Methane Task Force Inspection Report for the South Los Angeles Community

I. Executive Summary

The Methane Task Force (MTF), a collaborative initiative led by the California Air Resources Board (CARB) and the California Department of Conservation's Geologic Energy Management Division (CalGEM), is dedicated to identifying and responding to methane leaks from oil and gas infrastructure near communities. It also aims to address the significant impact that methane has on climate change. This task force was established in response to Governor Newsom's request, outlined in a letter to CARB Chair Liane Randolph in July 2022, and officially formed in October 2022. The MTF regularly convenes public meetings to provide the public with updates on the ongoing efforts of CalGEM and CARB in mitigating methane leaks from oil and gas infrastructure. Additionally, it strives to promote greater public and local agency involvement in these programs and efforts. The MTF consists of representatives from CARB, CalGEM, California Natural Resources Agency (CNRA), and California Environmental Protection Agency (CalEPA).[1] The MTF collaborates closely with air districts, community members, and local governments.

More information, including presentations, can be found on the Methane Task Force web page.

In January 2025, the MTF collaborated with South Coast Air Quality Management District (South Coast AQMD) to inspect oil and gas wells in an Assembly Bill (AB) 617 community of South Los Angeles. The inspections focused on the Inglewood and Murphy Oil field areas, where oil and gas operations were identified as top air quality priorities in the Community Emissions Reduction Plan.[2] This report provides an overview of the South Los Angeles joint inspection effort.

II. Community Engagement

A. Well Selection

The joint inspections conducted by MTF and South Coast AQMD were informed in part by engagement with the South Los Angeles Community Steering Committee (CSC). The selection of South Los Angeles represented an opportunity to engage with an AB 617

[1] https://www.conservation.ca.gov/calgem/Pages/Methane-Task-Force.aspx

[2] https://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/south-la/cerp/revised-draft/ch5f.pdf?sfvrsn=6

community that identified oil and gas facilities as a top air quality priority. AB 617 communities represent some of the most pollution-burdened communities in the State of California. On October 24, 2024, the MTF engaged with the CSC to provide an overview of key efforts underway aimed at addressing leaks from oil and gas wells and to receive feedback on a proposed inspection plan. Figure 1 (below) displays a picture of the 96 wells inspected during this inspection effort. These wells included wells located within 3,200 feet of the South Los Angeles community boundary and critical wells within a 7-mile radius from center of South Los Angeles. These wells were selected for inspection with community input.

B. Community Notification

- Pre-inspection coordination with local emergency personnel - The MTF coordinated with local first responders, Los Angeles County Fire Department (LACoFD), as part of the inspection planning process to determine when emergency personnel would expect to be notified about leaking oil wells. The MTF would notify LACoFD and the California Governor's Office of Emergency Services if methane is detected at or above 5,000 parts per million (PPM) at a distance of three or more feet from the leak when there is a residence, business, or school fenceline within 300 feet of the well. Additionally, notification would occur if methane is detected at or above 40,000 PPM at the same distance in any surroundings, and the leak cannot be repaired on the day the methane reading was taken. The MTF determined it would defer to local emergency personnel on whether there are any safety risks associated with the aforementioned leaks, and what follow-up actions would be needed, including notification to the local community. Leaks discovered during the inspection did not exceed the leak thresholds established for this effort, therefore notification of emergency personnel was not required.
- Timely and transparent inspection results - The MTF committed to providing near real-time inspection information by publicly posting daily inspection data, such as leak concentrations, on CARB's webpage within 24 hours. That information is included in this final inspection report.

C. Inspection Updates

The final results of the joint inspection were presented at the South Coast AQMD South Los Angeles CSC Co-Lead meeting scheduled for February 19, 2025.

