



Tri-Cities Recycling and Recovery Facility  
7010 Auto Mall Parkway, Fremont, CA 94538

May 28, 2021

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SUBJECT: Combined Title V Semi-Annual and Partial 8-34 Annual Report  
40 CFR 63 Subpart AAAA Semi-Annual Report  
Tri-Cities Recycling and Disposal Facility  
7010 Auto Mall Parkway, Fremont, CA 94538  
Plant Number A2246

TV Tracking #: 236

1.  RECEIVED IN ENFORCEMENT: 05/28/2021

Dear Sir or Madam:

The Tri-Cities Recycling and Disposal Facility (TCRDF) is pleased to submit the attached Combined Title V Semi-Annual and Partial 8-34 Annual Report for the period of November 1, 2020 to April 30, 2021 to the Bay Area Air Quality Management District (BAAQMD) and the United States Environmental Protection Agency (USEPA), Region IX. As required by 40 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 8366, Part 19 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,

Patrick Madej  
District Manager

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 Tri-Cities Recycling and Disposal Facility  
7010 Auto Mall Parkway  
Fremont, California 94538  
Plant Number A2246  
November 1, 2020 to April 30, 2021**

Prepared for  
Tri-Cities Recycling and Disposal Facility  
7010 Auto Mall Parkway  
Fremont, California 94538

For Submittal to:  
The Bay Area Air Quality Management District  
375 Beale Street, Suite 600  
San Francisco, California 94105

and

US EPA, Region IX  
75 Hawthorne Street  
San Francisco, California 94105

Prepared by



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## CONTENTS

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<b>1</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.1	Purpose.....	1
1.2	Record Keeping and Reporting.....	1
1.3	Report Preparation.....	1
<b>2</b>	<b>SEMI-ANNUAL MONITORING REPORT.....</b>	<b>2</b>
2.1	Collection System Operation (BAAQMD 8-34-501.1 & §60.757(f)(4)).....	3
2.2	Emission Control Device Downtime (BAAQMD 8-34-501.2 & §60.757(f)(3)) .....	4
2.3	Temperature Monitoring Results (BAAQMD 8-34-501.3, 8-34-507, & §60.757(f)(1)) .....	4
2.4	Monthly Cover Integrity Monitoring (BAAQMD 8-34-501.4) .....	5
2.5	Less Than Continuous Operation (BAAQMD 8-34-501.5) .....	5
2.6	Surface Emissions Monitoring (BAAQMD 8-34-501.6, 8-34-506, & §60.757(f)(5)) .....	5
2.7	Component Leak Testing (BAAQMD 8-34-501.6 & 8-34-503) .....	6
2.8	Waste Acceptance Records (BAAQMD 8-34-501.7).....	6
2.9	Non-Degradable Waste Acceptance Records (BAAQMD 8-34-501.8).....	6
2.10	Wellhead Monitoring Data (BAAQMD 8-34-501.4 & 8-34-505) .....	6
2.11	Gas Flow Monitoring Results (BAAQMD 8-34-501.10, 8-34-508, & §60.757(f)(1)) .....	7
2.12	Compliance with §60.757(f)(6) .....	7
2.13	Compliance with Title V Permit Condition 8366, Part 12.....	8
2.14	Compliance with Title V Permit Condition 2593 for S-24.....	8
<b>3</b>	<b>PERFORMANCE TEST REPORT.....</b>	<b>9</b>
3.1	Flare Compliance Demonstration Test Results (BAAQMD 8-34-412).....	9
3.2	Compliance with §60.757(g)(1) .....	10
3.3	Compliance with §60.757(g)(2) .....	10
3.4	Compliance with §60.757(g)(3) .....	11
3.5	Compliance with §60.757(g)(4) .....	11
3.6	Compliance with §60.757(g)(5) .....	11
3.7	Compliance with §60.757(g)(6) .....	12
<b>4</b>	<b>STARTUP, SHUTDOWN, MALFUNCTION (SSM) REPORT.....</b>	<b>13</b>

## **LIST OF TABLES**

Table 2-1	Semi-Annual Report Requirements
Table 2-2	Collection System Downtime
Table 2-3	Flare A-3 Downtime
Table 2-4	Applicable 3-hr Temperature Limits
Table 2-5	Wellfield Deviation Summary
Table 2-6	LFG Input to A-3 Flare
Table 3-1	Performance Test Requirements
Table 3-2	A-3 Flare Compliance Demonstration Test Results

## **LIST OF APPENDICES**

Appendix A	Site Map
Appendix B	Flare SSM Log
Appendix C	Wellfield SSM Log
Appendix D	Flare Temperature and Flow Deviation Report
Appendix E	Cover Integrity Reports
Appendix F	Surface Emissions/Component Leak Check Monitoring Reports
Appendix G	Wellfield Monitoring Logs
Appendix H	Wellfield Deviation Log
Appendix I	Monthly Landfill Gas Flow Rates
Appendix J	Structure Monitoring Reports
Appendix K	H <sub>2</sub> S Monitoring
Appendix L	Source Test Report Summary
Appendix M	Correspondence

# **1 INTRODUCTION**

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## **1.1 PURPOSE**

This document is a Title V Combined Semi-Annual and Partial 8-34 Annual Report for the Tri-Cities Recycling and Disposal Facility (TCRDF), a Waste Management of Alameda County, Inc. (WMAC) facility, pursuant to Title V Permit Condition Number 8366, Part 19. This Combined Report satisfies the requirements of Bay Area Air Quality Management District's (BAAQMD) Regulation 8, Rule 34, Section 411 and Title 40 Code of Federal Regulations (CFR) Part 60 Subpart WWW, New Source Performance Standards (NSPS) for municipal solid waste (MSW) landfills (40 CFR §60.757[f]), the TCRDF Title V Standard Condition I.F, and covers compliance activities conducted from November 1, 2020 to April 30, 2021. This Combined Report also includes the semi-annual report of Start-up, Shutdown, 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 report contains the elements required to satisfy both BAAQMD Regulation 8-34-411 and 40 CFR §60.757(f). A summary of the results from the February 4, 2021 Performance Test Report that meets the requirements of both BAAQMD Regulation 8-34-413 and 40 CFR §60.758(g) is included in Appendix L. Section 4 of this Combined Report includes the semi-annual report of the SSM Plan activities, pursuant to NESHAP, 40 CFR Part 63, Subpart AAAA for landfills.

## **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 TCRDF. Records are maintained at this location for a minimum of five years.

## **1.3 REPORT PREPARATION**

This Combined Report has been prepared by WMAC and was based on WMAC's review of information pertaining to the site operations.

## 2 SEMI-ANNUAL MONITORING REPORT

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In accordance with Title V Permit Standard Condition I.F and Condition 8366, Part 19, BAAQMD Regulation 8-34-411, and 40 CFR §60.757(f) in the NSPS, this Report is a Combined Title V Semi-Annual and Partial 8-34 Annual Report that is required to be submitted by TCRDF. 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 November 1, 2020 to April 30, 2021. 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, 8-34-505, 8-34-510	Testing performed to satisfy any of the requirements of this Rule.	Sections 2.4 & 2.10 Appendices E & G
8-34-501.5	Monthly landfill gas flow rates and well concentration readings for facilities subject to 8-34-404.	Sections 2.5 & 2.11 Appendix J
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.	Sections 2.6 & 2.7, Appendix F
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 GCCS 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 G & H

**Table 2-1 Semi-Annual Report Requirements (continued)**

<b>RULE</b>	<b>REQUIREMENT</b>	<b>LOCATION IN REPORT</b>
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, Appendices D & I
8-34-501.11, 8-34-509	For operations subject to Section 8-34-509, records of key emission control system operating parameters.	Section 2.2.2
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 2.12
§60.10 (d)(5)(i)	Startup, Shutdown, 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 dated February 2, 2017 of TCRDF's existing GCCS. No wells were added to or removed from the collection system during the reporting period.

Appendix B includes all collection system downtimes and the reason for the shutdowns. The information contained in Section 2.1.2 and Appendix C 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 gas (LFG) collection system was not shut down for more than five (5) days on any one occasion. Pursuant to BAAQMD Regulation 8-34-113, Limited Exemption, Inspection and Maintenance, the total downtime is summarized below:

**Table 2-2 Collection System Downtime**

<b>PERIOD</b>	<b>DOWNTIME (HOURS)</b>
2020 Calendar Year	16.0
November 1, 2020 – April 30, 2021	22.4
2021 Year to Date	22.4

A Flare SSM Log that lists dates, times, and lengths of shutdowns for the reporting period is included in Appendix B.

### 2.1.2 WELL DISCONNECTION LOG

During the reporting period, zero (0) wellfield SSM events occurred. In addition, zero wells (out of a possible 3) remain disconnected at the end of the reporting period, pursuant to BAAQMD Regulation 8-32-116.2 (Limited Exemption, Well Raising).

A Wellfield SSM Log that lists dates, times, and lengths of disconnections for the reporting period is included in Appendix C.

### 2.2 EMISSION CONTROL DEVICE DOWNTIME (BAAQMD 8-34-501.2 & §60.757(F)(3))

The emission control system consists of the A-3 Enclosed Flare. No bypassing of the control system or emissions of raw LFG occurred. A Flare SSM Log for the A-3 Flare is included in Appendix B. Total downtime is summarized in the following table:

**Table 2-3 Flare A-3 Downtime**

PERIOD	DOWNTIME (HOURS)
2020 Calendar Year	16.0
November 1, 2020 – April 30, 2021	22.4
2021 Year to Date	22.4

#### 2.2.1 LFG BYPASS OPERATIONS (§60.757(f)(2))

Title 40 CFR §60.757(f)(2) is not applicable at the TCRDF because no bypass line is 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)

BAAQMD Regulations 8-34-501.11 and 8-34-509 are not applicable to the A-3 Flare because the A-3 Flare is subject to continuous temperature monitoring as required by BAAQMD Regulation 8-34-507 and §60.757(f)(1).

### 2.3 TEMPERATURE MONITORING RESULTS (BAAQMD 8-34-501.3, 8-34-507, & §60.757(F)(1))

The combustion zone temperature of the flare is monitored with thermocouples and recorded with a Yokogawa paperless chart recorder. There were no continuous recorder device SSM events during the reporting period. As shown in Appendix D, there were no periods of missing temperature data for the flares during the reporting period.

Title V Permit Condition Number 8366 Part 6 states that the minimum combustion zone temperature, averaged over a 3-hour period, shall be equal to the average combustion zone temperature determined during the most recent complying source test minus 50°F,



provided that the minimum combustion zone temperature is not less than 1,450°F. Pursuant to Part 6, the following temperature limits applied during the reporting period:

**Table 2-4 Applicable 3-Hour Temperature Limits**

Test Date	Report Submitted	Average Temperature During Test (°F)	3-hr Minimum Temperature (°F)
2/11/2020	3/16/2020	1,594	1,544
2/4/2021	3/10/2021	1,594	1,544

## **2.4 MONTHLY COVER INTEGRITY MONITORING (BAAQMD 8-34-501.4)**

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

- November 27, 2020
- December 28, 2020
- January 26, 2021
- February 23, 2021
- March 30, 2021
- April 27, 2021

## **2.5 LESS THAN CONTINUOUS OPERATION (BAAQMD 8-34-501.5)**

The TCRDF 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))**

The TCRDF is a closed landfill as defined by 8-34-223. As of the First Quarter 2016 event completed March 1, 2016, the Site has achieved three consecutive quarters with no Surface Emissions Monitoring (SEM) exceedances. Therefore, the TCRDF may now reduce the frequency of SEM events to annually. The 2021 annual SEM occurred during the reporting period on January 12, 2021.

Flame ionization detectors (FID) were used during the SEM event to monitor the landfill surface according to the SEM Map. Any areas suspected of having emission issues by visible observation were also monitored. Prior to all monitoring events, the FID used was zeroed and calibrated using zero air and 500 ppm<sub>v</sub> methane calibration gas.

There were zero (0) locations with exceedances detected during either monitoring event. No corrective actions or follow-up monitoring was required. Copies of the SEM Reports are included in Appendix F.

The next SEM event is due by March 31, 2022. Any exceedance detected during annual monitoring will require the Site to revert to quarterly monitoring.

## **2.7 COMPONENT LEAK TESTING (BAAQMD 8-34-501.6 & 8-34-503)**

Quarterly Component Leak Testing using FIDs, pursuant to 8-34-503, occurred during the reporting period on the following date:

- Fourth Quarter 2020 – October 27, 2020
- First Quarter 2021 – January 12, 2021

No component leaks were discovered during either test event. Quarterly LFG Component Leak Check logs are presented in Appendix F.

## **2.8 WASTE ACCEPTANCE RECORDS (BAAQMD 8-34-501.7)**

The TCRDF is closed and all final closure documentation has been received. No degradable waste was accepted during the reporting period. The total waste in place is 12.78 million tons.

## **2.9 NON-DEGRADABLE WASTE ACCEPTANCE RECORDS (BAAQMD 8-34-501.8)**

TCRDF does not have 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 8-34-505. The wellhead concentration readings for the reporting period are included in Appendix G. 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 (°C) (131°F).
- 8-34-305.4 - The oxygen (O<sub>2</sub>) concentration in each wellhead shall be less than 5 percent by volume.

The wellhead monitoring was performed on the following dates:

- November 3, 2020
- December 21 and 29, 2020
- January 6, 19, and 26, 2021
- February 2 and 9, 2021
- March 2, 9, and 16, 2021
- April 6, 20, and 27, 2021

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

Wellfield deviations from BAAQMD Regulation 8-34-305 during the reporting period are summarized in Table 2-5. The Wellfield Deviation Log is attached in Appendix H.

**Table 2-5 Wellfield Deviation Summary**

Well ID	Exceedance Date	Exceedance Value	Re-monitoring Date	Compliance Date and Reading	Days in Exceedance
No well exceedances during the reporting period.					

% – percent O<sub>2</sub> – oxygen “ w.c. – Inches Water Column

**2.11 GAS FLOW MONITORING RESULTS (BAAQMD 8-34-501.10, 8-34-508, & §60.757(F)(1))**

Flow is measured using a Kurz flow meter installed on March 12, 2015. The LFG flow is displayed and digitally recorded with a General Electric data panel and Yokogawa Digital Recorder, which records flow every two minutes. The flow data readings are saved to a compact flash card. 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 at least every 15 minutes. The flow records for the flare are available for review at the TCRDF. As shown in Appendix D, no flare temperature or flow deviations occurred from November 1, 2020 to April 30, 2021.

Title V Permit Condition Number 8366, Part 11 limits daily heat input to 1,800 Million British thermal units (MMBTU) per day and annual heat input to 657,000 MMBTU. Table 2-6 below is a summary of the total LFG flow for the reporting period of November 1, 2020 to April 30, 2021. Monthly and daily flow rates are presented in Appendix I.

**Table 2-6 LFG Input to A-3 Flare**

Emission Control Device	Average Flow (scfm)	Average CH <sub>4</sub> (%)	Total LFG Volume (scf)	Total CH <sub>4</sub> Volume (scf)	Heat Input (MMBtu)	Max Daily Heat Input (MMBtu)
A-3 Flare	984	47.50	255,536,106	121,398,965	122,977	788

(1) The methane content was determined from the February 11, 2020 (3/16/20-3/9/21) and February 4, 2021 (3/10/21 - current) source tests.

BAAQMD issued Notice of Violation (NOV) #A57024 on 3/10/21 for non-operation of the flare during an unplanned utility power outage on 4/7/2020. The NOV 10-day Response Letter and Title V 10-day report were submitted on March 19, 2021. The Title V 30-day report was submitted on April 2, 2021. Reports presented in Appendix M.

**2.12 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.”*

At the end of the reporting period, the GCCS consisted of thirty-eight (38) vertical LFG collection wells. No wells were added to or removed from the collection system during the reporting period.

### **2.13 COMPLIANCE WITH TITLE V PERMIT CONDITION 8366, PART 12**

Title V Condition Number 8366, Part 12 requires annual monitoring for hydrogen sulfide using a Draeger tube. The 2020 Annual sample concentration was 100 ppm<sub>v</sub> (collected July 15, 2020). Data from the monitoring event is presented in Appendix K.

### **2.14 COMPLIANCE WITH TITLE V PERMIT CONDITION 2593 FOR S-24**

Daily records were maintained and totaled as required by Condition 2593 Part 4. Concrete accepted at S-24 did not exceed 150,000 tons during any consecutive 12-month period. Combined concrete and asphalt accepted and removed from the site did not exceed 2,500 tons in any day.

### 3 PERFORMANCE TEST REPORT

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In accordance with BAAQMD Regulation 8-34-413 and 40 CFR §60.757(g) in the NSPS, a Performance Test Report is required to be submitted for 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 L
§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 J

#### **3.1 FLARE COMPLIANCE DEMONSTRATION TEST RESULTS (BAAQMD 8-34-412)**

The most recent A-3 Flare Annual Compliance Demonstration Test was conducted on February 4, 2021. The Source Test Report was submitted to the BAAQMD on March 10, 2021.

Table 3-3 shows the results of the A-3 2021 Flare Compliance Demonstration Test, averaged from three test runs. A summary of the results from the February 4, 2021 Compliance Demonstration Test in Appendix L.

**Table 3-2 A-3 Flare Compliance Demonstration Test Results**

Condition	Flare Average Results	Applicable Limit	Compliance Status
NO <sub>x</sub> , lbs/MMBTU	0.04	< 0.06	In Compliance
CO, lbs/MMBTU	0.006	< 0.30	In Compliance
NMOC (ppm <sub>v</sub> @ 3% O <sub>2</sub> )	< 4.5	< 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 February 2, 2017 of the LFG collection system 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.”*

In general, the sufficient capacities of the GCCS components are based on establishing, maintaining, and documenting that the surface emissions of non-methane organic compounds (NMOCs) and subsurface LFG migration are controlled within compliance limits. Over the monitoring period covered by this Combined Report, the sufficiency of the GCCS components was based as follows:

- The existing GCCS has historically provided LFG wells and collectors spaced in accordance with standard industry practices. The installed collector density during the reporting period appears to be more than adequate for controlling surface emissions and subsurface LFG migration, based on continuous compliance and operational experience.
- The total capacity of the LFG mover equipment exceeds 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 landfill.

The landfill operator conducts routine monitoring in accordance with NSPS requirements. If the TCRDF GCCS does not meet the measures of performance set forth in the NSPS, the GCCS will be adjusted or modified, as required.

### **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.”*

The Site is now closed; therefore peak generation has already occurred. LFG generation will decline over time. The existing GCCS conveyance piping has sufficient capacity to handle all current and future LFG flow rates based on well vacuum data, LFG generation estimates, and surface emissions monitoring.

Compliance with 40 CFR §60.757(g)(2) is demonstrated by performing SEM. Refer to Section 2.6, Surface Emissions Monitoring for information pertaining to the SEM results.

### **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.”*

No segregated areas or accumulations of asbestos or non-degradable material are documented for the TCRDF 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.”*

No non-productive areas have 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 present gas mover equipment capacity is adequate to move the current LFG flow rate. The current A-3 Flare has a capacity of 2,500 scfm at 50 percent methane. Since the Site is now closed, peak generation has already occurred; therefore the current equipment is capable of moving the maximum flow rate over the remaining life of the landfill.

### **3.7 COMPLIANCE WITH §60.757(G)(6)**

*“The provisions for the control of off-site migration.”*

There have been no significant LFG migration occurrences at the TCRDF. The most recent Perimeter Gas Migration Monitoring Plan (PGMMP) was updated in January 2012 to include a variance from probe monitoring requirements and recent changes to building monitoring locations. Buildings on-site at the TCRDF are monitored quarterly for LFG migration.

Quarterly Methane-In-Structure Monitoring occurred on the following dates:

- Fourth Quarter 2020 – October 27, 2020
- First Quarter 2021 – January 12, 2021

All in-structure locations were in compliance with no detections above the 1.25 percent methane limit. The Methane-In-Structure Survey Reports are included in Appendix J.

#### **Demonstrating Compliance with §60.757(g)(6)**

*“The provisions for the control of off-site migration.”*

The landfill operator will continue monitoring in accordance with the existing plan as discussed above. If the GCCS at the TCRDF does not meet the measures of performance set forth in the NSPS, the GCCS will be adjusted or modified in accordance with the NSPS requirements.



## **4 STARTUP, SHUTDOWN, MALFUNCTION (SSM) REPORT**

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### **SSM Report for the GCCS at the Tri-Cities Recycling and Disposal Facility**

The NESHAP 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 40 CFR §63.1980(a) of the NESHAP and 40 CFR §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 40 CFR §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 NSPS semi-annual reporting period (November 1, 2020 to April 30, 2021) are reported in this section. The following information is included as required:

- During the reporting period, 12 flare SSM events occurred. The cause, time and duration of each event are presented in the Flare SSM Log, which is contained in Appendix B.
- During the reporting period, 0 wellfield SSM events occurred to allow for active filling, repairs, and well raising. The time and duration of each event are presented in the Wellfield SSM Log, which is contained in Appendix C.
- During the reporting period, 0 recorder SSM events occurred.
- In all, 12 events were consistent with the standard operating procedures contained in the SSM Plan.
- No exceedances of any applicable emission limitation in the landfill's 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.***

*Patrick Madej*

**Signature of Responsible Official**

**May 28, 2021**

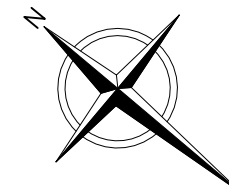
**Date**

**Patrick Madej**

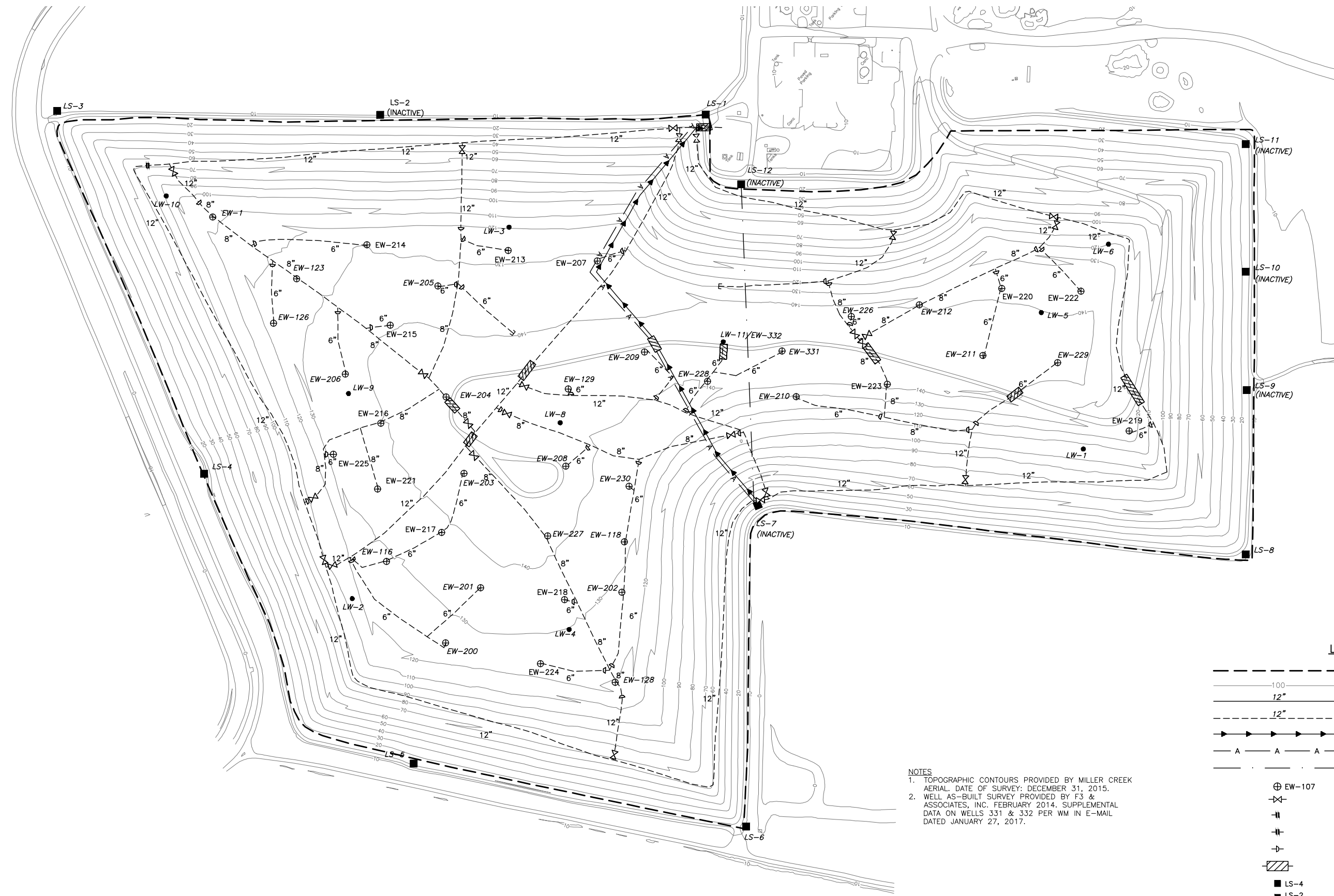
**Name of Responsible Official**

**APPENDIX A**

**SITE MAP**



0 150 300  
SCALE IN FEET



**LEGEND**

- EXISTING SOLID WASTE BOUNDARY
- 100 --- EXISTING 10' CONTOUR
- 12" --- EXISTING LFG HEADER - ABOVE GROUND
- 12" --- EXISTING LFG HEADER - BELOW GROUND
- >--- EXISTING CONDENSATE FORCE MAIN
- A --- A --- A --- EXISTING AIR FORCE MAIN
- EXISTING HORIZONTAL COLLECTOR
- ⊕ EW-107 EXISTING LFG EXTRACTION WELL
- ⊗ EXISTING CONTROL VALVE
- ⊥ EXISTING BLIND FLANGE
- ⊥ EXISTING FLANGE CONNECTION
- ⊣ EXISTING REDUCER
- ▨ EXISTING ROAD CROSSING
- LS-4 EXISTING LEACHATE SUMP
- LS-2 (INACTIVE) INDICATES CURRENTLY INACTIVE LEACHATE SUMP
- LW-1 EXISTING LEACHATE LEVEL MONITORING WELL

**NOTES**

1. TOPOGRAPHIC CONTOURS PROVIDED BY MILLER CREEK AERIAL. DATE OF SURVEY: DECEMBER 31, 2015.
2. WELL AS-BUILT SURVEY PROVIDED BY F3 & ASSOCIATES, INC. FEBRUARY 2014. SUPPLEMENTAL DATA ON WELLS 331 & 332 PER WM IN E-MAIL DATED JANUARY 27, 2017.

Update on 6/16/2017 - EW-331 and EW-332 decommissioned

This drawing represents intellectual property of Cornerstone. Any modification to the original by other than Cornerstone personnel voids its original purpose and as such is rendered void. Cornerstone will not be held liable for any changes made to this document without express written consent of the originator.

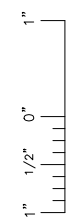
REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
02	02/17	DATE OF ISSUE		RAW	JAB	
		DRAWN BY		DESIGNED BY	APPROVED BY	



TRI-CITIES RECYCLING AND DISPOSAL FACILITY  
FREMONT, CALIFORNIA

**GCCS AS-BUILT SITE PLAN**

SHEET NO.  
**1**  
PROJECT NO.  
170138



**APPENDIX B**  
**FLARE SSM LOG**

**TRI-CITIES RECYCLING AND DISPOSAL FACILITY  
CONTROL DEVICE DOWNTIME LOG**

Event No.	Check Applicable Event	Device	(1) Event Start Date/Time	(2) Event End Date/Time	(3) Duration (Hrs)	Downtime (Hrs)	(4) Cause or Reason	(5) Applicable Regulation	(6) Type of Event	(7) Procedures Used (a),(b)	(8) Did Steps Taken Vary From (7)	(9) Did Event Cause Any Emission Limit Exceedance?	(10) Describe Emission Standard(s) Exceeded (b)	Completed By	(11) Date Entry Completed
No flare SSM events in November 2020															
No flare SSM events in December 2020															
1	<input checked="" type="checkbox"/> Startup	A-3 Flare	1/14/21 11:20	1/14/21 11:22	0.03	0.83	Manual shutdown for flare station maintenance.	<input checked="" type="checkbox"/> 113: Inspection/Maintenance	<input checked="" type="checkbox"/> Manual (Go to 7)	Procedures 1 to 3	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)		Mike Chan	1/14/2021
	<input checked="" type="checkbox"/> Shutdown		1/14/21 12:10	1/14/21 12:12	0.03			<input checked="" type="checkbox"/> 116: Well Raising	<input checked="" type="checkbox"/> Automatic (Go to 9)	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
	<input type="checkbox"/> Malfunction							<input checked="" type="checkbox"/> 117: Gas Collection	<input checked="" type="checkbox"/> Manual (Go to 7)	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
2	<input checked="" type="checkbox"/> Startup	A-3 Flare	1/21/21 7:10	1/21/21 7:12	0.03	1.42	Manual shutdown for flare station maintenance.	<input checked="" type="checkbox"/> 113: Inspection/Maintenance	<input checked="" type="checkbox"/> Manual (Go to 7)	Procedures 1 to 3	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)		Mike Chan	1/21/2021
	<input checked="" type="checkbox"/> Shutdown		1/21/21 8:35	1/21/21 8:37	0.03			<input checked="" type="checkbox"/> 116: Well Raising	<input checked="" type="checkbox"/> Automatic (Go to 9)	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
	<input type="checkbox"/> Malfunction							<input checked="" type="checkbox"/> 117: Gas Collection	<input checked="" type="checkbox"/> Manual (Go to 7)	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
3	<input type="checkbox"/> Startup	A-3 Flare	1/26/21 22:20	1/26/21 22:22	0.03	0.08	All control devices were shut down due to a site-wide power surge.	<input checked="" type="checkbox"/> 113: Inspection/Maintenance	<input checked="" type="checkbox"/> Manual (Go to 7)	Procedures 1 to 3	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)		Mike Chan	1/26/2021
	<input checked="" type="checkbox"/> Shutdown		1/26/21 22:25	1/26/21 22:27	0.03			<input checked="" type="checkbox"/> 116: Well Raising	<input checked="" type="checkbox"/> Automatic (Go to 9)	<input type="checkbox"/> Yes (Go to 9)	<input checked="" type="checkbox"/> Yes (Go to 10)				
	<input type="checkbox"/> Malfunction							<input checked="" type="checkbox"/> 117: Gas Collection	<input checked="" type="checkbox"/> Manual (Go to 7)	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
4	<input checked="" type="checkbox"/> Startup	A-3 Flare	1/26/21 22:25	1/26/21 22:27	0.03	7.33	System remained shutdown until system was inspected and manually restart the control devices. Visual inspections and PLC checks were conducted prior to restart.	<input checked="" type="checkbox"/> 113: Inspection/Maintenance	<input checked="" type="checkbox"/> Manual (Go to 7)	Procedures 1 to 3	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)		Mike Chan	1/27/2021
	<input type="checkbox"/> Shutdown		1/27/21 5:45	1/27/21 5:47	0.03			<input checked="" type="checkbox"/> 116: Well Raising	<input checked="" type="checkbox"/> Automatic (Go to 9)	<input type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
	<input type="checkbox"/> Malfunction							<input checked="" type="checkbox"/> 117: Gas Collection	<input checked="" type="checkbox"/> Manual (Go to 7)	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
5	<input checked="" type="checkbox"/> Startup	A-3 Flare	2/1/21 15:40	2/1/21 15:42	0.03	0.17	Manual shutdown for flare station maintenance.	<input checked="" type="checkbox"/> 113: Inspection/Maintenance	<input checked="" type="checkbox"/> Manual (Go to 7)	Procedures 1 to 3	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)		Mike Chan	2/1/2021
	<input checked="" type="checkbox"/> Shutdown		2/1/21 15:50	2/1/21 15:52	0.03			<input checked="" type="checkbox"/> 116: Well Raising	<input checked="" type="checkbox"/> Automatic (Go to 9)	<input type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
	<input type="checkbox"/> Malfunction							<input checked="" type="checkbox"/> 117: Gas Collection	<input checked="" type="checkbox"/> Manual (Go to 7)	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
6	<input checked="" type="checkbox"/> Startup	A-3 Flare	2/2/21 11:10	2/2/21 11:12	0.03	0.17	Manual shutdown for flare station maintenance.	<input checked="" type="checkbox"/> 113: Inspection/Maintenance	<input checked="" type="checkbox"/> Manual (Go to 7)	Procedures 1 to 3	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)		Mike Chan	2/2/2021
	<input checked="" type="checkbox"/> Shutdown		2/2/21 11:20	2/2/21 11:22	0.03			<input checked="" type="checkbox"/> 116: Well Raising	<input checked="" type="checkbox"/> Automatic (Go to 9)	<input type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
	<input type="checkbox"/> Malfunction							<input checked="" type="checkbox"/> 117: Gas Collection	<input checked="" type="checkbox"/> Manual (Go to 7)	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
7	<input checked="" type="checkbox"/> Startup	A-3 Flare	2/3/21 8:30	2/3/21 8:32	0.03	1.92	Manual shutdown for flare station maintenance.	<input checked="" type="checkbox"/> 113: Inspection/Maintenance	<input checked="" type="checkbox"/> Manual (Go to 7)	Procedures 1 to 3	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)		Mike Chan	2/3/2021
	<input checked="" type="checkbox"/> Shutdown		2/3/21 10:25	2/3/21 10:27	0.03			<input checked="" type="checkbox"/> 116: Well Raising	<input checked="" type="checkbox"/> Automatic (Go to 9)	<input type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
	<input type="checkbox"/> Malfunction							<input checked="" type="checkbox"/> 117: Gas Collection	<input checked="" type="checkbox"/> Manual (Go to 7)	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
8	<input checked="" type="checkbox"/> Startup	A-3 Flare	2/3/21 15:55	2/3/21 15:57	0.03	4.25	Manual shutdown for flare station maintenance.	<input checked="" type="checkbox"/> 113: Inspection/Maintenance	<input checked="" type="checkbox"/> Manual (Go to 7)	Procedures 1 to 3	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)		Mike Chan	2/3/2021
	<input checked="" type="checkbox"/> Shutdown		2/3/21 20:10	2/3/21 20:12	0.03			<input checked="" type="checkbox"/> 116: Well Raising	<input checked="" type="checkbox"/> Automatic (Go to 9)	<input type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
	<input type="checkbox"/> Malfunction							<input checked="" type="checkbox"/> 117: Gas Collection	<input checked="" type="checkbox"/> Manual (Go to 7)	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
9	<input checked="" type="checkbox"/> Startup	A-3 Flare	2/4/21 14:45	2/4/21 14:47	0.03	2.17	Manual shutdown for flare station maintenance.	<input checked="" type="checkbox"/> 113: Inspection/Maintenance	<input checked="" type="checkbox"/> Manual (Go to 7)	Procedures 1 to 3	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)		Mike Chan	2/4/2021
	<input checked="" type="checkbox"/> Shutdown		2/4/21 16:55	2/4/21 16:57	0.03			<input checked="" type="checkbox"/> 116: Well Raising	<input checked="" type="checkbox"/> Automatic (Go to 9)	<input type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
	<input type="checkbox"/> Malfunction							<input checked="" type="checkbox"/> 117: Gas Collection	<input checked="" type="checkbox"/> Manual (Go to 7)	<input checked="" type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				

**TRI-CITIES RECYCLING AND DISPOSAL FACILITY  
CONTROL DEVICE DOWNTIME LOG**

Event No.	Check Applicable Event	Device	(1) Event Start Date/Time	(2) Event End Date/Time	(3) Duration (Hrs)	Downtime (Hrs)	(4) Cause or Reason	(5) Applicable Regulation	(6) Type of Event	(7) Procedures Used (a),(b)	(8) Did Steps Taken Vary From (7)	(9) Did Event Cause Any Emission Limit Exceedance?	(10) Describe Emission Standard(s) Exceeded (b)	Completed By	(11) Date Entry Completed	
10	<input checked="" type="checkbox"/> Startup	A-3 Flare	2/5/21 10:25	2/5/21 10:27	0.03	0.50	Manual shutdown for flare station maintenance.	<input checked="" type="checkbox"/> 113: Inspection/Maintenance	<input checked="" type="checkbox"/> Manual (Go to 7)	Procedures 1 to 3	<input type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)		Mike Chan	2/5/2021	
	<input checked="" type="checkbox"/> Shutdown		2/5/21 10:55	2/5/21 10:57	0.03			<input type="checkbox"/> 116: Well Raising	<input type="checkbox"/> Automatic (Go to 9)		<input checked="" type="checkbox"/> No	<input type="checkbox"/> No				
	<input type="checkbox"/> Malfunction							<input checked="" type="checkbox"/> 117: Gas Collection	<input checked="" type="checkbox"/> Manual (Go to 7)		<input type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
							<input checked="" type="checkbox"/> 118: Construction Activities	<input type="checkbox"/> Automatic (Go to 9)	<input checked="" type="checkbox"/> No	<input type="checkbox"/> No						
11	<input checked="" type="checkbox"/> Startup	A-3 Flare	2/5/21 11:40	2/5/21 11:42	0.03	2.25	Manual shutdown for flare station maintenance.	<input checked="" type="checkbox"/> 113: Inspection/Maintenance	<input checked="" type="checkbox"/> Manual (Go to 7)	Procedures 1 to 3	<input type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)		Mike Chan	2/5/2021	
	<input checked="" type="checkbox"/> Shutdown		2/5/21 13:55	2/5/21 13:57	0.03			<input type="checkbox"/> 116: Well Raising	<input checked="" type="checkbox"/> Automatic (Go to 9)		<input checked="" type="checkbox"/> No	<input type="checkbox"/> No				
	<input type="checkbox"/> Malfunction							<input checked="" type="checkbox"/> 117: Gas Collection	<input checked="" type="checkbox"/> Manual (Go to 7)		<input type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
							<input checked="" type="checkbox"/> 118: Construction Activities	<input type="checkbox"/> Automatic (Go to 9)	<input checked="" type="checkbox"/> No	<input type="checkbox"/> No						
12	<input checked="" type="checkbox"/> Startup	A-3 Flare	4/12/21 13:25	4/12/21 13:27	0.03	0.67	Manual shutdown for flare station maintenance.	<input checked="" type="checkbox"/> 113: Inspection/Maintenance	<input checked="" type="checkbox"/> Manual (Go to 7)	Procedures 1 to 3	<input type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)		Mike Chan	4/12/2021	
	<input checked="" type="checkbox"/> Shutdown		4/12/21 14:05	4/12/21 14:07	0.03			<input type="checkbox"/> 116: Well Raising	<input checked="" type="checkbox"/> Automatic (Go to 9)		<input checked="" type="checkbox"/> No	<input type="checkbox"/> No				
	<input type="checkbox"/> Malfunction							<input checked="" type="checkbox"/> 117: Gas Collection	<input checked="" type="checkbox"/> Manual (Go to 7)		<input type="checkbox"/> Yes (Go to 9)	<input type="checkbox"/> Yes (Go to 10)				
							<input checked="" type="checkbox"/> 118: Construction Activities	<input type="checkbox"/> Automatic (Go to 9)	<input checked="" type="checkbox"/> No	<input type="checkbox"/> No						

