

California Air Resources Board Research Division

Airborne Remote-Sensing Surveys of Methane Emissions in California

Final Project Report

26-September-2023

**Contract #22RD001
Carbon Mapper Inc.**



Riley Duren, Principal Investigator (PI)

Andrew Aubrey, Project Manager (PM)

**Introduction from the Staff of the California Air Resources Board (CARB)
October, 2023**

The project described in this report is part of multi-phase technology demonstration research project. The overarching goals of this project are to demonstrate the utility of methane plume remote sensing in monitoring and detecting methane emissions, understanding the sources and potential for fixing leaks, and to understand and improve State processes.

What does this report contain?

This report describes work performed by the contractor, Carbon Mapper, and its affiliates. The report is limited to the plume data gathered through airborne flights. The contract and this report does not cover any follow-up with the owner/operator of the infrastructure. In all cases where the data passed our QA/QC the State initiated follow-up actions including operator actions and state and local agency follow-up. **The outcomes of these follow-up actions are outside of the scope of this report and will be described in a companion report prepared and released by CARB.**

In other words, this report describes steps 1-3 outlined below and the future CARB report will cover any follow-up actions initiated by the State (i.e., steps 4-5 below).

This report	<ol style="list-style-type: none">1. The contractor works with CARB to determine areas of interest for the overflights.2. The contractor performs the flights and operates the methane plume mapping sensor.3. The contractor does initial QA/QC of methane plume data before transferring to CARB.
CARB report	<ol style="list-style-type: none">4. CARB performs additional QA/QC and initiates follow-up for eligible methane plumes.5. CARB communicates with relevant parties to understand the cause of the plume and any actions taken to mitigate it.

For more information on how the state has followed up on plumes from previous airborne campaigns, please visit:

[Summary Report of the 2020 and 2021 Airborne Methane Plume Mapping Studies | California Air Resources Board](#)

For more information on CARB’s Research Program, please visit:

[Research | California Air Resources Board](#)

For more information about CARB’s Methane Research Program, please visit:

[Methane Research Program \(ca.gov\)](#)

For more information about airborne remote sensing projects supported by CARB, please visit:

[Airborne Remote Sensing of Methane.docx \(sharepoint.com\)](#)

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Executive Summary

Carbon Mapper conducted an airborne remote-sensing campaign in June-2023 under California Air Resources Board (CARB) project No. 22RD001 “Airborne Remote-Sensing Surveys of Methane Emissions in California”. The project was primarily focused on detecting and quantifying methane emissions across a subset of California’s waste and energy systems sectors. The areas of interest (AOIs), selected by CARB, included 10 oil and gas production fields, two energy facilities, the Port of Long Beach, and 65 individual landfills.

Carbon Mapper detected 325 plumes in total sourced from the waste and energy system sectors following detailed QA/QC on over 500 potential candidate plumes. 125 of these methane plumes were attributed to the waste sector (62 landfills surveyed, three Anaerobic Digestion facilities), 198 attributed to the energy systems sector (includes oil and gas and energy industries), and 2 plumes were categorized as other. A summary of the campaign observations include:

1. Airborne Campaign Summary

- a. Airborne remote-sensing data was collected over 13 flight days (June 12-28, 2023)
- b. 11,615 km² total area was imaged over landfills / energy system AOIs (including repeats)
- c. 3,685 km² unique area was imaged over landfills / energy system AOIs (3x less than total)
 - i. Oil and gas AOIs constituted 2,210 km² of this unique area
 - ii. Landfill AOIs constituted 1,475 km² of this unique area
- d. 325 methane plumes detected from waste and energy system sectors (including repeats)
 - i. 125 plumes from the waste sector (solid waste, wastewater, anaerobic digesters)
 - ii. 198 plumes from the energy systems sector (oil and gas, electricity generation)
 - iii. 2 plumes were categorized as other source type (urban, industrial)

2. Waste Sector (62 landfills and three Anaerobic Digestion facilities surveyed)

- a. Methane plumes were detected from 33 of the 62 landfills surveyed (53%)
- b. For these 33 landfills with detections, repeat surveys detected plumes ~80% of the time
- c. Methane plumes were not detected at 29 of the 62 landfills surveyed (47%)
- d. Three waste sector emissions sources were attributed to anaerobic digestion (AD) facilities: the UC-Davis Renewable Energy digester, Yolo County Landfill digesters, and a San Francisco Bay AD facility.

3. Energy Systems Sector (Surveyed: 10 Oilfields, Port of Long Beach, 2 Oil and Gas facilities)

- a. Methane plumes were detected in 8 of the 10 oil and gas AOIs surveyed
- b. 104 unique sources were identified across a total unique area of 2,210 km²
- c. Highest source density was 0.1 source / km² at Kern River (average ~0.05 sources / km²)
- d. For the sources with repeat detections (n = 36), plumes were observed ~70% of the time

The enclosed report summarizes the flight campaign logistics and provides a high-level analysis of the general findings, plumes detected, and sector summary.

1.0 Introduction

In June-2023, Carbon Mapper conducted an airborne campaign in California with subcontractor Arizona State University (ASU) in support of California Air Resources Board (CARB) project 22RD001. The ASU Global Airborne Observatory (GAO) was used to survey select areas of interest (AOIs) in California to investigate the presence of methane emissions.

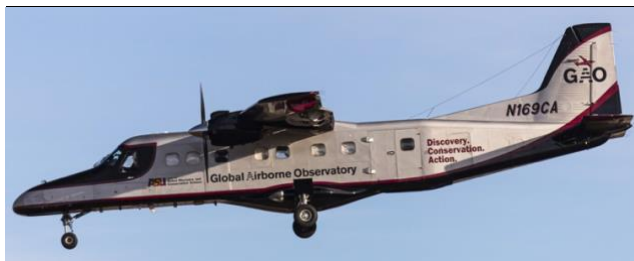


Figure 1. Arizona State University's GAO.

GAO is configured on a Dornier 228 Aircraft (Figure 1) and is equipped with a high-resolution airborne imaging spectrometer which measures upwelling solar radiation from the visible through shortwave infrared regions (between 380 and 2,500 nm) at 5-nm spectral resolution (Asner et al., 2012). Flights were conducted at altitudes of ~10,000 feet above ground level (AGL) to be consistent with data previously collected over portions of the State of California by the NASA Jet Propulsion Laboratory (2016-2017), University of Arizona (2020) and Carbon Mapper (2021). These altitudes provided for imaging resolution of approximately 3-meters per pixel (Figure 2).

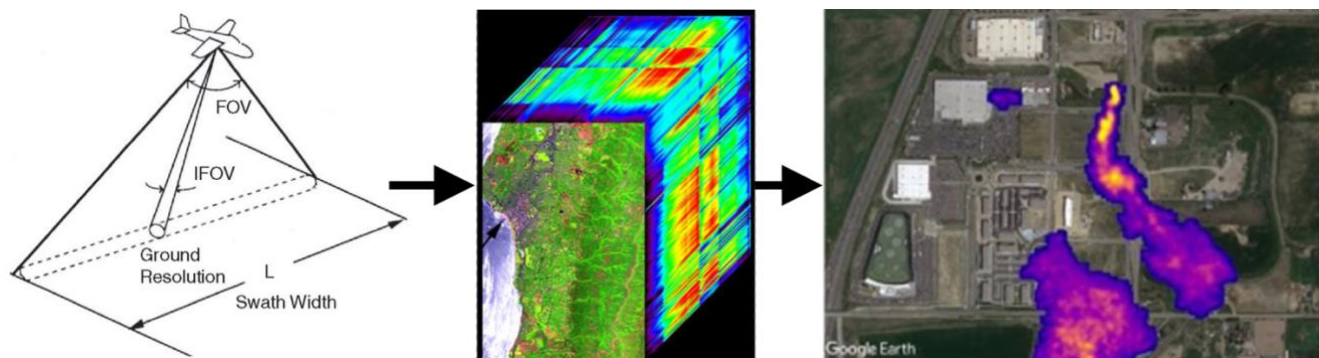


Figure 2. Principal of methane imaging using push broom imaging spectroscopy. Ground-reflected solar radiation is collected from a survey aircraft during data acquisition. Radiance cubes are produced by the sensor, allowing for the generation of methane plume data products.

The GAO shortwave infrared (SWIR) datasets provide for methane concentration measurement using the 2,200 to 2,400 nm methane-absorbing region using a column-wise matched filter algorithm (Thompson et al., 2015). Emission rates and uncertainties were quantified using an integrated methane enhancement (IME) algorithm as previously applied in California (Duren et al., 2019), the Permian Basin (Cusworth et al., 2021), and other regions (Cusworth et al., 2022).

1.1 Areas of Interest (AOIs)

CARB specified Energy System AOIs as 11 unique areas ranging from 50-1,000 km² each, including two individual facilities (one specific well pad; one compressor station). The waste sector AOIs included 65 landfills, each of which was surveyed at least once except for three of the landfills (unable to survey Corinda Los Trancos LF, Ridgecrest SLF, Tajiguas LF due to cloudy conditions). The AOIs are included as a table (Appendix A) and shown graphically below (Figure 3).

