



Committed to



## TERMS OF REFERENCE

|                            |  |
|----------------------------|--|
| <b>Position:</b>           | Personnel for supervision of Borehole Drilling and borehole rehabilitation   |
| <b>Locations:</b>          | <ul style="list-style-type: none"><li>• Yambio (Ezo and Nzara)</li><li>• Wau – (Tonj North, Tonj South, Tonj East, Aweil and Abyei)</li><li>• Rumbek (Rumbek North, Rumbek centre and Rumbek East)</li></ul> |
| <b>Length of contract:</b> | 4 Months   |
| <b>Application start:</b>  | 06/04/2023   |
| <b>Application end:</b>    | 27/04/2023   |

## OVERVIEW OF CTG GLOBAL

CTG staff and support humanitarian projects in fragile and conflict-affected countries around the world, providing a rapid and cost-effective service for development and humanitarian missions. With past performance in 17 countries – from the Middle East, Africa, Europe, and Asia, we have placed more than 20,000 staff all over the world since operations began in 2006.

CTG recruits, deploys, and manages the right people with the right skills to implement humanitarian and development projects, from cleaners to obstetricians, and mechanics to infection specialists, we're skilled in emergency response to crises such as the Ebola outbreak in West Africa. Key to successful project delivery is the ability to mobilise at speed; CTG can source and deploy anyone, anywhere, in less than 2 weeks and have done so in 48 hours on a number of occasions.

Through our efficient and agile HR, logistical and operational services, CTG saves multilateral organisations time and money. We handle all our clients' HR related issues, so they are free to focus on their core services.

Visit [www.ctg.org](http://www.ctg.org) to find out more

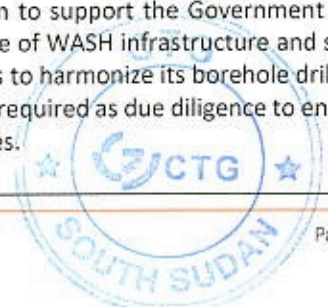
## OVERVIEW OF THE POSITION

### *Purpose of Activity/Assignment:*

Quality Control/ Quality Assurance of borehole drilling/rehabilitation through effective and efficient supervision of hydrogeological studies, drilling, well development/flushing, yield testing, water quality testing and disinfection, well construction and rehabilitation, borehole installation, hand pump repair and/or rehabilitation including documentation of all relevant data for drilled or rehabilitated borehole.

### *Background & Rationale:*

The Republic of South Sudan faces complex development challenges, and access to basic social services is a major challenge for most citizens of this nation. The decades of conflict in the country resulted in massive destruction and/or neglect of facilities and services including Water, Sanitation, and Hygiene related facilities and services. The recent climatic events have worsened the WASH situation in the country as several WASH facilities were flooded and safe water sources were contaminated. Currently, safe water coverage in the country stands at 41%, Sanitation coverage at 10%, and 61% of the population practice open defecation. The institutional capacity to deliver services to the citizens has remained weak to date making severe the condition of living for most citizens. Accordingly, it is evident that South Sudan is not anywhere close to attaining Sustainable Development Goal No. 6 "Safe Water and Sanitation for all" by 2030. The organization's WASH section is doing all it can to support the Government to push forward the delivery of WASH services through infrastructure development, sustainable use of WASH infrastructure and services, and capacity building of the relevant WASH sectors. In that regard, the organization intends to harmonize its borehole drilling and borehole rehabilitation works. Supervision of private-sector drilling or rehabilitation is thus required as due diligence to ensure the infrastructure provided is safe and sufficient for the populations that the organization serves.





The organization and the Republic of South Sudan cooperation agreement and the organization's WASH rolling work plan for 2023 to 2025 give priority to improving access to drinking water in health centers, in schools, in Guinea Worm endemic villages, and in emergency-impacted communities through sustainably managed and efficient utilization of WASH facilities. The successful delivery rate for borehole drilling works currently stands at 20% nationwide. It is in this context that the organization's WASH Section is engaging the service of a hydrogeologist /geologist, civil Engineer, or a combination of that training consultants to supervise field drilling works to improve the delivery rate.

*Scope of Work:*

The personnel shall undertake the following activities, including any other activities deemed necessary for the completeness, quality delivery, and achievement of the stated objectives.

