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**Asunto:** Reenviado: Informe de Cumplimiento del Oxidante Térmico Hero del Vertedero de Chiquita Canyon en 2026
**Adjuntos:** W002AS-065112-RT-8872.pdf; st-222-xst-expedited-eval_Hero Source Test Report_Oct 2026.pdf

Además se adjunta el Formulario de Solicitud de Evaluación Acelerada ejecutado que acompaña al Informe de Pruebas en la Fuente del Oxidante Térmico (TOx) Hero. He agregado varios destinatarios adicionales a esta presentación por e-mail.

Se debe tener en cuenta que para propósitos de seguimiento, la unidad TOx Hero está programada para que salga del sitio a finales del otoño o a principios del invierno.

Gracias,

Amanda Kuhl
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**Asunto:** Informe de Cumplimiento del Oxidante Térmico Hero del Vertedero de Chiquita Canyon en 2026

Este e-mail se originó en un lugar externo a SCS Engineers. No haga clic en ningún enlace ni abra adjuntos a menos que reconozca al remitente y sepa que el contenido es seguro.

A todos:
Encontrarán adjunto el informe sobre el asunto.

**Roddy Rauls** (él)
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Distrito de Gestión de la Calidad del Aire de la Costa Sur
21865 Copley Drive
Diamond Bar, CA 91765 (909) 396-2000
(909) 396-2099 (fax)

# Formulario de Solicitud de Evaluación Acelerada del Protocolo / Informe / CEMS / de las Pruebas en la Fuente

## LAP/ Certificación del Producto

## Formulario 222-XST

### Sección I - Información sobre las Instalaciones

1. Nombre de la Empresa: Chiquita Canyon Landfill, LLC Código de Instalación: 119219

Equipo/ Dispositivo Oxidante Térmico (TOx) Hero

2. La evaluación solicitada es para:

a. [X] Protocolo para realizar las Pruebas en la Fuente

b. [X] Informe sobre las Pruebas en la Fuente

c. [ ] Solicitud de CEMS (Nuevo)

d. [ ] Solicitud de CEMS (Modificación)

e. [ ] Evaluación de Aprobación de LAP

f. [ ] Certificación del Producto (es decir, Reglas 1111, 1121, 1146.2 y 1174)

La Evaluación Acelerada no se realiza a menos que se marquen todas las declaraciones restantes:

3. [X] Mediante este documento solicito una Evaluación Acelerada de Fuente para este documento.

4. [X] Comprendo que esta solicitud podrá incurrir en gastos adicionales después de completar la evaluación, como lo permite la Regulación III del Distrito.

5. [X] Comprendo que esta solicitud no puede cancelarse una vez iniciada la evaluación.

6. [X] Comprendo que esta solicitud de revisión acelerada no garantiza ninguna acción para ninguna fecha específica ni garantiza una aprobación.

### Sección II - Certificación

MEDIANTE EL PRESENTE CERTIFICO QUE TODA LA INFORMACIÓN AQUÍ INCLUIDA Y LA INFORMACIÓN PRESENTADA CON ESTE DOCUMENTO ES VERÍDICA Y CORRECTA.

FIRMA DEL FUNCIONARIO RESPONSABLE DE LA EMPRESA:

CARGO DEL FUNCIONARIO RESPONSABLE DE LA EMPRESA:

Gerente de Distrito

| ESCRIBA A MÁQUINA O EN IMPRENTA EL NOMBRE DEL FUNCIONARIO RESPONSABLE DE LA EMPRESA: | NÚMERO DE TELÉFONO: | FIRMADO EL DÍA: |
|---|---|---|
| Kevin Green | (661) 812-5846 | 6/10/2026 |

# INFORME DE PRUEBA EN LA FUENTE PARA EL VERTEDERO DE CHIQUITA CANYON 2026 OXIDANTE TÉRMICO HERO CÓDIGO DE INSTALACIÓN DEL SCAQMD: 119219 SCAQMD A/N: 661284

Elaborado Para:

**Vertedero de Chiquita Canyon**
29201 Henry Mayo Drive
Castaic, California 91384

Para Ser Presentado A:

**Distrito de Gestión de la Calidad del Aire de la Costa Sur**
21865 Copley Dr.
Diamond Bar, California 91765-4178

Elaborado Por:

**Montrose Air Quality Services, LLC**
1631 E. St. Andrew Pl.
Santa Ana, California 92705
(714) 279-6777

Pete San Juan

Fecha del Análisis: **13 de mayo de 2026**
Fecha de Producción: **12 de octubre de 2026**
Número de Informe: **W002AS-065112-RT-8872**

MONTROSE AIR QUALITY SERVICES

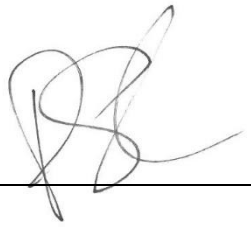
STAC STACK TESTING ACCREDITATION COUNCIL
A2LA ACCREDITED TO ASTM D7036 ONLY CERT #3925.01

## DECLARACIÓN DE CONFIDENCIALIDAD

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## REVISIÓN Y CERTIFICACIÓN

Todo el trabajo, los cálculos y otras actividades y tareas realizadas y presentadas en este documento fueron realizadas por mí o bajo mi dirección y supervisión. Mediante este instrumento certifico, a mi mejor saber y entender, que Montrose operó en cumplimiento con los requerimientos del Sistema de Gestión de la Calidad de Montrose
y de ASTM D7036-04 durante este proyecto de prueba.



Firma: _____ Fecha: 12/10/2026

Nombre: Pete San Juan Cargo: Gerente de Proyectos de Clientes

He revisado, tanto técnica como editorialmente, los detalles, los cálculos, los resultados, las conclusiones y otros materiales escritos apropiados aquí incluidos. Mediante el presente instrumento certifico que a mi mejor saber y entender, el material presentado es auténtico, preciso y cumple con los requerimientos del Sistema de Gestión de la Calidad de Montrose y con ASTM D7036-04.



Firma: _____ Fecha: 12/10/2026

Nombre: Surya Adhikari Cargo: Especialista Sénior en Informes de Control de la Calidad

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## 1.0 INTRODUCCIÓN Y RESUMEN

Se contrató a Montrose Air Quality Services, LLC (MAQS) para que realice pruebas de emisiones en la fuente en el Oxidante Térmico (TOx) Hero encendido a gas del vertedero A/N: 661284 en el Vertedero de Chiquita Canyon (Código de Instalación del SCAQMD: 119219) ubicado en Castaic, California. Las pruebas se realizaron para cumplir con los requerimientos del Aviso de Cumplimiento (NTC) #E56457, emitido por el AQMD de la Costa Sur a Chiquita Canyon, LLC. 17 CCR § 95464(b)(3)(A)(1) requiere que los dispositivos de control de gases alcancen una eficiencia de destrucción de metano (DRE) de por lo menos el 99 por ciento por peso.

Las pruebas se realizaron conforme al plan de pruebas en la fuente (Documento de MAQS Número W002AS-065112-PP-1498) presentado al SCAQMD el 3 de marzo de 2026. Las mediciones de las emisiones del TOx y los parámetros operativos se realizaron en la salida del TOx y en la entrada (biogás) del dispositivo de control. La Tabla 1-1 proporciona una matriz de prueba de los parámetros probados en cada ubicación de muestreo. La prueba se realizó el 13 de mayo de 2026.

El equipo de pruebas de MAQS estuvo formado por Pete San Juan y Allen Dusky. Pete San Juan fue la persona calificada en el sitio, como lo define ASTM D7036-04. MAQS califica como laboratorio independiente para realizar análisis bajo la Regla 304 del SCAQMD (sin conflicto de intereses) y está certificado por el SCAQMD para que conduzca análisis de contaminantes criterio utilizando los Métodos del Distrito. Las pruebas fueron coordinadas por el Sr. Dylan Smith de Waste Connections.

Los resultados de las pruebas de emisiones se resumen en la Tabla 1-2. Los resultados demuestran que el TOx Hero no cumplió con el requerimiento de alcanzar una DRE de metano de por lo menos el 99 por ciento por peso especificado en 17 CCR § 95464(b)(3)(A)(1). Todos los datos crudos, los resultados de laboratorio, los cálculos y los datos de QA/QC se encuentran en los Apéndices.

**TABLA 1-1**
**MATRIZ DE PRUEBA**
**OXIDANTE TÉRMICO HERO DEL**
**VERTEDERO DE CHIQUITA CANYON**
**13 DE MAYO DE 2026**

| Parámetro/Unidades | Entrada | Escape |
|---|---|---|
| Oxígeno ($O_2$) | X | X |
| Dióxido de Carbono ($CO_2$) | X | X |
| Humedad ($H_2O$) | X | -- |
| Índice de Flujo (dscfm) | X | X |
| Temperatura (°F) | X | X |
| Metano ($CH_4$) | X | X |
| Valor Calórico (Btu/scf) | X | |

**TABLA 1-2**
**RESUMEN DE LOS RESULTADOS**
**OXIDANTE TÉRMICO HERO DEL VERTEDERO DE CHIQUITA CANYON**
**13 DE MAYO DE 2026**

| Parámetro/Unidades | Entrada | Escape | Límite |
|---|---|---|---|
| **$O_2$**, % | 5.1 | 11.3 | -- |
| **$CO_2$**, % | 48.0 | 16.3 | -- |
| **$N_2$**, % | 26.3 | 72.3 | -- |
| **$H_2O$**, % | 6.4 | -- | -- |
| **Índice de Flujo**, dscfm | 1,533 | 7,141 | -- |
| **Temperatura**, °F de la sonda RM | 148 | -- | -- |
| **Temperatura**, °F del TC controlador | -- | 1,559 | >1,400 |
| **Hidrocarburos** | | | |
| Metano, ppm | 140,000 | 5033.3 | -- |
| Metano, ppm a un 3% de $O_2$ | 158,279 | 9520.5 | -- |
| Metano, lb/hora | 534.7 | 90.27 | -- |
| Metano, Eficiencia de Destrucción, % | -- | 83.1 | ≥99% |

Nota:
Los resultados de esta tabla son los promedios de todas las mediciones.

## 2.0 DESCRIPCIÓN DE LA UNIDAD

El Oxidante Térmico se describe como Unidad de Combustión de Vapor y es fabricado por Clean Cap Tech. Tiene una capacidad de entrada de calor de 45 MMBtu/hora y un índice de flujo de combustible de entrada máximo de 3,300 scfm. La cámara de combustión utiliza aproximadamente 50 pies cúbicos estándar por hora de gas de asistencia de piloto de propano. Se espera que el gas de la reacción que entra a la unidad no sea mayor al 22.46% de metano. El TOx tendrá permitido operar las 24 horas del día, los 7 días de la semana y las 52 semanas del año, excepto durante períodos de mantenimiento programados o no programados.

La unidad de combustión de vapores también hará combustión con el vapor que se ventila de los tanques de almacenamiento de líquidos en el sistema de recolección/almacenamiento de condensados de LFG y lixiviados y el sistema de tratamiento de condensados de LFG y lixiviados.

La chimenea de escape es de forma rectangular y mide aproximadamente 46 pies de altura por encima del nivel del terreno.

# 3.0 DESCRIPCIÓN DE LA PRUEBA

## 3.1 CONDICIONES DE LA PRUEBA

El Oxidante Térmico se operó a la capacidad del biogás disponible durante cada período de prueba. La temperatura y el índice de flujo de combustible fueron monitoreados y registrados por el personal que realizó las pruebas durante cada período de prueba. Se utilizó la termocupla del medio del Oxidante Térmico para controlar los parámetros de la temperatura. El punto de ajuste de la temperatura fue de 1,560 °F. Los datos del proceso se encuentran en el Apéndice B.

## 3.2 UBICACIONES DE LAS MUESTRAS

Las muestras se tomaron en la salida del Oxidante Térmico y en la entrada (combustible de biogás) del Oxidante Térmico. Los cálculos del punto de muestreo del Método 1.1 del SCAQMD y un plano esquemático de las ubicaciones de los muestreos se incluyen en el Apéndice A.

En la salida del Oxidante Térmico se utilizó un elevador aéreo telescópico para acceder a un solo punto de muestreo ubicado en el centro del conducto rectangular.

El conducto de entrada del Oxidante Térmico tiene un diámetro interior de 8 pulgadas.

## 3.3 PROCEDIMIENTOS DE PRUEBA

Los procedimientos utilizados para las pruebas de medición en la entrada y en la salida del Oxidante Térmico se resumen a continuación en las Tablas 3-1 y 3-2, respectivamente. Los procedimientos seleccionados son consistentes con el plan de pruebas en la fuente presentado al SCAQMD. A continuación se proporciona un breve análisis de cada procedimiento en las Secciones 3.3.1 a 3.3.3.

**TABLA 3-1**
**PROCEDIMIENTOS PARA LAS PRUEBAS DE ENTRADA AL OXIDANTE TÉRMICO HERO DEL VERTEDERO DE CHIQUITA CANYON**
**13 DE MAYO DE 2026**

| Parámetro | Medio para la Muestra | Técnica Analítica | Método de Referencia | Cantidad de Réplicas |
|---|---|---|---|---|
| Índice de Flujo | Medidor de Flujo En el Sitio | Medidor de Flujo | Medidor de las Instalaciones | 3 |
| Humedad | Bulbo Húmedo/Bulbo Seco | Cuadro Psicrométrico | SCAQMD 4.1 | 3 |
| $N_2$, $O_2$ y $CO_2$ | Bolsa de Tedlar | GC/FID/TCD | SCAQMD 10.1/ASTM D-1945 | 3 |
| Metano | Bolsa de Tedlar | GC/FID | EPA 18 | 3 |
| Btu/CF y Factor F | Bolsa de Tedlar | GC/FID/TCD | ASTM D-3588 | 3 |

**TABLA 3-2**
**PROCEDIMIENTOS DE PRUEBA EN LA SALIDA DEL OXIDANTE TÉRMICO HERO DEL VERTEDERO DE CHIQUITA CANYON**
**13 DE MAYO DE 2026**

| Parámetro | Medio para la Muestra | Técnica Analítica | Método de Referencia | Cantidad de Réplicas |
|---|---|---|---|---|
| Índice de Flujo | N/A | Calculado | EPA 19 | 3 |
| $N_2$, $O_2$/ $CO_2$ | Bolsa de Tedlar | GC/FID/TCD | EPA 3C / SCAQMD 10.1 | 3 |
| Metano | Bolsa de Tedlar | GC/FID | EPA 18 | 3 |

### 3.3.1 Método 3.1 del SCAQMD - Análisis de Gases para el Peso Molecular Seco y el Exceso de Aire

Se tomaron muestras integradas de la chimenea en bolsas Tedlar para analizar el oxígeno (O2) y el dióxido de carbono (CO2) por cromatografía de gases (GC). El $N_2$ en la salida se calculó por la diferencia de la concentración de otros componentes de gases de salida importantes como O2 y CO2. El peso molecular del gas de la chimenea se calcula con los porcentajes de dióxido de carbono ($CO_2$), oxígeno ($O_2$) y nitrógeno (N2). El biogás de entrada del Oxidante Térmico se analizó por GC para O2, $CO_2$ y $N_2$.

