Kirby Canyon Recycling & Disposal Facility
A Waste Management Company

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1. ☐ RECEIVED IN ENFORCEMENT: 01/27/2021

January 25, 2021

Director of Compliance and Enforcement
Bay Area Air Quality Management District
375 Beale Street. Suite 600
San Francisco, CA 94105
Attn: Title V Reports

Director of Enforcement Division
USEPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105
Attn: TRI and Air Section (ENF-2-1)

SUBJECT: Combined Title V Semi-Annual and Partial 8-34 Annual Report 40 CFR 63 Subpart AAAA Semi-Annual Report
The Kirby Canyon Recycling & Disposal Facility
910 Coyote Creek Golf Drive, San Jose, CA 95037
Facility Number A1812

Dear Sir or Madam:

The Kirby Canyon Recycling & Disposal Facility (KCRDF) is pleased to submit the attached Combined Title V Semi-Annual and Partial 8-34 Annual Report for the period of July 1, 2020 through December 31, 2020 to the Bay Area Air Quality Management District (BAAQMD) and the United States Environmental Protection Agency (USEPA), Region IX. As required by 40 Code of Federal Regulations (CFR) Part 63 Subpart AAAA, the Semi-Annual Startup, Shutdown and Malfunction (SSM) Report is also enclosed. The Combined Title V Semi-Annual and Partial 8-34 Annual Report satisfies the requirements of the Title V Permit listed in Condition Number 1437 Part 16 and Standard Condition I.F.

Based on information and belief formed after reasonable inquiry, I certify under penalty of law that the statements included in this report are true, accurate, and complete.

Sincerely,
The Kirby Canyon Recycling & Disposal Facility

Enrique Perez
Responsible Official

Attachments:
Combined Title V Semi-Annual and Partial 8-34 Annual Report

Combined
Title V Semi-Annual and Partial 8-34 Annual Report
For the Kirby Canyon Recycling & Disposal Facility
910 Coyote Creek Golf Drive
San Jose, California 95037
Facility Number A1812
July 1, 2020 through December 31, 2020

Submitted on:
January 26, 2021
Prepared for:
The Kirby Canyon Recycling & Disposal Facility

For Submittal to:
The Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105
Attn: Title V Reports

and

USEPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105
Attn: Director Enforcement Division, TRI & Air Section (ENF-2-1)

Prepared by:

WASTE MANAGEMENT

Kirby Canyon Recycling & Disposal Facility

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1 INTRODUCTION

1.1 Purpose

This document is a Combined Semi-Annual Title V Report and Partial 8-34 Annual Report for the Kirby Canyon Recycling & Disposal Facility (KCRDF), pursuant to Title V Permit Standard Condition 1.F and Condition Number 1437 Part 16. This Combined Report satisfies the requirements of Regulation 8, Rule 34, Section 411 of the Bay Area Air Quality Management District (BAAQMD) and Title 40 Code of Federal Regulations (CFR) Part 60 Subpart CC, Emission Guidelines (EG) for municipal solid waste (MSW) landfills. This Combined Report meets the requirements of Title V Standard Condition 1.F, BAAQMD Regulation 8-34-411, and 40 CFR §60.757(f) and covers compliance activities conducted from July 1, 2020 through December 31, 2020. This Combined Report also includes the Semi-Annual Report of Start-up, Shutdown and Malfunction (SSM) Plan activities pursuant to National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, Subpart AAAA for Landfills.

Section 2 of this Combined Report contains the elements required to satisfy both BAAQMD Regulation 8-34-411 and 40 CFR §60.757(f). A Performance Test Report for the A-12 Flare that meets the requirements of both BAAQMD Regulation 8-34-413 and 40 CFR §60.758(g) was conducted on March 4, 2020. Section 3 of this Combined Report includes performance test data collected during the reporting period as well as a discussion of the data from the Performance Test for the A-12 Flare, in compliance with BAAQMD Regulation 8-34-412, and Title V Permit Condition Number 1437 Parts 12 and 13. The March 4, 2020, Performance Test Report results for the A-12 Flare are included in Appendix O of the Combined Report.

Section 4 contains the Semi-Annual Report of SSM Plan activities.

1.2 Record Keeping and Reporting

Records are maintained and available for inspection in accordance with BAAQMD Regulation 8-34-501.12 and 40 CFR §60.758. The primary location for records storage is at the KCRDF. Records are maintained at this location for a minimum of five years.

1.3 Report Preparation

This Combined Report has been prepared by the KCRDF.

2 SEMI-ANNUAL MONITORING REPORT

In accordance with the KCRDF Title V Permit Standard Condition 1.F; Condition 1437, Part 16; BAAQMD Regulation 8-34-411 and 40 CFR §60.757(f), this report is a Combined Semi-Annual Title V Report and Partial 8-34 Annual Report that is required to be submitted by the KCRDF. The report contains monitoring data for the operation of the landfill gas collection and control system (GCCS). The operational records have been reviewed and summarized. The timeframe included in this report is July 1, 2020 through December 31, 2020. The following table lists the rules and regulations that are required to be included in this Combined Report.

Table 2-1 Semi-Annual Report Requirements

RULE	REQUIREMENT	LOCATION IN REPORT
8-34-501.1 §60.757(f)(4)	All collection system downtime, including individual well shutdown times and the reason for the shutdown.	Section 2.1, Appendices B & C
8-34-501.2 §60.757(f)(3)	All emission control system downtime and the reason for the shutdown.	Section 2.2, Appendix B
8-34-501.3, 8-34-507, §60.757(f)(1)	Continuous temperature for all operating flares and any enclosed combustor subject to Section 8-34-507.	Section 2.3, Appendix D
8-34-501.4, 8-34-510	Testing performed to satisfy any of the requirements of this Rule.	Sections 2.4 & 2.10, Appendix E
8-34-501.5, 8-34-505	Monthly landfill gas (LFG) flow rates and well concentration readings for facilities subject to 8-34-404.	Sections 2.5, 2.10 & 2.11, Appendices I & L
8-34-501.6, 8-34-503, 8-34-506, §60.757(f)(5)	For operations subject to Section 8-34-503 and 8-34-506, records of all monitoring dates, leaks in excess of the limits in Section 8-34-301.2 or 8-34-303 that are discovered by the operator, including the location of the leak, leak concentration in parts per million by volume (ppmv), date of discovery, the action taken to repair the leak, date of the repair, date of any required re-monitoring, and the re-monitored concentration in ppmv.	Section 2.6 & 2.7, Appendices F & G
8-34-501.7	Annual waste acceptance rate and current amount of waste in place.	Section 2.8
8-34-501.8	Records of the nature, location, amount, and date of deposition of non-degradable wastes, for any landfill areas excluded from the collection system requirement as documented in the Collection and Control Design Plan.	Section 2.9
8-34-501.9, 8-34-505, §60.757(f)(1)	For operations subject to Section 8-34-505, records of all monitoring dates and any excesses of the limits stated in Section 8-34-305 that are discovered by the operator, including well identification number, the measured excess, the action taken to repair the excess, and the date of repair.	Section 2.10, Appendices I & K
8-34-501.10, 8-34-508, §60.757(f)(1)	Continuous gas flow rate records for any site subject to Section 8-34-508.	Section 2.11, Appendix L
8-34-501.11, 8-34-509	For operations subject to Section 8-34-509, records or key emission control system operating parameters.	Section 2.2.2

Table 2-1 (Continued)

RULE	REQUIREMENT	LOCATION IN REPORT
8-34-501.12	The records required above shall be made available and retained for a period of five years.	Section 1.2
§60.757(f)(2)	Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under §60.756.	Section 2.2.1
§60.757(f)(6)	The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a)(3), (b), (c)(4) of §60.755.	Section 2.13
§60.10 (d)(5)(i)	Start-up, Shutdown, and Malfunction Events	Section 4, Appendices B & C

2.1 Collection System operation (BAAQMD 8-34-501.1 & §60.757(f)(4))

Appendix A contains a map of the KCRDF's existing landfill GCCS. Section 2.1.1 summarizes the collection system downtime. Section 2.1.2 includes the individual well shutdown times and the reason for each shutdown.

2.1.1 Collection System Downtime

During the period covered in this report, the landfill GCCS was not shutdown for more than five days on any one occasion. The downtime for the 2020 partial calendar year (July 1, 2020 through December 31, 2020) is 31.0 hours. The downtime for the 2020 calendar year (January 1, 2020 through December 31, 2020) is 75.3 hours out of an allowable 240 hours per year pursuant to BAAQMD Regulation 8-34-113.2 (Limited Exemption, Inspection and Maintenance). The Flare SSM Log that list dates, times, and lengths of shutdowns for the reporting period is included in Appendix B.

2.1.2 Well Start-Up and Disconnection Log

There were thirty-five (35) Well SSM events during the reporting period. Wellfield construction activity is discussed in Section 2.13.

The Wellfield SSM Log that list dates, times, and lengths of shutdowns for the reporting period is included in Appendix C.

2.2 Emission Control Device Downtime (BAAQMD 8-34-501.2 & §60.757(f) (3))

No bypassing of the control system or other emissions of raw LFG occurred during the reporting period. The SSM Log that includes all downtimes and reasons for each shutdown for the A-12 Flare is presented in Appendix B. As indicated in Section 2.1.1, the collection system downtime for the 2020 partial calendar year (July 1, 2020 through December 31, 2020) is 31.0 hours. The downtime for the 2020 calendar year (January 1, 2020 through December 31, 2020) is 75.3 hours out of an allowable 240 hours per year

pursuant to BAAQMD Regulation 8-34-113.2 (Limited Exemption, Inspection and Maintenance).

2.2.1 LFG Bypass Operations (§60.757(f)(2))

Title 40 CFR §60.757(f)(2) is not applicable at the KCRDF because a bypass line has not been installed. LFG cannot be diverted from the control equipment.

2.2.2 Key Emission Control Operating Parameters (BAAQMD 8-34-501.11 & 8-34-509)

The A-12 Flare is subject to continuous temperature monitoring as required in BAAQMD Regulation 8-34-507 and §60.757(f)(1). See Section 2.3 for flare temperature monitoring results.

2.3 Temperature Monitoring Results (BAAQMD 8-34-501.3, 8-34-507, & §60.757(f)(1))

The combustion zone temperature of the A-12 Flare is monitored with Type K Thermocouples. The temperature is displayed and digitally recorded with a General Electric (GE) data panel and Yokogawa FX112 continuous digital recorder. The temperature readings are downloaded and archived each working day.

Flare operating records indicate that the A-12 Flare three-hour average combustion zone temperature did not drop below the 1,400 degrees Fahrenheit (°F) limit, as required by Title V Permit A1812 Condition 1437 Part 10, during the reporting period when the A-12 Flare was in operation.

The flare operating records also indicate that the A-12 Flare combustion zone temperature did not drop below 1,549°F on a three-hour average basis, while in operation during the reporting period (July 1, 2020 through December 31, 2020), pursuant to the limits established during the March 4, 2020 Performance Test.

Appendix D contains flare temperature deviation/ inoperative monitor reports for the reporting period while the A-12 Flare was in operation.

2.4 Monthly Cover Integrity Monitoring (BAAQMD 8-34-510)

The Monthly Cover Integrity Monitoring Reports are included in Appendix E. The cover integrity monitoring was performed on the following dates:

- July 29, 2020
- August 27, 2020
- September 30, 2020
- October 30, 3030
- November 30, 2020
- December 22, 2020

During September 2020 monthly monitoring event, it was noted that there were two locations with leachate breakouts at the site. The site submitted a construction notification to address repairs at these the two locations to prevent a re-occurrence. The corrective actions were completed on October 5, 2020. No other breaches of cover integrity (e.g. cover cracks or exposed garbage) were found during the reporting period. See Appendix E, Cover Integrity Monitoring Reports, for more detail.

2.5 Less than Continuous Operation (BAAQMD 8-34-501.5)

The KCRDF does not operate under BAAQMD Regulation 8-34-404 (Less Than Continuous Operation) and therefore is not required to submit monthly LFG flow rates.

2.6 Surface Emissions Monitoring (BAAQMD 8-34-501.6, 8-34-506, & §60.757(f)(5))

Quarterly Surface Emissions Monitoring (SEM), pursuant to BAAQMD Regulation 8-34-506, occurred during the reporting period on the following dates:

- Third Quarter 2020 – August 14, 2020
- Fourth Quarter 2020- October 21, 2020

A Thermo Scientific Toxic Vapor Analyzer 1000 (TVA1000) flame ionization detector (FID) was used to perform the SEM during the Third and Fourth Quarter 2020 event. The landfill surface was monitored along the path delineated on the SEM walking path map. Any areas suspected of having emission problems by visible observations were also monitored. Immediately prior to the Third and Fourth Quarter 2020 monitoring events, the monitoring equipment was calibrated using zero air and a 500 parts per million by volume (ppmv) methane (CH_4) calibration gas.

The Third Quarter 2020 SEM was performed on August 4, 2020 and five (5) exceedances (FID readings greater than 500 ppm CH_4 above background measurements) were detected. Corrective actions were completed. The ten-day re-monitoring event was conducted on August 12, 2020, and no further exceedances were detected. The thirty-day follow-up monitoring event was conducted on September 3, 2020 and no exceedances were detected.

The Fourth Quarter 2020 SEM was performed on October 21, 2020 and eleven (11) exceedances (FID readings greater than 500 ppm CH_4 above background measurements) were detected. Corrective actions were completed. The first ten-day re-monitoring event was conducted on October 30, 2020, and seven (7) exceedances were detected. The second ten-day re-monitoring event was conducted on November 5, 2020, and no further exceedances were detected. The thirty-day follow-up monitoring event was conducted on November 17, 2020 and no exceedances were detected.

The Third and Fourth Quarter 2020 SEM Reports are included in Appendix F.

2.7 Component Leak Testing (BAAQMD 8-34-501.6 & 8-34-503)

Quarterly component leak testing, pursuant to BAAQMD Regulation 8-34-503, occurred during the reporting period on the following dates:

- Third Quarter 2020 – August 4, 2020
- Fourth Quarter 2020- October 21, 2020

A Thermo Scientific TVA1000 FID was used to perform both the Third and Fourth Quarter 2020 component leak testing events. No exceedances of 1,000 ppm were identified during the Third and Fourth 2020 monitoring events.

Appendix G contains the Quarterly Component Leak Check Monitoring Reports.

2.8 Solid Waste Placement Records (BAAQMD 8-34-501.7)

The solid waste placement records were reviewed for the timeframe of July 1, 2020 through December 31, 2020. The current waste-in-place figure includes solid waste placed in the landfill through December 31, 2020. A table of monthly totals for the reporting period is provided in Appendix H. The total waste accepted and placed at the KCRDF landfill did not exceed the 2,600 ton-per-day limit during the reporting period, pursuant to Title V Permit Condition Number 1437, Part 1a. The current waste-in-place tonnage listed below did not exceed the 19.84 million tons limit as required in the Title V Permit Condition Number 1437, Part 1b. Table 2-2 summarizes the solid waste placement records for the reporting period.

Table 2-2 Solid Waste Placement

Waste Placement	Total Waste Landfilled Excluding Cover
July 1, 2020 through December 31, 2020, Waste Placement	116, 381 tons
Current Waste-In-Place as of December 31, 2020	Approximately 7.834 Million tons

2.9 Non-degradable Waste Acceptance Records (BAAQMD 8-34-501.8)

The GCCS Design Plan for the KCRDF does not include non-degradable waste areas that are excluded from the collection system. Therefore, BAAQMD Regulation 8-34-501.8 is not applicable.

2.10 Wellhead Monitoring Data (BAAQMD 8-34-501.4 & 8-34-505)

Wellhead monitoring was performed on a monthly basis pursuant to BAAQMD Regulation 8-34-505. The well readings for July 1, 2020 through December 31, 2020 are included in Appendix I. Each well was monitored in accordance with the following requirements:

- 8-34-305.1 – Each wellhead shall operate under a vacuum.
- 8-34-305.2 – The LFG temperature in each wellhead shall be less than 55 degrees Celsius (131°F).
- 8-34-305.4 – The oxygen (O_2) concentration in each wellhead shall be less than 5 percent (%) by volume.

The wellhead monitoring was performed on the following dates:

- July 9, 13, 14, 15, 16 and 17, 2020
- August 14, 19, 25, 26, 27, and 28, 2020
- September 11, 24, 25, 26, 28, and 29, 2020
- October 9, 13, 14, 16, 17, 26, 27, and 28, 2020
- November 23, 24, and 25, 2020
- December 7, 8, 10, 18, 21 and 23, 2020

2.10.1 Wellhead Deviations (BAAQMD 8-34-501.9 & §60.757(f)(1))

There were fifteen wellfield exceedances during this reporting period. Please refer to the Wellfield Deviation Log, included in Appendix K, for exceedance records for the reporting period of July 1, 2020 through December 31, 2020.

2.10.2 Higher Operating Value (HOV) Wells

During the reporting period, the following wells were approved to operate at a temperature higher operating value (HOV) of 145°F: 37, 51, 57, 58, 65, 66, 71, 74, 78, 86, 91, 95, 98, 99, 119, 127, 128, 133, and 135. Wells 56, 75, 76, 87, and 89, are approved to operate at a temperature HOV of 156°F.

Copies of all BAAQMD correspondence are located in Appendix J.

2.11 Gas Flow Monitoring Results (BAAQMD 8-34-501.10, 8-34-508, & §60.757(f)(1)

The A-12 Flare LFG flow rate is measured continuously with a Kurz flowmeter. The LFG flow is displayed and digitally recorded with a General Electric data panel and Yokogawa FX112 continuous digital recorder. The flow meter is maintained and calibrated pursuant to the manufacturer's recommendations. The flare flow meter meets the requirements of BAAQMD Regulation 8-34-508 by recording fuel flow at least every fifteen (15) minutes. Appendix D contains the specific details. The flow data for the flare are available for review at the KCRDF. Appendix L contains a summary of the monthly LFG flow rates and heat input for the flare.

Table 2-3 below is a summary of the LFG flow from July 1, 2020 through December 31, 2020, for the A-12 Flare. The A-12 Flare did not exceed the annual heat input rate of 1,087,700 million British Thermal Units (MMBTU), pursuant to Title V Permit A1812 Condition Number 1437, Part 8. The A-12 Flare did not exceed the permitted daily limit of 2,980 million British Thermal Units (BTU) for the duration of this event.

Table 2-3 Total LFG Flow A-12 Flare – July 1, 2020 through December 31, 2020

Emission Control Device	Average Flow (scfm)	Methane (%)	Total LFG Volume (scf)	Total CH_4 Volume (scf)	Heat Input (MMBTU)
A-12 Flare	2,058	46.6	541,472,671	252,488,706	255,771

scfm = standard cubic feet per minute CH_4 = methane % = percent scf = standard cubic feet
**Methane concentration from March 4, 2020 Source Test for the A-12 Flare.*

2.12 Compliance with Title V Permit Cond. No. 1437, Part 14

The condensate injection rate did not exceed five (5) gallons per minute (gpm) during injection events (excluding startup times).

Table 2-4 summarizes the condensate injection rate and 12-month (consecutive) throughput in gallons for July 1, 2020 through December 31, 2020. Per Title V Permit A1812 Condition Number 1437 Part 14, the 12-month rolling average is below the permitted condensate injection limit of 2.0 million gallons per year. The monthly condensate injection logs are included in Appendix M.

Table 2-4 Condensate Injection Rates

Month	Average Condensate Injection Rate (gpm)	Monthly Condensate Injection Throughput (gallons)	Condensate Injection Throughput 12-Month Total (gallons)
July-20	2.5	64,526	819,041
August-20	2.4	59,814	826,883
September-20	2.4	51,412	829,348
October-20	2.4	64,909	844,142
November-20	2.2	70,096	864,135
December-20	2.5	71,247	862,113

gpm= gallons per minute

2.13 Compliance with §60.757(f)(6)

"The date of installation and the location of each well or collection system expansion added pursuant to (a)(3), (b), (c)(4) of §60.755."

The GCCS was modified pursuant to Title V Permit Number A1812 during the reporting period. During the reporting period, four vertical wells were decommissioned and twelve new vertical wells were started pursuant to Title V Permit Condition 1437 Part 6.

As of December 31, 2020, the GCCS system consists of 74 vertical wells, 0 horizontal collectors, and 3 leachate collection risers (LCRS).

2.14 Compliance with Title V Permit Cond. No. 1437, Parts 2 and 3

A total of 4,922.4 tons of contaminated soil containing volatile organic compounds (VOCs) greater than 50 parts per million (ppm) was received during the reporting period. Low-VOC soil (containing less than 50 ppm of VOCs) was received during the reporting period. Required records of soil acceptance are available for review at the KCRDF.

2.15 Compliance with Title V Permit Cond. No. 23022, Part 2

Diesel Engine S-8 (the diesel engine for the portable compressor) is required to be operated less than 1,290 hours during any consecutive 12-month period. S-8 operated a total of 156 hours during the 12-month period, January 1, 2020 through December 31, 2020. S-8 operated a total of 106 hours during the 6-month reporting period, July 1, 2020 through December 31, 2020. S-8 used a total of approximately 287 gallons of diesel fuel during the 6-month reporting period.

2.16 Compliance with Title V Permit Cond. No. 1437, Part 20

Effective July 2012, the A-12 Flare Sulfur dioxide emissions shall not exceed 300 ppmv and SO_2 (dry) emissions shall not exceed 94.9 tons per year. The total reduced sulfur (TRS) shall not exceed 860 ppmv (dry) expressed as hydrogen sulfide.

To demonstrate compliance with above limits, the site will conduct annual testing of total TRS at the landfill gas main header. The source test data for (source test conducted on conducted March 4, 2020) TRS value was used to calculate the monthly SO_2 emissions in tons. The SO_2 emission did not exceed limit during the reporting period. The SO_2 tons 12-month rolling logs are included in Appendix P.

2.17 Compliance with Title V Permit Cond. No. 25872

To demonstrate compliance with permit limits for Source S-24, Construction & Demolition Debris Stockpile, the total construction and demolition debris accepted at S-24 in any consecutive 12-month period is limited to 104,000 tons and 500 tons for each day. To demonstrate compliance with Source S-25 Green and Wood Waste Stockpile the total combined green waste and wood waste debris accepted at S-25 in any consecutive 12-month period is limited to 250,000 and 4,500 tons each day. During the reporting period, the site did not exceed the permitted annual and daily limits. Required records are available for review at the KCRDF.

3 PERFORMANCE TEST REPORT

In accordance with BAAQMD Regulation 8-34-413 and 40 CFR §60.757(g) in the New Source Performance Standard (NSPS), a Performance Test Report is required to be submitted from subject facilities containing performance and monitoring data for the operation of the GCCS. The operational records listed in Table 3-1 have been reviewed, summarized, and are included in this Performance Test Report.

Table 3-1 Performance Test Requirements

RULE	REQUIREMENT	LOCATION IN REPORT
8-34-412, §60.8, §60.752(b)(2)(iii)(B), §60.754(d)	Compliance Demonstration Test	Section 3.1, Appendix O
§60.757(g)(1)	A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for future collection system expansion.	Section 3.2, Appendix A
§60.757(g)(2)	The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based.	Section 3.3
§60.757(g)(3)	The documentation of the presence of asbestos or non-degradable material for each area from which collection wells have been excluded based on the presence of asbestos or non-degradable material.	Section 3.4
§60.757(g)(4)	The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area.	Section 3.5
§60.757(g)(5)	The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill.	Section 3.6
§60.757(g)(6)	The provisions for the control of off-site migration.	Section 3.7 Appendix N

3.1 A-12 Flare Performance Test Results (BAAQMD 8-34-412)

The most recent A-12 Flare Compliance Demonstration Test (Performance Test) was performed on the A-12 Flare by Blue Sky Environmental, LLC on March 4, 2020, pursuant to Title V Permit A1812 Condition Number 1437 Part 12. The Performance Test Report for the A-12 Flare indicates that the flare is in compliance with BAAQMD Regulation 8-34-301.3. As required by BAAQMD Regulation 8-34-301.3, the flare meets the non-methane organic compound (NMOC) emission rate of less than 30 ppmv. Pursuant to Title V Permit A1812 Condition Number 1437 Part 10, the A-12 Flare meets the oxides of nitrogen (NO_x) emission concentration limit of less than 0.06 pounds (lbs)/MMBTU. The A-12 Flare meets the carbon monoxide (CO) emission concentration limit of less than 0.3 lbs/MMBTU, pursuant to Title V Permit A1812 Condition Number 1437 Part 11. Table 3-2 shows the results of the A-12 Flare Performance Test, averaged from six test runs - three with condensate on, and three with condensate off.

The A-12 2020 Source Test Report was submitted to the BAAQMD on April 28, 2020, within 60 days of the test date. The source test results for the above control device is included in Appendix O.

Table 3-2 A-12 Flare Performance Test Results – March 4, 2020

Condition	Flare (A-12) Average Results		8-34-301.3 limit	Compliance Status
	Condensate ON	Condensate OFF		
NMOC (ppmv @ 3% O_2, as CH_4)	1.0	1.0	30 ppmv	In Compliance
NO_x, lbs/MMBTU	0.045	0.037	0.06	In Compliance
CO, lbs/MMBTU	0.003	0.004	0.30	In Compliance

3.2 Compliance with §60.757(g)(1)

"A diagram of the collection system showing collection system positioning including wells, horizontal collectors…"

A map dated November 12, 2020 of the landfill GCCS showing the positioning of all vertical wells, horizontal collectors, and other LFG extraction devices is included in Appendix A.

3.3 Compliance with §60.757(g)(2)

"The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based."

The KCRDF GCCS has historically provided LFG wells and collectors spaced in accordance with standard industry practices. The A-12 flare, LFG extraction wells, and piping are more than adequate to move the current LFG flow rate. KCRDF will continue to add additional LFG control capacity as necessary with the approval of BAAQMD. The installed collector density appears more than adequate for controlling surface emissions, based on continuous compliance and operational experience.

The total capacity of the LFG mover equipment was designed and will be designed to meet the current United States Environmental Protection Agency (USEPA) Model AP- 42 projections of LFG generation and the historic LFG extraction rates determined to be continuously available from the facility.

Demonstrating Compliance with §60.757(g)(2)

"The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based."

Compliance with 40 CFR §60.757(g)(2) is maintained by performing quarterly SEM. Refer to Section 2.6, Surface Emissions Monitoring for information pertaining to the SEM results. These results show that the GCCS has sufficient coverage over the waste footprint. Combined LFG recovery for the reporting period was 2,058 scfm. The current A-12 flare system has the capacity to destroy ~ twice the actual recovery. Well monitoring data shows that adequate vacuum is available at all points in the wellfield, demonstrating that the piping network is sufficient to handle all extracted LFG.

3.4 Compliance with §60.757(g)(3)

"The documentation of the presence of asbestos or non-degradable material for each area from which collection wells have been excluded based on the presence of asbestos or non-degradable material."

There are no segregated areas or accumulations of asbestos material documented for the site in the GCCS Design Plan. Therefore, 40 CFR §60.757(g)(3) is not applicable.

3.5 Compliance with §60.757(g)(4)

"The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area."

Non-productive areas have not been excluded from the coverage of the GCCS. Therefore, 40 CFR §60.757(g)(4) is not applicable.

3.6 Compliance with §60.757(g)(5)

"The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill."

The A-12 Flare and blower system were installed in October and November 2007 and started up on December 3, 2007. The A-12 Flare and blower system is anticipated to be able to accommodate the expected LFG flow rate over the life of the landfill.

3.7 Compliance with §60.757(g)(6)

"The provisions for the control of off-site migration."

Quarterly LFG migration monitoring, including all on-site buildings, occurred on the following dates:

- Third Quarter 2020 - September 22, 2020
- Fourth Quarter 2020 - December 2, 3, and 7, 2020

All probes were in compliance with no detections above the 5.0 percent methane limit during the Third and Fourth Quarter 2020 monitoring events. There were no LFG migration occurrences at the KCRDF, and no areas of concern were identified during the Third and Fourth Quarter 2020 monitoring events. The LFG migration monitoring and building monitoring results for both quarterly events are included in Appendix N.

Demonstrating Compliance with §60.757(g)(6)

"The provisions for the control of off-site migration."

The landfill operator will continue surface and perimeter monitoring in accordance with the approved monitoring plans. If the GCCS at the KCRDF does not meet the measures of performance set forth in the NSPS/EG, the GCCS will be adjusted or modified in accordance with the NSPS/EG requirements.

4 START-UP, SHUTDOWN, MALFUNCTION REPORT

4.1 SSM Report for the Collection and Control Systems at the KCRDF

The NESHAPS contained in 40 CFR Part 63, AAAA for MSW landfills to control hazardous air pollutants include the regulatory requirements for submittal of a Semi-Annual Report (under 40 CFR §63.10(d)(5) of the general provisions) if an SSM event occurred during the reporting period. The reports required by §63.1980(a) of the NESHAP and §60.757(f) of the NSPS summarize the GCCS exceedances. These two Semi-Annual Reports contain similar information and have been combined as allowed by §63.10(d)(5)(i) of the General Provisions.

NESHAP 40 CFR Part 63, AAAA became effective on January 16, 2004. Those SSM events that occurred during the semi-annual reporting period are reported in this section (July 1, 2020 through December 31, 2020). The following information is included as required:

- During the reporting period, eleven (11) A-12 Flare SSM events occurred. The A-12 Flare shut down and restarted during the reporting period due to the reasons noted in the Flare SSM Log, located in Appendix B.
- During the reporting period, thirty-five (35) wellfield SSM events occurred. Details are included in the Wellfield SSM Log, located in Appendix C.
- During the reporting period, four (4) monitoring/recorder equipment SSM events occurred.
- In all fifty (50) events, automatic systems and operator actions were consistent with the standard operating procedures contained in the SSM Plan.
- No exceedances of any applicable emission limitation in the landfills NESHAP (63.10(d)(5)(i)) occurred.
- Revisions of the SSM Plan to correct deficiencies in the landfill operations or procedures were neither required, nor prepared (§63.6(e)(3)(viii)).

I certify the following:

> ***Based on information and belief formed after reasonable inquiry, information on the startup, shutdown, malfunction forms, all accompanying reports, and other required certifications are true, accurate, and complete.***

_____ 01/05/2021

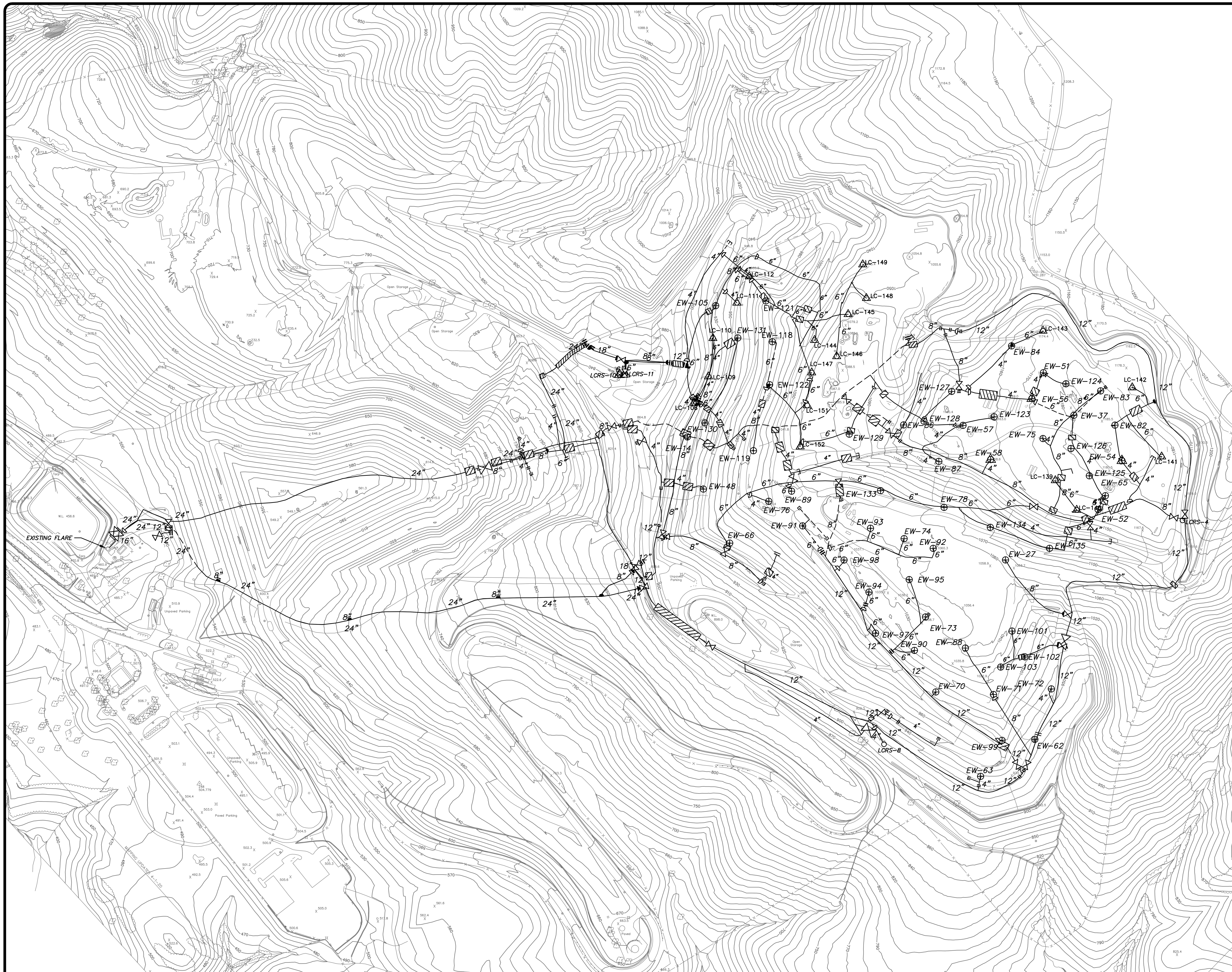
Signature of Responsible Official **Date**

Enrique Perez

Name of Responsible Official

APPENDIX A

LANDFILL GAS COLLECTION SYSTEM SITE MAP



LEGEND

1400	EXISTING 10' CONTOUR
12"	EXISTING ABOVEGROUND PIPING
12"	EXISTING BELOWGROUND PIPING
	EXISTING HORIZONTAL COLLECTOR
EW-3	EXISTING LFG EXTRACTION WELL
LC-108	EXISTING LOCAL CONTROL WELL
	EXISTING REMOTE WELLHEAD
H6	EXISTING HORIZONTAL COLLECTOR WELLHEAD
	EXISTING CONTROL VALVE
	EXISTING BLIND FLANGE
	EXISTING FLANGE CONNECTION
	EXISTING REDUCER FITTING
	EXISTING ROAD CROSSING
RISER	EXISTING RISER
	EXISTING CAP ON EXISTING PIPE

N

0 200 400

SCALE IN FEET

NOTES:

1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY WALKER ASSOCIATES. DATE OF PHOTOGRAPHY: APRIL 1, 2020.
2. SUPPLEMENTAL 2016 GCCS IMPROVEMENTS AS-BUILT PIPING PER FIELD MARK-UP DRAWING PROVIDED BY WM ON JULY 19, 2017. WELL LOCATIONS PER RECORD DRAWINGS WELL SCHEDULE DATED: JULY 13, 2016.
3. 2017 GCCS AS-BUILT SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: OCTOBER 11, 2017
4. 2019 GCCS AS-BUILT SURVEYS PROVIDED BY F3 AND ASSOCIATES, INC. DATED: AUGUST 19, 2019 AND DECEMBER 30, 2019
5. SUPPLEMENTAL 2019 GCCS AS-BUILT MARKUPS/COMMENTS PROVIDED BY WM DATED: JANUARY 27 AND 30, 2020, AND BY SCS ENGINEERS DATED: FEBRUARY 4, 2020.
6. 2020 GCCS IMPROVEMENTS AS-BUILT SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: JULY 22, 2020.
7. SUPPLEMENTAL 2020 GCCS AS-BUILT MARKUPS/COMMENTS PROVIDED BY WM ON NOVEMBER 3, 2020, NOVEMBER 5, 2020 AND NOVEMBER 6, 2020.

FINAL AS-BUILT

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 11/12/2020
DRAWN BY GVP
DESIGNED BY CME
CHECKED BY NB
APPROVED BY PJS

TETRA TECH

KIRBY CANYON RECYCLING AND DISPOSAL FACILITY
SAN JOSE, CALIFORNIA
2020 GCCS IMPROVEMENTS

AS-BUILT SITE PLAN

SHEET NO. 1

PROJECT NO. 200125

File: X:\PROJECTS\KIRBY CANYON\200125 - 2020 AS-BUILT UPDATE\Project Drawings\200125-KIRBY CYN_2020 FINAL AS BUILT_Rev201112.dwg Layout: S1 User: CHELSEA.EVANS Nov 13, 2020 - 9:38am

APPENDIX B

FLARE SSM LOG AND GCCS DOWNTIME REPORT

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG
AFFECTED EQUIPMENT: A-12 Flare

Completed By: Markus Bernard/Rajan Phadnis

KIRBY CANYON RECYCLING & DISPOSAL FACILITY, San Jose, CA
SSMP REPORT - From July 1 2020 through December 31, 2020

Identify Flare & Check Applicable Event	(1) Start of Event	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Component: A-12 Flare Startup Event x Shutdown Event Malfunction Event	7/10/20 02:06	7/10/20 02:10	0.07	9.23	Flare was shutdown due to KOP alarm. The inlet header was drianed and flowmeter probe was cleaned prior to flare restart. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	7/10/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component: A-12 Flare x Startup Event Shutdown Event Malfunction Event	7/10/20 11:20	7/10/20 11:26	0.10			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	7/10/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component: A-12 Flare Startup Event x Shutdown Event Malfunction Event	7/12/20 16:36	7/12/20 16:40	0.07	2.27	Flare was shutdown during power surge. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	7/12/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component: A-12 Flare x Startup Event Shutdown Event Malfunction Event	7/12/20 18:52	7/12/20 18:58	0.10			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	7/12/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component: A-12 Flare Startup Event x Shutdown Event Malfunction Event	8/24/20 19:28	8/24/20 19:32	0.07	0.97	Flare was shutdown during power outage. Flare was restarted. Flare was inspected on the next day.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	8/24/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component: A-12 Flare x Startup Event Shutdown Event Malfunction Event	8/24/20 20:26	8/24/20 20:32	0.10			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	8/24/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component: A-12 Flare Startup Event x Shutdown Event Malfunction Event	8/27/20 15:22	8/27/20 15:26	0.07	1.83	Flare was shutdown during KOP fault. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	8/27/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 3	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component: A-12 Flare x Startup Event Shutdown Event Malfunction Event	8/27/20 17:12	8/27/20 17:18	0.10			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	8/27/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 4	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component: A-12 Flare Startup Event x Shutdown Event Malfunction Event	9/27/20 05:24	9/27/20 05:28	0.07	8.87	Flare was shutdown during power outage. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	9/27/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component: A-12 Flare x Startup Event Shutdown Event Malfunction Event	9/27/20 14:16	9/27/20 14:22	0.10			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	9/27/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component: A-12 Flare Startup Event x Shutdown Event Malfunction Event	10/02/20 10:14	10/02/20 10:18	0.07	1.93	Flare was shutdown due to frozen dryer unit on the compressor. Inspection and repairs were initiated immediately. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/2/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component: A-12 Flare x Startup Event Shutdown Event Malfunction Event	10/02/20 12:10	10/02/20 12:16	0.10			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/2/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component: A-12 Flare Startup Event x Shutdown Event Malfunction Event	10/03/20 09:00	10/03/20 09:04	0.07	0.43	Flare was shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/3/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component: A-12 Flare x Startup Event Shutdown Event Malfunction Event	10/03/20 09:26	10/03/20 09:32	0.10			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/3/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component: A-12 Flare Startup Event x Shutdown Event Malfunction Event	10/20/20 17:56	10/20/20 18:00	0.07	2.97	Flare was shutdown due to KOP alarm. Inlet header was drained. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/20/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component: A-12 Flare x Startup Event Shutdown Event Malfunction Event	10/20/20 20:54	10/20/20 21:00	0.10			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/20/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component: A-12 Flare Startup Event x Shutdown Event Malfunction Event	10/30/20 11:50	10/30/20 11:54	0.07	0.77	Flare was shutdown during inspection on flare burner arms and crown. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/30/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 3	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component: A-12 Flare x Startup Event Shutdown Event Malfunction Event	10/30/20 12:36	10/30/20 12:42	0.10			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/30/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 4	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG
AFFECTED EQUIPMENT: A-12 Flare

Completed By: Markus Bernard/Rajan Phadnis

KIRBY CANYON RECYCLING & DISPOSAL FACILITY, San Jose, CA
SSMP REPORT - From July 1 2020 through December 31, 2020

Identify Flare & Check Applicable Event	(1) Start of Event	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Component: A-12 Flare	12/09/20 10:00	12/09/20 10:04	0.07	1.10	Flare was shutdown during inspection on burner arm and internal parts. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	12/9/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 3	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
x Startup Event Shutdown Event Malfunction Event												
Component: A-12 Flare	12/09/20 11:06	12/09/20 11:12	0.10			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	12/9/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 4	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
x Startup Event Shutdown Event Malfunction Event												
Component: A-12 Flare	12/29/20 13:48	12/29/20 13:52	0.07	0.60	Flare was shutdown during power surge. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	12/29/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Startup Event x Shutdown Event Malfunction Event												
Component: A-12 Flare	12/29/20 14:24	12/29/20 14:30	0.10			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	12/29/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
x Startup Event Shutdown Event Malfunction Event												

TOTAL DOWNTIME January 1 through December 31, 2020 (HOURS):	**75.27**
TOTAL PERMITTED GCCS DOWNTIME FOR 1 YEAR (HOURS):	**240.0**
TOTAL DOWNTIME July 1 through December 31, 2020 (HOURS):	**31.0**
TOTAL AVAILABLE RUNTIME July 1 through December 31, 2020 (HOURS):	**4417.0**
TOTAL RUNTIME July 1 through December 31, 2020 (HOURS):	**4386.0**
RUNTIME PERCENTAGE July 1 through December 31, 2020 (HOURS) :	**99.3%**
SSM Counts :	**11**

(a) **STANDARD OPERATING PROCEDURES**

Shutdown

Procedure No.	Procedure
1	Ensure that there are no unsafe conditions present, contact manager immediately
2	Initiate shutdown sequence below by one or more of the following (Note date and time in Section 1 of form above) Press Emergency Stop if necessary Close On/Off switch(es) or Push On/Off button(s) Close adjacent valves if necessary
3	Observe that system achieves normal shutdown ranges for levels, pressures, and temperatures (Note date and time in Section 2 of form above)

Startup

Procedure No.	Procedure
1	Ensure that there are no unsafe conditions present
2	Ensure that the system is ready to start by one of the following: Valves are in correct position Levels, pressures, and temperatures are within normal starting range Alarms are cleared Power is on and available to control panel and ready to energize equipment. Emergency stop is de-energized
3	Initiate start sequence (Note time and date in section 1 of form above)
4	Observe that system achieves normal startup ranges for levels, pressures, and temperatures (Note time and date in Section 2 of form above)

Malfunction

EQUIPMENT	PURPOSE	MALFUNCTION EVENT	COMMON CAUSES	PROCEDURE NO. -TYPICAL RESPONSE ACTIONS
LFG Collection and Control System				
Blower or Other Gas Mover Equipment	Applies vacuum to wellfield to extract LFG and transport to control device	Loss of LFG Flow/Blower Malfunction	-Flame arrestor fouling/deterioration -Automatic valve problems -Blower failure (e.g., belt, motor, impeller, coupling, seizing, etc.) -Loss of power -Extraction piping failure -Condensate knock-out problems -Extraction piping blockages	1. Repair breakages in extraction piping 2. Clean flame arrestor 3. Repair blockages in extraction piping 4. Verify automatic valve operation, compressed air/nitrogen supply 5. Notify power utility, if appropriate 6. Provide/utilize auxiliary power source, if necessary 7. Repair Settlement in Collection Piping 8. Repair Blower 9. Activate back-up blower, if available 10. Clean knock-up pot/demister 11. Drain knock-out pot
Extraction Wells and Collection Piping	Conduits for extractions and movement of LFG flow	Collection well and pipe failures	-Break/crack in header or lateral -Leaks at wellheads, valves, -Collection piping blockages -Problems due to settlement (e.g. pipe separation, deformation, development of low points)	12. Repair leaks or breaks in lines or wellheads 13. Follow procedures for loss of LFG flow/blower 14. Repair blockages in collection piping 15. Repair settlement in collection piping 16. Re-install, repair, or replace piping
Blower or Other Gas Mover Equipment And Control Device	Collection and control of LFG	Loss of electrical power	- Force majeure/Act of God (e.g., lightning, flood, earthquake, etc.) -Area-wide or local blackout or brown-out -Interruption in service (e.g. blown service fuse) -Electrical line failure -Breaker trip -Transformer failure -Motor starter failure/trip -Overdraw of power -Problems in electrical panel -Damage to electrical equipment from on-site operations	17. Check/reset breaker 18. Check/repair electrical panel components 19. Check/repair transformer 20. Check/repair motor starter 21. Check/repair electrical line 22. Test amperage to various equipment 23. Contact electricity supplier 24. Contact/contract electrician 25.Provide auxiliary power (if necessary)
LFG Control Device	Combusts LFG	Low temperature conditions at control device	-Problems with temperature - monitoring equipment -Problems/failure of - thermocouple and/or -Change of LFG flow -Change of LFG quality -Problems with air louvers -Problems with air/fuel controls -Change in atmospheric	26. Check/repair temperature monitoring equipment 27. Check/repair thermocouple and/or wiring 28. Follow procedures for loss of flow/blower malfunction 29. Check/adjust louvers 30. Check/adjust air/fuel controls
LFG Control Device	Combusts LFG	Loss of Flame	-Problems/failure of thermocouple -Loss/change of LFG flow -Loss/change of LFG quality -Problems with air/fuel controls -Problems/failure of flame sensor -Problems with temperature monitoring equipment	31. Check/repair temperature monitoring equipment 32. Check/repair thermocouple 33. Follow procedures for loss of flow/blower malfunction 34. Check/adjust air/fuel controls 35. Check/adjust/repair flame sensor 36. Check/adjust LFG collectors
Flow Monitoring/ Recording Device	Measures and records gas flow from collection system to control	Malfunctions of Flow Monitoring/Recording Device	-Problems with orifice plate, pitot tube, or other in-line flow measuring device -Problems with device controls and/or wiring -Problems with chart recorder	37. Check/adjust/repair flow measuring device and/or wiring 38. Check/repair chart recorder 39. Replace paper in chart recorder
Temperature Monitoring/	Monitors and records	Malfunctions of Temperature	-Problems with thermocouple	40. Check/adjust/repair thermocouple

EQUIPMENT	PURPOSE	MALFUNCTION EVENT	COMMON CAUSES	PROCEDURE NO. -TYPICAL RESPONSE ACTIONS
LFG Collection and Control System				
Recording Device	combustion temperature of enclosed combustion device	Monitoring/Recording Device	-Problems with device controls and/or wiring -Problems with chart recorder	41. Check/adjust/repair controller and/or wiring 42. Check/adjust/repair electrical panel components 43. Check/repair chart recorder 44. Replace paper in chart recorder
Control Device	Combusts LFG	Other Control Device Malfunctions	-Control device smoking (i.e. visible emissions) -Problems with flare insulation -Problems with pilot light system -Problems with air louvers -Problems with air/fuel controllers -Problems with thermocouple -Problems with burners -Problems with flame arrester -Alarmed malfunction conditions not covered above -Unalarmed conditions discovered during inspection not covered above	45. Site-specific diagnosis procedures 46. Site-specific responses actions based on diagnosis 47. Open manual louvers 48. Clean pitot orifice 49. Clean/drain flame arrestor 50. Refill propane supply 51. Check/repair pilot sparking system

(b) For each permit limit exceedance complete an "SSM Plan Departure Form". Notify BAAQMD verbally or by fax within 2 working days after commencing the actions that an event inconsistent with the SSM Plan and which resulted in an exceedance of an applicable emission permit has occured. Follow up in writing to the agency within 7 working days after the end of the event.

APPENDIX C

WELLFIELD SSM LOG

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: Wellfield

Completed By: Markus Bernard/Rajan Phadnis

Kirby Canyon Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - From July 1 2020 through December 31, 2020

Identify Well & Check Applicable Event	(1) Start of Event Date and Time	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Well ID Number:149 Startup Event X Shutdown Event Malfunction Event	6/26/20 12:15	6/26/20 12:17	0.03	338.3	Well offline for filling	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	6/26/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:149 X Startup Event Shutdown Event Malfunction Event	7/10/20 14:33	7/10/20 14:35	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	7/10/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:147 Startup Event X Shutdown Event Malfunction Event	7/07/20 10:43	7/07/20 10:45	0.03	2.0	Well offline for repair and connecting to new lateral	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	7/7/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:147 X Startup Event Shutdown Event Malfunction Event	7/07/20 12:40	7/07/20 12:42	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	7/7/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:151 Startup Event X Shutdown Event Malfunction Event	7/07/20 10:43	7/07/20 10:45	0.03	2.0	Well offline for repair and connecting to new lateral	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	7/7/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:151 X Startup Event Shutdown Event Malfunction Event	7/07/20 12:40	7/07/20 12:42	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	7/7/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:152 Startup Event X Shutdown Event Malfunction Event	7/07/20 10:43	7/07/20 10:45	0.03	2.0	Well offline for repair and connecting to new lateral	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	7/7/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:152 X Startup Event Shutdown Event Malfunction Event	7/07/20 12:40	7/07/20 12:42	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	7/7/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:144 Startup Event X Shutdown Event Malfunction Event	7/09/20 09:08	7/09/20 09:10	0.03	29.6	Well offline for filling	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	7/9/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:144 X Startup Event Shutdown Event Malfunction Event	7/10/20 14:45	7/10/20 14:47	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	7/10/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:56 Startup Event X Shutdown Event Malfunction Event	7/09/20 13:30	7/09/20 13:32	0.03	0.6	Well offline for repair and connecting to new lateral	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	7/9/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:56 X Startup Event Shutdown Event Malfunction Event	7/09/20 14:07	7/09/20 14:09	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	7/9/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:37 Startup Event X Shutdown Event Malfunction Event	7/09/20 13:30	7/09/20 13:32	0.03	0.6	Well offline for repair and connecting to new lateral	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	7/9/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:37 X Startup Event Shutdown Event Malfunction Event	7/09/20 14:07	7/09/20 14:09	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	7/9/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:83 Startup Event X Shutdown Event Malfunction Event	7/08/20 14:45	7/08/20 14:47	0.03	1.5	Well offline for repair and connecting to new lateral	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	7/8/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:83 X Startup Event Shutdown Event Malfunction Event	7/08/20 16:15	7/08/20 16:17	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	7/8/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:83 Startup Event X Shutdown Event Malfunction Event	7/16/20 12:30	7/16/20 12:32	0.03	93.8	Well offline for filling	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	7/16/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:83 X Startup Event Shutdown Event Malfunction Event	7/20/20 10:15	7/20/20 10:17	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	7/20/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: Wellfield

Completed By: Markus Bernard/Rajan Phadnis

Kirby Canyon Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - From July 1 2020 through December 31, 2020

Identify Well & Check Applicable Event	(1) Start of Event Date and Time	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Well ID Number:82 Startup Event X Shutdown Event Malfunction Event	7/16/20 13:45	7/16/20 13:47	0.03	92.3	Well offline for filling	X 116: Well Raising	7/16/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:82 X Startup Event Shutdown Event Malfunction Event	7/20/20 10:05	7/20/20 10:07	0.03			X 116: Well Raising	7/20/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:124 Startup Event X Shutdown Event Malfunction Event	8/04/20 09:20	8/04/20 09:22	0.03	503.7	Well offline for filling	X 116: Well Raising	8/4/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:124 Startup Event Shutdown Event Malfunction Event	8/25/20 09:00	8/25/20 09:02	0.03			X 116: Well Raising	8/25/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:37 Startup Event X Shutdown Event Malfunction Event	8/04/20 10:00	8/04/20 10:02	0.03	78.2	Well offline for filling	X 116: Well Raising	8/4/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:37 X Startup Event Shutdown Event Malfunction Event	8/07/20 16:12	8/07/20 16:14	0.03			X 116: Well Raising	8/7/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:56 Startup Event X Shutdown Event Malfunction Event	8/13/20 09:30	8/13/20 09:32	0.03	287.7	Well offline for filling	X 116: Well Raising	8/13/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:56 Startup Event Shutdown Event Malfunction Event	8/25/20 09:15	8/25/20 09:17	0.03			X 116: Well Raising	8/25/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:51 Startup Event X Shutdown Event Malfunction Event	8/13/20 10:00	8/13/20 10:02	0.03	287.8	Well offline for filling	X 116: Well Raising	8/13/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:51 Startup Event Shutdown Event Malfunction Event	8/25/20 09:45	8/25/20 09:47	0.03			X 116: Well Raising	8/25/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:127 Startup Event X Shutdown Event Malfunction Event	9/30/20 10:00	9/30/20 10:02	0.03	384.5	Well offline for filling	X 116: Well Raising	9/30/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:127 X Startup Event Shutdown Event Malfunction Event	10/16/20 10:30	10/16/20 10:32	0.03			X 116: Well Raising	10/16/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:120 Startup Event X Shutdown Event Malfunction Event	10/14/20 13:30	10/14/20 13:32	0.03	NA	Decommissioned per PTO Condition Number 1437 Part 6, as modified by Application Number 27673		10/14/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:120 Startup Event Shutdown Event Malfunction Event							1/0/1900	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:150 Startup Event X Shutdown Event Malfunction Event	10/14/20 15:30	10/14/20 15:32	0.03	NA	Decommissioned per PTO Condition Number 1437 Part 6, as modified by Application Number 27673		10/14/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:150 Startup Event Shutdown Event Malfunction Event							1/0/1900	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:123 Startup Event X Shutdown Event Malfunction Event	10/14/20 10:45	10/14/20 10:47	0.03	48.0	Well offline for filling	X 116: Well Raising	10/14/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:123 X Startup Event Shutdown Event Malfunction Event	10/16/20 10:45	10/16/20 10:47	0.03			X 116: Well Raising	10/16/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	

113: Inspection and Maintenance
116: Well Raising
117: Gas Collection
118: Construction Activities

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: Wellfield

Completed By: Markus Bernard/Rajan Phadnis

Kirby Canyon Recycling & Disposal Facility, San Jose, CA
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Identify Well & Check Applicable Event	(1) Start of Event Date and Time	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Well ID Number:57 Startup Event X Shutdown Event Malfunction Event	10/16/20 09:30	10/16/20 09:32	0.03	28.0	Well offline for filling	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	10/16/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:57 X Startup Event Shutdown Event Malfunction Event	10/17/20 13:30	10/17/20 13:32	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	10/17/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:151 Startup Event X Shutdown Event Malfunction Event	11/10/20 09:29	11/10/20 09:31	0.03	7.4	Well offline during repairs and construction	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	11/10/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:151 X Startup Event Shutdown Event Malfunction Event	11/10/20 16:55	11/10/20 16:57	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	11/10/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:152 Startup Event X Shutdown Event Malfunction Event	11/10/20 09:29	11/10/20 09:31	0.03	7.4	Well offline during repairs and construction	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	11/10/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:152 X Startup Event Shutdown Event Malfunction Event	11/10/20 16:55	11/10/20 16:57	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	11/10/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:129 Startup Event X Shutdown Event Malfunction Event	11/10/20 09:29	11/10/20 09:31	0.03	7.4	Well offline during repairs and construction	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	11/10/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:129 X Startup Event Shutdown Event Malfunction Event	11/10/20 16:55	11/10/20 16:57	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	11/10/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:145 Startup Event X Shutdown Event Malfunction Event	11/11/20 07:45	11/11/20 07:47	0.03	11.0	Well offline during repairs and construction	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	11/11/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:145 X Startup Event Shutdown Event Malfunction Event	11/11/20 18:45	11/11/20 18:47	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	11/11/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:146 Startup Event X Shutdown Event Malfunction Event	11/11/20 07:45	11/11/20 07:47	0.03	11.0	Well offline during repairs and construction	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	11/11/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:146 X Startup Event Shutdown Event Malfunction Event	11/11/20 18:45	11/11/20 18:47	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	11/11/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:148 Startup Event X Shutdown Event Malfunction Event	11/11/20 14:30	11/11/20 14:32	0.03	4.3	Well offline during repairs and construction	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	11/11/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:148 X Startup Event Shutdown Event Malfunction Event	11/11/20 18:45	11/11/20 18:47	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	11/11/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:149 Startup Event X Shutdown Event Malfunction Event	11/11/20 15:35	11/11/20 15:37	0.03	3.2	Well offline during repairs and construction	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	11/11/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:149 X Startup Event Shutdown Event Malfunction Event	11/11/20 18:45	11/11/20 18:47	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	11/11/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: Wellfield

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Well ID Number:144 Startup Event X Shutdown Event Malfunction Event	11/12/20 07:50	11/12/20 07:52	0.03	1.5	Well offline during repairs and construction	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	11/12/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:144 X Startup Event Shutdown Event Malfunction Event	11/12/20 09:20	11/12/20 09:22	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	11/12/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:75 Startup Event X Shutdown Event Malfunction Event	10/26/20 09:05	10/26/20 09:07	0.03	697.4	Well offline for filling	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	10/26/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:75 X Startup Event Shutdown Event Malfunction Event	11/24/20 10:30	11/24/20 10:32	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	11/24/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:126 Startup Event X Shutdown Event Malfunction Event	10/28/20 09:30	10/28/20 09:32	0.03	630.5	Well offline for filling	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	10/28/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:126 X Startup Event Shutdown Event Malfunction Event	11/23/20 16:00	11/23/20 16:02	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	11/23/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:125 Startup Event X Shutdown Event Malfunction Event	11/25/20 10:00	11/25/20 10:02	0.03	30.5	Well offline for filling	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	11/25/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:125 X Startup Event Shutdown Event Malfunction Event	11/26/20 16:30	11/26/20 16:32	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	11/26/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:58 Startup Event X Shutdown Event Malfunction Event	12/04/20 16:00	12/04/20 16:02	0.03	139.8	Well offline for filling	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	12/4/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:58 X Startup Event Shutdown Event Malfunction Event	12/10/20 11:45	12/10/20 11:47	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection X 118: Construction Activities	12/10/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:57 Startup Event X Shutdown Event Malfunction Event	12/04/20 15:15	12/04/20 15:17	0.03	140.3	Well offline for filling	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	12/4/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:57 X Startup Event Shutdown Event Malfunction Event	12/10/20 11:35	12/10/20 11:37	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	12/10/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:140 Startup Event X Shutdown Event Malfunction Event	12/02/20 16:14	12/02/20 16:16	0.03	187.7	Well offline for filling	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	12/2/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:140 X Startup Event Shutdown Event Malfunction Event	12/10/20 11:55	12/10/20 11:57	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	12/10/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:139 Startup Event X Shutdown Event Malfunction Event	11/30/20 15:30	11/30/20 15:32	0.03	48.5	Well offline for filling	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	11/30/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:139 X Startup Event Shutdown Event Malfunction Event	12/02/20 16:00	12/02/20 16:02	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	12/2/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:54 Startup Event X Shutdown Event Malfunction Event	12/28/20 15:30	12/28/20 15:32	0.03	80.5	Well offline for filling	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	12/28/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:54 Startup Event Shutdown Event Malfunction Event	Pending					113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	Pending	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	

(a) **STANDARD OPERATING PROCEDURES**

Shutdown

Procedure No.	Procedure
1	Ensure that there are no unsafe conditions present, contact manager immediately
2	Initiate shutdown sequence below by one or more of the following (Note date and time in Section 1 of form above) Press Emergency Stop if necessary Close On/Off switch(es) or Push On/Off button(s) Close adjacent valves if necessary
3	Observe that system achieves normal shutdown ranges for levels, pressures, and temperatures (Note date and time in Section 2 of form above)

Startup

Procedure No.	Procedure
1	Ensure that there are no unsafe conditions present
2	Ensure that the system is ready to start by one of the following: Valves are in correct position Levels, pressures, and temperatures are within normal starting range Alarms are cleared Power is on and available to control panel and ready to energize equipment. Emergency stop is de-energized
3	Initiate start sequence (Note time and date in section 1 of form above)
4	Observe that system achieves normal startup ranges for levels, pressures, and temperatures (Note time and date in Section 2 of form above)

Malfunction

EQUIPMENT	PURPOSE	MALFUNCTION EVENT	COMMON CAUSES	PROCEDURE NO. -TYPICAL RESPONSE ACTIONS
LFG Collection and Control System				
Blower or Other Gas Mover Equipment	Applies vacuum to wellfield to extract LFG and transport to control device	Loss of LFG Flow/Blower Malfunction	-Flame arrestor fouling/deterioration -Automatic valve problems -Blower failure (e.g., belt, motor, impeller, coupling, seizing, etc.) -Loss of power -Extraction piping failure -Condensate knock-out problems -Extraction piping blockages	1. Repair breakages in extraction piping 2. Clean flame arrestor 3. Repair blockages in extraction piping 4. Verify automatic valve operation, compressed air/nitrogen supply 5. Notify power utility, if appropriate 6. Provide/utilize auxiliary power source, if necessary 7. Repair Settlement in Collection Piping 8. Repair Blower 9. Activate back-up blower, if available 10. Clean knock-up pot/demister 11. Drain knock-out pot
Extraction Wells and Collection Piping	Conduits for extractions and movement of LFG flow	Collection well and pipe failures	-Break/crack in header or lateral -Leaks at wellheads, valves, -Collection piping blockages -Problems due to settlement (e.g. pipe separation, deformation, development of low points)	12. Repair leaks or breaks in lines or wellheads 13. Follow procedures for loss of LFG flow/blower malfunction 14. Repair blockages in collection piping 15. Repair settlement in collection piping 16. Re-install, repair, or replace piping
Blower or Other Gas Mover Equipment And Control Device	Collection and control of LFG	Loss of electrical power	- Force majeure/Act of God (e.g., lightning, flood, earthquake, etc.) -Area-wide or local blackout or brown-out -Interruption in service (e.g. blown service fuse) -Electrical line failure -Breaker trip -Transformer failure -Motor starter failure/trip -Overdraw of power -Problems in electrical panel -Damage to electrical equipment from on-site operations	17. Check/reset breaker 18. Check/repair electrical panel components 19. Check/repair transformer 20. Check/repair motor starter 21. Check/repair electrical line 22. Test amperage to various equipment 23. Contact electricity supplier 24. Contact/contract electrician 25.Provide auxiliary power (if necessary)
LFG Control Device	Combusts LFG	Low temperature conditions at control device	-Problems with temperature - monitoring equipment -Problems/failure of -thermocouple and/or thermocouple wiring -Change of LFG flow -Change of LFG quality -Problems with air louvers -Problems with air/fuel controls -Change in atmospheric conditions	26. Check/repair temperature monitoring equipment 27. Check/repair thermocouple and/or wiring 28. Follow procedures for loss of flow/blower malfunction 29. Check/adjust louvers 30. Check/adjust air/fuel controls

EQUIPMENT	PURPOSE	MALFUNCTION EVENT	COMMON CAUSES	PROCEDURE NO. -TYPICAL RESPONSE ACTIONS
LFG Collection and Control System				
LFG Control Device	Combusts LFG	Loss of Flame	-Problems/failure of thermocouple -Loss/change of LFG flow -Loss/change of LFG quality -Problems with air/fuel controls -Problems/failure of flame sensor -Problems with temperature monitoring equipment	31. Check/repair temperature monitoring equipment 32. Check/repair thermocouple 33. Follow procedures for loss of flow/blower malfunction 34. Check/adjust air/fuel controls 35. Check/adjust/repair flame sensor 36. Check/adjust LFG collectors
Flow Monitoring/ Recording Device	Measures and records gas flow from collection system to control	Malfunctions of Flow Monitoring/Recording Device	-Problems with orifice plate, pitot tube, or other in-line flow measuring device -Problems with device controls and/or wiring -Problems with chart recorder	37. Check/adjust/repair flow measuring device and/or wiring 38. Check/repair chart recorder 39. Replace paper in chart recorder
Temperature Monitoring/ Recording Device	Monitors and records combustion temperature of enclosed combustion device	Malfunctions of Temperature Monitoring/Recording Device	-Problems with thermocouple -Problems with device controls and/or wiring -Problems with chart recorder	40. Check/adjust/repair thermocouple 41. Check/adjust/repair controller and/or wiring 42. Check/adjust/repair electrical panel components 43. Check/repair chart recorder 44. Replace paper in chart recorder
Control Device	Combusts LFG	Other Control Device Malfunctions	-Control device smoking (i.e. visible emissions) -Problems with flare insulation -Problems with pilot light system -Problems with air louvers -Problems with air/fuel controllers -Problems with thermocouple -Problems with burners -Problems with flame arrester -Alarmed malfunction conditions not covered above -Unalarmed conditions discovered during inspection not covered above	45. Site-specific diagnosis procedures 46. Site-specific responses actions based on diagnosis 47. Open manual louvers 48. Clean pitot orifice 49. Clean/drain flame arrestor 50. Refill propane supply 51. Check/repair pilot sparking system

(b) For each permit limit exceedance complete an "SSM Plan Departure Form". Notify BAAQMD verbally or by fax within 2 working days after commencing the actions that an event inconsistent with the SSM Plan and which resulted in an exceedance of an applicable emission permit has occured. Follow up in writing to the agency within 7 working days after the end of the event.

APPENDIX D

FLARE TEMPERATURE DEVIATION/ INOPERATIVE MONITOR REPORTS

KIRBY CANYON RECYCLING & DISPOSAL FACILITY, San Jose, CA BAAQMD Rule 34, Section 501

TEMPERATURE DEVIATION/ INOPERATIVE MONITOR REPORT From July 1 2020 through December 31, 2020

AFFECTED EQUIPMENT: A-12 Flare

REPORT PREPARED BY: Rajan Phadnis **DATE:** January 1, 2021

TEMPERATURE SENSING DEVICE: Thermocouple **MODEL:** Thermo-Electric

START DATE & TIME	END DATE & TIME	DURATION (hours)	TEMP (°F) / FLOW (SCFM)	CAUSE	EXPLANATION	ACTION TAKEN
7/9/2020 11:34	7/10/2020 2:04	14.50	LFG flowrate out of range	KOP pump shutdown causing KOP high level and condensate accumulation in header.	The excess moisture in the gas caused flowmeter to go out of range for a limited duration.	Flare was shutdown, the liquid carryover was removed. Flare was inspected and restarted.
8/1/2020 5:08	8/1/2020 14:08	9.00	LFG flowrate out of range	Condensate accumulation on probe of LFG flowmeter.	The excess moisture in the gas caused flowmeter to go out of range for a limited duration.	The issue was intemittent and resolved on its own.
8/27/2020 12:58	8/27/2020 15:20	2.37	LFG flowrate out of range	KOP high level and condensate accumulation in header.	The excess moisture in the gas caused flowmeter to go out of range for a limited duration.	Flare was shutdown, the liquid carryover was removed. Flare was inspected and restarted.
No deviations, inoperative monitors, or missing data occurred in September 2020						
10/20/2020 16:10	10/20/2020 17:54	1.73	LFG flowrate out of range	KOP high level and condensate accumulation in header.	The excess moisture in the gas caused flowmeter to go out of range for a limited duration.	Flare was shutdown, the liquid carryover was removed. Flare was inspected and restarted.
No deviations, inoperative monitors, or missing data occurred in November 2020						
No deviations, inoperative monitors, or missing data occurred in December 2020						

The A-12 Flare combustion zone three-hour average temperature did not drop below the 1,549°F limit established in the March 4, 2020 Annual Source tests and 1,545°F limit established in the March 13, 2019 Annual Source tests, pursuant to Title V Permit A1812 Condition 1437 Part 9, during the reporting period while the flare was in operation.

