poice	KOTA	Khairab	OCS	Hatona	Hatona	Domaon	24.8	75.88	HR	10	OUTSOU	<b>ο</b> Λ
4	Rajas than	KOTA	ad	Area	Пашна	Пашна	Ramgan j Mandi	2571	444	пк	10 0	RCING	80
1 1	uiaii		au	71100			) Warian	2071				1101110	
2	Rajas	KOTA	Ladpura	OCS	Jhamra	Bhanwari	Ladpura	24.8	75.93	HR	10	OUTSOU	80
4	than			Area		ya	-	2433	813		0	RCING	
2								212					
2	Rajas	KOTA	Ladpura	OCS	Zalimpur	Bhanwari	Ladpura	24.8	75.82	HR	10	OUTSOU	80
3	than			Area	а	ya		8223	943		0	RCING	
2	Rajas	KOTA	Ladpura	OCS	Mohan	Bhanwari	Ladpura	24.8	75.88	HR	10	OUTSOU	80
4	than		Laupara	Area	Pura	ya	Laapara	8575	037		0	RCING	
4						,							
2	Rajas	KOTA	Ladpura	ocs	Khangar	Dolya	Ladpura	24.8	75.76	HR	10	OUTSOU	80
4	than			Area	pura			9804	269		0	RCING	
5	Deiss	VOT A	l a dia . · · · -	000	Dai	Dh a	1 0 4 4 4 4 4 4	04.0	75.00	LID	40	OUTOOL	00
2 4	Rajas	KOTA	Ladpura	OCS	Rel	Bhanwari	Ladpura	24.9 3354	75.82 324	HR	10 0	OUTSOU RCING	80
6	than			Area		ya		JJJ4	324		0	NOING	
2	Rajas	KOTA	Ladpura	OCS	Mandana	Mandana	Ladpura	24.9	75.99	HR	10	OUTSOU	80
4	than		. 1	Area			1 1 2 2 2	3861	596	-	0	RCING	

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2 4 8	Rajas than	KOTA	Ladpura	OCS Area	Sabalpur a	Dolya	Ladpura	24.9 4195	75.76 796	HR	10 0	OUTSOU RCING	80
2 4 9	Rajas than	KOTA	Ladpura	OCS Area	Mandaly a	Mandaly a	Ladpura	24.9 4371	75.87 685	HR	10 0	OUTSOU RCING	80
2 5 0	Rajas than	KOTA	Ladpura	OCS Area	Rooppur a	Alaniya	Ladpura	24.9 4722	75.70 122	HR	10 0	OUTSOU RCING	80
2 5 1	Rajas than	KOTA	Ladpura	OCS Area	Tholanpu r	Borabans	Ladpura	24.9 9289	75.65 555	HR	10 0	OUTSOU RCING	80
2 5 2	Rajas than	KOTA	Ladpura	OCS Area	Pachpah ar	Kasar	Ladpura	24.9 9464	75.87 685	HR	10 0	OUTSOU RCING	80
2 5 3	Rajas than	KOTA	Ladpura	OCS Area	Akhawa	Borabans	Ladpura	24.9 9816	75.70 473	HR	10 0	OUTSOU RCING	80
2 5 4	Rajas than	KOTA	Ladpura	OCS Area	Mandana	Mandana	Ladpura	24.9 9991	75.99 453	HR	10 0	OUTSOU RCING	80
2 5 5	Rajas than	KOTA	Ladpura	OCS Area	Akhawa	Borabans	Ladpura	25.0 0342	75.76 269	HR	10 0	OUTSOU RCING	80
2 5 6	Rajas than	KOTA	Ladpura	OCS Area	Borawas	Borabans	Ladpura	25.0 5436	75.71 351	HR	10 0	OUTSOU RCING	80
2 5 7	Rajas than	KOTA	Ladpura	OCS Area	Rooparel	Mawasa	Ladpura	25.0 5436	75.93 657	HR	10 0	OUTSOU RCING	80
2 5 8	Rajas than	KOTA	Ladpura	OCS Area	Ranpur	Ranpur	Ladpura	25.0 6138	75.81 538	HR	10 0	OUTSOU RCING	80
2 5 9	Rajas than	KOTA	Ladpura	OCS Area	Bhimpura	Alaniya	Ladpura	25.0 6138	75.87 334	HR	10 0	OUTSOU RCING	80
2 6 0	Rajas than	KOTA	Ladpura	OCS Area	Barodiya	Gandi Phali	Ladpura	25.0 6138	75.99 102	HR	10 0	OUTSOU RCING	80
2 6 1	Rajas than	KOTA	Ladpura	OCS Area	Banda	Dharmpu ra	Ladpura	25.0 649	75.76 269	HR	10 0	OUTSOU RCING	80
2 6 2	Rajas than	KOTA	Ladpura	OCS Area	Daulatga nj @	Borabans	Ladpura	25.1 1408	75.76 971	HR	10 0	OUTSOU RCING	80
2 6 3	Rajas than	KOTA	Ladpura	OCS Area	Kota (M Corp.)	Kota (M Corp.)	Ladpura	25.1 1583	75.87 685	HR	10 0	OUTSOU RCING	80
2 6 4	Rajas than	KOTA	Ladpura	OCS Area	Motipura	Dhakarkh eri	Ladpura	25.1 1583	75.94 184	HR	10 0	OUTSOU RCING	80
2 6 5	Rajas than	KOTA	Ladpura	OCS Area	Anandpu ra @	Dharmpu ra	Ladpura	25.1 1759	75.82 416	HR	10 0	OUTSOU RCING	80

2 6 6	Rajas than	KOTA	Ladpura	OCS Area	Kaithoon (M)	Kaithoon (M)	Ladpura	25.1 1935	75.99 277	HR	10 0	OUTSOU RCING	80
2 6 7	Rajas than	KOTA	Ladpura	OCS Area	Shambho opura	Girdharp ura	Ladpura	25.1 7555	75.76 093	HR	10 0	OUTSOU RCING	80
2 6 8	Rajas than	KOTA	Ladpura	OCS Area	Kota (M Corp.)	Kota (M Corp.)	Ladpura	25.1 7555	75.88 037	HR	10 0	OUTSOU RCING	80
2 6 9	Rajas than	KOTA	Ladpura	OCS Area	Kethori	Morpa	Ladpura	25.1 7906	75.99 98	HR	10 0	OUTSOU RCING	80
2 7 0	Rajas than	KOTA	Ladpura	OCS Area	Kota (M Corp.)	Kota (M Corp.)	Ladpura	25.2 3516	75.80 643	HR	10 0	OUTSOU RCING	80
2 7 1	Rajas than	KOTA	Ladpura	OCS Area	Kota (M Corp.)	Kota (M Corp.)	Ladpura	25.2 4054	75.87 861	HR	10 0	OUTSOU RCING	80
2 7 2	Rajas than	KOTA	Ladpura	OCS Area	Chandre sal	Sogariya	Ladpura	25.2 4229	75.93 657	HR	10 0	OUTSOU RCING	80
2 7 3		KOTA	Ladpura	Urabn Agglo merate		Kota (M Corp.)	Ladpura	25.1 0506	75.87 565	HR	10	OUTSOU RCING	80
2 7 4		KOTA	Ladpura	Urabn Agglo merate		Kota (M Corp.)	Ladpura	25.1 0758	75.91 508	HR	10	OUTSOU RCING	80
2 7 5		KOTA	Ladpura	Urabn Agglo merate	Ranpur	Lakhawa	Ladpura	25.1 1345	75.83 623	HR	10 0	OUTSOU RCING	80
2 7 6		KOTA	Ladpura	Urabn Agglo merate		Kota (M Corp.)	Ladpura	25.1 4365	75.81 19	HR	10 0	OUTSOU RCING	80
2 7 7	Rajas than	KOTA	Ladpura	Urabn Agglo merate		Kota (M Corp.)	Ladpura	25.1 4533	75.87 314	HR	10 0	OUTSOU RCING	80
2 7 8	Rajas than	KOTA	Ladpura	Urabn Agglo merate	Dhakarkh eri	Dhakarkh eri	Ladpura	25.1 4533	75.91 004	HR	10 0	OUTSOU RCING	80
2 7 9	Rajas than	KOTA	Ladpura	Urabn Agglo merate		Kota (M Corp.)	Ladpura	25.1 47	75.84 21	HR	10 0	OUTSOU RCING	80
2 8 0	Rajas than	KOTA	Ladpura	Urabn Agglo merate		Kota (M Corp.)	Ladpura	25.1 8056	75.81 19	HR	10 0	OUTSOU RCING	80
2 8 1	Rajas than	KOTA	Ladpura	Urabn Agglo merate		Kota (M Corp.)	Ladpura	25.1 8056	75.84 545	HR	10 0	OUTSOU RCING	80
2 8 2	Rajas than	KOTA	Ladpura	Urabn Agglo merate		Kota (M Corp.)	Ladpura	25.1 814	75.87 481	HR	10 0	OUTSOU RCING	80
2 8 3	Rajas than	KOTA	Ladpura	Urabn Agglo merate	Naya Nohra	Naya Nohra	Ladpura	25.1 8224	75.91 256	HR	10 0	OUTSOU RCING	80

2	Daisa	VOTA	Ladaura	Llunha		Voto /M	Ladaura	25.2	7E 07	LID	10	OUTCOLL	00
8	Rajas	KOTA	Ladpura	Urabn		Kota (M	Ladpura	25.2 1747	75.87 481	HR	10	OUTSOU	80
	than			Agglo		Corp.)		1/4/	401		0	RCING	
4	Daisa	VOTA	Ladaura	merate		Voto /M	Ladaura	25.2	75.04	LID	10	OUTCOLL	90
2	Rajas	KOTA	Ladpura	Urabn		Kota (M	Ladpura	25.2 1831	75.84 294	HR	10	OUTSOU	80
8 5	than			Agglo		Corp.)		1031	294		0	RCING	
	D-:	LOTA	Ladama	merate		17-4- /NA	Ladama	05.0	75.00	LID	40	OUTOOU	00
2	Rajas	KOTA	Ladpura	Urabn		Kota (M	Ladpura	25.2	75.80	HR	10	OUTSOU	80
8	than			Agglo		Corp.)		1915	854		0	RCING	
6	Б.	LOTA	1 1	merate		17 ( /\)		05.0	75.04		40	OUTOOLL	00
2	Rajas	KOTA	Ladpura	Urabn		Kota (M	Ladpura	25.2	75.91	HR	10	OUTSOU	80
8	than			Agglo		Corp.)		2166	508		0	RCING	
7	Б.	LOTA	1 1	merate	D	0		05.0	75.00		40	OUTOOLL	00
2	Rajas	KOTA	Ladpura	Urabn	Rangpur	Gangayc	Ladpura	25.2	75.92	HR	10	OUTSOU	80
8	than			Agglo		ha		6025	011		0	RCING	
8				merate									
2	Rajas	KOTA	Ladpura	Urabn	Gamach	Kanan	Ladpura	25.2	75.88	HR	10	OUTSOU	80
8	than			Agglo				5606	069		0	RCING	
9			_	merate									
2	Rajas	KOTA	Sultanp	ocs	Polai	Polai	Digod	25.1	76.05	HR	10	OUTSOU	80
9	than		ur	Area	Kalan	Kalan		7028	6		0	RCING	
0													
2	Rajas	KOTA	Sultanp	ocs	Mandola	Seemaly	Digod	25.1	76.11	HR	10	OUTSOU	80
9	than		ur	Area		а		7906	045		0	RCING	
1													
2	Rajas	KOTA	Sultanp	ocs	Kheri	Amarpur	Digod	25.2	76.22	HR	10	OUTSOU	80
9	than		ur	Area	Ghata	a		3	637		0	RCING	
2													
2	Rajas	KOTA	Sultanp	ocs	Chawand	Amarpur	Digod	25.2	76.17	HR	10	OUTSOU	80
9	than		ur	Area	heri	a		3702	193		0	RCING	
3													
2	Rajas	KOTA	Sultanp	ocs	Digod	Digod	Digod	25.2	76.11	HR	10	OUTSOU	80
9	than		ur	Area				3878	572		0	RCING	
4			_										
2	Rajas	KOTA	Sultanp	ocs	Barana	Bislai	Digod	25.2	76.27	HR	10	OUTSOU	80
9	than		ur	Area				8295	696		0	RCING	
5													
2	Rajas	KOTA	Sultanp	ocs	Kotsuwa	Kotsuwa	Digod	25.2	76.06	HR	10	OUTSOU	80
9	than		ur	Area	n	n		8971	127		0	RCING	
6													
2	Rajas	KOTA	Sultanp	ocs	Morpa	Morpa	Digod	25.2	76.22	HR	10	OUTSOU	80
9	than		ur	Area				9498	637		0	RCING	
7													
2	Rajas	KOTA	Sultanp	ocs	Nimoda	Nimoda	Digod	25.2	76.10	HR	10	OUTSOU	80
9	than		ur	Area				9519	197		0	RCING	
8	<u> </u>	1/07:	0 1	000	171 "	171 ' '	D: :	05.0	70.07		40	OLITO OLI	00
2	Rajas	KOTA	Sultanp	ocs	Kherli	Khairoola	Digod	25.3	76.27	HR	10	OUTSOU	80
9	than		ur	Area	Parasra			3796	492		0	RCING	
9		1/07:	0 1/	000	m	<b>.</b>	D	05.0	70.00		40	OLITO OLI	
3	Rajas	KOTA	Sultanp	ocs	Jahange	Banethiy	Digod	25.3	76.22	HR	10	OUTSOU	80
0	than		ur	Area	erpura	а		4322	632		0	RCING	
0	<u> </u>	1/OT:	0 "	000	17' "	10 "	D: :	05.0	70.45		40	OUTOOL	
3	Rajas	KOTA	Sultanp	OCS	Kherli	Kherli	Digod	25.3	76.17	HR	10	OUTSOU	80
0	than		ur	Area	Tawran	Tawran		5018	916		0	RCING	
1	D .	I/OT*	0. "	000	D- ''	II.	D: :	05.4	70.40	1.15	40	OUTOOL	00
3	Rajas	KOTA	Sultanp	ocs	Peepalda	Jhargaon	Digod	25.4	76.16	HR	10	OUTSOU	80
0	than		ur	Area	Sand			0564	666		0	RCING	

2													
3 0 3	Rajas than	KOTA	Sultanp ur	OCS Area	Madanpu ra	Madanpu ra	Digod	25.4 6428	76.28 918	HR	10 0	OUTSOU RCING	80
3 0 4	Rajas than	KOTA	Sultanp ur	OCS Area	Durjanpu ra	Lakh Sanija	Digod	25.4 6632	76.22 398	HR	10 0	OUTSOU RCING	80
3 0 5	Rajas than	PRATAP GARH	Arnod	OCS Area	Ambeera ma	Ambeera ma	Arnod	23.5 5331	74.82 185	HR	10 0	OUTSOU RCING	80
3 0 6	Rajas than	PRATAP GARH	Arnod	OCS Area	Hameerp ura	Kangarh	Arnod	23.6 0927	74.76 445	HR	10 0	OUTSOU RCING	80
3 0 7	Rajas than	PRATAP GARH	Arnod	OCS Area	Khoontw as	Bordiya	Arnod	23.6 6379	74.89 359	HR	10 0	OUTSOU RCING	80
3 0 8	Rajas than	PRATAP GARH	Arnod	OCS Area	Sardarpu ra	Raipur	Arnod	23.6 681	74.81 611	HR	10 0	OUTSOU RCING	80
3 0 9	Rajas than	PRATAP GARH	Arnod	OCS Area	Mau Khera	Salamgar h	Arnod	23.7 2119	74.77 019	HR	10 0	OUTSOU RCING	80
3 1 0	Rajas than	PRATAP GARH	Arnod	OCS Area	Fatehgar h	Fatehgar h	Arnod	23.7 8002	74.82 185	HR	10 0	OUTSOU RCING	80
3 1 1	Rajas than	PRATAP GARH	Arnod	OCS Area	Sakhthali Khurd	Sakhthali Khurd	Arnod	23.8 3311	74.82 328	HR	10 0	OUTSOU RCING	80
3 1 2	Rajas than	PRATAP GARH	Arnod	OCS Area	Achlawa da	Achlawa da	Arnod	23.8 9481	74.75 871	HR	10 0	OUTSOU RCING	80
3 1 3	Rajas than	PRATAP GARH	Arnod	OCS Area	Mawai	Ganeshp ura	Chhoti Sadri	24.3 0231	74.65 684	HR	10 0	OUTSOU RCING	80
3 1 4	Rajas than	PRATAP GARH	Arnod	OCS Area	Ganeshp ura	Ganeshp ura	Chhoti Sadri	24.3 6114	74.65 54	HR	10 0	OUTSOU RCING	80
3 1 5	Rajas than	PRATAP GARH	Arnod	OCS Area	Karjoo	Karjoo	Chhoti Sadri	24.3 6401	74.54 492	HR	10 0	OUTSOU RCING	80
3 1 6	Rajas than	PRATAP GARH	Arnod	OCS Area	Soobi	Soobi	Chhoti Sadri	24.4 1854	74.82 615	HR	10 0	OUTSOU RCING	80
3 1 7	Rajas than	PRATAP GARH	Arnod	OCS Area	Narani	Narani	Chhoti Sadri	24.4 2141	74.77 019	HR	10 0	OUTSOU RCING	80
3 1 8	Rajas than	PRATAP GARH	Arnod	OCS Area	Basera	Basera	Chhoti Sadri	24.4 6589	74.65 827	HR	10 0	OUTSOU RCING	80
3 1 9	Rajas than	PRATAP GARH	Arnod	OCS Area	Karunda	Karunda	Chhoti Sadri	24.4 7737	74.71 71	HR	10 0	OUTSOU RCING	80
3 2 0	Rajas than	PRATAP GARH	Dhariaw ad	OCS Area	Dolpura	Lodiya	Dhariaw ad	23.9 5507	74.47 748	HR	10 0	OUTSOU RCING	80

3	Rajas	PRATAP	Dhariaw	OCS	Parsola	Parsola	Dhariaw	23.9	74.36	HR	10	OUTSOU	80
2	than	GARH	ad	Area			ad	6081	412		0	RCING	
1	<b>.</b>	DDATAD	DI :	0.00		01 .	DI .	04.0	74.05	LID	40	OLITO OLI	
3 2	Rajas	PRATAP GARH	Dhariaw	OCS	Pahara	Chari	Dhariaw	24.0 8134	74.25 651	HR	10	OUTSOU RCING	80
2	than	GARIT	ad	Area			ad	0134	001		0	ROING	
3	Rajas	PRATAP	Dhariaw	ocs	Bilka Bas	Chitoriya	Dhariaw	24.1	74.48	HR	10	OUTSOU	80
2 3	than	GARH	ad	Area		,-	ad	2726	609		0	RCING	
3	Rajas	PRATAP	Dhariaw	ocs	Pakhariy	Dataliya	Dhariaw	24.1	74.30	HR	10	OUTSOU	80
2	than	GARH	ad	Area	a Sag		ad	3156	96		0	RCING	
3	Rajas	PRATAP	Dhariaw	OCS	Pancha	Chitoriya	Dhariaw	24.1	74.42	HR	10	OUTSOU	80
2	than	GARH	ad	Area	Gurha	Cilitoriya	ad	8465	295	HIX	0	RCING	00
2 5	a ion	O,		7 0	Cama		""	0.00	200			11010	
3	Rajas	PRATAP	Dhariaw	OCS	Nagaliya	Chitoriya	Dhariaw	24.1	74.48	HR	10	OUTSOU	80
2	than	GARH	ad	Area	Khurd		ad	8896	609		0	RCING	
6	Б.	DDATAD	<b>D</b> (	000			<b>D</b> (	00.0	74.00		40	OUTOOLL	00
3	Rajas	PRATAP	Pratapg	OCS	Asawata	Asawata	Pratapg	23.9	74.89	HR	10	OUTSOU	80
7	than	GARH	arh	Area			arh	5507	503		0	RCING	
3	Rajas	PRATAP	Pratapg	OCS	Churayta	Manohar	Pratapg	23.9	74.77	HR	10	OUTSOU	80
2	than	GARH	arh	Area		garh	arh	5938	88		0	RCING	
8													
3	Rajas	PRATAP	Pratapg	ocs	Dewad	Ghotarsi	Pratapg	24.0	74.89	HR	10	OUTSOU	80
2	than	GARH	arh	Area			arh	0673	216		0	RCING	
9	Doigo	DDATAD	Drotona	OCS	Dorodiyo	Doore	Drotona	24.0	74.05	ЦD	10	OUTSOU	00
3	Rajas than	PRATAP GARH	Pratapg arh	Area	Barodiya	Basera	Pratapg arh	24.0 0673	74.95 529	HR	10 0	RCING	80
0	ulali	OAITI	ani	Alea			am	0073	323			Nonvo	
3	Rajas	PRATAP	Pratapg	ocs	Devgarh	Devgarh	Pratapg	24.0	74.64	HR	10	OUTSOU	80
3	than	GARH	arh	Area			arh	2108	679		0	RCING	
1													
3	Rajas	PRATAP	Pratapg	ocs	Dabra	Dabra	Pratapg	24.0	74.88	HR	10	OUTSOU	80
3 2	than	GARH	arh	Area			arh	6556	642		0	RCING	
3	Rajas	PRATAP	Pratapg	OCS	Angora	Luhariya	Pratapg	24.0	74.71	HR	10	OUTSOU	80
3	than	GARH	arh	Area	7 tingora	Lananya	arh	6699	71	1111	0	RCING	
3													
3	Rajas	PRATAP	Pratapg	ocs	Sakariya	Barmand	Pratapg	24.0	74.82	HR	10	OUTSOU	80
3	than	GARH	arh	Area		al	arh	6986	328		0	RCING	
3	Poice	PRATAP	Pratapg	OCS	Phoolda	Devgarh	Pratapg	24.0	74.64	HR	10	OUTSOU	80
3	Rajas than	GARH	arh	Area	Priodida	Devgam	arh	713	679	пк	0	RCING	00
5	aiaii	0, 11 11 1	diri	71100			airi	' '	0.0			1101110	
3	Rajas	PRATAP	Pratapg	ocs	Mahoori	Dhamota	Pratapg	24.1	74.71	HR	10	OUTSOU	80
3	than	GARH	arh	Area	Khera	r	arh	2439	567		0	RCING	
6	<u> </u>	DD + = : =		0.00			<u> </u>	0.4.	7155		4.5	0112000	
3	Rajas	PRATAP	Pratapg	OCS	Anoppur	Gyaspur	Pratapg	24.1	74.59 944	HR	10	OUTSOU	80
3 7	than	GARH	arh	Area	а		arh	2726	944		0	RCING	
3	Rajas	PRATAP	Pratapg	OCS	Peeloo	Peeloo	Pratapg	24.1	74.88	HR	10	OUTSOU	80
3	than	GARH	arh	Area	. 55.55	. 55.55	arh	2869	068		0	RCING	
8													
3	Rajas	PRATAP	Pratapg	ocs	Panmodi	Panmori	Pratapg	24.1	74.82	HR	10	OUTSOU	80
3	than	GARH	arh	Area			arh	3156	328		0	RCING	

9													
3 4 0	Rajas than	PRATAP GARH	Pratapg arh	OCS Area	Lalpura Peepal	Thara	Pratapg arh	24.1 8322	74.87 781	HR	10 0	OUTSOU RCING	80
3 4 1	Rajas than	PRATAP GARH	Pratapg arh	OCS Area	Reechari pal	Pal	Pratapg arh	24.1 8609	74.59 514	HR	10 0	OUTSOU RCING	80
3 4 2	Rajas than	PRATAP GARH	Pratapg arh	OCS Area	Hanuma n	Bara Varda	Pratapg arh	24.1 8752	74.70 993	HR	10 0	OUTSOU RCING	80
3 4 3	Rajas than	PRATAP GARH	Pratapg arh	OCS Area	Reechari pal	Pal	Pratapg arh	24.1 8896	74.54 348	HR	10 0	OUTSOU RCING	80
3 4 4	Rajas than	PRATAP GARH	Pratapg arh	OCS Area	Daikaniy a	Meriya Kheri	Pratapg arh	24.1 8896	74.76 732	HR	10 0	OUTSOU RCING	80
3 4 5	Rajas than	PRATAP GARH	Pratapg arh	OCS Area	Jhantla	Khoriya	Pratapg arh	24.2 32	74.83 189	HR	10 0	OUTSOU RCING	80
3 4 6	Rajas than	PRATAP GARH	Pratapg arh	OCS Area	Reechari pal	Pal	Pratapg arh	24.2 3918	74.59 514	HR	10 0	OUTSOU RCING	80
3 4 7	Rajas than	SIKAR	Khandel a	OCS Area	Jharli	Jharli	Sri Madhop ur	27.5 1111	75.76 752	HR	10 0	OUTSOU RCING	80
3 4 8	Rajas than	SIKAR	Khandel a	OCS Area	Jairampu ra	Bassi	Sri Madhop ur	27.5 1303	75.59 518	HR	10 0	OUTSOU RCING	80
3 4 9	Rajas than	SIKAR	Khandel a	OCS Area	Mahron Ki Dhani (Rural)	Khandela	Sri Madhop ur	27.5 6751	75.53 463	HR	10 0	OUTSOU RCING	80
3 5 0	Rajas than	UDAIPUR	Sarada	OCS Area	Adwas	Adwas	Sarada	24.2 998	73.89 259	HR	10 0	OUTSOU RCING	130
3 5 1	Rajas than	SIKAR	Khandel a	OCS Area	Saledipur a	Kerpura	Sri Madhop ur	27.6 2391	75.54 191	HR	15 0	OUTSOU RCING	80
3 5 2	Rajas than	SIKAR	Khandel a	OCS Area	Bhaira With	Kotri Luharwa s	Sri Madhop ur	27.6 7155	75.51 81	HR	15 0	OUTSOU RCING	80
3 5 3	Rajas than	AJMER	Arain	OCS Area	Sarwar (M)	Sarwar (M)	Sarwar	26.0 5635	75.00 96	HR	15 0	OUTSOU RCING	130
3 5 4	Rajas than	AJMER	Arain	OCS Area	Hingoniy an	Hingoniy an	Sarwar	26.0 9968	75.12 033	HR	15 0	OUTSOU RCING	130
3 5 5	Rajas than	AJMER	Arain	OCS Area	Jatipura	Syar	Sarwar	26.1 0972	75.06 94	HR	15 0	OUTSOU RCING	130
3 5 6	Rajas than	AJMER	Arain	OCS Area	Indrapura	Kheeriya	Sarwar	26.1 1356	75.00 531	HR	15 0	OUTSOU RCING	130
3 5 7	Rajas than	AJMER	Arain	OCS Area	Borada	Borada	Sarwar	26.2 2637	75.05 786	HR	15 0	OUTSOU RCING	130

3	Rajas	AJMER	Arain	OCS	Gothiyan	Gothiyan	Kishang	26.2	75.00	HR	15	OUTSOU	130
5	than			Area	a	a	arh	8423	8		0	RCING	
3	Doige	AJMER	Aroin	OCS	Kasheer	Kasheer	Sarwar	26.2	75.06	HR	15	OUTSOU	130
5	Rajas than	AJIVIER	Arain	Area	Nasileei	Nasileei	Saiwai	8423	73.00	пк	0	RCING	130
9	uidii			71100				0120	101			1101110	
3	Rajas	AJMER	Arain	ocs	Dhasook	Dhasook	Kishang	26.3	75.11	HR	15	OUTSOU	130
6	than			Area			arh	3879	391		0	RCING	
3	Poice	AJMER	Arain	OCS	Ankauriy	Ankauriy	Kishang	26.3	75.00	HR	15	OUTSOU	130
6	Rajas than	AJIVIER	Alalli	Area	a	a	arh	4039	639	пк	0	RCING	130
1				7 11 0 4	_ ~		G	.000				110.110	
3	Rajas	AJMER	Arain	ocs	Lamba	Lamba	Kishang	26.3	75.00	HR	15	OUTSOU	130
6	than			Area			arh	9617	429		0	RCING	
3	Rajas	AJMER	Arain	OCS	Gopalpur	Mandaw	Kishang	26.3	74.94	HR	15	OUTSOU	130
6	than	AUMEN	Alain	Area	a	ariya	arh	9656	862	1111	0	RCING	150
3													
3	Rajas	AJMER	Arain	ocs	Sandoliy	Sandoliy	Kishang	26.3	75.06	HR	15	OUTSOU	130
6	than			Area	а	а	arh	9941	043		0	RCING	
3	Rajas	AJMER	Arain	OCS	Bhambho	Bhambho	Kishang	26.4	75.13	HR	15	OUTSOU	130
6	than	NOMER	7 (1 (1)	Area	lao	lao	arh	5915	477	1111	0	RCING	100
5													
3	Rajas	AJMER	Arain	ocs	Deopuri	Deopuri	Kishang	26.4	74.94	HR	15	OUTSOU	130
6	than			Area			arh	6075	862		0	RCING	
3	Rajas	AJMER	Arain	OCS	Bhogade	Bhogade	Kishang	26.5	75.06	HR	15	OUTSOU	130
6	than	, tomer	7	Area	et	et	arh	1371	256		0	RCING	100
7													
3	Rajas	AJMER	Bhinay	OCS	Kerot	Kerot	Bhinay	25.8 8212	74.93 984	HR	15	OUTSOU	130
6 8	than			Area				0212	904		0	RCING	
3	Rajas	AJMER	Bhinay	ocs	Jetpura	Kerot	Bhinay	25.9	74.95	HR	15	OUTSOU	130
6	than			Area				2933	701		0	RCING	
9	Deiter	A IMED	Distance	000	D - all	D - di	Distance	05.0	74.74	- 10	45	OUTOOLL	400
3 7	Rajas than	AJMER	Bhinay	OCS Area	Barli	Barli	Bhinay	25.9 392	74.71 272	HR	15 0	OUTSOU RCING	130
0	ulali			AlGa				332	212			NOING	
3	Rajas	AJMER	Bhinay	OCS	Neemera	Lamgara	Bhinay	25.9	74.77	HR	15	OUTSOU	130
7	than			Area	(Barli)			6488	37		0	RCING	
3	Poice	AJMER	Bhinay	OCS	Boobkiya	Boobkiya	Bhinay	26.0	74.83	HR	15	OUTSOU	130
7	Rajas than	AJIVIER	Dilliay	Area	DOODKIYA	DOUDKIya	Dilliay	5956	147	пк	0	RCING	130
2													
3	Rajas	AJMER	Bhinay	ocs	Goyla	Goyla	Sarwar	26.1	74.94	HR	15	OUTSOU	130
7	than			Area				1613	378		0	RCING	
3	Rajas	AJMER	Bhinay	OCS	Keetap	Kumhariy	Bhinay	26.1	74.77	HR	15	OUTSOU	130
7	than	, WINIT!	- Similary	Area	ιτοσιαρ	a	- Dimidy	6387	531		0	RCING	100
4													
3	Rajas	AJMER	Bhinay	ocs	Sarana	Sarana	Sarwar	26.1	74.89	HR	15	OUTSOU	130
7 5	than			Area				6581	159		0	RCING	
3	Rajas	AJMER	Bhinay	OCS	Ahera	Bhagwan	Sarwar	26.2	74.94	HR	15	OUTSOU	130
7	than			Area		tpura		1683	702		0	RCING	

6													
3 7 7	Rajas than	AJMER	Jawaja	OCS Area	Sarmaliy a	Sarmaliy a	Beawar	26.1 5997	74.35 11	HR	15 0	OUTSOU RCING	130
3 7 8	Rajas than	AJMER	Kekri	OCS Area	Kadera	Kadera	Kekri	25.8 1403	75.06 256	HR	15 0	OUTSOU RCING	130
3 7 9	Rajas than	AJMER	Kekri	OCS Area	Tankawa s	Tankawa s	Kekri	25.8 1885	75.23 587	HR	15 0	OUTSOU RCING	130
3 8 0	Rajas than	AJMER	Kekri	OCS Area	Kachariy a	Bheemra was	Kekri	25.8 5897	75.06 256	HR	15 0	OUTSOU RCING	130
3 8 1	Rajas than	AJMER	Kekri	OCS Area	Khawas	Khawas	Kekri	25.8 5897	75.12 033	HR	15 0	OUTSOU RCING	130
3 8 2	Rajas than	AJMER	Kekri	OCS Area	Kekri (M)	Kekri (M)	Kekri	25.9 9216	75.12 033	HR	15 0	OUTSOU RCING	130
3 8 3	Rajas than	AJMER	Kekri	OCS Area	Chak Jooniya	Lasadiya	Kekri	26.0 4993	75.24 229	HR	15 0	OUTSOU RCING	130
3 8 4	Rajas than	AJMER	Kekri	OCS Area	Kabariya	Baghera	Kekri	26.0 5314	75.29 685	HR	15 0	OUTSOU RCING	130
3 8 5	Rajas than	AJMER	Kekri	OCS Area	Jal Ka Khera	Jooniya	Kekri	26.0 5635	75.18 452	HR	15 0	OUTSOU RCING	130
3 8 6	Rajas than	AJMER	Kekri	OCS Area	Deogaon	Deogaon	Kekri	26.1 0289	75.29 364	HR	15 0	OUTSOU RCING	130
3 8 7	Rajas than	AJMER	Kekri	OCS Area	Ambapur a	Jooniya	Kekri	26.1 061	75.18 773	HR	15 0	OUTSOU RCING	130
3 8 8	Rajas than	AJMER	Kishang arh	OCS Area	Bhunwad a	Tikawara	Kishang arh	26.4 5754	74.89 085	HR	15 0	OUTSOU RCING	130
3 8 9	Rajas than	AJMER	Kishang arh	OCS Area	Udaipur Khurd	Silora	Kishang arh	26.5 2173	74.88 443	HR	15 0	OUTSOU RCING	130
3 9 0	Rajas than	AJMER	Kishang arh	OCS Area	Kishanga rh (M)	Kishanga rh (M)	Kishang arh	26.5 7308	74.89 406	HR	15 0	OUTSOU RCING	130
3 9 1	Rajas than	AJMER	Kishang arh	OCS Area	Bandar Seendri	Bandar Seendri	Kishang arh	26.5 7629	75.06 095	HR	15 0	OUTSOU RCING	130
3 9 2	Rajas than	AJMER	Kishang arh	OCS Area	Sar Gaon	Sar Gaon	Kishang arh	26.5 779	74.94 381	HR	15 0	OUTSOU RCING	130
3 9 3	Rajas than	AJMER	Kishang arh	OCS Area	Tokra	Khatoli	Kishang arh	26.6 3086	74.88 764	HR	15 0	OUTSOU RCING	130
3 9 4	Rajas than	AJMER	Kishang arh	OCS Area	Harmara	Harmara	Kishang arh	26.6 9184	74.89 085	HR	15 0	OUTSOU RCING	130

