CHIQUITA CANYON
A Waste Connections Company

April 20, 2026

Via E-Mail
Tyler Holybee, Project Coordinator
Enforcement and Compliance and Assurance Division (ENF-2-2)
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, California 94105
(415) 972-3765
Holybee.Tyler@epa.gov

Re: CCL – Update to April 1, 2026 Draft West Slope Improvements Health and Safety Plan in Response to EPA's Notice of Deficiency
UAO Docket No. RCRA 7003-09-2024-0001 and CERCLA 106-09-2024-05

Mr. Holybee:

Pursuant to the Unilateral Administrative Order (the "UAO") issued by the United States Environmental Protection Agency ("EPA"), Docket No. RCRA 7003-09-2024-0001 and CERCLA 106-09-2024-05, to Chiquita Canyon, LLC ("CCL"), EPA issued a letter on March 17, 2026 (the "Additional Work Letter") directing CCL to implement additional work under Paragraph 90 of the UAO, In the Matter of Chiquita Canyon, LLC, issued February 21, 2024. The Additional Work Letter requires, among other things, that CCL make improvements on the west side of the Chiquita Canyon Landfill (the "Landfill") and submit, concurrent with the work plan(s) for such improvements, a health and safety plan. In response, on April 1, 2026, CCL submitted the Draft West Slope Improvements Health and Safety Plan, Version 1.0 (the "HASP").

EPA reviewed the HASP and, in accordance with Paragraph 31 of the UAO, issued a Notice of Deficiency (the "Notice") disapproving the HASP in part and directing CCL to revise the plan by April 20, 2026. CCL has revised the HASP in response to EPA's Notice as set forth below and hereby resubmits the HASP (the "Revised HASP") pursuant to Paragraph 30 of the UAO.

I. Correction to Section 5.1, "Handheld Real-Time Air Monitoring"

a. *CCL should add acetonitrile to the list of chemicals/parameters that must be monitored to protect employee health and safety. Accordingly, acetonitrile should be added to "Table 2 Atmospheric Hazards and Air Monitoring Action Levels and Instrument Alarm Limits" and actions limits should be identified for acetonitrile. Further, we note that the current equipment configuration, "Photoionization*

Detectors (PIDs) equipped with 9.8-11.7 eV lamps and the equipment listed in Table 2.1," does not have the scope for measuring acetonitrile, as acetonitrile has an eV of 12.20. The HASP should provide for the appropriate equipment/instrumentation and methods to monitor for acetonitrile.

CCL evaluated the inclusion of acetonitrile as a parameter for real-time monitoring and determined that such monitoring is not warranted based on site-specific data. Acetonitrile was not detected in 146 worker breathing zone samples during prior monitoring of similar work on the West Slope.

CCL will, however, collect samples for laboratory testing, as reflected in Section 5.4, Table 4 of the Revised HASP, to confirm the prior findings under current site conditions. CCL remains available to meet and confer with EPA regarding monitoring strategies.

II. Correction to Section 5.2, "Excavation Equipment Air Monitoring"

a. *The HASP provides that "continuous air monitoring for excavation equipment cab interiors and exteriors may occur using remote telemetering equipment if exposure cannot be safely assessed from ground level." The HASP should mandate continuous CO monitoring in the equipment cab interiors.*

The Revised HASP has been updated as directed to require continuous air monitoring within excavation equipment cab interiors, including carbon monoxide (CO), as well as other parameters measured by the equipment (VOCs, oxygen, and hydrogen sulfide).

III. Correction to Section 6.7, "Liner and Cover Removal and Excavation"

a. *The HASP references "limited sampling from 2004" beneath the liner or cover of VOCs, LEL, CO, H2s. "2004" seems like a typo, as the data attached is from 2024. Please confirm.*

The Revised HASP has been updated as directed.

b. *The HASP describes that "any coverings will be cut and pulled back as small sections." Both the West Toe Improvements Work Plan and the HASP should specify the maximum size of any section of cover that may be cut and pulled back at any time, i.e., the size of the excavation workface, which should be appropriate for the total planned area of cover removal and the deadline for completing the project.*

CCL has proposed to limit the area of cover cut and pulled back at any given time to approximately 200 linear feet and 8,000 square feet, subject to site conditions and field observations. These limits reflect the expected conditions for the West Slope Improvements, where waste is not anticipated to be encountered in the planned work areas. The proposed approach maintains defined limits on the open

workface, while allowing for adjustments based on worker exposure hazard, odors present, and ability to recover the working section at the conclusion of the day.

c. *The prior West Toe Drain Installation Project Health and Safety Plan provided for an exclusion zone during removal of the scrim and the requirement that only 40-hour HAZWOPER trained personnel be allowed within the exclusion zone. This HASP, in Section 6.14, provides that access to the west slope area is restricted and visitors must be escorted and undergo a briefing. Even with the additional language in Section 6.14, language in Section 6.7 regarding work zones/exclusion zones is necessary. CCL should propose language clarify work zones/exclusion zones.*

The Revised HASP has been updated as directed.

IV. Correction to Section 7.0, "Contractor Expectations"

a. *The Job Hazard Analyses (JHAs) provided in this HASP are JHAs for the job or task of conducting air monitoring (as opposed to removing the cover, excavating and loading the material, detailing the liner, etc.) The HASP states that a JHA is required for all activities not presented in the HASP, and each contractor is expected to have a Job Safety Analysis/Job Hazard Analysis for each process of the operation. Please provide a copy of the JHA(s) for contractors performing the work (other than performing air monitoring).*

JHAs for certain activities are not currently available, as they will be developed and provided by the selected contractors. These JHAs will be incorporated into the HASP prior to the start of work, and a revised version of the HASP will be submitted once all contractor JHAs are received.

V. Correction to Appendix D, "Available Safety Data Sheets"

a. *CCL's SDS for landfill leachate/landfill wastewater lists Steve Cassulo and Nicole Ward, and their phone numbers, as emergency contacts. Emergency contacts require updating.*

The Revised HASP has been updated as directed.

Please let us know if you have any questions or if you would like to schedule a call to discuss.

Sincerely,

Kevin Green
District Manager
Chiquita Canyon Landfill

cc: John Perkey, Waste Connections
Jim Little, Waste Connections
Kurt Shaner, Waste Connections
Dylan Smith, Waste Connections
Sarah Phillips, Waste Connections
Megan Morgan, Beverage & Diamond
Nicole Weinstein, Beverage & Diamond
Allyn Stern, Beverage & Diamond
Alana Mathews, California Environmental Protection Agency
Todd Sax, California Environmental Protection Agency
Sophia Carillo, California Environmental Protection Agency
Karen Gork, Los Angeles County Department of Public Health, acting as the Local Enforcement Agency
Thanne Berg, California Department of Toxic Substances Control
Dylan Clark, California Department of Toxic Substances Control
Zanalee Zmily, California Department of Toxic Substances Control
Laura Friedli, United States Environmental Protection Agency

CHIQUITA CANYON
A Waste Connections Company

West Slope Improvement Health and Safety Plan

Chiquita Canyon ETLF Operations

Castaic, California

April 20, 2026

Version 1.0

Prepared By

CTEH, LLC

April 20, 2026

Jason Callahan, MS, CIH, CSP – CTEH Senior Health Scientist *Date*

Approved By

Chiquita Canyon Landfill, LLC (CCL)

_____ _____

Kevin Green – CCL District Manager *Date*

_____ _____

Dave Jappert – CCL Project Manager *Date*

_____ _____

Luis Vargas – CCL Site Safety and Health Officer *Date*

Table of Contents

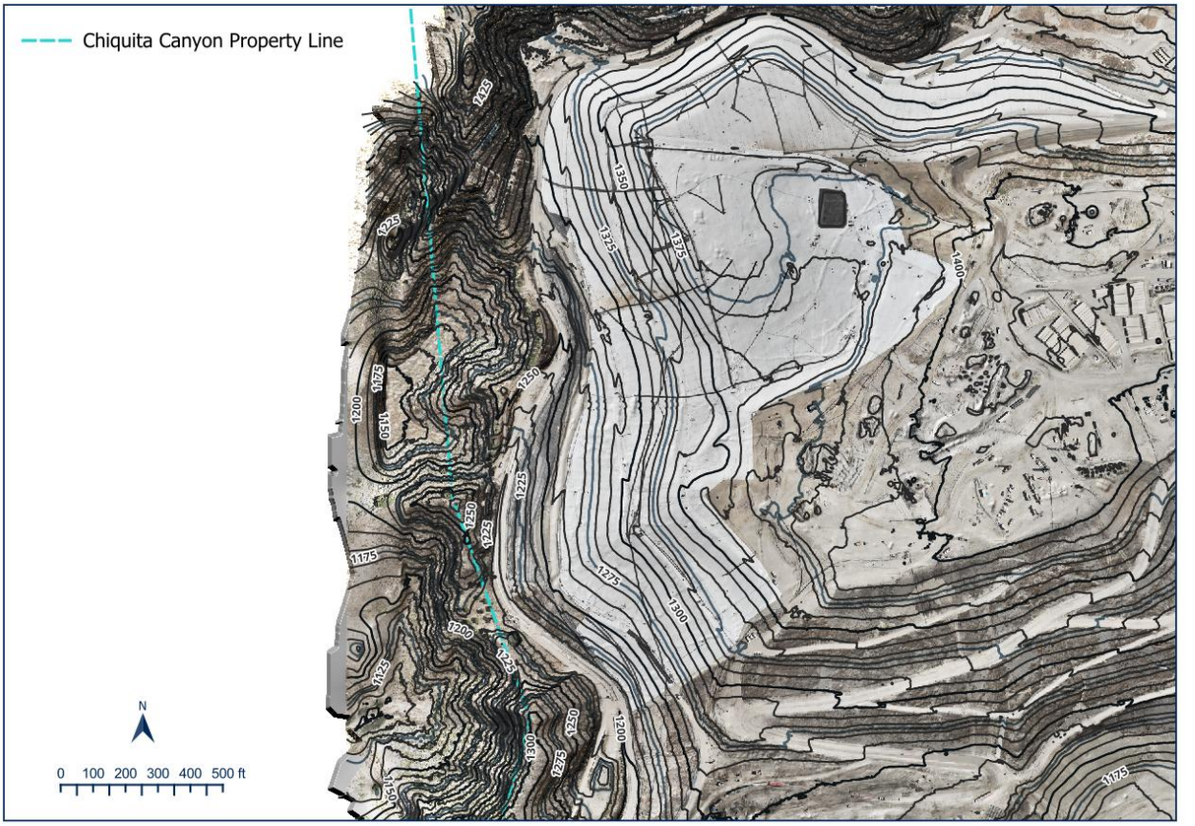
List of Tables

List of Figures

1.0 Purpose

This plan is intended to supplement the Health and Safety Plan – Elevated Temperature Landfill Operation Areas first issued on March 21, 2024. This plan addresses work tasks related to improvements on the west slope of the Chiquita Canyon Landfill due to changes resulting from Elevated Temperature Landfill (ETLF) conditions. These tasks include, but are not limited to, geotextile cover removal, excavation, soil buttress construction, drain installation, and air and environmental monitoring tasks.

Figure 1.1 West Slope of Chaquita Canyon Landfill



This task-specific information has been developed from the latest available information. Revisions and alterations to this plan may become necessary as further information is developed or becomes available. All alterations to this plan will be recorded in the Health and Safety Plan Management of Change section and communicated in regularly scheduled safety briefings.

All visitors and personnel working in the area of the west slope, regardless of work task, are to review and comply with this Health and Safety Plan and must be informed of the hazards prior to the start of work. It is the responsibility of Chiquita Canyon, LLC (CCL) to ensure this plan is implemented.

2.0 Organizational Structure

The organizational structure of this site's safety and health program provides the following site-specific information:

- The general supervisor who has the responsibility and authority to direct all hazardous waste cleanup operations.

- The site safety and health officer who has the responsibility and authority to develop and implement this HASP and verify compliance.

- Other personnel needed for cleanup operations and emergency response and their general functions and responsibilities.

Table 1 Project Organization

Project Role	Name	Company	Phone Number
CCL District Manager	Kevin Green	CCL	(661) 812-5846
CCL Project Manager (West Slope)	Dave Jappert	CCL	(707) 628-7245
CCL Site Safety and Health Officer	Luis Vargas	CCL	(346) 740-1359

All visitors and site workers are responsible for complying with this HASP, using the proper PPE, reporting unsafe acts and conditions, and following the lines of authority established for this project site.

2.1 Project Manager

The Project Manager (PM) has responsibility and authority to direct all work operations. The PM coordinates safety and health functions with the Site Safety and Health Officer (SSHO), has the authority to oversee and monitor the performance of the SSHO, and bears ultimate responsibility for the proper implementation of this HASP. The specific duties of the PM are:

- Preparing and coordinating the site work plan; providing site supervisor(s) with work assignments and overseeing their performance.

- Coordinating safety and health efforts with the SSHO; ensuring effective emergency response.

- Serving as primary site liaison with public agencies, officials, and site contractors.

2.2 Site Safety and Health Officer

The Site Safety and Health Officer (SSHO) has full responsibility and authority to develop and implement this HASP and to verify compliance. The SSHO reports to the Project Manager. The SSHO is on site or readily accessible to the site during all work operations and has the authority to halt site work if unsafe conditions are detected. The specific responsibilities of the SSHO are:

- Managing safety and health functions on this site.

- Serving as the site's point of contact for safety and health matters.

- Ensuring site monitoring, worker training, medical surveillance, and effective selection and use of PPE.

- Assessing site conditions for unsafe acts and conditions and providing corrective action.

- Assisting in the preparation and review of this HASP.

- Maintaining effective safety and health records as described in this HASP.

- Coordinating with the PM, Site Supervisor(s), and others as necessary for safety and health efforts during an emergency response.

3.0 Mandatory Safety Briefings

At the start of each workday, a mandatory safety briefing will occur. All workers who will be participating in operations must attend the briefing on each workday. If a worker or workgroup is unable to attend this meeting due to operational needs, they must make arrangements with site management to receive a safety briefing before beginning work.

4.0 Hazard Assessment

4.1 Chemical Hazards

Leachate, its vapors, and landfill gases are present at the west slope and represent a dermal and respiratory hazard. The respiratory hazard increases in places where vapor and gases may become trapped such as underneath the geomembrane. Leachate and landfill gases are complex mixtures with primary hazardous components including benzene, dioxane, hydrogen sulfide (H_2S), and carbon monoxide. However, additional volatile organic compounds may also reach hazardous concentrations when leachate vapors are not maintained below site action levels. For additional information on the hazards posed by these compounds review the *Health and Safety Plan – ETLF Operation Areas*.

4.2 Physical Hazards

All physical hazards contained in the *Health and Safety Plan – ETLF Operation Areas* may be found on or near the west slope and must be controlled. Additional hazards are present related to the West Slope improvement process, such as decreased soil stability and steep slopes. New hazards may be identified during the course of work. Due to the liquid content of soils on the west slope, the risk of ground subsidence and other soil movement may be increased in comparison to other similar soils with lower liquid content. Soils saturated with water or leachate also increase the risk of worker slips, trips, and falls.

5.0 Atmospheric Hazards and Worker Exposure Monitoring

5.1 Handheld Real-time Air Monitoring

As a safety practice, CCL requires workers to wear a personal 5-Gas monitor (e.g., Blackline G7 monitor or equivalent) when they conduct work within the ETLF Operation Area to detect the presence of landfill gases that may be toxic, asphyxiating, and/or combustible. Whenever possible, workers should work upwind of sources of leachate vapor/gases and minimize the duration of tasks that may result in exposure. Due to the potential for exposure to hazardous atmospheric (airborne) conditions within the ETLF Operation Area and/or the Landfill, air monitoring is conducted using 5-Gas monitor for oxygen (O_2), hydrogen sulfide (H_2S), carbon monoxide (CO), flammable atmospheres (lower explosive limit, LEL), and a photoionization detector (PID) for total Volatile Organic Compounds (VOCs) to protect employee health and safety. As a safety practice, air monitoring must be conducted for each lone worker and/or group using a personal 5-Gas monitor.

The audible alarm warning from the five-gas monitor prompts users to evaluate hazardous conditions that may not otherwise be apparent. When properly set up and used, the alarms within the monitor will sound if any of the values exceed the set points. The alarm will also sound if any of the sensors fail while the monitor

is in use. For instructions on how to set alarms, review the manual, contact the manufacturer, or the safety representative in charge of equipment maintenance.

If the instrument low alarm/site action level is exceeded for any of the monitored gasses (O_2, H_2S, CO, LEL, and PID), first immediately egress the area and then evaluate the potential source from a safe location and allow the area to naturally ventilate, alter work practices (e.g., work upwind), or implement engineering controls to reduce exposure below site action levels. Onsite management, including CCL and site safety, must be notified when exposure cannot be maintained below site action levels. Additionally, in the event of an alarm on the PID (Total VOCs), unless a monitor capable of measuring benzene is available, contact site safety to conduct further analysis of the hazard and vapor as VOCs may contain benzene, which cannot be accurately measured with a 5-gas meter. For both high and low alarms, monitoring must be performed upon re-entry (upwind if possible) to confirm that concentrations in air are below site action levels. If alteration to work practices or implementation of additional exposure controls are unsuccessful, use of respiratory protection following a written respiratory protection program may be required. Discuss changes in respiratory protection with site safety personnel or your company's safety representative. **Table 2** provides current alarm set points for hand-held monitoring equipment. Total VOCs and benzene concentrations will be measured using Photoionization Detectors (PIDs) equipped with 9.8-11.7 eV lamps and the equipment listed in **Table 2**.[1]

[1] *Use of Flame Ionization Detectors (FID) measurements are not directly comparable to the action levels in this document due to elevated concentrations of methane in the area.*

Table 2 Atmospheric Hazards and Real-Time Air Monitoring Action Levels and Instrument Alarm Limits

Chemical/ Parameter	Cal OSHA-PEL	ACGIH TLV	NIOSH IDLH	Site Action Level and Low Alarm Limit	Action	High Alarm Limit	Monitoring Equipment
Oxygen (O_2)	19.5% to 23.5%	N/A	<19.5%	**<19.5%**	Re-evaluate work task to reduce exposure below action level. If concentration cannot be reduced below action level, elevate issue to supervisor and/or site safety for further evaluation	>23.5%	5-gas personal monitor O_2 Sensor
Percent of Lower Explosive Limit (%LEL)	N/A	N/A	(100% of LEL)	**5% of LEL**		10% of LEL	5-gas personal monitor %LEL Sensor
Carbon Monoxide (CO)	25 ppm 8-hr TWA 200 ppm CEILING	25 ppm STEL	1,200 ppm	**25 ppm**		100 ppm	5-gas personal monitor CO Sensor
Hydrogen Sulfide (H_2S)	10 ppm 8-hr TWA 15 ppm STEL 20 ppm CEILING 50 ppm PEAK	1 ppm TWA 5 ppm STEL	100 ppm	**2.5 ppm**		5 ppm	5-gas personal monitor H_2S Sensor
Benzene	0.5 ppm 8-hr TWA AL 1 ppm 8-hr TWA 5 ppm STEL	0.02 ppm TWA	500 ppm	**0.25 ppm**		2.5 ppm	UltraRAE with Benzene Sep Tube, Gastec Tube 121L, or Xpid
Volatile Organic Compounds (VOCs)	N/A	N/A	N/A	**25 ppm**		50 ppm	5-gas personal monitor PID Sensor

Cal OSHA PEL - California Occupational Safety and Health Administration Permissible Exposure Limits are regulator limits of a toxic material to which an average person in average health may be exposed on a day-to-day basis with no adverse health effects. PELs are based on specified lengths of time, typically 8 hours (see also Ceiling, TWA, and STEL).

ACGIH TLV - Threshold Limit Values (TLV's) are guidelines (not standards), to assist industrial hygienists in making decisions regarding safe levels of exposure to various hazards found in the workplace.

NIOSH IDLH - Then National Institute of Occupational Safety and Health Immediately Dangerous to Life and Health is the level of exposure that is immediately dangerous to life or health (would cause irreversible adverse health effects or would impair an individual's ability to escape from a dangerous atmosphere).

TWA - Time-Weighted Averages are an average concentration over a certain period of time (e.g., 8-hour work period or 40-hour work week).

AL: California OSHA Action Level which, if exceeded, requires certain regulatory requirements be met.

STEL - Short-Term Exposure Limit is the maximum average chemical concentration to which an employee can be exposed for up to 15 minutes. At no time can the employee exposure concentration exceed the "Ceiling" limit.

Ceiling - The maximum instantaneous chemical concentration to which an employee can be exposed at any time.

Peak – Permitted to occur once over the course of 10-minutes so long as no other measurable exposure occurs.

LEL is the lowest concentration of a gas or vapor in air that is capable of producing a flash or fire.

%: Percent gas by volume.

PPM - Parts per million.