°F= degrees Fahrenheit

scfm= standard cubic feet per minute

APPENDIX E

COVER INTEGRITY MONITORING REPORTS

Monthly Cover Monitoring

LOCATION: Kirby Canyon Recycling and Disposal Facility
INSPECTION DATE: July 29, 2020
TECHNICIAN: Markus Bernard

COVER & VEGETATION	YES	NO	COMMENTS
Settling of cap		X	
Dead vegetation		X	
Erosion on cap system		X	
Erosion on side slopes		X	
Ponding of water on cap		X	
Surface cracking		X	
Acceptable vegetation	X		
Exposed waste		X	

REPAIR AREAS:

Location Description Note cell and near-by wells	Date of Repair	Description of Repair (add soil, water)

Note: Monthly cover integrity monitoring is performed pursuant to BAAQMD Regulation 8-34-501.4

Monthly Cover Monitoring

LOCATION: Kirby Canyon Recycling and Disposal Facility
INSPECTION DATE: August 27, 2020
TECHNICIAN: Markus Bernard

COVER & VEGETATION	YES	NO	COMMENTS
Settling of cap		X	
Dead vegetation		X	
Erosion on cap system		X	
Erosion on side slopes		X	
Ponding of water on cap		X	
Surface cracking		X	
Acceptable vegetation	X		
Exposed waste		X	

REPAIR AREAS:

Location Description Note cell and near-by wells	Date of Repair	Description of Repair (add soil, water)

Note: Monthly cover integrity monitoring is performed pursuant to BAAQMD Regulation 8-34-501.4

Monthly Cover Monitoring

LOCATION: Kirby Canyon Recycling and Disposal Facility
INSPECTION DATE: September 30, 2020
TECHNICIAN: Markus Bernard

COVER & VEGETATION	YES	NO	COMMENTS
Settling of cap		X	
Dead vegetation		X	
Erosion on cap system		X	
Erosion on side slopes		X	
Ponding of water on cap	X		Leachate breakouts on NW bench roads on site
Surface cracking		X	
Acceptable vegetation	X		
Exposed waste		X	

REPAIR AREAS:

Location Description Note cell and near-by wells	Date of Repair	Description of Repair (add soil, water)
Leachate breakout near break trailer was observed on 9/24/20	See October report	
Leachate breakout near bench road above well 121 was observed on 9/24/20	See October report	

Monthly Cover Monitoring

LOCATION: Kirby Canyon Recycling and Disposal Facility
INSPECTION DATE: October 30, 2020
TECHNICIAN: Markus Bernard

COVER & VEGETATION	YES	NO	COMMENTS
Settling of cap		X	
Dead vegetation		X	
Erosion on cap system		X	
Erosion on side slopes		X	
Ponding of water on cap		X	Leachate breakouts were fixed
Surface cracking		X	
Acceptable vegetation	X		
Exposed waste		X	

REPAIR AREAS:

Location Description Note cell and near-by wells	Date of Repair	Description of Repair (add soil, water)
Leachate breakout near break trailer was observed on	10/05/20	Added drain line through road crossing
Leachate breakout near bench road above well 121 was observed on 9/24/20	10/05/20	Installed drain line

Note: Monthly cover integrity monitoring is performed pursuant to BAAQMD Regulation 8-34-501.4

Monthly Cover Monitoring

LOCATION: Kirby Canyon Recycling and Disposal Facility
INSPECTION DATE: November 30, 2020
TECHNICIAN: Markus Bernard

COVER & VEGETATION	YES	NO	COMMENTS
Settling of cap		X	
Dead vegetation		X	
Erosion on cap system		X	
Erosion on side slopes		X	
Ponding of water on cap		X	
Surface cracking		X	
Acceptable vegetation	X		
Exposed waste		X	

REPAIR AREAS:

Location Description Note cell and near-by wells	Date of Repair	Description of Repair (add soil, water)

Note: Monthly cover integrity monitoring is performed pursuant to BAAQMD Regulation 8-34-501.4

Monthly Cover Monitoring

LOCATION: Kirby Canyon Recycling and Disposal Facility
INSPECTION DATE: December 22, 2020
TECHNICIAN: Markus Bernard

COVER & VEGETATION	YES	NO	COMMENTS
Settling of cap		X	
Dead vegetation		X	
Erosion on cap system		X	
Erosion on side slopes		X	
Ponding of water on cap		X	
Surface cracking		X	
Acceptable vegetation	X		
Exposed waste		X	

REPAIR AREAS:

Location Description Note cell and near-by wells	Date of Repair	Description of Repair (add soil, water)

Note: Monthly cover integrity monitoring is performed pursuant to BAAQMD Regulation 8-34-501.4

APPENDIX F

SURFACE EMISSIONS MONITORING REPORTS

WASTE MANAGEMENT

172 98th Avenue • Oakland, California • 94568

January 11, 2021

Ms. Becky Azevedo
Kirby Canyon Recycling & Disposal Facility
910 Coyote Creek Golf Drive
San Jose, CA 95037.

Re: Fourth Quarter 2020 Surface Emissions and Component Leak Monitoring Report for the Kirby Canyon Recycling and Disposal Facility

Dear Ms. Azevedo:

This monitoring report for the "**Kirby Canyon Recycling and Disposal Facility (KCRDF) Landfill"** contains the results of the **Fourth Quarter 2020 Integrated and Instantaneous** Surface Emissions Monitoring (SEM) and Component Leak Monitoring. Initial surface emissions monitoring was performed by RES Environmental, Inc.(RES). Re-monitoring of surface emissions was conducted by KCRDF personnel.

APPLICABLE REQUIREMENTS

The monitoring discussed in this report was conducted in accordance with the following requirements:

Surface Emission Monitoring (SEM)

- New Source Performance Standard (NSPS), Title 40 of the Code of Federal Regulations (CFR) §60.755 (c) and (d), 40 CFR 60, Appendix A Method 21, promulgated by the United States Environmental Protection Agency (USEPA).

- California Code of Regulations (CCR) Title 17, Subchapter 10, Article 4, Subarticle 6, §95460 to §95476, known as the Assembly Bill 32 (AB32) landfill methane rule (LMR).

- Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34, Section 303 (Landfill Surface Requirements) and Section 607 (Landfill Surface Inspection procedures).

Component Leak Monitoring

- Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34, Section 301 (Landfill Gas Collection and Emission Control System Requirements) and Section 602 (Collection and Control System Leak Inspection procedures).

- California Code of Regulations (CCR) Title 17, Subchapter 10, Article 4, Subarticle 6, §95464, known as the Assembly Bill 32 (AB32) landfill methane rule (LMR).

KCRDF Plan and Alternative Compliance Measures

An Alternative Compliance Option (ACO) Request was submitted to the California Air Resources Board (CARB) on May 16, 2011. After receipt of comments, this ACO was amended, restated, and submitted to BAAQMD on July 1, 2016. SEM and Component Leak monitoring was conducted per the methods outlined in the July 1, 2016 ACO.

PROCEDURES

General

The surface of the KCRDF disposal area has been divided into one-hundred-and-fifty (150), approximately 50,000 square foot monitoring grids. The entire landfill surface is monitored with the exception of active portions of the Landfill, slope areas, and as requested in the approved ACO, areas containing only asbestos-containing waste, inert waste and/or non-decomposable waste which are excluded for safety as allowed by CCR Title 17 §95466.

Field personnel walked the surface of the landfill following the walking pattern as depicted the 2011 KCRDF AB-32 SEM Plan, which traverses each monitoring grid. Additionally, in accordance with the provisions of 40 CFR 60.753(d) and 60.755(c)(1-3), the entire perimeter of the landfill surface was monitored. During the event, special attention was given to monitoring unusual cover conditions (stressed vegetation, cracks, seeps, etc.) and any areas with unusual odors.

Instantaneous Surface Emissions Monitoring

The Instantaneous SEM was conducted using a Toxic Vapor Analyzer (TVA) 1000 flame ionization detector (FID), which was calibrated to 500 parts per million by volume (ppm_v) methane, which meets or exceeds all guidelines set forth in the CCR Title 17 §95471(a) and NSPS. The FID was calibrated prior to use in accordance with the United States Environmental Protection Agency (USEPA) Method 21 requirements. The Instantaneous SEM procedures followed the requirements of 40 CFR 60.755 (c) and (d) and CCR Title 17 §95471(c)(2).

RES personnel walked the surface of the landfill on a grid by grid basis with the wand tip held at 2 inches from the landfill surface. While sampling the grid; the technicians also checked any surface impoundments (wells or otherwise) for leaks. Technicians also checked any surface cracks, seeps, or other areas that show evidence of surface emissions (odors or distressed vegetation). Active and sloped areas excluded for safety were documented on field data sheets and maps.

All instantaneous surface monitoring was performed in accordance with the applicable requirements referenced in this report. Any detections of methane above 200 ppm_v (areas of concern) or 500 ppm_v (exceedances) for instantaneous were recorded, flagged, and marked on an SEM Map, which, wherever required, is included in the Appendices of this report. Applicable corrective action and re-monitoring timelines are listed below:

- Corrective actions must be initiated within 5 days of the initial exceedance and re-monitoring shall be conducted within 10 days of the initial exceedance.

  - If the re-monitoring event shows the exceedance is corrected, the location shall be re-monitored within 1 month of the initial exceedance.

  - If the 1-month re-monitoring event shows the location is still corrected, all re-monitoring requirements have been completed.

- If either the first 10-day or 1-month re-monitoring events show a second exceedance, additional corrective actions shall be completed and a second re-monitoring event shall be conducted within 10 days of the second exceedance.

- If the second 10-day re-monitoring event shows the second exceedance is corrected, the location shall be re-monitored within 1 month of the initial exceedance. If the 1-month re-monitoring event shows the area is still corrected, monitoring requirements have been completed.

If any location shows three exceedances, an additional well shall be installed within 120 days of the initial exceedance.

Integrated Surface Emissions Monitoring

The Integrated surface monitoring was conducted using a TVA 1000 calibrated to 25 ppm_v for the integrated monitoring, which meets or exceeds all guidelines set forth in the CCR Title 17 §95471(a). The field technician traversed the grid walking path over a continuous 25-minute period using the TVA 1000 held within 3 inches above the landfill surface. The Integrated monitoring procedures followed the requirements of CCR Title 17 §95471(c)(2).

Grids with results greater than 25 ppm_v were recorded, marked on the SEM map, and flagged for remediation. Any grids with integrated concentrations greater than 25 ppm_v are subject to the following re-monitoring timeline:

- Re-monitoring shall be conducted within 10 days of the initial exceedance.

- If the 10-day re-monitoring event shows the exceedance is corrected, all re-monitoring requirements have been completed.

- If either the first 10-day re-monitoring event shows a second grid exceedance, additional corrective actions shall be completed and a second re-monitoring event shall be conducted within 10 days of the second exceedance.

- If the second 10-day re-monitoring event shows the second exceedance is corrected, all re-monitoring requirements have been completed.

- The second 10-day re-monitoring event shows a third grid exceedance, an additional well shall be installed within 120 days of the third exceedance.

Component Leak Monitoring Procedures

RES personnel monitored the exposed LFG components under positive pressure (pipes, wellheads, valves, blowers, and other mechanical appurtenances) using a TVA 1000 calibrated to 500 ppm_v. All leaks measured one half inch or less from the component exceeding the compliance limit of 500 ppm_v per requirements outlined in pursuant to CARB Title 17 of California Code of Regulations Subchapter 10, Article 4, Subarticle 6, Section 95464(b)(1)(B) and 1,000 ppm_v per requirements outlined in BAAQMD 8-34-303 were recorded. Applicable corrective action and re-monitoring timelines are listed below:

- Leaks between 500 and 999 ppm_v must be corrected and re-monitored within 10 days of the initial exceedance.

- Leaks at or above 1000 ppm_v must be corrected and re-monitored within 7 days of the initial exceedance.

FOURH QUARTER 2020 SEM AND COMPONENT LEAK RESULTS

The following is a summary of the SEM and component leak monitoring results completed for the Fourth Quarter 2020.

Instantaneous Surface Emissions Monitoring Results

The Instantaneous surface monitoring was performed on October 21, 2020 in accordance with the NSPS, BAAQMD 8-34, and CCR Title 17 §95469 and ACO. Results and data from the monitoring are presented in Attachment A.

Initial Monitoring Event Exceedances of 500 ppm_v

There were 11 exceedances of 500 ppm_v as methane detected on October 21, 2020. Corrective actions to initiate repairs of the exceedances were completed within five days for all locations (October 26, 2020).

Ten-Day Re-Monitoring Results

The first 10-day re-monitoring event was completed on October 30, 2020. There were 8 exceedances of 500 ppm_v as methane detected on October 30, 2020. The second 10-day re-monitoring event was completed on November 5, 2020. All locations were observed at less than 500 ppm_v.

One-Month Re-Monitoring Results

The 1-month re-monitoring event was completed on November 17, 2020. All locations were observed at less than 500 ppm_v.

Readings between 200 ppm_v and 499 ppm_v (Initial and Re-monitored)

There were no readings between 200 ppm_v and 499 ppm_v as methane detected during the initial

monitoring event on October 21, 2020. Pursuant to CCR Title 17 §95471(c), instantaneous surface emissions exceeding 200 ppm_v but below 500 ppm_v are required to be recorded.

Integrated Surface Emissions Monitoring Results

The Integrated surface sampling (ISS) was performed on October 20 and 21, 2020, in accordance with the ACO and requirements outlined in CCR Title 17 §95469.

Initial Monitoring Event Exceedances of 25 ppm_v

There were no grids with exceedances of 25 ppm_v as methane detected during the initial monitoring event on October 20 and 21, 2020.

The average methane concentration of each grid was recorded during the monitoring event per applicable requirements. See Attachment B, Integrated SEM 25 ppm_v Exceedances and Monitoring Log, and SEM Map included in Attachment B, for details.

Component Leak Monitoring Results

Component leak monitoring was conducted per the applicable requirements on October 21, 2020. No leaks greater than 500 ppm_v were identified. Please see Attachment C, for details.

WEATHER CONDITIONS

Wind Speed Conductions during the Surface Emission Monitoring Events

Wind speeds during initial monitoring were monitored using a portable weather station. The station has a strip chart that records the wind speed and direction. After completion of monitoring, the strip chart is reviewed by RES office staff to determine the average and maximum wind speeds during the monitoring and the average wind direction during each grid and ensure that the wind speed requirements are met (no gusts greater than 20 mph, average wind speed cannot exceed 10 mph). These values are documented in the field data sheets. The chart data is scanned and included in Attachment D.

Precipitation Requirements

Per the KCRDF's ACO, the initial monitoring event was carefully scheduled so that it could be conducted in compliance with the precipitation requirements (no measurable precipitation within 24 hours). Re-monitoring events are required to adhere to strict timelines. Any conflicts with precipitation requirements are discussed in the results section of this document.

EQUIPMENT CALIBRATION

The portable analyzers were calibrated to meet the instrument specifications requirements of U.S. EPA Method 21. The calibration gas used was methane, diluted to a nominal concentration of 25 ppm_v in air for integrated sample analyses and 500 ppm_v in air for instantaneous monitoring to comply with the requirements.

All analyzers were calibrated prior to use with required response time and precision related instrument checks. Calibration records include the following: One time response time test record; One time response factor determination for methane; Calibration Precision test records (test to be performed every 3 months); and Daily Instrument Calibration and Background test records for each gas meter that was used during the quarterly monitoring event. The calibration log records are included in Attachment E.

All monitoring was completed in accordance with the applicable regulatory requirements or approved alternatives. If you have any questions regarding this report, please do not hesitate to contact me at (510) 875-9338.

Thank you,
Waste Management

Rajan Phadnis
Environmental Protection Specialist

Attachment A – Instantaneous Surface Emission Monitoring Event Records

- Monitoring Logs and Exceedances
- SEM Map

Attachment B – Integrated Surface Emission Monitoring Event Records

- Monitoring Logs and Exceedances
- SEM Map

Attachment C – Component Leak Monitoring Event Records

- Component Leak Exceedances and Monitoring Logs

Attachment D – Weather Station Data

- Strip Chart Data

Attachment E – Calibration Records

- Instrument and Gas Calibration Records

Attachment A

Instantaneous Surface Emission Monitoring Event Records

Table A.1
Instantaneous Landfill Surface Emissions Monitoring
Initial Monitoring Event Areas of Concern

2020 QUARTER: 4
PERFORMED BY: RES/WM
LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Flag Number	Grid Number	Date of Monitoring	Concentration of Emission (ppmv)	Comments
2	101	10/21/2020	1,500	Capped Well 121
4	48	10/21/2020	800	Well 112
11	111	10/21/2020	9,000	Well134
12	111	10/21/2020	1,057	Well 93
13	87	10/21/2020	1,123	Well 152
14	81	10/21/2020	1,493	Well 129
15	72	10/21/2020	1,991	Well 151
16	66	10/21/2020	716	Well 147
17	53	10/21/2020	5,184	Well 146
18	59	10/21/2020	2,273	Well 144
19	42	10/21/2020	1,011	Well 149

Table A.2
Instantaneous Landfill Surface Emissions Monitoring
Exceedance and Monitoring Logs (NSPS/BAAQMD 8-34)

2020 QUARTER: 4
INITIAL MONITORING PERFORMED B RES/WM
FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard/Dan San Jose Wind Direction: W Wind Direction:SW Wind Direction: NW
LANDFILL NAME: **Kirby Canyon Recycling & Disposal Facility**

Wind Speed: 2 MPH Wind Speed: 11 MPH Wind Speed: 10 MPH

Initial Monitoring Event			Corrective action within 5 days		1st 10-day Follow-Up			2nd 10-day Follow-Up			1st 30-day Follow-Up			
Flag Number	Monitoring Date	Field Reading	Repair Date	Action taken to repair Exceedance	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	Comments
2	10/21/2020	1,500	10/26/2020	Soil and Water added	10/30/2020	-	2,000	11/5/2020	0 ppm		11/17/2020	40 ppm		Capped Well 121
4	10/21/2020	800	10/26/2020	Soil and Water added	10/30/2020	100 ppm	-	-	-		11/17/2020	13 ppm		Well 112
11	10/21/2020	9,000	10/26/2020	Soil and Water added	10/30/2020	200 ppm	-	-	-		11/17/2020	30 ppm		Well134
12	10/21/2020	1,057	10/26/2020	Soil and Water added	10/30/2020	54 ppm	-	-	-		11/17/2020	60 ppm		Well 93
13	10/21/2020	1,123	10/26/2020	Soil and Water added	10/30/2020	-	2,000	11/5/2020	0 ppm		11/17/2020	11 ppm		Well 152
14	10/21/2020	1,493	10/26/2020	Soil and Water added	10/30/2020	-	2,000	11/5/2020	0 ppm		11/17/2020	120 ppm		Well 129
15	10/21/2020	1,991	10/26/2020	Soil and Water added	10/30/2020	-	2,000	11/5/2020	0 ppm		11/17/2020	0 ppm		Well 151
16	10/21/2020	716	10/26/2020	Soil and Water added	10/30/2020	-	2,000	11/5/2020	0 ppm		11/17/2020	40 ppm		Well 147
17	10/21/2020	5,184	10/26/2020	Soil and Water added	10/30/2020	-	2,000	11/5/2020	0 ppm		11/17/2020	50 ppm		Well 146
18	10/21/2020	2,273	10/26/2020	Soil and Water added	10/30/2020	-	2,000	11/5/2020	0 ppm		11/17/2020	120 ppm		Well 144
19	10/21/2020	1,011	10/26/2020	Soil and Water added	10/30/2020	-	2,000	11/5/2020	0 ppm		11/17/2020	15 ppm		Well 149

Table A.3
Instantaneous Landfill Surface Emissions Monitoring
Exceedance and Monitoring Logs (AB-32)

2020 QUARTER: 4
INITIAL MONITORING PERFORMED BY: RES/WM
FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard/Dan San Jose
LANDFILL NAME: **Kirby Canyon Recycling & Disposal Facility**

Initial Monitoring Event			1st Re-mon Event - 10 Days			2nd Re-mon Event - 10 Days			
Exceedance Grid ID No.	Monitoring Date	Field Reading	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	**Comments**
2	10/21/2020	1,500	10/30/2020	-	2,000	11/5/2020	0 ppm		Capped Well 121
4	10/21/2020	800	10/30/2020	100 ppm	-	-	-		Well 112
11	10/21/2020	9,000	10/30/2020	200 ppm	-	-	-		Well134
12	10/21/2020	1,057	10/30/2020	54 ppm	-	-	-		Well 93
13	10/21/2020	1,123	10/30/2020	-	2,000	11/5/2020	0 ppm		Well 152
14	10/21/2020	1,493	10/30/2020	-	2,000	11/5/2020	0 ppm		Well 129
15	10/21/2020	1,991	10/30/2020	-	2,000	11/5/2020	0 ppm		Well 151
16	10/21/2020	716	10/30/2020	-	2,000	11/5/2020	0 ppm		Well 147
17	10/21/2020	5,184	10/30/2020	-	2,000	11/5/2020	0 ppm		Well 146
18	10/21/2020	2,273	10/30/2020	-	2,000	11/5/2020	0 ppm		Well 144
19	10/21/2020	1,011	10/30/2020	-	2,000	11/5/2020	0 ppm		Well 149

Table A.4
Instantaneous Landfill Surface Emissions Monitoring
Areas of Concern Greater than 200 ppmv

2020 QUARTER: 4
INITIAL MONITORING PERFORMED BY: RES/WM
FOLLOW-UP MONITORING PERFORMED BY: NA
LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Initial Monitoring Event			Re-mon Event		Comments
Exceedance	Monitoring	Field	Monitoring	Reading	
Grid ID No.	Date	Reading	Date	ppm	
None					

Instantaneous Landfill Surface Emissions Monitoring
Exceedance and Monitoring Logs (NSPS/BAAQMD 8-34)

2020 QUARTER: 4
INITIAL MONITORING PERFORMED BY: RES **Wind Direction: W** **Wind Direction:SW** **Wind Direction: NW**
FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard
LANDFILL NAME: Kirby Canyon LANDFILL **Wind Speed: 2 MPH** **Wind Speed: 11 MPH** **Wind Speed: 10 MPH**

Initial Monitoring Event			Corrective action within 5 days		1st 10-day Follow-Up			2nd 10-day Follow-Up			1st 30-day Follow-Up			Comments
Flag	Monitoring	Field	Repair	Action taken to repair	Monitoring	No Exced.	Exced.	Monitoring	No Exced.	Exced.	Monitoring	No Exced.	Exced.	
Number	Date	Reading	Date	Action taken to repair	Date	<500 ppm	>500 ppm	Date	<500 ppm	>500 ppm	Date	<500 ppm	>500 ppm	
2	10/21/2020	1,500	10/26/2020	Soil and Water added	10/30/2020		2,000	11/5/2020	0 ppm		11/17/2020	40 ppm		Capped Well 121
4	10/21/2020	800	10/26/2020	Soil and Water added	10/30/2020	100 ppm					11/17/2020	13 ppm		Well 112
11	10/21/2020	9,000	10/26/2020	Soil and Water added	10/30/2020	200 ppm					11/17/2020	30 ppm		Well134
12	10/21/2020	1,057	10/26/2020	Soil and Water added	10/30/2020	54 ppm					11/17/2020	60 ppm		Well 93
13	10/21/2020	1,123	10/26/2020	Soil and Water added	10/30/2020		2,000	11/5/2020	0 ppm		11/17/2020	11 ppm		Well 152
14	10/21/2020	1,493	10/26/2020	Soil and Water added	10/30/2020		2,000	11/5/2020	0 ppm		11/17/2020	120 ppm		Well 129
15	10/21/2020	1,991	10/26/2020	Soil and Water added	10/30/2020		2,000	11/5/2020	0 ppm		11/17/2020	0 ppm		Well 151
16	10/21/2020	716	10/26/2020	Soil and Water added	10/30/2020		2,000	11/5/2020	0 ppm		11/17/2020	40 ppm		Well 147
17	10/21/2020	5,184	10/26/2020	Soil and Water added	10/30/2020		2,000	11/5/2020	0 ppm		11/17/2020	50 ppm		Well 146
18	10/21/2020	2,273	10/26/2020	Soil and Water added	10/30/2020		2,000	11/5/2020	0 ppm		11/17/2020	120 ppm		Well 144
19	10/21/2020	1,011	10/26/2020	Soil and Water added	10/30/2020		2,000	11/5/2020	0 ppm		11/17/2020	15 ppm		Well 149

KIRBY LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: Leish Wade, Dwight Anderson, Omar Ponsetta, Nick Banks

Cal. Gas Exp. Date: 9-21-21

Date: 10-21-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 55 Precip: 0 Upwind BG: 2.2 Downwind BG: 2.8

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	REMARKS
44	LW	0600	0615	40	2	3	4	
55	OP	0600	0615	39	2	3	4	
61	NB	0600	0615	78	2	3	4	
68	DA	0600	0615	35	2	3	4	
74	LW	0615	0630	42	2	3	4	
75	OP	0615	0630	27	2	3	4	
83	NB	0615	0630	34	2	3	4	
89	DA	0615	0630	46	2	3	4	
90	LW	0630	0645	24	2	3	4	
97	OP	0630	0645	31	2	3	4	
104	NB	0630	0645	77	2	3	4	
105	DA	0630	0645	38	2	3	4	
112	LW	0645	0700	51	2	3	4	
119	OP	0645	0700	36	2	3	4	
120	NB	0645	0700	21	2	3	4	
127	DA	0645	0700	26	2	3	4	
128	LW	0700	0715	33	2	3	8	
139	OP	0700	0715	57	2	3	8	
142	NB	0700	0715	26	2	3	8	
144	DA	0700	0715	24	2	3	8	
146	LW	0715	0730	30	2	3	8	
148	OP	0715	0730	19	2	3	8	
150	NB	0715	0730	36	2	3	8	
149	DA	0715	0730	24	2	3	8	
147	LW	0730	0745	17	2	3	8	
145	OP	0730	0745	22	2	3	8	
143	NB	0730	0745	25	2	3	8	
140	DA	0730	0745	19	2	3	8	
141	LW	0745	0800	26	2	3	8	
137	OP	0745	0800	35	2	3	8	

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 3

KIRBY LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: Leigh Wade; Dwight Anderson; Omar Pencille; Nick Benics

Cal. Gas Exp. Date: 9-21-21

Date: 10-21-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 62 Precip: 0 Upwind BG: 2.2 Downwind BG: 2.8

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	REMARKS
138	NB	0745	0800	21	2	3	8	
135	DA	0745	0800	35	2	3	8	
136	LW	0800	0815	26	2	3	8	
132	OP	0800	0815	40	2	3	8	
133	NB	0800	0815	47	2	3	8	
134	DA	0800	0815	38	2	3	8	
124	LW	0815	0830	113	2	3	8	
125	OP	0815	0830	75	2	3	8	
126	NB	0815	0830	31	2	3	8	
116	DA	0815	0830	58	2	3	8	
117	LW	0830	0845	106	2	3	8	
118	OP	0830	0845	45	2	3	8	
109	NB	0830	0845	32	2	3	8	
110	DA	0830	0845	159	2	3	8	
111	LW	0845	0900	9,000	2	3	7	Well 134
101	OP	0845	0900	1500	2	3	7	Capped well
102	NB	0845	0900	68	2	3	7	
94	DA	0845	0900	35	2	3	7	
95	LW	0900	0915	89	2	3	8	
86	OP	0900	0915	77	2	3	8	
87	NB	0900	0915	1123	2	3	8	Well 52
79	DA	0900	0915	95	2	3	8	
80	LW	0915	0930	113	2	3	8	
81	OP	0915	0930	1493	2	3	8	Unmarked well
70	NB	0915	0930	97	2	3	8	
71	DA	0915	0930	54	2	3	8	
72	LW	0930	0945	1991	2	3	8	Well 151
64	OP	0930	0945	35	2	3	8	
65	NB	0930	0945	72	2	3	8	
66	DA	0930	0945	716	2	3	8	Well 147

Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 3

KIRBY LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LOIS LWADE, DWIGHT ANDERSON
OMAR PONCE DE LEON
NICK BANKS

Cal. Gas Exp. Date: 9-21-21

Date: 10-21-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 65 Precip: 0 Upwind BG: 2.2 Downwind BG: 2.8

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
S7	LW	0945	1000	29	2	3	7	
S8	OP	0945	1000	116	2	3	7	
S9	ND	0945	1000	2273	2	3	7	WELL 144
60	DB	0945	1000	147	2	3	7	
S2	LW	1000	1015	88	2	3	8	
S3	OP	1000	1015	5784	2	3	8	WELL 146
S4	ND	1000	1015	79	2	3	8	
47	DB	1000	1015	86	2	3	8	
48	LW	1015	1030	800	2	3	8	WELL 172
49	OP	1015	1030	104	2	3	8	
41	ND	1015	1030	82	2	3	8	
42	DB	1015	1030	1011	2	3	8	LANDFILL GAS WELL
43	LW	1030	1045	72	2	3	8	
37	OP	1030	1045	98	2	3	8	

Attach Calibration Sheet
Attach site map showing grid ID

Page 3 of 3

KIRBY LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LOISLUNDY _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 10-21-10 Instrument Used: _____ Grid Spacing: _____

Temperature: _____ Precip: _____ Upwind BG: _____ Downwind BG: _____

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
67								Act. Vertness
73								
82								
88								
96								
103								
1								No Waste in pipe
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 3

KIRBY LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: Leigh Wyatt _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 10-21-20 Instrument Used: _____ Grid Spacing: _____

Temperature: _____ Precip: _____ Upwind BG: _____ Downwind BG: _____

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
25								
21								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
38								
39								
40								
45								
46								
50								
51								
56								
62								
63								
69								
76								
77								
78								
84								
85								
91								
92								

Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 3

KIRBY LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LEIGH WADE _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 10-21-15 Instrument Used: _____ Grid Spacing: _____

Temperature: _____ Precip: _____ Upwind BG: _____ Downwind BG: _____

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
93								
98								
99								
100								
106								
107								
108								
113								
114								
115								
121								
122								
123								
129								
130								
131								

Attach Calibration Sheet
Attach site map showing grid ID

Page 3 of 3

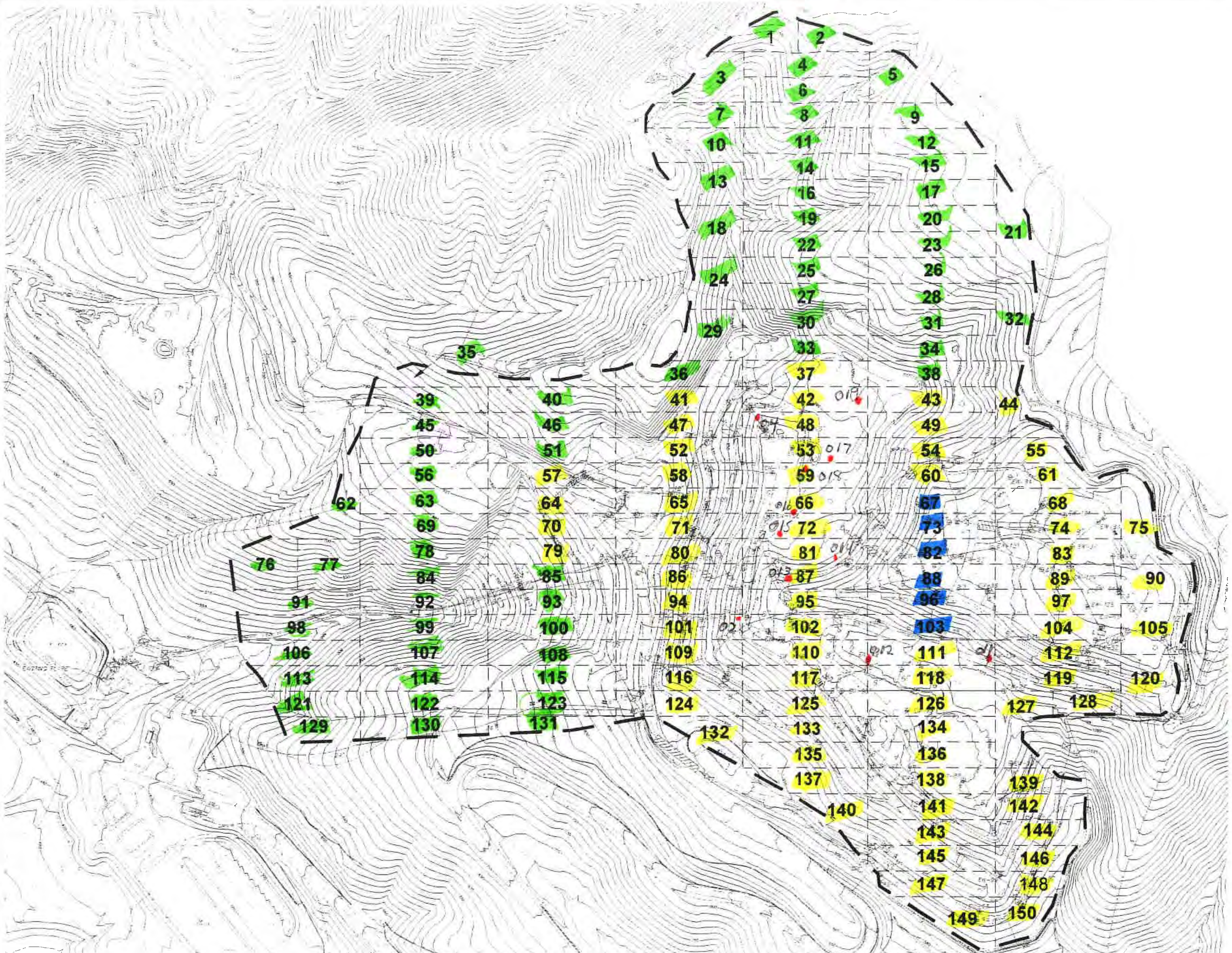
Orange Flag Landfill Surface Emissions Monitoring
Exceedances and Monitoring Log

Site: KIRBY

Quarter / Year:	4th 2020
Technician:	LEIGH WADE
Instrument:	TVA 1000
Calibration Standard:	500 ppm

Page of Pages

Initial Monitoring Event				First Re-Monitoring Event - 10 Days			Second Re-Monitoring Event - 10 Days			30-Day Follow-up Monitoring			Comments
Flag Number	Grid Number	Field Reading (ppm)	Date Monitored	Date Monitored	No Excd. <500 ppm	Excd. >500 ppm	Date Monitored	No Excd. <500 ppm	Excd. >500 ppm	Date Monitored	No Excd. <500 ppm	Excd. >500 ppm	
~~0-~~ 2	101	1500	10-21-20										CAPPED WELL
~~0-~~ 4	48	800											WELL 112
~~0-~~ 11	111	9,000											WELL 134
~~0-~~ 12	111	1057											WELL 93
~~0-~~ 13	87	1123											WELL 52
~~0-~~ 14	81	1493											WELL UNMARKED
~~0-~~ 15	72	1991											WELL 151
~~0-~~ 16	66	>16											WELL 147
~~0-~~ 17	53	5184											WELL 146
0- 18	59	2273											WELL 144
0- 19	42	1011	↓										WELL UNMARKED
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													



LEGEND

- EXISTING 10' CONTOUR
- EXISTING ABOVEGROUND PIPING
- EXISTING BELOWGROUND PIPING
- EXISTING HORIZONTAL COLLECTOR
- EXISTING LFG EXTRACTION WELL
- EXISTING LOCAL CONTROL WELL
- EXISTING WELL WITH BECS INSTALLED
- EXISTING REMOTE WELLHEAD
- EXISTING HORIZONTAL COLLECTOR WELLHEAD
- EXISTING CONTROL VALVE
- EXISTING BLIND FLANGE
- EXISTING FLANGE CONNECTION
- EXISTING REDUCER FITTING
- EXISTING ROAD CROSSING
- EXISTING RISER
- EXISTING CAP ON EXISTING PIPE

N

0 200 400
SCALE IN FEET

NOTES:
1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY WALKER ASSOCIATES. DATE OF PHOTOGRAPHY: MARCH 10, 2018.
2. 2017 GCCS AS-BUILT SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: OCTOBER 11, 2017.

Instantaneous 10-21-20

- GRIDS monitored
- Active areas
- No waste in place
- • 500 ppm

AS-BUILT

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 2/4/19 · DRAWN BY RAW · DESIGNED BY DK · CHECKED BY AMN · APPROVED BY PJS

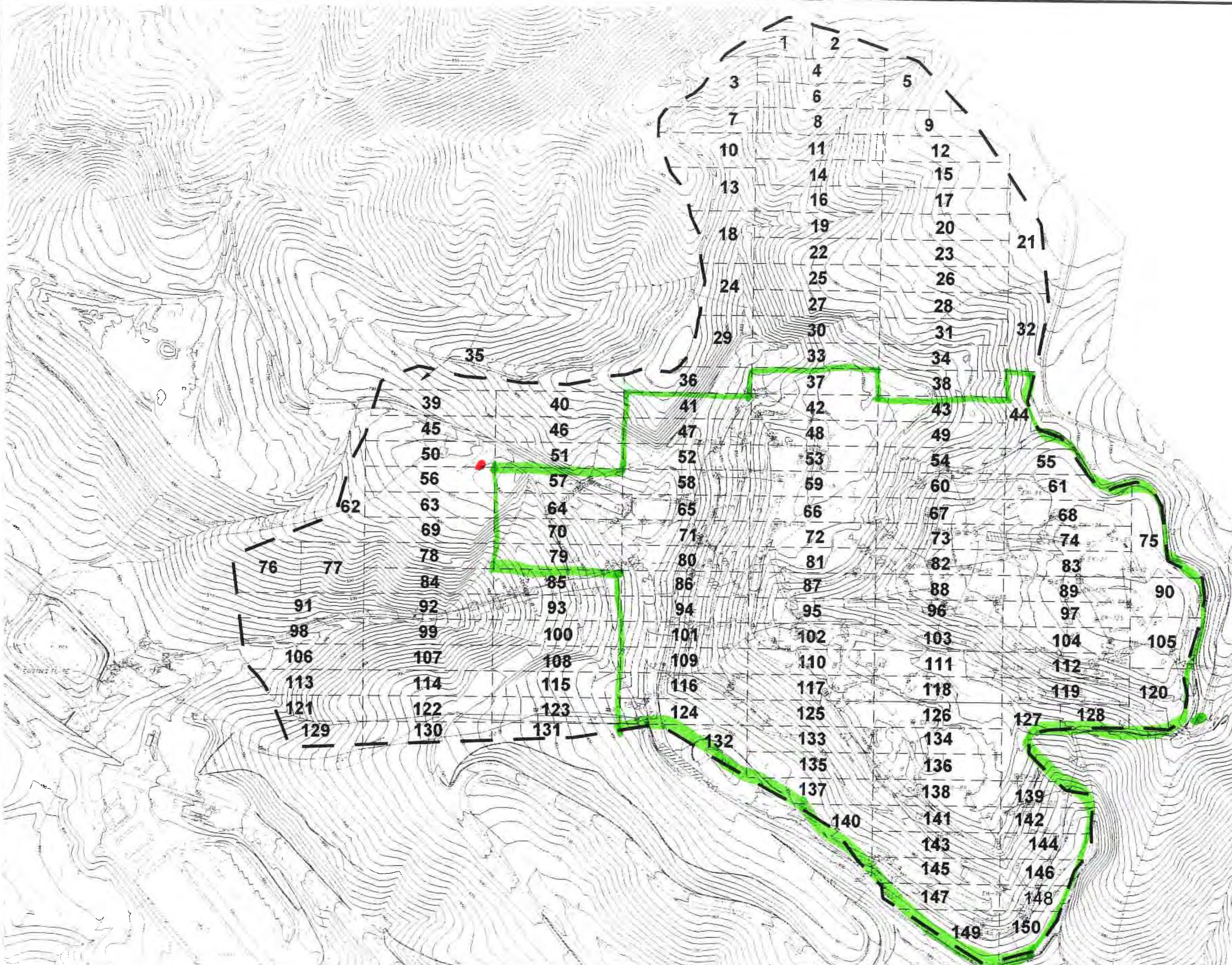
cornerstone
A TETRA TECH COMPANY

KIRBY CANYON RECYCLING
AND DISPOSAL FACILITY
MORGAN HILL, CALIFORNIA

2018 GCCS IMPROVEMENTS
AS-BUILT SITE PLAN

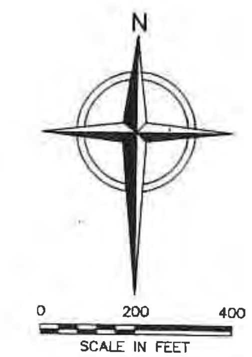
SHEET NO. 1

PROJECT NO.



LEGEND

- EXISTING 10' CONTOUR
- EXISTING ABOVEGROUND PIPING
- EXISTING BELOWGROUND PIPING
- EXISTING HORIZONTAL COLLECTOR
- EXISTING LFG EXTRACTION WELL
- EXISTING LOCAL CONTROL WELL
- EXISTING WELL WITH BECS INSTALLED
- EXISTING REMOTE WELLHEAD
- EXISTING HORIZONTAL COLLECTOR WELLHEAD
- EXISTING CONTROL VALVE
- EXISTING BLIND FLANGE
- EXISTING FLANGE CONNECTION
- EXISTING REDUCER FITTING
- EXISTING ROAD CROSSING
- EXISTING RISER
- EXISTING CAP ON EXISTING PIPE



NOTES:
1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY WALKER ASSOCIATES. DATE OF PHOTOGRAPHY: MARCH 10, 2018.
2. 2017 GCCS AS-BUILT SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: OCTOBER 11, 2017.

4th Quarter 2020 NSPS

Downwind

Upwind

AS-BUILT

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 2/4/19 DRAWN BY RAW DESIGNED BY DK CHECKED BY AMN APPROVED BY RJS

cornerstone
A TETRA TECH COMPANY

KIRBY CANYON RECYCLING AND DISPOSAL FACILITY
MORGAN HILL, CALIFORNIA

2018 GCCS IMPROVEMENTS
AS-BUILT SITE PLAN

SHEET NO. 1

PROJECT NO.

Attachment B

Integrated Surface Emission Monitoring Event Records

Table B.1
Integrated Landfill Surface Monitoring
Exceedances and Monitoring Log

2020 QUARTER: 4
INITIAL MONITORING PERFORMED BY: RES
FOLLOW-UP MONITORING PERFORMED BY: N/A
LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Initial Monitoring Event			**1st Re-mon Event - 10 Days**			
Exceedance	Monitoring	Field	Monitoring	No Exced.	No Exced.	
Grid ID No.	Date	Reading	Date	<25 ppm	>25 ppm	**Comments**
None						

KIRBY LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: Leighwade   Dwightanderson
Omarperalta
Nicole Banks

Cal. Gas Exp. Date: 9-21-21

Date: 10-20-20 Instrument Used: tVA1000 Grid Spacing: 25'

Temperature: 84 Precip: 0 Upwind BG: 2.2 Downwind BG: 2.8

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
44	LW	1425	1450	5.72	1	2	4	
55	OP	1425	1450	4.62	1	2	4	
61	NB	1425	1450	5.77	1	2	4	
68	DA	1425	1450	4.62	1	2	4	
74	LW	1450	1515	6.34	1	2	4	
75	OP	1450	1515	5.98	1	2	4	
83	NB	1450	1515	4.55	1	2	4	
89	DA	1450	1515	4.71	1	2	4	
90	LW	1515	1540	5.38	1	2	4	
97	OP	1515	1540	6.24	1	2	4	
104	NB	1515	1540	5.82	1	2	4	
105	DA	1515	1540	6.77	1	2	4	
112	LW	1540	1605	5.43	1	2	3	
119	OP	1540	1605	4.79	1	2	3	
120	NB	1540	1605	3.85	1	2	3	
127	DA	1540	1605	5.54	1	2	3	
128	LW	1605	1630	5.61	1	2	3	
139	OP	1605	1630	4.10	1	2	3	
142	NB	1605	1630	3.89	1	2	3	
144	DA	1605	1630	4.16	1	2	3	
146	LW	1630	1655	4.37	1	2	4	
148	OP	1630	1655	3.88	1	2	4	
150	NB	1630	1655	4.13	1	2	4	
149	DA	1630	1655	4.71	1	2	4	

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 1

KIRBY LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: Leishman _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 10-20-20 Instrument Used: _____ Grid Spacing: _____

Temperature: _____ Precip: _____ Upwind BG: _____ Downwind BG: _____

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
67								Active trash
73								↓
82								
88								
96								
103								↓
1								No waste in place
2								↓
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								↳

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 3

KIRBY LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: CLEISHMADE _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 10-20-20 Instrument Used: _____ Grid Spacing: _____

Temperature: _____ Precip: _____ Upwind BG: _____ Downwind BG: _____

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
38								
39								
40								
45								
46								
50								
51								
56								
62								
63								
69								
76								
77								
78								
84								
85								
91								
92								

Attach Calibration Sheet
Attach site map showing grid ID

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KIRBY LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEISHMAN _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 10-20-20 Instrument Used: _____ Grid Spacing: _____

Temperature: _____ Precip: _____ Upwind BG: _____ Downwind BG: _____

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
93								
98								
99								
100								
106								
107								
108								
113								
114								
115								
121								
122								
123								
129								
130								
131								

Attach Calibration Sheet
Attach site map showing grid ID

Page 3 of 3

KIRBY LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LOISH WADE, DWIGHT ANDINSON, OMER PONCETTE, NICK BANKS

Cal. Gas Exp. Date: 9-21-21

Date: 10-21-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 82 Precip: 0 Upwind BG: 2.2 Downwind BG: 2.8

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
147	LW	1055	1120	5.10	2	3	9	
145	OP	1055	1120	4.61	2	3	9	
143	NB	1055	1120	4.89	2	3	9	
140	DA	1055	1120	5.13	2	3	9	
141	LW	1120	1145	4.77	2	3	9	
137	OP	1120	1145	5.82	2	3	9	
138	NB	1120	1145	4.64	2	3	9	
135	DA	1120	1145	4.91	2	3	9	
136	LW	1145	1210	5.13	2	3	10	
132	OP	1145	1210	5.82	2	3	10	
133	NB	1145	1210	5.57	2	3	10	
134	DA	1145	1210	4.63	2	3	10	
124	LW	1210	1235	3.69	2	3	9	
125	OP	1210	1235	4.95	2	3	9	
126	NB	1210	1235	6.27	2	3	9	
116	DA	1210	1235	4.53	2	3	9	
117	LW	1235	1300	8.42	2	3	9	
118	OP	1235	1300	6.98	2	3	9	
109	NB	1235	1300	6.10	2	3	9	
110	DA	1235	1300	8.47	2	3	9	
111	LW	1300	1325	8.11	2	3	9	
101	OP	1300	1325	6.79	2	3	9	
102	NB	1300	1325	5.39	2	3	9	
94	DA	1300	1325	5.68	2	3	9	
95	LW	1325	1350	7.20	2	3	9	
86	OP	1325	1350	5.72	2	3	9	
87	NB	1325	1350	9.51	2	3	9	
79	DA	1325	1350	4.65	2	3	9	
80	LW	1350	1415	7.38	2	3	9	
87	OP	1350	1415	7.45	2	3	9	

Attach Calibration Sheet
Attach site map showing grid ID

KIRBY LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: Leigh Wade; Dwight Anderson; Omonpmolfe; Nick Benes

Cal. Gas Exp. Date: 9-21-21

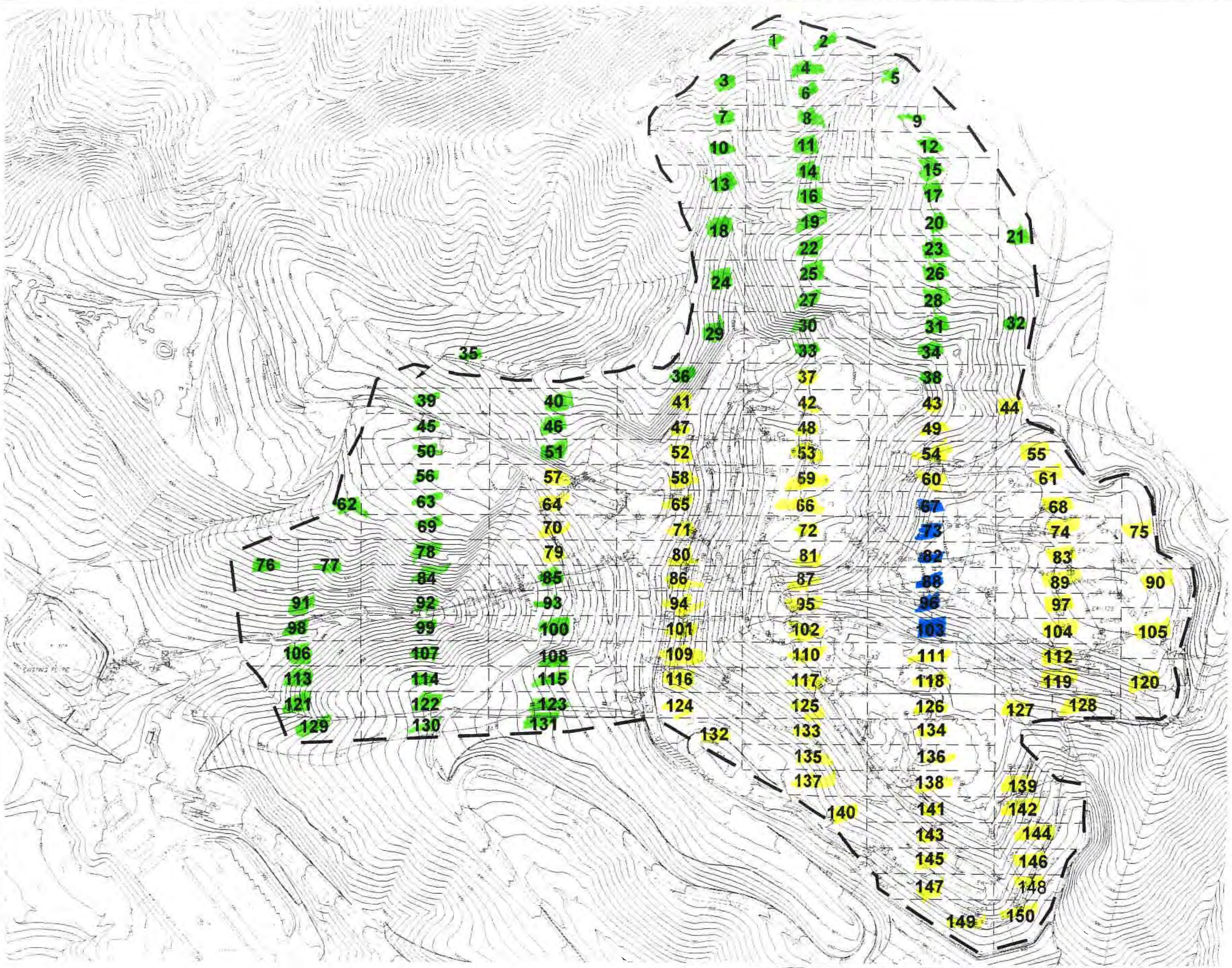
Date: 10-21-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 82 Precip: 0 Upwind BG: 2.2 Downwind BG: 2.8

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	REMARKS
70	NB	1350	1415	5.13	2	3	9	
71	DA	1350	1415	8.69	2	3	9	
72	LW	1415	1440	10.48	2	4	9	
64	OP	1415	1440	4.39	2	4	9	
65	NB	1415	1440	19.27	2	4	9	
66	DA	1415	1440	21.45	2	4	9	
57	LW	1440	1505	4.03	2	3	10	
58	OP	1440	1505	10.71	2	3	10	
59	NB	1440	1505	22.16	2	3	10	
60	DA	1440	1505	20.48	2	3	10	
52	LW	1505	1530	13.75	2	4	10	
53	OP	1505	1530	16.52	2	4	10	
54	NB	1505	1530	14.98	2	4	10	
47	DA	1505	1530	12.25	2	4	10	
48	LW	1530	1545	15.87	2	3	10	
49	OP	1530	1545	13.70	2	3	10	
41	NB	1530	1545	20.66	2	3	10	
42	DA	1530	1545	22.09	2	3	10	
43	LW	1545	1610	18.71	2	4	10	
37	OP	1545	1610	14.23	2	4	10	

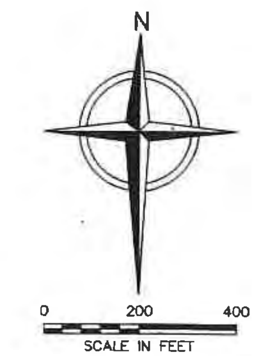
Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 2



LEGEND

- EXISTING 10' CONTOUR
- EXISTING ABOVEGROUND PIPING
- EXISTING BELOWGROUND PIPING
- EXISTING HORIZONTAL COLLECTOR
- EXISTING LFG EXTRACTION WELL
- EXISTING LOCAL CONTROL WELL
- EXISTING WELL WITH BECS INSTALLED
- EXISTING REMOTE WELLHEAD
- EXISTING HORIZONTAL COLLECTOR WELLHEAD
- EXISTING CONTROL VALVE
- EXISTING BLIND FLANGE
- EXISTING FLANGE CONNECTION
- EXISTING REDUCER FITTING
- EXISTING ROAD CROSSING
- EXISTING RISER
- EXISTING CAP ON EXISTING PIPE



NOTES:

1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY WALKER ASSOCIATES. DATE OF PHOTOGRAPHY: MARCH 10, 2018.
2. 2017 GCCS AS-BUILT SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: OCTOBER 11, 2017.

INTEGRATED 10-20-20
10-21-20

GRIDS MONITORED

Active - Fresh

NO WASTE IN PLACE

AS-BUILT

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 2/4/19 | DRAWN BY RAW | DESIGNED BY DK | CHECKED BY AMN | APPROVED BY PJS

cornerstone
A TETRA TECH COMPANY

KIRBY CANYON RECYCLING AND DISPOSAL FACILITY
MORGAN HILL, CALIFORNIA

2018 GCCS IMPROVEMENTS
AS-BUILT SITE PLAN

SHEET NO. 1

PROJECT NO.

Attachment C

Component Leak Monitoring Event Records

Table C.1
AB-32 Component Leak Monitoring
Summary of Component Leaks Greater than 500 ppmv

2020 QUARTER: 4
INITIAL MONITORING PERFORMED BY: RES/WM
FOLLOW-UP MONITORING PERFORMED BY: WM
LANDFILL NAME: **Kirby Canyon Recycling & Disposal Facility**

Location	Initial Monitoring			Corrective Action		10-Day Remonitoring		
	Date	TOC (ppmv)	Tech	Date	Description	Date	TOC (ppmv)	Tech
Flare Station	10/21/20	ND	Leigh wade	-	-	-	-	-

ND= No Exceedances

Table C.2
BAAQMD Component Leak Monitoring
Summary of Component Leaks Greater than 1,000 ppmv

2020 QUARTER: 4
INITIAL MONITORING PERFORMED BY: RES/WM
FOLLOW-UP MONITORING PERFORMED BY: WM
LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Location	Initial Monitoring			Corrective Action		7-Day Remonitoring		
	Date	TOC (ppmv)	Tech	Date	Description	Date	TOC (ppmv)	Tech
Flare Station	10/21/20	ND	Leigh wade	-	-	-	-	-

ND= No Exceedances

LANDFILL NAME: KIRBY

QUARTERLY LFG COMPONENT LEAK MONITORING

INSTRUMENT FID
MAKE: Thermo Environr
MODEL: TVA 1000
S/N: 1036346773

DATE OF SAMPLING: 10-21-20
TECHNICIAN: CGrishwade

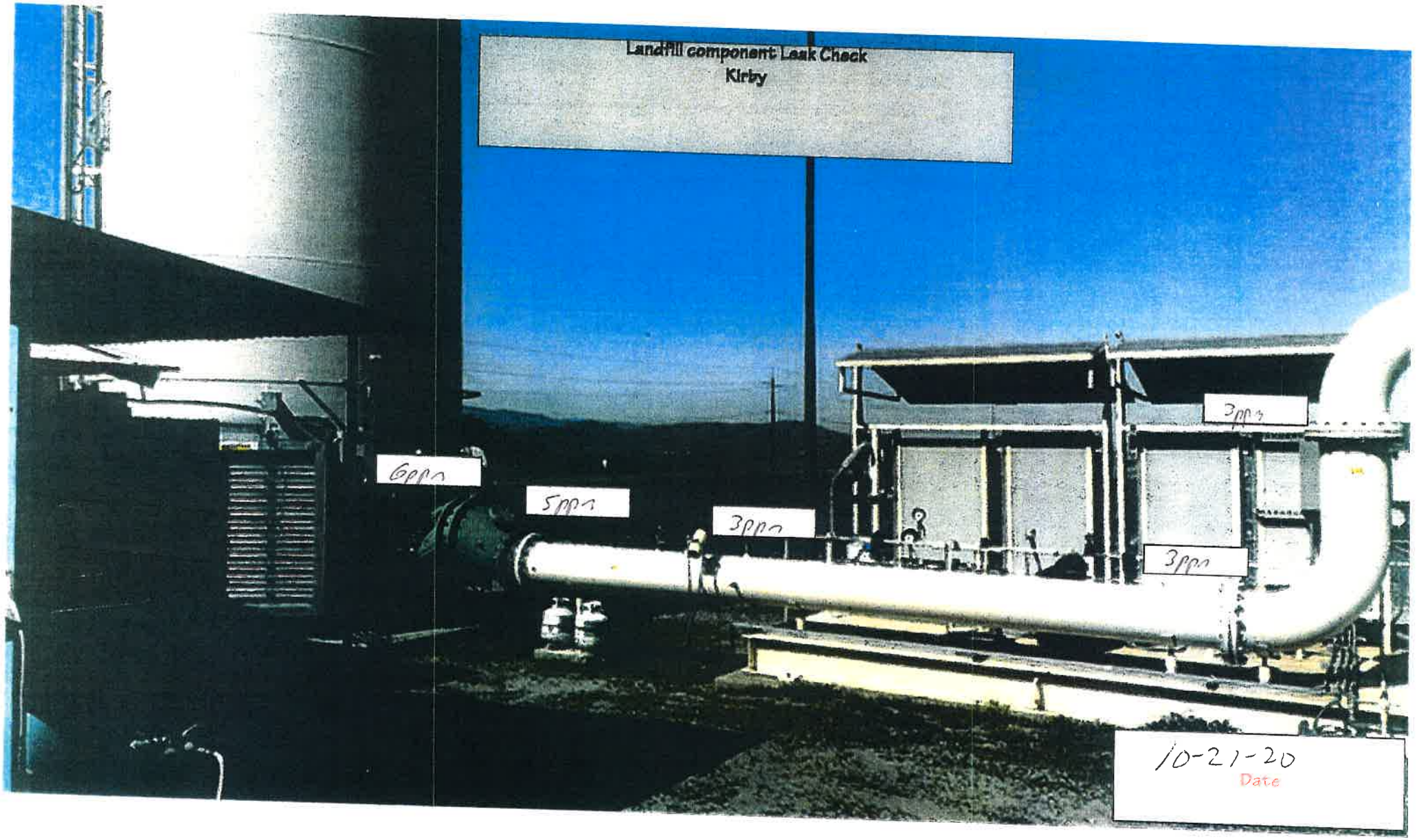
LOCATION OF LEAK	LEAK CONCENTRATION (ppmv)	DATE OF DISCOVERY	TECHNICIAN	ACTION TAKEN TO REPAIR LEAK	DATE OF REPAIR	DATE OF ANY REQUIRED RE-MONITORING	RE-MONITORED CONCENTRATION (ppmv)
NO EXCEEDANCES							

In the event that an exceedance is detected, please intiate corrective action and re-monitor the exceedance location within 7 days of the initial exceedance.

NOTE: Leaks over 500 ppmv methane are exceedances at any component containing landfill gas, pursuant to CARB Title 17 of California Code of Regulations Subchapter 10, Article 4, Subarticle 6, Section 95464(b)(1)(B).

NOTE: Leaks over 1,000 ppmv methane are exceedances at any component containing landfill gas, pursuant to BAAQMD Regulation 8-34-301.2.

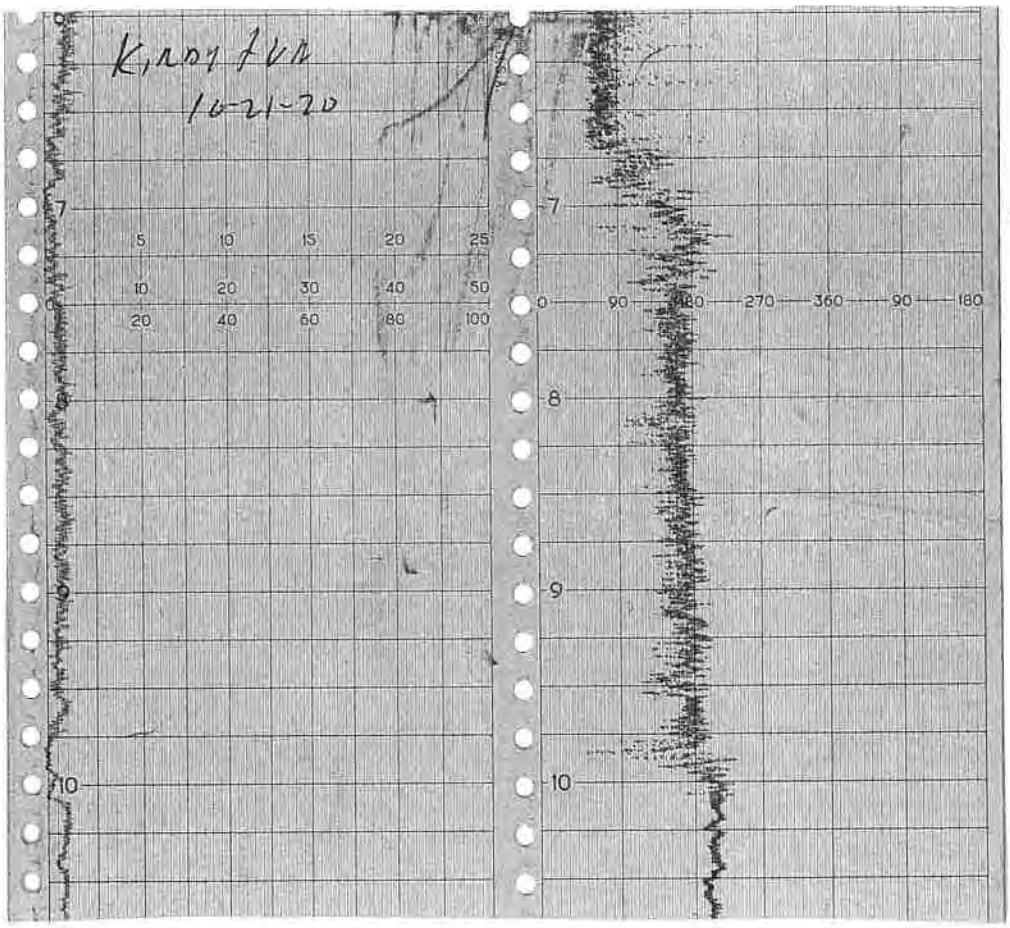

Landfill component Leak Check
Kirby
5ppm
15ppm
9ppm
10ppm
7ppm
10-21-20
Date


Landfill component Leak Check
Kirby
6PPM
5PPM
3PPM
3PPM
3PPM
10-21-20
Date

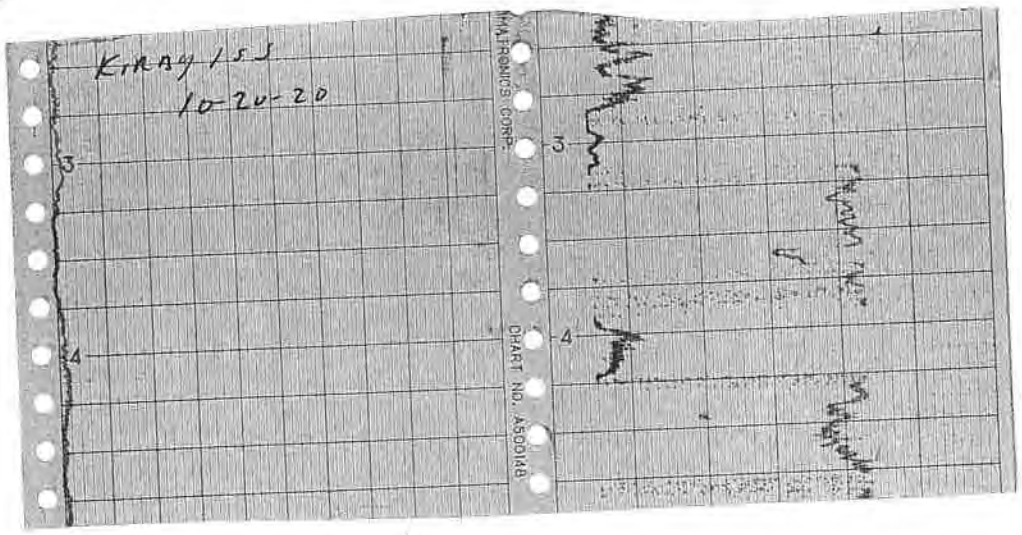
Attachment D

Weather Station Data

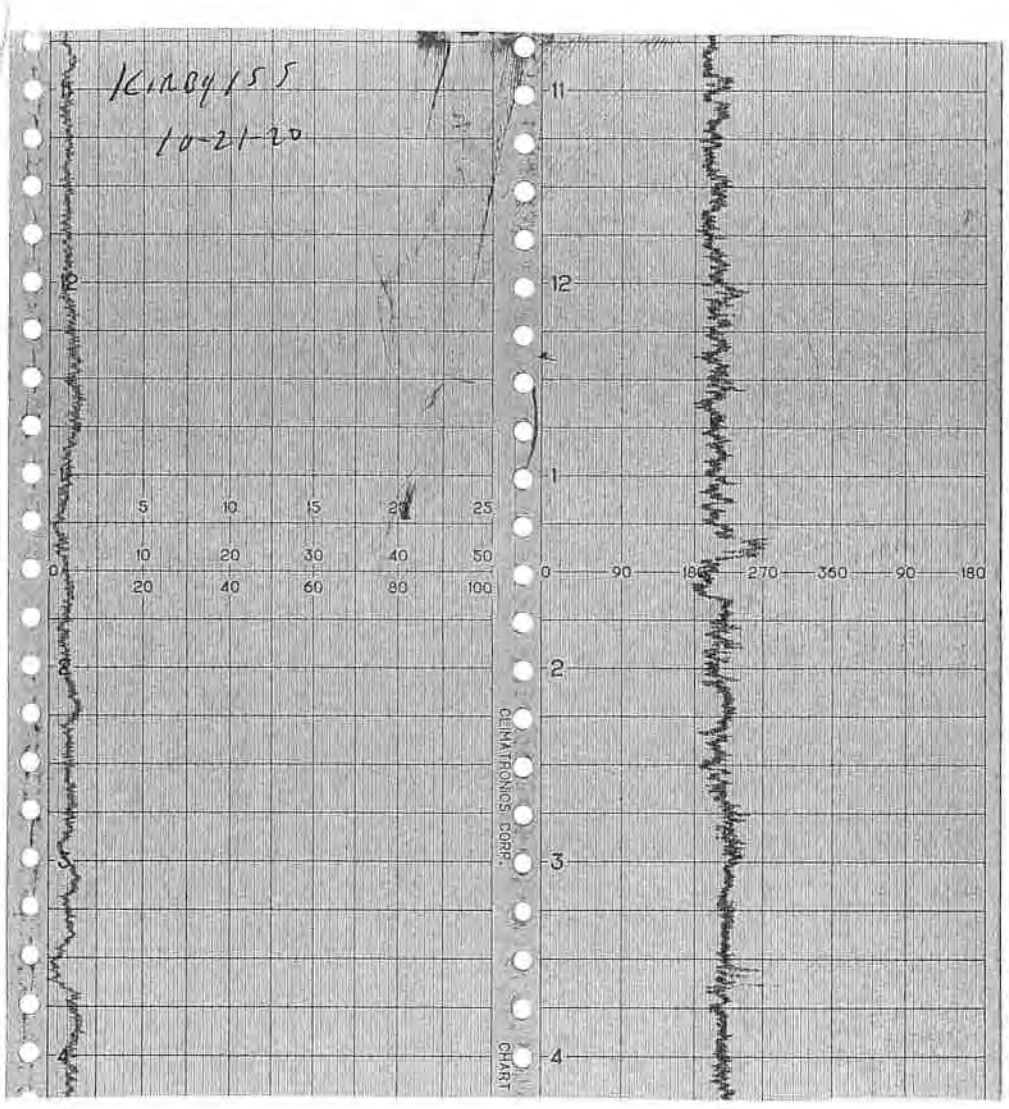
WIND SPEED & DIRECTION CHART ROLL



WIND SPEED & DIRECTION CHART ROLL



WIND SPEED & DIRECTION CHART ROLL



RES Environmental Inc.