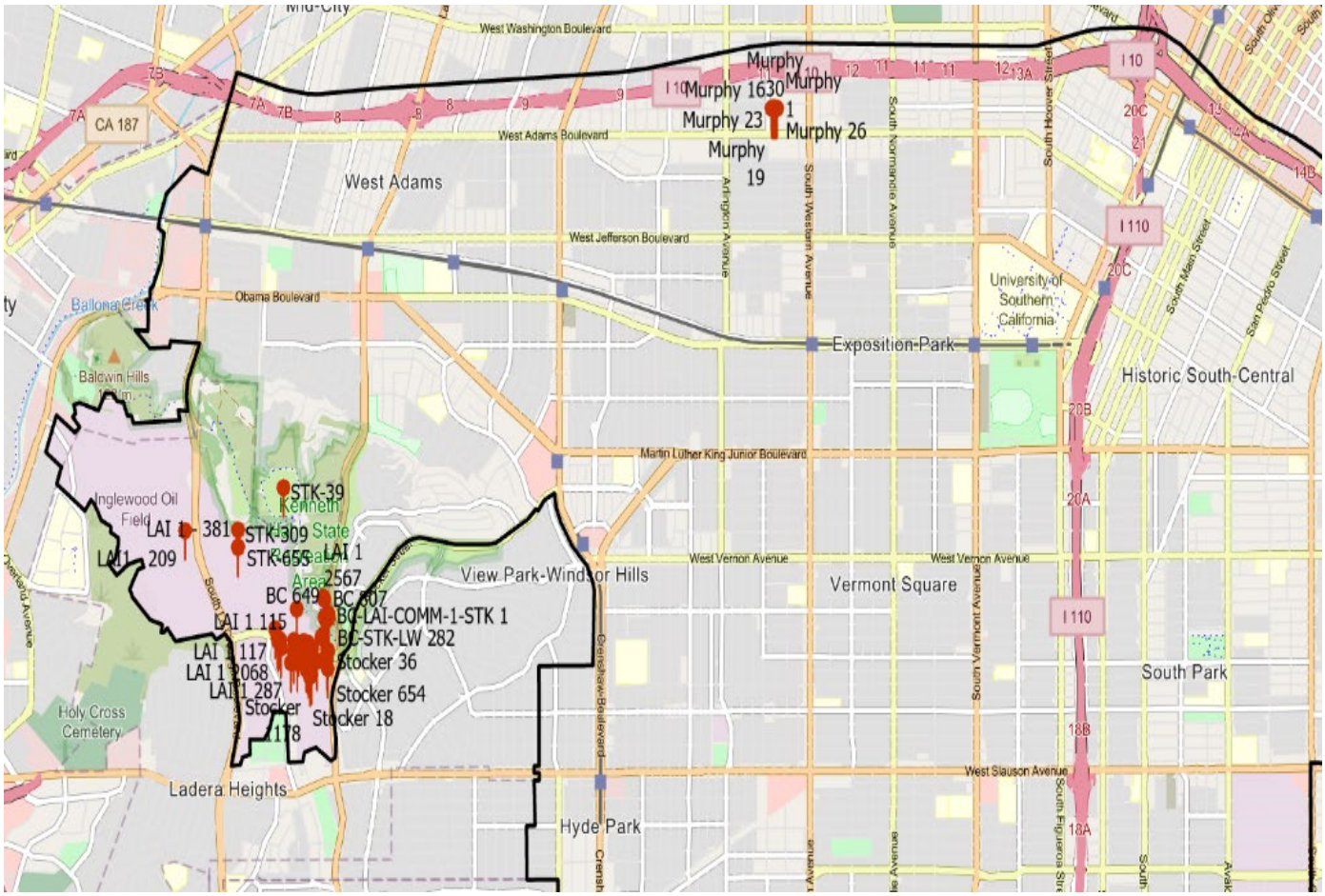

Figure 1: Map of the 96 inspected wells

III. Inspection Summary

From January 14th to January 15th, 2025, MTF staff from CalGEM, CARB, and South Coast AQMD conducted inspections of 96 wells across the Inglewood and Murphy Oilfields. These wells are operated by two companies: Sentinel Peak Resources California, LLC (SPR), for Inglewood and E&B Natural Resources Management Corporation, for Murphy. Of the 96 wells inspected, 73 are considered critical, as they are located within 100 feet of public streets or 300 feet of buildings. During these inspections, operator representatives were present and ready to repair any well found to be leaking.

Out of the 96 wells inspected, six (6) operated by SPR and one (1) operated by E&B were found to have leaks. Figure 2, below, is a map of the leaking wells. Notably, two (2) of these seven (7) wells had leaks exceeding a concentration of 50,000 PPM. However, these leaks dissipated to background levels, rendering them undetectable within three inches of the source and negating the need to collect a sample or notify first responders. Immediate action was taken to promptly repair the two wells. Subsequently, these wells were re-

inspected by South Coast AQMD on the same day to confirm repair and ensure their safety and compliance, and no further leaks were detected.