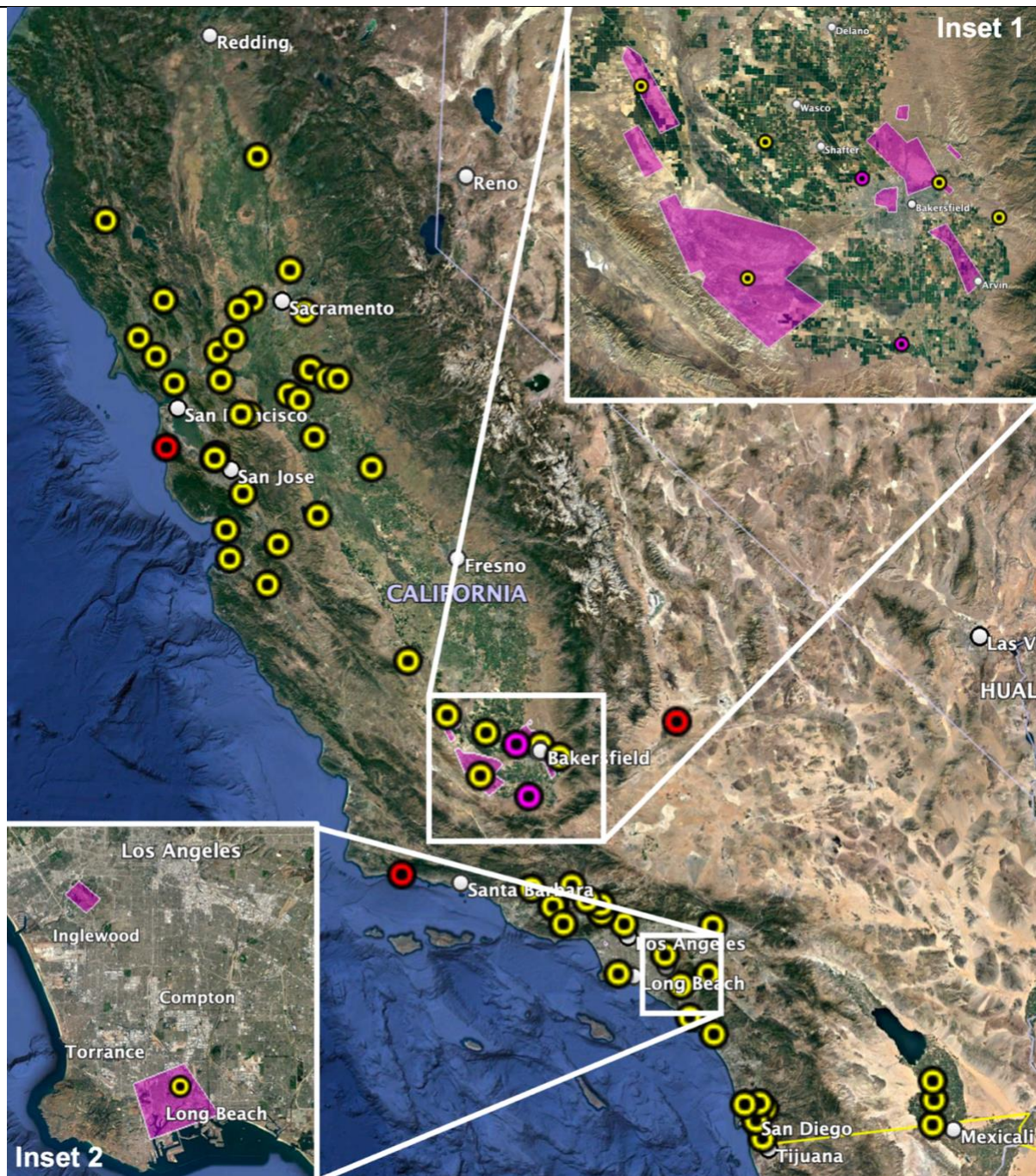


Figure 3. Methane survey AOIs on a map of California. The AOIs include 10 oil and gas areas (Inset 1, Inset 2), the Port of Long Beach (Inset 2), and 65 landfills. Yellow = Landfills surveyed at least once; Red = landfills not surveyed; Purple = Energy System AOIs (10 areas for mapping; 2 individual facilities).

2.0 Flight Campaign

Airborne data was collected during thirteen flight days during the campaign period from 12-June-2023 through 28-June-2023 (Figure 4). During each CARB flight day, data was collected in cloud-free conditions within a 5-hour window centered at solar noon to maximize the illumination of the AOIs.

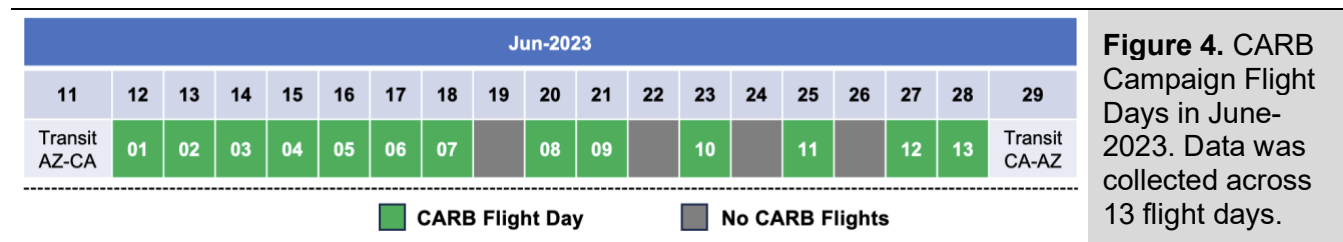


Figure 4. CARB Campaign Flight Days in June-2023. Data was collected across 13 flight days.

During the campaign, Carbon Mapper provided quick-look products to CARB at low-latency using its proprietary PlumePortal™ online data portal with products delivered at approximately 48-hour latency. The Quick-Look products consisted of the plume locations, a graphical image of the plume (PNG, GeoTIFF), and an initial estimate of the emission rate for each plume. The plumes reported herein represent the result of the final data analysis following the full Carbon Mapper plume QA/QC process.

2.1 Airborne Campaign Flight Coverage

The total area surveyed across all days (11,615 km²) is below (Table 1), a factor of three greater than the unique area surveyed (3,685 km²) in the entire mission.

Table 1. Area imaged each day of the airborne campaign, representing a total of 11,615 km² imaged across landfills and energy. Without repeat surveys, the total unique area imaged was 3,685 km².

Flight Day	Date	AOI Region	Imaged Area (km ²)
01	6/12/2023	Bakersfield Area (Energy & Landfills)	1,872
02	6/13/2023	North of Bakersfield (Central Valley Landfills)	421
03	6/14/2023	Bakersfield Area (Energy & Landfills)	1,617
04	6/15/2023	North of Bakersfield (Central Valley & Bay Area Landfills)	675
05	6/16/2023	Bakersfield Area (Energy & Landfills)	804
06	6/17/2023	South of Bakersfield (Los Angeles / San Diego)	692
07	6/18/2023	North of Bakersfield (Central Valley Landfills)	220
08	6/20/2023	North of Bakersfield (Coastal California)	927
09	6/21/2023	South of Bakersfield (Los Angeles / San Diego)	690
10	6/23/2023	North of Bakersfield (Central Valley & Bay Area Landfills)	342
11	6/25/2023	South of Bakersfield (Los Angeles / San Diego)	472
12	6/27/2023	Bakersfield Area (Energy & Landfills)	1,619
13	6/28/2023	Bakersfield Area (Energy & Landfills)	1,264
TOTAL			11,615 km²

NOTE: Flight days are non-contiguous due to days that CARB data was not collected (6/19, 6/22, 6/24, 6/26).

3.0 Methane Emissions Plumes

Carbon Mapper detected a total of 325 methane plumes (Appendix B). 125 of the methane plumes were attributed to the waste sector (62 individual landfills surveyed, three anaerobic digesters), 198 plumes were attributed to energy systems from the oil and gas and power generation sectors (10 oilfields; Port of Long Beach; 2 energy facilities), and 2 plumes were sourced from other sectors (urban, industrial).

3.1 Waste Sector

The 125 plumes detected from the waste sector surveys were sourced from 33 of the 62 total landfills surveyed (53%) while 29 landfills (47%) revealed no plumes above our detection limit of 10 kg methane / hr. This high-level analysis categorized each time a landfill was surveyed as having a methane plume detection or null detect (Table 3) and includes those landfills where the plumes were sourced from one or more on premise digesters (i.e. UC-Davis, Yolo County, and San Francisco Bay Area AD facilities).

Table 3. Summary of methane emissions from the 62 landfills surveyed.				
Landfills Surveyed	Landfills with Detectable Emissions ¹		Landfills without Detectable Emissions	
	Number	Percent	Number	Percent
62	33	53%	29	47%

¹ The detectable emissions category includes those with one or more plume detections during the survey period.
 NOTE: Three sources were attributed to digesters (UC-Davis, Yolo County, San Francisco Bay Area AD facility).

21 of the 33 landfills from which emissions were detected were surveyed three times or more. For this subset of 21 landfills with three or more surveys, plumes were detected on average 80% of the time. The 125 waste sector plume detections were attributed to solid waste (6A), including detection of digester emissions at the UC-Davis, Yolo County, and San Francisco Bay area digester facilities. One plume was associated with wastewater treatment (6B).

3.2 Energy Systems Sector

The Energy System AOIs were focused on ten Oil and Gas oilfields (Table 4). The Port of Long Beach was also included as an Energy System AOI covering Oil and Gas and other industries.

Table 4. Oilfields surveyed by Carbon Mapper. Kern Bluff oilfield was surveyed with the Kern River AOI.		
• Lost Hills (ID 02)	• Kern River (ID 05)	• Mountain View (ID 09)
• McKittrick (ID 03)	• Round Mountain (ID 07)	• Fruitdale (ID 10)
• Mount Poso (ID 04)	• Elk Hills (ID 08)	• Inglewood (ID 13)

7 of the 10 Oilfield AOIs surveyed revealed multiple sources while Round Mountain, Kern Bluff, and Inglewood oilfields showed no detectable emissions. Of the 198 Energy System plumes detected from the oilfield surveys, 104 unique sources were detected (53%) with the balance being repeat detections. The highest density of unique sources was in the Kern River oilfield (9.8×10^{-2} sources / km²); source densities observed in the Mount Poso and Elk Hills oilfields also showed high source density per square kilometer.

Table 5. Summary of Methane Emissions from the Energy Systems Sector.

ID	Flight Area	Unique Area Imaged (km ²)	Total No. Days AOI	Methane Plumes		Unique Plume Density (sources / km ²)
				Total	Unique	
02	Lost Hills Oilfield	172	4	9	4	2.3 x 10 ⁻²
03	McKittrick Oilfield	105	4	5	3	2.9 x 10 ⁻²
04	Mount Poso Oilfield	79.0	4	7	7	8.9 x 10 ⁻²
05	Kern River Oilfield	295	4	87	29	9.8 x 10 ⁻²
08	Elk Hills Oilfield	1,021	3	82	55	5.4 x 10 ⁻²
09	Mountain View Oilfield	151	3	1	1	0.66 x 10 ⁻²
10	Fruitvale Oilfield	109	3	1	1	0.92 x 10 ⁻²
12	Port of Long Beach	132	3	6	4	3.0 x 10 ⁻²
	TOTAL	2,064 km²		198	104	5.0 x 10⁻² Average

NOTE: Kern Bluff (06), Round Mountain (07), and Inglewood (13) oilfields and are not included in the table above because no plumes were detected from these AOIs.