5.2 Excavation Equipment Air Monitoring

Continuous air monitoring for excavation equipment cab interiors and exteriors will occur using remote telemetering equipment. Remote monitoring is intended to supplement worker personal air sampling by providing actionable air monitoring data to direct on-site operations and initiate corrective actions to limit worker exposures, as appropriate. Remote monitoring is conducted by strategically placing real-time air monitoring instruments inside and outside the cabin of heavy equipment during its use in the work area. Remote monitoring is conducted by attaching one RAE Systems AreaRAE to the outside of the cab and attaching one MultiRAE and one Drager X-PID 8500/9500 (optional) to the inside of the cab (typically to the headrest, in a manner characteristic of the worker's breathing zone). The AreaRAE and MultiRAE instruments are used to monitor O_2, H_2S, CO, %LEL, and total VOCs; the Drager X-PID 8500/9500 is used for chemical-specific monitoring of benzene. Data collected from remote monitoring operations are compared to the site-specific action levels and exposure limits established for workers in **Table 2** with consideration of the maximum use concentration limitations of respiratory protection provided in **Table 6**. These data are evaluated and communicated to the equipment operator in real-time in accordance with the decision matrix provided in **Table 3** when the action level is exceeded for a five-minute period.

Table 3 Equipment Remote Monitoring Action Levels

Chemical/ Parameter	Instrument Location	Action Level*	Action Taken
Oxygen (O_2)	Vehicle Exterior	**<19.5**	Assess O_2 concentrations inside the cab. Evaluate site conditions. Adjust/apply engineering controls that control emissions and increase ventilation.
	Vehicle Interior	**<19.5**	Instruct operator to egress or exit the area or don atmosphere-supplying respirator. Evaluate site conditions. Adjust/apply engineering controls that control emissions and increase ventilation. Work activity should not resume until adequate controls are applied to sustain concentrations below this action level.
Percent of Lower Explosive Limit (%LEL)	Vehicle Exterior	**10% of LEL**	Stop work. Evaluate site conditions. Adjust/apply engineering controls that control emissions and increase ventilation. Work activity should not resume until adequate controls are applied to sustain concentrations below this action level.
	Vehicle Interior	**5% of LEL**	Stop work. Evaluate site conditions. Adjust/apply engineering controls that control emissions and increase ventilation. Work activity should not resume until adequate controls are applied to sustain concentrations below this action level.

Chemical/ Parameter	Instrument Location	Action Level*	Action Taken
Carbon Monoxide (CO)	Vehicle Exterior	**35 ppm**	Assess for presence of CO inside the cab. Evaluate site conditions. Consider adjustment/application of engineering controls that control emissions and increase ventilation.
	Vehicle Interior	**25 ppm**	Instruct operator to egress area or don atmosphere-supplying respirator. Evaluate site conditions. Adjust/apply engineering controls that control emissions and increase ventilation. Work activity should not resume until adequate controls are applied to sustain concentrations below this action level.
Hydrogen Sulfide (H_2S)	Vehicle Exterior	**5 ppm**	Assess for presence of H_2S inside the cab. Evaluate site conditions. Consider adjustment/application of engineering controls that control emissions and increase ventilation.
	Vehicle Interior	**2.5 ppm**	Instruct operator to don air purifying respirator. Adjust/apply engineering controls that control emissions and increase ventilation.
		50 ppm	Instruct operator to egress area or don atmosphere-supplying respirator. Evaluate site conditions. Adjust/apply engineering controls that control emissions and increase ventilation. Work activity should not resume until adequate controls are applied to sustain concentrations below this action level.
Volatile Organic Compounds (VOCs)	Vehicle Exterior	**50 ppm**	Evaluate site conditions. Consider adjustment/application of engineering controls that control emissions and increase ventilation.
	Vehicle Interior	**5 ppm**	Begin continual assessment for benzene inside cab.
		25 ppm	Evaluate site conditions. Adjust/apply engineering controls emissions and increase ventilation.
Benzene	Vehicle Interior	**0.25 ppm**	Instruct operator to don air-purifying respirator. Evaluate site conditions. Adjust/apply engineering controls that control emissions and increase ventilation.
		10 ppm	Instruct operator to egress area or don air purifying respirator. Evaluate site conditions. Adjust/apply engineering controls that control emissions and increase ventilation.

Chemical/ Parameter	Instrument Location	Action Level*	Action Taken
		25 ppm	Instruct operator to egress area or don atmosphere-supplying respirator. Evaluate site conditions. Adjust/apply engineering controls that control emissions and increase ventilation. Work activity should not resume until adequate controls are applied to sustain concentrations below this action level.

**The action level is exceeded when measurements are sustained at or above the action level for 5-minutes or the approximate average over 5-minutes is expected to exceed the action level.*

5.3 Benzene Monitoring

Workers must identify sources of leachate which may contain benzene as part of their job hazard analysis. These sources may include, but are not limited to, leachate contained in tanks and other containers, vapors beneath liners and geotextile covers, vapor from open or leaking pipes and wells, surface fissures, seeps, and leachate contaminated soil. Benzene specific monitoring must be conducted at minimum when the site action level for VOCs is reached, if not sooner. If benzene is present in the worker's breathing zone at concentrations greater than the site action level, additional hazard analysis must be conducted to minimize exposure including altering the task, implementing engineering controls, or eliminating the task. Respiratory protection may only be used when no feasible work practice control or engineering control can be implemented. All respiratory protection must be used in compliance with an appropriate written respiratory protection program.

If benzene air monitoring or sampling demonstrates worker exposure exceeds, or can reasonably be expected to exceed, the Cal/OSHA Action Level or exposure limits contained in **Table 2**, then further evaluation of engineering controls, administrative controls, and work practices must occur. In addition, relevant portions of Title 8 § 5218 will be implemented.

5.4 Worker Exposure Sampling

CCL, or its contractors, will collect personal air samples in the breathing zones of workers reasonably anticipated to represent worst case exposure daily using passive organic vapor dosimeters. Tasks which may be sampled include, but are not limited to:

- Operators of excavation equipment and other heavy equipment involved in excavation of potentially contaminated soil.
- Equipment operators and/or workers associated with initial liner/geotextile pullback.
- Workers on the west slope installing piping.

- Repair, installation and removal of geosynthetics.
- Other identified tasks where exposure risk cannot be adequately controlled using data from other exposure groups.

Each sample will be collected for comparison to Cal/OSHA exposure limits (**Table 4**) and be used to evaluate the efficacy of on-site administrative and engineering controls.[2] Additional air samples may be collected for other exposure assessment purposes at the discretion of the project industrial hygienist.

Table 4 Worker Exposure Sampling Target Compounds

Chemical/ Parameter	Cal OSHA-PEL	ACGIH TLV	NIOSH IDLH
Acetonitrile	40 ppm 8-hr TWA 60 ppm STEL	20 ppm 8-hr TWA	137 ppm
Benzene	0.5 ppm 8-hr TWA AL 1 ppm 8-hr TWA 5 ppm STEL	0.02 ppm 8-hr TWA	500 ppm

Cal OSHA PEL - California Occupational Safety and Health Administration Permissible Exposure Limits are regulator limits of a toxic material to which an average person in average health may be exposed on a day-to-day basis with no adverse health effects. PELs are based on specified lengths of time, typically 8 hours (see also Ceiling, TWA, and STEL).

ACGIH TLV - Threshold Limit Values (TLV's) are guidelines (not standards), to assist industrial hygienists in making decisions regarding safe levels of exposure to various hazards found in the workplace.

NIOSH IDLH - Then National Institute of Occupational Safety and Health Immediately Dangerous to Life and Health is the level of exposure that is immediately dangerous to life or health (would cause irreversible adverse health effects or would impair an individual's ability to escape from a dangerous atmosphere).

TWA - Time-Weighted Averages are an average concentration over a certain period of time (e.g., 8-hour work period or 40-hour work week).

AL: California OSHA Action Level which, if exceeded, requires certain regulatory requirements be met.

STEL - Short-Term Exposure Limit is the maximum average chemical concentration to which an employee can be exposed for up to 15 minutes. At no time can the employee exposure concentration exceed the "Ceiling" limit.

PPM - Parts per million.

6.0 Safety Controls, Procedures, and PPE Guidance

The following offers additional safety controls, procedures, and PPE guidance and requirements specific to West Slope improvement work activities. Minimum PPE requirements for all operation areas must be adhered to. Additional PPE and other safety equipment/measures may be required for tasks as set forth in the applicable job hazard assessment or any contractor specific health and safety plan.

[2] *Other sample durations may be collected if necessary to evaluate a specific task segment, for short work shifts, or other reasons.*

6.1 Standard PPE

The following is the standard level of Personal Protective Equipment (PPE) required when operating near the west slope during work activities. This PPE may be modified depending on specific site conditions or job tasks as determined by site safety and Job Hazard Analysis (JHA). Prior to beginning any work task, determine the appropriate level of PPE through consultation with your manager and site safety. Minimum PPE in the ETLF operation areas covered under this plan is:

- Hardhat.
- Safety glasses. This may also include helmet-mounted eye protection goggles or face shields if dust or splash hazards are present.
- Foot protection (steal toe).
- Hearing protection (around loud equipment).
- High visibility vest.
- Personal 5-Gas monitor.

6.2 Skin Protection

Concentrations of chemicals found in leachate, and leachate contaminated soil, are unlikely to cause acute health effects on contact with skin. However, contact with skin, especially for longer durations, should be avoided. Whenever possible, use of chemical protective clothing should be avoided due to the hazards created from its use. Every effort must be made to avoid skin contact with leachate and leachate contaminated soil prior to requiring the use of chemical protective clothing. Before relying on chemical protective clothing, alter work practices and attempt other protective controls. When possible, provide a clean work area by laying down chemical resistant material in the work area, or construct walkways using chemical resistant mats to prevent contact with skin or clothing. Chemical resistant boots must be worn if required to walk through spilled or pooled leachate or leachate contaminated soil.

If contact with leachate or leachate contaminated soil cannot be avoided, use appropriate chemical-protective gloves, boots, and/or body protection that has a chemical permeation time sufficient to prevent skin contact during the task and, constructed of fire-resistant materials (if appropriate based on JHA). Benzene and other organic compounds contained in leachate will permeate gloves made of nitrile, natural rubber, butyl rubber, and neoprene in less than one hour. Gloves constructed of these materials may only be used for temporary protection from incidental contact and should be removed and replaced if contaminated. Cloth, leather, and other glove materials that do not afford

any chemical protection cannot be used for tasks where sufficient leachate contact may occur to permeate the glove material, unless a suitable chemical protective glove is present overtop or underneath the glove. No glove material provides extended protection for all chemicals found in leachate; however, different glove materials are more likely to provide broader protection over extended periods. For tasks requiring regular contact with contaminated soil, select gloves that provide protection against a greater number of chemicals for longer durations. General guidance for the level of protection provided by glove materials against leachate is provided in **Table 5**.

Table 5 Chemical Resistant Gloves

Material	Protection
Natural Rubber	Very Poor
Neoprene Rubber	Very Poor
Nitrile	Poor
Polyvinyl Chloride	Poor
Butyl Rubber	Poor
Polyvinyl Alcohol	Good
Viton	Good
Viton/Butyl Rubber	Good
Honeywell SilverShield	Better
Ansell Barrier	Better

Glove materials indicated as "Better" typically provides protection from a broader range of compounds for longer durations.

If chemical protective clothing is required, it must be constructed of a suitable material. Tychem 6000, Tychem Responder CSM, or Tychem 10000 are recommended, but other equivalent materials from other manufacturers may be selected if appropriately evaluated. Tychem 6000 and Tychem 1000 are available in FR variants if flame resistance is necessary. Tyvek does not provide sufficient chemical protection but may be used to protect clothing from incidental contact with leachate contaminated soil, but not leachate. If Tyvek becomes contaminated with leachate contaminated soil, it must be removed and discarded.

To prevent skin absorption, non-chemical protective clothing that has become contaminated with leachate must not be worn and may need to be discarded depending on the amount of contamination. If skin contact occurs, wash thoroughly with soap and water.

6.3 Fire Protection and Flammable Environments

Flammable vapors are known to be present beneath the West Slope liner at concentrations greater than their lower explosive limit (LEL). When conducting initial removal of liners/covers, or penetrating liners/covers, Flame-Resistant Clothing (FRC) will be required, and any potential source of ignition will be eliminated both downwind and crosswind during initial removal or penetration. Following removal, FRC will continue to be worn unless it can be demonstrated that flammable liquids and vapors are no longer present. All FRC must meet the minimum requirements of National Fire Protection Association (NFPA) *Standard 2112 Standard on Flame-Resistant Clothing for Protection of Industrial Personnel Against Short-Duration Thermal Exposures from Fire*. When determining if FRC is necessary, follow guidelines in *NFPA Standard 2113 Standard on Selection, Care, Use, and Maintenance of Flame-Resistant Garments for Protection of Industrial Personnel Against Short-Duration Thermal Exposures from Fire*. Factors to be considered include:

- Proximity of the work to be performed to a fire hazard.
- The presence of flammable materials in the environment during the process operation.
- The potential for the task being performed to increase the possibility of a flammable release, which could result from a mechanical failure, such as a line breaking.
- Operating conditions related to the work process or task. For example, the potential for flammable vapors and fumes.
- The presence of engineering controls designed to reduce exposure to flammable materials present during normal operations.
- Means and duration of egress within potential exposure zone such as:
    - elevated or restricted areas;
    - connections to lifelines/fall protection; and
    - capability of workers to escape.

In the event of a fire, workers are not to engage in fire fighting beyond their level of training and ability. Workers may use fire extinguishers to fight small, contained fires if it is safe to do so. Site water trucks may also be used to wet surrounding areas to prevent the spread of small controllable fires.

For larger fires, the local fire department will be notified by dialing 911 or, if cell communication is unavailable, site radios will be used to communicate the emergency to workers with phone connections. The nearest fire station is Los Angeles County Fire Department Station 76, located 2.6 miles from the entrance to the landfill. To assist fire department personnel with locating the fire on the

landfill, an escort will be sent to the landfill entrance. All fires, regardless of size, must be reported to the CCL project manager and/or district manager as soon as it is safe to do so.

6.4 Noise Exposure

Various types of heavy equipment will be used during the course of work activities. This equipment, depending on the type and use, may cause noise levels to increase above occupational exposure limits.[3] Certain ventilation fan types which are employed to assist in ventilation of the worksite are known to exceed 100 dBA when in operation. The noise sources can result in short-term hearing loss and, for repeated exposure, permanent damage to hearing. When working around machinery and heavy equipment, hearing protection will be required.

6.5 Respiratory Protection

If the fugitive vapors from leachate or other hazards cannot be controlled with engineering or administrative controls, and a critical task must be conducted, respiratory protection is required and must be used in accordance with the applicable Respiratory Protection Program and in consultation with site safety personnel or your company's safety representative. Respiratory protection creates hazards during its use by increasing exertion, susceptibility to heat stress, obscuring vision, etc. Use will be limited to situations where exposure is known (or reasonability anticipated) to exceed Cal/OSHA occupational exposure limits[4] or when the exposure hazard cannot be effectively evaluated. All workers required to wear respiratory protection must have received a fit test.

If Organic Vapor (OV) respirator cartridges are used, they must also be NIOSH approved for protection against H_2S as not all OV respirator cartridges are approved for use in protection from H_2S. Additionally, many OV respirator cartridges do not provide protection against CO and cannot be used in environments where Cal/OSHA CO exposure limits will be exceeded.

Air purifying respirators cannot be used in oxygen-deficient atmospheres, atmospheres where concentrations are above the National Institute for Occupational Safety and Health (NIOSH) Immediately Dangerous to Life and Health (IDLH) limit, or if concentrations are above the respirator Maximum Use Concentration (MUC). If the hazard cannot be adequately controlled, and air purifying respirators are insufficient, then airline or Self-Contained Breathing Apparatus (SCBA) must be used in consultation with site safety and in accordance with the applicable respiratory protection program. Site specific respiratory protection MUC are contained in **Table 6** and are provided as general guidance only. Regardless of respiratory protection selected, no workers will be permitted to work in

[3] If exposure as an 8-hr time-weighted average exceeds 85 dBA as described in Title 8 § 5095 certain provisions, such as audiometric testing described in Title 8 Article 105, are required.

[4] All organizations involved with West Slope work activities, including CCL, may adopt and implement alternative voluntary exposure limits for respiratory protection use so long as they are at least as protective as those provided by Cal/OSHA and the decision is in consultation with a qualified individual.

IDLH atmospheres unless they can demonstrate sufficient prior experience or other specialty expertise operating in IDLH atmospheres satisfactory to CCL safety requirements.

If continual respiratory protection use is required at ambient temperatures in excess of 95 °F then workers who wear respiratory protection will be required to take a mandatory rest break for at least 10-minutes every hour. Additionally, project management, in conjunction with site safety personnel, will evaluate the need for medical monitoring by qualified medical professionals.

Table 6 Site Specific Respiratory Protection Maximum Use Concentrations

Benzene (IDLH 500 ppm)	**Maximum Use Concentration (ppm)***		
APR Half-Face	< 10	< 50	< 500
APR Full-Face	< 50	< 250	< 500
SCBA/Airline Full-Face	< 1,000		

Hydrogen Sulfide (IDLH 100 ppm)	
APR Half-Face	< 100
APR Full-Face	< 100
SCBA/Airline Full-Face	< 10,000

Carbon Monoxide (IDLH 1,200 ppm)		
APR Half-Face	< 25	< 200
APR Full-Face	< 25	< 200
SCBA/Airline Full-Face	< 25,000	

Total VOCs by PID*		
APR Half-Face	< 200	< 1,100
APR Full-Face	< 1,100	< 5,900
SCBA/Airline Full-Face	< 23,000	

8-hr	15-min	Peak††

** All Maximum Use Concentrations (MUC) for full-face APR assume a quantitative fit test. If a qualitative fit test was used, the MUC for half-face APR cannot be exceeded even when wearing a full-face respirator.*

† MUC for Total VOCs as measured with a based on an approximate mean benzene vapor content of 4.2% in leachate vapor. The exact benzene content must be confirmed during the work activity. All MUC have been rounded down to the nearest 100 ppm.

†† The peak value may not be exceeded for any duration when utilizing an APR.

PID = Photoionization Detector

ppm = Parts-Per-Million

VOCs = Volatile Organic Compounds

IDLH = Immediately Dangerous to Life and Health

APR = Air Purifying Respirator

SCBA = Self-Contained Breathing Apparatus

6.6 Saturated Soils

To mitigate the hazard posed by soil saturated with water or leachate on the west slope, workers, vehicles, and heavy equipment should utilize established roads whenever feasible. Reduce speed and increase distance from obstacles as moist soils increase the risk of slips, trips, and falls and increases the stopping distance of vehicles.

While hazardous movement of soil is not anticipated, the potential for some subsidence is possible. All work activities that disturb soil require consideration of potential soil movement hazards.

6.7 Liner and Cover Removal and Excavation

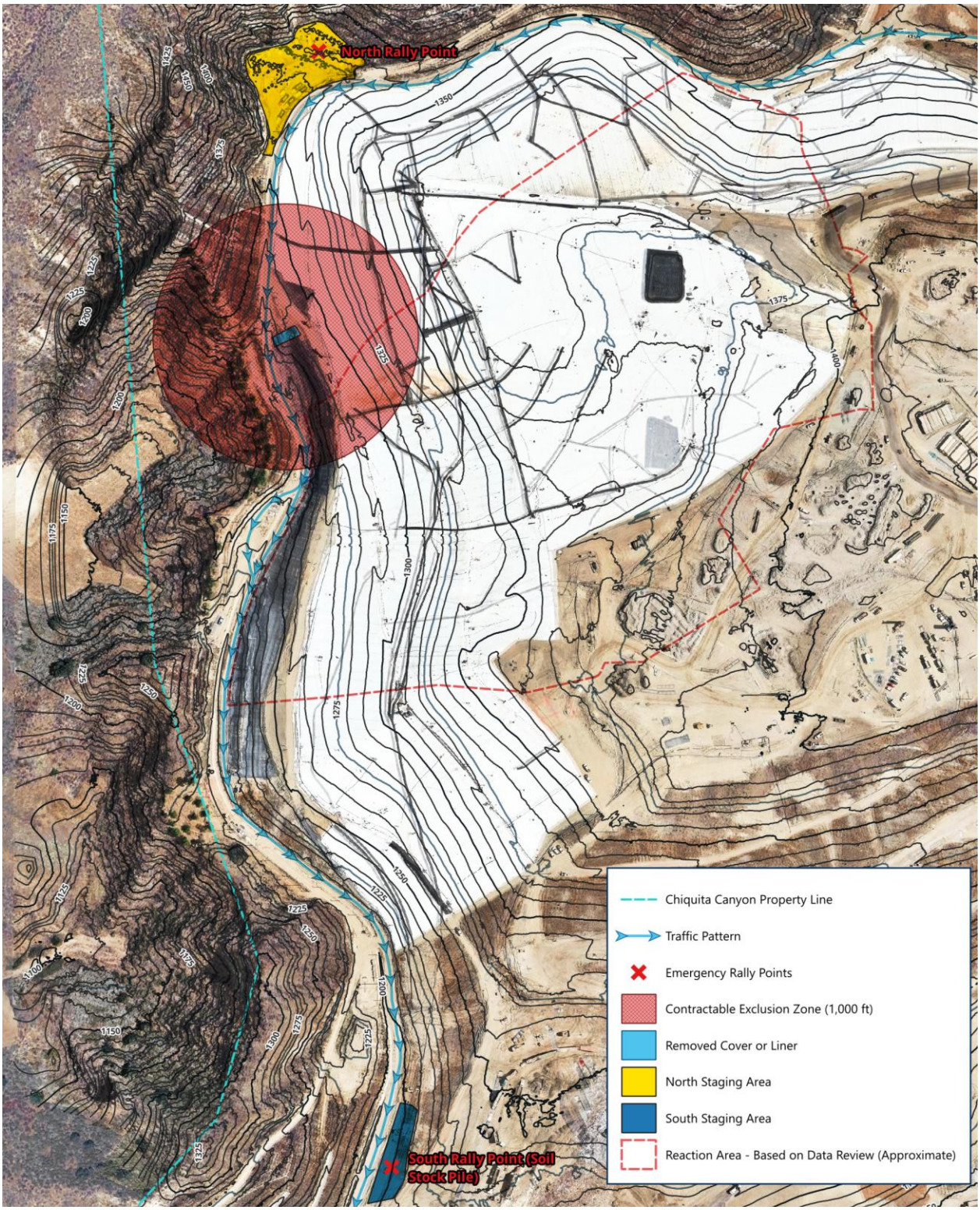
The greatest exposure to leachate vapor and gases is anticipated to occur during the removal of any liner or cover followed by any excavation activities that disturb leachate saturated soils or expose pockets of vapor.