### 3.3.2 Método 18 de la EPA - Medición de Emisiones de Metano por Cromatografía de Gases

Se utilizó el aparato de muestreo del Método 18 para tomar el metano en bolsas Tedlar de diez litros. Se tomaron muestras integradas triplicadas simultáneamente desde un solo punto en la entrada y salida del Oxidante Térmico para determinar la eficiencia de destrucción de Metano (DRE) en el dispositivo de control, en base másica.

El aparato consiste en una sonda de acero inoxidable conectada por una línea de Teflón a una bolsa de muestreo Tedlar dentro de un depósito hermético. La evacuación del aire del depósito hace que el gas de la muestra sea extraído hacia la bolsa. Solo se utilizaron bolsas Tedlar nuevas y las bolsas fueron purgadas antes de tomar las muestras.

Al completar cada pasada, las muestras de las bolsas fueron selladas y transportadas al laboratorio. El contenido de muestra de cada bolsa fue analizado por cromatografía de gases (GC) con un Detector de Ionización de Llama (FID) para determinar el contenido de metano en la entrada y en la salida y el índice de emisiones se calculó de la siguiente manera:

Ecuación:

lb/hora = PPMv * DSCFM * C.F. * M.W.

Donde:

PPMv = Partes Por Millón (Volumen)
DSCFM = Pies Cúbicos Por Minuto Estándar Seco
M.W. = Peso Molecular del Metano (16-lb/lb-mol)
C.F. = Factor de Conversión = 1.583 x $10^{-7}$ a 60 °F;
= 1.558 x $10^{-7}$ a 68 °F

Se utilizó Enthalpy Analytical para el análisis. Se utilizó la siguiente ecuación para determinar la DRE de Metano.

$$\text{METHANE DRE} = \left(\frac{Methane_{in} - Methane_{out}}{Methane_{in}}\right)(100\%)$$ en base a los índices de emisiones masivas

### 3.3.3 Método 19 de la EPA – Cálculo del Índice de Flujo de Escape a partir del Factor F Conocido

Se registraron las lecturas de los medidores de combustible desde el medidor certificado en las instalaciones y se proporcionaron durante la prueba. Se tomaron muestras de biogás de entrada en bolsas Tedlar y se analizó el Factor F (dscf/MMBtu) y el valor calorífico superior (HHV) Btu/scf utilizando ASTM D1945/D3588. Se utilizaron los valores de los resultados del laboratorio para calcular el índice de flujo volumétrico y se compararon con el índice de flujo de salida medido. Se utilizó la siguiente ecuación para calcular el índice de flujo volumétrico.

$$Q_{sd} = \left(\frac{F_d \text{ x } GCV \text{ x } FF}{1 \text{ x } 10^6}\right)\left(\frac{20.9 - O_2}{20.9}\right)$$

# 4.0 RESULTADOS Y RESUMEN

## 4.1 RESULTADOS DE LAS PRUEBAS

Los resultados de las pruebas en la fuente del Oxidante Térmico de biogás Hero en el Vertedero de Chiquita Canyon demuestran que la Eficiencia de Destrucción de Metano (DRE) no cumple con el requerimiento de ≥99% por peso, como se especifica en 17 CCR § 95464(b)(3)(A)(1).

Los resultados detallados se encuentran en los apéndices. La Tabla 1-2 presentó los resultados resumidos de las pruebas y el límite permitido. La Tabla 4-1 presenta los resultados detallados de las pruebas de cada parámetro. El Oxidante Térmico se operó a un índice de flujo de biogás de 1,638 scfm medido por el medidor de flujo en el sitio. El controlador del Oxidante Térmico se configuró en 1,560 °F en la termocupla del medio.

**TABLA 4-1**
**RESULTADOS GENERALES**
**OXIDANTE TÉRMICO HERO DEL VERTEDERO DE CHIQUITA CANYON**
**13 DE MAYO DE 2026**

| | Entrada | | | | Escape | | | |
|---|---|---|---|---|---|---|---|---|
| **Parámetro/Unidades** | **Primera Pasada** | **Segunda Pasada** | **Tercera Pasada** | **Promedio** | **Primera Pasada** | **Segunda Pasada** | **Tercera Pasada** | **Promedio** |
| **$O_2$**, % | 5.2 | 5.0 | 5.0 | 5.1 | 11.0 | 12.0 | 11.0 | 11.3 |
| **$CO_2$**, % | 48.0 | 48.0 | 48.0 | 48.0 | 17.0 | 15.0 | 17.0 | 16.3 |
| **$N_2$**, % | 27.0 | 26.0 | 26.0 | 26.3 | 72.0 | 73.0 | 72.0 | 72.3 |
| **$H_2O$**, % | 6.4 | 6.4 | 6.4 | 6.4 | -- | -- | -- | -- |
| **Índice de Flujo**, scfm | 1642 | 1636 | 1635 | 1638 | -- | -- | -- | -- |
| **Índice de Flujo**, dscfm | 1,537 | 1,531 | 1,531 | 1,533 | 6,828 | 7,649 | 6,946 | 7,141 |
| **Temperatura**, °F | 148 | 148 | 148 | 148 | -- | -- | -- | -- |
| **Temperatura**, °F(1) | -- | -- | -- | -- | 1,561 | 1,557 | 1,559 | 1,559 |
| **Hidrocarburos** | | | | | | | | |
| Metano, ppm | 140,000 | 140,000 | 140,000 | 140,000 | 4700.0 | 6200.0 | 4200.0 | 5033.33 |
| Metano, ppm a un 3% de $O_2$ | 159,618 | 157,610 | 157,610 | 158,279 | 8497.98 | 12469.66 | 7593.94 | 9520.53 |
| Metano, lb/hora | 536.0 | 534.1 | 534.0 | 534.7 | 79.95 | 118.16 | 72.69 | 90.27 |
| Metano, Eficiencia de Destrucción, % | -- | -- | -- | -- | 85.1 | 77.9 | 86.4 | 83.1 |

Nota: Los valores del flujo de volumen de salida se basan en el índice de flujo calculado en el Método 19.
(1) Temperatura de la Termocupla controladora

## 4.2 RESUMEN DE LA PRUEBA

El índice de flujo de biogás se midió con un medidor certificado de las instalaciones. Notablemente, no se registró ningún uso de propano en el medidor de flujo de propano durante la prueba. El medidor de flujo de propano mostró 0.00 $Nm^3$/hora durante toda la prueba.

Se tomaron muestras en bolsas Tedlar del biogás de entrada para analizar HHV y el Factor F, en cumplimiento con el protocolo. Se tomaron muestras triplicadas del Método 18 de la EPA en la entrada y en la salida.

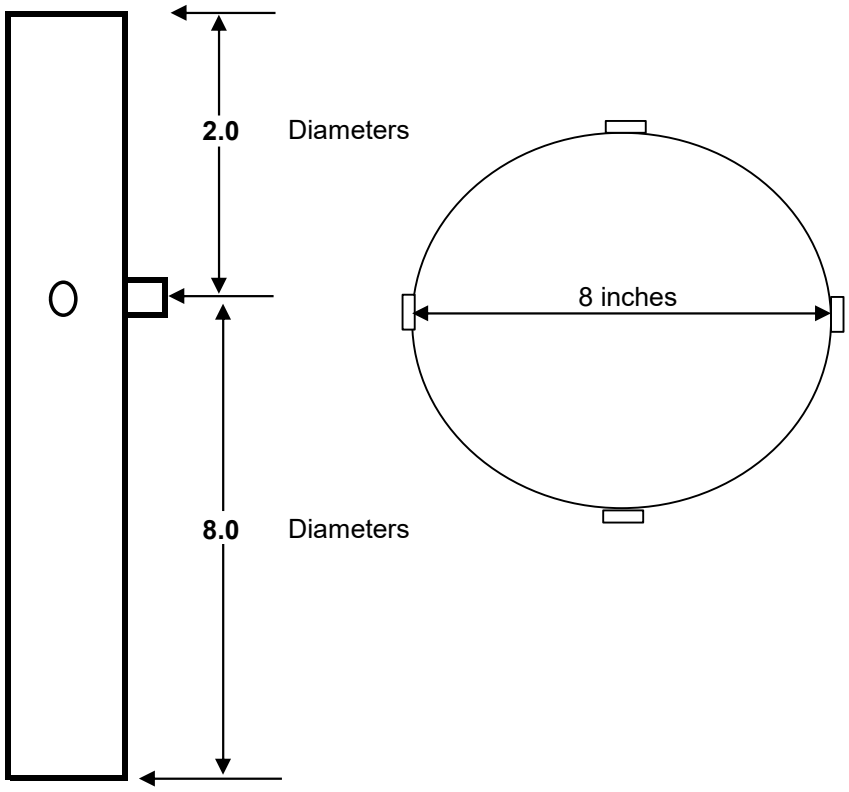
# APPENDIX A
# TEST DATA

# Appendix A.1
# Sample Location Data

# METHOD 1 DATA SHEET
# INLET SAMPLE LOCATION

Client: Chiquita Canyon Landfill  Date: 5/13/26

Location: Hero TOx  Performed By: PSJ, AD, RM




| | |
|---|---|
| Diameter (inches) | **8.00** |
| Upstream (inches) | **64.00** |
| Downstream (inches) | **16.00** |
| Coupling (in.) | **0.00** |
| Stack Area ($ft^2$) | **0.349** |

| Sample Point | % of Diameter | Dist from Wall (inches) | Dist from Port (inches) |
|---|---|---|---|
| 1 | 4.4 | 0.5 | 0.5 |
| 2 | 14.6 | 1.2 | 1.2 |
| 3 | 29.6 | 2.4 | 2.4 |
| 4 | 70.4 | 5.6 | 5.6 |
| 5 | 85.4 | 6.8 | 6.8 |
| 6 | 95.6 | 7.5 | 7.5 |

# Appendix A.2
# Exhaust Flow Rate Data

**Waste Connections**
**Hero TOx**
**May 13, 2026**
**SUMMARY OF EPA M-19 SOURCE TEST DATA AND CALCULATIONS**

| PARAMETER | UNITS | RUN 1 |
|---|---|---|
| DATE | | 5/13/2026 |
| FUEL FLOW | SCFM | 1,642 |
| CALORIFIC VALUE | BTU/CF | 172.0 |
| F FACTOR (Fd) | DSCF/MMBTU | 11,455 |
| EXHAUST O2 CONCENTRATION | %VD | 11.00 |
| HEAT INPUT - LANDFILL GAS | MMBTU/HR | 16.94 |
| EXHAUST VOLUME FLOW RATE | DSCFM | 6,828 |

| PARAMETER | UNITS | RUN 2 |
|---|---|---|
| DATE | | 5/13/2026 |
| FUEL FLOW | SCFM | 1,636 |
| CALORIFIC VALUE | BTU/CF | 174.0 |
| F FACTOR (Fd) | DSCF/MMBTU | 11,444 |
| EXHAUST O2 CONCENTRATION | %VD | 12.00 |
| HEAT INPUT - LANDFILL GAS | MMBTU/HR | 17.08 |
| EXHAUST VOLUME FLOW RATE | DSCFM | 7,649 |

| PARAMETER | UNITS | RUN 3 |
|---|---|---|
| DATE | | 5/13/2026 |
| FUEL FLOW | SCFM | 1,635 |
| CALORIFIC VALUE | BTU/CF | 176.0 |
| F FACTOR (Fd) | DSCF/MMBTU | 11,432 |
| EXHAUST O2 CONCENTRATION | %VD | 11.00 |
| HEAT INPUT - LANDFILL GAS | MMBTU/HR | 17.27 |
| EXHAUST VOLUME FLOW RATE | DSCFM | 6,946 |

# Appendix A.3
# Methane Data

## INLET CH4 TEST RESULTS

| Test Number | | 2-CH4-1 |
|---|---|---|
| Reference Temperature, F | | 60 |
| Test Date | | 5/13/2026 |
| Test Method | | EPA 18 |
| Inlet $O_2$ (%) | | 5.00 |
| Inlet Flow Rate, dscfm | | 1,531 |
| O2 Correction Factor (%) | | 3 |
| F-Factor | | 11,444 |

| Lab Results, ppm component | | |
|---|---|---|
| Compound | Carbon Atoms | Run 1 |
| Methane | 1 | 140000 |

| Methane | Run 2 |
|---|---|
| ppm | 140,000 |
| ppm, C | 157,610 |
| lb/hr | 534.1 |

## INLET CH4 TEST RESULTS

| Test Number | | 3-CH4-1 |
|---|---|---|
| Reference Temperature, F | | 60 |
| Test Date | | 5/13/2026 |
| Test Method | | EPA 18 |
| Inlet $O_2$ (%) | | 5.00 |
| Inlet Flow Rate, dscfm | | 1,531 |
| O2 Correction Factor (%) | | 3 |
| F-Factor | | 11,432 |

| Lab Results, ppm component | | |
|---|---|---|
| Compound | Carbon Atoms | Run 1 |
| Methane | 1 | 140000 |

| Methane | Run 3 |
|---|---|
| ppm | 140,000 |
| ppm, C | 157,610 |
| lb/hr | 534.0 |

## OUTLET CH4 TEST RESULTS

| Test Number | | 1-CH4-1 |
|---|---|---|
| Reference Temperature, F | | 60 |
| Test Date | | 5/13/2026 |
| Test Method | | EPA 18 |
| Exhaust $O_2$ (%) | | 11.00 |
| Exhaust Flow Rate, dscfm | | 6,828 |
| O2 Correction Factor (%) | | 3 |
| F-Factor | | 11,455 |

| Lab Results, ppm component | | |
|---|---|---|
| Compound | Carbon Atoms | Run 1 |
| Methane | 1 | 4700 |

| Methane | Run 1 |
|---|---|
| ppm | 4700.00 |
| ppm, C | 8497.98 |
| lb/hr | 79.95 |

## OUTLET CH4 TEST RESULTS

| **Test Number** | | **2-CH4-1** |
|---|---|---|
| Reference Temperature, F | | 60 |
| Test Date | | 5/13/2026 |
| Test Method | | EPA 18 |
| Exhaust $O_2$ (%) | | 12.00 |
| Exhaust Flow Rate, dscfm | | 7,649 |
| O2 Correction Factor (%) | | 3 |
| F-Factor | | 11,444 |

| Lab Results, ppm component | | |
|---|---|---|
| Compound | Carbon Atoms | Run 1 |
| Methane | 1 | 6200 |

| **Methane** | **Run 2** |
|---|---|
| ppm | 6200.00 |
| ppm, C | 12469.66 |
| lb/hr | 118.16 |