For the oilfield AOIs, each polygon or facility was surveyed three or more times to evaluate the intermittency of each of the detected plumes. Of the 198 plumes detected, 104 were unique in source location. About one third of these total oilfield unique sources (n = 36; 34%) were detected on at least two different survey days.

The survey results over the two specific energy system sector facilities are included below (Table 6). These two facilities were selected specifically due to detections in previous California airborne remote-sensing campaigns (i.e. 2017, 2021).

Table 6. Summary of Energy sector methane emissions surveys at the two Energy sector facilities: Wheeler Ridge Compressor Station and a Well Pad proximal to the North of Bakersfield.

ID	Flight Area	Total No. Days Site Observed	No. Plumes (0-1x per day)	Detection Fraction
56	Bakersfield Well Pad	3	2	0.67
69	Wheeler Ridge Compressor	5	0	0.0

There were no emissions detected above GAO’s detection limit of 10 kg methane / hr at the Wheeler Ridge compressor station on any of the five days the facility was surveyed. The Bakersfield well pad survey detected methane plumes in two out of three days surveyed, indicating episodic plume behavior.

Attribution for the 198 plumes from the energy sector include 13 categorized in the electricity generation sector (1A1) and 185 from the oil and gas sector (1B2). The two plumes that were categorized as other sectors were ephemeral sources: (a) an urban plume in Arvin, CA, and (b) a strong industrial methane plume located at the Port of Long Beach, each of which were only detected once across several days of surveys.

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APPENDIX A. CARB Campaign AOIs and ID Numbers

AOIs and facilities on the candidate list for the CARB airborne campaign (ID numbers in parentheses). The AOIs included 11 unique areas (10 oilfields and Port of Long Beach), 2 specific energy facilities, and 65 specific landfills (62 of which were surveyed one or more times). The asterisks denote areas for mapping versus individual facilities and the sites that were not surveyed are denoted with superscript (X).

	North of Bakersfield (7 Oilfields)		South of Bakersfield (3 Oilfields; Port of Long Beach; 2 Oil and Gas Facilities)	
ENERGY SYSTEMS	Lost Hills Oilfield (02) * McKittrick Oilfield (03) * El Poso Oilfield (04) * Kern River Oilfield (05) * Kern Bluff Oilfield (06) * Round Mountain Oilfield (07) * Elk Hills Oilfield (08) *		Mountain View Oilfield (09) * Fruitvale Oilfield (10) * Inglewood Oilfield (13) * Long Beach Port (14) * Bakersfield Well Pad (56) Wheeler Ridge Compressor (69)	
	North of Bakersfield (33 Landfills; 1 Anaerobic Digester Facility)		South of Bakersfield (32 Landfills)	
WASTE SECTOR	Neal Road Landfill (16) City of Ukiah SWDS (17) Western Regional LF (18) Clover Flat Landfill (19) Yolo County LF (20) UC-Davis Landfill (21) Kiefer Landfill (22) Recology Hay Road (23) Central Landfill (24) Potrero Hills (25) Redwood SLF (26) Harney Lane Landfill (27) North County Landfill (28) Foothill Landfill (29) Rock Creek Landfill (30) Keller Canyon LF (31) W Contra Costa LF (32)	French Camp LF (33) Forward LF (34) Altamont LF (35) Vasco Road LF (35.1) Bonzi Landfill (36) Corinda Los Trancos LF (37) X Newby Island LF (38) Zero Waste AD Facility (38.1) Zanker Rd. LF (39) Hwy 59 DS LF (40) Kirby Canyon LF (41) Billy Wright LF (42) Buena Vista Drive LF (43) John Smith Road SWDS (44) Monterey Peninsula LF (45) Johnson Canyon LF (46) Avenal Landfill (52)	Lost Hills SLF (53) ** Ridgecrest SLF (54) X Shafter-Wasco SLF (55) China Grade SLF (57) ** Bakersfield SLF (58) Taft SLF (59) ** Tajiguas LF (70) X Chiquita Canyon LF (71) Toland Rd LF (72) Sunshine Canyon LF (73) Simi Valley LF (74) Tierra Rejada LF (75) Lopez Canyon LF (76) Bradley Av East West (77) Gregg Pit (78) Scholl Canyon LF (79)	Calabastas LF (80) Fontana RDS LF (81) Olinda Alpha SLF (82) Ascon Sanitary LF (83) ** El Sobrante SWLF (84) Frank Bowerman LF (85) Prima Deshecha LF (86) Las Pulgas LF (87) Miramar SWLF (88) Sycamore SWLF (89) Gillespie Landfill (90) South Chollas LF (91) Otay SWLF (92) Calexico DS LF (93) Imperial LF (94) Brawley LF (95)

APPENDIX B. Methane Emissions Plume Source List

Plume ID	Plume Latitude	Plume Longitude	IPCC Sector	Quality ^A	Emission Rate (kg/hr)	Average Wind Wind Speed (m/s)	Average Wind Direction (Degrees)
GAO20230612t170003p0000-A	35.51601	-119.03861	Oil & Gas (1B2)	Cat 2	N/A	2.93 ± 0.51	330 ± 12
GAO20230612t170003p0000-B	35.50948	-119.03646	Oil & Gas (1B2)	Cat 2	N/A	2.93 ± 0.51	330 ± 12
GAO20230612t170003p0000-C	35.43082	-118.95372	Oil & Gas (1B2)	Cat 1	304.0 ± 87.4	2.93 ± 0.57	329 ± 13
GAO20230612t170617p0000-A	35.56257	-119.09883	Oil & Gas (1B2)	Cat 2	74.9 ± 49.0	2.65 ± 0.40	322 ± 12
GAO20230612t170617p0000-B	35.51762	-119.05203	Oil & Gas (1B2)	Cat 1	142.5 ± 66.0	2.93 ± 0.51	330 ± 12
GAO20230612t170617p0000-C	35.51586	-119.03869	Oil & Gas (1B2)	Cat 2	491.4 ± 200.1	2.93 ± 0.51	330 ± 12
GAO20230612t171222p0000-A	35.52419	-119.08498	Oil & Gas (1B2)	Cat 2	301.3 ± 121.4	2.68 ± 0.47	327 ± 12
GAO20230612t171222p0000-B	35.52128	-119.08295	Oil & Gas (1B2)	Cat 1	170.2 ± 87.6	2.68 ± 0.47	327 ± 12
GAO20230612t171222p0000-C	35.47059	-119.03984	Oil & Gas (1B2)	Cat 2	N/A	2.91 ± 0.58	331 ± 14
GAO20230612t171222p0000-D	35.46606	-119.03637	Oil & Gas (1B2)	Cat 1	84.0 ± 69.9	2.80 ± 0.59	331 ± 15
GAO20230612t171804p0000-A	35.52415	-119.08515	Oil & Gas (1B2)	Cat 2	N/A	2.68 ± 0.47	327 ± 12
GAO20230612t171804p0000-B	35.52308	-119.08431	Oil & Gas (1B2)	Cat 2	N/A	2.68 ± 0.47	327 ± 12
GAO20230612t171804p0000-C	35.52127	-119.08302	Oil & Gas (1B2)	Cat 1	261.3 ± 279.7	2.68 ± 0.47	327 ± 12
GAO20230612t171804p0000-D	35.41929	-119.00835	Electricity Generation (1A1)	Cat 2	97.7 ± 30.4	2.60 ± 0.51	331 ± 14
GAO20230612t171804p0000-E	35.50380	-119.07646	Oil & Gas (1B2)	Cat 1	157.2 ± 48.7	2.70 ± 0.54	330 ± 13
GAO20230612t172337p0000-A	35.45694	-119.05454	Oil & Gas (1B2)	Cat 1	133.3 ± 81.3	2.56 ± 0.54	332 ± 15
GAO20230612t174212p0000-A	35.58340	-119.04346	Oil & Gas (1B2)	Cat 1	254.2 ± 32.6	2.84 ± 0.23	318 ± 11
GAO20230612t175122p0000-A	35.51053	-119.40817	Solid Waste (6A)	Cat 2	140.3 ± 72.7	1.09 ± 0.47	269 ± 30
GAO20230612t180907p0000-A	35.58395	-119.71965	Oil & Gas (1B2)	Cat 1	341.2 ± 196.2	2.78 ± 0.47	309 ± 12
GAO20230612t180907p0000-C	35.65444	-119.76348	Oil & Gas (1B2)	Cat 1	99.6 ± 56.6	3.44 ± 0.32	299 ± 8
GAO20230612t182707p0000-A	35.48069	-119.74324	Oil & Gas (1B2)	Cat 2	85.9 ± 37.0	1.30 ± 0.49	40 ± 18
GAO20230612t182707p0000-B	35.53186	-119.77879	Oil & Gas (1B2)	Cat 2	80.3 ± 32.0	1.81 ± 0.61	209 ± 159
GAO20230612t183118p0000-B	35.53177	-119.77891	Oil & Gas (1B2)	Cat 2	108.3 ± 36.8	1.81 ± 0.61	209 ± 159
GAO20230612t184819p0000-A	35.05917	-119.37994	Oil & Gas (1B2)	Cat 2	172.7 ± 91.9	2.57 ± 0.86	53 ± 18
GAO20230612t184819p0000-B	35.06163	-119.39060	Oil & Gas (1B2)	Cat 2	N/A	2.57 ± 0.86	53 ± 18
GAO20230612t184819p0000-C	35.09285	-119.43490	Oil & Gas (1B2)	Cat 1	166.0 ± 115.1	2.69 ± 0.79	57 ± 12
GAO20230612t185737p0000-A	35.23863	-119.59113	Oil & Gas (1B2)	Cat 2	287.0 ± 95.4	2.17 ± 0.53	38 ± 11