3	Rajas	AJMER	Kishang	OCS	Karkeri	Karkeri	Kishang	26.7	74.71	HR	15	OUTSOU	130
9	than		arh	Area			arh	4319	753		0	RCING	
5	Doige	AJMER	Kishang	OCS	Domaarh	Nawa	Kichona	26.7	74.76	HR	15	OUTSOU	130
9	Rajas than	AJIVIEK	arh	Area	Ramgarh	INawa	Kishang arh	4479	407	ПК	0	RCING	130
6	a ion			7 11 00			G	•				110.110	
3	Rajas	AJMER	Kishang	ocs	Joonda	Tyod	Kishang	26.7	74.90	HR	15	OUTSOU	130
9 7	than		arh	Area			arh	9294	69		0	RCING	
3	Poice	AJMER	Kishang	OCS	Khainura	laiota	Kichona	26.8	74.82	HR	15	OUTSOU	130
9	Rajas than	AJIVIER	arh	Area	Khajpura Bhairwai	Jajota	Kishang arh	6034	666	пк	0	RCING	130
8	a ion			7 11 00	Diran iran		G	000 !				110.110	
3	Rajas	AJMER	Kishang	ocs	Bhadoon	Bhadoon	Kishang	26.8	74.94	HR	15	OUTSOU	130
9	than		arh	Area			arh	6836	06		0	RCING	
9	Rajas	AJMER	Kishang	OCS	Nosal	Nosal	Kishang	26.9	74.88	HR	15	OUTSOU	130
0	than	AJIVILIX	arh	Area	เพอสเ	เพอสเ	arh	2774	924	1111	0	RCING	130
0													
4	Rajas	AJMER	Masuda	ocs	Kanpura	Begaliya	Masuda	26.1	74.59	HR	15	OUTSOU	130
0	than			Area		was		1119	5		0	RCING	
4	Rajas	AJMER	Masuda	OCS	Masooda	Masooda	Masuda	26.1	74.53	HR	15	OUTSOU	130
0	than	/ WILLY	IVIdouda	Area	Masooda	Wasooda	IVIasada	1467	228	1111	0	RCING	100
2													
4	Rajas	AJMER	Masuda	ocs	Chawadi	Satawari	Masuda	26.1	74.65	HR	15	OUTSOU	130
0	than			Area	ya	ya		6868	772		0	RCING	
3	Rajas	AJMER	Masuda	OCS	Daulatpu	Jamola	Masuda	26.1	74.59	HR	15	OUTSOU	130
0	than	/ WILLY	Madada	Area	ra	Jamola	Madada	7216	849	1111	0	RCING	100
4													
4	Rajas	AJMER	Masuda	ocs	Kharwa	Kharwa	Masuda	26.1	74.42	HR	15	OUTSOU	130
0 5	than			Area				7913	253		0	RCING	
4	Rajas	AJMER	Srinaga	OCS	Samprod	Samprod	Nasirab	26.3	74.95	HR	15	OUTSOU	130
0	than	, <u>-</u>	r	Area	a	a	ad	3558	504		0	RCING	
6													
4	Rajas	RAJSAM	Pratapg	OCS	Gadrola	Beekawa	Amet	25.2	73.89	HR	15	OUTSOU	130
0 7	than	AND	arh	Area		S		9037	921		0	RCING	
4	Rajas	RAJSAM	Amet	OCS	Degana	Gowal	Amet	25.3	73.86	HR	15	OUTSOU	130
0	than	AND		Area				534	912		0	RCING	
8		5.10.11	5		5						4-	01170011	400
0	Rajas than	RAJSAM AND	Bhim	OCS Area	Dabjar	Baghana	Bhim	25.5 1744	73.83 408	HR	15 0	OUTSOU RCING	130
9	ulali	AND		Alea				1744	400		0	KUING	
4	Rajas	RAJSAM	Bhim	OCS	Teebana	Togi	Bhim	25.7	74.12	HR	15	OUTSOU	130
1	than	AND		Area				7171	704		0	RCING	
0	Deiss	DAICANA	Degran	000	I/ada	I/ada	Decre	OF 4	74.00	HD	15	OUTCOLL	420
4	Rajas than	RAJSAM AND	Deogar h	OCS Area	Kundwa	Kundwa	Deogar h	25.4 6111	74.00 835	HR	15 0	OUTSOU RCING	130
1	ululi	, ((1))	"	, 11 CG			''	0111	300			1.01140	
4	Rajas	RAJSAM	Deogar	ocs	Lasani	Lasani	Deogar	25.5	74.00	HR	15	OUTSOU	130
1	than	AND	h	Area			h	8433	131		0	RCING	
2	Doice	DAICAM	Khoma	000	Corcunit	Total	Nothday	24.0	72 72	Пυ	15	OUTCOLL	120
4	Rajas than	RAJSAM AND	Khamn or	OCS Area	Sarsuniy a	Tatol	Nathdw ara	24.9 2951	73.73 023	HR	15 0	OUTSOU RCING	130
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3													
4 1 4	Rajas than	RAJSAM AND	Khamn or	OCS Area	Ulpura Nadwala	Baman Hera	Nathdw ara	24.9 7622	73.88 584	HR	15 0	OUTSOU RCING	130
4 1 5	Rajas than	RAJSAM AND	Kumbh algarh	OCS Area	Manchra	Peepla	Kumbha Igarh	24.9 6723	73.60 42	HR	15 0	OUTSOU RCING	130
4 1 6	Rajas than	RAJSAM AND	Kumbh algarh	OCS Area	Antri	Antri	Kumbha Igarh	25.0 3165	73.53 379	HR	15 0	OUTSOU RCING	130
4 1 7	Rajas than	RAJSAM AND	Kumbh algarh	OCS Area	Taladari	Taladari	Kumbha Igarh	25.0 4745	73.61 933	HR	15 0	OUTSOU RCING	130
4 1 8	Rajas than	RAJSAM AND	Kumbh algarh	OCS Area	Kalthana	Bardara	Kumbha Igarh	25.1 0505	73.51 731	HR	15 0	OUTSOU RCING	130
4 1 9	Rajas than	RAJSAM AND	Kumbh algarh	OCS Area	Majhera	Majhera	Kumbha Igarh	25.1 7771	73.65 278	HR	15 0	OUTSOU RCING	130
4 2 0	Rajas than	RAJSAM AND	Kumbh algarh	OCS Area	Umarwas	Umarwas	Kumbha Igarh	25.3 5374	73.74 802	HR	15 0	OUTSOU RCING	130
4 2 1	Rajas than	RAJSAM AND	Railmag ra	OCS Area	Sansera	Sansera	Railmag ra	24.9 4326	74.02 966	HR	15 0	OUTSOU RCING	130
4 2 2	Rajas than	RAJSAM AND	Railmag ra	OCS Area	Sindesar khurd	Rajpura	Railmag ra	25.0 0318	74.14 052	HR	15 0	OUTSOU RCING	130
4 2 3	Rajas than	RAJSAM AND	Railmag ra	OCS Area	Gilund	Gilund	Railmag ra	25.0 1666	74.26 336	HR	15 0	OUTSOU RCING	130
4 2 4	Rajas than	SIROHI	Abu Road	OCS Area	Taleti	Jamboori	Abu Road	24.3 5832	72.90 915	HR	15 0	OUTSOU RCING	130
4 2 5	Rajas than	SIROHI	Abu Road	OCS Area	Bosa	Jamboori	Abu Road	24.3 6797	72.95 27	HR	15 0	OUTSOU RCING	130
4 2 6	Rajas than	SIROHI	Abu Road	OCS Area	Soorpagl a	Soorpagl a	Abu Road	24.3 7581	72.74 266	HR	15 0	OUTSOU RCING	130
4 2 7	Rajas than	SIROHI	Abu Road	OCS Area	Soorpagl a	Soorpagl a	Abu Road	24.4 1574	72.78 133	HR	15 0	OUTSOU RCING	130
4 2 8	Rajas than	SIROHI	Abu Road	OCS Area	Uplagarh	Upalgarh	Abu Road	24.4 1759	72.85 172	HR	15 0	OUTSOU RCING	130
4 2 9	Rajas than	SIROHI	Abu Road	OCS Area	Upli Bor	Upalgarh	Abu Road	24.4 1759	72.90 545	HR	15 0	OUTSOU RCING	130
4 3 0	Rajas than	SIROHI	Abu Road	OCS Area	Bhamriya	Upal Khejra	Abu Road	24.4 2127	72.95 113	HR	15 0	OUTSOU RCING	130
4 3 1	Rajas than	SIROHI	Abu Road	OCS Area	Nichla Khejra	Paba	Abu Road	24.4 7502	72.90 73	HR	15 0	OUTSOU RCING	130

4	Rajas	SIROHI	Abu	OCS	Paba	Paba	Abu	24.4	72.96	HR	15	OUTSOU	130
3	than		Road	Area			Road	7613	994		0	RCING	
2													
4	Rajas	SIROHI	Abu	ocs	Bori Booj	Dovtra	Abu	24.5	72.96	HR	15	OUTSOU	130
3	than		Road	Area			Road	2504	843		0	RCING	
3	Poice	SIROHI	Abu	OCS	Chandela	Chandela	Abu	24.5	72.67	HR	15	OUTSOU	130
3	Rajas than	SIKUHI	Road	Area	Crianueia	Chandela	Road	343	203	пк	0	RCING	130
4	ulali		Noau	Alea			Noau	040	200			Nonvo	
4	Rajas	SIROHI	Abu	ocs	Block	Chandela	Abu	24.5	72.73	HR	15	OUTSOU	130
3	than		Road	Area	No.1		Road	3713	287		0	RCING	
5													
4	Rajas	SIROHI	Abu	ocs	Block No.	Oriya	Abu	24.5	72.67	HR	15	OUTSOU	130
3	than		Road	Area	3		Road	8432	944		0	RCING	
6	<b>D</b> :	OID OI II		000	DI LAI	0 :		04.0	70.70	LID	45	OUTOOLL	400
4	Rajas	SIROHI	Abu	OCS	Block No.	Oriya	Abu	24.6	72.73	HR	15	OUTSOU	130
3 7	than		Road	Area	3		Road	436	502		0	RCING	
4	Rajas	SIROHI	Abu	OCS	Jawai	Oriya	Abu	24.6	72.79	HR	15	OUTSOU	130
3	than	Oll COLL	Road	Area	Jawai	Onya	Road	4915	059	1111	0	RCING	100
8				7 • •									
4	Rajas	SIROHI	Pindwar	OCS	Block No.	Achpura	Pindwar	24.5	72.74	HR	15	OUTSOU	130
3	than		a	Area	2	-	а	8647	402		0	RCING	
9						-							
4	Rajas	SIROHI	Pindwar	ocs	Semli	Sanwara	Pindwar	24.5	73.02	HR	15	OUTSOU	130
4	than		a	Area			а	9729	586		0	RCING	
0	Deigo	CIDOLII	Dinducar	OCS	Malariya	Malarius	Dindusar	24.6	73.06	HR	15	OUTSOU	120
4 4	Rajas than	SIROHI	Pindwar a	Area	Waloriya	Waloriya	Pindwar a	4697	558	пк	0	RCING	130
1	ulali		a	Alea			_ a	4037	330			Nonvo	
4	Rajas	SIROHI	Pindwar	ocs	Waloriya	Waloriya	Pindwar	24.6	73.02	HR	15	OUTSOU	130
4	than		a	Area	,	,	а	4915	586		0	RCING	
2													
4	Rajas	SIROHI	Pindwar	ocs	Pahar	Moras	Pindwar	24.7	73.14	HR	15	OUTSOU	130
4	than		a	Area	Kalan		а	5984	079		0	RCING	
3	Deine	CIDOLII	Diadora	000	Davia	Cirrana	Dinaluran	04.0	72.04	LID	4.5	OUTCOLL	120
	Rajas than	SIROHI	Pindwar	OCS	Darla Padar	Siwera	Pindwar	24.8 8053	73.01 697	HR	15 0	OUTSOU RCING	130
4 4	ulali		а	Area	Fauai		a	0033	091		0	KOING	
4	Rajas	SIROHI	Reodar	OCS	Methipur	Padar	Reodar	24.4	72.47	HR	15	OUTSOU	130
4	than		223.	Area	a		223.	3206	976		0	RCING	
5													
4	Rajas	SIROHI	Reodar	ocs	Sorda	Sorda	Reodar	24.5	72.37	HR	15	OUTSOU	130
4	than			Area				8617	934		0	RCING	
6	Deia	OID O' ''	Desid	000	Dele	D-I-	Desid	04.0	70.00	LID	45	OUTOOL	400
4	Rajas	SIROHI	Reodar	OCS	Rohua	Rohua	Reodar	24.6 473	72.38 675	HR	15 0	OUTSOU RCING	130
7	than			Area				413	0/3		0	KOING	
4	Rajas	SIROHI	Reodar	OCS	Rohua	Rohua	Reodar	24.6	72.44	HR	15	OUTSOU	130
4	than	J., (O) II	1.00001	Area	1.0/100	1.07144		473	233	`	0	RCING	.50
8				-									
4	Rajas	SIROHI	Reodar	ocs	Wadwaj	Raipur	Reodar	24.7	72.39	HR	15	OUTSOU	130
4	than			Area				52	312		0	RCING	
9	D .	0150: "	01	000	   D	<b>D</b>	01	04.0	70.00		45	OUTOO	400
4	Rajas	SIROHI	Sheoga	OCS	Baravera	Palri	Sheoga	24.9	72.96	HR	15	OUTSOU	130
5	than		nj	Area			nj	3629	102		0	RCING	

0													
4 5 1	Rajas than	SIROHI	Sheoga nj	OCS Area	Chhiba Gaon	Chhiba Gaon	Sheoga nj	24.9 9339	72.96 054	HR	15 0	OUTSOU RCING	130
4 5 2	Rajas than	SIROHI	Sheoga nj	OCS Area	Madani	Oda	Sheoga nj	25.0 567	72.78 689	HR	15 0	OUTSOU RCING	130
4 5 3	Rajas than	SIROHI	Sheoga nj	OCS Area	Naradara	Naradara	Sheoga nj	25.0 5855	72.73 502	HR	15 0	OUTSOU RCING	130
4 5 4	Rajas than	SIROHI	Sheoga nj	OCS Area	Nawa Bas	Dhuwana	Sheoga nj	25.0 5927	73.08 31	HR	15 0	OUTSOU RCING	130
4 5 5	Rajas than	SIROHI	Sheoga nj	OCS Area	Van	Van	Sheoga nj	25.0 6041	72.83 69	HR	15 0	OUTSOU RCING	130
4 5 6	Rajas than	SIROHI	Sheoga nj	OCS Area	Jogapura	Jogapura	Sheoga nj	25.1 1968	72.90 359	HR	15 0	OUTSOU RCING	130
4 5 7	Rajas than	SIROHI	Sheoga nj	OCS Area	Gola	Alpa	Sheoga nj	25.1 723	72.91 594	HR	15 0	OUTSOU RCING	130
4 5 8	Rajas than	SIROHI	Sheoga nj	OCS Area	Lotiwara Chhota	Naradara	Sheoga nj	25.1 8082	72.78 318	HR	15 0	OUTSOU RCING	130
4 5 9	Rajas than	SIROHI	Sirohi	OCS Area	Roda Khera	Sildar	Sirohi	24.7 6318	72.50 841	HR	15 0	OUTSOU RCING	130
4 6 0	Rajas than	SIROHI	Sirohi	OCS Area	Sirohi (Rural)	Sirohi (M)	Sirohi	24.8 194	72.89 941	HR	15 0	OUTSOU RCING	130
4 6 1	Rajas than	SIROHI	Sirohi	OCS Area	Mermand wara	Mer Mandwar a	Sirohi	24.8 2208	72.54 98	HR	15 0	OUTSOU RCING	130
4 6 2	Rajas than	SIROHI	Sirohi	OCS Area	Kooma	Sanpur	Sirohi	24.8 3163	72.67 238	HR	15 0	OUTSOU RCING	130
4 6 3	Rajas than	SIROHI	Sirohi	OCS Area	Dodua	Dodua	Sirohi	24.8 8416	72.73 128	HR	15 0	OUTSOU RCING	130
4 6 4	Rajas than	SIROHI	Sirohi	OCS Area	Kalandri	Kalandri	Sirohi	24.8 8812	72.68 315	HR	15 0	OUTSOU RCING	130
4 6 5	Rajas than	SIROHI	Sirohi	OCS Area	Kalandri	Kalandri	Sirohi	24.9 3814	72.71 834	HR	15 0	OUTSOU RCING	130
4 6 6	Rajas than	TONK	Deoli	OCS Area	Sujanpur a	Rajkot	Deoli	25.7 0962	75.57 217	HR	15 0	OUTSOU RCING	130
4 6 7	Rajas than	TONK	Deoli	OCS Area	Sardarpu ra	Sitapura	Deoli	25.7 614	75.58 454	HR	15 0	OUTSOU RCING	130
4 6 8	Rajas than	TONK	Deoli	OCS Area	Sanwatg arh	Sanwatg arh	Deoli	25.7 6454	75.45 826	HR	15 0	OUTSOU RCING	130

4 6	Rajas than	TONK	Deoli	OCS Area	Dheekla	Sitapura	Deoli	25.7 6654	75.65 475	HR	15 0	OUTSOU RCING	130
9	uiaii												
4	Rajas	TONK	Deoli	OCS	Baroli	Baroli	Deoli	25.7	75.70	HR	15	OUTSOU	130
7 0	than			Area				6654	954		0	RCING	
4	Rajas	TONK	Deoli	ocs	Indrapura	Indrapura	Deoli	25.8	75.35	HR	15	OUTSOU	130
7	than			Area				1449	337		0	RCING	
4	Rajas	TONK	Deoli	OCS	Nayagao	Chandsin	Deoli	25.8	75.58	HR	15	OUTSOU	130
7	than	TONK	Deoii	Area	n	ghpura	Deon	1791	625	1111	0	RCING	130
2													
7	Rajas than	TONK	Deoli	OCS Area	Kalanara	Gaonri	Deoli	25.8 1996	75.40 821	HR	15 0	OUTSOU RCING	130
3	lilaii			Alea				1990	021		0	KUING	
4	Rajas	TONK	Deoli	ocs	Niwariya	Niwariya	Deoli	25.8	75.52	HR	15	OUTSOU	130
7	than			Area				1996	619		0	RCING	
4	Rajas	TONK	Deoli	OCS	Tokrawa	Tokrawa	Deoli	25.8	75.64	HR	15	OUTSOU	130
7	than	101111	Boom	Area	s Bundi	S	Doon	2305	79	'''`	0	RCING	100
5		<b>70</b> 1117	5 "	0.00				07.0				01170011	400
4 7	Rajas than	TONK	Deoli	OCS Area	Heerapur a	Ramsaga r	Deoli	25.8 7271	75.76 092	HR	15 0	OUTSOU RCING	130
6	ulali			Alea	a	'		1211	032		"	ROING	
4	Rajas	TONK	Deoli	ocs	Barla	Malera	Deoli	25.8	75.29	HR	15	OUTSOU	130
7	than			Area				7358	917		0	RCING	
7	Rajas	TONK	Deoli	OCS	Doudawa	Kaseer	Deoli	25.8	75.41	HR	15	OUTSOU	130
7	than	TOTAL	Doon	Area	S	Nascoi	Doon	7358	70.41	1111	0	RCING	100
8													
7	Rajas than	TONK	Deoli	OCS Area	Nayagao n	Chandsin ghpura	Deoli	25.8 7785	75.65 132	HR	15 0	OUTSOU RCING	130
9	ulali			Alea	"	gripura		1103	132		"	KOING	
4	Rajas	TONK	Deoli	ocs	Jagannat	Ramsaga	Deoli	25.8	75.81	HR	15	OUTSOU	130
8	than			Area	hpura	r		7895	219		0	RCING	
4	Rajas	TONK	Deoli	OCS	Dabar	Thanwal	Deoli	25.8	75.35	HR	15	OUTSOU	130
8	than	. 011	200	Area	Khurd	a	200	7956	337		0	RCING	100
1	<b>D</b> :	TONIK	D !!	000	<b>D</b> :	<b>D</b> .	D !!	05.0	75.00	LID	45	OUTOOU	400
4 8	Rajas than	TONK	Deoli	OCS Area	Beejwar	Beejwar	Deoli	25.9 2363	75.29 559	HR	15 0	OUTSOU RCING	130
2	titati			71100				2000	000			TOING	
4	Rajas	TONK	Deoli	ocs	Thanwal	Thanwal	Deoli	25.9	75.35	HR	15	OUTSOU	130
8	than			Area	а	a		3257	279		0	RCING	
4	Rajas	TONK	Deoli	OCS	Dhuan	Dhuan	Deoli	25.9	75.69	HR	15	OUTSOU	130
8	than	-		Area	Kalan	Kalan		3257	422		0	RCING	
4	Deies	TONIC	D I	000	Nissinds	Na sinda I	D l'	05.0	75 44	LID	45	OUTOOLL	400
8	Rajas than	TONK	Deoli	OCS Area	Nasirda	Nasirda I & Ii	Deoli	25.9 3778	75.41 159	HR	15 0	OUTSOU RCING	130
8 5	unan			7 11 0 0		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		0110	100			1101110	
4	Rajas	TONK	Deoli	ocs	Geroli	Geroli	Deoli	25.9	75.64	HR	15	OUTSOU	130
8	than			Area				3972	595		0	RCING	
4	Rajas	TONK	Deoli	OCS	Ratanpur	Beesalpu	Deoli	25.9	75.40	HR	15	OUTSOU	130
8	than			Area	а	r		8915	302		0	RCING	

7													
4 8 8	Rajas than	TONK	Deoli	OCS Area	Raghuna thpura	Hisampur	Deoli	25.9 9028	75.34 972	HR	15 0	OUTSOU RCING	130
4 8 9	Rajas than	TONK	Malpura	OCS Area	Phool Maliya	Jharli	Malpura	26.2 2204	75.18 384	HR	15 0	OUTSOU RCING	130
4 9 0	Rajas than	TONK	Malpura	OCS Area	Tordi	Tordi - I & Ii	Malpura	26.2 2394	75.41 893	HR	15 0	OUTSOU RCING	130
4 9 1	Rajas than	TONK	Malpura	OCS Area	Kerwaliy a	Teelanju	Malpura	26.2 2718	75.52 803	HR	15 0	OUTSOU RCING	130
4 9 2	Rajas than	TONK	Malpura	OCS Area	Tordi	Tordi - I & Ii	Malpura	26.2 2752	75.46 362	HR	15 0	OUTSOU RCING	130
4 9 3	Rajas than	TONK	Malpura	OCS Area	Mahadeo Pura	Budha Dewal	Malpura	26.2 8197	75.23 863	HR	15 0	OUTSOU RCING	130
4 9 4	Rajas than	TONK	Malpura	OCS Area	Ghati	Doongri Kalan	Malpura	26.2 8368	75.46 981	HR	15 0	OUTSOU RCING	130
4 9 5	Rajas than	TONK	Malpura	OCS Area	Gulgaon	Gulgaon	Malpura	26.2 8423	75.12 033	HR	15 0	OUTSOU RCING	130
4 9 6	Rajas than	TONK	Malpura	OCS Area	Kantoli	Kantoli	Malpura	26.2 8882	75.29 343	HR	15 0	OUTSOU RCING	130
4 9 7	Rajas than	TONK	Malpura	OCS Area	Hathgi	Rajpura	Malpura	26.3 4013	75.34 743	HR	15 0	OUTSOU RCING	130
4 9 8	Rajas than	TONK	Malpura	OCS Area	Peenani	Deshma	Malpura	26.3 4013	75.40 642	HR	15 0	OUTSOU RCING	130
4 9 9	Rajas than	TONK	Malpura	OCS Area	Rampura Bas	Morla	Malpura	26.3 4019	75.24 206	HR	15 0	OUTSOU RCING	130
5 0 0		TONK	Malpura		Bagri					HR	15 0	OUTSOU RCING	130
5 0 1	Rajas than	TONK	Malpura	OCS Area	Lari	Antoli	Malpura	26.3 9842	75.18 213	HR	15 0	OUTSOU RCING	130
5 0 2	Rajas than	TONK	Malpura	OCS Area	Soda	Soda	Malpura	26.3 9842	75.53 659	HR	15 0	OUTSOU RCING	130
5 0 3	Rajas than	TONK	Malpura	OCS Area	Sotwara	Kacholiy a	Malpura	26.4 0184	75.22 836	HR	15 0	OUTSOU RCING	130
5 0 4	Rajas than	TONK	Malpura	OCS Area	Soorsaga r	Pachewa r - I,li	Malpura	26.4 4917	75.34 922	HR	15 0	OUTSOU RCING	130
5 0 5	Rajas than	TONK	Malpura	OCS Area	Dwarkap uri @	Kurthal	Malpura	26.4 6177	75.41 159	HR	15 0	OUTSOU RCING	130

5	Rajas	TONK	Niwai	OCS	Jeewali	Bharthala	Niwai	26.3 4192	76.06 245	HR	15	OUTSOU RCING	130
0 6	than			Area							0	RUING	
5 0	Rajas than	TONK	Niwai	OCS Area	Kantoli	Nohata	Niwai	26.3 4192	76.10 714	HR	15 0	OUTSOU RCING	130
7	ulali			Alea				4192	/ 14		0	RUING	
5	Rajas	TONK	Niwai	OCS	Anatpura	Lalwari	Niwai	26.3	76.00	HR	15	OUTSOU	130
0 8	than			Area				9912	346		0	RCING	
5	Rajas	TONK	Niwai	OCS	Teetoli @	Bara	Niwai	26.3	76.12	HR	15	OUTSOU	130
9	than			Area	Bara	Gaon		9912	68		0	RCING	
5	Rajas	TONK	Niwai	OCS	Dahlod	Dahlod	Niwai	26.4	76.05	HR	15	OUTSOU	130
1 0	than			Area				5632	53		0	RCING	
5	Rajas	TONK	Niwai	OCS	Hanotiya	Hanotiya	Niwai	26.5	75.87	HR	15	OUTSOU	130
1 1	than			Area	Bujurg	Bujurg		0172	363		0	RCING	
5	Rajas	TONK	Todarai	OCS	Kanwara	Kanwara	Todarai	25.9	75.53	HR	15	OUTSOU	130
1 2	than		singh	Area	was	was	singh	3949	488		0	RCING	
5	Rajas	TONK	Todarai	OCS	Ralawata	Bassi	Todarai	25.9	75.53	HR	15	OUTSOU	130
1 3	than		singh	Area			singh	8915	145		0	RCING	
5	Rajas	TONK	Todarai	OCS	Radhabal	Mor	Todarai	25.9	75.64	HR	15	OUTSOU	130
1 4	than		singh	Area	labhpu	Bhatiyan	singh	8977	059		0	RCING	
5	Rajas	TONK	Todarai	OCS	Jethalya	Khareda	Todarai	25.9	75.59	HR	15	OUTSOU	130
1 5	than		singh	Area			singh	9652	296		0	RCING	
5	Rajas	TONK	Todarai	OCS	Bhasoo	Bhasoo	Todarai	26.0	75.41	HR	15	OUTSOU	130
1 6	than		singh	Area			singh	3602	624		0	RCING	
5	Rajas	TONK	Todarai	OCS	Dabar	Dabar	Todarai	26.0	75.35	HR	15	OUTSOU	130
1 7	than		singh	Area	Doomba	Doomba	singh	4909	679		0	RCING	
5	Rajas	TONK	Todarai	OCS	Ganeti	Ganeti	Todarai	26.0	75.59	HR	15	OUTSOU	130
1 8	than		singh	Area			singh	5422	139		0	RCING	
5	Rajas	TONK	Todarai	OCS	Modiyala	Mor	Todarai	26.0	75.64	HR	15	OUTSOU	130
9	than		singh	Area		Bhatiyan	singh	5422	105		0	RCING	
5	Rajas	TONK	Todarai	OCS	Kuhara	Kuhara	Todarai	26.1	75.23	HR	15	OUTSOU	130
2	than		singh	Area	Bujurg	Bujurg	singh	0255	329		0	RCING	
5	Rajas	TONK	Todarai	OCS	Baneriya	Lamba	Todarai	26.1	75.58	HR	15	OUTSOU	130
2	than		singh	Area	Bujurg	Kalan	singh	0902	796		0	RCING	
5	Rajas	TONK	Todarai	OCS	Ghareda	Kookar	Todarai	26.1	75.46	HR	15	OUTSOU	130
2 2	than		singh	Area			singh	0954	72		0	RCING	
5	Rajas	TONK	Todarai	ocs	Mor	Mor	Todarai	26.1	75.47	HR	15	OUTSOU	130
2 3	than		singh	Area			singh	5959	256		0	RCING	
5	Rajas	TONK	Todarai	OCS	Hameerp	Hameerp	Todarai	26.1	75.58	HR	15	OUTSOU	130
2	than		singh	Area	ur	ur	singh	6853	518		0	RCING	

4													
5 2 5	Rajas than	TONK	Todarai singh	OCS Area	Aliyari	Aliyari	Todarai singh	26.1 7032	75.52 44	HR	15 0	OUTSOU RCING	130
5 2 6	Rajas than	TONK	Todarai singh	OCS Area	Indokiya	Indokiya	Todarai singh	26.1 7032	75.64 595	HR	15 0	OUTSOU RCING	130
5 2 7	Rajas than	TONK	Todarai singh	OCS Area	Sawariya	Sawariya	Todarai singh	26.2 2204	75.23 863	HR	15 0	OUTSOU RCING	130
5 2 8	Rajas than	TONK	Tonk	OCS Area	Thali	Bharni	Tonk	25.9 8441	75.69 779	HR	15 0	OUTSOU RCING	130
5 2 9	Rajas than	TONK	Tonk	OCS Area	Jhalra	Kabra	Tonk	25.9 8441	75.89 263	HR	15 0	OUTSOU RCING	130
5 3 0	Rajas than	TONK	Tonk	OCS Area	Um	Kabra	Tonk	25.9 8915	75.81 742	HR	15 0	OUTSOU RCING	130
5 3 1	Rajas than	TONK	Tonk	OCS Area	Nirwana	Takholi	Tonk	25.9 9258	75.75 92	HR	15 0	OUTSOU RCING	130
5 3 2	Rajas than	TONK	Tonk	OCS Area	Rhimpur a	Lamba	Tonk	26.0 4698	75.76 036	HR	15 0	OUTSOU RCING	130
5 3 3	Rajas than	TONK	Tonk	OCS Area	Arniya Neel	Dakhiya	Tonk	26.0 4909	75.69 927	HR	15 0	OUTSOU RCING	130
5 3 4	Rajas than	TONK	Tonk	OCS Area	Mehand was	Mehndw as	Tonk	26.1 0255	75.72 81	HR	15 0	OUTSOU RCING	130
5 3 5	Rajas than	TONK	Tonk	OCS Area	Raufpura Khera	Deopura	Tonk	26.1 1073	75.94 414	HR	15 0	OUTSOU RCING	130
5 3 6	Rajas than	TONK	Tonk	OCS Area	Borda	Palra	Tonk	26.1 6895	75.70 441	HR	15 0	OUTSOU RCING	130
5 3 7	Rajas than	TONK	Tonk	OCS Area	Bhanchi	Deoli	Tonk	26.1 7409	75.93 729	HR	15 0	OUTSOU RCING	130
5 3 8	Rajas than	TONK	Tonk	OCS Area	Bor Khandi	Sohela	Peeplu	26.2 2204	75.86 366	HR	15 0	OUTSOU RCING	130
5 3 9	Rajas than	TONK	Tonk	OCS Area	Ibrahimp ura	Janwali	Peeplu	26.2 2546	75.65 646	HR	15 0	OUTSOU RCING	130
5 4 0	Rajas than	TONK	Tonk	OCS Area	Kuredi	Kureda	Peeplu	26.2 2546	75.70 954	HR	15 0	OUTSOU RCING	130
5 4 1	Rajas than	TONK	Tonk	OCS Area	Rahimpu ra	Naner	Peeplu	26.2 2889	75.59 481	HR	15 0	OUTSOU RCING	130
5 4 2	Rajas than	TONK	Tonk	OCS Area	Sandera	Sandera	Peeplu	26.3 3656	75.70 315	HR	15 0	OUTSOU RCING	130

5 4	Rajas	TONK	Uniara	OCS Area	Deoli	Deoli	Uniara	25.8 7613	76.11 709	HR	15 0	OUTSOU RCING	130
3	than			Alea				7013	709		0	KUING	
5	Rajas	TONK	Uniara	ocs	Patoli	Patoli	Uniara	25.9	76.11	HR	15	OUTSOU	130
4	than			Area				2542	965		0	RCING	
5	Rajas	TONK	Uniara	OCS	Jainagar	Gothra - I	Uniara	25.9	75.88	HR	15	OUTSOU	130
4	than			Area				2721	191		0	RCING	
5	Doige	TONK	Uniara	OCS	Chak	Mohamm	Uniara	25.9	75.93	HR	15	OUTSOU	130
4	Rajas than	TONK	Ulliala	Area	Yakoob	ad	Ulliala	3093	387	пк	0	RCING	130
6													
5	Rajas	TONK	Uniara	OCS	Deopura	Bilaspur	Uniara	25.9 3778	75.82 085	HR	15	OUTSOU	130
7	than			Area				3110	000		0	RCING	
5	Rajas	TONK	Uniara	ocs	Kairod	Kairod	Uniara	26.0	76.05	HR	15	OUTSOU	130
4	than			Area				4737	887		0	RCING	
5	Rajas	TONK	Uniara	OCS	Kakod	Kakod	Uniara	26.0	75.93	HR	15	OUTSOU	130
4	than	70	ornara	Area	ranou	ranou	- Omara	5234	911		0	RCING	100
9	D :	LIDAIDUD	DI: I	000	0 1/	NA (* 1	\/ II	04.4	74.44	LID	45	OUTOOU	400
5 5	Rajas than	UDAIPUR	Bhinder	OCS Area	Opa Ka Khera	Motida	Vallabh nagar	24.4 1988	74.14 003	HR	15 0	OUTSOU RCING	130
0	ulali			71100	Taloid		nagai	1300				Ronto	
5	Rajas	UDAIPUR	Bhinder	OCS	Dhawariy	Dhawadi	Vallabh	24.4	74.06	HR	15	OUTSOU	130
5 1	than			Area	а	ya	nagar	7447	907		0	RCING	
	Rajas	UDAIPUR	Girwa	OCS	Jawla	Padoona	Girwa	24.2	73.60	HR	15	OUTSOU	130
5	than			Area				4158	148		0	RCING	
2	Rajas	UDAIPUR	Girwa	OCS	Jawla	Padoona	Girwa	24.2	73.60	HR	15	OUTSOU	130
5 5	than	ODAII ON	Giiwa	Area	Jawia	i adoona	Giiwa	9252	693	HIX	0	RCING	130
3			_			_							
5 5	Rajas	UDAIPUR	Girwa	OCS Area	Nala	Chanawa	Girwa	24.2 998	73.72 702	HR	15 0	OUTSOU RCING	130
4	than			Alea		da		990	702		0	KUING	
5	Rajas	UDAIPUR	Girwa	ocs	Amarpur	Tidi	Girwa	24.3	73.66	HR	15	OUTSOU	130
5 5	than			Area	а			089	879		0	RCING	
5	Rajas	UDAIPUR	Girwa	OCS	Barapal	Barapal	Girwa	24.3	73.60	HR	15	OUTSOU	130
5	than			Area				5074	33		0	RCING	
6	Doigo	LIDAIDLID	Cinuo	000	Cooke	Tidi	Cinuo	24.3	72.66	HR	15	OUTCOLL	130
5 5 7	Rajas than	UDAIPUR	Girwa	OCS Area	Gosiya	Hai	Girwa	5256	73.66 516	пк	15 0	OUTSOU RCING	130
5 5	Rajas	UDAIPUR	Girwa	OCS	Kumariya	Pai	Girwa	24.4	73.59	HR	15	OUTSOU	130
8	than			Area	Khera			126	784		0	RCING	
5	Rajas	UDAIPUR	Girwa	OCS	Peepalw	Pai	Girwa	24.4	73.60	HR	15	OUTSOU	130
5	than			Area	as			6537	693		0	RCING	
9 5	Rajas	UDAIPUR	Gogund	OCS	Majam	Bagdund	Gogund	24.7	73.55	HR	15	OUTSOU	130
6	than	32 010	a	Area	l liajaiii	a	a	0735	417		0	RCING	.50
0	D-:	LIDAIDUE	0	000	0	0 1	0	04.7	70.54	115	45	OUTOOL	400
5 6	Rajas than	UDAIPUR	Gogund a	OCS Area	Gogunda	Gogunda	Gogund a	24.7 6376	73.54 325	HR	15 0	OUTSOU RCING	130
U	ulali		a	∧ı ca	1	l	а	0010	UZU		U	NOING	