## OUTLET CH4 TEST RESULTS

| **Test Number** | | **3-CH4-1** |
|---|---|---|
| Reference Temperature, F | | 60 |
| Test Date | | 5/13/2026 |
| Test Method | | EPA 18 |
| Exhaust $O_2$ (%) | | 11.00 |
| Exhaust Flow Rate, dscfm | | 6,946 |
| O2 Correction Factor (%) | | 3 |
| F-Factor | | 11,432 |

| Lab Results, ppm component | | |
|---|---|---|
| Compound | Carbon Atoms | Run 1 |
| Methane | 1 | 4200 |

| **Methane** | **Run 3** |
|---|---|
| ppm | 4200.00 |
| ppm, C | 7593.94 |
| lb/hr | 72.69 |

## TEDLAR BAG SAMPLING DATA SHEET

CLIENT: Chaquita Flare PERFORMED BY: Ray

LOCATION: Flare UNIT: Hero

| Test # | 1 | 2 | 3 | | |
|---|---|---|---|---|---|
| Date | 5-13-26 | 5-13-26 | 5-13-26 | | |
| Time (start/stop) | 1028<br>1095 | 1100<br>1130 | 1132<br>1202 | | |
| Bag # | 1 | 2 | 3 | | |

Comments: _____

## TEDLAR BAG SAMPLING DATA SHEET

CLIENT: CHEVRON HEAD FLARE TOx PERFORMED BY: SJ/AO/RM

LOCATION: INLET UNIT: HEAD

| Test # | 1 | 2 | 3 | | |
|---|---|---|---|---|---|
| Date | 5/13 | 5/13 | 5/13 | | |
| Time (start/stop) | 1028/1058 | 1100/1130 | 1132/1202 | | |
| Bag # | IN-1 | IN-2 | IN-3 | | |

Comments: _____

Onterris
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

onterris.com

Lab Job Number : 559510
Report Level : II
Report Date : 05/28/2026

**Analytical Report** *prepared for:*

Pete San Juan
Onterris Air Quality Services
1631 E. St Andrew Pl
Santa Ana, CA 92705

Location: Waste Connections, PROJ-065112

*Authorized for release by:*

Richard Villafania, Senior Project Manager
+1 714.771.6900
richard.villafania@onterris.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, CA ELAP #1338-S1, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105, ORELAP# 4197

Onterris ENTHALPY ANALYTICAL

# Sample Summary

| | | |
|---|---|---|
| Pete San Juan<br>Onterris Air Quality Services<br>1631 E. St Andrew Pl<br>Santa Ana, CA 92705 | Lab Job #:<br>Location:<br>Date Received: | 559510<br>Waste Connections, PROJ-065112<br>05/13/26 |

| Sample ID | Lab ID | Collected | Matrix |
|---|---|---|---|
| HERO TOX INLET -1 | 559510-001 | 05/13/26 10:58 | Air |
| HERO TOX INLET -2 | 559510-002 | 05/13/26 11:30 | Air |
| HERO TOX INLET -3 | 559510-003 | 05/13/26 12:02 | Air |
| HERO TOX EXHAUST -1 | 559510-004 | 05/13/26 10:58 | Air |
| HERO TOX EXHAUST -2 | 559510-005 | 05/13/26 11:30 | Air |
| HERO TOX EXHAUST -3 | 559510-006 | 05/13/26 12:02 | Air |

# Case Narrative

| | |
|---|---|
| Onterris Air Quality Services<br>1631 E. St Andrew Pl<br>Santa Ana, CA 92705<br>Pete San Juan | Lab Job Number: 559510<br>Location: Waste Connections, PROJ-065112<br>Date Received: 05/13/26 |

- This data package contains sample and QC results for six air samples, requested for the above referenced project on 05/13/26. The samples were received in good condition.
- Analyses were performed at 2532 E Cerritos Ave., Anaheim, CA, 92806.

**Fixed Gases and Low Level Hydrocarbons (ASTM D1945M, ASTM D1946, and EPA 18M):**
No analytical problems were encountered.

**Volatile Organics in Air GC (ASTM D1946):**
No analytical problems were encountered.

**EPA 18 and EPA 18M (EPA 18M):**
No analytical problems were encountered.

# Air Chain of Custody Record

## Request for Analysis

ENTHALPY ANALYTICAL

Instructions to assist filling out the COC are on the next tab

**Lab Use Only**

work order #

| | |
|---|---|
| lab name | Enthalpy Analytical - Orange |
| address | 931 W. Barkley Avenue, Orange, CA, 92868, 714-771-6900 |
| phone | Phone 714-771-6900 |
| Analyze within 24hrs | |

| CUSTOMER INFORMATION | PROJECT INFORMATION |
|---|---|
| company: Onterris AQS | project name: Waste Connections |
| contact/ report to: Pete San Juan | submit invoice to: |
| email: psanjuan@onterris.com | project #: PROJ-065112 |
| cc emails: | P.O. #: |
| address: 1631 E ST. Andrew Place | site name: Chiquita Canyon Landfill |
| phone: 626-617-6313 | site state: CA |

custody seal intact? ☐ yes ☐ no ☐ none | PO #

on ice? ☐ yes ☐ no | Add. Notes

temperature °C _____

meets req.? ☐ yes ☐ no

preservation notes

☑ STANDARD ☐ 5 day ☐ 2 day ☐ 1 day ☐ other_____

data deliverable type: ☑ STANDARD ☐ other_____

EDD required (Y/N)?

EDD Format_____

*matrix code: **(A)** ambient, **(O)** other, **(H)** headspace, **(PM)** particulate matter, **(S)** stationary,

**container or media type: **(B)** bag (tedlar), **(Bd)** badge, **(Bt)** bottle, **(C)** canister, **(F)** filter, **(O)** other, **(T)** tube, **(TD)** thermal desorption tube

units for reporting:

retention requirements:

regulatory program, as applicable (i.e., CAA, CARB, etc.): ☑ compliance ☐ engineering

| | Sampling Information | | | Equipment Information | | | | Start Sampling Information | | | Stop Sampling Information | | | | | Analysis Requested | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | Matrix Code* | Sample Type | Container Type** (media type) | Container ID# (Media ID) | Flow Cont. # | Container Size (6L, etc.) | Date | Time | Initial Pressure ("Hg) | Date | Time | Final Pressure ("Hg) | Sampler Name | Final Volume (ml, mL, L) | EPA 18 CH4 | ASTM D1945/D3588 | O2, CO2 |
| 1 | Hero TOX Inlet -1 | (S) | Stationary | (B) Bag | | | 10L | 05/13/26 | 10:28 | | 05/13/26 | 10:58 | | RM | | ✓ | ✓ | |
| 2 | Hero TOX Inlet -2 | (S) | Stationary | (B) Bag | | | 10L | 05/13/26 | 11:00 | | 05/13/26 | 11:30 | | RM | | ✓ | ✓ | |
| 3 | Hero TOX Inlet -3 | (S) | Stationary | (B) Bag | | | 10L | 05/13/26 | 11:32 | | 05/13/26 | 12:02 | | RM | | ✓ | ✓ | |
| 4 | Hero TOX Exhaust -1 | (S) | Stationary | (B) Bag | | | 10L | 05/13/26 | 10:28 | | 05/13/26 | 10:58 | | AD | | ✓ | | ✓ |
| 5 | Hero TOX Exhaust -2 | (S) | Stationary | (B) Bag | | | 10L | 05/13/26 | 11:00 | | 05/13/26 | 11:30 | | AD | | ✓ | | ✓ |
| 6 | Hero TOX Exhaust -3 | (S) | Stationary | (B) Bag | | | 10L | 05/13/26 | 11:32 | | 05/13/26 | 12:02 | | AD | | ✓ | | ✓ |
| 7 | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | |

Login 559510

| note shipper, courier, and tracking # below | | Signature | Print Name | Company / Title | Date (MM/DD/YY) | Time (24:00) |
|---|---|---|---|---|---|---|
| 1 | Relinquished By: | | Pete San Juan | CPM | 5/13/26 | 1433 |
| | Received By: | | JXR | ONT | 5/13/26 | 1433 |
| 2 | Relinquished By: | | | | | |
| | Received By: | | | | | |
| 3 | Relinquished By: | | | | | |
| | Received By: | | | | | |
| 4 | Relinquished By: | | | | | |
| | Received By: | | | | | |

Notes (include special conditions, possible hazards, etc.):

Field sampling conditions (notes)

- ☐ rain/snow during deployment/pick-up
- ☐ continuous rain during samp. period
- ☐ snow or melt during sampling period



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Onterris

# SAMPLE RECEIPT CHECKLIST

**Section 1: General Info**
Date Received: 5/13/26 Job#: 559510 Client: MAQS

**Section 2: Shipping / Custody** **Are custody seals present?** ☐ Yes ☒ No
Custody seals intact on arrival? ☒ N/A ☐ Yes ☐ No ☐ On cooler / box ☐ On samples
☐ Courier ☒ Walk-In ☐ Field Sampling ☐ Shipping Info: _____

**Section 3a: Condition / Packaging** ☐ **Outside 0.0 - 6.0°C (0.0 - 10.0°C for microbiology) (PM notified)**
Date Opened 5/13/26 By (initials) JXR Type of ice used: ☐ Wet ☐ Blue/Gel ☒ None
☐ Samples received on ice directly from the field; cooling process had begun. (if checked, skip temperatures)
☒ Sample matrix doesn't require cooling (e.g. air, bulk PCB). (if checked, skip temperatures)
If no cooler: Observed/Corrected Temp (°C): _____ / _____ Thermometer/IR Gun ID:_____ CF:_____
Cooler Temp (obs/corr) (°C) #1:_____ /_____ #2:_____ /_____ #3:_____ /_____ #4:_____ /_____ #5:_____ /_____ #6:_____ /_____

**Section 3b: Microbiology Samples** ☒ **No microbiology samples submitted (skip 3b)**
☐ Within temp range 0.0 - 10.0°C or received on ice directly from field.
☐ Adequate headspace for microbiology analysis.

**Section 3c: Air Samples** ☐ **No air samples submitted (skip 3c)**
☐ 1.4L Canisters ☐ 6L Canisters ☒ Tedlar Bags ☐ MCE Cassettes ☐ Sorbent Tubes ☐ Other_____
Tedlar Bags received protected from light (ASTM D5504 Sulfur only)? ☐ N/A ☐ Yes ☐ No

| **Section 4: Containers / Labels / Samples** | YES | NO | N/A |
|---|---|---|---|
| 1) Were custody papers present, filled properly, and legible? | ✔ | | |
| 2) Is the sampler's name present on the CoC? | ✔ | | |
| 3) Were containers received in good condition (unbroken / unopened / uncompromised)? | ~~✔~~ | ✓ | |
| 4) Were the samples bagged? (required for microbiology samples; recommended for soil samples) | | | ✔ |
| 5) Were all of, and only, the correct samples received? | ✔ | | |
| 6) Are sample labels present, legible, and in agreement with the CoC? | | ✓ | |
| 7) Does the container count match the CoC? | ✔ | | |
| 8) Was sufficient sample volume / mass received for the analyses requested? | ✔ | | |
| 9) Were samples received in proper containers for the analyses requested? | ✔ | | |
| 10) Were samples received with > 1/2 holding time remaining? | ✔ | | |
| 11) Are samples properly preserved as indicated by CoC / labels? | ✔ | | |
| 12) Unpreserved VOAs received - If necessary, was the hold time changed in LIMS? | | | ✔ |
| 13) Are VOA vials free from headspace/bubbles > 6mm? | | | ✔ |

NCM 5/13/26

**Section 5: Explanations / Comments**
(If no comments are made, then no discrepancies noted.)

4.3A: water vapor/water drops observed inside tedlar bags for samples -001 to -003

4.6A: No sample times on labels

☐ **No additional discrepancies**

**Form Completed By (print):** NCM **(sign):** _____

**Date Labeled:** 5/13/26 **By (print):** NCM **(sign):** _____

Onterris ENTHALPY ANALYTICAL

# Analysis Results for 559510

Pete San Juan
Onterris Air Quality Services
1631 E. St Andrew Pl
Santa Ana, CA 92705

Lab Job #: 559510
Location: Waste Connections, PROJ-065112
Date Received: 05/13/26

**Sample ID: HERO TOX INLET -1** **Lab ID: 559510-001** **Collected: 05/13/26 10:58**
**Matrix: Air**

| 559510-001 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: ASTM D1945M<br>Prep Method: METHOD | | | | | | | | | |
| Hydrogen | **5.8** | | %v/v | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Carbon Monoxide | ND | | %v/v | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Carbon Dioxide | **48** | | %v/v | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Oxygen | **5.2** | | %v/v | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Methane | **14** | | %v/v | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Method: ASTM D1946<br>Prep Method: METHOD | | | | | | | | | |
| Nitrogen | **27** | | Mol % | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Nitrogen | **270,000** | | ppmv | 1,200 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Method: EPA 18M | | | | | | | | | |
| C2 as Ethane | **150** | | ppmv | 0.61 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| C3 as Propane | **70** | | ppmv | 0.61 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| C4 as Butane | **37** | | ppmv | 0.61 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| C5 as Pentane | **7.3** | | ppmv | 0.61 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| C6+ as n-Hexane | **1,800** | | ppmv | 2.5 | 4.9 | 404645 | 05/26/26 | 05/26/26 | KXM |

**Sample ID: HERO TOX INLET -2** **Lab ID: 559510-002** **Collected: 05/13/26 11:30**
**Matrix: Air**

| 559510-002 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: ASTM D1945M<br>Prep Method: METHOD | | | | | | | | | |
| Hydrogen | **5.9** | | %v/v | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Carbon Monoxide | ND | | %v/v | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Carbon Dioxide | **48** | | %v/v | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Oxygen | **5.0** | | %v/v | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Methane | **14** | | %v/v | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Method: ASTM D1946<br>Prep Method: METHOD | | | | | | | | | |
| Nitrogen | **26** | | Mol % | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Nitrogen | **260,000** | | ppmv | 1,200 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Method: EPA 18M | | | | | | | | | |
| C2 as Ethane | **150** | | ppmv | 0.61 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| C3 as Propane | **70** | | ppmv | 0.61 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| C4 as Butane | **38** | | ppmv | 0.61 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| C5 as Pentane | **7.3** | | ppmv | 0.61 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| C6+ as n-Hexane | **2,100** | | ppmv | 2.4 | 4.9 | 404645 | 05/26/26 | 05/26/26 | KXM |

