

Lead Inspector Signature (Leng Mut)	Date
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Inspection Date: June 2, 2022

Purpose of Inspection

On June 2, 2022, the Bakersfield Fire Department and California Geologic Energy Management (CalGEM) asked CARB to use a mobile monitor to scan for methane in the Fruitvale oilfield. Further, CARB received a report from CalGEM of 8 idle wells that were leaking. In response to the request and report, on the afternoon of June 2, 2022, CARB staff inspected the areas with a mobile monitoring platform equipped with a highly accurate ($\pm 1\%$) methane analyzer.

California Air Resources Board (CARB) Staff Present at Inspection

- Leng Mut, Air Resources Engineer
- Regina McDoniels, Air Pollution Specialist
- Ron Oineza, Air Resources Engineer

Oilfield Information

Oil/Gas Field Name: Fruitvale
City/State: Bakersfield, CA 93309
County: Kern

CalEnviroScreen Score: 83% (CalEnviroScreen 4.0)

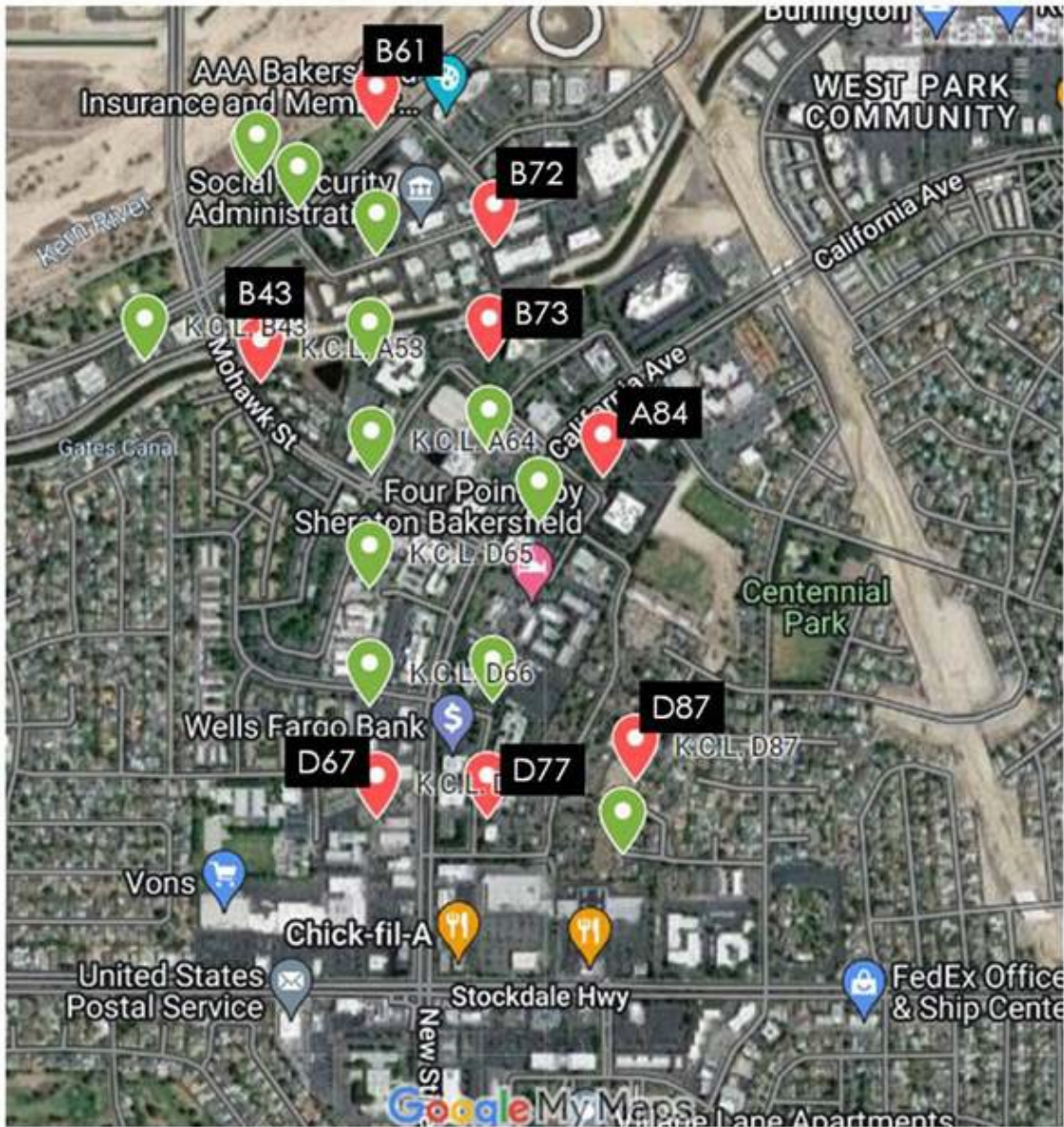
Description of Inspection

In the afternoon of June 2, 2022, CARB conducted an onsite inspection of methane in the residential areas of the Fruitvale field, using a mobile monitor.