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5 6 2	Rajas than	UDAIPUR	Gogund a	OCS Area	Rawaliya Kalan	Rawaliya Kalan	Gogund a	24.8 147	73.54 325	HR	15 0	OUTSOU RCING	130
5 6 3	Rajas than	UDAIPUR	Gogund a	OCS Area	Rawachh	Rawachh	Gogund a	24.8 3107	73.36 859	HR	15 0	OUTSOU RCING	130
5 6 4	Rajas than	UDAIPUR	Gogund a	OCS Area	Bokhara	Sayra	Gogund a	25.0 0028	73.36 313	HR	15 0	OUTSOU RCING	130
5 6 5	Rajas than	UDAIPUR	Gogund a	OCS Area	Singhara	Singhada	Gogund a	25.0 0392	73.43 591	HR	15 0	OUTSOU RCING	130
5 6 6	Rajas than	UDAIPUR	Gogund a	OCS Area	Neekor	Diyan	Gogund a	25.0 0392	73.49 413	HR	15 0	OUTSOU RCING	130
5 6 7	Rajas than	UDAIPUR	Gogund a	OCS Area	Maga	Singhada	Gogund a	25.0 6032	73.43 591	HR	15 0	OUTSOU RCING	130
5 6 8	Rajas than	UDAIPUR	Jhadol	OCS Area	Ambasa	Ambasa	Jhadol	24.0 8147	73.25 578	HR	15 0	OUTSOU RCING	130
5 6 9	Rajas than	UDAIPUR	Jhadol	OCS Area	Ambawi	Som	Jhadol	24.1 2331	73.30 673	HR	15 0	OUTSOU RCING	130
5 7 0	Rajas than	UDAIPUR	Jhadol	OCS Area	Dharawa n	Som	Jhadol	24.1 8517	73.31 946	HR	15 0	OUTSOU RCING	130
5 7 1	Rajas than	UDAIPUR	Jhadol	OCS Area	Panarwa	Panarwa	Jhadol	24.2 3612	73.31 4	HR	15 0	OUTSOU RCING	130
5 7 2	Rajas than	UDAIPUR	Jhadol	OCS Area	Leelri	Madla	Jhadol	24.2 3976	73.44 137	HR	15 0	OUTSOU RCING	130
5 7 3	Rajas than	UDAIPUR	Jhadol	OCS Area	Amaliya	Amiwara	Jhadol	24.2 434	73.36 677	HR	15 0	OUTSOU RCING	130
5 7 4	Rajas than	UDAIPUR	Jhadol	OCS Area	Madri	Madari	Jhadol	24.2 434	73.49 231	HR	15 0	OUTSOU RCING	130
5 7 5	Rajas than	UDAIPUR	Jhadol	OCS Area	Beranpar a	Saradeet	Jhadol	24.2 4885	73.54 325	HR	15 0	OUTSOU RCING	130
5 7 6	Rajas than	UDAIPUR	Jhadol	OCS Area	Ajroli Daulji	Ajrolikha s	Jhadol	24.2 9252	73.31 4	HR	15 0	OUTSOU RCING	130
5 7 7	Rajas than	UDAIPUR	Jhadol	OCS Area	Mundkosi ya	Amiwara	Jhadol	24.3 0162	73.37 041	HR	15 0	OUTSOU RCING	130
5 7 8	Rajas than	UDAIPUR	Kherwa ra	OCS Area	Gaduniya	Baleecha	Kherwar a	23.8 413	73.42 317	HR	15 0	OUTSOU RCING	130
5 7 9	Rajas than	UDAIPUR	Kherwa ra	OCS Area	Parmarw ara	Deri	Kherwar a	24.0 0141	73.43 045	HR	15 0	OUTSOU RCING	130

5	Rajas	UDAIPUR	Kherwa	OCS	Gohawar	Katarwas	Kherwar	24.0	73.43	HR	15	OUTSOU	130
8	than		ra	Area	а		а	5963	045		0	RCING	
5	Rajas	UDAIPUR	Kherwa	OCS	Larathi	Larathi	Kherwar	24.0	73.60	HR	15	OUTSOU	130
8	than	ODAII OIX	ra	Area	Laratiii	Laratiii	a	6145	875	1111	0	RCING	150
1													
5	Rajas	UDAIPUR	Kherwa	OCS	Mahuriya	Bawalwa	Kherwar	24.1	73.49	HR	15	OUTSOU	130
8 2	than		ra	Area		ra	a	2149	231		0	RCING	
5	Rajas	UDAIPUR	Kotra	OCS	Digawari	Jogivad	Kotra	24.4	73.24	HR	15	OUTSOU	130
8	than			Area	Kalan	309		2352	85		0	RCING	
3			16.4		5	5	14.	04.5	<b>-0.40</b>		4-	01170011	400
5 8	Rajas than	UDAIPUR	Kotra	OCS Area	Bikarni	Bikarni	Kotra	24.5 3087	73.19 756	HR	15 0	OUTSOU RCING	130
4	ulali			Alea				3007	750			NOING	
5	Rajas	UDAIPUR	Kotra	OCS	Tepron	Sameeja	Kotra	24.5	73.42	HR	15	OUTSOU	130
8	than			Area	Ki Bor			3451	499		0	RCING	
5	Rajas	UDAIPUR	Kotra	OCS	Torna	Jura	Kotra	24.5	73.25	HR	15	OUTSOU	130
8	than	ODAII OIX	Notia	Area	Torria	Jula	Notia	8363	396	1111	0	RCING	130
6													
5	Rajas	UDAIPUR	Kotra	ocs	Borli	Merpur	Kotra	24.5	73.19	HR	15	OUTSOU	130
8 7	than			Area				8545	392		0	RCING	
5	Rajas	UDAIPUR	Kotra	OCS	Sala	Merpur	Kotra	24.5	73.31	HR	15	OUTSOU	130
8	than	027 01.1		Area	Ghati		1101.01	8545	764		0	RCING	
8													
5 8	Rajas	UDAIPUR	Kotra	OCS	Nawaniy	Jhed	Kotra	24.5 9091	73.13 024	HR	15	OUTSOU	130
9	than			Area	a			9091	024		0	RCING	
5	Rajas	UDAIPUR	Kotra	ocs	Thapiya	Padawali	Kotra	24.5	73.43	HR	15	OUTSOU	130
9	than			Area	Kalan	Khurd		9455	045		0	RCING	
5	Doige	UDAIPUR	Kotra	OCS	Teelarwa	Samoli	Kotra	24.6	73.15	HR	15	OUTSOU	130
9	Rajas than	UDAIFUR	Notia	Area	Teelalwa	Samon	Notia	3821	026	ПК	0	RCING	130
1				7 00.					020				
5	Rajas	UDAIPUR	Kotra	ocs	Tepur	Merpur	Kotra	24.6	73.37	HR	15	OUTSOU	130
9 2	than			Area				4731	768		0	RCING	
5	Rajas	UDAIPUR	Kotra	OCS	Malwiya	Merpur	Kotra	24.6	73.26	HR	15	OUTSOU	130
9	than			Area	, ,			5095	852		0	RCING	
3	Б.	LIDAIDUD	16.1	000			17.1	04.0	70.04	LID	45	01170011	400
5 9	Rajas than	UDAIPUR	Kotra	OCS Area	Moriya Khuna	Merpur	Kotra	24.6 5095	73.31 582	HR	15 0	OUTSOU RCING	130
4	ulali			Alea	Miulia			3033	302			ROING	
5	Rajas	UDAIPUR	Kotra	OCS	Nayawas	Padawali	Kotra	24.6	73.43	HR	15	OUTSOU	130
9 5	than			Area		Kala		5277	409		0	RCING	
5	Rajas	UDAIPUR	Kotra	OCS	Kyari	Kyari	Kotra	24.6	73.20	HR	15	OUTSOU	130
9	than	סייין טוע	Noua	Area	Tyan	Tyan	Notia	5459	302	1111	0	RCING	100
6													
5	Rajas	UDAIPUR	Kotra	OCS	Loharcha	Kyari	Kotra	24.7	73.19	HR	15	OUTSOU	130
9 7	than			Area				0189	938		0	RCING	
5	Rajas	UDAIPUR	Kotra	OCS	Teja Ka	Teja Ka	Kotra	24.7	73.19	HR	15	OUTSOU	130
9	than	- "	-	Area	Was	Was		6012	938		0	RCING	

8													
5 9 9	Rajas than	UDAIPUR	Kotra	OCS Area	Bharel	Ukhaliyat	Kotra	24.7 6376	73.37 587	HR	15 0	OUTSOU RCING	130
6 0 0	Rajas than	UDAIPUR	Lasadiy a	OCS Area	Ambareti	Chitoriya	Dhariaw ad	24.2 3248	74.36 564	HR	15 0	OUTSOU RCING	130
6 0 1	Rajas than	UDAIPUR	Lasadiy a	OCS Area	Ambareti	Chitoriya	Dhariaw ad	24.2 3612	74.42 386	HR	15 0	OUTSOU RCING	130
6 0 2	Rajas than	UDAIPUR	Mavli	OCS Area	Gandoli	Sangwa	Mavli	24.7 1099	73.83 618	HR	15 0	OUTSOU RCING	130
6 0 3	Rajas than	UDAIPUR	Mavli	OCS Area	Peeproli	Nurda	Mavli	24.7 6376	73.89 259	HR	15 0	OUTSOU RCING	130
6 0 4	Rajas than	UDAIPUR	Rishabh deo	OCS Area	Mandwa Phala	Kagdar Bhatiya	Kherwar a	24.0 0505	73.66 152	HR	15 0	OUTSOU RCING	130
6 0 5	Rajas than	UDAIPUR	Rishabh deo	OCS Area	Bhoodar	Bhoodar	Kherwar a	24.1 2149	73.65 424	HR	15 0	OUTSOU RCING	130
6 0 6	Rajas than	UDAIPUR	Rishabh deo	OCS Area	Pareda Chak	Kojawara	Kherwar a	24.1 8154	73.60 33	HR	15 0	OUTSOU RCING	130
6 0 7	Rajas than	UDAIPUR	Rishabh deo	OCS Area	Peepli (A)	Pipali	Kherwar a	24.1 8336	73.66 698	HR	15 0	OUTSOU RCING	130
6 0 8	Rajas than	UDAIPUR	Rishabh deo	OCS Area	Gadawan Kakan	Sagwara	Kherwar a	24.1 8699	73.53 78	HR	15 0	OUTSOU RCING	130
6 0 9	Rajas than	UDAIPUR	Salumb ar	OCS Area	Rathri	Jodhpur Khurd	Salumb ar	23.9 4503	74.24 79	HR	15 0	OUTSOU RCING	130
6 1 0	Rajas than	UDAIPUR	Salumb ar	OCS Area	Jetana	Jetana	Salumb ar	24.0 1051	74.06 907	HR	15 0	OUTSOU RCING	130
6 1 1	Rajas than	UDAIPUR	Salumb ar	OCS Area	Noli	Barora	Salumb ar	24.0 5781	73.95 627	HR	15 0	OUTSOU RCING	130
6 1 2	Rajas than	UDAIPUR	Salumb ar	OCS Area	Kholri	Deo Gaon	Salumb ar	24.0 6873	74.06 543	HR	15 0	OUTSOU RCING	130
6 1 3	Rajas than	UDAIPUR	Salumb ar	OCS Area	Mander	Manpur	Salumb ar	24.0 7237	74.19 097	HR	15 0	OUTSOU RCING	130
6 1 4	Rajas than	UDAIPUR	Salumb ar	OCS Area	Bujhara	Adkaliya	Salumb ar	24.1 2695	73.95 627	HR	15 0	OUTSOU RCING	130
6 1 5	Rajas than	UDAIPUR	Salumb ar	OCS Area	Dobdicha	Bedawal- B	Salumb ar	24.1 779	74.18 37	HR	15 0	OUTSOU RCING	130
6 1 6	Rajas than	UDAIPUR	Salumb ar	OCS Area	Waliya- Khera	Bedawal- B	Salumb ar	24.1 8336	74.13 275	HR	15 0	OUTSOU RCING	130

6 1 7	Rajas than	UDAIPUR	Salumb ar	OCS Area	Deopura	Orvadiya	Salumb ar	24.2 343	74.07 635	HR	15 0	OUTSOU RCING	130
6 1 8	Rajas than	UDAIPUR	Salumb ar	OCS Area	Kharka	Kharka	Salumb ar	24.2 9798	74.07 635	HR	15 0	OUTSOU RCING	130
6 1 9	Rajas than	UDAIPUR	Sarada	OCS Area	Dhan Ka Wara	Dhan Ka Wara	Sarada	24.0 6327	73.77 978	HR	15 0	OUTSOU RCING	130
6 2 0	Rajas than	UDAIPUR	Sarada	OCS Area	Bheempu r	Shyampu r	Sarada	24.0 6327	73.89 804	HR	15 0	OUTSOU RCING	130
6 2 1	Rajas than	UDAIPUR	Sarada	OCS Area	Bherwa	Bargaon	Sarada	24.1 2331	73.90 35	HR	15 0	OUTSOU RCING	130
6 2 2	Rajas than	UDAIPUR	Sarada	OCS Area	Kolar	Soorkhan d	Sarada	24.1 2513	73.85 256	HR	15 0	OUTSOU RCING	130
6 2 3	Rajas than	UDAIPUR	Sarada	OCS Area	Kharbar Chak	Kharbar	Sarada	24.1 7972	73.71 61	HR	15 0	OUTSOU RCING	130
6 2 4	Rajas than	UDAIPUR	Sarada	OCS Area	Kejar	Kejar	Sarada	24.1 8336	73.84 164	HR	15 0	OUTSOU RCING	130
6 2 5	Rajas than	UDAIPUR	Sarada	OCS Area	Katanwar a	Katanwar a	Sarada	24.1 8517	73.78 524	HR	15 0	OUTSOU RCING	130
6 2 6	Rajas than	UDAIPUR	Sarada	OCS Area	Jhadol	Jhadol	Sarada	24.2 3794	73.89 622	HR	15 0	OUTSOU RCING	130
6 2 7	Rajas than	UDAIPUR	Sarada	OCS Area	Delwas	Parasada	Sarada	24.2 4158	73.72 702	HR	15 0	OUTSOU RCING	130
6 2 8	Rajas than	UDAIPUR	Sarada	OCS Area	Nathara	Nathara	Sarada	24.2 4522	73.78 706	HR	15 0	OUTSOU RCING	130
6 2 9	Rajas than	UDAIPUR	Sarada	OCS Area	Naya Kua	Semal	Sarada	24.2 9798	73.96 354	HR	15 0	OUTSOU RCING	130
6 3 0	Rajas than	SIKAR	Srimad hopur	OCS Area	Arniya	Bharni	Sri Madhop ur	27.3 9284	75.64 379	HR	15 0	OUTSOU RCING	130
6 3 1	Rajas than	SIKAR	Srimad hopur	OCS Area	Garh Taknet	Garh Taknet	Sri Madhop ur	27.4 4925	75.76 57	HR	15 0	OUTSOU RCING	130

Note: The location above are Tentative and may be changed

## RJ PZ and DWLR BOQ 5 and 6

Sr	BLOCK	DG_Typ e	VILLAGE	GP/TOWN	TEHSIL	Latitud e	Longitu de	HR/ SR	Dep th	Inhouse/Outso urcing	Tentat ive
N									(m)	3	DWLR
0											Lengt
											h

											(mbgl)
1	ALWAR	OCS Area	Nathoosar	Rampur	Bansur	27.56 639	76.408 016	SRH R	150	OUTSOURCI NG	130
2	Bansur	OCS Area	Bamanwas	Bamanwas	Bansur	27.74 15	76.469 022	SRH R	150	OUTSOURCI NG	130
3	Bansur	OCS Area	Baberi	Baberi	Bansur	27.80 428	76.353 836	SRH R	150	OUTSOURCI NG	130
4	Behror	OCS Area	Untoli	Khohri	Behror	27.91 936	76.195 638	SRH R	150	OUTSOURCI NG	130
5	Behror	OCS Area	Bhagwari Kalan	Bhagwari Khurd	Behror	27.98 694	76.176 782	SRH R	150	OUTSOURCI NG	130
6	Kathumar	OCS Area	Gala Khera	Salwari	Kathumar	27.21 859	76.994 503	SRH R	150	OUTSOURCI NG	130
7	Kathumar	OCS Area	Daroda	Daroda	Kathumar	27.26 386	77.042 037	SRH R	150	OUTSOURCI NG	130
8	Kathumar	OCS Area	Chokuti	Jadla	Kathumar	27.33 402	76.931 677	SRH R	150	OUTSOURCI NG	130
9	Kishangar h Bas	OCS Area	Jahar Khera	Sirmoli	Kishangar h Bas	27.62 837	76.639 984	SRH R	150	OUTSOURCI NG	130
10	Kishangar h Bas	OCS Area	Rundh Ismailpur	Ismailpur	Kishangar h Bas	27.73 727	76.695 501	SRH R	150	OUTSOURCI NG	130
11	Kishangar h Bas	OCS Area	Dhamooka	Dhamooka	Kishangar h Bas	27.79 668	76.812 83	SRH R	150	OUTSOURCI NG	130
12	Kishangar h Bas	OCS Area	Sarpur	Brisangpur	Kishangar h Bas	27.79 668	76.863 765	SRH R	150	OUTSOURCI NG	130
13	Lachhman garh	OCS Area	Bhoor Pahari	Sehra	Lachhman	27.26 912	76.811 98	SRH R	150	OUTSOURCI NG	130
14	Lachhman garh	OCS Area	Hasanpur	Hasanpur	Lachhman garh	27.32 045	76.883 588	SRH R	150	OUTSOURCI NG	130
15	Lachhman garh	OCS Area	Khohra	Khohra Malawli	Lachhman garh	27.32 271	76.756 829	SRH R	150	OUTSOURCI NG	130
16	Lachhman	OCS Area	Kafanwara	Sorai	Lachhman garh	27.39 062	76.870 007	SRH R	150	OUTSOURCI NG	130
17	garh Mandawar	OCS Area	Menpur	Menpur	Mandawar	27.85 697	76.524 198	SRH R	150	OUTSOURCI NG	130
18	Mandawar	OCS Area	Gadoowas	Gadoowas	Mandawar	27.97 272	76.526 487	SRH R	150	OUTSOURCI NG	130
19	Neemrana	OCS Area	Mohalariya n	Beechpuri	Behror	27.96 472	76.358 394	SRH R	150	OUTSOURCI NG	130
20	Neemrana	OCS Area	Kaysa	Kayasa	Behror	28.04 476	76.249	SRH R	150	OUTSOURCI NG	130
21	Neemrana	OCS Area	Santo	Santo	Behror	28.13 815	76.467 788	SRH R	150	OUTSOURCI NG	130
22	Neemrana	OCS Area	Beenjhpur	Partapur	Behror	28.16 75	76.310 368	SRH R	150	OUTSOURCI NG	130
23	Ramgarh	OCS Area	Bhajeet	Bhajeet	Alwar	27.50 534	76.640 923	SRH R	150	OUTSOURCI NG	130
24	Ramgarh	OCS Area	Rundh Dhooninat h	Nagli Megha	Ramgarh	27.50 832	76.693 45	SRH R	150	OUTSOURCI NG	130
25	Ramgarh	OCS Area	Gugdod	Bagar Rajput	Ramgarh	27.51 229	76.819 197	SRH R	150	OUTSOURCI NG	130
26	Ramgarh	OCS	Choroti	Choroti	Ramgarh	27.57	76.694	SRH	150	OUTSOURCI	130

27 Ramgarh OCS Siraska Area  28 Ramgarh OCS Khilora Area	Pahar Kakrali Khilora	Alwar	202 27.62	454 76.697	R SRH	150	NG OUTSOURCI	130
Area 28 Ramgarh OCS Khilora		Aiwai	1		ONL	100		
28 Ramgarh OCS Khilora	Vhiloro		272	074	D			130
		<del>  </del>	273	271	R	450	NG	400
	Killora	Ramgarh	27.62	76.816	SRH	150	OUTSOURCI	130
		<u> </u>	837	542	R		NG	
29 Ramgarh OCS Newadi	Ghari	Ramgarh	27.68	76.815	SRH	150	OUTSOURCI	130
Area	Dhaneta		19	603	R		NG	
30 Ramgarh OCS Khohra	Neekach	Ramgarh	27.74	76.813	SRH	150	OUTSOURCI	130
Area Karmali			107	725	R		NG	
31 Reni OCS Reni	Reni - A &	Reni	27.16	76.749	SRH	150	OUTSOURCI	130
Area	В		16	26	R		NG	
32 Reni OCS Vabeli	Vabeli	Reni	27.21	76.697	SRH	150	OUTSOURCI	130
Area			088	741	R		NG	
33 Reni OCS Morod	Chhilodi	Reni	27.32	76.697	SRH	150	OUTSOURCI	130
Area Kalan	J		95	977	R		NG	
34 Thanagazi OCS Kalalank	a Bamanwas	Thanagazi	27.32	76.289	SRH	150	OUTSOURCI	130
Area	Chaugan	managazi	437	023	R	100	NG	100
<b>1</b>		Thomasori	27.39	76.348	SRH	150	OUTSOURCI	130
	zi Thanagazi	Thanagazi	1	1	1	150		130
Area		<u> </u>	358	85	R	450	NG	400
36 Thanagazi OCS Duharm		Thanagazi	27.44	76.350	SRH	150	OUTSOURCI	130
Area	Chaugan		977	39	R		NG	
37 Thanagazi OCS Narayar	pu Narayanpu	Thanagazi	27.51	76.288	SRH	150	OUTSOURCI	130
Area r	r		379	745	R		NG	
38 Thanagazi OCS Garhi	Garhi	Thanagazi	27.56	76.349	SRH	150	OUTSOURCI	130
Area			639	789	R		NG	
39 Tijara OCS Damdar	na Roopbas	Tijara	27.97	76.926	SRH	150	OUTSOURCI	130
Area	'	'	894	928	R		NG	
40 Tijara OCS Rundh	Chooharpu	Tijara	28.08	76.926	SRH	150	OUTSOURCI	130
Area Indor	r	,	745	707	R		NG	
41 Tijara OCS Joriya	Joriya	Tijara	28.14	76.880	SRH	150	OUTSOURCI	130
Area	Johnya	lijara	897	919	R	100	NG	100
42 Tijara OCS Bhiwadi	Bhiwadi	Tijara	28.20	76.876	SRH	150	OUTSOURCI	130
Area (Ct)	(Ct)	lijala	298	918	R	130	NG	130
		Abuer				150		130
43 Umren OCS Bhadoli	Prithvipura	Alwar	27.33	76.584	SRH	150	OUTSOURCI	130
Area	NA 11	A.	403	799	R	450	NG	400
44 Umren OCS Rundh	Madhogar	Alwar	27.33	76.458	SRH	150	OUTSOURCI	130
Area Baleta	h		629	04	R	455	NG	100
45 Umren OCS Rundh	Madhogar	Alwar	27.39	76.453	SRH	150	OUTSOURCI	130
Area Kraska	h		358	095	R		NG	
46 Umren OCS Chomu	Dhakpuri	Alwar	27.39	76.699	SRH	150	OUTSOURCI	130
Area			455	981	R		NG	
47 Umren OCS Indok	Madhogar	Alwar	27.39	76.396	SRH	150	OUTSOURCI	130
Area	h		64	746	R		NG	
48 Umren OCS Beejawa	r Beejawar	Alwar	27.39	76.583	SRH	150	OUTSOURCI	130
Area			981	625	R		NG	
49 Umren OCS Madhog	ar Madhogar	Alwar	27.44	76.464	SRH	150	OUTSOURCI	130
Area h	h	/ lividi	899	365	R	100	NG	100
50 Umren OCS Naithla	Naithla	Alwar	27.45	76.702	SRH	150	OUTSOURCI	130
	Ivaitilla	Aiwai	1	1	1	130	NG	130
Area Constru	ma Alaba	Almar	075	472	R	450		120
51 Umren OCS Gopalpu	ra Akbarpur	Alwar	27.45	76.518	SRH	150	OUTSOURCI	130
Area		<b> </b>	275	835	R	4	NG	100
52 Umren OCS Kairwara	Haldeena	Alwar	27.45	76.645	SRH	150	OUTSOURCI	130
Area			287	171	R		NG	
53 Umren OCS Paitpur	Bakhtpura	Alwar	27.51	76.520	SRH	150	OUTSOURCI	130
Area			567	713	R		NG	

54	Umren	OCS Area	Rundh Bhakhera	Kesharpur	Alwar	27.52 225	76.572 366	SRH R	150	OUTSOURCI NG	130
55	Umren	OCS Area	Rundh Dadikar	Kasba Dahra	Alwar	27.56 075	76.520 713	SRH R	150	OUTSOURCI NG	130
56	Umren	OCS Area	Rundh Bhakhera	Kesharpur	Alwar	27.56 639	76.577 061	SRH R	150	OUTSOURCI NG	130
57	Umren	OCS Area	Hajipur	Kasba Dahra	Alwar	27.62 527	76.572 302	SRH R	150	OUTSOURCI NG	130
58	Umren	OCS Area	Rundh Sirawas	Dahlawas	Alwar	27.62 649	76.521 652	SRH R	150	OUTSOURCI NG	130
59	Umren	OCS Area	Ghatla	Ghatla	Alwar	27.73	76.639 045	SRH R	150	OUTSOURCI NG	130
60	Bayana	OCS Area	Bajna	Bajna	Bayana	26.74 622	77.371 991	SRH R	150	OUTSOURCI NG	130
61	Bayana	OCS Area	Parua	Parua	Bayana	26.80 759	77.404 291	SRH R	150	OUTSOURCI NG	130
62	Bayana	OCS Area	Kapoora	Kapoora	Bayana	26.81 129	77.222 759	SRH R	150	OUTSOURCI NG	130
63	Bayana	OCS Area	Gurdha Dang	Tarsuma	Bayana	26.81 253	77.338 84	SRH R	150	OUTSOURCI NG	130
64	Bayana	OCS Area	Ghunaini	Thana Dang	Bayana	26.82 117	77.285 739	SRH R	150	OUTSOURCI NG	130
65	Bayana	OCS Area	Chainpura	Turtipura	Bayana	26.86 3	77.344 512	SRH R	150	OUTSOURCI NG	130
66	Bayana	OCS Area	Samogar	Samogar	Bayana	26.86 44	77.226 463	SRH R	150	OUTSOURCI NG	130
67	Bayana	OCS Area	Sikandara	Nahroli	Bayana	26.86 563	77.278 33	SRH R	150	OUTSOURCI NG	130
68	Bayana	OCS Area	Peeparra	Mahrawar	Bayana	26.86 934	77.167 187	SRH R	150	OUTSOURCI NG	130
69	Bayana	OCS Area	Samri	Turtipura	Bayana	26.87 057	77.399 351	SRH R	150	OUTSOURCI NG	130
70	Bayana	OCS Area	Kair	Kair	Bayana	26.91 997	77.112 851	SRH R	150	OUTSOURCI NG	130
71	Bayana	OCS Area	Gothra	Palidang	Bayana	26.92 367	77.395 646	SRH R	150	OUTSOURCI NG	130
72	Bayana	OCS Area	Nadi Gaon	Nadigaon	Bayana	26.98 665	77.338 84	SRH R	150	OUTSOURCI NG	130
73	Deeg	OCS Area	Sinsini	Sinsini	Deeg	27.39 134	77.281 419	SRH R	150	OUTSOURCI NG	130
74	Deeg	OCS Area	Badangarh	Badangarh	Deeg	27.39 253	77.338 609	SRH R	150	OUTSOURCI NG	130
75	Deeg	OCS Area	Korer	Korer	Deeg	27.39 491	77.402 946	SRH R	150	OUTSOURCI NG	130
76	Deeg	OCS Area	Au	Aue	Deeg	27.44 495	77.342 183	SRH R	150	OUTSOURCI NG	130
77	Deeg	OCS Area	Mahmadp ur	Didawali	Deeg	27.50 81	77.283 802	SRH R	150	OUTSOURCI NG	130
78	Deeg	OCS Area	Rundh Khoh	Jateri	Deeg	27.51 287	77.225 421	SRH R	150	OUTSOURCI NG	130
79	Kaman	OCS Area	Nandola	Sunhera	Kaman	27.63 797	77.325 503	SRH R	150	OUTSOURCI NG	130
80	Kaman	OCS Area	Dabra	Papra	Pahari	27.68 802	76.993 216	SRH R	150	OUTSOURCI NG	130
81	Kaman	OCS Area	Sahsan	Sahsan	Pahari	27.74 349	77.178 876	SRH R	150	OUTSOURCI NG	130

82	Kaman	OCS Area	Pathwari	Anchwara	Kaman	27.74 52	77.281 419	SRH R	150	OUTSOURCI NG	130
83	Kaman	OCS Area	Nangal	Dhaulet	Pahari	27.79 643	77.049 088	SRH R	150	OUTSOURCI NG	130
84	Kaman	OCS Area	Naunera	Naunera	Kaman	27.79 643	77.282 611	SRH R	150	OUTSOURCI NG	130
85	Kaman	OCS Area	Ghoseeng a	Ghoseeng a	Pahari	27.79 762	77.171 807	SRH R	150	OUTSOURCI NG	130
86	Kumher	OCS Area	Paprera	Paprera	Kumher	27.22 252	77.286 974	SRH R	150	OUTSOURCI NG	130
87	Kumher	OCS Area	Gudawali	Gudawali	Kumher	27.27 225	77.278 561	SRH R	150	OUTSOURCI NG	130
88	Kumher	OCS Area	Chak Seh	Baben	Kumher	27.27 562	77.403 056	SRH R	150	OUTSOURCI NG	130
89	Kumher	OCS Area	Ubar	Ubar	Kumher	27.27 933	77.511 728	SRH R	150	OUTSOURCI NG	130
90	Kumher	OCS Area	Jahangeer pur	Jahangeer pur	Kumher	27.33 49	77.290 679	SRH R	150	OUTSOURCI NG	130
91	Kumher	OCS Area	Sikrori	Sikrori	Kumher	27.33 49	77.338 84	SRH R	150	OUTSOURCI NG	130
92	Kumher	OCS Area	Maharath	Koomha	Kumher	27.33 737	77.396 881	SRH R	150	OUTSOURCI NG	130
93	Kumher	OCS Area	Awar	Awar	Kumher	27.33 984	77.454 922	SRH R	150	OUTSOURCI NG	130
94	Nadbai	OCS Area	Mai	Mai	Nadbai	27.10 026	77.283 269	SRH R	150	OUTSOURCI NG	130
95	Nadbai	OCS Area	Bachhama di	Bachhama di	Nadbai	27.10 397	77.336 371	SRH R	150	OUTSOURCI NG	130
96	Nadbai	OCS Area	Bhausinga	Jharkai	Nadbai	27.15 84	77.168 188	SRH R	150	OUTSOURCI NG	130
97	Nadbai	OCS Area	Piprau	Piprau	Nadbai	27.21 71	77.151 406	SRH R	150	OUTSOURCI NG	130
98	Nadbai	OCS Area	Manjhi	Manjhi	Nadbai	27.26 459	77.226 474	SRH R	150	OUTSOURCI NG	130
99	Nagar	OCS Area	Phootaki	Khohari	Nagar	27.57 828	76.984 529	SRH R	150	OUTSOURCI NG	130
10 0	Nagar	OCS Area	Thekri	Teski	Nagar	27.62 018	77.041 67	SRH R	150	OUTSOURCI NG	130
10 1	Nagar	OCS Area	Peepal Khera	Peepal Khera	Pahari	27.62 399	77.114 049	SRH R	150	OUTSOURCI NG	130
10 2	Nagar	OCS Area	Dhanota	Khohari	Nagar	27.62 47	76.991 238	SRH R	150	OUTSOURCI NG	130
10 3	Rupbas	OCS Area	Bansi	Paharpur	Rupbas	26.92 491	77.512 963	SRH R	150	OUTSOURCI NG	130
10 4	Rupbas	OCS Area	Sirrond	Mahalpur Choora	Rupbas	26.92 738	77.461 097	SRH R	150	OUTSOURCI NG	130
10 5	Rupbas	OCS Area	Noharda	Noharda	Rupbas	26.93 726	77.572 239	SRH R	150	OUTSOURCI NG	130
10 6	Rupbas	OCS Area	Kanjoli	Madapura	Rupbas	26.97 979	77.394 891	SRH R	150	OUTSOURCI NG	130
10 7	Rupbas	OCS Area	Khan Surjapura	Khan Surjapur	Rupbas	26.98 665	77.630 28	SRH R	150	OUTSOURCI NG	130
10 8	Rupbas	OCS Area	Nagla Jatmasi	Jatmasi	Rupbas	26.99 036	77.514 198	SRH R	150	OUTSOURCI NG	130
10 9	Rupbas	OCS Area	Ibrahimpur	Ibrahimpur	Rupbas	26.99 036	77.690 791	SRH R	150	OUTSOURCI NG	130

11	Rupbas	ocs	Moroli	Milsawa	Rupbas	26.99	77.742	SRH	150	OUTSOURCI	130
0		Area	Dahhr			036	657	R		NG	
11	Rupbas	OCS Area	Bhaisa	Bhaisa	Rupbas	27.04 84	77.456 157	SRH R	150	OUTSOURCI NG	130
11	Sewar	ocs	Kharera	Ekta	Bharatpur	27.10 397	77.456	SRH	150	OUTSOURCI NG	130
2	0	Area	Desi	Den	Discontinuo		157	R	450		400
11	Sewar	OCS	Par	Par	Bharatpur	27.15	77.404	SRH	150	OUTSOURCI	130
3		Area	01	D	DI (	707	291	R	450	NG	400
11	Sewar	ocs	Shreenaga	Bharatpur	Bharatpur	27.16	77.512	SRH	150	OUTSOURCI	130
4		Area	r	Rural		077	963	R		NG	
11	Sewar	ocs	Gaonri	Gaonri	Bharatpur	27.22	77.566	SRH	150	OUTSOURCI	130
5		Area				252	064	R		NG	
11	Sewar	ocs	Nagla	Hathaini	Bharatpur	27.27	77.566	SRH	150	OUTSOURCI	130
6		Area	Hathaini			933	064	R		NG	
11	Sewar	OCS	Ghana	Tuhiya	Bharatpur	27.28	77.458	SRH	150	OUTSOURCI	130
7		Area	Bhandor			18	627	R		NG	
11	Weir	ocs	Jatpura	Jeewad	Weir	27.03	77.223	SRH	150	OUTSOURCI	130
8		Area				605	993	R		NG	
11	Weir	OCS	Mahmadp	Babekhar	Weir	27.14	76.991	SRH	150	OUTSOURCI	130
9		Area	ur			696	863	R		NG	
12	Taranagar	ocs	Binori	Patti	Lalsot	26.51	76.408	SRH	150	OUTSOURCI	130
0		Area		Kishorpur		323	633	R		NG	
12	Lalsot	OCS	Dehlal	Amarabad	Lalsot	26.57	76.288	SRH	150	OUTSOURCI	130
1	Laioot	Area	Bornar	7 tillarabaa	Laicot	439	283	R	100	NG	100
12	Lalsot	OCS	Ranho	Khatoomb	Lalsot	26.63	76.408	SRH	150	OUTSOURCI	130
2	Laisot	Area	Tanno	ar	Laisot	753	633	R	100	NG	100
12	Lalsot	OCS	Ghata	Khatoomb	Lalsot	26.69	76.406	SRH	150	OUTSOURCI	130
3	Laisot		Gilata		Laisut	08	66	R	150	NG	130
12	Mahwa	Area OCS	Vanada	ar Kamalaur	Mahwa	27.06	76.889	SRH	150	OUTSOURCI	130
	Iviariwa		Kamalpur	Kamalpur	Iviariwa	234	70.009	l .	150	NG	130
4	Malaura	Area	0	O D-II	Desi			R	450		400
12	Mahwa	ocs	Sewarpali	Sewar Pali	Bari	26.46	77.581	SRH	150	INHOUSE	130
5	<b>.</b>	Area	17 11	17 11	<b>.</b>	113	715	R	450	IN ILLOUISE	400
12	Bari	ocs	Kudinna	Kudinna	Bari	26.51	77.637	SRH	150	INHOUSE	130
6		Area				206	746	R			
12	Bari	ocs	Gurha	Kudinna	Bari	26.52	77.692	SRH	150	INHOUSE	130
7		Area	Mutawali			225	503	R			
12	Bari	ocs	Shahpur	Kudinna	Bari	26.52	77.577	SRH	150	INHOUSE	130
8		Area				352	894	R			
12	Bari	ocs	Rajai	Kasba	Bari	26.57	77.804	SRH	150	INHOUSE	130
9		Area	Khurd	Nagar		191	565	R			
13	Bari	OCS	Chila	Chila	Bari	26.57	77.514	SRH	150	INHOUSE	130
0		Area	Chaund	Chaund		319	223	R			<u>                                       </u>
13	Bari	ocs	Jamboora	Naksauda	Bari	26.57	77.565	SRH	150	INHOUSE	130
1		Area				574	16	R			
13	Bari	OCS	Gadarpura	Nidhara	Bari	26.62	77.511	SRH	150	INHOUSE	130
2		Area				667	676	R			
13	Bari	OCS	Dauapura	Umreh	Bari	26.62	77.568	SRH	150	INHOUSE	130
3		Area	_ = ===================================			667	98	R			
13	Bari	OCS	Rewai	Ibrahimpur	Bari	26.69	77.565	SRH	150	INHOUSE	130
4		Area		.2.3		289	16	R	.50		
13	Baseri	OCS	Thoomri	Bijholi	Baseri	26.51	77.454	SRH	150	INHOUSE	130
5	חמפכוו		1110011111	ווטוונוט	שמשכוו	334	372	R	100	INITOUSE	130
	Docori	Area	Mothers	Colori II	Docori				150	INILOUICE	120
13	Baseri	OCS	Mathara	Golari - Ii	Baseri	26.52	77.515	SRH	150	INHOUSE	130
6	Dan : ::	Area	IZ-U	11	Decemb	225	496	R	450	INITIOTIOE	400
13	Baseri	ocs	Kallapura	Leelauti	Baseri	26.63	77.400	SRH	150	INHOUSE	130
7		Area				559	888	R			