Onterris ENTHALPY ANALYTICAL

# Analysis Results for 559510

**Sample ID: HERO TOX INLET -3** **Lab ID: 559510-003** **Collected: 05/13/26 12:02**
**Matrix: Air**

| 559510-003 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: ASTM D1945M<br>Prep Method: METHOD | | | | | | | | | |
| Hydrogen | **5.9** | | %v/v | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Carbon Monoxide | ND | | %v/v | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Carbon Dioxide | **48** | | %v/v | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Oxygen | **5.0** | | %v/v | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Methane | **14** | | %v/v | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Method: ASTM D1946<br>Prep Method: METHOD | | | | | | | | | |
| Nitrogen | **26** | | Mol % | 0.12 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Nitrogen | **260,000** | | ppmv | 1,200 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| Method: EPA 18M | | | | | | | | | |
| C2 as Ethane | **150** | | ppmv | 0.61 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| C3 as Propane | **70** | | ppmv | 0.61 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| C4 as Butane | **38** | | ppmv | 0.61 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| C5 as Pentane | **7.3** | | ppmv | 0.61 | 1.2 | 404645 | 05/26/26 | 05/26/26 | KXM |
| C6+ as n-Hexane | **2,200** | | ppmv | 2.4 | 4.9 | 404645 | 05/26/26 | 05/26/26 | KXM |

**Sample ID: HERO TOX EXHAUST -1** **Lab ID: 559510-004** **Collected: 05/13/26 10:58**
**Matrix: Air**

| 559510-004 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: ASTM D1946<br>Prep Method: METHOD | | | | | | | | | |
| Carbon Dioxide | **17** | | Mol % | 0.15 | 1.5 | 404220 | 05/20/26 | 05/20/26 | KXM |
| Carbon Dioxide | **170,000** | | ppmv | 1,500 | 1.5 | 404220 | 05/20/26 | 05/20/26 | KXM |
| Oxygen | **11** | | Mol % | 0.15 | 1.5 | 404220 | 05/20/26 | 05/20/26 | KXM |
| Oxygen | **110,000** | | ppmv | 1,500 | 1.5 | 404220 | 05/20/26 | 05/20/26 | KXM |
| Method: EPA 18M | | | | | | | | | |
| Methane | **4,700** | | ppmv | 0.75 | 1.5 | 403990 | 05/18/26 | 05/18/26 | KXM |

**Sample ID: HERO TOX EXHAUST -2** **Lab ID: 559510-005** **Collected: 05/13/26 11:30**
**Matrix: Air**

| 559510-005 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: ASTM D1946<br>Prep Method: METHOD | | | | | | | | | |
| Carbon Dioxide | **15** | | Mol % | 0.15 | 1.5 | 404220 | 05/20/26 | 05/20/26 | KXM |
| Carbon Dioxide | **150,000** | | ppmv | 1,500 | 1.5 | 404220 | 05/20/26 | 05/20/26 | KXM |
| Oxygen | **12** | | Mol % | 0.15 | 1.5 | 404220 | 05/20/26 | 05/20/26 | KXM |
| Oxygen | **120,000** | | ppmv | 1,500 | 1.5 | 404220 | 05/20/26 | 05/20/26 | KXM |
| Method: EPA 18M | | | | | | | | | |
| Methane | **6,200** | | ppmv | 0.75 | 1.5 | 403990 | 05/18/26 | 05/18/26 | KXM |

Onterris ENTHALPY ANALYTICAL

# Analysis Results for 559510

| Sample ID: HERO TOX EXHAUST -3 | Lab ID: 559510-006 | Collected: 05/13/26 12:02 |
|---|---|---|
| | Matrix: Air | |

| 559510-006 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: ASTM D1946<br>Prep Method: METHOD | | | | | | | | | |
| Carbon Dioxide | **17** | | Mol % | 0.15 | 1.5 | 404220 | 05/20/26 | 05/20/26 | KXM |
| Carbon Dioxide | **170,000** | | ppmv | 1,500 | 1.5 | 404220 | 05/20/26 | 05/20/26 | KXM |
| Oxygen | **11** | | Mol % | 0.15 | 1.5 | 404220 | 05/20/26 | 05/20/26 | KXM |
| Oxygen | **110,000** | | ppmv | 1,500 | 1.5 | 404220 | 05/20/26 | 05/20/26 | KXM |
| Method: EPA 18M | | | | | | | | | |
| Methane | **4,200** | | ppmv | 0.75 | 1.5 | 403990 | 05/18/26 | 05/18/26 | KXM |

ND Not Detected

# Batch QC

| Type: | Lab Control Sample | Lab ID: | QC1372419 | Batch: | 404220 |
|---|---|---|---|---|---|
| Matrix: | Air | Method: | ASTM D1946 | Prep Method: | METHOD |

| QC1372419 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Carbon Dioxide | 15.41 | 15.00 | %v/v | 103% | | 85-115 |
| Oxygen | 4.134 | 4.000 | %v/v | 103% | | 85-115 |

| Type: | Lab Control Sample Duplicate | Lab ID: | QC1372420 | Batch: | 404220 |
|---|---|---|---|---|---|
| Matrix: | Air | Method: | ASTM D1946 | Prep Method: | METHOD |

| QC1372420 Analyte | Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim |
|---|---|---|---|---|---|---|---|---|
| Carbon Dioxide | 15.41 | 15.00 | %v/v | 103% | | 85-115 | 0 | 10 |
| Oxygen | 4.129 | 4.000 | %v/v | 103% | | 85-115 | 0 | 10 |

| Type: | Blank | Lab ID: | QC1372421 | Batch: | 404220 |
|---|---|---|---|---|---|
| Matrix: | Air | Method: | ASTM D1946 | Prep Method: | METHOD |

| QC1372421 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| Carbon Dioxide | ND | | %v/v | 0.10 | 05/20/26 | 05/20/26 |
| Oxygen | ND | | %v/v | 0.10 | 05/20/26 | 05/20/26 |

| Type: | Sample Duplicate | Lab ID: | QC1372422 | Batch: | 404220 |
|---|---|---|---|---|---|
| Matrix (Source ID): | Air (559510-004) | Method: | ASTM D1946 | Prep Method: | METHOD |

| QC1372422 Analyte | Result | Source Sample Result | Units | Qual | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|
| Carbon Dioxide | 16.73 | 16.75 | %v/v | | 0 | 20 | 1.5 |
| Oxygen | 10.71 | 10.72 | %v/v | | 0 | 20 | 1.5 |

| Type: | Sample Duplicate | Lab ID: | QC1372423 | Batch: | 404220 |
|---|---|---|---|---|---|
| Matrix (Source ID): | Air (559510-005) | Method: | ASTM D1946 | Prep Method: | METHOD |

| QC1372423 Analyte | Result | Source Sample Result | Units | Qual | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|
| Carbon Dioxide | 15.44 | 15.45 | %v/v | | 0 | 20 | 1.5 |
| Oxygen | 11.92 | 11.94 | %v/v | | 0 | 20 | 1.5 |

| Type: | Lab Control Sample | Lab ID: | QC1371631 | Batch: | 403990 |
|---|---|---|---|---|---|
| Matrix: | Air | Method: | EPA 18M | | |

| QC1371631 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Methane | 100.7 | 100.0 | ppmv | 101% | | 85-115 |

# Batch QC

| Type: Blank | Lab ID: QC1371632 | Batch: 403990 |
|---|---|---|
| Matrix: Air | Method: EPA 18M | |

| QC1371632 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| Methane | ND | | ppmv | 0.50 | 05/18/26 | 05/18/26 |

| Type: Sample Duplicate | Lab ID: QC1371633 | Batch: 403990 |
|---|---|---|
| Matrix (Source ID): Air (559508-001) | Method: EPA 18M | |

| QC1371633 Analyte | Result | Source Sample Result | Units | Qual | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|
| Methane | 7.850 | 7.700 | ppmv | | 2 | 25 | 2 |

| Type: Sample Duplicate | Lab ID: QC1371634 | Batch: 403990 |
|---|---|---|
| Matrix (Source ID): Air (559508-002) | Method: EPA 18M | |

| QC1371634 Analyte | Result | Source Sample Result | Units | Qual | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|
| Methane | 11.28 | 11.32 | ppmv | | 0 | 25 | 1.9 |

| Type: Matrix Spike | Lab ID: QC1371635 | Batch: 403990 |
|---|---|---|
| Matrix (Source ID): Air (559510-006) | Method: EPA 18M | |

| QC1371635 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Methane | 9,939 | 4185 | 6020 | ppmv | 96% | | 75-125 | 60 |

| Type: Matrix Spike Duplicate | Lab ID: QC1371636 | Batch: 403990 |
|---|---|---|
| Matrix (Source ID): Air (559510-006) | Method: EPA 18M | |

| QC1371636 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 9,956 | 4185 | 6020 | ppmv | 96% | | 75-125 | 0 | 25 | 60 |

# Batch QC

**Type: Lab Control Sample** **Lab ID: QC1373986** **Batch: 404645**
**Matrix: Air**

| QC1373986 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Method: ASTM D1945M<br>Prep Method: METHOD | | | | | | |
| Hydrogen | 5.160 | 5.000 | %v/v | 103% | | 85-115 |
| Carbon Monoxide | 7.014 | 7.000 | %v/v | 100% | | 85-115 |
| Carbon Dioxide | 15.38 | 15.00 | %v/v | 103% | | 85-115 |
| Oxygen | 4.124 | 4.000 | %v/v | 103% | | 85-115 |
| Methane | 4.560 | 4.000 | %v/v | 114% | | 85-115 |
| Method: EPA 18M | | | | | | |
| C2 as Ethane | 98.66 | 100.0 | ppmv | 99% | | 85-115 |
| C3 as Propane | 98.56 | 100.0 | ppmv | 99% | | 85-115 |
| C4 as Butane | 98.23 | 100.0 | ppmv | 98% | | 85-115 |
| C5 as Pentane | 95.48 | 100.0 | ppmv | 95% | | 85-115 |
| C6+ as n-Hexane | 93.31 | 100.0 | ppmv | 93% | | 85-115 |

**Type: Lab Control Sample Duplicate** **Lab ID: QC1373987** **Batch: 404645**
**Matrix: Air**

| QC1373987 Analyte | Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim |
|---|---|---|---|---|---|---|---|---|
| Method: ASTM D1945M<br>Prep Method: METHOD | | | | | | | | |
| Hydrogen | 5.129 | 5.000 | %v/v | 103% | | 85-115 | 1 | 10 |
| Carbon Monoxide | 7.007 | 7.000 | %v/v | 100% | | 85-115 | 0 | 10 |
| Carbon Dioxide | 15.41 | 15.00 | %v/v | 103% | | 85-115 | 0 | 10 |
| Oxygen | 4.122 | 4.000 | %v/v | 103% | | 85-115 | 0 | 10 |
| Methane | 4.555 | 4.000 | %v/v | 114% | | 85-115 | 0 | 10 |
| Method: EPA 18M | | | | | | | | |
| C2 as Ethane | 98.50 | 100.0 | ppmv | 99% | | 85-115 | 0 | 10 |
| C3 as Propane | 98.29 | 100.0 | ppmv | 98% | | 85-115 | 0 | 10 |
| C4 as Butane | 98.05 | 100.0 | ppmv | 98% | | 85-115 | 0 | 10 |
| C5 as Pentane | 95.15 | 100.0 | ppmv | 95% | | 85-115 | 0 | 10 |
| C6+ as n-Hexane | 93.38 | 100.0 | ppmv | 93% | | 85-115 | 0 | 10 |

# Batch QC

| Type: Blank | Lab ID: QC1373988 | Batch: 404645 |
|---|---|---|
| Matrix: Air | | |

| QC1373988 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| Method: ASTM D1945M<br>Prep Method: METHOD | | | | | | |
| Hydrogen | ND | | %v/v | 0.10 | 05/26/26 | 05/26/26 |
| Carbon Monoxide | ND | | %v/v | 0.10 | 05/26/26 | 05/26/26 |
| Carbon Dioxide | ND | | %v/v | 0.10 | 05/26/26 | 05/26/26 |
| Oxygen | ND | | %v/v | 0.10 | 05/26/26 | 05/26/26 |
| Methane | ND | | %v/v | 0.10 | 05/26/26 | 05/26/26 |
| Method: ASTM D1946<br>Prep Method: METHOD | | | | | | |
| Nitrogen | ND | | %v/v | 0.10 | 05/26/26 | 05/26/26 |
| Method: EPA 18M | | | | | | |
| C2 as Ethane | ND | | ppmv | 0.50 | 05/26/26 | 05/26/26 |
| C3 as Propane | ND | | ppmv | 0.50 | 05/26/26 | 05/26/26 |
| C4 as Butane | ND | | ppmv | 0.50 | 05/26/26 | 05/26/26 |
| C5 as Pentane | ND | | ppmv | 0.50 | 05/26/26 | 05/26/26 |
| C6+ as n-Hexane | ND | | ppmv | 0.50 | 05/26/26 | 05/26/26 |

ND Not Detected

# *Fuel Gas Calculations by ASTM D-3588*

**Client ID#** HERO TOX INLET -1 **Onterris ID #** 559510-001

## CHONS (Atomic Characterization)

| Anayte | *Carbon ( C )* | *Hydrogen ( H )* | *Oxygen ( O )* | *Nitrogen ( N )* | *Sulfur ( S )* |
|---|---|---|---|---|---|
| **Result (scf/lb) / %** | 23.17 | 2.19 | 51.81 | 22.84 | NM |

*NM - Not measured*

## Heating Values

| Unit | HHV Btu/lb | LHV Btu/lb | HHV Btu/dscf | LHV Btu/dscf |
|---|---|---|---|---|
| **Result** | 1990 | 1782 | 172 | 154 |

## Fuel Properties

| Type | F-Factor | Relative Density | MW (lb/lb-mole) | Methane Number |
|---|---|---|---|---|
| **Result** | 11455 | 1.1309 | 32.75 | -160.03 |

*Note: All calculations standardized at 60$^{o}$ F and 1ATM*

*Note: Reported results have been normalized to 100% on a dry basis; % moisture was not measured.*

# *Fuel Gas Calculations by ASTM D-3588*

**Client ID#** HERO TOX INLET -2 **Onterris ID #** 559510-002

## CHONS (Atomic Characterization)

| Anayte | *Carbon ( C )* | *Hydrogen ( H )* | *Oxygen ( O )* | *Nitrogen ( N )* | *Sulfur ( S )* |
|---|---|---|---|---|---|
| **Result (scf/lb) / %** | 23.38 | 2.22 | 51.96 | 22.45 | NM |

*NM - Not measured*

## Heating Values

| Unit | HHV Btu/lb | LHV Btu/lb | HHV Btu/dscf | LHV Btu/dscf |
|---|---|---|---|---|
| **Result** | 2018 | 1808 | 174 | 156 |

## Fuel Properties

| Type | F-Factor | Relative Density | MW (lb/lb-mole) | Methane Number |
|---|---|---|---|---|
| **Result** | 11444 | 1.1320 | 32.78 | -158.84 |

*Note: All calculations standardized at 60$^{o}$ F and 1ATM*

*Note: Reported results have been normalized to 100% on a dry basis; % moisture was not measured.*

