The Wildcatters, the Regulators and the Prize: Chronicles of the Cat Canyon Oil Field, Santa Barbara County, CA

Joe Nahama¹

¹President, PetroRock LLC

Abstract

Wildcatters spend a lifetime developing the skills to find the next Prize; a large oil or gas reservoir. Regulators have a mandate to protect both the environment and public from real or potential threats. Thus, a field of play is set where a wildcatter drives towards developing a Prize, while regulators plays defense, wanting all potential future threats to be mitigated. In California, the "wildcatter" of old must become the new Playmaker, and navigate the team to the prize.

PetroRock set its sights on the prize of the Sisquoc Oil Sands in the Cat Canyon Field, Santa Barbara County, CA. These Pliocene heavy oil sands were steamed cyclically from 1965 to 1997 by Texaco and produced four million barrels of eight API oil. Oil prices and the regulatory environment in the late 1990's prompted Texaco to abandon these leases.

After a cursory look at the old Texaco production, PetroRock decided to "do what it takes" to reactivate the field. That's when we learned about the Santa Barbara County Production Plan process. Impacts to air, tiger salamanders, ground water, ambient noise, visual impacts, traffic counts, and septic tanks, among other things, had to be addressed in a County application.

How would PetroRock do this?

Understanding the geology and reservoir characteristics of the Sisquoc sands gave rise to the strategy to permit the project. Considering the stratigraphy and structure of the Sisquoc sand lobes anchored the surface planning of wells. Studying the production performance of the Texaco wells allowed estimates of throughputs, which translated into facility designs and estimates of air emissions, traffic counts, and ground connate water usage. Using log calculations to estimate water TDS was the difference between having and not having a DOGGR UIC approval. Knowing the reservoir was the key.

As PetroRock has found, each day does not guarantee the ball will be moved down the field. However, the modern wildcatter's knowledge can develop the playbook and keep the team on a successful quest for the prize.