13 8	Baseri	OCS Area	Bansrai	Nadanpur	Baseri	26.68 652	77.391 973	SRH R	150	INHOUSE	130
13	Baseri	OCS Area	Kharagpur	Kharagpur	Baseri	26.69 289	77.453 098	SRH R	150	INHOUSE	130
14	Baseri	OCS Area	Tursipura	Pipron	Baseri	26.74 001	77.518 043	SRH R	150	INHOUSE	130
14	Baseri	OCS Area	Nagla Bhumma	Ratanpur	Baseri	26.79 859	77.632 652	SRH R	150	INHOUSE	130
14 2	Baseri	OCS Area	Jarga	Jarga	Baseri	26.80 495	77.575 348	SRH R	150	INHOUSE	130
14 3	Amber	OCS Area	Chak Manoharp ur	Lakher	Amber	27.27 313	75.944 059	SRH R	150	OUTSOURCI NG	130
14 4	Amber	Urban Agglome rate	Sisiyawas	Akhepura	Amber	26.99 349	75.841 79	SRH R	150	OUTSOURCI NG	130
14 5	Amber	Urban Agglome rate	Akedadoo ngar	Akhepura	Amber	26.99 637	75.807 976	SRH R	150	OUTSOURCI NG	130
14 6	Bassi	OCS Area	Sindoli	Phalyawas	Bassi	26.80 762	75.936 4	SRH R	150	OUTSOURCI NG	130
14 7	Bassi	OCS Area	Gurha Meena	Todabhata	Bassi	26.81 139	76.109 981	SRH R	150	OUTSOURCI NG	130
14 8	Chaksu	OCS Area	Kalyanpur a	Kareda Khurd	Chaksu	26.62 391	75.885 352	SRH R	150	OUTSOURCI NG	130
14 9	Chaksu	OCS Area	Chak Tajkhan	Khera Raniwas	Chaksu	26.63 6	76.114 997	SRH R	150	OUTSOURCI NG	130
15 0	Chaksu	OCS Area	Chaksu (M)	Chaksu (M)	Chaksu	26.63 772	75.933 699	SRH R	150	OUTSOURCI NG	130
15 1	Chaksu	OCS Area	Bhawanipu ra	Kathawala	Chaksu	26.69 643	75.940 605	SRH R	150	OUTSOURCI NG	130
15 2	Chaksu	OCS Area	Madhopur a	Mahadeop ura	Chaksu	26.70 161	76.116 723	SRH R	150	OUTSOURCI NG	130
15 3	Dudu	OCS Area	Kachnariy a	Ursewa	Dudu	26.51 14	75.177 929	SRH R	150	OUTSOURCI NG	130
15 4	Dudu	OCS Area	Gagardoo	Gagardoo	Dudu	26.57 177	75.181 703	SRH R	150	OUTSOURCI NG	130
15 5	Dudu	OCS Area	Raseeli	Raseeli	Dudu	26.57 366	75.351 51	SRH R	150	OUTSOURCI NG	130
15 6	Dudu	OCS Area	Rahlana	Rahlana	Dudu	26.57 555	75.115 667	SRH R	150	OUTSOURCI NG	130
15 7	Dudu	OCS Area	Ganeshpur a	Mangalwar a	Dudu	26.62 101	75.308 153	SRH R	150	OUTSOURCI NG	130
15 8	Dudu	OCS Area	Chhaparw ara	Sunadiya	Dudu	26.62 46	75.251 512	SRH R	150	OUTSOURCI NG	130
15 9	Dudu	OCS Area	Gainji	Gainji	Dudu	26.68 875	75.179 816	SRH R	150	OUTSOURCI NG	130
16 0	Dudu	OCS Area	Kishanpur a	Gangati Kalan	Dudu	26.69 125	75.413 977	SRH R	150	OUTSOURCI NG	130
16 1	Dudu	OCS Area	Gurha Saipura	Khuriyal	Dudu	26.69 749	75.296 049	SRH R	150	OUTSOURCI NG	130
16 2	Dudu	OCS Area	Narayana	Narayana	Phulera	26.74 535	75.181 703	SRH R	150	OUTSOURCI NG	130
16 3	Dudu	OCS Area	Akhepura	Akhepura	Dudu	26.74 724	75.355 283	SRH R	150	OUTSOURCI NG	130
16	Dudu	OCS	Hatoopura	Beegolao	Dudu	26.74	75.115	SRH	150	OUTSOURCI	130

4		Area				913	667	R		NG	
16	Dudu	OCS	Panva	Marwa	Dudu	26.74	74.943	SRH	150	OUTSOURCI	130
5	Bada	Area	Kalan	Warwa	Dudu	961	805	R	100	NG	100
16	Dudu	OCS	Khatwar	Gangati	Dudu	26.75	75.413	SRH	150	OUTSOURCI	130
	Dudu		Mialwai		Dudu	101			150		130
6	Desides	Area	I/h aire	Kalan	Decales		772	R	450	NG	120
16	Dudu	ocs	Khajpura	Sali	Dudu	26.75	75.057	SRH	150	OUTSOURCI	130
7		Area				29	178	R		NG	
16	Dudu	ocs	Malera	Nanan	Dudu	26.75	75.234	SRH	150	OUTSOURCI	130
8		Area				29	531	R		NG	
16	Dudu	OCS	Neemli	Mamana	Dudu	26.80	75.125	SRH	150	OUTSOURCI	130
9		Area				007	1	R		NG	
17	Dudu	ocs	Akoda	Akoda	Phulera	26.80	75.298	SRH	150	OUTSOURCI	130
0		Area				384	681	R		NG	
17	Dudu	ocs	Marwa	Marwa	Dudu	26.80	74.943	SRH	150	OUTSOURCI	130
1		Area				762	973	R		NG	
17	Dudu	OCS	Morda	Marwa	Dudu	26.80	75.002	SRH	150	OUTSOURCI	130
2	Dudu	Area	IVIOIGA	Iviaiwa	Dudu	762	462	R	130	NG	130
17	Dudu	OCS	Hoobookro	Hohoopuro	Phulera	26.85	75.130	SRH	150	OUTSOURCI	130
	Dudu		Hachookra	Habaspura	Priulera	1		l .	150		130
3	D 1	Area	01 :14:	01 117	DI I	355	807	R	450	NG	400
17	Dudu	ocs	Shyami Ki	Shyami Ki	Phulera	26.86	75.179	SRH	150	OUTSOURCI	130
4	_	Area				61	816	R		NG	
17	Dudu	OCS	Bhagwatp	Dhani	Phulera	26.91	75.353	SRH	150	OUTSOURCI	130
5		Area	ura	Boraj		527	424	R		NG	
17	Dudu	ocs	Asalpur	Asalpur	Phulera	26.91	75.412	SRH	150	OUTSOURCI	130
6		Area	·	'		744	25	R		NG	
17	Dudu							SRH	150	OUTSOURCI	130
7	20.00							R		NG	
17	Dudu	ocs	Bardoti	Sambhar	Phulera	26.91	75.181	SRH	150	OUTSOURCI	130
8	Dudu	Area	(Rural)	(M)	Tituleia	753	394	R	130	NG	130
17	Dudu	OCS		Bobas	Dhuloro	26.92		SRH	150		130
	Dudu		Bobas	Donas	Phulera	1	75.469	l .	150	OUTSOURCI	130
9		Area	<b>N</b> 1	N.I.		607	23	R	450	NG	400
18	Jamwa	ocs	Newar	Newar	Jamwa	26.93	76.115	SRH	150	OUTSOURCI	130
0	Ramgarh	Area			Ramgarh	025	641	R		NG	
18	Jamwa	ocs	Sau	Papar	Jamwa	26.98	76.055	SRH	150	OUTSOURCI	130
1	Ramgarh	Area	Sareen		Ramgarh	091	127	R		NG	
18	Jamwa	ocs	Dagarwara	Dagarwara	Jamwa	27.03	76.236	SRH	150	OUTSOURCI	130
2	Ramgarh	Area			Ramgarh	591	393	R		NG	
18	Jamwa	ocs	Raipur	Raipur	Jamwa	27.05	76.108	SRH	150	OUTSOURCI	130
3	Ramgarh	Area	·	'	Ramgarh	101	094	R		NG	
18	Jamwa	OCS	Ghata	Basna	Jamwa	27.08	76.012	SRH	150	OUTSOURCI	130
4	Ramgarh	Area	Jaldhari	200110	Ramgarh	956	119	R	.55	NG	.50
18	Jamwa	OCS	Kanikhor	Bhawni	Jamwa	27.09	76.174	SRH	150	OUTSOURCI	130
			Natiikii0i	DIIAWIII		1			150		130
5	Ramgarh	Area	I/:latare	Na aur.! -	Ramgarh	629	13	R	450	NG	120
18	Jamwa	ocs	Kilatpuri	Neemla	Jamwa	27.10	76.232	SRH	150	OUTSOURCI	130
6	Ramgarh	Area			Ramgarh	761	619	R	1.5.5	NG	100
18	Jamwa	ocs	Kooda	Manhagi	Jamwa	27.15	76.176	SRH	150	OUTSOURCI	130
7	Ramgarh	Area			Ramgarh	796	45	R		NG	
18	Jamwa	OCS	Brijpura	Bobari	Jamwa	27.26	76.054	SRH	150	OUTSOURCI	130
8	Ramgarh	Area			Ramgarh	225	286	R		NG	
18	Jhotwara	Urban		Jaipur (M	Jhotwara	26.81	75.839	SRH	150	OUTSOURCI	130
9		Agglome		Corp.)		795	632	R		NG	
-		rate		, , , ,							
19	Jhotwara	Urban		Jaipur (M	Jhotwara	26.81	75.806	SRH	150	OUTSOURCI	130
0	unotwala				unotwara	866	537	R	100	NG	130
U		Agglome		Corp.)		000	551			ווט	
		rate						<u> </u>			

19 1	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.82 154	75.740 348	SRH R	150	OUTSOURCI NG	130
19 2	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.82 154	75.774 162	SRH R	150	OUTSOURCI NG	130
19 3	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.84 96	75.872 726	SRH R	150	OUTSOURCI NG	130
19 4	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.85 032	75.800 781	SRH R	150	OUTSOURCI NG	130
19 5	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.85 104	75.769 845	SRH R	150	OUTSOURCI NG	130
19 6	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.85 176	75.741 067	SRH R	150	OUTSOURCI NG	130
19 7	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.85 248	75.837 473	SRH R	150	OUTSOURCI NG	130
19 8	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.88 342	75.838 193	SRH R	150	OUTSOURCI NG	130
19 9	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.88 342	75.876 324	SRH R	150	OUTSOURCI NG	130
20 0	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.88 485	75.700 778	SRH R	150	OUTSOURCI NG	130
20 1	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.88 485	75.807 256	SRH R	150	OUTSOURCI NG	130
20 2	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.88 557	75.733 872	SRH R	150	OUTSOURCI NG	130
20 3	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.88 629	75.764 809	SRH R	150	OUTSOURCI NG	130
20 4	Jhotwara	Urban Agglome rate	Sumel	Jhotwara	26.91 867	75.876 324	SRH R	150	OUTSOURCI NG	130
20 5	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.92 227	75.697 9	SRH R	150	OUTSOURCI NG	130
20 6	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.92 227	75.777 039	SRH R	150	OUTSOURCI NG	130
20 7	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.92 227	75.796 465	SRH R	150	OUTSOURCI NG	130
20 8	Jhotwara	Urban Agglome rate	Jaipur (M Corp.)	Jhotwara	26.92 37	75.840 351	SRH R	150	OUTSOURCI NG	130
20 9	Jhotwara	Urban Agglome	Jaipur (M Corp.)	Jhotwara	26.92 514	75.728 836	SRH R	150	OUTSOURCI NG	130

		rate									
21	Jhotwara	Urban		Jaipur (M	Jhotwara	26.95	75.875	SRH	150	OUTSOURCI	130
0	onotwara	Agglome rate		Corp.)	onotwara	536	604	R	100	NG	100
21 1	Jhotwara	Urban Agglome		Jaipur (M Corp.)	Jhotwara	26.95 752	75.734 592	SRH R	150	OUTSOURCI NG	130
21	Jhotwara	rate Urban		Jaipur (M	Jhotwara	26.95	75.770	SRH	150	OUTSOURCI	130
2	Jilotwara	Agglome		Corp.)	Jilotwara	824	564	R	130	NG	130
21 3	Jhotwara	Urban Agglome rate		Jaipur (M Corp.)	Jhotwara	26.95 824	75.836 034	SRH R	150	OUTSOURCI NG	130
21 4	Jhotwara	Urban Agglome rate		Jaipur (M Corp.)	Jhotwara	26.95 896	75.797 904	SRH R	150	OUTSOURCI NG	130
21 5	Jhotwara	Urban Agglome rate		Niwaroo	Jhotwara	26.95 968	75.699 339	SRH R	150	OUTSOURCI NG	130
21 6	Jhotwara	Urban Agglome rate		Jaipur (M Corp.)	Jhotwara	26.99 11	75.769 472	SRH R	150	OUTSOURCI NG	130
21 7	Jhotwara	Urban Agglome rate		Jaipur (M Corp.)	Jhotwara	26.99 493	75.872 007	SRH R	150	OUTSOURCI NG	130
21 8	Jhotwara	Urban Agglome rate		Boytawala	Jhotwara	26.99 655	75.728 59	SRH R	150	OUTSOURCI NG	130
21 9	Kotputli	OCS Area	Bhonawas	Bhonawas	Kotputli	27.56 265	75.998 538	SRH R	150	OUTSOURCI NG	130
22 0	Kotputli	OCS Area	Ramsingh pura	Ramsingh pura	Kotputli	27.74 968	76.166 796	SRH R	150	OUTSOURCI NG	130
22 1	Kotputli	OCS Area	Nangal Checheek a	Goneda	Kotputli	27.79 112	76.165 07	SRH R	150	OUTSOURCI NG	130
22 2	Phagi	OCS Area	Sehdariya	Sehdariya	Phagi	26.51 686	75.705 781	SRH R	150	OUTSOURCI NG	130
22 3	Phagi	OCS Area	Kudli	Mandawari	Phagi	26.51 915	75.421 331	SRH R	150	OUTSOURCI NG	130
22 4	Phagi	OCS Area	Mendwas	Mendwas	Phagi	26.52 083	75.468 488	SRH R	150	OUTSOURCI NG	130
22 5	Phagi	OCS Area	Nareda	Nareda	Phagi	26.57 366	75.413 772	SRH R	150	OUTSOURCI NG	130
22	Phagi	ocs	Jhadla	Jhadla	Phagi	26.62	75.640	SRH	150	OUTSOURCI	130
6 22	Phagi	Area OCS	Narayan	Basri	Phagi	736 26.63	168 75.752	R SRH	150	NG OUTSOURCI	130
7	, , , , , , , , , , , , , , , , , , ,	Area	Pura	Jogiyan		254	4	R		NG	
22 8	Phagi	OCS Area	Gohandi	Gohindi	Phagi	26.69 297	75.584 915	SRH R	150	OUTSOURCI NG	130
22 9	Sambhar	OCS Area	Jaitpura	Jaisinghpu ra	Phulera	26.92 78	75.300 018	SRH R	150	OUTSOURCI NG	130
23 0	Sambhar	OCS Area	Khejrawas	Bassinaga	Phulera	26.98 651	75.474 41	SRH R	150	OUTSOURCI NG	130
23 1	Sambhar	OCS Area	Korhi	Dyodi	Phulera	26.99 514	75.344 911	SRH R	150	OUTSOURCI NG	130

23	Sambhar	ocs	Mohan Ka	Kheri Milak	Phulera	27.08	75.470	SRH	150	OUTSOURCI	130
2		Area	Bas			874	375	R		NG	
23	Sambhar	OCS Area	Doongri Kalan	Doongri Kalan	Phulera	27.15 478	75.470 375	SRH R	150	OUTSOURCI NG	130
23	Sanganer	ocs	Watika	Watika	Sanganer	26.67	75.756	SRH	150	OUTSOURCI	130
4	\ r \ (	Area	T 1	<b>T</b> 1	\ P = 1	533	337	R	450	NG	400
23	Viratnagar	OCS	Talva	Talva	Viratnagar	27.26	76.106	SRH	150	OUTSOURCI	130
5	\ E = 4 = = = = =	Area	D-I-i	Dale	\ P t	45	364	R	450	NG	400
23	Viratnagar	OCS	Palri	Palri	Viratnagar	27.33	76.109	SRH	150	OUTSOURCI	130
6	\ r \ (	Area	0.1	1 11 1	\ P = 1	356	817	R	450	NG	400
23	Viratnagar	ocs	Satana	Jodhoola	Viratnagar	27.34	76.173	SRH	150	OUTSOURCI	130
7	\ r \ (	Area	D 1:		\ P = 1	565	703	R	450	NG	400
23	Viratnagar	ocs	Daulaj	Jodhoola	Viratnagar	27.39	76.173	SRH	150	OUTSOURCI	130
8	\ r \ (	Area	011 (1)	011 11	\ P = 1	745	703	R	450	NG	400
23	Viratnagar	ocs	Chheetoli	Chheetoli	Viratnagar	27.50	76.123	SRH	150	OUTSOURCI	130
9		Area		0.1		379	033	R	150	NG	100
24	Viratnagar	ocs	Basri	Chhapra	Shahpura	27.50	75.994	SRH	150	OUTSOURCI	130
0		Area	Ganeshpur	Khurd		606	011	R		NG	
			а								
24	Viratnagar	OCS	Khelna	Khelna	Kotputali	27.55	76.061	SRH	150	OUTSOURCI	130
1		Area				359	917	R		NG	
24	Ahore	ocs	Palasiya	Paota	Ahore	25.24	72.961	SRH	150	OUTSOURCI	130
2		Area	Khurd			793	414	R		NG	
24	Ahore	ocs	Guraindra	Rodala	Ahore	25.40	73.022	SRH	150	OUTSOURCI	130
3		Area	pura			269	073	R		NG	
24	Ahore	OCS	Bhooti	Bhooti	Ahore	25.46	73.019	SRH	150	OUTSOURCI	130
4		Area				654	562	R		NG	
24	Ahore	Industrial	Kawla	Kanwla	Ahore	25.46	73.074	SRH	150	OUTSOURCI	130
5		Cluster				803	209	R		NG	
24	Ahore	OCS	Chawrda	Kanwla	Ahore	25.52	73.017	SRH	150	OUTSOURCI	130
6		Area				323	407	R		NG	
24	Ahore	OCS	Rundmal	Valdara	Ahore	25.52	72.965	SRH	150	OUTSOURCI	130
7		Area	Ki			691	479	R		NG	
24	Ahore	OCS	Malgarh	Norwa	Ahore	25.58	72.962	SRH	150	OUTSOURCI	130
8		Area				1	964	R		NG	
24	Ahore	OCS	Bala	Bala	Ahore	25.59	72.731	SRH	150	OUTSOURCI	130
9		Area				808	17	R		NG	
25	Ahore	ocs	Bhadrajoo	Bhadrajoo	Ahore	25.61	72.900	SRH	150	OUTSOURCI	130
0		Area	n ,	n		607	267	R		NG	
25	Ahore	OCS	Beeili	Bhorda	Ahore	25.69	72.789	SRH	150	OUTSOURCI	130
1		Area	,			168	397	R		NG	
25	Ahore	ocs	Bankli	Bankli	Ahore	25.69	72.852	SRH	150	OUTSOURCI	130
2		Area				419	284	R		NG	
25	Ahore	OCS	Barwan	Dhana	Ahore	25.74	72.793	SRH	150	OUTSOURCI	130
3		Area		· ·		953	17	R		NG	
25	Bhinmal	OCS	Ghaseri	Kot Kasta	Bhinmal	25.02	72.405	SRH	150	OUTSOURCI	130
4		Area				963	568	R		NG	
25	Bhinmal	OCS	Naya	Morseem	Bagora	25.13	71.883	SRH	150	OUTSOURCI	130
5		Area	Morseem			216	885	R		NG	
25	Chitalwan	Internati	Rankhar	Khejariyali	Sanchore	24.65	71.238	SRH	150	OUTSOURCI	130
6	a	onal				725	077	R		NG	
	-	Boundar									
		V					1				
25	Chitalwan	OCS	Bhawatra	Joradar	Sanchore	24.73	71.356	SRH	150	OUTSOURCI	130
7	a	Area		30.0001	54.1011010	82	805	R	.55	NG	.50
25	Chitalwan	OCS	Varanwa	Soonthri	Sanchore	24.75	71.477	SRH	150	OUTSOURCI	130
20	Jintarwan	000	varanvva	Joonani	Julionold	2 7.70	1 1.7//	OIGH	100	1 201000101	100

8	а	Area				079	332	R		NG	
25	Chitalwan	ocs	Kachhela	Kachhela	Sanchore	24.81	71.612	SRH	150	OUTSOURCI	130
9	а	Area				196	25	R		NG	
26	Chitalwan	OCS	Kalji Ki	Bhimgura	Sanchore	24.86	71.378	SRH	150	OUTSOURCI	130
0	a	Area	Beri	2 mingara	Carionoro	413	392	R	.00	NG	100
26	Jalor	OCS	Dewara	Akoli	Jalor	25.08	72.641	SRH	150	OUTSOURCI	130
1	daloi	Area	Dewara	/ ticon	Jaioi	899	225	R	100	NG	100
26	Jaswantpu	OCS	Keebla	Raji Ka	Bhinmal	24.83	72.412	SRH	150	OUTSOURCI	130
	•	Area	Reebia	Bas	Dillilliai	534	764		150	NG	130
2	ra		A made a tui		Dhianal			R	150		120
26	Jaswantpu	ocs	Ambatri	Chandoor	Bhinmal	24.95	72.419	SRH	150	OUTSOURCI	130
3	ra	Area		_		407	959	R		NG	
26	Jaswantpu	ocs	Ramseen	Ramseen	Bhinmal	25.00	72.518	SRH	150	OUTSOURCI	130
4	ra	Area				444	899	R		NG	
26	Jaswantpu	OCS	Chandna	Seekwara	Bhinmal	25.08	72.522	SRH	150	OUTSOURCI	130
5	ra	Area				539	497	R		NG	
26	Raniwara	ocs	Golwara	Mera	Raniwara	24.82	72.155	SRH	150	OUTSOURCI	130
6		Area				095	52	R		NG	
26	Sanchore	OCS	Paharpura	Golasan	Sanchore	24.73	71.730	SRH	150	OUTSOURCI	130
7		Area	'			101	978	R		NG	
26	Sanchore	OCS	Amarpura	Bichhawari	Sanchore	24.74	71.588	SRH	150	OUTSOURCI	130
8	Carlonere	Area	, and para	Biomawan	Carionoro	9	864	R	.00	NG	100
26	Sanchore	OCS	Raghunath	Bawarla	Sanchore	24.76	71.621	SRH	150	OUTSOURCI	130
9	Garicilore	Area	pura	Dawana	Sanchore	703	146	R	130	NG	130
27	Canahara	OCS	Palri	Palri	Sanchore	24.82	71.729	SRH	150	OUTSOURCI	130
	Sanchore				Sanchore	1	1		150		130
0	0 1	Area	Solankiyan	Solankiyan		275	179	R	450	NG	400
27	Sapotra	ocs	Kala	Kala	Sapotra	26.22	76.752	SRH	150	OUTSOURCI	130
1		Area	Gurha	Gurha	_	789	215	R		NG	
27	Sapotra	ocs	Raseelpur	Daulatpura	Sapotra	26.22	76.868	SRH	150	OUTSOURCI	130
2		Area	Jaga			789	851	R		NG	
27	Sapotra	ocs	Bagida	Bagida	Sapotra	26.23	76.694	SRH	150	OUTSOURCI	130
3		Area				084	634	R		NG	
27	Sapotra	OCS	Nainiya Ki	Daulatpura	Sapotra	26.23	76.815	SRH	150	OUTSOURCI	130
4	•	Area		'	'	084	7	R		NG	
27	Sapotra	OCS	Kased	Kased	Sapotra	26.23	77.047	SRH	150	OUTSOURCI	130
5	Capoua	Area	11000	11000	Capona	084	498	R	.00	NG	100
27	Sapotra	OCS	Nibhaira	Nibhaira	Sapotra	26.23	76.932	SRH	150	OUTSOURCI	130
6	σαροιία	Area	INDITALIA	Mibrialia	ουροιία	232	337	R	100	NG	100
27	Sapotra	OCS	Marmada	Nibhaira	Sapotra	26.28	76.929	SRH	150	OUTSOURCI	130
	Sapolia		iviaiiiiaua	เทเบเเสแล	Sapolia	1	1		130		130
7	Com - 4	Area	Marriton	Debin	Com - t	252	384	R	450	NG	400
27	Sapotra	ocs	Manikpura	Rahir	Sapotra	26.28	77.046	SRH	150	OUTSOURCI	130
8		Area	ļ			252	021	R	4==	NG	100
27	Sapotra	ocs	Neemoda	Kherla	Sapotra	26.28	76.644	SRH	150	OUTSOURCI	130
9		Area				4	436	R		NG	
28	Sapotra	OCS	Rahir	Rahir	Sapotra	26.28	76.985	SRH	150	OUTSOURCI	130
0		Area				695	488	R		NG	
28	Sapotra	ocs	Jeerota	Jeerota	Sapotra	26.28	76.694	SRH	150	OUTSOURCI	130
1	•	Area				842	634	R		NG	
28	Sapotra	OCS	Rodhai	Rodhai	Mandrail	26.28	77.164	SRH	150	OUTSOURCI	130
2	- F	Area				842	134	R		NG	
28	Sapotra	OCS	Chirmil	Kased	Sapotra	26.29	77.094	SRH	150	OUTSOURCI	130
3	Supolia	Area		1.0000	Capolia	138	743	R	100	NG	100
28	Sanotra	OCS	Mandi	Bahadarpu	Sapotra	26.34	77.085	SRH	150	OUTSOURCI	130
	Sapotra				<u> </u>	1	1		130		130
4	Competer	Area	Bhat	r Aa.a.b	Com - to	01	884	R	450	NG	400
28	Sapotra	OCS	Masawata	Aurach	Sapotra	26.34	76.693	SRH	150	OUTSOURCI	130
5		Area	<u> </u>			158	158	R		NG	

28 6	Sapotra	OCS Area	Chaube Ki	Rahir	Sapotra	26.34 305	76.986 965	SRH R	150	OUTSOURCI NG	130
28	Sapotra	OCS Area	Maikna	Dhoreta	Mandrail	26.34 305	77.218 762	SRH R	150	OUTSOURCI NG	130
28 8	Sapotra	OCS Area	Bahadarpu	Bahadarpu	Sapotra	26.34 453	77.037 163	SRH R	150	OUTSOURCI NG	130
28 9	Sapotra	OCS Area	Needar	Needar	Mandrail	26.34 453	77.168 564	SRH R	150	OUTSOURCI NG	130
29 0	Sapotra	OCS Area	Rancholi	Pancholi	Mandrail	26.34 453	77.273 389	SRH R	150	OUTSOURCI NG	130
29 1	Sapotra	OCS Area	Singoopur	Hariya Ka	Sapotra	26.34 601	76.808 318	SRH R	150	OUTSOURCI NG	130
29 2	Sapotra	OCS Area	Khidarpur	Bhartoon	Sapotra	26.38 734	76.706 446	SRH R	150	OUTSOURCI NG	130
29 3	Sapotra	OCS Area	Chandelip ura	Chandelip ura	Mandrail	26.39 916	77.279 295	SRH R	150	OUTSOURCI NG	130
29 4	Sapotra	OCS Area	Ond	Ond	Mandrail	26.40 359	77.322 111	SRH R	150	OUTSOURCI NG	130
29 5	Sapotra	OCS Area	Manakhur	Chandelip ura	Mandrail	26.40 654	77.220 238	SRH R	150	OUTSOURCI NG	130
29 6	Sapotra	OCS Area	Gurdah	Gurdah	Mandrail	26.44 788	77.217 285	SRH R	150	OUTSOURCI NG	130
29 7	Sapotra	OCS Area	Salempur	Salempur	Sapotra	26.45 378	76.809 795	SRH R	150	OUTSOURCI NG	130
29 8	Sapotra	OCS Area	Gurdah	Gurdah	Mandrail	26.45 674	77.155 276	SRH R	150	OUTSOURCI NG	130
29 9	Todabhim	OCS Area	Sahjanpur	Sankarwar a	Todabhim	26.74 611	76.913 144	SRH R	150	OUTSOURCI NG	130
30 0	Riyan	OCS Area	Velar	Kothar	Bali	24.97 272	73.080 195	SRH R	150	OUTSOURCI NG	130
30 1	Bali	OCS Area	Sadra	Latara	Bali	25.11 474	73.348 805	SRH R	150	OUTSOURCI NG	130
30 2	Bali	OCS Area	Boya	Boya	Bali	25.15 488	73.246 918	SRH R	150	OUTSOURCI NG	130
30 3	Bali	Industrial Cluster	Beeroliya	Beral	Bali	25.18 313	73.193 074	SRH R	150	OUTSOURCI NG	130
30 4	Jaitaran	OCS Area	Litariya	Kanecha Ranawata n	Jaitaran	26.33 121	73.892 199	SRH R	150	OUTSOURCI NG	130
30 5	Marwar Junction	OCS Area	Seeriyari	Seeriyari	Marwar	25.68 094	73.859 474	SRH R	150	OUTSOURCI NG	130
30 6	Pali	Industrial Cluster	Gura Endla	Gura Endla - I	Pali	25.52 538	73.209 869	SRH R	150	OUTSOURCI NG	130
30 7	Pali	OCS Area	Jooni Endla	Gura Endla - li	Pali	25.58 312	73.238 356	SRH R	150	OUTSOURCI NG	130
30 8	Pali	Industrial Cluster	Sapooni	Sodawas	Pali	25.58 5	73.432 691	SRH R	150	OUTSOURCI NG	130
30 9	Pali	OCS Area	Sundelao	Sakdara	Pali	25.58 689	73.087 416	SRH R	150	OUTSOURCI NG	130
31 0	Pali	OCS Area	Koorna	Koorna	Pali	25.58 689	73.140 245	SRH R	150	OUTSOURCI NG	130
31 1	Pali	OCS Area	Koorna	Koorna	Pali	25.59 066	73.189 301	SRH R	150	OUTSOURCI NG	130
31 2	Pali	OCS Area	Manihari	Manihari	Pali	25.64 579	73.086 37	SRH R	150	OUTSOURCI NG	130
31	Pali	OCS	Gundoj	Gundoj - I	Pali	25.64	73.313	SRH	150	OUTSOURCI	130