16-POINT WIND DIRECTION INDEX

NO	DIRECTION	DEGREES		
		FROM	CENTER	TO
16	NORTH (N)	348.8	360.0	011.3
1	NORTH-NORTHEAST (NNE)	011.3	022.5	033.8
2	NORTHEAST (NE)	033.8	045.0	056.3
3	EAST-NORTHEAST (ENE)	056.3	067.5	078.8
4	EAST (E)	078.8	090.0	101.3
5	EAST-SOUTHEAST (ESE)	101.3	112.5	123.8
6	SOUTHEAST (SE)	123.8	135.0	146.3
7	SOUTH-SOUTHEAST (SSE)	146.3	157.5	168.8
8	SOUTH (S)	168.8	180.0	191.3
9	SOUTH-SOUTHWEST (SSW)	191.3	202.5	213.8
10	SOUTHWEST (SW)	213.8	225.0	236.3
11	WEST-SOUTHWEST (WSW)	236.3	247.5	258.8
12	WEST (W)	258.8	270.0	281.3
13	WEST-NORTHWEST (WNW)	281.3	292.5	303.8
14	NORTHWEST (NW)	303.8	315.0	326.3
15	NORTH-NORTHWEST (NNW)	326.3	337.5	348.8

865 Via Lata ▪ Colton, California 92324 ▪ (909) 422-1001 Fax (909) 422-0707

Attachment E

Calibration Records

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME: Kirby INSTRUMENT MAKE: Thermo

MODEL: TVA1000 EQUIPMENT #: 10 SERIAL #: 1036746777

MONITORING DATE: 10-21-20 TIME: 0555

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 500 ppm
3. Adjust meter settings to read 500 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.8 ppm	2.5 ppm

Background Value = 2.5 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	489 ppm	439 ppm	5
#2	504 ppm	454 ppm	5
#3	500 ppm	450 ppm	5
Calculate Response Time (1+2+3) / 3			5 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.26 ppm	489 ppm	11
#2	0.14 ppm	504 ppm	4
#3	0.11 ppm	500 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/500 X 100/1			1.0 #DIV/0! Must be less than 10%

Performed By: Loughwood Date/Time: 10-21-20 - 0555

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME: Kirby INSTRUMENT MAKE: Thermo

MODEL: TVA 1000 EQUIPMENT #: 11 SERIAL #: 1036346774

MONITORING DATE: 10-21-20 TIME: 0555

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 500 ppm
3. Adjust meter settings to read 500 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.8 ppm	2.5 ppm

Background Value = 2.5 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	495 ppm	445 ppm	7
#2	500 ppm	450 ppm	7
#3	500 ppm	450 ppm	7
Calculate Response Time (1+2+3) / 3			7 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.15 ppm	495 ppm	5
#2	0.10 ppm	500 ppm	0
#3	0.08 ppm	500 ppm	0
Calculate Precision	[STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/500 X 100/1		0.37 #DIV/0! Must be less than 10%

Performed By: Omar Perez Jr Date/Time 10-21-20-0555

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME: KIRBY INSTRUMENT MAKE: THERMO

MODEL: TVA1000 EQUIPMENT #: 12 SERIAL #: 1036246741

MONITORING DATE: 10-21-20 TIME: 0555

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 510 ppm
3. Adjust meter settings to read 500 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.8 ppm	2.5 ppm

Background Value = 2.5 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	491 ppm	441 ppm	6
#2	502 ppm	452 ppm	6
#3	500 ppm	450 ppm	6
Calculate Response Time (1+2+3) / 3			6 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.16 ppm	491 ppm	9
#2	0.10 ppm	502 ppm	2
#3	0.06 ppm	500 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/500 X 100/1			0.73 #DIV/0! Must be less than 10%

Performed By NICK BANKS Date/Time: 10-21-20 0555

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME: Kirby INSTRUMENT MAKE: THermo

MODEL: TVA1000 EQUIPMENT #: 13 SERIAL #: 1102746775

MONITORING DATE: 10-21-20 TIME: 0555

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 505 ppm
3. Adjust meter settings to read 500 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.8 ppm	2.5 ppm

Background Value = 2.5 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	506 ppm	456 ppm	>
#2	560 ppm	450 ppm	>
#3	500 ppm	450 ppm	>
Calculate Response Time (1+2+3) / 3			> #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.31 ppm	506 ppm	6
#2	0.20 ppm	500 ppm	0
#3	0.15 ppm	500 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/500 X 100/1			0.40 #DIV/0! Must be less than 10%

Performed By: Dwight Anderson Date/Time 10-22-20 – 0555

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Kirby INSTRUMENT MAKE: Thermo

MODEL: TVA 1000 EQUIPMENT #: 10 SERIAL #: 1036346773

MONITORING DATE: 10-20-20 TIME: 1420

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.8 ppm	2.5 ppm

Background Value = 2.5 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	24 ppm	21.6 ppm	5
#2	25 ppm	22.5 ppm	5
#3	25 ppm	22.5 ppm	5
Calculate Response Time (1+2+3) / 3			5 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.34 ppm	24 ppm	1
#2	0.13 ppm	25 ppm	0
#3	0.08 ppm	25 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/25 X 100/1			1.3 #DIV/0! Must be less than 10%

Performed By: LEIGH WADE Date/Time: 10-20-20-1420

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: K.R.B.y INSTRUMENT MAKE: THERMO

MODEL: TVA 1000 EQUIPMENT #: 11 SERIAL #: 1026346774

MONITORING DATE: 10-20-20 TIME: 1420

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 2.5 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.8 ppm	2.5 ppm

Background Value = 2.5 **ppm**

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	23 ppm	20.7 ppm	7
#2	25 ppm	22.5 ppm	7
#3	25 ppm	22.5 ppm	7
Calculate Response Time (1+2+3) / 3			7 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 **ppm**

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.34 ppm	23 ppm	2
#2	0.21 ppm	25 ppm	0
#3	0.14 ppm	25 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/25 X 100/1			2.6 #DIV/0! Must be less than 10%

Performed By: OMKAR PATEL Date/Time: 10-20-20-1420

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Kirby INSTRUMENT MAKE: Thermo

MODEL: TVA 1000 EQUIPMENT #: 12 SERIAL #: 1036246741

MONITORING DATE: 10-20-20 TIME: 1420

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.8 ppm	2.5 ppm

Background Value = 2.5 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	24 ppm	21.6 ppm	6
#2	25 ppm	22.5 ppm	6
#3	25 ppm	22.5 ppm	6
Calculate Response Time (1+2+3) / 3			6 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.25 ppm	24 ppm	1
#2	0.16 ppm	25 ppm	0
#3	0.09 ppm	25 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/25 X 100/1			1.3 #DIV/0! Must be less than 10%

Performed By: Nick Banks Date/Time: 10-20-20 – 1420

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Lima INSTRUMENT MAKE: Thermo

MODEL: TVA 1000 EQUIPMENT #: 13 SERIAL #: 1102746725

MONITORING DATE: 10-20-20 TIME: 1420

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.8 ppm	2.5 ppm

Background Value = 2.5 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	24 ppm	21.6 ppm	6
#2	24 ppm	21.6 ppm	6
#3	25 ppm	22.5 ppm	6
Calculate Response Time (1+2+3) / 3			6 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.22 ppm	24 ppm	1
#2	0.17 ppm	24 ppm	1
#3	0.14 ppm	25 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/25 X 100/1			2.6 #DIV/0! Must be less than 10%

Performed By: Dwight Anderson Date/Time: 10-20-20-1420

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: KINBY INSTRUMENT MAKE: THERMO

MODEL: TVA1000 EQUIPMENT #: 10 SERIAL #: 1036346773

MONITORING DATE: 10-21-20 TIME: 1050

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.8 ppm	2.5 ppm

Background Value = 2.5 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	24 ppm	21.6 ppm	5
#2	24 ppm	21.6 ppm	5
#3	25 ppm	22.5 ppm	5
Calculate Response Time (1+2+3) / 3			5 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.24 ppm	24 ppm	1
#2	0.16 ppm	24 ppm	1
#3	0.10 ppm	25 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/25 X 100/1			.2-6 #DIV/0! Must be less than 10%

Performed By: LEIGH WADE Date/Time: 10-21-20 1050

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Kirby INSTRUMENT MAKE: Thermo

MODEL: TVA 1000 EQUIPMENT #: 11 SERIAL #: 1026346774

MONITORING DATE: 10-21-20 TIME: 1050

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.8 ppm	2.5 ppm

Background Value = 2.5 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	23 ppm	20.7 ppm	5
#2	24 ppm	21.6 ppm	5
#3	25 ppm	22.5 ppm	5
Calculate Response Time (1+2+3) / 3			5 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.18 ppm	23 ppm	2
#2	0.11 ppm	24 ppm	1
#3	0.08 ppm	25 ppm	0
Calculate Precision	$\frac{[STD-B1] + [STD-B2] + [STD-B3]}{3} \times \frac{1}{25} \times \frac{100}{1}$		.4.0 #DIV/0! Must be less than 10%

Performed By: Orach Pbnel TA Date/Time: 10-21-20-1050

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Kirby INSTRUMENT MAKE: Thermo

MODEL: TVA 1000 EQUIPMENT #: 12 SERIAL #: 1036246791

MONITORING DATE: 10-21-20 TIME: 1050

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.8 ppm	2.5 ppm

Background Value = 2.5 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	23 ppm	20.7 ppm	7
#2	25 ppm	22.5 ppm	7
#3	25 ppm	22.5 ppm	7
Calculate Response Time (1+2+3) / 3			7 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Callbration Gas (B)	Calculate Precision [STD – (B)]
#1	0.35 ppm	23 ppm	2
#2	0.21 ppm	25 ppm	0
#3	0.16 ppm	25 ppm	0
Calculate Precision	[STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/25 X 100/1		2.6 #DIV/0! Must be less than 10%

Performed By: Nick Banks Date/Time: 10-21-20 - 1050

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Kirby INSTRUMENT MAKE: Thermo

MODEL: tva 1000 EQUIPMENT #: 13 SERIAL #: 1102746775

MONITORING DATE: 10-21-20 TIME: 1050

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.8 ppm	2.5 ppm

Background Value = 2.5 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	24 ppm	21.6 ppm	5
#2	25 ppm	22.5 ppm	5
#3	25 ppm	22.5 ppm	5
Calculate Response Time (1+2+3) / 3			5 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.22 ppm	24 ppm	1
#2	0.14 ppm	25 ppm	0
#3	0.11 ppm	25 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/25 X 100/1			.13 #DIV/0! Must be less than 10%

Performed By: Dwight Anderson Date/Time: 10-21-20-1050

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Kirby Date: 10-30-20

Time: _____ AM 2:30 PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 500 ppm
3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 3 ppm (a)
2. Downwind Reading (highest in 30 seconds): 2 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 2.5 ppm

Performed by: Markus Bernard

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Kirby Canyon Landfill Date: 11/05/20

Time: _____ AM 3:00 PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 495 ppm
3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 2 ppm (a)
2. Downwind Reading (highest in 30 seconds): 2 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 2 ppm

Performed by: Markus Bernard

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Kirby Date: 11-17-20

Time: 10:20 AM _____ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 500 ppm
3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 20 ppm (a)
2. Downwind Reading (highest in 30 seconds): 20 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 10 ppm

Performed by: Markus Bernard

CALIBRATION PRECISION TEST RECORD

Date: 9/30/2020

Expiration Date (3 months): 12/30/2020

Time: 9:00 AM _____ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Meter Reading for Zero Air: 0 ppm (a)

Meter Reading for Calibration Gas: 500 ppm (b)

Measurement #2:

Meter Reading for Zero Air: 0 ppm (c)

Meter Reading for Calibration Gas: 500 ppm (d)

Measurement #3:

Meter Reading for Zero Air: 0 ppm (e)

Meter Reading for Calibration Gas: 496 ppm (f)

Calculate Precision:

$$\frac{\{|(500) - (b)| + |(500) - (d)| + |(500) - (f)|\}}{3} \times \frac{1}{500} \times 100$$

0.8 % (must be < than 10%)

Performed by: M. Bernard

RESPONSE TIME TEST RECORD

Date: 9/30/20

Expiration Date (3 months): 12/30/20

Time: 9:00 AM _____ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Stabilized Reading Using Calibration Gas: 500 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 4 seconds (a)

Measurement #2:

Stabilized Reading Using Calibration Gas: 500 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (b)

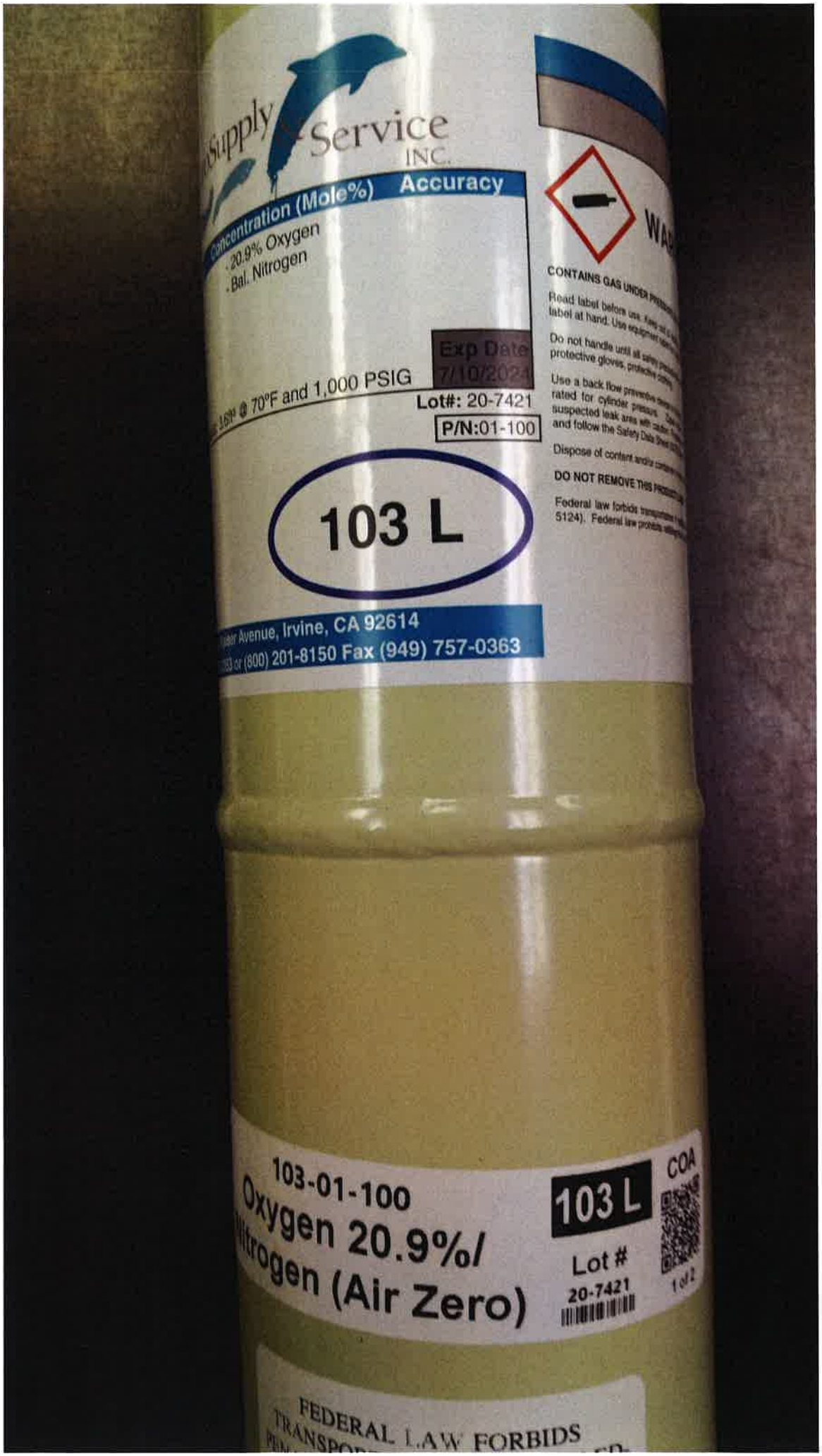
Measurement #3:

Stabilized Reading Using Calibration Gas: 498 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (c)

Calculate Response Time:

$$\frac{(a) + (b) + (c)}{3} = 4.6 \text{ seconds (must be less than 30 seconds)}$$

Performed by: M. Bernard


Supply Service INC.
Concentration (Mole%) Accuracy
- 20.9% Oxygen
- Bal. Nitrogen
Exp Date 7/10/2024
Lot#: 20-7421
P/N:01-100
103 L
CONTAINS GAS UNDER
Read label before use.
Do not handle until
protective gloves,
Use a back flow
rated for cylinder
suspected leak
and follow the
Dispose of
DO NOT REMOVE THIS
Federal law forbids
5124). Federal law
Avenue, Irvine, CA 92614
or (800) 201-8150 Fax (949) 757-0363
103-01-100
Oxygen 20.9%/
Nitrogen (Air Zero)
103 L
Lot #
20-7421
COA
1 of 2
FEDERAL LAW FORBIDS

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CERTIFICATE OF ANALYSIS

Composition	Certification	Analytical Accuracy (+/-)
Oxygen	20.9 %	2%
Nitrogen	Balance UHP	

Lot #	20-7421
Mfg. Date:	5/20/2020
Expiration Date:	
Transfill Date:	see cylinder
Parent Cylinder ID Number:	NY02268

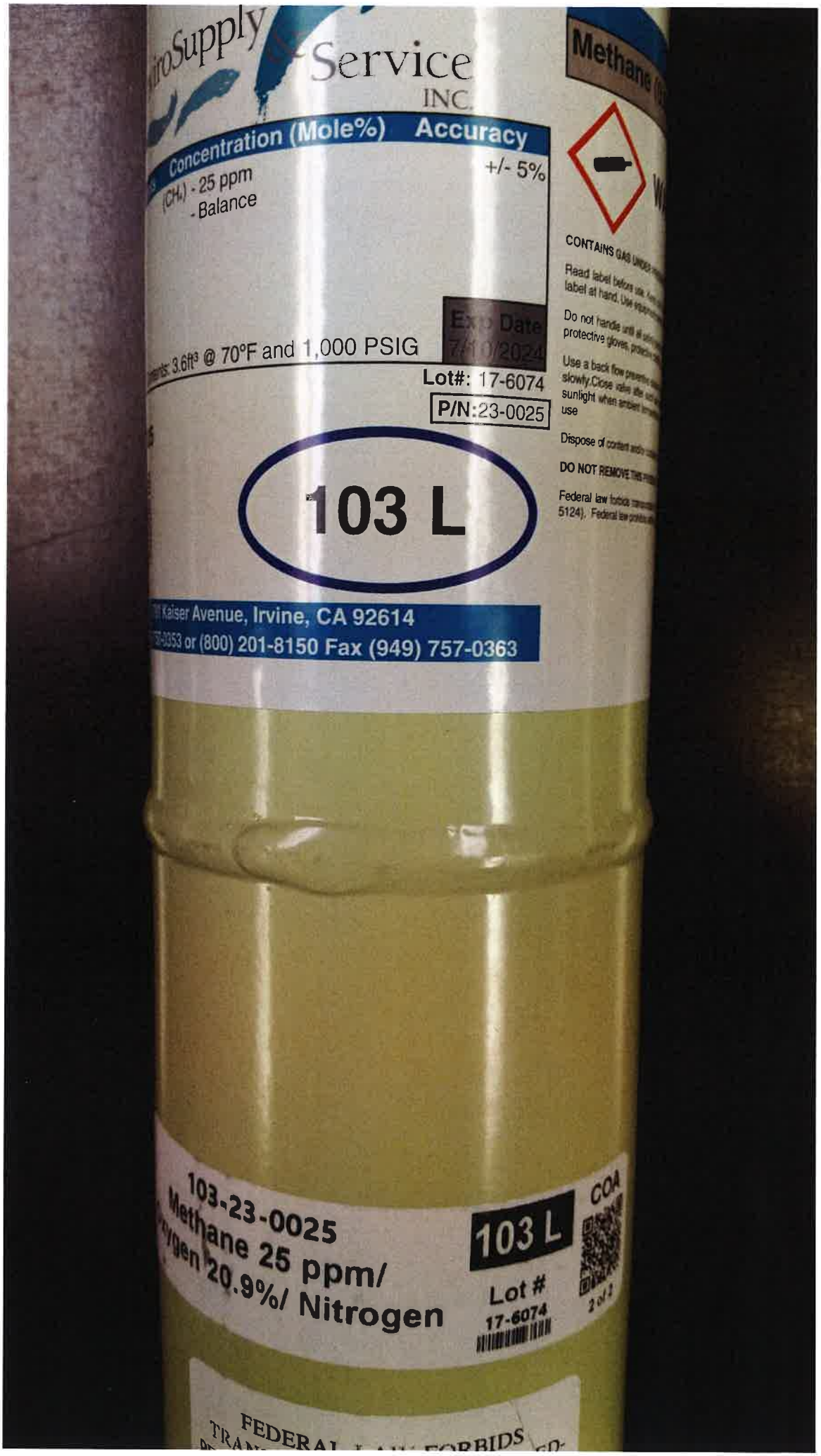
Method of Preparation:

Gravimetric/Pressure Transfilled

Method of Analysis:

The parent mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Title: Quality Assurance Manager
Certificate Date: 5/20/2020


Service
INC.
Concentration (Mole%) Accuracy
(CH4) - 25 ppm
- Balance
+/- 5%
Exp Date
7/10/2024
Lot#: 17-6074
P/N:23-0025
103 L
Kaiser Avenue, Irvine, CA 92614
(800) 201-8150 Fax (949) 757-0363
Methane
CONTAINS GAS UNDER
Read label before use.
label at hand. Use
Do not handle until
protective gloves,
Use a back flow
slowly.Close
sunlight when ambient
use
Dispose of content
DO NOT REMOVE THIS
Federal law
5124), Federal law
103-23-0025
Methane 25 ppm/
ygen 20.9%/ Nitrogen
103 L
Lot #
17-6074
COA
2 of 2
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CERTIFICATE OF ANALYSIS

Composition	Certification	Analytical Accuracy
Methane	25 ppm	± 5%
Air	Balance	

Lot # 17-6074

Mfg. Date: 10/16/2017

Parent Cylinder ID Number: 17161

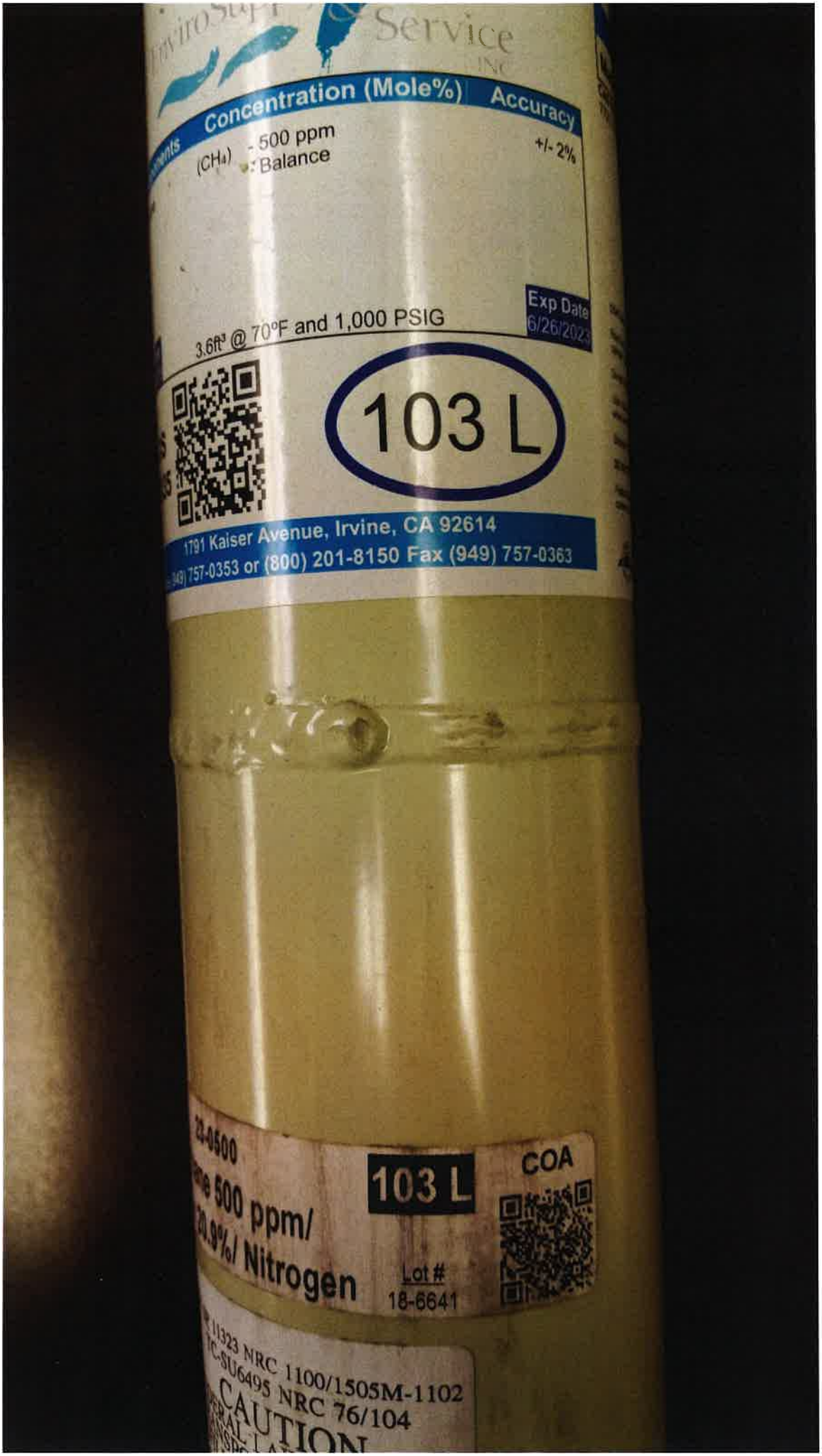
Method of Preparation:

Gravimetric/Pressure Transfilled

Method of Analysis:

The parent mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Quality Assurance Manager
800-552-5003
Certificate Date: 10/16/2017


Service
Concentration (Mole%)
Accuracy
(CH4) - 500 ppm
Balance
+/- 2%
3.6ft³ @ 70°F and 1,000 PSIG
Exp Date
6/26/2023
103 L
1791 Kaiser Avenue, Irvine, CA 92614
757-0353 or (800) 201-8150 Fax (949) 757-0363
103 L
COA
Lot #
18-6641
11323 NRC 1100/1505M-1102
CAUTION

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Composition	Certification	Analytical Accuracy (+/-)
Methane	500 ppm	2%
Oxygen	20.9 %	2%
Nitrogen	Balance UHP	

Lot #	**18-6641**
Mfg. Date:	12/18/2018
Expiration Date:	
Transfill Date:	see cylinder
Parent Cylinder ID Number:	001763

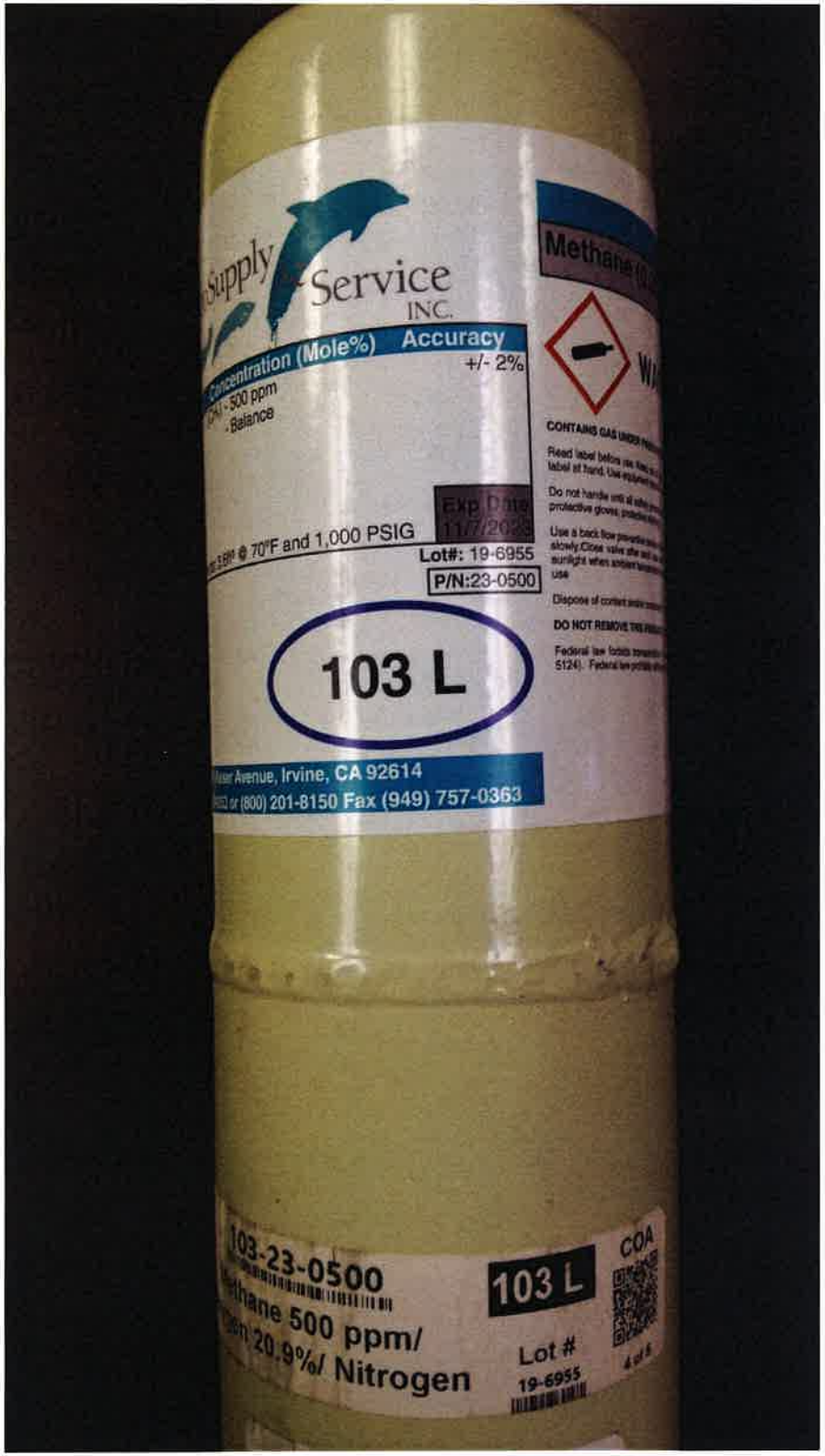
Method of Preparation:

Gravimetric/Pressure Transfilled

Method of Analysis:

The parent mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Title: Quality Assurance Manager
Certificate Date: 12/18/2018


Service
INC.
Accuracy
+/- 2%
Exp Date
Lot#: 19-6955
P/N:23-0500
103 L
(800) 201-8150 Fax (949) 757-0363
103-23-0500
103 L
Lot #
19-6955
COA

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CERTIFICATE OF ANALYSIS

Composition	Certification	Analytical Accuracy
Methane	500 ppm	± 2%
Air	Balance	

Lot # 19-6955

Mfg. Date: 7/24/2019

Parent Cylinder ID Number: 001763

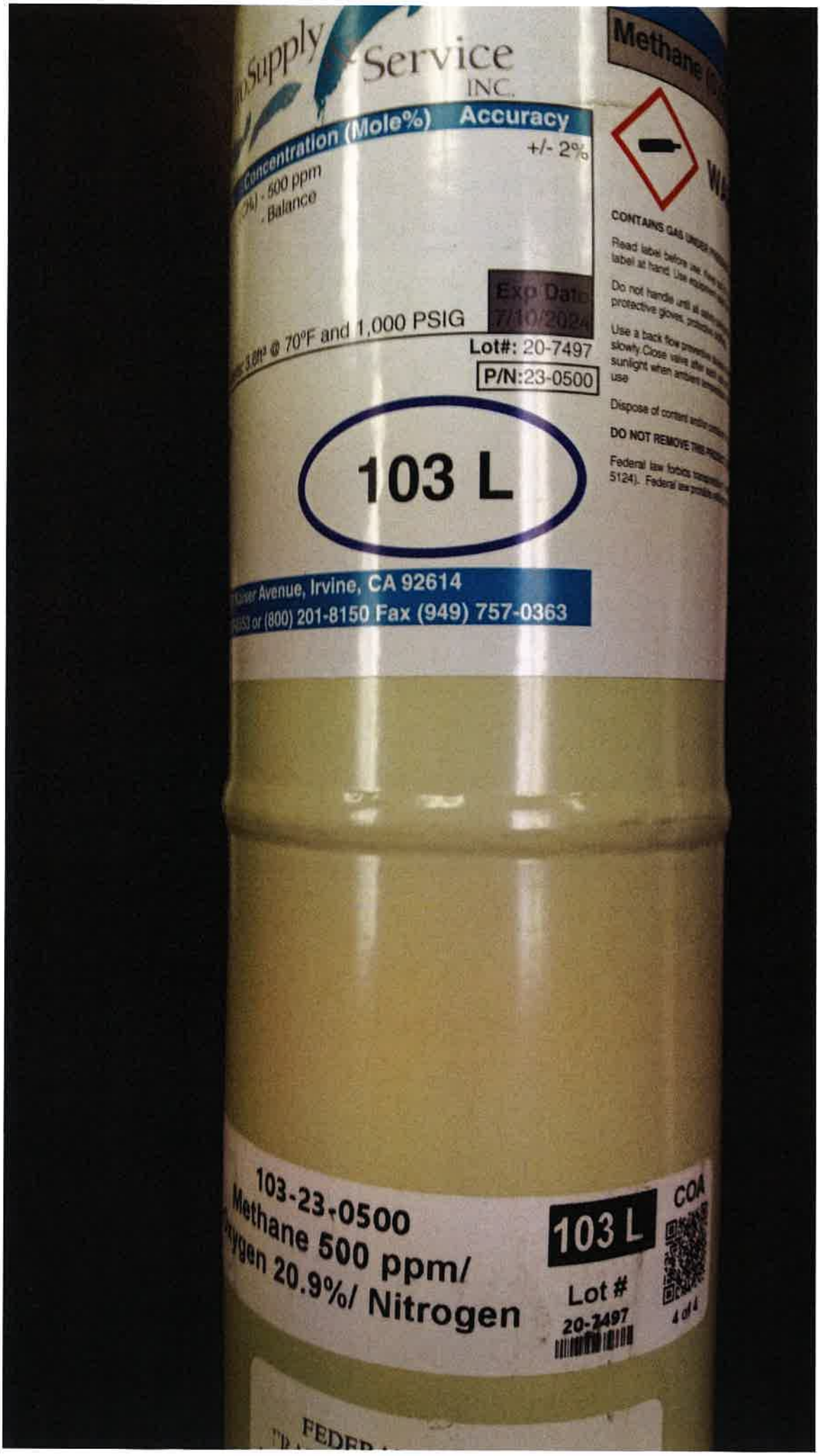
Method of Preparation:

Gravimetric/Pressure Transfilled

Method of Analysis:

The parent mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Quality Assurance Manager
800-552-5003
Certificate Date: 7/24/2019


Service
INC.
Methane
Concentration (Mole%)
Accuracy
+/- 2%
- 500 ppm
Balance
Exp Date
7/10/2024
Lot#: 20-7497
P/N:23-0500
103 L
Avenue, Irvine, CA 92614
or (800) 201-8150 Fax (949) 757-0363
103-23-0500
Methane 500 ppm/
ygen 20.9%/ Nitrogen
103 L
Lot #
20-7497
COA
4 of 4

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CERTIFICATE OF ANALYSIS

Composition	Certification	Analytical Accuracy (+/-)
Methane	500 ppm	2%
Oxygen	20.9 %	2%
Nitrogen	Balance UHP	

Lot #	**20-7497**
Mfg. Date:	7/10/2020
Expiration Date:	
Transfill Date:	see cylinder
Parent Cylinder ID Number:	TWC001763

Method of Preparation:

Gravimetric/Pressure Transfilled

Method of Analysis:

The parent mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Title: Quality Assurance Manager
Certificate Date: 7/10/2020

RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Unit #10

SERIAL NUMBER: 1036346773

TECHNICIAN: JM M DATE: 10-2-20

GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

FID			
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	101	+/- 25
500	500	500	+/- 125
10000	10000	10,026	+/- 2500
< 1	ZERO GAS	0.53	< 3
PID			
ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50	/	+/- 12.5
100	100	/	+/- 25
500	500	/	+/- 125
< 1	ZERO GAS	/	< 3

All measurement standards are calibrated at scheduled intervals by the National Institute of Standards and Technology (NIST), or against certified standards, which are traceable to the National Institute of Standards and Technology.

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RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES VAULT #11

SERIAL NUMBER: 1036346774

TECHNICIAN: [signature] DATE: 10-2-20

GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

FID			
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	100	+/- 25
500	500	500	+/- 125
10000	10000	10,101	+/- 2500
< 1	ZERO GAS	0.49	< 3
PID			
ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50	/	+/- 12.5
100	100	/	+/- 25
500	500	/	+/- 125
< 1	ZERO GAS	/	< 3

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RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Unit #12

SERIAL NUMBER: 1036246741

TECHNICIAN: [signature] DATE: 10-2-20

GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

FID			
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	100	+/- 25
500	500	500	+/- 125
10000	10000	10,000	+/- 2500
< 1	ZERO GAS	0.59	< 3
PID			
ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50	/	+/- 12.5
100	100	/	+/- 25
500	500	/	+/- 125
< 1	ZERO GAS	/	< 3

All measurement standards are calibrated at scheduled intervals by the National Institute of Standards and Technology (NIST), or against certified standards, which are traceable to the National Institute of Standards and Technology.

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RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Unit #13

SERIAL NUMBER: 1102746775

TECHNICIAN: [signature] DATE: 10-2-20

GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

FID			
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	100	+/- 25
500	500	501	+/- 125
10000	10000	10,003	+/- 2500
< 1	ZERO GAS	0.69	< 3
PID			
ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50		+/- 12.5
100	100		+/- 25
500	500		+/- 125
< 1	ZERO GAS		< 3

All measurement standards are calibrated at scheduled intervals by the National Institute of Standards and Technology (NIST), or against certified standards, which are traceable to the National Institute of Standards and Technology.

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RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site: _____

Purpose: _____

Operator: _____

Date: 10-2-20 Time: 0800

Model # TVA 1000 B

Serial # #10 1036346773

INSTRUMENT INTEGRITY CHECKLIST	
Battery test	(Pass) / Fail
Reading following ignition	2.1 ppm
Leak test	(Pass) / Fail / NA
Clean system check (check valve chatter)	(Pass) / Fail / NA
H_2 supply pressure gauge (acceptable range 9.5 - 12)	(Pass) / Fail / NA
Date of last factory calibration	10-2-20
Factory calibration record w/instrument within 3 months	(Pass) / Fail

INSTRUMENT CALIBRATION

CALIBRATION CHECK

Calibration Gas (ppm)	Actual (ppm)	% Accuracy
500	500	100 %

RESPONSE TIME

Calibration Gas, ppm 500

90% of Calibration Gas, ppm 450

Time required to attain 90% of Cal Gas ppm

1. 7
2. 7
3. 7

Average 7.0

Equal to or less than 30 seconds? (Y) N

Instrument calibrated to CH4 gas.

Comments: _____

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RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site: _____

Purpose: _____

Operator: _____

Date: 10-2-20 Time: 0815

Model # TVA 1000 B

Serial # #11 1036346774

INSTRUMENT INTEGRITY CHECKLIST		INSTRUMENT CALIBRATION
Battery test	(Pass) / Fail	CALIBRATION CHECK
Reading following ignition	2.3 ppm	Calibration Gas (ppm): 500 / Actual (ppm): 500 / % Accuracy: 100%
Leak test	(Pass) / Fail / NA	RESPONSE TIME
Clean system check (check valve chatter)	(Pass) / Fail / NA	Calibration Gas, ppm: 500
H_2 supply pressure gauge (acceptable range 9.5 - 12)	(Pass) / Fail / NA	90% of Calibration Gas, ppm: 450
Date of last factory calibration	10-2-20	Time required to attain 90% of Cal Gas ppm: 1. 6 / 2. 6 / 3. 7 / Average 6.3
Factory calibration record w/instrument within 3 months	(Pass) / Fail	Equal to or less than 30 seconds? (Y) N
		Instrument calibrated to CH4 gas.

Comments: _____

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RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site: _____

Purpose: _____

Operator: _____

Date: 10-2-20 Time: 0830

Model # TVA 1000 B

Serial # #17 1036246741

INSTRUMENT INTEGRITY CHECKLIST		INSTRUMENT CALIBRATION
Battery test	(Pass) / Fail	CALIBRATION CHECK
Reading following ignition	2.1 ppm	Calibration Gas (ppm): 500 / Actual (ppm): 500 / % Accuracy: 100%
Leak test	(Pass) / Fail / NA	RESPONSE TIME
Clean system check (check valve chatter)	(Pass) / Fail / NA	Calibration Gas, ppm: 500
H_2 supply pressure gauge (acceptable range 9.5 - 12)	(Pass) / Fail / NA	90% of Calibration Gas, ppm: 450
Date of last factory calibration	10-2-20	Time required to attain 90% of Cal Gas ppm: 1. 5 2. 6 3. 6
Factory calibration record w/instrument within 3 months	(Pass) / Fail	Average: 5.6
		Equal to or less than 30 seconds? (Y) N
		Instrument calibrated to CH4 gas.

Comments: _____

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RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site: _____

Purpose: _____

Operator: _____

Date: 10-2-20 **Time:** 0845

Model # TVA 1000 B

Serial # #13 / 1027467775

INSTRUMENT INTEGRITY CHECKLIST		INSTRUMENT CALIBRATION
Battery test	(Pass) / Fail	CALIBRATION CHECK
Reading following ignition	2.6 ppm	Calibration Gas (ppm): 500 / Actual (ppm): 500 / % Accuracy: 100%
Leak test	(Pass) / Fail / NA	RESPONSE TIME
Clean system check (check valve chatter)	(Pass) / Fail / NA	Calibration Gas, ppm: 500
H_2 supply pressure gauge (acceptable range 9.5 - 12)	(Pass) / Fail / NA	90% of Calibration Gas, ppm: 450
Date of last factory calibration	10-2-20	Time required to attain 90% of Cal Gas ppm: 1. 5 / 2. 5 / 3. 5
Factory calibration record w/instrument within 3 months	(Pass) / Fail	Average: 5.0
		Equal to or less than 30 seconds? (Y) N
		Instrument calibrated to CH4 gas.

Comments: _____

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January 5, 2021

Ms. Becky Azevedo
Kirby Canyon Recycling & Disposal Facility
910 Coyote Creek Golf Drive
San Jose, CA 95037

Fourth Quarter 2020 Supplemental Surface Emissions Monitoring Report for the Kirby Canyon Recycling and Disposal Facility

Dear Ms. Azevedo:

This monitoring report for the "**Kirby Canyon Recycling and Disposal Facility (KCRDF) Landfill"** contains the results of the **Fourth Quarter 2020 Supplemental Instantaneous Surface Emissions Monitoring (SEM).** Initial and re-monitoring of surface emissions was conducted by KCRDF personnel.

All monitoring was completed in accordance with the applicable regulatory requirements or approved alternatives. If you have any questions regarding this report, please do not hesitate to contact me at (510) 875-9338.

Thank you,

Rajan Phadnis
Environmental Protection Specialist
Waste Management of California, Inc

Attachment A – Supplemental Surface Emissions Monitoring Report

Attachment B – SEM 30-day re-monitoring results

Attachment A

Supplemental Surface Emissions Monitoring Report

January 5, 2021

Matthias Falk, PhD
Air Pollution Specialist
Research Division/California Air Resources Board
P.O. Box 2815
Sacramento, California 95812
Matthias.Falk@arb.ca.gov

Fourth Quarter 2020 Supplemental Surface Emissions Monitoring Report
Kirby Canyon Recycling and Disposal Facility, San Jose, CA

Dear Dr. Falk,

This supplemental surface emissions monitoring (SEM) report for the **"Kirby Canyon Recycling and Disposal Facility (KCRDF)"** contains the results of monitoring that followed the California Air Resources Board (CARB) methane plume detection flyover as part of the Fall 2020 Airborne Methane Campaign that occurred on November 15, 2020.. Pursuant to participation in the Fall 2020 Airborne Methane Campaign, KCRDF conducted SEM at the targeted areas using standard CARB landfill methane rule (LMR), Bay Area Air Quality Management District (BAAQMD) and New Source Performance Standard (NSPS) protocols.

APPLICABLE REQUIREMENTS

The monitoring discussed in this report was conducted in accordance with the following requirements:

Surface Emission Monitoring (SEM)

- New Source Performance Standard (NSPS), Title 40 of the Code of Federal Regulations (CFR) §60.755 (c) and (d), 40 CFR 60, Appendix A Method 21, promulgated by the United States Environmental Protection Agency (USEPA).

- California Code of Regulations (CCR) Title 17, Subchapter 10, Article 4, Subarticle 6, §95460 to §95476, known as the Assembly Bill 32 (AB32) landfill methane rule (LMR).

- Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34, Section 303 (Landfill Surface Requirements) and Section 607 (Landfill Surface Inspection procedures).

KCRDF Plan and Alternative Compliance Measures

An Alternative Compliance Option (ACO) Request was submitted to the California Air Resources Board (CARB) on May 16, 2011. After receipt of comments, this ACO was amended, restated, and submitted to BAAQMD on July 1, 2016. SEM monitoring was conducted per the methods outlined in the July 1, 2016 ACO.

PROCEDURES

General Procedures

Field personnel walked the targeted areas of the landfill. During the supplemental event, special attention was given to monitoring unusual cover conditions (stressed vegetation, cracks, seeps, etc.) and any unusual odors in the targeted areas.

Instantaneous Surface Emissions Monitoring

The Instantaneous SEM was conducted using a Toxic Vapor Analyzer (TVA) 1000 flame ionization detector (FID), which was calibrated to 500 parts per million by volume (ppm_v) methane, which meets or exceeds all guidelines set forth in the CCR Title 17 §95471(a) and NSPS. The FID was calibrated prior to use in accordance with the United States Environmental Protection Agency (USEPA) Method 21 requirements. The Instantaneous SEM procedures followed the requirements of 40 CFR 60.755 (c) and (d) and CCR Title 17 §95471(c)(2).

Field personnel walked the targeted areas of the landfill with the wand tip held at 2 inches from the landfill surface. All instantaneous surface monitoring was performed in accordance with the applicable requirements referenced in this report. Any detections of methane above 200 ppmv (areas of concern) or 500 ppmv (exceedances) for instantaneous were recorded, flagged, and marked on an SEM Map, which, wherever required, is included in the Attachments of this report. Applicable corrective action and re-monitoring timelines are listed below:

- Re-monitoring shall be conducted within 10 days of the initial exceedance.
    - If the re-monitoring event shows the exceedance is corrected, the location shall be re-monitored within 1 month of the initial exceedance.
    - If the 1-month re-monitoring event shows the location is still corrected, all re-monitoring requirements have been completed.
- If either the first 10-day or 1-month re-monitoring events show a second exceedance, additional corrective actions shall be completed and a second re-monitoring event shall be conducted within 10 days of the second exceedance.
- If the second 10-day re-monitoring event shows the second exceedance is corrected, the location shall be re-monitored within 1 month of the initial exceedance. If the 1-month re-monitoring event shows the area is still corrected, monitoring requirements have been completed.
- If any location shows three exceedances, an additional well shall be installed within 120 days of the initial exceedance.

SUPPLEMENTAL SEM RESULTS

The following is a summary of the supplemental SEM monitoring results completed following the CARB 2020 Airborne Methane Campaign plume detection flyover that occurred on November 15, 2020. The KCRDF received a notice of methane plume detection on November 16 and 19, 2020. KCRDF reviewed the CARB aerial photographs and subsequently conducted SEM at the targeted areas.

Instantaneous Surface Emission Monitoring Results

The Instantaneous surface monitoring of the targeted areas was performed on November 17 and 25 and December 10, 2020 in accordance with the NSPS, BAAQMD 8-34, and CCR Title 17 §95469 and ACO. Results and data from the monitoring are presented in Attachment A.

Initial Monitoring Event Exceedances of 500 ppm_v

Initial monitoring at point C identified on the CARB aerial map detected 336 ppm_v as methane. There were three other locations (Flag locations F1, F2, and D2) identified with exceedances of 500 ppm_v as methane detected on November 17 and 25, 2020. Corrective actions to initiate repairs of the exceedances were completed within five days at all locations (November 17 and 25, 2020).

Ten-Day Re-Monitoring Results

The 10-day re-monitoring event was completed on November 25 and December 1, 2020. All four locations were observed at less than 500 ppm_v.

30-Day Re-Monitoring Results

The 30-day re-monitoring will be scheduled and completed by December 16, 2020.

Readings between 200 ppm_v and 499 ppm_v (Initial)

One reading at Point C was recorded between 200 ppm_v and 499 ppm_v as methane detected during the initial monitoring event on November 17, 2020. Pursuant to CCR Title 17 §95471(c), instantaneous surface emissions exceeding 200 ppm_v but below 500 ppm_v are required to be recorded.

WEATHER CONDITIONS

Wind Speed Conductions during the Surface Emission Monitoring Events

The supplemental SEM events were initiated quickly for timely ground level surface monitoring following the CARB flyover methane plume detections. The weather data from onsite meteorological station was used for this report. The wind speeds during the SEM monitoring events exceeded ten miles per hour (mph).

Precipitation Requirements

No measurable precipitation was recorded during the monitoring period on November 17 and 25 and December 1, 2020.

Summary of Surrounding Weather Conditions during Monitoring Events

The following table summarizes the weather conditions as recorded for the surrounding areas on the days referred to in this report.

Supplemental SEM Weather Conditions

Date	Condition	Ambient Temperature (°F)	Barometric Pressure, (Inches of Hg)	Wind Direction	Average Wind Speed Range (mph)
November 17, 2020	Mostly cloudy	60	29.9	NW	6 to17
November 25, 2020	Mostly cloudy	51	30.2	NW/NNW	3 to16
December 1, 2020	Cloudy	63	30.2	Calm	0 to 7

N/A – Not Applicable °F – degrees Fahrenheit mph – miles per hour

EQUIPMENT CALIBRATION

The portable analyzers were calibrated to meet the instrument specifications requirements of U.S. EPA Method 21. The calibration gas used was methane, diluted to a nominal concentration of 500 ppmv in air for instantaneous monitoring to comply with the requirements.

All analyzers were calibrated prior to use with required response time and precision related instrument checks. Calibration records include the following: One time response time test record; One time response factor determination for methane; Calibration Precision test records (test to be performed every 3 months); and Daily Instrument Calibration and Background test records for each gas meter that was used during the quarterly monitoring event. The calibration log records are included in Attachment B.

All monitoring was completed in accordance with the applicable regulatory requirements or approved alternatives. If you have any questions regarding this report, please do not hesitate to contact Christian Colline at (925) 890-2746.

Thank you,

Rajan Phadnis
Environmental Protection Specialist
Waste Management of California, Inc

Attachment A – Instantaneous Surface Emission Monitoring Event Records

- Monitoring Logs and Exceedances
- SEM Map

Attachment B – Calibration Records

- Instrument and Gas Calibration Records

Attachment A

Instantaneous Surface Emission Monitoring Event Records

TABLE A
Instantaneous Landfill Surface Emissions Monitoring
Exceedance and Monitoring Logs (NSPS/BAAQMD 8-34)

2020 QUARTER: 4
INITIAL MONITORING PERFORMED BY: KCRDF
FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard
LANDFILL NAME: Kirby Canyon LANDFILL

Wind Direction: NW	11/17/2020
Wind Speed: 11 MPH	

Wind Direction: NW	12/1/2020
Wind Speed: 11 MPH	
Wind Direction: NW	11/25/2020
Wind Speed: 11 MPH	

Initial Monitoring Event			Corrective action within 5 days		1st 10-day Follow-Up			Comments
Flag Number	Monitoring Date	Field Reading	Repair Date	Action taken to repair Exceedance	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	
C	11/17/2020	336	11/17/2020	Increased Flow to Well	11/25/2020	20 ppm		Well 128
F1	11/17/2020	500	11/17/2020	Increased Flow to Well	11/25/2020	1 ppm		Well 103
F2	11/17/2020	500	11/17/2020	Increased Flow to Well	11/25/2020	3 ppm		Well 102
D2	11/25/2020	1,000	11/25/2020	Cap and Bury Pipe	12/1/2020	5 ppm		106 Decom Pipe

LEGEND

- 1400 — EXISTING 10' CONTOUR
- ⊕ EW-3 — EXISTING LFG EXTRACTION WELL
- △ LC-108 — EXISTING LOCAL CONTROL WELL
- ⊗ — EXISTING REMOTE WELLHEAD
- ○ HR — EXISTING HORIZONTAL COLLECTOR WELLHEAD
- 105 — SEM GRID BLOCK

N

0 200 400
SCALE IN FEET

NOTES:

1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY WALKER ASSOCIATES. DATE OF PHOTOGRAPHY: APRIL 1, 2020.
2. SUPPLEMENTAL 2016 GCCS IMPROVEMENTS AS-BUILT PIPING PER FIELD MARK-UP DRAWING PROVIDED BY WM ON JULY 19, 2017. WELL LOCATIONS PER RECORD DRAWINGS WELL SCHEDULE DATED: JULY 13, 2016.
3. 2017 GCCS AS-BUILT SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: OCTOBER 11, 2017
4. 2019 GCCS AS-BUILT SURVEYS PROVIDED BY F3 AND ASSOCIATES, INC. DATED: AUGUST 19, 2019 AND DECEMBER 30, 2019
5. SUPPLEMENTAL 2019 GCCS AS-BUILT MARKUPS/COMMENTS PROVIDED BY WM DATED: JANUARY 27 AND 30, 2020, AND BY SCS ENGINEERS DATED: FEBRUARY 4, 2020.
6. 2020 GCCS IMPROVEMENTS AS-BUILT SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: JULY 22, 2020.
7. SUPPLEMENTAL 2020 GCCS AS-BUILT MARKUPS/COMMENTS PROVIDED BY WM ON NOVEMBER 3, 2020, NOVEMBER 5, 2020 AND NOVEMBER 6, 2020.

Decom well 166 = 36, 37, 41, 42
well 128 = 82
well 102 = 139
well 103 = 142

FINAL AS-BUILT

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
	DATE OF ISSUE 11/12/2020	DRAWN BY GVP / DESIGNED BY CME	CHECKED BY NB		APPROVED BY PJS	

TETRA TECH

KIRBY CANYON RECYCLING
AND DISPOSAL FACILITY
SAN JOSE, CALIFORNIA
2020 GCCS IMPROVEMENTS

SEM GRID MAP

SHEET NO. 3
PROJECT NO. 200125

File: X:\PROJECTS\KIRBY CANYON\200125 - 2020 AS-BUILT UPDATE\Project Drawings\200125-KIRBY CYN_2020 FINAL AS BUILT_R4-20201112.dwg Layout: E3 User: CHELSEA.DAVIS Nov 13, 2020 - 9:35am

Attachment B

Calibration Records

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Kirby Date: 11-17-20

Time: 10:20 AM _____ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 500 ppm
3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 20 ppm (a)
2. Downwind Reading (highest in 30 seconds): 20 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 10 ppm

Performed by: Markus Bernard

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Kirby Date: 11-25-20

Time: _____ AM 3:15 PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 500 ppm
3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 10 ppm (a)
2. Downwind Reading (highest in 30 seconds): 5 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 7.5 ppm

Performed by: Markus Bernard

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Kirby Date: 12-1-20

Time: _____ AM 1:30 PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 500 ppm
3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 6 ppm (a)
2. Downwind Reading (highest in 30 seconds): 5 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 5.5 ppm

Performed by: Markus Bernard

CALIBRATION PRECISION TEST RECORD

Date: 9/30/2020

Expiration Date (3 months): 12/30/2020

Time: 9:00 AM _____ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Meter Reading for Zero Air: 0 ppm (a)

Meter Reading for Calibration Gas: 500 ppm (b)

Measurement #2:

Meter Reading for Zero Air: 0 ppm (c)

Meter Reading for Calibration Gas: 500 ppm (d)

Measurement #3:

Meter Reading for Zero Air: 0 ppm (e)

Meter Reading for Calibration Gas: 496 ppm (f)

Calculate Precision:

$$\frac{\{|(500) - (b)| + |(500) - (d)| + |(500) - (f)|\}}{3} \times \frac{1}{500} \times 100$$

0.8 % (must be < than 10%)

Performed by: M. Bernard

RESPONSE TIME TEST RECORD

Date: 9/30/20

Expiration Date (3 months): 12/30/20

Time: 9:00 AM _____ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Stabilized Reading Using Calibration Gas: 500 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 4 seconds (a)

Measurement #2:

Stabilized Reading Using Calibration Gas: 500 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (b)

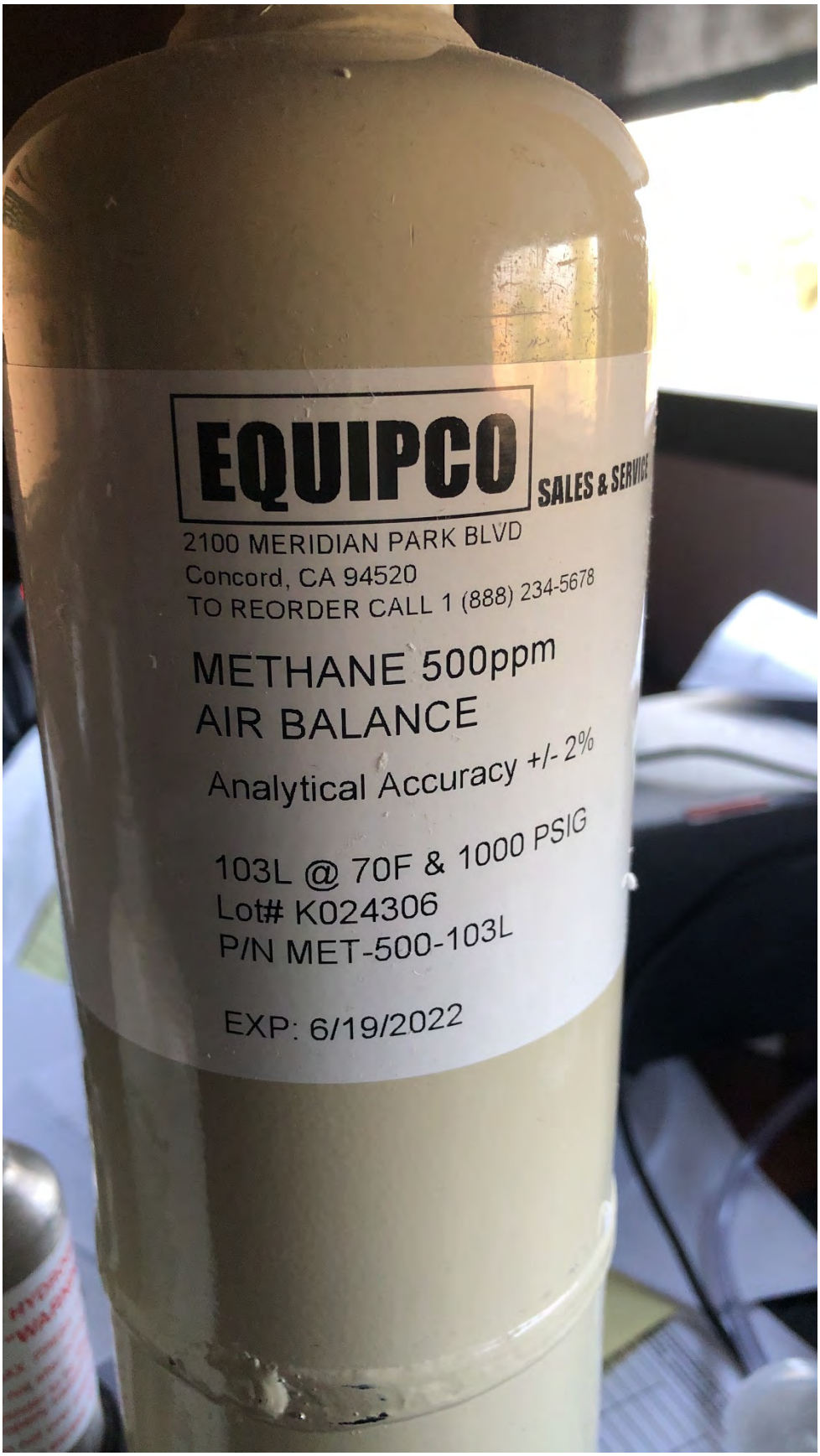
Measurement #3:

Stabilized Reading Using Calibration Gas: 498 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (c)

Calculate Response Time:

$$\frac{(a) + (b) + (c)}{3} = 4.6 \text{ seconds (must be less than 30 seconds)}$$

Performed by: M. Bernard


EQUIPCO
SALES & SERVICE
2100 MERIDIAN PARK BLVD
Concord, CA 94520
TO REORDER CALL 1 (888) 234-5678
METHANE 500ppm
AIR BALANCE
Analytical Accuracy +/- 2%
103L @ 70F & 1000 PSIG
Lot# K024306
P/N MET-500-103L
EXP: 6/19/2022

Attachment B

SEM 30-day re-monitoring results

TABLE A
Instantaneous Landfill Surface Emissions Monitoring
Exceedance and Monitoring Logs (NSPS/BAAQMD 8-34)

2020 QUARTER: 4
INITIAL MONITORING PERFORMED BY: KCRDF
FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard
LANDFILL NAME: Kirby Canyon LANDFILL

Wind Direction: NW	11/17/2020
Wind Speed: 11 MPH	

Wind Direction: NW	12/1/2020
Wind Speed: 11 MPH	

Wind Direction: NW	11/25/2020
Wind Speed: 11 MPH	

Wind Direction: NW	12/16/2020
Wind Speed: 3 MPH	

Initial Monitoring Event			Corrective action within 5 days		1st 10-day Follow-Up			1st 30-day Follow-Up			Comments
Flag Number	Monitoring Date	Field Reading	Repair Date	Action taken to repair Exceedance	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	
C-CARB Flyover Identified Location	11/17/2020	336	11/17/2020	Increased Flow to Well	11/25/2020	20 ppm		12/16/2020	30 ppm		Well 128
F1	11/17/2020	500	11/17/2020	Increased Flow to Well	11/25/2020	1 ppm		12/16/2020	0 ppm		Well 103
F2	11/17/2020	500	11/17/2020	Increased Flow to Well	11/25/2020	3 ppm		12/16/2020	0 ppm		Well 102
D2	11/25/2020	1,000	11/25/2020	Cap and Bury Pipe	12/1/2020	5 ppm		12/16/2020	0 ppm		106 Decom Pipe

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Kirby Canyon Landfill Date: 12/16/20

Time: _____ AM 3:30 PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 500 ppm
3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 3 ppm (a)
2. Downwind Reading (highest in 30 seconds): 1 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 2 ppm

Performed by: Markus Bernard

WASTE MANAGEMENT

172 98th Avenue • Oakland, California • 94568

October 8, 2020

Ms. Becky Azevedo
Kirby Canyon Recycling & Disposal Facility
910 Coyote Creek Golf Drive
San Jose, CA 95037.

Re: Third Quarter 2020 Surface Emissions and Component Leak Monitoring Report for the Kirby Canyon Recycling and Disposal Facility

Dear Ms. Azevedo:

This monitoring report for the "**Kirby Canyon Recycling and Disposal Facility (KCRDF) Landfill"** contains the results of the **Third Quarter 2020 Integrated and Instantaneous** Surface Emissions Monitoring (SEM) and Component Leak Monitoring. Initial surface emissions monitoring was performed by RES Environmental, Inc.(RES). Re-monitoring of surface emissions was conducted by KCRDF personnel.

APPLICABLE REQUIREMENTS

The monitoring discussed in this report was conducted in accordance with the following requirements:

Surface Emission Monitoring (SEM)

- New Source Performance Standard (NSPS), Title 40 of the Code of Federal Regulations (CFR) §60.755 (c) and (d), 40 CFR 60, Appendix A Method 21, promulgated by the United States Environmental Protection Agency (USEPA).

- California Code of Regulations (CCR) Title 17, Subchapter 10, Article 4, Subarticle 6, §95460 to §95476, known as the Assembly Bill 32 (AB32) landfill methane rule (LMR).

- Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34, Section 303 (Landfill Surface Requirements) and Section 607 (Landfill Surface Inspection procedures).

Component Leak Monitoring

- Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34, Section 301 (Landfill Gas Collection and Emission Control System Requirements) and Section 602 (Collection and Control System Leak Inspection procedures).

- California Code of Regulations (CCR) Title 17, Subchapter 10, Article 4, Subarticle 6, §95464, known as the Assembly Bill 32 (AB32) landfill methane rule (LMR).

KCRDF Plan and Alternative Compliance Measures

An Alternative Compliance Option (ACO) Request was submitted to the California Air Resources Board (CARB) on May 16, 2011. After receipt of comments, this ACO was amended, restated, and submitted to BAAQMD on July 1, 2016. SEM and Component Leak monitoring was conducted per the methods outlined in the July 1, 2016 ACO.

PROCEDURES

General

The surface of the KCRDF disposal area has been divided into one-hundred-and-fifty (150), approximately 50,000 square foot monitoring grids. The entire landfill surface is monitored with the exception of active portions of the Landfill, slope areas, and as requested in the approved ACO, areas containing only asbestos-containing waste, inert waste and/or non-decomposable waste which are excluded for safety as allowed by CCR Title 17 §95466.

Field personnel walked the surface of the landfill following the walking pattern as depicted the 2011 KCRDF AB-32 SEM Plan, which traverses each monitoring grid. Additionally, in accordance with the provisions of 40 CFR 60.753(d) and 60.755(c)(1-3), the entire perimeter of the landfill surface was monitored. During the event, special attention was given to monitoring unusual cover conditions (stressed vegetation, cracks, seeps, etc.) and any areas with unusual odors.

Instantaneous Surface Emissions Monitoring

The Instantaneous SEM was conducted using a Toxic Vapor Analyzer (TVA) 1000 flame ionization detector (FID), which was calibrated to 500 parts per million by volume (ppm_v) methane, which meets or exceeds all guidelines set forth in the CCR Title 17 §95471(a) and NSPS. The FID was calibrated prior to use in accordance with the United States Environmental Protection Agency (USEPA) Method 21 requirements. The Instantaneous SEM procedures followed the requirements of 40 CFR 60.755 (c) and (d) and CCR Title 17 §95471(c)(2).

RES personnel walked the surface of the landfill on a grid by grid basis with the wand tip held at 2 inches from the landfill surface. While sampling the grid; the technicians also checked any surface impoundments (wells or otherwise) for leaks. Technicians also checked any surface cracks, seeps, or other areas that show evidence of surface emissions (odors or distressed vegetation). Active and sloped areas excluded for safety were documented on field data sheets and maps.

All instantaneous surface monitoring was performed in accordance with the applicable requirements referenced in this report. Any detections of methane above 200 ppm_v (areas of concern) or 500 ppm_v (exceedances) for instantaneous were recorded, flagged, and marked on an SEM Map, which, wherever required, is included in the Appendices of this report. Applicable corrective action and re-monitoring timelines are listed below:

- Corrective actions must be initiated within 5 days of the initial exceedance and re-monitoring shall be conducted within 10 days of the initial exceedance.

  - If the re-monitoring event shows the exceedance is corrected, the location shall be re-monitored within 1 month of the initial exceedance.

  - If the 1-month re-monitoring event shows the location is still corrected, all re-monitoring requirements have been completed.

- If either the first 10-day or 1-month re-monitoring events show a second exceedance, additional corrective actions shall be completed and a second re-monitoring event shall be conducted within 10 days of the second exceedance.

- If the second 10-day re-monitoring event shows the second exceedance is corrected, the location shall be re-monitored within 1 month of the initial exceedance. If the 1-month re-monitoring event shows the area is still corrected, monitoring requirements have been completed.

If any location shows three exceedances, an additional well shall be installed within 120 days of the initial exceedance.

Integrated Surface Emissions Monitoring

The Integrated surface monitoring was conducted using a TVA 1000 calibrated to 25 ppm_v for the integrated monitoring, which meets or exceeds all guidelines set forth in the CCR Title 17 §95471(a). The field technician traversed the grid walking path over a continuous 25-minute period using the TVA 1000 held within 3 inches above the landfill surface. The Integrated monitoring procedures followed the requirements of CCR Title 17 §95471(c)(2).

Grids with results greater than 25 ppm_v were recorded, marked on the SEM map, and flagged for remediation. Any grids with integrated concentrations greater than 25 ppm_v are subject to the following re-monitoring timeline:

- Re-monitoring shall be conducted within 10 days of the initial exceedance.

- If the 10-day re-monitoring event shows the exceedance is corrected, all re-monitoring requirements have been completed.

- If either the first 10-day re-monitoring event shows a second grid exceedance, additional corrective actions shall be completed and a second re-monitoring event shall be conducted within 10 days of the second exceedance.

- If the second 10-day re-monitoring event shows the second exceedance is corrected, all re-monitoring requirements have been completed.

- The second 10-day re-monitoring event shows a third grid exceedance, an additional well shall be installed within 120 days of the third exceedance.

Component Leak Monitoring Procedures

RES personnel monitored the exposed LFG components under positive pressure (pipes, wellheads, valves, blowers, and other mechanical appurtenances) using a TVA 1000 calibrated to 500 ppm_v. All leaks measured one half inch or less from the component exceeding the compliance limit of 500 ppm_v per requirements outlined in pursuant to CARB Title 17 of California Code of Regulations Subchapter 10, Article 4, Subarticle 6, Section 95464(b)(1)(B) and 1,000 ppm_v per requirements outlined in BAAQMD 8-34-303 were recorded. Applicable corrective action and re-monitoring timelines are listed below:

- Leaks between 500 and 999 ppm_v must be corrected and re-monitored within 10 days of the initial exceedance.

- Leaks at or above 1000 ppm_v must be corrected and re-monitored within 7 days of the initial exceedance.

THIRD QUARTER 2020 SEM AND COMPONENT LEAK RESULTS

The following is a summary of the SEM and component leak monitoring results completed for the Third Quarter 2020.

Instantaneous Surface Emissions Monitoring Results

The Instantaneous surface monitoring was performed on August 4, 2020 in accordance with the NSPS, BAAQMD 8-34, and CCR Title 17 §95469 and ACO. Results and data from the monitoring are presented in Attachment A.

Initial Monitoring Event Exceedances of 500 ppm_v

There were 5 exceedances of 500 ppm_v as methane detected on August 4, 2020. Corrective actions to initiate repairs of the exceedances were completed within five days for all locations (August 7, 2020).

Ten-Day Re-Monitoring Results

The 10-day re-monitoring event was completed on August 12, 2020. All locations were observed at less than 500 ppm_v.

One-Month Re-Monitoring Results

The 1-month re-monitoring event was completed on September 3, 2020. All locations were observed at less than 500 ppm_v.

Readings between 200 ppm_v and 499 ppm_v (Initial and Re-monitored)

There were no readings between 200 ppm_v and 499 ppm_v as methane detected during the initial monitoring event on August 4, 2020. Pursuant to CCR Title 17 §95471(c), instantaneous surface emissions exceeding 200 ppm_v but below 500 ppm_v are required to be recorded.

Integrated Surface Emissions Monitoring Results

The Integrated surface sampling (ISS) was performed on August 3 and 4, 2020, in accordance with the ACO and requirements outlined in CCR Title 17 §95469.

Initial Monitoring Event Exceedances of 25 ppm_v

There were no grids with exceedances of 25 ppm_v as methane detected during the initial monitoring event on August 3 and 4, 2020.

The average methane concentration of each grid was recorded during the monitoring event per applicable requirements. See Attachment B, Integrated SEM 25 ppm_v Exceedances and Monitoring Log, and SEM Map included in Attachment B, for details.

Component Leak Monitoring Results

Component leak monitoring was conducted per the applicable requirements on August 4, 2020. No leaks greater than 500 ppm_v were identified. Please see Attachment C, for details.

WEATHER CONDITIONS

Wind Speed Conductions during the Surface Emission Monitoring Events

Wind speeds during initial monitoring were monitored using a portable weather station. The station has a strip chart that records the wind speed and direction. After completion of monitoring, the strip chart is reviewed by RES office staff to determine the average and maximum wind speeds during the monitoring and the average wind direction during each grid and ensure that the wind speed requirements are met (no gusts greater than 20 mph, average wind speed cannot exceed 10 mph). These values are documented in the field data sheets. The chart data is scanned and included in Attachment D.

Precipitation Requirements

Per the KCRDF's ACO, the initial monitoring event was carefully scheduled so that it could be conducted in compliance with the precipitation requirements (no measurable precipitation within 24 hours). Re-monitoring events are required to adhere to strict timelines. Any conflicts with precipitation requirements are discussed in the results section of this document.

EQUIPMENT CALIBRATION

The portable analyzers were calibrated to meet the instrument specifications requirements of U.S. EPA Method 21. The calibration gas used was methane, diluted to a nominal concentration of 25 ppm_v in air for integrated sample analyses and 500 ppm_v in air for instantaneous monitoring to comply with the requirements.