**(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) <ol style="list-style-type: none"> <li>a. Press Emergency Stop if necessary</li> <li>b. Close On/Off switch(es) or Push On/Off button(s)</li> <li>c. Close adjacent valves if necessary</li> </ol> |
| 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: <ol style="list-style-type: none"> <li>a. Valves are in correct position</li> <li>b. Levels, pressures, and temperatures are within normal starting range</li> <li>c. Alarms are cleared</li> <li>d. Power is on and available to control panel and ready to energize equipment.</li> <li>e. Emergency stop is de-energized</li> </ol> |
| 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
<b>LFG Collection and Control System</b>				
Blower or Other Gas Mover Equipment	Applies vacuum to wellfield to extract LFG and transport to control device	Loss of LFG Flow/Blower Malfunction	<ul style="list-style-type: none"> <li>-Flame arrestor fouling/deterioration</li> <li>-Automatic valve problems</li> <li>-Blower failure (e.g., belt, motor, impeller, coupling, seizing, etc.)</li> <li>-Loss of power</li> <li>-Extraction piping failure</li> <li>-Condensate knock-out problems</li> <li>-Extraction piping blockages</li> </ul>	<ol style="list-style-type: none"> <li>1. Repair breakages in extraction piping</li> <li>2. Clean flame arrestor</li> <li>3. Repair blockages in extraction piping</li> <li>4. Verify automatic valve operation, compressed air/nitrogen supply</li> <li>5. Notify power utility, if appropriate</li> <li>6. Provide/utilize auxiliary power source, if necessary</li> <li>7. Repair Settlement in Collection Piping</li> <li>8. Repair Blower</li> <li>9. Activate back-up blower, if available</li> <li>10. Clean knock-up pot/demister</li> <li>11. Drain knock-out pot</li> </ol>
Extraction Wells and Collection Piping	Conduits for extractions and movement of LFG flow	Collection well and pipe failures	<ul style="list-style-type: none"> <li>-Break/crack in header or lateral piping</li> <li>-Leaks at wellheads, valves, flanges, Test</li> <li>-Collection piping blockages</li> <li>-Problems due to settlement (e.g. pipe separation, deformation, development of low points)</li> </ul>	<ol style="list-style-type: none"> <li>12. Repair leaks or breaks in lines or wellheads</li> <li>13. Follow procedures for loss of LFG flow/blower malfunction</li> <li>14. Repair blockages in collection piping</li> <li>15. Repair settlement in collection piping</li> </ol>
Blower or Other Gas Mover Equipment And Control Device	Collection and control of LFG	Loss of electrical power	<ul style="list-style-type: none"> <li>- Force majeure/Act of God (e.g., lightning, flood, earthquake, etc.)</li> <li>-Area-wide or local blackout or brown-out</li> <li>-Interruption in service (e.g. blown service fuse)</li> <li>-Electrical line failure</li> <li>-Breaker trip</li> <li>-Transformer failure</li> <li>-Motor starter failure/trip</li> <li>-Overdraw of power</li> <li>-Problems in electrical panel</li> <li>-Damage to electrical equipment from on-site operations</li> </ul>	<ol style="list-style-type: none"> <li>16. Re-install, repair, or replace piping</li> <li>17. Check/reset breaker</li> <li>18. Check/repair electrical panel components</li> <li>19. Check/repair transformer</li> <li>20. Check/repair motor starter</li> <li>21. Check/repair electrical line</li> <li>22. Test amperage to various equipment</li> <li>23. Contact electricity supplier</li> <li>24. Contact/contract electrician</li> <li>25. Provide auxiliary power (if necessary)</li> </ol>
LFG Control Device	Combusts LFG	Low temperature conditions at control device	<ul style="list-style-type: none"> <li>-Problems with temperature-monitoring equipment</li> <li>-Problems/failure of -thermocouple and/or thermocouple wiring</li> <li>-Change of LFG flow</li> <li>-Change of LFG quality</li> <li>-Problems with air louvers</li> <li>-Problems with air/fuel controls</li> <li>-Change in atmospheric conditions</li> </ul>	<ol style="list-style-type: none"> <li>26. Check/repair temperature monitoring equipment</li> <li>27. Check/repair thermocouple and/or wiring</li> <li>28. Follow procedures for loss of flow/blower malfunction</li> <li>29. Check/adjust louvers</li> <li>30. Check/adjust air/fuel controls</li> </ol>
LFG Control Device	Combusts LFG	Loss of Flame	<ul style="list-style-type: none"> <li>-Problems/failure of thermocouple</li> <li>-Loss/change of LFG flow</li> <li>-Loss/change of LFG quality</li> <li>-Problems with air/fuel controls</li> <li>-Problems/failure of flame sensor</li> <li>-Problems with temperature monitoring equipment</li> </ul>	<ol style="list-style-type: none"> <li>31. Check/repair temperature monitoring equipment</li> <li>32. Check/repair thermocouple</li> <li>33. Follow procedures for loss of flow/blower malfunction</li> <li>34. Check/adjust air/fuel controls</li> <li>35. Check/adjust/repair flame sensor</li> <li>36. Check/adjust LFG collectors</li> </ol>
Flow Monitoring/ Recording Device	Measures and records gas flow from collection system to control	Malfunctions of Flow Monitoring/Recording Device	<ul style="list-style-type: none"> <li>-Problems with orifice plate, pitot tube, or other in-line flow measuring device</li> <li>-Problems with device controls and/or wiring</li> <li>-Problems with chart recorder</li> </ul>	<ol style="list-style-type: none"> <li>37. Check/adjust/repair flow measuring device and/or wiring</li> <li>38. Check/repair chart recorder</li> <li>39. Replace paper in chart recorder</li> </ol>
Temperature Monitoring/ Recording Device	Monitors and records combustion temperature of enclosed combustion device	Malfunctions of Temperature Monitoring/Recording Device	<ul style="list-style-type: none"> <li>-Problems with thermocouple</li> <li>-Problems with device controls and/or wiring</li> <li>-Problems with chart recorder</li> </ul>	<ol style="list-style-type: none"> <li>40. Check/adjust/repair thermocouple</li> <li>41. Check/adjust/repair controller and/or wiring</li> <li>42. Check/adjust/repair electrical panel components</li> <li>43. Check/repair chart recorder</li> <li>44. Replace paper in chart recorder</li> </ol>
Control Device	Combusts LFG	Other Control Device Malfunctions	<ul style="list-style-type: none"> <li>-Control device smoking (i.e. visible emissions)</li> <li>-Problems with flare insulation</li> <li>-Problems with pilot light system</li> <li>-Problems with air louvers</li> <li>-Problems with air/fuel controllers</li> <li>-Problems with thermocouple</li> <li>-Problems with burners</li> <li>-Problems with flame arrestor</li> <li>-Alarmed malfunction conditions not covered above</li> <li>-Unalarmed conditions discovered during inspection not covered above</li> </ul>	<ol style="list-style-type: none"> <li>45. Site-specific diagnosis procedures</li> <li>46. Site-specific responses actions based on diagnosis</li> <li>47. Open manual louvers</li> <li>48. Clean pitot orifice</li> <li>49. Clean/drain flame arrestor</li> <li>50. Refill propane supply</li> <li>51. Check/repair pilot sparking system</li> </ol>

(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 occurred. Follow up in writing to the agency within 7 working days after the end of the event.



**APPENDIX C**

**WELLFIELD SSM LOG**

**TRI-CITIES RECYCLING & DISPOSAL FACILITY  
COLLECTION SYSTEM DOWNTIME LOG**

Event No.	Check Applicable Event	Device	(1) Event Start Date/Time	(2) Event End Date/Time	(3) Duration (Hrs)	Downtime (Hrs)	(4) Cause or Reason	(5) Applicable Regulation	(6) Type of Event	(7) Procedures Used (a),(b)	(8) Did Steps Taken Vary From (7)	(9) Did Event Cause Any Emission Limit Exceedance?	(10) Describe Emission Standard(s) Exceeded (b)	Completed By	(11) Date Entry Completed
No Well SSM Events in November 2020															
No Well SSM Events in December 2020															
No Well SSM Events in January 2021															
No Well SSM Events in February 2021															
No Well SSM Events in March 2021															
No Well SSM Events in April 2021															

**(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) <ul style="list-style-type: none"> <li>a. Press Emergency Stop if necessary</li> <li>b. Close On/Off switch(es) or Push On/Off button(s)</li> <li>c. Close adjacent valves if necessary</li> </ul> |
| 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: <ul style="list-style-type: none"> <li>a. Valves are in correct position</li> <li>b. Levels, pressures, and temperatures are within normal starting range</li> <li>c. Alarms are cleared</li> <li>d. Power is on and available to control panel and ready to energize equipment.</li> <li>e. Emergency stop is de-energized</li> </ul> |
| 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
<b>LFG Collection and Control System</b>				
Blower or Other Gas Mover Equipment	Applies vacuum to wellfield to extract LFG and transport to control device	Loss of LFG Flow/Blower Malfunction	<ul style="list-style-type: none"> <li>-Flame arrestor fouling/deterioration</li> <li>-Automatic valve problems</li> <li>-Blower failure (e.g., belt, motor, impeller, coupling, seizing, etc.)</li> <li>-Loss of power</li> <li>-Extraction piping failure</li> <li>-Condensate knock-out problems</li> <li>-Extraction piping blockages</li> </ul>	<ol style="list-style-type: none"> <li>1. Repair breakages in extraction piping</li> <li>2. Clean flame arrestor</li> <li>3. Repair blockages in extraction piping</li> <li>4. Verify automatic valve operation, compressed air/nitrogen supply</li> <li>5. Notify power utility, if appropriate</li> <li>6. Provide/utilize auxiliary power source, if necessary</li> <li>7. Repair Settlement in Collection Piping</li> <li>8. Repair Blower</li> <li>9. Activate back-up blower, if available</li> <li>10. Clean knock-up pot/demister</li> <li>11. Drain knock-out pot</li> </ol>
Extraction Wells and Collection Piping	Conduits for extractions and movement of LFG flow	Collection well and pipe failures	<ul style="list-style-type: none"> <li>-Break/crack in header or lateral piping</li> <li>-Leaks at wellheads, valves, flanges, Test ports, seals, couplings, etc.</li> <li>-Collection piping blockages</li> <li>-Problems due to settlement (e.g. pipe separation, deformation, development of low points)</li> </ul>	<ol style="list-style-type: none"> <li>12. Repair leaks or breaks in lines or wellheads</li> <li>13. Follow procedures for loss of LFG flow/blower malfunction</li> <li>14. Repair blockages in collection piping</li> <li>15. Repair settlement in collection piping</li> <li>16. Re-install, repair, or replace piping</li> </ol>
Blower or Other Gas Mover Equipment And Control Device	Collection and control of LFG	Loss of electrical power	<ul style="list-style-type: none"> <li>- Force majeure/Act of God (e.g., lightning, flood, earthquake, etc.)</li> <li>-Area-wide or local blackout or brown-out</li> <li>-Interruption in service (e.g. blown service fuse)</li> <li>-Electrical line failure</li> <li>-Breaker trip</li> <li>-Transformer failure</li> <li>-Motor starter failure/trip</li> <li>-Overdraw of power</li> <li>-Problems in electrical panel</li> <li>-Damage to electrical equipment from on-site operations</li> </ul>	<ol style="list-style-type: none"> <li>17. Check/reset breaker</li> <li>18. Check/repair electrical panel components</li> <li>19. Check/repair transformer</li> <li>20. Check/repair motor starter</li> <li>21. Check/repair electrical line</li> <li>22. Test amperage to various equipment</li> <li>23. Contact electricity supplier</li> <li>24. Contact/contract electrician</li> <li>25. Provide auxiliary power (if necessary)</li> </ol>
LFG Control Device	Combusts LFG	Low temperature conditions at control device	<ul style="list-style-type: none"> <li>-Problems with temperature -monitoring equipment</li> <li>-Problems/failure of -thermocouple and/or thermocouple wiring</li> <li>-Change of LFG flow</li> <li>-Change of LFG quality</li> <li>-Problems with air louvers</li> <li>-Problems with air/fuel controls</li> <li>-Change in atmospheric conditions</li> </ul>	<ol style="list-style-type: none"> <li>26. Check/repair temperature monitoring equipment</li> <li>27. Check/repair thermocouple and/or wiring</li> <li>28. Follow procedures for loss of flow/blower malfunction</li> <li>29. Check/adjust louvers</li> <li>30. Check/adjust air/fuel controls</li> </ol>
LFG Control Device	Combusts LFG	Loss of Flame	<ul style="list-style-type: none"> <li>-Problems/failure of thermocouple</li> <li>-Loss/change of LFG flow</li> <li>-Loss/change of LFG quality</li> <li>-Problems with air/fuel controls</li> <li>-Problems/failure of flame sensor</li> <li>-Problems with temperature monitoring equipment</li> </ul>	<ol style="list-style-type: none"> <li>31. Check/repair temperature monitoring equipment</li> <li>32. Check/repair thermocouple</li> <li>33. Follow procedures for loss of flow/blower malfunction</li> <li>34. Check/adjust air/fuel controls</li> <li>35. Check/adjust/repair flame sensor</li> <li>36. Check/adjust LFG collectors</li> </ol>
Flow Monitoring/Recording Device	Measures and records gas flow from collection system to control	Malfunctions of Flow Monitoring/Recording Device	<ul style="list-style-type: none"> <li>-Problems with orifice plate, pitot tube, or other in-line flow measuring device</li> <li>-Problems with device controls and/or wiring</li> <li>-Problems with chart recorder</li> </ul>	<ol style="list-style-type: none"> <li>37. Check/adjust/repair flow measuring device and/or wiring</li> <li>38. Check/repair chart recorder</li> <li>39. Replace paper in chart recorder</li> </ol>
Temperature Monitoring/Recording Device	Monitors and records combustion temperature of enclosed combustion device	Malfunctions of Temperature Monitoring/Recording Device	<ul style="list-style-type: none"> <li>-Problems with thermocouple</li> <li>-Problems with device controls and/or wiring</li> <li>-Problems with chart recorder</li> </ul>	<ol style="list-style-type: none"> <li>40. Check/adjust/repair thermocouple</li> <li>41. Check/adjust/repair controller and/or wiring</li> <li>42. Check/adjust/repair electrical panel components</li> <li>43. Check/repair chart recorder</li> <li>44. Replace paper in chart recorder</li> </ol>
Control Device	Combusts LFG	Other Control Device Malfunctions	<ul style="list-style-type: none"> <li>-Control device smoking (i.e. visible emissions)</li> <li>-Problems with flare insulation</li> <li>-Problems with pilot light system</li> <li>-Problems with air louvers</li> <li>-Problems with air/fuel controllers</li> <li>-Problems with thermocouple</li> <li>-Problems with burners</li> <li>-Problems with flame arrestor</li> <li>-Alarmed malfunction conditions not covered above</li> <li>-Unalarmed conditions discovered during inspection not covered above</li> </ul>	<ol style="list-style-type: none"> <li>45. Site-specific diagnosis procedures</li> <li>46. Site-specific responses actions based on diagnosis</li> <li>47. Open manual louvers</li> <li>48. Clean pitot orifice</li> <li>49. Clean/drain flame arrestor</li> <li>50. Refill propane supply</li> <li>51. Check/repair pilot sparking system</li> </ol>

(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 occurred. Follow up in writing to the agency within 7 working days after the end of the event.

## **APPENDIX D**

### **FLARE TEMPERATURE AND FLOW DEVIATION REPORT**

**TRI-CITIES RECYCLING & DISPOSAL FACILITY, Fremont, CA**  
**TEMPERATURE & FLOW DEVIATION REPORT**  
**November 1, 2020 - April 30, 2021**

**REPORT PREPARED BY:** Mike Chan  
**TEMPERATURE SENSING DEVICE:** Thermocouple

**DATE:** May 25, 2021  
**MODEL:** Thermo-Electric

START DATE TIME	END DATE TIME	DURATION (Hours)	TEMPERATURE (°F) / FLOW (SCFM)	CAUSE	EXPLANATION	ACTION TAKEN
No Deviations were reported in November 2020						
No Deviations were reported in December 2020						
No Deviations were reported in January 2021						
No Deviations were reported in February 2021						
No Deviations were reported in March 2021						
No Deviations were reported in April 2021						
<b>COMMENTS:</b> 1) The A-3 Flare combustion zone 3-hour average temperature did not drop below the 1,450°F limit, as required by Title V Permit Condition Number 8366, Part 6, during the reporting period while the flare was in operation.						
2) The A-3 Flare 3-hour average combustion zone temperature did not drop below the 1,544°F (3/16/20 - 3/9/21) and 1,544°F (3/10/21 - present) limits established during the February 11, 2020 and February 4, 2021 source tests pursuant to 40 CFR §60.758(c)(1)(i).						

scfm - standard cubic feet per minute °F - Degrees Fahrenheit

**APPENDIX E**

**COVER INTEGRITY RESULTS**

# OPERATIONS AND MAINTENANCE SITE INSPECTION REPORT

## Monthly Cover Monitoring

**LOCATION:** Tri-Cities Recycling and Disposal Facility  
**INSPECTION DATE:** November 27, 2020  
**TECHNICIAN:** Matthew Frame

COVER & VEGETATION	YES	NO	COMMENTS
Settling of cap		X	
Dead vegetation	X		Bushses are green, grasses are brown
Erosion on cap system		X	
Erosion on side slopes		X	
Ponding of water on cap		X	
Surface cracking		X	
Storm water down drains clear	X		
Storm water ditches inspected	X		
Acceptable vegetation	X		
Exposed waste		X	

REPAIR AREAS:			
GPS Coordinates		Date of Repair	COMMENTS
Northing	Easting		

# OPERATIONS AND MAINTENANCE SITE INSPECTION REPORT

## Monthly Cover Monitoring

**LOCATION:** Tri-Cities Recycling and Disposal Facility  
**INSPECTION DATE:** December 28, 2020  
**TECHNICIAN:** Matthew Frame

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	
Storm water down drains clear	X		
Storm water ditches inspected	X		
Acceptable vegetation	X		
Exposed waste		X	

REPAIR AREAS:			
GPS Coordinates		Date of Repair	COMMENTS
Northing	Easting		



# OPERATIONS AND MAINTENANCE SITE INSPECTION REPORT

## Monthly Cover Monitoring

**LOCATION:** Tri-Cities Recycling and Disposal Facility  
**INSPECTION DATE:** January 26, 2021  
**TECHNICIAN:** Matthew Frame

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	
Storm water down drains clear	X		
Storm water ditches inspected	X		
Acceptable vegetation	X		
Exposed waste		X	

REPAIR AREAS:			
GPS Coordinates		Date of Repair	COMMENTS
Northing	Easting		

# OPERATIONS AND MAINTENANCE SITE INSPECTION REPORT

## Monthly Cover Monitoring

**LOCATION:**                     Tri-Cities Recycling and Disposal Facility  
**INSPECTION DATE:**       February 23, 2021  
**TECHNICIAN:**                 Matthew Frame

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	
Storm water down drains clear	X		
Storm water ditches inspected	X		
Acceptable vegetation	X		
Exposed waste		X	

<b>REPAIR AREAS:</b>			
GPS Coordinates		Date of Repair	COMMENTS
Northing	Easting		

# OPERATIONS AND MAINTENANCE SITE INSPECTION REPORT

## Monthly Cover Monitoring

**LOCATION:** Tri-Cities Recycling and Disposal Facility  
**INSPECTION DATE:** March 30, 2021  
**TECHNICIAN:** Matthew Frame

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	
Storm water down drains clear	X		
Storm water ditches inspected	X		
Acceptable vegetation	X		
Exposed waste		X	

REPAIR AREAS:			
GPS Coordinates		Date of Repair	COMMENTS
Northing	Easting		

# OPERATIONS AND MAINTENANCE SITE INSPECTION REPORT

## Monthly Cover Monitoring

**LOCATION:** Tri-Cities Recycling and Disposal Facility  
**INSPECTION DATE:** April 27, 2021  
**TECHNICIAN:** Matthew Frame

<b>COVER &amp; VEGETATION</b>	<b>YES</b>	<b>NO</b>	<b>COMMENTS</b>
Settling of cap		X	
Dead vegetation	X		Dead from lack of rain.
Erosion on cap system		X	
Erosion on side slopes		X	
Ponding of water on cap		X	
Surface cracking		X	
Storm water down drains clear	X		
Storm water ditches inspected	X		
Acceptable vegetation	X		
Exposed waste		X	

<b>REPAIR AREAS:</b>			
GPS Coordinates		Date of Repair	COMMENTS
Northing	Easting		

**APPENDIX F**

**SURFACE EMISSIONS/COMPONENT LEAK CHECK MONITORING REPORTS**



WASTE MANAGEMENT  
172 98<sup>th</sup> Avenue  
Oakland, CA 94603  
(510) 430-8509

December 1, 2020

Mr. Patrick Madej  
Tri-Cities Recycling and Disposal Facility  
7010 Auto Mall Parkway  
Fremont, California 94538

**Re: Fourth Quarter 2020 Surface Emissions and Component Leak Monitoring Report  
for Tri-Cities Recycling and Disposal Facility**

Dear Mr. Madej:

This monitoring report for “Tri-Cities Recycling and Disposal Facility (TCRDF)” contains the results of the Fourth Quarter 2020 Integrated and Instantaneous Surface Emissions Monitoring (SEM) and Component Leak Monitoring. All monitoring was performed by SCS Engineers (SCS).

**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**

- 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).
- CCR Title 17, Subchapter 10, Article 4, Subarticle 6, §95464.

## **TCRDF 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 according to the methods outlined in the July 1, 2016 ACO.

## **PROCEDURES**

### **General**

The surface of the TCRDF disposal area has been divided into one-hundred-and-nine (109), 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 TCRDF 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.

The monitoring probe was positioned 2 inches above the ground surface. While walking, the wand tip of the flame ionization detector (FID) was held within 2 inches of the landfill surface while traversing the grid. Per the approved alternative request, the wand tip of the FID was held at 2 inches of vegetation in areas where the landfill surface is covered with low-lying vegetation such as grasses while traversing the grid.

### **Monitoring Path**

The TCRDF completed four consecutive instantaneous and integrated monitoring events with no exceedances. Pursuant to §95471(c)(1)(B)1., sites that complete four consecutive integrated and instantaneous monitoring events with no exceedances may increase the walking pattern spacing from a 25-foot spacing to a 100-foot spacing. In the event that an integrated or instantaneous exceedance cannot be remediated within 10 calendar days or an exceedance is observed during a compliance inspection, the TCRDF will be required to revert to 25-foot spacing.

### **Combined Instantaneous and Integrated Surface Emissions Monitoring**

The instantaneous and integrated SEM were performed simultaneously by SCS using Landtec SEM-500 flame ionization detectors (FID), calibrated to 500 parts per million by volume (ppm<sub>v</sub>) methane. The devices meet or exceed all guidelines set forth in the CCR Title 17 §95471(a) and the United States Environmental Protection Agency (USEPA) Method 21 requirements.

SCS personnel walked the surface of the landfill on a grid by grid basis. After completing 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<sub>v</sub> (areas of concern) or 500 ppm<sub>v</sub> (exceedances) for instantaneous were recorded, flagged, and marked on an SEM Map. 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.

The combined monitoring was conducted in accordance with the requirements of CCR Title 17 §95471(c)(2). Grids with integrated results greater than 25 ppm<sub>v</sub> were recorded, marked on the SEM map, and flagged for remediation. Any grids with integrated concentrations greater than 25 ppm<sub>v</sub> are subject to the following corrective action and re-monitoring timeline:

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

### **Component Leak Monitoring Procedures**

SCS monitored the exposed LFG components under positive pressure (pipes, well heads, valves, blowers, and other mechanical appurtenances). All component leaks measured within 0.5 inches exceeding the compliance limit of 500 ppm<sub>v</sub> per requirements outlined in pursuant to §Section 95464(b)(1)(B) and 1,000 ppm per requirements outlined in BAAQMD 8-34-303 were recorded. Component leaks are subject to the following timelines:

- 500-999 ppm<sub>v</sub> leaks are subject to a 10-day repair and re-monitoring deadline from §95469(b)(3).
- Leaks at or above 1000 ppm<sub>v</sub> are subject a 7-day repair and re-monitoring deadline from BAAQMD 8-34-301.2.

## **FOURTH QUARTER 2020 SEM AND COMPONENT LEAK RESULTS**

### **Reduction of SEM Frequency**

The TCRDF has completed four consecutive instantaneous and integrated monitoring events with no exceedances. Pursuant to §95469(2)(C), any closed or inactive areas of active MSW landfills with no integrated exceedances for four consecutive quarters may reduce the frequency of integrated and instantaneous SEM to an annual basis. In the event that an exceedance cannot be remediated within 10 calendar days or an exceedance is observed during a compliance inspection, the TCRDF will be required to revert to quarterly monitoring. The next SEM event is due by March 31, 2021.

Pursuant to 8-34-506, landfills that are closed as defined in 8-34-223 with no exceedances in three consecutive quarters may reduce the frequency of instantaneous SEM to an annual basis. Any exceedance detected during annual monitoring will require the site to revert to quarterly monitoring.

### **Component Leak Monitoring Results**

Component leak monitoring was conducted per the applicable requirements on October 27, 2020. There were no leaks detected above 500 ppm<sub>v</sub>. Results are summarized in Attachment A.

## **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 ppm<sub>v</sub> in air 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: Response time test record; Response factor determination for methane; Calibration Precision test records; 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 me at (510) 613-2852.

Thank you,  
Waste Management

A handwritten signature in black ink that reads "Michael Chan". The signature is written in a cursive style and is centered within a light gray rectangular box.

Michael Chan  
Environmental Protection Air Specialist

**Attachment A –Component Leak Monitoring Event Records**

- Component Leak Exceedances and Monitoring Logs

**Attachment B –Calibration Records**

- Instrument and Gas Calibration Records

**Attachment A**

Component Leak Monitoring Event Records

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

**2020 QUARTER:** 4

**LANDFILL NAME:** Tri-Cities Recycling and Disposal Facility

Location	Initial Monitoring			Corrective Action		10-Day Remonitoring		
	Date	TOC (ppmv)	Tech	Date	Description	Date	TOC (ppmv)	Tech
October 27, 2020: No Exceedances								

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

**2020 QUARTER:** 4

**LANDFILL NAME:** Tri-Cities Recycling and Disposal Facility

Location	Initial Monitoring			Corrective Action		7-Day Remonitoring		
	Date	TOC (ppmv)	Tech	Date	Description	Date	TOC (ppmv)	Tech
October 27, 2020: No Exceedances								

**Attachment B**

Calibration Records

## SURFACE EMISSIONS MONITORING CALIBRATION AND PERTINENT DATA

Date: 10-27-20 Site Name: Tri-cities  
 Inspector(s): Ryan Haslam Instrument: TVA 2020

### WEATHER OBSERVATIONS

Wind Speed: 4 MPH Wind Direction: S Barometric Pressure: 30 "Hg  
 Air Temperature: 76 °F General Weather Conditions: Clear

### CALIBRATION INFORMATION

Pre-monitoring Calibration Precision Check

*Procedure: Calibrate the instrument. Make a total of three measurements by alternating zero air and the calibration gas. Record the readings and calculate the average algebraic difference between the instrument reading and the calibration gas as a percentage. The calibration precision must be less than or equal to 10% of the calibration gas value.*

Instrument Serial Number: 1211 Cal Gas Concentration: 500ppm

Trial	Zero Air Reading	Cal Gas Reading	Cal Gas Conc.-Cal Gas Reading	Response Time (seconds)
1	.3	500	0	3
2	.3	500	0	3
3	.3	501	1	3

Average Difference: .3

\*Perform recalibration if average difference is greater than 10

Calibration Precision= Average Difference/Cal Gas Conc. X 100%

$$= 100 \cdot \frac{.3}{500} \times 100\%$$

$$= 99.9 \%$$

### Span Sensitivity:

Trial 1:	Trial 2:	Trial 3:
Counts Observed for the Span= <u>112481</u>	Counts Observed for the Span= <u>112397</u>	Counts Observed for the Span= <u>111997</u>
Counters Observed for the Zero= <u>3834</u>	Counters Observed for the Zero= <u>3880</u>	Counters Observed for the Zero= <u>3791</u>

### Post Monitoring Calibration Check

Zero Air Reading: 0 ppm Cal Gas Reading: 500 ppm

### BACKGROUND CONCENTRATIONS CHECKS

Upwind Location Description: entrance Reading: 1.1 ppm  
 Downwind Location Description: plare Reading: 1.5 ppm

**Notes:** Wind speed averages were observed to remain below the alternative requested 10 miles per hour and no instantaneous speeds exceeded 20 miles per hour. No rainfall had occurred within the previous 24 hours of the monitoring event. Therefore, site meteorological conditions were within the requested alternatives of the LMR requirements on the above mentioned date.

**SURFACE EMISSIONS MONITORING  
CALIBRATION AND PERTINENT DATA**

**POST**

Date: 10-27-20 Site Name: Tricities  
 Inspector(s): Ryan Haslam Instrument: TVA 2020

**WEATHER OBSERVATIONS**

Wind Speed: 4 MPH Wind Direction: S Barometric Pressure: 30 "Hg  
 Air Temperature: 76 °F General Weather Conditions: Clear

**CALIBRATION INFORMATION**

Pre-monitoring Calibration Precision Check

*Procedure: Calibrate the instrument. Make a total of three measurements by alternating zero air and the calibration gas. Record the readings and calculate the average algebraic difference between the instrument reading and the calibration gas as a percentage. The calibration precision must be less than or equal to 10% of the calibration gas value.*

Instrument Serial Number: 1211 Cal Gas Concentration: 500ppm

Trial	Zero Air Reading	Cal Gas Reading	Cal Gas Conc.-Cal Gas Reading	Response Time (seconds)
1	<u>.3</u>	<u>501</u>	<u>1</u>	<u>4</u>
2	<u>.3</u>	<u>500</u>	<u>0</u>	<u>3</u>
3	<u>.2</u>	<u>499</u>	<u>1</u>	<u>3</u>

Average Difference: .7

\*Perform recalibration if average difference is greater than 10

Calibration Precision= Average Difference/Cal Gas Conc. X 100%

$$= 100\% \cdot \frac{.7}{500} \times 100\% = 99.8\%$$

Span Sensitivity:

Trial 1:	Trial 3:
Counts Observed for the Span= <u>109466</u>	Counts Observed for the Span= <u>110500</u>
Counters Observed for the Zero= <u>4022</u>	Counters Observed for the Zero= <u>3987</u>
Trial 2:	
Counts Observed for the Span= <u>110371</u>	
Counters Observed for the Zero= <u>4054</u>	

Post Monitoring Calibration Check

Zero Air Reading: 0 ppm Cal Gas Reading: 500 ppm

**BACKGROUND CONCENTRATIONS CHECKS**

Upwind Location Description: entrance Reading: 1.1 ppm  
 Downwind Location Description: Flare Reading: 1.5 ppm

**Notes:** Wind speed averages were observed to remain below the alternative requested 10 miles per hour and no instantaneous speeds exceeded 20 miles per hour. No rainfall had occurred within the previous 24 hours of the monitoring event. Therefore, site meteorological conditions were within the requested alternatives of the LMR requirements on the above mentioned date.





22 Albiston Way  
 Auburn, ME 04210  
 800-292-6218  
 207-777-6218  
 Fax 207-777-6215  
 www.specair.com

Date: 03/25/2020

## Certificate of Analysis

**Customer:**  
 QED ENVIRONMENTAL SYSTEMS

**Order #:** 1736278  
**Purchase Order #:** 135856

**Cylinder Size:** 105L    **CGA Connection:** C10    **Fill Pressure:** 1000 PSI

**Analysis:** Certified Batch Analysis    **Lot #:** 4008501

Component(s):	Requested Concentration(s):	Actual Concentration(s):
Methane	500 PPM	495 PPM
Air	BALANCE	BALANCE

**Expiration Date:** 03/2023

**Comments:** MIX MADE USING DIGITAL BALANCES CALIBRATED TO NIST TRACEABLE WEIGHTS / ACCURACY: +/- 5%  
 METHOD OF PREPARATION: GRAVIMETRIC / PRESSURE TRANSFILLING  
 ANALYTICAL PRINCIPLE: GC (TCD)

**Approved By:**

Ron Abbott

Part #

**CGCH4-500**



**QTY**

**1**



**Tuesday, March 31, 2020**

FGA - R101 / O / 27

- Results are reported in mole percent, unless otherwise indicated. Mixes are prepared via partial pressure analysis using high load high sensitivity electronic scales. Prior to use, scales are verified for accuracy using applicable NIST traceable weights; analyses are calibrated against reference materials traceable to NIST weights and/or NIST gas reference materials.
- The information contained herein has been prepared at your request by qualified experts. While we believe that the information is accurate within the limits of the analytical methods employed, and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any particular purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability arising out of the use of the information contained herein exceed the fee established for providing such information.
- This certifies that the instruments used for this analysis have been calibrated in compliance with the specifications in the order using SI/NIST traceable standards. When a statement of conformity is made, accept/reject decisions consider the measurement uncertainty and the specification tolerance. When the measurand and uncertainty are reported, measurement uncertainties are declared in the analytical results and the analytical results are not adjusted to consider measurement uncertainties.



22 Albiston Way  
Auburn, ME 04210  
800-292-6218  
207-777-6218  
Fax 207-777-6215  
www.specair.com

Date: 11/25/2019

## Certificate of Analysis

**Customer:**  
QED ENVIRONMENTAL SYSTEMS

**Order #:** 1666448  
**Purchase Order #:** 134463

Results are reported in mole percent, unless otherwise indicated. Mixes are prepared via partial pressure methods, or gravimetrically, using high load high sensitivity electronic scales. Prior to use, scales are verified for accuracy using applicable NIST traceable weights; analyses are calibrated against reference materials traceable to NIST weights and/or NIST gas reference materials.

**Cylinder Size:** 105L    **CGA Connection:** C10    **Fill Pressure:** 1000 PSI

**Analysis:** Air Batch Analysis

**Lot #:** 4932903

<b>Component(s):</b>	<b>Requested Concentration(s):</b>	<b>Actual Concentration(s):</b>
Oxygen	19.5%-23.5%	20.8%
Moisture	< 3 PPM	1.2 PPM
THC	< 0.1 PPM	< 0.1 PPM
CO/CO2	< 1 PPM	< 1 PPM

**Expiration Date:** 11/2022

**Comments:** MEETS OR EXCEEDS ULTRA ZERO GRADE AIR

**Approved By:**

Ron Abbott

**CGAIR-0**

AIR: ULTRA ZERO GRADE



CGAIR-0

The information contained herein has been prepared at your request by qualified experts. While we believe that the information is accurate within the limits of the analytical methods employed, and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any particular purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability arising out of the use of the information contained herein exceed the fee established for providing such information.



WASTE MANAGEMENT  
172 98<sup>th</sup> Avenue  
Oakland, CA 94603  
(510) 430-8509

May 4, 2021

Mr. Patrick Madej  
Tri-Cities Recycling and Disposal Facility  
7010 Auto Mall Parkway  
Fremont, California 94538

**Re: First Quarter 2021 Surface Emissions and Component Leak Monitoring Report for Tri-Cities Recycling and Disposal Facility**

Dear Mr. Madej:

This monitoring report for “Tri-Cities Recycling and Disposal Facility (TCRDF)” contains the results of the First Quarter 2021 Integrated and Instantaneous Surface Emissions Monitoring (SEM) and Component Leak Monitoring. All monitoring was performed by SCS Engineers (SCS).

#### **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**

- 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).
- CCR Title 17, Subchapter 10, Article 4, Subarticle 6, §95464.

## **TCRDF 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 according to the methods outlined in the July 1, 2016 ACO.

## **PROCEDURES**

### **General**

The surface of the TCRDF disposal area has been divided into one-hundred-and-nine (109), 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 TCRDF 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.

The monitoring probe was positioned 2 inches above the ground surface. While walking, the wand tip of the flame ionization detector (FID) was held within 2 inches of the landfill surface while traversing the grid. Per the approved alternative request, the wand tip of the FID was held at 2 inches of vegetation in areas where the landfill surface is covered with low-lying vegetation such as grasses while traversing the grid.

### **Monitoring Path**

The TCRDF completed four consecutive instantaneous and integrated monitoring events with no exceedances. Pursuant to §95471(c)(1)(B)1., sites that complete four consecutive integrated and instantaneous monitoring events with no exceedances may increase the walking pattern spacing from a 25-foot spacing to a 100-foot spacing. In the event that an integrated or instantaneous exceedance cannot be remediated within 10 calendar days or an exceedance is observed during a compliance inspection, the TCRDF will be required to revert to 25-foot spacing.

### **Combined Instantaneous and Integrated Surface Emissions Monitoring**

The instantaneous and integrated SEM were performed simultaneously by SCS using Thermo Scientific TVA2020 flame ionization detectors (FID), calibrated to 500 parts per million by volume (ppm<sub>v</sub>) methane. The devices meet or exceed all guidelines set forth in the CCR Title 17 §95471(a) and the United States Environmental Protection Agency (USEPA) Method 21 requirements.

SCS personnel walked the surface of the landfill on a grid by grid basis. After completing 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<sub>v</sub> (areas of concern) or 500 ppm<sub>v</sub> (exceedances) for instantaneous were recorded, flagged, and marked on an SEM Map. 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.

The combined monitoring was conducted in accordance with the requirements of CCR Title 17 §95471(c)(2). Grids with results greater than 25 ppm<sub>v</sub> were recorded, marked on the SEM map, and flagged for remediation. Any grids with integrated concentrations greater than 25 ppm<sub>v</sub> are subject to the following corrective action and re-monitoring timeline:

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

### **Component Leak Monitoring Procedures**

SCS monitored the exposed LFG components under positive pressure (pipes, well heads, valves, blowers, and other mechanical appurtenances). All component leaks measured within 0.5 inches exceeding the compliance limit of 500 ppm<sub>v</sub> per requirements outlined in pursuant to §Section 95464(b)(1)(B) and 1,000 ppm per requirements outlined in BAAQMD 8-34-303 were recorded. Component leaks are subject to the following timelines:

- 500-999 ppm<sub>v</sub> leaks are subject to a 10-day repair and re-monitoring deadline from §95469(b)(3).
- Leaks at or above 1000 ppm<sub>v</sub> are subject a 7-day repair and re-monitoring deadline from BAAQMD 8-34-301.2.

### **FIRST QUARTER 2021 SEM AND COMPONENT LEAK RESULTS**

The following is a summary of the SEM and component leak monitoring results completed for the First Quarter 2021.

#### **Instantaneous Surface Emissions Monitoring Results**

The Instantaneous surface monitoring was performed on January 12, 2021 in accordance with the NSPS, BAAQMD 8-34, and CCR Title 17 §95469 and ACO. There were no readings greater than 200 ppm<sub>v</sub> or 500 ppm<sub>v</sub> observed during the initial monitoring. Results are summarized in Attachment A.

#### **Integrated Surface Emissions Monitoring Results**

The Integrated surface sampling (ISS) was performed on January 12, 2021 in accordance with the ACO and requirements outlined in CCR Title 17 §95469. There were no grids with exceedances of 25 ppm<sub>v</sub> as methane detected. Results are summarized in Attachment B.