**GENERAL FUNCTIONS**

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→ **Siting and hydrogeological survey**

- In collaboration with the Government and the organization designated focal persons in the respective Field Office(s), site the location for borehole drilling.
- Ensure that hydrogeological surveys are carried out at the selected site using the correct methodology and equipment; interpret results to select the most suitable sites for drilling and ensure the hydrogeological survey reports are timely submitted to the organization. Ensure that proposed boreholes earmarked for repair and rehabilitation are properly assessed and repair and/or rehabilitation prioritized in locations that maximize the number of beneficiaries reached.
- Lead communities in Safety Audits to exercise for all sites for borehole drilling and repair and/or rehabilitation of Handpump to reduce risks to access of water facilities and services.

→ **Site mobilization**

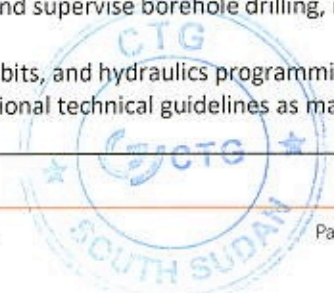
- Check contractor stores (materials and equipment including PPE) and offices as per the contract.
- Check contractor staff, site equipment, sign boards, and other items needed for the full deployment.

→ **Equipment and Materials**

- Ensure the assembling of equipment and personnel for inspection to undertake to drill.
- Prepare and approve borehole construction programs.
- Verify all materials ensuring all meet basic strength, quality, and quantity requirements prior to their use.
- Liaise with the contracted drilling contractor's teams/ management to define and agree on the contract objectives.
- Review and approve the contractor shop drawings, method statement, work plans, and timetable.

→ **Supervision and Quality Assurance of works**

- Provide on-the-job training to borehole technicians at the state level to monitor and supervise borehole drilling, repair, and rehabilitation work.
- Review well design including casing, directional, fluids, gravel packing, cementing, bits, and hydraulics programming ensuring compliance to detailed drilling ToR, BoQ, and other national and international technical guidelines as may be required.





- Monitor the drilling operations according to the ToR and approved work plan submitted by the contractor and timely raise issues related to any possible delays.
- Regularly monitor contractor's compliance with environmental safeguards.
- Ensure proper lithological logging of the boreholes, and installation of casings, screens, and gravel pack. Ensure provision of plain casing including a bottom plug to house the pump and that sanitary seals are properly installed in accordance with ToR and prevailing site conditions.
- Ensure thorough borehole development till the water is clear (turbidity of  $\leq 5$  NTUs) and take the static water level.
- Ensure that proper test pumping and recovery measurements are carried in accordance with ToR; interpret pumping test results.
- Ensure water samples are properly collected and taken for quality analysis at the end of test pumping.
- Supervise the installation of the hand pumps.
- Provide quality assurance of work done by providing oversight to drilling contractors working in different states, and ensuring standards and norms are adhered to during drilling works.
- Certify the borehole completion records, water quality testing reports, and invoices for the organization payment.
- Regularly check the progress of drilling works against the approved work schedule and inform the organization of any possible delays. Support forecast project risks and proposes remedial measures to absorb such delays.
- Maintain onsite, always the following documentation to be available on request: site logbook for instruction to the contractor, visitor logbook, and updated timetable on a bar chart format (MS Project or approved equivalent).
- Advise the organization on any deviations in the detailed design and propose rectification options.
- Ensure that the contractor's site team leader always maintains and is available onsite the following documentation: Daily Worksheets, Requests for work approval, Requests for Variation forms, Accident and incident reports, Test certificates as they are issued, Timesheets showing hours, personnel, equipment on site, a record of any Environmental and social concerns on site.
- Ensure that appropriate safety measures are taken on-site to minimize the risk of accidents to the workers, third party and ensure contractors' compliance to environmental safeguards.
- Ensure that handpump repair and rehabilitation/civil works are properly done to required engineering standards.
- Provide technical support in the training of community-based Hand Pump Mechanics and other WASH committees as may be required by the client.
- In collaboration with the Government line ministry, facilitate the handover of drilled boreholes, or repaired and/or rehabilitated boreholes including borehole maintenance tool kits (special, standard tool kits and fast-moving kits) to beneficiary communities

#### → Contractor submittals, clarifications, and requests

- Raise specific issues in the contract for clarification to avoid any misunderstanding.
- Review contractor submittals and respond to clarification requests.
- Review the contractor claims; check the legality and impact considering the contractor conditions and advise the organization accordingly.