All analyzers were calibrated prior to use with required response time and precision related instrument checks. Calibration records include the following: One time response time test record; One time response factor determination for methane; Calibration Precision test records (test to be

performed every 3 months); and Daily Instrument Calibration and Background test records for each gas meter that was used during the quarterly monitoring event. The calibration log records are included in Attachment E.

All monitoring was completed in accordance with the applicable regulatory requirements or approved alternatives. If you have any questions regarding this report, please do not hesitate to contact me at (510) 875-9338.

Thank you,
Waste Management

Rajan Phadnis
Environmental Protection Specialist

Attachment A – Instantaneous Surface Emission Monitoring Event Records

- Monitoring Logs and Exceedances
- SEM Map

Attachment B – Integrated Surface Emission Monitoring Event Records

- Monitoring Logs and Exceedances
- SEM Map

Attachment C – Component Leak Monitoring Event Records

- Component Leak Exceedances and Monitoring Logs

Attachment D – Weather Station Data

- Strip Chart Data

Attachment E – Calibration Records

- Instrument and Gas Calibration Records

Attachment A

Instantaneous Surface Emission Monitoring Event Records

Table A.1
Instantaneous Landfill Surface Emissions Monitoring
Initial Monitoring Event Areas of Concern

2020 QUARTER: 3
PERFORMED BY: RES/WM
LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Flag Number	Grid Number	Date of Monitoring	Concentration of Emission (ppmv)	Comments
O1	81	8/4/2020	2,000 ppm	Well 129
O2	72	8/4/2020	550 ppm	Well 147
O3	60	8/4/2020	4,000 ppm	Well 86
O4	88	8/4/2020	3,000 ppm	Capped Pipe
O21	41	8/4/2020	3,000 ppm	Capped Pipe

Table A.2
Instantaneous Landfill Surface Emissions Monitoring
Exceedance and Monitoring Logs (NSPS/BAAQMD 8-34)

2020 QUARTER: 3
INITIAL MONITORING PERFORMED B RES/WM
FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard/Dan San Jose
LANDFILL NAME: **Kirby Canyon Recycling & Disposal Facility**

Initial Monitoring Event			Corrective action within 5 days		1st 10-day Follow-Up			1st 30-day Follow-Up			
Flag	Monitoring	Field	Repair	Action taken to repair	Monitoring	No Exced.	Exced.	Monitoring	No Exced.	Exced.	
Number	Date	Reading	Date	Exceedance	Date	<500 ppm	>500 ppm	Date	<500 ppm	>500 ppm	Comments
O1	8/4/2020	2,000 ppm	8/7/2020	Soil & Water	8/12/2020	2 ppm		09.03.20	235		Well 129
O2	8/4/2020	550 ppm	8/7/2020	Water / Compact Soil Around Well	8/12/2020	75 ppm		09.03.20	190		Well 147
O3	8/4/2020	4,000 ppm	8/7/2020	Increase Flow/ Water	8/12/2020	66 ppm		09.03.20	216		Well 86
O4	8/4/2020	3,000 ppm	8/7/2020	Bury capped line	8/12/2020	0 ppm		09.03.20	38		Capped Pipe
O21	8/4/2020	3,000 ppm	8/7/2020	Bury capped line	8/12/2020	0 ppm		09.03.20	120		Capped Pipe

Table A.3
Instantaneous Landfill Surface Emissions Monitoring
Exceedance and Monitoring Logs (AB-32)

2020 QUARTER: 3
INITIAL MONITORING PERFORMED BY: RES/WM
FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard/Dan San Jose
LANDFILL NAME: **Kirby Canyon Recycling & Disposal Facility**

Initial Monitoring Event			**1st Re-mon Event - 10 Days**			**2nd Re-mon Event - 10 Days**			
Exceedance	Monitoring	Field	Monitoring	No Exced.	Exced.	Monitoring	No Exced.	Exced.	
Grid ID No.	Date	Reading	Date	<500 ppm	>500 ppm	Date	<500 ppm	>500 ppm	**Comments**
81	8/4/2020	2,000 ppm	8/12/2020	2 ppm					Well 129
72	8/4/2020	550 ppm	8/12/2020	75 ppm					Well 147
60	8/4/2020	4,000 ppm	8/12/2020	66 ppm					Well 86
88	8/4/2020	3,000 ppm	8/12/2020	0 ppm					Capped Pipe
41	8/4/2020	3,000 ppm	8/12/2020	0 ppm					Capped Pipe

Table A.4
Instantaneous Landfill Surface Emissions Monitoring
Areas of Concern Greater than 200 ppmv

2020 QUARTER: 3
INITIAL MONITORING PERFORMED BY: RES/WM
FOLLOW-UP MONITORING PERFORMED BY: NA
LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Initial Monitoring Event			Re-mon Event		Comments
Exceedance	Monitoring	Field	Monitoring	Reading	
Grid ID No.	Date	Reading	Date	ppm	
None					

Instantaneous Landfill Surface Emissions Monitoring
Exceedance and Monitoring Logs (NSPS/BAAQMD 8-34)

2020 QUARTER: 3
INITIAL MONITORING PERFORMED BY: RES
FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard /Dan San Jose/ Juan Barocio
LANDFILL NAME: Kirby Canyon Landfill

Wind Speed: 2 MPH **Wind Speed :** 10 MPH
Wind Direction: N **Wind Direction**: W

Initial Monitoring Event			Corrective action within 5 days		1st 10-day Follow-Up			1st 30-day Follow-Up			Comments
Flag	Monitoring	Field	Repair	Action taken to repair	Monitoring	No Exced.	Exced.	Monitoring	No Exced.	Exced.	
Number	Date	Reading	Date	Exceedance	Date	<500 ppm	>500 ppm	Date	<500 ppm	>500 ppm	
O1	8/4/2020	2,000 ppm	8/7/2020	Soil & Water	8/12/2020	2 ppm		09.03.20	235		Well 129
O2	8/4/2020	550 ppm	8/7/2020	Water / Compact Soil Around Well	8/12/2020	75 ppm		09.03.20	190		Well 147
O3	8/4/2020	4,000 ppm	8/7/2020	Increase Flow/ Water	8/12/2020	66 ppm		09.03.20	216		Well 86
O4	8/4/2020	3,000 ppm	8/7/2020	Bury capped line	8/12/2020	0 ppm		09.03.20	38		Capped Pipe
O21	8/4/2020	3,000 ppm	8/7/2020	Bury capped line	8/12/2020	0 ppm		09.03.20	120		Capped Pipe

KIRBY LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LEIGHWOOD, NICK BANKS, DWIGHT ANDERSON

Cal. Gas Exp. Date: 9-21-20

Date: 8-4-20 Instrument Used: TVA 1000 Grid Spacing: 25'

Temperature: 57 Precip: 0 Upwind BG: 2.2 Downwind BG: 2.4

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
97	LW	0530	0545	37	2	3	12	
104	NB	0530	0545	19	2	3	12	
105	DA	0530	0545	22	2	3	12	
112	LW	0545	0600	18	2	3	12	
119	NB	0545	0600	26	2	3	12	
120	DA	0545	0600	14	2	3	12	
127	LW	0600	0615	28	2	4	13	
128	NB	0600	0615	15	2	4	13	
126	DA	0600	0615	17	2	4	13	
134	LW	0615	0630	29	2	4	13	
136	NB	0615	0630	14	2	4	13	
138	DA	0615	0630	12	2	4	13	
139	LW	0630	0645	17	2	3	13	
141	NB	0630	0645	15	2	3	13	
142	DA	0630	0645	14	2	3	13	
143	LW	0645	0700	25	2	3	13	
144	NB	0645	0700	47	2	3	13	
145	DA	0645	0700	21	2	3	13	
146	LW	0700	0715	36	2	3	14	
147	NB	0700	0715	51	2	3	14	
148	DA	0700	0715	30	2	3	14	
149	LW	0715	0730	28	2	3	14	
150	NB	0715	0730	17	2	3	14	
140	DA	0715	0730	26	2	3	14	
137	LW	0730	0745	18	2	4	12	
135	NB	0730	0745	31	2	4	12	
132	DA	0730	0745	19	2	4	12	
133	LW	0745	0800	25	2	3	13	
124	NB	0745	0800	20	2	3	13	
125	DA	0745	0800	37	2	3	13	

Attach Calibration Sheet
Attach site map showing grid ID

KIRBY LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LEIGH WARE, NICK BANKS, DWIGHT ANDERSON

Cal. Gas Exp. Date: 9-21-20

Date: 8-4-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 62 Precip: 0 Upwind BG: 2.2 Downwind BG: 2.4

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
116	LW	0800	0815	24	2	3	13	
117	NB	0800	0815	39	2	3		
118	DA	0800	0815	22	2	3	13	
109	LW	0815	0830	41	2	4	14	
110	NB	0815	0830	30	2	4		
111	DA	0815	0830	29	2	4	14	
101	LW	0830	0845	42	3	5	13	
102	NB	0830	0845	86	3	5		
103	DA	0830	0845	51	3	5	13	
94	LW	0845	0900	31	3	6	13	
95	NB	0845	0900	38	3	6		
96	DA	0845	0900	117	3	6	13	
86	LW	0900	0915	71	3	4	13	
87	NB	0900	0915	92	3	4		
88	DA	0900	0915	3,000	3	4	13	WELL 86
79	LW	0915	0930	9	3	5	14	
80	NB	0915	0930	45	3	5	14	
81	DA	0915	0930	2,000	3	5	14	WELL 129
82	LW	0930	0945	138	4	5	14	
70	NB	0930	0945	11	4	5		
71	DA	0930	0945	55	4	5	14	
72	LW	0945	1000	550	3	4	14	WELL 147
73	NB	0945	1000	150	3	4		
64	DA	0945	1000	13	3	4	14	
65	LW	1000	1015	87	2	3	14	
66	NB	1000	1015	90	2	3		
67	DA	1000	1015	142	2	3	14	
57	LW	1015	1030	9	2	3	14	
58	NB	1015	1030	77	2	3		
59	DA	1015	1030	55	2	3	14	

Attach Calibration Sheet
Attach site map showing grid ID

KIRBY LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LEIGH WADE
NOEL BANKS
DWIGHT ANDERSON

Cal. Gas Exp. Date: 9-21-20

Date: 8-4-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 71 Precip: 0 Upwind BG: 2.2 Downwind BG: 2.4

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
60	LW	1030	1045	4,000	2	3	14	CAPPED PIPE
52	NB	1030	1045	65	2	3	14	
53	DA	1030	1045	103	2	3	14	
54	LW	1045	1100	82	3	5	14	
47	NB	1045	1100	125	3	5	14	
48	DA	1045	1100	24	3	5	14	
49	LW	1100	1115	60	4	5	14	
41	NB	1100	1115	3,000	4	5	14	CAPPED PIPE
42	DA	1100	1115	85	4	5	14	
43	LW	1115	1130	21	4	5	14	
44	NB	1115	1130	39	4	5	14	
37	DA	1115	1130	104	4	5	14	

Attach Calibration Sheet
Attach site map showing grid ID

Page 3 of 3

KIRBY LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: Leighwndt _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 8-4-20 Instrument Used: _____ Grid Spacing: _____

Temperature: _____ Precip: _____ Upwind BG: _____ Downwind BG: _____

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
55								Active trench
61								
68								
74								
75								
83								
89								
90								
1								Downwind BG
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								

Attach Calibration Sheet
Attach site map showing grid ID

KIRBY LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LEISHMAN _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 8-4-20 Instrument Used: _____ Grid Spacing: _____

Temperature: _____ Precip: _____ Upwind BG: _____ Downwind BG: _____

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
38								
39								
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46								
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51								
56								
62								
63								
69								
76								
77								
78								
84								
85								

Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 3

KIRBY LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: Leishman ______ ______

______ ______ ______

______ ______ Cal. Gas Exp. Date: ______

Date: 8-4-20 Instrument Used: ______ Grid Spacing: ______

Temperature: ______ Precip: ______ Upwind BG: ______ Downwind BG: ______

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
91								
92								
93								
98								
99								
100								
106								
107								
108								
113								
114								
115								
121								
122								
123								
129								
130								
131								

Attach Calibration Sheet
Attach site map showing grid ID

Page 3 of 3

Orange Flag Landfill Surface Emissions Monitoring
Exceedances and Monitoring Log

Site: KIRBY

Quarter / Year:	3RD 2020												Page 1 of 1 Pages
Technician:	LOIS HOWARD												
Instrument:	TVA1000												
Calibration Standard:	500 ppm												
Initial Monitoring Event				First Re-Monitoring Event - 10 Days			Second Re-Monitoring Event - 10 Days			30-Day Follow-up Monitoring			Comments
Flag Number	Grid Number	Field Reading (ppm)	Date Monitored	Date Monitored	No Excd. <500 ppm	Excd. >500 ppm	Date Monitored	No Excd. <500 ppm	Excd. >500 ppm	Date Monitored	No Excd. <500 ppm	Excd. >500 ppm	
O-1	81	2,000	8-4-20										WELL 129
O-2	72	550	↓										WELL 147
O-3	60	4,000	↓										CAPPED PIPE
O-4	88	3,000	↓										WELL 86
O-21	41	3,000	↓										CAPPED PIPE
O-													
O-													
O-													
O-													
O-													
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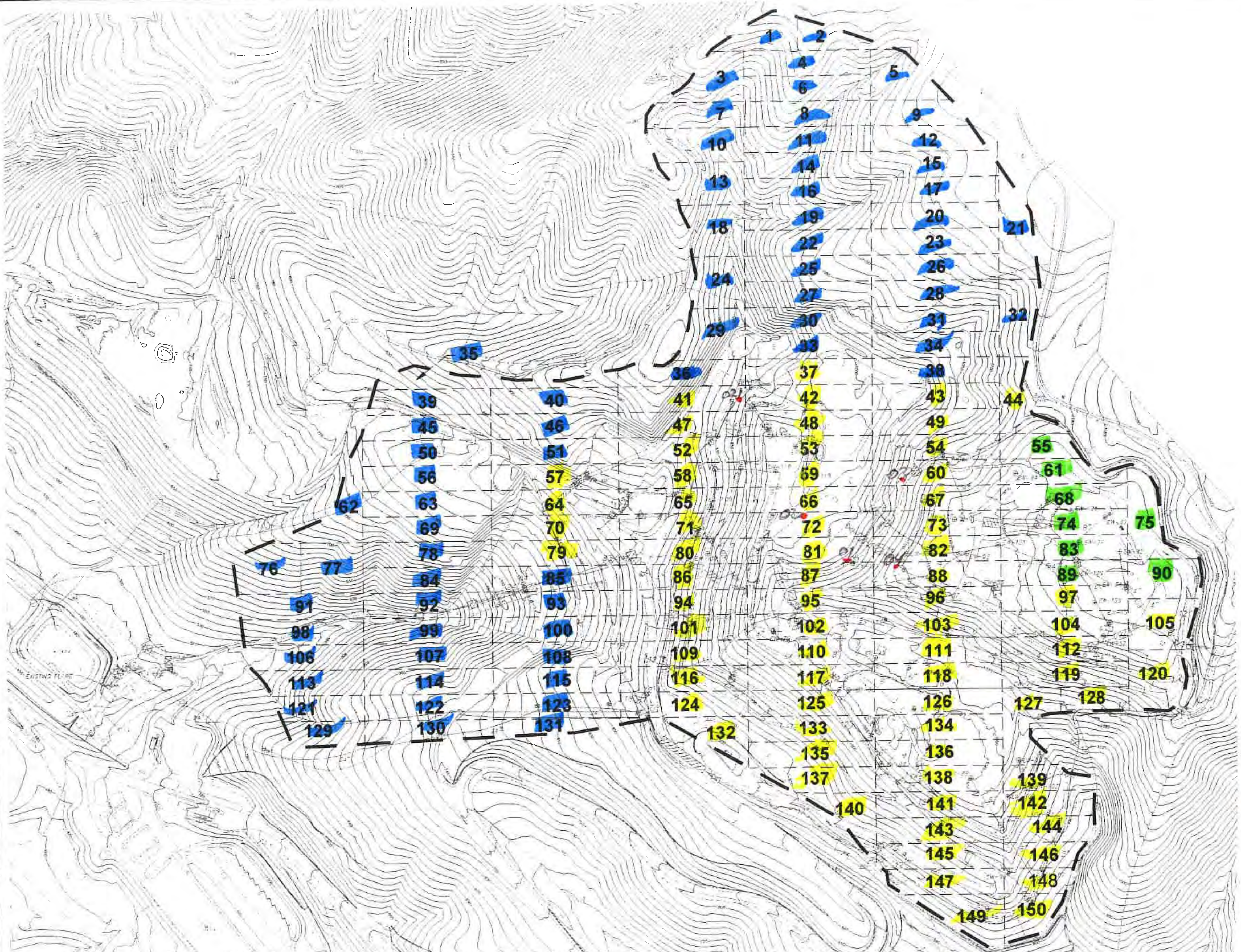
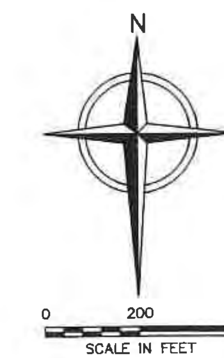


LEGEND

- EXISTING 10' CONTOUR
- EXISTING ABOVEGROUND PIPING
- EXISTING BELOWGROUND PIPING
- EXISTING HORIZONTAL COLLECTOR
- EXISTING LFG EXTRACTION WELL
- EXISTING LOCAL CONTROL WELL
- EXISTING WELL WITH BECS INSTALLED
- EXISTING REMOTE WELLHEAD
- EXISTING HORIZONTAL COLLECTOR WELLHEAD
- EXISTING CONTROL VALVE
- EXISTING BLIND FLANGE
- EXISTING FLANGE CONNECTION
- EXISTING REDUCER FITTING
- EXISTING ROAD CROSSING
- EXISTING RISER
- EXISTING CAP ON EXISTING PIPE



NOTES:
1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY WALKER ASSOCIATES. DATE OF PHOTOGRAPHY: MARCH 10, 2018.
2. 2017 GCCS AS-BUILT SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: OCTOBER 11, 2017.

Instantaneous 8-4-20

- Grids monitored
- Active trass
- No waste in place
- 500+ppm

AS-BUILT

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
DATE OF ISSUE 2/4/19		DRAWN BY RAW DESIGNED BY DK		CHECKED BY AMN APPROVED BY PJS		

cornerstone
A TETRA TECH COMPANY

KIRBY CANYON RECYCLING AND DISPOSAL FACILITY
MORGAN HILL, CALIFORNIA

2018 GCCS IMPROVEMENTS
AS-BUILT SITE PLAN

SHEET NO. 1

PROJECT NO.

LEGEND

- EXISTING 10' CONTOUR
- EXISTING ABOVEGROUND PIPING
- EXISTING BELOWGROUND PIPING
- EXISTING HORIZONTAL COLLECTOR
- EXISTING LFG EXTRACTION WELL
- EXISTING LOCAL CONTROL WELL
- EXISTING WELL WITH BECS INSTALLED
- EXISTING REMOTE WELLHEAD
- EXISTING HORIZONTAL COLLECTOR WELLHEAD
- EXISTING CONTROL VALVE
- EXISTING BLIND FLANGE
- EXISTING FLANGE CONNECTION
- EXISTING REDUCER FITTING
- EXISTING ROAD CROSSING
- EXISTING RISER
- EXISTING CAP ON EXISTING PIPE

N

0 200 400

SCALE IN FEET

NOTES:
1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY WALKER ASSOCIATES. DATE OF PHOTOGRAPHY: MARCH 10, 2018.
2. 2017 GCCS AS-BUILT SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: OCTOBER 11, 2017.

3RD QUARTER 2020 NSPS

UPWIND

DOWNWIND

AS-BUILT

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
DATE OF ISSUE	2/4/19	DRAWN BY RAW / DESIGNED BY DK	CHECKED BY AMN / APPROVED BY PJS			

cornerstone
A TETRA TECH COMPANY

KIRBY CANYON RECYCLING
AND DISPOSAL FACILITY
MORGAN HILL, CALIFORNIA

2018 GCCS IMPROVEMENTS
AS-BUILT SITE PLAN

SHEET NO. 1

PROJECT NO.

Attachment B

Integrated Surface Emission Monitoring Event Records

KIRBY LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEIGH WARE, NICK BROOKS, DWIGHT ANDERSON

Cal. Gas Exp. Date: 9-21-20

Date: 8-3-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 90 Precip: 0 Upwind BG: 2.2 Downwind BG: 2.4

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
97	LW	1100	1125	5.97	3	5	4	
104	NB	1100	1125	4.51	3	5	4	
105	DA	1100	1125	5.16	3	5	4	
112	LW	1125	1150	4.35	3	4	5	
119	NB	1125	1150	5.17	3	4	5	
120	DA	1125	1150	4.98	3	4	5	
127	LW	1150	1215	4.51	4	6	4	
128	NB	1150	1215	5.62	4	6	4	
126	DA	1150	1215	3.70	4	6	4	
134	LW	1215	1240	4.15	4	6	4	
136	NB	1215	1240	3.82	4	6	4	
138	DA	1215	1240	4.75	4	6	4	
139	LW	1240	1305	5.06	4	6	4	
141	NB	1240	1305	4.49	4	6	4	
142	DA	1240	1305	4.13	4	6	4	
143	LW	1305	1330	3.82	3	4	4	
144	NB	1305	1330	4.68	3	4	4	
145	DA	1305	1330	4.21	3	4	4	
146	LW	1330	1355	4.82	3	4	4	
147	NB	1330	1355	3.96	3	4	4	
148	DA	1330	1355	4.30	3	4	4	
149	LW	1355	1420	4.71	3	4	4	
150	NB	1355	1420	3.96	3	4	4	
140	DA	1355	1420	5.22	3	4	4	
137	LW	1420	1445	4.57	2	4	4	
135	NB	1420	1445	4.75	2	4	4	
132	DA	1420	1445	3.82	2	4	4	
133	LW	1445	1510	3.60	2	4	5	
124	NB	1445	1510	3.52	2	4	5	
125	DA	1445	1510	5.54	2	4	5	

Attach Calibration Sheet
Attach site map showing grid ID

KIRBY LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: Leish Wade; Nick Dorks; Dwight Anderson

Cal. Gas Exp. Date: 9-21-20

Date: 8-3-20 Instrument Used: TVA 1000 Grid Spacing: 25'

Temperature: 91 Precip: 0 Upwind BG: 2.2 Downwind BG: 2.4

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
116	LW	1510	1535	5.23	4	8	6	
117	NB	1510	1535	4.20	4	8	6	
118	DA	1510	1535	4.16	4	8	6	
109	LW	1535	1600	3.84	4	7	7	
110	NB	1535	1600	4.98	4	7	7	
111	DA	1535	1600	7.34	4	7	7	
101	LW	1600	1625	6.45	4	8	7	
102	NB	1600	1625	7.92	4	8	7	
103	DA	1600	1625	6.84	4	8	7	
94	LW	1625	1650	5.31	4	8	7	
95	NB	1625	1650	7.20	4	8	7	
96	DA	1625	1650	7.08	4	8	7	

Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 2

KIRBY LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEIGHWOOD _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 8-3-20 Instrument Used: _____ Grid Spacing: _____

Temperature: _____ Precip: _____ Upwind BG: _____ Downwind BG: _____

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
55								ACTIVE TRASH
61								
68								
74								
75								
83								
89								
90								
1								NO WASTE IN PLACE
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
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19								
20								
21								
22								

Attach Calibration Sheet
Attach site map showing grid ID

KIRBY LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEIGHWADE _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 8-3-20 Instrument Used: _____ Grid Spacing: _____

Temperature: _____ Precip: _____ Upwind BG: _____ Downwind BG: _____

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
23								
24								
21								
26								
27								
28								
29								
30								
31								
32								
37								
34								
35								
36								
38								
39								
40								
45								
46								
50								
51								
56								
62								
63								
69								
76								
77								
78								
84								
85								

Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 3

KIRBY LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEIGH WAOT _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 8-3-20 Instrument Used: _____ Grid Spacing: _____

Temperature: _____ Precip: _____ Upwind BG: _____ Downwind BG: _____

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
91								
92								
93								
98								
99								
100								
106								
107								
108								
113								
114								
115								
121								
122								
123								
129								
130								
131								

Attach Calibration Sheet
Attach site map showing grid ID

Page 3 of 3

KIRBY LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LESLIE WADE, NICK BANKS, DWIGHT ANDERSON

Cal. Gas Exp. Date: 8-21-20

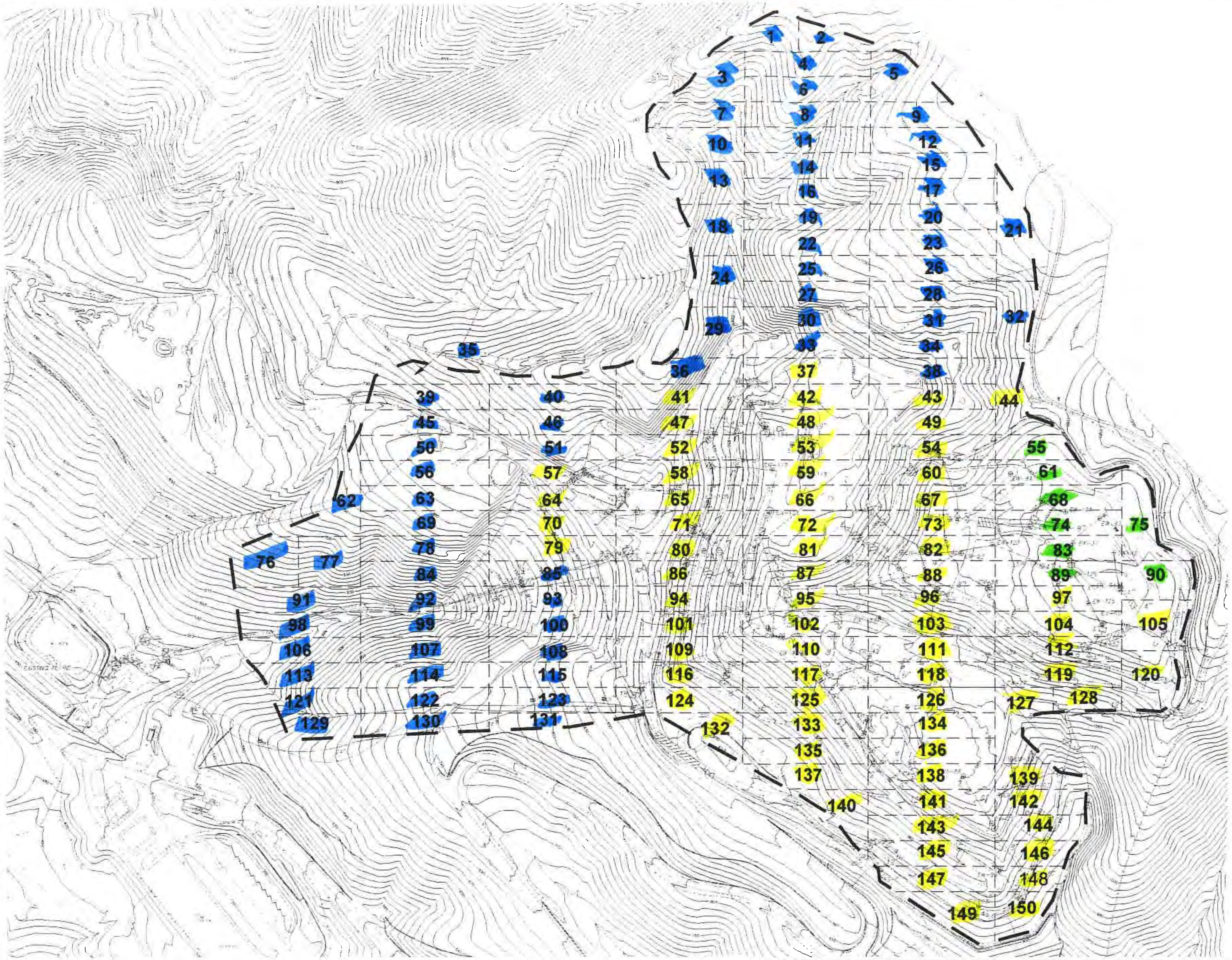
Date: 8-4-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 79 Precip: 0 Upwind BG: 2.2 Downwind BG: 2.4

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
86	LW	1140	1205	6.50	1	2	S	
87	NB	1140	1205	8.21	1	2	S	
88	DA	1140	1205	10.45	1	2	S	
79	LW	1205	1230	3.10	1	2	W	
80	NB	1205	1230	7.45	1	2	W	
81	DA	1205	1230	14.26	1	2	W	
82	LW	1230	1255	16.90	1	2	W	
70	NB	1230	1255	4.15	1	2	W	
71	DA	1230	1255	8.40	1	2	W	
72	LW	1255	1320	10.48	1	2	S	
73	NB	1255	1320	13.57	1	2	S	
64	DA	1255	1320	3.70	1	2	S	
65	LW	1320	1345	8.44	1	2	S	
66	NB	1320	1345	17.30	1	2	S	
67	DA	1320	1345	20.54	1	2	S	
57	LW	1345	1410	3.98	1	2	W	
58	NB	1345	1410	8.13	1	2	W	
59	DA	1345	1410	11.46	1	2	W	
60	LW	1410	1435	13.20	1	2	S	
52	NB	1410	1435	9.75	1	2	S	
53	DA	1410	1435	11.84	1	2	S	
54	LW	1435	1500	9.81	2	4	S	
47	NB	1435	1500	12.65	2	4	S	
48	DA	1435	1500	14.91	2	4	S	
49	LW	1500	1525	9.38	2	4	S	
41	NB	1500	1525	12.73	2	4	S	
42	DA	1500	1525	19.71	2	4	S	
43	LW	1525	1550	12.20	2	5	S	
44	NB	1525	1550	6.75	2	5	S	
37	DA	1525	1550	10.46	2	5	S	

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 1



LEGEND

- EXISTING 10' CONTOUR
- EXISTING ABOVEGROUND PIPING
- EXISTING BELOWGROUND PIPING
- EXISTING HORIZONTAL COLLECTOR
- EXISTING LFG EXTRACTION WELL
- EXISTING LOCAL CONTROL WELL
- EXISTING WELL WITH BECS INSTALLED
- EXISTING REMOTE WELLHEAD
- EXISTING HORIZONTAL COLLECTOR WELLHEAD
- EXISTING CONTROL VALVE
- EXISTING BLIND FLANGE
- EXISTING FLANGE CONNECTION
- EXISTING REDUCER FITTING
- EXISTING ROAD CROSSING
- EXISTING RISER
- EXISTING CAP ON EXISTING PIPE

N

0 200 400
SCALE IN FEET

NOTES:
1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY WALKER ASSOCIATES. DATE OF PHOTOGRAPHY: MARCH 10, 2018.
2. 2017 GCCS AS-BUILT SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: OCTOBER 11, 2017.

INTEGRATED 8-3-20 8-4-20

GRIDS MONITORED
ACTIVE AREAS
NO WASTE IN PLACE

AS-BUILT

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 2/4/19 — DRAWN BY RAW — DESIGNED BY DK — CHECKED BY AMN — APPROVED BY PJS

cornerstone
A TETRA TECH COMPANY

KIRBY CANYON RECYCLING AND DISPOSAL FACILITY
MORGAN HILL, CALIFORNIA

2018 GCCS IMPROVEMENTS
AS-BUILT SITE PLAN

SHEET NO. 1
PROJECT NO.

Attachment C

Component Leak Monitoring Event Records

Table C.1
AB-32 Component Leak Monitoring
Summary of Component Leaks Greater than 500 ppmv

2020 QUARTER: 3
INITIAL MONITORING PERFORMED BY: RES/WM
FOLLOW-UP MONITORING PERFORMED BY: WM
LANDFILL NAME: **Kirby Canyon Recycling & Disposal Facility**

Location	Initial Monitoring			Corrective Action		10-Day Remonitoring		
	Date	TOC (ppmv)	Tech	Date	Description	Date	TOC (ppmv)	Tech
Flare Station	08/04/20	ND	Leigh wade	-	-	-	-	-

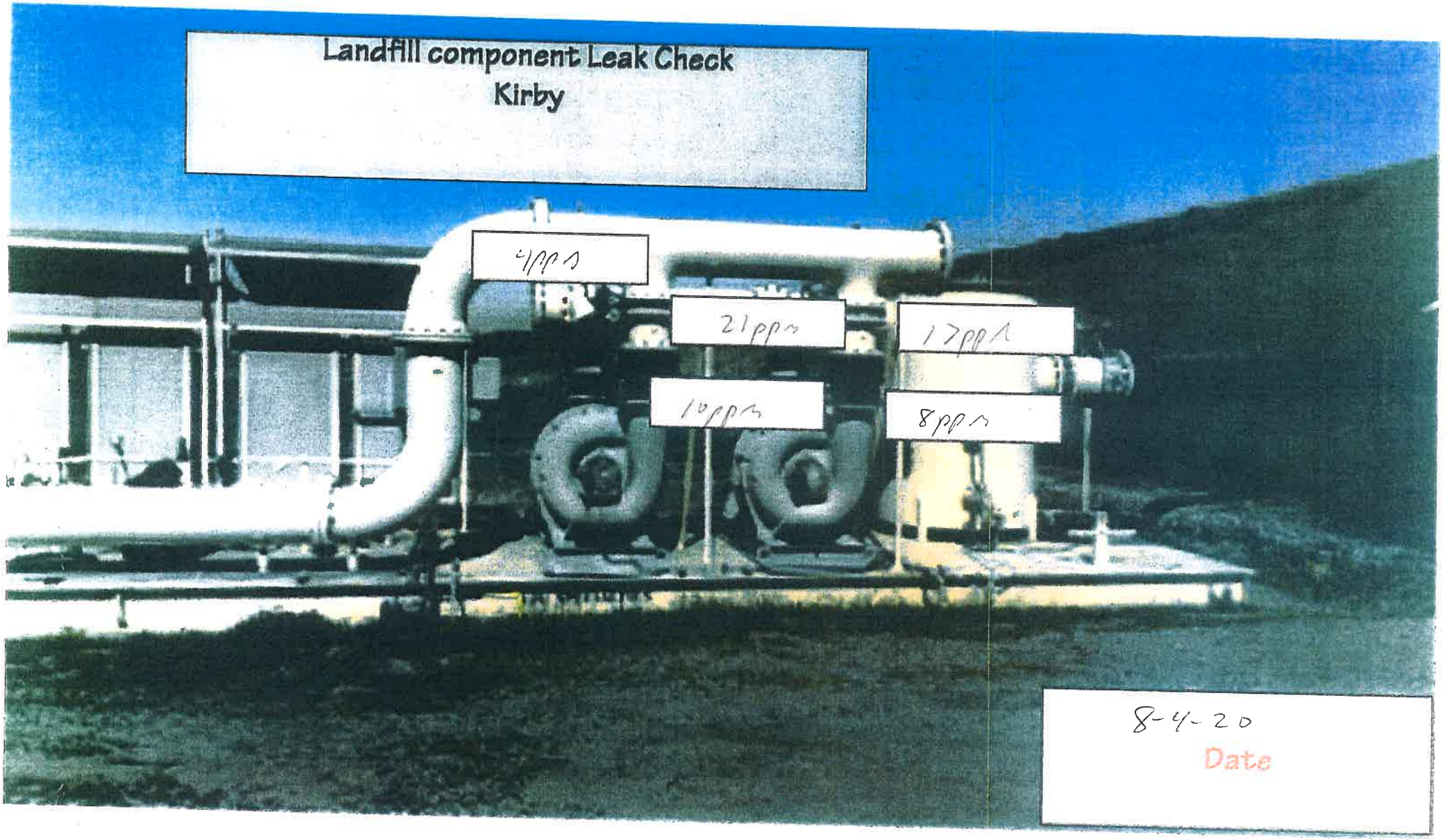
ND= No Exceedances

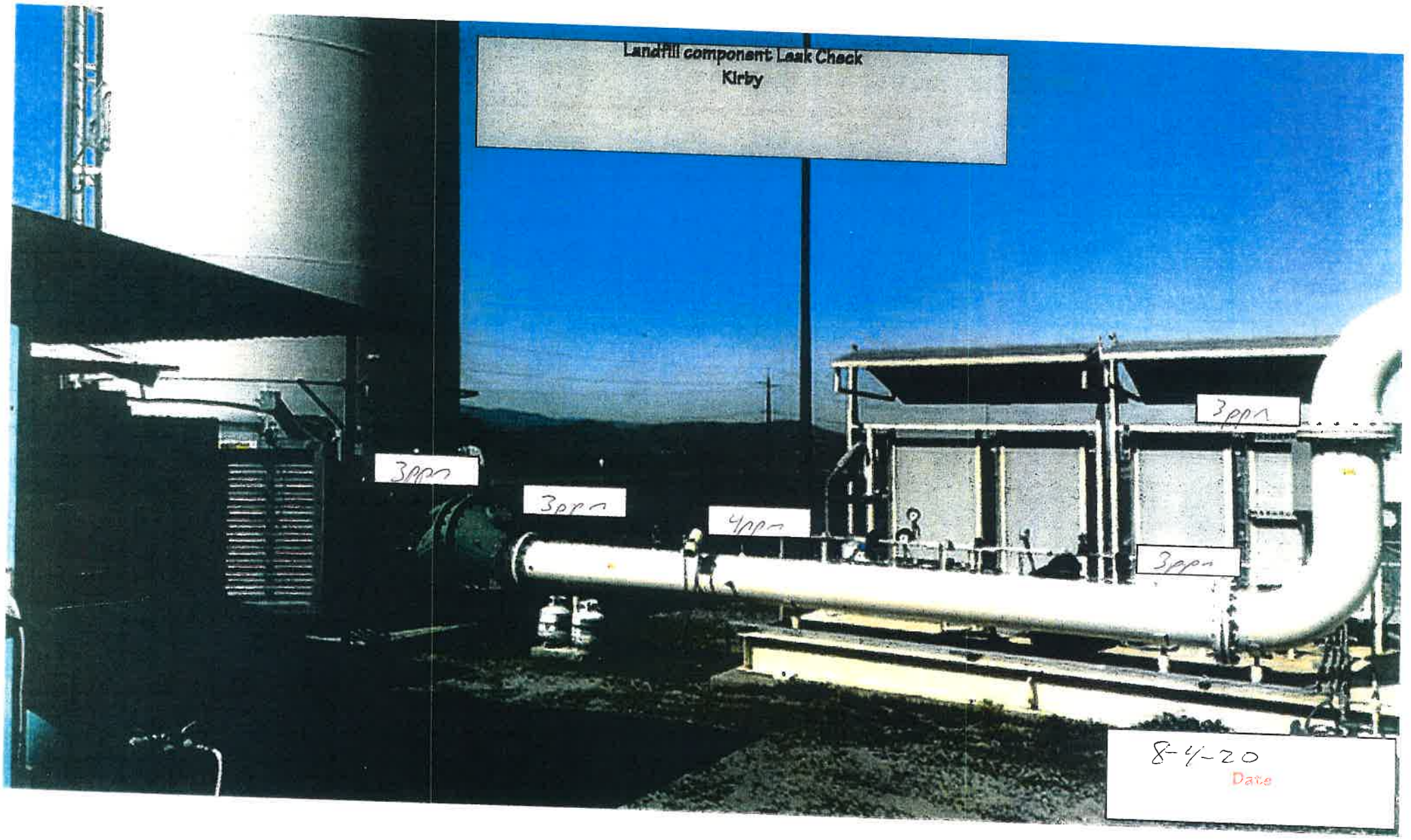
Table C.2
BAAQMD Component Leak Monitoring
Summary of Component Leaks Greater than 1,000 ppmv

2020 QUARTER: 3
INITIAL MONITORING PERFORMED BY: RES/WM
FOLLOW-UP MONITORING PERFORMED BY: WM
LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Location	Initial Monitoring			Corrective Action		7-Day Remonitoring		
	Date	TOC (ppmv)	Tech	Date	Description	Date	TOC (ppmv)	Tech
Flare Station	08/04/20	ND	Leigh wade	-	-	-	-	-

ND= No Exceedances


Landfill component Leak Check
Kirby
4ppm
21ppm
17ppm
10ppm
8ppm
8-4-20
Date


Landfill component Leak Check
Kirby
3ppm
3ppm
4ppm
3ppm
3ppm
8-4-20
Date

LANDFILL NAME: KIRBY
QUARTERLY LFG COMPONENT LEAK MONITORING

INSTRUMENT FID
MAKE: Thermo Environr
MODEL: TVA 1000
S/N: 1036346773

DATE OF SAMPLING: 8-4-20
TECHNICIAN: LUIS WADE

LOCATION OF LEAK	LEAK CONCENTRATION (ppmv)	DATE OF DISCOVERY	TECHNICIAN	ACTION TAKEN TO REPAIR LEAK	DATE OF REPAIR	DATE OF ANY REQUIRED RE-MONITORING	RE-MONITORED CONCENTRATION (ppmv)
NO EXCEEDENCES							

In the event that an exceedance is detected, please intiate corrective action and re-monitor the exceedance location within 7 days of the initial exceedance.

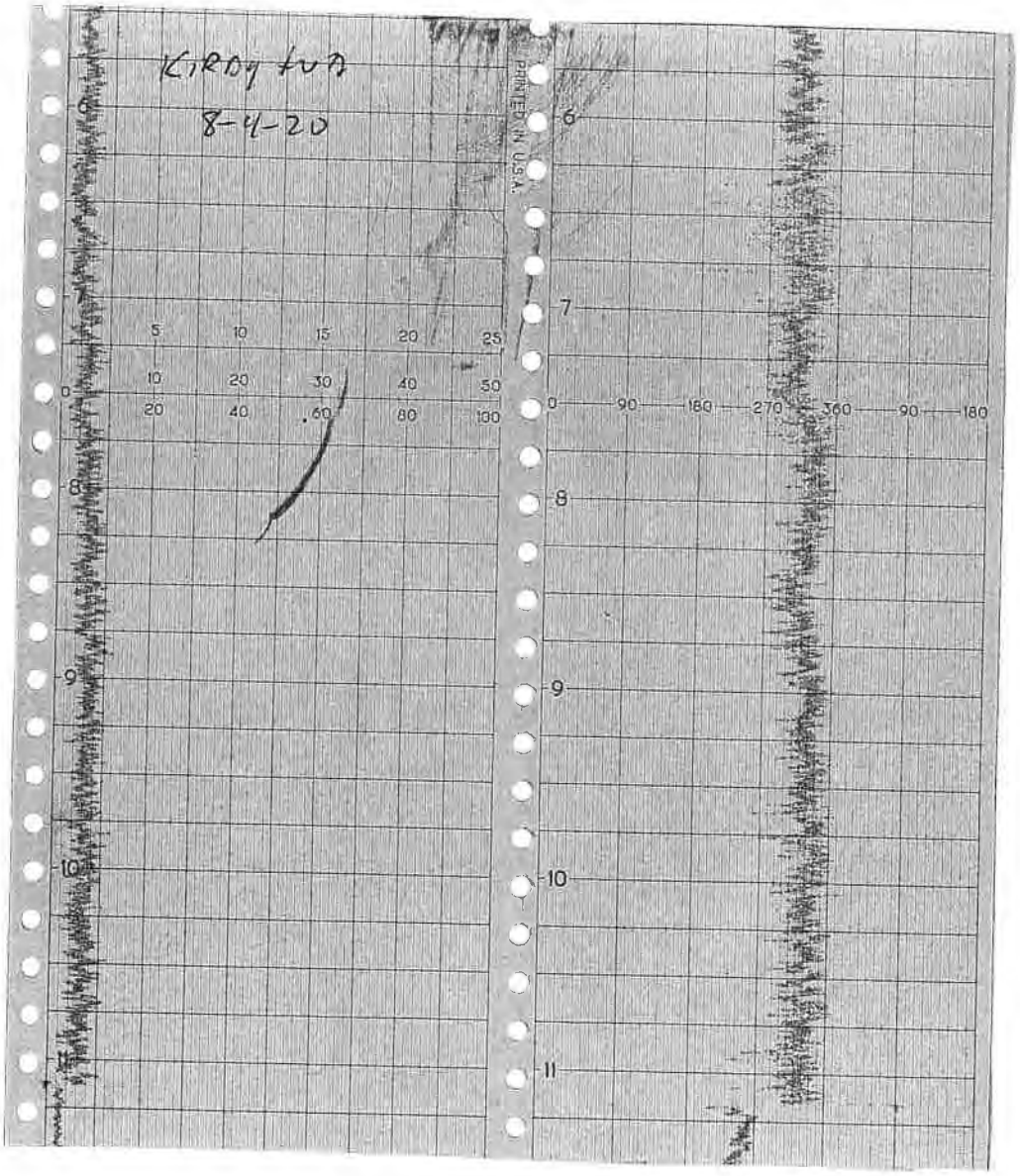
NOTE: Leaks over 500 ppmv methane are exceedances at any component containing landfill gas, pursuant to CARB Title 17 of California Code of Regulations Subchapter 10, Article 4, Subarticle 6, Section 95464(b)(1)(B).

NOTE: Leaks over 1,000 ppmv methane are exceedances at any component containing landfill gas, pursuant to BAAQMD Regulation 8-34-301.2.

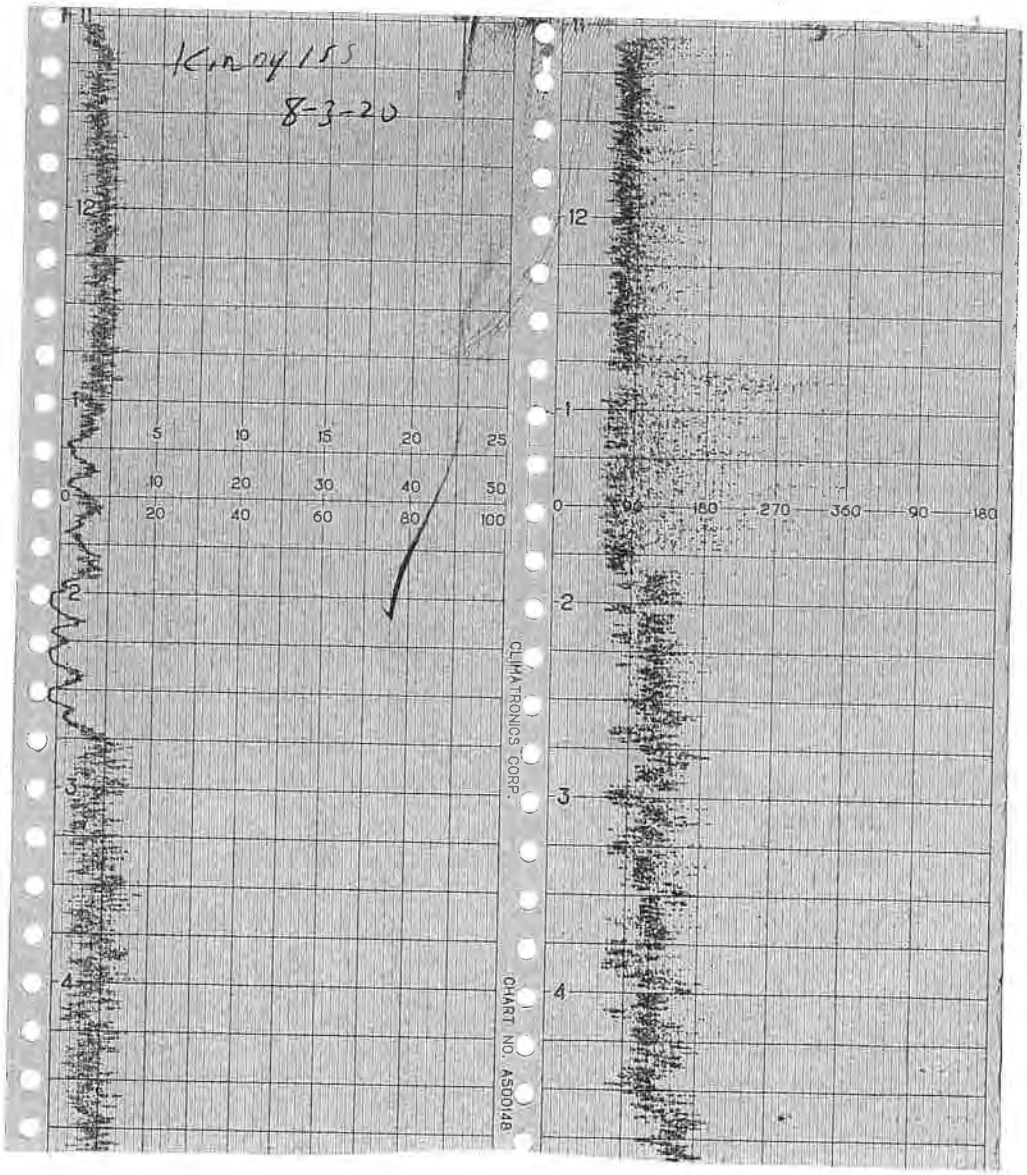
Attachment D

Weather Station Data

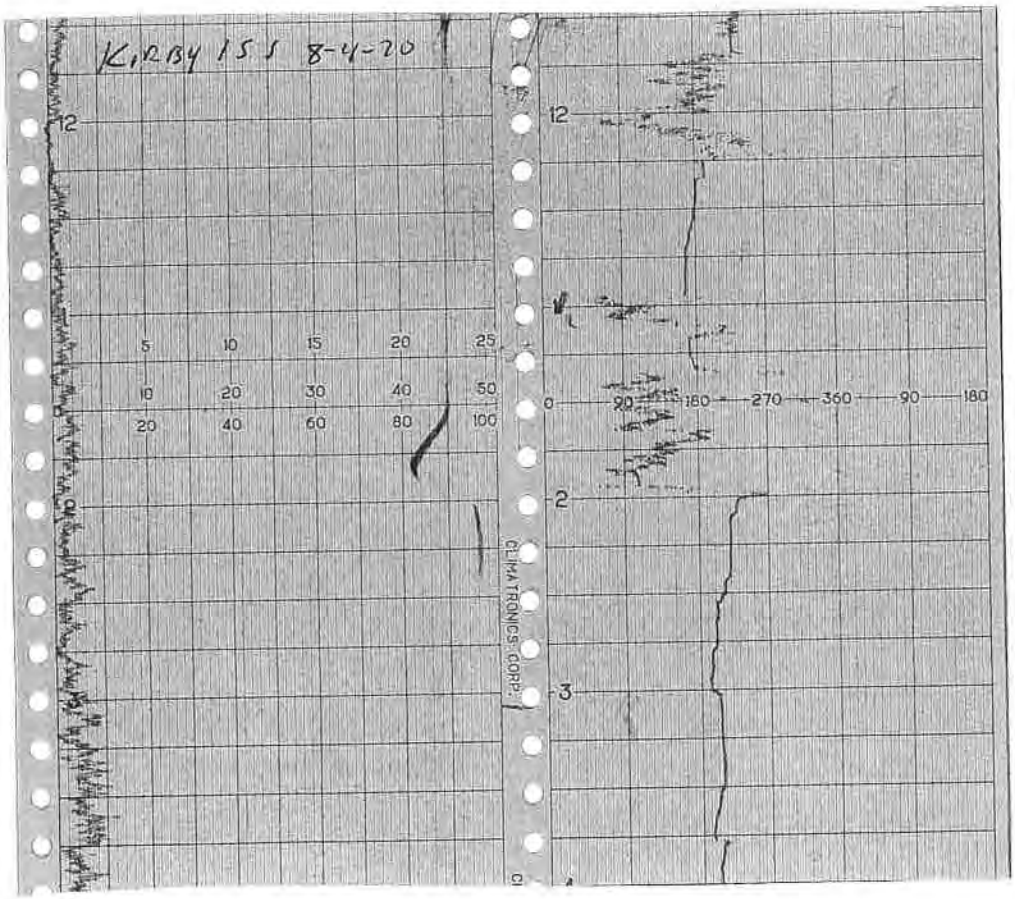
WIND SPEED & DIRECTION CHART ROLL



WIND SPEED & DIRECTION CHART ROLL



WIND SPEED & DIRECTION CHART ROLL



RES Environmental Inc.

16-POINT WIND DIRECTION INDEX

NO	DIRECTION	DEGREES		
		FROM	CENTER	TO
16	NORTH (N)	348.8	360.0	011.3
1	NORTH-NORTHEAST (NNE)	011.3	022.5	033.8
2	NORTHEAST (NE)	033.8	045.0	056.3
3	EAST-NORTHEAST (ENE)	056.3	067.5	078.8
4	EAST (E)	078.8	090.0	101.3
5	EAST-SOUTHEAST (ESE)	101.3	112.5	123.8
6	SOUTHEAST (SE)	123.8	135.0	146.3
7	SOUTH-SOUTHEAST (SSE)	146.3	157.5	168.8
8	SOUTH (S)	168.8	180.0	191.3
9	SOUTH-SOUTHWEST (SSW)	191.3	202.5	213.8
10	SOUTHWEST (SW)	213.8	225.0	236.3
11	WEST-SOUTHWEST (WSW)	236.3	247.5	258.8
12	WEST (W)	258.8	270.0	281.3
13	WEST-NORTHWEST (WNW)	281.3	292.5	303.8
14	NORTHWEST (NW)	303.8	315.0	326.3
15	NORTH-NORTHWEST (NNW)	326.3	337.5	348.8

865 Via Lata ▪ Colton, California 92324 ▪ (909) 422-1001 Fax (909) 422-0707

Attachment E

Calibration Records

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME: Kirby INSTRUMENT MAKE: Hitech

MODEL: TVA1000 EQUIPMENT #: 10 SERIAL #: 1636346773

MONITORING DATE: 8-4-20 TIME: 0525

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 500 ppm
3. Adjust meter settings to read 500 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.4 ppm	2.3 ppm

Background Value = 2.3 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	491 ppm	441 ppm	6
#2	502 ppm	452 ppm	6
#3	500 ppm	450 ppm	6
Calculate Response Time (1+2+3) / 3			6 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.16 ppm	491 ppm	9
#2	0.09 ppm	502 ppm	2
#3	0.07 ppm	510 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/500 X 100/1			0.73 #DIV/0! Must be less than 10%

Performed By: Joshua Wade Date/Time: 8-4-20 - 0525

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME: KIRBY INSTRUMENT MAKE: Honno

MODEL: TVA 1000 EQUIPMENT #: 11 SERIAL #: 1636346774

MONITORING DATE: 8-4-20 TIME: 0525

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 500 ppm
3. Adjust meter settings to read 500 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.4 ppm	2.3 ppm

Background Value = 2.3 **ppm**

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	507 ppm	457 ppm	6
#2	500 ppm	450 ppm	6
#3	500 ppm	450 ppm	6
Calculate Response Time (1+2+3) / 3			6 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 **ppm**

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0-18 ppm	507 ppm	7
#2	0-14 ppm	500 ppm	0
#3	0-10 ppm	500 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/500 X 100/1			0-46 #DIV/0! Must be less than 10%

Performed By: Nick Banks Date/Time: 8-4-20 - 0525

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME: Kirby INSTRUMENT MAKE: Henno

MODEL: TVA 1000 EQUIPMENT #: 17 SERIAL #: 103624641

MONITORING DATE: 8-4-20 TIME: 0525

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 500 ppm
3. Adjust meter settings to read 500 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.4 ppm	2.3 ppm

Background Value = 2.3 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	485 ppm	435 ppm	7
#2	495 ppm	445 ppm	7
#3	500 ppm	450 ppm	7
Calculate Response Time (1+2+3) / 3			7 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.30 ppm	485 ppm	11
#2	0.16 ppm	485 ppm	5
#3	0.12 ppm	503 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/500 X 100/1			1.06 #DIV/0! Must be less than 10%

Performed By: Dwight Anderson Date/Time: 8-4-20 - 0525

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Kirby INSTRUMENT MAKE: Thermo

MODEL: TVA 1000 EQUIPMENT #: 10 SERIAL #: 1036346773

MONITORING DATE: 8-3-20 TIME: 1055

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.4 ppm	2.3 ppm

Background Value = 2.3 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	23 ppm	20.7 ppm	5
#2	24 ppm	21.6 ppm	5
#3	25 ppm	22.5 ppm	5
Calculate Response Time (1+2+3) / 3			5 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.27 ppm	23 ppm	2
#2	0.20 ppm	24 ppm	1
#3	0.14 ppm	25 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/25 X 100/1			4.0 #DIV/0! Must be less than 10%

Performed By Loshwnor Date/Time: 8-3-20 - 1055

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Kirby INSTRUMENT MAKE: Thermo

MODEL: TVA1000 EQUIPMENT #: 11 SERIAL #: 1036346774

MONITORING DATE: 8-3-20 TIME: 1055

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.4 ppm	2.3 ppm

Background Value = 2.3 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	24 ppm	21.6 ppm	6
#2	25 ppm	22.5 ppm	6
#3	25 ppm	22.5 ppm	6
Calculate Response Time (1+2+3) / 3			6 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.15 ppm	24 ppm	1
#2	0.11 ppm	25 ppm	0
#3	0.09 ppm	25 ppm	0
Calculate Precision	$\frac{[STD-B1] + [STD-B2] + [STD-B3]}{3} \times \frac{1}{25} \times \frac{100}{1}$		1.3 #DIV/0! Must be less than 10%

Performed By: Nick Banks Date/Time: 8-3-20-1055

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Kirby INSTRUMENT MAKE: Thermo

MODEL: TVA1000 EQUIPMENT #: 12 SERIAL #: 1036246741

MONITORING DATE: 8-3-20 TIME: 1055

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.4 ppm	2.3 ppm

Background Value = ________ ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	24 ppm	21.6 ppm	5
#2	24 ppm	21.6 ppm	5
#3	25 ppm	22.5 ppm	5
Calculate Response Time (1+2+3) / 3			5 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.24 ppm	24 ppm	1
#2	0.14 ppm	24 ppm	1
#3	0.10 ppm	25 ppm	0
Calculate Precision	$\frac{[STD-B1] + [STD-B2] + [STD-B3]}{3} \times \frac{1}{25} \times \frac{100}{1}$		2.6 #DIV/0! Must be less than 10%

Performed By Dwight Anderson Date/Time: 8-3-20 - 1055

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Kirby INSTRUMENT MAKE: Thermo

MODEL: TVA1000 EQUIPMENT #: 10 SERIAL #: 1036346773

MONITORING DATE: 8-4-20 TIME: 1135

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.4 ppm	2.3 ppm

Background Value = 2.3 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	24 ppm	21.6 ppm	6
#2	25 ppm	22.5 ppm	6
#3	25 ppm	22.5 ppm	6
Calculate Response Time	(1+2+3) / 3		6 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.14 ppm	24 ppm	1
#2	0.08 ppm	25 ppm	0
#3	0.06 ppm	25 ppm	0
Calculate Precision	[STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/25 X 100/1		1.3 #DIV/0! Must be less than 10%

Performed By: Louis Wade Date/Time: 8-4-20-1135

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: KIROY INSTRUMENT MAKE: Ultima

MODEL: TVA 1000 EQUIPMENT #: 11 SERIAL #: 1026246724

MONITORING DATE: 8-4-20 TIME: 1135

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.4 ppm	2.3 ppm

Background Value = 2.3 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	23 ppm	20.7 ppm	7
#2	24 ppm	21.6 ppm	7
#3	25 ppm	22.5 ppm	7
Calculate Response Time (1+2+3) / 3			7 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.24 ppm	23 ppm	2
#2	0.13 ppm	24 ppm	1
#3	0.01 ppm	25 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/25 X 100/1			4.0 #DIV/0! Must be less than 10%

Performed By NICK BANKS Date/Time 8-4-20 - 1135

RES Environmental Inc

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Kirby INSTRUMENT MAKE: Thermo

MODEL: TVA 1000 EQUIPMENT #: 12 SERIAL #: 1036246741

MONITORING DATE: 8-4-20 TIME: 1135

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.2 ppm	2.4 ppm	2.3 ppm

Background Value = 2.3 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	24 ppm	21.6 ppm	6
#2	24 ppm	21.6 ppm	6
#3	25 ppm	22.5 ppm	6
Calculate Response Time (1+2+3) / 3			6 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.21 ppm	24 ppm	1
#2	0.16 ppm	24 ppm	1
#3	0.11 ppm	25 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/25 X 100/1			2.6 #DIV/0! Must be less than 10%

Performed By DWIGHT ANDERSON Date/Time: 8-4-20 - 1135

RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Unit #10

SERIAL NUMBER: 1036346773

TECHNICIAN: [signature] DATE: 7-3-20

GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

FID			
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	100	+/- 25
500	500	501	+/- 125
10000	10000	10,120	+/- 2500
< 1	ZERO GAS	0.48	< 3
PID			
ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50		+/- 12.5
100	100		+/- 25
500	500		+/- 125
< 1	ZERO GAS		< 3

All measurement standards are calibrated at scheduled intervals by the National Institute of Standards and Technology (NIST), or against certified standards, which are traceable to the National Institute of Standards and Technology.

P.O. Box 748 • Colton, California 92324
(909) 422-1001 • TOLL FREE (888) 325-1098 • FAX (909) 422-0707 • www.resenvironmental.com

RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Unit #11

SERIAL NUMBER: 1036346774

TECHNICIAN: JM DATE: 7-3-20

GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

FID			
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	100	+/- 25
500	500	500	+/- 125
10000	10000	10,009	+/- 2500
< 1	ZERO GAS	0.79	< 3
PID			
ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50		+/- 12.5
100	100		+/- 25
500	500		+/- 125
< 1	ZERO GAS		< 3

All measurement standards are calibrated at scheduled intervals by the National Institute of Standards and Technology (NIST), or against certified standards, which are traceable to the National Institute of Standards and Technology.

P.O. Box 748 • Colton, California 92324
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RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Vault #12

SERIAL NUMBER: 1036246741

TECHNICIAN: [signature] DATE: 7-3-20

GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

FID			
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	99	+/- 25
500	500	499	+/- 125
10000	10000	10,000	+/- 2500
< 1	ZERO GAS	0.69	< 3
PID			
ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50	/	+/- 12.5
100	100		+/- 25
500	500		+/- 125
< 1	ZERO GAS		< 3

All measurement standards are calibrated at scheduled intervals by the National Institute of Standards and Technology (NIST), or against certified standards, which are traceable to the National Institute of Standards and Technology.

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RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site: _____

Purpose: _____

Operator: _____

Date: 8-8-20 **Time:** 0900

Model # TVA 1000B

Serial # #10 1036346773

INSTRUMENT INTEGRITY CHECKLIST		INSTRUMENT CALIBRATION
Battery test	(Pass) / Fail	CALIBRATION CHECK
Reading following ignition	2.1 ppm	Calibration Gas (ppm): 500 / Actual (ppm): 500 / % Accuracy: 100%
Leak test	(Pass) / Fail / NA	RESPONSE TIME
Clean system check (check valve chatter)	(Pass) / Fail / NA	Calibration Gas, ppm: 500
H_2 supply pressure gauge (acceptable range 9.5 - 12)	(Pass) / Fail / NA	90% of Calibration Gas, ppm: 450
Date of last factory calibration	7-3-20	Time required to attain 90% of Cal Gas ppm
Factory calibration record w/instrument within 3 months	(Pass) / Fail	1. 6 2. 5 3. 6 Average 5.6
		Equal to or less than 30 seconds? (Y) N
		Instrument calibrated to CH4 gas.

Comments: _____

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RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site: _____

Purpose: _____

Operator: JM MM

Date: 8-8-20 **Time:** 0915

Model # TVA 1000B

Serial # #11 1036346774

INSTRUMENT INTEGRITY CHECKLIST		INSTRUMENT CALIBRATION
Battery test	(Pass) / Fail	CALIBRATION CHECK
Reading following ignition	2.3 ppm	Calibration Gas (ppm): 500 / Actual (ppm): 500 / % Accuracy: 100%
Leak test	(Pass) / Fail / NA	RESPONSE TIME
Clean system check (check valve chatter)	(Pass) / Fail / NA	Calibration Gas, ppm: 500
H_2 supply pressure gauge (acceptable range 9.5 - 12)	(Pass) / Fail / NA	90% of Calibration Gas, ppm: 450
Date of last factory calibration	7-3-20	Time required to attain 90% of Cal Gas ppm: 1. 6 / 2. 6 / 3. 7 / Average 6.3
Factory calibration record w/instrument within 3 months	(Pass) / Fail	Equal to or less than 30 seconds? (Y) N
		Instrument calibrated to CH4 gas.