CARB's Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities, also known as CARB's Oil and Gas Regulation (COGR) [3], mandates that operators repair any methane leaks with concentrations of 1,000 ppm or higher. South Coast AQMD mandates that the operator repairs any methane leaks with a concentration of 500 ppm or higher. In comparison, CalGEM's regulations require production equipment to be maintained in a leak-free condition, and operators are required to address all leaks, even those with concentrations below 1,000 ppm.

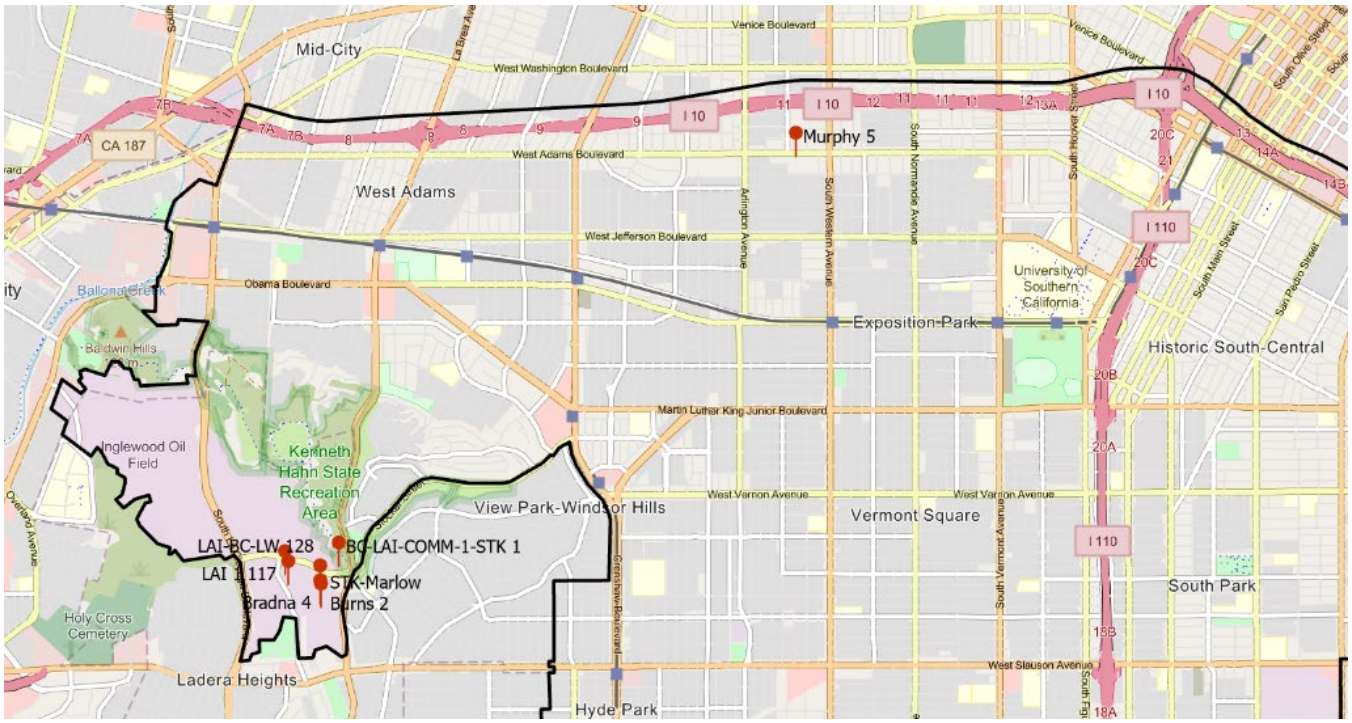

Figure 2: Map of the 7 leaking wells

Table 1: Critical data on the 96 wells inspected from January 14-15, 2025.