#### **Reduction of SEM Frequency**

The TCRDF has completed four consecutive instantaneous and integrated monitoring events with no exceedances. Pursuant to §95469(2)(C), any closed or inactive areas of active MSW landfills with no integrated exceedances for four consecutive quarters may reduce the frequency of integrated and instantaneous SEM to an annual basis. In the event that an exceedance cannot be remediated within 10 calendar days or an exceedance is observed during a compliance inspection, the TCRDF will be required to revert to quarterly monitoring. The next SEM event is due by March 31, 2022.

Pursuant to 8-34-506, landfills that are closed as defined in 8-34-223 with no exceedances in three consecutive quarters may reduce the frequency of instantaneous SEM to an annual basis. Any exceedance detected during annual monitoring will require the site to revert to quarterly monitoring.

### **Component Leak Monitoring Results**

Component leak monitoring was conducted per the applicable requirements on January 12, 2021. There were no leaks detected above 500 ppm<sub>v</sub>. Results are summarized in Attachment C.

### **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 data recorder that records the wind speed and direction. The chart data is in Attachment D and shows that all monitoring met the wind speed requirements from the ACO (no gusts greater than 20 miles per hour, average wind speed cannot exceed 10 mph).

#### **Precipitation Requirements**

Initial monitoring was carefully scheduled to meet the precipitation requirements from the BAAQMD's June 27, 2016 response letter to the ACO (no precipitation  $\geq 0.01$ " within 24 hours,  $\geq 0.16$ " within 48 hours, nor  $\geq 0.25$ " within 72 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. Precipitation data is included with the wind data in Attachment D.

### **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<sub>v</sub> in air for integrated sample analyses and 500 ppm<sub>v</sub> 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: response time test record; response factor determination for methane; Calibration Precision test records; 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) 613-2852.

Thank you,  
Waste Management

A handwritten signature in black ink that reads "Michael Chan". The signature is written in a cursive style and is centered within a light gray rectangular box.

Michael Chan  
Environmental Protection Air Specialist

**Attachment A – Instantaneous Surface Emission Monitoring Event Records**

- Monitoring Logs and Exceedances
- SEM Map
- Instantaneous Surface Emissions Monitoring Results

**Attachment B – Integrated Surface Emission Monitoring Event Records**

- Monitoring Logs and Exceedances
- SEM Map
- Integrated Surface Emissions Monitoring Results

**Attachment C –Component Leak Monitoring Event Records**

- Component Leak Exceedances and Monitoring Logs

**Attachment D –Weather Data**

- Weather Station 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**

**2021 QUARTER:** 1  
**PERFORMED BY:** SCS  
**LANDFILL NAME:** Tri-Cities Recycling and Disposal Facility

Flag Number	Grid Number	Date of Monitoring	Concentration of Emission (ppmv)	Comments
No exceedances				
<b>Notes:</b> Please refer to field data sheets for details				

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

**2021 QUARTER:** 1

**INITIAL MONITORING PERFORMED BY:** SCS

**FOLLOW-UP MONITORING PERFORMED BY:** N/A

**LANDFILL NAME:** Tri-Cities Recycling and Disposal Facility

Initial Monitoring Event			1st 10-day Follow-Up			1st 30-day Follow-Up			Comments
Flag Number	Monitoring Date	Field Reading	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	
N/A									No exceedances

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

**2021 QUARTER:** 1

**INITIAL MONITORING PERFORMED BY:** SCS

**FOLLOW-UP MONITORING PERFORMED BY:** N/A

**LANDFILL NAME:** Tri-Cities Recycling and Disposal Facility

Initial Monitoring Event			1st Re-mon Event - 10 Days			Comments
Flag Number	Monitoring Date	Field Reading	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	
N/A						No exceedances

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

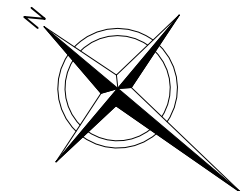
**2021 QUARTER: 1**

**INITIAL MONITORING PERFORMED BY: SCS**

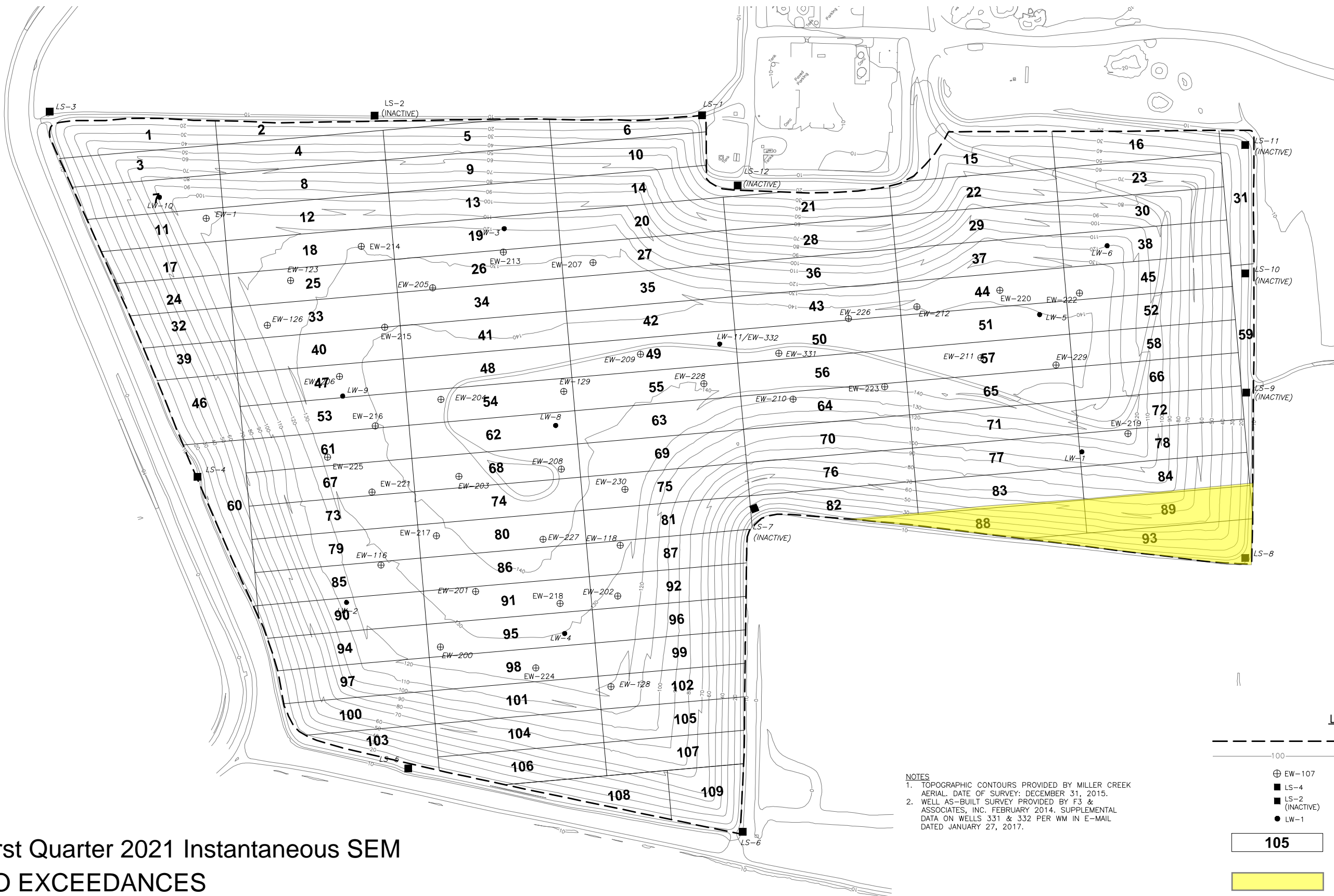
**FOLLOW-UP MONITORING PERFORMED BY: N/A**

**LANDFILL NAME: Tri-Cities Recycling and Disposal Facility**

Initial Monitoring Event			Re-mon Event		Comments
Flag Number	Monitoring Date	Field Reading	Monitoring Date	Reading ppm	
N/A					No 200-499 ppmv locations



0 150 300  
SCALE IN FEET



**LEGEND**

- EXISTING SOLID WASTE BOUNDARY
- 100--- EXISTING 10' CONTOUR
- ⊕ EW-107 EXISTING LFG EXTRACTION WELL
- LS-4 EXISTING LEACHATE SUMP
- LS-2 (INACTIVE) INDICATES CURRENTLY INACTIVE LEACHATE SUMP
- LW-1 EXISTING LEACHATE LEVEL MONITORING WELL
- 105 SEM GRID BLOCK
- Unsafe Area

**NOTES**

1. TOPOGRAPHIC CONTOURS PROVIDED BY MILLER CREEK AERIAL. DATE OF SURVEY: DECEMBER 31, 2015.
2. WELL AS-BUILT SURVEY PROVIDED BY F3 & ASSOCIATES, INC. FEBRUARY 2014. SUPPLEMENTAL DATA ON WELLS 331 & 332 PER WM IN E-MAIL DATED JANUARY 27, 2017.

# First Quarter 2021 Instantaneous SEM NO EXCEEDANCES

Update on 6/16/2017 - EW-331 and EW-332 decommissioned

1" 1/2" 0"

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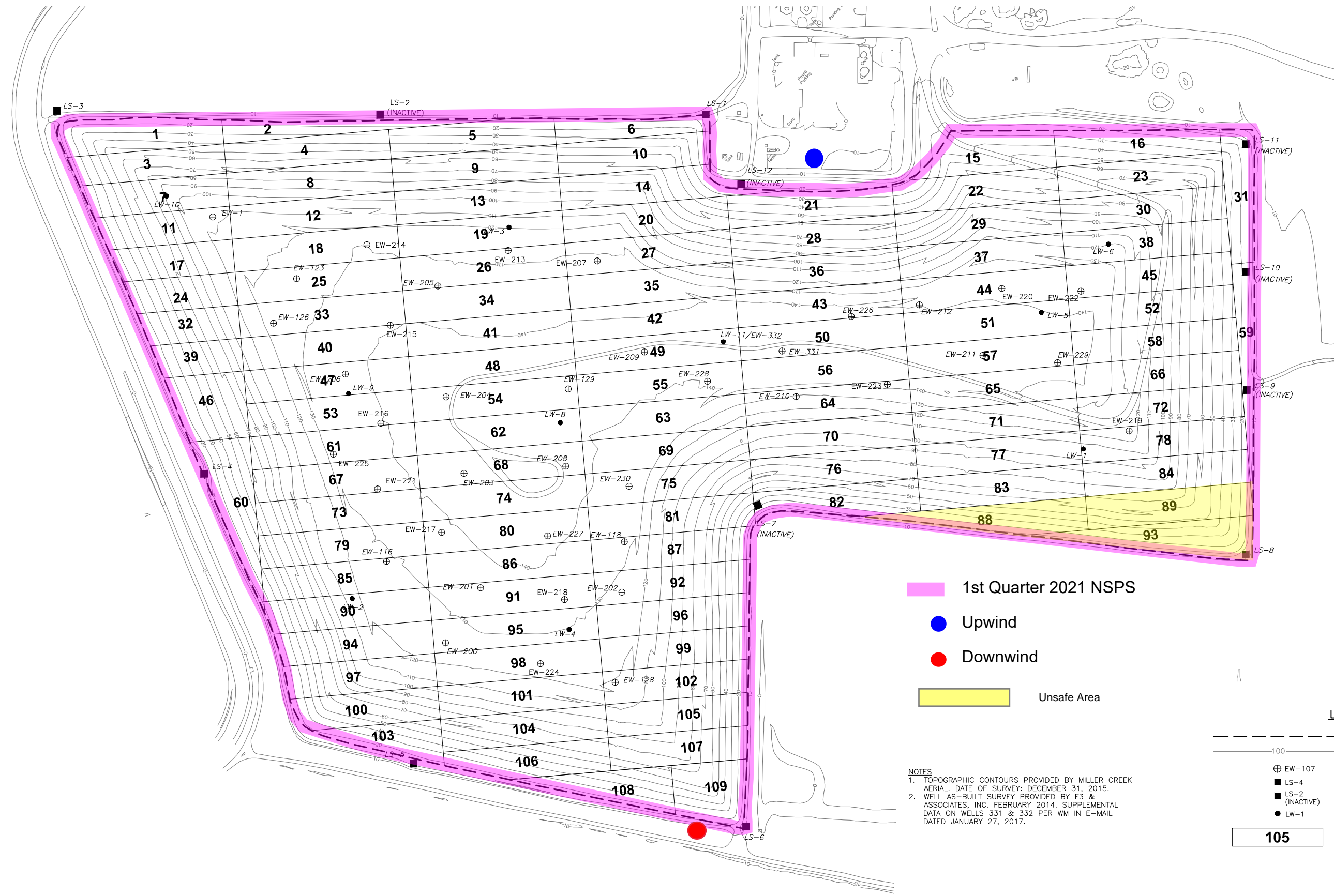
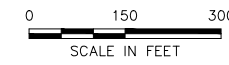
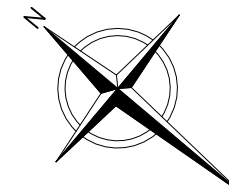
REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
	02/01/17			RAW	JAB	



TRI-CITIES RECYCLING AND DISPOSAL FACILITY  
FREMONT, CALIFORNIA

**SURFACE EMISSION MONITORING  
GRID MAP**

SHEET NO.  
**1**  
PROJECT NO.  
170138



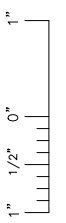
- 1st Quarter 2021 NSPS
- Upwind
- Downwind
- Unsafe Area

**LEGEND**

- EXISTING SOLID WASTE BOUNDARY
- EXISTING 10' CONTOUR
- EW-107 EXISTING LFG EXTRACTION WELL
- LS-4 EXISTING LEACHATE SUMP
- LS-2 (INACTIVE) INDICATES CURRENTLY INACTIVE LEACHATE SUMP
- LW-1 EXISTING LEACHATE LEVEL MONITORING WELL
- 105 SEM GRID BLOCK

**NOTES**

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REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE: 02/01/17  
 DRAWN BY: RAW  
 DESIGNED BY:   
 CHECKED BY: JAB  
 APPROVED BY:   
 DATE OF ISSUE: 02/01/17



TRI-CITIES RECYCLING AND DISPOSAL FACILITY  
 FREMONT, CALIFORNIA

**SURFACE EMISSION MONITORING  
 GRID MAP**

SHEET NO.  
**1**  
 PROJECT NO.  
 170138

## First Quarter 2021

### Table 2. Integrated Surface Emissions Monitoring Results Tri-Cities Recycling and Disposal Facility, Fremont, California

Point Name	Record Date	FID Concentration (ppm)	Minimum Instantaneous Concentration (ppmv)	Maximum Instantaneous Concentration (ppmv)	Comments
1	1/12/2021	4.93	2.40	11.20	
2	1/12/2021	3.03	2.30	6.40	
3	1/12/2021	7.15	2.40	46.40	
4	1/12/2021	4.98	4.40	6.80	
5	1/12/2021	4.56	3.80	5.70	
6	1/12/2021	5.23	4.40	6.90	
7	1/12/2021	2.99	2.20	5.00	
8	1/12/2021	2.33	2.10	3.30	
9	1/12/2021	2.16	2.10	2.20	
10	1/12/2021	2.20	2.20	2.30	
11	1/12/2021	3.90	2.00	7.40	
12	1/12/2021	1.85	1.70	2.00	
13	1/12/2021	1.88	1.80	1.90	
14	1/12/2021	1.89	1.80	2.00	
15	1/12/2021	1.97	1.90	2.10	
16	1/12/2021	1.99	1.90	2.00	
17	1/12/2021	10.32	5.20	24.50	
18	1/12/2021	4.87	4.60	5.30	
19	1/12/2021	4.61	4.30	4.90	
20	1/12/2021	4.48	4.20	4.90	
21	1/12/2021	5.59	4.40	13.60	
22	1/12/2021	4.81	4.40	5.20	
23	1/12/2021	5.56	4.90	6.00	
24	1/12/2021	2.94	2.60	4.50	
25	1/12/2021	2.53	2.50	2.60	
26	1/12/2021	2.49	2.40	2.50	
27	1/12/2021	2.50	2.50	2.50	
28	1/12/2021	2.48	2.40	2.50	
29	1/12/2021	2.44	2.40	2.50	
30	1/12/2021	2.37	2.30	2.40	
31	1/12/2021	2.17	1.80	2.30	
32	1/12/2021	3.36	2.00	7.40	
33	1/12/2021	1.73	1.70	1.90	
34	1/12/2021	1.79	1.70	2.10	
35	1/12/2021	1.81	1.70	1.90	
36	1/12/2021	1.88	1.80	2.00	
37	1/12/2021	1.79	1.70	1.90	
38	1/12/2021	1.79	1.70	1.80	
39	1/12/2021	9.84	5.40	18.80	
40	1/12/2021	4.83	4.60	5.10	
41	1/12/2021	4.89	4.60	5.10	
42	1/12/2021	5.18	4.90	5.40	
43	1/12/2021	5.13	4.60	5.80	
44	1/12/2021	5.21	5.00	5.60	
45	1/12/2021	5.57	5.30	5.80	
46	1/12/2021	1.84	0.90	2.70	
47	1/12/2021	2.73	2.70	2.80	





## First Quarter 2021

### Table 2. Integrated Surface Emissions Monitoring Results Tri-Cities Recycling and Disposal Facility, Fremont, California

Point Name	Record Date	FID Concentration (ppm)	Minimum Instantaneous Concentration (ppmv)	Maximum Instantaneous Concentration (ppmv)	Comments
48	1/12/2021	1.00	1.00	1.00	
49	1/12/2021	1.05	1.00	1.10	
50	1/12/2021	1.03	1.00	1.10	
51	1/12/2021	1.10	1.00	1.10	
52	1/12/2021	1.11	1.00	1.20	
53	1/12/2021	1.90	1.80	2.00	
54	1/12/2021	1.89	1.80	1.90	
55	1/12/2021	1.88	1.80	1.90	
56	1/12/2021	1.88	1.80	1.90	
57	1/12/2021	1.92	1.90	2.00	
58	1/12/2021	1.95	1.90	2.00	
59	1/12/2021	2.17	2.10	2.40	
60	1/12/2021	2.21	2.10	2.30	
61	1/12/2021	6.45	6.10	6.80	
62	1/12/2021	6.21	6.00	6.40	
63	1/12/2021	6.09	5.90	6.30	
64	1/12/2021	6.07	5.90	6.20	
65	1/12/2021	5.94	5.70	6.20	
66	1/12/2021	5.88	5.70	6.00	
67	1/12/2021	1.41	1.30	1.50	
68	1/12/2021	1.31	1.30	1.40	
69	1/12/2021	1.26	1.20	1.30	
70	1/12/2021	1.25	1.20	1.30	
71	1/12/2021	1.20	1.20	1.20	
72	1/12/2021	1.20	1.20	1.20	
73	1/12/2021	2.12	2.10	2.20	
74	1/12/2021	2.02	2.00	2.10	
75	1/12/2021	2.03	2.00	2.10	
76	1/12/2021	2.02	2.00	2.10	
77	1/12/2021	2.01	2.00	2.10	
78	1/12/2021	2.01	2.00	2.10	
79	1/12/2021	6.57	6.40	6.90	
80	1/12/2021	6.61	6.40	6.90	
81	1/12/2021	6.72	6.40	6.90	
82	1/12/2021	1.20	1.00	1.40	
83	1/12/2021	1.41	1.20	1.70	
84	1/12/2021	1.44	1.20	1.80	
85	1/12/2021	1.43	1.40	1.50	
86	1/12/2021	1.50	1.50	1.50	
87	1/12/2021	1.53	1.50	1.60	
88	--	--	--	--	Native
89	--	--	--	--	Native
90	1/12/2021	2.18	2.10	2.20	
91	1/12/2021	2.13	2.10	2.20	
92	1/12/2021	2.20	2.10	2.30	
93	--	--	--	--	Native
94	1/12/2021	1.93	1.60	2.20	



## First Quarter 2021

**Table 2. Integrated Surface Emissions Monitoring Results  
Tri-Cities Recycling and Disposal Facility, Fremont, California**

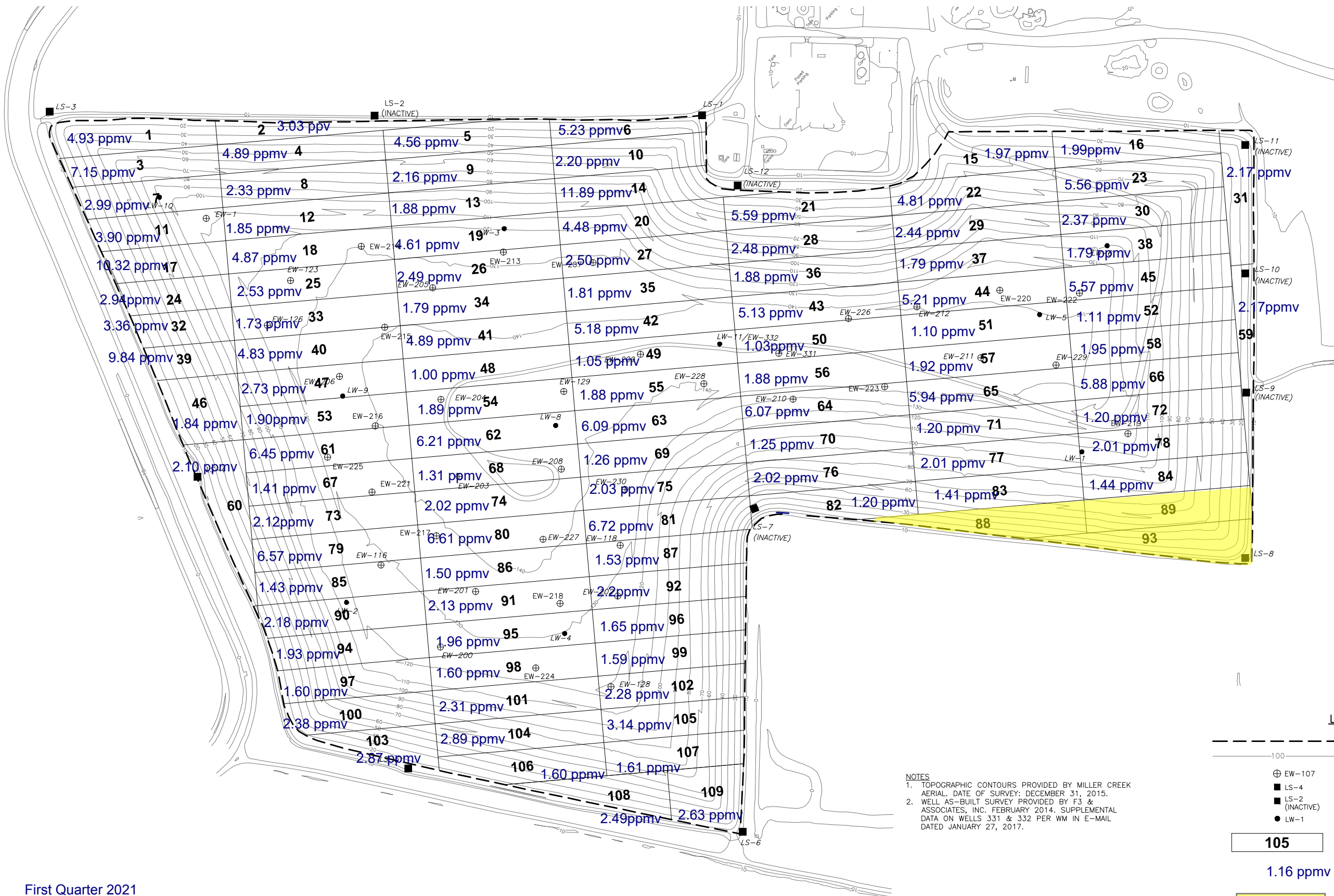
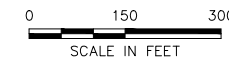
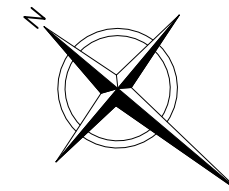
Point Name	Record Date	FID Concentration (ppm)	Minimum Instantaneous Concentration (ppmv)	Maximum Instantaneous Concentration (ppmv)	Comments
95	1/12/2021	1.96	1.70	2.30	
96	1/12/2021	1.65	1.40	1.80	
97	1/12/2021	1.60	1.60	1.60	
98	1/12/2021	1.60	1.50	1.60	
99	1/12/2021	1.59	1.50	1.60	
100	1/12/2021	2.38	2.30	2.40	
101	1/12/2021	2.31	2.20	2.40	
102	1/12/2021	2.28	2.20	2.30	
103	1/12/2021	2.87	2.70	3.10	
104	1/12/2021	2.89	2.70	3.10	
105	1/12/2021	3.14	2.80	3.50	
106	1/12/2021	1.60	1.60	1.60	
107	1/12/2021	1.61	1.60	1.70	
108	1/12/2021	2.49	2.40	2.50	
109	1/12/2021	2.63	2.50	2.70	



**Attachment B**

Integrated Surface Emission Monitoring Event Records





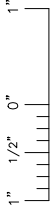
**LEGEND**

- EXISTING SOLID WASTE BOUNDARY
- EXISTING 10' CONTOUR
- EW-107 EXISTING LFG EXTRACTION WELL
- LS-4 EXISTING LEACHATE SUMP
- LS-2 (INACTIVE) INDICATES CURRENTLY INACTIVE LEACHATE SUMP
- LW-1 EXISTING LEACHATE LEVEL MONITORING WELL
- SEM GRID BLOCK
- Integrated Surface Emissions Results
- Unsafe Area

**NOTES**

1. TOPOGRAPHIC CONTOURS PROVIDED BY MILLER CREEK AERIAL. DATE OF SURVEY: DECEMBER 31, 2015.
2. WELL AS-BUILT SURVEY PROVIDED BY F3 & ASSOCIATES, INC. FEBRUARY 2014. SUPPLEMENTAL DATA ON WELLS 331 & 332 PER WM IN E-MAIL DATED JANUARY 27, 2017.

First Quarter 2021  
 Integrated Surface Emissions  
 Monitoring Results  
 No Exceedances



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REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
DATE OF ISSUE	02/01/17	DRAWN BY	RAW	CHECKED BY	JAB	APPROVED BY



TRI-CITIES RECYCLING AND DISPOSAL FACILITY  
 FREMONT, CALIFORNIA

**SURFACE EMISSION MONITORING  
 GRID MAP**

SHEET NO.  
**1**  
 PROJECT NO.  
 170138

## First Quarter 2021

### Table 2. Integrated Surface Emissions Monitoring Results Tri-Cities Recycling and Disposal Facility, Fremont, California

Point Name	Record Date	FID Concentration (ppm)	Minimum Instantaneous Concentration (ppmv)	Maximum Instantaneous Concentration (ppmv)	Comments
1	1/12/2021	4.93	2.40	11.20	
2	1/12/2021	3.03	2.30	6.40	
3	1/12/2021	7.15	2.40	46.40	
4	1/12/2021	4.98	4.40	6.80	
5	1/12/2021	4.56	3.80	5.70	
6	1/12/2021	5.23	4.40	6.90	
7	1/12/2021	2.99	2.20	5.00	
8	1/12/2021	2.33	2.10	3.30	
9	1/12/2021	2.16	2.10	2.20	
10	1/12/2021	2.20	2.20	2.30	
11	1/12/2021	3.90	2.00	7.40	
12	1/12/2021	1.85	1.70	2.00	
13	1/12/2021	1.88	1.80	1.90	
14	1/12/2021	1.89	1.80	2.00	
15	1/12/2021	1.97	1.90	2.10	
16	1/12/2021	1.99	1.90	2.00	
17	1/12/2021	10.32	5.20	24.50	
18	1/12/2021	4.87	4.60	5.30	
19	1/12/2021	4.61	4.30	4.90	
20	1/12/2021	4.48	4.20	4.90	
21	1/12/2021	5.59	4.40	13.60	
22	1/12/2021	4.81	4.40	5.20	
23	1/12/2021	5.56	4.90	6.00	
24	1/12/2021	2.94	2.60	4.50	
25	1/12/2021	2.53	2.50	2.60	
26	1/12/2021	2.49	2.40	2.50	
27	1/12/2021	2.50	2.50	2.50	
28	1/12/2021	2.48	2.40	2.50	
29	1/12/2021	2.44	2.40	2.50	
30	1/12/2021	2.37	2.30	2.40	
31	1/12/2021	2.17	1.80	2.30	
32	1/12/2021	3.36	2.00	7.40	
33	1/12/2021	1.73	1.70	1.90	
34	1/12/2021	1.79	1.70	2.10	
35	1/12/2021	1.81	1.70	1.90	
36	1/12/2021	1.88	1.80	2.00	
37	1/12/2021	1.79	1.70	1.90	
38	1/12/2021	1.79	1.70	1.80	
39	1/12/2021	9.84	5.40	18.80	
40	1/12/2021	4.83	4.60	5.10	
41	1/12/2021	4.89	4.60	5.10	
42	1/12/2021	5.18	4.90	5.40	
43	1/12/2021	5.13	4.60	5.80	
44	1/12/2021	5.21	5.00	5.60	
45	1/12/2021	5.57	5.30	5.80	
46	1/12/2021	1.84	0.90	2.70	
47	1/12/2021	2.73	2.70	2.80	



## First Quarter 2021

### Table 2. Integrated Surface Emissions Monitoring Results Tri-Cities Recycling and Disposal Facility, Fremont, California

Point Name	Record Date	FID Concentration (ppm)	Minimum Instantaneous Concentration (ppmv)	Maximum Instantaneous Concentration (ppmv)	Comments
48	1/12/2021	1.00	1.00	1.00	
49	1/12/2021	1.05	1.00	1.10	
50	1/12/2021	1.03	1.00	1.10	
51	1/12/2021	1.10	1.00	1.10	
52	1/12/2021	1.11	1.00	1.20	
53	1/12/2021	1.90	1.80	2.00	
54	1/12/2021	1.89	1.80	1.90	
55	1/12/2021	1.88	1.80	1.90	
56	1/12/2021	1.88	1.80	1.90	
57	1/12/2021	1.92	1.90	2.00	
58	1/12/2021	1.95	1.90	2.00	
59	1/12/2021	2.17	2.10	2.40	
60	1/12/2021	2.21	2.10	2.30	
61	1/12/2021	6.45	6.10	6.80	
62	1/12/2021	6.21	6.00	6.40	
63	1/12/2021	6.09	5.90	6.30	
64	1/12/2021	6.07	5.90	6.20	
65	1/12/2021	5.94	5.70	6.20	
66	1/12/2021	5.88	5.70	6.00	
67	1/12/2021	1.41	1.30	1.50	
68	1/12/2021	1.31	1.30	1.40	
69	1/12/2021	1.26	1.20	1.30	
70	1/12/2021	1.25	1.20	1.30	
71	1/12/2021	1.20	1.20	1.20	
72	1/12/2021	1.20	1.20	1.20	
73	1/12/2021	2.12	2.10	2.20	
74	1/12/2021	2.02	2.00	2.10	
75	1/12/2021	2.03	2.00	2.10	
76	1/12/2021	2.02	2.00	2.10	
77	1/12/2021	2.01	2.00	2.10	
78	1/12/2021	2.01	2.00	2.10	
79	1/12/2021	6.57	6.40	6.90	
80	1/12/2021	6.61	6.40	6.90	
81	1/12/2021	6.72	6.40	6.90	
82	1/12/2021	1.20	1.00	1.40	
83	1/12/2021	1.41	1.20	1.70	
84	1/12/2021	1.44	1.20	1.80	
85	1/12/2021	1.43	1.40	1.50	
86	1/12/2021	1.50	1.50	1.50	
87	1/12/2021	1.53	1.50	1.60	
88	--	--	--	--	Native
89	--	--	--	--	Native
90	1/12/2021	2.18	2.10	2.20	
91	1/12/2021	2.13	2.10	2.20	
92	1/12/2021	2.20	2.10	2.30	
93	--	--	--	--	Native
94	1/12/2021	1.93	1.60	2.20	



## First Quarter 2021

### Table 2. Integrated Surface Emissions Monitoring Results Tri-Cities Recycling and Disposal Facility, Fremont, California

Point Name	Record Date	FID Concentration (ppm)	Minimum Instantaneous Concentration (ppmv)	Maximum Instantaneous Concentration (ppmv)	Comments
95	1/12/2021	1.96	1.70	2.30	
96	1/12/2021	1.65	1.40	1.80	
97	1/12/2021	1.60	1.60	1.60	
98	1/12/2021	1.60	1.50	1.60	
99	1/12/2021	1.59	1.50	1.60	
100	1/12/2021	2.38	2.30	2.40	
101	1/12/2021	2.31	2.20	2.40	
102	1/12/2021	2.28	2.20	2.30	
103	1/12/2021	2.87	2.70	3.10	
104	1/12/2021	2.89	2.70	3.10	
105	1/12/2021	3.14	2.80	3.50	
106	1/12/2021	1.60	1.60	1.60	
107	1/12/2021	1.61	1.60	1.70	
108	1/12/2021	2.49	2.40	2.50	
109	1/12/2021	2.63	2.50	2.70	





**Attachment C**

Component Leak Monitoring Event Records

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

2021 QUARTER: 1

LANDFILL NAME: Tri-Cities Recycling and Disposal Facility

Location	Initial Monitoring			Corrective Action		10-Day Remonitoring		
	Date	TOC (ppmv)	Tech	Date	Description	Date	TOC (ppmv)	Tech
No Exceedances								

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

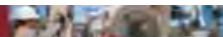
2021 QUARTER: 1

LANDFILL NAME: Tri-Cities Recycling and Disposal Facility

Location	Initial Monitoring			Corrective Action		7-Day Remonitoring		
	Date	TOC (ppmv)	Tech	Date	Description	Date	TOC (ppmv)	Tech
No Exceedances								

**First Quarter 2021  
Component Emissions Monitoring  
Tri-Cities Recycling and Disposal Facility, Fremont, California**

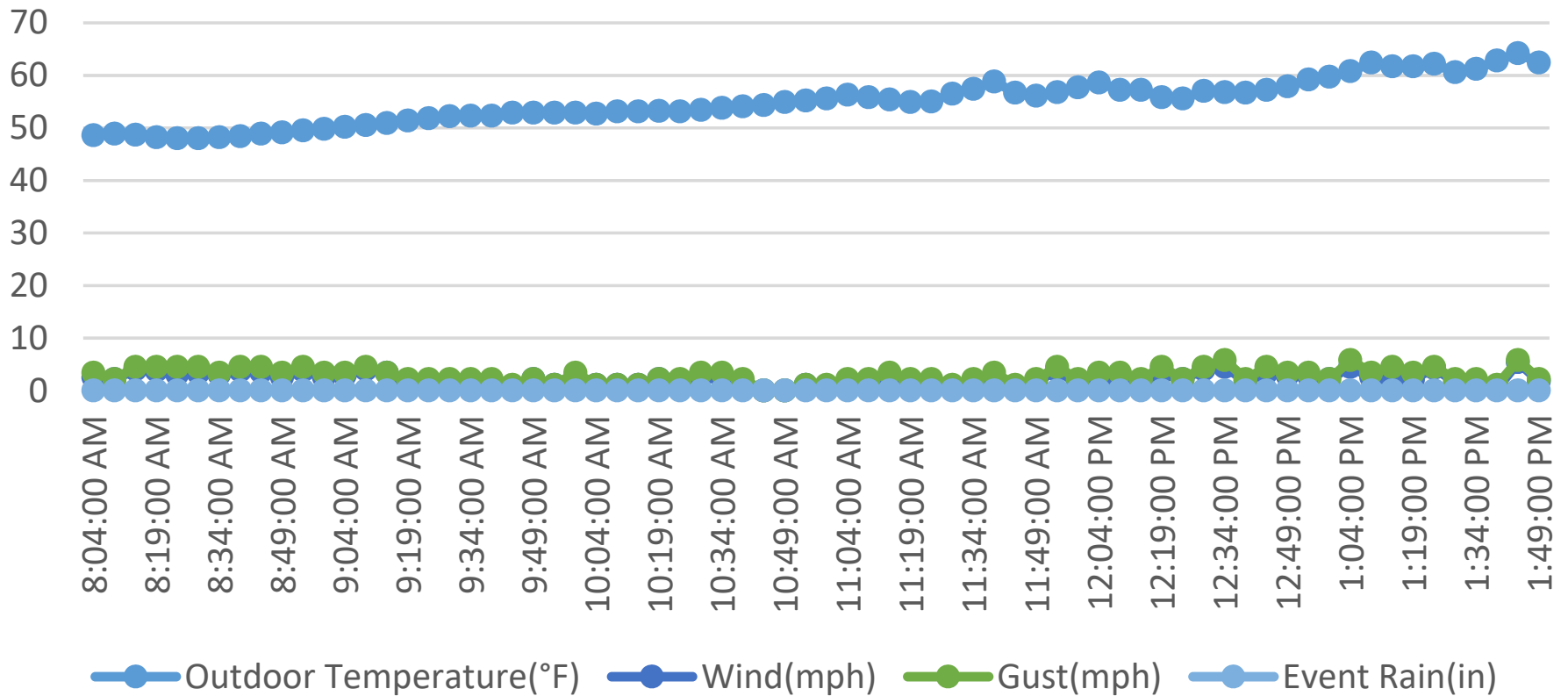
Device Name	Date Time	Valve PPM	Flex PPM	Bore Seal	Comments
TRIC0001	1/12/2021 0:00	2	2	3	
TRIC0116	1/12/2021 0:00	3	2	3	
TRIC0118	1/12/2021 0:00	2	2	3	
TRIC0123	1/12/2021 0:00	2	2	3	
TRIC0126	1/12/2021 0:00	2	2	5	
TRIC0128	1/12/2021 0:00	3	3	3	
TRIC0129	1/12/2021 0:00	2	2	3	
TRIC0200	1/12/2021 0:00	3	2	5	
TRIC0201	1/12/2021 0:00	2	2	3	
TRIC0202	1/12/2021 0:00	3	3	3	
TRIC0204	1/12/2021 0:00	3	2	5	
TRIC0205	1/12/2021 0:00	2	2	3	
TRIC0206	1/12/2021 0:00	4	3	3	
TRIC0207	1/12/2021 0:00	3	2	3	
TRIC0208	1/12/2021 0:00	3	3	5	
TRIC0209	1/12/2021 0:00	4	2	5	
TRIC0210	1/12/2021 0:00	3	3	3	
TRIC0211	1/12/2021 0:00	3	2	3	
TRIC0212	1/12/2021 0:00	3	3	2	
TRIC0213	1/12/2021 0:00	2	2	3	
TRIC0214	1/12/2021 0:00	2	3	3	
TRIC0215	1/12/2021 0:00	2	3	2	
TRIC0218	1/12/2021 0:00	3	3	3	
TRIC0219	1/12/2021 0:00	2	2	3	
TRIC0220	1/12/2021 0:00	3	2	4	
TRIC0222	1/12/2021 0:00	2	3	3	
TRIC0223	1/12/2021 0:00	2	3	4	
TRIC0224	1/12/2021 0:00	2	2	3	
TRIC0225	1/12/2021 0:00	3	3	3	
TRIC0226	1/12/2021 0:00	3	2	3	
TRIC0227	1/12/2021 0:00	3	3	4	
TRIC0228	1/12/2021 0:00	2	3	3	
TRIC0229	1/12/2021 0:00	3	3	3	
TRIC0230	1/12/2021 0:00	3	2	4	
TRICO203	1/12/2021 0:00	3	3	3	
TRICO203	1/12/2021 0:00	2	3	3	
TRICO216	1/12/2021 0:00	3	3	4	
TRICO217	1/12/2021 0:00	2	3	3	
TRICO221	1/12/2021 0:00	4	2	2	
Cond 1	1/12/2021 0:00	2	3	3	
PVC 1	1/12/2021 0:00	3	2	3	
PVC 2	1/12/2021 0:00	3	3	4	
Ejection Station 2	1/12/2021 0:00	3	3	3	
EW 131	1/12/2021 0:00	2	3	4	
GW	1/12/2021 0:00	2	2	4	



**Attachment D**

Weather Data

# Tri Cities Weather January 12, 2021



**Attachment E**

Calibration Records

## SURFACE EMISSIONS MONITORING CALIBRATION AND PERTINENT DATA

Date: 1-12-21 Site Name: Tri cities  
 Inspector(s): Ryan Instrument: TVA 2020

### WEATHER OBSERVATIONS

Wind Speed: 3 MPH Wind Direction: S Barometric Pressure: 30 "Hg  
 Air Temperature: 49 °F General Weather Conditions: cloudy

### CALIBRATION INFORMATION

Pre-monitoring Calibration Precision Check

*Procedure: Calibrate the instrument. Make a total of three measurements by alternating zero air and the calibration gas. Record the readings and calculate the average algebraic difference between the instrument reading and the calibration gas as a percentage. The calibration precision must be less than or equal to 10% of the calibration gas value.*

Instrument Serial Number: 1211 Cal Gas Concentration: 500ppm

Trial	Zero Air Reading	Cal Gas Reading	Cal Gas Conc.-Cal Gas Reading	Response Time (seconds)
1	3	499	1	3
2	2	500	0	2
3	0	501	1	3

Average Difference: .7  
\*Perform recalibration if average difference is greater than 10

Calibration Precision= Average Difference/Cal Gas Conc. X 100%

$$= 100\% \cdot \frac{.7}{500} \times 100\%$$

$$= 99.8\%$$

Span Sensitivity:

Trial 1:	Trial 3:
Counts Observed for the Span= <u>106616</u>	Counts Observed for the Span= <u>105152</u>
Counters Observed for the Zero= <u>4093</u>	Counters Observed for the Zero= <u>4083</u>
Trial 2:	
Counts Observed for the Span= <u>105216</u>	
Counters Observed for the Zero= <u>4089</u>	

Post Monitoring Calibration Check

Zero Air Reading: 0 ppm Cal Gas Reading: 500 ppm

### BACKGROUND CONCENTRATIONS CHECKS

Upwind Location Description: Flare Reading: 1.2 ppm  
 Downwind Location Description: Grid 120 Reading: 1.3 ppm

**Notes:** Wind speed averages were observed to remain below the alternative requested 10 miles per hour and no instantaneous speeds exceeded 20 miles per hour. No rainfall had occurred within the previous 24 hours of the monitoring event. Therefore, site meteorological conditions were within the requested alternatives of the LMR requirements on the above mentioned date.