Comments: _____

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RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site: _____

Purpose: _____

Operator: JM JM

Date: 8-8-20 **Time:** 0930

Model # TVA 1000 B

Serial # #12 1036246741

INSTRUMENT INTEGRITY CHECKLIST	
Battery test	(Pass) / Fail
Reading following ignition	1.5 ppm
Leak test	(Pass) / Fail / NA
Clean system check (check valve chatter)	(Pass) / Fail / NA
H_2 supply pressure gauge (acceptable range 9.5 - 12)	(Pass) / Fail / NA
Date of last factory calibration	7-3-20
Factory calibration record w/instrument within 3 months	(Pass) / Fail

INSTRUMENT CALIBRATION

CALIBRATION CHECK

Calibration Gas (ppm)	Actual (ppm)	% Accuracy
500	500	100%

RESPONSE TIME

Calibration Gas, ppm 500

90% of Calibration Gas, ppm 450

Time required to attain 90% of Cal Gas ppm

1. 7
2. 7
3. 6

Average 6.6

Equal to or less than 30 seconds? (Y) N

Instrument calibrated to CH4 gas

Comments: _____

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INTERMOUNTAIN SPECIALTY GASES

520 N. Kings Road • Nampa • Idaho • 83687

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CERTIFICATE OF ANALYSIS

Composition	Certification	Analytical Accuracy
Air - Zero		
THC	< 2 PPM	
Oxygen	20.9%	± 2%
Nitrogen	Balance	

Lot # 19-6779

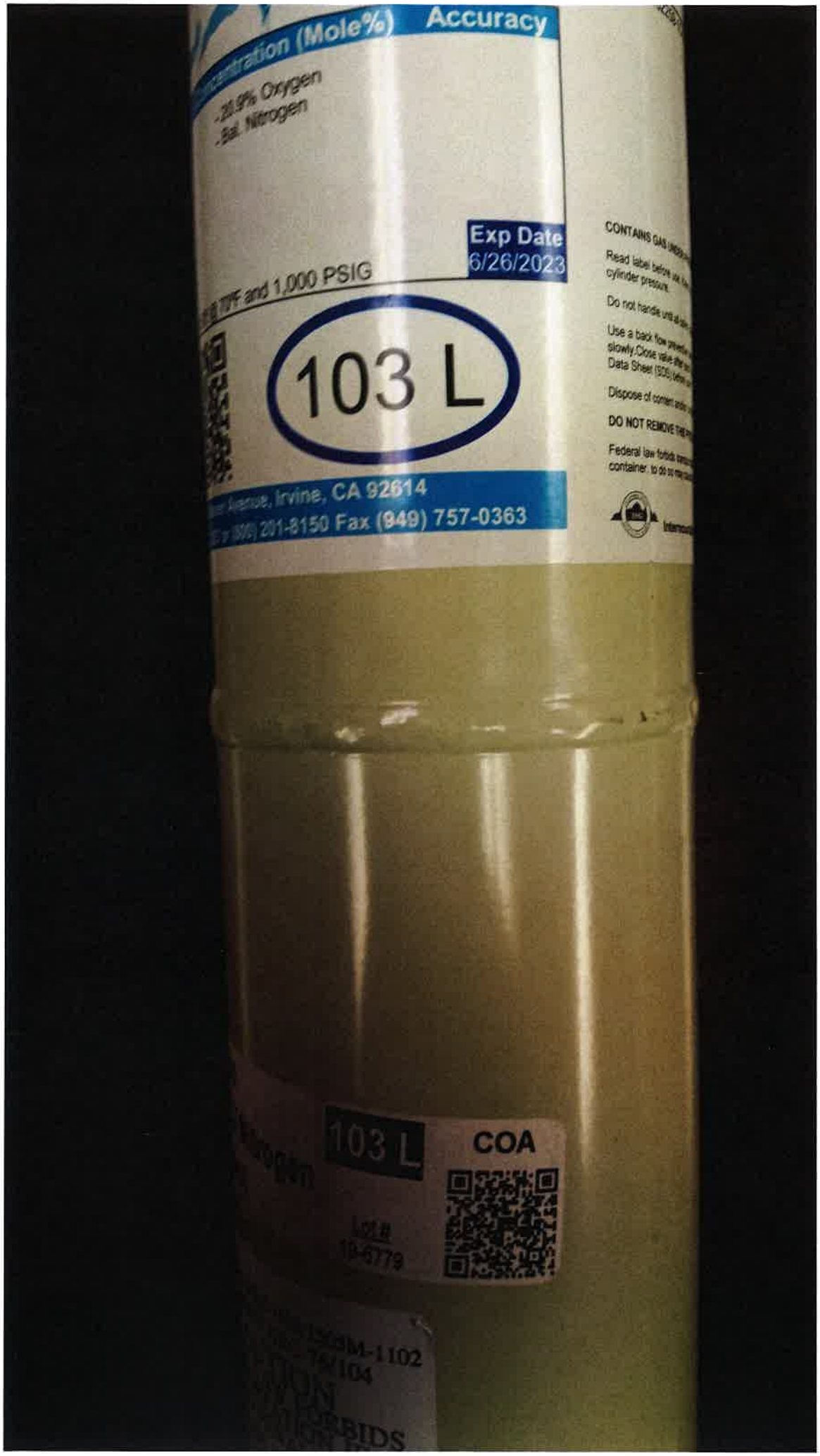
Mfg. Date: 4/3/2019

Parent Cylinder ID Number: 001739, 02268

Method of Preparation:
Gravimetric/Pressure Transfilled

Method of Analysis:
This mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Quality Assurance Manager
800-552-5003
Certificate Date: 4/3/2019


Concentration (Mole%) Accuracy
- 20.9% Oxygen
- Bal. Nitrogen
Exp Date
6/26/2023
and 1,000 PSIG
103 L
Irvine, CA 92614
(949) 201-8150 Fax (949) 757-0363
CONTAINS GAS
Read label before
cylinder pressure.
Do not handle
Use a back flow
slowly.Close valve
Data Sheet (SDS)
Dispose of
DO NOT REMOVE
Federal law
container. to do so
103 L
COA
Lot #
19-6779
M-1102
104

INTERMOUNTAIN SPECIALTY GASES

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CERTIFICATE OF ANALYSIS

Composition	Certification	Analytical Accuracy
Methane	25 ppm	± 5%
Air	Balance	

Lot # 17-6074

Mfg. Date: 10/16/2017

Parent Cylinder ID Number: 17161

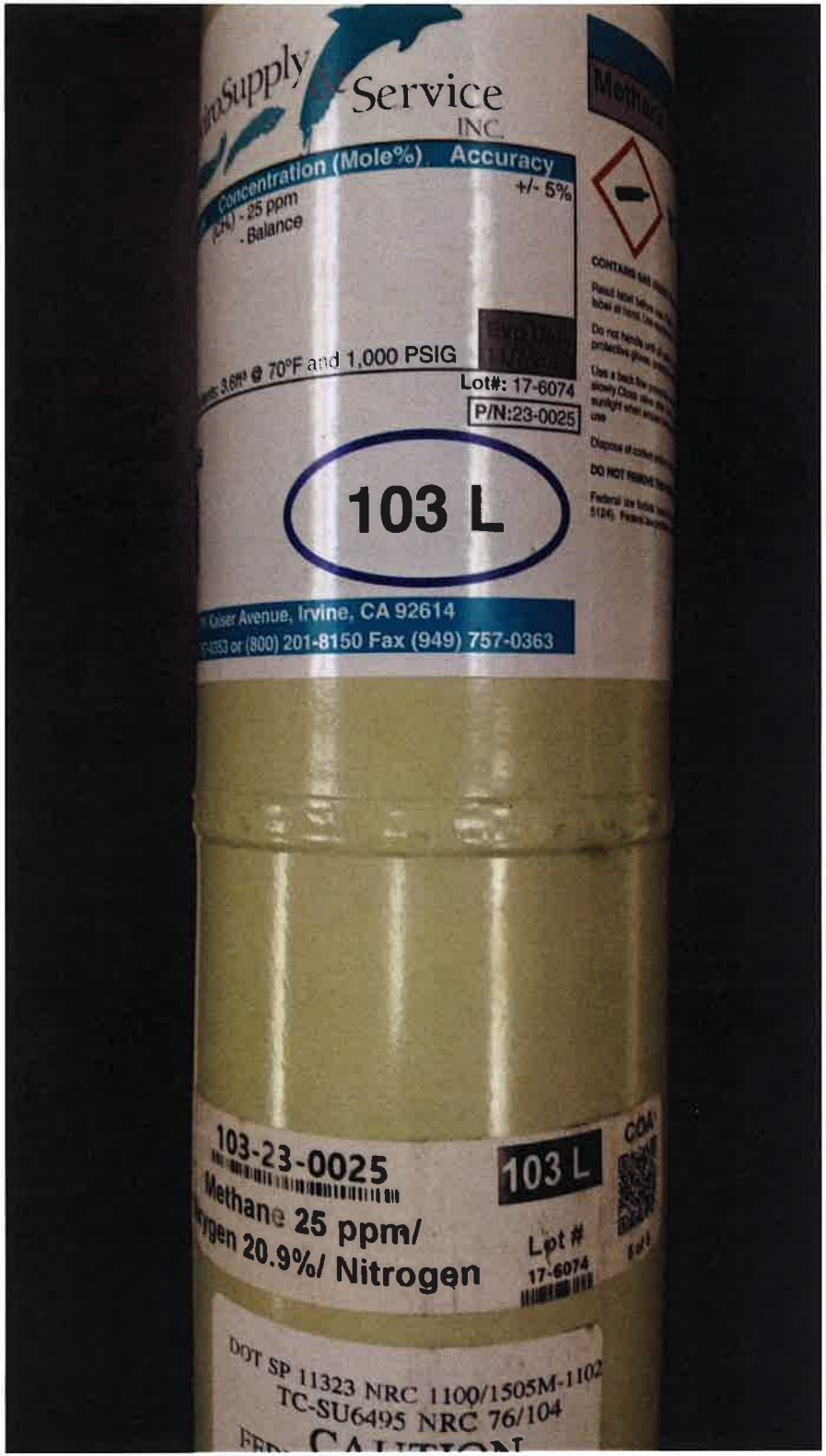
Method of Preparation:

Gravimetric/Pressure Transfilled

Method of Analysis:

The parent mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Quality Assurance Manager
800-552-5003
Certificate Date: 10/16/2017


Service
INC.
Concentration (Mole%) Accuracy
+/- 5%
- 25 ppm
. Balance
@ 70°F and 1,000 PSIG
Lot#: 17-6074
P/N:23-0025
103 L
Kaiser Avenue, Irvine, CA 92614
(800) 201-8150 Fax (949) 757-0363
103-23-0025
103 L
Methane 25 ppm/
ygen 20.9%/ Nitrogen
Lot #
17-6074
DOT SP 11323 NRC 1100/1505M-1102
TC-SU6495 NRC 76/104

Intermountain Specialty Gases
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CERTIFICATE OF ANALYSIS

Composition	Certification	Analytical Accuracy (+/-)
Methane	500 ppm	2%
Oxygen	20.9 %	2%
Nitrogen	Balance UHP	

Lot #	**18-6641**
Mfg. Date:	12/18/2018
Expiration Date:	
Transfill Date:	see cylinder
Parent Cylinder ID Number:	001763

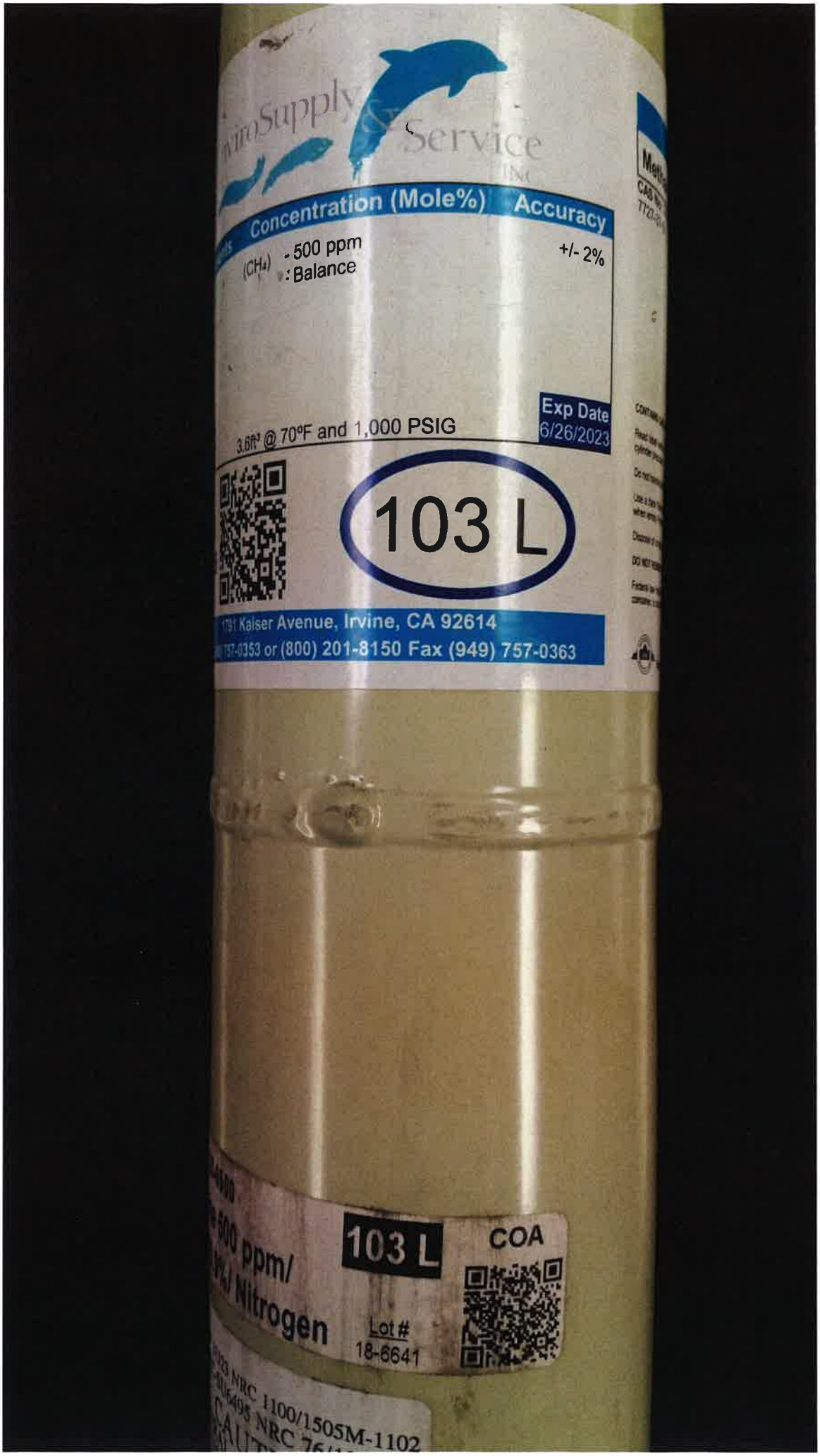
Method of Preparation:

Gravimetric/Pressure Transfilled

Method of Analysis:

The parent mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Title: Quality Assurance Manager
Certificate Date: 12/18/2018


Concentration (Mole%)
Accuracy
500 ppm
(CH4)
: Balance
+/- 2%
3.6ft³ @ 70°F and 1,000 PSIG
Exp Date
6/26/2023
103 L
1791 Kaiser Avenue, Irvine, CA 92614
757-0353 or (800) 201-8150 Fax (949) 757-0363
103 L
COA
Lot #
18-6641
NRC 1100/1505M-1102

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Composition	Certification	Analytical Accuracy (+/-)
Methane	500 ppm	2%
Oxygen	20.9 %	2%
Nitrogen	Balance UHP	

Lot #	**20-7497**
Mfg. Date:	7/10/2020
Expiration Date:	
Transfill Date:	see cylinder
Parent Cylinder ID Number:	TWC001763

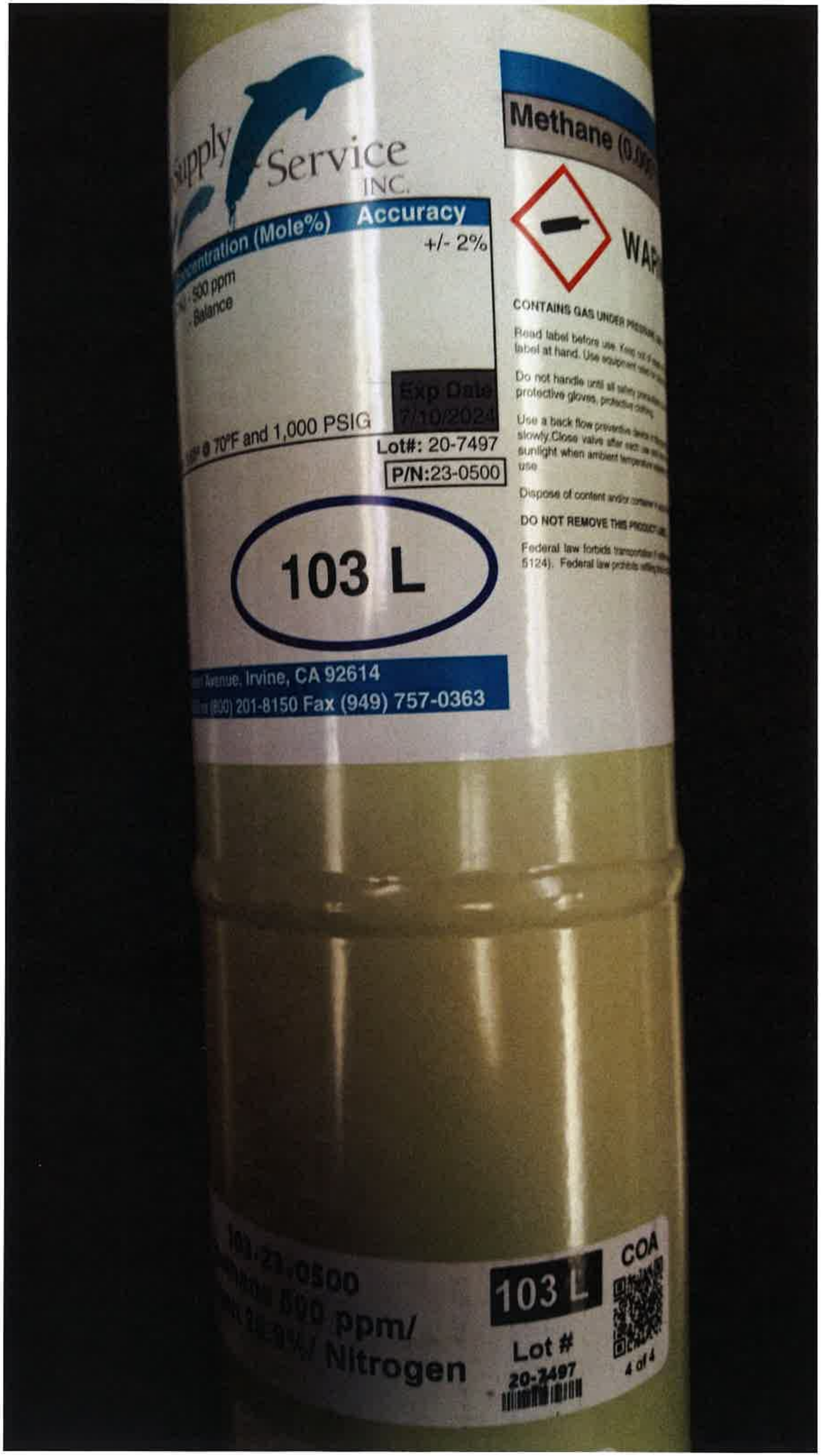
Method of Preparation:

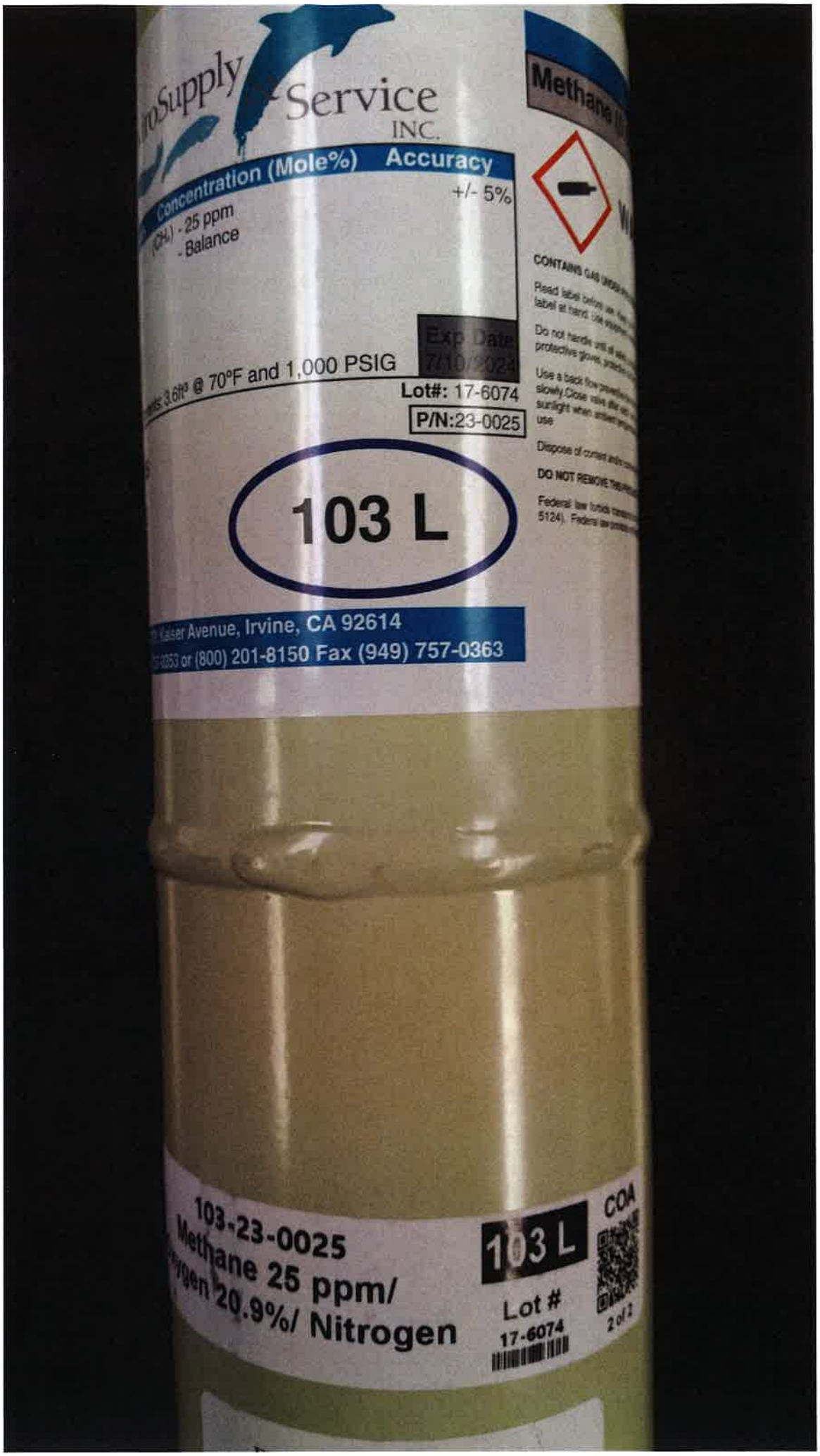
Gravimetric/Pressure Transfilled

Method of Analysis:

The parent mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By:	Tony Janquart
Title:	Quality Assurance Manager
Certificate Date:	7/10/2020


Supply
Service
INC.
Methane
Accuracy
+/- 2%
500 ppm
Balance
Exp Date
7/10/2024
@ 70°F and 1,000 PSIG
Lot#: 20-7497
P/N:23-0500
WAR
CONTAINS GAS UNDER
Read label before use.
label at hand.
Do not handle until all safety
protective gloves, protective
Use a back flow preventive
sunlight when ambient
use
Dispose of content and/or
DO NOT REMOVE THIS PRODUCT
Federal law forbids
5124). Federal law prohibits
103 L
Avenue, Irvine, CA 92614
201-8150 Fax (949) 757-0363
500 ppm/
Nitrogen
103 L
COA
Lot #
20-7497
4 of 4


Service
INC.
Concentration (Mole%) Accuracy
+/- 5%
(CH4) - 25 ppm
- Balance
Exp Date
7/10/2024
Lot#: 17-6074
P/N:23-0025
103 L
Kaiser Avenue, Irvine, CA 92614
(800) 201-8150 Fax (949) 757-0363
103-23-0025
Methane 25 ppm/
Nitrogen 20.9%/ Nitrogen
103 L
Lot #
17-6074
COA
2 of 2

INTERMOUNTAIN SPECIALTY GASES

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800-552-5003 • www.isgases.com

CERTIFICATE OF ANALYSIS

Composition	Certification	Analytical Accuracy
Methane	25 ppm	± 5%
Air	Balance	

Lot # 17-6074

Mfg. Date: 10/16/2017

Parent Cylinder ID Number: 17161

Method of Preparation:
Gravimetric/Pressure Transfilled

Method of Analysis:
The parent mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Quality Assurance Manager
800-552-5003
Certificate Date: 10/16/2017

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Guadalupe Date: 8/12/20

Time: _____ AM 12:30 PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 499 ppm
3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 1 ppm (a)
2. Downwind Reading (highest in 30 seconds): 2 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 1.5 ppm

Performed by: Markus Bernard

CALIBRATION PRECISION TEST RECORD

Date: 7/15/2020

Expiration Date (3 months): 10/15/2020

Time: 9:45 AM _____ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Meter Reading for Zero Air: 0 ppm (a)

Meter Reading for Calibration Gas: 498 ppm (b)

Measurement #2:

Meter Reading for Zero Air: 0 ppm (c)

Meter Reading for Calibration Gas: 497 ppm (d)

Measurement #3:

Meter Reading for Zero Air: 0 ppm (e)

Meter Reading for Calibration Gas: 499 ppm (f)

Calculate Precision:

$$\frac{\{|(500) - (b)| + |(500) - (d)| + |(500) - (f)|\}}{3} \times \frac{1}{500} \times 100$$

0.4 % (must be < than 10%)

Performed by: M. Bernard

RESPONSE TIME TEST RECORD

Date: 7/15/20

Expiration Date (3 months): 10/15/20

Time: 9:45 AM _____ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Stabilized Reading Using Calibration Gas: 498 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 2 seconds (a)

Measurement #2:

Stabilized Reading Using Calibration Gas: 497 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (b)

Measurement #3:

Stabilized Reading Using Calibration Gas: 499 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 7 seconds (c)

Calculate Response Time:

$\frac{(a) + (b) + (c)}{3}$ = 4.666 seconds (must be less than 30 seconds)

Performed by: M. Bernard

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: ~~Altamont~~ Kirby Landfill Date: 9-3-20

Time: ~~7~~ AM 3:50 PM

Instrument Make: Photovac Model: MicroFID S/N: C2PD 312

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 500 ppm
3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 0 ppm (a)
2. Downwind Reading (highest in 30 seconds): 0 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 0 ppm

Performed By: Juan Balcazar

CALIBRATION PRECISION TEST RECORD

Date: 6-8-20

Expiration Date (3 months): 9-8-20

Time: 7:15 AM ______ PM

Instrument Make: Rudolph Model: MicroFid S/N: CZP8312

Measurement #1:

Meter Reading for Zero Air: 0 ppm (a)

Meter Reading for Calibration Gas: 500 ppm (b)

Measurement #2:

Meter Reading for Zero Air: 0 ppm (c)

Meter Reading for Calibration Gas: 500 ppm (d)

Measurement #3:

Meter Reading for Zero Air: 0 ppm (e)

Meter Reading for Calibration Gas: 500 ppm (f)

Calculate Precision:

$$\frac{(|(500)-(b)|+|(500)-(d)|+|(500)-(f)|)}{3} \times \frac{1}{500} \times 100$$

______ % (must be < than 10%)

Performed By: Jim Bucardo

RESPONSE TIME TEST RECORD

Date: 6-8-20

Expiration Date (3 months): 9-8-20

Time: 7:15 AM ______ PM

Instrument Make: Photovac Model: MicroFID S/N: C2.09.312

Measurement #1:

Stabilized Reading Using Calibration Gas: 500 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 2 seconds (a)

Measurement #2:

Stabilized Reading Using Calibration Gas: 500 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 2 seconds (b)

Measurement #3:

Stabilized Reading Using Calibration Gas: 500 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 2 seconds (c)

Calculate Response Time:

$\frac{(a) + (b) + (c)}{3}$ = 2 seconds (must be less than 30 seconds)

Performed By: Jim Buyoucos


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THC <0.1 PPM
Analytical Accuracy +/- 2%
103L @ 70F & 1000 PSIG
Lot# TX17983
P/N AIR-ZER-103L
EXP: 10/11/2022
EQUIPCO
2100 MERIDIAN PARK BLVD
Concord, CA 94520
METHANE 500ppm
AIR BALANCE
Analytical Accuracy +/- 2%
103L @ 70F & 1000 PSIG
Lot# K024306
P/N MET-500-103L
EXP: 6/19/2022

APPENDIX G

COMPONENT LEAK CHECK REPORTS

KIRBY CANYON RECYCLING & DISPOSAL FACILITY, San Jose, CA
THIRD QUARTER 2020 LFG COMPONENT LEAK MONITORING

INSTRUMENT FID
MAKE: Photo Scientific
MODEL: TVA 1000
S/N: 1036346773

DATES OF SAMPLING: August 4, 2020
FIELD TECHNICIANS: Leigh Wade

LOCATION OF LEAK	LEAK CONCENTRATION (ppmv)	DATE OF DISCOVERY	TECHNICIAN	ACTION TAKEN TO REPAIR LEAK	DATE OF REPAIR	DATE OF ANY REQUIRED RE-MONITORING	RE-MONITORED CONCENTRATION (ppmv)
NO EXCEEDANCES WERE DETECTED DURING THE THIRD QUARTER 2020 MONITORING EVENT							
In the event that an exceedance is detected, please intiate corrective action and re-monitor the exceedance location within 7 days of the initial exceedance.							
NOTE: Leaks over 500 ppmv methane are exceedances at any component containing landfill gas, pursuant to CARB Title 17 of California Code of Regulations Subchapter 10, Article 4, Subarticle 6, Section 95464(b)(1)(B).							
NOTE: Leaks over 1,000 ppmv methane are exceedances at any component containing landfill gas, pursuant to BAAQMD Regulation 8-34-301.2.							
ND = Not Detected							

KIRBY CANYON RECYCLING & DISPOSAL FACILITY, San Jose, CA
FOURTH QUARTER 2020 LFG COMPONENT LEAK MONITORING

INSTRUMENT	FID
MAKE:	Photo Scientific
MODEL:	TVA 1000
S/N:	1036346773

DATES OF SAMPLING: October 21, 2020
FIELD TECHNICIANS: Leigh Wade

LOCATION OF LEAK	LEAK CONCENTRATION (ppmv)	DATE OF DISCOVERY	TECHNICIAN	ACTION TAKEN TO REPAIR LEAK	DATE OF REPAIR	DATE OF ANY REQUIRED RE-MONITORING	RE-MONITORED CONCENTRATION (ppmv)
NO EXCEEDANCES WERE DETECTED DURING THE FOURTH QUARTER 2020 MONITORING EVENT							
In the event that an exceedance is detected, please intiate corrective action and re-monitor the exceedance location within 7 days of the initial exceedance.							
NOTE: Leaks over 500 ppmv methane are exceedances at any component containing landfill gas, pursuant to CARB Title 17 of California Code of Regulations Subchapter 10, Article 4, Subarticle 6, Section 95464(b)(1)(B).							
NOTE: Leaks over 1,000 ppmv methane are exceedances at any component containing landfill gas, pursuant to BAAQMD Regulation 8-34-301.2.							
ND = Not Detected							

APPENDIX H

MONTHLY SOLID WASTE PLACEMENT TOTALS

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

Solid Waste Placement Totals

July 1, 2020 through December 31, 2020

July	Disposed	August	Disposed	September	Disposed	Ocotber	Disposed	November	Disposed	December	Disposed
Total in Tons	22,405		18,456		17,696		18,678		19,574		19,572

Total Disposed July 1, 2020 through December 31, 2020 **116,381**

APPENDIX I

WELLFIELD MONITORING LOGS

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

Wellfield Monitoring Report - July 9, 13, 14, 15, 16 and 17, 2020

Device ID	Date Time	CH_4 % by Volume	CO_2 % by Volume	O_2 % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCLC0108	7/15/2020 18:07	49.50	36.70	2.40	11.40	104.0	104.0	-39.30	-39.30
KCLC0109	7/15/2020 18:12	50.60	39.30	0.10	10.00	107.0	107.0	-46.40	-46.70
KCLC0110	7/15/2020 18:17	54.40	41.00	0.00	4.60	117.0	117.0	-46.10	-46.30
KCLC0111	7/15/2020 18:33	56.60	43.10	0.10	0.20	102.0	102.0	-42.10	-42.20
KCLC0112	7/17/2020 15:24	51.90	41.60	0.00	6.50	120.0	120.0	-42.90	-42.50
KCLC0139	7/9/2020 16:16	53.30	44.30	0.00	2.40	117.6	117.6	-18.62	-19.24
KCLC0140	7/9/2020 16:12	42.50	35.50	0.00	22.00	110.6	110.5	-1.87	-1.66
KCLC0141	7/9/2020 15:55	43.30	37.40	0.00	19.30	99.5	99.5	-1.89	-0.79
KCLC0142	7/17/2020 14:21	30.80	28.70	0.00	40.50	101.0	101.0	-0.10	-0.10
KCLC0142	7/17/2020 14:24	30.80	28.70	0.00	40.50	101.0	102.0	-0.10	-0.20
KCLC0143	7/17/2020 14:11	32.50	33.10	0.00	34.40	104.0	102.0	-0.20	-0.10
KCLC0144	7/13/2020 14:37	57.30	42.70	0.00	0.00	95.6	95.6	-35.30	-35.26
KCLC0145	7/13/2020 13:58	54.70	39.60	1.20	4.50	94.1	93.7	-22.25	-29.80
KCLC0146	7/13/2020 13:27	56.70	43.30	0.00	0.00	77.1	80.6	-35.74	-43.55
KCLC0147	7/13/2020 13:15	56.60	43.40	0.00	0.00	94.0	94.0	-24.30	-24.29
KCLC0148	7/13/2020 14:06	56.00	43.30	0.00	0.70	92.2	92.4	-8.99	-32.08
KCLC0149	7/17/2020 15:04	41.20	41.40	0.10	17.30	109.0	109.0	-5.60	-2.60
KCLC0150	7/13/2020 13:20	48.20	48.60	0.60	2.60	84.5	84.5	-32.83	-32.82
KCLC0151	7/13/2020 13:11	54.40	45.60	0.00	0.00	106.2	106.0	-2.05	-1.95
KCLC0151	7/13/2020 13:16	NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)-NEW JUMPER INSTALLED							
KCLC0152	7/13/2020 13:04	56.70	41.20	0.20	1.90	109.7	109.9	-9.31	-9.34
KCLC0152	7/13/2020 13:09	NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)-NEW JUMPER INSTALLED							
KCYN0014	7/15/2020 17:44	38.60	30.80	0.70	29.90	105.0	105.0	-10.00	-8.30
KCYN0027	7/17/2020 13:16	47.10	43.50	0.30	9.10	117.0	117.0	-18.50	-19.00
KCYN0037	7/14/2020 17:48	49.40	40.40	0.90	9.30	101.1	101.9	-18.47	-18.46
KCYN0037	7/14/2020 17:50	NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)-NEW JUMPER INSTALLED							
KCYN0048	7/15/2020 12:54	42.80	37.10	0.00	20.10	129.5	129.1	-2.23	-0.82
KCYN0051	7/16/2020 18:13	47.40	39.40	0.10	13.10	116.0	116.0	-19.80	-19.80
KCYN0054	7/17/2020 13:52	41.30	32.70	4.60	21.40	102.0	102.0	-0.80	-0.90
KCYN0056	7/16/2020 18:16	50.70	44.80	0.00	4.50	127.0	127.0	-12.50	-12.50
KCYN0057	7/16/2020 18:49	46.80	42.30	0.00	10.90	138.0	138.0	-3.60	-3.60
KCYN0058	7/16/2020 18:40	45.40	39.50	0.00	15.10	132.0	132.0	-2.70	-2.70
KCYN0062	7/9/2020 14:44	43.20	37.40	0.00	19.40	126.0	126.1	-4.74	-3.36
KCYN0063	7/9/2020 14:39	57.00	42.70	0.00	0.30	116.9	116.5	-1.40	-1.45
KCYN0065	7/9/2020 16:08	44.90	36.00	3.20	15.90	106.0	105.9	-0.25	-0.24
KCYN0066	7/15/2020 12:41	55.70	34.60	0.00	9.70	129.8	129.8	-15.49	-17.20
KCYN0070	7/17/2020 12:22	48.60	36.90	0.10	14.40	117.0	117.0	-5.70	-5.70
KCYN0071	7/15/2020 18:51	51.30	39.90	0.20	8.60	133.0	133.0	-7.70	-7.70
KCYN0072	7/9/2020 14:52	53.10	38.70	0.00	8.20	115.7	115.7	-1.84	-1.84
KCYN0074	7/9/2020 15:22	57.80	39.80	0.00	2.40	134.8	134.9	-41.33	-40.10
KCYN0075	7/16/2020 18:29	51.40	40.50	1.30	6.80	134.0	134.0	-32.10	-32.50
KCYN0076	7/13/2020 15:20	51.60	39.00	1.20	8.20	139.5	139.9	-20.31	-20.33
KCYN0078	7/9/2020 15:12	48.40	38.40	0.00	13.20	135.5	135.5	-27.98	-27.32
KCYN0082	7/16/2020 13:40	55.60	36.40	0.40	7.60	112.0	112.0	-1.10	-1.00
KCYN0083	7/16/2020 12:26	53.60	36.30	0.10	10.00	78.0	78.0	-2.40	-2.40
KCYN0084	7/15/2020 13:30	15.70	19.10	0.00	65.20	127.2	126.7	-10.92	-4.68
KCYN0086	7/16/2020 17:46	55.80	44.00	0.00	0.20	129.0	129.0	-29.90	-29.90
KCYN0087	7/17/2020 14:42	46.70	40.50	0.00	12.80	138.0	138.0	-12.00	-12.00

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

Wellfield Monitoring Report - July 9, 13, 14, 15, 16 and 17, 2020

Device ID	Date Time	CH_4 % by Volume	CO_2 % by Volume	O_2 % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCYN0088	7/15/2020 19:05	54.30	38.90	0.00	6.80	113.0	113.0	-38.00	-39.50
KCYN0089	7/17/2020 12:39	52.30	40.70	0.20	6.80	139.0	139.0	-27.90	-27.90
KCYN0090	7/17/2020 12:59	49.70	38.60	0.00	11.70	102.0	103.0	-30.10	-30.10
KCYN0091	7/17/2020 12:35	52.90	41.40	0.00	5.70	137.0	136.0	-17.10	-18.40
KCYN0092	7/9/2020 15:16	50.40	39.90	0.00	9.70	133.7	133.6	-31.57	-31.54
KCYN0093	7/9/2020 15:42	47.10	37.50	0.00	15.40	129.2	129.2	-19.14	-8.51
KCYN0094	7/15/2020 18:41	51.70	39.20	0.20	8.90	129.0	129.0	-5.00	-5.20
KCYN0095	7/17/2020 12:52	57.30	42.50	0.00	0.20	124.0	124.0	-41.80	-42.00
KCYN0097	7/17/2020 12:26	53.00	38.20	0.10	8.70	123.0	123.0	-11.20	-11.20
KCYN0098	7/17/2020 12:47	51.30	39.80	0.00	8.90	125.0	125.0	-5.10	-5.10
KCYN0099	7/17/2020 16:04	49.60	39.20	0.00	11.20	132.0	132.0	-5.90	-5.90
KCYN0101	7/15/2020 19:01	50.70	36.90	0.00	12.40	100.0	100.0	-0.70	-0.70
KCYN0102	7/15/2020 18:48	46.20	37.50	0.30	16.00	107.0	107.0	-0.70	-0.70
KCYN0103	7/15/2020 18:56	38.60	34.10	0.10	27.20	118.0	118.0	-9.40	-9.40
KCYN0105	7/17/2020 15:45	56.80	43.10	0.00	0.10	116.0	116.0	-43.50	-43.90
KCYN0118	7/13/2020 15:39	54.90	42.00	0.00	3.10	121.3	121.3	-37.61	-35.90
KCYN0119	7/13/2020 15:29	51.00	39.90	0.00	9.10	131.1	131.3	-15.60	-12.30
KCYN0120	7/17/2020 15:15	52.20	40.30	1.20	6.30	83.0	83.0	-38.00	-38.30
KCYN0121	7/13/2020 15:45	55.90	42.80	0.00	1.30	117.9	119.6	-36.33	-36.32
KCYN0122	7/13/2020 15:34	57.50	42.00	0.00	0.50	104.0	106.6	-36.94	-36.91
KCYN0123	7/16/2020 18:35	44.70	43.60	0.00	11.70	127.0	127.0	-8.40	-7.90
KCYN0124	7/16/2020 18:24	38.50	37.60	0.10	23.80	108.0	108.0	-0.50	-0.50
KCYN0125	7/17/2020 13:58	56.40	43.10	0.20	0.30	126.0	126.0	-16.10	-16.10
KCYN0126	7/17/2020 14:05	48.30	41.80	0.10	9.80	119.0	119.0	-9.20	-9.20
KCYN0127	7/16/2020 18:54	50.00	43.20	0.00	6.80	127.0	127.0	-1.50	-1.60
KCYN0128	7/16/2020 19:01	50.90	43.00	0.00	6.10	137.0	137.0	-25.60	-25.70
KCYN0129	7/14/2020 17:39	58.50	41.40	0.10	0.00	106.4	107.6	11.10	11.19
KCYN0129	7/16/2020 17:39	56.10	43.70	0.10	0.10	122.0	122.0	-17.00	-16.90
KCYN0129	7/16/2020 17:44	NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)-NEW JUMPER INSTALLED							
KCYN0130	7/17/2020 15:33	45.40	36.70	0.00	17.90	118.0	118.0	-20.20	-20.20
KCYN0131	7/17/2020 15:29	56.90	43.00	0.00	0.10	114.0	114.0	-43.80	-43.70
KCYN0133	7/9/2020 15:03	52.00	40.40	0.10	7.50	128.3	128.3	-23.26	-23.79
KCYN0134	7/9/2020 15:45	48.90	37.60	0.00	13.50	113.7	113.7	-11.89	-11.87
KCYN0135	7/9/2020 15:52	47.60	41.20	0.00	11.20	127.8	127.8	-23.20	-23.23
KCYNLR04	7/17/2020 13:44	48.60	35.80	1.80	13.80	100.0	100.0	-32.90	-35.40
KCYNLR08	7/9/2020 14:31	58.60	41.10	0.20	0.10	98.7	99.1	-51.32	-51.74
KCYNLR11	7/17/2020 15:53	58.90	40.90	0.00	0.20	93.0	93.0	-0.90	-0.90

*The following wells are approved to operate at a temperature HOV of 145°F: 37, 45, 51, 57, 58,65, 66, 71, 74, 76, 78, 86, 87, 89, 91, 98, 120, 128 and 135. Wells 56, 75, 76, 87, 89, and 120, are approved to operate at a temperature HOV of 156°F .

As of July 31, 2020, there are 76 vertical wells, 0 horizontal collector, and 3 LCR at KCRDF.

%= percent

in. w.c.= inches in water column

degrees F= degrees Fahrenheit

HOV = Higher Operating Value

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

Wellfield Monitoring Report - August 14, 19, 25, 26, 27, and 28, 2020

Device ID	Date Time	CH_4 % by Volume	CO_2 % by Volume	O_2 % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCLC0108	8/25/2020 14:21	32.3	28.6	2.7	36.4	109.0	109.0	-40.5	-37.3
KCLC0109	8/25/2020 14:09	51.4	39.5	0.0	9.1	110.0	108.0	-44.1	-44.1
KCLC0110	8/25/2020 14:01	54.6	41.6	0.0	3.8	118.0	118.0	-43.0	-43.0
KCLC0111	8/25/2020 15:01	56.3	42.2	0.4	1.1	112.0	112.0	-43.3	-43.4
KCLC0112	8/25/2020 15:31	53.7	41.0	0.1	5.2	122.0	122.0	-41.9	-42.2
KCLC0139	8/19/2020 18:12	50.3	39.9	2.0	7.8	119.0	118.0	-20.0	-19.7
KCLC0140	8/19/2020 18:16	50.6	42.0	0.0	7.4	111.0	111.0	-0.8	-0.8
KCLC0141	8/25/2020 16:20	56.1	42.7	0.0	1.2	98.0	98.0	-0.2	-0.2
KCLC0142	8/27/2020 11:22	25.0	28.6	0.0	46.4	100.0	100.0	-0.2	-0.2
KCLC0143	8/19/2020 17:35	48.9	37.6	0.0	13.5	105.0	105.0	-0.1	-0.1
KCLC0144	8/25/2020 10:22	56.9	42.8	0.1	0.2	91.0	91.0	-38.5	-38.7
KCLC0145	8/27/2020 10:12	22.6	18.5	12.2	46.7	91.0	91.0	-7.4	-7.3
KCLC0146	8/19/2020 16:42	57.7	42.2	0.0	0.1	88.0	88.0	-2.5	-3.1
KCLC0147	8/19/2020 16:24	56.4	43.4	0.0	0.2	97.0	97.0	-5.2	-5.2
KCLC0148	8/27/2020 10:18	52.5	44.5	0.2	2.8	96.0	95.0	-31.1	-30.7
KCLC0149	8/27/2020 10:39	43.7	42.1	0.0	14.2	109.0	109.0	-2.2	-1.6
KCLC0150	8/19/2020 16:38	58.2	41.3	0.3	0.2	93.0	93.0	-0.3	-0.2
KCLC0151	8/19/2020 16:16	55.3	44.3	0.2	0.2	108.0	108.0	-2.1	-2.2
KCLC0152	8/19/2020 16:03	44.8	35.0	4.2	16.0	110.0	110.0	-2.9	-3.1
KCYN0014	8/25/2020 14:27	42.6	27.1	1.5	28.8	102.0	9.0	-2.5	-1.7
KCYN0027	8/27/2020 11:31	51.1	40.8	0.0	8.1	119.0	119.0	-21.0	-21.0
KCYN0037	8/25/2020 16:53	42.8	44.5	0.9	11.8	87.0	87.0	-10.2	-10.5
KCYN0048	8/25/2020 15:55	48.1	39.2	0.1	12.6	127.0	127.0	-0.7	-0.7
KCYN0051	8/25/2020 16:40	55.8	44.1	0.0	0.1	115.0	115.0	-17.7	-25.7
KCYN0054	8/19/2020 18:24	51.4	39.2	2.0	7.4	103.0	104.0	-0.1	-0.1
KCYN0056	8/14/2020 9:18	54.5	42.8	0.1	2.6	127.0	127.0	-8.0	-8.0
KCYN0056	8/25/2020 16:46	55.8	44.1	0.0	0.1	128.0	128.0	-7.5	-7.5
KCYN0057	8/19/2020 17:45	54.9	43.6	0.0	1.5	137.0	137.0	-2.6	-2.9
KCYN0058	8/27/2020 11:06	54.1	42.6	0.0	3.3	132.0	132.0	-2.4	-2.6
KCYN0062	8/26/2020 14:51	53.9	41.2	0.0	4.9	125.0	125.0	-2.1	-2.4
KCYN0063	8/25/2020 16:08	46.6	38.3	0.0	15.1	126.0	126.0	-19.9	-20.1
KCYN0063	8/26/2020 15:02	45.7	38.2	0.0	16.1	120.0	120.0	-1.7	-1.7
KCYN0065	8/19/2020 18:21	55.5	44.3	0.0	0.2	102.0	108.0	-0.3	-2.6
KCYN0066	8/27/2020 11:47	46.8	37.9	0.1	15.2	129.0	129.0	-20.9	-20.9
KCYN0070	8/26/2020 17:33	47.9	37.2	0.0	14.9	117.0	117.0	-5.2	-5.2
KCYN0071	8/26/2020 16:41	50.1	39.7	0.0	10.2	133.0	133.0	-8.1	-8.1
KCYN0072	8/26/2020 14:56	48.2	37.7	0.0	14.1	117.0	116.0	-2.3	-2.3
KCYN0074	8/26/2020 17:55	56.9	42.6	0.4	0.1	129.0	129.0	-42.2	-41.8
KCYN0075	8/19/2020 18:04	50.1	40.6	2.2	7.1	138.0	138.0	-33.3	-34.6
KCYN0076	8/25/2020 11:35	34.0	26.2	7.7	32.1	134.0	134.0	-19.7	-11.0
KCYN0076	8/25/2020 11:43	39.6	30.7	5.5	24.2	134.0	134.0	-15.2	-12.3
KCYN0076	8/28/2020 11:06	57.6	41.9	0.3	0.2	134.0	134.0	-3.7	-7.8
KCYN0078	8/27/2020 11:38	48.8	40.0	0.0	11.2	133.0	133.0	-30.7	-30.6
KCYN0082	8/25/2020 16:31	56.9	41.3	0.0	1.8	104.0	104.0	-10.0	-10.5
KCYN0082	8/25/2020 16:56	49.9	39.8	0.0	10.3	112.0	112.0	-1.0	-1.0
KCYN0083	8/26/2020 18:31	55.6	41.6	0.2	2.6	100.0	100.0	-9.6	-9.7
KCYN0084	8/19/2020 17:28	48.2	37.0	2.9	11.9	124.0	124.0	-1.2	-1.7
KCYN0086	8/19/2020 17:07	54.9	41.9	0.7	2.5	133.0	133.0	-32.4	-32.5
KCYN0087	8/27/2020 10:56	48.5	41.9	0.0	9.6	139.0	139.0	-12.1	-12.0
KCYN0088	8/26/2020 16:22	54.6	39.4	0.0	6.0	114.0	114.0	-38.6	-38.8
KCYN0089	8/26/2020 17:46	51.8	40.8	0.0	7.4	139.0	139.0	-26.1	-26.1
KCYN0090	8/26/2020 16:26	49.9	38.5	0.0	11.6	111.0	111.0	-25.5	-25.3
KCYN0091	8/26/2020 15:47	49.0	39.9	0.0	11.1	137.0	137.0	-19.2	-19.2

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

Wellfield Monitoring Report - August 14, 19, 25, 26, 27, and 28, 2020

Device ID	Date Time	CH_4 % by Volume	CO_2 % by Volume	O_2 % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCYN0092	8/26/2020 18:02	52.6	40.6	0.0	6.8	128.0	128.0	-34.2	-33.8
KCYN0093	8/26/2020 17:52	46.0	37.9	0.0	16.1	127.0	127.0	-8.4	-8.3
KCYN0094	8/26/2020 16:07	48.1	38.2	0.0	13.7	124.0	124.0	-9.3	-9.3
KCYN0095	8/26/2020 16:09	57.2	41.8	0.0	1.0	127.0	127.0	-38.7	-37.9
KCYN0097	8/26/2020 17:42	50.7	39.0	0.0	10.3	124.0	124.0	-10.2	-10.2
KCYN0098	8/26/2020 15:56	49.4	39.3	0.0	11.3	129.0	129.0	-4.0	-4.0
KCYN0099	8/26/2020 17:29	47.8	39.5	0.0	12.7	132.0	132.0	-6.0	-6.1
KCYN0101	8/26/2020 16:50	48.1	36.7	0.0	15.2	100.0	100.0	-1.2	-1.2
KCYN0102	8/26/2020 16:37	50.6	38.3	0.0	11.1	108.0	108.0	-1.0	-0.9
KCYN0103	8/26/2020 16:46	50.9	39.5	0.0	9.6	111.0	111.0	-3.1	-4.1
KCYN0105	8/25/2020 13:56	56.7	43.2	0.0	0.1	116.0	116.0	-43.5	-43.4
KCYN0118	8/25/2020 10:39	52.8	39.7	1.3	6.2	122.0	122.0	-37.0	-36.7
KCYN0119	8/19/2020 9:53	52.6	40.7	0.2	6.5	132.0	132.0	-10.8	-11.4
KCYN0120	8/25/2020 11:06	22.3	18.4	11.5	47.8	84.0	84.0	-36.7	-37.1
KCYN0120	8/25/2020 11:12	21.3	15.2	12.9	50.6	84.0	84.0	-36.6	-36.2
KCYN0120	8/28/2020 11:00	38.9	30.3	5.9	24.9	80.0	80.0	-38.3	-37.9
KCYN0121	8/25/2020 10:33	53.1	40.3	1.3	5.3	120.0	120.0	-40.6	-40.3
KCYN0122	8/25/2020 10:44	55.4	41.4	0.9	2.3	114.0	114.0	-39.4	-39.5
KCYN0123	8/19/2020 17:57	54.8	43.5	0.1	1.6	125.0	126.0	-1.2	-1.4
KCYN0124	8/4/2020 9:17	45.7	38.5	0.0	15.8	102.0	102.0	-0.8	-0.9
KCYN0124	8/25/2020 16:36	58.4	41.5	0.0	0.1	107.0	107.0	-0.6	-1.0
KCYN0125	8/19/2020 18:45	56.0	42.7	0.3	1.0	126.0	126.0	-14.5	-14.5
KCYN0126	8/19/2020 18:07	53.3	44.5	0.0	2.2	119.0	120.0	-7.9	-8.1
KCYN0127	8/19/2020 17:41	56.0	43.1	0.0	0.9	126.0	126.0	-0.9	-0.9
KCYN0128	8/27/2020 11:14	55.2	44.5	0.2	0.1	132.0	132.0	-5.9	-6.6
KCYN0129	8/19/2020 16:55	56.8	42.9	0.2	0.1	123.0	123.0	-5.7	-6.2
KCYN0129	8/19/2020 16:56	56.8	42.9	0.2	0.1	123.0	123.0	-5.7	-5.5
KCYN0130	8/25/2020 14:51	47.0	35.4	0.2	17.4	118.0	118.0	-19.7	-19.8
KCYN0131	8/25/2020 14:56	56.0	41.3	0.8	1.9	119.0	119.0	-43.4	-43.9
KCYN0133	8/26/2020 17:05	47.7	35.0	0.0	17.3	126.0	126.0	-22.1	-22.3
KCYN0134	8/26/2020 18:12	52.6	38.2	0.1	9.1	113.0	114.0	-12.9	-12.8
KCYN0135	8/26/2020 18:15	48.8	41.4	0.0	9.8	129.0	129.0	-26.0	-26.2
KCYNLR04	8/26/2020 18:20	47.6	39.3	1.6	11.5	100.0	100.0	-31.6	-33.2
KCYNLR08	8/25/2020 13:51	58.8	40.9	0.1	0.2	95.0	95.0	-0.7	-0.5
KCYNLR08	8/26/2020 15:27	58.9	41.0	0.0	0.1	92.0	92.0	-49.9	-50.5
KCYNLR11	8/29/2020 18:23	58.2	41.7	0.0	0.1	90.0	90.0	2.7	2.9
KCYNLR11	8/29/2020 18:26	58.2	41.7	0.0	0.1	90.0	90.0	2.7	2.7

*The following wells are approved to operate at a temperature HOV of 145°F: 37, 45, 51, 57, 58,65, 66, 71, 74, 76, 78, 86, 87, 89, 91, 98, 120, 128 and 135. Wells 56, 75, 76, 87, 89, and 120, are approved to operate at a temperature HOV of 156°F .

As of August 31, 2020, there are 76 vertical wells, 0 horizontal collector, and 3 LCR at KCRDF.

%= percent

in. w.c.= inches in water column

degrees F= degrees Fahrenheit

HOV = Higher Operating Value

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

Wellfield Monitoring Report - September 11, 24, 25, 26, 28, and 29, 2020

Device ID	Date Time	CH_4 % by Volume	CO_2 % by Volume	O_2 % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCLC0108	9/24/2020 15:55	32.1	28.9	2.9	36.1	107.0	107.0	-37.5	-17.2
KCLC0109	9/25/2020 12:20	48.1	37.4	1.1	13.4	108.0	108.0	-46.1	-46.0
KCLC0110	9/25/2020 12:26	54.9	41.3	0.0	3.8	118.0	118.0	-45.3	-45.2
KCLC0111	9/25/2020 12:42	56.4	42.4	0.3	0.9	109.0	109.0	-44.6	-44.6
KCLC0112	9/25/2020 12:38	50.9	40.8	0.0	8.3	120.0	120.0	-43.3	-43.5
KCLC0139	9/26/2020 15:13	47.3	39.9	0.5	12.3	120.0	120.0	-22.3	-22.5
KCLC0140	9/26/2020 15:09	48.6	41.0	0.1	10.3	100.0	100.0	-0.8	-0.7
KCLC0141	9/26/2020 14:31	52.6	41.7	0.0	5.7	92.0	92.0	-0.3	-1.0
KCLC0142	9/28/2020 17:03	28.9	26.8	0.4	43.9	100.0	100.0	-0.1	-0.2
KCLC0143	9/28/2020 10:28	57.5	41.4	0.0	1.1	97.0	97.0	-0.6	-0.6
KCLC0144	9/25/2020 16:46	56.7	42.9	0.2	0.2	90.0	90.0	-41.2	-40.7
KCLC0145	9/11/2020 17:58	44.5	34.3	4.5	16.7	93.0	93.0	-5.4	-5.5
KCLC0145	9/25/2020 17:33	49.4	37.8	2.6	10.2	90.0	90.0	-4.5	-4.0
KCLC0146	9/25/2020 17:29	57.2	42.7	0.0	0.1	82.0	82.0	-1.1	-1.0
KCLC0147	9/25/2020 17:15	55.4	44.4	0.0	0.2	96.0	96.0	-14.5	-13.9
KCLC0148	9/29/2020 11:23	46.7	42.7	0.2	10.4	105.0	105.0	-1.9	-1.9
KCLC0149	9/29/2020 17:15	52.8	43.4	0.2	3.6	105.0	105.0	-33.2	-32.3
KCLC0150	9/25/2020 17:22	57.2	42.6	0.0	0.2	89.0	89.0	39.4	39.3
KCLC0150	9/25/2020 17:24	57.2	42.6	0.0	0.2	89.0	89.0	39.4	39.9
KCLC0151	9/25/2020 17:12	55.3	44.6	0.0	0.1	108.0	108.0	-0.5	-1.4
KCLC0152	9/25/2020 17:05	56.9	42.9	0.0	0.2	79.0	79.0	1.3	1.4
KCLC0152	9/25/2020 17:08	57.4	42.5	0.0	0.1	79.0	79.0	1.4	1.4
KCYN0014	9/25/2020 10:57	38.1	26.7	4.5	30.7	104.0	103.0	-11.6	-7.6
KCYN0014	9/25/2020 10:59	42.9	31.1	1.2	24.8	103.0	103.0	-5.4	-5.2
KCYN0027	9/28/2020 17:09	51.5	39.6	0.0	8.9	118.0	118.0	-20.5	-20.6
KCYN0037	9/26/2020 14:54	41.0	44.6	1.4	13.0	83.0	83.0	-11.0	-10.7
KCYN0048	9/25/2020 13:12	46.1	38.8	0.0	15.1	119.0	119.0	-0.7	-0.7
KCYN0051	9/26/2020 14:47	49.8	41.2	0.0	9.0	117.0	117.0	-31.1	-29.8
KCYN0054	9/26/2020 14:59	56.5	43.4	0.0	0.1	96.0	104.0	-0.2	-3.7
KCYN0056	9/26/2020 14:50	55.6	44.3	0.0	0.1	124.0	124.0	-8.6	-8.5
KCYN0057	9/28/2020 16:33	55.0	43.4	0.0	1.6	135.0	135.0	-3.3	-3.8
KCYN0058	9/28/2020 16:41	49.2	41.9	0.0	8.9	130.0	129.0	-2.6	-2.6
KCYN0062	9/24/2020 15:34	49.4	39.1	0.0	11.5	126.0	126.0	-2.6	-2.6
KCYN0063	9/24/2020 15:29	45.2	37.2	0.0	17.6	119.0	119.0	-1.0	-0.9
KCYN0065	9/28/2020 16:16	55.7	44.2	0.0	0.1	109.0	109.0	-0.1	-0.1
KCYN0066	9/25/2020 13:08	45.4	37.3	0.1	17.2	127.0	127.0	-20.6	-19.9
KCYN0070	9/26/2020 12:09	45.4	36.4	0.0	18.2	114.0	114.0	-5.3	-4.7
KCYN0071	9/26/2020 11:36	48.8	39.7	0.0	11.5	131.0	131.0	-8.5	-8.5
KCYN0072	9/24/2020 15:36	46.4	36.0	0.0	17.6	116.0	116.0	-2.4	-2.4
KCYN0074	9/26/2020 14:03	56.9	42.4	0.1	0.6	128.0	128.0	-42.5	-42.2
KCYN0075	9/26/2020 15:21	47.1	42.8	2.7	7.4	138.0	138.0	-30.7	-30.5
KCYN0076	9/29/2020 11:43	3.9	2.7	18.2	75.2	132.0	132.0	-35.5	-35.4
KCYN0076	9/29/2020 11:45	3.9	2.7	18.2	75.2	132.0	132.0	-35.5	-35.3
KCYN0076	9/29/2020 12:50	25.4	21.0	3.5	50.1	132.0	132.0	-11.8	-11.9
KCYN0078	9/26/2020 14:16	46.7	39.0	0.0	14.3	135.0	135.0	-31.0	-31.0
KCYN0082	9/26/2020 14:36	47.9	38.0	0.0	14.1	112.0	112.0	-1.2	-1.1
KCYN0083	9/26/2020 14:40	47.1	37.6	0.0	15.3	90.0	90.0	-10.5	-10.5
KCYN0084	9/28/2020 10:34	44.9	39.0	0.0	16.1	123.0	122.0	-4.0	-2.9
KCYN0086	9/25/2020 16:55	56.1	43.6	0.1	0.2	136.0	136.0	-30.0	-30.3
KCYN0087	9/28/2020 16:51	48.7	41.1	0.0	10.2	139.0	139.0	-11.1	-11.1
KCYN0088	9/26/2020 11:54	52.4	37.8	0.0	9.8	112.0	112.0	-39.5	-40.2
KCYN0089	9/26/2020 12:24	50.3	40.0	0.0	9.7	139.0	139.0	-27.6	-27.6
KCYN0090	9/26/2020 12:00	47.5	37.5	0.0	15.0	110.0	110.0	-25.9	-26.0

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Device ID	Date Time	CH_4 % by Volume	CO_2 % by Volume	O_2 % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCYN0091	9/26/2020 12:19	48.6	39.7	0.0	11.7	136.0	136.0	-20.4	-20.2
KCYN0092	9/26/2020 14:11	51.1	38.8	0.0	10.1	132.0	132.0	-33.3	-34.4
KCYN0093	9/26/2020 14:07	43.6	37.0	0.0	19.4	126.0	126.0	-8.4	-8.4
KCYN0094	9/28/2020 17:24	49.0	38.2	0.0	12.8	123.0	123.0	-9.5	-9.5
KCYN0095	9/28/2020 17:27	56.7	40.5	0.0	2.8	126.0	127.0	-37.9	-37.7
KCYN0097	9/26/2020 12:15	49.6	38.5	0.0	11.9	120.0	120.0	-10.5	-10.5
KCYN0098	9/28/2020 17:19	50.1	39.2	0.0	10.7	129.0	128.0	-4.2	-4.2
KCYN0099	9/26/2020 11:21	45.8	38.6	0.1	15.5	129.0	129.0	-6.1	-5.6
KCYN0101	9/26/2020 11:48	45.8	35.4	0.0	18.8	100.0	100.0	-1.1	-1.0
KCYN0102	9/26/2020 11:32	42.0	36.0	0.0	22.0	109.0	109.0	-1.0	-1.0
KCYN0103	9/26/2020 11:43	36.4	34.4	0.0	29.2	120.0	120.0	-9.1	-9.1
KCYN0105	9/25/2020 12:31	57.4	42.5	0.0	0.1	116.0	116.0	-45.5	-45.7
KCYN0118	9/25/2020 13:37	56.9	42.4	0.0	0.7	122.0	122.0	-38.6	-38.2
KCYN0119	9/25/2020 13:45	49.7	39.8	0.0	10.5	130.0	130.0	-12.4	-12.5
KCYN0120	9/11/2020 10:41	43.2	35.9	3.5	17.4	72.0	72.0	-39.1	-39.2
KCYN0120	9/25/2020 13:53	47.0	37.3	2.8	12.9	83.0	83.0	-44.0	-41.7
KCYN0121	9/25/2020 13:33	56.7	42.6	0.0	0.7	122.0	122.0	-42.1	-42.2
KCYN0122	9/25/2020 13:41	56.2	43.7	0.0	0.1	117.0	117.0	-40.9	-41.0
KCYN0123	9/28/2020 16:37	55.3	44.4	0.0	0.3	125.0	125.0	-1.1	-3.2
KCYN0124	9/26/2020 14:44	40.1	36.4	0.0	23.5	110.0	111.0	-1.9	-1.0
KCYN0125	9/26/2020 15:24	56.4	42.9	0.0	0.7	127.0	127.0	-15.9	-15.9
KCYN0126	9/26/2020 15:16	52.9	44.5	0.0	2.6	119.0	119.0	-10.1	-11.1
KCYN0127	9/28/2020 16:22	55.1	42.6	0.1	2.2	126.0	126.0	-0.9	-0.9
KCYN0127	9/28/2020 16:24	55.1	42.6	0.1	2.2	126.0	127.0	-0.9	-1.2
KCYN0128	9/28/2020 16:31	55.4	44.5	0.0	0.1	129.0	129.0	-7.6	-10.9
KCYN0129	9/25/2020 16:59	56.3	43.6	0.0	0.1	122.0	122.0	-3.7	-3.9
KCYN0130	9/25/2020 12:49	57.2	42.3	0.4	0.1	118.0	117.0	-44.7	-44.7
KCYN0131	9/25/2020 12:54	47.4	36.0	0.0	16.6	116.0	116.0	-20.4	-20.5
KCYN0133	9/26/2020 13:58	49.0	39.6	0.2	11.2	128.0	128.0	-23.6	-23.6
KCYN0134	9/26/2020 14:19	45.5	38.7	0.0	15.8	111.0	110.0	-13.4	-12.1
KCYN0135	9/26/2020 14:22	46.2	39.5	0.0	14.3	127.0	127.0	-25.6	-25.4
KCYNLR04	9/28/2020 16:58	47.3	34.5	1.8	16.4	98.0	98.0	-30.3	-29.4
KCYNLR08	9/28/2020 16:07	59.3	40.3	0.2	0.2	99.0	99.0	-51.9	-51.8
KCYNLR11	9/11/2020 16:51	50.5	39.8	0.4	9.3	95.0	95.0	-49.9	-49.9

*The following wells are approved to operate at a temperature HOV of 145°F: 37, 45, 51, 57, 58,65, 66, 71, 74, 76, 78, 86, 87, 89, 91, 98, 120, 128 and 135. Wells 56, 75, 76, 87, 89, and 120, are approved to operate at a temperature HOV of 156°F .

As of September 30, 2020, there are 76 vertical wells, 0 horizontal collector, and 3 LCR at KCRDF.

%= percent

in. w.c.= inches in water column

degrees F= degrees Fahrenheit

HOV = Higher Operating Value

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

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Device ID	Date Time	CH_4 % by Volume	CO_2 % by Volume	O_2 % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCLC0108	10/26/2020 15:43	50.0	38.1	1.8	10.1	100.0	100.0	-39.5	-39.7
KCLC0109	10/17/2020 12:18	51.2	39.5	0.1	9.2	108.0	108.0	-47.7	-47.8
KCLC0110	10/17/2020 12:07	54.3	41.4	0.0	4.3	117.0	117.0	-46.7	-46.8
KCLC0111	10/13/2020 14:29	56.1	42.3	0.6	1.0	108.0	108.0	-46.6	-46.6
KCLC0112	10/13/2020 14:34	50.9	40.6	0.0	8.5	120.0	120.0	-45.6	-45.4
KCLC0139	10/17/2020 13:32	54.7	44.3	0.0	1.0	120.0	120.0	-21.7	-21.7
KCLC0140	10/17/2020 13:28	47.8	41.4	0.0	10.8	103.0	103.0	-0.8	-0.8
KCLC0141	10/16/2020 16:54	43.9	39.4	0.1	16.6	98.0	98.0	-1.3	-0.3
KCLC0142	10/16/2020 16:59	25.0	27.8	0.2	47.0	101.0	101.0	-0.2	-0.1
KCLC0143	10/16/2020 16:01	39.4	36.5	0.0	24.1	107.0	107.0	-0.5	-0.5
KCLC0144	10/28/2020 14:44	56.1	43.6	0.2	0.1	90.0	90.0	-39.3	-39.5
KCLC0145	10/16/2020 15:59	55.8	44.1	0.0	0.1	98.0	98.0	-3.1	-2.8
KCLC0146	10/16/2020 15:50	56.6	43.3	0.0	0.1	96.0	96.0	-3.1	-2.6
KCLC0147	10/16/2020 15:26	55.4	44.5	0.0	0.1	98.0	98.0	-17.6	-17.0
KCLC0148	10/26/2020 14:48	52.9	43.1	0.0	4.0	96.0	96.0	-29.5	-29.5
KCLC0149	10/26/2020 14:42	45.2	41.6	0.0	13.2	101.0	100.0	-1.3	-1.2
KCLC0150	10/9/2020 16:57	56.9	43.0	0.0	0.1	95.0	95.0	37.8	40.6
KCLC0150	10/14/2020 15:30	NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (ROAC, STATIC PRESSURE) RECOMMISSIONED							
KCLC0151	10/16/2020 15:18	54.8	45.1	0.0	0.1	109.0	109.0	-0.4	-1.0
KCLC0152	10/9/2020 16:46	57.1	42.6	0.1	0.2	84.0	84.0	1.3	1.3
KCYN0014	10/13/2020 14:13	42.2	27.8	1.8	28.2	105.0	105.0	-3.6	-3.4
KCYN0027	10/28/2020 15:23	50.9	42.1	0.0	7.0	117.0	118.0	-20.1	-22.5
KCYN0037	10/13/2020 16:47	44.9	46.6	0.2	8.3	90.0	90.0	-11.4	-11.4
KCYN0048	10/16/2020 14:54	47.3	39.9	0.0	12.8	122.0	122.0	-0.7	-0.7
KCYN0051	10/13/2020 16:54	50.5	42.2	0.0	7.3	116.0	116.0	-29.2	-30.0
KCYN0051	10/16/2020 16:09	50.8	41.8	0.0	7.4	116.0	116.0	-28.9	-29.8
KCYN0054	10/13/2020 17:07	44.7	35.0	3.6	16.7	104.0	104.0	-0.8	-0.8
KCYN0056	10/13/2020 16:58	54.4	45.5	0.0	0.1	124.0	124.0	-7.5	-7.6
KCYN0057	10/28/2020 14:54	55.0	44.8	0.0	0.2	132.0	133.0	-5.7	-6.5
KCYN0058	10/17/2020 14:11	46.7	41.9	0.1	11.3	130.0	130.0	-2.1	-2.2
KCYN0062	10/13/2020 13:45	49.3	39.7	0.1	10.9	127.0	127.0	-2.7	-2.7
KCYN0063	10/13/2020 13:40	51.0	40.2	0.1	8.7	114.0	115.0	-1.0	-1.2
KCYN0065	10/17/2020 13:26	55.6	44.2	0.1	0.1	97.0	98.0	-0.5	-0.7
KCYN0066	10/16/2020 14:59	46.9	38.4	0.0	14.7	127.0	127.0	-18.8	-18.8
KCYN0070	10/28/2020 15:36	47.9	37.4	0.0	14.7	114.0	114.0	-4.3	-4.3
KCYN0071	10/26/2020 13:35	49.8	40.0	0.0	10.2	131.0	131.0	-8.1	-8.0
KCYN0072	10/13/2020 13:49	46.8	37.1	0.0	16.1	114.0	114.0	-2.5	-2.5
KCYN0074	10/13/2020 15:08	42.5	37.6	0.1	19.8	129.0	129.0	-42.3	-42.3
KCYN0075	10/17/2020 13:50	57.2	42.7	0.0	0.1	138.0	138.0	-31.8	-32.4
KCYN0076	10/16/2020 13:19	55.4	44.3	0.1	0.2	123.0	129.0	-6.2	-10.1
KCYN0076	10/26/2020 13:08	56.1	43.6	0.1	0.2	124.0	130.0	-8.2	-11.4
KCYN0078	10/13/2020 15:17	47.3	39.4	0.0	13.3	134.0	134.0	-30.6	-30.4
KCYN0082	10/13/2020 16:34	45.5	38.0	0.0	16.5	111.0	111.0	-1.5	-1.4
KCYN0083	10/13/2020 16:28	56.7	42.3	0.0	1.0	92.0	92.0	-10.9	-10.9
KCYN0084	10/16/2020 16:06	50.4	41.3	0.0	8.3	118.0	118.0	-0.3	-0.3
KCYN0086	10/26/2020 15:26	56.0	43.8	0.0	0.2	133.0	133.0	-26.8	-26.9
KCYN0087	10/26/2020 14:34	46.2	40.8	0.0	13.0	139.0	138.0	-11.9	-11.9
KCYN0088	10/27/2020 16:04	52.4	39.5	0.4	7.7	113.0	113.0	-37.6	-39.1
KCYN0089	10/27/2020 15:14	51.5	40.8	0.1	7.6	139.0	139.0	-26.6	-26.5
KCYN0090	10/27/2020 16:10	50.2	38.7	0.0	11.1	108.0	108.0	-24.4	-24.4
KCYN0091	10/27/2020 15:37	50.9	41.0	0.0	8.1	137.0	137.0	-19.3	-19.5
KCYN0092	10/13/2020 15:14	51.2	39.7	0.0	9.1	132.0	132.0	-34.2	-34.5
KCYN0093	10/13/2020 15:03	43.5	37.0	0.0	19.5	126.0	126.0	-8.3	-8.3

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KCYN0094	10/27/2020 15:48	49.4	39.1	0.0	11.5	123.0	123.0	-9.1	-9.1
KCYN0095	10/27/2020 15:56	57.7	42.1	0.0	0.2	127.0	126.0	-38.4	-37.8
KCYN0097	10/28/2020 15:32	49.0	38.8	0.2	12.0	123.0	123.0	-9.5	-9.6
KCYN0098	10/27/2020 15:42	46.2	38.3	0.3	15.2	124.0	124.0	-3.4	-3.5
KCYN0099	10/13/2020 14:03	48.9	40.1	0.0	11.0	129.0	129.0	-4.9	-4.9
KCYN0101	10/26/2020 13:28	45.6	35.4	0.0	19.0	101.0	100.0	-0.8	-0.8
KCYN0102	10/26/2020 13:42	40.9	35.4	0.0	23.7	106.0	105.0	-0.8	-0.4
KCYN0103	10/28/2020 15:46	47.1	37.5	0.0	15.4	111.0	111.0	-3.0	-3.6
KCYN0105	10/17/2020 12:00	56.7	43.0	0.1	0.2	116.0	117.0	-46.9	-46.9
KCYN0118	10/16/2020 14:43	56.7	43.0	0.1	0.2	122.0	122.0	-41.2	-40.6
KCYN0119	10/16/2020 13:26	56.4	43.4	0.0	0.2	127.0	127.0	-0.5	-0.9
KCYN0120	10/14/2020 13:22	25.8	20.5	11.1	42.6	89.0	89.0	-44.3	-43.4
KCYN0120	10/14/2020 13:30	NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC, STATIC PRESSURE) DECOMMISSIONED							
KCYN0121	10/16/2020 14:48	56.4	43.4	0.0	0.2	121.0	122.0	-43.5	-43.6
KCYN0122	10/16/2020 13:33	55.9	44.0	0.0	0.1	116.0	116.0	-42.7	-42.2
KCYN0123	10/28/2020 15:14	54.3	45.5	0.1	0.1	102.0	104.0	-0.1	-0.1
KCYN0124	10/13/2020 16:51	54.0	41.9	0.0	4.1	100.0	100.0	-0.4	-0.4
KCYN0125	10/17/2020 13:40	55.6	42.9	0.0	1.5	127.0	127.0	-15.6	-15.4
KCYN0126	10/17/2020 13:36	52.5	44.5	0.0	3.0	120.0	120.0	-11.4	-11.3
KCYN0127	10/28/2020 14:58	48.9	42.6	0.0	8.5	129.0	129.0	-7.2	-7.2
KCYN0128	10/13/2020 14:45	49.5	40.7	0.1	9.7	129.0	129.0	-22.6	-22.6
KCYN0129	10/16/2020 15:09	56.1	43.8	0.0	0.1	125.0	125.0	-3.0	-2.6
KCYN0130	10/13/2020 14:17	46.3	36.0	0.0	17.7	115.0	115.0	-21.2	-21.3
KCYN0131	10/13/2020 14:24	56.7	42.6	0.5	0.2	118.0	118.0	-47.2	-47.6
KCYN0133	10/26/2020 13:15	50.0	40.4	0.1	9.5	128.0	128.0	-22.0	-21.9
KCYN0134	10/13/2020 15:40	48.3	39.6	0.0	12.1	111.0	111.0	-10.9	-10.9
KCYN0135	10/13/2020 15:44	46.7	40.8	0.0	12.5	131.0	131.0	-26.7	-26.8
KCYNLR04	10/26/2020 14:25	47.1	34.4	2.1	16.4	100.0	100.0	-31.9	-32.1
KCYNLR08	10/27/2020 15:10	58.1	41.7	0.1	0.1	100.0	100.0	-49.8	-50.2
KCYNLR11	10/30/2020 14:55	45.4	36.3	2.3	16.0	100.0	100.0	-51.3	-51.3

*The following wells are approved to operate at a temperature HOV of 145°F: 37, 45, 51, 57, 58,65, 66, 71, 74, 76, 78, 86, 87, 89, 91, 98, 120, 128 and 135. Wells 56, 75, 76, 87, 89, and 120, are approved to operate at a temperature HOV of 156°F .