[3] https://ww2.arb.ca.gov/sites/default/files/2020-03/2017%20Final%20Reg%20Orders%20GHG%20Emission%20Standards.pdf

Ref #	API Number	Well Designation	Well Status	Leaks (PPM)	Operator	Inspection Date
1	403725351	Stocker 654	Active	-	Sentinel Peak	1/14/2025
2	403725298	Stocker 653	Active	-	Sentinel Peak	1/14/2025
3	403726674	Stocker 208	Active	-	Sentinel Peak	1/14/2025
4	403726675	Stocker 109	Idle	-	Sentinel Peak	1/14/2025
5	403708340	Stocker 36	Active	-	Sentinel Peak	1/14/2025
6	403708341	Stocker 106	Active	-	Sentinel Peak	1/14/2025
7	403708331	Marlow Burns-LAI-Comm-LW 1	Idle	-	Sentinel Peak	1/14/2025
8	403708325	Stocker 18	Active	-	Sentinel Peak	1/14/2025
9	403730038	STK-LAI 1 6961	Active	-	Sentinel Peak	1/14/2025
10	403730037	STK-LAI 1 6864	Active	-	Sentinel Peak	1/14/2025
11	403707882	Marlow Burns 305	Active	-	Sentinel Peak	1/14/2025
12	403707773	Bradna 3	Active	-	Sentinel Peak	1/14/2025
13	403708350	STK-Marlow Burns 2	Active	1,445	Sentinel Peak	1/14/2025
14	403726517	Stocker 1178	Active	-	Sentinel Peak	1/14/2025
15	403726522	Marlow Burns 1678	Active	-	Sentinel Peak	1/14/2025

Ref #	API Number	Well Designation	Well Status	Leaks (PPM)	Operator	Inspection Date
16	403726523	Marlow Burns 1478	Active	-	Sentinel Peak	1/14/2025
17	403726519	Stocker 878	Active	-	Sentinel Peak	1/14/2025
18	403727091	Stocker 460	Active	-	Sentinel Peak	1/14/2025
19	403708101	LAI-Comm-BC 1	Idle	-	Sentinel Peak	1/14/2025
20	403726423	Stocker 768	Idle	-	Sentinel Peak	1/14/2025
21	403727090	LAI 1-STK 3068	Active	-	Sentinel Peak	1/14/2025
22	403707863	LAI 1 338	Active	-	Sentinel Peak	1/14/2025
23	403723436	LAI 1 366	Active	-	Sentinel Peak	1/14/2025
24	403726722	Stocker 2078	Active	-	Sentinel Peak	1/14/2025
25	403725274	STK LAI 501	Idle	-	Sentinel Peak	1/14/2025
26	403707772	Bradna Comm 2	Idle	-	Sentinel Peak	1/14/2025
27	403700205	Bradna 4	Active	>50,000	Sentinel Peak	1/14/2025
28	403726518	STK 978	Active	-	Sentinel Peak	1/14/2025
29	403726741	BC-STK-2168	Idle	-	Sentinel Peak	1/14/2025
30	403725281	STK-BC-LW-414	Active	-	Sentinel Peak	1/14/2025

Ref #	API Number	Well Designation	Well Status	Leaks (PPM)	Operator	Inspection Date
31	403708176	LAI1 - 209	Idle	-	Sentinel Peak	1/14/2025
32	403707859	STK-309	Active	-	Sentinel Peak	1/14/2025
33	403726412	STK-655	Idle	-	Sentinel Peak	1/14/2025
34	403707657	STK-39	Idle	-	Sentinel Peak	1/14/2025
35	403726725	Stocker 2668	Active	-	Sentinel Peak	1/14/2025
36	403726685	Stocker 2468	Active	-	Sentinel Peak	1/14/2025
37	403725306	STK-LAI-BC-LW 1	Active	-	Sentinel Peak	1/14/2025
38	403726876	LAI 1-STK-BC 408	Active	-	Sentinel Peak	1/14/2025
39	403708332	Stocker 28	Active	-	Sentinel Peak	1/14/2025
40	403708111	LAI Comm. 1 3	Active	-	Sentinel Peak	1/14/2025
41	403708203	LAI 1 43	Active	-	Sentinel Peak	1/14/2025
42	403729996	LAI 1 3368	Active	-	Sentinel Peak	1/14/2025
43	403708020	LAI 1 115	Active	-	Sentinel Peak	1/14/2025
44	403726659	LAI 1 449	Active	-	Sentinel Peak	1/14/2025
45	403726856	LAI 1 456	Active	-	Sentinel Peak	1/14/2025
46	403707842	LAI 1 287	Active	-	Sentinel Peak	1/14/2025