**SURFACE EMISSIONS MONITORING  
CALIBRATION AND PERTINENT DATA**

Date: 1-12-21

Site Name: Tricities

Inspector(s): Rgan H

Instrument: TVA 2020

**WEATHER OBSERVATIONS**

Wind Speed: 3 MPH

Wind Direction: S

Barometric Pressure: 30 "Hg

Air Temperature: 56 °F

General Weather Conditions: cloudy

**CALIBRATION INFORMATION**

Pre-monitoring Calibration Precision Check

*Procedure: Calibrate the instrument. Make a total of three measurements by alternating zero air and the calibration gas. Record the readings and calculate the average algebraic difference between the instrument reading and the calibration gas as a percentage. The calibration precision must be less than or equal to 10% of the calibration gas value.*

Instrument Serial Number: 1211

Cal Gas Concentration: 500ppm

Trial	Zero Air Reading	Cal Gas Reading	Cal Gas Conc.-Cal Gas Reading	Response Time (seconds)
1	1	499	1	332
2	1	498	2	
3	0	501	1	

Average Difference: 1.3

\*Perform recalibration if average difference is greater than 10

Calibration Precision= Average Difference/Cal Gas Conc. X 100%

$$= \frac{100\% \cdot 1.3}{500} \times 100\% = 99.7\%$$

Span Sensitivity:

Trial 1:	Trial 2:
Counts Observed for the Span= <u>105234</u>	Counts Observed for the Span= <u>105376</u>
Counters Observed for the Zero= <u>3976</u>	Counters Observed for the Zero= <u>3988</u>

Trial 3:
Counts Observed for the Span= <u>105117</u>
Counters Observed for the Zero= <u>41009</u>

Post Monitoring Calibration Check

Zero Air Reading: 0 ppm

Cal Gas Reading: 500 ppm

**BACKGROUND CONCENTRATIONS CHECKS**

Upwind Location Description: Flare Reading: 1.3 ppm

Downwind Location Description: Grid 120 Reading: 1.2 ppm

**Notes:** Wind speed averages were observed to remain below the alternative requested 10 miles per hour and no instantaneous speeds exceeded 20 miles per hour. No rainfall had occurred within the previous 24 hours of the monitoring event. Therefore, site meteorological conditions were within the requested alternatives of the LMR requirements on the above mentioned date.

## SURFACE EMISSIONS MONITORING CALIBRATION AND PERTINENT DATA

Date: 1-12-21 Site Name: Tri cities  
 Inspector(s): Bryan Ochoa Instrument: TVA 2020

### WEATHER OBSERVATIONS

Wind Speed: 3 MPH Wind Direction: S Barometric Pressure: 30 "Hg  
 Air Temperature: 49 °F General Weather Conditions: cloudy

### CALIBRATION INFORMATION

Pre-monitoring Calibration Precision Check

*Procedure: Calibrate the instrument. Make a total of three measurements by alternating zero air and the calibration gas. Record the readings and calculate the average algebraic difference between the instrument reading and the calibration gas as a percentage. The calibration precision must be less than or equal to 10% of the calibration gas value.*

Instrument Serial Number: 1215 Cal Gas Concentration: 500ppm

Trial	Zero Air Reading	Cal Gas Reading	Cal Gas Conc.-Cal Gas Reading	Response Time (seconds)
1	<u>2</u>	<u>502</u>	<u>2</u>	<u>3</u>
2	<u>1</u>	<u>501</u>	<u>1</u>	<u>4</u>
3	<u>1</u>	<u>501</u>	<u>1</u>	<u>2</u>

Average Difference: 1.3  
\*Perform recalibration if average difference is greater than 10

Calibration Precision= Average Difference/Cal Gas Conc. X 100%

$$= 100\% \cdot \frac{1.3}{500} \times 100\%$$

$$= 99.7\%$$

Span Sensitivity:

<b>Trial 1:</b>	Counts Observed for the Span= <u>132583</u>	<b>Trial 3:</b>	Counts Observed for the Span= <u>132849</u>
	Counters Observed for the Zero= <u>3376</u>		Counters Observed for the Zero= <u>3376</u>
<b>Trial 2:</b>	Counts Observed for the Span= <u>132643</u>		
	Counters Observed for the Zero= <u>3438</u>		

Post Monitoring Calibration Check

Zero Air Reading: 0 ppm Cal Gas Reading: 500 ppm

### BACKGROUND CONCENTRATIONS CHECKS

Upwind Location Description: Flare Reading: 1.3 ppm  
 Downwind Location Description: Grid 120 Reading: 1.4 ppm

**Notes:** Wind speed averages were observed to remain below the alternative requested 10 miles per hour and no instantaneous speeds exceeded 20 miles per hour. No rainfall had occurred within the previous 24 hours of the monitoring event. Therefore, site meteorological conditions were within the requested alternatives of the LMR requirements on the above mentioned date.

Post

### SURFACE EMISSIONS MONITORING CALIBRATION AND PERTINENT DATA

Date: 1-12-21 Site Name: Tri cities  
Inspector(s): Bryan Ochoa Instrument: TVA 2020

#### WEATHER OBSERVATIONS

Wind Speed: 3 MPH Wind Direction: S Barometric Pressure: 30 "Hg  
Air Temperature: 56 °F General Weather Conditions: Cloudy

#### CALIBRATION INFORMATION

Pre-monitoring Calibration Precision Check

Procedure: Calibrate the instrument. Make a total of three measurements by alternating zero air and the calibration gas. Record the readings and calculate the average algebraic difference between the instrument reading and the calibration gas as a percentage. The calibration precision must be less than or equal to 10% of the calibration gas value.

Instrument Serial Number: 1215 Cal Gas Concentration: 500ppm

Trial	Zero Air Reading	Cal Gas Reading	Cal Gas Conc.-Cal Gas Reading	Response Time (seconds)
1	<u>1</u>	<u>499</u>	<u>1</u>	<u>3</u>
2	<u>0</u>	<u>502</u>	<u>2</u>	<u>2</u>
3	<u>1</u>	<u>501</u>	<u>1</u>	<u>4</u>

Average Difference: 1.3  
\*Perform recalibration if average difference is greater than 10

Calibration Precision= Average Difference/Cal Gas Conc. X 100%

$$= 100\% \cdot \frac{1.3}{500} \times 100\%$$

$$= 99.7\%$$

Span Sensitivity:

Trial 1:	Trial 3:
Counts Observed for the Span= <u>134563</u>	Counts Observed for the Span= <u>134421</u>
Counters Observed for the Zero= <u>3403</u>	Counters Observed for the Zero= <u>3481</u>
Trial 2:	
Counts Observed for the Span= <u>134624</u>	
Counters Observed for the Zero= <u>3426</u>	

Post Monitoring Calibration Check

Zero Air Reading: 0 ppm Cal Gas Reading: 500 ppm

#### BACKGROUND CONCENTRATIONS CHECKS

Upwind Location Description: Flare Reading: 1.1 ppm  
Downwind Location Description: Grid 120 Reading: 1.4 ppm

Notes: Wind speed averages were observed to remain below the alternative requested 10 miles per hour and no instantaneous speeds exceeded 20 miles per hour. No rainfall had occurred within the previous 24 hours of the monitoring event. Therefore, site meteorological conditions were within the requested alternatives of the LMR requirements on the above mentioned date.

## SURFACE EMISSIONS MONITORING CALIBRATION AND PERTINENT DATA

Date: 1-12-21 Site Name: Tricities  
 Inspector(s): Liam Instrument: TVA 2020

### WEATHER OBSERVATIONS

Wind Speed: 3 MPH Wind Direction: S Barometric Pressure: 30 "Hg  
 Air Temperature: 49 °F General Weather Conditions: cloudy

### CALIBRATION INFORMATION

Pre-monitoring Calibration Precision Check

*Procedure: Calibrate the instrument. Make a total of three measurements by alternating zero air and the calibration gas. Record the readings and calculate the average algebraic difference between the instrument reading and the calibration gas as a percentage. The calibration precision must be less than or equal to 10% of the calibration gas value.*

Instrument Serial Number: 1153 Cal Gas Concentration: 500ppm

Trial	Zero Air Reading	Cal Gas Reading	Cal Gas Conc.-Cal Gas Reading	Response Time (seconds)
1	0	502	2	5
2	1	500	0	3
3	0	499	1	3

Average Difference: 1  
\*Perform recalibration if average difference is greater than 10

Calibration Precision= Average Difference/Cal Gas Conc. X 100%

$$= 100\% - \frac{1}{500} \times 100\%$$

$$= \quad \%$$

Span Sensitivity:

Trial 1:	Trial 3:
Counts Observed for the Span= <u>158856</u>	Counts Observed for the Span= <u>159992</u>
Counters Observed for the Zero= <u>3220</u>	Counters Observed for the Zero= <u>3246</u>
Trial 2:	
Counts Observed for the Span= <u>160444</u>	
Counters Observed for the Zero= <u>3225</u>	

Post Monitoring Calibration Check

Zero Air Reading: 0 ppm Cal Gas Reading: 500 ppm

### BACKGROUND CONCENTRATIONS CHECKS

Upwind Location Description: Flare Reading: 1.4 ppm  
 Downwind Location Description: Grid 120 Reading: 1.2 ppm

**Notes:** Wind speed averages were observed to remain below the alternative requested 10 miles per hour and no instantaneous speeds exceeded 20 miles per hour. No rainfall had occurred within the previous 24 hours of the monitoring event. Therefore, site meteorological conditions were within the requested alternatives of the LMR requirements on the above mentioned date.

Post

### SURFACE EMISSIONS MONITORING CALIBRATION AND PERTINENT DATA

Date: 1-12-21  
Inspector(s): Liam M

Site Name: Tri cities  
Instrument: TVA 2020

#### WEATHER OBSERVATIONS

Wind Speed: 3 MPH      Wind Direction: S      Barometric Pressure: 30 "Hg  
Air Temperature: 56 °F      General Weather Conditions: Cloudy

#### CALIBRATION INFORMATION

Pre-monitoring Calibration Precision Check

*Procedure: Calibrate the instrument. Make a total of three measurements by alternating zero air and the calibration gas. Record the readings and calculate the average algebraic difference between the instrument reading and the calibration gas as a percentage. The calibration precision must be less than or equal to 10% of the calibration gas value.*

Instrument Serial Number: 1153      Cal Gas Concentration: 500ppm

Trial	Zero Air Reading	Cal Gas Reading	Cal Gas Conc.-Cal Gas Reading	Response Time (seconds)
1	<u>0</u>	<u>502</u>	<u>2</u>	<u>3</u>
2	<u>0</u>	<u>501</u>	<u>1</u>	<u>3</u>
3	<u>0</u>	<u>501</u>	<u>1</u>	<u>4</u>

Average Difference: 1.3  
\*Perform recalibration if average difference is greater than 10

Calibration Precision = Average Difference / Cal Gas Conc. X 100%

$$= \frac{100\% \cdot 1.3}{500} \times 100\% = 99.7\%$$

#### Span Sensitivity:

Trial 1:	Trial 3:
Counts Observed for the Span = <u>158642</u>	Counts Observed for the Span = <u>158865</u>
Counters Observed for the Zero = <u>3246</u>	Counters Observed for the Zero = <u>3289</u>
Trial 2:	
Counts Observed for the Span = <u>159351</u>	
Counters Observed for the Zero = <u>3257</u>	

#### Post Monitoring Calibration Check

Zero Air Reading: 0 ppm      Cal Gas Reading: 500 ppm

#### BACKGROUND CONCENTRATIONS CHECKS

Upwind Location Description: Flare      Reading: 1.4 ppm  
Downwind Location Description: grid 120      Reading: 1.2 ppm

**Notes:** Wind speed averages were observed to remain below the alternative requested 10 miles per hour and no instantaneous speeds exceeded 20 miles per hour. No rainfall had occurred within the previous 24 hours of the monitoring event. Therefore, site meteorological conditions were within the requested alternatives of the LMR requirements on the above mentioned date.

## SURFACE EMISSIONS MONITORING CALIBRATION AND PERTINENT DATA

Date: 1-12-21 Site Name: Tri cities  
 Inspector(s): Don Gibson Instrument: TVA 2020

### WEATHER OBSERVATIONS

Wind Speed: 3 MPH Wind Direction: S Barometric Pressure: 30 "Hg  
 Air Temperature: 49 °F General Weather Conditions: cloudy

### CALIBRATION INFORMATION

Pre-monitoring Calibration Precision Check

*Procedure: Calibrate the instrument. Make a total of three measurements by alternating zero air and the calibration gas. Record the readings and calculate the average algebraic difference between the instrument reading and the calibration gas as a percentage. The calibration precision must be less than or equal to 10% of the calibration gas value.*

Instrument Serial Number: 1220 Cal Gas Concentration: 500ppm

Trial	Zero Air Reading	Cal Gas Reading	Cal Gas Conc.-Cal Gas Reading	Response Time (seconds)
1	<u>2</u>	<u>500</u>	<u>0</u>	<u>3</u>
2	<u>1</u>	<u>500</u>	<u>0</u>	<u>3</u>
3	<u>1</u>	<u>500</u>	<u>1</u>	<u>3</u>

Average Difference: .3  
\*Perform recalibration if average difference is greater than 10

Calibration Precision = Average Difference / Cal Gas Conc. X 100%

$$= 100\% - \frac{.3}{500} \times 100\%$$

$$= \text{\%}$$

Span Sensitivity:

Trial 1:	Trial 3:
Counts Observed for the Span = <u>140864</u>	Counts Observed for the Span = <u>141580</u>
Counters Observed for the Zero = <u>4520</u>	Counters Observed for the Zero = <u>4473</u>
Trial 2:	
Counts Observed for the Span = <u>140988</u>	
Counters Observed for the Zero = <u>4463</u>	

Post Monitoring Calibration Check

Zero Air Reading: 0 ppm Cal Gas Reading: 500 ppm

### BACKGROUND CONCENTRATIONS CHECKS

Upwind Location Description: Flare Reading: 1.3 ppm  
 Downwind Location Description: Grid 120 Reading: 1.4 ppm

**Notes:** Wind speed averages were observed to remain below the alternative requested 10 miles per hour and no instantaneous speeds exceeded 20 miles per hour. No rainfall had occurred within the previous 24 hours of the monitoring event. Therefore, site meteorological conditions were within the requested alternatives of the LMR requirements on the above mentioned date.

Post

### SURFACE EMISSIONS MONITORING CALIBRATION AND PERTINENT DATA

Date: 1.12-21

Site Name: Tri cities

Inspector(s): Don G

Instrument: TVA 2020

#### WEATHER OBSERVATIONS

Wind Speed: 3 MPH

Wind Direction: 3

Barometric Pressure: 30 "Hg

Air Temperature: 56 °F

General Weather Conditions: Cloudy

#### CALIBRATION INFORMATION

Pre-monitoring Calibration Precision Check

Procedure: Calibrate the instrument. Make a total of three measurements by alternating zero air and the calibration gas. Record the readings and calculate the average algebraic difference between the instrument reading and the calibration gas as a percentage. The calibration precision must be less than or equal to 10% of the calibration gas value.

Instrument Serial Number: 1215

Cal Gas Concentration: 500ppm

Trial	Zero Air Reading	Cal Gas Reading	Cal Gas Conc.-Cal Gas Reading	Response Time (seconds)
1	<u>1</u>	<u>498</u>	<u>2</u>	<u>2</u>
2	<u>0</u>	<u>500</u>	<u>0</u>	<u>3</u>
3	<u>0</u>	<u>502</u>	<u>2</u>	<u>2</u>

Average Difference: 1.3

\*Perform recalibration if average difference is greater than 10

Calibration Precision= Average Difference/Cal Gas Conc. X 100%

$$= 100\% - \frac{1.3}{500} \times 100\%$$

$$= 99.7\%$$

Span Sensitivity:

**Trial 1:**  
 Counts Observed for the Span= 140362  
 Counters Observed for the Zero= 4421

**Trial 3:**  
 Counts Observed for the Span= 140273  
 Counters Observed for the Zero= 4464

**Trial 2:**  
 Counts Observed for the Span= 140211  
 Counters Observed for the Zero= 4473

#### Post Monitoring Calibration Check

Zero Air Reading: 0 ppm

Cal Gas Reading: 500 ppm

#### BACKGROUND CONCENTRATIONS CHECKS

Upwind Location Description: Flare Reading: 1.3 ppm

Downwind Location Description: Grid 120 Reading: 1.4 ppm

Notes: Wind speed averages were observed to remain below the alternative requested 10 miles per hour and no instantaneous speeds exceeded 20 miles per hour. No rainfall had occurred within the previous 24 hours of the monitoring event. Therefore, site meteorological conditions were within the requested alternatives of the LMR requirements on the above mentioned date.

# CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: TCRFD Date: 01/12/2021

Time: 07:12 AM        PM

Instrument Make: Thermo Scientific Model: TVA 2020 S/N: 202016021153

## 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): 1.4 ppm (a)
2. Downwind Reading (highest in 30 seconds): 1.2 ppm (b)

Calculate Background Value:

$$\frac{(a) + (b)}{2} \quad \text{Background} = \underline{1.35} \text{ ppm}$$

Performed by: Liam McGinn



# RESPONSE TIME TEST RECORD

Date: 01/12/2021

Expiration Date (3 months): 04/12/2021

Time: 7:00 AM \_\_\_\_\_ PM

Instrument Make: Thermo Scientific Model: TVA 2020 S/N: 202016021153

Measurement #1:

Stabilized Reading Using Calibration Gas: 502 ppm  
90% of the Stabilized Reading: 450 ppm  
Time to Reach 90% of Stabilized Reading after  
Switching from Zero Air to Calibration Gas: 3 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: 3 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: 3 seconds (c)

Calculate Response Time:

$$\frac{(a) + (b) + (c)}{3} = \underline{3.0} \text{ seconds (must be less than 30 seconds)}$$

Performed by: Liam McGinn

# CALIBRATION PRECISION TEST RECORD

Date: 01/12/2021

Expiration Date (3 months): 04/12/2021

Time: 7:00 AM PM

Instrument Make: Thermo Scientific Model: TVA 2020 S/N: 202016021153

Measurement #1:

Meter Reading for Zero Air: 0 ppm (a)

Meter Reading for Calibration Gas: 502 ppm (b)

Measurement #2:

Meter Reading for Zero Air: 1 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: 499 ppm (f)

Calculate Precision:

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

0.2 % (must be < than 10%)

Performed by: Liam McGinn

# CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: TCRFD Date: 01/12/2021

Time: 07:30 AM        PM

Instrument Make: Thermo Scientific Model: TVA 2020 S/N: 2020116031211

## 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): 1.2 ppm (a)
2. Downwind Reading (highest in 30 seconds): 1.3 ppm (b)

Calculate Background Value:

$$\frac{(a) + (b)}{2} \quad \text{Background} = \underline{1.25} \text{ ppm}$$

Performed by: Ryan Haslam

# RESPONSE TIME TEST RECORD

Date: 01/12/2021

Expiration Date (3 months): 04/12/2021

Time: 7:20 AM \_\_\_\_\_ PM

Instrument Make: Thermo Scientific Model: TVA 2020 S/N: 202016031211

Measurement #1:

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: 3 seconds (a)

Measurement #2:

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: 3 seconds (b)

Measurement #3:

Stabilized Reading Using Calibration Gas: 501 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:

$$\frac{(a) + (b) + (c)}{3} = \underline{2.67} \text{ seconds (must be less than 30 seconds)}$$

Performed by: Ryan Haslam

# CALIBRATION PRECISION TEST RECORD

Date: 01/12/2021

Expiration Date (3 months): 04/12/2021

Time: 7:20 AM        PM

Instrument Make: Thermo Scientific Model: TVA 2020 S/N: 202016031211

Measurement #1:

Meter Reading for Zero Air: 1 ppm (a)

Meter Reading for Calibration Gas: 499 ppm (b)

Measurement #2:

Meter Reading for Zero Air: 1 ppm (c)

Meter Reading for Calibration Gas: 498 ppm (d)

Measurement #3:

Meter Reading for Zero Air: 0 ppm (e)

Meter Reading for Calibration Gas: 501 ppm (f)

Calculate Precision:

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

0.27 % (must be < than 10%)

Performed by: Ryan Haslam

# CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: TCRFD Date: 01/12/2021

Time: 08:00 AM        PM

Instrument Make: Thermo Scientific Model: TVA 2020 S/N: 202016031215

## Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.  
Stable Reading = 501 ppm
3. Adjust meter to read 500 ppm.

## Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 1.1 ppm (a)
2. Downwind Reading (highest in 30 seconds): 1.4 ppm (b)

Calculate Background Value:

$$\frac{(a) + (b)}{2} \quad \text{Background} = \underline{1.25} \text{ ppm}$$

Performed by: Bryan Ochoa

# RESPONSE TIME TEST RECORD

Date: 01/12/2021

Expiration Date (3 months): 04/12/2021

Time: 07:45 AM \_\_\_\_\_ PM

Instrument Make: Thermo Scientific Model: TVA 2020 S/N: 202016031215

Measurement #1:

Stabilized Reading Using Calibration Gas: 502 ppm  
90% of the Stabilized Reading: 450 ppm  
Time to Reach 90% of Stabilized Reading after  
Switching from Zero Air to Calibration Gas: 3 seconds (a)

Measurement #2:

Stabilized Reading Using Calibration Gas: 501 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 (b)

Measurement #3:

Stabilized Reading Using Calibration Gas: 501 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:

$$\frac{(a) + (b) + (c)}{3} = \underline{3.00} \text{ seconds (must be less than 30 seconds)}$$

Performed by: Bryan Ochoa

# CALIBRATION PRECISION TEST RECORD

Date: 01/12/2021

Expiration Date (3 months): 04/12/2021

Time: 07:45 AM \_\_\_\_\_ PM

Instrument Make: Thermo Scientific Model: TVA 2020 S/N: 202016031215

Measurement #1:

Meter Reading for Zero Air: 2 ppm (a)

Meter Reading for Calibration Gas: 502 ppm (b)

Measurement #2:

Meter Reading for Zero Air: 1 ppm (c)

Meter Reading for Calibration Gas: 501 ppm (d)

Measurement #3:

Meter Reading for Zero Air: 1 ppm (e)

Meter Reading for Calibration Gas: 501 ppm (f)

Calculate Precision:

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

0.27 % (must be < than 10%)

Performed by: Bryan Ochoa



# CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: TCRFD Date: 01/12/2021

Time: 8:25 AM        PM

Instrument Make: Thermo Scientific Model: TVA 2020 S/N: 202016031220

## 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): 1.3 ppm (a)
2. Downwind Reading (highest in 30 seconds): 1.4 ppm (b)

Calculate Background Value:

$$\frac{(a) + (b)}{2} \quad \text{Background} = \underline{1.35} \text{ ppm}$$

Performed by: Don Gibson

## RESPONSE TIME TEST RECORD

Date: 01/12/2021

Expiration Date (3 months): 04/12/2021

Time: 8:15 AM \_\_\_\_\_ PM

Instrument Make: Thermo Scientific Model: TVA 2020 S/N: 202016031220

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: 500 ppm  
90% of the Stabilized Reading: 450 ppm  
Time to Reach 90% of Stabilized Reading after  
Switching from Zero Air to Calibration Gas: 3 seconds (b)

Measurement #3:

Stabilized Reading Using Calibration Gas: 502 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:

$$\frac{(a) + (b) + (c)}{3} = \underline{2.33} \text{ seconds (must be less than 30 seconds)}$$

Performed by: Don Gibson

## CALIBRATION PRECISION TEST RECORD

Date: 01/12/2021

Expiration Date (3 months): 04/12/2021

Time: 8:15 AM        PM

Instrument Make: Thermo Scientific Model: TVA 2020 S/N: 202016031220

Measurement #1:

Meter Reading for Zero Air: 1 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: 500 ppm (d)

Measurement #3:

Meter Reading for Zero Air: 1 ppm (e)

Meter Reading for Calibration Gas: 502 ppm (f)

Calculate Precision:

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

0.27 % (must be < than 10%)

Performed by: Don Gibson

# SERVICE REPORT

Thermo Environmental Instruments, Inc  
27 Forge Parkway  
Franklin, MA. 02038  
Phone: 866-282-0430  
Fax: 508-520-2800

RA#	DATE COMPLETED
2002285614	3/3/2020
CUSTOMER	
SCS	
CONTACT	
C FULTON	
MODEL	SERIAL NUMBER
TVA2020	202016031220

**REPORT SUBMITTED BY**

Contact: Daniel Pacheco  
Email: daniel.pacheco@thermofisher.com

**DESCRIPTION OF SERVICE REQUIRED:** Repair

**CONTAMINATED/HAZARDOUS:** No  
**DECONTAMINATION METHOD:** N/A

**ACCESSORIES RECEIVED:** enhanced probe, battery, tank, case, w/t probe (2), strap, tool kit, ext. probe.

**PHYSICAL INSPECTION** (inspected for damage, missing items, pm required, cleanliness, and accuracy)

- |                             |                                 |                               |
|-----------------------------|---------------------------------|-------------------------------|
| ✓ Compare unit to RA detail | ✓ H2 Tank                       | ✓ Probe Cables and Connectors |
| ✓ Labeling                  | ✓ H2 Tank Expiration Date: 6/29 | ✓ Battery Information: 8.0v   |
| ✓ Last Service Date: 7/19   | ✓ Hardware                      |                               |

**RECEIVED CONDITION:** Shows normal wear and tear for age and application

**INSTRUMENT AS FOUND:** turns on, pump issues.

**FLOWS AS FOUND**

Sample Flow (ml/min)	FID Flow (ml/min)	H2 Pressure (psi)	H2 Flow (ml/min)
1076	495	12	12

**FLOWS AS LEFT**

Sample Flow (ml/min)	FID Flow (ml/min)	H2 Pressure (psi)	H2 Flow (ml/min)
1006	418	12	13.3

**TEST EQUIPMENT AND SOURCES USED** Fluke Digital Voltmeter, Brooks Flow Meter, Model 146 Dilution Calibrator, Isobutylene (PID) and Methane Gas Standards

# SERVICE REPORT

Thermo Environmental Instruments, Inc

27 Forge Parkway  
Franklin, MA. 02038  
Phone: 866-282-0430  
Fax: 508-520-2800

## REPAIR NOTES: 202016031220

replace Ext probe CR011PF at customer request at \$762 and add it to \$1133 fixed price.

replace faulty pump and main board. update boot loader and install ver. 55S. change inlet filter. Perform a full pump & gas flow adjustment, testing, and calibration. Replaced defective parts listed.

**INSTRUMENT AS LEFT:** TVA performs fully to manufacturer specifications

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, formally the National Bureau of Standards (NBS). Calibration of customer equipment is performed with appropriate environmental controls, as required.

## PASSED HYDROGEN LEAK TEST

YES

## DRIFT TEST

Detector	Hour 1 Reading (ppm)	Hour 4 Reading (ppm)	Delta (ppm)	Tolerance
FID	2.4	1.8	.6	≤ 1 ppm Delta

## H2 RUN TIME TEST

Starting H2 psi	Run Time	Tolerance
2000	12+ hrs	≥ 1 hour run time per 200 psi of H2

## FINAL CALIBRATION

Detector	Cal Zero Counts	Cal Span Counts	Span Concentration (ppm)	Response Factor
FID	3142	118900	500	1

## REPEATABILITY TEST

FID	1 <sup>ST</sup> Check	2 <sup>ND</sup> Check	3 <sup>RD</sup> Check	Final Check	Tolerance
500 PPM	501	500	504	499	± 10%

## CALIBRATION CONCENTRATION TEST

Detector	Calibration Gas	Concentration(ppm)	TVA actual reading (ppm)	Tolerance (ppm)
FID	Zero Air	0	.1	≤ 3
FID	Methane	100	102	± 25
FID	Methane	500	500	± 125
FID	Methane	10000	1.0%	±2500

# SERVICE REPORT

Thermo Environmental Instruments, Inc

27 Forge Parkway

Franklin, MA. 02038

Phone: 866-282-0430

Fax: 508-520-2800

## PRE-BUTTON UP INSPECTION

- ✓ Tubing is secured and not crimped (where applicable).
- ✓ Serial Number/Voltage Labels intact and legible.
- ✓ Instrument cleaned.
- ✓ All hardware is secured. (Ex. Screws, connectors, tubing, etc.)
- ✓ Battery door lock tight
- ✓ Cables secured and Tie wrapped where applicable
- ✓ No loose debris within the instrument closure. (Screws, washers tubing, tywraps, etc.)
- ✓ Make sure TVA does not flame out when bumped.
- ✓ Remove sample line – TVA should **NOT** flame out. Leave off for 5 minutes minimum.
- ✓ Check battery voltage without charger being plugged in.
- ✓ Perform quick cal check with 10,000 ppm gas and insure spec. is met (90% of reading in 3.5 seconds up and 10% of reading in 20 seconds down)

## FINAL QC CHECKLIST

- ✓ Serial Number/Voltage Labels intact and legible.
- ✓ Instrument cleaned.
- ✓ Service Report and Calibration Report created for unit
- ✓ All received customer accessories accounted for and clearly identified.
- ✓ Instrument turns on.
- ✓ Ignition test (TVA models).
- ✓ Calibration labels/Report with instrument.
- ✓ Bill To/Ship to information properly indicated on CO.
- ✓ Quantities correct and complete on CO.

# SERVICE REPORT

**Thermo Environmental Instruments, Inc**

27 Forge Parkway  
Franklin, MA. 02038  
Phone: 866-282-0430  
Fax: 508-520-2800

RA#	DATE COMPLETED
2004289043	4/29/2020
CUSTOMER	
SCS ENG.	
CONTACT	
E SUAREZ	
MODEL	SERIAL NUMBER
TVA2020	202016031211

**REPORT SUBMITTED BY**

Contact: Daniel Pacheco  
Email: daniel.pacheco@thermofisher.com

**DESCRIPTION OF SERVICE REQUIRED:** Repair

**CONTAMINATED/HAZARDOUS:** No  
**DECONTAMINATION METHOD:** N/A

**ACCESSORIES RECEIVED:** enhanced probe, std probe, battery, refill, tank, case, w/t probe, tool kit, ext. probe

**PHYSICAL INSPECTION** (inspected for damage, missing items, pm required, cleanliness, and accuracy)

- ✓ Compare unit to RA detail
- ✓ Labeling
- ✓ Last Service Date: 4/19
- ✓ H2 Tank
- ✓ H2 Tank Expiration Date: 12/25
- ✓ Hardware
- ✓ Probe Cables and Connectors
- ✓ Battery Information: 7.9v

**RECEIVED CONDITION:** Shows normal wear and tear for age and application

**INSTRUMENT AS FOUND:** bad probe cable, dirty filters.

**FLOWS AS FOUND**

Sample Flow (ml/min)	FID Flow (ml/min)	H2 Pressure (psi)	H2 Flow (ml/min)
1213	495	12	12

**FLOWS AS LEFT**

Sample Flow (ml/min)	FID Flow (ml/min)	H2 Pressure (psi)	H2 Flow (ml/min)
1006	420	12	13.3

**TEST EQUIPMENT AND SOURCES USED** Fluke Digital Voltmeter, Brooks Flow Meter, Model 146 Dilution Calibrator, Isobutylene (PID) and Methane Gas Standards

# SERVICE REPORT

Thermo Environmental Instruments, Inc  
27 Forge Parkway  
Franklin, MA. 02038  
Phone: 866-282-0430  
Fax: 508-520-2800

## REPAIR NOTES: 202016031211

Replace probe cable assembly. change dirty inlet and water trap filters. replace broken extension probe. install new boot loader and ver. 55S

**INSTRUMENT AS LEFT:** TVA performs fully to manufacturer specifications

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, formally the National Bureau of Standards (NBS). Calibration of customer equipment is performed with appropriate environmental controls, as required.

## PASSED HYDROGEN LEAK TEST

YES

## DRIFT TEST

Detector	Hour 1 Reading (ppm)	Hour 4 Reading (ppm)	Delta (ppm)	Tolerance
FID	1.9	1.3	.6	≤ 1 ppm Delta

## H2 RUN TIME TEST

Starting H2 psi	Run Time	Tolerance
2000	12+ hrs.	≥ 1 hour run time per 200 psi of H2

## FINAL CALIBRATION

Detector	Cal Zero Counts	Cal Span Counts	Span Concentration (ppm)	Response Factor
FID	3524	112548	500	1

## REPEATABILITY TEST

FID	1 <sup>ST</sup> Check	2 <sup>ND</sup> Check	3 <sup>RD</sup> Check	Final Check	Tolerance
500 PPM	500	506	506	499	± 10%

## CALIBRATION CONCENTRATION TEST

Detector	Calibration Gas	Concentration(ppm)	TVA actual reading (ppm)	Tolerance (ppm)
FID	Zero Air	0	0	≤ 3
FID	Methane	100	100	± 25
FID	Methane	500	500	± 125
FID	Methane	10000	1.09%	±2500



# SERVICE REPORT

Thermo Environmental Instruments, Inc

27 Forge Parkway

Franklin, MA. 02038

Phone: 866-282-0430

Fax: 508-520-2800

## PRE-BUTTON UP INSPECTION

- ✓ Tubing is secured and not crimped (where applicable).
- ✓ Serial Number/Voltage Labels intact and legible.
- ✓ Instrument cleaned.
- ✓ All hardware is secured. (Ex. Screws, connectors, tubing, etc.)
- ✓ Battery door lock tight
- ✓ Cables secured and Tie wrapped where applicable
- ✓ No loose debris within the instrument closure. (Screws, washers tubing, tywraps, etc.)
- ✓ Make sure TVA does not flame out when bumped.
- ✓ Remove sample line – TVA should **NOT** flame out. Leave off for 5 minutes minimum.
- ✓ Check battery voltage without charger being plugged in.
- ✓ Perform quick cal check with 10,000 ppm gas and insure spec. is met (90% of reading in 3.5 seconds up and 10% of reading in 20 seconds down)

## FINAL QC CHECKLIST

- ✓ Serial Number/Voltage Labels intact and legible.
- ✓ Instrument cleaned.
- ✓ Service Report and Calibration Report created for unit
- ✓ All received customer accessories accounted for and clearly identified.
- ✓ Instrument turns on.
- ✓ Ignition test (TVA models).
- ✓ Calibration labels/Report with instrument.
- ✓ Bill To/Ship to information properly indicated on CO.
- ✓ Quantities correct and complete on CO.

# SERVICE REPORT

**Thermo Environmental Instruments, Inc**  
 27 Forge Parkway  
 Franklin, MA. 02038  
 Phone: 866-282-0430  
 Fax: 508-520-2800

RA#	DATE COMPLETED
1909266773	10/11/19
CUSTOMER	
SCS FIELD SERVICES	
CONTACT	
R Lucero	
MODEL	SERIAL NUMBER
TVA2020	202016021153

**REPORT SUBMITTED BY**

Contact: Daniel Pacheco  
 Email: daniel.pacheco@thermofisher.com

**DESCRIPTION OF SERVICE REQUIRED:** Calibration

**CONTAMINATED/HAZARDOUS:** No  
**DECONTAMINATION METHOD:** N/A

**ACCESSORIES RECEIVED:** all

**PHYSICAL INSPECTION** (inspected for damage, missing items, pm required, cleanliness, and accuracy)

- ✓ Compare unit to RA detail
- ✓ Labeling
- ✓ Warranty Label Intact: n/a
- ✓ Last Service Date: n/a
- ✓ H2 Tank
- ✓ H2 Tank Expiration Date: c/r
- ✓ Hardware
- ✓ Probe Cables and Connectors
- ✓ Battery Door Lock
- ✓ Battery Information: 7.8v

**RECEIVED CONDITION:** Shows normal wear and tear for age and application

**INSTRUMENT AS FOUND:** turns on, needs calibration.

**FLOWS AS FOUND**

Sample Flow (ml/min)	FID Flow (ml/min)	PID Flow (ml/min)	H2 Pressure (psi)	H2 Flow (ml/min)
962	368	-----	12	14

**FLOWS AS LEFT**

Sample Flow (ml/min)	FID Flow (ml/min)	PID Flow (ml/min)	H2 Pressure (psi)	H2 Flow (ml/min)
1004	418	-----	12	13.6

**TEST EQUIPMENT AND SOURCES USED** Fluke Digital Voltmeter, Brooks Flow Meter, Model 146 Dilution Calibrator, Isobutylene (PID) and Methane Gas Standards

# SERVICE REPORT

Thermo Environmental Instruments, Inc

27 Forge Parkway  
Franklin, MA. 02038  
Phone: 866-282-0430  
Fax: 508-520-2800

## REPAIR NOTES:

**INSTRUMENT AS LEFT:** TVA performs fully to manufacturer specifications

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, formally the National Bureau of Standards (NBS). Calibration of customer equipment is performed with appropriate environmental controls, as required.