As of October 31, 2020, there are 74 vertical wells, 0 horizontal collector, and 3 LCR at KCRDF.

%= percent

in. w.c.= inches in water column

degrees F= degrees Fahrenheit

HOV = Higher Operating Value

KIRBY CANYON RECYCLING & DISPOSAL FACILITY
Wellfield Monitoring Report - November 23, 24, and 25, 2020

Device ID	Date Time	CH_4 % by Volume	CO_2 % by Volume	O_2 % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCLC0108	11/23/2020 13:58	31.4	27.7	2.7	38.2	92.4	90.6	-38.4	-19.2
KCLC0109	11/25/2020 13:50	46.5	37.3	0.9	15.3	106.0	106.0	-51.1	-50.9
KCLC0110	11/23/2020 14:18	55.6	41.7	0.0	2.7	116.4	116.4	-49.0	-49.1
KCLC0111	11/23/2020 14:42	56.8	43.2	0.0	0.0	107.0	107.1	-48.3	-48.8
KCLC0112	11/23/2020 14:38	50.1	40.1	0.0	9.8	118.7	118.6	-47.4	-47.5
KCLC0139	11/24/2020 10:35	56.8	43.2	0.0	0.0	106.2	106.2	-39.8	-39.9
KCLC0140	11/24/2020 11:21	49.6	40.9	0.0	9.5	99.7	99.7	-1.5	-1.5
KCLC0141	11/24/2020 11:31	57.1	42.5	0.0	0.4	80.1	86.0	0.0	-1.7
KCLC0141	11/25/2020 12:05	55.9	44.0	0.0	0.1	97.0	97.0	-1.7	-2.1
KCLC0142	11/24/2020 11:36	60.5	38.9	0.0	0.6	86.2	94.6	-0.3	-0.4
KCLC0143	11/24/2020 9:13	43.3	38.9	0.0	17.8	108.6	108.4	-1.9	-1.7
KCLC0144	11/25/2020 12:50	57.2	42.6	0.0	0.2	92.0	92.0	-43.6	-43.8
KCLC0145	11/23/2020 16:42	46.9	35.4	3.6	14.1	84.2	84.2	-45.8	-46.1
KCLC0146	11/23/2020 16:36	56.2	43.8	0.0	0.0	78.2	78.2	-46.8	-46.4
KCLC0147	11/23/2020 16:33	55.9	44.1	0.0	0.0	94.6	94.6	-42.0	-42.0
KCLC0148	11/23/2020 16:45	54.8	41.8	0.7	2.7	78.4	78.4	-46.6	-45.8
KCLC0149	11/23/2020 16:48	54.3	44.2	0.0	1.5	81.4	81.4	-2.3	-2.3
KCLC0151	11/23/2020 16:26	51.6	43.1	0.0	5.3	109.0	109.0	-21.1	-21.6
KCLC0152	11/23/2020 16:23	39.0	37.9	0.0	23.1	114.1	114.1	-36.2	-32.3
KCLC0152	11/23/2020 16:25	NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)-NEW JUMPER INSTALLED							
KCYN0014	11/23/2020 15:06	41.0	27.7	1.6	29.7	84.6	84.6	-2.5	-2.5
KCYN0027	11/25/2020 11:49	45.5	38.2	0.0	16.3	117.0	117.0	-25.0	-23.2
KCYN0037	11/24/2020 10:26	49.8	37.2	2.5	10.5	66.2	66.2	-7.6	-7.5
KCYN0048	11/23/2020 15:23	45.7	39.1	0.0	15.2	122.3	122.4	-1.1	-1.1
KCYN0051	11/24/2020 9:25	57.0	42.7	0.3	0.0	107.4	107.3	-37.4	-39.3
KCYN0054	11/24/2020 11:16	56.5	43.5	0.0	0.0	107.4	107.4	-4.7	-8.2
KCYN0056	11/24/2020 10:48	56.1	43.9	0.0	0.0	123.4	123.4	-4.9	-4.9
KCYN0057	11/24/2020 11:02	55.7	44.3	0.0	0.0	130.0	130.0	-4.0	-4.0
KCYN0058	11/25/2020 13:28	56.0	43.9	0.0	0.1	128.0	128.0	-2.3	-2.1
KCYN0062	11/24/2020 13:33	47.7	38.3	0.0	14.0	122.0	122.0	-3.1	-3.1
KCYN0063	11/24/2020 13:26	42.5	34.8	0.3	22.4	115.4	112.2	-2.2	-1.2
KCYN0065	11/24/2020 11:27	55.0	41.5	0.0	3.5	83.3	83.3	-0.1	-3.5
KCYN0066	11/23/2020 15:13	45.0	37.6	0.0	17.4	126.2	126.2	-20.6	-17.0
KCYN0070	11/25/2020 11:11	45.1	36.4	0.0	18.5	115.0	115.0	-4.7	-4.2
KCYN0071	11/24/2020 14:19	47.8	39.1	0.0	13.1	130.8	130.8	-9.3	-9.2
KCYN0072	11/24/2020 13:36	45.6	36.0	0.0	18.4	112.8	112.8	-2.6	-2.6
KCYN0074	11/25/2020 11:30	53.7	41.2	0.8	4.3	129.0	130.0	-46.1	-46.0
KCYN0074	11/25/2020 11:33	53.9	41.8	0.6	3.7	128.0	129.0	-46.2	-46.3
KCYN0075	11/24/2020 10:43	55.8	44.2	0.0	0.0	128.4	128.4	-31.2	-31.1
KCYN0076	11/23/2020 16:03	53.0	42.5	0.0	4.5	135.6	135.7	-21.2	-21.2
KCYN0078	11/24/2020 15:52	43.4	36.3	0.0	20.3	132.2	132.2	-39.7	-34.6
KCYN0082	11/24/2020 10:23	57.2	42.8	0.0	0.0	111.1	111.2	-1.5	-1.9
KCYN0083	11/24/2020 10:19	57.1	42.9	0.0	0.0	71.2	71.2	-7.1	-7.1
KCYN0084	11/24/2020 9:18	47.6	40.0	0.0	12.4	119.0	119.0	-1.7	-1.7
KCYN0086	11/25/2020 12:19	56.5	43.3	0.0	0.2	127.0	128.0	-30.9	-30.9
KCYN0087	11/24/2020 16:43	43.3	39.3	0.0	17.4	139.8	139.8	-15.3	-14.0
KCYN0088	11/24/2020 14:57	50.1	38.3	0.0	11.6	112.8	112.8	-41.6	-42.1
KCYN0089	11/24/2020 15:39	43.9	37.4	0.0	18.7	139.5	139.5	-32.5	-32.4
KCYN0090	11/24/2020 15:02	47.8	37.1	0.0	15.1	104.8	104.8	-25.2	-25.1
KCYN0091	11/24/2020 15:33	45.0	38.9	0.0	16.1	136.4	136.4	-22.4	-20.5
KCYN0092	11/24/2020 15:46	51.0	36.4	0.3	12.3	129.2	129.2	-37.2	-37.8
KCYN0093	11/25/2020 11:39	38.1	35.4	0.0	26.5	126.0	127.0	-8.2	-8.1
KCYN0094	11/24/2020 15:20	47.5	38.3	0.0	14.2	123.4	123.4	-10.4	-10.3

KIRBY CANYON RECYCLING & DISPOSAL FACILITY
Wellfield Monitoring Report - November 23, 24, and 25, 2020

Device ID	Date Time	CH_4 % by Volume	CO_2 % by Volume	O_2 % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCYN0095	11/24/2020 15:14	56.2	41.0	0.0	2.8	127.0	127.0	-41.6	-42.6
KCYN0097	11/25/2020 11:23	47.0	37.7	0.3	15.0	125.0	126.0	-9.3	-9.0
KCYN0098	11/24/2020 15:26	48.1	38.7	0.0	13.2	123.8	123.8	-5.1	-5.1
KCYN0099	11/25/2020 11:04	46.8	39.0	0.0	14.2	129.0	129.0	-5.2	-4.2
KCYN0099	11/25/2020 11:06	46.9	39.5	0.0	13.6	129.0	129.0	-4.1	-4.0
KCYN0101	11/24/2020 14:02	44.9	35.5	0.0	19.6	96.0	96.0	-1.5	-1.5
KCYN0102	11/24/2020 14:11	52.7	39.4	0.0	7.9	96.3	96.3	-0.8	-0.8
KCYN0103	11/24/2020 14:15	38.8	33.7	0.0	27.5	118.2	118.2	-8.0	-8.6
KCYN0105	11/23/2020 14:31	52.4	39.2	1.6	6.8	111.1	111.0	-45.4	-46.0
KCYN0118	11/23/2020 15:36	52.8	40.3	1.1	5.8	119.8	120.0	-43.0	-43.0
KCYN0119	11/23/2020 15:53	57.2	42.8	0.0	0.0	127.3	127.4	-2.2	-2.5
KCYN0121	11/23/2020 15:29	54.2	42.3	0.1	3.4	118.4	118.4	-46.7	-46.6
KCYN0122	11/23/2020 15:47	53.1	39.9	1.3	5.7	104.2	104.3	-44.0	-43.9
KCYN0123	11/24/2020 11:07	55.5	44.5	0.0	0.0	94.6	94.6	-0.1	-0.1
KCYN0124	11/24/2020 10:15	58.4	41.6	0.0	0.0	108.0	108.0	-1.7	-4.1
KCYN0125	11/30/2020 15:24	57.3	42.7	0.0	0.0	125.6	125.6	-13.4	-16.4
KCYN0126	11/23/2020 16:13	55.9	44.1	0.0	0.0	124.3	125.4	-40.1	-39.9
KCYN0127	11/24/2020 10:53	47.4	40.2	0.0	12.4	129.8	129.8	-8.9	-9.1
KCYN0128	11/24/2020 10:58	50.9	42.5	0.0	6.6	136.4	136.4	-29.9	-29.9
KCYN0129	11/25/2020 12:29	55.5	43.0	0.3	1.2	123.0	123.0	-40.3	-39.4
KCYN0130	11/23/2020 14:58	44.2	35.4	0.0	20.4	115.2	115.2	-22.4	-22.5
KCYN0131	11/23/2020 14:50	54.8	41.0	0.9	3.3	115.0	115.0	-48.6	-48.7
KCYN0133	11/24/2020 13:55	40.8	36.4	0.0	22.8	128.0	128.0	-25.7	-21.1
KCYN0134	11/24/2020 15:59	44.1	38.8	0.0	17.1	106.4	106.4	-14.7	-14.6
KCYN0135	11/24/2020 16:04	43.2	36.6	0.0	20.2	130.0	130.0	-37.4	-34.6
KCYNLR04	11/25/2020 11:58	44.7	34.1	2.6	18.6	92.0	93.0	-37.0	-37.1
KCYNLR08	11/24/2020 13:46	58.8	40.3	0.0	0.9	72.0	72.0	-53.9	-54.2
KCYNLR08	11/25/2020 10:55	55.1	38.2	1.1	5.6	70.0	70.0	-54.0	-53.5
KCYNLR11	11/24/2020 13:18	59.4	40.6	0.0	0.0	79.6	80.0	-0.2	-0.3

*The following wells are approved to operate at a temperature HOV of 145°F: 37, 45, 51, 57, 58,65, 66, 71, 74, 76, 78, 86, 87, 89, 91, 98, 120, 128 and 135. Wells 56, 75, 76, 87, 89, and 120, are approved to operate at a temperature HOV of 156°F .

As of November 30, 2020, there are 74 vertical wells, 0 horizontal collector, and 3 LCR at KCRDF.

%= percent

in. w.c.= inches in water column

degrees F= degrees Fahrenheit

HOV = Higher Operating Value

KIRBY CANYON RECYCLING & DISPOSAL FACILITY
Wellfield Monitoring Report - December 7, 8, 10, 18, 21 and 23, 2020

Device ID	Date Time	CH_4 % by Volume	CO_2 % by Volume	O_2 % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCLC0108	12/7/2020 12:23	43.60	31.70	4.30	20.40	74.6	74.6	-5.4	-4.6
KCLC0109	12/7/2020 12:33	50.00	38.70	0.00	11.30	104.0	104.0	-51.2	-50.9
KCLC0110	12/7/2020 12:38	53.70	40.50	0.00	5.80	115.8	115.8	-49.9	-49.9
KCLC0111	12/7/2020 12:53	56.00	41.80	0.30	1.90	99.0	99.0	-49.7	-49.7
KCLC0112	12/7/2020 12:50	49.90	40.10	0.00	10.00	117.6	117.6	-48.9	-48.5
KCLC0139	12/8/2020 14:53	57.10	42.90	0.00	0.00	109.0	109.0	-34.7	-34.7
KCLC0140	12/10/2020 13:03	56.60	43.40	0.00	0.00	86.2	86.2	-2.0	-3.0
KCLC0141	12/8/2020 12:20	39.90	38.30	0.00	21.80	96.4	96.4	-2.5	-1.5
KCLC0142	12/8/2020 12:14	30.60	31.10	0.00	38.30	100.0	100.0	-0.5	-0.5
KCLC0143	12/8/2020 14:20	34.10	33.70	0.00	32.20	104.0	104.0	-1.0	-0.7
KCLC0144	12/8/2020 16:47	58.50	41.50	0.00	0.00	94.8	94.8	-43.6	-44.0
KCLC0145	12/7/2020 16:07	54.80	41.80	0.50	2.90	84.5	84.5	-45.4	-45.2
KCLC0146	12/7/2020 16:01	57.20	42.80	0.00	0.00	77.8	77.8	-45.7	-46.0
KCLC0147	12/7/2020 15:52	57.00	43.00	0.00	0.00	94.2	94.2	-41.5	-41.3
KCLC0148	12/7/2020 16:11	46.00	35.70	3.30	15.00	68.7	68.7	-46.2	-46.4
KCLC0149	12/7/2020 16:13	55.10	44.10	0.00	0.80	86.6	86.6	-2.8	-4.6
KCLC0151	12/7/2020 15:48	51.30	41.80	0.00	6.90	109.4	109.4	-21.0	-21.0
KCLC0152	12/7/2020 15:44	40.00	35.40	0.00	24.60	111.2	111.2	-17.5	-17.0
KCYN0014	12/7/2020 13:15	46.10	34.40	0.00	19.50	85.6	85.6	-2.0	-2.1
KCYN0027	12/10/2020 9:56	50.40	39.60	0.00	10.00	114.8	114.6	-20.9	-20.7
KCYN0037	12/8/2020 15:11	51.90	38.20	1.80	8.10	76.6	76.6	-6.9	-6.9
KCYN0048	12/7/2020 15:00	46.20	37.40	0.00	16.40	114.6	114.6	-0.9	-0.8
KCYN0051	12/7/2020 16:24	54.70	40.90	0.80	3.60	107.6	107.6	-34.3	-32.6
KCYN0054	12/10/2020 11:21	55.30	41.30	0.70	2.70	106.0	107.6	-12.6	-15.8
KCYN0056	12/8/2020 14:29	50.70	38.60	2.10	8.60	120.8	120.8	-4.0	-4.0
KCYN0057	12/10/2020 11:44	0.00	0.10	20.90	79.00	72.6	72.6	-1.1	-1.1
KCYN0057	12/10/2020 11:48	0.00	0.10	20.90	79.00	72.6	72.6	-1.1	-1.1
KCYN0057	12/18/2020 10:50	14.40	22.90	12.90	49.80	61.1	61.2	-1.4	-1.4
KCYN0057	12/23/2020 13:55	52.10	39.10	0.30	8.50	85.4	85.4	-0.5	-0.5
KCYN0058	12/10/2020 12:43	55.80	44.20	0.00	0.00	120.2	120.2	-1.6	-1.7
KCYN0062	12/9/2020 12:40	48.90	38.50	0.00	12.60	122.0	122.0	-2.7	-2.7
KCYN0063	12/9/2020 12:36	54.80	40.20	0.00	5.00	110.3	11.0	-0.5	-0.6
KCYN0065	12/8/2020 12:25	23.40	18.70	10.60	47.30	95.4	104.8	-2.9	-31.8
KCYN0065	12/8/2020 12:36	20.90	17.80	11.20	50.10	104.4	91.8	-32.0	-0.2
KCYN0065	12/21/2020 16:14	56.90	43.10	0.00	0.00	105.8	106.2	-4.3	-5.4
KCYN0066	12/7/2020 14:55	49.80	36.30	0.10	13.80	126.3	126.3	-14.6	-14.5
KCYN0070	12/9/2020 12:58	46.30	35.80	0.10	17.80	117.3	117.3	-3.4	-3.4
KCYN0071	12/8/2020 16:29	48.60	38.80	0.00	12.60	130.2	130.2	-9.0	-9.0
KCYN0072	12/9/2020 12:44	45.60	35.80	0.00	18.60	112.2	112.2	-2.2	-2.1
KCYN0074	12/8/2020 11:27	53.90	41.00	0.80	4.30	129.8	129.8	-45.1	-45.1
KCYN0075	12/8/2020 14:48	57.50	42.30	0.20	0.00	122.0	122.0	-6.1	-6.1
KCYN0076	12/7/2020 15:34	53.60	41.20	0.00	5.20	135.6	137.4	-21.1	-25.5
KCYN0078	12/8/2020 11:45	45.80	38.10	0.00	16.10	134.5	134.5	-29.9	-29.9
KCYN0082	12/7/2020 16:39	54.90	41.60	0.00	3.50	111.1	111.1	-2.4	-2.7
KCYN0083	12/7/2020 16:37	56.50	40.90	0.00	2.60	67.2	67.2	-6.3	-6.4
KCYN0084	12/8/2020 14:16	45.50	37.50	0.10	16.90	119.0	119.0	-1.3	-1.3
KCYN0086	12/8/2020 15:33	57.60	41.90	0.10	0.40	134.6	134.6	-28.0	-28.0
KCYN0087	12/10/2020 13:15	46.70	38.90	0.00	14.40	139.4	139.4	-13.7	-13.7
KCYN0088	12/8/2020 16:31	50.80	37.90	0.00	11.30	112.3	112.3	-42.4	-40.1
KCYN0089	12/8/2020 15:41	44.90	36.30	0.10	18.70	139.8	139.8	-30.9	-30.9

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

Wellfield Monitoring Report - December 7, 8, 10, 18, 21 and 23, 2020

Device ID	Date Time	CH_4 % by Volume	CO_2 % by Volume	O_2 % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCYN0090	12/8/2020 16:08	48.30	35.80	0.00	15.90	104.8	104.8	-24.5	-24.5
KCYN0091	12/8/2020 15:45	47.50	37.40	0.00	15.10	133.2	133.2	-14.4	-14.3
KCYN0092	12/8/2020 11:21	49.90	38.10	0.10	11.90	129.3	129.3	-36.1	-36.5
KCYN0093	12/8/2020 11:38	44.70	36.50	0.00	18.80	122.6	122.6	-5.5	-5.5
KCYN0094	12/8/2020 15:55	48.10	36.80	0.00	15.10	122.6	122.6	-10.0	-9.9
KCYN0095	12/8/2020 16:00	56.10	40.70	0.00	3.20	126.3	126.3	-41.6	-42.5
KCYN0097	12/9/2020 13:11	49.10	37.90	0.00	13.00	122.4	112.3	-5.5	-5.5
KCYN0098	12/8/2020 15:52	47.80	37.90	0.00	14.30	130.0	130.0	-4.3	-4.3
KCYN0099	12/9/2020 12:54	49.10	39.40	0.10	11.40	128.8	128.8	-3.8	-3.8
KCYN0101	12/8/2020 16:16	44.90	34.70	0.00	20.40	94.2	94.2	-1.3	-1.3
KCYN0102	12/8/2020 16:21	42.00	35.20	0.00	22.80	102.2	102.1	-1.1	-1.0
KCYN0103	12/8/2020 16:12	35.20	33.20	0.00	31.60	119.9	119.9	-10.5	-10.5
KCYN0105	12/7/2020 12:43	54.90	39.10	1.40	4.60	110.8	110.8	-46.6	-46.7
KCYN0118	12/7/2020 15:09	53.60	39.90	0.70	5.80	119.8	119.8	-43.5	-43.1
KCYN0119	12/7/2020 15:27	57.70	42.30	0.00	0.00	127.0	127.4	-3.1	-4.2
KCYN0121	12/7/2020 15:05	53.30	40.20	0.30	6.20	117.2	117.2	-47.0	-47.0
KCYN0122	12/7/2020 15:23	51.80	38.30	1.90	8.00	109.8	109.8	-44.3	-44.1
KCYN0123	12/8/2020 14:37	56.30	42.60	0.00	1.10	85.4	85.4	0.9	0.9
KCYN0123	12/8/2020 14:39	56.60	43.40	0.00	0.00	85.6	85.6	0.9	0.9
KCYN0124	12/7/2020 16:29	46.60	38.30	0.00	15.10	109.4	109.4	-4.8	-4.8
KCYN0125	12/7/2020 17:09	56.00	44.00	0.00	0.00	127.3	127.3	-24.2	-24.2
KCYN0126	12/8/2020 14:56	57.50	42.50	0.00	0.00	87.6	87.6	0.8	0.8
KCYN0126	12/8/2020 14:59	57.50	42.50	0.00	0.00	87.6	87.6	0.7	0.8
KCYN0127	12/8/2020 14:34	49.50	39.10	0.00	11.40	131.4	131.4	-7.3	-7.3
KCYN0128	12/10/2020 11:27	53.50	42.30	0.00	4.20	138.8	138.8	-29.1	-29.1
KCYN0129	12/7/2020 15:41	57.60	42.40	0.00	0.00	123.8	123.8	-40.6	-40.6
KCYN0130	12/7/2020 13:09	45.80	35.10	0.00	19.10	114.8	114.8	-19.8	-19.8
KCYN0131	12/7/2020 13:02	54.60	40.70	0.50	4.20	112.0	112.8	-48.9	-49.2
KCYN0133	12/8/2020 11:41	56.60	43.40	0.00	0.00	116.6	125.6	-0.5	-5.0
KCYN0134	12/8/2020 11:52	44.60	37.90	0.00	17.50	107.4	107.4	-13.5	-13.5
KCYN0135	12/8/2020 11:58	43.80	38.50	0.00	17.70	130.8	130.8	-29.8	-27.1
KCYNLR04	12/8/2020 12:01	45.80	32.90	2.40	18.90	98.6	98.6	-35.3	-32.5
KCYNLR08	12/9/2020 12:31	57.50	39.00	0.20	3.30	75.6	75.6	-54.4	-54.6
KCYNLR11	12/7/2020 12:26	55.30	37.60	1.70	5.40	75.0	75.0	-0.1	-0.1

*The following wells are approved to operate at a temperature HOV of 145°F: 37, 45, 51, 57, 58,65, 66, 71, 74, 76, 78, 86, 87, 89, 91, 98, 120, 128 and 135. Wells 56, 75, 76, 87, 89, and 120, are approved to operate at a temperature HOV of 156°F .

As of December 31, 2020, there are 74 vertical wells, 0 horizontal collector, and 3 LCR at KCRDF.

%= percent

in. w.c.= inches in water column

degrees F= degrees Fahrenheit

HOV = Higher Operating Value

APPENDIX J

BAAQMD CORRESPONDENCE

Kirby Canyon Recycling & Disposal Facility
910 Coyote Creek Golf Drive, San Jose, CA 95037

November 2, 2020

Mr. Raymond Salalila
Air Quality Specialist
Compliance and Enforcement Division
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, California 94105

Re: Kirby Canyon Recycling & Disposal Facility
Facility Number A1812
Request for Limited Exemption (for construction activities) from Regulation 8, Rule 34 (Solid Waste Disposal Sites), Section 303 (Landfill Surface Requirements)

Dear Mr. Salalila:

This letter requests a limited exemption from the requirements of Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34, Section 303 (Landfill Surface Requirements) during landfill construction activities to be conducted from November 10, 2020 through December 31, 2020, at the Kirby Canyon Recycling & Disposal Facility (KCRDF) Landfill in San Jose, California. This notification is submitted pursuant to Regulation 8, Rule 34, Section 118, "Limited Exemptions for Construction Activities." The work consists of installation and repair of landfill gas (LFG) piping and laterals to improve the existing LFG collection efficiency to maintain compliance with Regulation 8, Rule 34, and is to be performed during the period of November 10, 2020 through December 31, 2020.

The construction work will include excavation and installation of new piping and laterals that will connect to existing LFG extraction wells and to the gas collection and control system (GCCS). The affected areas will then be backfilled. The work for this project includes installation and repair of piping, excavation and backfilling. This letter also transmits the BAAQMD-required construction plan (work plan) for the proposed work. The work plan contains information required pursuant to Regulation 8, Rule 34, Section 118.1 and AB-32 §95470(a)(1)(I) and (J) and includes:

- Description of actions being taken;
- Description of landfill areas affected;
- Description of LFG components affected;
- Map showing the above areas and components;
- Reason requiring the action;
- Construction schedule; and
- Description of air quality mitigation measures planned.

No significant interruption of the current site LFG extraction and control operations is anticipated due to the work. The construction crew will mobilize to the site on or around November 10, 2020. We anticipate construction activities to conclude by December 31, 2020.

Unless notified otherwise, KCRDF will proceed in accordance with the attached work plan. We deem submittal of this plan as approval by the BAAQMD to take necessary action to ensure compliance with regulations, which may include taking additional LFG extraction wells offline for an extended period of time pursuant to Regulation 8, Rule 34, Section 118. Please do not hesitate to contact me at (408) 960-0770 with any questions.

Sincerely,
Kirby Canyon Recycling & Disposal Facility

Michael L. Winter
District Engineer

Cc: Loi Chau, BAAQMD
Enrique Perez, KCRDF
Bill Louis, WM

BAAQMD RULE 8-34-118 CONSTRUCTION PLAN

Kirby Canyon Recycling & Disposal Facility

CONSTRUCTION FOR INSTALLATION AND REPAIR OF LFG PIPING

November 10, 2020 through December 31, 2020

INTRODUCTION

This Construction Work Plan is submitted pursuant to Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34, Section 118: Limited Exemptions for Construction Activities. To obtain an exemption from BAAQMD Regulation 8, Rule 34, Section 303: Landfill Surface Requirements, the operator shall submit a construction plan in writing to the Air Pollution Control Officer (APCO) prior to beginning any construction activities.

Section 303 requires maintaining the concentration of organic compounds and methane below 500 parts per million by volume (ppmv) at all points on the landfill surface. Section 118 provides an exemption from the surface emission standard for *"….areas of the landfill surface where the landfill cover material has been removed and refuse has been exposed for the express purpose of installing, expanding, replacing, or repairing components of the landfill gas, leachate, or gas condensate collection and removal systems."*

- Description of actions being taken;
- Description of landfill areas affected;
- Description of landfill gas (LFG) components affected;
- Map showing the affected areas and components;
- Reason requiring the action;
- Construction schedule;
- Description of air quality mitigation measures planned; and
- Recordkeeping requirements.

ACTIONS BEING TAKEN

The work consists of excavation and installation of new piping and laterals that will connect to existing LFG extraction wells and to the GCCS.

AFFECTED LANDFILL AREAS

The construction activities will occur in the area shown on the attached figure.

AFFECTED LFG COMPONENTS

KCRDF will conduct landfill GCCS construction activities in compliance with to maintain compliance with the Rule 8-34-116 and 8-34-117.

Please see below for list of proposed GCCS repairs/ and installations:

- Installation and repair of piping at two bench crossings;
- Any additional piping that may be required at or around the wells near these bench crossings

It is anticipated that the construction will have no significant impact on the routine operation of the existing GCCS. Installation of new LFG extraction laterals is independent of the ongoing operations of the GCCS. When connecting LFG extraction wells, isolation valves installed within the existing GCCS piping network will be used to minimize the number of existing LFG extraction wells offline at any given time while the newly installed LFG laterals are connected to the GCCS.

REASONS FOR ACTIONS

The proposed construction work is intended to:

- Increase LFG collection efficiency by installation of new LFG laterals and piping on existing wells;
- Increase LFG collection efficiency to further reduce the potential surface emissions;

CONSTRUCTION SCHEDULE

The anticipated construction period will be between November 10, 2020 through December 31, 2020, and is summarized in the table below:

Table 1 - Preliminary Construction Schedule

Task	Project Duration
Mobilize crew, equipment, and materials to site	Week 1
Installation of laterals and piping, excavation and backfilling	Up to 7 weeks
Clean-up and demobilize crew and materials	Week 1

AIR QUALITY MITIGATION MEASURES

Emission of raw LFG will be minimized during construction. We anticipate minimal interruption of the overall site LFG extraction and control operations during the work. Installation of laterals and piping is independent of ongoing operations of the existing GCCS. Air quality mitigation will be provided during the installation and connection of piping to existing GCCS piping network. These mitigation measures are presented below and are designed to meet both the requirements of 8-34 Section 118 and §95470(a)(1)(I).

Due to the minimal amount of excavation planned for this work, air quality impacts are also anticipated to be minimal. Air quality mitigation will be provided during the following work tasks:

- Installation of LFG piping;
- Excavation and backfill of pipe trenches; and
- Connection of new laterals to existing piping

During excavation through waste and soil cover, air emission will be controlled by implementing the following measures:

- Minimizing the installation time for each component;
- Minimizing the quantity of open borings or trench excavations at any one time;
- Relocating excavated refuse to the designated waste disposal area immediately and covering the relocated waste daily by no later than the end of each day; and
- Excavations will not be left open overnight or for periods greater than 8 hours

During connection to the existing LFG piping, and installation of laterals and piping, air emissions will be controlled by implementing the following measures:

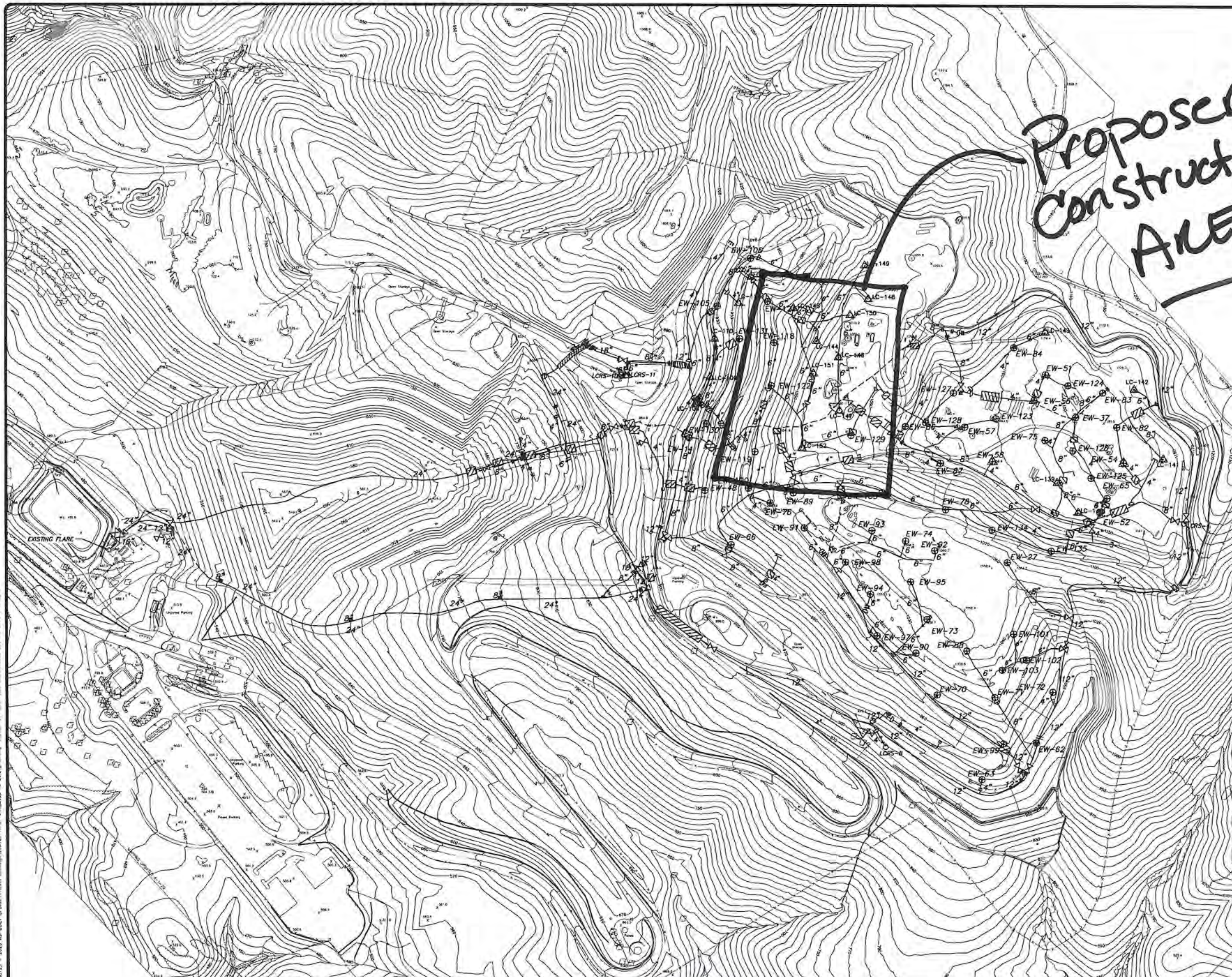
- Capping or blind flanging of all pipes and collector openings, which will remain sealed until time of connection to a vacuum source;
- Using isolation valves;
- Minimizing installation time for making each connection; and
- Minimizing the amount of open pipe during each installation, by using flange joints and flexible couplings.

RECORDKEEPING

The following records will be retained during the project:

- Construction start and end dates, projected and actual installation dates, and projected shut down times for individual gas collection system components.
- GCCS downtime and individual well shutdown times will be documented in accordance with the KCRDF's Startup, Shutdown, and Malfunction (SSM) Plan.
- Mitigation measures taken to minimize methane emissions and other potential air quality impacts will be documented.

Attachments: Figure 1 – Gas Collection and Control System layout



LEGEND

Symbol	Description
—1400—	EXISTING 10' CONTOUR
12"	EXISTING ABOVEGROUND PIPING
- - 12" - -	EXISTING BELOWGROUND PIPING
— — —	EXISTING HORIZONTAL COLLECTOR
⊕ EW-3	EXISTING LFG EXTRACTION WELL
△ LC-108	EXISTING LOCAL CONTROL WELL
⊗	EXISTING REMOTE WELLHEAD
○ H6	EXISTING HORIZONTAL COLLECTOR WELLHEAD
	EXISTING CONTROL VALVE
	EXISTING BLIND FLANGE
	EXISTING FLANGE CONNECTION
	EXISTING REDUCER FITTING
	EXISTING ROAD CROSSING
○ RISER	EXISTING RISER
	EXISTING CAP ON EXISTING PIPE

NOTES:

1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY WALKER ASSOCIATES. DATE OF PHOTOGRAPHY: APRIL 1, 2020.
2. SUPPLEMENTAL 2016 GCCS IMPROVEMENTS AS-BUILT PIPING PER FIELD MARK-UP DRAWING PROVIDED BY WM ON JULY 19, 2017. WELL LOCATIONS PER RECORD DRAWINGS WELL SCHEDULE DATED: JULY 13, 2016.
3. 2017 GCCS AS-BUILT SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: OCTOBER 11, 2017
4. 2019 GCCS AS-BUILT SURVEYS PROVIDED BY F3 AND ASSOCIATES, INC. DATED: AUGUST 19, 2019 AND DECEMBER 30, 2019
5. SUPPLEMENTAL 2019 GCCS AS-BUILT MARKUPS/COMMENTS PROVIDED BY WM DATED: JANUARY 27 AND 30, 2020, AND BY SCS ENGINEERS DATED: FEBRUARY 4, 2020.
6. 2020 GCCS IMPROVEMENTS AS-BUILT SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: JULY 22, 2020.

DRAFT AS-BUILT

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 10/05/2020 — DRAWN BY GVP — DESIGNED BY CME — CHECKED BY NB — APPROVED BY PJS

TETRA TECH

KIRBY CANYON RECYCLING AND DISPOSAL FACILITY
SAN JOSE, CALIFORNIA
2020 GCCS IMPROVEMENTS

AS-BUILT SITE PLAN

SHEET NO. 1

PROJECT NO. 200125

Kirby Canyon Recycling & Disposal Facility
910 Coyote Creek Golf Drive, San Jose, CA 95037

September 23, 2020

Mr. Raymond Salalila
Air Quality Specialist
Compliance and Enforcement Division
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, California 94105

Re: Kirby Canyon Recycling & Disposal Facility
Facility Number A1812
Update to Previously Approved Request for Limited Exemption for construction activities, submitted on June 19, 2020.

Dear Mr. Salalila:

The Kirby Canyon Recycling & Disposal Facility (KCRDF) submitted a notification on June 19, 2020, for Limited Exemption (for construction activities) from Regulation 8, Rule 34 (Solid Waste Disposal Sites), for piping installation and repairs related construction activities. The KCRDF's Construction Plan was approved by BAAQMD on June 30, 2020. KCRDF initiated the project on July 1, 2020.

However, during the COVID-19 pandemic the site experienced delays in procuring portion of the raw material that was required to complete the piping project. This delay required adjustments to the construction schedule, and the project end date has been extended from September 30, 2020 to October 31, 2020. Attached is the revised construction plan with the revised project end date.

In case of any questions, please do not hesitate to contact me at (408) 960-0770.

Sincerely,

Kirby Canyon Recycling and Disposal Facility

Michael L. Winter
District Engineer

cc : Loi Chau, BAAQMD-Permit Division
Paul Perez, KCRDF

BAAQMD RULE 8-34-118 CONSTRUCTION PLAN-UPDATE

Kirby Canyon Recycling & Disposal Facility

CONSTRUCTION FOR INSTALLATION OF LFG PIPING AND LIQUID DRAINAGE SYSTEM REPAIRS

June 29, 2020 through October 31, 2020

INTRODUCTION

This Construction Work Plan is submitted pursuant to Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34, Section 118: Limited Exemptions for Construction Activities. To obtain an exemption from BAAQMD Regulation 8, Rule 34, Section 303: Landfill Surface Requirements, the operator shall submit a construction plan in writing to the Air Pollution Control Officer (APCO) prior to beginning any construction activities.

Section 303 requires maintaining the concentration of organic compounds and methane below 500 parts per million by volume (ppmv) at all points on the landfill surface. Section 118 provides an exemption from the surface emission standard for *"….areas of the landfill surface where the landfill cover material has been removed and refuse has been exposed for the express purpose of installing, expanding, replacing, or repairing components of the landfill gas, leachate, or gas condensate collection and removal systems."*

- Description of actions being taken;
- Description of landfill areas affected;
- Description of landfill gas (LFG) components affected;
- Map showing the affected areas and components;
- Reason requiring the action;
- Construction schedule;
- Description of air quality mitigation measures planned; and
- Recordkeeping requirements.

ACTIONS BEING TAKEN

The work consists of excavation and installation of new piping and laterals that will connect to existing LFG extraction wells and to the GCCS; and excavation, repair, and backfilling of the affected areas at the existing liquid drainage system.

AFFECTED LANDFILL AREAS

The construction activities will occur in the area shown on the attached figure.

AFFECTED LFG COMPONENTS

KCRDF will conduct landfill GCCS construction activities in compliance with the Rule 8-34-117.

Please see below for list of proposed repairs and installations as part of the schedule extension:

- Installing piping to buried 8" pipe above Well 14 to 8" header by Well 14

It is anticipated that the construction will have no significant impact on the routine operation of the existing GCCS. Installation of new LFG extraction laterals is independent of the ongoing operations of the GCCS. When connecting LFG extraction wells, isolation valves installed within the existing GCCS piping network will be used to minimize the number of existing LFG extraction wells offline at any given time while the newly installed LFG laterals are connected to the GCCS.

REASONS FOR ACTIONS
The proposed construction work is intended to:

- Improvement of existing liquid drainage system

CONSTRUCTION SCHEDULE
The anticipated construction period will be between June 29, 2020 through October 31, 2020, and is summarized in the table below:

Table 1 - Preliminary Construction Schedule

Task	Project Duration
Mobilize crew, equipment, and materials to site	Week 1
Installation of laterals and piping, excavation and backfilling	Up to 17 weeks
Clean-up and demobilize crew and materials	Week 1

AIR QUALITY MITIGATION MEASURES
Emission of raw LFG will be minimized during construction. We anticipate minimal interruption of the overall site LFG extraction and control operations during the work. Installation of laterals and piping is independent of ongoing operations of the existing GCCS. Air quality mitigation will be provided during the installation and connection of piping to existing GCCS piping network. These mitigation measures are presented below and are designed to meet both the requirements of 8-34 Section 118 and §95470(a)(1)(I).

Due to the minimal amount of excavation planned for this work, air quality impacts are also anticipated to be minimal. Air quality mitigation will be provided during the following work tasks:

- Installation of piping;
- Excavation and backfill of pipe trenches; and
- Connection of new laterals to existing piping

During excavation through waste and soil cover, air emission will be controlled by implementing the following measures:

- Minimizing the installation time for each component;

- Minimizing the quantity of open borings or trench excavations at any one time;
- Relocating excavated refuse to the designated waste disposal area immediately and covering the relocated waste daily by no later than the end of each day; and
- Excavations will not be left open overnight or for periods greater than 8 hours

During connection to the existing LFG piping, and installation of laterals and piping, air emissions will be controlled by implementing the following measures:

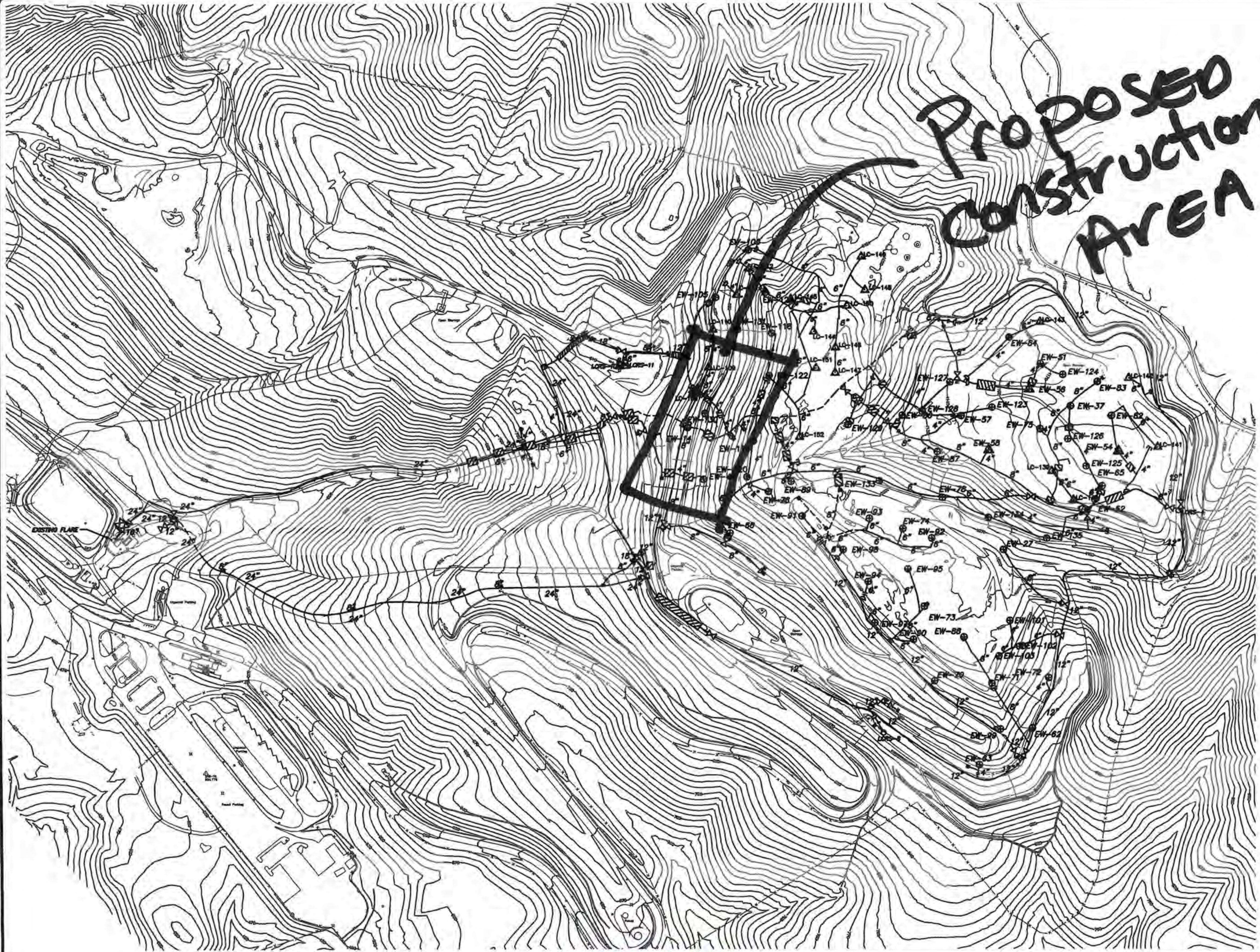
- Capping or blind flanging of all pipes and collector openings, which will remain sealed until time of connection to a vacuum source;
- Using isolation valves;
- Minimizing installation time for making each connection; and
- Minimizing the amount of open pipe during each installation, by using flange joints and flexible couplings.

RECORDKEEPING

The following records will be retained during the project:

- Construction start and end dates, projected and actual installation dates, and projected shut down times for individual gas collection system components.
- GCCS downtime and individual well shutdown times will be documented in accordance with the KCRDF's Startup, Shutdown, and Malfunction (SSM) Plan.
- Mitigation measures taken to minimize methane emissions and other potential air quality impacts will be documented.

Attachments: Figure 1 – Gas Collection and Control System layout



LEGEND

1400	EXISTING 10' CONTOUR
12"	EXISTING ABOVEGROUND PIPING
12" (dashed)	EXISTING BELOWGROUND PIPING
(dash-dot)	EXISTING HORIZONTAL COLLECTOR
⊕ EW-3	EXISTING LFG EXTRACTION WELL
△ LC-108	EXISTING LOCAL CONTROL WELL
⊖	EXISTING REMOTE WELLHEAD
LGP-04 P-18	EXISTING PROBE
H6 EW-H15	EXISTING HORIZONTAL COLLECTOR WELLHEAD
	EXISTING CONTROL VALVE
	EXISTING BLIND FLANGE
	EXISTING FLANGE CONNECTION
	EXISTING REDUCER FITTING
	EXISTING ROAD CROSSING
◇ CS-	EXISTING CONDENSATE SUMP
○ RISER	EXISTING RISER
	EXISTING CAP ON EXISTING PIPE

NOTES:

1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY WALKER ASSOCIATES. DATE OF PHOTOGRAPHY: MARCH 29, 2019.
2. SUPPLEMENTAL 2016 GCCS IMPROVEMENTS AS-BUILT PIPING PER FIELD MARK-UP DRAWING PROVIDED BY WM ON JULY 19, 2017. WELL LOCATIONS PER RECORD DRAWINGS WELL SCHEDULE DATED: JULY 13, 2016.
3. 2017 GCCS AS-BUILT SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: OCTOBER 11, 2017
4. 2019 GCCS AS-BUILT SURVEYS PROVIDED BY F3 AND ASSOCIATES, INC. DATED: AUGUST 19, 2019 AND DECEMBER 30, 2019
5. SUPPLEMENTAL 2019 GCCS AS-BUILT MARKUPS/COMMENTS PROVIDED BY WM DATED: JANUARY 27, 2020.

PRELIMINARY AS-BUILT

WM WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
DATE OF ISSUE JAN. 2020		DRAWN BY SEY DESIGNED BY AMN		CHECKED BY HLV APPROVED BY PJS		

TETRA TECH

KIRBY CANYON RECYCLING AND DISPOSAL FACILITY
SAN JOSE, CALIFORNIA

2019 GCCS IMPROVEMENTS
AS-BUILT SITE PLAN

SHEET NO. 1

PROJECT NO. 190367

WASTE MANAGEMENT

Kirby Canyon Recycling & Disposal Facility
910 Coyote Creek Golf Drive, San Jose, CA 95037

June 19, 2020

Loi Chau
Permit Engineer
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, California 94105

Re: Kirby Canyon Recycling & Disposal Facility
Facility Number A1812
Request for Limited Exemption (for construction activities) from Regulation 8, Rule 34 (Solid Waste Disposal Sites), Section 303 (Landfill Surface Requirements)

Dear Ms. Chau:

This letter requests a limited exemption from the requirements of Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34, Section 303 (Landfill Surface Requirements) during landfill construction activities to be conducted from June 29, 2020 through September 30, 2020, at the Kirby Canyon Recycling & Disposal Facility (KCRDF) Landfill in San Jose, California. This notification is submitted pursuant to Regulation 8, Rule 34, Section 118, "Limited Exemptions for Construction Activities." The work consists of installation and repair of landfill gas (LFG) piping and laterals to improve the existing LFG collection efficiency and for leachate repair work on the existing leachate drainage system to maintain compliance with Regulation 8, Rule 34, and is to be performed during the period of June 29, 2020 through September 30, 2020.

The construction work will include excavation and installation of new piping and laterals that will connect to existing LFG extraction wells and to the gas collection and control system (GCCS); and excavation of the affected areas to remove previously placed waste to improve the flow of liquids. The affected areas will then be backfilled. The work for this project includes installation and repair of piping, excavation and backfilling. This letter also transmits the BAAQMD-required construction plan (work plan) for the proposed work. The work plan contains information required pursuant to Regulation 8, Rule 34, Section 118.1 and AB-32 §95470(a)(1)(I) and (J) and includes:

- Description of actions being taken;
- Description of landfill areas affected;
- Description of LFG components affected;
- Map showing the above areas and components;
- Reason requiring the action;
- Construction schedule; and
- Description of air quality mitigation measures planned.

No significant interruption of the current site LFG extraction and control operations is anticipated due to the work. The construction crew will mobilize to the site on or around June 29, 2020. We anticipate construction activities to conclude by September 30, 2020.

Unless notified otherwise, KCRDF will proceed in accordance with the attached work plan. We deem submittal of this plan as approval by the BAAQMD to take necessary action to ensure compliance with regulations, which may include taking additional LFG extraction wells offline for an extended period of time pursuant to Regulation 8, Rule 34, Section 118. Please do not hesitate to contact me at (408) 960-0770 with any questions.

Sincerely,
Kirby Canyon Recycling & Disposal Facility

Michael L. Winter
District Engineer

Cc: Enrique Perez, KCRDF
Bill Louis, WM

BAAQMD RULE 8-34-118 CONSTRUCTION PLAN

Kirby Canyon Recycling & Disposal Facility

CONSTRUCTION FOR INSTALLATION OF LFG PIPING AND LEACHATE DRAINAGE SYSTEM REPAIRS

June 29, 2020 through September 30, 2020

INTRODUCTION

This Construction Work Plan is submitted pursuant to Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34, Section 118: Limited Exemptions for Construction Activities. To obtain an exemption from BAAQMD Regulation 8, Rule 34, Section 303: Landfill Surface Requirements, the operator shall submit a construction plan in writing to the Air Pollution Control Officer (APCO) prior to beginning any construction activities.

Section 303 requires maintaining the concentration of organic compounds and methane below 500 parts per million by volume (ppmv) at all points on the landfill surface. Section 118 provides an exemption from the surface emission standard for *"....areas of the landfill surface where the landfill cover material has been removed and refuse has been exposed for the express purpose of installing, expanding, replacing, or repairing components of the landfill gas, leachate, or gas condensate collection and removal systems."*

- Description of actions being taken;
- Description of landfill areas affected;
- Description of landfill gas (LFG) components affected;
- Map showing the affected areas and components;
- Reason requiring the action;
- Construction schedule;
- Description of air quality mitigation measures planned; and
- Recordkeeping requirements.

ACTIONS BEING TAKEN

The work consists of excavation and installation of new piping and laterals that will connect to existing LFG extraction wells and to the GCCS; and excavation, repair, and backfilling of the affected areas at the existing leachate drainage system.

AFFECTED LANDFILL AREAS

The construction activities will occur in the area shown on the attached figure.

AFFECTED LFG COMPONENTS

KCRDF will conduct landfill GCCS construction activities in compliance with the Rule 8-34-117.

Please see below for list of proposed GCCS repairs and installations:

- Installation of 6"piping and connection of laterals from Well LC142 to 83
- Installation of 6"piping and connection of laterals from Well 37 to 56
- Installation of piping and connection of laterals from 6" road crossing to the west to Well 151
- Installation of 6" piping and connection of laterals from Well 119 to Well 152 to well 149
- Installation of a 6" piping from Well 122 (or nearby) to Well 147
- Installation of a 6" piping from Well 118 to Well 144 to Well 150- final construction will depend on grades
- Installing piping to buried 8" pipe above Well 14 to 8" header by Well 14
- Installation of 6" piping from Well 132 to 8" to the NW part of the header

It is anticipated that the construction will have no significant impact on the routine operation of the existing GCCS. Installation of new LFG extraction laterals is independent of the ongoing operations of the GCCS. When connecting LFG extraction wells, isolation valves installed within the existing GCCS piping network will be used to minimize the number of existing LFG extraction wells offline at any given time while the newly installed LFG laterals are connected to the GCCS.

REASONS FOR ACTIONS

The proposed construction work is intended to:

- Increase LFG collection efficiency by installation of new LFG laterals and piping on existing wells;
- Increase LFG collection efficiency to further reduce the potential surface emissions;
- Improvement of existing leachate drainage system

CONSTRUCTION SCHEDULE

The anticipated construction period will be between June 29, 2020 through September 30, 2020, and is summarized in the table below:

Table 1 - Preliminary Construction Schedule

Task	Project Duration
Mobilize crew, equipment, and materials to site	Week 1
Installation of laterals and piping, excavation and backfilling	Up to 13 weeks
Clean-up and demobilize crew and materials	Week 1

AIR QUALITY MITIGATION MEASURES

Emission of raw LFG will be minimized during construction. We anticipate minimal interruption of the overall site LFG extraction and control operations during the work. Installation of laterals and piping is independent of ongoing operations of the existing GCCS. Air quality mitigation will be provided during the installation and connection of piping to existing GCCS piping network. These mitigation measures are presented below and are designed to meet both the requirements of 8-34 Section 118 and §95470(a)(1)(I).

Due to the minimal amount of excavation planned for this work, air quality impacts are also anticipated to be minimal. Air quality mitigation will be provided during the following work tasks:

- Installation of LFG piping;
- Excavation and backfill of pipe trenches; and
- Connection of new laterals to existing piping

During excavation through waste and soil cover, air emission will be controlled by implementing the following measures:

- Minimizing the installation time for each component;
- Minimizing the quantity of open borings or trench excavations at any one time;
- Relocating excavated refuse to the designated waste disposal area immediately and covering the relocated waste daily by no later than the end of each day; and
- Excavations will not be left open overnight or for periods greater than 8 hours

During connection to the existing LFG piping, and installation of laterals and piping, air emissions will be controlled by implementing the following measures:

- Capping or blind flanging of all pipes and collector openings, which will remain sealed until time of connection to a vacuum source;
- Using isolation valves;
- Minimizing installation time for making each connection; and
- Minimizing the amount of open pipe during each installation, by using flange joints and flexible couplings.

RECORDKEEPING

The following records will be retained during the project:

- Construction start and end dates, projected and actual installation dates, and projected shut down times for individual gas collection system components.
- GCCS downtime and individual well shutdown times will be documented in accordance with the KCRDF's Startup, Shutdown, and Malfunction (SSM) Plan.
- Mitigation measures taken to minimize methane emissions and other potential air quality impacts will be documented.

Attachments: Figure 1 – Gas Collection and Control System layout

LEGEND

- EXISTING 10' CONTOUR
- 12" EXISTING ABOVEGROUND PIPING
- 12" EXISTING BELOWGROUND PIPING
- EXISTING HORIZONTAL COLLECTOR
- EW-3 EXISTING LFG EXTRACTION WELL
- LC-108 EXISTING LOCAL CONTROL WELL
- EXISTING REMOTE WELLHEAD
- LGP-04 P-18 EXISTING PROBE
- H8 EW-H15 EXISTING HORIZONTAL COLLECTOR WELLHEAD
- EXISTING CONTROL VALVE
- EXISTING BLIND FLANGE
- EXISTING FLANGE CONNECTION
- EXISTING REDUCER FITTING
- EXISTING ROAD CROSSING
- CS- EXISTING CONDENSATE SUMP
- RISER EXISTING RISER
- EXISTING CAP ON EXISTING PIPE

N

0 200 400
SCALE IN FEET

NOTES:

1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY WALKER ASSOCIATES. DATE OF PHOTOGRAPHY: MARCH 29, 2019.
2. SUPPLEMENTAL 2016 GCCS IMPROVEMENTS AS-BUILT PIPING PER FIELD MARK-UP DRAWING PROVIDED BY WM ON JULY 19, 2017. WELL LOCATIONS PER RECORD DRAWINGS WELL SCHEDULE DATED: JULY 13, 2016.
3. 2017 GCCS AS-BUILT SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: OCTOBER 11, 2017
4. 2019 GCCS AS-BUILT SURVEYS PROVIDED BY F3 AND ASSOCIATES, INC. DATED: AUGUST 19, 2019 AND DECEMBER 30, 2019
5. SUPPLEMENTAL 2019 GCCS AS-BUILT MARKUPS/COMMENTS PROVIDED BY WM DATED: JANUARY 27, 2020.

PRELIMINARY AS-BUILT

WM WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE: JAN. 2020 | DRAWN BY: SEY | DESIGNED BY: AMN | CHECKED BY: HLV | APPROVED BY: PJS

TETRA TECH

KIRBY CANYON RECYCLING AND DISPOSAL FACILITY
SAN JOSE, CALIFORNIA
2019 GCCS IMPROVEMENTS
AS-BUILT SITE PLAN

SHEET NO. 1
PROJECT NO. 190367

KIRBY CANYON RECYCLING & DISPOSAL FACILITY
A WASTE MANAGEMENT COMPANY

910 Coyote Creek Golf Drive
P.O. Box 1870
Morgan Hill, CA 95037
(408) 779-2206
(408) 779-5165 Fax

October 15, 2020

Ms. Loi Chau
Air Quality Engineer
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105

Subject: Decommissioning Notification for Two Vertical Wells
Facility Number A1812
Kirby Canyon Recycling & Disposal Facility, San Jose, California

Dear Ms. Chau,

This letter is to notify the Bay Area Air Quality Management District (BAAQMD) of the decommissioning of two vertical landfill gas (LFG) wells 120 and 150 on October 14, 2020, at the Kirby Canyon Recycling & Disposal Facility (KCRDF), pursuant to Title V Permit Condition Number 1437 Part 6, as modified by Application Number 27673.

As stated in the most recent well Decommissioning notification letter submitted on April 3, 2020, there were 76 vertical LFG collection wells, 0 horizontal collectors and 3 LCRS connected to the GCCS at the KCRDF. After the completion of these well actions, the KCRDF current GCCS component count and remaining permitted actions per Application Number 27673 are listed in the following table:

Well Action Per Application #27673	**Vertical Decommissioning Actions**	**Vertical Installation Actions**	**Vertical Replacement Actions**	**Horizontal Decommissioning Actions**		**Horizontal Installation Actions**	
	VW	**VW**	**VW**	**HC**	**LCRS**	**HC**	**LCRS**
Permitted Actions	40	50	103	5	8	2	15
Actions Performed	24	37	0	3	0	0	0
Remaining Actions	16	13	103	2	8	2	15
Current Active Well Count	**74 vertical LFG wells, 0 HC and 3 LCRS**						

HC= Horizontal Trench Collectors; LCRS= Leachate Cleanout Riser; VW= Vertical Wells

If you have any questions or need any additional information please do not hesitate to contact me at (408) 960-0769.

Sincerely,
Kirby Canyon Recycling & Disposal Facility

Becky Azevedo
Technical Manager

cc: Bill Louis, KCRDF
Mike Winter, KCRDF

APPENDIX K

WELLFIELD DEVIATION LOG

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

WELLFIELD DEVIATION REPORT

Reporting Period: From July 1 2020 through December 31, 2020

REPORT PREPARED BY: Rajan Phadnis
UPDATED DATE: January 1, 2021
LFG MONITORING DEVICE: GEM
MODEL: 2000
DATE LAST CALIBRATED: DAILY

Well ID	Date and Time	CH_4	CO_2	O_2	Balance	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)	Comments	Duration of Exceedance As of the End of Reporting Period
		(%)	(%)	(%)	(%)	(°F)	(°F)	("WC)	("WC)		(Days)
KCLC0151	6/16/2020 16:06	55.60	44.30	0.10	0.00	73.30	73.30	2.94	2.96	NSPS/EG CAI;Barely Open	
KCLC0151	7/13/2020 13:11	54.40	45.60	0.00	0.00	106.2	106.0	-2.05	-1.95	Fully Open	
KCLC0151	7/13/2020 13:16	NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)-NEW JUMPER INSTALLED									89
Comments:Well 151 had pressure exceedance during previous monthly monitoring events. New lateral was installed and exceedance was cleared in July 2020.											
KCLC0152	6/16/2020 16:04	56.00	44.00	0.00	0.00	81.00	81.00	1.05	1.07	NSPS/EG CAI	
KCLC0152	7/13/2020 13:04	56.70	41.20	0.20	1.90	109.7	109.9	-9.31	-9.34	Fully Open;Surging	
KCLC0152	7/13/2020 13:09	NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)-NEW JUMPER INSTALLED									117
Comments:Well 152 had pressure exceedance during the monitoring event in June 2020. New lateral was installed and exceedance was cleared in July 2020.											
KCYN0129	7/14/2020 17:39	58.50	41.40	0.10	0.00	106.4	107.6	11.10	11.19	NSPS/EG CAI;Fully Open;Pinched	
KCYN0129	7/16/2020 17:39	56.10	43.70	0.10	0.10	122.0	122.0	-17.00	-16.90	Fully Open;No Adj. Made	
KCYN0129	7/16/2020 17:44	NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)-NEW JUMPER INSTALLED									31
Comments:Well 129 had pressure exceedance during the monitoring event in June and July 2020. New lateral was installed and exceedance was cleared in July 2020.											
KCLC0145	8/27/2020 10:12	22.6	18.5	12.2	46.7	91.0	91.0	-7.4	-7.3	NSPS/EG CAI;Dec. Flow/Vac.;Barely Open	
KCLC0145	9/11/2020 17:58	44.5	34.3	4.5	16.7	93.0	93.0	-5.4	-5.5	NSPS/EG CAI;Inc. Flow/Vac.	15
Comments:Well 145 had oxygen exceedance during the monitoring event in August 2020. Adjustments were made and exceedance was cleared in September 2020.											
KCYN0076	8/25/2020 11:35	34.0	26.2	7.7	32.1	134.0	134.0	-19.7	-11.0	NSPS/EG CAI;Dec. Flow/Vac.;Barely Open	
KCYN0076	8/28/2020 11:06	57.6	41.9	0.3	0.2	134.0	134.0	-3.7	-7.8	NSPS/EG CAI;Dec. Flow/Vac.	3
Comments:Well 76 had oxygen exceedance during the monitoring event in August 2020. Adjustments were made and exceedance was cleared .											
KCYN0120	8/25/2020 11:06	22.3	18.4	11.5	47.8	84.0	84.0	-36.7	-37.1	Inc. Flow/Vac.;Fully Open;NSPS/EG CAI	
KCYN0120	9/11/2020 10:41	43.2	35.9	3.5	17.4	72.0	72.0	-39.1	-39.2	NSPS/EG CAI;Inc. Flow/Vac.;Fully Open;Surging	
KCYN0120	10/14/2020 13:22	25.8	20.5	11.1	42.6	89.0	89.0	-44.3	-43.4	NSPS/EG CAI;Barely Open	
KCYN0120	10/14/2020 13:30	NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)-DECOMMISSIONED								NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)-DECOMMISSIONED	50
Comments:Well 120 had oxygen exceedance during the previous monthly monitoring events. Well 120 was decommissioned on October 14, 2020.											
KCYNLR11	8/29/2020 18:23	58.2	41.7	0.0	0.1	90.0	90.0	2.7	2.9	NSPS/EG CAI;Pinched	
KCYNLR11	9/11/2020 16:51	50.5	39.8	0.4	9.3	95.0	95.0	-49.9	-49.9	NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE);Fully Open	13
Comments: LR 11 had pressure exceedance during the monitoring event in August 2020. Adjustments were made and exceedance was corrected.											

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

WELLFIELD DEVIATION REPORT

Reporting Period: From July 1 2020 through December 31, 2020

REPORT PREPARED BY: Rajan Phadnis
UPDATED DATE: January 1, 2021
LFG MONITORING DEVICE: GEM
MODEL: 2000
DATE LAST CALIBRATED: DAILY

Well ID	Date and Time	CH_4	CO_2	O_2	Balance	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)	Comments	Duration of Exceedance As of the End of Reporting Period
		(%)	(%)	(%)	(%)	(°F)	(°F)	("WC)	("WC)		(Days)
KCYN0076	9/29/2020 11:43	3.9	2.7	18.2	75.2	132.0	132.0	-35.5	-35.4	NSPS/EG CAI;Dec. Flow/Vac.;Surging	
KCYN0076	9/29/2020 11:45	3.9	2.7	18.2	75.2	132.0	132.0	-35.5	-35.3	NSPS/EG CAI;Dec. Flow/Vac.;Surging	
KCYN0076	9/29/2020 12:50	25.4	21.0	3.5	50.1	132.0	132.0	-11.8	-11.9	Barely Open;Dec. Flow/Vac.;NSPS/EG CAI	<1
Comments:Well 76 had oxygen exceedance during the monitoring event in September 2020. Adjustments were made and exceedance was corrected.											
KCLC0150	9/25/2020 17:22	57.2	42.6	0.0	0.2	89.0	89.0	39.4	39.3	NSPS/EG CAI;Fully Open	
KCLC0150	10/9/2020 16:57	56.9	43.0	0.0	0.1	95.0	95.0	37.8	40.6	NSPS/EG CAI;Fully Open	
KCLC0150	10/14/2020 15:30	NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)-DECOMMISSIONED								NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)-DECOMMISSIONED	19
Comments Well 150 had pressure exceedance during the monitoring event in September 2020. Well 120 was decommissioned on October 14, 2020.											
KCLC0152	9/25/2020 17:05	56.9	42.9	0.0	0.2	79.0	79.0	1.3	1.4	NSPS/EG CAI;Fully Open	
KCLC0152	10/9/2020 16:46	57.1	42.6	0.1	0.2	84.0	84.0	1.3	1.3	NSPS/EG CAI;Fully Open	
KCLC0152	11/23/2020 16:23	39.0	37.9	0.0	23.1	114.1	114.1	-36.2	-32.3	Dec. Flow/Vac.	59
KCLC0152	11/23/2020 16:25	NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)-NEW JUMPER INSTALLED									
Comments Well 152 had pressure exceedance during the monitoring event in September 2020. New lateral was installed and exceedance was cleared.											
KCYN0057	12/10/2020 11:48	0.00	0.10	20.90	79.00	72.6	72.6	-1.1	-1.1	NSPS/EG CAI;Fully Open	
KCYN0057	12/18/2020 10:50	14.40	22.90	12.90	49.80	61.1	61.2	-1.4	-1.4	NSPS/EG CAI;Barely Open;Dec. Flow/Vac.	
KCYN0057	12/23/2020 13:55	52.10	39.10	0.30	8.50	85.4	85.4	-0.5	-0.5	NSPS/EG CAI;Pinched	13
Comments:Well 57 had oxygen exceedance during the monitoring event in December 2020. Exceedance was cleared within 15 days.											
KCYN0065	12/8/2020 12:25	23.40	18.70	10.60	47.30	95.4	104.8	-2.9	-31.8	NSPS/EG CAI;Fully Open;Inc. Flow/Vac.	
KCYN0065	12/8/2020 12:36	20.90	17.80	11.20	50.10	104.4	91.8	-32.0	-0.2	NSPS/EG CAI;Barely Open;Dec. Flow/Vac.	
KCYN0065	12/21/2020 16:14	56.90	43.10	0.00	0.00	105.8	106.2	-4.3	-5.4	NSPS/EG CAI;Inc. Flow/Vac.	13
Comments:Well 65 had oxygen exceedance during the monitoring event in December 2020. Adjustments were made and exceedance was corrected.											
KCLC0141	11/24/2020 11:31	57.1	42.5	0.0	0.4	80.1	86.0	0.0	-1.7	Barely Open;Inc. Flow/Vac.	<1
Comments:Well 141 had pressure exceedance during the monitoring event in November 2020. Adjustments were made and exceedance was cleared on the same day.											
KCYN0123	12/8/2020 14:37	56.30	42.60	0.00	1.10	85.4	85.4	0.9	0.9	NSPS/EG CAI;Fully Open	
KCYN0123	12/8/2020 14:39	56.60	43.40	0.00	0.00	85.6	85.6	0.9	0.9	NSPS/EG CAI;Fully Open	>23
Comments:Well 123 had pressure exceedance during the monitoring event in December 2020.											
KCYN0126	12/8/2020 14:56	57.50	42.50	0.00	0.00	87.6	87.6	0.8	0.8	NSPS/EG CAI;Fully Open	
KCYN0126	12/8/2020 14:59	57.50	42.50	0.00	0.00	87.6	87.6	0.7	0.8	NSPS/EG CAI;Fully Open;Pinched	>23
Comments:Well 126 had pressure exceedance during the monitoring event in December 2020.											