Ref #	API Number	Well Designation	Well Status	Leaks (PPM)	Operator	Inspection Date
47	403708174	LAI 1 207	Idle	-	Sentinel Peak	1/14/2025
48	403708075	LAI 1 172	Active	-	Sentinel Peak	1/14/2025
49	403708033	LAI-BC-LW 128	Idle	780	Sentinel Peak	1/14/2025
50	403726688	LAI 1 2068	Active	-	Sentinel Peak	1/14/2025
51	403708022	LAI 1 117	Active	930	Sentinel Peak	1/14/2025
52	403726861	LAI 1 2567	Active	-	Sentinel Peak	1/14/2025
53	403725260	BC 649	Idle	-	Sentinel Peak	1/14/2025
54	403725283	BC-STK-LW 282	Active	-	Sentinel Peak	1/14/2025
55	403725265	BC-LAI-COMM-1-STK 1	Idle	1,980	Sentinel Peak	1/14/2025
56	403725353	BC-STK-LCOM-MB 1	Idle	-	Sentinel Peak	1/14/2025
57	403725371	BC-STK-LW 283	Idle	-	Sentinel Peak	1/14/2025
58	403707762	BC 441	Idle	-	Sentinel Peak	1/14/2025
59	403730106	Stocker 3168	Active	3,877	Sentinel Peak	1/14/2025
60	403727202	Stocker 3568	Active	-	Sentinel Peak	1/14/2025
61	403726874	Stocker 430	Active	-	Sentinel Peak	1/14/2025
62	403725229	LAI 1 - 381	Active	-	Sentinel Peak	1/14/2025
63	403723166	LAI 1 216 RD1	Active	-	Sentinel Peak	1/14/2025

Ref #	API Number	Well Designation	Well Status	Leaks (PPM)	Operator	Inspection Date
64	403726647	BC 807	Active	-	Sentinel Peak	1/14/2025
65	403726648	BC 907	Idle	-	Sentinel Peak	1/14/2025
66	403726421	BC 653	Active	-	Sentinel Peak	1/14/2025
67	403725072	BC 371	Idle	-	Sentinel Peak	1/14/2025
68	403708700	BC 73	Idle	-	Sentinel Peak	1/14/2025
69	403700369	Murphy 1	Active	-	E & B	1/15/2025
70	403700291	Murphy 10	Active	-	E & B	1/15/2025
71	403700378	Murphy 11	Active	-	E & B	1/15/2025
72	403700379	Murphy 12	Active	-	E & B	1/15/2025
73	403700380	Murphy 13	Active	-	E & B	1/15/2025
74	403700381	Murphy 14	Active	-	E & B	1/15/2025
75	403700383	Murphy 16	Active	-	E & B	1/15/2025
76	403700384	Murphy 17	Active	-	E & B	1/15/2025
77	403700385	Murphy 18	Active	-	E & B	1/15/2025
78	403700322	Murphy 19	Active	-	E & B	1/15/2025
79	403700370	Murphy 2	Active	-	E & B	1/15/2025
80	403720954	Murphy 20	Active	-	E & B	1/15/2025
81	403720955	Murphy 21	Abandoned	-	E & B	1/15/2025

Ref #	API Number	Well Designation	Well Status	Leaks (PPM)	Operator	Inspection Date
82	403721072	Murphy 22	Active	-	E & B	1/15/2025
83	403720967	Murphy 23	Active	-	E & B	1/15/2025
84	403721221	Murphy 24	Active	-	E & B	1/15/2025
85	403721223	Murphy 26	Active	-	E & B	1/15/2025
86	403726956	Murphy 28	Active	-	E & B	1/15/2025
87	403700371	Murphy 3	Active	-	E & B	1/15/2025
88	403726957	Murphy 30	Active	-	E & B	1/15/2025
89	403727007	Murphy 31	Active	-	E & B	1/15/2025
90	403730170	Murphy 33	Active	-	E & B	1/15/2025
91	403730129	Murphy 37	Active	-	E & B	1/15/2025
92	403700372	Murphy 4	Active	-	E & B	1/15/2025
93	403700373	Murphy 5	Active	>50,000	E & B	1/15/2025
94	403700374	Murphy 6	Active	-	E & B	1/15/2025
95	403700375	Murphy 7	Active	-	E & B	1/15/2025
96	403700377	Murphy 9	Active	-	E & B	1/15/2025

IV. Status of Well Repairs

All leaks discovered during the inspections were repaired and re-inspected on the same day to confirm repair.