**PASSED HYDROGEN LEAK TEST** YES

## DRIFT TEST

Detector	Hour 1 Reading (ppm)	Hour 4 Reading (ppm)	Delta (ppm)	Tolerance
FID	1.5	1.6	.1	≤ 1 ppm Delta
PID	.2	.2	0	≤ 1 ppm Delta

## H2 RUN TIME TEST

Starting H2 psi	Run Time	Tolerance
2000	11 hrs	≥ 1 hour run time per 200 psi of H2

## FINAL CALIBRATION

Detector	Cal Zero Counts	Cal Span Counts	Span Concentration (ppm)	Response Factor
FID	3342	126112	500	1
PID	1352	2898	100	1

## REPEATABILITY TEST

FID	1 <sup>ST</sup> Check	2 <sup>ND</sup> Check	3 <sup>RD</sup> Check	Final Check	Tolerance
500 PPM	499	495	493	496	± 10%

# SERVICE REPORT

Thermo Environmental Instruments, Inc

27 Forge Parkway

Franklin, MA. 02038

Phone: 866-282-0430

Fax: 508-520-2800

## CALIBRATION CONCENTRATION TEST

Detector	Calibration Gas	Concentration(ppm)	TVA actual reading (ppm)	Tolerance (ppm)
FID	Zero Air	0	.2	≤ 3
FID	Methane	100	99	± 25
FID	Methane	500	496	± 125
FID	Methane	10000	1.03%	±2500
PID	Zero Air	0	0	≤ 3
PID	Isobutylene	50	52	± 12.5
PID	Isobutylene	100	100	± 25
PID	Isobutylene	500	514	± 125

## PRE-BUTTON UP INSPECTION

- ✓ Tubing is secured and not crimped (where applicable).
- ✓ Serial Number/Voltage Labels intact and legible.
- ✓ Instrument cleaned.
- ✓ All hardware is secured. (Ex. Screws, connectors, tubing, etc.)
- ✓ Battery door lock tight
- ✓ Cables secured and Tie wrapped where applicable
- ✓ No loose debris within the instrument closure. (Screws, washers tubing, tywraps, etc.)
- ✓ Make sure TVA does not flame out when bumped.
- ✓ Remove sample line – TVA should **NOT** flame out. Leave off for 5 minutes minimum.
- ✓ Check battery voltage without charger being plugged in.
- ✓ Perform quick cal check with 10,000 ppm gas and insure spec. is met (90% of reading in 3.5 seconds up and 10% of reading in 20 seconds down)

## FINAL QC CHECKLIST

- ✓ Serial Number/Voltage Labels intact and legible.
- ✓ Instrument cleaned.
- ✓ Service Report and Calibration Report created for unit
- ✓ All received customer accessories accounted for and clearly identified.
- ✓ Instrument turns on.
- ✓ Ignition test (TVA models).
- ✓ Calibration labels/Report with instrument.
- ✓ Bill To/Ship to information properly indicated on CO.
- ✓ Quantities correct and complete on CO.



22 Albiston Way  
Auburn, ME 04210  
800-292-6218  
207-777-6218  
Fax 207-777-6215  
www.specair.com

Date: 12/23/2020

## Certificate of Analysis

**Customer:**  
QED ENVIRONMENTAL SYSTEMS

**Order #:** 1881326  
**Purchase Order #:** 138961

**Cylinder Size:** 105L      **CGA Connection:** C10      **Fill Pressure:** 1000 PSI

**Analysis:** Air Batch Analysis

**Lot #:** 4035802

Component(s):	Requested Concentration(s):	Actual Concentration(s):
Oxygen	19.5% - 23.5%	21.0%
Moisture	< 3 PPM	0.2 PPM
THC	< 0.1 PPM	0.1 PPM
CO/CO2	< 1 PPM	< 0.1 PPM

**Expiration Date:** 12/2023

**Comments:** MEETS OR EXCEEDS SPECIFICATION FOR ULTRA ZERO AIR

**Approved By:**

Ron Abbott

- Results are reported in mole percent, unless otherwise indicated. Mixes are prepared via partial pressure methods, or gravimetrically, using high load high sensitivity electronic scales. Prior to use, scales are verified for accuracy using applicable NIST traceable weights; analyses are calibrated against reference materials traceable to NIST weights and/or NIST gas reference materials.
- The information contained herein has been prepared at your request by qualified experts. While we believe that the information is accurate within the limits of the analytical methods employed, and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any particular purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability arising out of the use of the information contained herein exceed the fee established for providing such information.
- This certifies that the instruments used for this analysis have been calibrated in compliance with the specifications in the order using SI/NIST traceable standards. When a statement of conformity is made, accept/reject decisions consider the measurement uncertainty and the specification tolerance. When the measurand and uncertainty are reported, measurement uncertainties are declared in the analytical results and the analytical results are not adjusted to consider measurement uncertainties.



22 Albiston Way  
Auburn, ME 04210  
800-292-6218  
207-777-6218  
Fax 207-777-6215  
www.specair.com

Date: 02/12/2021

## Certificate of Analysis

**Customer:**  
QED ENVIRONMENTAL SYSTEMS

**Order #:** 1903560  
**Purchase Order #:** 139463

**Cylinder Size:** 105L      **CGA Connection:** C10      **Fill Pressure:** 1000 PSI

**Analysis:** Certified Batch Analysis

**Lot #:** 4104346

<b>Component(s):</b>	<b>Requested Concentration(s):</b>	<b>Actual Concentration(s):</b>
Methane	500 PPM	505 PPM
Air	BALANCE	BALANCE

**Expiration Date:** 02/2024

**Comments:** MIX MADE USING DIGITAL BALANCES CALIBRATED TO NIST TRACEABLE WEIGHTS / ACCURACY: +/- 2%  
METHOD OF PREPARATION: GRAVIMETRIC / PRESSURE TRANSFILLING  
ANALYTICAL PRINCIPLE: GC (TCD)

**Approved By:**

Kyle Christianson

- Results are reported in mole percent, unless otherwise indicated. Mixes are prepared via partial pressure methods, or gravimetrically, using high load high sensitivity electronic scales. Prior to use, scales are verified for accuracy using applicable NIST traceable weights; analyses are calibrated against reference materials traceable to NIST weights and/or NIST gas reference materials.
- The information contained herein has been prepared at your request by qualified experts. While we believe that the information is accurate within the limits of the analytical methods employed, and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any particular purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability arising out of the use of the information contained herein exceed the fee established for providing such information.
- This certifies that the instruments used for this analysis have been calibrated in compliance with the specifications in the order using SI/NIST traceable standards. When a statement of conformity is made, accept/reject decisions consider the measurement uncertainty and the specification tolerance. When the measurand and uncertainty are reported, measurement uncertainties are declared in the analytical results and the analytical results are not adjusted to consider measurement uncertainties.

**APPENDIX G**

**WELLFIELD MONITORING LOGS**

### Tri-Cities Recycling & Disposal Facility

Wellfield Monitoring Report - November 3, 2020

Device Name	Date Time	CH4 (Methane) (%)	CO2 (Carbon Dioxide) (%)	O2 (Oxygen) (%)	Balance Gas (%)	Initial Static Pressure ("H2O)	Initial Temperature (°F)	Adjusted Static Pressure ("H2O)	Adjusted Temperature (°F)
TRIC0001	11/3/2020 10:39	49.7	38.0	0.0	12.3	-51.88	78.8	-51.87	78.8
TRIC0116	11/3/2020 10:22	57.9	36.4	1.0	4.7	-46.75	78.8	-46.75	78.8
TRIC0118	11/3/2020 9:59	21.0	26.1	0.0	52.9	-0.87	95.1	-0.85	95.1
TRIC0123	11/3/2020 10:34	48.3	35.9	0.0	15.8	-16.54	119.4	-16.53	119.3
TRIC0126	11/3/2020 10:31	49.3	35.3	0.0	15.4	-6.92	103.9	-6.91	104.0
TRIC0128	11/3/2020 10:04	47.2	32.5	0.0	20.3	-10.83	113.7	-10.83	113.8
TRIC0129	11/3/2020 12:58	42.7	30.2	4.9	22.2	-39.16	90.0	-39.19	88.0
TRIC0200	11/3/2020 10:15	47.6	33.7	0.0	18.7	-10.82	113.4	-10.81	113.4
TRIC0201	11/3/2020 13:09	31.4	28.0	0.0	40.6	-0.47	99.2	-0.47	99.5
TRIC0202	11/3/2020 10:01	49.4	35.3	0.0	15.3	-11.34	114.6	-11.34	114.6
TRIC0204	11/3/2020 13:17	49.8	36.7	0.1	13.4	-9.43	129.1	-9.36	129.1
TRIC0205	11/3/2020 10:48	49.4	36.3	0.0	14.3	-13.74	125.1	-13.73	125.1
TRIC0206	11/3/2020 13:25	50.6	36.5	0.0	12.9	-3.60	120.4	-3.57	120.4
TRIC0207	11/3/2020 12:27	45.0	34.2	0.1	20.7	-37.40	120.2	-37.40	120.2
TRIC0208	11/3/2020 13:00	48.6	33.5	0.0	17.9	-25.50	121.7	-25.50	121.8
TRIC0209	11/3/2020 12:51	49.2	36.4	0.0	14.4	-47.84	77.8	-47.84	77.7
TRIC0210	11/3/2020 9:50	46.1	35.4	0.0	18.5	-1.66	120.1	-1.66	120.0
TRIC0211	11/3/2020 12:48	49.2	34.6	0.0	16.2	-20.92	117.1	-20.92	117.2
TRIC0212	11/3/2020 12:34	31.6	25.9	0.0	42.5	-1.03	90.2	-1.01	90.4
TRIC0212	11/3/2020 12:35	31.3	26.9	0.0	41.8	-0.95	89.3	-0.95	89.8
TRIC0213	11/3/2020 10:52	48.9	35.7	0.0	15.4	-2.68	110.3	-2.68	110.4
TRIC0214	11/3/2020 10:42	45.3	36.0	0.0	18.7	-1.35	90.1	-1.36	90.2
TRIC0215	11/3/2020 13:28	49.9	36.0	0.2	13.9	-49.32	125.8	-49.31	125.8
TRIC0218	11/3/2020 13:06	28.4	25.4	0.0	46.2	-1.21	98.0	-1.20	98.0
TRIC0219	11/3/2020 9:36	42.4	32.6	0.0	25.0	-2.10	112.3	-2.10	112.3
TRIC0220	11/3/2020 12:39	37.3	29.4	0.0	33.3	-1.49	96.1	-1.51	95.9
TRIC0222	11/3/2020 12:42	48.3	32.8	0.0	18.9	-7.87	113.2	-7.87	113.2
TRIC0223	11/3/2020 9:47	45.8	34.2	0.0	20.0	-3.82	117.0	-3.82	117.0
TRIC0224	11/3/2020 10:13	40.7	29.0	0.0	30.3	-2.05	75.3	-2.05	75.4
TRIC0225	11/3/2020 10:28	52.1	35.4	0.0	12.5	-3.44	105.1	-3.45	105.2
TRIC0226	11/3/2020 12:31	47.3	34.3	0.0	18.4	-1.59	90.4	-1.58	90.5
TRIC0227	11/3/2020 13:03	29.8	29.8	0.0	40.4	-0.42	75.2	-0.41	75.2
TRIC0228	11/3/2020 9:53	43.5	34.5	0.0	22.0	-2.01	117.6	-2.02	117.6
TRIC0229	11/3/2020 12:45	49.6	33.2	0.0	17.2	-4.01	90.8	-4.01	91.5
TRIC0230	11/3/2020 9:56	37.3	32.2	0.0	30.5	-1.64	125.8	-1.64	125.9
TRIC0203	11/3/2020 13:14	50.0	36.5	0.0	13.5	-5.57	111.6	-5.56	111.6
TRIC0216	11/3/2020 13:19	43.9	33.5	0.0	22.6	-1.12	107.2	-1.12	107.2
TRIC0217	11/3/2020 10:24	48.8	35.9	0.0	15.3	-5.02	117.4	-5.02	117.4
TRIC0221	11/3/2020 13:22	49.6	35.2	0.0	15.2	-0.31	106.6	-0.31	106.5



### Tri-Cities Recycling & Disposal Facility

Wellfield Monitoring Report - December 21 and 29, 2020

Device Name	Date Time	CH4 (Methane) (%)	CO2 (Carbon Dioxide) (%)	O2 (Oxygen) (%)	Balance Gas (%)	Initial Static Pressure ("H2O)	Initial Temperature (°F)	Adjusted Static Pressure ("H2O)	Adjusted Temperature (°F)
TRIC0001	12/29/2020 13:00	51.2	38.7	1.1	9.0	-54.38	70.1	-54.42	70.2
TRIC0116	12/29/2020 11:05	60.5	39.5	0.0	0.0	-43.58	71.6	-43.60	71.6
TRIC0118	12/21/2020 15:16	23.6	29.4	0.0	47.0	-0.03	92.2	-0.09	92.2
TRIC0123	12/29/2020 12:45	46.7	36.8	0.0	16.5	-17.35	118.5	-17.34	118.5
TRIC0126	12/29/2020 12:50	47.2	36.0	0.0	16.8	-7.13	108.2	-7.14	108.2
TRIC0128	12/21/2020 15:31	46.6	35.6	0.0	17.8	-9.51	113.0	-9.49	113.0
TRIC0129	12/21/2020 15:10	54.8	41.2	1.0	3.0	-35.91	68.8	-37.33	68.9
TRIC0200	12/29/2020 15:08	45.6	34.2	0.0	20.2	-11.53	112.6	-11.51	112.6
TRIC0201	12/21/2020 16:03	36.3	34.7	0.0	29.0	-0.11	86.6	-0.10	86.7
TRIC0202	12/21/2020 15:27	48.3	37.8	0.1	13.8	-9.72	117.6	-9.73	117.6
TRIC0204	12/29/2020 12:05	47.1	37.5	0.3	15.1	-11.90	127.3	-11.90	127.3
TRIC0205	12/29/2020 13:22	46.7	36.9	0.0	16.4	-15.21	124.4	-15.20	124.3
TRIC0206	12/29/2020 12:42	47.4	36.9	0.0	15.7	-5.57	122.4	-5.58	122.4
TRIC0207	12/29/2020 13:33	42.2	34.7	0.0	23.1	-40.08	119.5	-40.08	119.5
TRIC0208	12/21/2020 14:53	47.8	38.9	0.0	13.3	-24.82	123.5	-24.88	123.5
TRIC0209	12/29/2020 14:20	47.4	37.7	0.0	14.9	-51.90	107.7	-51.91	107.8
TRIC0210	12/21/2020 14:31	48.8	39.0	0.0	12.2	-0.71	120.2	-0.71	120.2
TRIC0211	12/29/2020 14:13	47.3	36.1	0.0	16.6	-22.98	111.5	-22.98	111.5
TRIC0212	12/29/2020 13:51	28.4	28.6	0.0	43.0	-1.74	74.1	-1.75	74.0
TRIC0213	12/29/2020 13:26	44.7	35.9	0.0	19.4	-3.29	99.1	-3.26	100.0
TRIC0213	12/29/2020 13:28	44.7	36.0	0.0	19.3	-3.16	99.7	-3.17	99.8
TRIC0214	12/29/2020 13:15	42.3	36.1	0.0	21.6	-1.42	87.4	-1.44	87.8
TRIC0214	12/29/2020 13:18	42.2	36.3	0.0	21.5	-1.48	87.3	-1.47	87.3
TRIC0215	12/29/2020 13:10	47.8	37.8	0.0	14.4	-53.72	125.0	-53.74	125.0
TRIC0218	12/21/2020 15:53	38.3	34.8	0.0	26.9	-0.59	97.1	-0.59	97.2
TRIC0219	12/21/2020 13:33	45.7	35.4	0.1	18.8	-1.28	111.5	-1.28	111.5
TRIC0220	12/29/2020 13:57	36.0	31.9	0.0	32.1	-2.50	66.4	-2.46	67.8
TRIC0220	12/29/2020 13:58	36.3	32.1	0.0	31.6	-2.37	70.8	-2.37	70.8
TRIC0222	12/29/2020 14:02	47.0	35.4	0.0	17.6	-8.72	116.4	-8.71	116.4
TRIC0223	12/21/2020 14:25	46.6	36.9	0.0	16.5	-2.53	120.7	-2.53	120.7
TRIC0224	12/21/2020 15:46	39.8	33.1	0.0	27.1	-0.55	68.0	-0.54	68.0
TRIC0225	12/29/2020 12:34	48.8	35.8	0.0	15.4	-4.31	116.7	-4.29	116.7
TRIC0226	12/29/2020 13:44	43.9	36.9	0.0	19.2	-2.13	96.1	-2.10	95.6
TRIC0226	12/29/2020 13:46	44.3	37.2	0.0	18.5	-1.92	95.9	-1.92	96.0
TRIC0227	12/21/2020 15:59	37.4	36.4	0.0	26.2	-0.01	69.1	-0.01	69.2
TRIC0228	12/21/2020 14:40	46.2	38.4	0.0	15.4	-0.80	118.0	-0.80	118.1
TRIC0229	12/29/2020 14:06	47.2	36.2	0.0	16.6	-4.58	87.5	-4.57	89.1
TRIC0230	12/21/2020 14:44	48.7	39.7	0.0	11.6	-0.67	107.1	-0.68	107.3
TRIC0203	12/29/2020 11:48	40.9	35.5	0.0	23.6	-3.11	93.8	-3.10	94.0
TRIC0216	12/29/2020 12:12	28.9	30.7	0.0	40.4	-3.18	96.9	-3.18	94.9
TRIC0216	12/29/2020 12:15	28.6	30.5	0.0	40.9	-3.16	89.9	-3.16	90.1
TRIC0217	12/29/2020 11:37	47.1	36.8	0.0	16.1	-6.49	120.1	-6.51	120.1
TRIC0221	12/29/2020 12:27	44.2	35.0	0.0	20.8	-1.69	108.4	-1.60	106.9
TRIC0221	12/29/2020 12:29	44.3	34.9	0.0	20.8	-1.54	106.6	-1.55	106.6

# Tri-Cities Recycling & Disposal Facility

Wellfield Monitoring Report - January 6, 19, and 26, 2021

Device Name	Date Time	CH4 (Methane) (%)	CO2 (Carbon Dioxide) (%)	O2 (Oxygen) (%)	Balance Gas (%)	Initial Static Pressure ("H2O)	Initial Temperature (°F)	Adjusted Static Pressure ("H2O)	Adjusted Temperature (°F)
TRIC0001	1/19/2021 12:39	57.6	40.7	0.0	1.7	-51.81	72.0	-54.47	73.2
TRIC0001	1/19/2021 12:42	56.5	40.8	0.2	2.5	-55.39	73.1	-55.38	73.1
TRIC0116	1/19/2021 13:22	60.5	39.1	0.4	0.0	-38.26	75.7	-38.26	75.7
TRIC0118	1/6/2021 13:09	19.7	26.7	0.0	53.6	-0.56	90.2	-0.53	90.1
TRIC0123	1/19/2021 12:53	46.6	36.4	0.0	17.0	-16.81	118.0	-16.63	118.0
TRIC0123	1/19/2021 12:55	47.1	37.3	0.0	15.6	-15.68	117.8	-15.68	117.8
TRIC0126	1/19/2021 12:59	47.6	36.4	0.0	16.0	-6.37	106.6	-6.39	106.6
TRIC0128	1/19/2021 14:14	47.9	34.7	0.0	17.4	-10.60	112.8	-10.60	112.9
TRIC0129	1/19/2021 14:35	58.3	41.2	0.5	0.0	-29.90	69.2	-30.55	69.1
TRIC0200	1/19/2021 14:00	48.0	35.0	0.0	17.0	-11.08	112.6	-11.08	112.6
TRIC0201	1/19/2021 14:05	30.9	30.5	0.0	38.6	-1.10	72.4	-1.08	72.5
TRIC0202	1/6/2021 13:16	49.1	36.4	0.2	14.3	-11.20	117.4	-11.20	117.4
TRIC0204	1/19/2021 13:39	49.9	38.6	0.2	11.3	-10.12	127.2	-10.12	127.3
TRIC0205	1/19/2021 12:17	48.7	37.1	0.0	14.2	-14.09	124.4	-14.10	124.4
TRIC0206	1/6/2021 14:00	47.7	37.9	0.0	14.4	-0.94	89.8	-0.94	90.2
TRIC0207	1/19/2021 12:00	42.8	34.6	0.0	22.6	-39.38	119.3	-38.81	119.4
TRIC0207	1/19/2021 12:02	42.9	34.7	0.0	22.4	-38.01	119.4	-38.00	119.4
TRIC0208	1/19/2021 14:30	48.9	38.1	0.0	13.0	-27.40	123.2	-27.38	123.3
TRIC0209	1/26/2021 15:10	48.6	38.5	0.0	12.9	-52.70	94.0	-52.70	94.2
TRIC0210	1/6/2021 12:31	46.5	36.4	0.0	17.1	-1.81	119.0	-1.79	118.9
TRIC0211	1/19/2021 11:10	49.0	36.1	0.0	14.9	-23.32	112.4	-23.32	112.5
TRIC0212	1/6/2021 14:08	29.6	29.0	0.0	41.4	-0.60	66.7	-0.60	66.8
TRIC0213	1/6/2021 13:37	48.8	37.1	0.0	14.1	-1.98	92.4	-1.98	92.6
TRIC0213	1/19/2021 12:13	47.6	36.6	0.0	15.8	-2.38	79.8	-2.38	80.7
TRIC0214	1/6/2021 13:28	46.5	37.6	0.0	15.9	-0.71	87.6	-0.71	87.7
TRIC0214	1/19/2021 12:32	45.7	37.1	0.0	17.2	-0.75	86.3	-0.69	87.4
TRIC0214	1/19/2021 12:35	45.8	37.2	0.0	17.0	-0.56	87.7	-0.57	87.8
TRIC0215	1/19/2021 12:25	48.7	37.4	0.0	13.9	-54.35	124.9	-54.34	125.0
TRIC0218	1/19/2021 14:20	28.3	29.5	0.0	42.2	-1.99	93.6	-1.97	93.9
TRIC0218	1/19/2021 14:22	28.6	29.7	0.0	41.7	-2.02	93.6	-2.00	93.6
TRIC0219	1/6/2021 12:11	43.6	34.1	0.1	22.2	-2.02	110.7	-2.01	110.7
TRIC0220	1/19/2021 11:34	36.2	31.4	0.0	32.4	-2.36	69.4	-2.33	69.4
TRIC0222	1/19/2021 11:23	48.5	35.4	0.0	16.1	-9.07	116.3	-9.08	116.3
TRIC0223	1/6/2021 12:25	45.9	35.1	0.3	18.7	-3.74	120.5	-3.75	120.6
TRIC0224	1/19/2021 14:09	41.1	31.4	0.0	27.5	-1.79	69.7	-1.78	69.7
TRIC0225	1/19/2021 13:09	49.8	36.3	0.0	13.9	-3.38	117.7	-3.38	117.7
TRIC0226	1/19/2021 11:53	46.2	37.0	0.0	16.8	-1.64	90.9	-1.60	90.8
TRIC0226	1/19/2021 11:54	46.6	37.3	0.0	16.1	-1.41	90.0	-1.40	89.9
TRIC0227	1/19/2021 14:26	28.0	31.1	0.0	40.9	-0.88	71.1	-0.89	71.1
TRIC0228	1/6/2021 12:37	42.9	35.7	0.0	21.4	-2.10	115.8	-2.09	115.6
TRIC0228	1/6/2021 12:40	42.1	35.3	0.0	22.6	-1.93	114.5	-1.93	114.4
TRIC0229	1/19/2021 11:21	49.1	36.2	0.0	14.7	-4.64	84.5	-4.65	84.5
TRIC0230	1/6/2021 12:55	37.8	33.7	0.0	28.5	-1.26	106.0	-1.27	106.2
TRIC0230	1/6/2021 12:58	37.7	33.8	0.0	28.5	-1.24	104.6	-1.24	104.6
TRICO203	1/19/2021 13:32	50.5	39.7	0.0	9.8	-1.09	96.4	-1.08	96.8
TRICO203	1/19/2021 13:36	50.4	39.4	0.0	10.2	-1.01	96.3	-1.02	96.3
TRICO216	1/19/2021 13:04	39.0	33.8	0.0	27.2	-1.26	80.1	-1.25	80.4
TRICO216	1/19/2021 13:06	38.9	34.0	0.0	27.1	-1.26	78.0	-1.26	78.0
TRICO217	1/19/2021 13:27	49.5	37.5	0.0	13.0	-4.46	120.5	-4.47	120.5
TRICO221	1/19/2021 13:16	49.9	37.6	0.0	12.5	-0.55	105.9	-0.56	106.0

# Tri-Cities Recycling & Disposal Facility

Wellfield Monitoring Report - February 2 and 9, 2021

Device Name	Date Time	CH4 (Methane) (%)	CO2 (Carbon Dioxide) (%)	O2 (Oxygen) (%)	Balance Gas (%)	Initial Static Pressure ("H2O)	Initial Temperature (°F)	Adjusted Static Pressure ("H2O)	Adjusted Temperature (°F)
TRIC0001	2/9/2021 11:45	53.4	39.9	1.4	5.3	-48.54	68.9	-48.54	69.0
TRIC0116	2/2/2021 14:13	59.8	40.2	0.0	0.0	-9.60	73.3	-9.66	73.4
TRIC0116	2/9/2021 12:43	60.2	39.8	0.0	0.0	-26.29	71.7	-26.29	71.7
TRIC0118	2/2/2021 15:18	21.8	26.8	0.0	51.4	-0.80	90.7	-0.80	90.9
TRIC0118	2/9/2021 14:01	23.2	26.9	0.0	49.9	-0.60	90.5	-0.59	90.5
TRIC0123	2/9/2021 11:50	49.4	37.8	0.0	12.8	-14.02	116.4	-14.03	117.7
TRIC0126	2/9/2021 11:54	49.9	37.0	0.0	13.1	-6.27	106.0	-6.27	106.1
TRIC0128	2/2/2021 16:09	49.1	35.5	0.0	15.4	-10.89	112.8	-10.90	112.8
TRIC0128	2/9/2021 13:25	48.0	34.9	0.0	17.1	-10.03	112.8	-10.02	112.8
TRIC0129	2/2/2021 13:37	54.0	40.2	1.0	4.8	-37.85	73.4	-37.84	73.4
TRIC0129	2/9/2021 13:52	54.4	40.1	1.3	4.2	-30.26	64.8	-30.22	64.8
TRIC0200	2/2/2021 14:58	47.6	35.1	0.0	17.3	-11.30	112.6	-11.30	112.7
TRIC0200	2/9/2021 12:48	47.1	35.5	0.0	17.4	-10.11	112.5	-10.11	112.6
TRIC0201	2/2/2021 15:05	30.8	31.2	0.2	37.8	-1.10	71.6	-1.11	71.6
TRIC0201	2/9/2021 12:52	30.3	30.7	0.0	39.0	-0.84	70.4	-0.83	70.4
TRIC0202	2/2/2021 15:27	49.7	37.5	0.0	12.8	-11.73	116.6	-11.73	116.9
TRIC0202	2/9/2021 13:57	49.2	36.8	0.0	14.0	-10.06	116.9	-10.06	116.9
TRIC0204	2/2/2021 16:38	49.8	39.8	0.3	10.1	-10.76	127.1	-10.79	127.2
TRIC0204	2/9/2021 12:25	48.8	39.0	0.1	12.1	-9.73	127.3	-9.72	127.3
TRIC0205	2/9/2021 11:28	49.0	37.8	0.0	13.2	-13.30	124.2	-13.30	124.3
TRIC0206	2/2/2021 16:42	50.7	39.1	0.0	10.2	-4.16	121.5	-4.16	121.6
TRIC0206	2/9/2021 12:01	50.0	38.5	0.0	11.5	-3.98	122.2	-4.00	122.1
TRIC0207	2/9/2021 11:16	44.6	35.4	0.0	20.0	-33.35	119.4	-33.37	119.5
TRIC0208	2/2/2021 14:00	48.3	38.5	0.0	13.2	-27.64	123.1	-27.66	123.2
TRIC0208	2/9/2021 13:42	48.3	38.2	0.0	13.5	-24.30	123.1	-24.30	123.1
TRIC0209	2/2/2021 13:27	48.3	37.5	0.0	14.2	-53.24	113.7	-53.25	113.7
TRIC0209	2/9/2021 14:14	47.4	37.0	0.6	15.0	-45.14	111.5	-45.14	111.5
TRIC0210	2/2/2021 11:02	45.6	36.8	0.0	17.6	-2.03	118.9	-2.02	118.9
TRIC0210	2/9/2021 14:19	50.0	37.8	0.0	12.2	-0.87	117.6	-0.86	118.1
TRIC0211	2/9/2021 10:30	49.0	36.4	0.0	14.6	-21.08	111.7	-21.08	111.8
TRIC0212	2/9/2021 11:06	33.6	29.5	0.0	36.9	-1.73	67.1	-1.73	67.2
TRIC0213	2/9/2021 11:20	49.1	37.6	0.0	13.3	-2.70	69.2	-2.69	71.0
TRIC0214	2/9/2021 11:39	47.2	38.0	0.0	14.8	-1.22	86.4	-1.21	86.4
TRIC0215	2/9/2021 11:36	49.3	38.0	0.0	12.7	-47.20	124.9	-47.21	124.9
TRIC0218	2/2/2021 15:32	28.6	30.5	0.0	40.9	-2.10	93.1	-2.05	93.0
TRIC0218	2/2/2021 15:35	28.5	30.2	0.0	41.3	-1.98	93.1	-2.01	93.1
TRIC0218	2/9/2021 13:31	28.8	29.7	0.0	41.5	-1.60	92.4	-1.60	92.4
TRIC0219	2/2/2021 10:39	41.3	34.0	0.0	24.7	-2.36	110.9	-2.42	110.9
TRIC0219	2/2/2021 10:41	41.3	34.0	0.0	24.7	-2.31	110.5	-2.31	110.6
TRIC0219	2/9/2021 14:28	45.5	34.9	0.0	19.6	-1.26	110.3	-1.25	110.5
TRIC0220	2/9/2021 11:02	39.2	32.1	0.0	28.7	-2.31	60.0	-2.30	60.0
TRIC0222	2/9/2021 10:56	49.0	36.1	0.0	14.9	-8.57	116.1	-8.57	116.1
TRIC0223	2/2/2021 10:55	45.3	35.9	0.0	18.8	-4.15	119.2	-4.13	120.1
TRIC0223	2/2/2021 10:56	45.2	36.0	0.0	18.8	-4.09	120.2	-4.08	120.2
TRIC0223	2/9/2021 14:23	47.7	36.1	0.0	16.2	-2.88	119.8	-2.89	119.9
TRIC0224	2/2/2021 16:18	42.2	32.0	0.0	25.8	-1.93	64.5	-1.92	64.7
TRIC0224	2/9/2021 12:59	41.9	31.5	0.0	26.6	-1.58	68.1	-1.58	68.2
TRIC0225	2/2/2021 14:30	52.4	37.5	0.0	10.1	-3.20	116.1	-3.21	116.1
TRIC0225	2/9/2021 12:15	51.5	37.2	0.0	11.3	-3.39	116.6	-3.39	116.6
TRIC0226	2/9/2021 11:11	47.7	38.2	0.0	14.1	-1.63	92.7	-1.64	92.7
TRIC0227	2/2/2021 16:13	26.6	30.5	0.2	42.7	-1.10	62.0	-1.11	62.2
TRIC0227	2/9/2021 13:36	27.5	30.9	0.0	41.6	-0.73	64.2	-0.73	64.2
TRIC0228	2/2/2021 13:20	44.2	35.3	0.0	20.5	-1.57	114.4	-1.57	114.4

### Tri-Cities Recycling & Disposal Facility

Wellfield Monitoring Report - February 2 and 9, 2021

Device Name	Date Time	CH4 (Methane) (%)	CO2 (Carbon Dioxide) (%)	O2 (Oxygen) (%)	Balance Gas (%)	Initial Static Pressure ("H2O)	Initial Temperature (°F)	Adjusted Static Pressure ("H2O)	Adjusted Temperature (°F)
TRIC0228	2/2/2021 13:25	42.6	35.1	0.0	22.3	-1.53	113.5	-1.53	113.5
TRIC0228	2/9/2021 14:09	46.6	36.9	0.0	16.5	-1.05	113.1	-1.03	113.1
TRIC0229	2/9/2021 10:42	49.6	36.7	0.0	13.7	-4.44	82.2	-4.44	82.3
TRIC0230	2/2/2021 14:06	37.1	33.0	0.0	29.9	-1.39	87.8	-1.38	88.0
TRIC0230	2/9/2021 14:06	42.0	35.0	0.0	23.0	-0.92	102.2	-0.91	102.2
TRICO203	2/2/2021 15:13	48.6	39.7	0.0	11.7	-1.44	98.7	-1.44	99.0
TRICO203	2/9/2021 12:29	48.5	39.3	0.0	12.2	-1.53	98.1	-1.50	98.2
TRICO216	2/2/2021 14:42	34.6	32.1	0.0	33.3	-1.37	71.8	-1.38	72.0
TRICO216	2/9/2021 12:07	33.5	31.6	0.1	34.8	-1.54	70.8	-1.54	70.8
TRICO217	2/2/2021 15:09	49.3	38.6	0.0	12.1	-5.28	120.4	-5.27	120.4
TRICO217	2/9/2021 12:35	48.0	37.8	0.0	14.2	-4.87	120.3	-4.89	120.4
TRICO221	2/2/2021 14:23	49.0	37.2	0.0	13.8	-0.86	105.7	-0.87	106.2
TRICO221	2/9/2021 12:20	49.1	37.4	0.0	13.5	-0.77	105.5	-0.78	105.5

### Tri-Cities Recycling & Disposal Facility

Wellfield Monitoring Report - March 2, 9, and 16, 2021

Device Name	Date Time	CH4 (Methane) (%)	CO2 (Carbon Dioxide) (%)	O2 (Oxygen) (%)	Balance Gas (%)	Initial Static Pressure ("H2O)	Initial Temperature (°F)	Adjusted Static Pressure ("H2O)	Adjusted Temperature (°F)
TRIC0001	3/9/2021 12:38	57.6	42.2	0.2	0.0	-48.39	67.3	-48.62	67.2
TRIC0116	3/2/2021 12:38	57.1	37.9	1.1	3.9	-7.38	76.6	-9.11	76.6
TRIC0118	3/2/2021 12:10	27.4	28.0	0.0	44.6	-0.17	92.2	-0.15	92.3
TRIC0123	3/9/2021 12:29	51.6	37.7	0.0	10.7	-13.29	117.5	-13.31	117.5
TRIC0126	3/9/2021 12:18	53.1	36.8	0.0	10.1	-5.55	104.2	-5.57	104.2
TRIC0128	3/2/2021 14:16	48.0	34.7	0.0	17.3	-8.48	112.8	-8.50	112.8
TRIC0129	3/2/2021 13:39	51.6	39.1	1.7	7.6	-12.65	75.3	-13.42	75.3
TRIC0200	3/2/2021 12:26	46.6	35.5	0.0	17.9	-9.04	112.8	-9.04	112.8
TRIC0200	3/16/2021 11:55	45.4	34.9	0.0	19.7	-10.31	112.5	-10.24	112.6
TRIC0201	3/2/2021 15:01	44.2	36.2	0.2	19.4	-0.02	102.0	-0.02	102.0
TRIC0201	3/9/2021 15:06	34.7	32.7	0.0	32.6	-0.92	105.9	-0.93	105.9
TRIC0201	3/16/2021 12:02	30.9	30.8	0.0	38.3	-2.15	103.9	-2.07	103.3
TRIC0202	3/2/2021 14:11	49.8	36.5	0.3	13.4	-8.52	117.4	-8.53	117.4
TRIC0204	3/2/2021 15:16	50.7	39.6	0.1	9.6	-7.75	127.6	-7.75	127.7
TRIC0205	3/9/2021 13:11	50.2	38.1	0.0	11.7	-11.95	124.2	-11.96	124.3
TRIC0206	3/2/2021 15:35	53.4	39.1	0.0	7.5	-1.82	122.5	-1.87	122.6
TRIC0206	3/16/2021 12:20	49.9	38.1	0.0	12.0	-5.29	123.5	-5.29	123.5
TRIC0207	3/9/2021 13:27	45.5	35.2	0.0	19.3	-32.46	119.7	-30.28	119.7
TRIC0207	3/16/2021 12:32	45.8	34.9	0.0	19.3	-28.66	119.8	-24.55	119.7
TRIC0208	3/2/2021 13:15	48.8	38.5	0.0	12.7	-23.23	123.3	-23.24	123.3
TRIC0209	3/2/2021 13:21	49.0	38.1	0.2	12.9	-45.20	117.6	-45.21	117.7
TRIC0210	3/2/2021 11:52	52.3	38.4	0.0	9.3	-0.43	119.8	-0.43	119.8
TRIC0210	3/9/2021 15:35	53.5	38.9	0.0	7.6	-0.27	116.4	-0.23	118.4
TRIC0210	3/16/2021 11:37	50.7	37.7	0.0	11.6	-1.50	119.0	-1.48	119.0
TRIC0211	3/9/2021 14:24	48.7	36.7	0.0	14.6	-19.48	118.8	-19.48	118.8
TRIC0212	3/9/2021 13:59	37.5	30.1	0.0	32.4	-0.10	85.8	-0.10	85.8
TRIC0213	3/9/2021 13:18	51.4	38.4	0.0	10.2	-1.44	111.7	-1.43	111.7
TRIC0214	3/9/2021 12:47	51.8	39.4	0.0	8.8	-0.35	114.1	-0.35	114.1
TRIC0215	3/9/2021 13:02	49.0	37.9	0.1	13.0	-46.78	125.1	-46.78	125.1
TRIC0218	3/2/2021 14:32	42.4	34.3	0.0	23.3	-0.02	97.9	-0.03	98.1
TRIC0218	3/9/2021 14:51	36.3	32.3	0.0	31.4	-0.72	94.4	-0.74	96.1
TRIC0218	3/16/2021 11:48	27.1	29.2	0.0	43.7	-2.21	96.5	-2.25	96.7
TRIC0219	3/2/2021 11:30	46.9	35.1	0.1	17.9	-1.00	111.2	-0.99	111.3
TRIC0219	3/16/2021 11:17	44.4	34.3	0.1	21.2	-1.56	110.3	-1.47	110.3
TRIC0220	3/16/2021 12:44	39.8	31.7	0.0	28.5	-1.74	68.6	-1.74	68.5
TRIC0222	3/9/2021 14:06	48.7	36.1	0.0	15.2	-7.17	116.1	-7.16	116.1
TRIC0223	3/2/2021 11:40	48.9	36.0	0.2	14.9	-2.56	120.4	-2.53	120.4
TRIC0224	3/2/2021 12:20	39.6	31.3	0.5	28.6	-0.45	74.2	-0.46	74.1
TRIC0225	3/2/2021 15:30	56.0	37.8	0.0	6.2	-1.78	116.8	-1.78	116.8
TRIC0225	3/9/2021 15:25	54.5	37.4	0.0	8.1	-3.04	115.4	-3.11	115.5
TRIC0225	3/16/2021 12:13	50.9	36.7	0.0	12.4	-5.14	116.5	-5.14	116.5
TRIC0226	3/9/2021 13:53	50.9	38.9	0.0	10.2	-0.28	115.8	-0.29	115.8
TRIC0227	3/9/2021 12:00	28.6	31.0	0.0	40.4	-0.67	83.8	-0.67	83.8
TRIC0228	3/2/2021 12:01	50.5	38.8	0.0	10.7	-0.29	115.2	-0.22	115.2
TRIC0228	3/9/2021 14:35	51.6	38.9	0.0	9.5	-0.14	112.9	-0.14	112.9
TRIC0229	3/9/2021 14:12	51.1	37.1	0.0	11.8	-3.01	114.9	-3.01	114.9
TRIC0230	3/2/2021 13:53	53.8	40.9	0.0	5.3	-0.03	126.0	-0.03	125.8
TRIC0230	3/9/2021 14:42	47.4	37.7	0.0	14.9	-0.50	125.3	-0.47	125.4
TRICO203	3/2/2021 13:09	52.8	41.4	0.0	5.8	-0.02	115.8	-0.03	115.8
TRICO203	3/9/2021 15:13	50.2	39.9	0.0	9.9	-0.58	109.1	-0.57	109.5
TRICO216	3/2/2021 15:13	58.8	38.0	0.0	3.2	-0.02	84.4	-0.02	84.5
TRICO216	3/9/2021 15:31	46.1	36.4	0.0	17.5	-1.42	107.1	-1.38	107.4
TRICO217	3/2/2021 12:46	48.3	37.5	0.0	14.2	-3.66	120.8	-3.68	120.8