## INLET CH4 TEST RESULTS

| **Test Number** | | **1-CH4-1** |
|---|---|---|
| Reference Temperature, F | | 60 |
| Test Date | | 5/13/2026 |
| Test Method | | EPA 18 |
| Inlet $O_2$ (%) | | 5.20 |
| Inlet Flow Rate, dscfm | | 1,537 |
| O2 Correction Factor (%) | | 3 |
| F-Factor | | 11,455 |

| Lab Results, ppm component | | |
|---|---|---|
| Compound | Carbon Atoms | Run 1 |
| Methane | 1 | 140000 |

| **Methane** | **Run 1** |
|---|---|
| ppm | 140,000 |
| ppm, C | 159,618 |
| lb/hr | 536.0 |

# *Fuel Gas Calculations by ASTM D-3588*

**Client ID#** HERO TOX INLET -3 **Onterris ID #** 559510-003

## CHONS (Atomic Characterization)

| Anayte | *Carbon ( C )* | *Hydrogen ( H )* | *Oxygen ( O )* | *Nitrogen ( N )* | *Sulfur ( S )* |
|---|---|---|---|---|---|
| **Result (scf/lb) / %** | 23.48 | 2.23 | 52.02 | 22.28 | NM |

*NM - Not measured*

## Heating Values

| Unit | HHV Btu/lb | LHV Btu/lb | HHV Btu/dscf | LHV Btu/dscf |
|---|---|---|---|---|
| **Result** | 2032 | 1820 | 176 | 157 |

## Fuel Properties

| Type | F-Factor | Relative Density | MW (lb/lb-mole) | Methane Number |
|---|---|---|---|---|
| **Result** | 11432 | 1.1328 | 32.80 | -158.21 |

*Note: All calculations standardized at 60$^{o}$ F and 1ATM*

*Note: Reported results have been normalized to 100% on a dry basis; % moisture was not measured.*

# Appendix A.4
# Inlet Moisture Data

**MONTROSE AQS**

**Duct Moisture by Wet bulb/Dry bulb Measurements**

Facility: Chiquita Canyon Landfill TEST DATE: May 13, 2026

CEM I.D. : T4

BY: PSJ

$$B_{ws} = \frac{e_a''}{P_a}$$

$$e_a = e'' - \frac{(P_a - e'')[T_{dry} - T_{wet}]}{2800 - 1.3 \times T_{wet}}$$

| | $P_{bar}$ | Static Pressure (in. of $H_2O$) | $P_a$ | $T_{dry}$ | $T_{wet}$ | $e_a$ | $B_{ws}$ | e" |
|---|---|---|---|---|---|---|---|---|
| Run 1: | 28.66 | -6.50 | 28.1821 | 148 | 105 | 1.800 | 6.39 | 2.21953 |
| Run 2: | 28.66 | -6.50 | 28.1821 | 148 | 105 | 1.800 | 6.39 | 2.21953 |
| Run 3: | 28.66 | -6.50 | 28.1821 | 148 | 105 | 1.800 | 6.39 | 2.21953 |

# APPENDIX B
# PROCESS DATA

**FACILITY DATA**

| FACILITY DATA Run 1 | | | |
|---|---|---|---|
| Time | Temperature Stack | Fuel Flow LFG scfm | Propane Totalizer |
| 1028 | 1567 | 1652 | 142.8 |
| 1038 | 1566 | 1664 | 142.8 |
| 1048 | 1553 | 1626 | 142.8 |
| 1058 | 1557 | 1624 | 142.8 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| **Average** | **1,561** | **1,642** | |

| FACILITY DATA Run 2 | | | |
|---|---|---|---|
| Time | Temperature Stack | Fuel Flow LFG scfm | Propane Totalizer |
| 1100 | 1554 | 1627 | 142.8 |
| 1110 | 1559 | 1623 | 142.8 |
| 1120 | 1561 | 1660 | 142.8 |
| 1130 | 1552 | 1633 | 142.8 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| **Average** | **1,557** | **1,636** | |

| FACILITY DATA Run 3 | | | |
|---|---|---|---|
| Time | Temperature Stack | Fuel Flow LFG scfm | Propane Totalizer |
| 1132 | 1555 | 1639 | 142.8 |
| 1142 | 1558 | 1644 | 142.8 |
| 1152 | 1562 | 1631 | 142.8 |
| 1202 | 1560 | 1627 | 142.8 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| **Average** | **1,559** | **1,635** | |

NOTES:

**Three Run Averages**

| | | |
|---|---|---|
| Average Flow | 1,638 | scfm |
| Average Temp | 1,559 | oF |
| Total Propane | 0 | Nm3/hr |

## FLARE OPERATING DATA SHEET

Client: WASTE CONNECTIONS
Location: CHIQUITA LF
Source: HERO TOX
Test Date: 5/13/26

| TIME | FUEL FLOW RATE (scfm) | | TC TEMPERATURE (°F) |
|---|---|---|---|
| 1028 | 1652 | 142.8 -0.0 | 1567 |
| 1038 | 1664 | 142.8 -0.0 | 1566 |
| 1048 | 1626 | 142.8 -0.0 | 1553 |
| 1058 | 1624 | 142.8 -0.0 | 1557 |
| | | | |
| 1100 | 1627 | 142.8-0.0 | 1554 |
| 1110 | 1623 | 142.8-0.0 | 1559 |
| 1120 | 1660 | 142.8 -0.0 | 1561 |
| 1130 | 1633 | 142.8-0.0 | 1552 |
| | | | |
| 1132 | 1639 | 142.8 -0.0 | 1555 |
| 1142 | 1644 | 142.8 -0.0 | 1558 |
| 1152 | 1631 | 142.8 -0.0 | 1562 |
| 1202 | 1627 | 142.8-0.0 | 1560 |
| | ↑ LFG | ↑ PROPANE | |

NOTES: PROPANE 1038 - 2850 25 psi NO PROPANE USAGE WAS MEASURED

148-105 DB WB WP 1

148-105 DB WB 2

148-105 DB WB 3

-6.5 SP

CUSTOMER COPY

TAG NAME: LFG-FLOW

KURZ INSTRUMENTS, INC.
KZCOMM VERSION: 3.18
KZCOMMDLL VERSION: 4.0.24045.3
CONFIGURATION FILENAME: FD47962A.cf
FIRMWARE VERSION: MFT-B VER 2.17
CONFIGURATION DATE: 06/05/2025 07:26
ELECTRONIC BOARD BAR CODE: R36595
ELECTRONIC BOARD ASSY: 420348
ELECTRONIC BOARD BUILD: 04 S

**********ORDER INFORMATION**********

ITEM NUMBER:
MODEL NUMBER: 454FTB-WGF
PART NUMBER:

**********FLOW CALIBRATION DATA**********

SENSOR S/N: FD47962A
GAS: 18%CH4+38%CO2+8%O2+2%H2+34%N2
MOL. WT: 31.736

| | FACTORY (FSTP) | | USER (USTP) | |
|---|---|---|---|---|
| TEMP: | 25.00 | DEGC | 77.00 | DEGF |
| PRESSURE: | 101.325 | KPA | 14.696 | PSIA |
| DENSITY: | 1.2979 | KG/M3 | 0.0810 | LB/CF |

VELOCITY MAPPING REFERENCE: GAS TEMPERATURE
DATA SET #1 VM DATA AT 20.00 DEGC

| DATA PT # | Rp POWER (W ) | (Vfac) FACTORY VELOCITY (SMPS @FSTP) | (Vuser) USER* VELOCITY (SFPM @USTP) | USER* FLOW RATE (SCFM @USTP) | AO #1 FLOW RATE (mA) |
|---|---|---|---|---|---|
| 1 | 1.3125 | 0.0000 | 0.0000 | 0.0000 | 4.00 |
| 2 | 1.5614 | 0.4615 | 74.0384 | 52.2593 | 4.21 |
| 3 | 1.8290 | 0.7454 | 119.596 | 84.4156 | 4.34 |
| 4 | 2.1429 | 1.2041 | 193.199 | 136.368 | 4.55 |
| 5 | 2.5104 | 1.9453 | 312.125 | 220.310 | 4.88 |
| 6 | 2.9415 | 3.1431 | 504.297 | 355.953 | 5.42 |
| 7 | 3.4820 | 5.0786 | 814.854 | 575.157 | 6.30 |
| 8 | 4.1461 | 8.2068 | 1316.77 | 929.427 | 7.72 |
| 9 | 5.0044 | 13.2629 | 2128.00 | 1502.03 | 10.01 |
| 10 | 6.0967 | 21.4358 | 3439.32 | 2427.61 | 13.71 |
| 11 | 7.4276 | 34.6481 | 5559.20 | 3923.91 | 19.70 |
| 12 | 9.1330 | 56.0086 | 8986.43 | 6342.99 | 20.50 |
| 13 | 11.2269 | 90.5459 | 14527.9 | 10254.3 | 20.50 |

DATA SET #2 VM DATA AT 130.00 DEGC

| DATA PT # | Rp POWER (W ) | (Vfac) FACTORY VELOCITY (SMPS @FSTP) | (Vuser) USER* VELOCITY (SFPM @USTP) | USER* FLOW RATE (SCFM @USTP) | AO #1 FLOW RATE (mA) |
|---|---|---|---|---|---|
| 1 | 1.3992 | 0.0000 | 0.0000 | 0.0000 | 4.00 |
| 2 | 1.4786 | 0.2866 | 45.9874 | 32.4598 | 4.13 |
| 3 | 1.7037 | 0.4615 | 74.0384 | 52.2593 | 4.21 |
| 4 | 1.9689 | 0.7454 | 119.596 | 84.4156 | 4.34 |
| 5 | 2.2810 | 1.2041 | 193.199 | 136.368 | 4.55 |
| 6 | 2.6474 | 1.9453 | 312.125 | 220.310 | 4.88 |
| 7 | 3.0768 | 3.1431 | 504.297 | 355.953 | 5.42 |
| 8 | 3.6413 | 5.0786 | 814.854 | 575.157 | 6.30 |
| 9 | 4.3094 | 8.2068 | 1316.77 | 929.427 | 7.72 |

| | | | | | |
|---|---|---|---|---|---|
| 10 | 5.2178 | 13.2629 | 2128.00 | 1502.03 | 10.01 |
| 11 | 6.3177 | 21.4358 | 3439.32 | 2427.61 | 13.71 |
| 12 | 7.7090 | 34.6481 | 5559.20 | 3923.91 | 19.70 |
| 13 | 9.4045 | 56.0086 | 8986.43 | 6342.99 | 20.50 |
| 14 | 11.4687 | 90.5459 | 14527.9 | 10254.3 | 20.50 |

$$* \text{Vuser} = \text{Vfac} * \text{FCCF} * \text{SBCF} * \text{VCF} * \frac{(\text{Tuser} + \text{Tconv})}{(\text{Tfac} + \text{Tconv})} * \frac{\text{Pfac}}{\text{Puser}}$$

Where Vuser = Velocity at the User's Temperature (Tuser) and Pressure (Puser) defined as USTP.
Vfac = Velocity at the Factory's Temperature (Tfac) and Pressure (Pfac) defined as FSTP.
Tconv = 273.15 Kelvin or 459.67 Rankine.

DRY FLOW WATER VAPOR CORRECTION is NOT reflected in the above table.

**********FLOW METER SETUP**********

METER ID: LFG-FLOW
METER UNIT: SCFM
FLOW AREA = 0.705841 ft²
PROFILE: ROUND
DIAMETER = 11.376 in
SENSOR BLOCKAGE CORRECTION FACTOR (SBCF):
PROBE SIZE: 0.750 in
INSERTION DEPTH = 0.582333 ft
SBCF = 0.958909
FIELD CALIBRATION CORRECTION FACTOR (FCCF) = 0.850
VARIABLE CORRECTION FACTOR (VCF):
NUMBER OF CORRECTION PTS. = 1
D1 = 0.0000 SFPM C.F. #1 = 1.000000
R1 = 0.0000 SFPM AT 0.0000 SFPM
LOW FLOW CUT-OFF STATUS: ON
LOW FLOW CUT-OFF AT: 0.0000 SCFM

**********DRY FLOW WATER VAPOR CORRECTION**********

CORRECTION STATUS: DISABLED

**********TEMPERATURE METER SETUP**********

METER ID: TEMPERATURE METER UNIT: DEGF

**********METER FILTER SETUP**********

FLOW METER TIME CONSTANT (TC): 2.000000 s
TEMPERATURE METER TIME CONSTANT (TC): 0.500000 s

**********ANALOG OUTPUT SETUP**********

ANALOG OUTPUT #1
LOW SCALE (4.00 mA) AT 0.0000 SCFM
HIGH SCALE (20.00 mA) AT 4000.0000 SCFM

ANALOG OUTPUT #2
LOW SCALE (4.00 mA) AT 0.0000 DEGF
HIGH SCALE (20.00 mA) AT 500.0000 DEGF

NE-43 ALARM AT: LOW OUTPUT

**********RELAY ASSIGNMENT SETUP**********

```
RELAY #1
RELAY ASSIGNED TO:  ALARM 1

RELAY #2
RELAY ASSIGNED TO:  ALARM 2

*****************************ALARM SETUP*******************************

ALARM #1    STATUS: ON     RELAY CONTACT: N.O.
ALARM FOR: FLOWRATE
ALARM TRIGGER TO: HIGH OR LOW (HOL)
SETPOINT:
    LOW:   -10.0000   SCFM
    HIGH:  3000.0000  SCFM
ASSIGNED RELAY:  1

ALARM #2    STATUS: ON     RELAY CONTACT: N.O.
ALARM FOR: TEMPERATURE
ALARM TRIGGER TO: HIGH OR LOW (HOL)
SETPOINT:
    LOW:   -10.0000   DEGF
    HIGH:  530.0000   DEGF
ASSIGNED RELAY:  2

************************* TOTALIZER SETUP ****************************

TOTALIZER RESET:  MANUAL

*********************TOTALIZER PULSE OUTPUT SETUP**********************

PULSE OUTPUT #1
PULSE OUTPUT STATUS: OFF
ASSIGNED RELAY: UNASSIGNED
VOLUME/MASS PER PULSE: 100000.0000 SCF
PULSE WIDTH: 50 ms

PULSE OUTPUT #2
PULSE OUTPUT STATUS: OFF
ASSIGNED RELAY: UNASSIGNED
VOLUME/MASS PER PULSE: 100000.0000 SCF
PULSE WIDTH: 50 ms

*************************PURGE TIMER SETUP*****************************

PURGE TIMER:  ENABLED
PURGE STATUS:  OFF
ASSIGNED RELAY:  UNASSIGNED
PURGE ON TIME:  500 ms
PURGE FLOW UPDATE HOLD TIME: 2.000 s
PURGE INTERVAL TIME:  60 min

************************RUN MODE DISPLAY SETUP************************

RUN MODE DISPLAY TYPE:  SCROLL
SCROLL INTERVAL:  2 s
DISPAYED VARIABLES:
    TAG ID
    FLOW RATE
    DAILY FLOW RATE
    VELOCITY
    TOTAL FLOW
    TEMPERATURE

************************COMMUNICATION SETUP*************************
```

```
COMMUNICATION CONFIGURATION OPTIONS:
USB COMMUNICATION PORT
    TERMINAL ECHO:    ENABLED (Default)
    COMMUNICATION BAUDRATE:    9600 BAUD
DATA LOGGING:   DISABLED

RS-485 COMMUNICATION PORT
MODBUS PROTOCOL:  ON
TRANSMISSION MODE:  MODBUS RTU
ADDRESS:   1
FLOATING POINT NUMBER REGISTER ORDER: BYTE # 1 2  3 4
COMMUNICATION BAUDRATE:   38400 BAUD

**************************EXTERNAL INPUT SETUP**************************

USAGE:    Calibration Data Select Switch

*******************************PID SETUP*******************************

PID STATE:  OFF
PID MODE:  MANUAL
PID CONTROL TO:  VELOCITY
PID REFERENCE:  INTERNAL
PID SETPOINT:  2000.0000 SFPM

*******************ZERO MID SPAN DRIFT CHECK SETUP*********************

DRIFT CHECK STATUS:  OFF
ZERO CHECK VALUE: 10.000 % Full Scale
ZERO CHECK DURATION: 60 s
MID-SPAN CHECK VALUE: 50.000 % Full Scale
MID-SPAN CHECK DURATION: 60 s
SPAN CHECK VALUE: 90.000 % Full Scale
SPAN CHECK DURATION: 60 s
CYCLE INTERVAL TIME: 16 hr

**************************SENSOR DATA SETUP*****************************

Rp RESISTANCE AT 0 DEGC  = 9.0953     OHMS
Rtc RESISTANCE AT 0 DEGC = 27.0023    OHMS

**********************END OF MFT B-SERIES CONFIGURATION**********************
```