EG CAI= Emissions Guidelines Corrective Action Initiated

APPENDIX L

MONTHLY LANDFILL GAS FLOW RATES

MONTHLY LFG Input to Flare (A-12)

KIRBY CANYON RECYCLING & DISPOSAL FACILITY, San Jose, CA

Month	Total Available Runtime (hours)	Total Downtime (hours)	Total Runtime (hours)	Average Flow (scfm)	CH_4 (%)*	Total LFG Volume (scf)	Total CH_4 Volume (scf)	Total Heat Input (MMBTU)
July-20	744.00	11.50	732.50	2,126	46.6	93,418,832	43,561,201	44,127
August-20	744.00	2.80	741.20	2,049	46.6	90,973,880	42,421,120	42,973
September-20	720.00	8.87	711.13	2,047	46.6	87,287,156	40,702,001	41,231
October-20	744.00	6.10	737.90	2,013	46.6	89,115,196	41,554,416	42,095
November 2020[2]	721.00	0.00	721.00	1,979	46.6	85,624,760	39,926,826	40,446
December-20	744.00	1.70	742.30	2,134	46.6	95,052,847	44,323,143	44,899
July 1-December 31, 2020 Totals/Avg	**4,417.00**	**30.97**	**4,386.03**	**2,058**	**46.6**	**541,472,671**	**252,488,706**	**255,771**
2020-Totals/Avg	**8,784.00**	**75.27**	**8,708.73**	**2,132**	**48.3**	**1,114,177,031**	**536,112,930**	**542,697**

NOTES:

[1]There were 743 hours in March 2020, due to Daylight Saving Time.

[2]There were 721 hours in November 2020, due to Daylight Saving Time.

*Methane content determined from March 13, 2019 and March 4, 2020 source test.

The annual heat input rate for the A-12 Flare shall not exceed 1,087,700 MMBTU and 2,980 MMBTU per day (Title V Permit A1812 Condition 1437 Part 8).

scfm= standard cubic feet per minute

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH_4= methane

MONTHLY LFG Input to Flare (A-12)		
KIRBY CANYON RECYCLING & DISPOSAL FACILITY, San Jose, CA		
MONTHLY LFG Heat Input: 2020		
Month	**Monthly Total Heat Input (MMBTU)**	**12-Month Total Heat Input (MMBTU)**
January-20	52,119	567,986
February-20	48,635	577,049
March-20	51,992	583,205
April-20	49,149	585,256
May-20	43,194	575,959
June-20	41,837	561,994
July-20	44,128	556,033
August-20	42,973	552,576
September-20	41,231	548,973
October-20	42,095	548,528
November-20	40,446	546,190
December-20	44,899	542,697
MMBTU= million British thermal units		

KIRBY CANYON RECYCLING & DISPOSAL FACILITY
San Jose, CA

Heat Input Rate
A-12 Flare
MONTH: July-20

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	Total CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
7/1/2020	24.00	46.6	2,069	2,979,972	1,389,561	1,013.0	1,408
7/2/2020	24.00	46.6	2,062	2,969,317	1,384,593	1,013.0	1,403
7/3/2020	24.00	46.6	2,087	3,005,300	1,401,371	1,013.0	1,420
7/4/2020	24.00	46.6	2,104	3,029,704	1,412,751	1,013.0	1,431
7/5/2020	24.00	46.6	2,098	3,021,250	1,408,809	1,013.0	1,427
7/6/2020	24.00	46.6	2,157	3,106,207	1,448,424	1,013.0	1,467
7/7/2020	24.00	46.6	2,192	3,157,126	1,472,168	1,013.0	1,491
7/8/2020	24.00	46.6	2,109	3,037,640	1,416,452	1,013.0	1,435
7/9/2020	24.00	46.6	2,390	3,442,080	1,605,042	1,013.0	1,626
7/10/2020	14.77	46.6	2,390	2,117,268	987,282	1,013.0	1,000
7/11/2020	24.00	46.6	2,228	3,207,856	1,495,823	1,013.0	1,515
7/12/2020	21.73	46.6	2,227	2,904,124	1,354,193	1,013.0	1,372
7/13/2020	24.00	46.6	2,188	3,151,377	1,469,487	1,013.0	1,489
7/14/2020	24.00	46.6	2,157	3,106,702	1,448,655	1,013.0	1,467
7/15/2020	24.00	46.6	2,150	3,096,511	1,443,903	1,013.0	1,463
7/16/2020	24.00	46.6	2,127	3,062,977	1,428,266	1,013.0	1,447
7/17/2020	24.00	46.6	2,081	2,996,822	1,397,418	1,013.0	1,416
7/18/2020	24.00	46.6	2,090	3,009,667	1,403,408	1,013.0	1,422
7/19/2020	24.00	46.6	2,089	3,008,377	1,402,806	1,013.0	1,421
7/20/2020	24.00	46.6	2,086	3,003,149	1,400,368	1,013.0	1,419
7/21/2020	24.00	46.6	2,083	2,998,916	1,398,395	1,013.0	1,417
7/22/2020	24.00	46.6	2,066	2,975,701	1,387,569	1,013.0	1,406
7/23/2020	24.00	46.6	2,073	2,985,094	1,391,949	1,013.0	1,410
7/24/2020	24.00	46.6	2,077	2,990,886	1,394,650	1,013.0	1,413
7/25/2020	24.00	46.6	2,082	2,998,171	1,398,047	1,013.0	1,416
7/26/2020	24.00	46.6	2,099	3,021,941	1,409,131	1,013.0	1,427
7/27/2020	24.00	46.6	2,102	3,026,649	1,411,326	1,013.0	1,430
7/28/2020	24.00	46.6	2,099	3,022,604	1,409,440	1,013.0	1,428
7/29/2020	24.00	46.6	2,095	3,017,140	1,406,892	1,013.0	1,425
7/30/2020	24.00	46.6	2,093	3,013,559	1,405,223	1,013.0	1,423
7/31/2020	24.00	46.6	2,052	2,954,745	1,377,798	1,013.0	1,396
Totals/ Average:	**732.50**	**46.6**	**2,126**	**93,418,832**	**43,561,201**	1,013.0	**44,127**
						Maximum	**1,626**

NOTES:

*Starting May 2020, Methane content determined from the March 4, 2020, A-12 Source Test is used.

The daily heat input rate for the A-12 Flare shall not exceed 3,576 MMBTU (Title V Permit A1812 Condition 1437 Part 8).

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH_4= methane

KIRBY CANYON RECYCLING & DISPOSAL FACILITY
San Jose, CA

Heat Input Rate
A-12 Flare
MONTH: August-20

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	Total CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
8/1/2020	24.00	46.6	2,232	3,213,518	1,498,463	1,013.0	1,518
8/2/2020	24.00	46.6	2,031	2,924,203	1,363,556	1,013.0	1,381
8/3/2020	24.00	46.6	2,027	2,919,338	1,361,287	1,013.0	1,379
8/4/2020	24.00	46.6	2,023	2,912,684	1,358,185	1,013.0	1,376
8/5/2020	24.00	46.6	2,023	2,912,455	1,358,078	1,013.0	1,376
8/6/2020	24.00	46.6	2,025	2,915,562	1,359,527	1,013.0	1,377
8/7/2020	24.00	46.6	2,021	2,909,769	1,356,825	1,013.0	1,374
8/8/2020	24.00	46.6	2,028	2,919,637	1,361,427	1,013.0	1,379
8/9/2020	24.00	46.6	2,040	2,937,222	1,369,627	1,013.0	1,387
8/10/2020	24.00	46.6	2,030	2,923,544	1,363,249	1,013.0	1,381
8/11/2020	24.00	46.6	2,024	2,914,855	1,359,197	1,013.0	1,377
8/12/2020	24.00	46.6	2,031	2,924,889	1,363,876	1,013.0	1,382
8/13/2020	24.00	46.6	2,047	2,948,160	1,374,727	1,013.0	1,393
8/14/2020	24.00	46.6	2,050	2,952,196	1,376,609	1,013.0	1,395
8/15/2020	24.00	46.6	2,032	2,926,308	1,364,537	1,013.0	1,382
8/16/2020	24.00	46.6	2,034	2,928,774	1,365,687	1,013.0	1,383
8/17/2020	24.00	46.6	2,012	2,897,107	1,350,921	1,013.0	1,368
8/18/2020	24.00	46.6	2,019	2,907,184	1,355,620	1,013.0	1,373
8/19/2020	24.00	46.6	2,025	2,915,730	1,359,605	1,013.0	1,377
8/20/2020	24.00	46.6	2,033	2,927,936	1,365,297	1,013.0	1,383
8/21/2020	24.00	46.6	2,023	2,912,549	1,358,122	1,013.0	1,376
8/22/2020	24.00	46.6	2,042	2,940,525	1,371,167	1,013.0	1,389
8/23/2020	24.00	46.6	2,032	2,925,677	1,364,243	1,013.0	1,382
8/24/2020	23.03	46.6	2,051	2,834,966	1,321,945	1,013.0	1,339
8/25/2020	24.00	46.6	2,038	2,934,553	1,368,382	1,013.0	1,386
8/26/2020	24.00	46.6	2,031	2,925,266	1,364,052	1,013.0	1,382
8/27/2020	22.17	46.6	2,128	2,830,898	1,320,048	1,013.0	1,337
8/28/2020	24.00	46.6	2,091	3,010,346	1,403,724	1,013.0	1,422
8/29/2020	24.00	46.6	2,072	2,983,192	1,391,062	1,013.0	1,409
8/30/2020	24.00	46.6	2,067	2,976,575	1,387,977	1,013.0	1,406
8/31/2020	24.00	46.6	2,061	2,968,262	1,384,101	1,013.0	1,402
Totals/ Average:	**741.20**	**46.6**	**2,049**	**90,973,880**	**42,421,120**	1,013.0	**42,973**
						Maximum	**1,518**

NOTES:

*Starting May 2020, Methane content determined from the March 4, 2020, A-12 Source Test is used.

The daily heat input rate for the A-12 Flare shall not exceed 3,576 MMBTU (Title V Permit A1812 Condition 1437 Part 8).

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH_4= methane

KIRBY CANYON RECYCLING & DISPOSAL FACILITY
San Jose, CA

Heat Input Rate
A-12 Flare
MONTH: September-20

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	Total CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
9/1/2020	24.00	46.6	2,046	2,946,500	1,373,953	1,013.0	1,392
9/2/2020	24.00	46.6	2,051	2,952,828	1,376,904	1,013.0	1,395
9/3/2020	24.00	46.6	2,050	2,952,542	1,376,770	1,013.0	1,395
9/4/2020	24.00	46.6	2,046	2,945,907	1,373,676	1,013.0	1,392
9/5/2020	24.00	46.6	2,082	2,997,461	1,397,716	1,013.0	1,416
9/6/2020	24.00	46.6	2,104	3,029,390	1,412,605	1,013.0	1,431
9/7/2020	24.00	46.6	2,116	3,047,411	1,421,008	1,013.0	1,439
9/8/2020	24.00	46.6	2,051	2,953,049	1,377,007	1,013.0	1,395
9/9/2020	24.00	46.6	2,009	2,892,969	1,348,991	1,013.0	1,367
9/10/2020	24.00	46.6	2,009	2,892,401	1,348,727	1,013.0	1,366
9/11/2020	24.00	46.6	2,033	2,927,614	1,365,146	1,013.0	1,383
9/12/2020	24.00	46.6	2,055	2,959,821	1,380,165	1,013.0	1,398
9/13/2020	24.00	46.6	2,041	2,939,384	1,370,635	1,013.0	1,388
9/14/2020	24.00	46.6	2,039	2,935,450	1,368,800	1,013.0	1,387
9/15/2020	24.00	46.6	2,039	2,935,638	1,368,888	1,013.0	1,387
9/16/2020	24.00	46.6	2,043	2,941,305	1,371,531	1,013.0	1,389
9/17/2020	24.00	46.6	2,047	2,947,096	1,374,231	1,013.0	1,392
9/18/2020	24.00	46.6	2,036	2,931,238	1,366,836	1,013.0	1,385
9/19/2020	24.00	46.6	2,037	2,933,409	1,367,849	1,013.0	1,386
9/20/2020	24.00	46.6	2,052	2,954,481	1,377,674	1,013.0	1,396
9/21/2020	24.00	46.6	2,042	2,939,991	1,370,918	1,013.0	1,389
9/22/2020	24.00	46.6	2,030	2,923,895	1,363,412	1,013.0	1,381
9/23/2020	24.00	46.6	2,034	2,928,757	1,365,679	1,013.0	1,383
9/24/2020	24.00	46.6	2,032	2,926,704	1,364,722	1,013.0	1,382
9/25/2020	24.00	46.6	2,009	2,892,584	1,348,812	1,013.0	1,366
9/26/2020	24.00	46.6	2,000	2,880,458	1,343,158	1,013.0	1,361
9/27/2020	15.13	46.6	2,093	1,900,019	885,979	1,013.0	897
9/28/2020	24.00	46.6	2,067	2,977,158	1,388,249	1,013.0	1,406
9/29/2020	24.00	46.6	2,061	2,967,184	1,383,598	1,013.0	1,402
9/30/2020	24.00	46.6	2,038	2,934,512	1,368,363	1,013.0	1,386
Totals/ Average:	**711.13**	**46.6**	**2,047**	**87,287,156**	**40,702,001**	1,013.0	**41,231**
						Maximum	**1,439**

NOTES:

*Starting May 2020, Methane content determined from the March 4, 2020, A-12 Source Test is used.

The daily heat input rate for the A-12 Flare shall not exceed 3,576 MMBTU (Title V Permit A1812 Condition 1437 Part 8).

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH_4= methane

KIRBY CANYON RECYCLING & DISPOSAL FACILITY
San Jose, CA

Heat Input Rate
A-12 Flare
MONTH: October-20

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	Total CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
10/1/2020	24.00	46.6	2,051	2,952,952	1,376,962	1,013.0	1,395
10/2/2020	22.07	46.6	2,078	2,751,931	1,283,225	1,013.0	1,300
10/3/2020	23.57	46.6	2,067	2,922,883	1,362,940	1,013.0	1,381
10/4/2020	24.00	46.6	2,047	2,946,969	1,374,172	1,013.0	1,392
10/5/2020	24.00	46.6	2,035	2,931,024	1,366,736	1,013.0	1,385
10/6/2020	24.00	46.6	2,021	2,909,766	1,356,824	1,013.0	1,374
10/7/2020	24.00	46.6	2,001	2,881,240	1,343,522	1,013.0	1,361
10/8/2020	24.00	46.6	1,994	2,871,347	1,338,909	1,013.0	1,356
10/9/2020	24.00	46.6	1,992	2,868,480	1,337,572	1,013.0	1,355
10/10/2020	24.00	46.6	1,983	2,854,932	1,331,255	1,013.0	1,349
10/11/2020	24.00	46.6	1,984	2,857,358	1,332,386	1,013.0	1,350
10/12/2020	24.00	46.6	2,000	2,879,282	1,342,609	1,013.0	1,360
10/13/2020	24.00	46.6	2,000	2,879,908	1,342,901	1,013.0	1,360
10/14/2020	24.00	46.6	1,965	2,829,576	1,319,431	1,013.0	1,337
10/15/2020	24.00	46.6	1,942	2,796,584	1,304,047	1,013.0	1,321
10/16/2020	24.00	46.6	1,941	2,795,014	1,303,315	1,013.0	1,320
10/17/2020	24.00	46.6	1,959	2,820,509	1,315,203	1,013.0	1,332
10/18/2020	24.00	46.6	1,968	2,833,617	1,321,316	1,013.0	1,338
10/19/2020	24.00	46.6	1,958	2,819,725	1,314,838	1,013.0	1,332
10/20/2020	21.03	46.6	2,030	2,562,007	1,194,664	1,013.0	1,210
10/21/2020	24.00	46.6	2,073	2,984,785	1,391,805	1,013.0	1,410
10/22/2020	24.00	46.6	2,063	2,971,195	1,385,468	1,013.0	1,403
10/23/2020	24.00	46.6	2,072	2,983,270	1,391,099	1,013.0	1,409
10/24/2020	24.00	46.6	2,074	2,986,333	1,392,527	1,013.0	1,411
10/25/2020	24.00	46.6	2,059	2,965,179	1,382,663	1,013.0	1,401
10/26/2020	24.00	46.6	2,036	2,931,649	1,367,028	1,013.0	1,385
10/27/2020	24.00	46.6	2,024	2,915,219	1,359,367	1,013.0	1,377
10/28/2020	24.00	46.6	2,008	2,891,880	1,348,484	1,013.0	1,366
10/29/2020	24.00	46.6	1,993	2,870,361	1,338,449	1,013.0	1,356
10/30/2020	23.23	46.6	1,997	2,783,907	1,298,136	1,013.0	1,315
10/31/2020	24.00	46.6	1,990	2,866,314	1,336,562	1,013.0	1,354
Totals/ Average:	**737.90**	**46.6**	**2,013**	**89,115,196**	**41,554,416**	1,013.0	**42,095**
						Maximum	**1,411**

NOTES:

*Starting May 2020, Methane content determined from the March 4, 2020, A-12 Source Test is used.

The daily heat input rate for the A-12 Flare shall not exceed 3,576 MMBTU (Title V Permit A1812 Condition 1437 Part 8).

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH_4= methane

KIRBY CANYON RECYCLING & DISPOSAL FACILITY
San Jose, CA

Heat Input Rate
A-12 Flare
MONTH: November-20

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	Total CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
11/1/2020	25.00	46.6	1,990	2,984,969	1,391,891	1,013.0	1,410
11/2/2020	24.00	46.6	1,990	2,865,062	1,335,978	1,013.0	1,353
11/3/2020	24.00	46.6	1,936	2,787,396	1,299,763	1,013.0	1,317
11/4/2020	24.00	46.6	1,906	2,744,208	1,279,624	1,013.0	1,296
11/5/2020	24.00	46.6	1,958	2,819,824	1,314,884	1,013.0	1,332
11/6/2020	24.00	46.6	1,960	2,821,997	1,315,897	1,013.0	1,333
11/7/2020	24.00	46.6	1,927	2,774,809	1,293,893	1,013.0	1,311
11/8/2020	24.00	46.6	1,915	2,757,509	1,285,826	1,013.0	1,303
11/9/2020	24.00	46.6	1,896	2,729,856	1,272,932	1,013.0	1,289
11/10/2020	24.00	46.6	1,909	2,748,635	1,281,689	1,013.0	1,298
11/11/2020	24.00	46.6	1,952	2,811,397	1,310,954	1,013.0	1,328
11/12/2020	24.00	46.6	2,033	2,927,079	1,364,897	1,013.0	1,383
11/13/2020	24.00	46.6	2,053	2,956,371	1,378,556	1,013.0	1,396
11/14/2020	24.00	46.6	2,030	2,923,151	1,363,065	1,013.0	1,381
11/15/2020	24.00	46.6	2,029	2,921,652	1,362,366	1,013.0	1,380
11/16/2020	24.00	46.6	2,054	2,957,226	1,378,954	1,013.0	1,397
11/17/2020	24.00	46.6	2,027	2,919,297	1,361,268	1,013.0	1,379
11/18/2020	24.00	46.6	2,038	2,934,199	1,368,217	1,013.0	1,386
11/19/2020	24.00	46.6	2,041	2,938,747	1,370,338	1,013.0	1,388
11/20/2020	24.00	46.6	2,051	2,953,832	1,377,372	1,013.0	1,395
11/21/2020	24.00	46.6	2,070	2,980,531	1,389,822	1,013.0	1,408
11/22/2020	24.00	46.6	2,063	2,970,424	1,385,109	1,013.0	1,403
11/23/2020	24.00	46.6	1,995	2,872,753	1,339,565	1,013.0	1,357
11/24/2020	24.00	46.6	1,937	2,789,233	1,300,619	1,013.0	1,318
11/25/2020	24.00	46.6	1,939	2,791,608	1,301,727	1,013.0	1,319
11/26/2020	24.00	46.6	1,927	2,775,576	1,294,251	1,013.0	1,311
11/27/2020	24.00	46.6	1,932	2,782,697	1,297,572	1,013.0	1,314
11/28/2020	24.00	46.6	1,932	2,781,554	1,297,039	1,013.0	1,314
11/29/2020	24.00	46.6	1,930	2,779,059	1,295,875	1,013.0	1,313
11/30/2020	24.00	46.6	1,961	2,824,109	1,316,882	1,013.0	1,334
Totals/ Average:	**721.00**	**46.6**	**1,979**	**85,624,760**	**39,926,826**	1,013.0	**40,446**
						Maximum	**1,410**

NOTES:

*Starting May 2020, Methane content determined from the March 4, 2020, A-12 Source Test is used.

The daily heat input rate for the A-12 Flare shall not exceed 3,576 MMBTU (Title V Permit A1812 Condition 1437 Part 8).

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH_4= methane

KIRBY CANYON RECYCLING & DISPOSAL FACILITY
San Jose, CA

Heat Input Rate
A-12 Flare
MONTH: December-20

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	Total CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
12/1/2020	24.00	46.6	2,083	2,999,824	1,398,818	1,013.0	1,417
12/2/2020	24.00	46.6	2,087	3,004,772	1,401,125	1,013.0	1,419
12/3/2020	24.00	46.6	2,084	3,001,646	1,399,668	1,013.0	1,418
12/4/2020	24.00	46.6	2,087	3,005,019	1,401,240	1,013.0	1,419
12/5/2020	24.00	46.6	2,081	2,996,708	1,397,365	1,013.0	1,416
12/6/2020	24.00	46.6	2,073	2,984,701	1,391,766	1,013.0	1,410
12/7/2020	24.00	46.6	2,084	3,001,434	1,399,569	1,013.0	1,418
12/8/2020	24.00	46.6	2,110	3,038,272	1,416,746	1,013.0	1,435
12/9/2020	22.90	46.6	2,128	2,924,438	1,363,665	1,013.0	1,381
12/10/2020	24.00	46.6	2,124	3,058,242	1,426,058	1,013.0	1,445
12/11/2020	24.00	46.6	2,120	3,052,705	1,423,476	1,013.0	1,442
12/12/2020	24.00	46.6	2,126	3,060,901	1,427,298	1,013.0	1,446
12/13/2020	24.00	46.6	2,135	3,073,690	1,433,262	1,013.0	1,452
12/14/2020	24.00	46.6	2,137	3,076,610	1,434,623	1,013.0	1,453
12/15/2020	24.00	46.6	2,149	3,093,872	1,442,673	1,013.0	1,461
12/16/2020	24.00	46.6	2,165	3,116,970	1,453,443	1,013.0	1,472
12/17/2020	24.00	46.6	2,148	3,092,821	1,442,182	1,013.0	1,461
12/18/2020	24.00	46.6	2,150	3,095,443	1,443,405	1,013.0	1,462
12/19/2020	24.00	46.6	2,160	3,110,766	1,450,550	1,013.0	1,469
12/20/2020	24.00	46.6	2,165	3,117,961	1,453,905	1,013.0	1,473
12/21/2020	24.00	46.6	2,161	3,111,709	1,450,990	1,013.0	1,470
12/22/2020	24.00	46.6	2,152	3,098,585	1,444,870	1,013.0	1,464
12/23/2020	24.00	46.6	2,155	3,102,885	1,446,875	1,013.0	1,466
12/24/2020	24.00	46.6	2,165	3,117,048	1,453,479	1,013.0	1,472
12/25/2020	24.00	46.6	2,155	3,103,911	1,447,354	1,013.0	1,466
12/26/2020	24.00	46.6	2,150	3,095,701	1,443,525	1,013.0	1,462
12/27/2020	24.00	46.6	2,166	3,119,174	1,454,471	1,013.0	1,473
12/28/2020	24.00	46.6	2,139	3,079,556	1,435,997	1,013.0	1,455
12/29/2020	23.40	46.6	2,161	3,034,054	1,414,779	1,013.0	1,433
12/30/2020	24.00	46.6	2,189	3,152,604	1,470,059	1,013.0	1,489
12/31/2020	24.00	46.6	2,174	3,130,825	1,459,904	1,014.0	1,479
Totals/ Average:	**742.30**	**46.6**	**2,134**	**95,052,847**	**44,323,143**	1,013.0	**44,899**
						Maximum	**1,489**

NOTES:

*Starting May 2020, Methane content determined from the March 4, 2020, A-12 Source Test is used.

The daily heat input rate for the A-12 Flare shall not exceed 3,576 MMBTU (Title V Permit A1812 Condition 1437 Part 8).

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH_4= methane

APPENDIX M

MONTHLY CONDENSATE INJECTION LOGS

KIRBY CANYON RECYCLING & DISPOSAL FACILITY			
CONDENSATE INJECTION TOTALS: 2020			
Title V Permit A1812, Condition Number 1437 Part 14			
Month	**Average Condensate Injection Rate (gpm)**	**Monthly Condensate Injection Throughput (gallons)**	**Condensate Injection Throughput 12-Month Total (gallons)**
January-20	2.1	77,427	860,372
February-20	2.5	90,691	868,280
March-20	2.3	96,514	863,047
April-20	2.3	88,798	861,053
May-20	2.2	80,028	848,299
June-20	1.2	46,650	819,919
July-20	2.5	64,526	819,041
August-20	2.4	59,814	826,883
September-20	2.4	51,412	829,348
October-20	2.4	64,909	844,142
November-20	2.2	70,096	864,135
December-20	2.5	71,247	862,113
NOTES:			
gpm= gallons per minute			
Pursuant to Title V Permit A1812, Condition Number 1437 Part 14, the landfill gas condensate injection rate shall not exceed 5 gpm.			
Pursuant to Title V Permit A1812, Condition Number 1437 Part 14, the total landfill gas condensate injection throughput shall not exceed 2,000,000 gallons during any consecutive 12-month period.			

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

CONDENSATE INJECTION (A-12 Flare)

July-20

Start Date	Start Time	End Date	End Time	Total Injection Time (min.)	Average GPM	Total Gallons
2020/07/01	00:00:00	2020/07/01	01:12:00	72.0	2.5	178
2020/07/01	04:54:00	2020/07/01	12:02:00	428.0	2.8	1,185
2020/07/01	17:10:00	2020/07/01	21:24:00	254.0	2.6	655
2020/07/02	01:18:00	2020/07/02	01:22:00	4.0	2.4	10
2020/07/02	07:44:00	2020/07/02	23:24:00	940.0	2.4	2,245
2020/07/03	05:44:00	2020/07/03	16:38:00	654.0	2.5	1,658
2020/07/04	00:58:00	2020/07/04	12:38:00	700.0	2.4	1,664
2020/07/05	02:50:00	2020/07/05	17:26:00	876.0	2.4	2,095
2020/07/06	04:44:00	2020/07/06	17:50:00	786.0	2.5	1,944
2020/07/07	07:02:00	2020/07/07	23:58:00	1,018.0	2.6	2,635
2020/07/08	00:00:00	2020/07/08	06:06:00	366.0	2.5	928
2020/07/09	05:22:00	2020/07/09	23:58:00	1,118.0	2.5	2,768
2020/07/10	00:00:00	2020/07/10	02:06:00	126.0	2.4	307
2020/07/10	11:28:00	2020/07/10	21:28:00	600.0	2.6	1,540
2020/07/11	02:14:00	2020/07/11	02:18:00	4.0	2.1	9
2020/07/11	07:08:00	2020/07/11	17:44:00	636.0	2.6	1,640
2020/07/12	07:06:00	2020/07/12	16:36:00	570.0	2.5	1,442
2020/07/12	19:04:00	2020/07/12	19:12:00	8.0	1.9	15
2020/07/13	02:18:00	2020/07/13	15:58:00	820.0	2.4	1,960
2020/07/14	01:36:00	2020/07/14	23:58:00	1,344.0	2.4	3,232
2020/07/15	00:00:00	2020/07/15	12:32:00	752.0	2.4	1,811
2020/07/15	23:04:00	2020/07/15	23:58:00	56.0	2.0	112
2020/07/16	00:00:00	2020/07/16	20:22:00	1,222.0	2.3	2,788
2020/07/17	02:06:00	2020/07/17	13:08:00	662.0	2.4	1,601
2020/07/18	00:16:00	2020/07/18	15:58:00	942.0	2.4	2,268
2020/07/19	00:00:00	2020/07/19	10:40:00	640.0	2.5	1,583
2020/07/19	20:40:00	2020/07/19	23:58:00	200.0	2.4	474
2020/07/20	00:00:00	2020/07/20	09:50:00	590.0	2.5	1,468
2020/07/20	23:30:00	2020/07/20	23:58:00	30.0	1.9	57
2020/07/21	00:00:00	2020/07/21	17:20:00	1,040.0	2.6	2,706
2020/07/22	03:02:00	2020/07/22	17:12:00	850.0	2.6	2,232
2020/07/23	02:24:00	2020/07/23	16:40:00	856.0	2.6	2,195
2020/07/24	02:52:00	2020/07/24	17:48:00	896.0	2.4	2,157
2020/07/24	23:52:00	2020/07/24	23:58:00	8.0	1.5	12
2020/07/25	00:00:00	2020/07/25	09:54:00	594.0	2.6	1,517
2020/07/25	14:04:00	2020/07/25	14:08:00	4.0	2.1	8
2020/07/25	19:12:00	2020/07/25	23:58:00	288.0	2.5	730
2020/07/26	00:00:00	2020/07/26	08:56:00	536.0	2.5	1,340
2020/07/26	13:00:00	2020/07/26	13:04:00	4.0	2.0	8
2020/07/26	17:50:00	2020/07/26	23:58:00	370.0	2.6	950
2020/07/27	00:00:00	2020/07/27	02:28:00	148.0	2.5	377
2020/07/27	06:10:00	2020/07/27	14:26:00	496.0	2.6	1,276
2020/07/27	22:32:00	2020/07/27	23:58:00	88.0	2.5	218
2020/07/28	00:00:00	2020/07/28	06:44:00	404.0	2.7	1,084
2020/07/28	10:42:00	2020/07/28	16:24:00	342.0	2.6	891
2020/07/28	23:46:00	2020/07/28	23:58:00	14.0	2.2	31
2020/07/29	00:00:00	2020/07/29	07:48:00	468.0	2.7	1,273
2020/07/29	15:08:00	2020/07/29	21:08:00	360.0	2.7	982
2020/07/30	01:52:00	2020/07/30	01:56:00	4.0	1.8	7

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

CONDENSATE INJECTION (A-12 Flare)

July-20

2020/07/30	02:04:00	2020/07/30	11:04:00	540.0	2.6	1,409
2020/07/30	16:34:00	2020/07/30	20:24:00	230.0	2.7	632
2020/07/31	01:08:00	2020/07/31	09:14:00	486.0	2.7	1,317
2020/07/31	12:50:00	2020/07/31	18:24:00	334.0	2.7	902
Totals				**25,778**	**2.5**	**64,526**
			Maximum GPM		**2.8**	

gpm= gallons per minute

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the landfill gas condensate injection rate shall not exceed 5 gpm.

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the total landfill gas condensate injection throughput shall not exceed 2,000,000 gallons during any consecutive 12-month period.

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

CONDENSATE INJECTION (A-12 Flare)

August-20

Start Date	Start Time	End Date	End Time	Total Injection Time (min.)	Average GPM	Total Gallons
2020/08/01	01:48:00	2020/08/01	07:30:00	342.0	2.9	979
2020/08/01	12:02:00	2020/08/01	20:02:00	480.0	2.8	1,344
2020/08/02	00:46:00	2020/08/02	08:22:00	456.0	2.6	1,207
2020/08/02	12:42:00	2020/08/02	22:56:00	614.0	2.7	1,666
2020/08/03	02:34:00	2020/08/03	13:06:00	632.0	2.6	1,615
2020/08/03	17:42:00	2020/08/03	21:48:00	246.0	2.7	674
2020/08/04	01:50:00	2020/08/04	11:22:00	572.0	2.6	1,504
2020/08/04	16:44:00	2020/08/04	20:36:00	232.0	2.7	636
2020/08/05	01:20:00	2020/08/05	10:00:00	520.0	2.5	1,323
2020/08/05	14:34:00	2020/08/05	19:14:00	280.0	2.6	732
2020/08/06	00:00:00	2020/08/06	09:00:00	540.0	2.6	1,378
2020/08/06	13:08:00	2020/08/06	18:34:00	326.0	2.6	837
2020/08/07	00:08:00	2020/08/07	10:16:00	608.0	2.6	1,558
2020/08/07	14:34:00	2020/08/07	19:04:00	270.0	2.6	700
2020/08/08	00:30:00	2020/08/08	10:38:00	608.0	2.5	1,543
2020/08/08	15:24:00	2020/08/08	19:26:00	242.0	2.6	640
2020/08/09	01:10:00	2020/08/09	11:10:00	600.0	2.6	1,530
2020/08/09	17:04:00	2020/08/09	20:42:00	218.0	2.6	562
2020/08/10	01:52:00	2020/08/10	12:08:00	616.0	2.6	1,575
2020/08/10	19:30:00	2020/08/10	23:58:00	270.0	2.6	693
2020/08/11	00:00:00	2020/08/11	00:40:00	40.0	2.5	99
2020/08/11	04:32:00	2020/08/11	14:08:00	576.0	2.4	1,387
2020/08/11	21:50:00	2020/08/11	23:58:00	130.0	2.5	319
2020/08/12	00:00:00	2020/08/12	06:50:00	410.0	2.4	990
2020/08/12	10:50:00	2020/08/12	17:00:00	370.0	2.4	875
2020/08/13	00:30:00	2020/08/13	09:34:00	544.0	2.4	1,321
2020/08/13	14:26:00	2020/08/13	18:34:00	248.0	2.4	606
2020/08/14	01:52:00	2020/08/14	09:42:00	470.0	2.4	1,136
2020/08/14	14:42:00	2020/08/14	18:16:00	214.0	2.4	519
2020/08/15	02:52:00	2020/08/15	10:12:00	440.0	2.3	1,000
2020/08/15	16:28:00	2020/08/15	19:42:00	194.0	2.3	449
2020/08/16	03:24:00	2020/08/16	09:40:00	376.0	2.3	851
2020/08/16	16:00:00	2020/08/16	19:06:00	186.0	2.4	440
2020/08/17	02:52:00	2020/08/17	09:30:00	398.0	2.3	916
2020/08/17	15:04:00	2020/08/17	18:50:00	226.0	2.3	521
2020/08/18	00:52:00	2020/08/18	07:04:00	372.0	2.3	863
2020/08/18	11:28:00	2020/08/18	16:34:00	306.0	2.4	728
2020/08/19	00:38:00	2020/08/19	06:40:00	362.0	2.3	848
2020/08/19	11:08:00	2020/08/19	16:28:00	320.0	2.3	751
2020/08/19	23:32:00	2020/08/19	23:58:00	28.0	2.4	68
2020/08/20	00:00:00	2020/08/20	07:06:00	426.0	2.3	984
2020/08/20	10:56:00	2020/08/20	16:40:00	344.0	2.3	798
2020/08/20	23:34:00	2020/08/20	23:58:00	26.0	2.4	62
2020/08/21	00:00:00	2020/08/21	07:56:00	476.0	2.3	1,091
2020/08/21	11:58:00	2020/08/21	17:04:00	306.0	2.3	718
2020/08/21	23:34:00	2020/08/21	23:58:00	26.0	2.4	62
2020/08/22	00:00:00	2020/08/22	07:36:00	456.0	2.3	1,055
2020/08/22	11:40:00	2020/08/22	16:24:00	284.0	2.3	662
2020/08/23	00:08:00	2020/08/23	07:30:00	442.0	2.3	1,030
2020/08/23	11:38:00	2020/08/23	16:36:00	298.0	2.3	691
2020/08/23	23:32:00	2020/08/23	23:58:00	28.0	2.4	67
2020/08/24	00:00:00	2020/08/24	06:38:00	398.0	2.3	927
2020/08/24	10:44:00	2020/08/24	16:06:00	322.0	2.3	749
2020/08/25	02:36:00	2020/08/25	07:02:00	266.0	2.3	613
2020/08/25	13:10:00	2020/08/25	17:56:00	286.0	2.3	663
2020/08/25	23:34:00	2020/08/25	23:58:00	26.0	2.4	62
2020/08/26	00:00:00	2020/08/26	04:58:00	298.0	2.3	689
2020/08/26	10:34:00	2020/08/26	15:34:00	300.0	2.3	681

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

CONDENSATE INJECTION (A-12 Flare)

August-20

2020/08/26	20:56:00	2020/08/26	23:58:00	184.0	2.3	432
2020/08/27	00:00:00	2020/08/27	02:40:00	160.0	2.3	365
2020/08/27	08:28:00	2020/08/27	13:28:00	300.0	2.2	671
2020/08/27	17:20:00	2020/08/27	23:58:00	400.0	2.3	938
2020/08/28	00:00:00	2020/08/28	15:46:00	946.0	2.3	2,132
2020/08/28	22:28:00	2020/08/28	23:58:00	92.0	2.4	217
2020/08/29	00:00:00	2020/08/29	07:26:00	446.0	2.3	1,019
2020/08/29	11:14:00	2020/08/29	17:14:00	360.0	2.3	826
2020/08/29	22:56:00	2020/08/29	23:58:00	64.0	2.4	152
2020/08/30	00:00:00	2020/08/30	09:02:00	542.0	2.3	1,226
2020/08/30	13:04:00	2020/08/30	18:06:00	302.0	2.3	704
2020/08/30	23:10:00	2020/08/30	23:58:00	50.0	2.4	118
2020/08/31	00:00:00	2020/08/31	08:40:00	520.0	2.3	1,189
2020/08/31	12:32:00	2020/08/31	17:56:00	324.0	2.3	759
2020/08/31	23:26:00	2020/08/31	23:58:00	34.0	2.4	82
Totals				**24,614**	**2.4**	**59,814**
			Maximum GPM		**2.9**	

gpm= gallons per minute

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the landfill gas condensate injection rate shall not exceed 5 gpm.

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the total landfill gas condensate injection throughput shall not exceed 2,000,000 gallons during any consecutive 12-month period.

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

CONDENSATE INJECTION (A-12 Flare)

September-20

Start Date	Start Time	End Date	End Time	Total Injection Time (min.)	Average GPM	Total Gallons
2020/09/01	00:00:00	2020/09/01	08:40:00	520.0	2.3	1,188
2020/09/01	12:36:00	2020/09/01	18:22:00	346.0	2.3	808
2020/09/01	23:30:00	2020/09/01	23:58:00	30.0	2.4	72
2020/09/02	00:00:00	2020/09/02	08:46:00	526.0	2.3	1,216
2020/09/02	12:40:00	2020/09/02	18:24:00	344.0	2.4	818
2020/09/02	23:40:00	2020/09/02	23:58:00	20.0	2.4	48
2020/09/03	00:00:00	2020/09/03	08:58:00	538.0	2.3	1,242
2020/09/03	12:54:00	2020/09/03	18:08:00	314.0	2.4	742
2020/09/03	23:18:00	2020/09/03	23:58:00	42.0	2.4	100
2020/09/04	00:00:00	2020/09/04	08:40:00	520.0	2.3	1,196
2020/09/04	12:24:00	2020/09/04	17:40:00	316.0	2.4	745
2020/09/04	23:26:00	2020/09/04	23:58:00	34.0	2.4	82
2020/09/05	00:00:00	2020/09/05	07:10:00	430.0	2.3	1,004
2020/09/05	10:58:00	2020/09/05	16:14:00	316.0	2.4	745
2020/09/06	01:06:00	2020/09/06	07:08:00	362.0	2.4	864
2020/09/06	11:24:00	2020/09/06	15:58:00	274.0	2.4	657
2020/09/07	01:38:00	2020/09/07	07:14:00	336.0	2.4	810
2020/09/07	11:50:00	2020/09/07	16:02:00	252.0	2.4	605
2020/09/08	01:26:00	2020/09/08	07:36:00	370.0	2.4	890
2020/09/08	11:38:00	2020/09/08	17:00:00	322.0	2.4	759
2020/09/08	22:30:00	2020/09/08	23:58:00	90.0	2.4	216
2020/09/09	00:00:00	2020/09/09	06:18:00	378.0	2.3	886
2020/09/09	10:10:00	2020/09/09	17:56:00	466.0	2.3	1,083
2020/09/09	21:56:00	2020/09/09	23:58:00	124.0	2.4	294
2020/09/10	00:00:00	2020/09/10	07:14:00	434.0	2.3	1,002
2020/09/10	10:58:00	2020/09/10	18:40:00	462.0	2.3	1,063
2020/09/10	22:34:00	2020/09/10	23:58:00	86.0	2.4	203
2020/09/11	00:00:00	2020/09/11	08:10:00	490.0	2.3	1,132
2020/09/11	11:50:00	2020/09/11	18:48:00	418.0	2.3	976
2020/09/11	23:26:00	2020/09/11	23:58:00	34.0	2.4	81
2020/09/12	00:00:00	2020/09/12	08:52:00	532.0	2.3	1,233
2020/09/12	12:40:00	2020/09/12	18:00:00	320.0	2.3	750
2020/09/12	23:46:00	2020/09/12	23:58:00	14.0	2.4	34
2020/09/13	00:00:00	2020/09/13	08:16:00	496.0	2.3	1,155
2020/09/13	11:58:00	2020/09/13	17:26:00	328.0	2.4	778
2020/09/13	22:40:00	2020/09/13	23:58:00	80.0	2.4	192
2020/09/14	00:00:00	2020/09/14	06:42:00	402.0	2.3	941
2020/09/14	10:26:00	2020/09/14	17:14:00	408.0	2.3	951
2020/09/14	22:44:00	2020/09/14	23:58:00	76.0	2.4	183
2020/09/15	00:00:00	2020/09/15	07:44:00	464.0	2.3	1,081
2020/09/15	11:32:00	2020/09/15	17:24:00	352.0	2.4	839
2020/09/15	23:00:00	2020/09/15	23:58:00	60.0	2.4	145
2020/09/16	00:00:00	2020/09/16	07:22:00	442.0	2.4	1,040
2020/09/16	11:08:00	2020/09/16	17:00:00	352.0	2.4	837
2020/09/16	22:40:00	2020/09/16	23:58:00	80.0	2.4	194
2020/09/17	00:00:00	2020/09/17	06:38:00	398.0	2.4	941
2020/09/17	10:30:00	2020/09/17	16:24:00	354.0	2.4	842
2020/09/17	22:28:00	2020/09/17	23:58:00	92.0	2.4	223
2020/09/18	00:00:00	2020/09/18	06:10:00	370.0	2.4	875

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

CONDENSATE INJECTION (A-12 Flare)

September-20

2020/09/18	09:52:00	2020/09/18	16:12:00	380.0	2.4	904
2020/09/18	21:52:00	2020/09/18	23:58:00	128.0	2.4	309
2020/09/19	00:00:00	2020/09/19	05:52:00	352.0	2.4	828
2020/09/19	09:28:00	2020/09/19	16:22:00	414.0	2.4	981
2020/09/19	22:10:00	2020/09/19	23:58:00	110.0	2.4	267
2020/09/20	00:00:00	2020/09/20	06:00:00	360.0	2.4	852
2020/09/20	09:46:00	2020/09/20	16:02:00	376.0	2.4	896
2020/09/20	23:08:00	2020/09/20	23:58:00	52.0	2.5	128
2020/09/21	00:00:00	2020/09/21	06:34:00	394.0	2.4	942
2020/09/21	10:22:00	2020/09/21	16:16:00	354.0	2.4	845
2020/09/21	22:48:00	2020/09/21	23:58:00	72.0	2.4	174
2020/09/22	00:00:00	2020/09/22	07:06:00	426.0	2.4	1,002
2020/09/22	10:50:00	2020/09/22	16:58:00	368.0	2.4	866
2020/09/22	22:40:00	2020/09/22	23:58:00	80.0	2.4	191
2020/09/23	00:00:00	2020/09/23	07:42:00	462.0	2.3	1,075
2020/09/23	11:16:00	2020/09/23	17:06:00	350.0	2.4	826
2020/09/23	22:48:00	2020/09/23	23:58:00	72.0	2.4	172
2020/09/24	00:00:00	2020/09/24	07:44:00	464.0	2.3	1,079
2020/09/24	11:32:00	2020/09/24	17:32:00	360.0	2.4	855
2020/09/24	22:46:00	2020/09/24	23:58:00	74.0	2.4	177
2020/09/25	00:00:00	2020/09/25	08:32:00	512.0	2.3	1,190
2020/09/25	12:14:00	2020/09/25	17:58:00	344.0	2.4	813
2020/09/25	23:12:00	2020/09/25	23:58:00	48.0	2.4	114
2020/09/26	00:00:00	2020/09/26	08:22:00	502.0	2.3	1,165
2020/09/26	12:20:00	2020/09/26	18:00:00	340.0	2.4	803
2020/09/26	23:32:00	2020/09/26	23:58:00	28.0	2.4	68
2020/09/27	00:00:00	2020/09/27	05:24:00	324.0	2.4	764
2020/09/27	15:20:00	2020/09/27	20:02:00	282.0	2.4	672
2020/09/28	01:42:00	2020/09/28	09:18:00	456.0	2.4	1,083
2020/09/28	13:40:00	2020/09/28	19:26:00	346.0	2.4	826
2020/09/29	01:04:00	2020/09/29	08:40:00	456.0	2.3	1,065
2020/09/29	12:06:00	2020/09/29	18:20:00	374.0	2.3	877
2020/09/30	00:14:00	2020/09/30	08:02:00	468.0	2.3	1,081
2020/09/30	12:04:00	2020/09/30	17:32:00	328.0	2.3	760
Totals				**21,868**	**2.4**	**51,412**
			Maximum GPM		**2.5**	

gpm= gallons per minute

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the landfill gas condensate injection rate shall not exceed 5 gpm.

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the total landfill gas condensate injection throughput shall not exceed 2,000,000 gallons during any consecutive 12-month period.

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

CONDENSATE INJECTION (A-12 Flare)

October-20

Start Date	Start Time	End Date	End Time	Total Injection Time (min.)	Average GPM	Total Gallons
2020/10/01	00:00:00	2020/10/01	07:14:00	434.0	2.3	995
2020/10/01	11:18:00	2020/10/01	16:34:00	316.0	2.4	743
2020/10/01	23:32:00	2020/10/01	23:58:00	28.0	2.5	69
2020/10/02	00:00:00	2020/10/02	06:06:00	366.0	2.4	869
2020/10/02	12:20:00	2020/10/02	18:20:00	360.0	2.4	849
2020/10/03	00:42:00	2020/10/03	08:26:00	464.0	2.3	1,088
2020/10/03	12:46:00	2020/10/03	17:20:00	274.0	2.4	648
2020/10/04	00:04:00	2020/10/04	07:14:00	430.0	2.4	1,025
2020/10/04	11:10:00	2020/10/04	16:36:00	326.0	2.4	770
2020/10/04	23:20:00	2020/10/04	23:58:00	40.0	2.4	97
2020/10/05	00:00:00	2020/10/05	07:06:00	426.0	2.3	999
2020/10/05	11:00:00	2020/10/05	16:38:00	338.0	2.4	803
2020/10/05	23:44:00	2020/10/05	23:58:00	16.0	2.4	39
2020/10/06	00:00:00	2020/10/06	07:34:00	454.0	2.3	1,059
2020/10/06	11:26:00	2020/10/06	17:16:00	350.0	2.3	807
2020/10/06	22:30:00	2020/10/06	23:58:00	90.0	2.4	215
2020/10/07	00:00:00	2020/10/07	06:48:00	408.0	2.3	951
2020/10/07	10:40:00	2020/10/07	17:24:00	404.0	2.3	931
2020/10/07	22:08:00	2020/10/07	23:58:00	112.0	2.3	263
2020/10/08	00:00:00	2020/10/08	08:04:00	484.0	2.3	1,107
2020/10/08	12:00:00	2020/10/08	18:24:00	384.0	2.3	896
2020/10/08	23:00:00	2020/10/08	23:58:00	60.0	2.4	141
2020/10/09	00:00:00	2020/10/09	08:20:00	500.0	2.3	1,151
2020/10/09	12:12:00	2020/10/09	18:58:00	406.0	2.3	947
2020/10/09	23:34:00	2020/10/09	23:58:00	26.0	2.4	62
2020/10/10	00:00:00	2020/10/10	09:42:00	582.0	2.3	1,343
2020/10/10	13:48:00	2020/10/10	19:20:00	332.0	2.4	784
2020/10/10	23:50:00	2020/10/10	23:58:00	10.0	2.4	24
2020/10/11	00:00:00	2020/10/11	09:30:00	570.0	2.3	1,329
2020/10/11	13:30:00	2020/10/11	19:14:00	344.0	2.4	811
2020/10/11	23:44:00	2020/10/11	23:58:00	16.0	2.4	38
2020/10/12	00:00:00	2020/10/12	09:56:00	596.0	2.3	1,373
2020/10/12	14:08:00	2020/10/12	19:06:00	298.0	2.4	708
2020/10/13	00:02:00	2020/10/13	09:10:00	548.0	2.3	1,268
2020/10/13	13:12:00	2020/10/13	18:16:00	304.0	2.4	720
2020/10/13	23:44:00	2020/10/13	23:58:00	16.0	2.4	38
2020/10/14	00:00:00	2020/10/14	09:04:00	544.0	2.3	1,244
2020/10/14	13:14:00	2020/10/14	19:54:00	400.0	2.3	914
2020/10/15	00:56:00	2020/10/15	07:36:00	400.0	2.3	911
2020/10/15	12:32:00	2020/10/15	18:48:00	376.0	2.3	855
2020/10/15	23:54:00	2020/10/15	23:58:00	6.0	2.4	15
2020/10/16	00:00:00	2020/10/16	16:06:00	966.0	2.3	2,202
2020/10/16	22:52:00	2020/10/16	23:58:00	68.0	2.4	162
2020/10/17	00:00:00	2020/10/17	07:10:00	430.0	2.3	987
2020/10/17	11:10:00	2020/10/17	17:34:00	384.0	2.3	872
2020/10/18	00:08:00	2020/10/18	09:00:00	532.0	2.2	1,195
2020/10/18	13:16:00	2020/10/18	18:22:00	306.0	2.3	705
2020/10/19	00:00:00	2020/10/19	09:26:00	566.0	2.3	1,274
2020/10/19	13:08:00	2020/10/19	22:36:00	568.0	2.2	1,274

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

CONDENSATE INJECTION (A-12 Flare)

October-20

2020/10/20	03:12:00	2020/10/20	17:54:00	882.0	2.2	1,908
2020/10/20	20:58:00	2020/10/20	23:58:00	182.0	2.3	419
2020/10/21	00:00:00	2020/10/21	21:08:00	1,268.0	2.2	2,819
2020/10/22	01:40:00	2020/10/22	12:30:00	650.0	2.1	1,377
2020/10/22	17:32:00	2020/10/22	23:14:00	342.0	2.2	751
2020/10/23	03:04:00	2020/10/23	12:38:00	574.0	2.1	1,226
2020/10/23	17:44:00	2020/10/23	23:58:00	376.0	2.2	844
2020/10/24	00:00:00	2020/10/24	00:04:00	4.0	1.7	7
2020/10/24	03:52:00	2020/10/24	13:38:00	586.0	2.1	1,234
2020/10/24	19:08:00	2020/10/24	23:58:00	292.0	2.2	643
2020/10/25	00:00:00	2020/10/25	03:16:00	196.0	2.1	420
2020/10/25	07:06:00	2020/10/25	15:30:00	504.0	2.2	1,085
2020/10/25	20:28:00	2020/10/25	23:58:00	212.0	2.2	470
2020/10/26	00:00:00	2020/10/26	07:48:00	468.0	2.1	998
2020/10/26	11:42:00	2020/10/26	18:34:00	412.0	2.2	886
2020/10/26	22:42:00	2020/10/26	23:58:00	78.0	2.2	173
2020/10/27	00:00:00	2020/10/27	11:16:00	676.0	2.1	1,439
2020/10/27	15:28:00	2020/10/27	21:22:00	354.0	2.2	789
2020/10/28	01:18:00	2020/10/28	13:26:00	728.0	2.1	1,551
2020/10/28	18:42:00	2020/10/28	23:58:00	318.0	2.3	731
2020/10/29	00:00:00	2020/10/29	02:54:00	174.0	2.2	387
2020/10/29	06:36:00	2020/10/29	16:34:00	598.0	2.2	1,307
2020/10/29	21:40:00	2020/10/29	23:58:00	140.0	2.3	320
2020/10/30	00:00:00	2020/10/30	09:18:00	558.0	2.2	1,233
2020/10/30	13:56:00	2020/10/30	20:12:00	376.0	2.3	850
2020/10/31	00:10:00	2020/10/31	12:32:00	742.0	2.2	1,644
2020/10/31	16:58:00	2020/10/31	22:52:00	354.0	2.3	825
Totals				**27,230**	**2.4**	**64,909**
			Maximum GPM		**2.5**	

gpm= gallons per minute

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the landfill gas condensate injection rate shall not exceed 5 gpm.

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the total landfill gas condensate injection throughput shall not exceed 2,000,000 gallons during any consecutive 12-month period.

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

CONDENSATE INJECTION (A-12 Flare)

November-20

Start Date	Start Time	End Date	End Time	Total Injection Time (min.)	Average GPM	Total Gallons
2020/11/01	01:30:00	2020/11/01	12:28:00	658.0	2.3	1,483
2020/11/01	17:40:00	2020/11/01	23:58:00	380.0	2.3	892
2020/11/02	00:00:00	2020/11/02	01:42:00	102.0	2.3	233
2020/11/02	05:30:00	2020/11/02	15:08:00	578.0	2.3	1,320
2020/11/02	20:32:00	2020/11/02	23:58:00	208.0	2.3	485
2020/11/03	00:00:00	2020/11/03	07:00:00	420.0	2.3	953
2020/11/03	10:46:00	2020/11/03	18:14:00	448.0	2.3	1,017
2020/11/03	22:16:00	2020/11/03	23:58:00	104.0	2.3	238
2020/11/04	00:00:00	2020/11/04	09:50:00	590.0	2.2	1,308
2020/11/04	14:00:00	2020/11/04	20:38:00	398.0	2.3	922
2020/11/05	00:34:00	2020/11/05	11:26:00	652.0	2.3	1,477
2020/11/05	15:42:00	2020/11/05	20:36:00	294.0	2.3	688
2020/11/06	02:26:00	2020/11/06	07:42:00	316.0	2.3	732
2020/11/06	11:16:00	2020/11/06	23:58:00	764.0	2.3	1,756
2020/11/07	00:00:00	2020/11/07	09:40:00	580.0	2.2	1,301
2020/11/07	14:16:00	2020/11/07	23:10:00	534.0	2.3	1,229
2020/11/08	02:58:00	2020/11/08	14:28:00	690.0	2.3	1,582
2020/11/08	18:34:00	2020/11/08	23:58:00	326.0	2.3	759
2020/11/09	00:00:00	2020/11/09	08:14:00	494.0	2.3	1,124
2020/11/09	12:34:00	2020/11/09	23:32:00	658.0	2.3	1,497
2020/11/10	03:22:00	2020/11/10	13:48:00	626.0	2.3	1,440
2020/11/10	17:44:00	2020/11/10	23:58:00	376.0	2.4	885
2020/11/11	00:00:00	2020/11/11	07:42:00	462.0	2.3	1,060
2020/11/11	12:02:00	2020/11/11	23:58:00	718.0	2.4	1,702
2020/11/12	00:00:00	2020/11/12	16:02:00	962.0	2.3	2,243
2020/11/12	20:08:00	2020/11/12	23:58:00	232.0	2.4	562
2020/11/13	00:00:00	2020/11/13	11:14:00	674.0	2.3	1,575
2020/11/13	16:52:00	2020/11/13	21:58:00	306.0	2.2	673
2020/11/14	04:30:00	2020/11/14	11:14:00	404.0	2.2	875
2020/11/14	15:20:00	2020/11/14	23:58:00	520.0	2.3	1,204
2020/11/15	00:00:00	2020/11/15	00:58:00	58.0	2.4	137
2020/11/15	04:32:00	2020/11/15	04:36:00	4.0	2.2	9
2020/11/15	17:40:00	2020/11/15	23:58:00	380.0	2.5	950
2020/11/16	00:00:00	2020/11/16	12:44:00	764.0	2.4	1,848
2020/11/16	23:52:00	2020/11/16	23:58:00	8.0	1.0	8
2020/11/17	00:00:00	2020/11/17	15:20:00	920.0	2.4	2,250
2020/11/17	21:30:00	2020/11/17	23:58:00	150.0	2.3	338
2020/11/18	00:00:00	2020/11/18	09:20:00	560.0	2.4	1,327
2020/11/18	14:36:00	2020/11/18	23:58:00	564.0	2.3	1,289
2020/11/19	00:00:00	2020/11/19	23:58:00	1,440.0	2.2	3,172
2020/11/20	00:00:00	2020/11/20	23:58:00	1,440.0	2.2	3,099
2020/11/21	00:00:00	2020/11/21	11:42:00	702.0	2.1	1,467
2020/11/21	22:28:00	2020/11/21	23:58:00	92.0	1.9	171
2020/11/22	00:00:00	2020/11/22	23:58:00	1,440.0	2.0	2,949
2020/11/23	00:00:00	2020/11/23	06:40:00	400.0	2.0	802
2020/11/23	10:22:00	2020/11/23	10:26:00	4.0	2.5	10
2020/11/23	14:10:00	2020/11/23	23:58:00	590.0	2.1	1,237
2020/11/24	00:00:00	2020/11/24	14:56:00	896.0	2.0	1,807
2020/11/24	19:20:00	2020/11/24	19:24:00	4.0	2.2	9
2020/11/24	23:24:00	2020/11/24	23:58:00	36.0	1.7	62
2020/11/25	00:00:00	2020/11/25	19:38:00	1,178.0	2.1	2,473
2020/11/26	03:48:00	2020/11/26	23:58:00	1,212.0	2.1	2,531

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

CONDENSATE INJECTION (A-12 Flare)

November-20

2020/11/27	00:00:00	2020/11/27	03:34:00	214.0	2.1	443
2020/11/27	07:14:00	2020/11/27	07:16:00	2.0	2.5	5
2020/11/27	13:02:00	2020/11/27	23:58:00	658.0	2.1	1,396
2020/11/28	00:00:00	2020/11/28	15:06:00	906.0	2.0	1,826
2020/11/28	19:26:00	2020/11/28	23:58:00	274.0	2.2	591
2020/11/29	00:00:00	2020/11/29	07:52:00	472.0	2.2	1,027
2020/11/29	13:42:00	2020/11/29	23:58:00	618.0	2.2	1,333
2020/11/30	00:00:00	2020/11/30	04:50:00	290.0	2.1	602
2020/11/30	09:26:00	2020/11/30	22:52:00	806.0	2.1	1,713
Totals				**31,556**	**2.2**	**70,096**
			Maximum GPM		**2.5**	

gpm= gallons per minute

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the landfill gas condensate injection rate shall not exceed 5 gpm.

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the total landfill gas condensate injection throughput shall not exceed 2,000,000 gallons during any consecutive 12-month period.

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

CONDENSATE INJECTION (A-12 Flare)

December-20

Start Date	Start Time	End Date	End Time	Total Injection Time (min.)	Average GPM	Total Gallons
2020/12/01	18:44:00	2020/12/01	23:58:00	316	2.2	695.7
2020/12/02	00:00:00	2020/12/02	09:38:00	578	2.0	1163.8
2020/12/02	13:28:00	2020/12/02	23:58:00	632	2.1	1342.8
2020/12/03	00:00:00	2020/12/03	02:06:00	126	2.1	258.4
2020/12/03	05:32:00	2020/12/03	16:20:00	648	2.1	1361.9
2020/12/03	20:22:00	2020/12/03	23:58:00	218	2.2	478.4
2020/12/04	00:00:00	2020/12/04	10:54:00	654	2.0	1339.2
2020/12/04	14:50:00	2020/12/04	23:58:00	550	2.2	1186.9
2020/12/05	00:00:00	2020/12/05	02:44:00	164	2.1	342.5
2020/12/05	06:20:00	2020/12/05	16:56:00	636	2.2	1369.7
2020/12/05	20:36:00	2020/12/05	23:58:00	204	2.2	455.9
2020/12/06	00:00:00	2020/12/06	10:30:00	630	2.1	1317.8
2020/12/06	14:26:00	2020/12/06	23:58:00	574	2.2	1,239
2020/12/07	00:00:00	2020/12/07	04:52:00	292	2.1	610
2020/12/07	08:18:00	2020/12/07	18:30:00	612	2.1	1,309
2020/12/07	22:00:00	2020/12/07	23:58:00	120	2.2	265
2020/12/08	00:00:00	2020/12/08	10:58:00	658	2.1	1,392
2020/12/08	14:50:00	2020/12/08	23:12:00	502	2.2	1,110
2020/12/09	02:44:00	2020/12/09	10:00:00	436	2.0	872
2020/12/09	12:18:00	2020/12/09	21:44:00	566	2.2	1,228
2020/12/10	01:16:00	2020/12/10	14:12:00	776	2.1	1,657
2020/12/10	18:14:00	2020/12/10	23:58:00	346	2.2	748
2020/12/11	00:00:00	2020/12/11	09:28:00	568	2.0	1,128
2020/12/11	13:12:00	2020/12/11	23:58:00	648	2.1	1,385
2020/12/12	00:00:00	2020/12/12	03:58:00	238	2.0	482
2020/12/12	07:24:00	2020/12/12	19:28:00	724	2.1	1,536
2020/12/12	22:52:00	2020/12/12	23:58:00	68	1.9	132
2020/12/13	00:00:00	2020/12/13	12:50:00	770	2.1	1,646
2020/12/13	16:28:00	2020/12/13	23:58:00	452	2.1	950
2020/12/14	00:00:00	2020/12/14	07:16:00	436	2.1	918
2020/12/14	11:02:00	2020/12/14	23:58:00	778	2.1	1,655
2020/12/15	00:00:00	2020/12/15	00:12:00	12	1.9	23
2020/12/15	03:36:00	2020/12/15	16:06:00	750	2.1	1,586
2020/12/15	19:46:00	2020/12/15	23:58:00	254	2.1	541
2020/12/16	00:00:00	2020/12/16	10:26:00	626	2.1	1,341
2020/12/16	14:12:00	2020/12/16	23:58:00	588	2.2	1,270
2020/12/17	00:00:00	2020/12/17	01:48:00	108	2.0	219
2020/12/17	05:08:00	2020/12/17	16:40:00	692	2.1	1,485
2020/12/17	20:10:00	2020/12/17	23:58:00	230	2.2	498
2020/12/18	00:00:00	2020/12/18	10:02:00	602	2.1	1,273
2020/12/18	13:52:00	2020/12/18	23:58:00	608	2.1	1,302
2020/12/19	00:00:00	2020/12/19	02:30:00	150	2.0	303
2020/12/19	06:20:00	2020/12/19	19:12:00	772	2.1	1,595
2020/12/19	22:44:00	2020/12/19	23:58:00	76	1.9	142
2020/12/20	00:00:00	2020/12/20	13:22:00	802	2.1	1,691
2020/12/20	17:14:00	2020/12/20	23:58:00	406	2.1	848
2020/12/21	00:00:00	2020/12/21	07:52:00	472	2.0	954
2020/12/21	11:40:00	2020/12/21	23:58:00	740	2.1	1,535
2020/12/22	00:00:00	2020/12/22	00:12:00	12	1.9	23
2020/12/22	03:48:00	2020/12/22	17:06:00	798	2.0	1,621
2020/12/22	20:48:00	2020/12/22	23:58:00	192	2.1	397
2020/12/23	00:00:00	2020/12/23	13:00:00	780	2.0	1,568
2020/12/23	16:54:00	2020/12/23	23:58:00	426	2.0	868
2020/12/24	00:00:00	2020/12/24	10:32:00	632	2.0	1,255
2020/12/24	14:28:00	2020/12/24	23:58:00	572	2.0	1,162
2020/12/25	00:00:00	2020/12/25	05:28:00	328	2.0	655

KIRBY CANYON RECYCLING & DISPOSAL FACILITY

CONDENSATE INJECTION (A-12 Flare)

December-20

2020/12/25	09:04:00	2020/12/25	23:30:00	866	2.0	1,724
2020/12/26	03:06:00	2020/12/26	17:22:00	856	2.0	1,712
2020/12/26	20:58:00	2020/12/26	23:58:00	182	2.0	370
2020/12/27	00:00:00	2020/12/27	14:10:00	850	2.0	1,693
2020/12/27	18:10:00	2020/12/27	23:58:00	350	2.1	719
2020/12/28	00:00:00	2020/12/28	11:34:00	694	2.0	1,385
2020/12/28	15:38:00	2020/12/28	23:58:00	502	2.0	1,017
2020/12/29	00:00:00	2020/12/29	08:00:00	480	2.0	960
2020/12/29	11:52:00	2020/12/29	13:48:00	116	2.0	234
2020/12/29	14:42:00	2020/12/29	23:58:00	558	2.0	1,127
2020/12/30	00:00:00	2020/12/30	07:50:00	470	1.9	872
2020/12/30	11:30:00	2020/12/30	23:58:00	750	2.0	1,483
2020/12/31	00:00:00	2020/12/31	03:28:00	208	2.0	407
2020/12/31	07:04:00	2020/12/31	22:06:00	902	2.0	1,815
Totals				**28,976**	**2.5**	**71,247**
			Maximum GPM		**2.2**	

gpm= gallons per minute

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the landfill gas condensate injection rate shall not exceed 5 gpm.

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the total landfill gas condensate injection throughput shall not exceed 2,000,000 gallons during any consecutive 12-month period.

12-MONTH CONSECUTIVE SOx Emission Rate (Tons/Year) :2020
Kirby Canyon Recycling & Disposal Facility
Plant #1812, Condition 1437 Item 20

Month	SO_2 (Tons/Month)	SO_2 (12- Months Tons)
January-20	3.20	36.41
February-20	3.18	36.65
March-20	3.12	36.70
April-20	3.05	36.48
May-20	2.822	36.09
June-20	2.839	35.43
July-20	2.92	35.20
August-20	2.82	35.24
September-20	2.82	35.24
October-20	2.77	35.26
November-20	2.72	35.24
December-20	2.94	35.20

Pursuant to Title V Permit A1812, Condition Number 25301 Part 20, the Sulfur dioxide emissions from Flare A-12 shall not exceed 300 ppmv of SO2 and sulfur dioxide emissions from A-12 shall not exceed 94.9 tons per year.

To demonstrate compliance with above limits, the site will conduct annual testing of total TRS at the landfill gas main header. The most recent TRS value will be used to calculate the monthly SO2 emissions in tons.

Appendix P includes table with SO_2 12-month tons during the reporting period. The sulfur dioxide emissions from A-12 did not exceed 94.9 tons per year.

APPENDIX N

GAS MIGRATION MONITORING REPORTS

WASTE MANAGEMENT
910 Coyote Creek Golf Drive
San Jose, CA 95037

January 11, 2021

Ms. Becky Azevedo
Kirby Canyon Recycling & Disposal Facility
910 Coyote Creek Golf Drive
San Jose, CA 95037

Re: Fourth Quarter 2020 Perimeter gas and Methane in Structure Monitoring Report
Kirby Canyon Recycling & Disposal Facility

Dear Ms. Azevedo:

This report for the "Kirby Canyon Recycling and Disposal Facility (KCRDF) Landfill" contains the results of the Fourth Quarter 2020 Perimeter Gas and Methane in Structure Monitoring conducted at the KCRDF. All monitoring was conducted by KCRDF personnel.

REGULATORY REQUIREMENTS

Requirements for monitoring are outlined in 40 CFR 258.23, Title 27 California Code of Regulations (CCR), Article 6, Gas Monitoring at Active and Closed Disposal Sites. These regulations require periodic monitoring to ensure that methane concentrations are less than 5 percent at the property boundary and less than 1.25 percent in on-site buildings and structures. Reporting requirements are presented in Title 27 §20934.

MONITORING RESULTS AND MAP [TITLE 27 §20934(a)(1), (2), (3) AND (5)]

Monitoring was conducted in accordance with 40 CFR 258.23 and Title 27, Article 6 at the locations shown in the attached map (Attachment A). Results for both probes and structures are summarized in Table 1. Field data are presented in Attachment B.

No exceedances of Subtitle D (40 CFR 258.23) and California Code of Regulations (CCR) Title 27, Division 2, Section 20919.5 were detected during any of the monitoring events.

Results for probes and are summarized in Table 1. All other Field data sheets are presented in Attachment B.