The soil coverings are known to trap various leachate vapors and gases, and removal or puncturing may result in the release of these compounds in unknown volumes. Limited sampling from 2024 in small pockets beneath the liner or other cover indicates concentrations of VOCs up to 415 ppm, H_2S up to 42 ppm, CO up to 402 ppm, and %LEL up to 99%, as well as the VOCs contained in **Appendix B**. When this vapor is released, concentrations in breathing zones may exceed the site action levels in **Table 2** .To mitigate this hazard, any coverings will be cut and pulled back as small sections. No work activities will be permitted downwind during covering removal. Due to the unknown atmospheric hazard related to this activity, workers engaged in initial removal will be required to use supplied air until air monitoring supports downgrading or removing respiratory protection.

At the beginning of the removal of each approximately 200 ft wide or 8,000 ft^2 landfill cover section[5], an exclusion zone will be established with up to a 1,000-ft radius around the center of the cover section. Within this exclusion zone, only workers critical to the safe removal of the cover section will be permitted. Following removal of the cover, air monitoring will be used to contract the exclusion zone until it is the same size as the section of removed cover or until it is as small as feasible. Only workers involved with the west slope improvement project who have 40-hr HAZWOPER training will be permitted in this zone. All zones are subject to change in design and shape based on project needs and meteorological conditions. All site zones will be communicated verbally at morning safety briefings and when major changes occur. See **Figure 2** for example of initial site zones.

[5] *The size of the landfill cover section may increase or decrease depending on worker exposure hazard (determined through air monitoring/sampling), odors present, and ability to recover the working section at the conclusion of the day. See project work plan for additional details on cover removal.*

Figure 2 Example of Initial Landfill Cover Removal Zones



All zones subject to change based on site conditions and project needs. Optional zones/areas may or may not be present based on project needs.

The exposure hazard posed by excavation of leachate saturated soil is highly variable. Air monitoring must be conducted within the cabs of all heavy equipment operators engaged in excavation using a 5-gas meter capable of monitoring %LEL, H_2S, CO, O_2, and VOCs. Excavation using heavy equipment without an enclosed cab will not be permitted. Excavation equipment cabs must be equipped with carbon air filters where feasible if doing so would reduce or prevent the need for respiratory protection.

Soil conditions and surface sloping on the West Slope can make use of heavy equipment for excavation and trenching challenging. Weight and vibrations from heavy equipment can increase these challenges and their hazards. Heavy equipment must only be operated on soil with sufficient stability[6] to safely support the equipment without posing a hazard to the operator and workers in the vicinity from cave-ins and other unanticipated soil movement. In some circumstances, additional sloping, shoring, or benching may become necessary to stabilize the soil prior to additional vehicle and heavy equipment traffic or to reduce the hazard posed by soil movement to workers. No equipment is to be operated on surfaces that are outside of the manufacturer's specifications. If heavy equipment must be operated on slopes, the contractor operating the equipment must address how the hazard will be mitigated. The contractor must consider relevant factors such as equipment weight, slope angle, shoring, surface friction, equipment anchoring, and any other excavation and trenching requirements in Cal/OSHA Title 8 Subchapter 4 Article 6 that may be necessary for work to be conducted safely.

When using equipment to hoist, lower, and horizontally move a suspended load, such as cranes, derricks, hoists, and other powered equipment, a lift plan must be developed. The plan must, at minimum, consider factors such as the weight of the lift, the equipment's working load limit, overhead electrical hazards, use of a spotter, other regulatory requirements, and industry best practices. At no time during the lift will workers be permitted beneath the suspended load. The swing radius will be properly marked/barricaded, and travel paths will be cordoned off.

6.8 Traffic Control

Roads in the vicinity of the west slope of the landfill are typically narrow and the addition of heavy equipment along with truck traffic is anticipated to further constrict accessibility. A specified route for all vehicle traffic related to West Slope work activities will be developed where no two-way traffic will be permitted. The route will be communicated in safety briefings when the route changes. In general, this will be in a counterclockwise pattern from the north of the West Slope Toe Road to the south. The established traffic pattern will be followed by all vehicles regardless of size with any

[6] *Cal/OSHA Title 8 § 1541.1 Appendix A*

changes in the pattern will be communicated to all affected workers prior to implementation. Secondary routes that permit two-way traffic may be established where feasible. Soil removal truck movement will be coordinated by radio.

6.9 Ventilation

Mechanical ventilation will be implemented to assist in dissipation and dilution of leachate vapors and hazardous gases during West Slope work activities. Mechanical ventilation will be accomplished through a combination of fans, including large orchard fans, smaller pneumatically operated air horn fans, and other fans as necessary. All fans will be placed in such a way that they direct contaminated air away from workers unless it can be demonstrated that the added airflow provides a net reduction in exposure through dilution without creating a worse alternate hazard (e.g., airborne dust/debris). Prior to initial removal of any covering, ventilation equipment and/or the landfill vapor extraction system will be used to reduce concentrations of leachate vapor trapped beneath the covering through dilution and extraction.

6.10 Foam Application

If determined beneficial by project management, Atmos Long Duration Foam will be applied directly to the exposed soil surface that was beneath the liner or other cover during work operations using a Mini-Marooka with front spray turret if leachate vapor concentrations cannot be maintained below site action levels. Foam will not be applied to areas where workers are present if doing so would create an excessive slip, trip, or fall hazard.

6.11 Heat Stress and Heat Illness Prevention

Workers who are exposed to extreme heat or work in hot environments may be at risk of heat stress. Exposure to extreme heat can result in occupational illnesses and injuries. Heat stress can result in heat stroke, heat exhaustion, heat cramps, or heat rashes. Heat can also increase the risk of injuries in workers as it may result in sweaty palms, fogged-up safety glasses, and dizziness. When temperatures exceed 80°F and 95°F, additional heat stress management actions are required by Cal/OSHA Title 8 § 3395 and each contractor must have a heat illness prevention plan compliant with this standard.

Supervisors or work team leaders will be aware of weather conditions predicted for their shift, monitor conditions throughout the day, and consult the appropriate heat illness prevention plan for additional details when necessary.

During each day of work on the West Slope, shade will be provided by small pop-up tents for workers who require rest regardless of air temperature. Additional break areas, shade, and cold drinks will be provided in the North Staging Area or South Staging Area (See **Appendix A**).

At minimum, when working outside in temperatures in excess of 95°F, workers must take a 10-minute or longer cool-down rest period every two hours. It is recommended that supervisors with workers subject to heat stress implement a mandatory work/rest schedule and allow workers to take more rest than this schedule if needed. An example of such a worst rest schedule is provided in **Table 7**.

Table 7 Example Work Rest Schedule

Temperature (°F)	**Light Work** *(Work/Rest Minutes)*	**Moderate Work** *(Work/Rest Minutes)*	**Heavy Work** *(Work/Rest Minutes)*
90	Normal	Normal	Normal
91	Normal	Normal	Normal
92	Normal	Normal	Normal
93	Normal	Normal	Normal
94	Normal	Normal	Normal
95	55/5	55/5	45/15
96	55/5	55/5	45/15
97	55/5	55/5	40/20
98	55/5	55/5	35/25
99	55/5	55/5	35/25
100	55/5	45/15	30/30
101	55/5	40/20	30/30
102	55/5	35/25	25/35
103	55/5	30/30	20/40
104	55/5	30/30	20/40
105	55/5	25/35	15/45
106	45/15	20/40	Extreme Caution
107	40/20	15/45	Extreme Caution
108	35/25	Extreme Caution	Extreme Caution
109	30/30	Extreme Caution	Extreme Caution
110	15/45	Extreme Caution	Extreme Caution
111	Extreme Caution	Extreme Caution	Extreme Caution
112	Extreme Caution	Extreme Caution	Extreme Caution

Adapted from NIOSH Criteria for a Recommended Standard, Occupational Exposure to Heat and Hot Environments, ***Assumptions:*** *workers are physically fit, well-rested, fully hydrated, under age 40, and environment has 30% humidity and perceptible air movement*

- *Full sun (no clouds): Add 13 °F*
- *Partly cloudy/overcast: Add 7 °F*
- *No shadows visible, in the shade, or at night: No adjustment*
- *40% humidity: Add 3 °F*
- *50% humidity: Add 6 °F*
- *60% humidity or more: Add 9 °F*

6.12 Decontamination

At minimum, a hand-washing station will be present at the rest tent for sanitary purposes and to wash hands and arms that may have contacted leachate contaminated soil. One or more portable eye wash stations with movable shower head that allows for rinsing for 15 minutes will be located at the rest tent and blocked from sun to prevent overheating of water.

6.13 Site Communication

Radios supplied by CCL will be available for areas where cellular reception is inadequate or where they increase safety through communication. Radio channels will be reserved for the following uses:

- Channel 1: Active work operations such as excavation, liner repair, drain installation, etc.
- Channel 2: Open for use as needed to facilitate additional conversations and coordination and prevent blocking of other channels.
- Channel 3: Communication between remote air monitoring team and excavation equipment.
- Channel 4: Soil removal truck control and communication.
- Channel 5: Emergencies.

6.14 Site Control

Access to the West Slope work area is restricted to reduce the potential for exposure to its health and safety hazards. Visitors to the area must be escorted at all times and are expected to comply with the requirements of this HASP. Visitors who want to enter contaminated areas of the site must review this HASP, provide documentation that they have the required training and medical evaluation, and must receive a site-specific briefing about protecting themselves from site hazards, recognizing site zones demarcations, and following emergency evacuation procedures prior to entry.

6.15 Emergency Rescue

A two-person rescue team will be located adjacent to the work area work activities and will constantly monitor the emergency radio channel indicated in **Section 6.13**. The team will be available as needed when potentially life threatening hazards, such as IDLH atmospheres, are reasonably anticipated. The team will have no other responsibilities other than to stand by for rescue and emergency assistance. The team will have a vehicle dedicated for their use capable of transporting at least one individual to the landfill entrance to rendezvous with emergency medical personnel or, for less severe injuries, transport the injured person to the nearest medical facility. The rescue team will have available the following equipment at minimum:

- First aid kit;
- Potable water;
- Automated Electronic Defibrillator (AED);
- Rescue backboard;
- Fire resistant clothing;
- ABC fire extinguisher;
- Tychem 6000 FR; and
- Supplied air respirator.

7.0 Contractor Expectations

It is expected that all onsite contractors working in the ETLF operation area have their own Health and Safety Plan which is in alignment with this HASP and the Chiquita Health and Safety Plan – ETLF Operation Area. Each contractor should have a copy of the plan on file with CCL. Each contractor is also expected to have a Job Safety Analysis/Job Hazard Analysis (JSA/JHA) for each process of the operation. This should include but not be limited to the following.

- Liner/Covering removal and re-installation
- Excavation work and soil removal
- Butress Construction
- Pipe removal and installation
- Liner Repair

All workers involved in West Slope work must have received training appropriate to the tasks they will be conducting. Minimum requirements include those outline in **Sections 7.1-7.4**.

7.1 HAZWOPER (Title 8 § 5192)

1. Employers must have a medical surveillance program as described in Title 8 § 5192(f).
2. 24-hr or 40-hr depending on the worker's role. 24-hr training is limited to workers who are on site only occasionally for a specific limited task (such as, but not limited to, ground water monitoring, land surveying, or geophysical surveying) and who are unlikely to be exposed over PELs and published exposure levels.

3. If 24-hr or 40-hr training did not include a hands-on portion where employees had the opportunity to become familiar with or to refresh their skills using PPE and safe practices in a non-hazardous setting, supplemental training is required.
4. Additional 8-hr supervisor training for on-site management and supervisors directly responsible for, or who supervise employees engaged in, hazardous waste operations.
5. 3-days supervised field experience for all workers.

7.2 Respiratory Protection (Title 8 § 5144)

1. Employers must have a written respiratory protection program in place as described in Title 8 § 5144(c).
2. All Workers must have received medical evaluations to wear respirators by a physician or other licensed healthcare professional.
3. Full face respirators are preferred. Half face respirators have 1/5th the Maximum Use Concentration (MUC).
4. Workers are recommended to have a quantitative (not qualitative) fit test for the same size and model respirator to be worn. Full face respirators with qualitative fit test have 1/5th the maximum use concentration.
5. Respirator cartridges must be organic vapor cartridges that are also approved for protection from H_2S.

7.3 HASP and JHA

1. All employers must at least have their own site-wide HASP specific to their activities that is at least as protective as the current CCL site wide *Health and Safety Plan - ETLF Operation Areas*. Employers may incorporate some or all of the CCL site wide HASP by reference into their own plan but must have a plan specific to their work.
2. All employers must have completed Job Hazard Analysis (JHA) for West Slope related tasks.
3. All workers must have reviewed the relevant HASPs and JHAs.

7.4 HazComm (Title 8 § 5194) and Benzene (Title 8 § 5218)

1. All workers must have received hazard communication related to hazardous chemicals likely be encountered. At minimum these include landfill leachate, CO, H_2S, benzene, VOCs as a category, and oxygen deficient environments.
2. All workers must have received training on benzene that meets Title 8 § 5218(j)(3).

8.0 Contingency Plans

In the event of an emergency (at this site), the person first noticing the emergency should notify other workers in the immediate area. Evacuation should commence at once if the emergency poses any threat to the safety of the workers. Upon receiving notification of an emergency, the individual in charge of the work area should take appropriate measures to protect human life, the environment (including wildlife), and property consistent with their training and qualifications. Site safety should be notified along with the incident commander so appropriate portions of the Emergency Response Plan can be implemented.

Table 8 Emergency Contacts

Chiquita Canyon Landfill	
Site Address:	29201 Henry Mayo Drive, Castaic, CA 91384
Site Emergency Contact:	Kevin Green (661) 812 - 5846
Alternate Site Contact:	Luis Vargas (346) 740-1359
Chiquita Canyon Landfill	
Local Emergency Response:	911
Medical Facility:	Henry Mayo Newhall Hospital (661) 200 - 2000
Medical Facility Address:	Henry Mayo Newhall Hospital, 23845 McBean Parkway, Valencia, CA 91355

Smaller air horns may be utilized to provide warning to others in the vicinity, stop work, or evacuate the area. If the landfill main emergency horn is used, follow directions provided in the *Health and Safety Plan for ETLF Operations*.

WARNING: One short blast to provide warning or alert to workers in the vicinity.

STOP WORK: One long blast with signal stop work.

EVACUATION: Three short blasts will signal evacuation to the rally points in the site map contained in Appendix A.

Due to changing traffic patterns, follow current patterns and evacuate to crosswind and upwind locations if driving is permitted. If evacuating by walking, move to an upwind and crosswind location, while being cognizant of heavy equipment, and proceed to the nearest safe muster point.

9.0 HASP Acknowledgement

CCL project team members who are performing work on the project and site must review, understand and comply with this plan before undertaking work. This plan must be available to employees for review, and a copy must be present at the site. CCL contractors must also review, understand, and comply with this plan. Review of this plan by each worker must be documented using the following form, or other method of documentation.

"I have read the attached Health and Safety Plan for the West Slope work activities. I have discussed any questions and/or concerns that I have regarding the contents of this document with the designated CCL project safety representative, I understand its purpose and requirements, and consent to adhere to its policies, procedures and guidelines."

Name	Signature	Company	Date

10.0 Amendments to Site-Specific Health and Safety Plan

This plan is based on information available at the time of preparation. Unexpected conditions may arise which necessitate changes to this plan. Unplanned activities and/or changes in the hazard status should initiate a review of major changes in this plan.

Changes in the hazard status or unplanned activities are to be submitted on "Amendments to the Area-Specific Health and Safety Plan" which is included in this plan.

Amendments must be approved by site safety prior to implementation.

Version 1.0		
Description of Change (include sections and page numbers): *Initial Draft (Not Distributed)*		
	Name/Position	**Date**
Prepared By:	Jason Callahan - Senior Health Scientist	2026-03-24

Appendix A: Site Map

CTEH

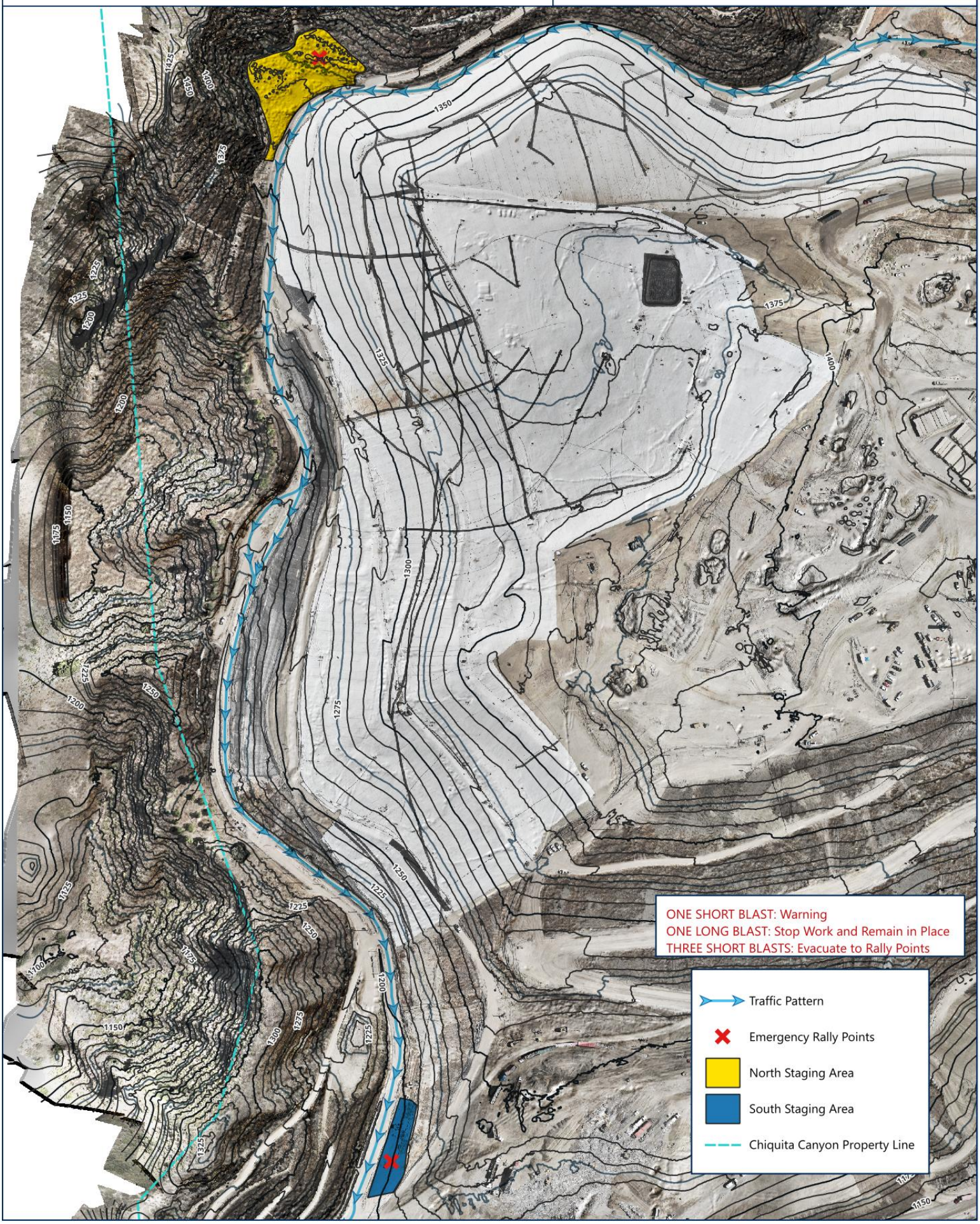
West Slope Improvement Site

Chiquita Canyon Landfill

0 50 100 150 200 250 ft

N

City: Castaic
State: CA
CRS: NAD83(2011) / California zone 5 (ftUS)
Projection: Lambert Conformal Conic
Printed: 2026-04-01