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# CALIBRATION CERTIFICATE

VTM Data Derived from the following Measurement Components

| FLOW ELEMENT CALIBRATION REFERENCE | DATA ACQUSITION SYSTEM |
|---|---|
| Model No: 410FTB-12 Serial No: CD20516A | Model No: 914MB-0900 |
| NIST Calibration Due Date: 08-14-2025 | Serial No: 073532G |

Sensor Calibration Data

| | |
|---|---|
| Filename: | FD47962A_18%CH4+38%CO2+8%O2+2%H2+34% |
| Date: | N2.vtm |
| Customer Code/Name: | 6/5/2025 |
| Purchase Order No: | 650-495/SCS Engineers |
| Model No: | 07-LBCF00039 |
| Part No: | 454FTB-WGF |
| MAPICS Item No: | |
| Serial No: | |
| Flow Units: | FD47962A |
| Standard Conditions: | SMPS |
| Gas: | 25 Degrees C and _101.325 kPa |
| | 18%CH4+38%CO2+8%O2+2%H2+34%N2 |

| FLOW SMPS | FLOW SFPM | 20.0 °C PRP Wdc | 130.0 °C PRP Wdc |
|---|---|---|---|
| 0.000000 | 0.000000 | 1.312450 | 1.399150 |
| 0.286620 | 56.42125 | | 1.478620 |
| 0.461450 | 90.83661 | 1.561390 | 1.703660 |
| 0.745390 | 146.7303 | 1.829020 | 1.968910 |
| 1.204130 | 237.0334 | 2.142890 | 2.280970 |
| 1.945340 | 382.9409 | 2.510370 | 2.647410 |
| 3.143070 | 618.7145 | 2.941490 | 3.076850 |
| 5.078640 | 999.7323 | 3.482000 | 3.641300 |
| 8.206840 | 1615.519 | 4.146140 | 4.309420 |
| 13.26290 | 2610.807 | 5.004430 | 5.217750 |
| 21.43580 | 4219.645 | 6.096700 | 6.317740 |
| 34.64810 | 6820.492 | 7.427620 | 7.708960 |
| 56.00859 | 11025.31 | 9.132970 | 9.404470 |
| 90.54589 | 17823.99 | 11.22690 | 11.46870 |

This instrument was calibrated with measuring and test equipment with certified NIST traceability. (Copies with applicable NIST numbers are available upon request.) The calibration of this instrument was performed in accordance with the requirements of ISO-9001, ANSI/NCSL Z540 and ISO/IEC GUIDE 25.

WIND TUNNEL OPERATOR: RIDGLEY G DATE: 06/05/2025
QUALITY CONTROL: DATE: JUN 05 2025
Form 180119 Revision F

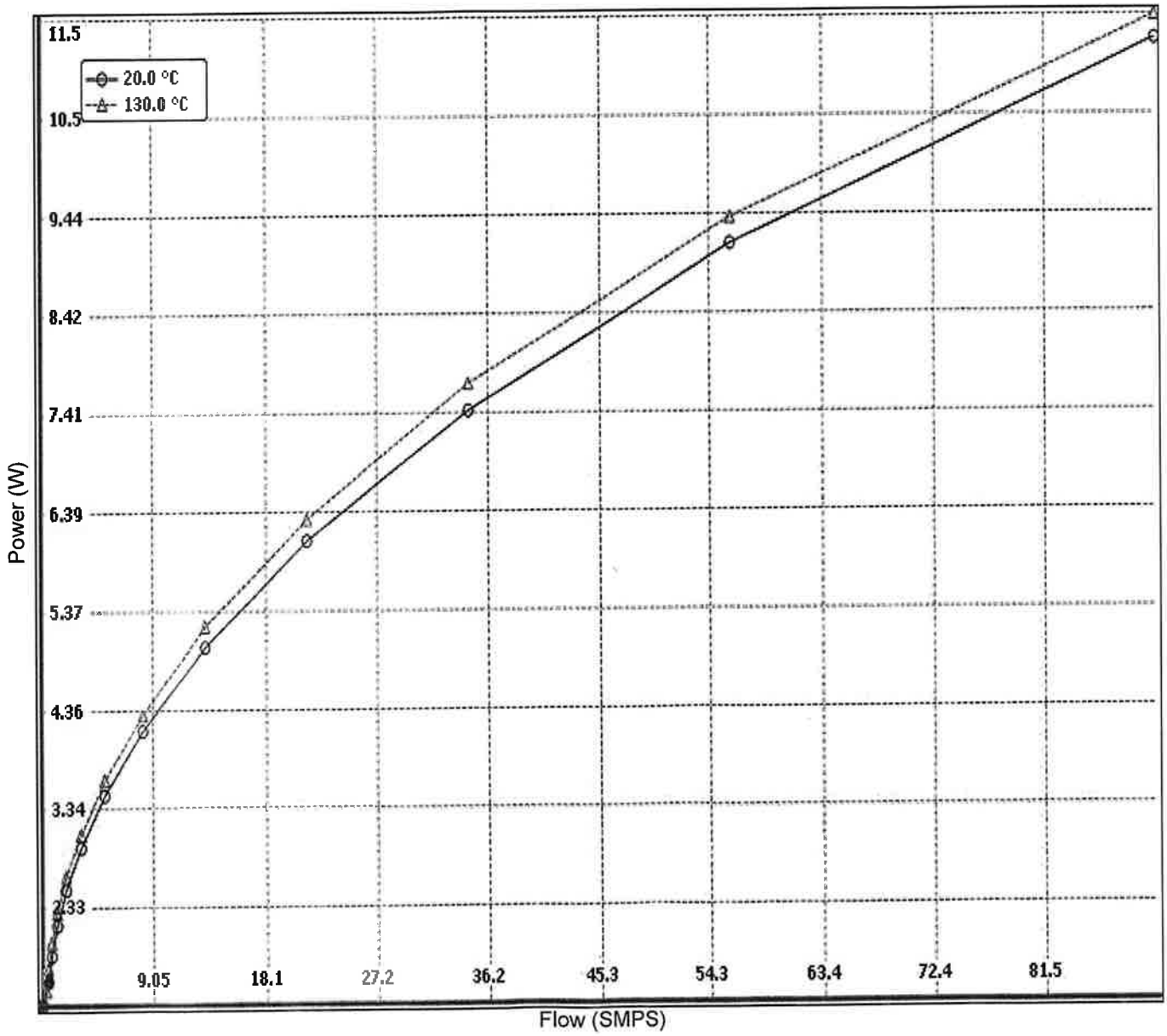
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# FLOW ELEMENT CALIBRATION CURVE

Flow Element Serial No: FD47962A

Customer Code/Name: 650-495/SCS Engineers
Purchase Order No: 07-LBCF00039
Model No: 454FTB-WGF
Part No:
STD Conditions: 25 Degrees C and _101.325 kPa

Filename: FD47962A_18%CH4+38%CO2+8%O2+2%H2+34%N2.vtm
Calibration Date: 6/5/2025
MAPICS Item No:
Gas: 18%CH4+38%CO2+8%O2+2%H2+34%N2



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# CALIBRATION CERTIFICATE

Data Derived from the following Measurement Components

| FLOW ELEMENT CALIBRATION REFERENCE | DATA ACQUSITION SYSTEM |
|---|---|
| Model No: 410FTB-12 Serial No: CD20516A | Model No: 914MB-0900 |
| NIST Calibration Due Date: 08-14-2025 | Serial No: 073532G |

Sensor Calibration Data

| | |
|---|---|
| Filename: | FD47962A_final.pca |
| Date: | 6/4/2025 |
| Customer Code/Name: | 650-495/SCS Engineers |
| Purchase Order No: | 07-LBCF00039 |
| Model No: | 454FTB-WGF |
| Part No: | |
| MAPICS Item No: | |
| Serial No: | FD47962A |
| Flow Units: | SMPS |
| Standard Conditions: | 25 Degrees C and _101.325 kPa |
| Gas: | Air |

| FLOW SMPS | FLOW SFPM | 25.0 °C PRP Wdc |
|---|---|---|
| ======= | ======= | ======= |
| 0.000000 | 0.000000 | 1.173220 |
| 0.501140 | 98.64960 | 1.459470 |
| 1.502090 | 295.6870 | 2.145960 |
| 3.027850 | 596.0334 | 2.654630 |
| 5.012230 | 986.6594 | 3.164370 |
| 10.08130 | 1984.507 | 4.075680 |
| 15.19160 | 2990.472 | 4.768140 |
| 20.29290 | 3994.665 | 5.361100 |
| 25.71120 | 5061.259 | 5.909890 |
| 31.50680 | 6202.125 | 6.472490 |
| 38.60870 | 7600.137 | 7.080600 |
| 47.31160 | 9313.306 | 7.737890 |
| 57.97610 | 11412.61 | 8.448330 |
| 71.04460 | 13985.15 | 9.216240 |
| 87.05880 | 17137.55 | 10.04620 |

This instrument was calibrated with measuring and test equipment with certified NIST traceability. (Copies with applicable NIST numbers are available upon request.) The calibration of this instrument was performed in accordance with the requirements of ISO-9001, ANSI/NCSL Z540 and ISO/IEC GUIDE 25.

WIND TUNNEL OPERATOR: TONY M DATE: 06/05/2025
QUALITY CONTROL: DATE: JUN 05 2025
Form 180119 Revision F

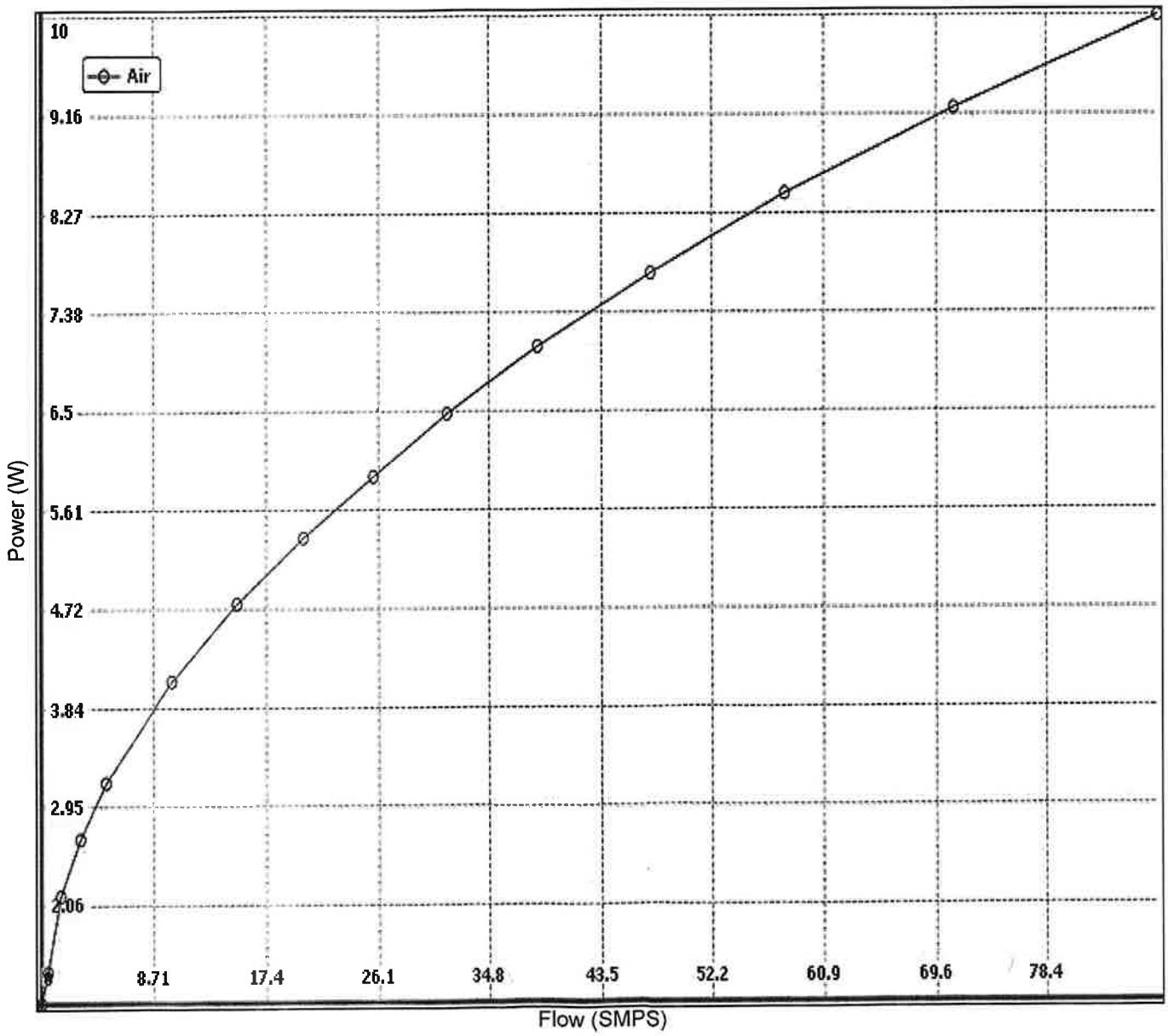
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# FLOW ELEMENT CALIBRATION CURVE

Flow Element Serial No: FD47962A

Customer Code/Name: 650-495/SCS Engineers
Purchase Order No: 07-LBCF00039
Model No: 454FTB-WGF
Part No:
STD Conditions: 25 Degrees C and _101.325 kPa

