Tulu Moye Geothermal Operations



NEWSLETTER

May 2021



Message from the CTO, Sigurgeir Garrison,



On the 23rd of May 2021, the master valve for GA-2 was closed, bringing an end to the drilling of the second exploration well in Tulu Moye. Next step for us at TMGO with our drilling contractor KenGen and TMGO's Drilling Supervisors from Mannvit-Verkis is to start the third exploration well in Tulu Moye, continuing to collect information about the geothermal reservoir in this part of TMGOs geothermal concession in Tulu Moye. As drilling continues so does the research in the area. Ahead of us is the start of the flow test of GA-1, the first exploration well drilled in Tulu Moye. Our hopes are to start to see steam coming from GA-1 in the coming months. With the information collected from drilling, the flow test of GA-1 and other research activities done by TMGO and our team of consultants from Reykjavik Geothermal and Addis Ababa

University to name a few, will continue to build up the knowledge on the geothermal reservoir. Based on these information TMGO in collaboration with our International Scientific and Technical Committee (ISTAC) will plan out the research and drilling strategy to find and ensure the steam needed for the first phase of the geothermal power plant planned to build in Tulu Moye.

As exploration drilling and geoscientific research progresses the selection of the EPC contractor for the power plant, resource gathering system and connecting grid works continues. A big milestone in the selection process was reached on the 6th of May 2021 which was the last day for bidders to submit bids for the EPC project. We received five very interesting bids from world internationally renowned EPC contractors. Our next step is to start the clarification and negotiation process to identify and select the most qualified Contractor for the EPC works. The selection works will be carried out by the team at TMGO in collaboration with our team of consultants from Power Engineers, Mannvit-Verkís, Delphos and Trinity.

Ahead is exciting time for us at TMGO both in terms of drilling and research and, also continuing the evaluation of the bidders for the EPC project with the purpose of selecting the most qualified EPC contractor for the works of building the 1st phase of geothermal power plant in Tulu Moye.

Site update

Geothermal Exploration Drilling

On the 23rd of May 2021 drilling of exploration well GA-2 was completed and the master valve for GA-2 was closed. Final depth of the well is around 2.189 m. The well was drilled directional to north-west exploring the middle of the Gnaro lava field. The well gives important information about the area it drilled into, and the information provided will support future drilling. The well will be monitored for next weeks as further testing at the well will be carried out.

On the same day as when drilling was completed rigging down started as rig move started. The rig will be moved to well pad GB which lies just west of well pad GA. It is expected that rig move will take 14 days. By middle of June the rig will be spud ready to start the third exploration well in Tulu Moye, well GB-1. Exploration well GB-1 will explore the fault system west of the Gnaro lava field. The well will be drilled directionally reaching over 800 m from the well head and the depth is expected to be around 2,500 m.

As drilling continues preparation for well testing of the first exploration well GA-1 is in full swing. KenGen, the drilling contractor, will install well testing equipment for exploration well GA-1 and then TMGO's Owner's Engineer team Mannvit-Verkis with their consultants ÍSOR from Iceland, will conduct the flow test of exploration well GA-1 in collaboration with TMGO and Reykjavik Geothermal. Result of the flow test will provide very important information about the geothermal reservoir TMGO intends to utilize the geothermal electricity for production. First results of the flow test are expected in end of July 2021.



Working at the rig floor



Drilling of GA-2 completed



Well acceptance handing over. Drilling supervisor from Mannvit-Verkis handing over well acceptance certificate to Site Manager from KenGen.



Rig move to GB-1.





Water supply system

Various upgrades have been made on the water supply system TMGO installed for the geothermal drilling campaign. As of now three water wells are in full operation providing all the water need for the geothermal exploration drilling. In addition, TMGO is continuing drilling two additional water wells, water wells 5 and 6, both located south of the town of Iteya.

Upgrading of the water supply line has been our focus for this month under the supervision of Mr. Jean Yves Adrian who has been following up the upgrade and improvement of these works on site.

Drilling of water well 5 was completed in the month of May. Pump test will Pump test will commence in the month of June and it is expected that the well will be connected to the water supply system in end of June. Drilling of water well 6 continued in month of May. By the end of the month drilling of well 6 had reached over 220 m. It is expected that drilling of well 6 will be finished in June and the well should be fully tested and connected to the water supply system in beginning of August.



Water well drilling





Civil works

In the month of May, extension for well pad GB was completed in time for rig move from well pad GA to well pad GB. In addition, minor road improvements were made on the road between the well pads to ensure safe and secure rig move operation. When the rig has been fully mobilized to well pad GB extension works on well pad GA will continue. The extension includes area for the third well on well pad GA.