Appendix B: Scrim Vapor and Soil Sample Results

West Slope Scrim Headspace Sample Results

Chiquita Canyon Landfill - June 12, 2024

Analyte	North area of the skrim on the west slope toe ppmv	Middle area of skrim on the west slope toe ppmv	South area of the skrim on the west slope head ppmv
1,1-DICHLOROETHANE	< 7.23	< 0.000723	< 7.23e-05
1,1-DICHLOROETHENE	< 7.62	< 0.000762	< 7.62e-05
1,1,1-TRICHLOROETHANE	< 7.36	< 0.000736	< 7.36e-05
1,1,2-TRICHLOROETHANE	< 7.75	< 0.000775	< 7.75e-05
1,1,2-TRICHLOROTRIFLUOROETHANE	< 7.93	< 0.000793	< 7.93e-05
1,1,2,2-TETRACHLOROETHANE	< 7.43	< 0.000743	< 7.43e-05
1,2-DIBROMOETHANE	< 7.21	< 0.000721	< 7.21e-05
1,2-DICHLOROBENZENE	< 12.8	< 0.00128	< 0.000128
1,2-DICHLOROETHANE	< 7	< 0.0007	< 7e-05
1,2-DICHLOROPROPANE	< 7.6	< 0.00076	< 7.6e-05
1,2-DICHLOROTETRAFLUOROETHANE	< 8.9	< 0.00089	< 8.9e-05
1,2,4-TRICHLOROBENZENE	< 14.8	< 0.00148	< 0.000148
1,2,4-TRIMETHYLBENZENE	39.1	0.0289	0.00103
1,3-BUTADIENE	< 10.4	< 0.00104	< 0.000104
1,3-DICHLOROBENZENE	< 18.2	< 0.00182	< 0.000182
1,3,5-TRIMETHYLBENZENE	12.6	0.00862	0.000313
1,4-DICHLOROBENZENE	< 5.57	0.00494	0.000212
1,4-DIOXANE	< 8.33	< 0.000833	< 8.33e-05
2-BUTANONE (MEK)	251	0.513	0.0207
2-CHLOROTOLUENE	< 8.28	< 0.000828	< 8.28e-05
2-PROPANOL	659	0.544	0.00989
2,2,4-TRIMETHYLPENTANE	< 13.3	< 0.00133	< 0.000133
4-ETHYLTOLUENE	27.5	0.0209	0.000775
4-METHYL-2-PENTANONE (MIBK)	27.7	0.0427	0.00135
ACETONE	593	0.671	0.0326
ACETONITRILE	489	0.0373	< 0.000235
ACRYLONITRILE	< 22.6	< 0.00226	< 0.000226
ALLYL CHLORIDE	< 11.4	< 0.00114	< 0.000114
BENZENE	212	0.426	0.0224
BENZYL CHLORIDE	< 5.98	< 0.000598	< 5.98e-05
BROMODICHLOROMETHANE	< 7.02	< 0.000702	< 7.02e-05
BROMOETHANE	< 21.6	< 0.00216	< 0.000216
BROMOFORM	< 7.32	< 0.000732	< 7.32e-05
BROMOMETHANE	< 9.82	< 0.000982	< 9.82e-05
BUTANE	44.9	0.0364	0.0023

Results preceded by the '<' symbol are considered non-detections, and if present, are less than the limit of quantitation to the right. Samples were collected and analyzed by EPA Method TO-15.

Detected

No

Yes

West Slope Scrim Headspace Sample Results

Chiquita Canyon Landfill - June 12, 2024

Analyte	North area of the skrim on the west slope toe ppmv	Middle area of skrim on the west slope toe ppmv	South area of the skrim on the west slope head ppmv
CARBON DISULFIDE	< 10.2	0.00219	0.000374
CARBON TETRACHLORIDE	< 7.32	< 0.000732	0.000112
CHLOROBENZENE	< 8.32	< 0.000832	< 8.32e-05
CHLOROETHANE	< 9.96	< 0.000996	< 9.96e-05
CHLOROFORM	< 7.17	< 0.000717	< 7.17e-05
CHLOROMETHANE	< 10.3	0.00163	0.000527
CIS-1,2-DICHLOROETHENE	< 7.84	< 0.000784	< 7.84e-05
CIS-1,3-DICHLOROPROPENE	< 6.89	< 0.000689	< 6.89e-05
CYCLOHEXANE	< 7.53	< 0.000753	< 7.53e-05
DIBROMOCHLOROMETHANE	< 7.27	< 0.000727	< 7.27e-05
DICHLORODIFLUOROMETHANE	< 13.7	< 0.00137	0.000543
ETHANOL	472	1.13	0.0126
ETHYLBENZENE	54.4	0.0537	0.00226
HEPTANE	< 10.4	< 0.00104	< 0.000104
HEXACHLORO-1,3-BUTADIENE	< 10.5	< 0.00105	< 0.000105
ISOPROPYLBENZENE	38.7	0.0264	0.0011
M&P-XYLENE	58.5	0.0584	0.00251
METHYL BUTYL KETONE	< 13.3	< 0.00133	< 0.000133
METHYL METHACRYLATE	< 8.76	< 0.000876	< 8.76e-05
METHYLENE CHLORIDE	< 9.79	< 0.000979	0.000194
MTBE	< 6.47	0.000758	7.08e-05
N-DECANE	71.6	0.0476	0.00133
N-HEXANE	400	0.00246	< 0.000206
NAPHTHALENE	< 35	< 0.0035	< 0.00035
NONANE	21.4	0.0155	0.000662
O-XYLENE	28.6	0.0248	0.00104
PENTANE	150	0.00492	0.000403
PROPENE	< 9.32	0.132	0.00875
STYRENE	< 7.88	0.0075	0.000634
TETRACHLOROETHYLENE	< 8.14	< 0.000814	< 8.14e-05
TETRAHYDROFURAN	< 7.34	0.761	0.0265
TOLUENE	45.9	0.0634	0.00304
TRANS-1,2-DICHLOROETHENE	< 6.73	< 0.000673	< 6.73e-05
TRANS-1,3-DICHLOROPROPENE	< 7.28	< 0.000728	< 7.28e-05
TRICHLOROETHYLENE	< 6.8	< 0.00068	< 6.8e-05

Results preceded by the '<' symbol are considered non-detections, and if present, are less than the limit of quantitation to the right. Samples were collected and analyzed by EPA Method TO-15.

Detected

No

Yes

West Slope Scrim Headspace Sample Results

Chiquita Canyon Landfill - June 12, 2024

Analyte	North area of the skrim on the west slope toe ppmv	Middle area of skrim on the west slope toe ppmv	South area of the skrim on the west slope head ppmv
TRICHLOROFLUOROMETHANE	< 8.19	< 0.000819	0.000262
VINYL ACETATE	< 11.6	< 0.00116	< 0.000116
VINYL BROMIDE	< 8.52	< 0.000852	< 8.52e-05
VINYL CHLORIDE	< 9.49	< 0.000949	< 9.49e-05

Results preceded by the '<' symbol are considered non-detections, and if present, are less than the limit of quantitation to the right. Samples were collected and analyzed by EPA Method TO-15.

Detected

No

Yes

West Slope Scrim Headspace PAH Sample Results

Chiquita Canyon Landfill - June 30, 2024

Sample Number	Location Description	ANTHRACENE mg/m³	BENZO(A)PYRENE mg/m³	CHRYSENE mg/m³	PHENANTHRENE mg/m³	PYRENE mg/m³
CACA0629AS001	South edge of west scrim.	< 0.0018	< 0.0023	< 0.002	< 0.0018	< 0.0019
CACA0629AS002	About 100 feet north of south edge of west scrim.	< 0.0018	< 0.0023	< 0.002	< 0.0018	< 0.0019
CACA0629AS003	About 200 feet north of south edge of west scrim	< 0.0018	< 0.0023	< 0.002	< 0.0018	< 0.0019
CACA0629AS004	About 300 feet north of south edge of west scrim	< 0.0018	< 0.0024	< 0.002	< 0.0018	< 0.0019
CACA0629AS005	About 400 feet north of south edge of west scrim	< 0.0018	< 0.0024	< 0.002	< 0.0018	< 0.0019
CACA0629AS006	About 500 feet north of south edge of west scrim	< 0.0037	< 0.0048	< 0.0041	< 0.0037	< 0.0039
CACA0629AS007	About 600 feet north of south edge of west scrim	< 0.0037	< 0.0048	< 0.0041	< 0.0037	< 0.0038
CACA0629AS008	About 700 feet north of south edge of west scrim	< 0.0043	< 0.0056	< 0.0048	< 0.0043	< 0.0045
CACA0629AS009	About 800 feet north of south edge of West scrim	< 0.0034	< 0.0044	< 0.0037	< 0.0034	< 0.0035
CACA0629AS010	About 900 feet north of south edge of west scrim	< 0.0039	< 0.005	< 0.0043	< 0.0038	< 0.004
CACA0630AS007	About 600 feet north of southe edge of west scrim	< 0.006	< 0.0077	< 0.0066	< 0.0059	< 0.0062
CACA0630AS009	About 900 feet north of southe edge of west scrim	< 0.006	< 0.0078	< 0.0067	< 0.006	< 0.0063

Results preceded by the '<' symbol are considered non-detections, and if present, are less than the limit of quantitation to the right. Samples were collected and analyzed by NIOSH Method 5506

Detected

No

West Slope Scrim Headspace Direct Reading Results

Chiquita Canyon Landfill - June 12, 2024

Analyte	Units	North Area of Scrim on the West Slope Toe	South Area of Scrim on the West Slope Head
Carbon Monoxide	ppm	402.0	91.0
Hydrogen Sulfide	ppm	42.1	37.9
LEL	%	49.0	99.0
VOCs	ppm	415.6	119.0

Direct reading measurements collected with RAE Systems MultiRAE Pro

West Scrim Surface Soil and TCLP Samples

Chiquita Canyon Landfill - July 26, 2024

Data Updated at 8/2/2024 13:40:58

Analysis	Matrix	Analyte	West scrim 0-100 ft CACA0726S001	Scrim 100-200 ft CACA0726S002	Scrim 200-300 ft CACA0726S003	Scrim 300-400 ft CACA0726S004	Scrim 400-500 ft CACA0726S005	Scrim 500-600 ft CACA0726S006	Scrim 600-700 ft CACA0726S007	Scrim 700-800 ft CACA0726S008	Scrim 800-900 ft CACA0726S009	Scrim 900-1000 ft CACA0726C010	Scrim 900-1000 ft CACA0726S010	Scrim 1000-1100 ft CACA0726S011
Metals	Soil	Antimony	< 1.2 mg/Kg	< 1.2 mg/Kg	< 1.2 mg/Kg	< 1.2 mg/Kg	< 1.2 mg/Kg	< 1.2 mg/Kg	< 1.2 mg/Kg	< 1.2 mg/Kg	< 1.2 mg/Kg	< 1.2 mg/Kg	< 1.2 mg/Kg	< 1.1 mg/Kg
		Arsenic	15 mg/Kg	1.8 mg/Kg	3.1 mg/Kg	5.1 mg/Kg	1.1 mg/Kg	2.2 mg/Kg	3.5 mg/Kg	2.3 mg/Kg	3.1 mg/Kg	3.2 mg/Kg	3.2 mg/Kg	3.7 mg/Kg
		Barium	99 mg/Kg	54 mg/Kg	74 mg/Kg	94 mg/Kg	51 mg/Kg	72 mg/Kg	88 mg/Kg	66 mg/Kg	68 mg/Kg	95 mg/Kg	110 mg/Kg	140 mg/Kg
		Beryllium	0.56 mg/Kg	0.25 mg/Kg (J)	0.34 mg/Kg (J)	0.32 mg/Kg (J)	0.18 mg/Kg (J)	0.26 mg/Kg (J)	0.43 mg/Kg (J)	0.3 mg/Kg (J)	0.27 mg/Kg (J)	0.38 mg/Kg (J)	0.39 mg/Kg (J)	0.32 mg/Kg (J)
		Cadmium	< 0.051 mg/Kg	2.7 mg/Kg	0.068 mg/Kg (J)	0.079 mg/Kg (J)	< 0.052 mg/Kg	0.098 mg/Kg (J)	< 0.051 mg/Kg	0.075 mg/Kg (J)	0.094 mg/Kg (J)	< 0.053 mg/Kg	< 0.052 mg/Kg	< 0.05 mg/Kg
		Chromium	24 mg/Kg	14 mg/Kg	16 mg/Kg	16 mg/Kg	10 mg/Kg	17 mg/Kg	19 mg/Kg	15 mg/Kg	15 mg/Kg	17 mg/Kg	20 mg/Kg	17 mg/Kg
		Cobalt	9.7 mg/Kg	4.9 mg/Kg	6 mg/Kg	6.2 mg/Kg	3.7 mg/Kg	5.9 mg/Kg	7.1 mg/Kg	5.4 mg/Kg	5.7 mg/Kg	6.8 mg/Kg	7.6 mg/Kg	6.3 mg/Kg
		Copper	21 mg/Kg	12 mg/Kg	15 mg/Kg	15 mg/Kg	9.8 mg/Kg	14 mg/Kg	14 mg/Kg	18 mg/Kg	15 mg/Kg	14 mg/Kg	14 mg/Kg	12 mg/Kg
		Lead	4.6 mg/Kg	4.1 mg/Kg	4.6 mg/Kg	5.6 mg/Kg	4 mg/Kg	5.9 mg/Kg	3.7 mg/Kg	5 mg/Kg	5.3 mg/Kg	3.1 mg/Kg	3.3 mg/Kg	2.9 mg/Kg
		Mercury	< 0.061 mg/Kg	< 0.061 mg/Kg	2.1 mg/Kg	0.32 mg/Kg	< 0.057 mg/Kg	< 0.059 mg/Kg	< 0.053 mg/Kg	< 0.055 mg/Kg	0.061 mg/Kg (J)	< 0.057 mg/Kg	< 0.058 mg/Kg	< 0.054 mg/Kg
		Molybdenum	< 0.52 mg/Kg	< 0.55 mg/Kg	< 0.54 mg/Kg	< 0.55 mg/Kg	< 0.54 mg/Kg	< 0.53 mg/Kg	< 0.53 mg/Kg	< 0.54 mg/Kg	< 0.52 mg/Kg	< 0.55 mg/Kg	< 0.54 mg/Kg	< 0.52 mg/Kg
		Nickel	20 mg/Kg	10 mg/Kg	12 mg/Kg	13 mg/Kg	8.1 mg/Kg	12 mg/Kg	14 mg/Kg	11 mg/Kg	11 mg/Kg	13 mg/Kg	14 mg/Kg	12 mg/Kg
		Selenium	< 0.86 mg/Kg	< 0.9 mg/Kg	< 0.88 mg/Kg	< 0.9 mg/Kg	< 0.88 mg/Kg	< 0.87 mg/Kg	< 0.87 mg/Kg	< 0.89 mg/Kg	< 0.86 mg/Kg	< 0.9 mg/Kg	< 0.89 mg/Kg	< 0.86 mg/Kg
		Silver	< 0.17 mg/Kg	< 0.17 mg/Kg	< 0.17 mg/Kg	< 0.17 mg/Kg	< 0.17 mg/Kg	< 0.17 mg/Kg	< 0.17 mg/Kg	< 0.17 mg/Kg	< 0.17 mg/Kg	< 0.17 mg/Kg	< 0.17 mg/Kg	< 0.17 mg/Kg
		Thallium	< 0.91 mg/Kg	< 0.95 mg/Kg	< 0.93 mg/Kg	< 0.95 mg/Kg	< 0.93 mg/Kg	< 0.92 mg/Kg	< 0.92 mg/Kg	< 0.94 mg/Kg	< 0.91 mg/Kg	< 0.95 mg/Kg	< 0.94 mg/Kg	< 0.9 mg/Kg
		Vanadium	39 mg/Kg	24 mg/Kg	32 mg/Kg	33 mg/Kg	22 mg/Kg	30 mg/Kg	36 mg/Kg	26 mg/Kg	39 mg/Kg	37 mg/Kg	40 mg/Kg	34 mg/Kg
		Zinc	48 mg/Kg	54 mg/Kg	44 mg/Kg	51 mg/Kg	33 mg/Kg	43 mg/Kg	38 mg/Kg	48 mg/Kg	55 mg/Kg	34 mg/Kg	38 mg/Kg	32 mg/Kg
	TCLP	Antimony	0.029 mg/L (J)	< 0.01 mg/L	< 0.01 mg/L	< 0.01 mg/L	< 0.01 mg/L	< 0.01 mg/L	< 0.01 mg/L	< 0.01 mg/L	< 0.01 mg/L	< 0.01 mg/L	< 0.01 mg/L	< 0.01 mg/L
		Arsenic	0.31 mg/L	< 0.0024 mg/L	0.02 mg/L (J)	0.071 mg/L	< 0.0024 mg/L	0.031 mg/L	< 0.0024 mg/L	0.0029 mg/L (J)	< 0.0024 mg/L	< 0.0024 mg/L	< 0.0024 mg/L	< 0.0024 mg/L
		Barium	0.68 mg/L (J)	0.81 mg/L (J)	0.71 mg/L (J)	0.54 mg/L (J)	0.87 mg/L (J)	0.95 mg/L (J)	1.2 mg/L	0.69 mg/L (J)	0.76 mg/L (J)	0.4 mg/L (J)	0.32 mg/L (J)	0.31 mg/L (J)
		Beryllium	< 0.00063 mg/L	< 0.00063 mg/L	< 0.00063 mg/L	< 0.00063 mg/L	< 0.00063 mg/L	< 0.00063 mg/L	< 0.00063 mg/L	< 0.00063 mg/L	< 0.00063 mg/L	0.00077 mg/L (J)	0.00083 mg/L (J)	< 0.00063 mg/L
		Cadmium	< 0.00055 mg/L	< 0.00055 mg/L	< 0.00055 mg/L	< 0.00055 mg/L	< 0.00055 mg/L	< 0.00055 mg/L	0.00066 mg/L (J)	< 0.00055 mg/L	< 0.00055 mg/L	0.00072 mg/L (J)	0.00087 mg/L (J)	0.0012 mg/L (J)
		Chromium	< 0.0023 mg/L	0.015 mg/L (J)	< 0.0023 mg/L	< 0.0023 mg/L	0.012 mg/L (J)	< 0.0023 mg/L	0.0035 mg/L (J)	0.0085 mg/L (J)	0.0033 mg/L (J)	< 0.0023 mg/L	< 0.0023 mg/L	< 0.0023 mg/L
		Cobalt	0.0031 mg/L (J)	0.0071 mg/L (J)	0.01 mg/L (J)	0.0032 mg/L (J)	0.0039 mg/L (J)	0.02 mg/L	0.02 mg/L	0.0079 mg/L (J)	0.022 mg/L	0.0085 mg/L (J)	0.0084 mg/L (J)	0.0098 mg/L (J)
		Copper	0.0073 mg/L (J)	0.0086 mg/L (J)	< 0.0022 mg/L	0.0025 mg/L (J)	< 0.0022 mg/L	< 0.0022 mg/L	0.0024 mg/L (J)	0.0026 mg/L (J)	0.0027 mg/L (J)	0.0057 mg/L (J)	0.0057 mg/L (J)	0.0062 mg/L (J)
		Lead	< 0.0033 mg/L	< 0.0033 mg/L	< 0.0033 mg/L	0.0037 mg/L (J)	< 0.0033 mg/L	0.0054 mg/L (J)	< 0.0033 mg/L	0.0047 mg/L (J)	0.0048 mg/L (J)	< 0.0033 mg/L	< 0.0033 mg/L	0.0078 mg/L (J)
		Mercury	< 0.0017 mg/L	< 0.0017 mg/L	< 0.0017 mg/L	< 0.0017 mg/L	< 0.0017 mg/L	< 0.0017 mg/L	< 0.0017 mg/L	< 0.0017 mg/L	< 0.0017 mg/L	< 0.0017 mg/L	< 0.0017 mg/L	< 0.0017 mg/L
		Molybdenum	< 0.0048 mg/L	< 0.0048 mg/L	< 0.0048 mg/L	< 0.0048 mg/L	< 0.0048 mg/L	< 0.0048 mg/L	< 0.0048 mg/L	< 0.0048 mg/L	< 0.0048 mg/L	< 0.0048 mg/L	< 0.0048 mg/L	< 0.0048 mg/L
		Nickel	0.0042 mg/L (J)	0.013 mg/L (J)	0.015 mg/L (J)	< 0.0027 mg/L	0.012 mg/L (J)	0.025 mg/L (J)	0.024 mg/L (J)	0.016 mg/L (J)	0.035 mg/L (J)	0.0097 mg/L (J)	0.01 mg/L (J)	0.01 mg/L (J)
		Selenium	< 0.0057 mg/L	< 0.0057 mg/L	0.006 mg/L (J)	< 0.0057 mg/L	< 0.0057 mg/L	< 0.0057 mg/L	< 0.0057 mg/L	< 0.0057 mg/L	< 0.0057 mg/L	< 0.0057 mg/L	< 0.0057 mg/L	< 0.0057 mg/L
		Silver	0.0021 mg/L (J)	< 0.0016 mg/L	< 0.0016 mg/L	< 0.0016 mg/L	< 0.0016 mg/L	< 0.0016 mg/L	< 0.0016 mg/L	< 0.0016 mg/L	< 0.0016 mg/L	< 0.0016 mg/L	< 0.0016 mg/L	< 0.0016 mg/L
		Thallium	< 0.0033 mg/L	< 0.0033 mg/L	< 0.0033 mg/L	< 0.0033 mg/L	< 0.0033 mg/L	< 0.0033 mg/L	< 0.0033 mg/L	< 0.0033 mg/L	< 0.0033 mg/L	< 0.0033 mg/L	< 0.0033 mg/L	< 0.0033 mg/L
		Vanadium	0.011 mg/L (J)	0.034 mg/L	< 0.0031 mg/L	0.0083 mg/L (J)	0.021 mg/L	0.0057 mg/L (J)	< 0.0031 mg/L	0.013 mg/L (J)	0.0089 mg/L (J)	0.0039 mg/L (J)	0.0036 mg/L (J)	0.0035 mg/L (J)
		Zinc	0.01 mg/L (J)	0.07 mg/L	0.11 mg/L	0.033 mg/L (J)	0.06 mg/L (J)	0.076 mg/L	0.031 mg/L (J)	0.074 mg/L	0.23 mg/L	0.02 mg/L (J)	0.018 mg/L (J)	0.022 mg/L (J)
Physical Characteristic	Soil	Ignitability	< 0 mm/sec	< 0 mm/sec	< 0 mm/sec	< 0 mm/sec	< 0 mm/sec	< 0 mm/sec	< 0 mm/sec	< 0 mm/sec	< 0 mm/sec	< 0 mm/sec	< 0 mm/sec	< 0 mm/sec
Semivolatiles	Soil	1-Methylnaphthalene	< 0.087 mg/Kg	< 0.087 mg/Kg	< 0.086 mg/Kg	< 0.87 mg/Kg	< 0.087 mg/Kg	< 0.88 mg/Kg	< 0.087 mg/Kg	< 0.087 mg/Kg	< 0.087 mg/Kg	< 0.086 mg/Kg	< 0.086 mg/Kg	< 0.088 mg/Kg
		1,2-Dichlorobenzene	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.11 mg/Kg	< 1.1 mg/Kg	< 0.11 mg/Kg	< 1.2 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.12 mg/Kg
		1,2-diphenylhydrazine (as azobenzene)	< 0.089 mg/Kg	< 0.089 mg/Kg	< 0.088 mg/Kg	< 0.89 mg/Kg	< 0.089 mg/Kg	< 0.89 mg/Kg	< 0.089 mg/Kg	< 0.089 mg/Kg	< 0.089 mg/Kg	< 0.088 mg/Kg	< 0.088 mg/Kg	< 0.089 mg/Kg
		1,2,4-Trichlorobenzene	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 1.1 mg/Kg	< 0.11 mg/Kg	< 1.1 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg
		1,3-Dichlorobenzene	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.11 mg/Kg	< 1.2 mg/Kg	< 0.12 mg/Kg	< 1.2 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.11 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg
		1,4-Dichlorobenzene	< 0.13 mg/Kg	< 0.13 mg/Kg	< 0.12 mg/Kg	1.5 mg/Kg (J)	< 0.12 mg/Kg	< 1.3 mg/Kg	< 0.13 mg/Kg	< 0.13 mg/Kg	< 0.13 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.13 mg/Kg
		2-Chloronaphthalene	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.098 mg/Kg	< 0.99 mg/Kg	< 0.099 mg/Kg	< 1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.098 mg/Kg	< 0.099 mg/Kg	< 0.1 mg/Kg
		2-Chlorophenol	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 1.2 mg/Kg	< 0.12 mg/Kg	< 1.2 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg
		2-Methylnaphthalene	< 0.093 mg/Kg	< 0.093 mg/Kg	< 0.092 mg/Kg	1.3 mg/Kg (J)	< 0.092 mg/Kg	< 0.93 mg/Kg	< 0.093 mg/Kg	< 0.093 mg/Kg	< 0.093 mg/Kg	< 0.092 mg/Kg	< 0.092 mg/Kg	< 0.093 mg/Kg
		2-Methylphenol	0.18 mg/Kg (J)	< 0.1 mg/Kg	0.49 mg/Kg	1.4 mg/Kg (J)	< 0.1 mg/Kg	< 1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	0.11 mg/Kg (J)	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg
		2-Nitroaniline	< 0.096 mg/Kg	< 0.096 mg/Kg	< 0.095 mg/Kg	< 0.96 mg/Kg	< 0.096 mg/Kg	< 0.97 mg/Kg	< 0.096 mg/Kg	< 0.096 mg/Kg	< 0.096 mg/Kg	< 0.095 mg/Kg	< 0.095 mg/Kg	< 0.097 mg/Kg