#### → Payment verification

- In coordination with the contractor, conduct quantity surveys at the site.
- Review the payment and advise the organization accordingly.
- Advise the organization if the quantity and quality change might affect the contract budget; propose remedial measures.

#### → Coordination and collaboration

- Ensure all stakeholders are kept abreast of contract progress.
- Coordinate with local entities on the project challenges and address the risks timely.





- Provide capacity enhancement and support supervision to state-level drilling supervisors and the organization IPs.

→ **Project Monitoring and reporting**

- The consultant shall organize monthly meetings with key project stakeholders and present progress achieved, and challenges encountered and collectively discuss the way forward; share minutes of the meeting within one week from the date of the meeting.
- The consultant shall arrange for weekly meetings with the contractor to discuss any challenges including time delay, claims, importation of materials, and progress. The consultant shall inform the organization accordingly.
- The Consultant shall prepare a monthly progress report containing information on key achievements, time, and cost schedule. Special regard shall be given to current challenges and reasons for deviations from the time and cost schedule. The report shall contain project risks that might jeopardize the achievement of the project and mitigation measures put in place.
- The consultant shall be required to submit a final report within two weeks of project completion or as may be agreed upon with the client.
- The consultant shall submit the hydrological/geophysical, pump, testing, and water quality reports.
- consultant shall submit the weekly drilling reports from the fieldwork with an update on the physical progress of drilling works.
- The consultant shall submit the certification of borehole completion records and report as specified in the borehole ToR.

→ **Closing out**

- The consultant shall arrange for the substantial completion of the project.
- The consultant shall prepare the snags list; draft the substantial completion certificates.
- The consultant shall conduct all required tests and commissions as per the contract.
- The consultant shall ensure that the final payment has included all the contractor's claims and financial requirements.
- Certify that all defects are rectified in accordance with the specification requirements to facilitate handover.
- Any other task as may be assigned by the Manager.

→ **Reporting and Submittals:** The Consultant shall arrange for the following reports and submittals:

- The consultant shall submit the hydrological/geophysical, pump testing, and water quality reports including lithological and well design technical notes.
- Fill and share as an annex to each borehole completion report the ESIA checklist duly filled and endorsed.
- The consultant shall submit the weekly drilling progress reports from the fieldwork with an update on the physical progress of drilling works.
- The Consultant shall submit materials and equipment verification and approval reports.
- The consultant shall submit the certification of the borehole completion checklist and report as specified in the borehole TOR.
- The Consultant shall submit all minutes of meetings to the organization.
- The Consultant shall prepare a monthly progress report. Monthly progress reports shall contain information on key achievements, time, and cost schedules. Special regard shall be given to current challenges and reasons for deviations from the time and cost schedule. The report shall contain all project risks that might jeopardize the timely and quality achievement of the project and measures to be taken.
- The consultant shall be required to submit a final report within two (2) weeks after completion of the project or as agreed with the client. A copy of each of the borehole handover certificates including of borehole maintenance tool kits (Standard, special tool kits, and fast-moving kits) distributed to the community shall be attached as annexes to the final



## ESSENTIAL EXPERIENCE

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### Knowledge/Expertise/Skills required:

- Mechanized borehole drilling in South Sudan
- Geophysical investigations and analysis
- Pump testing
- Geological logging of soil samples
- Construction practices

### Qualifications:

- A University degree in Geology; Hydrogeology; Geophysics (Exploration/Groundwater Geophysics); Engineering Geology or Water supply engineering
- Minimum of 3 years of experience in drilling works and solar energy installation or A Diploma in Drilling Technology with a minimum of 5 years of experience in the above fields.

**Languages:** Fluency in English

### Other relevant information:

- **Qualified female candidates are encouraged to apply for this role.**
- **Candidates must be locals to the community.**

In order to apply for this role please send your CV and Cover letter most preferably by email to the address:

[southsudan@ctg.org](mailto:southsudan@ctg.org) - Please make sure the subject of your email states "**Drilling Supervisors Monitors**", or your application might be overlooked

For hardcopy applications, please deliver to CTG Office in Juba - Rock City.

### IMPORTANT REQUEST

- Please note to name your CV by name e.g., "**Mary Deo- CV**" or "**CV- John Smith**"
- Kindly avoid naming CV as CV, Updated CV, by Job title or organization name
- For hard copy deliveries kindly include position applied for on the envelope.