GAO20230612t190622p0000-A	35.20366	-119.53442	Oil & Gas (1B2)	Cat 1	80.1 ± 30.7	2.27 ± 0.75	29 ± 13
GAO20230612t190622p0000-B	35.22316	-119.56146	Oil & Gas (1B2)	Cat 1	245.6 ± 148.0	2.30 ± 0.60	45 ± 63
GAO20230612t191653p0000-A	35.17410	-119.45458	Oil & Gas (1B2)	Cat 2	71.2 ± 40.7	2.40 ± 0.73	38 ± 12
GAO20230612t191653p0000-B	35.30428	-119.64743	Oil & Gas (1B2)	Cat 2	90.3 ± 23.1	2.55 ± 0.35	32 ± 14
GAO20230612t191653p0000-E	35.27823	-119.60148	Oil & Gas (1B2)	Cat 2	N/A	2.47 ± 0.30	64 ± 103
GAO20230612t192622p0000-A	35.19357	-119.47368	Oil & Gas (1B2)	Cat 2	828.6 ± 478.8	2.20 ± 0.88	38 ± 21
GAO20230612t192622p0000-B	35.26580	-119.57342	Oil & Gas (1B2)	Cat 1	190.2 ± 70.1	2.46 ± 0.40	66 ± 103
GAO20230612t192622p0000-C	35.18386	-119.44886	Oil & Gas (1B2)	Cat 2	N/A	2.40 ± 0.73	38 ± 12
GAO20230612t193703p0000-A	35.36595	-119.67049	Oil & Gas (1B2)	Cat 2	92.1 ± 25.9	2.02 ± 0.45	34 ± 15
GAO20230612t193703p0000-B	35.35489	-119.65266	Electricity Generation (1A1)	Cat 1	285.6 ± 100.5	2.02 ± 0.45	34 ± 15
GAO20230612t193703p0000-C	35.34857	-119.64685	Oil & Gas (1B2)	Cat 2	121.7 ± 62.1	2.02 ± 0.45	34 ± 15
GAO20230612t193703p0000-D	35.32107	-119.63089	Oil & Gas (1B2)	Cat 1	92.6 ± 22.4	2.55 ± 0.35	32 ± 14
GAO20230612t194657p0000-A	35.31180	-119.59037	Oil & Gas (1B2)	Cat 2	196.0 ± 52.7	2.32 ± 0.34	64 ± 104
GAO20230612t194657p0000-B	35.35471	-119.65290	Electricity Generation (1A1)	Cat 1	224.1 ± 91.9	2.02 ± 0.45	34 ± 15
GAO20230612t200727p0000-A	35.27486	-119.47753	Oil & Gas (1B2)	Cat 2	143.3 ± 58.0	2.79 ± 0.20	56 ± 106
GAO20230612t200727p0000-B	35.28210	-119.47970	Oil & Gas (1B2)	Cat 2	84.7 ± 12.5	2.79 ± 0.20	56 ± 106
GAO20230612t202606p0000-A	35.13068	-119.24247	Solid Waste (6A)	Cat 1	153.9 ± 82.2	1.96 ± 0.59	110 ± 139
GAO20230612t203456p0000-A	35.28861	-119.42210	Oil & Gas (1B2)	Cat 2	146.2 ± 112.2	2.70 ± 0.42	79 ± 130
GAO20230612t203456p0000-B	35.26088	-119.38747	Oil & Gas (1B2)	Cat 2	398.8 ± 227.1	2.69 ± 0.38	105 ± 146
GAO20230612t203456p0000-C	35.27230	-119.41152	Oil & Gas (1B2)	Cat 2	184.4 ± 95.0	2.86 ± 0.24	69 ± 120
GAO20230612t210702p0000-A	35.31486	-119.30854	Oil & Gas (1B2)	Cat 2	33.0 ± 16.3	2.86 ± 0.60	308 ± 108
GAO20230613t164618p0000-A	36.01301	-120.11489	Solid Waste (6A)	Cat 2	82.6 ± 43.8	1.26 ± 0.62	73 ± 45
GAO20230613t182458p0000-A	37.40192	-120.50085	Solid Waste (6A)	Cat 1	N/A	3.50 ± 0.29	322 ± 7
GAO20230613t184458p0000-A	37.87946	-121.18725	Solid Waste (6A)	Cat 1	3052.7 ± 822.4	2.65 ± 0.51	312 ± 4
GAO20230613t185543p0000-A	38.09376	-121.10141	Solid Waste (6A)	Cat 2	165.2 ± 58.2	3.51 ± 0.50	297 ± 8
GAO20230613t185948p0000-B	38.03001	-120.93094	Solid Waste (6A)	Cat 2	223.2 ± 47.1	3.16 ± 0.34	319 ± 10
GAO20230613t191249p0000-B	38.52020	-121.18779	Solid Waste (6A)	Cat 1	598.7 ± 173.7	3.20 ± 0.62	232 ± 10
GAO20230613t191249p0000-C	38.51736	-121.18728	Solid Waste (6A)	Cat 2	890.3 ± 286.7	3.20 ± 0.62	232 ± 10
GAO20230613t191953p0000-A	38.82922	-121.34422	Solid Waste (6A)	Cat 2	365.4 ± 83.1	2.30 ± 0.38	208 ± 13
GAO20230613t191953p0000-B	38.82802	-121.34501	Solid Waste (6A)	Cat 2	249.2 ± 117.8	2.30 ± 0.38	208 ± 13

GAO20230613t191953p0000-D	38.82682	-121.34511	Solid Waste (6A)	Cat 2	159.2 ± 85.4	2.30 ± 0.38	208 ± 13
GAO20230613t191953p0000-E	38.82748	-121.34335	Solid Waste (6A)	Cat 2	N/A	2.30 ± 0.38	208 ± 13
GAO20230613t192948p0000-A	38.59972	-121.68346	Solid Waste (6A)	Cat 2	700.7 ± 251.4	2.93 ± 0.92	191 ± 10
GAO20230613t194058p0000-A	38.31334	-121.82479	Solid Waste (6A)	Cat 2	811.3 ± 168.6	6.93 ± 0.40	255 ± 5
GAO20230613t195333p0000-A	37.99484	-121.93867	Solid Waste (6A)	Cat 2	N/A	5.75 ± 0.48	281 ± 8
GAO20230613t195333p0000-B	37.99408	-121.93857	Solid Waste (6A)	Cat 2	N/A	5.75 ± 0.48	281 ± 8
GAO20230613t200023p0000-A	37.75837	-121.72501	Solid Waste (6A)	Cat 2	155.9 ± 94.4	5.73 ± 0.69	275 ± 8
GAO20230613t200023p0000-B	37.75792	-121.64089	Solid Waste (6A)	Cat 2	N/A	5.98 ± 0.75	276 ± 5
GAO20230614t170024p0000-B	35.35084	-118.76214	Solid Waste (6A)	Cat 2	N/A	2.74 ± 0.29	272 ± 21
GAO20230614t172534p0000-A	35.43887	-119.13159	Oil & Gas (1B2)	Cat 2	55.5 ± 64.8	2.79 ± 0.65	336 ± 4
GAO20230614t175340p0000-A	35.29745	-119.37514	Oil & Gas (1B2)	Cat 1	150.0 ± 99.4	3.06 ± 0.68	250 ± 160
GAO20230614t175844p0000-B	35.24019	-119.30680	Oil & Gas (1B2)	Cat 2	198.4 ± 52.8	3.32 ± 0.65	31 ± 92
GAO20230614t181104p0000-A	35.26987	-119.39516	Oil & Gas (1B2)	Cat 2	N/A	3.10 ± 0.79	96 ± 149
GAO20230614t181104p0000-B	35.26242	-119.40096	Oil & Gas (1B2)	Cat 1	335.3 ± 237.0	3.10 ± 0.79	96 ± 149
GAO20230614t181104p0000-C	35.26093	-119.38740	Oil & Gas (1B2)	Cat 1	386.9 ± 234.2	3.07 ± 0.92	60 ± 121
GAO20230614t181104p0000-D	35.26213	-119.38346	Oil & Gas (1B2)	Cat 2	163.6 ± 111.2	3.10 ± 0.79	96 ± 149
GAO20230614t181739p0000-A	35.27667	-119.44486	Oil & Gas (1B2)	Cat 2	63.4 ± 45.2	2.86 ± 0.85	13 ± 5
GAO20230614t181739p0000-B	35.30276	-119.47548	Oil & Gas (1B2)	Cat 2	N/A	2.56 ± 0.66	23 ± 63
GAO20230614t182654p0000-A	35.28218	-119.47952	Oil & Gas (1B2)	Cat 1	25.6 ± 16.2	2.76 ± 0.69	12 ± 5
GAO20230614t182654p0000-B	35.28483	-119.47596	Oil & Gas (1B2)	Cat 1	75.0 ± 27.7	2.85 ± 0.69	11 ± 4
GAO20230614t182654p0000-C	35.28500	-119.48540	Oil & Gas (1B2)	Cat 2	171.2 ± 43.0	2.76 ± 0.69	12 ± 5
GAO20230614t182654p0000-D	35.31636	-119.50491	Oil & Gas (1B2)	Cat 1	345.3 ± 162.7	2.61 ± 0.63	11 ± 4
GAO20230614t183620p0000-A	35.32784	-119.54603	Oil & Gas (1B2)	Cat 2	82.5 ± 22.8	2.33 ± 0.64	10 ± 5
GAO20230614t183620p0000-B	35.28654	-119.51016	Oil & Gas (1B2)	Cat 2	179.8 ± 51.4	2.76 ± 0.69	12 ± 5
GAO20230614t183620p0000-D	35.28213	-119.47945	Oil & Gas (1B2)	Cat 2	68.5 ± 24.8	2.76 ± 0.69	12 ± 5
GAO20230614t184539p0000-A	35.32125	-119.58069	Oil & Gas (1B2)	Cat 2	N/A	2.31 ± 0.60	11 ± 6
GAO20230614t184539p0000-C	35.29758	-119.53015	Oil & Gas (1B2)	Cat 2	N/A	2.57 ± 0.63	11 ± 4
GAO20230614t184539p0000-D	35.28099	-119.51223	Oil & Gas (1B2)	Cat 2	33.2 ± 8.9	2.64 ± 0.70	12 ± 5
GAO20230614t185623p0000-A	35.32102	-119.58087	Oil & Gas (1B2)	Cat 2	116.5 ± 103.1	2.31 ± 0.60	11 ± 6
GAO20230614t185623p0000-B	35.36610	-119.67038	Oil & Gas (1B2)	Cat 1	71.8 ± 39.3	1.82 ± 0.56	27 ± 12