Laboratory non-detections are reported as less than ("<") the laboratory method detection limit.
Laboratory result qualifiers are reported to the right of corresponding detections (in parentheses). Definitions of reported qualifiers are below:
J: Result is estimated between the laboratory method detection limit and reporting limit.
E: Response Exceeds instrument's linear range

Detection

Detection

Non-Detection

West Scrim Surface Soil and TCLP Samples

Chiquita Canyon Landfill - July 26, 2024

Data Updated at 8/2/2024 13:40:58

Analysis	Matrix	Analyte	West scrim 0-100 ft CACA0726S001	Scrim 100-200 ft CACA0726S002	Scrim 200-300 ft CACA0726S003	Scrim 300-400 ft CACA0726S004	Scrim 400-500 ft CACA0726S005	Scrim 500-600 ft CACA0726S006	Scrim 600-700 ft CACA0726S007	Scrim 700-800 ft CACA0726S008	Scrim 800-900 ft CACA0726S009	Scrim 900-1000 ft CACA0726C010	Scrim 900-1000 ft CACA0726S010	Scrim 1000-1100 ft CACA0726S011
Semivolatiles	Soil	2-Nitrophenol	< 0.097 mg/Kg	< 0.097 mg/Kg	< 0.095 mg/Kg	< 0.96 mg/Kg	< 0.096 mg/Kg	< 0.97 mg/Kg	< 0.097 mg/Kg	< 0.097 mg/Kg	< 0.097 mg/Kg	< 0.095 mg/Kg	< 0.096 mg/Kg	< 0.097 mg/Kg
		2,4-Dichlorophenol	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 1.1 mg/Kg	< 0.11 mg/Kg	< 1.1 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg
		2,4-Dimethylphenol	< 0.08 mg/Kg	< 0.08 mg/Kg	0.21 mg/Kg (J)	2.2 mg/Kg (J)	< 0.08 mg/Kg	< 0.81 mg/Kg	< 0.08 mg/Kg	< 0.08 mg/Kg	0.14 mg/Kg (J)	< 0.079 mg/Kg	< 0.08 mg/Kg	< 0.081 mg/Kg
		2,4-Dinitrophenol	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 1.1 mg/Kg	< 0.11 mg/Kg	< 1.2 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.12 mg/Kg
		2,4-Dinitrotoluene	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.1 mg/Kg	< 1.1 mg/Kg	< 0.11 mg/Kg	< 1.1 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.1 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg
		2,4,5-Trichlorophenol	< 0.091 mg/Kg	< 0.091 mg/Kg	< 0.089 mg/Kg	< 0.9 mg/Kg	< 0.09 mg/Kg	< 0.91 mg/Kg	< 0.091 mg/Kg	< 0.091 mg/Kg	< 0.091 mg/Kg	< 0.089 mg/Kg	< 0.09 mg/Kg	< 0.091 mg/Kg
		2,4,6-Trichlorophenol	< 0.099 mg/Kg	< 0.099 mg/Kg	< 0.098 mg/Kg	< 0.99 mg/Kg	< 0.099 mg/Kg	< 1 mg/Kg	< 0.099 mg/Kg	< 0.099 mg/Kg	< 0.099 mg/Kg	< 0.098 mg/Kg	< 0.099 mg/Kg	< 0.1 mg/Kg
		2,6-Dinitrotoluene	< 0.094 mg/Kg	< 0.094 mg/Kg	< 0.093 mg/Kg	< 0.93 mg/Kg	< 0.093 mg/Kg	< 0.94 mg/Kg	< 0.094 mg/Kg	< 0.094 mg/Kg	< 0.094 mg/Kg	< 0.093 mg/Kg	< 0.093 mg/Kg	< 0.094 mg/Kg
		3-,4-Methylphenol	1.6 mg/Kg	13 mg/Kg (E)	12 mg/Kg (E)	50 mg/Kg	8.4 mg/Kg (E)	3.2 mg/Kg (J)	0.29 mg/Kg (J)	< 0.11 mg/Kg	0.35 mg/Kg (J)	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg
		3-Nitroaniline	< 0.089 mg/Kg	< 0.089 mg/Kg	< 0.088 mg/Kg	< 0.89 mg/Kg	< 0.089 mg/Kg	< 0.9 mg/Kg	< 0.089 mg/Kg	< 0.089 mg/Kg	< 0.089 mg/Kg	< 0.088 mg/Kg	< 0.088 mg/Kg	< 0.09 mg/Kg
		3,3′-Dichlorobenzidine	< 0.14 mg/Kg	< 0.14 mg/Kg	< 0.14 mg/Kg	< 1.4 mg/Kg	< 0.14 mg/Kg	< 1.4 mg/Kg	< 0.14 mg/Kg	< 0.14 mg/Kg	< 0.14 mg/Kg	< 0.14 mg/Kg	< 0.14 mg/Kg	< 0.14 mg/Kg
		4-Bromophenyl-phenylether	< 0.084 mg/Kg	< 0.084 mg/Kg	< 0.082 mg/Kg	< 0.83 mg/Kg	< 0.083 mg/Kg	< 0.84 mg/Kg	< 0.084 mg/Kg	< 0.084 mg/Kg	< 0.084 mg/Kg	< 0.082 mg/Kg	< 0.083 mg/Kg	< 0.084 mg/Kg
		4-Chloro-3-methylphenol	< 0.093 mg/Kg	< 0.093 mg/Kg	< 0.091 mg/Kg	< 0.92 mg/Kg	< 0.092 mg/Kg	< 0.93 mg/Kg	< 0.093 mg/Kg	< 0.093 mg/Kg	< 0.093 mg/Kg	< 0.091 mg/Kg	< 0.092 mg/Kg	< 0.093 mg/Kg
		4-Chloroaniline	< 0.068 mg/Kg	< 0.068 mg/Kg	< 0.067 mg/Kg	< 0.67 mg/Kg	< 0.067 mg/Kg	< 0.68 mg/Kg	< 0.068 mg/Kg	< 0.068 mg/Kg	< 0.068 mg/Kg	< 0.067 mg/Kg	< 0.067 mg/Kg	< 0.068 mg/Kg
		4-Chlorophenyl-phenylether	< 0.098 mg/Kg	< 0.098 mg/Kg	< 0.097 mg/Kg	< 0.98 mg/Kg	< 0.098 mg/Kg	< 0.99 mg/Kg	< 0.098 mg/Kg	< 0.098 mg/Kg	< 0.098 mg/Kg	< 0.097 mg/Kg	< 0.097 mg/Kg	< 0.099 mg/Kg
		4-Nitroaniline	< 0.067 mg/Kg	< 0.067 mg/Kg	< 0.066 mg/Kg	< 0.67 mg/Kg	< 0.067 mg/Kg	< 0.68 mg/Kg	< 0.067 mg/Kg	< 0.067 mg/Kg	< 0.067 mg/Kg	< 0.066 mg/Kg	< 0.067 mg/Kg	< 0.068 mg/Kg
		4-Nitrophenol	< 0.058 mg/Kg	< 0.058 mg/Kg	< 0.058 mg/Kg	< 0.58 mg/Kg	< 0.058 mg/Kg	< 0.59 mg/Kg	< 0.058 mg/Kg	< 0.058 mg/Kg	< 0.058 mg/Kg	< 0.058 mg/Kg	< 0.058 mg/Kg	< 0.059 mg/Kg
		4,6-Dinitro-2-methylphenol	< 0.051 mg/Kg	< 0.051 mg/Kg	< 0.051 mg/Kg	< 0.51 mg/Kg	< 0.051 mg/Kg	< 0.52 mg/Kg	< 0.051 mg/Kg	< 0.051 mg/Kg	< 0.051 mg/Kg	< 0.051 mg/Kg	< 0.051 mg/Kg	< 0.052 mg/Kg
		Acenaphthene	< 0.096 mg/Kg	< 0.096 mg/Kg	< 0.095 mg/Kg	< 0.96 mg/Kg	< 0.096 mg/Kg	< 0.97 mg/Kg	< 0.096 mg/Kg	< 0.096 mg/Kg	< 0.096 mg/Kg	< 0.095 mg/Kg	< 0.095 mg/Kg	< 0.097 mg/Kg
		Acenaphthylene	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.099 mg/Kg	< 1 mg/Kg	< 0.1 mg/Kg	< 1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.099 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg
		Aniline	< 0.072 mg/Kg	0.078 mg/Kg (J)	< 0.071 mg/Kg	< 0.71 mg/Kg	< 0.071 mg/Kg	< 0.72 mg/Kg	0.094 mg/Kg (J)	0.22 mg/Kg (J)	0.14 mg/Kg (J)	< 0.071 mg/Kg	< 0.071 mg/Kg	< 0.072 mg/Kg
		Anthracene	< 0.097 mg/Kg	< 0.097 mg/Kg	< 0.096 mg/Kg	< 0.97 mg/Kg	< 0.097 mg/Kg	< 0.98 mg/Kg	< 0.097 mg/Kg	< 0.097 mg/Kg	< 0.097 mg/Kg	< 0.096 mg/Kg	< 0.096 mg/Kg	< 0.098 mg/Kg
		Benzidine	< 0.16 mg/Kg	< 0.16 mg/Kg	< 0.15 mg/Kg	< 1.5 mg/Kg	< 0.15 mg/Kg	< 1.6 mg/Kg	< 0.16 mg/Kg	< 0.16 mg/Kg	< 0.16 mg/Kg	< 0.15 mg/Kg	< 0.15 mg/Kg	< 0.16 mg/Kg
		Benzo(a)anthracene	< 0.091 mg/Kg	< 0.091 mg/Kg	< 0.09 mg/Kg	< 0.91 mg/Kg	< 0.091 mg/Kg	< 0.92 mg/Kg	< 0.091 mg/Kg	< 0.091 mg/Kg	< 0.091 mg/Kg	< 0.09 mg/Kg	< 0.091 mg/Kg	< 0.092 mg/Kg
		Benzo(a)pyrene	< 0.091 mg/Kg	< 0.091 mg/Kg	< 0.09 mg/Kg	< 0.91 mg/Kg	< 0.091 mg/Kg	< 0.92 mg/Kg	< 0.091 mg/Kg	< 0.091 mg/Kg	< 0.091 mg/Kg	< 0.09 mg/Kg	< 0.091 mg/Kg	< 0.092 mg/Kg
		Benzo(b)fluoranthene	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 1 mg/Kg	< 0.1 mg/Kg	< 1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg
		Benzo(g,h,i)perylene	< 0.094 mg/Kg	< 0.094 mg/Kg	< 0.093 mg/Kg	< 0.93 mg/Kg	< 0.093 mg/Kg	< 0.94 mg/Kg	< 0.094 mg/Kg	< 0.094 mg/Kg	< 0.094 mg/Kg	< 0.093 mg/Kg	< 0.093 mg/Kg	< 0.094 mg/Kg
		Benzo(k)fluoranthene	< 0.091 mg/Kg	< 0.091 mg/Kg	< 0.09 mg/Kg	< 0.91 mg/Kg	< 0.091 mg/Kg	< 0.92 mg/Kg	< 0.091 mg/Kg	< 0.091 mg/Kg	< 0.091 mg/Kg	< 0.09 mg/Kg	< 0.09 mg/Kg	< 0.092 mg/Kg
		Benzoic acid	< 0.25 mg/Kg	< 0.25 mg/Kg	< 0.25 mg/Kg	< 2.5 mg/Kg	< 0.25 mg/Kg	< 2.5 mg/Kg	< 0.25 mg/Kg	< 0.25 mg/Kg	< 0.25 mg/Kg	< 0.25 mg/Kg	< 0.25 mg/Kg	< 0.25 mg/Kg
		Benzyl alcohol	0.66 mg/Kg	< 0.1 mg/Kg	1.3 mg/Kg	4.4 mg/Kg	< 0.1 mg/Kg	< 1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.099 mg/Kg	< 0.099 mg/Kg	< 0.1 mg/Kg
		bis(2-Chloroethoxy)methane	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.098 mg/Kg	< 0.99 mg/Kg	< 0.099 mg/Kg	< 1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.098 mg/Kg	< 0.099 mg/Kg	< 0.1 mg/Kg
		bis(2-Chloroethyl)ether	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 1.1 mg/Kg	< 0.11 mg/Kg	< 1.1 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg
		bis(2-Chloroisopropyl) ether	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.11 mg/Kg	< 1.2 mg/Kg	< 0.12 mg/Kg	< 1.2 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.12 mg/Kg
		bis(2-Ethylhexyl)phthalate	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 1.2 mg/Kg	< 0.12 mg/Kg	7.8 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	1.5 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg
		Butylbenzylphthalate	< 0.088 mg/Kg	< 0.088 mg/Kg	0.19 mg/Kg (J)	3 mg/Kg	< 0.087 mg/Kg	< 0.88 mg/Kg	< 0.088 mg/Kg	< 0.088 mg/Kg	0.2 mg/Kg (J)	< 0.086 mg/Kg	< 0.087 mg/Kg	< 0.088 mg/Kg
		Carbazole	< 0.094 mg/Kg	< 0.094 mg/Kg	< 0.093 mg/Kg	< 0.94 mg/Kg	< 0.094 mg/Kg	< 0.95 mg/Kg	< 0.094 mg/Kg	< 0.094 mg/Kg	< 0.094 mg/Kg	< 0.093 mg/Kg	< 0.094 mg/Kg	< 0.095 mg/Kg
		Chrysene	< 0.092 mg/Kg	< 0.092 mg/Kg	< 0.091 mg/Kg	< 0.92 mg/Kg	< 0.092 mg/Kg	< 0.93 mg/Kg	< 0.092 mg/Kg	< 0.092 mg/Kg	< 0.092 mg/Kg	< 0.091 mg/Kg	< 0.091 mg/Kg	< 0.093 mg/Kg
		Di-n-butylphthalate	< 0.088 mg/Kg	< 0.088 mg/Kg	< 0.086 mg/Kg	< 0.87 mg/Kg	< 0.087 mg/Kg	< 0.88 mg/Kg	< 0.088 mg/Kg	< 0.088 mg/Kg	< 0.088 mg/Kg	< 0.086 mg/Kg	< 0.087 mg/Kg	< 0.088 mg/Kg
		Di-n-octylphthalate	< 0.06 mg/Kg	< 0.06 mg/Kg	< 0.059 mg/Kg	< 0.59 mg/Kg	< 0.059 mg/Kg	< 0.6 mg/Kg	< 0.06 mg/Kg	< 0.06 mg/Kg	0.52 mg/Kg	< 0.059 mg/Kg	< 0.059 mg/Kg	< 0.06 mg/Kg
		Dibenz(a,h)anthracene	< 0.094 mg/Kg	< 0.094 mg/Kg	< 0.093 mg/Kg	< 0.93 mg/Kg	< 0.093 mg/Kg	< 0.94 mg/Kg	< 0.094 mg/Kg	< 0.094 mg/Kg	< 0.094 mg/Kg	< 0.093 mg/Kg	< 0.093 mg/Kg	< 0.094 mg/Kg
		Dibenzofuran	< 0.093 mg/Kg	< 0.093 mg/Kg	< 0.092 mg/Kg	< 0.93 mg/Kg	< 0.093 mg/Kg	< 0.93 mg/Kg	< 0.093 mg/Kg	< 0.093 mg/Kg	< 0.093 mg/Kg	< 0.092 mg/Kg	< 0.092 mg/Kg	< 0.093 mg/Kg
		Diethylphthalate	< 0.076 mg/Kg	< 0.076 mg/Kg	< 0.075 mg/Kg	< 0.75 mg/Kg	< 0.075 mg/Kg	< 0.76 mg/Kg	< 0.076 mg/Kg	< 0.076 mg/Kg	< 0.076 mg/Kg	< 0.075 mg/Kg	< 0.075 mg/Kg	< 0.076 mg/Kg
		Dimethylphthalate	< 0.09 mg/Kg	< 0.09 mg/Kg	< 0.089 mg/Kg	< 0.9 mg/Kg	< 0.09 mg/Kg	< 0.9 mg/Kg	< 0.09 mg/Kg	< 0.09 mg/Kg	< 0.09 mg/Kg	< 0.089 mg/Kg	< 0.089 mg/Kg	< 0.09 mg/Kg
		Fluoranthene	< 0.098 mg/Kg	< 0.098 mg/Kg	< 0.096 mg/Kg	< 0.97 mg/Kg	< 0.097 mg/Kg	< 0.98 mg/Kg	< 0.098 mg/Kg	< 0.098 mg/Kg	< 0.098 mg/Kg	< 0.096 mg/Kg	< 0.097 mg/Kg	< 0.098 mg/Kg
		Fluorene	< 0.095 mg/Kg	< 0.095 mg/Kg	< 0.094 mg/Kg	< 0.95 mg/Kg	< 0.095 mg/Kg	< 0.96 mg/Kg	< 0.095 mg/Kg	< 0.095 mg/Kg	< 0.095 mg/Kg	< 0.094 mg/Kg	< 0.094 mg/Kg	< 0.096 mg/Kg
		Hexachlorobenzene	< 0.079 mg/Kg	< 0.079 mg/Kg	< 0.078 mg/Kg	< 0.78 mg/Kg	< 0.078 mg/Kg	< 0.79 mg/Kg	< 0.079 mg/Kg	< 0.079 mg/Kg	< 0.079 mg/Kg	< 0.078 mg/Kg	< 0.078 mg/Kg	< 0.079 mg/Kg