Additional information on the two wells with leaks over 50,000 ppm:

These wells were re-inspected on January 14 and January 15, 2025, and as of January 15, both wells were repaired and passed inspection.

- Bradna 4: Repaired. This well was determined to be leaking on January 14, 2025, with a leak detected at the well collar, measuring 93,000 ppm. The leak was successfully repaired on-site and passed re-inspection on the same day.
- Murphy 5: Repaired. This well was determined to be leaking on January 15, 2025, with a leak detected at the valve (Figure 3), measuring 209,000 ppm. The leak was repaired on-site and passed re-inspection on the same day.

Figure 3: Photograph of the identified leak location on Well Murphy #5

V. Enforcement Actions

Each agency has specific jurisdictional authority to address leaks from oil and gas wells. These authorities are the basis for all enforcement actions taken.

- CARB has the authority to regulate greenhouse gas emissions from stationary sources under Health and Safety Code sections 38562, 39600, 39601, 39602.5, and 39659. CARB also regulates leaks from oil and gas operations under the Greenhouse Gas Emissions Standards from Crude Oil and Natural Gas facilities, California Code of Regulations, title 17, sections 95665, et seq.[4]
- CalGEM has broad authority to regulate oil and gas production operations and address methane leaks from oil and gas operations. Public Resources Code section 3106 provides the supervisor with broad authority to supervise the drilling, operation, maintenance, and abandonment of wells and facilities to "prevent, as far as possible, damage to life, health, property, and natural resources ..." Additionally, PRC section 3011 provides that CalGEM's mandate includes "protecting public health and safety and environmental quality, including reduction and mitigation of greenhouse gas emissions associated with the development of hydrocarbon ... resources in a manner that meets the energy needs of the state." CalGEM has adopted regulations designed to encourage good oil and gas field practices and to prevent damage to life, health, property, and natural resources. California Code of Regulations, title 14, section 1777, subdivision (a) requires that "operators shall maintain production facilities in good condition and in a manner to prevent leakage or corrosion and to safeguard life, health, property, and natural resources."
- South Coast AQMD has the authority to address leaks from oil and gas operations under its rules and has been delegated authority through a Memorandum of Agreement to implement and enforce COGR within the South Coast Air Basin.

CalGEM issued one Notice of Violation (NOV) to Sentinel Peak Resources for the violation of California Code of Regulation (CCR), Title 14, Section 1777, subdivision (a), which states that: "Operators shall maintain production facilities in good condition and in a manner to prevent leakage or corrosion and to safeguard life, health, property, and natural resources". Furthermore, the Public Resources Code (PRC) Section 3011 subdivision (a) provides that CalGEM's mandate includes "protecting public health and safety and environmental quality, including reduction and mitigation of greenhouse gas emissions associated with the development of hydrocarbon and geothermal resources in a manner that meets the energy needs of the state."

South Coast AQMD issued an NOV to both Sentinel Peak Resources Corporation, LLC and E&B Natural Resources Management for two leaks > 50,000 ppm (one leak at each location) in violation of South Coast AQMD Rule 1173 - Control of Volatile Organic Compound (VOC) Leaks and Releases from Components at Petroleum Facilities and Chemical Plants.

[4] https://ww2.arb.ca.gov/resources/documents/oil-and-gas-regulation

VI. Additional Inspection Information

Inspection staff

Four inspectors from South Coast AQMD, three from CARB, and five from CalGEM participated in the inspections on January 14 and January 15.

Equipment Used

During the inspection, inspectors measured methane leak concentrations from wells using Method 21 (VOC Leaks) approved equipment[5]:

- Eagle 2
- Toxic Vapor Analyzer (TVA)
- Irwin SX Gas Leak Detector

To screen for leaks, inspection staff used:

- Forward Looking Infrared (FLIR) cameras

Works Cited

"Methane Task Force" *CalGEM*, n.d., https://www.conservation.ca.gov/calgem/Pages/Methane-Task-Force.aspx. Accessed 22 Sep 2023.

"WellSTAR" *CalGEM*, n.d., https://wellstar-public.conservation.ca.gov/Well/Well/Index. Accessed 22 Sep 2023

[5] Leaks measured using USEPA Method 21 https://www.epa.gov/emc/method-21-volatile-organic-compound-leaks