Pail	3		Area		& li		727	826	R		NG	
Pali	31	Pali		Denda	Denda	Pali	25.67	73.219	SRH	150	OUTSOURCI	130
Area	4		Area				666	131	R		NG	
Deli	31	Pali	ocs	Akrawas	Baniyawas	Pali	25.69	73.500	SRH	150	OUTSOURCI	130
Area					-		821	613	R		NG	
Pali	31	Pali	ocs	Dayalpura	Dayalpura	Pali		73.138	SRH	150	OUTSOURCI	130
Area												
Pali		Pali		Ramasiya	Hemawas	Pali				150		130
Age												
Pali		Pali		Snkrawas	Lambiya	Pali				150		130
Section   Sect												
32		Pali		Roopawas	Roopawas	Pali			l .	150		130
O		D. I.		<b>D</b> .	- I	D. II				450		400
32		Pali		Bomadara	Bomadara	Pali				150		130
1		D-E		District	Discourse	D-II				450		400
22	1	Pall		Bnaieiao	Bnangesar	Pall			l .	150		130
Area		Dali		Dhagaaar	Dhansaas	Deli				150		120
32		Pall		Briagesar	Bhangesar	Pall				150		130
Cluster		Doni		Doni (M)	Pani (M)	Doli				150		120
32		Naili		Karii (ivi)	Karii (IVI)	Fall			l .	150		130
A	32	Rani		Rhagwan	Itdara	Deguri				150		130
Section   Cluster   Clus		IXam				Desuit			l .	130		130
5         Cluster         ura         765         315         R         NG           32         Rani         OCS         Mandal         Mandal         Pali         25.40         73.264         SRH         150         OUTSOURCI         130           32         Rani         Industrial         Jawali         Desuri         25.46         73.368         SRH         150         OUTSOURCI         130           32         Rani         Industrial         Cluster         Chanchori         Chanchori         Pali         25.47         73.260         SRH         150         OUTSOURCI         130           32         Rani         Industrial         Cluster         Cluster         Bhadarlau         Desuri         25.47         73.487         SRH         150         OUTSOURCI         130           33         Rani         Industrial         Cluster         Duthriya         Bhadarlau         Desuri         25.47         73.435         SRH         150         OUTSOURCI         130           33         Rani         Industrial         Changwa         Keerwa         Pali         25.51         73.262         SRH         150         OUTSOURCI         130           33		Rani				Desuri				150		130
32         Rani         OCS Area         Mandal Area         Mandal Mandal         Pali 954         25.40 77         73.264 R         SRH NG         150 NG         OUTSOURCI NG         130 NG           32         Rani         Industrial Cluster         Loanchori Cluster         Desuri         25.46 803         73.368 541         SRH R         150 NG         OUTSOURCI NG         130 NG           32         Rani         Industrial Cluster         Chanchori         Chanchori         Pali         25.47 18         73.260 997         SRH NG         150 OUTSOURCI         130 NG           32         Rani         Industrial Cluster         Elani         Indanwara         Desuri         25.47 557         73.495 406         SRH NG         150 OUTSOURCI         130 NG           33         Rani         Industrial Cluster         Changwa         Keerwa         Pali         25.51 25.51         73.252 73.354         SRH NG         150 OUTSOURCI         130 NG           33         Rani         Industrial Cluster         Sedariya         Sedariya         Pali         25.51 25.51         73.354 73.310         SRH NG         150 OUTSOURCI         130 NG           33         Rani         Industrial Cluster         Neembara Cluster         Itandra         Pali         <		rain .			Boojowa	Doddii			l .	100		100
6         Area         Area         Jawali         Desuri         25.4         77         R         NG           32         Rani         Industrial Cluster         Desuri         25.46         73.368         SRH         150         OUTSOURCI         130           32         Rani         Industrial Cluster         Chanchori         Chanchori         Pali         25.47         73.260         SRH         150         OUTSOURCI         130           32         Rani         Industrial Industrial Cluster         Elani         Indawara         Desuri         25.47         73.487         SRH         150         OUTSOURCI         130           33         Rani         Industrial Cluster         Duthriya         Bhadarlau         Desuri         25.47         73.435         SRH         150         OUTSOURCI         130           33         Rani         Industrial Cluster         Changwa         Keerwa         Pali         25.51         73.352         SRH         150         OUTSOURCI         130           33         Rani         Industrial Cluster         Sedariya         Sedariya         Pali         25.51         73.354         SRH         150         OUTSOURCI         130           33		Rani			Mandal	Pali				150		130
32 Rani         Industrial Cluster         Jawali         Desuri         25.46 803         73.368 541         RR NG         150 NG         OUTSOURCI NG NG         130 NG           32 Rani         Industrial Cluster         Chanchori         Chanchori         Pali         25.47 73.260         SRH 150 NG         OUTSOURCI NG NG         130 NG           32 Rani         Industrial Cluster         Industrial Cluster         Bhadarlau         Desuri         25.47 73.487 SRH 150 OUTSOURCI NG NG         130 NG           33 Rani         Industrial Cluster         Duthriya         Bhadarlau         Desuri         25.47 73.485 SRH R R         SRH 150 OUTSOURCI NG NG         130 NG           33 Rani         Industrial Cluster         Changwa Cluster         Keerwa         Pali         25.51 73.262 SRH R R R         PR         NG         NG         NG           33 Rani         Industrial Cluster         Sedariya         Sedariya         Pali         25.52 73.354 SRH R R NG         SRH NG         NG         NG         NG           33 Rani         Industrial Cluster         Khor         Khor         Pali         25.52 73.354 SRH R NG         SRH NG				Marida	Mariaar				l .	.00		100
7         Cluster         Board         Board         State         R         NG           32         Rani         Industrial Cluster         Chanchori         Pali         25.47         73.260         SRH         150         OUTSOURCI         130           32         Rani         Industrial Cluster         Elani         Indarwara         Desuri         25.47         73.487         SRH         150         OUTSOURCI         130           33         Rani         Industrial Cluster         Desuri         25.47         73.487         SRH         150         OUTSOURCI         130           33         Rani         Industrial Cluster         Changwa         Keerwa         Pali         25.51         73.262         SRH         150         OUTSOURCI         130           33         Rani         Industrial Cluster         Changwa         Keerwa         Pali         25.51         73.362         SRH         150         OUTSOURCI         130           33         Rani         Industrial Industrial Cluster         Khor         Khor         Pali         25.52         73.354         SRH         150         OUTSOURCI         130           33         Rani         Industrial Cluster         Khor		Rani		Jawali	Jawali	Desuri				150		130
8         Cluster         Industrial Cluster         Elani         Indarwara Desuri         25.47 (25.47)         73.487 (25.47)         R (25.47)         NG         NG           33         Rani         Industrial Cluster         Duthriya         Bhadarlau         Desuri         25.47 (25.47)         73.485 (25.47)         R (25.47)         NG         NG           33         Rani         Industrial Cluster         Cluster         Pali         25.47 (25.47)         73.435 (25.47)         R (25.47)         NG         NG           33         Rani         Industrial Cluster         Cluster         Pali         25.51 (25.51)         73.262 (25.47)         R (25.47)         NG         NG </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>l .</td> <td></td> <td></td> <td></td>									l .			
32         Rani         Industrial Cluster         Elani         Indarwara Desuri         25.47 (73.487) (	32	Rani	Industrial	Chanchori	Chanchori	Pali	25.47	73.260	SRH	150	OUTSOURCI	130
9         Cluster         Duthriya         Bhadarlau         Desuri         557         406         R         NG           33         Rani         Industrial Cluster         Duthriya         Bhadarlau         Desuri         25.47         73.435         SRH         150         OUTSOURCI         130           33         Rani         Industrial Cluster         Cluster         897         884         R         NG         NG           33         Rani         Industrial Cluster         Sedariya         Sedariya         Pali         25.52         73.354         SRH         150         OUTSOURCI         130           2         Cluster         Sedariya         Sedariya         Pali         25.52         73.310         SRH         150         OUTSOURCI         130           33         Rani         Industrial Cluster         Khor         Khor         Pali         25.53         73.310         SRH         150         OUTSOURCI         130           33         Rani         Industrial Cluster         NG         NG         NG         NG           33         Sojat         OCS         Khariya         Sojat         Sojat         25.82         73.670         SRH         150 <td>8</td> <td></td> <td>Cluster</td> <td></td> <td></td> <td></td> <td>18</td> <td>997</td> <td>R</td> <td></td> <td>NG</td> <td></td>	8		Cluster				18	997	R		NG	
Rani	32	Rani	Industrial	Elani	Indarwara	Desuri	25.47	73.487	SRH	150	OUTSOURCI	130
O         Cluster         Cluster         S98         254         R         NG           33         Rani         Industrial Cluster         Changwa         Keerwa         Pali         25.51         73.262         SRH         150         OUTSOURCI         130           33         Rani         Industrial Cluster         Sedariya         Pali         25.52         73.354         SRH         150         OUTSOURCI         130           33         Rani         Industrial Cluster         Khor         Khor         Pali         25.53         73.310         SRH         150         OUTSOURCI         130           33         Rani         Industrial Cluster         Neembara         Itandra         Pali         25.53         73.432         SRH         150         OUTSOURCI         130           4         Cluster         Neembara         Itandra         Pali         25.53         73.432         SRH         150         OUTSOURCI         130           33         Sojat         OCS         Khariya         Khariya         Sojat         25.82         73.670         SRH         150         OUTSOURCI         130           5         Area         Malpuriya         Malpuriya <td< td=""><td></td><td></td><td>Cluster</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>			Cluster									
Rani	33	Rani		Duthriya	Bhadarlau	Desuri				150		130
Cluster												
33         Rani         Industrial Cluster         Sedariya         Pali         25.52 (29) 98 R         73.354 R         SRH R         150 OUTSOURCI NG NG         130 NG           33         Rani         Industrial Cluster         Khor         Khor         Pali Pali Pali Pali Pali Pali Pali Pali		Rani		Changwa	Keerwa	Pali				150		130
2         Cluster         Khor         Khor         Pali         25.53         73.310         SRH         150         OUTSOURCI         130           33         Rani         Industrial Cluster         Neembara         Itandra         Pali         25.53         73.432         SRH         150         OUTSOURCI         130           33         Rani         Industrial Cluster         Neembara         Itandra         Pali         25.53         73.432         SRH         150         OUTSOURCI         130           33         Sojat         OCS         Khariya         Sojat         25.82         73.670         SRH         150         OUTSOURCI         130           5         Area         Swami         Soda         273         42         R         NG           33         Sojat         OCS         Malpuriya         Malpuriya         Sojat         25.87         73.485         SRH         150         OUTSOURCI         130           4         Area         Bagri         Bagri         Sojat         25.92         73.876         SRH         150         OUTSOURCI         130           7         Area         Hingawas         Sojat         25.99         73.545				_	-							
33         Rani         Industrial Cluster         Khor         Pali         25.53         73.310         SRH         150         OUTSOURCI NG         130           33         Rani         Industrial Cluster         Neembara         Itandra         Pali         25.53         73.432         SRH         150         OUTSOURCI NG         130           33         Sojat         OCS         Khariya         Sojat         25.82         73.670         SRH         150         OUTSOURCI NG         130           5         Area         Swami         Soda         273         42         R         NG         NG           33         Sojat         OCS         Malpuriya         Malpuriya         Sojat         25.87         73.485         SRH         150         OUTSOURCI         130           6         Area         Malpuriya         Sojat         25.87         73.485         SRH         150         OUTSOURCI         130           33         Sojat         OCS         Bagri         Bagri         Sojat         25.92         73.876         SRH         150         OUTSOURCI         130           7         Area         OCS         Gagura         Hingawas         Sojat		Rani		Sedariya	Sedariya	Pali			l .	150		130
3         Cluster         029         052         R         NG           33         Rani         Industrial Cluster         Neembara         Itandra         Pali         25.53         73.432         SRH         150         OUTSOURCI NG         130           33         Sojat         OCS         Khariya Soda         Sojat         25.82         73.670         SRH         150         OUTSOURCI NG         130           33         Sojat         OCS         Malpuriya         Sojat         25.87         73.485         SRH         150         OUTSOURCI NG         130           6         Area         Malpuriya         Sojat         25.87         73.485         SRH         150         OUTSOURCI NG         130           7         Area         Bagri         Sojat         25.92         73.876         SRH         150         OUTSOURCI NG         130           8         Area         Hingawas         Sojat         25.92         73.545         SRH         150         OUTSOURCI NG         130           8         Area         Area         Hingawas         Sojat         25.99         73.721         SRH         150         OUTSOURCI         130           9					1.0					4=0		100
33         Rani         Industrial Cluster         Neembara         Itandra         Pali         25.53         73.432 SRH R         150 OUTSOURCI NG NG         130           33         Sojat OCS Area         Khariya Soda         25.82 73.670 SRH Area         SRH NG NG         150 OUTSOURCI NG NG         130           33         Sojat OCS Area         Malpuriya Area         Malpuriya Sojat NG         25.87 73.485 SRH SRH SRH NG NG         150 OUTSOURCI NG NG         130           33         Sojat OCS Area         Bagri Bagri Sojat Area         Sojat Sojat Sojat NG         25.92 73.876 SRH SRH SRH NG         150 OUTSOURCI NG NG         130           33         Sojat Area         OCS Area         Hingawas Area         Sojat Sojat Sojat Sojat Sojat RR         25.99 73.545 SRH SRH NG         150 OUTSOURCI NG NG         130 OUTSOURCI NG NG           33         Sojat OCS Area         Mandla Mandla Sojat Sojat Sojat RR         25.99 73.721 SRH SRH SRH NG         150 OUTSOURCI NG NG         130 OUTSOURCI NG NG           34         Sojat OCS Area         Panchwa Kalan         Charwas Sojat Sojat RR         26.02 73.463 SRH SRH SRH NG         150 OUTSOURCI NG NG         130 OUTSOURCI NG NG		Ranı		Khor	Khor	Pali			l .	150		130
4         Cluster         218         691         R         NG           33         Sojat         OCS         Khariya         Sojat         25.82         73.670         SRH         150         OUTSOURCI         130           5         Area         Swami         Soda         273         42         R         NG           33         Sojat         OCS         Malpuriya         Sojat         25.87         73.485         SRH         150         OUTSOURCI         130           6         Area         OCS         Bagri         Sojat         25.92         73.876         SRH         150         OUTSOURCI         130           7         Area         Area         Bagri         Sojat         25.92         73.876         SRH         150         OUTSOURCI         130           8         Area         Area         Hingawas         Sojat         25.99         73.545         SRH         150         OUTSOURCI         130           8         Area         Area         Mandla         Mandla         Sojat         25.99         73.721         SRH         150         OUTSOURCI         130           9         Area         Area         Area </td <td></td> <td>Don:</td> <td></td> <td>Na a</td> <td>lton due</td> <td>Dali</td> <td></td> <td></td> <td></td> <td>450</td> <td></td> <td>120</td>		Don:		Na a	lton due	Dali				450		120
33         Sojat         OCS Area         Khariya Soda         Sojat Sojat         25.82 273         42 42 R         R         150 NG         OUTSOURCI NG         130 NG           33         Sojat OCS Area         Malpuriya         Malpuriya Sojat NG         25.87 73.485 SRH NG         SRH NG         150 OUTSOURCI NG         130 NG           33         Sojat Area         OCS Area         Bagri Sojat NG         Sojat NG         25.92 73.876 SRH NG         SRH NG         150 OUTSOURCI NG         130 NG           33         Sojat Area         OCS Area         Hingawas Sojat Sojat NG         25.99 73.545 SRH NG         SRH NG         150 OUTSOURCI NG         130 NG           33         Sojat OCS Area         Mandla Mandla NG         Sojat Sojat NG         25.99 73.721 SRH NG         SRH NG         150 OUTSOURCI NG         130 NG           34         Sojat OCS Area         Panchwa Kalan         Charwas Sojat NG         26.02 73.463 SRH NG         SRH NG         150 OUTSOURCI NG         130 NG		Kanı		ineembara	itandra	Pall				150		130
5         Area         Swami         Soda         273         42         R         NG           33         Sojat         OCS         Malpuriya         Malpuriya         Sojat         25.87         73.485         SRH         150         OUTSOURCI         130           33         Sojat         OCS         Bagri         Sojat         25.92         73.876         SRH         150         OUTSOURCI         130           7         Area         Area         Hingawas         Sojat         25.92         73.545         SRH         150         OUTSOURCI         130           8         Area         Area         Hingawas         Sojat         25.99         73.545         SRH         150         OUTSOURCI         130           9         Area         Mandla         Mandla         Sojat         25.99         73.721         SRH         150         OUTSOURCI         130           9         Area         Area         Charwas         Sojat         26.02         73.463         SRH         150         OUTSOURCI         130           0         Area         Kalan         Charwas         Sojat         26.02         73.463         SRH         150         OUT		Soiot		Khariya	Khoriyo	Coint				150		120
33         Sojat         OCS Area         Malpuriya         Sojat         25.87 73.485 73.485 73.485 71.00 RCI 71.00 RCI 71.00 RCI 72.00 R		Jujai				Sujai			l .	130		130
6         Area         179         519         R         NG           33         Sojat         OCS         Bagri         Bagri         Sojat         25.92         73.876         SRH         150         OUTSOURCI         130           7         Area         OCS         Gagura         Hingawas         Sojat         25.99         73.545         SRH         150         OUTSOURCI         130           8         Area         Area         Mandla         Sojat         25.99         73.721         SRH         150         OUTSOURCI         130           9         Area         Area         Mandla         Sojat         25.99         73.721         SRH         150         OUTSOURCI         130           9         Area         Area         Charwas         Sojat         26.02         73.463         SRH         150         OUTSOURCI         130           0         Area         Kalan         Kalan         863         041         R         NG		Soiat				Soiat				150		130
33         Sojat         OCS Area         Bagri Area         Sojat         25.92 984 762 R         73.876 R         SRH NG NG         150 NG         OUTSOURCI NG NG         130 NG           33         Sojat Area         OCS Area         Hingawas Sojat Sojat Area         25.99 73.545 R         SRH NG NG         150 OUTSOURCI NG NG         130 NG           33         Sojat Area         OCS Area         Mandla Mandla Sojat Area         25.99 73.721 SRH SRH NG NG         SRH NG NG         150 OUTSOURCI NG NG         130 NG           34         Sojat OCS Area         Panchwa Kalan         Charwas Sojat Sojat RA         26.02 73.463 SRH SRH NG NG         150 OUTSOURCI NG NG         130 NG		Jujai		iviaipuitya	iviaipuitya	Joujai				130		130
7         Area         Gagura         Hingawas         Sojat         25.99         73.545         SRH         150         OUTSOURCI         130           8         Area         Hingawas         Sojat         25.99         73.545         SRH         150         OUTSOURCI         130           33         Sojat         OCS         Mandla         Mandla         Sojat         25.99         73.721         SRH         150         OUTSOURCI         130           9         Area         Area         Charwas         Sojat         26.02         73.463         SRH         150         OUTSOURCI         130           0         Area         Kalan         Kalan         863         041         R         NG		Soiat		Bagri	Bagri	Soiat				150		130
33         Sojat         OCS Area         Gagura         Hingawas         Sojat         25.99 (443)         73.545 (88H) (895)         SRH (895)         R         150 (895)         OUTSOURCI (130)         130 (143)         NG         NG         150 (143)         OUTSOURCI (143)         130 (144)         NG         NG         150 (144)         NG         NG         1443 (144)         150 (144)         NG         NG         1443 (144)         NG         NG         NG         1443 (144)         NG         NG         NG         NG         1443 (144)         NG		Jojak		Jugii	Jugii	Jojac			l .	.50		100
8         Area         443         895         R         NG           33         Sojat         OCS         Mandla         Mandla         Sojat         25.99         73.721         SRH         150         OUTSOURCI         130           9         Area         OCS         Panchwa         Charwas         Sojat         26.02         73.463         SRH         150         OUTSOURCI         130           0         Area         Kalan         Kalan         863         041         R         NG		Soiat		Gagura	Hingawas	Soiat				150		130
33         Sojat         OCS Area         Mandla         Mandla         Sojat 443         25.99 363         73.721 R         SRH NG         150 NG         OUTSOURCI NG         130 NG           34         Sojat 0         OCS Area         Panchwa Kalan         Charwas Kalan         Sojat 863         26.02 041         73.463 R         SRH NG         150 NG         OUTSOURCI NG         130 NG		,~"				,,,,,,						
9         Area         443         363         R         NG           34         Sojat         OCS         Panchwa         Charwas         Sojat         26.02         73.463         SRH         150         OUTSOURCI         130           0         Area         Kalan         863         041         R         NG		Sojat		Mandla	Mandla	Sojat				150		130
34         Sojat         OCS         Panchwa         Charwas         Sojat         26.02         73.463         SRH         150         OUTSOURCI         130           0         Area         Kalan         863         041         R         NG         NG		•				,			l .			
0 Area Kalan 863 041 R NG		Sojat		Panchwa	Charwas	Sojat				150		130
		-				-			l .			
	34	Sojat		Ramasani	Meo	Sojat	26.10	73.606	SRH	150	OUTSOURCI	130

1		Area				952	271	R		NG	
34	Sumerpur	Industrial	Purara	Pomawa	Sumerpur	25.17	73.017	SRH	150	OUTSOURCI	130
2	•	Cluster				558	607	R		NG	
34	Sumerpur	Industrial	Jakhora	Koliwara	Sumerpur	25.17	73.142	SRH	150	OUTSOURCI	130
3	,	Cluster				935	132	R		NG	
34	Sumerpur	Industrial	Khiwandi	Khiwandi	Sumerpur	25.23	73.083	SRH	150	OUTSOURCI	130
4		Cluster				407	643	R		NG	
34	Sumerpur	Industrial	Bankali	Bankali	Sumerpur	25.23	73.030	SRH	150	OUTSOURCI	130
5		Cluster				596	814	R		NG	
34	Sumerpur	Industrial	Rojra	Netra	Sumerpur	25.23	73.130	SRH	150	OUTSOURCI	130
6		Cluster				784	812	R		NG	
34	Sumerpur	Industrial	Khindara	Sindroo	Sumerpur	25.23	73.198	SRH	200	OUTSOURCI	150
7		Cluster	Gaon			973	734	R		NG	
34	Sumerpur	Industrial	Khiwandi	Khiwandi	Sumerpur	25.29	73.074	SRH	200	OUTSOURCI	150
8		Cluster			_	633	209	R		NG	
34	Sumerpur	Industrial	Kheemara	Kheemara	Sumerpur	25.34	73.147	SRH	200	OUTSOURCI	150
9		Cluster				916	792	R		NG	1-0
35	Sumerpur	Industrial	Venpura	Deotara	Sumerpur	25.34	73.257	SRH	200	OUTSOURCI	150
0		Cluster				916	223	R		NG	1-0
35	Sumerpur	Industrial	Koselao	Koselao	Sumerpur	25.35	73.079	SRH	200	OUTSOURCI	150
1		Cluster				671	869	R	200	NG	150
35	Sumerpur	Industrial	Beerami	Beerami	Sumerpur	25.37	73.200	SRH	200	OUTSOURCI	150
2		Cluster				718	606	R	000	NG	150
35	Sumerpur	Industrial	Baba-	Basant	Sumerpur	25.41	73.136	SRH	200	OUTSOURCI	150
3		Cluster	Gaon			142	472	R	000	NG	4.50
35	Sumerpur	Industrial	Bargaowra	Lapod	Sumerpur	25.46	73.142	SRH	200	OUTSOURCI	150
4		Cluster	5	5		425	132	R	000	NG	4.50
35	Sumerpur	Industrial	Dhola	Dhola	Sumerpur	25.46	73.206	SRH	200	OUTSOURCI	150
5	•	Cluster	Jageer			991	281	R	000	NG	450
35	Sumerpur	Industrial	Chanod	Chanod	Sumerpur	25.52	73.151	SRH	200	OUTSOURCI	150
6	C:	Cluster	Chanad	Chanad	C	652	566	R	200	NG	150
35 7	Sumerpur	Industrial	Chanod	Chanod	Sumerpur	25.54	73.101	SRH	200	OUTSOURCI NG	150
35	Damanua	Cluster	Coth	Berkhandi	Domonius	082 26.28	808 76.516	R	200	OUTSOURCI	150
8	Bamanwa	OCS	Goth	Berkhandi	Bamanwa	238	166	SRH R	200	NG	150
35	s Bamanwa	Area OCS	Sancholi	Sancholi	s Bamanwa	26.39	76.415	SRH	200	OUTSOURCI	150
9		Area	Sanchon	Sanchon		123	681	R	200	NG	150
36	s Bamanwa	OCS	Jakholas	Bhawar	s Bamanwa	26.40	76.574	SRH	200	OUTSOURCI	150
0	S	Area	Khurd	Dilawai		24	782	R	200	NG	130
36	Bamanwa	OCS	Govindpur	Binjari	s Bamanwa	26.45	76.578	SRH	200	OUTSOURCI	150
1	S	Area	a	Dirijari	S	634	673	R	200	NG	100
36	Bamanwa	OCS	Barh	Koyla	Bamanwa	26.50	76.640	SRH	200	OUTSOURCI	150
2	S	Area	Gahnoli	Noyla	S	877	095	R	200	NG	100
36	Bamanwa	OCS	Bichpuri	Bichpuri	Bamanwa	26.57	76.416	SRH	200	OUTSOURCI	150
3	S	Area	Dioripuii	Dioripuii	S	169	879	R		NG	.50
36	Bamanwa	OCS	Radheki	Shafipura	Bamanwa	26.57	76.638	SRH	200	OUTSOURCI	150
4	S	Area	,	Champara	S	169	597	R		NG	.50
36	Bamanwa	OCS	Gothra	Kakrala	Bamanwa	26.57	76.515	SRH	200	OUTSOURCI	150
5	S	Area			S	618	753	R		NG	
36	Bamanwa	OCS	Bamanwas	Bamanwas	Bamanwa	26.57	76.583	SRH	200	OUTSOURCI	150
6	S	Area	Patti	patti	S	618	168	R	'-	NG	
36	Bamanwa	OCS	Barh	Bichpuri	Bamanwa	26.57	76.467	SRH	200	OUTSOURCI	150
7	S	Area		'	S	768	814	R		NG	
36	Bamanwa	OCS	Riwali	Riwali	Bamanwa	26.63	76.481	SRH	200	OUTSOURCI	150
8	S	Area			S	311	297	R		NG	
36	Bamanwa	ocs	Goojar	Doongarw	Bamanwa	26.63	76.532	SRH	200	OUTSOURCI	150
		ē					•				

9	S	Area	Koleta	ara	S	461	232	R		NG	
37	Bonli	ocs	Bandhawal	Bandhawal	Bonli	26.22	76.169	SRH	200	OUTSOURCI	150
0		Area				713	693	R		NG	
37	Bonli	OCS	Barh	Bhookha	Malarna	26.23	76.464	SRH	200	OUTSOURCI	150
1		Area	Bhookha			462	818	R		NG	
37	Bonli	OCS	Harsoti	Mamdoli	Bonli	26.28	76.289	SRH	200	OUTSOURCI	150
2		Area				026	808	R		NG	
37	Bonli	ocs	Malarna	Malarna	Malarna	26.28	76.400	SRH	200	OUTSOURCI	150
3		Area	Chaur	Chaur		555	4	R		NG	
37	Bonli	ocs	Sarwari	Baragaon	Bonli	26.28	76.234	SRH	200	OUTSOURCI	150
4		Area				705	111	R		NG	
37	Bonli	ocs	Maidpura	Khirni	Malarna	26.29	76.343	SRH	200	OUTSOURCI	150
5		Area	'			005	472	R		NG	
37	Bonli	ocs	Phalsawat	Karel	Malarna	26.33	76.468	SRH	200	OUTSOURCI	150
6		Area	а			541	715	R		NG	
37	Bonli	ocs	Galad	Galad	Bonli	26.33	76.349	SRH	200	OUTSOURCI	150
7		Area	Kalan	Kalan		649	464	R		NG	
37	Bonli	ocs	Barh	Galad	Bonli	26.33	76.394	SRH	200	OUTSOURCI	150
8		Area	Tanka	Kalan		649	407	R		NG	
37	Bonli	ocs	Pura	Datooli	Bonli	26.38	76.322	SRH	200	OUTSOURCI	150
9		Area	Gulabsing			844	175	R		NG	
			h								
38	Bonli	ocs	Moran	Moren	Bonli	26.39	76.225	SRH	200	OUTSOURCI	150
0		Area				491	122	R		NG	
38	Bonli	ocs	Majheola	Moren	Bonli	26.39	76.169	SRH	200	OUTSOURCI	150
1		Area	', ''			791	693	R		NG	
38	Bonli	ocs	Gotor	Gotor	Bonli	26.44	76.299	SRH	200	OUTSOURCI	150
2		Area				566	845	R		NG	
38	Bonli	OCS	Kotra	Borda	Bonli	26.45	76.168	SRH	200	OUTSOURCI	150
3		Area				184	194	R		NG	
38	Gangapur	ocs	Ramgarh	Khera	Gangapur	26.34	76.571	SRH	200	OUTSOURCI	150
4		Area	Murara	Barh		548	183	R		NG	
38	Gangapur	ocs	Kholai	Talawara	Gangapur	26.35	76.629	SRH	200	OUTSOURCI	150
5		Area				746	609	R		NG	
38	Gangapur	ocs	Habeebpur	Umri	Gangapur	26.46	76.692	SRH	200	OUTSOURCI	150
6		Area				083	529	R		NG	
38	Gangapur	ocs	Bidarkha	Barh Kalan	Gangapur	26.50	76.685	SRH	200	OUTSOURCI	150
7		Area				877	038	R		NG	
38	Gangapur	ocs	Syaroli	Syaroli	Gangapur	26.52	76.869	SRH	200	OUTSOURCI	150
8	· ·	Area				225	304	R		NG	
38	Gangapur	ocs	Piloda	Piloda	Gangapur	26.57	76.809	SRH	200	OUTSOURCI	150
9		Area				469	381	R		NG	
39	Gangapur	ocs	Sundarpur	Shiwala	Gangapur	26.62	76.869	SRH	200	OUTSOURCI	150
0		Area				862	304	R		NG	
39	Khandar	ocs	Dang	Bichpuri	Khandar	26.17	76.702	SRH	200	OUTSOURCI	150
1		Area	Bhavpur			917	016	R		NG	
39	Pirawa	ocs	Patoda	Diloi	Jhunjhunu	28.16	75.116	SRH	200	OUTSOURCI	150
2		Area			n	087	364	R		NG	
39	Alsisar	ocs	Tanee	Tanee	Jhunjhunu	28.19	75.114	SRH	200	OUTSOURCI	150
3		Area			n	576	968	R		NG	
39	Alsisar	ocs	Sonasar	Sonasar	Jhunjhunu	28.20	75.415	SRH	200	OUTSOURCI	150
4		Area			n	832	025	R		NG	
39	Alsisar	ocs	Kodesar	Kodesar	Jhunjhunu	28.25	75.190	SRH	200	OUTSOURCI	150
5		Area			n	87	725	R		NG	1
39	Alsisar	ocs	Shivdayalp	Badet	Jhunjhunu	28.32	75.183	SRH	200	OUTSOURCI	150
6		Area	ura		n	277	353	R		NG	

39	Alsisar	ocs	Kakreu	Kakreu	Jhunjhunu	28.32	75.355	SRH	200	OUTSOURCI	150
7		Area	Kalan	Kalan	n ´	556	014	R		NG	
39	Alsisar	ocs	Badet	Badet	Jhunjhunu	28.37	75.176	SRH	200	OUTSOURCI	150
8		Area			n	301	375	R		NG	
39	Alsisar	ocs	Gokhri	Bhuda Ka	Jhunjhunu	28.38	75.293	SRH	200	OUTSOURCI	150
9		Area		Bas	n ´	067	933	R		NG	
40	Alsisar	ocs	Khyali	Badet	Jhunjhunu	28.39	75.140	SRH	200	OUTSOURCI	150
0		Area			n	534	089	R		NG	
40	Buhana	ocs	Ghardana	Dhardana	Buhana	28.10	75.706	SRH	200	OUTSOURCI	150
1		Area				053	765	R		NG	
40	Buhana	OCS	Churina	Dhani	Buhana	28.14	76.089	SRH	200	OUTSOURCI	150
2	Banana	Area	Onama	Bhaloth	Bariaria	971	108	R	200	NG	100
40	Buhana	OCS	Heerwa	Heerwa	Buhana	28.15	75.696	SRH	200	OUTSOURCI	150
3	Danana	Area	Ticciwa	ricciwa	Dariana	669	94	R	200	NG	150
40	Buhana	OCS	Shyopura	Dhani	Buhana	28.16	76.069	SRH	200	OUTSOURCI	150
4	Dullalla	Area	Orryopura	Bhaloth	Duriaria	506	569	R	200	NG	130
40	Buhana	OCS	Buhana	Buhana	Buhana	28.20	75.883	SRH	200	OUTSOURCI	150
5	Dullalla	Area	Dullalla	Dullalla	Dullalla	135	952	R	200	NG	130
40	Dubana		Dhani	Dhani	Dubana	28.20	76.048	SRH	200	OUTSOURCI	150
1	Buhana	OCS	Dhani	Dhani Bhaloth	Buhana			l .	200	NG	150
6	Dubasa	Area	Bhaloth		Dulana	135	635	R	200		150
40	Buhana	ocs	Brijpura	Udamandi	Buhana	28.21	75.998	SRH	200	OUTSOURCI	150
7		Area		1,4 11		53	393	R	200	NG	4.50
40	Buhana	ocs	Noohaniya	Kajlan	Buhana	28.30	75.972	SRH	200	OUTSOURCI	150
8		Area	<u> </u>			561	157	R		NG	
40	Buhana	ocs	Rambas	Kajlan	Buhana	28.32	75.935	SRH	200	OUTSOURCI	150
9		Area				416	59	R		NG	
41	Chirawa	ocs	Shekhpura	Shyopura	Chirawa	28.26	75.588	SRH	200	OUTSOURCI	150
0		Area				555	082	R		NG	
41	Jhunjhunu	ocs	Bas Nanag	Ajari Kalan	Jhunjhunu	27.97	75.417	SRH	200	OUTSOURCI	150
1	n	Area			n	052	247	R		NG	
41	Jhunjhunu	ocs	Patusari	Patusari	Jhunjhunu	28.04	75.423	SRH	200	OUTSOURCI	150
2	n	Area			n	113	852	R		NG	
41	Jhunjhunu	ocs	Godoo Ka	Kuharoo	Jhunjhunu	28.08	75.131	SRH	200	OUTSOURCI	150
3	n	Area	Bas		n	412	716	R		NG	
41	Jhunjhunu	OCS	Wajidsar	Mahradasi	Jhunjhunu	28.08	75.162	SRH	200	OUTSOURCI	150
4	n	Area			n	412	419	R		NG	
41	Jhunjhunu	OCS	Jhunjhunu	Jhunjhunu	Jhunjhunu	28.09	75.413	SRH	200	OUTSOURCI	150
5	n ´	Area	n (M)	n (M)	n ´	249	63	R		NG	
41	Jhunjhunu	ocs	Durána	Siriyasar	Jhunjhunu	28.09	75.304	SRH	200	OUTSOURCI	150
6	n	Area		Kalan	n	947	772	R		NG	
41	Jhunjhunu	ocs	Seetsar	Abusar	Jhunjhunu	28.09	75.356	SRH	200	OUTSOURCI	150
7	n	Area			n	947	41	R		NG	
41	Jhunjhunu	OCS	Jhunjhunu	Jhunjhunu	Jhunjhunu	28.13	75.407	SRH	200	OUTSOURCI	150
8	n	Area	n (M)	n (M)	n	94	864	R		NG	
41	Jhunjhunu	OCS	Kasimpura	Kasimpura	Jhunjhunu	28.21	75.466	SRH	200	OUTSOURCI	150
9	n	Area			n	178	84	R		NG	
42	Jhunjhunu	OCS	Hameerwa	Kasimpura	Jhunjhunu	28.26	75.472	SRH	200	OUTSOURCI	150
0	n	Area	S		n	275	246	R		NG	
42	Nawalgarh	OCS	Devipura	Chirana	Nawalgarh	27.73	75.352	SRH	200	OUTSOURCI	150
1	. iairaigairi	Area	20112010	3	a.raigain	382	223	R		NG	
42	Nawalgarh	OCS	Pahadila	Chirana	Nawalgarh	27.75	75.414	SRH	200	OUTSOURCI	150
2	i vavvaigai i	Area	i diladila	Jimana	INGWAIGAITI	07	566	R	200	NG	100
42	Nawalgarh	OCS	Basawa	Basawa	Nawalgarh	27.79	75.305	SRH	200	OUTSOURCI	150
3	ivawaiyaiii	Area	Dasawa	Dasawa	ivawaiyaiil	225	996	R	200	NG	130
42	Nawalaarh	OCS	Nawalaarh	Navolcarh	Mawalaarh	27.86	75.255	SRH	200	OUTSOURCI	150
	Nawalgarh		Nawalgarh	Nawalgarh	Nawalgarh				200		150
4		Area	(M)	(M)		195	063	R		NG	

42	Nawalgarh	OCS	Jaisingh	Barwasi	Nawalgarh	27.89	75.362	SRH	200	OUTSOURCI	150
5	_	Area	Pura		_	948	292	R		NG	
42 6	Nawalgarh	OCS Area	Balwantpu ra	Chelasi	Nawalgarh	27.90 082	75.251 041	SRH R	200	OUTSOURCI NG	150
42	Surajgarh	OCS	Barsari Ka	Kidwana	Chirawa	28.21	75.760	SRH	200	OUTSOURCI	150
7	7,5 -	Area	Bas			715	38	R		NG	
42	Surajgarh	ocs	Kakora	Kakora	Chirawa	28.26	75.758	SRH	200	OUTSOURCI	150
8	7,5 -	Area				555	347	R		NG	
42	Surajgarh	OCS	Syaloo	Adooka	Chirawa	28.27	75.705	SRH	200	OUTSOURCI	150
9	,0	Area	Kalan			113	313	R		NG	
43	Surajgarh	OCS	Bhapar	Kajra	Chirawa	28.32	75.702	SRH	200	OUTSOURCI	150
0	,,	Area				695	522	R		NG	
43	Surajgarh	ocs	Mahpalwa	Mahpalwa	Chirawa	28.32	75.883	SRH	200	OUTSOURCI	150
1		Area	S	S		974	952	R		NG	
43	Surajgarh	ocs	Jherli	Jherli	Chirawa	28.36	75.547	SRH	200	OUTSOURCI	150
2		Area				593	262	R		NG	
43	Surajgarh	ocs	Kaji	Hameenpu	Chirawa	28.43	75.602	SRH	200	OUTSOURCI	150
3		Area		r		831	217	R		NG	
43	Surajgarh	OCS	Leekhwa	Leelchwa	Chirawa	28.44	75.705	SRH	200	OUTSOURCI	150
4		Area				698	313	R		NG	
43	Udaipurwa	ocs	Kot	Nangal	Udaipurwa	27.67	75.413	SRH	200	OUTSOURCI	150
5	ti	Area			ti	564	225	R		NG	
43	Udaipurwa	ocs	Kot	Nangal	Udaipurwa	27.68	75.458	SRH	200	OUTSOURCI	150
6	ti	Area			ti	1	798	R		NG	
43	Udaipurwa	ocs	Naharwari	Mandawa	Udaipurwa	27.73	75.583	SRH	200	OUTSOURCI	150
7	ti	Area		011 11	ti	8	895	R		NG	4.50
43	Udaipurwa	ocs	Chhapoli	Chhapoli	Udaipurwa	27.73	75.537	SRH	200	OUTSOURCI	150
8	ti	Area	<b>D</b>	<b>D</b>	ti	998	879	R	000	NG	450
43	Udaipurwa	ocs	Dhola	Raghunath	Udaipurwa	27.78	75.461	SRH	200	OUTSOURCI	150
9	ti	Area	Khera	pura	ti	824	081	R	000	NG	450
44	Udaipurwa	OCS	Jaitpura	Posana	Udaipurwa	27.78	75.523	SRH	200	OUTSOURCI	150
0		Area	Niconi	Nani	ti Udainumua	964	883	R	200	NG	150
44	Udaipurwa	OCS	Neori	Neori	Udaipurwa	27.85 793	75.658	SRH R	200	OUTSOURCI NG	150
44	ti Udainunua	Area OCS	Kharwaso	Gudha	ti Udoinumuo	27.85	512 75.584	SRH	200	OUTSOURCI	150
2	Udaipurwa ti		n Ki	Gudila	Udaipurwa ti	927	792	R	200	NG	150
44	Udaipurwa	Area OCS	Khatkar	Ker	บ Udaipurwa		75.574	SRH	200	OUTSOURCI	150
3	ti	Area	Milaikai	i vei	ti	824	069	R	200	NG	130
44	Udaipurwa	OCS	Bajawa	Bajawa	Udaipurwa	27.95	75.484	SRH	200	OUTSOURCI	150
4	ti	Area	Dajawa	Dajawa	ti	98	265	R	200	NG	100
44	Udaipurwa	OCS	Tolesar	Bawarli	Shergarh	26.34	72.700	SRH	200	OUTSOURCI	150
5	ti	Area	Charnan	Samaiii	Shorgani	392	966	R	200	NG	
44	Balesar	OCS	Udaisar	Agolai	Shergarh	26.34	72.606	SRH	200	OUTSOURCI	150
6		Area	3 3 3 3 3 3 3	1.90.5	2	891	205	R		NG	
44	Balesar	OCS	Harwant	Belwa	Shergarh	26.41	72.606	SRH	200	OUTSOURCI	150
7	'	Area	Nagar		J	093	205	R		NG	
44	Balesar	OCS	Rawatsar	Utambar	Shergarh	26.45	72.686	SRH	200	OUTSOURCI	150
8		Area				431	814	R		NG	
44	Вар	OCS	Tekra	Tekra	Phalodi	27.15	72.007	SRH	200	OUTSOURCI	150
9		Area				909	505	R		NG	
45	Вар	OCS	Durgani	Тероо	Phalodi	27.21	72.030	SRH	200	OUTSOURCI	150
0		Area				278	296	R		NG	
45	Вар	Industrial	Baori	Baori	Phalodi	27.21	72.262	SRH	200	OUTSOURCI	150
1		Cluster	Kalan	Kalan		278	875	R		NG	
45	Вар	Industrial	Godarli	Malar	Phalodi	27.21	72.433	SRH	200	OUTSOURCI	150
2		Cluster				278	432	R		NG	