GAO20230614t190924p0000-A	35.36596	-119.67049	Oil & Gas (1B2)	Cat 2	64.2 ± 28.2	1.62 ± 0.31	26 ± 13
GAO20230614t190924p0000-C	35.29806	-119.58299	Oil & Gas (1B2)	Cat 2	202.0 ± 124.1	2.32 ± 0.35	55 ± 107
GAO20230614t191729p0000-A	35.26570	-119.57333	Oil & Gas (1B2)	Cat 2	195.6 ± 164.4	2.37 ± 0.35	45 ± 89
GAO20230614t191729p0000-C	35.19366	-119.47380	Oil & Gas (1B2)	Cat 1	247.1 ± 219.2	1.88 ± 0.25	25 ± 13
GAO20230614t191729p0000-D	35.18357	-119.44878	Oil & Gas (1B2)	Cat 2	143.0 ± 67.1	1.94 ± 0.35	32 ± 10
GAO20230614t191729p0000-E	35.17218	-119.43610	Oil & Gas (1B2)	Cat 2	63.3 ± 24.2	1.98 ± 0.40	30 ± 9
GAO20230614t191729p0000-F	35.16162	-119.41003	Oil & Gas (1B2)	Cat 1	1314.9 ± 466.5	2.11 ± 0.49	32 ± 8
GAO20230614t191729p0000-H	35.16195	-119.42472	Oil & Gas (1B2)	Cat 2	N/A	2.11 ± 0.49	32 ± 8
GAO20230614t192749p0000-A	35.16267	-119.40954	Oil & Gas (1B2)	Cat 1	723.8 ± 174.7	2.11 ± 0.49	32 ± 8
GAO20230614t193553p0000-B	35.28036	-119.60354	Oil & Gas (1B2)	Cat 2	163.7 ± 42.7	2.32 ± 0.35	55 ± 107
GAO20230614t193553p0000-C	35.27805	-119.60060	Oil & Gas (1B2)	Cat 2	N/A	2.32 ± 0.35	55 ± 107
GAO20230614t193553p0000-E	35.17966	-119.46041	Oil & Gas (1B2)	Cat 2	N/A	1.94 ± 0.35	32 ± 10
GAO20230614t193553p0000-F	35.17412	-119.45446	Oil & Gas (1B2)	Cat 2	169.4 ± 46.5	1.94 ± 0.35	32 ± 10
GAO20230614t193553p0000-G	35.32492	-119.67642	Oil & Gas (1B2)	Cat 2	63.7 ± 24.4	2.05 ± 0.40	32 ± 12
GAO20230614t193553p0000-H	35.27843	-119.60067	Oil & Gas (1B2)	Cat 2	N/A	2.32 ± 0.35	55 ± 107
GAO20230614t200443p0000-A	35.22318	-119.56155	Oil & Gas (1B2)	Cat 2	521.7 ± 164.1	2.56 ± 0.54	57 ± 106
GAO20230614t200443p0000-B	35.20362	-119.53443	Oil & Gas (1B2)	Cat 1	500.2 ± 252.0	2.37 ± 0.54	67 ± 121
GAO20230614t202253p0000-A	35.05892	-119.38157	Oil & Gas (1B2)	Cat 1	261.6 ± 93.0	2.33 ± 0.24	44 ± 10
GAO20230614t202253p0000-B	35.09281	-119.43492	Oil & Gas (1B2)	Cat 2	193.5 ± 58.2	2.33 ± 0.40	37 ± 11
GAO20230614t202253p0000-C	35.18426	-119.54500	Oil & Gas (1B2)	Cat 1	155.5 ± 43.4	2.37 ± 0.54	67 ± 121
GAO20230615t184530p0000-A	37.87875	-121.18829	Solid Waste (6A)	Cat 2	1788.1 ± 545.1	3.61 ± 0.17	321 ± 5
GAO20230615t185930p0000-A	38.31008	-121.82982	Solid Waste (6A)	Cat 2	254.0 ± 175.5	4.36 ± 0.78	263 ± 7
GAO20230615t185930p0000-C	38.30949	-121.82867	Solid Waste (6A)	Cat 2	N/A	4.36 ± 0.78	263 ± 7
GAO20230615t192609p0000-B	38.16465	-122.56469	Solid Waste (6A)	Cat 2	505.4 ± 234.9	3.19 ± 1.12	317 ± 58
GAO20230615t194015p0000-A	38.21580	-121.98094	Solid Waste (6A)	Cat 1	N/A	5.36 ± 0.39	264 ± 6
GAO20230615t194559p0000-A	37.98989	-121.93624	Solid Waste (6A)	Cat 1	360.7 ± 74.9	4.58 ± 0.51	287 ± 9
GAO20230615t194559p0000-E	37.99743	-121.93437	Solid Waste (6A)	Cat 2	1099.9 ± 300.2	4.83 ± 0.45	289 ± 8
GAO20230615t195334p0000-A	37.75882	-121.72544	Solid Waste (6A)	Cat 2	150.8 ± 84.8	3.66 ± 0.64	272 ± 11
GAO20230615t195334p0000-B	37.75797	-121.64029	Solid Waste (6A)	Cat 2	918.4 ± 243.4	3.97 ± 1.01	281 ± 17
GAO20230615t202019p0000-A	37.45890	-121.94123	Solid Waste (6A)	Cat 1	1939.6 ± 1121.6	3.62 ± 1.96	319 ± 16

GAO20230615t202019p0000-C	37.46349	-121.94334	Solid Waste (6A)	Cat 2	277.0 ± 140.2	3.76 ± 1.84	311 ± 16
GAO20230615t202019p0000-D	37.43465	-121.95073	Solid Waste (6A)	Cat 2	184.7 ± 224.5	3.62 ± 1.96	319 ± 16
GAO20230615t202740p0000-A	37.18655	-121.66866	Solid Waste (6A)	Cat 2	139.5 ± 56.5	2.69 ± 0.71	161 ± 24
GAO20230615t204420p0000-B	36.53200	-121.40256	Solid Waste (6A)	Cat 2	N/A	5.02 ± 1.14	317 ± 8
GAO20230615t204420p0000-C	36.52976	-121.40475	Solid Waste (6A)	Cat 2	N/A	5.02 ± 1.14	317 ± 8
GAO20230615t210546p0000-A	36.01261	-120.11389	Solid Waste (6A)	Cat 2	52.7 ± 44.0	2.02 ± 0.52	87 ± 119
GAO20230615t214439p0000-A	35.51078	-119.40785	Solid Waste (6A)	Cat 2	N/A	4.53 ± 0.55	334 ± 8
GAO20230615t214439p0000-D	35.51045	-119.40821	Solid Waste (6A)	Cat 2	329.1 ± 117.1	4.62 ± 0.61	339 ± 6
GAO20230616t172654p0000-A	35.43877	-119.13160	Oil & Gas (1B2)	Cat 2	N/A	2.83 ± 0.62	336 ± 8
GAO20230616t181741p0000-A	35.45697	-119.05456	Oil & Gas (1B2)	Cat 2	N/A	3.39 ± 0.62	323 ± 8
GAO20230616t181741p0000-B	35.46538	-119.05531	Oil & Gas (1B2)	Cat 2	N/A	3.45 ± 0.63	327 ± 7
GAO20230616t182324p0000-A	35.41915	-119.00838	Electricity Generation (1A1)	Cat 2	N/A	3.29 ± 0.62	313 ± 9
GAO20230616t182324p0000-B	35.46547	-119.05512	Oil & Gas (1B2)	Cat 1	185.3 ± 78.5	3.45 ± 0.63	327 ± 7
GAO20230616t182324p0000-C	35.47331	-119.05797	Oil & Gas (1B2)	Cat 2	N/A	3.45 ± 0.63	327 ± 7
GAO20230616t182324p0000-D	35.50059	-119.07114	Oil & Gas (1B2)	Cat 1	216.8 ± 150.2	3.43 ± 0.65	330 ± 7
GAO20230616t182324p0000-E	35.50381	-119.07646	Oil & Gas (1B2)	Cat 1	123.2 ± 44.9	3.43 ± 0.65	330 ± 7
GAO20230616t182904p0000-A	35.43573	-119.00540	Oil & Gas (1B2)	Cat 2	157.4 ± 55.5	3.25 ± 0.63	308 ± 11
GAO20230616t182904p0000-B	35.44601	-119.01488	Oil & Gas (1B2)	Cat 2	96.7 ± 76.0	3.40 ± 0.64	318 ± 9
GAO20230616t183455p0000-A	35.44048	-118.99244	Oil & Gas (1B2)	Cat 2	162.1 ± 56.4	3.25 ± 0.63	308 ± 11
GAO20230616t183455p0000-B	35.48424	-119.02952	Electricity Generation (1A1)	Cat 2	N/A	3.45 ± 0.66	322 ± 7
GAO20230616t183455p0000-C	35.50939	-119.03659	Oil & Gas (1B2)	Cat 1	394.7 ± 370.2	3.45 ± 0.67	324 ± 6
GAO20230616t183455p0000-D	35.51597	-119.03872	Oil & Gas (1B2)	Cat 1	300.8 ± 172.3	3.45 ± 0.67	324 ± 6
GAO20230616t183455p0000-E	35.51758	-119.05192	Oil & Gas (1B2)	Cat 1	136.0 ± 93.6	3.45 ± 0.67	324 ± 6
GAO20230616t183455p0000-F	35.55551	-119.08284	Oil & Gas (1B2)	Cat 1	366.2 ± 237.6	3.25 ± 0.71	331 ± 7
GAO20230616t184036p0000-A	35.50947	-119.03645	Oil & Gas (1B2)	Cat 2	N/A	3.45 ± 0.67	324 ± 6
GAO20230616t184036p0000-B	35.51599	-119.03856	Oil & Gas (1B2)	Cat 2	209.1 ± 179.1	3.45 ± 0.67	324 ± 6
GAO20230616t185940p0000-A	35.35230	-118.76294	Solid Waste (6A)	Cat 2	320.0 ± 84.2	3.66 ± 0.49	285 ± 8
GAO20230616t185940p0000-B	35.35293	-118.76460	Solid Waste (6A)	Cat 2	N/A	3.66 ± 0.49	285 ± 8
GAO20230616t191224p0000-A	35.58544	-119.04299	Oil & Gas (1B2)	Cat 2	72.6 ± 21.9	4.06 ± 0.71	338 ± 9
GAO20230616t191224p0000-B	35.57763	-119.00628	Oil & Gas (1B2)	Cat 2	N/A	4.09 ± 0.69	336 ± 12