**Tri-Cities Recycling & Disposal Facility**

Wellfield Monitoring Report - March 2, 9, and 16, 2021

Device Name	Date Time	CH4 (Methane) (%)	CO2 (Carbon Dioxide) (%)	O2 (Oxygen) (%)	Balance Gas (%)	Initial Static Pressure ("H2O)	Initial Temperature (°F)	Adjusted Static Pressure ("H2O)	Adjusted Temperature (°F)
TRICO221	3/2/2021 15:08	56.3	40.3	0.1	3.3	-0.02	113.8	-0.01	113.7
TRICO221	3/9/2021 15:19	49.0	37.6	0.0	13.4	-0.46	110.9	-0.47	111.1

### Tri-Cities Recycling & Disposal Facility

Wellfield Monitoring Report - April 6, 20, and 27, 2021

Device Name	Date Time	CH4 (Methane) (%)	CO2 (Carbon Dioxide) (%)	O2 (Oxygen) (%)	Balance Gas (%)	Initial Static Pressure ("H2O)	Initial Temperature (°F)	Adjusted Static Pressure ("H2O)	Adjusted Temperature (°F)
TRIC0001	4/6/2021 15:08	58.4	41.6	0.0	0.0	-49.09	75.0	-49.11	75.5
TRIC0001	4/20/2021 13:34	57.8	42.1	0.1	0.0	-48.87	74.8	-48.90	74.9
TRIC0001	4/27/2021 15:39	56.2	41.8	0.0	2.0	-49.01	79.3	-49.00	79.3
TRIC0116	4/6/2021 14:17	58.4	38.1	0.8	2.7	-38.94	78.1	-38.95	78.1
TRIC0118	4/6/2021 12:52	20.5	24.9	0.0	54.6	-0.70	91.8	-0.69	92.0
TRIC0123	4/6/2021 15:02	52.3	37.6	0.0	10.1	-13.80	117.8	-13.80	117.8
TRIC0123	4/20/2021 13:42	51.8	38.6	0.0	9.6	-13.55	118.3	-13.54	118.3
TRIC0123	4/27/2021 15:35	51.0	37.7	0.0	11.3	-13.98	118.1	-14.77	118.3
TRIC0126	4/6/2021 15:04	52.2	36.1	0.0	11.7	-5.89	105.7	-5.90	106.5
TRIC0126	4/20/2021 13:49	51.2	37.5	0.0	11.3	-5.33	107.4	-5.33	107.4
TRIC0126	4/27/2021 14:53	50.3	36.4	0.0	13.3	-5.99	106.3	-6.26	107.1
TRIC0128	4/6/2021 13:06	47.4	34.3	0.0	18.3	-10.07	112.8	-10.12	112.8
TRIC0129	4/6/2021 13:24	53.6	39.5	1.6	5.3	-29.73	78.7	-30.20	78.6
TRIC0200	4/6/2021 13:46	46.0	34.2	0.0	19.8	-8.52	112.3	-8.53	112.3
TRIC0201	4/6/2021 13:55	30.4	29.1	0.0	40.5	-1.38	102.8	-1.40	103.3
TRIC0202	4/6/2021 13:01	49.0	36.2	0.0	14.8	-10.43	117.3	-10.43	117.3
TRIC0204	4/6/2021 13:58	49.2	38.6	0.1	12.1	-9.47	127.7	-9.47	127.7
TRIC0205	4/6/2021 15:15	51.5	37.6	0.0	10.9	-12.56	124.0	-12.55	124.0
TRIC0205	4/20/2021 13:17	51.5	38.4	0.0	10.1	-11.86	124.3	-11.87	124.3
TRIC0205	4/27/2021 15:29	50.6	37.6	0.0	11.8	-13.07	124.2	-14.19	124.2
TRIC0206	4/6/2021 14:56	49.0	36.7	0.0	14.3	-4.95	123.6	-4.95	123.6
TRIC0206	4/27/2021 14:58	46.8	37.2	0.0	16.0	-5.56	123.2	-5.54	123.3
TRIC0207	4/6/2021 15:21	49.3	35.3	0.0	15.4	-19.66	119.7	-19.67	119.7
TRIC0208	4/6/2021 13:19	48.8	37.4	0.0	13.8	-24.54	123.1	-24.54	123.1
TRIC0209	4/6/2021 13:28	50.5	37.7	0.0	11.8	-45.54	107.0	-45.55	107.1
TRIC0210	4/6/2021 12:29	51.2	37.4	0.0	11.4	-1.46	119.4	-1.47	119.4
TRIC0211	4/6/2021 15:43	50.2	36.4	0.0	13.4	-20.15	106.2	-20.15	106.9
TRIC0212	4/6/2021 15:31	38.6	29.2	0.0	32.2	-0.77	76.0	-0.76	75.9
TRIC0213	4/6/2021 15:18	52.6	37.8	0.0	9.6	-1.75	87.1	-1.74	88.3
TRIC0213	4/20/2021 14:28	54.8	37.5	1.5	6.2	-1.45	109.5	-1.45	109.5
TRIC0213	4/27/2021 14:40	52.0	37.3	0.0	10.7	-2.66	114.1	-2.86	115.3
TRIC0214	4/6/2021 15:12	52.5	38.5	0.0	9.0	-0.71	79.5	-0.75	80.5
TRIC0214	4/20/2021 13:24	53.0	40.0	0.0	7.0	-0.49	113.7	-0.48	113.9
TRIC0214	4/27/2021 14:46	50.0	37.3	0.0	12.7	-1.22	114.3	-1.24	114.7
TRIC0215	4/6/2021 14:59	50.3	37.0	0.0	12.7	-47.38	124.6	-47.38	124.9
TRIC0215	4/27/2021 15:23	49.7	36.9	0.0	13.4	-47.01	125.0	-47.02	125.0
TRIC0218	4/6/2021 13:10	28.5	28.0	0.0	43.5	-2.04	97.9	-1.95	98.2
TRIC0219	4/6/2021 12:14	46.1	33.8	0.0	20.1	-0.67	110.0	-0.70	109.9
TRIC0220	4/6/2021 15:35	39.5	31.1	0.2	29.2	-1.11	69.2	-1.11	69.3
TRIC0222	4/6/2021 15:37	49.5	35.3	0.0	15.2	-7.43	115.8	-7.44	116.0
TRIC0223	4/6/2021 12:25	50.1	35.7	0.0	14.2	-3.03	119.9	-3.04	119.9
TRIC0224	4/6/2021 13:43	36.8	28.3	1.7	33.2	-1.28	75.1	-1.29	75.1
TRIC0225	4/6/2021 14:38	49.3	36.0	0.0	14.7	-4.81	116.6	-4.81	116.6
TRIC0226	4/6/2021 15:28	52.0	38.2	0.0	9.8	-0.70	86.7	-0.71	86.9
TRIC0226	4/20/2021 13:03	53.6	38.4	0.0	8.0	-0.28	116.1	-0.37	116.6
TRIC0227	4/6/2021 13:16	25.3	28.3	0.0	46.4	-1.01	86.0	-1.00	88.0
TRIC0228	4/6/2021 12:34	49.6	37.5	0.0	12.9	-1.15	113.1	-1.15	113.2
TRIC0229	4/6/2021 15:40	51.0	36.6	0.0	12.4	-3.31	80.8	-3.32	81.0
TRIC0230	4/6/2021 12:41	43.0	33.8	0.0	23.2	-1.74	125.1	-1.66	125.4
TRICO203	4/6/2021 14:02	47.2	38.4	0.0	14.4	-1.34	85.5	-1.38	87.2
TRICO216	4/6/2021 14:35	37.2	32.1	0.0	30.7	-2.50	106.7	-2.50	106.8
TRICO216	4/27/2021 15:17	31.3	30.4	0.0	38.3	-2.62	100.5	-2.64	100.5
TRICO217	4/6/2021 14:11	47.6	36.6	0.0	15.8	-4.84	120.4	-4.80	120.4

**Tri-Cities Recycling & Disposal Facility**

Wellfield Monitoring Report - April 6, 20, and 27, 2021

Device Name	Date Time	CH4 (Methane) (%)	CO2 (Carbon Dioxide) (%)	O2 (Oxygen) (%)	Balance Gas (%)	Initial Static Pressure ("H2O)	Initial Temperature (°F)	Adjusted Static Pressure ("H2O)	Adjusted Temperature (°F)
TRICO221	4/6/2021 14:31	43.4	34.8	0.0	21.8	-1.24	113.0	-1.25	113.0



**APPENDIX H**

**WELLFIELD DEVIATION LOGS**

**TRI-CITIES RECYCLING & DISPOSAL FACILITY**

**Wellfield Deviation Report**

November 1, 2020 - April 30, 2021

REPORT PREPARED BY: Mike Chan  
 UPDATED DATE: 5/25/2021  
 FLOW SENSING DEVICE: GEM  
 MODEL: 2000  
 DATE LAST CALIBRATED: DAILY

Well ID	Time	CH <sub>4</sub> (%)	CO <sub>2</sub> (%)	O <sub>2</sub> (%)	Balance Gas (%)	Initial Static Pressure (" w.c.)	Initial Temperature (°F)	Adjusted Static Pressure (" w.c.)	Adjusted Temperature (°F)	Comments	Duration of Exceedance (Days)
No well exceedances in November 2020											
No well exceedances in December 2020											
No well exceedances in January 2021											
No well exceedances in February 2021											
No well exceedances in March 2021											
No well exceedances in April 2021											

1) Any adjustments to the wells were made after the first reading was taken. The well was then adjusted accordingly (e.g. valve was slightly opened, slightly closed, fully closed, or fully opened).

2) Abbreviations - CAI: Corrective Action Initiated, NSPS/EG: New Source Performance Standards/Emissions Guidelines

CH<sub>4</sub> - Methane CO<sub>2</sub> - Carbon Dioxide O<sub>2</sub> - Oxygen % - Percent " w.c. - Inches Water Column °F - Degrees Fahrenheit ppmv - parts per million by volume

**APPENDIX I**

**MONTHLY LANDFILL GAS FLOW RATES**

## 2020 Monthly LFG Input to Flare (A-3)

TRI-CITES RECYCLING AND DISPOSAL FACILITY, Fremont, CA

### A-3 (Flare)

Month	Total Available Runtime (Hours)	Total Downtime (Hours)	Total Runtime (Hours)	Average Flow (scfm)	CH <sub>4</sub> (%) <sup>(1)</sup>	Total LFG Volume (scf)	Total CH <sub>4</sub> Volume (scf)	Total Heat Input (MMBTU)
January-20	744.00	1.37	742.63	1,135	46.77	50,568,456	23,649,198	23,957
February-20	696.00	0.93	695.07	1,114	46.77	46,461,108	21,728,327	22,011
March-20	743.00	3.37	739.63	1,082	47.28	48,001,492	22,693,357	22,988
April-20	720.00	10.30	709.70	1,051	47.77	44,752,164	21,376,632	21,655
May-20	744.00	0.00	744.00	1,046	47.77	46,694,272	22,304,313	22,594
June-20	720.00	0.00	720.00	1,042	47.77	44,995,137	21,492,692	21,772
July-20	744.00	0.00	744.00	1,035	47.77	46,209,630	22,072,815	22,360
August-20	744.00	0.00	744.00	1,031	47.77	46,006,908	21,975,982	22,262
September-20	720.00	0.00	720.00	1,029	47.77	44,433,184	21,224,266	21,500
October-20	744.00	0.00	744.00	1,025	47.77	45,774,202	21,864,826	22,149
November-20	721.00	0.00	721.00	1,024	47.77	44,280,473	21,151,321	21,426
December-20	744.00	0.00	744.00	1,022	47.77	45,602,628	21,782,871	22,066
<b>TOTAL/AVERAGE:</b>	<b>8,784.00</b>	<b>15.97</b>	<b>8,768.03</b>	<b>1,053</b>	<b>47.56</b>	<b>553,779,654</b>	<b>263,316,599</b>	<b>266,740</b>

**NOTE:** The annual heat input rate for the A-3 Flare shall not exceed 657,000 MMBtu (Title V Condition No. 8366, Part No. 11).

(1) The methane content was determined from the February 6, 2019 (3/22/19-3/15/20) and February 11, 2020 (3/16/20 - current) source tests.

scfm - standard cubic feet per minute    % - percent    scf - standard cubic feet    MMBTU - million British thermal units

**November 1, 2020 - April 30, 2021 Monthly LFG Input to Flare (A-3)**

TRI-CITIES RECYCLING AND DISPOSAL FACILITY, Fremont, CA

**A-3 (Flare)**

Month	Total Available Runtime (Hours)	Total Downtime (Hours)	Total Runtime (Hours)	Average Flow (scfm)	CH <sub>4</sub> (%) <sup>(1)</sup>	Total LFG Volume (scf)	Total CH <sub>4</sub> Volume (scf)	Total Heat Input (MMBTU)
November-20	721.00	0.00	721.00	1,024	47.77	44,280,473	21,151,321	21,426
December-20	744.00	0.00	744.00	1,022	47.77	45,602,628	21,782,871	22,066
January-21	744.00	9.67	734.33	1,018	47.77	44,844,945	21,420,950	21,699
February-21	672.00	11.00	661.00	941	47.77	37,313,215	17,823,291	18,055
March-21	743.00	0.00	743.00	961	47.11	42,819,990	20,171,155	20,433
April-21	720.00	0.67	719.33	942	46.83	40,674,855	19,049,377	19,297
<b>TOTAL/AVERAGE:</b>	<b>4,344.00</b>	<b>21.33</b>	<b>4,322.67</b>	<b>984</b>	<b>47.50</b>	<b>255,536,106</b>	<b>121,398,965</b>	<b>122,977</b>

**NOTE:** The annual heat input rate for the A-3 Flare shall not exceed 657,000 MMBtu (Title V Condition No. 8366, Part No. 11).

(1) The methane content was determined from the February 11, 2020 (3/16/20-3/9/21) and February 4, 2021 (3/10/21 - current) source tests.

scfm - standard cubic feet per minute % - percent scf - standard cubic feet MMBTU - million British thermal units

**Tri-Cities Recycling & Disposal Facility  
Fremont, CA**

**Heat Input Rate**

MONTH: Nov-20

Date	Runtime (Hours)	CH <sub>4</sub> * (%)	Average Flow (scfm)	Total LFG Volume (scf)	Total CH <sub>4</sub> Volume (scf)	Heating Value of CH <sub>4</sub> (BTU/scf)	Heat Input (MMBTU)/Day
11/1/2020	25.00	47.8	1,026	1,538,484	734,883	1,013	744
11/2/2020	24.00	47.8	1,028	1,479,683	706,796	1,013	716
11/3/2020	24.00	47.8	1,023	1,473,732	703,953	1,013	713
11/4/2020	24.00	47.8	1,026	1,477,064	705,545	1,013	715
11/5/2020	24.00	47.8	1,035	1,489,983	711,716	1,013	721
11/6/2020	24.00	47.8	1,023	1,472,545	703,386	1,013	713
11/7/2020	24.00	47.8	1,011	1,455,967	695,467	1,013	705
11/8/2020	24.00	47.8	1,006	1,448,544	691,922	1,013	701
11/9/2020	24.00	47.8	1,011	1,456,384	695,667	1,013	705
11/10/2020	24.00	47.8	1,028	1,480,175	707,031	1,013	716
11/11/2020	24.00	47.8	1,029	1,481,548	707,687	1,013	717
11/12/2020	24.00	47.8	1,023	1,473,435	703,811	1,013	713
11/13/2020	24.00	47.8	1,022	1,471,046	702,670	1,013	712
11/14/2020	24.00	47.8	1,024	1,474,400	704,272	1,013	713
11/15/2020	24.00	47.8	1,031	1,484,481	709,088	1,013	718
11/16/2020	24.00	47.8	1,035	1,490,667	712,042	1,013	721
11/17/2020	24.00	47.8	1,017	1,465,107	699,833	1,013	709
11/18/2020	24.00	47.8	1,014	1,460,779	697,766	1,013	707
11/19/2020	24.00	47.8	1,022	1,472,264	703,252	1,013	712
11/20/2020	24.00	47.8	1,027	1,479,216	706,573	1,013	716
11/21/2020	24.00	47.8	1,029	1,481,525	707,676	1,013	717
11/22/2020	24.00	47.8	1,026	1,477,352	705,682	1,013	715
11/23/2020	24.00	47.8	1,022	1,470,984	702,641	1,013	712
11/24/2020	24.00	47.8	1,020	1,468,595	701,499	1,013	711
11/25/2020	24.00	47.8	1,021	1,470,252	702,291	1,013	711
11/26/2020	24.00	47.8	1,026	1,476,748	705,394	1,013	715
11/27/2020	24.00	47.8	1,025	1,476,518	705,284	1,013	714
11/28/2020	24.00	47.8	1,027	1,478,788	706,368	1,013	716
11/29/2020	24.00	47.8	1,026	1,477,681	705,839	1,013	715
11/30/2020	24.00	47.8	1,025	1,476,526	705,288	1,013	714
<b>Total/Average</b>	<b>721.00</b>	<b>47.8</b>	<b>1,024</b>	<b>44,280,473</b>	<b>21,151,321</b>	<b>1,013</b>	<b>21,426</b>
						<b>Maximum:</b>	<b>744</b>
						<b>Average:</b>	<b>714</b>

Notes: The methane content was determined from the February 11, 2020 (3/16/20 - current) source test.

The heat input for the A-3 Flare did not exceed 1,800 million Btu per day, as required by Title V Condition 8366, Part 11.

% - percent scfm - standard cubic feet per minute scf - standard cubic feet BTU - British thermal units  
MMBTU - million British thermal units

**Tri-Cities Recycling & Disposal Facility  
Fremont, CA**

**Heat Input Rate**

MONTH: Dec-20

Date	Runtime (Hours)	CH <sub>4</sub> * (%)	Average Flow (scfm)	Total LFG Volume (scf)	Total CH <sub>4</sub> Volume (scf)	Heating Value of CH <sub>4</sub> (BTU/scf)	Heat Input (MMBTU)/Day
12/1/2020	24.00	47.8	1,030	1,482,946	708,354	1,013	718
12/2/2020	24.00	47.8	1,025	1,476,272	705,166	1,013	714
12/3/2020	24.00	47.8	1,021	1,470,564	702,440	1,013	712
12/4/2020	24.00	47.8	1,030	1,482,623	708,200	1,013	717
12/5/2020	24.00	47.8	1,024	1,474,434	704,288	1,013	713
12/6/2020	24.00	47.8	1,028	1,480,379	707,128	1,013	716
12/7/2020	24.00	47.8	1,026	1,477,068	705,547	1,013	715
12/8/2020	24.00	47.8	1,026	1,477,671	705,835	1,013	715
12/9/2020	24.00	47.8	1,024	1,473,865	704,017	1,013	713
12/10/2020	24.00	47.8	1,016	1,462,980	698,817	1,013	708
12/11/2020	24.00	47.8	1,019	1,466,954	700,716	1,013	710
12/12/2020	24.00	47.8	1,019	1,467,478	700,966	1,013	710
12/13/2020	24.00	47.8	1,020	1,468,524	701,465	1,013	711
12/14/2020	24.00	47.8	1,021	1,470,945	702,622	1,013	712
12/15/2020	24.00	47.8	1,025	1,476,481	705,266	1,013	714
12/16/2020	24.00	47.8	1,031	1,485,040	709,355	1,013	719
12/17/2020	24.00	47.8	1,018	1,466,109	700,312	1,013	709
12/18/2020	24.00	47.8	1,017	1,464,358	699,475	1,013	709
12/19/2020	24.00	47.8	1,025	1,475,373	704,737	1,013	714
12/20/2020	24.00	47.8	1,030	1,483,617	708,675	1,013	718
12/21/2020	24.00	47.8	1,025	1,476,036	705,054	1,013	714
12/22/2020	24.00	47.8	1,017	1,465,006	699,785	1,013	709
12/23/2020	24.00	47.8	1,018	1,466,578	700,536	1,013	710
12/24/2020	24.00	47.8	1,024	1,474,140	704,148	1,013	713
12/25/2020	24.00	47.8	1,022	1,471,733	702,998	1,013	712
12/26/2020	24.00	47.8	1,019	1,466,877	700,679	1,013	710
12/27/2020	24.00	47.8	1,027	1,479,018	706,478	1,013	716
12/28/2020	24.00	47.8	1,005	1,447,671	691,505	1,013	700
12/29/2020	24.00	47.8	1,004	1,445,799	690,610	1,013	700
12/30/2020	24.00	47.8	1,015	1,462,134	698,413	1,013	707
12/31/2020	24.00	47.8	1,017	1,463,955	699,283	1,013	708
<b>Total/Average</b>	<b>744.00</b>	<b>47.8</b>	<b>1,022</b>	<b>45,602,628</b>	<b>21,782,871</b>	<b>1,013</b>	<b>22,066</b>
						<b>Maximum:</b>	<b>719</b>
						<b>Average:</b>	<b>712</b>

Notes:

The methane content was determined from the February 11, 2020 (3/16/20 - current) source test.

The heat input for the A-3 Flare did not exceed 1,800 million Btu per day, as required by Title V Condition 8366, Part 11.

% - percent scfm - standard cubic feet per minute scf - standard cubic feet BTU - British thermal units

MMBTU - million British thermal units

**Tri-Cities Recycling & Disposal Facility  
Fremont, CA**

**Heat Input Rate**

MONTH: Jan-21

Date	Runtime (Hours)	CH <sub>4</sub> * (%)	Average Flow (scfm)	Total LFG Volume (scf)	Total CH <sub>4</sub> Volume (scf)	Heating Value of CH <sub>4</sub> (BTU/scf)	Heat Input (MMBTU)/Day
1/1/2021	24.00	47.8	1,013	1,458,930	696,883	1,013	706
1/2/2021	24.00	47.8	1,015	1,461,615	698,165	1,013	707
1/3/2021	24.00	47.8	1,018	1,465,220	699,887	1,013	709
1/4/2021	24.00	47.8	1,010	1,453,870	694,466	1,013	703
1/5/2021	24.00	47.8	1,012	1,457,325	696,116	1,013	705
1/6/2021	24.00	47.8	1,012	1,456,890	695,908	1,013	705
1/7/2021	24.00	47.8	1,012	1,457,875	696,379	1,013	705
1/8/2021	24.00	47.8	1,008	1,451,820	693,487	1,013	703
1/9/2021	24.00	47.8	1,011	1,455,220	695,111	1,013	704
1/10/2021	24.00	47.8	1,011	1,456,250	695,603	1,013	705
1/11/2021	24.00	47.8	1,012	1,457,935	696,407	1,013	705
1/12/2021	24.00	47.8	1,016	1,463,330	698,984	1,013	708
1/13/2021	24.00	47.8	1,023	1,473,170	703,685	1,013	713
1/14/2021	23.17	47.8	1,027	1,427,500	681,870	1,013	691
1/15/2021	24.00	47.8	1,027	1,478,675	706,314	1,013	715
1/16/2021	24.00	47.8	1,025	1,476,290	705,175	1,013	714
1/17/2021	24.00	47.8	1,022	1,471,775	703,018	1,013	712
1/18/2021	24.00	47.8	1,016	1,463,135	698,891	1,013	708
1/19/2021	24.00	47.8	1,000	1,440,665	688,158	1,013	697
1/20/2021	24.00	47.8	995	1,432,205	684,117	1,013	693
1/21/2021	22.58	47.8	1,004	1,360,875	650,045	1,013	658
1/22/2021	24.00	47.8	998	1,437,435	686,615	1,013	696
1/23/2021	24.00	47.8	992	1,428,520	682,357	1,013	691
1/24/2021	24.00	47.8	994	1,430,740	683,417	1,013	692
1/25/2021	24.00	47.8	987	1,421,910	679,199	1,013	688
1/26/2021	22.25	47.8	990	1,321,450	631,213	1,013	639
1/27/2021	18.33	47.8	1,091	1,200,560	573,468	1,013	581
1/28/2021	24.00	47.8	1,131	1,628,465	777,864	1,013	788
1/29/2021	24.00	47.8	1,044	1,503,495	718,170	1,013	728
1/30/2021	24.00	47.8	1,017	1,464,655	699,617	1,013	709
1/31/2021	24.00	47.8	1,033	1,487,145	710,360	1,013	720
<b>Total/Average</b>	<b>734.33</b>	<b>47.8</b>	<b>1,018</b>	<b>44,844,945</b>	<b>21,420,950</b>	<b>1,013</b>	<b>21,699</b>
						<b>Maximum:</b>	<b>788</b>
						<b>Average:</b>	<b>700</b>

Notes:

The methane content was determined from the February 11, 2020 (3/16/20 - current) source test.

The heat input for the A-3 Flare did not exceed 1,800 million Btu per day, as required by Title V Condition 8366, Part 11.

% - percent scfm - standard cubic feet per minute scf - standard cubic feet BTU - British thermal units  
MMBTU - million British thermal units



**Tri-Cities Recycling & Disposal Facility  
Fremont, CA**

**Heat Input Rate**

MONTH: Feb-21

Date	Runtime (Hours)	CH <sub>4</sub> * (%)	Average Flow (scfm)	Total LFG Volume (scf)	Total CH <sub>4</sub> Volume (scf)	Heating Value of CH <sub>4</sub> (BTU/scf)	Heat Input (MMBTU)/Day
2/1/2021	23.83	47.8	1,027	1,468,325	701,370	1,013	710
2/2/2021	23.83	47.8	1,008	1,441,690	688,648	1,013	698
2/3/2021	18.08	47.8	1,016	1,102,180	526,475	1,013	533
2/4/2021	21.83	47.8	979	1,282,500	612,608	1,013	621
2/5/2021	21.42	47.8	922	1,184,565	565,828	1,013	573
2/6/2021	24.00	47.8	938	1,351,105	645,378	1,013	654
2/7/2021	24.00	47.8	935	1,346,385	643,124	1,013	651
2/8/2021	24.00	47.8	926	1,334,065	637,239	1,013	646
2/9/2021	24.00	47.8	925	1,331,700	636,109	1,013	644
2/10/2021	24.00	47.8	925	1,332,015	636,260	1,013	645
2/11/2021	24.00	47.8	931	1,340,235	640,186	1,013	649
2/12/2021	24.00	47.8	923	1,329,365	634,994	1,013	643
2/13/2021	24.00	47.8	927	1,335,530	637,939	1,013	646
2/14/2021	24.00	47.8	927	1,334,615	637,502	1,013	646
2/15/2021	24.00	47.8	926	1,332,990	636,725	1,013	645
2/16/2021	24.00	47.8	926	1,333,165	636,809	1,013	645
2/17/2021	24.00	47.8	927	1,334,935	637,654	1,013	646
2/18/2021	24.00	47.8	928	1,336,085	638,204	1,013	647
2/19/2021	24.00	47.8	936	1,348,550	644,158	1,013	653
2/20/2021	24.00	47.8	927	1,334,925	637,650	1,013	646
2/21/2021	24.00	47.8	935	1,346,540	643,198	1,013	652
2/22/2021	24.00	47.8	949	1,366,700	652,827	1,013	661
2/23/2021	24.00	47.8	944	1,358,835	649,071	1,013	658
2/24/2021	24.00	47.8	930	1,338,560	639,386	1,013	648
2/25/2021	24.00	47.8	932	1,342,350	641,196	1,013	650
2/26/2021	24.00	47.8	935	1,347,025	643,429	1,013	652
2/27/2021	24.00	47.8	928	1,336,390	638,349	1,013	647
2/28/2021	24.00	47.8	932	1,341,890	640,977	1,013	649
<b>Total/Average</b>	<b>661.00</b>	<b>47.8</b>	<b>941</b>	<b>37,313,215</b>	<b>17,823,291</b>	<b>1,013</b>	<b>18,055</b>
						<b>Maximum:</b>	<b>710</b>
						<b>Average:</b>	<b>645</b>

Notes:

The methane content was determined from the February 11, 2020 (3/16/20 - current) source test.

The heat input for the A-3 Flare did not exceed 1,800 million Btu per day, as required by Title V Condition 8366, Part 11.

% - percent scfm - standard cubic feet per minute scf - standard cubic feet BTU - British thermal units

MMBTU - million British thermal units

**Tri-Cities Recycling & Disposal Facility  
Fremont, CA**

**Heat Input Rate**

MONTH: Mar-21

Date	Runtime (Hours)	CH <sub>4</sub> * (%)	Average Flow (scfm)	Total LFG Volume (scf)	Total CH <sub>4</sub> Volume (scf)	Heating Value of CH <sub>4</sub> (BTU/scf)	Heat Input (MMBTU)/Day
3/1/2021	24.00	47.8	938	1,351,405	645,522	1,013	654
3/2/2021	24.00	47.8	959	1,380,860	659,591	1,013	668
3/3/2021	24.00	47.8	973	1,401,360	669,383	1,013	678
3/4/2021	24.00	47.8	959	1,381,400	659,849	1,013	668
3/5/2021	24.00	47.8	988	1,422,345	679,407	1,013	688
3/6/2021	24.00	47.8	972	1,399,670	668,576	1,013	677
3/7/2021	24.00	47.8	978	1,408,410	672,751	1,013	681
3/8/2021	24.00	47.8	970	1,396,735	667,174	1,013	676
3/9/2021	24.00	47.8	978	1,407,680	672,402	1,013	681
3/10/2021	24.00	46.8	970	1,397,360	654,430	1,013	663
3/11/2021	24.00	46.8	961	1,384,110	648,224	1,013	657
3/12/2021	24.00	46.8	969	1,395,745	653,673	1,013	662
3/13/2021	24.00	46.8	964	1,388,650	650,351	1,013	659
3/14/2021	23.00	46.8	1,021	1,409,360	660,050	1,013	669
3/15/2021	24.00	46.8	973	1,400,465	655,884	1,013	664
3/16/2021	24.00	46.8	954	1,374,010	643,494	1,013	652
3/17/2021	24.00	46.8	947	1,364,170	638,886	1,013	647
3/18/2021	24.00	46.8	942	1,356,650	635,364	1,013	644
3/19/2021	24.00	46.8	946	1,362,465	638,087	1,013	646
3/20/2021	24.00	46.8	942	1,356,725	635,399	1,013	644
3/21/2021	24.00	46.8	953	1,372,190	642,642	1,013	651
3/22/2021	24.00	46.8	955	1,374,575	643,759	1,013	652
3/23/2021	24.00	46.8	954	1,373,265	643,145	1,013	652
3/24/2021	24.00	46.8	954	1,374,185	643,576	1,013	652
3/25/2021	24.00	46.8	950	1,368,075	640,715	1,013	649
3/26/2021	24.00	46.8	935	1,345,945	630,350	1,013	639
3/27/2021	24.00	46.8	944	1,359,360	636,633	1,013	645
3/28/2021	24.00	46.8	958	1,379,810	646,211	1,013	655
3/29/2021	24.00	46.8	963	1,387,370	649,751	1,013	658
3/30/2021	24.00	46.8	951	1,370,080	641,654	1,013	650
3/31/2021	24.00	46.8	955	1,375,560	644,220	1,013	653
<b>Total/Average</b>	<b>743.00</b>	<b>47.1</b>	<b>961</b>	<b>42,819,990</b>	<b>20,171,155</b>	<b>1,013</b>	<b>20,433</b>
						<b>Maximum:</b>	<b>688</b>
						<b>Average:</b>	<b>659</b>

Notes: The methane content was determined from the February 11, 2020 (3/16/20-3/9/21) and February 4, 2021 (3/10/21 - current) source tests.

The heat input for the A-3 Flare did not exceed 1,800 million Btu per day, as required by Title V Condition 8366, Part 11.

% - percent scfm - standard cubic feet per minute scf - standard cubic feet BTU - British thermal units

MMBTU - million British thermal units

**Tri-Cities Recycling & Disposal Facility  
Fremont, CA**

**Heat Input Rate**

MONTH: Apr-21

Date	Runtime (Hours)	CH <sub>4</sub> * (%)	Average Flow (scfm)	Total LFG Volume (scf)	Total CH <sub>4</sub> Volume (scf)	Heating Value of CH <sub>4</sub> (BTU/scf)	Heat Input (MMBTU)/Day
4/1/2021	24.00	46.8	964	1,388,740	650,393	1,013	659
4/2/2021	24.00	46.8	945	1,360,455	637,146	1,013	645
4/3/2021	24.00	46.8	942	1,356,815	635,441	1,013	644
4/4/2021	24.00	46.8	952	1,371,185	642,171	1,013	651
4/5/2021	24.00	46.8	955	1,374,495	643,721	1,013	652
4/6/2021	24.00	46.8	942	1,357,010	635,533	1,013	644
4/7/2021	24.00	46.8	925	1,331,745	623,700	1,013	632
4/8/2021	24.00	46.8	935	1,346,750	630,727	1,013	639
4/9/2021	24.00	46.8	932	1,342,160	628,578	1,013	637
4/10/2021	24.00	46.8	939	1,352,635	633,484	1,013	642
4/11/2021	24.00	46.8	938	1,351,285	632,851	1,013	641
4/12/2021	23.33	46.8	936	1,310,935	613,954	1,013	622
4/13/2021	24.00	46.8	931	1,341,255	628,154	1,013	636
4/14/2021	24.00	46.8	927	1,334,640	625,056	1,013	633
4/15/2021	24.00	46.8	933	1,343,755	629,325	1,013	638
4/16/2021	24.00	46.8	936	1,348,335	631,470	1,013	640
4/17/2021	24.00	46.8	938	1,350,230	632,357	1,013	641
4/18/2021	24.00	46.8	941	1,355,275	634,720	1,013	643
4/19/2021	24.00	46.8	941	1,354,945	634,565	1,013	643
4/20/2021	24.00	46.8	949	1,366,480	639,968	1,013	648
4/21/2021	24.00	46.8	941	1,355,750	634,942	1,013	643
4/22/2021	24.00	46.8	935	1,346,990	630,840	1,013	639
4/23/2021	24.00	46.8	937	1,348,740	631,659	1,013	640
4/24/2021	24.00	46.8	944	1,358,970	636,450	1,013	645
4/25/2021	24.00	46.8	942	1,355,890	635,008	1,013	643
4/26/2021	24.00	46.8	938	1,350,145	632,317	1,013	641
4/27/2021	24.00	46.8	944	1,359,230	636,572	1,013	645
4/28/2021	24.00	46.8	960	1,382,170	647,316	1,013	656
4/29/2021	24.00	46.8	965	1,390,145	651,051	1,013	660
4/30/2021	24.00	46.8	964	1,387,700	649,906	1,013	658
<b>Total/Average</b>	<b>719.33</b>	<b>46.8</b>	<b>942</b>	<b>40,674,855</b>	<b>19,049,377</b>	<b>1,013</b>	<b>19,297</b>
						<b>Maximum:</b>	<b>660</b>
						<b>Average:</b>	<b>643</b>

Notes: The methane content was determined from the February 11, 2020 (3/16/20-3/9/21) and February 4, 2021 (3/10/21 - current) source tests.

The heat input for the A-3 Flare did not exceed 1,800 million Btu per day, as required by Title V Condition 8366, Part 11.

% - percent scfm - standard cubic feet per minute scf - standard cubic feet BTU - British thermal units

MMBTU - million British thermal units

**APPENDIX J**

**STRUCTURE MONITORING REPORTS**



WASTE MANAGEMENT  
 172 98<sup>th</sup> Avenue  
 Oakland, CA 94603  
 (510) 430-8509

December 22, 2020

Mr. Patrick Madej  
 Tri-Cities Recycling and Disposal Facility  
 7010 Auto Mall Parkway  
 Fremont, California 94538

**Re: Fourth Quarter 2020 Methane-In-Structure Monitoring Report for Tri-Cities Recycling and Disposal Facility**

Dear Mr. Madej:

This report for the Tri-Cities Recycling and Disposal Facility (TCRDF) contains the results of the Fourth Quarter 2020 Perimeter Gas and Methane in Structure Monitoring conducted at the TCRDF.

**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.

**Table 1 Monitoring Results**

Device ID or Structure	Date	CH <sub>4</sub> (Methane) (ppm <sub>v</sub> )
S-3 Ops Trailer	10/27/2020	1.4
S-4 Break Area	10/27/2020	11.3
S-5 Collection Booths	10/27/2020	2.5
S-9 Maintenance Break Area	10/27/2020	2.5
S-10 Parts Wash Room	10/27/2020	2.3
S-12 Compressor Room	10/27/2020	1.3
S-13 Raisch Room	10/27/2020	2.3

## **MONITORING EQUIPMENT AND METHODOLOGY [TITLE 27 §20934(a)(4)]**

### **Perimeter Gas Monitoring**

CalRecycle granted TCRDF a variance from probe monitoring on July 2, 2010. Therefore probe monitoring was not conducted due to the decommissioning of Probe TCGP005.

### **Facility Structures**

The technician used a FID to monitor buildings and structures to check for the presence of methane on October 27, 2020. The instrument was calibrated prior to monitoring using 500 parts per million by volume (ppm<sub>v</sub>) 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 on December 15, 2020.

## **CLOSING**

If you have any questions regarding this notification, please do not hesitate to contact me at (510) 613-2852.

Thank you,

Waste Management

A handwritten signature in black ink that reads "Michael Chan". The signature is written in a cursive style and is positioned above the printed name and title.