45 3	Вар	Industrial Cluster	Malar	Malar	Phalodi	27.21 499	72.375 841	SRH R	200	OUTSOURCI NG	150
45 4	Вар	OCS Area	Jaimala	Shekhasar	Phalodi	27.22 164	72.196 423	SRH R	200	OUTSOURCI NG	150
45 5	Вар	Industrial Cluster	Naneu	Motai	Phalodi	27.22	72.499 883	SRH R	200	OUTSOURCI NG	150
45 6	Вар	OCS Area	Nokhra Charna	Jaisala	Phalodi	27.25 249	72.933 063	SRH R	200	OUTSOURCI NG	150
45 7	Вар	OCS Area	Jharasar	Raneri	Phalodi	27.25 532	72.123 554	SRH R	200	OUTSOURCI NG	150
45 8	Вар	OCS Area	Shekhasar	Shekhasar	Phalodi	27.27	72.262 246	SRH R	200	OUTSOURCI NG	150
45 9	Вар	Industrial Cluster	Naneu	Motai	Phalodi	27.27	72.557 474	SRH R	200	OUTSOURCI NG	150
46 0	Вар	Industrial Cluster	Kuknon Ki	Ghantiyali	Phalodi	27.27 923	72.843 213	SRH R	200	OUTSOURCI NG	150
46 1	Вар	Industrial Cluster	Motai	Motai	Phalodi	27.28 144	72.610 635	SRH R	200	OUTSOURCI NG	150
46 2	Вар	OCS Area	Jaisala	Jaisala	Phalodi	27.28 366	72.978 33	SRH R	200	OUTSOURCI NG	150
46 3	Вар	OCS Area	Dholiya	Baroo	Phalodi	27.30 91	71.894 287	SRH R	200	OUTSOURCI NG	150
46 4	Вар	OCS Area	Dedasari	Dedasari	Phalodi	27.39 402	72.140 536	SRH R	200	OUTSOURCI NG	150
46 5	Вар	OCS Area	Baroo	Baroo	Phalodi	27.39 685	71.880 135	SRH R	200	OUTSOURCI NG	150
46 6	Вар	OCS Area	Bheemji Ka	Bap Ghator	Phalodi	27.39 685	72.239 602	SRH R	200	OUTSOURCI NG	150
46 7	Вар	OCS Area	Narayanpu ra	Chakhu	Phalodi	27.39 685	72.655 679	SRH R	200	OUTSOURCI NG	150
46 8	Вар	OCS Area	Ghator	Bap Ghator	Phalodi	27.39 968	72.369 803	SRH R	200	OUTSOURCI NG	150
46 9	Вар	OCS Area	Sri Rampura	Jamba	Phalodi	27.40 251	72.533 969	SRH R	200	OUTSOURCI NG	150
47 0	Вар	OCS Area	Dedasari	Dedasari	Phalodi	27.40 817	71.993 353	SRH R	200	OUTSOURCI NG	150
47 1	Вар	OCS Area	Soda Dhara	Kalyan Singh	Phalodi	27.49 77	72.640 376	SRH R	200	OUTSOURCI NG	150
47 2	Вар	OCS Area	Bari Seer	Bari Seer	Phalodi	27.51 29	72.423 581	SRH R	200	OUTSOURCI NG	150
47 3	Вар	OCS Area	Newa	Kanasar	Phalodi	27.52 422	72.112 232	SRH R	200	OUTSOURCI NG	150
47 4	Вар	OCS Area	Newa	Kanasar	Phalodi	27.53 554	72.007 505	SRH R	200	OUTSOURCI NG	150
47 5	Bawari	Industrial Cluster	Surpura Kalan	Borvi Khurd	Bhopalgar h	26.46 188	73.259 64	SRH R	200	OUTSOURCI NG	150
47 6	Bawari	Industrial Cluster	Gangani	Gangani	Bhopalgar h	26.46 853	73.146 673	SRH R	200	OUTSOURCI NG	150
47 7	Bawari	Industrial Cluster	Nawa Nagariya	Gangani	Bhopalgar h	26.46 853	73.202 049	SRH R	200	OUTSOURCI NG	150
47 8	Bawari	OCS Area	Baran Khurd	Baran Khurd	Osian	26.76 566	73.071 755	SRH R	200	OUTSOURCI NG	150
47 9	Bhopalgar h	OCS Area	Khokhariy a	Kur	Bhopalgar h	26.33 543	73.351 97	SRH R	200	OUTSOURCI NG	150
48 0	Bhopalgar h	OCS Area	Bara Kalan	Kheri Salwa	Bhopalgar h	26.40 872	73.427 982	SRH R	200	OUTSOURCI NG	150

48	Bhopalgar	ocs	Kheri	Kheri	Bhopalgar	26.45	73.379	SRH	200	OUTSOURCI	150
1	h	Area	Salwa	Salwa	h	967	251	R		NG	
48	Bhopalgar	OCS	Salwa	Salwa	Bhopalgar	26.46	73.459	SRH	200	OUTSOURCI	150
2	h	Area	Khurd	Khurd	h	563	527	R		NG	
48	Bhopalgar	OCS	Kosana	Kosana	Bhopalgar	26.47	73.615	SRH	200	OUTSOURCI	150
3	h	Area	110000	1100011101	h	695	202	R	= 00	NG	
48	Bhopalgar	OCS	Suwana	Basni	Bhopalgar	26.83	73.465	SRH	200	OUTSOURCI	150
4	h	Area	Cawana	Harisingh	h	552	559	R	200	NG	100
48	Bilara	OCS	Chirdhani	Chirdhani	Bilara	26.33	73.603	SRH	200	OUTSOURCI	150
5	Dilara	Area	Officialii	Officialii	Dilara	26.33	88	R	200	NG	130
48	Bilara	OCS	Buch	Buch	Bilara	26.34	73.462	SRH	200	OUTSOURCI	150
6	Dilara	Area	Kalan	Kalan	Dilaia	958	357	R	200	NG	130
48	Luni	OCS			Luni	25.95	72.703	SRH	200	OUTSOURCI	150
7	Lurii		Senai	Subdand	Luni	332	796	l .	200	NG	150
	1	Area	Dahiahas	Deservati	Longi			R	200		450
48	Luni	OCS	Rohichan	Peeparli	Luni	25.95	72.814	SRH	200	OUTSOURCI	150
8		Area	Khurd	0.11		898	184	R	200	NG	450
48	Luni	ocs	Satlana	Satlana	Luni	25.95	72.924	SRH	200	OUTSOURCI	150
9		Area				898	571	R		NG	
49	Luni	ocs	Dhawa-I	Dhwa	Luni	26.04	72.736	SRH	200	OUTSOURCI	150
0		Area				726	482	R		NG	
49	Luni	ocs	Gelawas	Loonawas	Luni	26.06	72.811	SRH	200	OUTSOURCI	150
1		Area		Kalan		37	353	R		NG	
49	Luni	ocs	Moklasani	Lolawas	Jodhpur	26.06	73.323	SRH	200	OUTSOURCI	150
2		Area				937	665	R		NG	
49	Luni	OCS	Bhandoo	Bhandoo	Luni	26.11	72.911	SRH	200	OUTSOURCI	150
3		Area	Kalan	Kalan		634	879	R		NG	
49	Luni	ocs	Khejarli	Khejarli	Luni	26.16	73.144	SRH	200	OUTSOURCI	150
4		Area	Kalan	Kalan		285	458	R	-00	NG	
49	Luni	OCS	Goliya	Palasani	Jodhpur	26.16	73.323	SRH	200	OUTSOURCI	150
5	Lann	Area	Conya	i didodiii	Country	612	259	R	200	NG	100
49	Luni	OCS	Chicharli	Chicharli	Luni	26.18	72.715	SRH	200	OUTSOURCI	150
6	Luiii	Area	Officialii	Officialii	Lain	541	118	R	200	NG	150
49	Luni	Industrial	Kakelao	Kakelao	Jodhpur	26.22	73.204	SRH	200	OUTSOURCI	150
7	Luiii	Cluster	Nakeiau	Nakeiau	Jouripui	487	264	R	200	NG	130
49	Luni	OCS	Pabu Nara	Janadeser	Luni	26.22	72.781	SRH	200	OUTSOURCI	150
8	Lurii		Papu Nara	Janauesei	Luni		192	l .	200	NG	150
	Long	Area	0	II. al ana ana d	Local	93		R	000		450
	Luni		Sangariya	Jhalamand	Luni	26.20	73.000	SRH	200	OUTSOURCI	150
9		Agglome				87	378	R		NG	
		rate	17 :	11 1 1		00.04	70.005	ODLI	000	OLITOOLIDOI	450
50	Luni	Urban	Kuri	Jhalamand	Luni	26.21	73.035	SRH	200	OUTSOURCI	150
0		Agglome	Bhagtasan			015	097	R		NG	
		rate	1								
50	Mandor	Industrial	Basni	Jaleli	Jodhpur	26.23	73.140	SRH	200	OUTSOURCI	150
1		Cluster	Nikooban			152	028	R		NG	
50	Mandor	Industrial	Dantiwara	Khatiyasan	Jodhpur	26.28	73.315	SRH	200	OUTSOURCI	150
2		Cluster		i		025	015	R		NG	
50	Mandor	Industrial	Lordi	Lordi	Jodhpur	26.28	72.845	SRH	200	OUTSOURCI	150
3		Cluster	Doliya	Dejgara		246	428	R		NG	
50	Mandor	Industrial	Mokalawa	Rohila	Jodhpur	26.28	72.898	SRH	200	OUTSOURCI	150
4		Cluster	s	Kalan	'	689	589	R		NG	
50	Mandor	Industrial	Jodhpur	Jodhpur	Jodhpur	26.28	72.958	SRH	200	OUTSOURCI	150
5		Cluster	(M	(M		689	395	R		NG	
50	Mandor	Industrial	Jodhpur	Jodhpur	Jodhpur	26.28	73.075	SRH	200	OUTSOURCI	150
6	Mariaol	Cluster	(M	(M	Joanpul	689	792	R	200	NG	100
50	Mandor	Industrial	Bambor	Joliyali	Jodhpur	26.28	72.736	SRH	200	OUTSOURCI	150
7	ivialiuul		שמוווטטו	Jollyali	Jouripui	911	892		200		150
I		Cluster				ווע	092	R		NG	1

50 8	Mandor	Industrial Cluster	Bawarla	Bawarla	Jodhpur	26.29 132	73.246 349	SRH R	200	OUTSOURCI NG	150
50 9	Mandor	Industrial Cluster	Jodhpur (M	Jodhpur (M	Jodhpur	26.34 005	73.029 276	SRH R	200	OUTSOURCI NG	150
51 0	Mandor	Industrial Cluster	Keroo	Keroo	Jodhpur	26.34 448	72.847 643	SRH R	200	OUTSOURCI NG	150
51	Mandor	Industrial Cluster	Keroo	Keroo	Jodhpur	26.34 448	72.909 664	SRH R	200	OUTSOURCI NG	150
51 2	Mandor	Industrial Cluster	Bora Was	Surpura	Jodhpur	26.34 448	73.142 243	SRH R	200	OUTSOURCI NG	150
51 3	Mandor	Industrial Cluster	Kukanda	Jaleli Daikara	Jodhpur	26.34 448	73.321 661	SRH R	200	OUTSOURCI NG	150
51 4	Mandor	Industrial Cluster	Jajiwal Kalan	Jajiwal Kalan	Jodhpur	26.34 67	73.202 049	SRH R	200	OUTSOURCI NG	150
51 5	Mandor	Industrial Cluster	Popawas	Popawas	Jodhpur	26.34 891	72.792 268	SRH R	200	OUTSOURCI NG	150
51 6	Mandor	Industrial Cluster	Akthali	Bawarla	Jodhpur	26.34 891	73.252 995	SRH R	200	OUTSOURCI NG	150
51 7	Mandor	Industrial Cluster	Budh Nagar	Daikara	Jodhpur	26.39 986	73.257 425	SRH R	200	OUTSOURCI NG	150
51 8	Mandor	Industrial Cluster	Lordi- Pandit Ji	Lordi Panditji	Jodhpur	26.40 65	73.133 383	SRH R	200	OUTSOURCI NG	150
51 9	Mandor	Industrial Cluster	Beroo	Beroo	Jodhpur	26.40 872	72.903 019	SRH R	200	OUTSOURCI NG	150
52 0	Mandor	Industrial Cluster	Thabukra	Lordi Panditji	Jodhpur	26.42 317	73.184 973	SRH R	200	OUTSOURCI NG	150
52 1	Mandor	Industrial Cluster	Salwa Kalan	Salwa Kalan	Jodhpur	26.45 524	73.310 585	SRH R	200	OUTSOURCI NG	150
52 2	Mandor	Industrial Cluster	Salori	Beroo	Jodhpur	26.45 745	72.843 213	SRH R	200	OUTSOURCI NG	150
52 3	Mandor	Industrial Cluster	Karwar	Karwar	Jodhpur	26.46 188	73.078 007	SRH R	200	OUTSOURCI NG	150
52 4	Mandor	Urban Agglome rate	Jodhpur (M	Jodhpur (M	Jodhpur	26.24 632	72.957 703	SRH R	200	OUTSOURCI NG	150
52 5	Mandor	Urban Agglome rate	Jodhpur (M	Jodhpur (M	Jodhpur	26.24 704	73.029 31	SRH R	200	OUTSOURCI NG	150
52 6	Mandor	Urban Agglome rate	Jodhpur (M	Jodhpur (M	Jodhpur	26.24 776	73.067 645	SRH R	200	OUTSOURCI NG	150
52 7	Mandor	Urban Agglome rate	Jodhpur (M	Jodhpur (M	Jodhpur	26.24 993	72.993 145	SRH R	200	OUTSOURCI NG	150
52 8	Mandor	Urban Agglome rate	Barli	Barli	Jodhpur	26.28 393	72.922 261	SRH R	200	OUTSOURCI NG	150
52 9	Mandor	Urban Agglome rate	Jodhpur (M	Jodhpur (M	Jodhpur	26.28 465	72.961 319	SRH R	200	OUTSOURCI NG	150
53 0	Mandor	Urban Agglome rate	Jodhpur (M	Jodhpur (M	Jodhpur	26.28 465	73.067 645	SRH R	200	OUTSOURCI NG	150
53 1	Mandor	Urban Agglome rate	Jodhpur (M	Jodhpur (M	Jodhpur	26.28 682	73.029 31	SRH R	200	OUTSOURCI NG	150

53 2	Mandor	Urban Agglome rate	Jodhpur (M	Jodhpur (M	Jodhpur	26.28 827	72.998 931	SRH R	200	OUTSOURCI NG	150
53 3	Mandor	Urban Agglome rate	Jodhpur (M	Jodhpur (M	Jodhpur	26.31 937	72.990 252	SRH R	200	OUTSOURCI NG	150
53 4	Mandor	Urban Agglome rate	Jodhpur (M	Jodhpur (M	Jodhpur	26.31 937	73.066 922	SRH R	200	OUTSOURCI NG	150
53 5	Mandor	Urban Agglome rate	Jodhpur (M	Jodhpur (M	Jodhpur	26.32 226	73.024 97	SRH R	200	OUTSOURCI NG	150
53 6	Mandor	Urban Agglome rate	Jodhpur (M	Jodhpur (M	Jodhpur	26.35 12	73.071 262	SRH R	200	OUTSOURCI NG	150
53 7	Osian	OCS Area	Riniya	Mandiyai Kalan	Osian	26.59 3	72.944 385	SRH R	200	OUTSOURCI NG	150
53 8	Osian	OCS Area	Barla Basni	Barla Basni	Osian	26.60 149	72.811 353	SRH R	200	OUTSOURCI NG	150
53 9	Osian	OCS Area	Khabra Kalan	Khabra Khurd	Osian	26.72 32	72.811 353	SRH R	200	OUTSOURCI NG	150
54 0	Osian	OCS Area	Dhunariya	Thob	Osian	26.72 886	72.950 046	SRH R	200	OUTSOURCI NG	150
54 1	Phalodi	OCS Area	Madla Khurd	Madla Kalan	Phalodi	26.83 359	72.228 28	SRH R	200	OUTSOURCI NG	150
54 2	Phalodi	Industrial Cluster	Udaniyon Ki	Sanwreej	Phalodi	26.98 463	72.203 069	SRH R	200	OUTSOURCI NG	150
54 3	Phalodi	OCS Area	Singdasar	Shri Jammesh war	Phalodi	26.99 492	72.664 17	SRH R	200	OUTSOURCI NG	150
54 4	Phalodi	Industrial Cluster	Udaniyon Ki	Sanwreej	Phalodi	27.00 624	72.259 415	SRH R	200	OUTSOURCI NG	150
54 5	Phalodi	Industrial Cluster	Daya Sagar	Khara	Phalodi	27.05 108	72.198 639	SRH R	200	OUTSOURCI NG	150
54 6	Phalodi	Industrial Cluster	Rayra	Khara	Phalodi	27.10 203	72.085 672	SRH R	200	OUTSOURCI NG	150
54 7	Phalodi	Industrial Cluster	Phalodi (M)	Phalodi (M)	Phalodi	27.10 203	72.327 11	SRH R	200	OUTSOURCI NG	150
54 8	Phalodi	Industrial Cluster	Junejo Ki Dhani	Lordiyan	Phalodi	27.10 203	72.435 647	SRH R	200	OUTSOURCI NG	150
54 9	Phalodi	OCS Area	Naya Bera	Moriya	Phalodi	27.10 203	72.601 775	SRH R	200	OUTSOURCI NG	150
55 0	Phalodi	OCS Area	Denok	Denoru	Phalodi	27.10 424	72.730 247	SRH R	200	OUTSOURCI NG	150
55 1	Phalodi	Industrial Cluster	Begti Khurd	Begti Kalan	Phalodi	27.10 814	72.154 689	SRH R	200	OUTSOURCI NG	150
55 2	Phalodi	Industrial Cluster	Begti Khurd	Begti Kalan	Phalodi	27.10 867	72.207 499	SRH R	200	OUTSOURCI NG	150
55 3	Phalodi	Industrial Cluster	Chainpura	Bhojasar	Phalodi	27.12 512	72.819 845	SRH R	200	OUTSOURCI NG	150
55 4	Phalodi	OCS Area	Chadi	Chadi	Phalodi	27.12 795	73.063 264	SRH R	200	OUTSOURCI NG	150
55 5	Phalodi	Industrial Cluster	Kundal	Begti Kalan	Phalodi	27.13 362	72.276 398	SRH R	200	OUTSOURCI NG	150
55 6	Phalodi	OCS Area	Shaitan Singh	Shaitan Singh	Phalodi	27.13 645	72.528 308	SRH R	200	OUTSOURCI NG	150

55	Phalodi	Industrial	Begti	Begti	Phalodi	27.15	72.138	SRH	200	OUTSOURCI	150
7		Cluster	Kalan	Kalan		297	833	R		NG	
55 8	Phalodi	Industrial Cluster	Kundal	Begti Kalan	Phalodi	27.15 519	72.214 144	SRH R	200	OUTSOURCI NG	150
55 9	Phalodi	Industrial Cluster	Kheechan	Kheechan	Phalodi	27.15 74	72.440 077	SRH R	200	OUTSOURCI NG	150
56	Phalodi	Industrial	Phalodi	Phalodi	Phalodi	27.16	72.331	SRH	200	OUTSOURCI	150
0	Titaloui	Cluster	(M)	(M)	i Haloui	183	541	R	200	NG	130
56	Phalodi	Industrial	Chhitar	Bhojasar	Phalodi	27.17	72.790	SRH	200	OUTSOURCI	150
1	Titaloui	Cluster	Bera	Driojaoai	i naioai	291	053	R	200	NG	100
56	Phalodi	Industrial	Ranisar	Pariyal	Phalodi	27.21	72.668	SRH	200	OUTSOURCI	150
2	i ilaloai	Cluster	ranioai	i arryar	1 Haloui	278	226	R	200	NG	100
56	Phalodi	Industrial	Aau	Aau	Phalodi	27.21	72.852	SRH	200	OUTSOURCI	150
3		Cluster				499	073	R		NG	
56	Phalodi	Industrial	Bheeyasar	Bheeyasar	Phalodi	27.21	72.734	SRH	200	OUTSOURCI	150
4		Cluster		,		721	677	R		NG	
56	Phalodi	ocs	Ridmalsar	Ridmalsar	Phalodi	27.21	73.018	SRH	200	OUTSOURCI	150
5		Area				942	201	R		NG	
56	Phalodi	Industrial	Asolai	Pariyal	Phalodi	27.27	72.669	SRH	200	OUTSOURCI	150
6		Cluster		-		231	831	R		NG	
56	Phalodi	Industrial	Bheeyasar	Bheeyasar	Phalodi	27.27	72.736	SRH	200	OUTSOURCI	150
7		Cluster	-	-		923	892	R		NG	
56	Phalodi	Industrial	Bheeyasar	Bheeyasar	Phalodi	27.27	72.796	SRH	200	OUTSOURCI	150
8		Cluster				923	698	R		NG	
56	Shergarh	ocs	Chakder	Sointara	Shergarh	26.32	72.412	SRH	200	OUTSOURCI	150
9		Area				614	856	R		NG	
57	Shergarh	ocs	Bhoongra	Bhoongra	Shergarh	26.48	72.267	SRH	200	OUTSOURCI	150
0		Area				261	907	R		NG	
57	Shergarh	ocs	Kalau	Jethaniya	Shergarh	26.71	72.117	SRH	200	OUTSOURCI	150
1		Area				471	893	R		NG	
57	Danta	ocs	Naya Bas	Manda	Danta	27.16	75.185	SRH	200	OUTSOURCI	150
2	Ramgarh	Area			Ramgarh	836	071	R		NG	
57	Danta	ocs	Gopinath	Chack	Danta	27.21	75.245	SRH	200	OUTSOURCI	150
3	Ramgarh	Area	Pura	17.11	Ramgarh	486	793	R	000	NG	450
57	Danta	ocs	Chainpura	Kuli	Danta	27.21	75.295	SRH	200	OUTSOURCI	150
4	Ramgarh	Area	D (1.1	D 11 1	Ramgarh	686	81	R	000	NG	450
57	Danta	OCS	Banathala	Banathala	Danta	27.26	75.303	SRH	200	OUTSOURCI	150
5	Ramgarh	Area	Lleamuse	Dairenna	Ramgarh	888	812	R	200	NG	150
57 6	Danta Pamgarh	OCS	Heerwas	Bajyawas	Danta	27.32 979	75.234 517	SRH R	200	OUTSOURCI NG	150
57	Ramgarh Danta	Area OCS	Dheengpur	Dheengpur	Ramgarh Danta	27.33	75.351	SRH	200	OUTSOURCI	150
ο <i>ι</i> 7	Ramgarh	Area	Dueengpui	וים eligbat	Ramgarh	09	828	R	200	NG	130
57	Danta	OCS	Jana	Jana	Danta	27.34	74.886	SRH	200	OUTSOURCI	150
8	Ramgarh	Area	Julia	Julia	Ramgarh	372	908	R	200	NG	130
57	Danta	OCS	Ganora	Ganora	Danta	27.38	75.293	SRH	200	OUTSOURCI	150
9	Ramgarh	Area	Janora	Junioru	Ramgarh	892	809	R		NG	100
58	Danta	OCS	Kochhor	Kochhor	Danta	27.44	75.296	SRH	200	OUTSOURCI	150
0	Ramgarh	Area			Ramgarh	015	281	R		NG	
58	Dhond	OCS	Pewa	Pewa	Sikar	27.45	75.006	SRH	200	OUTSOURCI	150
1		Area				777	194	R		NG	
58	Dhond	OCS	Mordoong	Shahpura	Sikar	27.46	74.837	SRH	200	OUTSOURCI	150
2		Area	a	'		198	783	R		NG	
58	Dhond	ocs	Nagwa	Nagwa	Sikar	27.50	75.057	SRH	200	OUTSOURCI	150
3		Area				201	935	R		NG	<u> </u>
58	Dhond	OCS	Charanwa	Netarwas	Sikar	27.55	75.016	SRH	200	OUTSOURCI	150
4		Area	S			841	088	R		NG	

# **SECTION-VIII**

FORMATS FOR SUBMISSION OF DATA

# **SECTION-VIII**

## FORMATS FOR SUBMISSION OF DATA

#### Annexure A

## LOGGING DATA (NATURAL GAMMA LOGGING)

Unique ID	
Location	
Block	
District	
Toposheet Number	
Latitude in Degree Decimal	
Longitude in Degree Decimal	
Site plan and RL(m amsl)	
Date/Year	
Depth Drilled (m bgl)	
Depth Logged (m bgl)	
Bore hole dia.	

#### **Unique ID**

J 4					
Depth ran	ge (m bgl)	Thickness (m)	Natural Gamma counts (CPS)	Inferred Lithology	Ground water Quality
From	То				

Signature and stamp of Authorized signatory

# LOGGING DATA (CALIPER LOGGING)

Unique ID	
Location	
Block	
District	
Toposheet Number	
Latitude in Degree Decimal	
Longitude in Degree Decimal	
Site plan and RL(m amsl)	
Date/Year	
Depth Drilled (m bgl)	
Depth Logged (m bgl)	
Bore hole dia.	

#### Unique ID

Jqu.J.					
S.No.	Depth range (m bgl)		Thickness (m)	Borehole Diameter	Remarks
	From	То			

Signature and stamp of Authorized signatory

# PRELIMINARY YIELD TEST(PYT) (IF SPECIFIED IN BOQ)

Site name with coo	ordinates							
Location details								
Block								
District & State								
Type of Well			Pumping well					
Date of Test & Sta	rt time							
Diameter of well (r	nm)							
Discharge (lps)								
Measuring Point (r								
SWL in m below m	easuring point							
Time since pump	Time since		Residual					
started (min)	stopping of	Water level	Drawdown RDD	t/t'				
(t)	pumping (min)	(m bmp)	(m)	u t				
	(t')		(111)					
Interval for Record	ling of data.							
1 minute interval u	-							
2 minute interval u	pto 20 min							
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
12								
14								
16								
18								
20								
25								
5 minute interval u	nto 50 min							
5 minute interval upto 50 min								
10 min recording upto 100 min								
20 min recrodingupto 200min								
50 min recording u								
100 min recording until 90% recuperation to Static water level.								

## SLUG TEST DATA SHEET (IF SPECIFIED IN BOQ)

Well no: Date of test
Location: Administrative Block: State
Administrative Block: District: State Latitude (Degree Decimal): Toposheet no: Toposheet no: District: State State District: State Stat
Latitude (Degree Decimal): Longitude(Degree Decimal) ropositeet no
Well Details:
Type of Well: BW/TW Owner:Govt/Private. Well usage: Irrigation/Domestic Well status:In use/Abondoned
Geologic formationDepth of the well:(m).Diameter of Well :(mm) Casing length
(m) Reported dischargelps.
Alluvial area/Hard rock area: Zones tapped/Fractures encountered from to(m).
Test Reading
Measuring point (MP)(m) Static WL(m) Slug Quantity(Injection)litre.
Time of start of test Time of Completion of test Length of test(Minutes)
Results:
Analysis method
Type of aquifer:Unconfined/Confined. Method used for Analysis:
Aquifer parameters:
Transmissivitym²/d and Hydraulic Conductivity (K)m/d.

Name of personnel conducted test Signature Date

## SLUG TEST - DATA SHEET (IF SPECIFIED IN BOQ)

Site name				
Latitude (Degree D	Decimal)			
Longitude (Degree	e Decimal)			
Block				
District & State				
Volume of Slug in	jected (litres)			
Diameter of well (r	mm)			
Date of Test				
Height of M.P (m.a	ıgl)			
SWL in m below m	neasuring point (m)			
Time (min)	Time (sec)	Water level (H) in m	Change in Water Level (Ho) in m	Н/Но
1				
2				
3				
4				
5 6				
7				
8				
9				
10				
12				
14				
16 18				
20				
25				
30				
35				
40				
45				
50				
55 60				
65				
70				
75				
80				
85				
90				
95 100				
	1			

#### Annexure-F

## CONSOLIDATED STATEMENT OF SLUG TEST (IF SPECIFIED IN BOQ)

Sl.no	Village name	Lat	Long	Depth of well	Geological formation		K value (m/d)	
						Hvorslev method	Bouwer and Rice method	Cooper et al
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

## WELL INVENTORY - DATA SHEET

Well no:	Date of inv	ventory	
Location:			
Administrative Block:			
Latitude: Longitude:_		pposheet no:	
Name of the Watershed	Ar	ea of the Watershed	km <sup>2</sup>
Geologic formation			
Type of Well: DW/DCB/BW*	Owner:Govt/Pvt.	Well usage: Irrigation	Domestic.
Depth of the well :(m).	Diameter of	of Well :(mm)	
Casing length/ Curbing depth (m	(m) Reported	dischargelps.	
Weathering thickness)m	Fr	actures encountered from _	to(m).
Measuring point (MP)(m)	Static WL(m)	Гуре of Pump- Submersible	/Centrifuge/JET Pump Capacity
(HP)	Hours of pumping	hrs/day. Nu	mber of pumping days
days /year. Total estimated dra	aft	m³/year.	
Cropping pattern			
Command area of the well	ha.		
Any other Salient feature :			

Name of officer

#### **GOVERNMENT OF INDIA**

#### MINISTRY OF JAL SHAKTI

#### CENTRAL GROUND WATER BOARD

#### **BASIC DATA REPORT**

# BASIC DATA REPORT OF PIEZOMETER WELL AT (Name of Village), (Name of block) District / State

By Agency

Under overall supervision of

(Name of region) Regional HQ Month/ year

# BASIC DATA REPORT OF PIEZOMETER WELL AT (Name of Village), (Name of block) District / State

#### **CONTENTS**

- 1. Location
- 2. Purpose of drilling
- 3. Drilling history
- 4. Geology
- 4.1 Sub surface geology
- 5. Geophysical logging
- 6. Well Assembly
- 7. Hydro-Chemistry

#### A. Plates

- 1. Site plan.
- 2. Litho log and Well designs
- 3. Gamma/ Calliper/Electrical log Analog

#### **Annexures**

1. Drill time log

#### **GOVERNMENT OF INDIA**

#### MINISTRY OF JAL SHAKTI

#### **CENTRAL GROUND WATER BOARD**

(Name of region) Regional HQ

#### 1. BASIC DATA REPORT

LOCATION : --

BLOCK : ---

DISTRICT/ state : --

CO-ORDINATES : Long: A<sup>0</sup> B/C // E

Lat: X<sup>0</sup> Y<sup>7</sup> Z<sup>11</sup> N

SURVEY OF INDIA TOPO SHEET NO. :

# BASIC DATA REPORT OF PIEZOMETER WELL AT (Name of Village), (Name of block)

#### **District / State**

#### 1. LOCATION

Give details of site, alongwith location approach

#### 2. PURPOSE AND SCOPE

Describe the purpose and scope of ground water exploration

#### 3. DRILLING HISTORY

Brief history of various activities and methods applied in carrying out ground water exploration. In respect of soft rock, depth at which fracture encountered and discharge measured during drilling of each fracture zone etc. to be furnished.

#### 4. GEOLOGY

Give general geology of the area

#### **4.1 SUB SURFACE GEOLOGY**

#### Litholog

Lithology	Depth ra	ange (m)	Thickness	
	From	to	(m)	

#### Composite log

Lithology		Depth range (m)		
	From	to	(m)	

#### 5. ELECTRICAL/ NATURAL GAMMA LOGGING OF BOREHOLE

#### Alluvium Areas: Zones deciphered on the basis of Electrical/ Natural Gamma logging

S.No.		Depth range (m bgl)		Ground water Quality EC/(TDS)	
	From	То			

Hard Rock Area: Weathered/Fractured Zones deciphered on the basis of Calliper logging

S.No.	•	Depth range (m bgl)		Borehole Diameter	Remarks
	From	То			

#### 6. WELL ASSEMBLY

Well assembly of PIEZOMETER well

Depth range r	n (bgl)	Length (m)	Dia (mm)	Slot size(mm)	Description

#### **7 CHEMICAL QUALITY OF GROUND WATER**

Table: Results of chemical analysis of water samples

Water sample	Constituents										
	рН	EC micro mhos /cm at 25°c	2 H CO <sub>3</sub>	CI	NO <sub>3</sub>	F	Са	Mg	Na	K	Total hardness as CaCO <sub>3</sub>
			Concentrations in mg/l								
Heavy metals											

#### 8.0 WELL DIAGRAM

In respect of soft rock formation and soft boulder formation:-

Well diagram with details of final reamed dia, well assembly (blank and screen position) with assembly size and depth, gravel packing and its depth, cement sealing with depth, clay packing and depth, concrete platform and static water level.

In respect of hard rock formation:-

Well diagram with details of overburden drilling dia, casing pipe length, dia, naked well dia, fracture zone and it depth and it's depth, part assembly (blank/ screen position) cement sealing with depth, clay packing and depth, concrete platform and static water level.

# **SECTION-IX**

**DRAWINGS** 

# Section-IX

# **ANNEXURE- N**

# SAMPLE DRAWING OF HOUSING PIPE (Top View) & WELL CAP

10 mm bolt

1 ½ ' L angle(anchoring Plate)

Casing pipe

Cement concrete platform

# (SAMPLE DRAWINGS) Annexure-O

# Well cap

	15 mm Ø HT Allen bolts
15 mm φ HT Allen nuts	
	5 CM
	5CM
Welded position	
	7"/8"/10"/12" Ф casing pipe

# (SAMPLE DRAWINGS) Annexure- P

# Cement concrete platform

Permanent marking by welding

(embossed) 20 CM

**CGWB PZ/ EW/OW** 20 mm Φ HT Nuts & Bolts

30 CM Cement Cement Natural ground Level

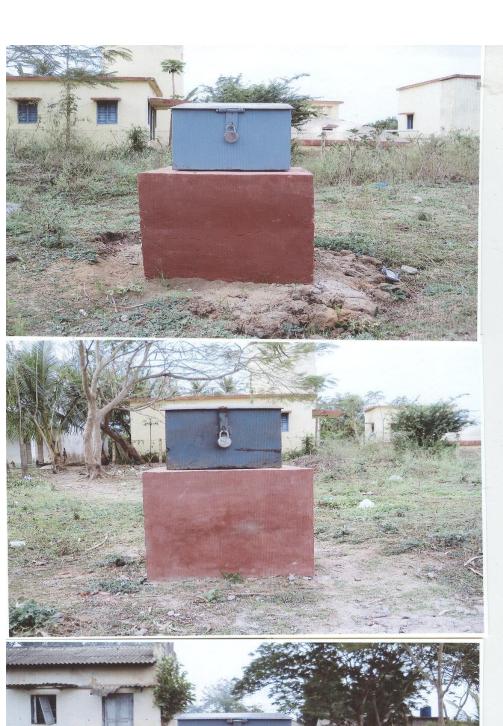
Concrete

Concrete

20 CM

Anchoring plates 6 Nos

MS CASING PIPE 6"/7"/8"/10"/12" A cement/ concrete platform measuring  $0.70 \times 0.70 \times 0.60 \text{ m}$  (0.30 m above ground level and 0.30 m below ground level) around the well casing is to be provided over which protection box is to be provided. The concrete mix ratio is 1:2:4





# Protection Box (Plate thickness GI sheet –. 3.00 mm) Annexure-Q 65 CM

65 CM

53 CM

45 CM

55 cm

55 CM

25 mm φ holes Bottom Side

10CM

55CM

35CM X 5 CM

10CM

65 CM

5 mm Heavy duty Hinges Heavy duty pad lock

SIDE VIEW
53 CM 45 CM

55 CM

65 CM

FRONT VIEW 45 CM

55 CM

65 CM

Heavy duty hinges

REAR VIEW 53 CM

55 CM

# **COVER PLATE OF SIZE:**

65 CM X 65 CM (with HANDLE and LOCK).

The cover plate should have minimum 5 CM extra projection on all sides of box for safeguarding the box and lock against rainfall.