Preparation for future well pads were ongoing in this month as well. TMGO plans to start the construction of the third well pad and access road in the 3rd quarter of 2021. The location of third well pad will be on the north-eastern side of Gnaro where the wells can reach to north and west of Gnaro and under the Salem Mountain just north of Gnaro. For planning purposes TMGO's technical team along Geologist from Reykjavik Geothermal and supervision team from MGM engineering explored the area north of Gnaro.



Well pad GB ready



TMGO group on top of mount Salem.



North side of Gnaro



Exploring local steam baths.

Engineer-Procure-Construct Services 50 MW Net Output Geothermal Power Project

The 6th of May 2021 was the last day to submit bids for the Engineer-Procure-Construct Services for the 50 MW Net Output Geothermal Power Project (the EPC).

Five internationally renowned EPC contractors submitted very interesting bids for the EPC project. TMGO along with team of Owner Engineers from Power Engineers and Mannvit-Verkis have been reviewing the bids. First round of clarification will take place in early June where shortlisted Bidders will be invited to participate and present in detail their bids.

Camp Life

The camp in Tulu Moye Project site is home for about 100 people who have come from Ethiopia, Kenya, Hungary, and Iceland. For all the camp is like a home away from home. As such it is important to provide various types of after work activities for the residents of the camp, especially since the camp must be operated as an island due to the covid restrictions. Various activities are provided at the camp, ranging from darts, chess to volleyball, basketball, fuzzball and pool table.

On 2nd of May the Camp celebrated Ethiopian Easter Holiday with a big celebration dinner.



Ethiopian Easter Celebration at camp



Playgrounds varying from vollyball, baskettball and pool





HR update

Welcome to Abenezer Tekalign & Rina Mubeshir

TMGO warmly welcomes our two new Interns, Abenezer Tekalign and Rina Mubeshir to the team. Abenezer is a Water Supply and Sanitary Engineering Graduate from Adama Science and Technology University. He has worked on two different projects with OWDSE, Addis Ababa in Mino Town and Gewane Town. His main focus for these projects were

designing water distribution network of their scheme and redesigning water system of both towns. Abenezer has excellent communication and analytical skills, and he will be working in TMGO as part of our career development program focusing mainly on water works and distribution system and will gain experience from our Technical and Environmental team. Rina has a BSc &MSc in Environmental Engineering from Addis Ababa Science and Technology University. She was graduated with great distinction. She has also worked with the university on a part time basis as an Academic and Research Assistant. Rina will be working with the Social & Environmental team at TMGO, and we believe that this gives her opportunity to acquire skills and practical knowledge on social and Environmental areas.





Congratulations to our former accounting and finance intern, Frehiowt Behailu, on her permanent employment by KenGen as a Junior accountant starting from 01 April 2021 and working at TMGO site.



FROM OUTSIDE SOURCES

This is a new section we bring to you every month things we thought might be of interest to our readers, local cultural foods, activities. The section serves as a non-geothermal news and humorous pieces to give our foreign readers what the community we work with look like. In this issue of our newsletter, we bring to you, Ethiopian traditional stew, Doro Wot.

One of Ethiopia's must taste traditional foods-Doro Wot.

Doro wot

Doro Wot is one of the most famous of all African dishes. You will find it in every Ethiopian restaurant and virtually anyone who is familiar with African cuisine will have heard of it.

It is Ethiopia's version of curry, and the ubiquitous companion of injera. While beef and goat are often used with wot, chicken -- doro in Amharic -- reigns as the wot champion.

Doro wot is made with chicken drumsticks or wings cooked and served in a hot sauce of butter, onion, chilli, cardamom and berbere. In the midst of this stew incongruously bobs a hard-boiled egg. It proves a delicious accompaniment -- typically offered to a guest as a sign of respect.

For Ethiopians, doro wot is the go-to meal of celebration during national and religious festivals (the day before, women can be seen everywhere carrying upside-down clucking chickens by their feet).

In case you happen to be in Ethiopia, please, make sure you never go back to your country before you taste "Doro Wot"





Source:

https://edition.cnn.com/travel/article/ethiopian-foodbest-dishes-africa/index.html#



NEWS.

Company Address

 Cape Verde Street, 1st Floor, A4 Building,
Opposite Rakan Building, Bole Sub-City
Bole Sub-city, Addis Ababa,
Ethiopia

- () +251 116 393 106
- info @tmgeothermal.com
- +251 116 392603
- TMGOEthiopia
- EthiopiaTMGO
- Tulu Moye Geothermal Operations (TMGO)

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