CARB also inspected the 8 idle wells CalGEM reported to be leaking. Figure 1 is the map of the KLC Lease Leaking Wells that CalGEM provided to CARB for methane screening in the areas.

Figure 1

KCL Lease Leaking Wells

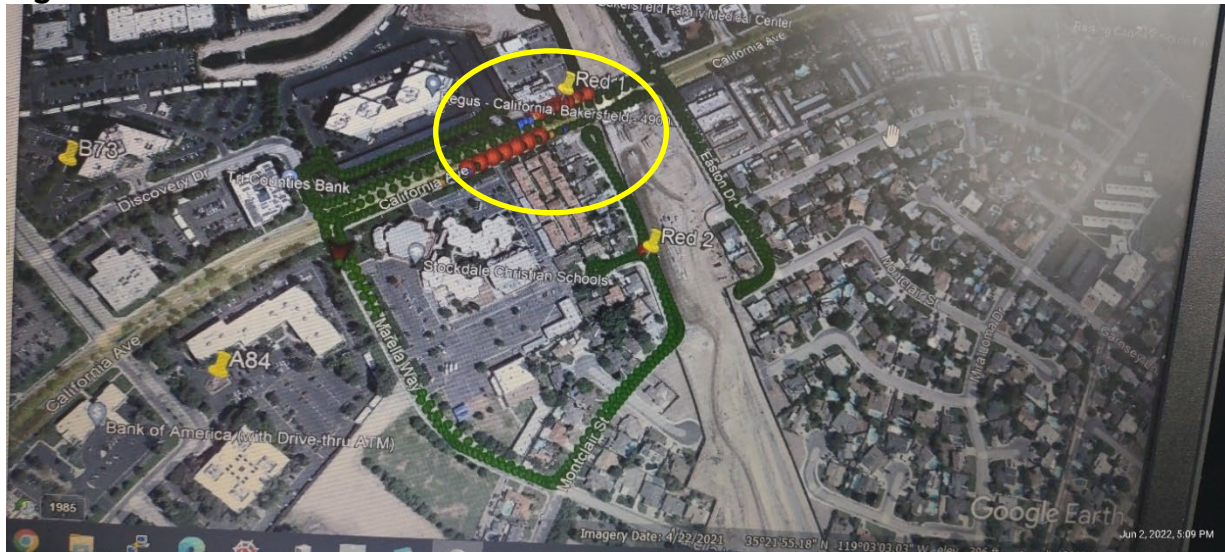


Inspectors focused on detecting methane in the neighborhoods near the wells. The mobile monitoring platform, which was equipped with a highly accurate ($\pm 1\%$) methane analyzer, did not detect methane above background levels around the 8 wells that are operated by Griffin Resources.

While scanning for methane in the field using the mobile monitoring platform, inspectors detected methane above background levels near the intersection of California Avenue and Easton Drive. Staff found Wells Kernland 9 and 10, which are

operated by E & B Natural Resources Management Corporation. Inspectors drove on the same streets twice to look for wells that were emitting methane, to ensure they located them all and measured them. Figure 2 shows the driving paths the inspectors took. The circled red dots show locations emitting methane at higher concentrations than the locations indicated by the blue dots, and the green dots are locations emitting methane at background levels.