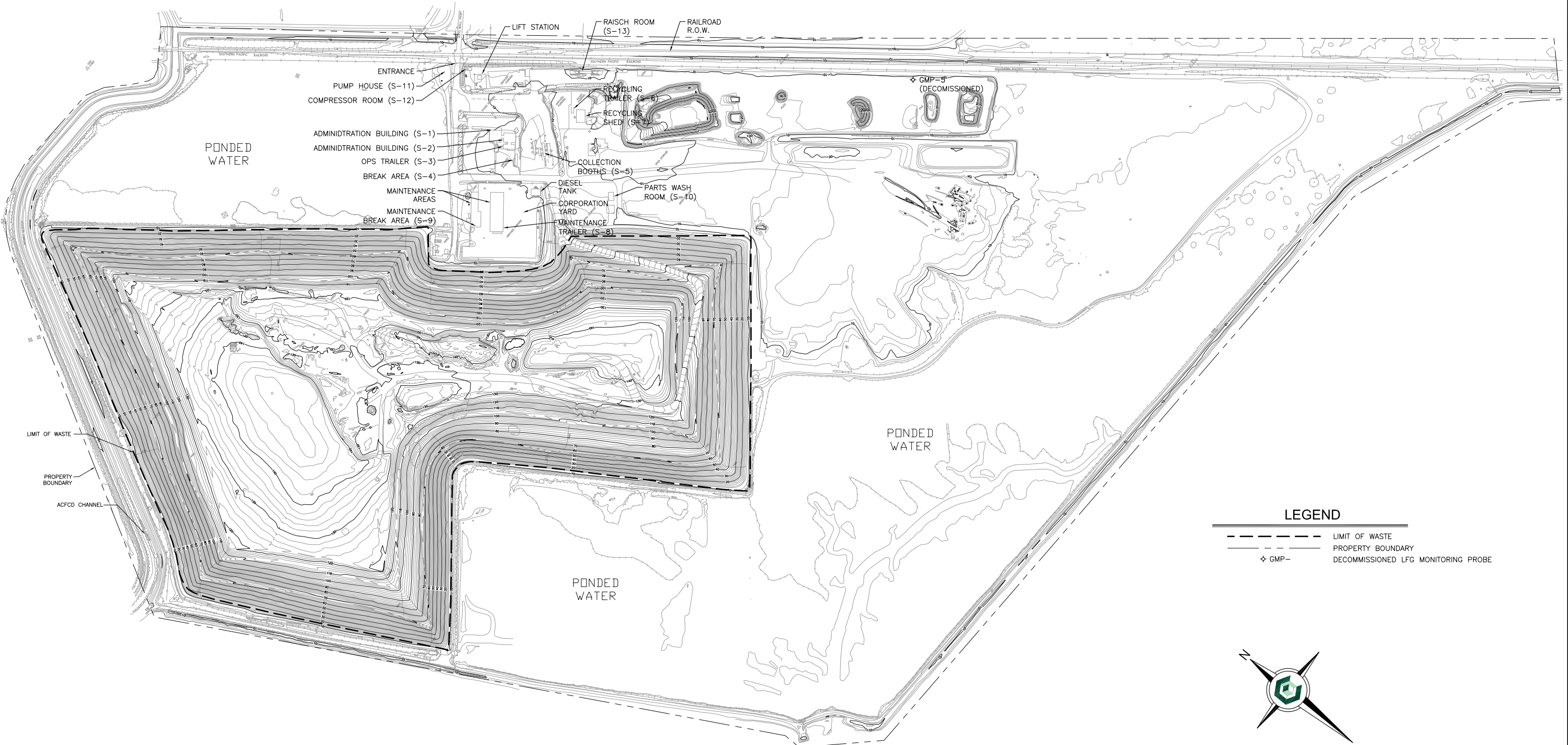
Michael Chan  
Environmental Protection Specialist

**ATTACHMENT A**

**SITE MAP**

1" 1/2" 0" 1"

File: K:\PROJECTS\TRICITIES - COMPLIANCE\03911\_PROJECT DRAWINGS\GMP\2010 PUMP EXHIBITS.dwg Layout: SHT 2 User: mchametz Oct 07, 2010 - 3:12pm



**LEGEND**

- LIMIT OF WASTE
- PROPERTY BOUNDARY
- GMP- DECOMMISSIONED LFG MONITORING PROBE

SCALE IN FEET

**NOTES:**

1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY WALKER ASSOCIATES. DATE OF PHOTOGRAPHY: JUNE 10, 2010. DATUM: HORIZONTAL - NAD27, VERTICAL - NGVD29.

PAUL J. STOUT, P.E.  
P.E. Lic. No. C52827 Date

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
DATE OF ISSUE	9/16/2010	DRAWN BY MRF		DESIGNED BY JBS	CHECKED BY DHT	APPROVED BY PJS

**CORNERSTONE**  
Environmental Group, LLC

This drawing represents intellectual property of Cornerstone Environmental Group, LLC. Any modification to the original by other than Cornerstone Environmental Group, LLC personnel violates its original purpose and as such is rendered void. Cornerstone Environmental Group, LLC will not be held liable for any changes made to this document without express written consent of the originator.

TRICITIES RECYCLING AND DISPOSAL FACILITY  
**2010 UPDATE PERIMETER GAS  
MIGRATION MONITORING PLAN**  
**PREVIOUSLY EXISTING LANDFILL GAS  
MONITORING LOCATIONS**

SHEET NO. **2**  
PROJECT NO. 090391.1



**ATTACHMENT B**

**FIELD DATA**

**Tri-Cities Recycling and Disposal Facility**  
**Gas Detector Calibration Record and Structure Monitoring**

Table 1

FID Structure Monitoring Data			
Analyst: <u>    Ryan Haslam    </u>		Date: <u>    10-27-20    </u>	
Instrument: <u>    TVA 2020    </u>		Serial #: <u>    202016031211    </u>	
Monitored Location	Time	PPM	Comments
<b>S-3 Ops Trailer</b>		1.4	
<b>S-4 Break Area</b>		11.3	
<b>S-5 Collection Booths</b>		2.5	
<b>S-9 Maintenance Break Area</b>		2.5	
<b>S-10 Parts Wash Room</b>		2.3	
<b>S-12 Compressor Room</b>		1.3	
<b>S-13 Raisch Room</b>		2.3	

**Immediately notify compliance personnel of any readings in excess of 1.25 percent methane.**

**ND = No detection**

Table 2

LOCATION: TRI-CITIES RECYCLING AND DISPOSAL FACILITY

MANUFACTURER & MODEL NUMBER: Sierra Monitor Corporation Model # 2001

CALIBRATED BY / INSTRUMENT USED: Matt Frame / Cal System Model# 26

CALIBRATION GAS EXPIRATION DATE: 5/31/2021

Gas Detector Calibration Record				
LOCATION	DATE CALIBRATED and TIME	SERIAL NUMBER	Methane LEL* SENSOR alarm 10,000 ppm	MAINTENANCE PERFORMED / COMMENTS ON MONITOR CONDITION
S-3 Ops Trailer	12/15/2020 10:13	1629404204	Yes	good calibration
S-9 Maintenance Break Area	12/15/2020 9:58	0724904533M TS	Yes	good calibration
S-4 Break Area	12/15/2020 10:17	0608001242	Yes	good calibration
S-5 Collection Booths	12/15/2020 10:09	401705272 GCN	Yes	good calibration
S-12 Compressor Room	12/15/2020 10:22	401705272 GCN	Yes	good calibration
S-13 Raisch Room	12/15/2020 10:28	1915102415 GLN	Yes	good calibration

\*\* This form must be retained for 12 months after completion.

## SURFACE EMISSIONS MONITORING CALIBRATION AND PERTINENT DATA

Date: 10-27-20 Site Name: Tri-cities  
 Inspector(s): Ryan Haslam Instrument: TVA 2020

### WEATHER OBSERVATIONS

Wind Speed: 4 MPH Wind Direction: S Barometric Pressure: 30 "Hg  
 Air Temperature: 76 °F General Weather Conditions: Clear

### CALIBRATION INFORMATION

Pre-monitoring Calibration Precision Check

Procedure: Calibrate the instrument. Make a total of three measurements by alternating zero air and the calibration gas. Record the readings and calculate the average algebraic difference between the instrument reading and the calibration gas as a percentage. The calibration precision must be less than or equal to 10% of the calibration gas value.

Instrument Serial Number: 1211 Cal Gas Concentration: 500ppm

Trial	Zero Air Reading	Cal Gas Reading	Cal Gas Conc.-Cal Gas Reading	Response Time (seconds)
1	.3	500	0	3
2	.3	500	0	3
3	.3	501	1	3

Average Difference: .3

\*Perform recalibration if average difference is greater than 10

Calibration Precision= Average Difference/Cal Gas Conc. X 100%

$$= 100\% \cdot \frac{.3}{500} \times 100\%$$

$$= 99.9\%$$

Span Sensitivity:

Trial 1:	Trial 3:
Counts Observed for the Span= <u>112481</u>	Counts Observed for the Span= <u>111997</u>
Counters Observed for the Zero= <u>3834</u>	Counters Observed for the Zero= <u>3791</u>
Trial 2:	
Counts Observed for the Span= <u>112397</u>	
Counters Observed for the Zero= <u>3880</u>	

Post Monitoring Calibration Check

Zero Air Reading: 0 ppm Cal Gas Reading: 500 ppm

### BACKGROUND CONCENTRATIONS CHECKS

Upwind Location Description: entrance Reading: 1.1 ppm  
 Downwind Location Description: plare Reading: 1.5 ppm

Notes: Wind speed averages were observed to remain below the alternative requested 10 miles per hour and no instantaneous speeds exceeded 20 miles per hour. No rainfall had occurred within the previous 24 hours of the monitoring event. Therefore, site meteorological conditions were within the requested alternatives of the LMR requirements on the above mentioned date.

## SURFACE EMISSIONS MONITORING CALIBRATION AND PERTINENT DATA

Date: 10-27-20 Site Name: Tricities  
 Inspector(s): Ryan Haslam Instrument: TVA 2020

### WEATHER OBSERVATIONS

Wind Speed: 4 MPH Wind Direction: S Barometric Pressure: 30 "Hg  
 Air Temperature: 76 °F General Weather Conditions: Clear

### CALIBRATION INFORMATION

Pre-monitoring Calibration Precision Check

*Procedure: Calibrate the instrument. Make a total of three measurements by alternating zero air and the calibration gas. Record the readings and calculate the average algebraic difference between the instrument reading and the calibration gas as a percentage. The calibration precision must be less than or equal to 10% of the calibration gas value.*

Instrument Serial Number: 1211 Cal Gas Concentration: 500ppm

Trial	Zero Air Reading	Cal Gas Reading	Cal Gas Conc.-Cal Gas Reading	Response Time (seconds)
1	<u>.3</u>	<u>501</u>	<u>1</u>	<u>4</u>
2	<u>.3</u>	<u>500</u>	<u>0</u>	<u>3</u>
3	<u>.2</u>	<u>499</u>	<u>1</u>	<u>3</u>

Average Difference: .7

\*Perform recalibration if average difference is greater than 10

Calibration Precision= Average Difference/Cal Gas Conc. X 100%

$$= 100\% \cdot \frac{.7}{500} \times 100\% = 99.8\%$$

Span Sensitivity:

Trial 1:	Trial 3:
Counts Observed for the Span= <u>109466</u>	Counts Observed for the Span= <u>110500</u>
Counters Observed for the Zero= <u>9022</u>	Counters Observed for the Zero= <u>3987</u>
Trial 2:	
Counts Observed for the Span= <u>110371</u>	
Counters Observed for the Zero= <u>4054</u>	

Post Monitoring Calibration Check

Zero Air Reading: 0 ppm Cal Gas Reading: 500 ppm

### BACKGROUND CONCENTRATIONS CHECKS

Upwind Location Description: entrance Reading: 1.1 ppm  
 Downwind Location Description: Flare Reading: 1.5 ppm

**Notes:** Wind speed averages were observed to remain below the alternative requested 10 miles per hour and no instantaneous speeds exceeded 20 miles per hour. No rainfall had occurred within the previous 24 hours of the monitoring event. Therefore, site meteorological conditions were within the requested alternatives of the LMR requirements on the above mentioned date.



WASTE MANAGEMENT  
172 98<sup>th</sup> Avenue  
Oakland, CA 94603  
(510) 430-8509

April 15, 2021

Mr. Patrick Madej  
Tri-Cities Recycling and Disposal Facility  
7010 Auto Mall Parkway  
Fremont, California 94538

**Re: First Quarter 2021 Methane-In-Structure Monitoring Report for Tri-Cities Recycling and Disposal Facility**

Dear Mr. Madej:

This report for the Tri-Cities Recycling and Disposal Facility (TCRDF) contains the results of the First Quarter 2021 Perimeter Gas and Methane in Structure Monitoring conducted at the TCRDF.

**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.

**Table 1 Monitoring Results**

Device ID or Structure	Date	CH <sub>4</sub> (Methane) (ppm <sub>v</sub> )
S-3 Ops Trailer	1/12/2021	2.3
S-4 Break Area	1/12/2021	2.4
S-5 Collection Booths	1/12/2021	3.1
S-9 Maintenance Break Area	1/12/2021	2.3
S-10 Parts Wash Room	1/12/2021	3.3
S-12 Compressor Room	1/12/2021	2.6
S-13 Raisch Room	1/12/2021	2.6

## **MONITORING EQUIPMENT AND METHODOLOGY [TITLE 27 §20934(a)(4)]**

### **Perimeter Gas Monitoring**

CalRecycle granted TCRDF a variance from probe monitoring on July 2, 2010. Therefore probe monitoring was not conducted due to the decommissioning of Probe TCGP005.

### **Facility Structures**

The technician used a FID to monitor buildings and structures to check for the presence of methane on January 12, 2021. The instrument was calibrated prior to monitoring using 500 parts per million by volume (ppm<sub>v</sub>) 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 on March 23, 2021.

### **CLOSING**

If you have any questions regarding this notification, please do not hesitate to contact me at (510) 613-2852.

Thank you,

Waste Management

A handwritten signature in black ink that reads "Michael Chan". The signature is written in a cursive style and is positioned above the printed name and title.

Michael Chan  
Environmental Protection Specialist

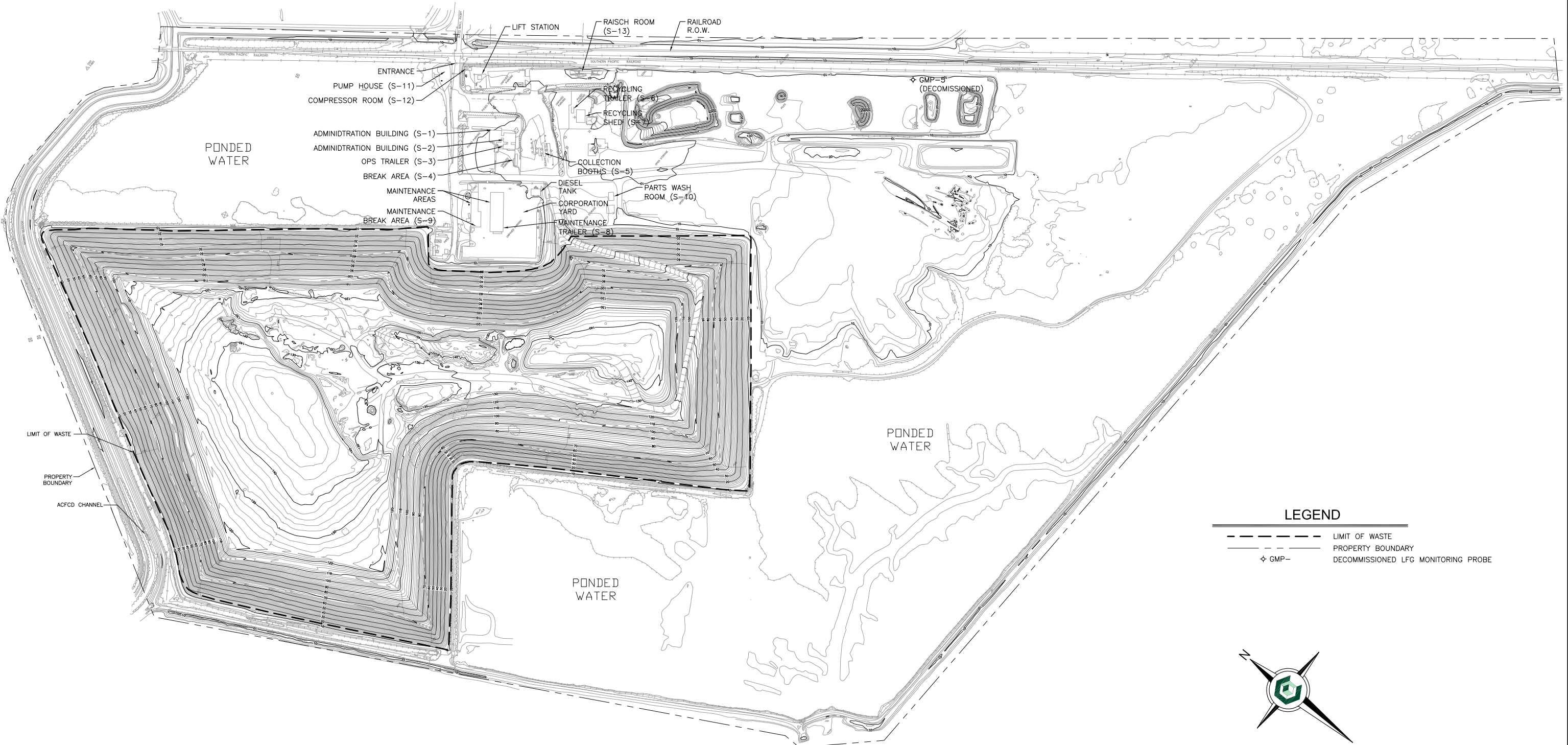
**ATTACHMENT A**

**SITE MAP**



1" 1/2" 0" 1"

File: K:\PROJECTS\TRICITIES - COMPLIANCE\03911\_PROJECT DRAWINGS\GMP\2010 PUMP EXHIBITS.dwg Layout: SHT 2 User: mchametz Oct 07, 2010 - 3:12pm



**LEGEND**

- LIMIT OF WASTE
- PROPERTY BOUNDARY
- GMP- DECOMMISSIONED LFG MONITORING PROBE

SCALE IN FEET

**NOTES:**

1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY WALKER ASSOCIATES. DATE OF PHOTOGRAPHY: JUNE 10, 2010. DATUM: HORIZONTAL - NAD27, VERTICAL - NGVD29.

PAUL J. STOUT, P.E.  
P.E. Lic. No. C52827 Date

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
DATE OF ISSUE	9/16/2010	DRAWN BY MRF		CHECKED BY DHT		APPROVED BY PJS
		DESIGNED BY JBS				

This drawing represents intellectual property of Cornerstone Environmental Group, LLC. Any modification to the original by other than Cornerstone Environmental Group, LLC personnel violates its original purpose and as such is rendered void. Cornerstone Environmental Group, LLC will not be held liable for any changes made to this document without express written consent of the originator.

TRICITIES RECYCLING AND DISPOSAL FACILITY  
**2010 UPDATE PERIMETER GAS  
MIGRATION MONITORING PLAN  
PREVIOUSLY EXISTING LANDFILL GAS  
MONITORING LOCATIONS**

SHEET NO. **2**  
PROJECT NO. 090391.1

**ATTACHMENT B**

**FIELD DATA**

**Tri-Cities Recycling and Disposal Facility**  
**Gas Detector Calibration Record and Structure Monitoring**

Table 1

FID Structure Monitoring Data			
Analyst: <u>    Ryan Haslam    </u>		Date: <u>    1-12-21    </u>	
Instrument: <u>    TVA 2020    </u>		Serial #: <u>    202016031211    </u>	
Monitored Location	Time	PPM	Comments
<b>S-3 Ops Trailer</b>		2.3	
<b>S-4 Break Area</b>		2.4	
<b>S-5 Collection Booths</b>		3.1	
<b>S-9 Maintenance Break Area</b>		2.3	
<b>S-10 Parts Wash Room</b>		3.3	
<b>S-12 Compressor Room</b>		2.6	
<b>S-13 Raisch Room</b>		2.6	

**Immediately notify compliance personnel of any readings in excess of 1.25 percent methane.**

**ND = No detection**

Table 2

LOCATION: TRI-CITIES RECYCLING AND DISPOSAL FACILITY

MANUFACTURER & MODEL NUMBER: Sierra Monitor Corporation Model # 2004

CALIBRATED BY / INSTRUMENT USED: Tyler Burt / Cal System Model# 26

CALIBRATION GAS EXPIRATION DATE: 05/31 / 2022

Gas Detector Calibration Record				
LOCATION	DATE CALIBRATED and TIME	SERIAL NUMBER	Methane LEL* SENSOR alarm 10,000 ppm	MAINTENANCE PERFORMED / COMMENTS ON MONITOR CONDITION
S-3 Ops Trailer	3/23/21 12:30 PM	1629404204	Yes	Calibration
S-9 Maintenance Break Area	3/23/21 11:20 AM	6724904533M TS	Yes	Calibration
S-4 Break Area	3/23/21 12:20 PM	0608001242	Yes	Calibration
S-5 Collection Booths	3/23/21 12:08 PM	401705272 GCN	Yes	Calibration
S-12 Compressor Room	3/23/21 11:55 AM	401705272 GCN	Yes	Calibration
S-13 Raisch Room	3/23/21 11:45 AM	1915102415 GLN	Yes	Calibration

\*\* This form must be retained for 12 months after completion.

# CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: TCRFD Date: 01/12/2021

Time: 07:30 AM        PM

Instrument Make: Thermo Scientific Model: TVA 2020 S/N: 2020116031211

## 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): 1.2 ppm (a)
2. Downwind Reading (highest in 30 seconds): 1.3 ppm (b)

Calculate Background Value:

$$\frac{(a) + (b)}{2} \quad \text{Background} = \underline{1.25} \text{ ppm}$$

Performed by: Ryan Haslam

## RESPONSE TIME TEST RECORD

Date: 01/12/2021

Expiration Date (3 months): 04/12/2021

Time: 7:20 AM \_\_\_\_\_ PM

Instrument Make: Thermo Scientific Model: TVA 2020 S/N: 202016031211

Measurement #1:

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: 3 seconds (a)

Measurement #2:

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: 3 seconds (b)

Measurement #3:

Stabilized Reading Using Calibration Gas: 501 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:

$$\frac{(a) + (b) + (c)}{3} = \underline{2.67} \text{ seconds (must be less than 30 seconds)}$$

Performed by: Ryan Haslam

# CALIBRATION PRECISION TEST RECORD

Date: 01/12/2021

Expiration Date (3 months): 04/12/2021

Time: 7:20 AM        PM

Instrument Make: Thermo Scientific Model: TVA 2020 S/N: 202016031211

Measurement #1:

Meter Reading for Zero Air:       1       ppm (a)

Meter Reading for Calibration Gas:       499       ppm (b)

Measurement #2:

Meter Reading for Zero Air:       1       ppm (c)

Meter Reading for Calibration Gas:       498       ppm (d)

Measurement #3:

Meter Reading for Zero Air:       0       ppm (e)

Meter Reading for Calibration Gas:       501       ppm (f)

Calculate Precision:

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

0.27 % (must be < than 10%)

Performed by: Ryan Haslam

**APPENDIX K**

**ANNUAL H<sub>2</sub>S MONITORING REPORTS**



WM - TRI-CITIES LANDFILL, Fremont, CA			
ANNUAL HYDROGEN SULFIDE (H <sub>2</sub> S) MONITORING			
SAMPLE TAKEN BY:	Matthew Frame		
DATE	SAMPLE LOCATION	H <sub>2</sub> S CONCENTRATION (PPM)	COMMENTS
7/15/2020	Flare Inlet	100	None
COMMENTS: PPM - parts per million Sample taken with a Draeger Tube per Title V Permit Condition No. 8366, Part 12			

**APPENDIX L**

**SOURCE TEST REPORT SUMMARY**

# Waste Management of Alameda County

BAAQMD Facility #2246

## Annual Compliance Emissions Test Report #21039 Landfill Gas Flare (A-3)

Located at:

**Tri-Cities Recycling and Disposal Facility**  
7010 Auto Mall Parkway  
Fremont, CA 94538

Prepared for:

**SCS Engineers**  
3117 Fite Circle Suite 108  
Sacramento, CA 95827  
Attn: Michael O'Connor  
moconnor@scsengineers.com

For Submittal to:

**Bay Area Air Quality Management District**  
375 Beale Street, Suite 600  
San Francisco, CA 94105

Attn: Gloria Espena & Marco Hernandez  
gespena@baaqmd.gov & mhernandez@baaqmd.gov  
sourcetest@baaqmd.gov

Testing Performed on:

**February 4<sup>th</sup>, 2021**

Final Report Submitted on:

**March 10<sup>th</sup>, 2021**

Performed and Reported by:

**Blue Sky Environmental, Inc.**  
624 San Gabriel Avenue  
Albany, CA 94706

bluesky@blueskyenvironmental.com  
Office (510) 525-1261 / Cell (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

<b>SECTION 1. INTRODUCTION .....</b>	<b>4</b>
1.1. SUMMARY .....	4
<b>SECTION 2. SOURCE TEST PROGRAM .....</b>	<b>6</b>
2.1. OVERVIEW .....	6
2.2. POLLUTANTS TESTED .....	6
2.3. TEST DATE(S).....	6
2.4. SAMPLING AND OBSERVING PERSONNEL.....	6
2.5. SOURCE/PROCESS DESCRIPTION.....	6
2.6. SOURCE OPERATING CONDITIONS .....	7
<b>SECTION 3. SAMPLING AND ANALYSIS PROCEDURES .....</b>	<b>8</b>
3.1. PORT LOCATION.....	8
3.2. POINT DESCRIPTION/LABELING – PORTS/STACK.....	8
3.3. SAMPLE TRAIN DESCRIPTION .....	8
3.4. SAMPLING PROCEDURE DESCRIPTION .....	8
3.5. INSTRUMENTATION AND ANALYTICAL PROCEDURES .....	11
3.6. COMMENTS: LIMITATIONS AND DATA QUALIFICATIONS .....	12
<b>SECTION 4. APPENDICES .....</b>	<b>13</b>
A. <i>Tabulated Results</i> .....	13
B. <i>Calculations</i> .....	13
C. <i>Laboratory Reports</i> .....	13
D. <i>Field Data Sheets</i> .....	13
E. <i>Strip Chart Records</i> .....	13
F. <i>Process Information</i> .....	13
G. <i>QC Calibration Certificates and Quality Assurance Records</i> .....	13
H. <i>Sample Train Configuration and Stack Diagrams</i> .....	13
I. <i>Related Correspondence (Source Test Plan)</i> .....	13
J. <i>Permit to Operate</i> .....	13

**SECTION 1. INTRODUCTION**

**1.1. Summary**

Blue Sky Environmental, Inc. was contracted by SCS Engineers to perform the emissions testing for Waste Management of Alameda County, Inc. (WMAC), at the Tri-Cities Recycling Disposal Facility (TRCDF), located in Fremont, California. Testing was conducted to demonstrate that Landfill Gas Flare A-3 is operating in compliance with the Bay Area Air Quality Management District (BAAQMD) Permit to Operate for Facility #2246. Results of the test program are presented in this report. The source test information is summarized in Table 1. Test results derived from the source test are summarized in Table 2. Results for individual test runs are included in Appendix A. The flare met all compliance emission criteria.

**Table 1. Source Test Information**

<b>Test Location:</b>	Tri-Cities Recycling and Disposal Facility 7010 Auto Mall Parkway, Fremont, CA 94538
<b>Source Contact:</b>	Michael O'Connor, SCS Engineers (707) 236-3791
<b>Source Tested:</b>	Enclosed Landfill Gas Flare (A-3) – 76 MMBtu/hr
<b>Source Test Date:</b>	February 4 <sup>th</sup> , 2021
<b>Test Objective:</b>	Determine compliance with Bay Area Air Quality Management District (BAAQMD) Permit to Operate for Facility #2246, Condition 8366
<b>Test Performed By:</b>	Blue Sky Environmental, Inc 624 San Gabriel Avenue, Albany, CA 94706 Wesley Alder (510) 910-5795 <a href="mailto:bluesky@blueskyenvironmental.com">bluesky@blueskyenvironmental.com</a>
<b>Test Parameters:</b>	<b>Landfill Gas</b> Oxygen (O <sub>2</sub> ), Nitrogen (N <sub>2</sub> ), Carbon Dioxide (CO <sub>2</sub> ), Total Hydrocarbons (THC), Methane (CH <sub>4</sub> ), Non-Methane Organic Compounds (NMOC), High Heating Value (HHV), Gas F-Factor, Total Reduced Sulfur (TRS) & Sulfur Species, Volumetric Flow Rate <b>Flare Emissions</b> THC, CH <sub>4</sub> , NMOC, NO <sub>x</sub> , CO, O <sub>2</sub> , SO <sub>2</sub> , Volumetric Flow Rate, Stack Exhaust Temperature.

**Table 2. Compliance Summary**

<b>Emission Parameter</b>	<b>Average Results (Flare A-3)</b>	<b>Permit Limit</b>	<b>Status</b>
NO <sub>x</sub> , lbs/MMBtu	0.037	0.06	In Compliance
CO, lbs/MMBtu	0.006	0.3	In Compliance
TNMOC, ppm @ 3% O <sub>2</sub> as CH <sub>4</sub>	<4.5	30 or >98	In Compliance
NMOC Destruction Efficiency, %	>99.03		
CH <sub>4</sub> Destruction Efficiency, %	>99.995	>99	In Compliance
TRS as H <sub>2</sub> S, ppm in Fuel	89.1	1,300	In Compliance

## SECTION 2. SOURCE TEST PROGRAM

### 2.1. Overview

This annual source test was performed to demonstrate that landfill gas flare A-3 is operating in accordance with the Bay Area Air Quality Management District (BAAQMD) Permit to Operate (PTO) for Facility #2246, Condition 8366.

### 2.2. Pollutants Tested

The following US Environmental Protection Agency (EPA), Bay Area Air Quality Management District (BAAQMD) and ASTM International sampling and analytical methods were used:

EPA Method 1	Sample and Traverse Point Determination
EPA Method 3A	O <sub>2</sub> and CO <sub>2</sub> , Stack Gas Molecular Weight
EPA Method 7E	NO <sub>x</sub> and NO <sub>2</sub> Converter Check
EPA Method 10	CO
EPA Method 4	Moisture Calculation
EPA Method 19	Flow Rate Calculation, DSCFM
EPA Method 25C	Analysis of landfill gas for TNMHC (NMOC)
EPA Method 25A	VOC Emissions
EPA Method 18	THC/CH <sub>4</sub> /NMHC Emissions
ASTM D-1945/3588	Fuel Analysis for BTU, F-Factors & Fixed Gases
ASTM D-5504	Sulfur Species, Hydrogen Sulfide (H <sub>2</sub> S) and TRS
BAAQMD ST-19A	SO <sub>2</sub> calculated from TRS

### 2.3. Test Date(s)

Testing was conducted on February 4<sup>th</sup>, 2021.

### 2.4. Sampling and Observing Personnel

Testing was performed by Wesley Alder, Timothy Eandi and Guy Worthington representing Blue Sky Environmental, Inc.

John Silva of SCS Engineers was present to oversee flare operations and assist in coordinating testing and the collection of process data to verify the accuracy of digitally recorded data collected during testing.

The BAAQMD was notified of the scheduled testing in a plan submitted by SCS Engineering on behalf of Waste Management, on January 13<sup>th</sup>, 2021. A Source Test Protocol acknowledgement (NST #6296) was received on January 14<sup>th</sup>, 2021; however, no agency observers were present during testing. A copy of the source test protocol and email correspondence are provided in Appendix I.

### 2.5. Source/Process Description

The Tri-Cities Recycling Disposal Facility, located in Fremont, CA, is a multi-material landfill with a gas collection system that is abated by an industrial landfill gas enclosed flare. Flare A-3 has a 75 MMBtu/hr multiple nozzle burner. The flare shell is approximately 40 feet high with an approximately 102-inch inside diameter (ID).



## 2.6. Source Operating Conditions

The flare was operated on landfill gas under normal operating conditions during testing with no condensate injection. The average exhaust temperature at normal operating condition was 1,594 °F. The operating exhaust temperature, and flow records are provided in Appendix F.

The fuel volumetric flow rate was continuously measured and recorded by the LFG flow meter at 15-minute intervals in accordance with 40 CFR 60.756(b)(2), BAAQMD Regulation 8-34-507, and permit condition 8366 Part 7.

Landfill gas samples collected at the head of the flare showed an average methane content of 46.8% and an oxygen range of 0.5 to 0.7%.

## SECTION 3. SAMPLING AND ANALYSIS PROCEDURES

### 3.1. Port Location

Sampling was conducted at the 102-inch diameter ID exhaust stack of the flare through ports that were accessed with a 40-foot boom lift. The four-inch flange ports on the flare were located 35-feet above grade, approximately four stack diameters downstream from the burners and approximately one stack diameters upstream from the exhaust.

### 3.2. Point Description/Labeling – Ports/Stack

Blue Sky Environmental conducted an eight point traverse to check for the presence of cyclonic flow. O<sub>2</sub> stratification was greater than 10%; therefore, subsequent CEM sampling was conducted using all traverse points. The traverse points for the 102-inch diameter stack with 4-inch ports were 7.3, 14.7, 23.8, 36.9, 73.1, 86.2, 95.3 and 102.7 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 consecutive thirty-minute gaseous emissions tests were performed for oxides of nitrogen (NO<sub>x</sub>), nitric oxide (NO), carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), oxygen (O<sub>2</sub>), and total hydrocarbons (THC) at each turbine exhaust stack. The sampling system was checked for leaks before the start of the testing, by plugging the sample probe and observing the sample rotameter flow drop to zero. Instrument linearity and system bias were checked. The system response time for each analyzer was recorded. The temperatures of the heated sample line between the probe and sample conditioner/condenser, and the condenser exhaust temperatures were maintained within limits during each test run.

Analyzer external calibrations were performed before and after each run using EPA protocol certified gas standards. Calibration gases were introduced to the sample manifold at the same flow rate as the sample. Any drift or bias was corrected using equation 100-3 from CARB Method 100. A NO<sub>x</sub> analyzer converter efficiency check was performed before the first test run and achieved an efficiency greater than 90%.

Concurrent with the exhaust sampling, Blue Sky collected a total of three integrated samples of landfill gas for off-site analysis by Atmospheric Analysis & Consulting, Inc., located in Ventura, CA. The samples were collected in 6-liter SUMMA canisters and analyzed for NMOC, HHV, F-factor, fixed gases, and sulfur species (incl. H<sub>2</sub>S and TRS). The gas was controlled with a rotameter to collect a 30-minute integrated sample.

#### **EPA Method 1 – Sample and Velocity Traverses for Stationary Sources**

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.

#### **EPA Method 3A – Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources (Instrumental Analyzer Procedure)**

This method is used to measure oxygen and carbon dioxide in stationary source emissions using a continuous instrumental analyzer to determine the molecular weight of the stack gas.

**EPA Method 7E – Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure)**

This method is used to measure nitrogen oxides in stationary source emissions using a continuous instrumental analyzer. Section 16.2.2 of the method is used to determine the NO<sub>x</sub> analyzer NO<sub>2</sub> to NO conversion efficiency.

**EPA Method 10 – Determination of Carbon Monoxide Emissions from Stationary Sources**

This method is used to measure carbon monoxide from integrated or continuous gas samples extracted from a sampling point.

EPA Methods 3A, 7E and 10 are all 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 continuing emissions monitoring (CEM) test van. The sampling system consists of a stainless steel sample probe, Teflon sample line, glass-fiber particulate filter, and glass moisture-knockout condensers in ice, followed by thermoelectric coolers (optional), Teflon sample transfer tubing, a diaphragm pump, and a stainless steel/Teflon manifold and flow control/delivery system. A constant sample and calibration gas supply pressure of 5 PSI is provided to each analyzer to avoid pressure variable response differences. The entire sampling system is leak checked prior to and at the end of the sampling program.

The sampling and analytical system is 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 use the calibration gas that most closely matches the stack gas effluent. All calibrations during testing are performed externally to incorporate any system bias that may exist. Sampling system bias, zero and calibration drift values are determined for each test. EPA 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.

**System Performance Criteria**

Instrument Linearity	≤2% Full Scale
Instrument Bias	≤5% Full Scale
System Response Time	≤± 2 minutes
NO <sub>x</sub> Converter Efficiency (EPA 7E)	≥ 90%
Instrument Zero Drift	≤± 3% Full Scale
Instrument Span Drift	≤± 3% Full Scale

**EPA Method 4 – Determination of Moisture Content in Stack Gas**

The method is used for accurate determinations of moisture content in stack gas using a wet bulb – dry bulb technique. This approximation method provides estimates of percent moisture to aid in setting isokinetic sampling rates prior to a pollutant emission measurement run.

**BAAQMD Source Test Procedure ST-19 – Sulfur Dioxide, Continuous Sampling**

This method is used to quantify sulfur dioxide emissions and determine compliance with Regulations 9-1-302, 9-1-304 through 310, and 10-1-301.

**EPA Method 18 – Measurement of Gaseous Organic Compound Emissions by Gas Chromatography**

This method is used to determine emissions of volatile organics by gas chromatograph/mass spectroscopy (GC/MS). Gaseous emissions are drawn through a Teflon sample transfer line to a Tedlar bag held in a rigid leak proof bag container. The sample is drawn into the bag by evacuating the container to stack gas pressure to allow sample flow without using a pump to avoid contamination. Negative pressure is adjusted to maintain an integrated sample flow for the collection time. The bag samples are taken to a laboratory and analyzed within 72 hours.

**EPA Method 19 – Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxide Emission Rates**

This method is used to determine stack gas volumetric flow rates using oxygen-based F-factors. F-factors are ratios of combustion gas volumes to heat inputs. The heating value of the fuel in Btu per cubic foot is determined from analysis of fuel gas samples using ASTM D1946/1945 gas chromatography analytical procedures. 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 are used to determine emission rates.

**EPA Method 25C – Determination of Nonmethane Organic Compounds (NMOC) in Landfill Gas**

This method is used to sample and measure NMOC in landfill gases. The method is written for evacuated tank sampling but is adaptable to Tedlar bag sampling procedures. The sampling equipment consists of a stainless steel or glass lined probe with a short stainless-steel or Teflon transfer line to a Tedlar bag housed in a sealed chamber. The chamber is evacuated by pump at a prescribed rate for the test duration and the Tedlar bag capacity, so the sample is integrated over the test period. The sample is injected into a GC column where the methane and CO<sub>2</sub> are flushed through and removed then the NMOC (ROC) fraction is oxidized to form CO<sub>2</sub> then reduced to methane and analyzed.

**EPA Method 25A – Determination of Total Gaseous Organic Concentration using a Flame Ionization Analyzer**

This method is used to measure total hydrocarbons, methane, and non-methane hydrocarbons in stationary source emissions using a gas chromatograph with a flame ionization detector (GC/FID). Heated Teflon sample gas transfer lines are used to provide a continuous sample to the heated GC/FID hydrocarbon analyzer. Heated lines are used to avoid moisture or hydrocarbon condensation.