GAO20230616t192229p0000-B	35.50818	-119.40819	Solid Waste (6A)	Cat 2	117.0 ± 40.2	2.40 ± 0.55	173 ± 174
GAO20230616t192229p0000-D	35.51046	-119.40817	Solid Waste (6A)	Cat 2	84.0 ± 34.0	2.40 ± 0.55	173 ± 174
GAO20230617t172801p0000-A	34.40432	-118.99116	Solid Waste (6A)	Cat 2	N/A	2.84 ± 0.98	229 ± 37
GAO20230617t173411p0000-A	34.43681	-118.64800	Solid Waste (6A)	Cat 2	820.4 ± 498.8	2.58 ± 1.54	229 ± 33
GAO20230617t174102p0000-A	34.30066	-118.79493	Solid Waste (6A)	Cat 1	1269.4 ± 490.3	2.45 ± 0.83	253 ± 20
GAO20230617t174102p0000-B	34.30197	-118.78932	Solid Waste (6A)	Cat 1	1496.0 ± 566.1	2.45 ± 0.83	253 ± 20
GAO20230617t175301p0000-A	34.33418	-118.52184	Solid Waste (6A)	Cat 2	N/A	2.01 ± 1.00	146 ± 68
GAO20230617t175301p0000-B	34.33035	-118.51810	Solid Waste (6A)	Cat 2	153.9 ± 88.8	2.01 ± 1.00	146 ± 68
GAO20230617t175301p0000-C	34.32773	-118.51634	Solid Waste (6A)	Cat 2	97.8 ± 67.2	2.01 ± 1.00	146 ± 68
GAO20230617t183301p0000-A	33.81648	-118.23558	Electricity Generation (1A1)	Cat 1	102.3 ± 84.1	1.54 ± 1.20	220 ± 76
GAO20230617t183301p0000-B	33.81339	-118.23203	Electricity Generation (1A1)	Cat 2	82.3 ± 76.0	1.54 ± 1.20	220 ± 76
GAO20230617t183631p0000-D	33.81317	-118.23186	Electricity Generation (1A1)	Cat 2	65.4 ± 53.2	1.54 ± 1.20	220 ± 76
GAO20230617t184021p0000-B	33.78915	-118.23490	Electricity Generation (1A1)	Cat 2	83.9 ± 73.9	1.99 ± 1.21	213 ± 56
GAO20230617t185841p0000-A	33.94210	-117.83288	Solid Waste (6A)	Cat 2	461.7 ± 182.9	2.11 ± 0.78	252 ± 20
GAO20230617t190722p0000-A	34.13948	-117.42421	Solid Waste (6A)	Cat 2	201.6 ± 110.6	2.21 ± 0.33	240 ± 11
GAO20230617t190722p0000-B	34.14693	-117.43031	Solid Waste (6A)	Cat 2	145.3 ± 69.2	2.45 ± 0.56	227 ± 13
GAO20230617t191742p0000-A	33.79863	-117.46145	Solid Waste (6A)	Cat 2	163.2 ± 64.0	3.33 ± 0.59	289 ± 116
GAO20230617t191742p0000-B	33.79708	-117.46197	Solid Waste (6A)	Cat 2	825.2 ± 311.8	3.33 ± 0.59	289 ± 116
GAO20230617t192326p0000-A	33.71827	-117.69638	Solid Waste (6A)	Cat 2	245.1 ± 78.0	2.83 ± 0.57	269 ± 12
GAO20230617t192326p0000-C	33.72090	-117.70288	Solid Waste (6A)	Cat 2	177.6 ± 44.6	2.83 ± 0.57	269 ± 12
GAO20230617t192826p0000-A	33.48689	-117.62537	Solid Waste (6A)	Cat 2	286.1 ± 93.5	3.48 ± 0.64	273 ± 11
GAO20230617t194712p0000-A	32.85110	-117.16607	Solid Waste (6A)	Cat 2	2418.3 ± 386.4	3.76 ± 0.30	312 ± 5
GAO20230617t195201p0000-A	32.86261	-117.02791	Solid Waste (6A)	Cat 2	N/A	3.97 ± 0.35	299 ± 7
GAO20230618t175646p0000-A	37.40198	-120.50239	Solid Waste (6A)	Cat 2	N/A	4.12 ± 0.52	331 ± 14
GAO20230618t181106p0000-A	38.03168	-120.93210	Solid Waste (6A)	Cat 2	143.9 ± 49.3	2.61 ± 0.47	285 ± 8
GAO20230618t183018p0000-A	38.53248	-121.80577	Solid Waste (6A)	Cat 1	39.6 ± 13.9	1.49 ± 0.38	169 ± 91
GAO20230618t183018p0000-B	38.53334	-121.80562	Solid Waste (6A)	Cat 2	66.9 ± 21.0	1.49 ± 0.38	169 ± 91
GAO20230618t183446p0000-A	38.59891	-121.68396	Solid Waste (6A)	Cat 2	675.8 ± 299.8	1.54 ± 0.65	200 ± 68
GAO20230618t184341p0000-A	38.51490	-121.18421	Solid Waste (6A)	Cat 2	208.5 ± 22.7	3.41 ± 0.21	219 ± 5
GAO20230618t184341p0000-B	38.52190	-121.18533	Solid Waste (6A)	Cat 2	62.7 ± 18.7	3.41 ± 0.21	219 ± 5

GAO20230618t184341p0000-C	38.52265	-121.18969	Solid Waste (6A)	Cat 2	299.4 ± 58.5	3.41 ± 0.21	219 ± 5
GAO20230618t184341p0000-D	38.52570	-121.18832	Solid Waste (6A)	Cat 2	241.3 ± 32.9	3.41 ± 0.21	219 ± 5
GAO20230618t185031p0000-A	38.82854	-121.34609	Solid Waste (6A)	Cat 2	343.5 ± 81.3	3.69 ± 0.25	226 ± 13
GAO20230618t185031p0000-B	38.82944	-121.34748	Solid Waste (6A)	Cat 2	258.4 ± 71.4	3.69 ± 0.25	226 ± 13
GAO20230618t190932p0000-A	39.67639	-121.73000	Solid Waste (6A)	Cat 2	290.7 ± 62.1	2.85 ± 0.45	264 ± 29
GAO20230620t171452p0000-B	36.53078	-121.40343	Solid Waste (6A)	Cat 2	1029.6 ± 234.6	4.64 ± 0.44	316 ± 5
GAO20230620t172208p0000-A	36.70999	-121.76092	Solid Waste (6A)	Cat 2	926.4 ± 371.3	2.64 ± 0.94	295 ± 10
GAO20230620t172208p0000-C	36.70634	-121.76429	Wastewater (6B)	Cat 2	395.2 ± 207.7	2.64 ± 0.94	295 ± 10
GAO20230620t173456p0000-A	37.18457	-121.67503	Solid Waste (6A)	Cat 2	585.0 ± 176.9	4.88 ± 0.37	319 ± 6
GAO20230620t173456p0000-B	37.18670	-121.66875	Solid Waste (6A)	Cat 2	393.9 ± 121.5	4.88 ± 0.37	319 ± 6
GAO20230620t183713p0000-A	35.48078	-119.74312	Oil & Gas (1B2)	Cat 2	69.5 ± 34.7	2.58 ± 0.25	26 ± 7
GAO20230620t185446p0000-A	35.65431	-119.76359	Oil & Gas (1B2)	Cat 2	N/A	2.93 ± 0.19	21 ± 5
GAO20230620t185446p0000-B	35.68212	-119.78077	Oil & Gas (1B2)	Cat 2	N/A	3.04 ± 0.19	20 ± 6
GAO20230620t190111p0000-A	35.60322	-119.70536	Oil & Gas (1B2)	Cat 1	183.4 ± 80.5	2.96 ± 0.37	12 ± 5
GAO20230620t190801p0000-A	35.60335	-119.70534	Oil & Gas (1B2)	Cat 1	227.4 ± 184.3	2.96 ± 0.37	12 ± 5
GAO20230620t191528p0000-D	35.51010	-119.40827	Solid Waste (6A)	Cat 1	139.9 ± 53.1	2.50 ± 0.30	274 ± 145
GAO20230620t191528p0000-E	35.50866	-119.40858	Solid Waste (6A)	Cat 2	143.8 ± 50.3	2.50 ± 0.30	274 ± 145
GAO20230620t192131p0000-A	35.59761	-118.96795	Oil & Gas (1B2)	Cat 2	N/A	4.05 ± 0.18	342 ± 5
GAO20230620t192131p0000-B	35.59417	-119.06612	Oil & Gas (1B2)	Cat 2	N/A	3.71 ± 0.20	338 ± 5
GAO20230620t192507p0000-A	35.57389	-118.96029	Oil & Gas (1B2)	Cat 2	158.5 ± 28.5	4.05 ± 0.18	340 ± 5
GAO20230620t193658p0000-A	35.35221	-118.76248	Solid Waste (6A)	Cat 2	193.9 ± 109.8	3.68 ± 0.66	291 ± 12
GAO20230620t195431p0000-A	35.51584	-119.03854	Oil & Gas (1B2)	Cat 1	262.1 ± 24.0	3.86 ± 0.16	336 ± 4
GAO20230620t200046p0000-A	35.55564	-119.08268	Oil & Gas (1B2)	Cat 2	N/A	3.66 ± 0.29	338 ± 5
GAO20230620t200046p0000-B	35.51591	-119.03871	Oil & Gas (1B2)	Cat 1	222.3 ± 90.9	4.03 ± 0.21	334 ± 3
GAO20230620t200046p0000-C	35.48428	-119.02975	Oil & Gas (1B2)	Cat 2	64.0 ± 49.5	4.04 ± 0.23	333 ± 3
GAO20230620t200611p0000-B	35.52421	-119.08500	Oil & Gas (1B2)	Cat 2	N/A	3.72 ± 0.29	337 ± 6
GAO20230620t200611p0000-C	35.52111	-119.08424	Oil & Gas (1B2)	Cat 1	523.6 ± 283.3	3.72 ± 0.29	337 ± 6
GAO20230620t200611p0000-E	35.51827	-119.07880	Oil & Gas (1B2)	Cat 2	90.4 ± 74.0	3.72 ± 0.29	337 ± 6
GAO20230620t200611p0000-G	35.47064	-119.03933	Oil & Gas (1B2)	Cat 2	N/A	4.04 ± 0.23	333 ± 3
GAO20230620t200611p0000-H	35.46608	-119.03638	Oil & Gas (1B2)	Cat 2	184.7 ± 123.0	3.90 ± 0.29	332 ± 4