Figure 2



Staff used a FLIR (an optical gas imaging forward-looking infrared) camera and observed leaks at the wellhead on Well Kernland 10. Since this well was enclosed by a fence, staff was unable to also measure methane concentrations from it using other equipment. Figure 3, on the next page, shows the location of the wells (map source: Well Finder).

Figure 3

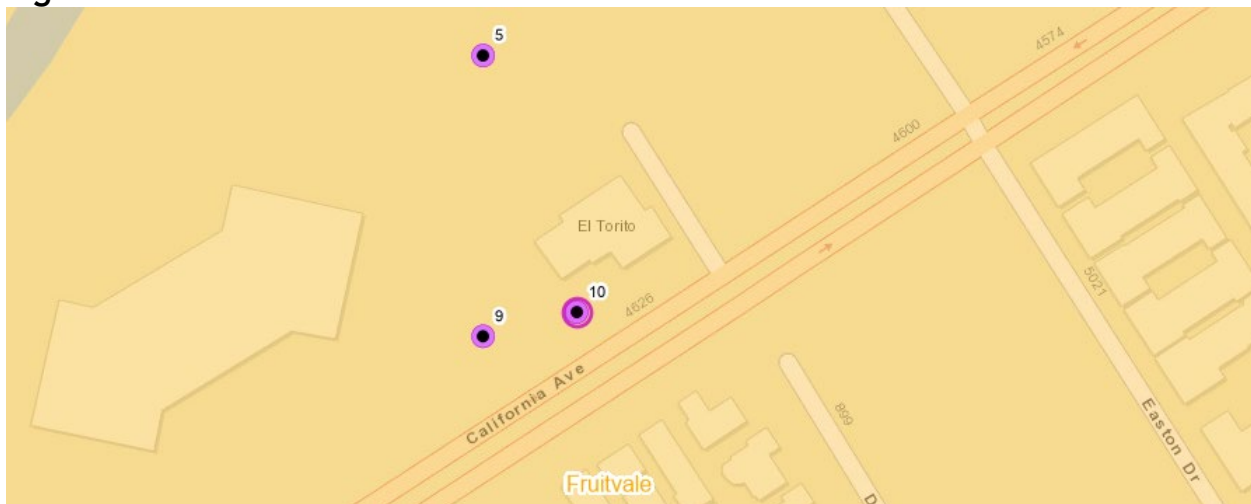


Table 1, below, gives the following information about the 11 wells that CARB inspected for leaks on June 2: the American Petroleum Institute (API) number, the well number, the location of the well (lease name), whether methane detected, the number of years each well has been idle (based on information from Well Detail), and the well operator.

Table 1: Fruitvale Wells Inspection Information

API Number	Well Number	Lease Name	Methane Detected	Years Idle (Years)	Operator
402908241	A84	K.C.L	No	3	Griffin Resources
402906739	B43	K.C.L	No	3	Griffin Resources
402908242	B61	K.C.L	No	3	Griffin Resources
402908245	B72	K.C.L	No	3	Griffin Resources
402908246	B73	K.C.L	No	3	Griffin Resources
402908251	D67	K.C.L	No	3	Griffin Resources
402900741	D77	K.C.L	No	3	Griffin Resources
402908257	D87	K.C.L	No	3	Griffin Resources
402906765	5	Kernland	No	4	E & B Natural Resources
402906769	9	Kernland	Yes	8	E & B Natural Resources
402906770	10	Kernland	Yes	4	E & B Natural Resources

On the morning of June 3, 2022, CARB notified the Fire Department, CalGEM, and the San Joaquin Valley Air Pollution Control District of the leaks, and they informed CARB that they had actively checked the wells and solved the leak issues.

Works Cited

"CalEnviroScreen 4.0." *California Office of Environmental Health Hazard Assessment*, 20 Oct. 2021, <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>.

"Well Detail." *WellSTAR, CalGEM*, 2022, <https://wellstar-public.conservation.ca.gov/Well/Well/Detail?api=0402906770>.

"Well Finder." *CalGEM*, n.d., <https://maps.conservation.ca.gov/doggr/wellfinder/#openModal/-119.05507/35.36459/18>. Accessed 27 Jun. 2022.