Filename: FD47962A_final.pca
Calibration Date: 6/4/2025
MAPICS Item No:
Gas: Air



# Precession vortex flowmeter calibration record

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Manufacturer: | WEIHAI KUNKE FLOW INSTRUMENT CO.,LTD | Instrument Name: | Precession vortex flowmeter | Specifications and Models: | DN50 | | Instrument type: | | |
| Client: | | Testing agency: | | | Testing location: | | Room 110, Flow Detection Center | | |
| range($m^3/h$) | 10 ~ 150 | ($m^3/h$) | | Testing conditions | | | | | |
| Accuracy level | ± 1.5 % | Detection signal: | pulse | Detection medium: | Air | Standard test methods: | Critical flow sonic nozzle | | |
| Instrument number: | X2690015L | Testing basis: | JJG1121-2015 | Ambient temperature: | 18.1 ℃ | Atmospheric pressure: | 102.22 kPa | humidity: | 38.150 %RH |

The metrological standards and main measuring instruments used in this verification are as follows:

| name | serial number | Model specifications or measurement range | Device uncertainty or accuracy | | Validity period |
|---|---|---|---|---|---|
| Acoustic jet gas flow standard device | ZEX-05/3000 | (1~1000 $m^3/h$) | U=0.33%, k=2 | | 12 months |

| Flow points(%) | Serial Number | Calibration time (S) | Real-time data from standard devices | | | | Real-time data of the test form | | | | Standard inspection data of the inspected form | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Standard total($m^3$) | Standard instantaneous($m^3/h$) | Standard device (℃) | Standard device(kPa) | Total number of pulses | Temperature to be detected (℃) | Inspection pressure (kPa) | Detection frequency (Hz) | Instrument average frequency (Hz) | coefficient (*Kij*) (1/L) | Average coefficient(*Ki*) (1/L) | Indication error (%) | Repeatability (Er) *i* (%) |
| Qmin | 1 | 30.011 | 0.0845 | 10.1408 | 22.25 | 101.148 | 1734.00 | 22.600 | 101.19 | 57.7788 | 57.7796 | 20.5116 | 20.5116 | 0.2470 | 0.0144 |
| | 2 | 30.0151 | 0.0845 | 10.1409 | 22.24 | 101.140 | 1734.00 | 22.600 | 101.19 | 57.7709 | | 20.5086 | | | |
| | 3 | 30.0056 | 0.0845 | 10.1412 | 22.23 | 101.140 | 1734.00 | 22.600 | 101.19 | 57.7892 | | 20.5145 | | | |
| 0.20*Qmax | 1 | 30.0037 | 0.2531 | 30.3658 | 22.20 | 100.822 | 5183.00 | 22.590 | 100.89 | 172.7454 | 172.7845 | 20.4797 | 20.4845 | 0.0910 | 0.0223 |
| | 2 | 30.0024 | 0.2531 | 30.3651 | 22.19 | 100.828 | 5184.00 | 22.580 | 100.90 | 172.7862 | | 20.4850 | | | |
| | 3 | 30.002 | 0.2531 | 30.3658 | 22.19 | 100.828 | 5185.00 | 22.580 | 100.89 | 172.8218 | | 20.4888 | | | |
| 0.60*Qmax | 1 | 30.0007 | 0.7596 | 91.1543 | 22.09 | 98.116 | 15555.00 | 22.560 | 98.34 | 518.4879 | 518.6628 | 20.4769 | 20.4841 | 0.0780 | 0.0393 |
| | 2 | 30.0012 | 0.7596 | 91.1522 | 22.10 | 98.116 | 15567.00 | 22.560 | 98.34 | 518.8792 | | 20.4928 | | | |
| | 3 | 30.0007 | 0.7596 | 91.1517 | 22.11 | 98.116 | 15559.00 | 22.570 | 98.34 | 518.6212 | | 20.4827 | | | |
| 0.80*Qmax | 1 | 30 | 1.0108 | 121.2995 | 22.07 | 96.128 | 20662.00 | 22.570 | 96.47 | 688.7333 | 688.6555 | 20.4406 | 20.4376 | -0.1000 | 0.0132 |
| | 2 | 30 | 1.0109 | 121.3037 | 22.09 | 96.136 | 20659.00 | 22.590 | 96.47 | 688.6333 | | 20.4370 | | | |
| | 3 | 30 | 1.0109 | 121.3078 | 22.11 | 96.142 | 20658.00 | 22.610 | 96.47 | 688.6000 | | 20.4353 | | | |
| 1.00*Qmax | 1 | 30.0007 | 1.2606 | 151.2657 | 22.05 | 93.318 | 25802.00 | 22.610 | 93.82 | 860.0466 | 859.8847 | 20.4684 | 20.4658 | 0.0360 | 0.0122 |
| | 2 | 30.0007 | 1.2605 | 151.2565 | 22.07 | 93.318 | 25797.00 | 22.610 | 93.82 | 859.8799 | | 20.4657 | | | |
| | 3 | 30.0002 | 1.2604 | 151.2463 | 22.08 | 93.310 | 25792.00 | 22.600 | 93.82 | 859.7276 | | 20.4634 | | | |
| Standard inspection results | Qt≤Q≤Qmax | linearity*EL* | | 0.114 | | | | | | Instrument coefficient(K) | 20401(1/m3) | | Repeatability (Er) | | 0.0393 |
| | Qmin≤Q≤Qt | linearity*EL* | | 0.2473 | | | | | | | | | | | |

Instrument coefficient*K*= 20461 (1/m3) RepeatabilityEr= 0.0393 %

Test date 2026/4/14 Inspector admin Verification

# APPENDIX C
# GENERAL EMISSIONS CALCULATIONS

## GENERAL EMISSIONS CALCULATIONS

I. Stack Gas Velocity

A. Stack gas molecular weight, lb/lb-mole

$MW_{dry} = 0.44 * \%\ CO_2 + 0.32 * \%\ O_2 + 0.28 * \%\ N_2$

$MW_{wet} = MW_{dry} * (1 - B_{wo}) + 18 * B_{wo}$

B. Absolute stack pressure, iwg

$$P_s = P_{bar} + \frac{P_{sg}}{13.6}$$

C. Stack gas velocity, ft/sec

$$V_s = 2.9 * C_p * \sqrt{\Delta P} * \sqrt{T_s} * \sqrt{\frac{29.92 * 28.95}{P_s * MW_{wet}}}$$

II. Moisture

A. Sample gas volume, dscf

$$V_{mstd} = 0.03342 * V_m * \left(P_{bar} + \frac{\Delta H}{13.6}\right) * \frac{T_{ref}}{T_m} * Y_d$$

B. Water vapor volume, scf

$$V_{wstd} = 0.0472 * V_{ic} * \frac{T_{ref}}{528°R}$$

C. Moisture content, dimensionless

$$B_{wo} = \frac{V_{wstd}}{(V_{mstd} + V_{wstd})}$$

III. Stack Gas Volumetric Flow Rate

A. Actual stack gas volumetric flow rate, wacfm

$Q = V_s * A_s * 60$

B. Standard stack gas flow rate, dscfm

$$Q_{sd} = Q * (1 - B_{wo}) * \frac{T_{ref}}{T_s} * \frac{P_s}{29.92}$$

IV. Gaseous Mass Emission Rates, lb/hr

$$M = \frac{ppm * MW_i * Q_{sd} * 60}{SV * 10^6}$$

V. Emission Rates, lb/MMBtu

$$\frac{lb}{MMBtu} = \frac{ppm * MW_i * F}{SV * 10^6} * \frac{20.9}{20.9 - \%\ O_2}$$

VI. Percent Isokinetic

$$I = \frac{17.32 * T_s\ (V_{mstd})}{(1 - B_{wo})\ 0 * V_s * P_s * Dn^2} * \frac{528°R}{T_{ref}}$$

VII. Particulate Emissions

(a) Grain loading, gr/dscf
$C = 0.01543\ (M_n/V_{m\ std})$

(b) Grain loading at 12% $CO_2$, gr/dscf
$C_{12\%}\ CO_2 = C\ (12/\%\ CO_2)$

(c) Mass emissions, lb/hr
$M = C * Q_{sd} * (60\ min/hr) / (7000\ gr/lb)$

(d) Particulate emission factor

$$lb/10^6\ Btu = Cx \frac{1\ lb}{7000\ gr} * F * \frac{20.9}{20.9 - \%\ O_2}$$

Nomenclature:

| | | |
|---|---|---|
| $A_s$ | = | stack area, $ft^2$ |
| $B_{wo}$ | = | flue gas moisture content, dimensionless |
| $C_{12\%CO2}$ | = | particulate grain loading, gr/dscf corrected to 12% $CO_2$ |
| C | = | particulate grain loading, gr/dscf |
| $C_p$ | = | pitot calibration factor, dimensionless |
| Dn | = | nozzle diameter, inches |
| F | = | fuel F-Factor, dscf/MMBtu @ 0% $O_2$ |
| H | = | orifice differential pressure, iwg |
| I | = | % isokinetics |
| $M_n$ | = | mass of collected particulate, mg |
| $M_i$ | = | mass emission rate of specie i, lb/hr |
| MW | = | molecular weight of flue gas, lb/lb-mole |
| $M_{wi}$ | = | molecular weight of specie i: |
| | $SO_2$: | 64 |
| | $NO_x$: | 46 |
| | CO: | 28 |
| | HC: | 16 |
| 0 | = | sample time, minutes |
| $\Delta P$ | = | average velocity head, iwg = $(\sqrt{\Delta P})^2$ |
| $P_{bar}$ | = | barometric pressure, inches Hg |
| $P_s$ | = | stack absolute pressure, inches Hg |
| $P_{sg}$ | = | stack static pressure, iwb |
| Q | = | wet stack flow rate at actual conditions, wacfm |
| $Q_{sd}$ | = | dry standard stack flow rate, dscfm |
| SV | = | specific molar volume of an ideal gas at standard conditions, $ft^3$/lb-mole |
| $T_m$ | = | meter temperature, °R |
| $T_{ref}$ | = | reference temperature, °R |
| $T_s$ | = | stack temperature, °R |
| $V_s$ | = | stack gas velocity, ft/sec |
| $V_{lc}$ | = | volume of liquid collected in impingers, ml |
| $V_m$ | = | uncorrected dry meter volume, dcf |
| $V_{mstd}$ | = | dry meter volume at standard conditions, dscf |
| $V_{wstd}$ | = | volume of water vapor at standard conditions, scf |
| $Y_d$ | = | meter calibration coefficient |

# APPENDIX D
# QUALITY ASSURANCE

# Appendix D.1
# Quality Assurance Program Summary

## QUALITY ASSURANCE PROGRAM SUMMARY

As part of Montrose Air Quality Services, LLC (Montrose) ASTM D7036-04 certification, Montrose is committed to providing emission related data which is complete, precise, accurate, representative, and comparable. Montrose quality assurance program and procedures are designed to ensure that the data meet or exceed the requirements of each test method for each of these items. The quality assurance program consists of the following items:

- Assignment of an Internal QA Officer
- Development and use of an internal QA Manual
- Personnel training
- Equipment maintenance and calibration
- Knowledge of current test methods
- Chain-of-custody
- QA reviews of test programs

Assignment of an Internal QA Officer: Montrose has assigned an internal QA Officer who is responsible for administering all aspects of the QA program.

Internal Quality Assurance Manual: Montrose has prepared a QA Manual according to the requirements of ASTM D7036-04 and guidelines issued by EPA. The manual documents and formalizes all of Montrose's QA efforts. The manual is revised upon periodic review and as Montrose adds capabilities. The QA manual provides details on the items provided in this summary.

Personnel Testing and Training: Personnel testing and training is essential to the production of high quality test results. Montrose training programs include:

- A requirement for all technical personnel to read and understand the test methods performed
- A requirement for all technical personnel to read and understand the Montrose QA manual
- In-house testing and training
- Quality Assurance meetings
- Third party testing where available
- Maintenance of training records.

Equipment Maintenance and Calibration: All laboratory and field equipment used as a part of Montrose's emission measurement programs is maintained according to manufacturer's recommendations. A summary of the major equipment maintenance schedules is summarized in Table 1. In addition to routine maintenance, calibrations are performed on all sampling equipment according to the procedures outlined in the applicable test method. The calibration intervals and techniques for major equipment components is summarized in Table 2. The calibration technique may vary to meet regulatory agency requirements.

Knowledge of Current Test Methods: Montrose maintains current copies of EPA, ARB, and SCAQMD Source Test Manuals and Rules and Regulations.

Chain-of-Custody: Montrose maintains chain-of-custody documentation on all data sheets and samples. Samples are stored in a locked area accessible only to Montrose source test personnel. Data sheets are kept in the custody of the originator, program manager, or in locked storage until return to Montrose office. Electronic field data is duplicated for backup on secure storage media. The original data sheets are used for report preparation and any additions are initialed and dated.

QA Reviews: Periodic field, laboratory, and report reviews are performed by the in-house QA coordinator. Periodically, test plans are reviewed to ensure proper test methods are selected and reports are reviewed to ensure that the methods were followed and any deviations from the methods are justified and documented.

**ASTM D7036-04 Required Information**

Uncertainty Statement

Montrose is qualified to conduct this test program and has established a quality management system that led to accreditation with ASTM Standard D7036-04 (Standard Practice for Competence of Air Emission Testing Bodies). Montrose participates in annual functional assessments for conformance with D7036-04 which are conducted by the American Association for Laboratory Accreditation (A2LA). All testing performed by Montrose is supervised on site by at least one Qualified Individual (QI) as defined in D7036-04 Section 8.3.2. Data quality objectives for estimating measurement uncertainty within the documented limits in the test methods are met by using approved test protocols for each project as defined in D7036-04 Sections 7.2.1 and 12.10. Additional quality assurance information is presented in the report appendices.

Performance Data

Performance data are available for review.

Qualified Personnel

A qualified individual (QI), defined by performance on a third party or internal test on the test methods, is present on each test event.

Plant Entry and Safety Requirements

**Plant Entry**

All test personnel are required to check in with the guard at the entrance gate or other designated area. Specific details are provided by the facility and project manager.

**Safety Requirements**

All personnel shall have the following personal protective equipment (PPE) and wear them where designated:

- Hard Hat
- Safety Glasses
- Steel Toe Boots
- Hearing Protection
- Gloves
- High Temperature Gloves (if required)
- Flame Resistant Clothing (if required)

The following safety measures are followed:

- Good housekeeping
- SDS for all on-site hazardous materials
- Confine selves to necessary areas (stack platform, mobile laboratory, CEMS data acquisition system, control room, administrative areas)
- Knowledge of evacuation procedures

Each facility will provide plant specific safety training.