Ms. Becky Azevedo
Date: January 11, 2021

Kirby Canyon Recycling and Disposal Facility
Perimeter Gas Monitoring Probe Results

Analyst: Markus Bernard Date: 12/2/20, 12/3/20,12/7/20
Instrument: Gem 5000 Serial #: G52468
Atmospheric Temperature (Deg F): 65, 70, 68
Barometric Pressure: 29 Inch of HG
Wind Speed: 8, 6, 9 mph Wind Direction: N , N, N
Weather Condition: Clear

Probe ID	Time	CH_4 (%)	Probe Pressure (in-H_20)	Probe Condition (clean, capped, locked)		Comments
				Arrival	Departure	
KIRBP01A	11:33 AM;12/2/20	0	.02	Ok	Ok	
KIRBP01B	11:35AM; 12/2/20	0	.03	Ok	Ok	
KIRBP02A	11:49 AM;12/2/20	0	.54	Ok	Ok	
KIRBP02B	11:50 AM;12/2/20	0	.03	Ok	Ok	
KIRBP03A	12:01PM;12/2/20	0	.04	Ok	Ok	
KIRBP03B	12:03 PM;12/2/20	0	.06	Ok	Ok	
KIRBP04A	12:08 PM;12/2/20	0	.05	Ok	Ok	
KIRBP04B	12:10PM;12/2/20	0	.04	Ok	Ok	
KIRBP05A	12:17 PM;12/2/20	0	.06	Ok	Ok	
KIRBP05B	12:18 PM;12/2/20	0	.04	Ok	Ok	
KIRBP06A	12:25 PM;12/2/20	0	.03	Ok	Ok	
KIRBP06B	12:27 PM;12/2/20	0	.03	Ok	Ok	
KIRBP07A	12:35 PM;12/2/20	0	0.08	Ok	Ok	
KIRBP07B	12:36PM; 12/2/20	0	-0.10	Ok	Ok	
KIRBP08A	10:34 AM;12/7/20	0	.01	Ok	Ok	
KIRBP08B	10:40 AM;12/7/20	0	.02	Ok	Ok	
KIRBP09A	10:22 AM;12/7/20	0	.05	Ok	Ok	

Ms. Becky Azevedo
Date: January 11, 2021

Probe ID	Time	CH_4 (%)	Probe Pressure (in-H_20)	Probe Condition (clean, capped, locked)		Comments
				Arrival	Departure	
KIRBP09B	10:23AM;12/7/20	0	.03	Ok	Ok	
KIRBP10A	10:11 AM;12/7/20	0	.03	Ok	Ok	
KIRBP10B	10:14 AM;12/7/20	0	.03	Ok	Ok	
KIRBP011A	2:50 PM; 12/3/20	0	.12	Ok	Ok	
KIRBP011B	2:53 PM;12/3/20	0	.03	Ok	Ok	
KIRBP12A	11:23 AM;12/2/20	0	.02	Ok	Ok	
KIRBP12B	11:25 AM;12/2/20	0	.00	Ok	Ok	
KIRBP14A	3:10 PM;12/3/20	0	.01	Ok	Ok	
KIRBP14B	3:13 PM;12/3/20	0	.00	Ok	Ok	
KIRBP15	2:40 PM;12/3/20	0	.02	Ok	Ok	

ND = No detection
California Code of Regulations Title 27, Division 2, Chapter 3, Article 6, §20921 require that:

(1) The concentration of methane gas must not exceed 1.25 percent by volume in air within any portion of any on-site structures.

(2) The concentration of methane gas migrating from the disposal site must not exceed 5 percent by volume in air at the disposal site permitted facility boundary or an alternative boundary approved in accordance with §20925.

Note: The reading should not exceed 25% LEL = 1.25% CH_4 = 12,500 ppm CH_4

Immediately notify compliance personnel of any readings in excess of 5 percent methane.

STRUCTURE FID MONITORING DATA

Analyst: Markus Bernard **Date: 12/18/2020**
Instrument: FID **Serial #: 0928538411**

Monitored Location	Time	PPM	Comments
Scale House	9:30 AM	0	
Admin Building	9:00 AM	0	
Operations Break Trailer	9:15 AM	0	

ND = No detection
Immediately notify compliance personnel of any readings in excess of 1.25 percent methane

Ms. Becky Azevedo
Date: January 11, 2021

MONITORING EQUIPMENT AND METHODOLOGY [TITLE 27 §20934(a)(4)]

Perimeter Gas Monitoring

The facility conducted the required monitoring using a CES-Landtec GEM-2000 gas analyzer (GEM). The monitoring was conducted by Marcus Bernard on December 2, 3 and 7, 2020. The static pressure of each probe was monitored using the GEM's internal pressure transducers and the probes were monitored to determine methane concentration.

Facility Structures

Marcus Bernard used a TVA 1000 to monitor buildings and structures to check for the presence of methane on December 18, 2020. The instrument was calibrated on December 18, 2020 using 500 ppm methane standard.

Combustible Methane Gas Monitor Calibration

Some facility structures are monitored continuously using Sierra Monitors. The monitor is calibrated at a frequency determined by the manufacturer. The most recent calibration was conducted by Marcus Bernard on December 18, 2020.

GENERAL WEATHER CONDITIONS [TITLE 27 §20934(a)(3)]

General weather conditions are the time of monitoring are presented in Table 3.

Table 3 General Weather Conditions

Description	December 2, 2020	December 3, 2020	December 7, 2020
General conditions	Cloudy	Cloudy	Sunny
Avg Wind Speed (mph)	4.4	5.6	9.3
Wind Direction	NNW	NW	N
Barometric Pressure, (Inches of Hg)	30.07	30.24	30.17
Average Ambient (Temperature Deg F) Max/Min	64/55	64/55	72/52

If you have any questions regarding this notification, please do not hesitate to contact me at (510) 875-9338.

Thank you,
Waste Management,

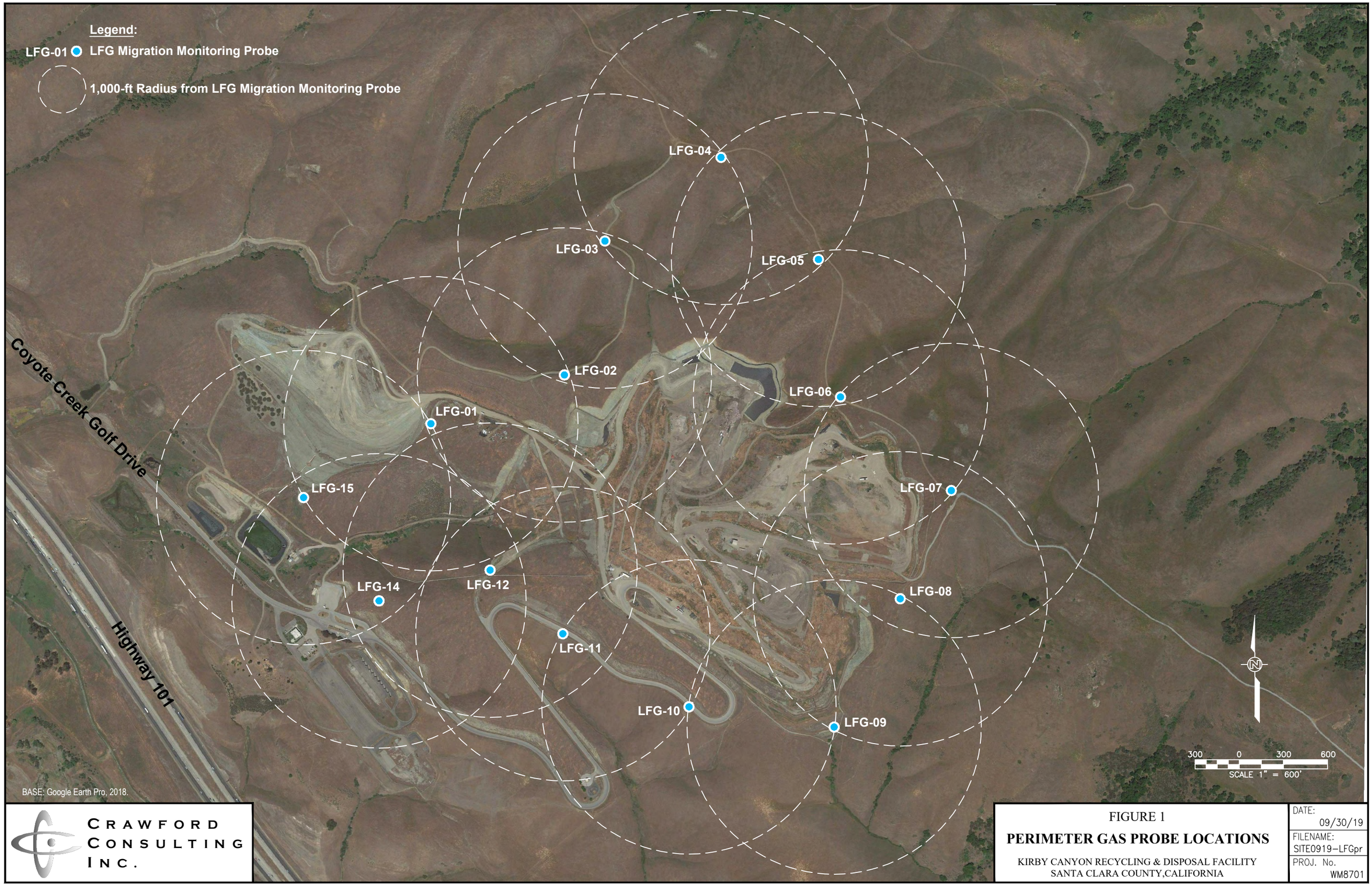
Rajan Phadnis
EP Air Specialist- Northern California-Nevada

Ms. Becky Azevedo
Date: January 11, 2021

Attachments: Perimeter Gas Probe Location Map
KCRDF Field Data

ATTACHMENT A

SITE MAP



CRAWFORD CONSULTING INC.

FIGURE 1

PERIMETER GAS PROBE LOCATIONS

KIRBY CANYON RECYCLING & DISPOSAL FACILITY
SANTA CLARA COUNTY,CALIFORNIA

DATE: 09/30/19
FILENAME: SITE0919–LFGpr
PROJ. No. WM8701

ATTACHMENT B

FIELD DATA

Kirby Canyon Recycling and Disposal Facility
Perimeter Gas Monitoring Probe Results

Analyst: Markus Bernard Date: 12/2/20, 12/3/20,12/7/20
Instrument: Gem 5000 Serial #: G52468
Atmospheric Temperature (Deg F): 65, 70, 68
Barometric Pressure: 29 Inch of HG
Wind Speed: 8, 6, 9 mph Wind Direction: N , N, N
Weather Condition: Clear

Probe ID	Time	CH_4 (%)	Probe Pressure (in-H_20)	Probe Condition (clean, capped, locked)		Comments
				Arrival	Departure	
KIRBP01A	11:33 AM 12/2/20	0	.02	Ok	Ok	
KIRBP01B	11:35AM 12/2/20	0	.03	Ok	Ok	
KIRBP02A	11:49 AM 12/2/20	0	.54	Ok	Ok	
KIRBP02B	11:50 AM 12/2/20	0	.03	Ok	Ok	
KIRBP03A	12:01PM 12/2/20	0	.04	Ok	Ok	
KIRBP03B	12:03 PM 12/2/20	0	.06	Ok	Ok	
KIRBP04A	12:08 PM 12/2/20	0	.05	Ok	Ok	
KIRBP04B	12:10PM 12/2/20	0	.04	Ok	Ok	
KIRBP05A	12:17 PM 12/2/20	0	.06	Ok	Ok	
KIRBP05B	12:18 PM 12/2/20	0	.04	Ok	Ok	
KIRBP06A	12:25 PM 12/2/20	0	.03	Ok	Ok	
KIRBP06B	12:27 PM 12/2/20	0	.03	Ok	Ok	
KIRBP07A	12:35 PM 12/2/20	0	0.08	Ok	Ok	
KIRBP07B	12:36 PM 12/2/20	0	-0.10	Ok	Ok	
KIRBP08A	10:34 AM 12/7/20	0	.01	Ok	Ok	
KIRBP08B	10:40 AM 12/7/20	0	.02	Ok	Ok	
KIRBP09A	10:22 AM 12/7/20	0	.05	Ok	Ok	
KIRBP09B	10:23AM 12/7/20	0	.03	Ok	Ok	
KIRBP10A	10:11 AM 12/7/20	0	.03	Ok	Ok	

Probe ID	Time	CH_4 (%)	Probe Pressure (in-H_20)	Probe Condition (clean, capped, locked)		Comments
				Arrival	Departure	
KIRBP10B	10:14 AM 12/7/20	0	.03	Ok	Ok	
KIRBP011A	2:50PM 12/3/20	0	.12	Ok	Ok	
KIRBP011B	2:53 PM 12/3/20	0	.03	Ok	Ok	
KIRBP12A	11:23 AM 12/2/20	0	.02	Ok	Ok	
KIRBP12B	11:25 AM 12/2/20	0	.00	Ok	Ok	
KIRBP14A	3:10 PM 12/3/20	0	.01	Ok	Ok	
KIRBP14B	3:13 PM 12/3/20	0	.00	Ok	Ok	
KIRBP15	2:40 PM 12/3/20	0	.02	Ok	Ok	

ND = No detection

California Code of Regulations Title 27, Division 2, Chapter 3, Article 6, §20921 require that:

(1) The concentration of methane gas must not exceed 1.25 percent by volume in air within any portion of any on-site structures.

(2) The concentration of methane gas migrating from the disposal site must not exceed 5 percent by volume in air at the disposal site permitted facility boundary or an alternative boundary approved in accordance with §20925.

Note: The reading should not exceed 25% LEL = 1.25% CH_4 = 12,500 ppm CH_4

Immediately notify compliance personnel of any readings in excess of 5 percent methane.

STRUCTURE FID MONITORING DATA

Analyst: Markus Bernard **Date: 12/18/2020**

Instrument: FID **Serial #: 0928538411**

Monitored Location	Time	PPM	Comments
Scale House	9:30 AM	0	
Admin Building	9:00AM	0	
Operations Break Trailer	9:15 AM	0	

ND = No detection

Immediately notify compliance personnel of any readings in excess of 1.25 percent methane.

GAS DETECTOR CALIBRATION RECORD

LOCATION: KIRBY CANYON RECYCLING AND DISPOSAL FACILITY

MANUFACTURER & MODEL NUMBER: Sierra Monitor Corporation Model # 2001

CALIBRATED BY / INSTRUMENT USED: / Cal System Model# 26

CALIBRATION GAS EXPIRATION DATE: September 27, 2021

Location	DATE CALIBRATED	SERIAL NUMBER	Methane LEL* SENSOR alarm 10,000 ppm	MAINTENANCE PERFORMED / COMMENTS ON MONITOR CONDITION
Main Office	12-18-20	1500700087GAM	YES	Good Condition
Scale House	12-18-20	1500700088GAM	YES	Good Condition
Break Trailer	12-18-20	1500700089GAM	YES	Good Condition

** This form must be retained for 12 months after completion.

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Kirby Canyon Landfill Date: 11/18/20

Time: 8:30 AM _____ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 500 ppm
3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 1 ppm (a)
2. Downwind Reading (highest in 30 seconds): 1 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 0.5 ppm

Performed by: Markus Bernard

CALIBRATION PRECISION TEST RECORD

Date: 9/30/2020

Expiration Date (3 months): 12/30/2020

Time: 9:00 AM _____ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Meter Reading for Zero Air: 0 ppm (a)

Meter Reading for Calibration Gas: 500 ppm (b)

Measurement #2:

Meter Reading for Zero Air: 0 ppm (c)

Meter Reading for Calibration Gas: 500 ppm (d)

Measurement #3:

Meter Reading for Zero Air: 0 ppm (e)

Meter Reading for Calibration Gas: 496 ppm (f)

Calculate Precision:

$$\frac{\{|(500) - (b)| + |(500) - (d)| + |(500) - (f)|\}}{3} \times \frac{1}{500} \times 100$$

0.8 % (must be < than 10%)

Performed by: M. Bernard

RESPONSE TIME TEST RECORD

Date: 9/30/20

Expiration Date (3 months): 12/30/20

Time: 9:00 AM _____ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Stabilized Reading Using Calibration Gas: 500 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 4 seconds (a)

Measurement #2:

Stabilized Reading Using Calibration Gas: 500 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (b)

Measurement #3:

Stabilized Reading Using Calibration Gas: 498 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (c)

Calculate Response Time:

$$\frac{(a) + (b) + (c)}{3} = 4.6 \text{ seconds (must be less than 30 seconds)}$$

Performed by: M. Bernard

WASTE MANAGEMENT
910 Coyote Creek Golf Drive
San Jose, CA 95037

October 12, 2020

Ms. Becky Azevedo
Kirby Canyon Recycling & Disposal Facility
910 Coyote Creek Golf Drive
San Jose, CA 95037

Re: Third Quarter 2020 Perimeter gas and Methane in Structure Monitoring Report
Kirby Canyon Recycling & Disposal Facility

Dear Ms. Azevedo:

This report for the "Kirby Canyon Recycling and Disposal Facility (KCRDF) Landfill" contains the results of the Third Quarter 2020 Perimeter Gas and Methane in Structure Monitoring conducted at the KCRDF. All monitoring was conducted by KCRDF personnel.

REGULATORY REQUIREMENTS

Requirements for monitoring are outlined in 40 CFR 258.23, Title 27 California Code of Regulations (CCR), Article 6, Gas Monitoring at Active and Closed Disposal Sites. These regulations require periodic monitoring to ensure that methane concentrations are less than 5 percent at the property boundary and less than 1.25 percent in on-site buildings and structures. Reporting requirements are presented in Title 27 §20934.

MONITORING RESULTS AND MAP [TITLE 27 §20934(a)(1), (2), (3) AND (5)]

Monitoring was conducted in accordance with 40 CFR 258.23 and Title 27, Article 6 at the locations shown in the attached map (Attachment A). Results for both probes and structures are summarized in Table 1. Field data are presented in Attachment B.

No exceedances of Subtitle D (40 CFR 258.23) and California Code of Regulations (CCR) Title 27, Division 2, Section 20919.5 were detected during any of the monitoring events.

Results for probes and are summarized in Table 1. All other Field data sheets are presented in Attachment B.

Ms. Becky Azevedo
Date: October 12, 2020

Kirby Canyon Recycling and Disposal Facility
Perimeter Gas Monitoring Probe Results

Analyst: Markus Bernard Date: 9/22/2020
Instrument: Gem 2000 Serial #: GM11977
Atmospheric Temperature (Deg F): 80
Barometric Pressure: 29 Inch of HG
Wind Speed: 3 mph Wind Direction: S
Weather Condition: Clear

Probe ID	Time	CH_4 (%)	Probe Pressure (in-H_20)	Probe Condition (clean, capped, locked)		Comments
				Arrival	Departure	
KIRBP01A	1:36 PM	0 %	-0.03	Good	Good	
KIRBP01B	1:39 PM	0 %	0.01	Good	Good	
KIRBP02A	1:47 PM	0 %	0.25	Good	Good	
KIRBP02B	1:48 PM	0 %	0.06	Good	Good	
KIRBP03A	1:55 PM	0 %	0.12	Good	Good	
KIRBP03B	1:58 PM	0%	0.12	Good	Good	
KIRBP04A	2:10 PM	0 %	0.12	Good	Good	
KIRBP04B	2:13 PM	0 %	0.11	Good	Good	
KIRBP05A	2:18 PM	0 %	0.16	Good	Good	
KIRBP05B	2:21 PM	0%	0.16	Good	Good	
KIRBP06A	2:28 PM	0%	0.18	Good	Good	
KIRBP06B	2:33 PM	0%	0.18	Good	Good	
KIRBP07A	2:40 PM	0 %	0.13	Good	Good	
KIRBP07B	2:43 PM	0 %	0.19	Good	Good	
KIRBP08A	3:03 PM	0 %	0.22	Good	Good	
KIRBP08B	3:05 PM	0%	0.17	Good	Good	

Ms. Becky Azevedo
Date: October 12, 2020

Probe ID	Time	CH_4 (%)	Probe Pressure (in-H_20)	Probe Condition (clean, capped, locked)		Comments
				Arrival	Departure	
KIRBP09A	3:19 PM	0 %	0.14	Good	Good	
KIRBP09B	3:21 PM	0 %	0.15	Good	Good	
KIRBP10A	3:27 PM	0 %	0.19	Good	Good	
KIRBP10B	3:29 PM	0 %	0.16	Good	Good	
KIRBP011A	3:35 PM	0 %	0.19	Good	Good	
KIRBP011B	3:37 PM	0 %	0.19	Good	Good	
KIRBP12A	3:47 PM	0 %	0.16	Good	Good	
KIRBP12B	3:49 PM	0 %	0.16	Good	Good	
KIRBP14A	3:56 PM	0 %	0.00	Good	Good	
KIRBP14B	3:57 PM	0 %	0.00	Good	Good	
KIRBP15	4:13 PM	0 %	-0.04	Good	Good	

ND = No detection
California Code of Regulations Title 27, Division 2, Chapter 3, Article 6, §20921 require that:

(1) The concentration of methane gas must not exceed 1.25 percent by volume in air within any portion of any on-site structures.

(2) The concentration of methane gas migrating from the disposal site must not exceed 5 percent by volume in air at the disposal site permitted facility boundary or an alternative boundary approved in accordance with §20925.

Note: The reading should not exceed 25% LEL = 1.25% CH_4 = 12,500 ppm CH_4

Immediately notify compliance personnel of any readings in excess of 5 percent methane.

STRUCTURE FID MONITORING DATA

Analyst: Markus Bernard **Date: 9/22/2020**
Instrument: FID **Serial #: 0928538411**

Monitored Location	Time	PPM	Comments
Scale House	9:30 AM	0	
Admin Building	9:35 AM	0	
Operations Break Trailer	9:45 AM	0	

ND = No detection
Immediately notify compliance personnel of any readings in excess of 1.25 percent methane

Ms. Becky Azevedo
Date: October 12, 2020

MONITORING EQUIPMENT AND METHODOLOGY [TITLE 27 §20934(a)(4)]

Perimeter Gas Monitoring

The facility conducted the required monitoring using a CES-Landtec GEM-2000 gas analyzer (GEM). The monitoring was conducted by Marcus Bernard on September 22, 2020. The static pressure of each probe was monitored using the GEM's internal pressure transducers and the probes were monitored to determine methane concentration.

Facility Structures

Marcus Bernard used a TVA 1000 to monitor buildings and structures to check for the presence of methane on September 22, 2020. The instrument was calibrated on September 22, 2020 using 500 ppm methane standard.

Combustible Methane Gas Monitor Calibration

Some facility structures are monitored continuously using Sierra Monitors. The monitor is calibrated at a frequency determined by the manufacturer. The most recent calibration was conducted by Marcus Bernard on September 22, 2020.

GENERAL WEATHER CONDITIONS [TITLE 27 §20934(a)(3)]

General weather conditions are the time of monitoring are presented in Table 3.

Table 3 General Weather Conditions

Description	September 22, 2020
General conditions	Fair
Avg Wind Speed (mph)	20
Wind Direction	NNW
Barometric Pressure, (Inches of Hg)	30.03
Average Ambient (Temperature Deg F)	68

If you have any questions regarding this notification, please do not hesitate to contact me at (510) 875-9338.

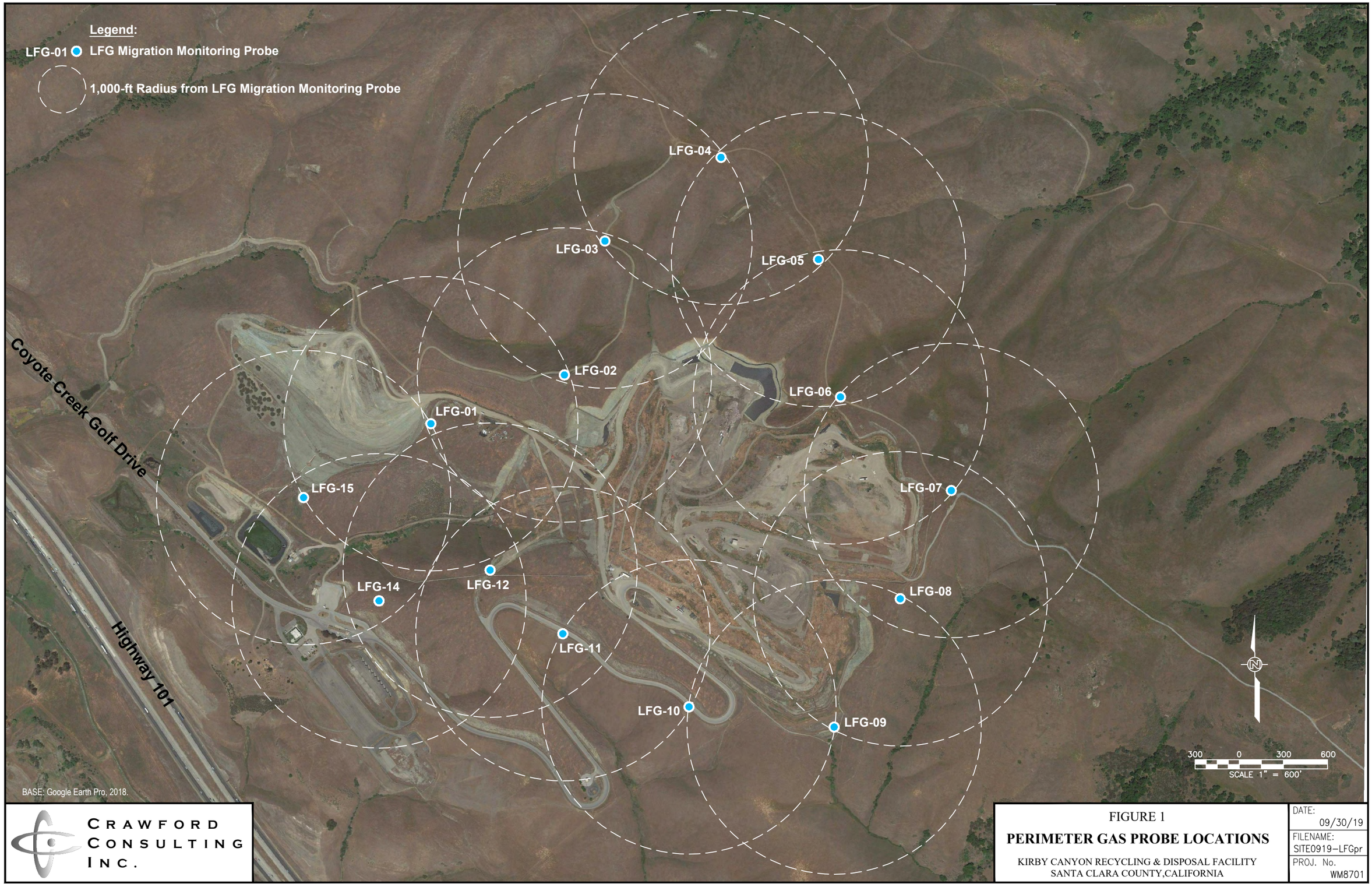
Thank you,
Waste Management,

Rajan Phadnis
EP Air Specialist- Northern California-Nevada

Attachments: Perimeter Gas Probe Location Map
KCRDF Field Data

ATTACHMENT A

SITE MAP



CRAWFORD CONSULTING INC.

FIGURE 1

PERIMETER GAS PROBE LOCATIONS

KIRBY CANYON RECYCLING & DISPOSAL FACILITY
SANTA CLARA COUNTY,CALIFORNIA

DATE: 09/30/19
FILENAME: SITE0919–LFGpr
PROJ. No. WM8701

ATTACHMENT B

FIELD DATA

Kirby Canyon Recycling and Disposal Facility
Perimeter Gas Monitoring Probe Results

Analyst: Markus Bernard Date: 9/22/2020
Instrument: Gem 2000 Serial #: GM11977
Atmospheric Temperature (Deg F): 80
Barometric Pressure: 29 Inch of HG
Wind Speed: 3 mph Wind Direction: S
Weather Condition: Clear

Probe ID	Time	CH_4 (%)	Probe Pressure (in-H_20)	Probe Condition (clean, capped, locked)		Comments
				Arrival	Departure	
KIRBP01A	1:36 PM	0 %	-0.03	Good	Good	
KIRBP01B	1:39 PM	0 %	0.01	Good	Good	
KIRBP02A	1:47 PM	0 %	0.25	Good	Good	
KIRBP02B	1:48 PM	0 %	0.06	Good	Good	
KIRBP03A	1:55 PM	0 %	0.12	Good	Good	
KIRBP03B	1:58 PM	0%	0.12	Good	Good	
KIRBP04A	2:10 PM	0 %	0.12	Good	Good	
KIRBP04B	2:13 PM	0 %	0.11	Good	Good	
KIRBP05A	2:18 PM	0 %	0.16	Good	Good	
KIRBP05B	2:21 PM	0%	0.16	Good	Good	
KIRBP06A	2:28 PM	0%	0.18	Good	Good	
KIRBP06B	2:33 PM	0%	0.18	Good	Good	
KIRBP07A	2:40 PM	0 %	0.13	Good	Good	
KIRBP07B	2:43 PM	0 %	0.19	Good	Good	
KIRBP08A	3:03 PM	0 %	0.22	Good	Good	
KIRBP08B	3:05 PM	0%	0.17	Good	Good	
KIRBP09A	3:19 PM	0 %	0.14	Good	Good	
KIRBP09B	3:21 PM	0 %	0.15	Good	Good	
KIRBP10A	3:27 PM	0 %	0.19	Good	Good	
KIRBP10B	3:29 PM	0 %	0.16	Good	Good	

Probe ID	Time	CH_4 (%)	Probe Pressure (in-H_20)	Probe Condition (clean, capped, locked)		Comments
				Arrival	Departure	
KIRBP011A	3:35 PM	0 %	0.19	Good	Good	
KIRBP011B	3:37 PM	0 %	0.19	Good	Good	
KIRBP12A	3:47 PM	0 %	0.16	Good	Good	
KIRBP12B	3:49 PM	0 %	0.16	Good	Good	
KIRBP14A	3:56 PM	0 %	0.00	Good	Good	
KIRBP14B	3:57 PM	0 %	0.00	Good	Good	
KIRBP15	4:13 PM	0 %	-0.04	Good	Good	

ND = No detection

California Code of Regulations Title 27, Division 2, Chapter 3, Article 6, §20921 require that:

(1) The concentration of methane gas must not exceed 1.25 percent by volume in air within any portion of any on-site structures.

(2) The concentration of methane gas migrating from the disposal site must not exceed 5 percent by volume in air at the disposal site permitted facility boundary or an alternative boundary approved in accordance with §20925.

Note: The reading should not exceed 25% LEL = 1.25% CH_4 = 12,500 ppm CH_4

Immediately notify compliance personnel of any readings in excess of 5 percent methane.

STRUCTURE FID MONITORING DATA

Analyst: Markus Bernard **Date: 9/22/2020**

Instrument: FID **Serial #: 0928538411**

Monitored Location	Time	PPM	Comments
Scale House	9:30 AM	0	
Admin Building	9:35 AM	0	
Operations Break Trailer	9:45 AM	0	

ND = No detection

Immediately notify compliance personnel of any readings in excess of 1.25 percent methane.

GAS DETECTOR CALIBRATION RECORD

LOCATION: KIRBY CANYON RECYCLING AND DISPOSAL FACILITY

MANUFACTURER & MODEL NUMBER: Sierra Monitor Corporation Model # 2001

CALIBRATED BY / INSTRUMENT USED: / Cal System Model# 26

CALIBRATION GAS EXPIRATION DATE: September 27, 2021

Location	DATE CALIBRATED	SERIAL NUMBER	Methane LEL* SENSOR alarm 10,000 ppm	MAINTENANCE PERFORMED / COMMENTS ON MONITOR CONDITION
Main Office	9-22-20	1500700087GAM	YES	Good Condition
Scale House	9-22-20	1500700088GAM	YES	Good Condition
Break Trailer	9-22-20	1500700089GAM	YES	Good Condition

** This form must be retained for 12 months after completion.

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Kirby Date: 9/22/20

Time: 8:10 AM _____ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 500 ppm
3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 4 ppm (a)
2. Downwind Reading (highest in 30 seconds): 3 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 3.5 ppm

Performed by: Markus Bernard

CALIBRATION PRECISION TEST RECORD

Date: 7/15/2020

Expiration Date (3 months): 10/15/2020

Time: 9:45 AM _____ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Meter Reading for Zero Air: 0 ppm (a)

Meter Reading for Calibration Gas: 498 ppm (b)

Measurement #2:

Meter Reading for Zero Air: 0 ppm (c)

Meter Reading for Calibration Gas: 497 ppm (d)

Measurement #3:

Meter Reading for Zero Air: 0 ppm (e)

Meter Reading for Calibration Gas: 499 ppm (f)

Calculate Precision:

$$\frac{\{|(500) - (b)| + |(500) - (d)| + |(500) - (f)|\}}{3} \times \frac{1}{500} \times 100$$

0.4 % (must be < than 10%)

Performed by: M. Bernard

RESPONSE TIME TEST RECORD

Date: 7/15/20

Expiration Date (3 months): 10/15/20

Time: 9:45 AM _____ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Stabilized Reading Using Calibration Gas: 498 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 2 seconds (a)

Measurement #2:

Stabilized Reading Using Calibration Gas: 497 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (b)

Measurement #3:

Stabilized Reading Using Calibration Gas: 499 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 7 seconds (c)

Calculate Response Time:

$\frac{(a) + (b) + (c)}{3}$ = 4.666 seconds (must be less than 30 seconds)

Performed by: M. Bernard

APPENDIX O

A-12 FLARE PERFORMANCE TEST SUMMARY OF RESULTS

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

375 Beale Street, Suite 600
San Francisco, California 94105
(415) 771-6000

Contractor Source Test Supplemental Form

Site name: Kirby Canyon Recycling and Disposal Facility
NST number: 5843
Testing company: Blue Sky Environmental, Inc.

Test purpose:

- ☑ Routine compliance testing
- ☐ Compliance test required after previous source test failure
- ☐ Start-up test
- ☐ Other, ex: trial testing for permit changes, engineering studies
  Please explain _____
- ☐ Revised report with corrections noted
  Revision number _____

Preliminary test results:

- ☑ In compliance
- ☐ Not in compliance
- ☐ N/A
  Please explain_____

From:	Gloria Espena
To:	jperreira@blueskyenvironmental.com; Marco Hernandez
Cc:	Sourcetest; Bearden, Dave; "GUY WORTHINGTON"; arichardson@blueskyenvironmental.com
Subject:	NST-5843: Kirby Canyon Recycling and Disposal Facility Source Test - NST #5843
Date:	Tuesday, April 28, 2020 8:31:37 AM

NST-5843 report has been received and will be forwarded to the assigning engineer for review.

Thank you,
Gloria

From: jperreira@blueskyenvironmental.com <jperreira@blueskyenvironmental.com>
Sent: Monday, April 27, 2020 4:24 PM
To: Gloria Espena <GEspena@baaqmd.gov>; Marco Hernandez <MHernandez@baaqmd.gov>
Cc: Sourcetest <Sourcetest@baaqmd.gov>; 'Bearden, Dave' <DBearden@scsengineers.com>; 'GUY WORTHINGTON' <blueskyenvironmental@yahoo.com>; arichardson@blueskyenvironmental.com
Subject: Kirby Canyon Recycling and Disposal Facility Source Test - NST #5843

Good Afternoon,

Attached please find the Kirby Canyon Recycling and Disposal Facility Source Test Report for your records. Thank you.

Thank you,
Jessica Morris

We want to reassure our valued clients that our first priority is to protect everyone against accidental transmission of COVID-19 virus.

Based on how we perform our work we easily comply with the social distancing recommendations of the CDC. We shall be observant, so that we are not vectors and do not become vectors in our business and personal lives.

Please reach out if you have questions about safety measures we plan to take in these extraordinary circumstances. We will comply with your site-specific requirements.

We appreciate you choosing Blue Sky Environmental, Inc. Should you have any other questions please let us know.

BLUE SKY ENVIRONMENTAL, INC
624 San Gabriel Ave.
Albany, CA 94706
Jessica's Office/Cell: (510) 566-3271
Albany Office: (510) 525-1261
jperreira@blueskyenvironmental.com

Kirby Canyon Recycling and Disposal Facility

BAAQMD Facility # A1812

Annual Compliance Emissions Test Report #20077
Landfill Gas Flare- Source A-12

Located at:
910 Coyote Creek Golf Drive
San Jose, CA 95037

Prepared For:
SCS Engineers
Dave Bearden
3117 Fite Circle Suite 108
Sacramento, CA 95827
(916) 361-1297
dbearden@scsengineers.com

For Submittal To:
Attn: Gloria Espena/Marco Hernandez
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105
gespena@baaqmd.gov/mhernandez@baaqmd.gov
sourcetest@baaqmd.gov

Testing Performed On:
March 4th, 2020

Final Report Submitted On:
April 27th, 2020

Performed and Reported by:
Blue Sky Environmental, Inc.
624 San Gabriel Avenue
Albany, CA 94706
bluesky@blueskyenvironmental.com
Office (510) 525 1261 / Mobile (510) 508-3469

REVIEW AND CERTIFICATION

Team Leader:

The work performed herein was conducted under my supervision, and I certify that: a) the details and results contained within this report are to the best of my knowledge an authentic and accurate representation of the test program; b) that the sampling and analytical procedures and data presented in the report are authentic and accurate: c) that all testing details and conclusions are accurate and valid, and: d) that the production rate and/or heat input rate during the source test are reported accurately.

If this report is submitted for Compliance purposes it should only be reproduced in its entirety. If there are any questions concerning this report, please contact me at (925) 338-4875.

Chuck Arrivas, QSTI
Project Manager

TABLE of CONTENTS

SECTION 1. INTRODUCTION

1.1. Summary

Blue Sky Environmental, Inc was contracted to perform the annual emissions testing on the A-12 Landfill Gas Flare at Kirby Canyon Recycling and Disposal Facility (KCRDF), 910 Coyote Creek Golf Drive, San Jose, California. This report presents the results of the test program. Table 1 summarizes the source test information. Table 2 summarizes the results compared to the emission limits. The flare met all compliance emission criteria.

Table 1. Source Test Information

Test Location:	Kirby Canyon Recycling and Disposal Facility 910 Coyote Creek Golf Drive, San Jose, CA 95037
Source Contact:	Rebecca Azevedo (408) 779-2206
Source Tested:	Enclosed Landfill Gas Flare (A-12)
Source Test Date:	March 4th, 2020
Test Objective:	Determine Compliance with Regulation 8, Rule 34 and Permit to Operate 1812, Condition 1437, Part 10, 11, 12, 13 and Part 20d
Test Performed By:	Blue Sky Environmental, Inc. 624 San Gabriel Ave., Albany, CA 94706 Chuck Arrivas (925) 338-4875 Email: carrivas@blueskyenvironmental.com
Test Parameters:	**Landfill Gas** O_2, N_2, CO_2, THC, CH_4, NMOC, HHV, F-Factor, Sulfur & VOC Species, Volumetric Flow Rate **Flare Emissions** THC, CH_4, NMOC, NOx, CO, O_2, SO_2, Volumetric Flow Rate.

Table 2. Compliance Summary

A Condensate On	**Average Test Result**	**Permit Limit**	**Compliance Status**
NOx, lbs/MMBTU	**0.045**	**0.06**	**In Compliance**
CO, lbs/MMBTU	**0.003**	**0.3**	**In Compliance**
SO_2, ppmvd	**27.4**	**300**	**In Compliance**
NMOC, (ppmvd @ 3% O_2 as CH_4)	**1.0**	**30**	**In Compliance**
CH_4 Removal Efficiency (AB32)	**>99.998%**	**99**	**In Compliance**
B Condensate Off			
NOx, lbs/MMBTU	**0.037**	**0.06**	**In Compliance**
CO, lbs/MMBTU	**0.004**	**0.3**	**In Compliance**
SO_2, ppmvd	**27.2**	**300**	**In Compliance**
NMOC, (ppmvd @ 3% O_2 as CH_4)	**1.0**	**30**	**In Compliance**
CH_4 Removal Efficiency (AB32)	**>99.998%**	**99**	**In Compliance**

SECTION 2. SOURCE TEST PROGRAM

2.1. Overview

The annual source test was conducted to demonstrate that the A-12 landfill gas flare is operating in accordance with the Bay Area Air Quality Management District (BAAQMD) Permit to Operate #1812 and Regulation 8 Rule 34. Testing was also performed to demonstrate compliance with the California Landfill Methane Gas Rule under AB32 for Flare performance. This Flare was previously tested on March 13th, 2019.

2.2. Pollutants Tested

The following EPA and ASTM sampling and analytical methods were used:

EPA Method 1	Sample and Traverse Point Determination
EPA Method 3A	O2 and CO2, Stack Gas Molecular Weight
EPA Method 4 part 16	Moisture
EPA 7E	NOX Emissions & NO2 Converter Efficiency
EPA 10	CO Emissions
EPA Method 18	CH_4 Emissions
EPA Method 19	Calculation of Stack Gas Flow Rate
EPA 25A	THC Emissions
EPA 25C	LFG Gas analysis for NMOC by GC
EPA TO-15	AP-42 Table 2.4-1 VOC Species
ASTM D-1945/3588	LFG Gas analysis for BTU and F-Factor
ASTM D-5504	SO_2, Sulfur Species, H_2S and TRS

2.3. Test Date(s)

Testing was conducted on March 4th, 2020.

2.4. Sampling and Observing Personnel

Chuck Arrivas and Kurt Mussatti representing Blue Sky Environmental, Inc, performed testing.

Dave Bearden of SCS Engineers was present to operate and oversee the Flare operation and assist in coordinating testing and the collection of process data during testing.

The BAAQMD was notified of the test in a plan submitted by SCS Engineers on February 12th, 2020. A Source Test Protocol acknowledgement was requested and received by Blue Sky Environmental (NST # 5843) on February 13th, 2020 but no agency observers were present to witness the testing. Copies of the source test protocol and BAAQMD NST acknowledgement can be found in Appendix I.

2.5. Source/Process Description

The enclosed landfill gas flare consists of a 124 million British Thermal Units per hour (MMBtu/hr) multiple nozzle burner manufactured by LFG Specialties, Inc. The flare shell is approximately 50 feet high and approximately 12.5 feet in diameter. The inside diameter is 11 feet 6 inches (138").

The flare setpoint was established at 1,605°F. Methane quality is typically about 46 - 52%, however it was closer to 46% during this test. Landfill gas condensate is collected and periodically injected into the flare via one vertical nozzle positioned near the burner.

2.6. Source Operating Conditions

The flare operating temperature and the landfill gas flow rate records are recorded on the Yokogawa and the data is contained in Appendix-F.

The flare was operated at an average temperature of 1,599°F. The average landfill gas flow rate was 2,243 standard cubic feet per minute (scfm) for Condensate On to 2,306 scfm for Condensate Off.

The condensate injection rates are recorded on the Yokogawa at approximately 1.54 gallons per minute.

The landfill gas methane content for Condensate On averaged 46.4% and Condensate Off averaged 46.8%. O_2 ranged from 1.6% to 1.9%.

SECTION 3. SAMPLING AND ANALYSIS PROCEDURES

3.1. Port location

The A-12 Flare sampling was conducted in the 11.5 feet (138") inside diameter (ID) stack, via ports approximately 45 feet above grade, accessed by a 60 foot boom-lift. Two of the four, 4-inch flange ports are available approximately 4 stack diameters downstream from the burners and approximately 1 stack diameter upstream from the exit.

3.2. Point description/Labeling – ports/stack

Blue Sky Environmental conducted two perpendicular 8-point traverses per EPA Method 1 and found O_2 stratification about 10%, therefore subsequent CEM sampling was conducted with 8-point traverses per port to achieve the required (EPA Method 1) representative sampling of the emissions. The traverse points for the 138 inch diameter exhaust stack with 8 inch ports were 12.4, 22.5, 34.8, 52.6, 101.4, 119.2, 131.5, and 141.6 inches.

3.3. Sample train description

Sampling system diagrams are included in the Appendix H. Additional descriptive information is included in the following section.

3.4. Sampling procedure description

Three, 30-minute minimum test runs were performed with the Condensate Injection On, and repeated with the Condensate Injection Off.

3.5. Instrumentation and Analytical Procedures

Sampling & Traverse Points Selection by EPA Method 1. This method is used to determine the duct or stack area and appropriate traverse points that represent equal areas of the duct for sampling and velocity measurements.

Stack Gas Molecular Weight by EPA Method 3/3A. This method is used to determine the molecular weight of the stack gas. Measurements of gas constituents $\%O_2$ and $\%CO_2$ were obtained from the CEMS system.

Stack Gas Moisture by EPA Method 4-16.4 is an acceptable alternative to EPA Method 4 for the determination of moisture using F-factors. In this case the mole fraction of the moisture in the ambient air is calculated using equations in EPA Method 4-16.4 from 1) the measured ambient relative humidity, ambient temperature and barometric pressure, 2) the mole fraction from free water in the fuel, calculated from the moisture % in the fuel which is determined by the analytical lab to be the balance after all the major gaseous components have been summed, and 3) the mole fraction from the hydrogen in the fuel. To determine the moisture in the fuel, the raw fuel analysis before normalization to 100% is referenced.

EPA Method 19 (gas) was used to determine stack gas volumetric flow rates using oxygen based F-factors. F-factors are ratios of combustion gas volumes generated from heat input. The heating value of the fuel in Btu per cubic foot is determined from analysis of the fuel gas samples using ASTM D1946/3588 gas chromatography analytical procedures. Total fuel consumption was measured by CARB Method 1, 2, 3 and 4. The total cubic feet per hour of fuel multiplied times the Btu/cf provides million Btu per hour (MMBtu) heat input. The heat input in MMBtu/hr is multiplied by the F-factor (DSCF/MMBtu) and adjusted for the measured oxygen content of the source to determine volumetric flow rate. The flow rates were used to determine emission rates.

EPA Method 3A (O_2, CO_2), 10 (CO) and 7E (NO_X) are continuous monitoring techniques using instrumental analyzers. Sampling is performed by extracting exhaust flue gas from the stack, conditioning the sample and analyzing it by continuous monitoring gas analyzers in a CEM test van. The sampling system consists of a stainless steel sample probe, Teflon sample line, glass-fiber particulate filter, glass moisture-knockout condensers in ice, followed by thermoelectric coolers (optional), Teflon sample transfer tubing, diaphragm pump and a stainless steel/Teflon manifold and flow control/delivery system. A constant sample and calibration gas supply pressure of 5 PSI was provided to each analyzer to avoid pressure variable response differences. The entire sampling system was leak checked prior to and at the end of the sampling program.

The sampling and analytical system (for EPA Methods) was checked for linearity with zero, mid (40-60%) and high span (80-100%) calibrations, and is checked for system bias at the beginning and end of each run. System bias is determined by introducing calibration gas to the probe and pulling it through the entire sampling system. Individual test run calibrations usually use the calibration gas that most closely matches the stack gas effluent. Along with the Sampling System Bias, the Zero and Calibration Drift values were determined for each test. Methods 3A, 7E and 10 all defer to EPA Method 7E for the calculations of effluent concentration, Span, Calibration Gas, Analyzer Calibration Error (Linearity), Sampling System Bias, Zero Drift, Calibration Drift and Response Time. In addition, the NOx analyzer NO_2 to NO conversion efficiency check defers to EPA Method 20 section 5.6 for the criteria and procedure.

All calibration gases are EPA Protocol #1. The analyzer data recording system consists of a Honeywell DPR3000 strip chart recorder supported by a Data Acquisition System (DAS).

EPA Method 25C/18: Sampling for Total Hydrocarbons, Methane and Non-Methane Hydrocarbons. EPA Method 25A/18 (FID/GC Method) employs a heated TECO 55C FID with GC column, heated Teflon sample gas transfer lines to provide a continuous sample to the heated FID/GC Hydrocarbon Analyzer. Heated lines were used if necessary to avoid moisture or hydrocarbon condensation. Methane is determined by the calibrated GC method in the TECO 55C NMHC/CH_4/THC Analyzer. Calibration gases are selected to fall within 25-35%, 45-55% and 80-90% of Range for Methane, Total Hydrocarbon and Non-Methane Hydrocarbons.

Calibrations are performed through the probe and entire sample system. The system linearity check was performed prior to testing and during testing and calibration drift checks were performed after every run. All data was corrected according to EPA Method 25A. In some cases where the drift exceeded 3%, the system was re-calibrated and the average was calculated with and without the recalibration values. Both sets of values are reported in the calculation section of the appendices, but only the highest values of the two methods were used in the Tabulated results.

ASTM D1945/3588 gas chromotography analytical procedures. Total fuel consumption for each source is monitored by a dedicated fuel gas meter. The total cubic feet per hour of fuel multiplied times the Btu/cf provides million Btu per hour (MMBtu) heat input. The heat input in MMBtu/hr is multiplied by the F-factor (DSCF/MMBtu) and adjusted for the measured oxygen content of the source to determine volumetric flow rate. The flow rates were used to determine emission rates.

ASTM Method 5504: Sampling for H_2S and Sulfur species in fuels. Sampling consisted of pre-evacuated 6-Liter SILCO SUMMA canisters with pre-set flow controllers set to integrate over the desired test duration. The SILCO canisters have a silanized (glass) lining that permits longer holding times (up to 72 hours) for reactive sulfur compounds. The flow controller, valve and canister are designed so that no sample contacts stainless steel components that can remove hydrogen sulfide. The flow controllers consisted of capillary orifice tubing designed to sample for pre-set durations such as 1-hr, 2-hrs and 4-hrs. The samples were analyzed for 20 sulfur compounds by ASTM Method D-5504 GC/SCD (gas chromatography/sulfur chemiluminescent detector).

TO-15 is the analytical strategy for Compendium Method TO-15 involves using a high resolution gas chromatograph (GC) coupled to a mass spectrometer. Mass spectra for individual peaks in the total ion chromatogram are examined with respect to the fragmentation pattern of ions corresponding to various VOCs including the intensity of primary and secondary ions. The fragmentation pattern is compared with stored spectra taken under similar conditions, in order to identify the compound. For any given compound, the intensity of the primary fragment is compared with the system response to the primary fragment for known amounts of the compound. This establishes the compound concentration that exists in the sample.

System Performance Criteria	
Instrument Linearity	≤2% Full Scale
Instrument Bias	≤5% Full Scale
System Response Time	≤ 2 minutes
NOx Converter Efficiency (EPA 7E)	≥ 90%
Instrument Zero Drift	≤ 3% Full Scale
Instrument Span Drift	≤ 3% Full Scale

Concurrent with the exhaust sampling, Blue Sky collected a total of six samples in SILCO SUMMA canisters of the LFG for analysis. The samples were integrated into 10L Tedlar bags then immediately transferred into the SILCO canisters. This approach reduces the risk of plugging up a SUMMA canister orifice, and maintains the steady integration rate of the sample that can be occur when the SUMMA canister vacuum drops below approximately 5 " Hg. The samples were collected and analyzed for EPA AP-42 Table 2.4-1 Compounds, using TO-15, ASTM 1945 and 25C. The samples were also analyzed for ASTM 5504 Sulfur Species (incl. H_2S and TRS).

The inlet volumetric flow rate was continuously measured and recorded by the LFG Flowmeter.

3.6. Instrumentation and Analytical procedures

The following continuous emissions analyzers were used:

Instrumentation	Parameter	Principle
TECO 42i	NO_x	Chemiluminescence
TECO 48C	CO	GFC/IR
Ratfisch RS-55	THC	FID
Fuji ZRH	CO_2	IR
Servomex 1440	O_2	Paramagnetic

All calibration gases are EPA Protocol #1. The analyzer data recording system consists of DPR or Omega 3 channel strip chart recorders, which can be supported by a Data Acquisition System (DAS).

The data logger produces time stamped data in an excel format that is then used to report the averages and calibration values.

3.7. Comments: Limitations and Data Qualifications

The measured emissions meet the Permit required limits, no deviations from the protocol or abnormalities during the test were observed.

Blue Sky Environmental has reviewed this report for accuracy, and concluded that the test procedures followed historically accepted standards of practice and are accurately described and documented. The review included the following items:

Review of the general text
Review of calculations
Review of CEMS data
Review of supporting documentation

The services described in this report were performed in a manner consistent with the generally accepted professional testing principles and practices. No other warranty, expressed or implied, is made. These services were performed in a manner consistent with our agreement with our client. The report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions contained in this report pertain to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and operating parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations, subsequent to this, and do not warranty the accuracy of information supplied by others.

SECTION 4. APPENDICES

A.	**Tabulated Results**
B.	**Calculations**
C.	**Laboratory Reports**
D.	**Field Data Sheets**
E.	**Strip Charts**
F.	**Process Information**
G.	**Calibration Certifications and Quality Assurance Records**
H.	**Sample Train Configuration and Stack Diagrams**
I.	**Related Correspondence (Source Test Plan and Related Emails)**
J.	**Permit to Operate**
K.	**Flare Flow Meter Calibration Document**

A
Tabulated Results

TABLE #1

Kirby Canyon Recycling & Disposal Facility
Flare A-12
1,599°F
Condensate On

RUN	1	2	3	AVERAGE	LIMITS
Test Date	3/4/20	3/4/20	3/4/20		
Test Time	908-0951	1006-1047	1102-1143		
Standard Temp., °F	70	70	70		
Flare Temperature, °F Average	1,600	1,599	1,599	1,599	
Condensate Injection, gpm	1.57	1.54	1.52	1.54	
Fuel Flow Rate, SCFM	2,235	2,240	2,253	2,243	
Fuel Heat Input, MMBTU/Hr	64.9	66.9	67.5	66.5	
Exhaust Flow Rate, DSCFM (Method 19)	23,303	23,052	23,434	23,263	
Oxygen, O_2, %	12.02	11.86	11.93	11.94	
Carbon Dioxide, CO_2, %	7.91	8.24	8.19	8.11	
Water Vapor, H_2O, %	5.0	4.9	4.8	4.9	
NO, ppm	17.7	18.7	18.0	18.1	
NO_2, ppm	<1.0	<1.0	<1.0	<1.0	
NO_2/NO	<0.06	<0.05	<0.06	<0.06	
NOx, ppm	17.8	18.6	18.2	18.2	
NOx, ppm @ 15% O_2	11.8	12.1	11.9	12.0	
NOx, ppm @ 15% O_2	11.8	12.1	11.9	12.0	
NOx, lbs/hr	2.96	3.06	3.04	3.02	
NOx, lbs/MMBTU	**0.046**	**0.046**	**0.045**	**0.045**	**0.06**
CO, ppm	3.4	1.5	1.7	2.2	
CO, ppm @ 15% O_2	2.2	1.0	1.1	1.4	
CO, lbs/hr	0.34	0.15	0.17	0.22	
CO, lbs/MMBTU	**0.005**	**0.002**	**0.003**	**0.003**	**0.30**
TRS as H_2S, ppm in Fuel	235	307	311	284	
SO_2, ppm (Calculated)	**22.5**	**29.8**	**29.9**	**27.4**	**300**
THC, ppm (25A) wet	1.65	<1.0	<1.0	<1.2	
THC, ppm dry	1.73	<1.05	<1.05	<1.28	
THC, lbs/hr as CH_4	0.10	<0.060	<0.061	<0.074	
CH_4, ppm (M18)	0.7	1.5	1.1	1.1	
CH_4, lbs/hr	0.040	0.086	0.064	0.063	
TNMHC, ppm as CH_4 (M18)	0.5	0.5	0.5	0.5	
TNMHC, lbs/hr as CH_4	0.029	0.029	0.029	0.029	
TNMHC, ppm as Hexane (C_6H_{14}) @ 3% O_2	0.17	0.17	0.17	0.17	
TNMHC, ppm @ 3% O_2 as CH_4	**1.0**	**1.0**	**1.0**	**1.0**	**30**
INLET TNMOC (Method 25C)	1,136	1,046	1,223	1,135	**or**
INLET NMOC lbs/hr as CH_4	6.3	5.8	6.8	6.3	
NMOC Removal Efficiency	**99.54%**	**99.51%**	**99.57%**	**99.54%**	**98**
INLET CH_4, ppm	462,000	465,000	466,000	464,333	
INLET CH_4 lbs/hr	2,563.3	2,585.7	2,606.3	2,585	
CH_4 Removal Efficiency	**>99.998%**	**>99.997%**	**>99.998%**	**>99.998%**	**99**
INLET THC (TOC) ppm as CH_4	463,136	466,046	467,223	465,468	
INLET THC (TOC) lbs/hr as CH_4	2,570	2,591	2,613	2,591	
THC (TOC) Removal Efficiency	99.996%	99.998%	99.998%	99.997%	

< Value = 2% of Analyzer Range

WHERE,

ppm = Parts Per Million Concentration
Lbs/hr = Pound Per Hour Emission Rate
Tstd. = Standard Temp. (°R = °F+460)
MW = Molecular Weight
DSCFM = Dry Standard Cubic Feet Per Minute
NOx = Oxides of Nitrogen as NO_2 (MW = 46)
CO = Carbon Monoxide (MW = 28)
TOC = THC = Total Organic Carbon as Methane including CH_4 (MW = 16)
THC = Total Hydrocarbons as Methane (MW = 16)
NMOC = Total Non-Methane Organic Carbon as Methane (MW = 16)
SO_2 = Sulfur Dioxide as SO_2 (MW = 64.1)

CALCULATIONS,

PPM @ 15% O_2 = ppm * 5.9 / (20.9 - %O_2)
PPM @ 3% O_2 = ppm * 17.9 / (20.9 - %O_2)
Lbs/hr = ppm x 8.223 E-05 x DSCFM x MW / Tstd. °R
Lbs/day = Lbs/hr * 24
Removal Efficiency = (inlet lbs/hr- outlet lbs/hr) / inlet lbs/hr
SO_2 emission ppm = H2S in fuel * Fuel Flow/Stack Gas Flow

TABLE #2

Kirby Canyon Recycling & Disposal Facility

Landfill Gas Characterization

RUN			R1-LFG-CON	R2-LFG-CON	R3-LFG-CON	AVERAGE
Test Date			3/4/20	3/4/20	3/4/20	-
Acrylonitrile		ppb	<48.7	<48.0	<48.0	<48.2
Benzene		ppb	375	437	437	416
Benzyl Chloride	Chloromethylbenzene	ppb	<24.3	<24.0	<24.0	<24.1
Carbon Tetrachloride		ppb	<24.3	<24.0	<24.0	<24.1
Chlorobenzene		ppb	<24.3	<24.0	72.6	<40.3
Chloroethane		ppb	107	121	114	114
Chloroform		ppb	<24.3	<24.0	<24.0	<24.1
1,1 Dichloroethane	Ethylidene Dichloride	ppb	<24.3	<24.0	<24.0	<24.1
1,1 Dichloroethene	Vinylidene Chloride	ppb	<24.3	<24.0	<24.0	<24.1
1,2 Dichloroethane	Ethylene Dichloride	ppb	98.0	113	110	107
1,4 Dichlorobenzene		ppb	<24.3	<24.0	52.7	<33.7
Ethylbenzene		ppb	732	1,260	1,290	1,094
Ethlyene Dibromide	1,2 Dibromoethane	ppb	<24.3	<24.0	<24.0	<24.1
Fluorotrichloromethane	Trichlorofluoromethane	ppb	39.5	41.5	39.9	40.3
Hexane		ppb	236	209	200	215
Isopropyl Alcohol	IPA	ppb	10,800	12,200	13,300	12,100
Methyl Alcohol	Methanol	ppb	16,700	18,900	21,300	18,967
Methyl Ethyl Ketone (MEK)	2-Butanone	ppb	10,900	12,100	12,700	11,900
Methylene Chloride		ppb	75.0	81.8	77.4	78.1
Methyl isobutyl ketone (MiBK)		ppb	434	601	627	554
Methyl tert Butyl Ether	MTBE	ppb	27.8	<24.0	<24.0	<25.3
Perchloroethylene	Tetrachloroethylene	ppb	27.4	45.0	47.2	39.9
Styrene		ppb	48.2	122	141	103.7
Toluene		ppb	3,160	4,430	4,520	4,037
1,1,1 Trichlororethane		ppb	<24.3	<24.0	<24.0	<24.1
1,1,2,2 Tetrachloroethane		ppb	<24.3	<24.0	<24.0	<24.1
Trichloroethylene	Trichloroethene	ppb	35.6	44.3	47.2	42.4
Vinyl Chloride		ppb	<24.3	<24.0	28.3	25.5
Xylenes		ppb	1,505	2,960	3,206	2,557
Carbon Disulfide		ppm	0.115	<0.096	<0.096	<0.102
Carbonyl Sulfide		ppm	<0.097	<0.096	<0.096	<0.096
Dimethyl Sulfide		ppm	2.07	2.06	1.97	2.03
Ethyl Mercaptan		ppm	0.103	0.106	0.121	0.110
Methyl Mercaptan		ppm	2.29	2.91	3.10	2.77
Hydrogen Sulfide		ppm	228	299	302	276
TRS as H2S		ppm	235	307	311	284

TABLE #3

Kirby Canyon Recycling & Disposal Facility
Flare A-12
1,599°F
Condensate Off

RUN	1	2	3	AVERAGE	LIMITS
Test Date	3/4/20	3/4/20	3/4/20		
Test Time	1214-1255	1312-1353	1410-1453		
Standard Temp., °F	70	70	70		
Flare Temperature, °F Average	1,599	1,599	1,599	1,599	
Condensate Injection, gpm	0.00	0.00	0.00	0.00	
Fuel Flow Rate, SCFM	2,286	2,308	2,325	2,306	
Fuel Heat Input, MMBTU/Hr	66.4	69.0	69.7	68.4	
Exhaust Flow Rate, DSCFM (Method 19)	23,868	23,632	24,144	23,881	
Oxygen, O_2, %	11.92	11.75	11.87	11.85	
Carbon Dioxide, CO_2, %	8.21	8.32	8.28	8.27	
Water Vapor, H_2O, %	4.8	4.8	4.7	4.8	
NO, ppm	14.7	15.3	14.8	14.9	
NO_2, ppm	<1.0	<1.0	<1.0	<1.0	
NO_2/NO	<0.07	<0.07	<0.07	<0.07	
NOx, ppm	14.5	15.1	14.7	14.8	
NOx, ppm @ 15% O_2	9.5	9.8	9.6	9.6	
NOx, ppm @ 15% O_2	9.5	9.8	9.6	9.6	
NOx, lbs/hr	2.47	2.55	2.53	2.52	
NOx, lbs/MMBTU	**0.037**	**0.037**	**0.036**	**0.037**	**0.06**
CO, ppm	3.0	2.7	2.4	2.7	
CO, ppm @ 15% O_2	2.0	1.8	1.6	1.8	
CO, lbs/hr	0.31	0.28	0.25	0.28	
CO, lbs/MMBTU	**0.005**	**0.004**	**0.004**	**0.004**	**0.30**
TRS as H_2S, ppm in Fuel	198	361	285	281	
SO_2, ppm	**19.0**	**35.3**	**27.4**	**27.2**	**300**
THC, ppm (25A) wet	1.97	3.81	<1.0	<2.3	
THC, ppm dry	2.07	4.00	<1.05	<2.37	
THC, lbs/hr as CH_4	0.12	0.23	<0.063	<0.140	
CH_4, ppm (M18)	1.0	1.0	0.6	0.9	
CH_4, lbs/hr	0.059	0.059	0.036	0.051	
TNMHC, ppm as CH_4 (M18)	0.50	0.50	0.50	0.50	
TNMHC, lbs/hr as CH_4	0.03	0.03	0.03	0.03	
TNMHC, ppm as Hexane (C_6H_{14}) @ 3% O_2	0.2	0.2	0.2	0.2	
TNMHC, ppm @ 3% O_2 as CH_4	**1.0**	**1.0**	**1.0**	**1.0**	**30**
INLET TNMOC (Method 25C)	1,308	1,393	1,395	1,365	**or**
INLET NMOC lbs/hr as CH_4	7.4	8.0	8.1	7.8	
NMOC Removal Efficiency	**99.60%**	**99.63%**	**99.63%**	**99.62%**	**98**
INLET CH_4, ppm	468,000	469,000	468,000	468,333	
INLET CH_4 lbs/hr	2,655.8	2,687.1	2,701.1	2,681	
CH_4 Removal Efficiency	**>99.998%**	**>99.998%**	**>99.999%**	**>99.998%**	**99**
INLET THC (TOC) ppm as CH_4	469,308	470,393	469,395	469,699	
INLET THC (TOC) lbs/hr as CH_4	2,663	2,695	2,709	2,689	
THC (TOC) Removal Efficiency	99.995%	99.991%	99.998%	99.995%	

< Value = 2% of Analyzer Range

WHERE,

ppm = Parts Per Million Concentration
Lbs/hr = Pound Per Hour Emission Rate
Tstd. = Standard Temp. (°R = °F+460)
MW = Molecular Weight
DSCFM = Dry Standard Cubic Feet Per Minute
NOx = Oxides of Nitrogen as NO_2 (MW = 46)
CO = Carbon Monoxide (MW = 28)
TOC = THC = Total Organic Carbon as Methane including CH_4 (MW = 16)
THC = Total Hydrocarbons as Methane (MW = 16)
NMOC = Total Non-Methane Organic Carbon as Methane (MW = 16)
SO_2 = Sulfur Dioxide as SO_2 (MW = 64.1)

CALCULATIONS,

PPM @ 15% O_2 = ppm * 5.9 / (20.9 - %O_2)
PPM @ 3% O_2 = ppm * 17.9 / (20.9 - %O_2)
Lbs/hr = ppm x 8.223 E-05 x DSCFM x MW / Tstd. °R
Lbs/day = Lbs/hr * 24
Removal Efficiency = (inlet lbs/hr- outlet lbs/hr) / inlet lbs/hr
SO_2 emission ppm = H2S in fuel * Fuel Flow/Stack Gas Flow

TABLE #4

Kirby Canyon Recycling & Disposal Facility

Landfill Gas Characterization

RUN			R1-LFG-COFF	R2-LFG-COFF	R3-LFG-COFF	AVERAGE
Test Date			3/4/20	3/4/20	3/4/20	-
Acrylonitrile		ppb	<48.2	<49.5	<44.9	<47.5
Benzene		ppb	437	428	414	426
Benzyl Chloride	Chloromethylbenzene	ppb	<24.1	<24.7	<22.5	<23.8
Carbon Tetrachloride		ppb	<24.1	<24.7	<22.5	<23.8
Chlorobenzene		ppb	85.6	81.1	80.5	82.4
Chloroethane		ppb	114	123	118	118
Chloroform		ppb	<24.1	<24.7	<22.5	<23.8
1,1 Dichloroethane	Ethylidene Dichloride	ppb	<24.1	<24.7	<22.5	<23.8
1,1 Dichloroethene	Vinylidene Chloride	ppb	<24.1	<24.7	<22.5	<23.8
1,2 Dichloroethane	Ethylene Dichloride	ppb	111	109	106	109
1,4 Dichlorobenzene		ppb	69.4	75.6	75.6	73.5
Ethylbenzene		ppb	1,370	1,380	1,320	1,357
Ethlyene Dibromide	1,2 Dibromoethane	ppb	<24.1	<24.7	<22.5	<23.8
Fluorotrichloromethane	Trichlorofluoromethane	ppb	39.9	39.2	39.7	39.6
Hexane		ppb	208	209	203	207
Isopropyl Alcohol	IPA	ppb	14,000	13,300	13,500	13,600
Methyl Alcohol	Methanol	ppb	21,900	21,600	21,900	21,800
Methyl Ethyl Ketone (MEK)	2-Butanone	ppb	13,200	12,800	13,000	13,000
Methylene Chloride		ppb	80.4	81.3	79.5	80.4
Methyl isobutyl ketone (MiBK)			635	654	604	631
Methyl tert Butyl Ether	MTBE	ppb	<24.1	<24.7	<22.5	23.77
Perchloroethylene	Tetrachloroethylene	ppb	50.2	50.6	50.2	50.3
Styrene		ppb	155	155	158	156
Toluene		ppb	4,660	4,560	4,620	4,613
1,1,1 Trichlororethane		ppb	<24.1	<24.7	<22.5	<23.8
1,1,2,2 Tetrachloroethane		ppb	<24.1	<24.7	<22.5	<23.8
Trichloroethylene	Trichloroethene	ppb	44.5	43.2	44.3	44.0
Vinyl Chloride		ppb	27.9	28.7	29.1	28.6
Xylenes		ppb	3,470	3,110	3,356	3,312
Carbon Disulfide		ppm	0.135	0.123	0.120	0.126
Carbonyl Sulfide		ppm	<0.096	<0.099	<0.090	<0.095
Dimethyl Sulfide		ppm	2.07	2.08	2.12	2.09
Ethyl Mercaptan		ppm	0.122	0.152	0.140	0.138
Methyl Mercaptan		ppm	2.80	3.32	3.08	3.07
Hydrogen Sulfide		ppm	190	352	276	273
TRS as H2S		ppm	198	361	285	281

APPENDIX P

A-12 FLARE 12-MONTH SULFUR DIOXIDE EMISSIONS LOG

12-MONTH CONSECUTIVE SOx Emission Rate (Tons/Year) :2020
Kirby Canyon Recycling & Disposal Facility
Plant #1812, Condition 1437 Item 20

Month	SO_2 (Tons/Month)	SO_2 (12- Months Tons)
January-20	3.20	36.41
February-20	3.18	36.65
March-20	3.12	36.70
April-20	3.05	36.48
May-20	2.822	36.09
June-20	2.839	35.43
July-20	2.92	35.20
August-20	2.82	35.24
September-20	2.82	35.24
October-20	2.77	35.26
November-20	2.72	35.24
December-20	2.94	35.20

Pursuant to Title V Permit A1812, Condition Number 25301 Part 20, the Sulfur dioxide emissions from Flare A-12 shall not exceed 300 ppmv of SO2 and sulfur dioxide emissions from A-12 shall not exceed 94.9 tons per year.

To demonstrate compliance with above limits, the site will conduct annual testing of total TRS at the landfill gas main header. The most recent TRS value will be used to calculate the monthly SO2 emissions in tons.

Appendix P includes table with SO_2 12-month tons during the reporting period. The sulfur dioxide emissions from A-12 did not exceed 94.9 tons per year.