Laboratory non-detections are reported as less than ("<") the laboratory method detection limit.
Laboratory result qualifiers are reported to the right of corresponding detections (in parentheses). Definitions of reported qualifiers are below:
J: Result is estimated between the laboratory method detection limit and reporting limit.
E: Response Exceeds instrument's linear range

Detection

Detection

Non-Detection

West Scrim Surface Soil and TCLP Samples

Chiquita Canyon Landfill - July 26, 2024

Data Updated at 8/2/2024 13:40:58

Analysis	Matrix	Analyte	West scrim 0-100 ft CACA0726S001	Scrim 100-200 ft CACA0726S002	Scrim 200-300 ft CACA0726S003	Scrim 300-400 ft CACA0726S004	Scrim 400-500 ft CACA0726S005	Scrim 500-600 ft CACA0726S006	Scrim 600-700 ft CACA0726S007	Scrim 700-800 ft CACA0726S008	Scrim 800-900 ft CACA0726S009	Scrim 900-1000 ft CACA0726C010	Scrim 900-1000 ft CACA0726S010	Scrim 1000-1100 ft CACA0726S011
Semivolatiles	Soil	Hexachlorobutadiene	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.099 mg/Kg	< 1 mg/Kg	< 0.1 mg/Kg	< 1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.099 mg/Kg	< 0.099 mg/Kg	< 0.1 mg/Kg
		Hexachlorocyclopentadiene	< 0.23 mg/Kg	< 0.23 mg/Kg	< 0.22 mg/Kg	< 2.3 mg/Kg	< 0.23 mg/Kg	< 2.3 mg/Kg	< 0.23 mg/Kg	< 0.23 mg/Kg	< 0.23 mg/Kg	< 0.22 mg/Kg	< 0.23 mg/Kg	< 0.23 mg/Kg
		Hexachloroethane	< 0.13 mg/Kg	< 0.13 mg/Kg	< 0.12 mg/Kg	< 1.3 mg/Kg	< 0.13 mg/Kg	< 1.3 mg/Kg	< 0.13 mg/Kg	< 0.13 mg/Kg	< 0.13 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.13 mg/Kg
		Indeno(1,2,3-cd)pyrene	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 1.2 mg/Kg	< 0.12 mg/Kg	< 1.2 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg	< 0.12 mg/Kg
		Isophorone	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 1.1 mg/Kg	< 0.11 mg/Kg	< 1.1 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg
		N-Nitroso-di-n-propylamine	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 1.1 mg/Kg	< 0.11 mg/Kg	< 1.1 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg
		N-Nitrosodimethylamine	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 1.1 mg/Kg	< 0.11 mg/Kg	< 1.1 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg	< 0.11 mg/Kg
		N-Nitrosodiphenylamine	< 0.076 mg/Kg	< 0.076 mg/Kg	< 0.075 mg/Kg	< 0.76 mg/Kg	< 0.076 mg/Kg	< 0.77 mg/Kg	< 0.076 mg/Kg	< 0.076 mg/Kg	< 0.076 mg/Kg	< 0.075 mg/Kg	< 0.075 mg/Kg	< 0.077 mg/Kg
		Naphthalene	< 0.091 mg/Kg	< 0.091 mg/Kg	< 0.09 mg/Kg	2.2 mg/Kg (J)	< 0.091 mg/Kg	< 0.91 mg/Kg	< 0.091 mg/Kg	< 0.091 mg/Kg	< 0.091 mg/Kg	< 0.09 mg/Kg	< 0.09 mg/Kg	< 0.091 mg/Kg
		Nitrobenzene	< 0.3 mg/Kg	< 0.3 mg/Kg	< 0.3 mg/Kg	< 3 mg/Kg	< 0.3 mg/Kg	< 3.1 mg/Kg	< 0.3 mg/Kg	< 0.3 mg/Kg	< 0.3 mg/Kg	< 0.3 mg/Kg	< 0.3 mg/Kg	< 0.31 mg/Kg
		Pentachlorophenol	< 0.14 mg/Kg	< 0.14 mg/Kg	< 0.14 mg/Kg	< 1.4 mg/Kg	< 0.14 mg/Kg	< 1.4 mg/Kg	< 0.14 mg/Kg	< 0.14 mg/Kg	< 0.14 mg/Kg	< 0.14 mg/Kg	< 0.14 mg/Kg	< 0.14 mg/Kg
		Phenanthrene	< 0.099 mg/Kg	< 0.099 mg/Kg	< 0.098 mg/Kg	< 0.99 mg/Kg	< 0.099 mg/Kg	< 1 mg/Kg	< 0.099 mg/Kg	< 0.099 mg/Kg	< 0.099 mg/Kg	< 0.098 mg/Kg	< 0.098 mg/Kg	< 0.1 mg/Kg
		Phenol	6 mg/Kg	15 mg/Kg (E)	21 mg/Kg (E)	59 mg/Kg	11 mg/Kg (E)	5 mg/Kg	0.25 mg/Kg (J)	0.18 mg/Kg (J)	0.11 mg/Kg (J)	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.11 mg/Kg
		Pyrene	< 0.099 mg/Kg	< 0.099 mg/Kg	< 0.098 mg/Kg	< 0.99 mg/Kg	< 0.099 mg/Kg	< 1 mg/Kg	< 0.099 mg/Kg	< 0.099 mg/Kg	< 0.099 mg/Kg	< 0.098 mg/Kg	< 0.098 mg/Kg	< 0.1 mg/Kg
		Pyridine	1.1 mg/Kg	0.13 mg/Kg (J)	0.45 mg/Kg	< 0.89 mg/Kg	0.12 mg/Kg (J)	0.93 mg/Kg (J)	< 0.09 mg/Kg	< 0.09 mg/Kg	< 0.09 mg/Kg	< 0.088 mg/Kg	< 0.089 mg/Kg	< 0.09 mg/Kg
	TCLP	2-Methylnaphthalene	< 0.024 mg/L	< 0.024 mg/L	< 0.024 mg/L	< 0.017 mg/L	< 0.017 mg/L	< 0.0049 mg/L	< 0.0049 mg/L	< 0.024 mg/L	< 0.024 mg/L	< 0.017 mg/L	< 0.017 mg/L	< 0.017 mg/L
		2-Methylphenol	< 0.032 mg/L	< 0.032 mg/L	0.088 mg/L (J)	0.059 mg/L (J)	< 0.026 mg/L	< 0.0064 mg/L	< 0.0064 mg/L	< 0.032 mg/L	< 0.032 mg/L	< 0.016 mg/L	< 0.016 mg/L	< 0.016 mg/L
		2,4-Dinitrotoluene	< 0.031 mg/L	< 0.031 mg/L	< 0.031 mg/L	< 0.031 mg/L	< 0.031 mg/L	< 0.0062 mg/L	< 0.0062 mg/L	< 0.031 mg/L	< 0.031 mg/L	< 0.025 mg/L	< 0.025 mg/L	< 0.025 mg/L
		2,4,5-Trichlorophenol	< 0.027 mg/L	< 0.027 mg/L	< 0.027 mg/L	< 0.053 mg/L	< 0.053 mg/L	< 0.0055 mg/L	< 0.0055 mg/L	< 0.027 mg/L	< 0.027 mg/L	< 0.034 mg/L	< 0.034 mg/L	< 0.034 mg/L
		2,4,6-Trichlorophenol	< 0.022 mg/L	< 0.022 mg/L	< 0.022 mg/L	< 0.048 mg/L	< 0.048 mg/L	< 0.0045 mg/L	< 0.0045 mg/L	< 0.022 mg/L	< 0.022 mg/L	< 0.033 mg/L	< 0.033 mg/L	< 0.033 mg/L
		3-,4-Methylphenol	0.07 mg/L (J)	1.6 mg/L (E)	0.74 mg/L	2.2 mg/L	0.97 mg/L	0.05 mg/L	< 0.0053 mg/L	< 0.026 mg/L	< 0.026 mg/L	< 0.018 mg/L	< 0.018 mg/L	< 0.018 mg/L
		Hexachlorobenzene	< 0.024 mg/L	< 0.024 mg/L	< 0.024 mg/L	< 0.025 mg/L	< 0.025 mg/L	< 0.0049 mg/L	< 0.0049 mg/L	< 0.024 mg/L	< 0.024 mg/L	< 0.026 mg/L	< 0.026 mg/L	< 0.026 mg/L
		Hexachlorobutadiene	< 0.04 mg/L	< 0.04 mg/L	< 0.04 mg/L	< 0.022 mg/L	< 0.022 mg/L	< 0.0079 mg/L	< 0.0079 mg/L	< 0.04 mg/L	< 0.04 mg/L	< 0.03 mg/L	< 0.03 mg/L	< 0.03 mg/L
		Hexachloroethane	< 0.038 mg/L	< 0.038 mg/L	< 0.038 mg/L	< 0.027 mg/L	< 0.027 mg/L	< 0.0077 mg/L	< 0.0077 mg/L	< 0.038 mg/L	< 0.038 mg/L	< 0.022 mg/L	< 0.022 mg/L	< 0.022 mg/L
		Nitrobenzene	< 0.064 mg/L	< 0.064 mg/L	< 0.064 mg/L	< 0.025 mg/L	< 0.025 mg/L	< 0.013 mg/L	< 0.013 mg/L	< 0.064 mg/L	< 0.064 mg/L	< 0.12 mg/L	< 0.12 mg/L	< 0.12 mg/L
		Pentachlorophenol	< 0.026 mg/L	< 0.026 mg/L	< 0.026 mg/L	< 0.2 mg/L	< 0.2 mg/L	< 0.0051 mg/L	< 0.0051 mg/L	< 0.026 mg/L	< 0.026 mg/L	< 0.049 mg/L	< 0.049 mg/L	< 0.049 mg/L
		Pyridine	0.049 mg/L (J)	< 0.039 mg/L	< 0.039 mg/L	< 0.035 mg/L	< 0.035 mg/L	0.011 mg/L (J)	< 0.0077 mg/L	< 0.039 mg/L	< 0.039 mg/L	< 0.036 mg/L	< 0.036 mg/L	< 0.036 mg/L
Total Organics	Soil	DRO C10-C28	66 mg/Kg	47 mg/Kg	270 mg/Kg	6,700 mg/Kg	54 mg/Kg	190 mg/Kg	7.8 mg/Kg (J)	14 mg/Kg	7.9 mg/Kg (J)	< 3.4 mg/Kg	< 3.5 mg/Kg	< 3.4 mg/Kg
		GRO C8-C10	73 mg/Kg	29 mg/Kg	170 mg/Kg	4,300 mg/Kg	36 mg/Kg	160 mg/Kg	6.6 mg/Kg (J)	6 mg/Kg (J)	< 3.5 mg/Kg	< 3.4 mg/Kg	< 3.5 mg/Kg	< 3.4 mg/Kg
		ORO C28-C44	< 3.4 mg/Kg	< 3.4 mg/Kg	10 mg/Kg (J)	< 69 mg/Kg	5.1 mg/Kg (J)	9 mg/Kg (J)	< 3.4 mg/Kg	6.7 mg/Kg (J)	3.8 mg/Kg (J)	< 3.4 mg/Kg	< 3.5 mg/Kg	< 3.4 mg/Kg
Volatiles	Soil	1,1-Dichloroethane	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.04 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.03 mg/Kg	< 0.0007 mg/Kg	< 0.0006 mg/Kg	< 0.0008 mg/Kg	< 0.0006 mg/Kg
		1,1-Dichloroethene	< 0.04 mg/Kg	< 0.06 mg/Kg	< 0.05 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.06 mg/Kg	< 0.04 mg/Kg	< 0.0008 mg/Kg	< 0.0007 mg/Kg	< 0.0009 mg/Kg	< 0.0007 mg/Kg
		1,1-Dichloropropene	< 0.04 mg/Kg	< 0.06 mg/Kg	< 0.05 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.06 mg/Kg	< 0.04 mg/Kg	< 0.0006 mg/Kg	< 0.0005 mg/Kg	< 0.0006 mg/Kg	< 0.0005 mg/Kg
		1,1,1-Trichloroethane	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.001 mg/Kg	< 0.0009 mg/Kg	< 0.001 mg/Kg	< 0.0008 mg/Kg
		1,1,1,2-Tetrachloroethane	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.0005 mg/Kg	< 0.0005 mg/Kg	< 0.0006 mg/Kg	< 0.0005 mg/Kg
		1,1,2-Trichloroethane	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.02 mg/Kg	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0004 mg/Kg	< 0.0003 mg/Kg
		1,1,2,2-Tetrachloroethane	< 0.03 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.03 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0004 mg/Kg	< 0.0003 mg/Kg
		1,2-Dibromo-3-Chloropropane	< 0.05 mg/Kg	< 0.07 mg/Kg	< 0.06 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.07 mg/Kg	< 0.05 mg/Kg	< 0.0009 mg/Kg	< 0.0008 mg/Kg	< 0.001 mg/Kg	< 0.0008 mg/Kg
		1,2-Dibromoethane	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.02 mg/Kg	< 0.02 mg/Kg	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.0005 mg/Kg	< 0.0004 mg/Kg	< 0.0005 mg/Kg	< 0.0004 mg/Kg
		1,2-Dichlorobenzene	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0004 mg/Kg	< 0.0003 mg/Kg
		1,2-Dichloroethane	< 0.06 mg/Kg	< 0.09 mg/Kg	< 0.07 mg/Kg	< 0.07 mg/Kg	< 0.05 mg/Kg	< 0.07 mg/Kg	< 0.09 mg/Kg	< 0.06 mg/Kg	< 0.0008 mg/Kg	< 0.0007 mg/Kg	< 0.0009 mg/Kg	< 0.0007 mg/Kg
		1,2-Dichloropropane	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.02 mg/Kg	< 0.02 mg/Kg	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.0006 mg/Kg	< 0.0005 mg/Kg	< 0.0007 mg/Kg	< 0.0005 mg/Kg
		1,2,3-Trichlorobenzene	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.0006 mg/Kg	< 0.0005 mg/Kg	< 0.0006 mg/Kg	< 0.0005 mg/Kg
		1,2,3-Trichloropropane	< 0.05 mg/Kg	< 0.06 mg/Kg	< 0.05 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.06 mg/Kg	< 0.05 mg/Kg	< 0.0009 mg/Kg	< 0.0009 mg/Kg	< 0.001 mg/Kg	< 0.0008 mg/Kg
		1,2,4-Trichlorobenzene	< 0.04 mg/Kg	< 0.06 mg/Kg	< 0.05 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.06 mg/Kg	< 0.04 mg/Kg	< 0.0004 mg/Kg	< 0.0004 mg/Kg	< 0.0005 mg/Kg	< 0.0004 mg/Kg
		1,2,4-Trimethylbenzene	< 0.03 mg/Kg	0.2 mg/Kg (J)	0.4 mg/Kg	3.4 mg/Kg	0.4 mg/Kg	1.1 mg/Kg	0.06 mg/Kg (J)	0.3 mg/Kg	0.003 mg/Kg (J)	0.0009 mg/Kg (J)	0.005 mg/Kg	0.001 mg/Kg (J)

Laboratory non-detections are reported as less than ("<") the laboratory method detection limit.
Laboratory result qualifiers are reported to the right of corresponding detections (in parentheses). Definitions of reported qualifiers are below:
J: Result is estimated between the laboratory method detection limit and reporting limit.
E: Response Exceeds instrument's linear range