**TABLE 1**
**EQUIPMENT MAINTENANCE SCHEDULE**

| Equipment | Acceptance Limits | Frequency of Service | Methods of Service |
|---|---|---|---|
| Pumps | 1. Absence of leaks<br>2. Ability to draw manufacturers required vacuum and flow | As recommended by manufacturer | 1. Visual inspection<br>2. Clean<br>3. Replace parts<br>4. Leak check |
| Flow Meters | 1. Free mechanical movement | As recommended by manufacturer | 1. Visual inspection<br>2. Clean<br>3. Calibrate |
| Sampling Instruments | 1. Absence of malfunction<br>2. Proper response to zero span gas | As recommended by manufacturer | As recommended by manufacturer |
| Integrated Sampling Tanks | 1. Absence of leaks | Depends on nature of use | 1. Steam clean<br>2. Leak check |
| Mobile Van Sampling System | 1. Absence of leaks | Depends on nature of use | 1. Change filters<br>2. Change gas dryer<br>3. Leak check<br>4. Check for system contamination |
| Sampling Lines | 1. Sample degradation less than 2% | After each test series | 1. Blow dry, inert gas through line until dry |

**TABLE 2**
**MAJOR SAMPLING EQUIPMENT CALIBRATION REQUIREMENTS**

| Sampling Equipment | Calibration Frequency | Calibration Procedure | Acceptable Calibration Criteria |
|---|---|---|---|
| Continuous Analyzers | Before and After Each Test Day | 3-point calibration error test | < 2% of analyzer range |
| Continuous Analyzers | Before and After Each Test Run | 2-point sample system bias check | < 5% of analyzer range |
| Continuous Analyzers | After Each Test Run | 2-point analyzer drift determination | < 3% of analyzer range |
| CEMS System | Beginning of Each Day | leak check | < 1 in. Hg decrease in 5 min. at > 20 in. Hg |
| Continuous Analyzers | Semi-Annually | 3-point linearity | < 1% of analyzer range |
| $NO_x$ Analyzer | Daily | $NO_2$ -> NO converter efficiency | > 90% |
| Differential Pressure Gauges (except for manometers) | Semi-Annually | Correction factor based on 5-point comparison to standard | ± 5% |
| Differential Pressure Gauges (except for manometers) | Bi-Monthly | 3-point comparison to standard, no correction factor | ± 5% |
| Barometer | Semi-Annually | Adjusted to mercury-in-glass or National Weather Service Station | ± 0.1 inches Hg |
| Dry Gas Meter | Semi-Annually | Calibration check at 4 flow rates using a NIST traceable standard | ± 2% |
| Dry Gas Meter | Bi-Monthly | Calibration check at 2 flow rates using a NIST traceable standard | ± 2% of semi-annual factor |
| Dry Gas Meter Orifice | Annually | 4-point calibration for ΔH@ | -- |
| Temperature Sensors | Semi-Annually | 3-point calibration vs. NIST traceable standard | ± 1.5% |

Note: Calibration requirements that meet applicable regulatory agency requirements are used.

# Appendix D.2
# SCAQMD, CARB, and STAC Certifications

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

September 18, 2025

Mr. John Peterson
Montrose Air Quality Services, LLC
1631 E. Saint Andrew Place
Santa Ana, CA 92705

Subject: LAP Approval Notice
Reference # 96LA1220

Dear Mr. Peterson:

We have completed our review of Montrose Air Quality Services' renewal application under the South Coast AQMD Laboratory Approval Program (LAP). We are pleased to inform you that your firm is approved for the period beginning September 30, 2025, and ending September 30, 2026, for the following methods, subject to the requirements in the LAP Conditions For Approval Agreement and conditions listed in the attachment to this letter:

South Coast AQMD Methods 1-4
South Coast AQMD Methods 10.1 and 100.1
South Coast AQMD Methods 5.1, 5.2, 5.3, 6.1 (Sampling and Analysis)
South Coast AQMD Methods 25.1 and 25.3 (Sampling)
Rule 1121/ 1146.2 Protocol
Rule 1420/1420.1/1420.2 – (Lead) Source and Ambient Sampling
USEPA CTM-030 and ASTM D6522-00

Your LAP approval to perform nitrogen oxide emissions compliance testing for Rule 1121/ 1146.2 Protocols includes satellite facilities located at:

McKenna Boiler
1510 North Spring Street
Los Angeles, CA 90012

Noritz America Corp.
11160 Grace Avenue
Fountain Valley, CA 92708

Ajax Boiler, Inc.
2701 S. Harbor Blvd.
Santa Ana, CA 92704

VA Laundry Bldg., Greater LA Healthcare Sys.
508 Constitution Avenue
Los Angeles, CA 90049

So Cal Gas – Engr Analysis Ctr, Bldg H
8101 Rosemead Blvd
Pico Rivera, CA 90660

Thank you for participating in the LAP. Your cooperation helps us to achieve the goal of the LAP: to maintain high standards of quality in the sampling and analysis of source emissions. You may direct any questions or information to me by telephone at (909) 396-2476, or via e-mail at ceckerle@aqmd.gov.

Sincerely,

Colin Eckerle
Program Supervisor
Source Test Engineering

CE/ce
Attachment

250918 LapRenewal.doc

CALIFORNIA AIR RESOURCES BOARD

Gavin Newsom, Governor
Yana Garcia, CalEPA Secretary
Liane M. Randolph, Chair

June 13, 2024

Matt McCune
Regional Vice President - West
Montrose Air Quality Services, LLC
1631 East Saint Andrew Place
Santa Ana, California 92705
*mmccune@montrose-env.com*

Dear Matt McCune:

I am pleased to inform you that the California Air Resources Board (CARB) has renewed Montrose Air Quality Services, LLC as an Independent Contractor, by means of the enclosed Executive Order I-24-008. This approval will allow Montrose Air Quality Services, LLC. to perform CARB Methods 1, 2, 3, 4, 5, 6, 8, 17, 20, and 100 (CO, $CO_2$, $NO_x$, $O_2$, $SO_2$, THC), Visible Emission Evaluation, and U.S. Environmental Protection Agency Test Methods 201A, 202, and 205. The approval is valid through June 30, 2026, during which time additional audits of Montrose Air Quality Services, LLC's testing ability may be performed.

If you have questions or need further assistance, please contact the *Independent Contractor Program*[1].

Sincerely,

Walter Ham Digitally signed by Walter Ham Date: 2024.06.14 09:06:28 -07'00'

Walter Ham, Ph.D., Chief, Monitoring and Laboratory Division

Enclosure

[1] *icp@arb.ca.gov*

STAC STACK TESTING ACCREDITATION COUNCIL

A2LA American Association for Laboratory Accreditation

# *Accredited Air Emission Testing Body*

A2LA has accredited

## MONTROSE AIR QUALITY SERVICES

In recognition of the successful completion of the joint A2LA and Source Evaluation Society (SES) evaluation process, this laboratory is accredited to perform testing activities in compliance with ASTM D7036:2004 - Standard Practice for Competence of Air Emission Testing Bodies.

Presented this 23rd day of January 2026.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3925.01
Valid to February 29, 2028

*This accreditation program is not included under the A2LA ILAC Mutual Recognition Arrangement.*

# Appendix D.3
# Individual QI Certificates

# CERTIFICATE OF COMPLETION

Pedro SanJuan

**This document certifies that this individual has passed a comprehensive examination and is now a Qualified Individual (QI) as defined in Section 8.3 of ASTM D7036-04 for the following method(s):**

**Source Evaluation Society Group 1: EPA Manual Gas Volume and Flow Measurements and Isokinetic Particulate Sampling Methods**

**Certificate Number:** 002-2025-18

Tate Strickler, VP – Quality Systems

EFFECTIVE DATE: 3/28/2025

EXPIRATION DATE: 3/27/2030

MONTROSE ENVIRONMENTAL

# CERTIFICATE OF COMPLETION

Pedro SanJuan

**This document certifies that this individual has passed a comprehensive examination and is now a Qualified Individual (QI) as defined in Section 8.3 of ASTM D7036-04 for the following method(s):**

**SCAQMD Methods 1.1, 1.2, 2.1, 2.2, 2.3, 3.1, & 4.1**

**Certificate Number:** 002-2022-50

Tate Strickler, VP – Quality Systems

DATE OF ISSUE: 02/28/2022

DATE OF EXPIRATION: 02/27/2027

MONTROSE ENVIRONMENTAL

# CERTIFICATE OF COMPLETION

Pedro SanJuan

**This document certifies that this individual has passed a comprehensive examination and is now a Qualified Individual (QI) as defined in Section 8.3 of ASTM D7036-04 for the following method(s):**

**SCAQMD Methods 25.1, 25.3 & 307-91**

**Certificate Number:** 002-2022-52

Tate Strickler, VP – Quality Systems

DATE OF ISSUE: 02/28/2022

DATE OF EXPIRATION: 02/27/2027

MONTROSE ENVIRONMENTAL

# Appendix D.4
# Statement of No Conflict of Interest

## STATEMENT OF NO CONFLICT OF INTEREST AS AN INDEPENDENT TESTING LABORATORY

*(To be completed by authorized source testing firm representative and included in source test report)*

The following facility and equipment were tested by my source testing firm and are the subjects of this statement:

| | |
|---|---|
| **Facility ID:** | **119219** |
| **Date(s) Tested:** | **May 13, 2026** |
| **Facility Name:** | **Chiquita Canyon Landfill** |
| **Equipment Address:** | **29201 Henry Mayo Drive** |
| | **Castaic, California 91384** |
| **Equipment Tested:** | **Hero Thermal Oxidizer** |
| **Device ID, A/N, P/N:** | **A/N 661284** |

I state, as its legally authorized representative, that the source testing firm of:

| | |
|---|---|
| **Source Test Firm:** | Montrose Air Quality Services, LLC |
| **Business Address:** | 1631 E. St. Andrew Pl. |
| | Santa Ana, California 92705 |

is an "Independent Testing Laboratory" as defined in ***District Rule 304(k):***

*For the purposes of this Rule, when an independent testing laboratory is used for the purposes of establishing compliance with District rules or to obtain a District permit to operate, it must meet all of the following criteria:*

*(1) The testing laboratory shall have no financial interest in the company or facility being tested, or in the parent company, or any subsidiary thereof -*

*(2) The company or facility being tested, or parent company or any subsidiary thereof, shall have no financial interest in the testing laboratory;*

*(3) Any company or facility responsible for the emission of significant quantities of pollutants to the atmosphere, or parent company or any subsidiary thereof shall have no financial interest in the testing laboratory; and*

*(4) The testing laboratory shall not be in partnership with, own or be owned by, in part or in full, the contractor who has provided or installed equipment (basic or control), or monitoring systems, or is providing maintenance for installed equipment or monitoring systems, for the company being tested.*

Furthermore, I state that any contracts or agreements entered into by my source testing firm and the facility referenced above, or its designated contractor(s), either verbal or written, are not contingent upon the outcome of the source testing, or the source testing information provided to the SCAQMD.

**Signature:** _____ **Date:** **10/12/2026**

| **Pete SanJuan** | **Client Project Manager** | **(714) 279-6777** | **10/12/2026** |
|---|---|---|---|
| (Name) | (Title) | (Phone) | (Date) |

FORM ST-110 :stevforl.doc (Revised 11/18/98

# APPENDIX E
# SCAQMD NTC

**South Coast Air Quality Management District**
21865 COPLEY DR., P.O. Box 4941, DIAMOND BAR, CA 91765-0941

2/4/26
DATE OF INSPECTION

# NOTICE TO COMPLY

| Facility Name: | | Facility ID#, | Sector: |
|---|---|---|---|
| Chiquita Canyon Landfill | | 119219 | VB |
| **Location Address:** | **City:** | | **Zip:** |
| 29201 Henry Mayo Dr. | Castaic | | 91384 |
| **Mailing Address:** | **City:** | | **Zip:** |
| 29201 Henry Mayo Dr. | Castaic | | 91384 |

This Notice to Comply is being issued to:

☒ Request additional information needed to determine compliance with clean air requirements.
☐ Correct a minor violation found during an inspection.

**Failure to respond or take corrective action, or providing false statements in response to this Notice to Comply can lead to issuance of a Notice of Violation pursuant to the California Health and Safety Code. The facility cited above is subject to re-inspection at any time to ensure compliance.**

## YOU ARE HEREBY DIRECTED TO COMPLY WITH:

| # | South Coast AQMD Rule / Cal H&S Code | Requirement | Compliance Due Date | Compliance Achieved Date |
|---|---|---|---|---|
| 1 | 17 CCR Sec. 95464(b)(4) | Submit source test protocols for approval to conduct source tests on the HERO, Zeeco and Parnel Thermal Oxidizers to demonstrate the landfill gas control devices are meeting the requirements of sections 95464(b)(2)(A), or 95464(b)(3)(A), using the test methods identified in 95471(f). Submit an Expedited Evaluation Request Form for each protocol requesting an expedited review<br><br>[Reference: HERO Application No. 661284; Parnel Application No. 663634; Zeeco Application No. 664969] | 2/17/26 | |
| 2 | | | | |
| 3 | | | | |

| Served To: | | Served By: | | |
|---|---|---|---|---|
| Kevin Green | | Christina Ojeda | | |
| **Title:** | | **Date Served:** | **Phone,** | **Fax:** |
| District Manager | | 2/10/26 | 909-396-2475 | |
| **Email Address:** | **Phone,** | **Email Address:** | | **Forms/ Applications/Info available at:** |
| Kevin.green@wasteconnections.com | 661-812-5846 | cojeda@aqmd.gov | | www.aqmd.gov |

**Instructions:**

- For each minor violation cited above, compliance shall be achieved by the compliance deadline specified for that particular violation.
- Within 5 working days of achieving compliance for each respective violation, the owner/responsible officer of the cited facility must complete and return a signed copy of this Notice to Comply to the South Coast Air Quality Management District at the address listed above.
- Please copy and return this Notice to Comply as many times as necessary to provide the required information. On each copy, include the date on which compliance was achieved. Date, sign, and send all completed copies to the attention of the inspector named above.

I hereby certify that the facility cited in this Notice to Comply has achieved compliance with the requirements listed above.

| *NAME OF OWNER/ RESPONSIBLE OFFICIAL* | *TITLE* | *SIGNATURE* | *DATE* |
|---|---|---|---|

***NOTICE#: E56457***

*FILE COPY (Blue)* *FACILITY COPY (Gold)* *INSPECTOR COPY (White)*

## ÉSTA ES LA ÚLTIMA PÁGINA DE ESTE DOCUMENTO

Si tiene alguna pregunta, por favor, comuníquese con una de las siguientes personas por e-mail o telefónicamente.

| | |
|---|---|
| Nombre: | Sr. Pete San Juan |
| Cargo: | Gerente de Proyectos de Clientes |
| Región: | Oeste |
| Email: | Psanjuan@onterris.com |
| Teléfono: | (714) 279-6777 |

| | |
|---|---|
| Nombre: | Sr. Matt McCune |
| Cargo: | Director |
| Región: | Oeste |
| Email: | MMccune@onterris.com |
| Teléfono: | (714) 279-6777 |