The sampling and analytical system is checked for linearity with zero, low (25-35%), mid (45-55%), and high (80-90%) span calibrations. All calibrations during testing are performed externally to incorporate any system bias that may exist. Sampling system bias, zero and calibration drift values are determined for each test. All data is corrected according to the method.

**ASTM D1945 – Analysis of Natural Gas by Gas Chromatography**

This method is used to measure fixed gases (such as oxygen, nitrogen, carbon monoxide, and carbon dioxide) and methane by gas chromatography (GC/TCD). Light hydrocarbons, including C1-C7, are analyzed by GC/FID.

**ASTM D-3588 – Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels**

This method uses the molar composition of gaseous fuel determined from Method ASTM D-1945 to calculate the heating value and F-factor.

**ASTM D-5504 – Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence**

This method is used for the determination of speciated volatile sulfur-containing compounds in high methane content gaseous fuels by gas chromatography. Sulfur compounds are processed using a flame ionization detector (GC/FID). The products are then analyzed with a sulfur chemiluminescence detector (GC/SCD). Samples may be collected in Tedlar bags and analyzed within 24 hours or in Silco SUMMA canisters and analyzed within 72 hours.

**3.5. Instrumentation and Analytical Procedures**

The following continuous emissions analyzers were used:

Instrumentation	Parameter	Principle
TECO Model 42C	NO/NO <sub>x</sub>	Chemiluminescence
TECO Model 48C	CO	GFC/IR
Ratfisch Model RS-66	THC	FID
Servomex 1440	CO <sub>2</sub>	IR
Servomex 1440	O <sub>2</sub>	Paramagnetic

The analyzer data recording system consists of a Honeywell DPR300 strip chart recorder, which can be supported by a Data Acquisition System (DAS). The instrument response is recorded on strip charts and DAS. The averages are corrected for drift using BAAQMD and EPA Method 7E equations.

### 3.6. Comments: Limitations and Data Qualifications

This source test was performed in accordance with the protocol submitted to the BAAQMD. No deviations from the protocol or anomalies were observed during testing. The measured emissions comply with the permitted limits.

Blue Sky Environmental has reviewed this report for accuracy and concluded that the test procedures were followed and 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 Email Correspondence)**
- J.            BAAQMD Permit to Operate**

**A**  
**Tabulated Results**



**TABLE #1**

**Tri-Cities Recycling & Disposal Facility  
Flare A-3  
1,594°F**

<b>RUN</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>AVERAGE</b>	<b>LIMITS</b>
Test Date	2/4/21	2/4/21	2/4/21		
Test Time	1028-1103	1150-1226	1306-1341		
Standard Temperature, °F	70	70	70		
Flare Temperature, °F	1,594	1,594	1,595	1,594	
Fuel Flow Rate, SCFM	1,015	1,018	1,020	1,018	
Fuel Heat Input, MMBtu/hr	28.5	28.6	28.5	28.5	
Exhaust Flow Rate, DSCFM (EPA M19)	12,032	12,127	12,056	12,071	
Oxygen, O <sub>2</sub> , %	12.9	12.9	12.9	12.9	
Carbon Dioxide, CO <sub>2</sub> , %	7.1	6.9	6.9	7.0	
Water Vapor, H <sub>2</sub> O, % (EPA M4)	2.5	2.5	2.5	2.5	
NO, ppm	12.6	12.3	12.5	12.4	
NO <sub>2</sub> , ppm	<1.0	<1.0	<1.0	<1.0	
NO <sub>2</sub> /NO	<0.08	<0.08	<0.08	<0.08	
NOx, ppm	12.4	11.9	12.2	12.1	
NOx, ppm @ 15% O <sub>2</sub>	9.1	8.8	8.9	8.9	
NOx, lbs/hr	1.06	1.03	1.05	1.05	
NOx, lbs/day	25.5	24.7	25.1	25.1	
<b>NOx, lbs/MMBtu</b>	<b>0.037</b>	<b>0.036</b>	<b>0.037</b>	<b>0.037</b>	<b>0.06</b>
CO, ppm	3.1	2.8	3.3	3.1	
CO, ppm @ 15% O <sub>2</sub>	2.3	2.1	2.5	2.3	
CO, lbs/hr	0.16	0.15	0.18	0.16	
CO, lbs/day	3.9	3.5	4.2	3.9	
<b>CO, lbs/MMBtu</b>	<b>0.006</b>	<b>0.005</b>	<b>0.006</b>	<b>0.006</b>	<b>0.30</b>
<b>TRS as H<sub>2</sub>S, ppm in Fuel</b>	<b>57.2</b>	<b>91.1</b>	<b>119.0</b>	<b>89.1</b>	<b>1,300</b>
SO <sub>2</sub> , ppm Exhaust (calculated)	4.83	7.65	10.07	7.51	
THC, ppm (EPA M25A)	<2.0	<2.0	<2.0	<2.0	
THC, lbs/hr as CH <sub>4</sub>	<0.060	<0.060	<0.060	<0.060	
CH <sub>4</sub> , ppm	<2.0	<2.0	<2.0	<2.0	
CH <sub>4</sub> , lbs/hr	<0.060	<0.060	<0.060	<0.060	
TNMOC, ppm as CH <sub>4</sub>	<2.0	<2.0	<2.0	<2.0	
TNMOC, lbs/hr as CH <sub>4</sub>	<0.060	<0.060	<0.060	<0.060	
<b>TNMOC, ppm @ 3% O<sub>2</sub> as CH<sub>4</sub></b>	<b>&lt;4.5</b>	<b>&lt;4.5</b>	<b>&lt;4.5</b>	<b>&lt;4.5</b>	<b>30</b>
INLET TNMOC, ppm as CH <sub>4</sub> (EPA M25C)	2,407	2,443	2,463	2,438	
INLET NMOC, lbs/hr as CH <sub>4</sub>	6.1	6.2	6.2	6.2	<b>or</b>
<b>NMOC Removal Efficiency</b>	<b>&gt;99.02%</b>	<b>&gt;99.02%</b>	<b>&gt;99.04%</b>	<b>&gt;99.03%</b>	<b>98</b>
INLET CH <sub>4</sub> , ppm	469,000	469,000	467,000	468,333	
INLET CH <sub>4</sub> , lbs/hr	1,182	1,185	1,182	1,183	
<b>CH<sub>4</sub> Removal Efficiency</b>	<b>&gt;99.995%</b>	<b>&gt;99.995%</b>	<b>&gt;99.995%</b>	<b>&gt;99.995%</b>	<b>99</b>
INLET THC (TOC), ppm as CH <sub>4</sub>	471,407	471,443	469,463	470,771	
INLET THC (TOC), lbs/hr as CH <sub>4</sub>	1,188	1,191	1,189	1,189	
THC (TOC) Removal Efficiency	99.995%	99.995%	99.995%	99.995%	

< Value = 2% of Analyzer Range

**WHERE,**

ppm = Parts per Million Concentration  
 Lbs/hr = Pound per Hour Emission Rate  
 Tstd. = Standard Temperature (°R = °F+460)  
 MW = Molecular Weight  
 DSCFM = Dry Standard Cubic Feet per Minute  
 NOx = Oxides of Nitrogen as NO<sub>2</sub> (MW = 46)  
 CO = Carbon Monoxide (MW = 28)  
 TOC = THC = Total Organic Carbon as Methane including CH<sub>4</sub> (MW = 16)  
 THC = Total Hydrocarbons as Methane (MW = 16)  
 TNMOC = Total Non-Methane Organic Carbon as Methane (MW = 16)  
 SO<sub>2</sub> = Sulfur Dioxide as SO<sub>2</sub> (MW = 64.1)

**CALCULATIONS,**

PPM @ 15% O<sub>2</sub> = ppm \* 5.9 / (20.9 - %O<sub>2</sub>)  
 PPM @ 3% O<sub>2</sub> = ppm \* 17.9 / (20.9 - %O<sub>2</sub>)  
 Lbs/hr = ppm \* 8.223 E-05 \* DSCFM \* MW / Tstd. °R  
 Lbs/day = Lbs/hr \* 24  
 Removal Efficiency = (inlet lbs/hr - outlet lbs/hr) / inlet lbs/hr  
 SO<sub>2</sub> emission ppm = H<sub>2</sub>S in fuel \* Fuel Flow/Stack Gas Flow

**APPENDIX M**  
**CORRESPONDENCE**



TRI-CITIES RECYCLING  
AND DISPOSAL FACILITY  
7010 Auto Mall Parkway,  
Fremont, CA 94538  
(510) 376-7700

March 19, 2021

Director of Compliance and Enforcement  
Bay Area Air Quality Management District  
375 Beale Street, Suite 600  
San Francisco, California 94105  
compliance@baaqmd.gov

Patricia Barnes  
Air Quality Inspector II  
Compliance and Enforcement  
Bay Area AQMD  
PBarnes@baaqmd.gov

**Re: Tri-Cities Recycling and Disposal Facility, Fremont, California  
Facility Number A2246  
10-Day NOV Response to BAAQMD Notice of Violation A- 57024 (March 10, 2021)**

Dear Sir or Madam:

The Tri-Cities Recycling and Disposal Facility (TCRDF) is submitting this 10-day response letter to Notice of Violation (NOV) Number A-57024, dated March 10, 2021 (see attachment) for alleged temporary flare shutdown event caused by unplanned utility power outage on April 7, 2020 (“NOV Date”). A signed copy of the NOV is attached. The NOV alleges violation of:

1. Regulation 2, Section 6-307 “...has not submitted a timely and complete permit application by the deadlines set forth in Section 2-6-404...” (“2-6-307”)
2. Regulation 1, Section 523.3 “...violation of permit conditions or District regulations to which the source is required to conform...shall be reported to the APCO within 96 hours after such occurrence...” (“1-523.3”)
3. Regulation 8 Section 34-301.1 “...gas collection and emission control systems are operated continuously...” (“8-34-301.1”)

Alleged violations of 2-6-307 and 1-523.3 are predicated on an alleged violation of 8-34-301.1. However, TCRDF was not in violation of 8-34-301.1. For Kirby Canyon Landfill (also a Waste Management landfill) the period October 26, 2019 to November 27, 2019, BAAQMD Hearing Board issued an emergency variance for Public Safety Power Shutoff (“PSPS”) events. The variance stated that “[t]he magnitude and scale of the PSPS event was unforeseeable and the resultant power outage at Kirby Canyon Landfill was unpreventable.” Similarly, the alleged NOV Date had an unforeseeable and unpreventable power outage at TCRDF.

Regulation 8, Rule 34, Section 113 (“8-34-113”) Limited Exemption, Inspection and Maintenance, states that “requirements of Sections 8-34-301...shall not apply to solid waste sites during inspection and maintenance of the landfill gas collection or emission control system...” TCRDF appropriately reported flare downtime events under 8-34-113, as each event required inspection and maintenance during the downtime. These events were reported in TCRDF’s startup and shutdown logs in its semi-annual reports. Startup could begin only after the restoration of power by the utility company and TCRDF’s safety and environmental inspection and maintenance process for flare startup and emission minimization. Further, the exemption in 8-34-113 applies as TCRDF met the requirement that the “gas collection and emission control systems are not

shutdown for more than 240 hours in any calendar year.” As TCRDF did not violate 8-34-301.1, it also did not violate 2-6-307 nor 1-523.3.

BAAQMD’s apparent interpretation that 8-34-113 does not apply where inspection and maintenance has occurred simply because an unplanned power shutoff event also occurred leads to a result that may create harm to health, safety and/or the environment. Automatically restarting flares and auxiliary equipment (blower skid, air compressor, condensate injection system, PLC and data logger, etc.) without a safety and environmental inspection and/or maintenance may cause serious health, safety and/or environmental concerns. Similarly, using an automatic backup generator would have the same concerns, with the addition of potential additional emissions associated with the generator. Further, switching between a generator and the power system creates additional downtime, as does refueling or other issues that may be associated with use of a generator.

TCRDF additionally asserts that the downtime events did not: 1) interfere with attainment of the BAAQMD, federal, or state standards; 2) endanger health, safety, or welfare of any person; 3) endanger the environment; 4) increase emissions of toxic air contaminants; 5) cause or contribute to a violation of a SAAQS or NAAQS; 6) interfere with the BAAQMD’s compliance work; nor 7) result in emissions exceeding de minimis levels. Moreover, TCRDF’s downtime events were not the result of equipment malfunction, knowing, willful, intentional, chronic nor committed by a recalcitrant, and did not benefit TCRDF economically nor result in a nuisance. The frequency and duration of weather or utility-related electrical interruptions are outside of TCRDF’s control but in either case, best practice requires inspection and/or maintenance prior to startup and, therefore, is reported as such.

For the above reasons, TCRDF asserts that it did not violate 2-6-307, 1-523.3 nor 8-34-301.1 and respectfully requests the NOV be rescinded.

Despite its objections, at BAAQMD’s suggestion, TCRDF has begun to investigate the feasibility of a solution to reduce power outage downtime hours by reconfiguring the existing electrical panel for transfer switch operation and adding a backup generator to serve as an emergency power source.

TCRDF is committed to operating its landfill in compliance with applicable regulations and requests a meeting with BAAQMD executive staff to discuss Regulation 8-34-301.1. We may supplement this response in the future. If you have any questions or need any additional information, please do not hesitate to contact me at (510) 376-7700.

Thank you,  
**Tri-Cities Recycling and Disposal Facility**



**Patrick Madej**  
**District Manager**

**ATTACHMENT A**  
**NOTICE OF VIOLATION**



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT**  
375 Beale Street, Suite 600, San Francisco, CA 94105  
(415) 749-5000

# NOTICE OF VIOLATION

No. **A57024**

ISSUED TO: Tri-Cities Waste Management  P  G  N# A2246  
 ADDRESS: 7010 Auto Mall Parkway  
 CITY: Fremont STATE: CA ZIP: 94538  
 PHONE: (510 ) 376-7700  
 N# Mailing Address on F61

OCCURRENCE  
 NAME: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  Same As Above  
 CITY: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 SOURCE: S# 1 NAME: Waste Decomposition Process w/ Gas Collection System; abated by A-3, flare  
 EMISSION PT: P# \_\_\_\_\_ NAME: \_\_\_\_\_  
 DATE: 4/7/2020 TIME: 0648 to 1536 HRS

<input type="checkbox"/> REG 2 RULE 1 SEC 301 No Authority to Construct	<input type="checkbox"/> REG 2 RULE 1 SEC 302 No Permit to Operate
<input type="checkbox"/> REG 1 SEC 301 H & S CODE - 41700 Public Nuisance	<input checked="" type="checkbox"/> REG 2 RULE <u>6</u> SEC 307 Failure to Meet Permit Condition
<input type="checkbox"/> REG 5 SEC 301 Prohibited Open Burning	<input type="checkbox"/> REG 6 RULE 1 SEC 301 Excessive Visible Emissions
<input checked="" type="checkbox"/> REG <u>8</u> RULE <u>34</u> SECTION <u>301.1</u> CODE <input type="text"/>	
<input checked="" type="checkbox"/> REG <u>1</u> RULE _____ SECTION <u>523.3</u> CODE <input type="text"/>	

Details: min. flare temp, abatement device not operated continuously(PC 8366-5.6); RCA not reported

RECIPIENT NAME: Patrick Madej  
 TITLE: Waste Management District Manager

SIGNING THIS NOTICE IS NOT AN ADMISSION OF GUILT X *Patrick Madej*

➔ **WITHIN 10 DAYS, RETURN A COPY OF THIS NOTICE WITH A WRITTEN DESCRIPTION OF THE IMMEDIATE CORRECTIVE ACTION YOU HAVE TAKEN TO PREVENT CONTINUED OR RECURRENT VIOLATION. THIS VIOLATION IS SUBJECT TO SUBSTANTIAL PENALTY. YOUR RESPONSE DOES NOT PRECLUDE FURTHER LEGAL ACTION.**

ISSUED BY: Patricia Barnes INSP # 557  
 DATE: 3/10/21 TIME: 1055 HRS  MAILED

**PLEASE PRESS HARD**

# INSTRUCTIONS

## PERMIT VIOLATIONS - (REG 2, RULE 1, SECTION 301 AND/OR 302)

Within 30 days, a permit application must be submitted to the District's Permit Division. The permit application must reference the Violation Notice Number Shown on the front of this notice. If either the Violation Notice Number is not referenced or no permit application is received, then this matter will be referred to the District's Legal Department for legal action. Your response does not preclude further legal action.

If there are any questions regarding the submission of a Permit Application, call the Permit Services Division at (415) 749-4990.

## ALL OTHER VIOLATIONS

Within 10 days, return a copy of this notice with a written description of the corrective action you have taken to prevent continued or recurrent violation. Immediate corrective action must be taken to stop the violation. This violation is subject to substantial penalty. Your response does not preclude further legal action.

A variance should be sought if it is necessary to continue to operate in violation of District Regulations. For information on eligibility for, or filing of, a variance, call (415) 749-5073.

**ATTACHMENT B**  
**REPORTABLE COMPLIANCE ACTIVITY (RCA) FORM**





BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

## COMPLIANCE & ENFORCEMENT DIVISION

### Notification Form

Reportable  
Compliance  
Activity (RCA)

[See back of form for instructions](#) →

1. N/A  **BREAKDOWN RELIEF: *District Use Only* BREAKDOWN REFERENCE #:**

2. N/A  **MONITOR EXCESS EMISSION or EXCURSION: *District Use Only* REFERENCE #:**

3. N/A  **MONITOR IS INOPERATIVE: *District Use Only* REFERENCE #:**

4. N/A  **PRESSURE RELIEF DEVICE (PRD): *District Use Only* PRD REFERENCE #:**

### SITE INFORMATION AND DESCRIPTION INFORMATION (REQUIRED)

Company	Tri-Cities Recycling and Disposal Facility	Site #	A2246
Address	7010 Auto Mall Parkway, Fremont CA 94538	Source #	S-1
Reported by	Patricia Barnes/BAAQMD	Phone #	510-376-7700
Indicated Excess	- N/A	Fax #	
Allowable Limit	-	Averaging Time	
Start Time/Date	6:48/ April 7, 2020	Clear Time	15:36/ April 7, 2020
Monitor/device type(s)	<input type="checkbox"/> ▶ CEM <input type="checkbox"/> ▶ GLM <input type="checkbox"/> ▶ Parametric <input type="checkbox"/> ▶ PRD <input type="checkbox"/> ▶ Non-monitor		
Monitor description(s)	Monitor recorded temporary shutdown event.		
Parameter(s) exceeded or not functioning due to inoperation			
<input type="checkbox"/> ▶ NO <sub>x</sub>	<input type="checkbox"/> ▶ SO <sub>2</sub>	<input type="checkbox"/> ▶ CO	<input type="checkbox"/> ▶ CO <sub>2</sub>
<input type="checkbox"/> ▶ O <sub>2</sub>	<input type="checkbox"/> ▶ H <sub>2</sub> O	<input type="checkbox"/> ▶ Opacity	<input type="checkbox"/> ▶ Lead
<input type="checkbox"/> ▶ Hydrocarbon Breakthrough (VOC)	<input type="checkbox"/> ▶ Temperature	<input type="checkbox"/> ▶ Wind Speed	<input type="checkbox"/> ▶ H <sub>2</sub> S
<input type="checkbox"/> ▶ Wind Direction	<input type="checkbox"/> ▶ Steam	<input checked="" type="checkbox"/> ▶ Other (describe)	<input type="checkbox"/> ▶ TRS
Unit(s) of Measurement		Power Outage	
<input type="checkbox"/> ▶ ppm	<input type="checkbox"/> ▶ ppb	<input type="checkbox"/> ▶ min/hr > 20%	<input type="checkbox"/> ▶ inches H <sub>2</sub> O
<input type="checkbox"/> ▶ psig	<input type="checkbox"/> ▶ pH	<input type="checkbox"/> ▶ °Fahrenheit	<input type="checkbox"/> ▶ mmHg
		<input type="checkbox"/> ▶ Other (describe)	

#### Event Description:

Due to the direction from BAAQMD staff, Tri-Cities is submitting this RCA form. The Initial power surge from an unplanned power outage occurring 6:48 am to 9:28 am (2.7 hours) on April 7, 2020 resulted in the pilot system thermocouple needing to be replaced. The unforeseeable and unpreventable event at Tri-Cities resulted in damage to the pilot system thermocouple and was not the result of an intentional or negligent failure to maintain and operate the Tri-Cities equipment. Tri-Cities asserts that it did not violate 2-6-307, 1-523.3, nor 8-34-301.1 and respectfully requests the NOV be rescinded. Tri-Cities disagrees RCA is the appropriate methodology for compliance during an unplanned power outage event. The flare was restarted after the system was inspected and the pilot system thermocouple was replaced.

### District Use Only

Received by

Date

Time

### General Instructions

- ✓ Check the Box numbers 1- 4 that apply to the RCA you are trying to report or request and read the detailed instructions.
- ✓ You will receive an ID # for each RCA you submit. In the case of a request for Breakdown Relief where multiple monitors are affected, you do not need to submit multiple forms, as long as all necessary information is given on one form. RCA reported during other than core business hours will be assigned an ID # the following working day. If you do not receive an ID #, it is your responsibility to contact the BAAQMD to get one.
- ✓ You may submit only one request for breakdown relief per form. However, you may submit multiple indicated excess, inoperative monitors and PRD reports on one form, provided that the start and end times given for the events in the required information section is inclusive of all events. Information on parameters exceeded, units of measurement and allowable limits can be provided in the event description box or when contacted by District staff with questions.
- ✓ Fill out the "Site Information and Description Information Required" areas of this form and email to [rca@baaqmd.gov](mailto:rca@baaqmd.gov)
- ✓ **A 30-day written follow-up report is required for Breakdown Requests and PRD Releases.** Reports for these types of RCA must contain a quantification of emissions, the calculations used to derive the emissions, and their duration. Reference [Breakdown Admissions Advisory dated 12/3/04](#). Send 30-day report letters to: BAAQMD Compliance and Enforcement Division, MAILSTOP: RCA 30-DAY REPORT, 375 Beale Street, Ste. 600 San Francisco, CA 94105. NOTE: **You may have additional report requirements under Title V.**

## Detailed Instructions

### **Box 1: To Request Breakdown Relief (Regulations 1-112, 1-113, 1-208, 1-431, 1-432)**

If you have an equipment malfunction (e.g.; breakdown) that leads to the release of air pollutants above the regulatory or your permitted levels, you may request relief from BAAQMD enforcement action.

- Check Box #1.
- **NOTE:** Start and end times given for these events in the required information section must be inclusive of all events.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- Requests for breakdown relief may not be withdrawn and must be called in or faxed to the BAAQMD immediately upon discovery of an equipment malfunction.
- Receipt of an RCA ID# for a breakdown does not mean relief has been granted. An Inspector will visit your facility to determine compliance.

### **Box 2: Monitor Indicates Excess Emission or Excursion (Regulation 1-522.7, 1-523.3, 1-542)**

When a BAAQMD-required monitor indicates an excess or excursion, you must report it to the BAAQMD.

- Check Box #2.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- Any excess emission indicated by a CEM or excursion of a parametric monitor, shall be reported to the BAAQMD within 96 hours.
- Area concentration excesses over the limits prescribed in District regulations shall be reported to the BAAQMD within the next normal working day following the examination of data.

### **Box 3: Monitor Is Inoperative (Regulations 1-522, 1-523, 1-530)**

When a BAAQMD-required monitor is inoperative for greater than 24 hours, you must report it to the BAAQMD.

- Check Box #3 only if inoperative for greater than 24 hours.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- All reports of inoperative monitors must be reported by the following BAAQMD working day and additionally be cleared by a notification of resumption of monitoring. To notify the BAAQMD regarding the resumption of monitoring, do not send in a separate RCA form; call (415) 749-4979 and give the RCA ID #, date, and the time of resumption.
- Inoperative monitors (except parametric monitors) with downtime greater than 15 days must furnish proof of expedited repair in a follow-up report.

### **Box 4: Pressure Relief Device (PRD) Is Released (Regulation 8-28-401)**

When a PRD at your refinery/chemical plant vents to the atmosphere, you must report it to the BAAQMD.

- Check Box #4 only if a pressure relief device is released.
- Separate RCA ID #'s can be applied to monitor(s) affected by a PRD by also checking Box #2 if other monitors record an excess or excursion.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- All PRD release reports must be reported by the following BAAQMD working day.

## Chan, Michael

---

**From:** Madej, Patrick  
**Sent:** Friday, March 19, 2021 12:26 PM  
**To:** compliance@baaqmd.gov; PBarnes@baaqmd.gov  
**Cc:** Chan, Michael  
**Subject:** Plant# A2246 Notice of Violation# A57024 10-Day Response  
**Attachments:** TriCities Title V 10day NOV A57024 210319 Submittal.pdf; TriCities NOV A57024 10day 210319 Final.pdf

Attached please find NOV# A57024 10-day Response Letter, including the signed NOV, and the Title V 10-Day Report. Please reach out to me at your convenience if you have any questions or concerns, thank you.

### Patrick Madej

District Manager  
Environmental Legacy Management Group  
[pmadej@wm.com](mailto:pmadej@wm.com)

### Waste Management

2615 Davis St.  
San Leandro, CA. 94577  
Cell/Office 510 376 7700  
Fax 510 463 4210



TRI-CITIES RECYCLING  
AND DISPOSAL FACILITY  
7010 Auto Mall Parkway,  
Fremont, CA 94538  
(510) 376-7700

March 19, 2021

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

Patricia Barnes  
Air Quality Inspector II  
Compliance and Enforcement  
Bay Area AQMD  
PBarnes@baaqmd.gov

**Re: Tri-Cities Recycling and Disposal Facility, Fremont, California  
Facility Number A2246  
Title V Section I.F, 10-Day written report (NOV A- 57024)**

Dear Sir or Madam:

The Tri-Cities Recycling and Disposal Facility (TCRDF) is submitting this 10-day written report to the Bay Area Air Quality Management District (BAAQMD) as required under Title V Permit Condition Section I.F. On March 10, 2021, Patricia Barnes, Bay Area Air Quality Management District (BAAQMD) Air Quality Inspector, issued Notice of Violation (“NOV”) Number A-57024, (see attachment) for alleged temporary flare shutdown events caused by unplanned utility power outages on April 7, 2020 (“NOV Date”). The NOV alleges violation of:

1. Regulation 2, Section 6-307 “...has not submitted a timely and complete permit application by the deadlines set forth in Section 2-6-404...” (“2-6-307”)
2. Regulation 1, Section 523.3 “...violation of permit conditions or District regulations to which the source is required to conform...shall be reported to the APCO within 96 hours after such occurrence...” (“1-523.3”)
3. Regulation 8 Section 34-301.1 “...gas collection and emission control systems are operated continuously...” (“8-34-301.1”)

The unplanned power outage shutdowns noted in the NOV did not result in emissions and do not qualify as non-compliance. The downtime recorded for each of the events noted on the NOV was significantly less than 24 hours. TCRDF believes that it complied with the Title V permit conditions and safety protocols. TCRDF followed all measures to ensure gas movers and valves were closed during the shutdown events. TCRDF’s downtime event was not the result of equipment malfunction, knowing, willful, intentional, chronic nor committed by a recalcitrant, and did not benefit TCRDF economically nor result in a nuisance. The frequency and duration of weather or utility-related electrical interruptions are outside of TCRDF’s control.

TCRDF is committed to operating its landfill in compliance with applicable regulations and will ensure that compliance is achieved. However, TCRDF disagrees with the BAAQMD that temporary shutdowns resulting from unplanned power outages are violations of any BAAQMD regulation. As required, a 30-day follow-up letter will confirm the contents of this submittal.

If you have any questions or need any additional information, please do not hesitate to contact me at (510) 376-7700.

Thank you,  
**Tri-Cities Recycling and Disposal Facility**

A handwritten signature in blue ink that reads "Patrick Madej". The signature is written in a cursive style with a large initial 'P'.

**Patrick Madej**  
**District Manager**

**ATTACHMENT A**  
**NOTICE OF VIOLATION**



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT**  
375 Beale Street, Suite 600, San Francisco, CA 94105  
(415) 749-5000

# NOTICE OF VIOLATION

No. **A57024**

ISSUED TO: Tri-Cities Waste Management  P  G  N# A2246  
 ADDRESS: 7010 Auto Mall Parkway  
 CITY: Fremont STATE: CA ZIP: 94538  
 PHONE: (510 ) 376-7700  
 N# Mailing Address on F61

OCCURRENCE  
 NAME: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  Same As Above  
 CITY: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 SOURCE: S# 1 NAME: Waste Decomposition Process w/ Gas Collection System; abated by A-3, flare  
 EMISSION PT: P# \_\_\_\_\_ NAME: \_\_\_\_\_  
 DATE: 4/7/2020 TIME: 0648 to 1536 HRS

<input type="checkbox"/> REG 2 RULE 1 SEC 301 No Authority to Construct	<input type="checkbox"/> REG 2 RULE 1 SEC 302 No Permit to Operate
<input type="checkbox"/> REG 1 SEC 301 H & S CODE - 41700 Public Nuisance	<input checked="" type="checkbox"/> REG 2 RULE <u>6</u> SEC 307 Failure to Meet Permit Condition
<input type="checkbox"/> REG 5 SEC 301 Prohibited Open Burning	<input type="checkbox"/> REG 6 RULE 1 SEC 301 Excessive Visible Emissions
<input checked="" type="checkbox"/> REG <u>8</u> RULE <u>34</u> SECTION <u>301.1</u> CODE <input type="text"/>	
<input checked="" type="checkbox"/> REG <u>1</u> RULE _____ SECTION <u>523.3</u> CODE <input type="text"/>	

Details: min. flare temp, abatement device not operated continuously(PC 8366-5.6); RCA not reported

RECIPIENT NAME: Patrick Madej  
 TITLE: Waste Management District Manager

SIGNING THIS NOTICE IS NOT AN ADMISSION OF GUILT X *Patrick Madej*

➔ **WITHIN 10 DAYS, RETURN A COPY OF THIS NOTICE WITH A WRITTEN DESCRIPTION OF THE IMMEDIATE CORRECTIVE ACTION YOU HAVE TAKEN TO PREVENT CONTINUED OR RECURRENT VIOLATION. THIS VIOLATION IS SUBJECT TO SUBSTANTIAL PENALTY. YOUR RESPONSE DOES NOT PRECLUDE FURTHER LEGAL ACTION.**

ISSUED BY: Patricia Barnes INSP # 557  
 DATE: 3/10/21 TIME: 1055 HRS  MAILED

**PLEASE PRESS HARD**

## Chan, Michael

---

**From:** Madej, Patrick  
**Sent:** Friday, March 19, 2021 12:26 PM  
**To:** compliance@baaqmd.gov; PBarnes@baaqmd.gov  
**Cc:** Chan, Michael  
**Subject:** Plant# A2246 Notice of Violation# A57024 10-Day Response  
**Attachments:** TriCities Title V 10day NOV A57024 210319 Submittal.pdf; TriCities NOV A57024 10day 210319 Final.pdf

Attached please find NOV# A57024 10-day Response Letter, including the signed NOV, and the Title V 10-Day Report. Please reach out to me at your convenience if you have any questions or concerns, thank you.

### Patrick Madej

District Manager  
Environmental Legacy Management Group  
[pmadej@wm.com](mailto:pmadej@wm.com)

### Waste Management

2615 Davis St.  
San Leandro, CA. 94577  
Cell/Office 510 376 7700  
Fax 510 463 4210





TRI-CITIES RECYCLING  
AND DISPOSAL FACILITY  
7010 Auto Mall Parkway,  
Fremont, CA 94538  
(510) 376-7700

April 2, 2021

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

**Re: Tri-Cities Recycling and Disposal Facility, Fremont, California  
Facility Number A2246  
Title V Section I.F, 30-Day written report (NOV A- 57024)**

Dear Sir or Madam:

The Tri-Cities Recycling and Disposal Facility (TCRDF) is submitting this 30-day written report to the Bay Area Air Quality Management District (BAAQMD) as required under Title V Permit Condition Section I.F. On March 10, 2021, Patricia Barnes, Bay Area Air Quality Management District (BAAQMD) Air Quality Inspector, issued Notice of Violation (“NOV”) Number A-57024, (see attachment) for alleged temporary flare shutdown events caused by unplanned utility power outages on April 7, 2020 (“NOV Date”). The NOV alleges violation of:

1. Regulation 2, Section 6-307 “...has not submitted a timely and complete permit application by the deadlines set forth in Section 2-6-404...” (“2-6-307”)
2. Regulation 1, Section 523.3 “...violation of permit conditions or District regulations to which the source is required to conform...shall be reported to the APCO within 96 hours after such occurrence...” (“1-523.3”)
3. Regulation 8 Section 34-301.1 “...gas collection and emission control systems are operated continuously...” (“8-34-301.1”)

Alleged violations of 2-6-307 and 1-523.3 are predicated on an alleged violation of 8-34-301.1. However, TCRDF was not in violation of 8-34-301.1. The alleged NOV Date had an unforeseeable and unpreventable power outage at TCRDF.

Regulation 8, Rule 34, Section 113 (“8-34-113”) Limited Exemption, Inspection and Maintenance, states that “requirements of Sections 8-34-301...shall not apply to solid waste sites during inspection and maintenance of the landfill gas collection or emission control system...” TCRDF appropriately reported flare downtime events under 8-34-113, as each event required inspection and maintenance during the downtime. These events were reported in TCRDF’s startup and shutdown logs in its semi-annual reports. Startup could begin only after the restoration of power by the utility company and TCRDF’s safety and environmental inspection and maintenance process for flare startup and emission minimization. Further, the exemption in 8-34-113 applies as TCRDF met the requirement that the “gas collection and emission control

systems are not shutdown for more than 240 hours in any calendar year.” As TCRDF did not violate 8-34-301.1, it also did not violate 2-6-307 nor 1-523.3.

BAAQMD’s apparent interpretation that 8-34-113 does not apply where inspection and maintenance has occurred simply because an unplanned power shutoff event also occurred leads to a result that may create harm to health, safety and/or the environment. Automatically restarting flares and auxiliary equipment (blower skid, air compressor, condensate injection system, PLC, and data logger, etc.) without a safety and environmental inspection and/or maintenance may cause serious health, safety and/or environmental concerns. Similarly, using an automatic backup generator would have the same concerns, with the addition of potential additional diesel fueled emissions associated with the generator. Further, switching between a generator and the power system creates additional downtime, as does refueling or other issues that may be associated with use of a generator.

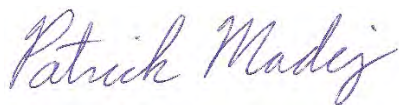
TCRDF additionally asserts that the unplanned power outage shutdown event did not: 1) interfere with attainment of the BAAQMD, federal, or state standards; 2) endanger health, safety, or welfare of any person; 3) endanger the environment; 4) increase emissions of toxic air contaminants; 5) cause or contribute to a violation of a SAAQS or NAAQS; 6) interfere with the BAAQMD’s compliance work; nor 7) result in emissions exceeding de minimis levels. Moreover, TCRDF’s downtime event was not the result of equipment malfunction, knowing, willful, intentional, chronic nor committed by a recalcitrant, and did not benefit TCRDF economically nor result in a nuisance. The frequency and duration of weather or utility-related electrical interruptions are outside of TCRDF’s control.

For the above reasons, TCRDF asserts that the downtime event noted in the NOV does not qualify as non-compliance and that it did not violate 2-6-307, 1-523.3 nor 8-34-301.1 and respectfully requests the NOV be rescinded.

TCRDF disagrees with the BAAQMD that temporary shutdowns resulting from unplanned power outages are violations of any BAAQMD regulation. TCRDF is committed to operating its landfill in compliance with applicable regulations.

If you have any questions or need any additional information, please do not hesitate to contact me at (510) 376-7700.

Thank you,  
**Tri-Cities Recycling and Disposal Facility**



**Patrick Madej**  
**District Manager**

**ATTACHMENT A**  
**NOTICE OF VIOLATION**



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT**  
375 Beale Street, Suite 600, San Francisco, CA 94105  
(415) 749-5000

# NOTICE OF VIOLATION

No. **A57024**

ISSUED TO: Tri-Cities Waste Management  P  G  N# A2246  
 ADDRESS: 7010 Auto Mall Parkway  
 CITY: Fremont STATE: CA ZIP: 94538  
 PHONE: (510 ) 376-7700  
 N# Mailing Address on F61

OCCURRENCE  
 NAME: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  Same As Above  
 CITY: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 SOURCE: S# 1 NAME: Waste Decomposition Process w/ Gas Collection System; abated by A-3, flare  
 EMISSION PT: P# \_\_\_\_\_ NAME: \_\_\_\_\_  
 DATE: 4/7/2020 TIME: 0648 to 1536 HRS

<input type="checkbox"/> REG 2 RULE 1 SEC 301 No Authority to Construct	<input type="checkbox"/> REG 2 RULE 1 SEC 302 No Permit to Operate
<input type="checkbox"/> REG 1 SEC 301 H & S CODE - 41700 Public Nuisance	<input checked="" type="checkbox"/> REG 2 RULE <u>6</u> SEC 307 Failure to Meet Permit Condition
<input type="checkbox"/> REG 5 SEC 301 Prohibited Open Burning	<input type="checkbox"/> REG 6 RULE 1 SEC 301 Excessive Visible Emissions
<input checked="" type="checkbox"/> REG <u>8</u> RULE <u>34</u> SECTION <u>301.1</u> CODE <input type="text"/>	
<input checked="" type="checkbox"/> REG <u>1</u> RULE _____ SECTION <u>523.3</u> CODE <input type="text"/>	

Details: min. flare temp, abatement device not operated continuously(PC 8366-5.6); RCA not reported

RECIPIENT NAME: Patrick Madej  
 TITLE: Waste Management District Manager

SIGNING THIS NOTICE IS NOT AN ADMISSION OF GUILT X *Patrick Madej*

➔ **WITHIN 10 DAYS, RETURN A COPY OF THIS NOTICE WITH A WRITTEN DESCRIPTION OF THE IMMEDIATE CORRECTIVE ACTION YOU HAVE TAKEN TO PREVENT CONTINUED OR RECURRENT VIOLATION. THIS VIOLATION IS SUBJECT TO SUBSTANTIAL PENALTY. YOUR RESPONSE DOES NOT PRECLUDE FURTHER LEGAL ACTION.**

ISSUED BY: Patricia Barnes INSP # 557  
 DATE: 3/10/21 TIME: 1055 HRS  MAILED

**PLEASE PRESS HARD**

## Chan, Michael

---

**From:** Madej, Patrick  
**Sent:** Monday, April 5, 2021 11:23 AM  
**To:** 'compliance@baaqmd.gov'; 'PBarnes@baaqmd.gov'  
**Cc:** Chan, Michael  
**Subject:** Plant# A2246 Notice of Violation# A57024 30-Day Response  
**Attachments:** TriCities Title V 30day NOV A57024 Submittal.pdf

Attached please find NOV# A57024 30-day written report, including the signed NOV. Please reach out to me at your convenience if you have any questions or concerns, thank you.

**Patrick Madej**  
District Manager  
Environmental Legacy Management Group  
[pmadej@wm.com](mailto:pmadej@wm.com)

**Waste Management**  
2615 Davis St.  
San Leandro, CA. 94577  
Cell/Office 510 376 7700  
Fax 510 463 4210