Detection
Detection
Non-Detection

West Scrim Surface Soil and TCLP Samples

Chiquita Canyon Landfill - July 26, 2024

Data Updated at 8/2/2024 13:40:58

Analysis	Matrix	Analyte	West scrim 0-100 ft CACA0726S001	Scrim 100-200 ft CACA0726S002	Scrim 200-300 ft CACA0726S003	Scrim 300-400 ft CACA0726S004	Scrim 400-500 ft CACA0726S005	Scrim 500-600 ft CACA0726S006	Scrim 600-700 ft CACA0726S007	Scrim 700-800 ft CACA0726S008	Scrim 800-900 ft CACA0726S009	Scrim 900-1000 ft CACA0726C010	Scrim 900-1000 ft CACA0726S010	Scrim 1000-1100 ft CACA0726S011
Volatiles	Soil	1,3-Dichlorobenzene	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	0.03 mg/Kg (J)	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0002 mg/Kg
		1,3-Dichloropropane	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.0005 mg/Kg	< 0.0004 mg/Kg	< 0.0005 mg/Kg	< 0.0004 mg/Kg
		1,3,5-Trimethylbenzene	< 0.02 mg/Kg	0.04 mg/Kg (J)	0.1 mg/Kg (J)	0.8 mg/Kg	0.09 mg/Kg (J)	0.3 mg/Kg	< 0.03 mg/Kg	0.09 mg/Kg (J)	0.001 mg/Kg (J)	0.0003 mg/Kg (J)	0.002 mg/Kg (J)	0.0006 mg/Kg (J)
		1,4-Dichlorobenzene	< 0.03 mg/Kg	0.1 mg/Kg (J)	0.2 mg/Kg (J)	1 mg/Kg	0.1 mg/Kg (J)	0.3 mg/Kg	< 0.04 mg/Kg	0.1 mg/Kg (J)	0.001 mg/Kg (J)	0.0006 mg/Kg (J)	0.002 mg/Kg (J)	0.0008 mg/Kg (J)
		2-Butanone	18 mg/Kg	19 mg/Kg	10 mg/Kg	13 mg/Kg	11 mg/Kg (J)	9.1 mg/Kg	6.9 mg/Kg	15 mg/Kg	0.1 mg/Kg	0.02 mg/Kg (J)	0.06 mg/Kg (J)	0.008 mg/Kg (J)
		2-Chlorotoluene	< 0.03 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.03 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg
		2,2-Dichloropropane	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.002 mg/Kg	< 0.002 mg/Kg	< 0.002 mg/Kg	< 0.002 mg/Kg
		3-Chloropropene	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.04 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.03 mg/Kg	< 0.0009 mg/Kg	< 0.0008 mg/Kg	< 0.001 mg/Kg	< 0.0008 mg/Kg
		4-Chlorotoluene	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0002 mg/Kg
		4-Methyl-2-Pentanone	0.5 mg/Kg	0.6 mg/Kg	0.5 mg/Kg	0.9 mg/Kg	0.6 mg/Kg	0.4 mg/Kg	0.2 mg/Kg	0.5 mg/Kg	0.004 mg/Kg	0.004 mg/Kg	0.01 mg/Kg	< 0.001 mg/Kg
		Acetone	25 mg/Kg	23 mg/Kg	12 mg/Kg	11 mg/Kg	13 mg/Kg	7.9 mg/Kg	6.1 mg/Kg	13 mg/Kg	0.2 mg/Kg	0.03 mg/Kg (J)	0.06 mg/Kg (J)	0.2 mg/Kg
		Benzene	0.3 mg/Kg	0.2 mg/Kg (J)	0.7 mg/Kg	1.9 mg/Kg	0.7 mg/Kg	0.9 mg/Kg	0.2 mg/Kg (J)	0.6 mg/Kg	0.008 mg/Kg	0.004 mg/Kg	0.01 mg/Kg	0.001 mg/Kg (J)
		Bromobenzene	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0004 mg/Kg	< 0.0003 mg/Kg
		Bromochloromethane	< 0.04 mg/Kg	< 0.06 mg/Kg	< 0.05 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.06 mg/Kg	< 0.04 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0004 mg/Kg	< 0.0003 mg/Kg
		Bromodichloromethane	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.0008 mg/Kg	< 0.0008 mg/Kg	< 0.0009 mg/Kg	< 0.0007 mg/Kg
		Bromoform	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.0008 mg/Kg	< 0.0007 mg/Kg	< 0.0009 mg/Kg	< 0.0007 mg/Kg
		Bromomethane	< 0.1 mg/Kg	< 0.2 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.2 mg/Kg	< 0.1 mg/Kg	< 0.0008 mg/Kg	< 0.0008 mg/Kg	< 0.0009 mg/Kg	< 0.0007 mg/Kg
		Carbon Tetrachloride	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.0009 mg/Kg	< 0.0009 mg/Kg	< 0.001 mg/Kg	< 0.0008 mg/Kg
		Chlorobenzene	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	0.06 mg/Kg (J)	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg
		Chloroethane	< 0.08 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.09 mg/Kg	< 0.07 mg/Kg	< 0.09 mg/Kg	< 0.1 mg/Kg	< 0.08 mg/Kg	< 0.002 mg/Kg	< 0.002 mg/Kg	< 0.002 mg/Kg	< 0.002 mg/Kg
		Chloroform	< 0.05 mg/Kg	< 0.07 mg/Kg	< 0.06 mg/Kg	< 0.06 mg/Kg	< 0.04 mg/Kg	< 0.06 mg/Kg	< 0.07 mg/Kg	< 0.05 mg/Kg	< 0.0007 mg/Kg	< 0.0007 mg/Kg	< 0.0008 mg/Kg	< 0.0006 mg/Kg
		Chloromethane	< 0.1 mg/Kg	< 0.2 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.2 mg/Kg	< 0.1 mg/Kg	< 0.0006 mg/Kg	< 0.0006 mg/Kg	< 0.0007 mg/Kg	< 0.0005 mg/Kg
		cis-1,2-Dichloroethene	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.0006 mg/Kg	< 0.0005 mg/Kg	< 0.0007 mg/Kg	< 0.0005 mg/Kg
		cis-1,3-Dichloropropene	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.0008 mg/Kg	< 0.0007 mg/Kg	< 0.0009 mg/Kg	< 0.0007 mg/Kg
		cis-1,4-Dichloro-2-butene	< 0.03 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.001 mg/Kg	< 0.001 mg/Kg	< 0.002 mg/Kg	< 0.001 mg/Kg
		Dibromochloromethane	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.0004 mg/Kg	< 0.0004 mg/Kg	< 0.0005 mg/Kg	< 0.0004 mg/Kg
		Dibromomethane	< 0.03 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.0004 mg/Kg	< 0.0003 mg/Kg	< 0.0004 mg/Kg	< 0.0003 mg/Kg
		Ethylbenzene	< 0.03 mg/Kg	0.09 mg/Kg (J)	0.3 mg/Kg	1.6 mg/Kg	0.2 mg/Kg	0.5 mg/Kg	< 0.05 mg/Kg	0.3 mg/Kg	0.005 mg/Kg	0.001 mg/Kg (J)	0.007 mg/Kg	0.001 mg/Kg (J)
		Freon 12	< 0.08 mg/Kg	< 0.1 mg/Kg	< 0.1 mg/Kg	< 0.09 mg/Kg	< 0.07 mg/Kg	< 0.09 mg/Kg	< 0.1 mg/Kg	< 0.09 mg/Kg	< 0.0007 mg/Kg	< 0.0007 mg/Kg	< 0.0008 mg/Kg	< 0.0006 mg/Kg
		Freon 113	< 0.04 mg/Kg	< 0.06 mg/Kg	< 0.05 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.06 mg/Kg	< 0.04 mg/Kg	< 0.0005 mg/Kg	< 0.0005 mg/Kg	< 0.0006 mg/Kg	< 0.0005 mg/Kg
		Hexachlorobutadiene	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.0005 mg/Kg	< 0.0004 mg/Kg	< 0.0005 mg/Kg	< 0.0004 mg/Kg
		Isopropylbenzene	< 0.03 mg/Kg	0.05 mg/Kg (J)	0.2 mg/Kg	1.4 mg/Kg	0.2 mg/Kg	0.4 mg/Kg	< 0.04 mg/Kg	0.2 mg/Kg	0.001 mg/Kg (J)	0.0005 mg/Kg (J)	0.003 mg/Kg (J)	0.0005 mg/Kg (J)
		m,p-Xylenes	< 0.08 mg/Kg	0.1 mg/Kg (J)	0.3 mg/Kg	1.8 mg/Kg	0.3 mg/Kg	0.6 mg/Kg	< 0.1 mg/Kg	0.3 mg/Kg	0.004 mg/Kg	0.001 mg/Kg (J)	0.007 mg/Kg	< 0.0005 mg/Kg
		Methylene Chloride	< 0.3 mg/Kg	< 0.3 mg/Kg	< 0.3 mg/Kg	< 0.3 mg/Kg	< 0.2 mg/Kg	< 0.3 mg/Kg	< 0.4 mg/Kg	< 0.3 mg/Kg	< 0.002 mg/Kg	< 0.002 mg/Kg	< 0.003 mg/Kg	< 0.002 mg/Kg
		MTBE	< 0.04 mg/Kg	< 0.06 mg/Kg	< 0.05 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.06 mg/Kg	< 0.04 mg/Kg	< 0.0007 mg/Kg	< 0.0007 mg/Kg	< 0.0008 mg/Kg	< 0.0007 mg/Kg
		n-Butylbenzene	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	0.4 mg/Kg	< 0.03 mg/Kg	0.07 mg/Kg (J)	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg
		Naphthalene	< 0.05 mg/Kg	0.2 mg/Kg (J)	0.5 mg/Kg	2.3 mg/Kg	0.2 mg/Kg	1 mg/Kg	< 0.06 mg/Kg	0.06 mg/Kg (J)	0.003 mg/Kg (J)	< 0.0008 mg/Kg	< 0.001 mg/Kg	< 0.0008 mg/Kg
		o-Xylene	< 0.03 mg/Kg	0.06 mg/Kg (J)	0.2 mg/Kg (J)	1 mg/Kg	0.2 mg/Kg	0.3 mg/Kg	< 0.05 mg/Kg	0.2 mg/Kg (J)	0.002 mg/Kg (J)	0.0009 mg/Kg (J)	0.005 mg/Kg	0.0005 mg/Kg (J)
		para-Isopropyl Toluene	0.2 mg/Kg	1.4 mg/Kg	4.1 mg/Kg	45 mg/Kg	2.8 mg/Kg	12 mg/Kg	0.7 mg/Kg	3.2 mg/Kg	0.04 mg/Kg	0.006 mg/Kg	0.04 mg/Kg	0.001 mg/Kg (J)
		Propylbenzene	< 0.03 mg/Kg	< 0.04 mg/Kg	0.07 mg/Kg (J)	0.5 mg/Kg	0.05 mg/Kg (J)	0.2 mg/Kg (J)	< 0.04 mg/Kg	0.05 mg/Kg (J)	0.001 mg/Kg (J)	< 0.0002 mg/Kg	0.001 mg/Kg (J)	0.0004 mg/Kg (J)
		sec-Butylbenzene	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	0.3 mg/Kg	< 0.02 mg/Kg	0.07 mg/Kg (J)	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0004 mg/Kg	< 0.0003 mg/Kg
		Styrene	< 0.03 mg/Kg	< 0.04 mg/Kg	0.05 mg/Kg (J)	0.08 mg/Kg (J)	0.06 mg/Kg (J)	0.08 mg/Kg (J)	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.0002 mg/Kg	< 0.0002 mg/Kg	< 0.0003 mg/Kg	< 0.0002 mg/Kg
		tert-Butylbenzene	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	0.1 mg/Kg (J)	< 0.02 mg/Kg	0.04 mg/Kg (J)	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0003 mg/Kg	< 0.0002 mg/Kg
		Tetrachloroethene	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.0004 mg/Kg	< 0.0004 mg/Kg	< 0.0004 mg/Kg	< 0.0003 mg/Kg
		Toluene	0.04 mg/Kg (J)	0.1 mg/Kg (J)	0.2 mg/Kg	0.7 mg/Kg	0.2 mg/Kg	0.3 mg/Kg	0.05 mg/Kg (J)	0.2 mg/Kg	0.009 mg/Kg	0.001 mg/Kg (J)	0.005 mg/Kg	< 0.0006 mg/Kg
		trans-1,2-Dichloroethene	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.0008 mg/Kg	< 0.0008 mg/Kg	< 0.0009 mg/Kg	< 0.0007 mg/Kg

Laboratory non-detections are reported as less than ("<") the laboratory method detection limit.
Laboratory result qualifiers are reported to the right of corresponding detections (in parentheses). Definitions of reported qualifiers are below:
J: Result is estimated between the laboratory method detection limit and reporting limit.
E: Response Exceeds instrument's linear range

Detection
Detection
Non-Detection

West Scrim Surface Soil and TCLP Samples

Chiquita Canyon Landfill - July 26, 2024

Data Updated at 8/2/2024 13:40:58

Analysis	Matrix	Analyte	West scrim 0-100 ft CACA0726S001	Scrim 100-200 ft CACA0726S002	Scrim 200-300 ft CACA0726S003	Scrim 300-400 ft CACA0726S004	Scrim 400-500 ft CACA0726S005	Scrim 500-600 ft CACA0726S006	Scrim 600-700 ft CACA0726S007	Scrim 700-800 ft CACA0726S008	Scrim 800-900 ft CACA0726S009	Scrim 900-1000 ft CACA0726C010	Scrim 900-1000 ft CACA0726S010	Scrim 1000-1100 ft CACA0726S011
Volatiles	Soil	trans-1,3-Dichloropropene	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.04 mg/Kg	< 0.03 mg/Kg	< 0.04 mg/Kg	< 0.05 mg/Kg	< 0.04 mg/Kg	< 0.001 mg/Kg	< 0.001 mg/Kg	< 0.001 mg/Kg	< 0.0009 mg/Kg
		trans-1,4-Dichloro-2-butene	< 0.01 mg/Kg	< 0.02 mg/Kg	< 0.02 mg/Kg	< 0.02 mg/Kg	< 0.01 mg/Kg	< 0.02 mg/Kg	< 0.02 mg/Kg	< 0.01 mg/Kg	< 0.0008 mg/Kg	< 0.0007 mg/Kg	< 0.0009 mg/Kg	< 0.0007 mg/Kg
		Trichloroethene	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.03 mg/Kg	< 0.03 mg/Kg	< 0.02 mg/Kg	< 0.0005 mg/Kg	< 0.0005 mg/Kg	< 0.0005 mg/Kg	< 0.0004 mg/Kg
		Trichlorofluoromethane	< 0.06 mg/Kg	< 0.09 mg/Kg	< 0.07 mg/Kg	< 0.07 mg/Kg	< 0.05 mg/Kg	< 0.07 mg/Kg	< 0.09 mg/Kg	< 0.06 mg/Kg	< 0.0006 mg/Kg	< 0.0006 mg/Kg	< 0.0007 mg/Kg	< 0.0005 mg/Kg
		Vinyl Chloride	< 0.05 mg/Kg	< 0.07 mg/Kg	< 0.06 mg/Kg	< 0.06 mg/Kg	< 0.04 mg/Kg	< 0.06 mg/Kg	< 0.07 mg/Kg	< 0.05 mg/Kg	< 0.0007 mg/Kg	< 0.0007 mg/Kg	< 0.0008 mg/Kg	< 0.0006 mg/Kg
		Xylene (total)	< 0.2 mg/Kg	0.2 mg/Kg (J)	0.4 mg/Kg	2.8 mg/Kg	0.4 mg/Kg	0.9 mg/Kg	< 0.2 mg/Kg	0.4 mg/Kg	0.006 mg/Kg	0.002 mg/Kg (J)	0.01 mg/Kg	0.0005 mg/Kg (J)
	TCLP	1,1-Dichloroethene	< 0.01 mg/L	< 0.01 mg/L	< 0.01 mg/L	< 0.01 mg/L	< 0.01 mg/L	< 0.01 mg/L	< 0.004 mg/L	< 0.004 mg/L	< 0.004 mg/L	< 0.01 mg/L	< 0.01 mg/L	< 0.01 mg/L
		1,2-Dichloroethane	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.01 mg/L	< 0.01 mg/L	< 0.01 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L
		1,4-Dichlorobenzene	< 0.003 mg/L	0.003 mg/L (J)	0.007 mg/L (J)	0.04 mg/L (J)	0.005 mg/L (J)	0.01 mg/L (J)	< 0.009 mg/L	< 0.009 mg/L	< 0.009 mg/L	< 0.003 mg/L	< 0.003 mg/L	< 0.003 mg/L
		2-Butanone	1 mg/L (J)	1.1 mg/L (J)	0.5 mg/L (J)	1.2 mg/L (J)	3.2 mg/L (J)	1.1 mg/L (J)	0.1 mg/L (J)	0.8 mg/L (J)	< 0.09 mg/L	< 0.1 mg/L	< 0.1 mg/L	< 0.1 mg/L
		Benzene	< 0.005 mg/L	< 0.005 mg/L	0.02 mg/L (J)	0.06 mg/L	0.02 mg/L (J)	0.04 mg/L (J)	< 0.006 mg/L	0.006 mg/L (J)	< 0.006 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L
		Carbon Tetrachloride	< 0.006 mg/L	< 0.006 mg/L	< 0.006 mg/L	< 0.006 mg/L	< 0.006 mg/L	< 0.006 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.006 mg/L	< 0.006 mg/L	< 0.006 mg/L
		Chlorobenzene	< 0.003 mg/L	< 0.003 mg/L	< 0.003 mg/L	0.006 mg/L (J)	< 0.003 mg/L	< 0.003 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.003 mg/L	< 0.003 mg/L	< 0.003 mg/L
		Chloroform	< 0.009 mg/L	< 0.009 mg/L	< 0.009 mg/L	< 0.009 mg/L	< 0.009 mg/L	< 0.009 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.009 mg/L	< 0.009 mg/L	< 0.009 mg/L
		Tetrachloroethene	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L	< 0.005 mg/L
		Trichloroethene	< 0.009 mg/L	< 0.009 mg/L	< 0.009 mg/L	< 0.009 mg/L	< 0.009 mg/L	< 0.009 mg/L	< 0.008 mg/L	< 0.008 mg/L	< 0.008 mg/L	< 0.009 mg/L	< 0.009 mg/L	< 0.009 mg/L
		Vinyl Chloride	< 0.009 mg/L	< 0.009 mg/L	< 0.009 mg/L	< 0.009 mg/L	< 0.009 mg/L	< 0.009 mg/L	< 0.007 mg/L	< 0.007 mg/L	< 0.007 mg/L	< 0.009 mg/L	< 0.009 mg/L	< 0.009 mg/L

Laboratory non-detections are reported as less than ("<") the laboratory method detection limit.
Laboratory result qualifiers are reported to the right of corresponding detections (in parentheses). Definitions of reported qualifiers are below:
J: Result is estimated between the laboratory method detection limit and reporting limit.
E: Response Exceeds instrument's linear range

Detection

Detection

Non-Detection

Appendix C: Job Hazard Analysis

CTEH Job Hazard Analysis

West Slope Worker Exposure Air Monitoring in Excavation

Risk Values
Low
Moderate
High
Very High

High Risk **Vs.** **Moderate Gain**

Accept Task Only with Management Endorsement

Communicate risk vs gain to management, implement controls and continually evaluate conditions and task for change.

Gain Values
Low
Moderate
High

Section 01 – Job Site and Communication		
Project Number(s) PROJ-037822	**Job Site:** Chiquita Canyon Landfill	**Area(s) of Operation:** West Slope Toe Install
Communication: ☒ 2-Way Radios ☒ Cell Phone ☒ Hand Signals ☒ Air Horn ☒ Facility Horn/Siren ☐ Other _____		

Section 02 – Personal Protective Equipment (PPE)*
Head and Eyes: ☒ Hardhat ☒ Safety Glasses w/ Side Sheilds ☐ Safety Goggles ☐ Face Shield
Hearing: ☒ Ear Plugs/Caps ☐ Earmuffs ☐ Double Hearing Protection
Clothing and Torso: ☒ High Visibility Clothing ☒ Long Sleeves ☒ Fire Resistant Clothing (FRC) ☐ Personal Flotation Device ☒ Chemical Protective Clothing ☐ Fall Arrest/Restraint Harness
Hands: ☒ Gloves ☐ Gauntlets *Features:* ☐ *Impact Resistant* ☐ *Cut Resistant* ☐ *Temperature Resistant* ☐ *Chemical Resistant*
Feet: ☐ Safety Shoes ☒ Safety Boots *Features:* ☒ *Safety Toe* ☒ *Ankle Support* ☒ *Slip Resistant* ☐ *Shank* ☐ *Metatarsal* ☒ *Temperature Resistant* ☒ *Chemical Resistant*
Respiratory: ☐ Dust Mask/N95 ☒ Air Purifying Respirator ☐ SCBA/SAR ☐ PAPR ☒ Air Monitoring Equip.
Other PPE: Sunscreen

**Listed PPE is not required during all portions of the task but must be available if conditions warrant its use.*

Section 03 – Special Hazard Description

- Leachate vapors can contain high concentrations of Volatile Organic Compounds (VOCs), benzene, hydrogen sulfide (H_2S), Carbon Monoxide (CO) which can exceed occupational exposure limits beneath the scrim and when released from the scrim. Chemical vapors may cause dizziness and unconsciousness. Flammable vapors may be present above the lower explosive limit beneath scrim.
- Air purifying respirator organic vapor cartridges do not provide protection from carbon monoxide. Ensure selected cartridges provide protection from hydrogen sulfide.
- Conditions during scrim removal and recovering are unpredictable and change frequently. Previous non-hazardous conditions in an area do not predict future conditions. Loss of vacuum may occur when flares are offline that increases risk of exposure.

Section 04 – Job Task			
	Job Step	**Hazard**	**Controls**
Low Risk	Calibration of instruments	• Calibration gases under pressure • Calibration gas concentrations are greater than occupational exposure limits. • Calibration gases contain benzene, H2S, methane, carbon monoxide, isobutylene, and toluene.	• Calibrate instruments in a sufficiently ventilated area. Gases dilute rapidly due to low cylinder flow rate. • Do not breathe gases directly from cylinder outlets. • Store cylinders in an area where they cannot be dropped or struck when not in use.
Moderate Risk	Air monitoring inside excavation when heavy equipment is not present	• Uneven, muddy, unpaved, and loose roadbeds resulting in reduced stopping distance and vehicle stability. • Accessing area may require traversing loose soil with incline. • Limited available space. • Leachate vapors and gases may be present above site-specific action levels. Particularly near the edge of scrim when it is in place. • Various fans may be in operation which exceed noise exposure limits.	• Do not step on compressor hosing or pneumatic air lines. • Maintain sure footing when walking on uneven and loose terrain. • Don APR or leave area if site-specific action levels are exceeded. Monitor workers using remote monitoring equipment if APR offers insufficient protection. • Approach west scrim and excavation area from upwind when possible if conditions are unknown. • Where hearing protection when in proximity of fans. Particularly venturi fans. • Monitor air continuously. • Wear footwear with lugged outsole, defined heal and ankle support.
High Risk	Air monitoring west slope excavation sections when heavy equipment is present	• Same hazards as when equipment is not present. • Increased probability of chemical exposure. • Overhead hazards present. • Heavy equipment unloading and loading soil, gravel, stone on roadway. • Uneven, muddy, unpaved, and loose roadbeds resulting in reduced stopping distance, vehicle stability, and increased slip/trip/fall potential.	• Same controls as when equipment is not present. • Do not stand near trucks loading or unloading soil and gravel. • Do not stand in swing radius of excavators. • Communicate verbally or visually before approaching equipment or entering excavation/scrim area.

Section 05 - Additional Notes

Concentrations of vapors are anticipated to be greatest before and during scrim removal or when recovering with scrim.

Section 06 – Overall Task Risk and Gain

Planning

Enough time and information to conduct thorough pre-task planning. Consider the completeness of task information and other on-scene details.

Complete	Partial	Limited	None
Low	Moderate	High	Extremely High

Selected Value: Low

Notes/Mitigations: A complete work plan and health and safety plan is in place and has undergone review by CCL and various regulatory agencies.

Section 06 – Overall Task Risk and Gain

Event

Consider the complexity of the task. Is the task non-standard, does it require coordination among multiple groups/organizations, do language barriers exist, is the task infrequent, etc.

Low Complexity	Moderate Complexity	High Complexity	Extremely High Complexity
Low	Moderate	High	Extremely High

Selected Value: High Complexity

Notes/Mitigations: Coordination must occur with the client, various contractors, laboratories, and other involved parties.

Personnel

Have sufficient personnel with the correct skills assigned to the task? Consider familiarity with the area of operation at task, fatigue, and adequate supervision.

Excellent	Good	Marginal	Poor
Low	Moderate	High	Extremely High

Selected Value: Excellent

Notes/Mitigations: Adequate personnel have been mobilized to site with the skills necessary to conduct the work.

Equipment

Has the correct type and number of equipment been selected for the job task. Consider status of the equipment, operational limitations, restrictions of equipment, maintenance needs, etc.

Ideal	Good	Restrictions	Limitations
Low	Moderate	High	Extremely High

Selected Value: Ideal

Notes/Mitigations: Adequate equipment and sampling materials have been mobilized to site to cover anticipated and unexpected sampling/monitoring events.

Communications and Supervision

Can communication be maintained throughout the job task. Is adequate supervision present during the job task or at least available for lower hazard job tasks. Does available supervision have adequate skill and knowledge to oversee the task. Consider availability of supervision and communication.

Excellent	Good	Partial	None
Low	Moderate	High	Extremely High

Selected Value: Excellent

Notes/Mitigations: Sufficient management and site safety management is on site to mitigate unexpected obstacles or safety issues. Communications procedures in higher hazard areas are well established.

Environment

Evaluate the conditions surrounding the task. Consider physical hazards such as heavy equipment movement, heights, temperature, and weather conditions. Consider chemical hazards and natural hazards, etc.