The edges of sheet should not be sharp but should be rounded off.

The thickness of the plate should be made of 3.00 mm  $\,$  GI sheet.

Aluminium paint on all over welded joints Perforation shall be provided in the Protection Box on two sides

SAMPLE DESIGN OF PIEZOMETER WELL SOFT ROCK FORMATIONS.THE ACTUAL DESIGN WILL BE DECIDED BY THE SITE HYDROGEOLOGIST WITH THE APPROVAL OF REGIONAL DIRECTOR.

Annexure T

SAMPLE DESIGN OF PIEZOMETER WELL IN SOFT ROCK FORMATIONS.THE ACTUAL DESIGN WILL BE DECIDED BY THE SITE HYDROGEOLOGIST WITH THE APPROVAL OF REGIONAL DIRECTOR.

<u>FIG</u>:SAMPLE DESIGN OF 200m Depth PZ/ EW& OW IN HARD ROCK FORMATION (sample figure) 263

# **SECTION- X**BIDDING DATA

# **SECTION-X**

# **BIDDING DATA**

# **Summary of Works:**

(Construction of 1508Piezometer Wells and supply , Installation, Commisioning of DWLRs and telemetry, establishment of Data Acquisition System and its maintenance for real time Ground Water Level Monitoring and supply of Ground Water Level, Ground Water Tremperature Data from site and receipt of Data at National Data Centre, CHQ, Faridabad in a desired format from above constructed Piezometer wells through telemetry sytems 05 years warranty and 02 years AMC in the state of RAJASTHAN.

Name and address of the employer- Chairman, Central Ground Water Board, Bhujal Bhawan, NH-IV Faridabad-121001 (Haryana)

Period of bid validity- 270 Days

Amount of earnest money

Tender ID	Name of Package	Region	Estimated Cost in INR excluding GST	EMD in INR
	Package 5	RAJASTHAN	1,10,45,28,000/-	2,76,13,000/-

Standard form and amount of performance guarantee acceptable to the employer in **Section-XIII and10% of the Bid Price** 

Security Deposit: Not applicable

#### Bill of Quantities (as per standard form)-

The summary of package has been provided in Section-VI (Bill of Quantities and Summary of package). The detailed Bill of Quantities for PACKAGE-5 of RAJASTHAN may be seen in the BOQ section uploaded in the e-tendering system which is an integral part of this tender document.

#### Clause 3.1

- Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance. - 15 days
- ii) Maximum allowable extension beyond the period provided in i) above- **7 days**

# Clause 4.1

Specifications to be followed for execution of work – As defined in following sections: Section-V Scope of work and Technical Specifications Section-VI Bill of Quantities and Summary of Packages

# Clause 4.2 Maximum percentage for quantity of

items of work to be executed beyond which rates are to be determined in Accordance with Clauses –4.2.

Competent authority for deciding

Clause 4.3 reduced rates Chairman, CGWB

Clause 4.4 365 days from the date of

Defects Liability Period completion of work

#### Clause 4.6

# Requirement of Technical Representative(s) and Recovery Rate

S.No.	Minimum Qualification of Technical Representat ive		Designation (Principal Technical/Te ch nical representativ e)	Minimum experience	Number	the contractor of	nade from r in the event
						Figures	Words
1	Graduate Degree in Engineering / Master's Degree in Geoscience s	1		_		,	Rupees Two Thousand per day

Retired Government Officer served at minimum level of Assistant Engineer or equivalent with Diploma qualification will be treated at par with Graduate Engineers.

# Clause 8.1

Number of days from the date of issue of letter of acceptance for reckoning date of start

15 days

Time allowed for execution of work

630 days

Authority to give fair and reasonable extension of time for completion of work with and without Liquidated Damages

S.N	Authority	Extension
		of time
1	DoWR, RD&GR	Full
		Powers

# Clause 8.2

Competent authority for fixing compensation Chairman CGWB

# Clause 9.1

Dispute resolution board shall consists of following members

- i) The concerned Member, CGWB under whose jurisdiction the work is being executed
- ii) The FAO, CGWB
- iii) The Regional Director, CGWB of the concerned Region/s.
- iv) The Superintending Engineer, CGWB under concerned Member.

Clause 9.2

Appointing authority for Arbitrator

Chairman, CGWB

# **SECTION-XI**

FORMATS FOR QUALIFICATION INFORMATION

# **SECTION-XI**

# FORMATS FOR QUALIFICATION INFORMATION

1 The information to be filled in by the Bidder in the following pages will be used to ascertain responsiveness of the bidder as per eligibility criteria provided for in Clause 2 of the Instructions to Bidders. This information will not be incorporated in the Contract.

# 1.1 For Individual Bidders

(Refer Clause 2.2 of ITB)
Constitution or legal status of Bidder: [Attach copy]

Place of registration:

[Attach copy of Registration Certificate]

Principal place of business:
Power of attorney of signatory of Bid: [Attach copy]

# 2 Annual turnover for last three financial years

(Refer Clause 2.3 of ITB)

Financial Year	Turnover (INR)
2019-20	
2020-21	
2021-22	

# 3 (a) Details of similar works successfully completed during last seven years (Refer Clause 2.4 of ITB)

Financi al Year	S. No.	Employ er	Work order/ Agreement reference	Descripti on of Work	Date of Completi on	Value of Contrac t	Page No of documen tary proof enclosed in the bid
2015-16	1. 2.						
	3						
2016-17							
2017-18							
2018-19							
2019-20							
2020-21							
2021-22							

<sup>\*</sup>Documentary proof from Employer should be enclosed

# (b)Details for proof of payment in respect of Works mentioned in Table 3(a). (Refer Clause 2.4 of ITB)

SI No.	Name of the Employer	Work Order/ Agreement Reference	Payment Recieved	Page no of Documentary proof for payment received enclosed in the Bid

# 4. Details of tubewells/ borewells constructed by the bidder during last seven years (Refer Clause 2.6 of ITR)

(Relei Clause	2.0 01110)			
S. No.	Type of formation /strata viz. Hardrock, Softrock, Coal, Gas etc	Depth of Well	No. of Wells	Page Nos of Documentary proof given in this regard

Note: The final decision in respect of Type of formation/strata viz. Hardrock, Softrock/Alluvial etc. shall be of CGWB and shall be binding to the bidders.

- 5. In case of a consortium, attach certified copy of the agreement between various partners identifying the parts and components of the system for which the concerned partner is responsible for execution. Furnish the information as required under Clause 1 to 4 for each partner individually (Refer Clause 2.2 of ITB).
- **6.** Please provide a complete plan of operation for executing the work of packages bid for in the timeframe prescribed for completion of work, including information about availability of drilling rigs and other drilling/geophysical equipment (owned/ hired/ leased/ to be procured).

# 7. Checklist for EMD

S.N.	Name of item	EMD in INR	Form of EMD (Account Payee Demand Draft/Fixed Deposit Receipt/Banker's Cheque/Bank Guarantee)	Amount of EMD (Amount shouldn't be less than the amount mentioned in Col.3	Date of issue of EMD	EMD Expiry Date (EMD shall be valid for a period of (120 + 60) = 180 days from the last date of submission of bid*
1	2	3	4	5	6	7

<sup>\*</sup>In case last date of submission of bid has been extended, 180 days shall be counted from extended date.

----XXXXXXXXXX----

# **SECTION-XII**

BANK GUARANTEE FORM FOR EMD

# **SECTION- XII**

# BANK GUARANTEEFORM FOR EMD

To

The President of India
Acting through
Drawing & Disbursing Officer, Central Ground Water Board, Bhujal Bhawan, NH-IV,
Faridabad-121001.

WHEREAS {Name and Address of Tenderer} (hereinafter called "the tenderer") has submitted its quotation (hereinafter called the "tender") dated {} for supply of {Short Description of Goods and Services} against the Employer's tender inquiry No. {} dated {}

Know all persons by these presents that we {Name of Bank}(hereinafter called the "Bank") having our registered office at {Address of Bank}are bound unto {Name of Employer}(hereinafter called the "Employer") in the sum of {Amount} for which payment will and truly to be made to the said Employer, the Bank binds itself, its successors and assigns by these presents.

Sealed with the Common Seal of the said Bank this{Specify Day} day of {Specify Month and Year}.

The conditions of this obligation are:

- (a) If the Tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.
- (b) If the Tenderer having been notified of the acceptance of his tender by the Employer during the period of its validity:
  - (i) fails or refuses to furnish the performance security for the due performance of the contract.
  - (ii) fails or refuses to accept/execute the contract.

We undertake to pay the Employer up to the above amount upon receipt of its first written demand, without the Employer having to substantiate its demand, provided that in its demand the Employer will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition(s).

This guarantee will remain in force for a period of 60 (sixty) days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

{Signature of the Authorised Officer of the Bank} {Name and Designation of the Officer} {Seal, Name & Address of the Branch of the Bank}

# **SECTION-XIII**

# BANK GUARANTEE FORM FOR PERFORMANCE SECURITY AND MOBILISATION ADVANCE

# SECTION- XIII

# BANK GUARANTEEFORM FOR PERFORMANCE SECURITY

To
The President of India
Acting through
Drawing & Disbursing Officer, Central Ground Water Board, Bhujal Bhawan,
Faridabad

WHEREAS {Name and Address of Supplier} (hereinafter called "the supplier") has undertaken, in pursuance of Contract No {} dated {} to supply {Short Description of Goods and Services} (herein after called "the contract").

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognised by you for the sum specified therein as security for compliance with its obligations in accordance with the contract:

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of {amount of the guarantee in words and figures}, and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of {amount of the guarantee }, as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed thereunder or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid up to and including the {Specify Day} day of {Specify Month and Year}.

{Signature of the Authorised Officer of the Bank} {Name and Designation of the Officer} {Seal, Name & Address of the Branch of the Bank}

#### PROFORMA FOR BANK GUARANTEE FOR ADVANCE FOR MOBILISATION

To
The President of India
Acting through
Drawing & Disbursing Officer, Central Ground Water Board, Bhujal Bhawan, Faridabad

In consideration of Central Ground Water Board (hereinafter referred to as "the Em	ployer") which
expression shall, unless repugnant to the context or meaning thereof include it	s successors,
administrators and assigns) having awarded to(Contr	
with its Registered /Head Office at(hereinafter referred to as "th	e Contractor <sup>"</sup>
which expression shall unless repugnant to the context or meaning thereof, include it	ts successors.
administrators, executors and assigns) a contract, by issue of Employer's Notification	
dtand the same having been unequivocally ac	
Contractor, resulting into a contract valued at Rs (Rupees)	
for (hereinafter called "the contract") and the Employer having a	
an advance payment to the Contractor for performance of the above Contract amount	
(Rupeesonly) as an advance against bank gu	
furnished by the Contractor.	
We,(name & address of bank) having its Head	d Office at
(hereinafter referred to as "the Bank" which expression shall, unless	
the context or meaning thereof, include its successors, administrators, executors an	
hereby guarantee and undertake to pay the Employer immediately on demand any	- ,
payable by the Contractor to the extent of Rs (Rupees	
as aforesaid at any time uptowithout any demur, reservation, contest	
protest and/or without any reference to the Contractor. Any such demand made by the	
the bank shall be conclusive and binding notwithstanding any difference between the	
the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any o	
We agree that the Guarantee herein contained shall be irrevocable and shall be	•
enforceable till the Employer discharges this guarantee. We further agree that no	
constitution of the Bank or of the Employer shall affect this guarantee.	onange in the
oonsulation of the parity of the Employer shall allest this dualables.	

The Employer shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee, from time to time, to vary the advance or to extend the time for performance of the Contract by the Contractor. The Employer shall have the fullest liberty without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor and to exercise the same at any time in any manner, and either to enforce or to for bear to enforce any covenants, contained or implied, in the Contract between the Employer and the Contractor or any other course or remedy or security available to the Employer. The bank shall not be released of its obligations under these presents by any exercise by the Employer of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Employer or any other indulgence shown by the Employer or by any other matter or thing whatsoever which under law would but for this provision, have the effect of relieving the Bank.

The bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and not withstanding any security or other guarantee that the Employer may have in relation to the Contractor's liabilities.

We the said bank do hereby declare and undertake that your claim under the guarantee shall not be affected by any deficiency or other defect in the powers of the bank or its officials and the guarantee

shall be deemed to have been issued as if the bank and its officials have all the powers and authorization to give this guarantee on behalf of the bank.

We the said bank does hereby certify the genuineness and appropriateness of the Stamp paper and stamp value used for issuing the guarantee. We the said bank do hereby declare and undertake that your claim under the guarantee shall not be affected by any deficiency or other defect in the stamp paper or its stamp value.

We the said bank do hereby declare that our payments hereunder shall be made to you , free and clear of and without and deduction, reduction on account of any reasons including any and all present and future taxes, levies, charges of withholding whatsoever imposed or collected with respect thereto.

Notwithstanding any Rs									
including one year), as may been given.	and	d shall be	extende	d from t	time to ti	ime for s	such pe	riod (not	exceeding
Notwithstanding anyt	•								
i) our lial						sh	all	not	exceed
Rs(Rup ii) This bank guarant	ees ee shall be v	valid upto a	and till	Orliy)	,	only.	beina t	he date	of expiry of
the guarantee and			_						p <b>,</b> -
iii) We are liable to p	• .	•		•		•		•	
claim or demand with									
to default that happe shall be extinguished									
written claim or dema									
of the guarantee									
Dated this	day of	at F	aridaba	d.					
WITNESS									
(Signature)					(Signatu	ıre)			
(Name)					(Name)				
(Official address)				•	(Designa	ation wit	h bank	stamp)	
			A	ttorney	as Pow	er of Att	orney	.,	
(Signature)					No		dt		
(Name)									

# **SECTION- XIV**

# TENDER ACCEPTANCE LETTER AND INTEGRITY PACT

# **SECTION-XIV**

# TENDER ACCEPTANCE LETTER

Fron {Nar	ne and Address of Tenderer}	Date
Cent Bhuj	Superintending Engineer tral Ground Water Board al Bhawan, NH-IV, dabad, Pin-121001	
esta and Natio	ect: Construction of PiezometerWells and supply, Installation, Commisioning of DWL blishment of Data Acquisition System and its maintenance for real time Ground Wate supply of Ground Water Level, Ground Water Tremperature Data from site and ronal Data Centre, CHQ, Faridabad in a desired format from above constructed ugh telemetry sytems 05 years warranty and 02 years AMC in the state of RAJAST.	r Level Monitoring receipt of Data a Piezometer wells
Refe Dea	erence: Your Tender Enquiry Document No.{Number} dated {Date}	
1.	I/ We have downloaded/ obtained the tender document(s) for the above mentioned of <a href="http://cqwb.gov.in">http://cqwb.gov.in</a> or the Central Public Procurement portal of Government portal of	nment of India
2.	I/ We hereby certify that I/ we have read the entire terms and conditions of the tender Page No to {including all documents like annexure(s), schedule(s) form part of the contract agreement and I/ we shall abide by the terms/ conditions/ of therein.	), etcetera}, which
3.	The corrigendum(s) issued from time to time by your department/ organization too ha into consideration, while submitting this acceptance letter.	as also been taker
4.	I/ We hereby unconditionally accept the tender conditions of above mentioned ter corrigendum(s) in its totality / entirety.	nder document(s)

6. I / We certify that all information furnished by us is true and correct and in the event that the information is found to be untrue/ incorrect or found violated, then your department/ organization shall, without giving any notice or reason thereof, summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the earnest money deposited by us.

5. I/ We hereby declare that our firm have never been under a declaration of non-ineligibility for corrupt and fraudulent practices issued by any Court or Government Department or Public Sector Undertaking and not blacklisted for non-compliance of any contract by any Government Department or Public

Yours faithfully,

Sector Undertaking.

(Signature of the Tenderer, with Official Seal)

#### **INTEGRITY PACT**

(To be signed on Plain Paper) (To be submitted as part of Technical Bid) Construction of Piezometer Wells and supply, Installation, Commisioning of DWLRs and telemetry, establishment of Data Acquisition System and its maintenance for real time Ground Water Level Monitoring and supply of Ground Water Level, Ground Water Tremperature Data from site and receipt of Data at National Data Centre, CHQ, Faridabad in a desired format from above constructed Piezometer wells through telemetry sytems 05 years warranty and 02 years AMC in the state of Rajasthan. This Agreement (hereinafter called the Integrity Pact) is made on \_\_\_\_\_ day of the month of \_\_\_\_\_ 202\_\_ BETWEEN Procuring Organisation, ----- through Head of Procuring Organisation, for and on behalf of President of India (hereinafter called the "The Principal", which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part AND M/ s. \_\_\_ (hereinafter called the "The Bidder/ Contractor" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part. **PREAMBLE** 'The Principal' intends to award, under laid down organizational procedures, contract/ s for , 'The Principal' values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/ transparency in its relations with its Bidder(s) and/ or Contractor(s). In order to achieve these goals, the Principal shall appoint Independent External Monitors (IEMs) who shall monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

#### Section 1 - Commitments of the 'The Principal' 1.

- 1. 'The principal' commits itself to take all measures necessary to prevent corruption and to observe the following principles:
  - a. No employee of the principal, personally or through family members, shall in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - b. The principal shall, during the tender process treat all Bidder(s) with equity and reason. The principal shall in particular, before and during the tender process, provide to all Bidder(s) the same information and shall not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
  - c. The Principal shall exclude from the process all known prejudiced persons.
- 2. If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/ PC Act, or if there be a substantive suspicion in this regard, the Principal

shall inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

#### Section 2 - Commitments of the 'Bidder/ Contractor'

- 1. The 'Bidder/ Contractor' commit themselves to take all measures necessary to prevent corruption. The 'Bidder/ Contractor' commit themselves to observe the following principles during participation in the tender process and during the contract execution.
- a. The 'Bidder/ Contractor' shall not, directly or through any other person or firm, offer, promise, or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- b. The 'Bidder/ Contractor' shall not enter with other Bidders info any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- c. The 'Bidder/ Contractor' shall not commit any offence under the relevant IPC/ PC Act; further the 'Bidder/ Contractor' shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals, and business details, including information contained or transmitted electronically.
- d. The 'Bidder/ Contractor' of foreign origin shall disclose the name and address of the Agents/ representatives in India, if any. Similarly, the Bidder/ Contractors of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder/ Contractor. Further, as mentioned in the Guidelines all the payments made to the Indian agent/ representative have to be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" is placed at Annexe to this agreement.
- e. The 'Bidder/ Contractor' shall, when presenting their bid, disclose any and all payments made, is committed to, or intends to make to agents, brokers, or any other intermediaries in connection with the award of the contract.
- f. Bidder/ Contractor who have signed the Integrity Pact shall not approach the Courts while representing the matter to IEMs and shall wait for their decision in the matter.
- 2. The 'Bidder/ Contractor' shall not instigate third persons to commit offences outlined above or be an accessory to such offences.

# Section 3 - Disqualification from tender process and exclusion from future contracts

If the 'Bidder/ Contractor', before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put their reliability or credibility in question, the Principal is entitled to disqualify the 'Bidder/ Contractor' from the tender process or take action as per the procedure mentioned in the "Guidelines on Banning of business dealings".

#### **Section 4 - Compensation for Damages**

1. If the Principal has disqualified the 'Bidder/ Contractor' from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover from 'Bidder/Contractor' the damages equivalent to Earnest Money Deposit/ Bid Security.

2. If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the Contract value or the amount equivalent to Performance Bank Guarantee.

# **Section 5 - Previous transgression**

- 1. The Bidder declares that no previous transgressions occurred in the last three years with any other Company in any country conforming to the anti-corruption approach or with any Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 2. If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as per the procedure mentioned in "Guidelines on Banning of business dealings".

# Section 6 - Equal treatment of all Bidders/ Contractors/ Subcontractors

- 1 In case of Sub-contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor.
- 2 The Principal shall enter into agreements with identical conditions as this one with all Bidders and Contractors.
- 3 The Principal shall disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

# Section 7 - Criminal charges against violating Bidder(s)/ Contractor(s)/ Subcontractor(s)

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the principal has substantive suspicion in this regard, the principal shall inform the same to the Chief Vigilance Officer.

# **Section 8 - Independent External Monitor**

- 1 The Principal appoints competent and credible Independent External Monitor for this Pact after approval by Central Vigilance Commission. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- 2 The Monitor is not subject to instructions by the representatives of the parties and performs his/her functions neutrally and independently. The Monitor would have access to all Contract documents, whenever required. It shall be obligatory for him/her to treat the information and documents of the Bidders/Contractors as confidential. He/she reports to Head of Procuring Organization of Procuring Organization.
- 3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor shall also grant the Monitor, upon his/ her request and demonstration of a valid interest, unrestricted and unconditional access to their project documentation. The same is applicable to Sub-contractors.
- 4 The Monitor is under contractual obligation to treat the information and documents of the Bidder/Contractor(s)/ Sub-contractor(s) with confidentiality. The Monitor has also signed declarations on 'Non-Disclosure of Confidential Information' and of 'Absence of Conflict of Interest' .In case of any conflict of interest arising at a later date, the IEM shall inform Head of Procuring Organization of Procuring Organization and recues himself/ herself from that case.
  - 5. The Principal shall provide to the Monitor sufficient information about all meetings among the

parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

- 6. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he/ she shall so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action, or tolerate action.
- 7. The Monitor shall submit a written report to Head of Procuring Organisation of Procuring Organisation within 8 to 10 weeks from the date of reference or intimation to him by the principal and, should the occasion arise, submit proposals for correcting problematic situations.
- 8. If the Monitor has reported to Head of Procuring Organisation of Procuring Organisation, a substantiated suspicion of an offence under relevant IPC/ PC Act, and Head of Procuring Organisation of Procuring Organisation has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
  - 9. The word 'Monitor' would include both singular and plural.

#### **Section 9 - Pact Duration**

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.

If any claim is made/ lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by Head of Procuring Organisation of Procuring Organisation.

# Section 10 - Other provisions

- 1 This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e., Faridabad.
- 2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- 3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- 4 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties shall strive to come to an agreement to their original intentions.
  - 5 Issues like Warranty/ Guarantee etc. shall be outside the purview of IEMs.
- 6 In the event of any contradiction between the Integrity Pact and its Annexure, the Clause in the Integrity Pact shall prevail.

For and on behalf of the principal

(Name of the Officer and Designation)
(Office Seal)
For and on behalf of 'Bidder/ Contractor'
(Name of the Officer and Designation)
(Office Seal)
For and on Behalf of the Principal
Place
Date
Witness 1:
(Name & Address)
Witness 2: (Name & Address)

Date:

# **Annexe to Integrity Pact**

# **Guidelines for Indian Agents of Foreign Bidders**

- 1.0 There shall be compulsory registration of agents for all Global (Open) Tender and Limited Tender. An agent who is not registered with 'The Principal' shall apply for registration in the registration form with appropriate unit.
- 1.1 Registered agents shall file an authenticated Photostat copy duly attested by a Notary Public/ Original certificate of the Principal confirming the agency agreement. It should cover the precise relationship, services to be rendered, mutual interests in business generally and/ or specifically for the tender. Any commission/ remuneration/ salary/ retainer ship, which the agent or associate receives in India or abroad from the OEM, whether should be brought on record in the Agreement and be made explicit.
- 1.2 Wherever the Indian representatives have communicated on behalf of their principals and the foreign parties have stated that they are not paying any commission to the Indian agents, and the Indian representative is working on the basis of salary or as retainer, a written declaration to this effect should be submitted by the party (i.e., Principal) before finalizing the order.
  - 2.0 Disclosure of particulars of agents/ representatives in India, if any.
  - 2.1 Bidders of Foreign nationality shall furnish the following details in their offers:
- 2.1.1 The 'Bidder/ Contractor' of foreign origin shall disclose the name and address of the agents/ representatives in India if any and the extent of authorization and authority given to commit the Principals. In case the agent/ representative be a foreign Company, it shall be confirmed whether it is existing Company and details of the same shall be furnished.
- 2.1.2 The amount of commission/ remuneration included in the quoted price(s) for such agents/ representatives in India.
- 2.1.3 Confirmation of the Bidder that the commission/ remuneration, if any, payable to his agents/ representatives in India, may be paid by 'The Principal' in Indian Rupees only.
  - 2.2 Bidders of Indian Nationality shall furnish the following details in their offers:
- 2.2.1 The 'Bidder/ Contractor' of Indian Nationality shall furnish the name and address of the foreign principals, if any, indicating their nationality as well as their status, i.e., whether manufacturer or agents of manufacturer holding the Letter of Authority of the Principal specifically authorizing the agent to make an offer in India in response to tender either directly or through the agents/ representatives.
- 2.2.2 The amount of commission/ remuneration included in the price (s) quoted by the Bidder for himself.
- 2.2.3 Confirmation of the foreign principals of the Bidder that the commission/ remuneration, if any, reserved for the Bidder in the quoted price(s), may be paid by 'The Principal' in India in equivalent Indian Rupees on satisfactory completion of the Project or supplies of Stores and Spares in case of operation items.
- 2.3 In either case, in the event of contract materializing, the terms of payment shall provide for payment of the commission/ remuneration, if any payable to the agents/ representatives in India in Indian Rupees on expiry of 90 days after the discharge of the obligations under the contract.
- 2.4 Failure to furnish correct and detailed information as called for in clauses above shall render the concerned tender liable to rejection or in the event of a contract materializing, the same liable to termination by 'The Principal'. Besides this there would be a penalty of banning business dealings with 'The Principal' or damage or payment of a named sum.

# **SECTION-XV**

# INSTRUCTIONS FOR ONLINE BID SUBMISSION

SECTION- XV
INSTRUCTIONS FOR ONLINE SUBMISSION OF BIDS

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: <a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a>.

# **REGISTRATION**

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a>) by clicking on the link "Online bidder Enrollment" on the CPP Portal which is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

# **SEARCHING FOR TENDER DOCUMENTS**

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

#### PREPARATION OF BIDS

1) Bidder should take into account any corrigendum published on the tender document

- before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

# **SUBMISSION OF BIDS**

- Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as "offline" to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered /given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- 5) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white colored (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- 6) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the

- bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 7) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 8) Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message and a bid summary will be displayed with the bid no. and the date and time of submission of the bid with all other relevant details.
- 9) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

#### **ASSISTANCE TO BIDDERS**

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority or the relevant contact person indicated in the tender.
- Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is Toll Free No. 1800 3070 2232 and Mobile Nos 91 7878007972 and 91 7878007973.

# **SECTION-XVI**

SAFETY CODE

#### **SECTION-XVI**

#### SAFETY CODE

- 1. Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used, an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well suitable footholds and hand-hold shall be provided on the ladder and the ladder shall be given an inclination not steeper than ½ to 1(½ horizontal and 1 vertical.)
- 2. Scaffolding of staging more than 3.6 m (12ft.) above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm. (3ft.) high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends there of with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
- 3. Working platforms, gangways and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 3.6 m (12ft.) above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in (2) above.
- 4. Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of person or materials by providing suitable fencing or railing whose minimum height shall be 90 cm. (3ft.)
- 5. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m. (30ft.) in length while the width between side rails in rung ladder shall in no case be less than 29 cm. (11½") for ladder upto and including 3 m. (10 ft.) in length. For longer ladders, this width should be increased at least ¼" for each additional 30 cm. (1 foot) of length. Uniform step spacing of not more than 30 cm shall be kept. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites or work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit, action or proceedings to any such person or which may, with the consent of the contractor, be paid to compensate any claim by any such person.
- 6. Excavation and Trenching All trenches 1.2 m. (4ft.) or more in depth, shall at all times be supplied with at least one ladder for each 30 m. (100 ft.) in length or fraction thereof Ladder shall extend from bottom of the trench to at least 90 cm. (3ft.) above the surface of the ground. The side of the trenches which are

- 1.5 m. (5ft.) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within
- 1.5m. (5ft.) of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.
- 7. Demolition Before any demolition work is commenced and also during the progress of the work.
  - i) All roads and open areas adjacent to the work site shall either be closed or suitably protected
  - ii) No electric cable or apparatus which is liable to be a source of danger or a cable or apparatus used by the operator shall remain electrically charged.
  - ii) All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.
- 8. All necessary personal safety equipment as considered adequate by the Employer should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by those concerned:- The following safety equipment shall invariably be provided.
- i) Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
- ii) Those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes, shall be provided with protective goggles.
- iii) Those engaged in welding works shall be provided with welder's protective eye-shields.
- iv) Stone breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
- v) When workers are employed in sewers and manholes, which are in active use, the contractors shall ensure that the manhole covers are opened and ventilated at least for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public. In addition, the contractor shall ensure that the following safety measure are adhered to :-
  - Entry for workers into the line shall not be allowed except under supervision of the JE or any other higher officer.
  - b) At least 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manhole for working inside.
  - c) Before entry presence of Toxic gases should be tested by inserting wet lead acetate paper which changes colour in the presence of such gases and gives indication of their presence.
  - d) Presence of Oxygen should be verified by lowering a detector lamp into the manhole. In case, no Oxygen is found inside the sewer line, workers should be sent only with

Oxygen kit.

- Safety belt with rope should be provided to the workers. While working inside the
  manholes such rope should be handled by two men standing outside to enable him to be
  pulled out during emergency.
- f) The area should be barricaded or cordoned of by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public whenever cleaning works are undertaken during night or day.
- g) No smoking or open flames shall be allowed near the blocked manhole being cleaned.
- h) The malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.
- i) Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Employer may decide the time up to which a worker may be allowed to work continuously inside the manhole.
- j) Gas masks with Oxygen Cylinder should be kept at site for use in emergency.
- k) Air-blowers should be used for flow of fresh air through the manholes. Whenever called for portable air blowers are recommended for ventilating the manholes. The Motors for these shall be vapour proof and of totally enclosed type. Non sparking gas engines also could be used but they should be placed at least 2 metres away from the opening and on the leeward side protected from wind so that they will not be a source of friction on any inflammable gas that might be present.
- I) The workers engaged for cleaning the manholes/sewers should be properly trained before allowing to work in the manhole.
- m) The workers shall be provided with Gumboots or non sparking shoes bump helmets and gloves non sparking tools safety lights and gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.
- n) Workmen descending a manhole shall try each ladder stop or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole well.
- If a man has received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.
- p) The extent to which these precautions are to be taken depend on individual situation but the decision of the Employer regarding the steps to be taken in this regard in an individual case will be final.
- vi) The Contractor shall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following precaution should be taken:-
  - No paint containing lead or lead products shall be used except in the form of paste or ready made paint.
  - b) Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scraped.

- c) Overalls shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during and on the cessation of work.
- 9 The Contractor shall not employ women and men below the age of 18 on the work of painting with product containing lead in any form, wherever men above the age of 18 are employed on the work of lead painting, the following principles must be observed for such use:
  - (i) White lead, sulphate of lead or product containing these pigment, shall not be used in painting operation except in the form of pastes or paint ready for use.
  - ii) Measures shall be taken, wherever required in order to prevent danger arising from the application of paint in the form of spray.
  - iii) Measures shall be taken, wherever practicable, to prevent danger arising out of from dust caused by dry rubbing down and scraping.
  - iv) Adequate facilities shall be provided to enable working painters to wash during and on cessation of work.
  - v) Overall shall be worn by working painters during the whole of working period.
  - vi) Suitable arrangement shall be made to prevent clothing put off during working hours being spoiled by painting materials.
  - vii) Cases of lead poisoning and suspected lead poisoning shall be notified and shall be subsequently verified by medical man appointed by the Employer.
  - viii) The Employer may require, when necessary medical examination of workers.
  - ix) Instructions with regard to special hygienic precautions to be taken in the painting trade shall be distributed to working painters.
- 10. When the work is done near any place where there is risk of drowning, all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision, should be made for prompt first aid treatment of all injuries likely to be obtained during the course of the work.
- 11. Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standards or conditions:
  - i) (a) These shall be of good mechanical construction, sound materials and adequate strength and
    - free from patent defects and shall be kept repaired and in good working order.
    - (b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.
  - ii) Every crane driver or hoisting appliance operator, shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding winch or give signals to operator.
  - iii) In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or as means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load each safe working load and the condition under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to

- above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
- iv) In case of departmental machines, the safe working load shall be notified by the Electrical Employer. As regards contractor's machines the contractors shall notify the safe working load of the machine to the Employer whenever he brings any machinery to site of work and get it verified by the Electrical Engineer concerned.
- Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energized, insulating mats, wearing apparel, such as gloves, sleeves and boots as may be necessary should be provided. The worker should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.
- 13. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.
- 14. These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.
- 15. To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor shall be open to inspection by the Labour Officer or Employer of the department or their representatives.
  - Notwithstanding the above clauses from (1) to (15) there is nothing in these to exempt the contractor from the operations of any other Act or Rule in force in the Republic of India.

WP(C) 36/2009

ITEM NO.11 COURT NO.1 SECTION PIL

SUPREME COURT OF INDIA RECORD OF PROCEEDINGS

WRIT PETITION (CIVIL) NO(s). 36 OF 2009

IN RE: MEASURES FOR PREVENTION OF FATAL ACCIDENTS OF SMALL CHILDREN DUE TO THEIR

FALLING INTO ABANDONED BORE WELLS AND TUBE WELLS

Petitioner(s)

**VERSUS** 

UNION OF INDIA & ORS. Respondent(s)

(With office report)

Date: 11/02/2010 This Petition was called on for hearing today.

CORAM:

HON'BLE THE CHIEF JUSTICE

HON'BLE DR. JUSTICE B.S. CHAUHAN HON'BLE MR. JUSTICE C.K. PRASAD

Mr. Paramjit Singh Patwalia, Sr. Adv.

(A.C.)

For Petitioner(s)

For Respondent(s)

Ms. Indira JaiSing, ASG

Mr. Ashok Bhan, Adv. Ms. Sadhna Sandhu, Adv. Mr. C.K. Sharma, Adv. Mr. D.S. Mahra, Adv.

For State of Haryana Mr. Manjit Singh, AAG for Haryana

Mr. Kamal Mohan Gupta, Adv. Ms.Reeta Chaudhary, Adv. Mr. Gaurav Teotia, Adv.

For State of Punjab Mrs. JayshreeAnand, AAG for Punjab

Mr. K.K. Mahalik, Adv. Mrs. Noor Jahan, Adv. Mr. Kuldip Singh, Adv.

For State of Raj. Dr. Manish Singhvi, AAG for Rajasthan

Mr. Devanshu Kumar Devesh, Adv.

Mr. Milind Kumar, Adv. Mr. T. Harish Kumar, Adv. For State of U.P. Mr. Shail Kumar Dwivedi, AAG for U.P.

Mr. Manoj Kr. Dwivedi, adv. Ms. Vandana Mishra, Adv. Mr. Ashutosh Kr. Sharma, Adv. Mr. GunnamVenkateswara Rao, Adv.

For State of T.N. Ms. Promila, adv.

Mr. S. Thananjayan, Adv.

UPON hearing counsel the Court made the following ORDER

Certain safety measures/guidelines have been given in the signed order which are to be observed by all the States. The guidelines given in the signed order Shall be given wide publicity through the national television channels. A copy of this order be sent to the Chief Secretaries of all the States/Union Territories who shall forward the same to the District Collectors of all Districts of their respective State.

For further directions post this matter after 12 weeks.

(Ajay Kr. Jain) (Veera Verma)
Court Master Court Master

(Signed order is placed on the file)

## IN THE SUPREME COURT OF INDIA CIVIL ORIGINAL JURISDICTION

#### WRIT PETITION(C)NO.36 OF 2009

In Re: Measures for Prevention of Fatal Accidents of Small Children Due to Their Falling Into Abandoned Bore Wells and Tube Wells Petitioner

Versus

Union of India &Ors. .... Respondents

#### ORDER

Heard the learned Amicus Curiae and the learned Addl. Solicitor General appearing for the Union of India.