GAO20230620t200611p0000-I	35.45404	-119.01175	Oil & Gas (1B2)	Cat 1	266.1 ± 165.8	4.05 ± 0.28	330 ± 3
GAO20230620t200611p0000-J	35.44601	-119.01492	Oil & Gas (1B2)	Cat 2	N/A	3.90 ± 0.29	332 ± 4
GAO20230620t200611p0000-N	35.47055	-119.03984	Oil & Gas (1B2)	Cat 2	N/A	4.04 ± 0.23	333 ± 3
GAO20230620t201211p0000-A	35.46544	-119.05519	Oil & Gas (1B2)	Cat 2	N/A	3.79 ± 0.28	337 ± 5
GAO20230620t201211p0000-B	35.47051	-119.03996	Oil & Gas (1B2)	Cat 2	29.6 ± 6.4	4.04 ± 0.23	333 ± 3
GAO20230620t201211p0000-C	35.48546	-119.06374	Oil & Gas (1B2)	Cat 2	N/A	3.79 ± 0.28	337 ± 5
GAO20230620t201211p0000-D	35.50196	-119.08437	Oil & Gas (1B2)	Cat 2	N/A	3.80 ± 0.29	337 ± 5
GAO20230620t201211p0000-E	35.52119	-119.08455	Oil & Gas (1B2)	Cat 1	433.6 ± 160.6	3.72 ± 0.29	337 ± 6
GAO20230620t201211p0000-F	35.52406	-119.08511	Oil & Gas (1B2)	Cat 2	192.8 ± 94.3	3.72 ± 0.29	337 ± 6
GAO20230620t201211p0000-J	35.50379	-119.07653	Oil & Gas (1B2)	Cat 2	N/A	3.80 ± 0.29	337 ± 5
GAO20230620t201211p0000-L	35.50061	-119.07122	Oil & Gas (1B2)	Cat 2	N/A	3.80 ± 0.29	337 ± 5
GAO20230620t201211p0000-M	35.46600	-119.03652	Oil & Gas (1B2)	Cat 2	N/A	3.90 ± 0.29	332 ± 4
GAO20230620t201211p0000-O	35.47063	-119.03934	Oil & Gas (1B2)	Cat 2	N/A	4.04 ± 0.23	333 ± 3
GAO20230620t201211p0000-P	35.46533	-119.03462	Oil & Gas (1B2)	Cat 2	N/A	3.90 ± 0.29	332 ± 4
GAO20230620t201746p0000-A	35.45696	-119.05449	Oil & Gas (1B2)	Cat 1	331.8 ± 75.1	3.68 ± 0.29	336 ± 5
GAO20230621t163531p0000-B	34.40509	-118.99204	Solid Waste (6A)	Cat 2	722.1 ± 378.6	1.61 ± 0.78	201 ± 43
GAO20230621t164136p0000-A	34.43308	-118.65078	Solid Waste (6A)	Cat 2	1481.1 ± 677.2	2.09 ± 0.74	264 ± 24
GAO20230621t164901p0000-A	34.30058	-118.79459	Solid Waste (6A)	Cat 1	942.4 ± 521.0	1.34 ± 0.70	248 ± 36
GAO20230621t172146p0000-A	34.33049	-118.51793	Solid Waste (6A)	Cat 1	513.0 ± 291.0	1.60 ± 0.81	200 ± 91
GAO20230621t172146p0000-B	34.33125	-118.51634	Solid Waste (6A)	Cat 2	217.6 ± 126.2	1.60 ± 0.81	200 ± 91
GAO20230621t180243p0000-A	33.74664	-118.26684	Other	Cat 1	1554.3 ± 366.5	3.12 ± 0.65	166 ± 23
GAO20230621t180907p0000-A	33.94006	-117.83840	Solid Waste (6A)	Cat 2	198.3 ± 56.8	1.98 ± 0.50	248 ± 10
GAO20230621t180907p0000-B	33.94074	-117.83215	Solid Waste (6A)	Cat 2	198.4 ± 70.3	1.98 ± 0.50	248 ± 10
GAO20230621t182715p0000-A	33.79553	-117.46333	Solid Waste (6A)	Cat 2	199.2 ± 105.2	2.77 ± 0.24	268 ± 134
GAO20230621t182715p0000-B	33.79676	-117.46203	Solid Waste (6A)	Cat 2	N/A	2.77 ± 0.24	268 ± 134
GAO20230621t183342p0000-A	33.71780	-117.69665	Solid Waste (6A)	Cat 2	498.3 ± 172.8	2.26 ± 0.73	253 ± 13
GAO20230621t183342p0000-B	33.71957	-117.70348	Solid Waste (6A)	Cat 2	368.5 ± 122.3	2.26 ± 0.73	253 ± 13
GAO20230621t185701p0000-A	32.85406	-117.16824	Solid Waste (6A)	Cat 2	196.2 ± 127.2	1.90 ± 0.98	247 ± 39
GAO20230621t185701p0000-B	32.85399	-117.16456	Solid Waste (6A)	Cat 2	355.1 ± 199.5	1.90 ± 0.98	247 ± 39
GAO20230621t190210p0000-A	32.86537	-117.02987	Solid Waste (6A)	Cat 2	248.6 ± 91.3	3.01 ± 0.93	268 ± 7

GAO20230621t194657p0000-A	34.14033	-117.41998	Solid Waste (6A)	Cat 2	89.8 ± 71.2	1.94 ± 1.07	222 ± 20
GAO20230621t194657p0000-B	34.13971	-117.42426	Solid Waste (6A)	Cat 2	70.9 ± 51.6	1.94 ± 1.07	222 ± 20
GAO20230623t190929p0000-A	37.75789	-121.64089	Solid Waste (6A)	Cat 1	1208.7 ± 471.5	2.66 ± 0.90	262 ± 16
GAO20230623t190929p0000-B	37.75666	-121.64383	Solid Waste (6A)	Cat 2	N/A	2.66 ± 0.90	262 ± 16
GAO20230623t190929p0000-C	37.75874	-121.64310	Solid Waste (6A)	Cat 2	70.1 ± 46.4	2.66 ± 0.90	262 ± 16
GAO20230623t191715p0000-A	37.99386	-121.93858	Solid Waste (6A)	Cat 2	271.5 ± 57.4	4.16 ± 0.53	271 ± 15
GAO20230623t191715p0000-B	37.98983	-121.93676	Solid Waste (6A)	Cat 2	209.6 ± 59.5	4.34 ± 0.64	267 ± 11
GAO20230623t191715p0000-D	37.99600	-121.93520	Solid Waste (6A)	Cat 2	457.3 ± 72.5	4.16 ± 0.53	271 ± 15
GAO20230623t192244p0000-A	38.21495	-121.98053	Solid Waste (6A)	Cat 2	508.6 ± 173.2	4.98 ± 0.22	256 ± 4
GAO20230623t202029p0000-A	38.31011	-121.82985	Solid Waste (6A)	Cat 1	154.1 ± 59.9	5.13 ± 0.25	251 ± 4
GAO20230623t202029p0000-B	38.31253	-121.82584	Solid Waste (6A)	Cat 2	48.8 ± 17.4	5.13 ± 0.25	251 ± 4
GAO20230623t203235p0000-A	38.16578	-122.56541	Solid Waste (6A)	Cat 2	79.7 ± 45.0	1.41 ± 0.71	210 ± 85
GAO20230623t210605p0000-A	37.46326	-121.94275	Solid Waste (6A)	Cat 2	700.4 ± 157.2	5.20 ± 0.95	315 ± 14
GAO20230623t210605p0000-B	37.46033	-121.94300	Solid Waste (6A)	Cat 2	814.3 ± 265.1	5.20 ± 0.95	315 ± 14
GAO20230623t210605p0000-C	37.45803	-121.93875	Solid Waste (6A)	Cat 2	2242.6 ± 627.3	5.30 ± 1.01	323 ± 13
GAO20230623t211504p0000-A	37.18785	-121.66997	Solid Waste (6A)	Cat 2	84.9 ± 28.0	2.83 ± 0.49	173 ± 13
GAO20230625t215340p0000-A	34.43716	-118.64392	Solid Waste (6A)	Cat 2	675.9 ± 130.6	5.21 ± 0.79	246 ± 10
GAO20230625t215340p0000-B	34.43178	-118.64546	Solid Waste (6A)	Cat 2	358.8 ± 112.5	5.21 ± 0.79	246 ± 10
GAO20230625t220042p0000-A	34.30017	-118.79326	Solid Waste (6A)	Cat 2	1450.3 ± 435.2	5.72 ± 0.23	262 ± 9
GAO20230625t220042p0000-B	34.30192	-118.78775	Solid Waste (6A)	Cat 2	928.1 ± 84.3	5.72 ± 0.23	262 ± 9
GAO20230625t221145p0000-B	34.32859	-118.51605	Solid Waste (6A)	Cat 2	324.2 ± 66.1	4.50 ± 0.57	195 ± 13
GAO20230625t221145p0000-C	34.32975	-118.52000	Solid Waste (6A)	Cat 2	377.9 ± 75.4	4.50 ± 0.57	195 ± 13
GAO20230625t221550p0000-A	34.33026	-118.51558	Solid Waste (6A)	Cat 2	N/A	4.50 ± 0.57	195 ± 13
GAO20230625t221550p0000-B	34.32900	-118.51677	Solid Waste (6A)	Cat 2	N/A	4.50 ± 0.57	195 ± 13
GAO20230625t221550p0000-C	34.33341	-118.51990	Solid Waste (6A)	Cat 2	N/A	4.50 ± 0.57	195 ± 13
GAO20230625t221550p0000-D	34.33083	-118.51987	Solid Waste (6A)	Cat 2	N/A	4.50 ± 0.57	195 ± 13
GAO20230625t225037p0000-A	33.79693	-118.23701	Electricity Generation (1A1)	Cat 2	N/A	3.73 ± 0.75	257 ± 33
GAO20230625t225510p0000-A	33.79689	-118.23729	Electricity Generation (1A1)	Cat 2	521.7 ± 172.5	3.73 ± 0.75	257 ± 33
GAO20230625t231917p0000-A	34.13962	-117.42559	Solid Waste (6A)	Cat 2	249.6 ± 72.8	3.95 ± 0.60	250 ± 6
GAO20230625t231917p0000-B	34.13935	-117.42374	Solid Waste (6A)	Cat 2	230.9 ± 54.7	3.95 ± 0.60	250 ± 6

