Colorado's Update: Well Control, Deep Geothermal, Reclamation

IOGCC Energy Resources, Research, and Technology Committee
May 2025



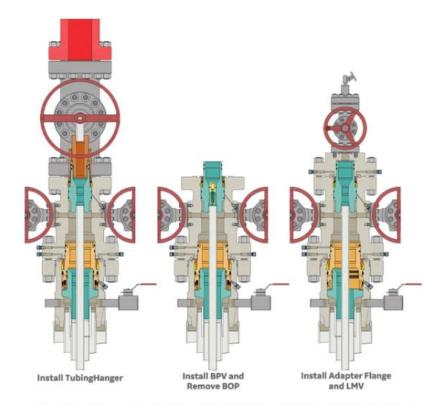
Julie Murphy - Director

Well Control Incident

- The blowout occurred 4/6/25. Chevron hired a third party expert in loss of well control situations who were on-site the morning of 4/7/25 and successfully stopped fluid flow from the well on 4/10/2025. On 4/11/2025 the response team declared the well control incident successfully secured; now remediating E&P waste.
- Issued Notice to Operators sent 4/25/25 to all operators regarding pressure management safety related to wells beginning production out of an abundance of caution and in light of initial findings from ECMC's investigation into the Bishop incident, however no final determination of the cause of the incident has yet to be determined.

Well Control Incident

- NTO focuses on the surface operations during the transition from frac wellhead to production wellhead.
- Image from Chevron's bishop well incident webpage (accessed 5/15/2025): https://colorado.chevron.com/bis hop-well-incident



The schematic is an approximation and not a detailed machine/manufacturing drawing.



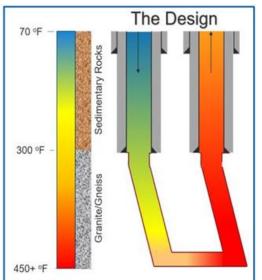
GLADE - Geothermal Limitless Approach to Drilling Efficiencies

- Partnership between industry, national laboratories, and academia
- Awarded a grant from DOE as part of the Enhanced Geothermal Shot goal, aimed at reducing costs of EGS by 90% by 2035
- Project Goals:
 - Drill twin high-temperature geothermal wells using existing and novel drilling technologies
 - Drill to deeper and hotter depths than most existing geothermal, and at a faster rate
 - Optimize lab simulations using acquired drilling data
 - Testing drilling tools under high pressure-high temperature environments



GLADE Project design

- Twin high temperature wells permitted by ECMC, planned ~20,000' Total Depth
 - ~10,000' to Precambrian basement and set casing
 - Production section another ~10,000', using range-finding to connect the open holes to form a closed loop system in crystalline basement



- After drilling, the operator plans to introduce fluid and establish flow and circulate
- Data collection on the wells, and evaluation of thermal energy production
- Operator plans to design a small test power plant to generate electricity

Credit:www.oxycoloradostakeholder.com



Innovating Reclamation Monitoring in Colorado

- Exploration led by operator and contractor to innovate the monitoring and release of reclamation
- Key innovations: fixed wing flyover and use of Al
- Still in the early stages, but I see application in other areas mining, other monitoring, etc