It has been brought to the notice of this Court that in a number of cases children had been trapped and fallen into bore wells and tube wells or abandoned wells. These reports have been coming from various States. Accordingly, we took suomotu initiative and issued notice to the various States to take immediate measures to prevent such kind of incidents.

The Union of India has filed its counter affidavit giving certain guidelines to be followed by the States.

We have perused the affidavit and the guidelines suggested by the Union of India.

Having regard to the number of incidents that have taken place during the recent past and immediate need for preventing such incidents in future, we direct that the following safety measures/guidelines are to be observed by all the States:-

- (i)"The owner of the land/premises, before taking any steps for constructing bore well/ tube well must inform in writing at least 15 days in advance to the concerned authorities in the area, i.e., District Collector/ District Magistrate/Sarpanch of the Gram Panchayat/ concerned officers of the Department of Ground Water/ Public Health/ Municipal Corporation, as the case may be, about the construction of bore well/tube well.
- (ii)Registration of all the drilling agencies,viz., Govt./Semi Govt./Private etc. should be mandatory with the district administration.
- (iii) Erection of signboard at the time of construction near the well with the following details:
  - a)Complete address of the drilling agency at the time of construction/rehabilitation of well. (b)Complete address of the user agency/ owner ofthe well.
- (iv)Erection of barbed wire fencing or any other suitable barrier around the well during construction.

(v)Construction of cement/concrete platform measuring 0.50 x 0.50x 0.60 meter (0.30 meter above ground level and 0.30 meter below ground level) around the well casing.

(vi)Capping of well assembly by welding steel plate or by providing a strong cap to be fixed to the casing pipe with bolts & nuts.

(vii)In case of pump repair, the tube well should not be left uncovered.

(viii)Filling of mud pits and channels after completion of works.

(ix)Filling up abandoned borewells by clay/sand /boulders/pebbles/drill cuttings etc. from bottom to ground level.

(x)On completion of the drilling operations at a particular location, the ground conditions are to be restored as before the start of drilling.

(xi)District Collector should be empowered to verify that the above guidelines are being followed and proper monitoring check about the status of boreholes/tubewells are being taken care through the concerned State/Central Government agencies.

(xii)District/Block/Village wise status of bore wells/tubewells drilled viz. No. of wells in use, No.of abandoned bore wells/tube wells found open, No. of abandoned borewells/tubewells properly filled up to ground level and balance number of abandoned borewells/tubewells to be filled up to ground level is to be maintained at District Level.

In rural areas, the monitoring of the above is to be done through Village Sarpanch and the Executive from the Agriculture Department.

In case of urban areas, the monitoring of the above is to be done through Junior Engineer and the Executive from the concerned Department of Ground Water/Public Health/ Municipal Corporation etc.

(xiii)If a borewell/tubewell is 'Abandoned' at any stage, a certificate from the concerned department of Ground Water/Public health/Municipal Corporation/Private contractor etc. must be obtained by the aforesaid agencies that the 'Abandoned' borewell/tubewell is properly filled upto the ground level. Random inspection of the abandoned wells is also to be done by the Executive of the concern agency/department. Information on all such data on the above are to be maintained in the District Collector/ Block Development Office of the State.

The guidelines abovementioned shall be given wide publicity through the national television channels. A copy of this order be sent to the Chief Secretaries of all the States/Union Territories who shall forward thesame to the District Collectors of all Districts of their respective State for further directions post this matter after 12 weeks.

matter after 12 weeks.	CJI.
	J. (Dr. B.S. CHAUHAN)
	(DI. B.S. GLIAGLIAN)
NEW DELLI	J. (C.K. PRASAD)
NEW DELHI; FEBRUARY 11, 2010	

## **SECTION-XVII**

## MODEL RULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS

#### **SECTION- XVII**

# MODEL RULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS

#### 1. APPLICATION

These rules shall apply to all buildings and construction works in which twenty or more workers are ordinarily employed or are proposed to be employed in any day during the period during which the contract work is in progress.

#### 2. DEFINITION

Work place means a place where twenty or more workers are ordinarily employed in connection with construction work on any day during the period during which the contract work is in progress.

#### 3. FIRST-AID FACILITIES

- At every work place there shall be provided and maintained, so as to be easily accessible during working hours, first-aid boxes at the rate of not less than one box for 150 contract labour or part thereof ordinarily employed.
- ii) The first-aid box shall be distinctly marked with a red cross on white back ground and shall contain the following equipment:
  - a) For work places in which the number of contract labour employed does not exceed 50-Each first-aid box shall contain the following equipments:-
    - 1. 6 small sterilized dressings.
    - 2. 3 medium size sterilized dressings.
    - 3. 3 large size sterilized dressings.
    - 4. 3 large sterilized burn dressings.
    - 5. 1 (30 ml.) bottle containing a two per cent alcoholic solution of iodine.
    - 6. 1 (30 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
    - 7. 1 snakebite lancet.
    - 8. 1 (30 gms.) bottle of potassium permanganate crystals.
    - 9. 1 pair scissors.
    - 10. 1 copy of the first-aid leaflet issued by the Director General, Factory Advice Service and Labour Institutes, Government of India.
    - 11. 1 bottle containing 100 tablets (each of 5 gms.) of aspirin.
    - 12. Ointment for burns.
    - 13. A bottle of suitable surgical antiseptic solution.
  - b) For work places in which the number of contract labour

exceed 50. Each first-aid box shall contain the following equipments.

- 1. 12 small sterilized dressings.
- 2. 6 medium size sterilized dressings.
- 3. 6 large size sterilized dressings.
- 4. (15 gms.) Packets sterilized cotton wool.
- 5. 1 (60 ml.) bottle containing two per cent alcoholic solution iodine.
- 6. 1 (60 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
- 7. 1 rolls of adhesive plaster.
- 8. 1 snake bite lancet.
- 9. 1 (30 gms.) bottle of potassium permanganate crystals.
- 10. 1 pair scissors.
- 11. 1 copy of the first-aid leaflet issued by the Director General Factory Advice Service and Labour Institutes /Government of India.
- 12. A bottle containing 100 tablets (each of 5 gms.) of aspirin.
- 13. Ointment for burns.
- 14. A bottle of suitable surgical antiseptic solution.
- iii) Adequate arrangements shall be made for immediate recoupment of the equipment when necessary.
- iv) Nothing except the prescribed contents shall be kept in the First-aid box.
- v) The first-aid box shall be kept in charge of a responsible person who shall always be readily available during the working hours of the work place.
- vi) A person in charge of the First-aid box shall be a person trained in First-aid treatment, in the work places where the number of contract labour employed is 150 or more.
- vii) In work places where the number of contract labour employed is 500 or more and hospital facilities are not available within easy distance from the works. First-aid posts shall be established and run by a trained compounder. The compounder shall be on duty and shall be available at all hours when the workers are at work.
- viii) Where work places are situated in places which are not towns or cities, a suitable motor transport shall be kept readily available to carry injured person or person suddenly taken ill to the nearest hospital.

#### 4. DRINKING WATER

- i) In every work place, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking.
- ii) Where drinking water is obtained from an Intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.

- iii) Every water supply or storage shall be at a distance of not less than 50 feet from any latrine drain or other source of pollution. Where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn form it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust and waterproof.
- iv) A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

#### 5. WASHING FACILITIES

- i) In every work place adequate and suitable facilities for washing shall be provided and maintained for the use of contract labour employed therein.
- ii) Separate and adequate cleaning facilities shall be provided for the use of male and female workers.
- iii) Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition.

#### 6. LATRINES AND URINALS

- Latrines shall be provided in every work place on the following scale namely: a)Where female are employed there shall be at least one latrine for every 25 females.
  - b) Where males are employed, there shall be at least one latrine for every 25 males.

Provided that where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females as the case may be up to the first 100, and one for every 50 thereafter.

- ii) Every latrine shall be under cover and so partitioned off as to secure privacy, and shall have a proper door and fastenings.
- iii) Construction of latrines: The inside walls shall be constructed of masonry or some suitable heat-resisting nonabsorbent materials and shall be cement washed inside and outside at least once a year, Latrines shall not be of a standard lower than borehole system.
- iv) a) Where workers of both sexes are employed, there shall be displayed outside each block of
  - latrine and urinal, a notice in the language understood by the majority of the workers "For Men only" or "For Women Only" as the case may be.
  - b) The notice shall also bear the figure of a man or of a woman, as the case may be.
- v) There shall be at least one urinal for male workers up to 50 and one for female workers up to fifty employed at a time, provided that where the number of male or female workmen, as the case may be exceeds 500, it shall be sufficient if there is one urinal for every 50 males or females up to the first 500 and one for every 100 or

part thereafter.

vi) a) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and

sanitary condition at all times.

- b) Latrines and urinals other than those connected with a flush sewage system shall comply with the requirements of the Public Health Authorities.
- vii) Water shall be provided by means of tap or otherwise so as to be conveniently accessible in or near the latrines and urinals.
- viii) Disposal of excreta: Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator. Alternately excreta may be disposed of by putting a layer of night soil at the bottom of a pucca tank prepared for the purpose and covering it with a 15 cm. layer of waste or refuse and then covering it with a layer of earth for a fortnight (when it will turn to manure).
- (ix) The contractor shall at his own expense, carry out all instructions issued to him by the Employer to effect proper disposal of night soil and other conservancy work in respect of the contractor's workmen or employees on the site. The contractor shall be responsible for payment of any charges which may be levied by Municipal or Cantonment Authority for execution of such on his behalf.

#### 7. PROVISION OF SHELTER DURING REST

At every place there shall be provided, free of cost, four suitable sheds, two for meals and the other two for rest separately for the use of men and women labour. The height of each shelter shall not be less than 3 metres (10 ft.) from the floor level to the lowest part of the roof. These shall be kept clean and the space provided shall be on the basis of 0.6 sq.m. (6 sft) per head.

Provided that the Employer may permit subject to his satisfaction, a portion of the building under construction or other alternative accommodation to be used for the purpose.

#### 8. CRECHES

- i) At every work place, at which 20 or more women worker are ordinarily employed, there shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years. One room shall be used as a play room for the children and the other as their bedroom.
- ii) The rooms shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the places clean.
- iii) The contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the bed room.
- iv) The contractor shall provide one ayaa to look after the children in the creche when the number of women workers does not exceed 50 and two when the number of women workers exceed 50.
- v) The use of the rooms earmarked as creches shall be restricted to children, their attendants and mothers of the children.

#### 9. CANTEENS

- i) In every work place where the work regarding the employment of contract labour is likely to continue for six months and where in contract labour numbering one hundred or more are ordinarily employed, an adequate canteen shall be provided by the contractor for the use of such contract labour.
- ii) The canteen shall be maintained by the contractor in an efficient manner.
- iii) The canteen shall consist of at least a dining hall, kitchen, storeroom, pantry and washing places separately for workers and utensils.
- iv) The canteen shall be sufficiently lighted at all times when any person has access to it.
- v) The floor shall be made of smooth and impervious materials and inside walls shall be lime-washed or colour washed at least once in each year.
  - Provided that the inside walls of the kitchen shall be lime-washed every four months.
- vi) The premises of the canteen shall be maintained in a clean and sanitary condition.
- vii) Waste water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance.
- viii) Suitable arrangements shall be made for the collection and disposal of garbage.
- ix) The dining hall shall accommodate at a time 30 per cent of the contract labour working at a time.
- x) The floor area of the dining hall, excluding the area occupied by the service counter and any furniture except tables and chairs shall not be less than one square meter (10 sft) per diner to be accommodated as prescribed in sub-Rule 9.
- xi) a) A portion of the dining hall and service counter shall be partitioned off and reserved for

women workers in proportion to their number.

- b) Washing places for women shall be separate and screened to secure privacy.
- xii) Sufficient tables stools, chair or benches shall be available for the number of diners to be accommodated as prescribed in sub-Rule 9.

There shall be provided and maintained sufficient utensils crockery,

- xiii) a) 1. furniture and any other equipments necessary for the efficient running of the canteen.
  - 2. The furniture utensils and other equipment shall be maintained in a clean and hygienic condition.
  - Suitable clean clothes for the employees serving in the canteen shall be provided and maintained.
    - 2. A service counter, if provided, shall have top of smooth and impervious material.
    - 3. Suitable facilities including an adequate supply of hot water shall be

provided for the cleaning of utensils and equipments.

- xiv) The food stuffs and other items to be served in the canteen shall be in conformity with the normal habits of the contract labour.
- xv) The charges for food stuffs, beverages and any other items served in the canteen shall be based on 'No profit, No loss' and shall be conspicuously displayed in the canteen.
- xvi) In arriving at the price of foodstuffs, and other article served in the canteen, the following items shall not be taken into consideration as expenditure namely:
  - a) The rent of land and building.
  - b) The depreciation and maintenance charges for the building and equipments provided for the canteen.
  - c) The cost of purchase, repairs and replacement of equipments including furniture, crockery, cutlery and utensils.
  - d) The water charges and other charges incurred for lighting and ventilation.
  - e) The interest and amounts spent on the provision and maintenance of equipments provided for the canteen.
- xvii) The accounts pertaining to the canteen shall be audited once every 12 months by registered accountants and auditors.

#### 10. ANTI-MALARIAL PRECAUTIONS

The contractor shall at his own expense, conform to all anti-malarial instructions given to him by the Employer including the filling up of any borrow pits which may have been dug by him.

**11.** The above rules shall be incorporated in the contracts and in notices inviting tenders and shall from an integral part of the contracts.

#### 12. AMENDMENTS

Government may, from time to time, add to or amend these rules and issue directions - it may consider necessary for the purpose of removing any difficulty which may arise in the administration thereof.

# **SECTION- XVIII**CONTRACTOR'S LABOUR REGULATIONS

#### SECTION- XVIII

#### CONTRACTOR'S LABOUR REGULATIONS

#### 1. SHORT TITLE

These regulations may be called Contractors Labour Regulations.

#### 2 DEFINITIONS

- i) Workman means any person employed by contractor directly or indirectly through asubcontractor to do any skilled, semiskilled or unskilled manual, supervisory, technical or clerical work for hire or reward, whether the terms of employment are expressed or implied but does not include any person:
  - a) Who is employed mainly in a managerial or administrative capacity : or
  - b) Who, being employed in a supervisory capacity draws wages exceeding five hundred rupees per mensem or exercises either by the nature of the duties attached to the office or by reason of powers vested in him, functions mainly of managerial nature: or
  - c) Who is an out worker, that is to say, person to whom any article or materials are given out by or on behalf of the principal employers to be made up cleaned, washed, altered, ornamental finished, repaired adopted or otherwise processed for sale for the purpose of the trade or business of the principal employers and the process is to be carried out either in the home of the out worker or in some other premises, not being premises under the control and management of the principal employer.

No person below the age of 14 years shall be employed to act as a workman.

- ii) **Fair Wages** means wages whether for time or piece work fixed and notified under the provisionsof the Minimum Wages Act from time to time.
- iii) **Contractors** shall include every person who undertakes to produce a given result other than amere supply of goods or articles of manufacture through contract labour or who supplies contract labour for any work and includes a subcontractor.
- iv) Wages shall have the same meaning as defined in the Payment of Wages Act.
- 3. i) Normally working hours of an adult employee should not exceed 9 hours a day. The working day shall be so arranged that inclusive of interval for rest, if any, it shall not spread over more than 12 hours on any day.
  - ii) When an adult worker is made to work for more than 9 hours on any day or for more than 48 hours in any week, he shall be paid over time for the extra hours put in by him at double the ordinary rate of wages.
  - iii) a) Every worker shall be given a weekly holiday normally on a Sunday, in

#### accordance with

the provisions of the Minimum Wages (Central) Rules 1960 as amended from time to time irrespective of whether such worker is governed by the Minimum Wages Act or not.

- b) Where the minimum wages prescribed by the Government under the Minimum Wages Act are not inclusive of the wages for the weekly day of rest, the worker shall be entitled to rest day wages at the rate applicable to the next preceding day, provided he has worked under the same contractor for a continuous period of not less than 6 days.
- c) Where a contractor is permitted by the Employer to allow a worker to work on a normal weekly holiday, he shall grant a substituted holiday to him for the whole day on one of the five days immediately before or after the normal weekly holiday and pay wages to such worker for the work performed on the normal weekly holiday at overtime rate.

#### 4. DISPLAY OF NOTICE REGARDING WAGES ETC.

The contractor shall before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain in a clear and legible condition in conspicuous places on the work, notices in English and in the local Indian languages spoken by the majority of the workers giving the minimum rates of wages fixed under Minimum Wages Act, the actual wages being paid, the hours of work for which such wage are earned, wages periods, dates of payments of wages and other relevant information..

#### 5. PAYMENT OF WAGES

- i) The contractor shall fix wage periods in respect of which wages shall be payable.
- ii) No wage period shall exceed one month.
- iii) The wages of every person employed as contract labour in an establishment or by a contractor where less than one thousand such persons are employed shall be paid before the expiry of seventh day and in other cases before the expiry of tenth day after the last day of the wage period in respect of which the wages are payable.
- iv) Where the employment of any worker is terminated by or on behalf of the contractor the wages earned by him shall be paid before the expiry of the second working day from the date on which his employment is terminated.
- v) All payment of wages shall be made on a working day at the work premises and during the working time and on a date notified in advance and in case the work is completed before the expiry of the wage period, final payment shall be made within 48 hours of the last working day.
- vi) Wages due to every worker shall be paid to him direct or to other person authorized by him in this behalf.
- vii) All wages shall be paid in current coin or currency or in both.
- viii) Wages shall be paid without any deductions of any kind except those specified by the Central Government by general or special order in this behalf or permissible under the Payment of Wages Act 1956.
- A notice showing the wages period and the place and time of disbursement of wages

- shall be displayed at the place of work and a copy sent by the contractor to the Employer under acknowledgment.
- x) It shall be the duty of the contractor to ensure the disbursement of wages in the presence of the Engineer or any other authorized representative of the Employer who will be required to be present at the place and time of disbursement of wages by the contractor to workmen.
- xi) The contractor shall obtain from the Junior Engineer or any other authorized representative of the Employer as the case may be, a certificate under his signature at the end of the entries in the "Register of Wages" or the "Wage-cum-Muster Roll" as the case may be in the following form:-

#### 6. FINES AND DEDUCTIONS WHICH MAY BE MADE FROM WAGES

- (i) The wages of a worker shall be paid to him without any deduction of any kind except the following:-
  - (a) Fines
  - (b) Deductions for absence from duty i.e. from the place or the places where by the terms of his employment he is required to work. The amount of deduction shall be in proportion to the period for which he was absent.
  - (c) Deduction for damage to or loss of goods expressly entrusted to the employed person for custody, or for loss of money or any other deduction which he is required to account, where such damage or loss is directly attributable to his neglect or default.
  - (d) Deduction for recovery of advances or for adjustment of overpayment of wages, advances granted shall be entered in a register.
  - (e) Any other deduction which the Central Government may from time to time allow.
- (ii) No fines should be imposed on any worker save in respect of such acts and omissions on his part as have been approved of by the Chief Labour Commissioner.
  - **Note :-** An approved list of Acts and Omissions for which fines can be imposed is enclosed atAppendix-I
- (iii) No fine shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.
- (iv) The total amount of fine which may be imposed in any one wage period on a worker shall not exceed an amount equal to three paise in a rupee of the total wages, payable to him in respect of that wage period.
- (v) No fine imposed on any worker shall be recovered from him by instalment, or after the expiry of sixty days from the date on which it was imposed.
- (vi) Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.

#### 7. LABOUR RECORDS

- The contractor shall maintain a Register of persons employed on work on contract in Form XIII of the CL (R&A) Central Rules 1971
- (ii) The contractor shall maintain a **Muster Roll** register in respect of all workmen employed by him on the work under Contract in Form XVI of the CL (R&A) Rules 1971.
- (iii) The contractor shall maintain a **Wage Register** in respect of all workmen employed by him on the work under contract in Form XVII of the CL (R&A) Rules 1971
- (iv) Register of accident The contractor shall maintain a register of accidents in such form as maybe convenient at the work place but the same shall include the following particulars:
  - a) Full particulars of the labourers who met with accident.
  - b) Rate of Wages.
  - c) Sex
  - d) Age
  - e) Nature of accident and cause of accident.
  - f) Time and date of accident.
  - g) Date and time when admitted in Hospital.
  - h) Date of discharge from the Hospital.
  - Period of treatment and result of treatment.
  - Percentage of loss of earning capacity and disability as assessed by Medical Officer.
  - k) Claim required to be paid under Workmen's Compensation Act.
  - I) Date of payment of compensation.
  - m) Amount paid with details of the person to whom the same was paid.
  - n) Authority by whom the compensation was assessed.
  - o) Remarks
- v) The contractor shall maintain a **Register of Fines** in the Form XII of the CL (R&A) Rules 1971
  - The contractor shall display in a good condition and in a conspicuous place of work the approved list of acts and omissions for which fines can be imposed
- vi) The contractor shall maintain a **Register of deductions for damage or loss** in Form XX of the CL (R&A) Rules 1971.
- vii) The contractor shall maintain a **Register of Advances** in Form XXIII of the CL (R&A) Rules 1971.
- viii) The contractor shall maintain a **Register of Overtime** in Form XXIII of the CL (R&A) Rules 1971.

#### 8. ATTENDANCE CARD-CUM-WAGE SLIP

i) The contractor shall issue an **Attendance card-cum-wage slip** to each workman

employed by him.

- ii) The card shall be valid for each wage period.
- iii) The contractor shall mark the attendance of each workman on the card twice each day, once at the commencement of the day and again after the rest interval, before he actually starts work.
- iv) The card shall remain in possession of the worker during the wage period under reference.
- v) The contractor shall complete the wage slip portion on the reverse of the card at least a day prior to the disbursement of wages in respect of the wage period under reference.
- vi) The contractor shall obtain the signature or thumb impression of the worker on the wage slip at the time of disbursement of wages and retain the card with himself.

#### 9. EMPLOYMENT CARD

The contractor shall issue an **Employment Card** in Form XIV of the CL (R&A) Central Rules 1971 to each worker within three days of the employment of the worker.

#### **10.SERVICE CERTIFICATE**

On termination of employment for any reason whatsoever the contractor shall issue to the workman whose services have been terminated, a **Service certificate** in Form XV of the CL (R&A) Central Rules 1971.

#### 11. PRESERVATION OF LABOUR RECORDS

All records required to be maintained under Regulations Nos. 6&7 shall be preserved in original for a period of three years from the date of last entries made in them and shall be made available for inspection by the Employer or Labour Officer.

#### 12. POWER OF LABOUR OFFICER TO MAKE INVESTIGATIONS OR ENQUIRY

The Labour Officer or any person authorized by Central Government on their behalf shall have power to make enquires with a view to ascertaining and enforcing due and proper observance of Fair Wage Clauses and the Provisions of these Regulations. He shall investigate into any complaint regarding the default made by the contractor or subcontractor in regard to such provision.

#### 13. REPORT OF LABOUR OFFICER

The Labour Officer or other persons authorized as aforesaid shall submit a report of result of his investigation or enquiry to the Employer indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the contractor's bill be made and the wages and other dues be paid to the labourers concerned. In case an appeal is made by the contractor under Clause 13 of these regulations, actual payment to labourers will be made by the Engineer after the Employer has given his decision on such appeal.

i) The Engineer shall arrange payments to the labour concerned within 45 days from the receipt of the report form the Labour Officer or the Employer as the case may be.

#### 14. APPEAL AGAINST THE DECISION OF LABOUR OFFICER

Any person aggrieved by the decision and recommendations of the Labour Officer or other person so authorised may appeal against such decision to the Employer within 30 days

from the date of decision, forwarding simultaneously a copy of his appeal to the Engineer concerned but subject to such appeal, the decision of the officer shall be final and binding upon the contractor.

#### 15. PROHIBITION REGARDING REPRESENTATION THROUGH LAWYER

- i) A workman shall be entitled to be represented in any investigation or enquiry under these regulations by:
  - a) An officer of a registered trade union of which he is a member.
  - b) An officer of a federation of trade unions to which the trade union referred to in clause (a) is affiliated.
  - c) Where the employer is not a member of any registered trade union, by an officer of a registered trade union, connected with the industry in which the worker in employed or by any other workman employed in the industry in which the worker is employed.
- ii) An employer shall be entitled to be represented in any investigation or enquiry under these regulations by :-
  - An officer of an association of employers of which he is a member.
  - b) An officer of a federation of associations of employers to which association referred to in clause (a) is affiliated.
  - c) Where the employers is not a member of any association of employers, by an officer of association of employer connected with the industry in which the employer is engaged or by any other employer, engaged in the industry in which the employer is engaged.
- (iii) No party shall be entitled to be represented by a legal practitioner in any investigation or enquiry under these regulations.

#### 16. INSPECTION OF BOOKS AND SLIPS

The contractor shall allow inspection of all the prescribed labour records to any of his workers or to his agent at a convenient time and place after due notice is received or to the Labour Officer or any other person, authorized by the Central Government on his behalf.

#### 17. SUBMISSIONS OF RETURNS

The contractor shall submit periodical returns as may be specified from time to time.

#### 18. AMENDMENTS

The Central Government may from time to time add to or amend the regulations and on any question as to the application/Interpretation or effect of those regulations the decision of the Employer shall be final.

(Note: Necessary Formats in which records are to be maintained and returns to be submitted shall be provided by the Employer.)

# **SECTION-XIX**

CHECKLIST

# SECTION- XIX CHECKLIST

(Please ensure that you have serially numbered each and every page of scanned documents forming your bid and furnished following documents in the manner prescribed mentioning the page number(s) of your bid in appropriate box)

This Checklist should be the first document of your bid numbered as page 1.

#### CHECKLIST MUST BE FILLED & SUBMITTED BY THE BIDDER

Clause No.	Duly Self Attested following documents	Reference Page No(s) where the documents are uploaded
Section II (ITB Clause 2.9	<ul> <li>(a) Copy of valid registration/enlistment with the respective authorities (Reference: clause 2.2 of eligibility criteria).</li> <li>(SI.No.1 of Section XI)</li> </ul>	
	<ul><li>(b) In case of a consortium, certified copy of the agreement between various partners. (Reference : Clause 2.2 of eligibility criteria)</li></ul>	
	<ul><li>(c) Scanned copy of undertaking of having employed the ground water professional during execution of work. (Reference : Clause 2.2 of eligibility criteria)</li></ul>	
	(d) Scanned copy of undertaking as per eligibility criteria 2.2 (d).	
	<ul> <li>(e) Turnover for last three years duly certified by Chartered Accountant. (Reference: Clause 2.3 of eligibility criteria).</li> <li>(SI.No.2 of Section XI)</li> </ul>	
	(f) Details of works completed as pertable at SI. No.3 (a) of Section XI.(Reference : Clause 2.4 of eligibility criteria) along with documentary proof	
	(g) Details of payment received for completed works alongwith documentary proof as per table at SI. No 3(B) of Section XI (Reference: Clause 2.4 of eligibility criteria)	
	(h) Scanned copy of undertaking as per eligibility criteria 2.5	
	(i) Details of Borewells/Tubewells constructed as per table at SI.  No.4 of Section XI.(Reference: Clause 2.6 of eligibility criteria) along with documentary proof.	
	<ul><li>(j) Scanned copy of EMD: As per clause 13 of Section II Instructions to Bidders.</li></ul>	
	(k) Scanned copy of tender fee.	
	(I) Scanned copy of Tender Acceptance letter: As per format in Section XIV	
	(m) Undertaking as per clause2.5 of eligibility criteria	
	(n) The proof of supply in respect of DWLR and telemetry as per supply order along with delivery challan and Commissioning report/ Installation report/ Performance certificate in respect of	

successful commissioning.(Reference: Clause 2.4 of eligibility criteria) along with documentary proof. (o) Certificate for After Sales support certificate. (Reference: Clause 2.4 of eligibility criteria) along with documentary proof in respect of DWLR and telemetry. (p) Details fo DWLR's supplied installed and commissioned alongwith undertaking for no adverse report for atleast 1 year (q) Descriptive Documents, drawings, notes and references of operating and assembly of mechanical parts in respect of DWLR and telemetry alongwith detailed description of the goods' essential technical and performance characteristics. (a) A clause-by-clause commentary on the Purchaser's technical specifications demonstrating substantial responsiveness of the Goods and Services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications. For purposes of the commentary to be furnished above, the Bidder shall note that standards for workmanship, material and goods, and references to brand names or catalogue numbers designated by the Purchaser in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specificationsalong with the certificates/ documents as specified in the Scope of Work and Technical Specifications Part C, para 1.0 Scope of Work (xix). (b) Non-manufacturer bidders in respect of DWLR and telemetry will submit the manufacturer's authorization Form as per Proforma in Section XIX (c) Tender document duly signed in all pages, scam amd submite online alongwith above. (d) Duly Signed copy of Integrity Pact as per format in Section XIV (e) Any other document as per tender Section II (ITB (a) Copy of completion certificate and other documents indicating Clause 2.10 the contract number, amount of the contract and the date of completion in support of details of work submitted by the bidder, duly certified by the competent authority of the respective organisation be submitted. (Reference: Clause 2.4) of eligibility criteria) (b) Documents establishing receipt of payment in respect of details of works submitted by bidder. Form 26 AS of Income Tax returns, bank statement or any other documentary proof clearly indicating the name of the firm/organisations, payment

received be submitted. (Reference : Clause 2.4 of eligibility criteria)	
<ul> <li>(c) Following documents duly certified by the organisation under whom the work has been executed shall be submitted (Reference: Clause 2.4 of eligibility criteria)</li> <li>(i) Documents in support of number of pilot holes drilled upto a depth of 300 m in soft/alluvial formation.</li> </ul>	
(ii) Documents in support of tubewells completed upto a depth of 250 m for soft/alluvial formation. If any bidder provide documents for completion of well upto 300m for 10% of number of wells to be completed as per Clause 2.5(a) need not to give document as mentioned in (c) (i) above.	

Signature of Bidder

NOTE: THE BIDDERS SHALL PUT SERIAL NUMBER ON ALL THE PAGES AS PER CHECKLIST BEFORE UPLOADING ON THE PORTAL. BIDDERS WILL BE RESPONSIBLE IF THEIR BIDS BECOME NON RESPONSIVE DUE TO SUBMISSION WITHOUT PAGE NUMBER AND AS PER CHECKLIST.

#### MANUFACTURER'S AUTHORIZATION

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letter head of the Manufacturer and should be signed by a person with the proper authority to sign documents that are legally binding on the Manufacturer. The Bidder shall include it in its bid.]

Date: [insert date (as day, month and year) of Bid Submission] e-Tender Inquiry No. NIET-[insert number \_\_\_\_\_]

To: [insert complete name of Purchaser]
WHEREAS
We [insert complete name of Manufacturer], who are official manufacturers of [DWLR and Telemetry], having factories at [insert full address of Manufacturer's factories], do hereby authorize [insert complete name of Bidder] to submit a bid the purpose of which is to provide the following Goods, manufactured by us [insert name and or brief description of the Goods], and to subsequently negotiate and sign the Contract against the above e-tender.
We here by extend our full guarantee and warranty in accordance with Clauses of the General Conditions of Contract and Special Conditions of the Contract, with respect to the Goods offered by the above firm against this e-tender.
We as a manufacturer of [insert type of goods manufactured] confirm to provide the spare & service support for a minimum period of 10 years after commissioning
Signed:[insert signature(s)of authorized representative(s) of the Manufacturer]
Name:[insert complete name(s)of authorized representative(s)of the Manufacturer]
Title:[insert title]
Duly authorized to sign this Authorization on behalf of:[insert complete name of Bidder]
Dated onday of,[insert date of signing]

#### PERFORMA FOR PERFORMANCE STATEMENT

Proforma for Performance Statement (for a period of last seven years)

Bid No	Date o	t opening	I ime	Hours				
Name of Fire	m							
Order placed by purchaser	Order No. and Date	Description and quantity of ordered equipment	Value of order	completion of delivery  As per Actual		Remarks indicating reasons for late delivery, if	Has the equipment been satisfactorily functioning? (Attach certificate from purchaser/consignee)	
				Contract		any	,	
1 2								
3								
4								
Ī								

#### Note:

- A) Delivery means the commencement of supply of data on commissioning
- B) \*Performance certificate from the client indicating successful receipt of data for the period from...... To....... from............ no of locations, should be submitted for each order failing which the same will not considered.

Signature and seal of the Bidder

## **BIDDER INFORMATION FORM**

Date: [insertdate(asday,monthandyear) of Bid Submission]

		Page	of	pages
1.Bi	idder's Legal Name[insertBidder'slegalname]			
2.Bi	idder's actual or intended Country of Registration:[insertactualorintended	lCountryofRegistra	tion]	
3.Bi	idder's Year of Registration:[insertBidder'syearofregistration]			
4.Bi	idder's Legal Address in Country of Registration:[insertBidder'slegaladdr	essin countryof		
regi	istration]			
5.Bi	idder's Authorized Representative Information			
Nam	ne:[insertAuthorizedRepresentative'sname]			
Add	dress:[insertAuthorizedRepresentative'sAddress]			
Tele	ephone/Faxnumbers:[insertAuthorizedRepresentative'stelephone/faxnuml	bers]		
Ema	ailAddress:[insertAuthorizedRepresentative'semailaddress]			
6.At	ttached are copies of original documents of:[check thebox(es)oftheattach	edoriginaldocume	nts]	
Υ	Articles of Incorporation or Registration of firm			
Υ	In case of government owned entity from the Purchaser's country, doc autonomy and compliance with commercial law	uments establishir	ng legal and fina	ncial
Υ	Included are the organizational chart, a list of Board of Directors, and t	he beneficial owne	rship	

## **BIDDER'S JV MEMBERS INFORMATION FORM**

1.Bidder's Legal Name:[insert Bidder's legal name]
2.Bidder's JV Member's Legal Name: [insert JV's Member legal name]
3.Bidder's JV Member's country of registration:[insert JV'sMembercountryofregistration]
4.Bidder's JV Member's year of registration :[insertJV'sMemberyearofregistration]
5.Bidder's JV Member's legal address in country of registration: [insertJV'sMemberlegaladdress
incountryofregistration]
6.Bidder's JV Member's authorized representative information Name:
[insertnameofJV'sMemberauthorizedrepresentative]Address:[insertaddressofJV'sMemberauthorizedrepresentative]
Telephone/Faxnumbers:[inserttelephone/faxnumbersofJV'sMemberauthorizedrepresentative]
Email Address:[insertemailaddressofJV'sMemberauthorizedrepresentative]
7. Attached are copies of original documents of [checkthebox(es) of the attached original documents]
☐ Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legalentitynamedabove
☐ In case of a Government-owned enterprise or institution, documents establishing legal and financial autonomy.
8. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

# SECTION XX CONTRACT FORM

### **SECTION XX**

### CONTRACT FORM

THIS	5 A	GREEMENT			ry) ( herein after				
description 1508 Established Supplement telement	ription Nos olishme ly of C re, CH netry s	of work and ser in SOFT ROCK ent of Data Acqu Ground water le IQ, Faridabad, in ystems with 05	vices) ar  // HARd  uisition sy  vel, grou  n a desir  years wa	nd has accepted Rock and Supplystem & its main nd water tempered format from the standard of t	ork/ services shound by the corpoly, Installation, itenance for Real rature data from 1508 Nos COlears AMC in STA	ntractor for Commiss I Time G site and NSTRUC ATES of	or Const sioning of round W I receipt TED Pie RAJA	ruction of PIE of DWLRs an later Level m of data at Ne ezometers we	EZOMETERS and telemetry, onitoring and National Data ells Through
NOW	/ THIS	AGREEMENT V	VITNESS	ETH AS FOLLO	WS:				
1)		s agreement wo in the conditions			have the same	meaning	js as are	e respectively	assigned to
2)	a)	-	d and the t of work, pecification ditions of	Price Bid submi ons, f Contract, Contract, and	rm and be read a tted by the Bidde		rued as p	oart of this ag	reement:
3)	the C	Contractor hereb	y covena	nts with the Pu	y the Purchaser rchaser to provider the provisions	de the w	orks and		
4)	4) The Purchaser hereby covenants to pay the Contractor in consideration of the provision of the Goods and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.								
		S WHEREOF TI aws and day and			used this Agreen	nent to be	e execute	ed in accorda	nce with their
Signe	ed, sea	aled and delivere	d by the		Signed, sea	aled and	delivere	d by the	
Said			(For th	e Purchaser)	Said			(For the Su	pplier)
In the presence of				In the pres	anca of				