GAO20230625t233626p0000-B	33.71832	-117.69638	Solid Waste (6A)	Cat 2	N/A	3.79 ± 0.20	268 ± 7
GAO20230625t233626p0000-C	33.71639	-117.69808	Solid Waste (6A)	Cat 2	N/A	3.79 ± 0.20	268 ± 7
GAO20230627t172344p0000-A	35.28633	-119.51026	Oil & Gas (1B2)	Cat 2	31.6 ± 22.3	1.47 ± 0.47	52 ± 28
GAO20230627t172344p0000-B	35.31154	-119.54687	Oil & Gas (1B2)	Cat 2	36.9 ± 9.5	1.43 ± 0.37	49 ± 21
GAO20230627t173229p0000-B	35.28344	-119.51764	Oil & Gas (1B2)	Cat 2	40.1 ± 27.0	1.29 ± 0.43	68 ± 34
GAO20230627t175247p0000-A	35.16262	-119.41057	Oil & Gas (1B2)	Cat 1	410.5 ± 165.0	1.75 ± 0.35	87 ± 14
GAO20230627t175247p0000-B	35.20102	-119.46429	Oil & Gas (1B2)	Cat 1	328.1 ± 135.8	1.54 ± 0.34	105 ± 18
GAO20230627t175247p0000-C	35.35299	-119.65840	Oil & Gas (1B2)	Cat 2	85.7 ± 52.0	1.17 ± 0.33	76 ± 22
GAO20230627t180306p0000-A	35.18364	-119.44885	Oil & Gas (1B2)	Cat 2	245.8 ± 80.9	1.54 ± 0.26	93 ± 22
GAO20230627t180306p0000-B	35.19049	-119.46179	Oil & Gas (1B2)	Cat 2	42.4 ± 13.5	1.54 ± 0.26	93 ± 22
GAO20230627t180306p0000-C	35.26583	-119.57356	Oil & Gas (1B2)	Cat 1	273.3 ± 125.7	1.74 ± 0.45	58 ± 36
GAO20230627t181320p0000-A	35.32492	-119.67643	Oil & Gas (1B2)	Cat 2	59.1 ± 17.4	1.85 ± 0.38	56 ± 19
GAO20230627t181320p0000-D	35.27783	-119.60069	Oil & Gas (1B2)	Cat 2	N/A	1.75 ± 0.42	45 ± 26
GAO20230627t182404p0000-A	35.06900	-119.34233	Oil & Gas (1B2)	Cat 1	93.8 ± 38.2	1.46 ± 0.25	39 ± 18
GAO20230627t183317p0000-A	35.08248	-119.39165	Oil & Gas (1B2)	Cat 1	323.7 ± 97.8	1.61 ± 0.24	76 ± 18
GAO20230627t184228p0000-A	35.09878	-119.44158	Oil & Gas (1B2)	Cat 2	180.5 ± 47.8	1.86 ± 0.40	85 ± 18
GAO20230627t184228p0000-B	35.09288	-119.43505	Oil & Gas (1B2)	Cat 2	177.2 ± 61.2	1.86 ± 0.40	85 ± 18
GAO20230627t184228p0000-C	35.05910	-119.38006	Oil & Gas (1B2)	Cat 2	54.4 ± 23.0	1.66 ± 0.29	65 ± 20
GAO20230627t185039p0000-A	35.13467	-119.50095	Oil & Gas (1B2)	Cat 1	86.6 ± 31.1	2.27 ± 0.46	88 ± 18
GAO20230627t192737p0000-B	35.20179	-118.82786	Other	Cat 2	437.5 ± 192.1	2.32 ± 0.28	298 ± 21
GAO20230627t194247p0000-A	35.39874	-119.04919	Electricity Generation (1A1)	Cat 2	186.6 ± 64.9	2.75 ± 0.46	304 ± 19
GAO20230627t201802p0000-A	35.27487	-119.47753	Oil & Gas (1B2)	Cat 1	100.3 ± 26.6	2.97 ± 0.63	12 ± 5
GAO20230628t163422p0000-A	35.52421	-119.08513	Oil & Gas (1B2)	Cat 2	271.6 ± 129.3	2.04 ± 0.55	320 ± 9
GAO20230628t163422p0000-B	35.51852	-119.07917	Oil & Gas (1B2)	Cat 2	77.3 ± 36.0	2.04 ± 0.55	320 ± 9
GAO20230628t163422p0000-C	35.50065	-119.07113	Oil & Gas (1B2)	Cat 1	113.6 ± 99.7	2.10 ± 0.58	321 ± 8
GAO20230628t163422p0000-D	35.47359	-119.05793	Oil & Gas (1B2)	Cat 2	182.2 ± 134.5	2.15 ± 0.57	318 ± 9
GAO20230628t163956p0000-A	35.51871	-119.07881	Oil & Gas (1B2)	Cat 2	150.4 ± 62.0	2.04 ± 0.55	320 ± 9
GAO20230628t163956p0000-B	35.52420	-119.08486	Oil & Gas (1B2)	Cat 2	269.4 ± 147.2	2.04 ± 0.55	320 ± 9
GAO20230628t163956p0000-E	35.44614	-119.01495	Oil & Gas (1B2)	Cat 2	77.3 ± 50.8	1.99 ± 0.58	301 ± 21
GAO20230628t164536p0000-A	35.44049	-118.99248	Oil & Gas (1B2)	Cat 1	299.4 ± 71.4	1.80 ± 0.41	272 ± 30

GAO20230628t164536p0000-B	35.50948	-119.03658	Oil & Gas (1B2)	Cat 1	144.7 ± 98.7	2.05 ± 0.62	312 ± 9
GAO20230628t164536p0000-C	35.51596	-119.03870	Oil & Gas (1B2)	Cat 2	233.6 ± 101.4	2.05 ± 0.62	312 ± 9
GAO20230628t164536p0000-D	35.55554	-119.08264	Oil & Gas (1B2)	Cat 1	510.7 ± 220.5	1.97 ± 0.50	319 ± 8
GAO20230628t164536p0000-F	35.50368	-119.04153	Oil & Gas (1B2)	Cat 2	77.3 ± 41.9	2.05 ± 0.62	312 ± 9
GAO20230628t165141p0000-A	35.51601	-119.03860	Oil & Gas (1B2)	Cat 2	177.0 ± 62.4	2.05 ± 0.62	312 ± 9
GAO20230628t165141p0000-B	35.50950	-119.03649	Oil & Gas (1B2)	Cat 1	117.3 ± 46.1	2.05 ± 0.62	312 ± 9
GAO20230628t171636p0000-A	35.35162	-118.76586	Solid Waste (6A)	Cat 2	145.7 ± 124.1	3.18 ± 0.46	243 ± 15
GAO20230628t171636p0000-B	35.35239	-118.76264	Solid Waste (6A)	Cat 2	278.8 ± 145.6	3.18 ± 0.46	243 ± 15
GAO20230628t174110p0000-A	35.57329	-118.99147	Oil & Gas (1B2)	Cat 2	N/A	2.40 ± 0.43	292 ± 18
GAO20230628t180025p0000-A	35.60334	-119.70543	Oil & Gas (1B2)	Cat 1	181.5 ± 81.3	1.70 ± 0.34	320 ± 17
GAO20230628t180655p0000-A	35.60336	-119.70539	Electricity Generation (1A1)	Cat 2	182.1 ± 92.4	1.70 ± 0.34	320 ± 17
GAO20230628t181305p0000-B	35.65442	-119.76364	Oil & Gas (1B2)	Cat 1	190.3 ± 53.6	1.88 ± 0.27	310 ± 21
GAO20230628t184040p0000-A	35.47359	-119.76007	Oil & Gas (1B2)	Cat 2	N/A	1.48 ± 0.60	77 ± 118
GAO20230628t185900p0000-A	35.45698	-119.05446	Oil & Gas (1B2)	Cat 2	70.6 ± 35.7	3.01 ± 0.40	318 ± 6
GAO20230628t190435p0000-A	35.47338	-119.05796	Oil & Gas (1B2)	Cat 1	191.3 ± 136.3	3.64 ± 0.58	325 ± 6
GAO20230628t190435p0000-B	35.50064	-119.07111	Oil & Gas (1B2)	Cat 1	522.0 ± 180.9	3.63 ± 0.58	326 ± 5
GAO20230628t190435p0000-C	35.52415	-119.08506	Oil & Gas (1B2)	Cat 1	294.0 ± 193.0	3.57 ± 0.58	325 ± 6
GAO20230628t190435p0000-D	35.52423	-119.08420	Oil & Gas (1B2)	Cat 2	296.4 ± 162.1	3.57 ± 0.58	325 ± 6
GAO20230628t190435p0000-G	35.46546	-119.05519	Oil & Gas (1B2)	Cat 2	83.1 ± 30.9	3.64 ± 0.58	325 ± 6
GAO20230628t191011p0000-A	35.55399	-119.09583	Oil & Gas (1B2)	Cat 1	388.6 ± 178.1	3.51 ± 0.59	324 ± 6
GAO20230628t191011p0000-B	35.52422	-119.08496	Oil & Gas (1B2)	Cat 1	217.0 ± 91.9	3.57 ± 0.58	325 ± 6
GAO20230628t191011p0000-C	35.47075	-119.03920	Oil & Gas (1B2)	Cat 2	N/A	3.84 ± 0.62	322 ± 5
GAO20230628t191011p0000-D	35.44615	-119.01487	Oil & Gas (1B2)	Cat 2	307.1 ± 187.9	3.72 ± 0.64	320 ± 7
GAO20230628t191556p0000-A	35.51595	-119.03873	Oil & Gas (1B2)	Cat 2	349.8 ± 104.1	3.85 ± 0.60	322 ± 4
GAO20230628t191556p0000-B	35.50942	-119.03658	Oil & Gas (1B2)	Cat 2	540.6 ± 126.2	3.85 ± 0.60	322 ± 4
GAO20230628t191556p0000-C	35.44048	-118.99250	Oil & Gas (1B2)	Cat 1	603.9 ± 151.7	3.61 ± 0.75	313 ± 10
GAO20230628t192150p0000-A	35.51601	-119.03857	Oil & Gas (1B2)	Cat 2	364.3 ± 124.4	3.85 ± 0.60	322 ± 4
GAO20230628t192150p0000-B	35.41510	-118.94522	Oil & Gas (1B2)	Cat 2	72.2 ± 66.9	3.46 ± 0.81	306 ± 14

^A Quality designation "Cat 1" reflects robust plume shape (quantification provided) while "Cat 2" plumes are often not quantified due to anomalous plume shape.