Ideal	Good	Marginal	Extreme
Low	Moderate	High	Extremely High

Selected Value: Marginal

Notes/Mitigations: Various chemical hazards are present with respiratory, dermal, and ingestion exposure routes. Heavy equipment routinely operates within the work area. Heat stress risk, particularly when additional PPE is needed, is especially high. Sip/trip hazards are elevated due to terrain composition.

Section 06 – Overall Task Risk and Gain

Task Gain

Evaluate the gain from the task in comparison to the risk. Consider the ultimate goals surrounding the task, its purpose, and benefits.

Levels of Gain	
Low	Situation with unclear benefits or low probability for providing concrete results.
Moderate	Situation that provides immediate and real benefits such as saving property, protecting the environment, deterring illegal operations.
High	Situation that provides immediate and real benefits that if ignored could result in loss of life or catastrophic damage to critical infrastructure.

Selected Value: Moderate

Notes/Mitigations: The task is critical to the protection of worker health and safety during work to stabilize the landfill.

Section 07 – Version Control

Created By	Date Created	Date Revised
Jason Callahan, MS, CIH, CSP	August 19, 2024	September 12, 2024

CTEH Job Hazard Analysis

West Slope Worker Exposure Air Monitoring from Roadway

Risk Values
Low
Moderate
High
Very High

Moderate Risk **Vs.** **Moderate Gain**

Accept Task

Monitor risk factors and employ controls when available. Re-evaluate if conditions or task changes.

Gain Values
Low
Moderate
High

Section 01 – Job Site and Communication		
Project Number(s) PROJ-037822	**Job Site:** Chiquita Canyon Landfill	**Area(s) of Operation:** West Slope Toe Install
Communication: ☒ 2-Way Radios ☒ Cell Phone ☒ Hand Signals ☒ Air Horn ☒ Facility Horn/Siren ☐ Other _____		

Section 02 – Personal Protective Equipment (PPE)*
Head and Eyes: ☒ Hardhat ☒ Safety Glasses w/ Side Sheilds ☐ Safety Goggles ☐ Face Shield
Hearing: ☒ Ear Plugs/Caps ☐ Earmuffs ☐ Double Hearing Protection
Clothing and Torso: ☒ High Visibility Clothing ☒ Long Sleeves ☒ Fire Resistant Clothing (FRC) ☐ Personal Flotation Device ☐ Chemical Protective Clothing ☐ Fall Arrest/Restraint Harness
Hands: ☒ Gloves ☐ Gauntlets *Features:* ☐ *Impact Resistant* ☐ *Cut Resistant* ☐ *Temperature Resistant* ☐ *Chemical Resistant*
Feet: ☐ Safety Shoes ☒ Safety Boots *Features:* ☒ *Safety Toe* ☒ *Ankle Support* ☒ *Slip Resistant* ☐ *Shank* ☐ *Metatarsal* ☐ *Temperature Resistant* ☐ *Chemical Resistant*
Respiratory: ☐ Dust Mask/N95 ☒ Air Purifying Respirator ☐ SCBA/SAR ☐ PAPR ☒ Air Monitoring Equip.
Other PPE: Sunscreen

**Listed PPE is not required during all portions of the task but must be available if conditions warrant its use.*

Section 03 – Special Hazard Description

- Leachate vapors can contain high concentrations of Volatile Organic Compounds (VOCs), benzene, hydrogen sulfide (H_2S), Carbon Monoxide (CO) which can exceed occupational exposure limits beneath the scrim and when released from the scrim. Chemical vapors may cause dizziness and unconsciousness. Flammable vapors may be present above the lower explosive limit beneath scrim.
- Air purifying respirator organic vapor cartridges do not provide protection from carbon monoxide. Ensure selected cartridges provide protection from hydrogen sulfide.
- Conditions during scrim removal and recovering are unpredictable and change frequently. Previous non-hazardous conditions in an area do not predict future conditions. Loss of vacuum may occur when flares are offline that increases risk of exposure.

Section 04 – Job Task

	Job Step	Hazard	Controls
Low Risk	Calibration of instruments	• Calibration gases under pressure • Calibration gas concentrations are greater than occupational exposure limits. • Calibration gases contain benzene, H2S, methane, carbon monoxide, isobutylene, and toluene.	• Calibrate instruments in a sufficiently ventilated area. Gases dilute rapidly due to low cylinder flow rate. • Do not breathe gases directly from cylinder outlets. • Store cylinders in an area where they cannot be dropped or struck when not in use.
Low Risk	Air monitoring from road during activities not involving heavy equipment	• Limited available space. • Leachate vapors and gases may be present above site-specific action levels. Particularly near edge of scrim. • Various fans may be in operation which exceed noise exposure limits. • Loose soil, mud, and uneven surfaces may be present.	• Monitor air from the road. • Do not step on compressor hosing or pneumatic air lines. • Maintain sure footing when walking on uneven and loose terrain. • Don APR or leave area if site-specific action levels are exceeded. Leave area or increase respiratory protection if MUC is exceeded for selected respiratory protection. • Approach west scrim and excavation area from upwind when possible if conditions are unknown. • Wear hearing protection when in proximity of fans. Particularly venturi fans. • Monitor air continuously. • Wear footwear with lugged outsole, defined heal and ankle support.
Moderate Risk	Air monitoring from road during excavation or recovering with gravel or soil	• Same hazards as when equipment is not present. • Overhead hazards present. • Heavy equipment unloading and loading soil and gravel on roadway. • Uneven, muddy, unpaved, and loose roadbeds resulting in reduced stopping distance, vehicle stability, and increased slip/trip/fall potential.	• Same controls as when equipment is not present. • Do not stand near trucks loading or unloading soil and gravel. • Do not stand in swing radius of excavators. • Communicate verbally or visually before approaching equipment.

Section 05 - Additional Notes

Concentrations of vapors are anticipated to be greatest before and during scrim removal or when recovering with scrim.

Section 06 – Overall Task Risk and Gain

Planning

Enough time and information to conduct thorough pre-task planning. Consider the completeness of task information and other on-scene details.

Complete	Partial	Limited	None
Low	Moderate	High	Extremely High

Selected Value: Low

Notes/Mitigations: A complete work plan and health and safety plan is in place and has undergone review by CCL and various regulatory agencies.

Section 06 – Overall Task Risk and Gain

Event

Consider the complexity of the task. Is the task non-standard, does it require coordination among multiple groups/organizations, do language barriers exist, is the task infrequent, etc.

Low Complexity	Moderate Complexity	High Complexity	Extremely High Complexity
Low	Moderate	High	Extremely High

Selected Value: High Complexity

Notes/Mitigations: Coordination must occur with the client, various contractors, laboratories, and other involved parties.

Personnel

Have sufficient personnel with the correct skills assigned to the task? Consider familiarity with the area of operation at task, fatigue, and adequate supervision.

Excellent	Good	Marginal	Poor
Low	Moderate	High	Extremely High

Selected Value: Excellent

Notes/Mitigations: Adequate personnel have been mobilized to site with the skills necessary to conduct the work.

Equipment

Has the correct type and number of equipment been selected for the job task. Consider status of the equipment, operational limitations, restrictions of equipment, maintenance needs, etc.

Ideal	Good	Restrictions	Limitations
Low	Moderate	High	Extremely High

Selected Value: Ideal

Notes/Mitigations: Adequate equipment and sampling materials have been mobilized to site to cover anticipated and unexpected sampling/monitoring events.

Communications and Supervision

Can communication be maintained throughout the job task. Is adequate supervision present during the job task or at least available for lower hazard job tasks. Does available supervision have adequate skill and knowledge to oversee the task. Consider availability of supervision and communication.

Excellent	Good	Partial	None
Low	Moderate	High	Extremely High

Selected Value: Excellent

Notes/Mitigations: Sufficient management and site safety management is on site to mitigate unexpected obstacles or safety issues. Communications procedures in higher hazard areas are well established.

Environment

Evaluate the conditions surrounding the task. Consider physical hazards such as heavy equipment movement, heights, temperature, and weather conditions. Consider chemical hazards and natural hazards, etc.

Ideal	Good	Marginal	Extreme
Low	Moderate	High	Extremely High

Selected Value: Marginal

Notes/Mitigations: Various chemical hazards are present with respiratory, dermal, and ingestion exposure routes. Heavy equipment routinely operates within the work area. Heat stress risk, particularly when additional PPE is needed, is especially high. Sip/trip hazards are elevated due to terrain composition.

Section 06 – Overall Task Risk and Gain

Task Gain

Evaluate the gain from the task in comparison to the risk. Consider the ultimate goals surrounding the task, its purpose, and benefits.

Levels of Gain	
Low	Situation with unclear benefits or low probability for providing concrete results.
Moderate	Situation that provides immediate and real benefits such as saving property, protecting the environment, deterring illegal operations.
High	Situation that provides immediate and real benefits that if ignored could result in loss of life or catastrophic damage to critical infrastructure.

Selected Value: Moderate

Notes/Mitigations: The task is critical to the protection of worker health and safety during work to stabilize the landfill.

Section 07 – Version Control

Created By	Date Created	Date Revised
Jason Callahan, MS, CIH, CSP	August 26, 2024	September 12, 2024

Appendix D: Available Safety Data Sheets

Inspection

SECTION 1: IDENTIFICATION

1.1 Product Identifier

Product Form

Aqueous Solution

Product Name

Landfill Leachate - North Perimeter

Synonyms

Landfill Leachate
Landfill Wastewater

1.2 Intended Use of the Product

Use of the substance/mixture

None

1.3 Name, Address, and Telephone of the Responsible Party/Company

Chiquita Canyon Landfill
29201 Henry Mayo Dr
Castaic, CA 91384
USA
Phone number: (661) 257-3655

Emergency Telephone Number

Kevin Green: 661-812-5846
Luis Vargas: 346-740-1359
IF MEDICAL EMERGENCY, DIAL 911

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture (GHS-US Classification)

Skin irritation (Category 2), H313
Flammable Liquid and Vapor (Category 3), H226
Hazard Not Otherwise Classified (HNOC)
For the full text of the Hazard Statements mentioned in this Section, see Section 16.

2.2 Label Elements (GHS-US Labeling)

Hazard Pictograms (GHS-US)

Photo 1

Photo 2

Signal Word (GHS-US)

WARNING

Hazard Statements (GHS-US)

H226 Flammable Liquid and Vapor.
H303 May be harmful if swallowed.
H313 May be harmful in contact with skin.
H333 May be Harmful if inhaled.
Hazard Not Otherwise Classified (HNOC).

Precautionary Statements (GHS-US)

P210 Keep away from heat, hot surface, sparks, open flames and other ignition sources. No smoking.
P220 Keep away from clothing and other combustible materials
P262 Do not get in eyes, on skin, or on clothing .
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink, or smoke while using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves, protective clothing, eye protection, face protection.
P301+P312+P330 IF SWALLOWED: Call a Poison Center/ doctor if you feel unwell. Rinse mouth.
P301+P330+331 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
P353 Rise skin with water/shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Other Hazards

May cause eye irritation.

2.4 Unknown Acute Toxicity (GHS-US)

None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Landfill Leachate, Landfill Wastewater

3.2 Mixture (Include percentage of components)

No chemicals in excess of 0.1% have been detected. If leachate exhibits a change in characteristics described in Section 9, contact a supervisor and reevaluate PPE. Below table shows the detected compounds from analytical lab testing and the % of each detected compound (percent by weight assuming 1 liter of solution weighs 1000 grams):

Antimony: 0.0000048 - 0.00007 %
Arsenic: 0.0000056 - 0.00004 %
Barium: 0.00018 - 0.00048 %

Chromium: 0.000022 - 0.000062 %
Cobalt: 0.0000023 - 0.0000056 %
Copper: 0.000002 - 0.000019 %
Nickel: 0.0000051 - 0.000021 %
Vanadium: 0.000009 - 0.000029 %
Zinc: 0.0000085 - 0.002 %
1,4-Dichlorobenzene: 0.0000009 - 0.000004 %
2-Butanone: 0.0017 - 0.0086 %
Benzene: 0.00004 - 0.00027 %
3-,4-Methylphenol: 0.00096 - 0.0022 %
Pyridine: 0.000015 - 0.00052 %

These compounds are assumed to be present in trace amounts in the leachate: Lead, Molybdenum, Selenium, Silver, Chlorobenzene, Tetrachloroethene, 2-Methylphenol. Analytical testing did not confirm detection of the analytes across all samples tested.

Component (include percentage & GHS-US classification)

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1 Description of First-aid Measures

Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact, wash off with soap and plenty of water. Consult a physician.

In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to medical treatment.

4.2 Most Important Symptoms and Effects Both Acute and Delayed

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

No data available.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable extinguishing media.
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special Hazards Arising From the Substance or Mixture

No data available.

5.3 Advice for Firefighters

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Use personal protective equipment (see section 8.2.2). Avoid becoming contaminated; do not touch your face of body; do not smoke, eat, or drink unless you have washed your hands and face thoroughly with soap and water; clean all exposed wounds, however small, and cover with a sterile, waterproof dressing; change out of contaminated clothing before eating, drinking, or smoking. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. If skin contact occurs, wash thoroughly with soap and water.

6.1.1 For Non-Emergency Personnel

See section 6.1.

6.1.2 For Emergency Personnel

See section 6.1 and section 8.2 for proper PPE requirements for any clean up of spills.

6.2 Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and Materials for Containment and Cleaning Up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed and labeled containers for disposal. Don proper PPE as described in section 8.2.

6.4 Reference to Other Sections

For disposal see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. For precautions see section 2.2.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Keep container closed in a well-ventilated space.

7.3 Specific End Use(s)

None.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

8.2 Exposure Controls

8.2.1 Appropriate Engineering Controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

8.2.2 Personal Protective Equipment (PPE)

Avoid dermal (skin) contact with leachate by using appropriate chemical-resistant gloves, boots, and/or body protection constructed from a material that is fire resistant and has a chemical permeation time sufficient to prevent dermal contact during the task. Benzene will permeate PPE constructed of nitrile, butyl rubber, and neoprene in less than one hour and should be removed and replaced if contaminated. Cloth, leather, and other glove materials that do not afford any chemical protection cannot be used for connecting/disconnecting transfer lines or other tasks where sufficient leachate contact may occur to permeate the glove material. For work tasks requiring extended contact with leachate (>1 hr.), chemical protective clothing such as Tychem 6000 FR must be worn. Chemical protective boots must be worn if required to walk through spilled or pooled leachate. To prevent dermal absorption, non-chemical protective clothing which has become contaminated with leachate should not be worn and may need to be discarded depending on the amount of contamination.

Due to the potential presence of flammable liquids and vapors, fire resistant clothing must be worn when conducting leachate transfers, working near open tank hatches, and when in the vicinity of spilled leachate, seeps, and other exposed leachate sources.

When conducting transfer of leachate by hose or other method where splash or spray hazard is present, a face shield must be worn at minimum. If transfer hoses were under sufficient pressure during transfer that an improperly depressurized line, or line failure, could result in heavy soaking spray face shield and/or goggles must be worn during line disconnect. If an overhead hazard exists (e.g., transferring from an elevated container) goggles must be worn with face shield.

Include photos or pictograms of PPEs

8.2.3 Materials for Protective Clothing

Eye/face protection: Safety glasses with side shields or safety goggles worn at all times. If conducting a leachate transfer, safety face shield also must be worn. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH or EN 166.

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands. Use Nitrile Rubber gloves, minimum layer thickness 0.2mm with break through time of 60 min. IF GLOVES BECOME CONTAMINATED, REMOVE AND REPLACE.

Body protection: Full Tychem 6000 FR chemical protective clothing suit plus chemical resistant boots.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi- purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH.

8.2.4 Environmental Exposure Controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

8.2.5 Other Information

OSHA PEL for reliably detected Chemicals in Material:
Antimony: 0.5 mg/m^3 8 hour TWA
Arsenic: 0.01 mg/m^3 8 hour TWA
Barium: 0.5 mg/m^3 8 hour TWA
Chromium: 1 mg/m^3 8 hour TWA
Cobalt: 0.02 mg/m^3 8 hour TWA
Copper: 1 mg/m^3 8 hour TWA
Nickel: 0.5 mg/m^3 8 hour TWA
Vanadium: 0.05 mg/m^3 8 hour TWA
Zinc: 10 mg/m^3 8 hour TWA
1,4-Dichlorobenzene: 75 ppm 8 hour TWA

2-Butanone: 200 ppm 8 hour TWA
Benzene: 1 ppm 8 hour TWA
3-,4-Methylphenol: 5 ppm 8 hour TWA
Pyridine: 5 ppm 8 hour TWA

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Physical State

Liquid

Appearance

Clear/colorless to light brown

Odor

Light Leachate odor

pH

5.58-6.20

Evaporation Rate

Similar to water.

Melting Point

Similar but likely above water.

Freezing Point

Similar but likely below water.

Boiling Point

No data available.

Flash Point

124 deg F.

9.2 Other Information

No other data available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Potentially reactive with strong acids or strong oxidizers.

10.2 Chemical Stability

Stable under recommended storage conditions.

10.3 Possibility of Hazardous Reactions

No data available.

10.4 Conditions to Avoid

No data available.

10.5 Incompatible Materials

No data available. Do not mix Leachate with any other materials.

10.6 Hazardous Decomposition Products

Hazardous decomposition products formed under fire conditions. - Nitrogen oxides, Sulfur Oxides (SOx), (NOx) Other decomposition products – Under acidic conditions – Hydrogen Sulfide (H2S), Basic conditions- Ammonia (NH3)
In the event of fire: see section 5

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

Acute toxicity: Leachate may contain waterborne pathogens that could cause infections and disease.

Inhalation: No data available
Dermal: No data available
Skin corrosion/irritation: No data available
Serious eye damage/eye irritation: No data available
Respiratory or skin sensitization: No data available
Germ cell mutagenicity: No data available

Carcinogenicity
IARC: No known component of this material present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP: No known component of this material present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No known component of this material present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Note that the material does contain carcinogenic components, but not at sufficient percentages for the material itself to be classified as carcinogenic.

Reproductive toxicity
No data available
Specific target organ toxicity - single exposure
No data available
Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available

Additional Information
RTECS: Not available

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

T22 Fish Toxicity Test - No fatalities.

12.2 Persistence and Degradability

No data available.

12.3 Bioaccumulative Potential

No data available.

12.4 Mobility in Soil

No data available.

12.5 Other Adverse Effects

An environmental hazard cannot be excluded in the event of improper handling or disposal.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Provide wastewater treatment in a licensed facility.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name

Flammable liquids, n.o.s.

Hazard Class

3

Identification Number

UN1993

Label Codes

3

Packing Group

III

ERG Number

128

14.2 In Accordance with IMDG

Proper Shipping Name

NA - Only ship by ground transportation.

Hazard Class

NA - Only ship by ground transportation.

Subsidiary Risk(s)

NA - Only ship by ground transportation.

Identification Number

NA - Only ship by ground transportation.

Packing Group

NA - Only ship by ground transportation.

Label Codes

NA - Only ship by ground transportation.

EmS-No. (Fire)

NA - Only ship by ground transportation.

EmS-No. (Spillage) S-C

NA - Only ship by ground transportation.

MFAG Number

NA - Only ship by ground transportation.

14.3 In Accordance with IATA

Proper Shipping Name

NA - Only ship by ground transportation.

Packing Group

NA - Only ship by ground transportation.

Identification Number

NA - Only ship by ground transportation.

Hazard Class

NA - Only ship by ground transportation.

Label Codes

NA - Only ship by ground transportation.

Subsidiary Risk(s)

NA - Only ship by ground transportation.

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
No components are subject to reporting levels established by SARA Title III, Section 313.

SARA 311/312
If reporting thresholds are exceeded.

15.2 US State Regulations

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Other Information

Revision Date: Rev 1, 3/18/2024

License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the material with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the material. Chiquita Canyon Landfill shall not be held liable for any damage resulting from the handling or from contact with the above material.

HMIS Rating
Health hazard: 1
Flammability: 2
Physical Hazard 0

NFPA Rating
Health hazard: 1
Fire Hazard: 2
Reactivity Hazard: 0

GHS Full Text Phrases

H226 Flammable Liquid and Vapor (Category 3).
H303 May be harmful if swallowed.
H313 May be harmful in contact with skin.
H333 May be harmful if inhaled.
Hazard Not Otherwise Classified (HNOC).
P210 Keep away from heat, hot surface, sparks, open flames and other ignition sources. No smoking.
P220 Keep away from clothing and other combustible materials
P262 Do not get in eyes, on skin, or on clothing.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink, or smoke while using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves, protective clothing, eye protection, face protection.
P301+P312+P330 IF SWALLOWED: Call a Poison Center/ doctor if you feel unwell. Rinse mouth.
P301+P330+331 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
P353 Rise skin with water/shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Disclaimer:

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Media summary

Photo 1

Photo 2

ATMOS

Alternative Daily Cover for Odor & VOC Control

ATMOS

Pioneering Environmental Solutions

FEATURES

- Biodegradable
- Non-hazardous
- Non-combustible
- No ambient temperature limits
- Consumes no valuable airspace
- Withstands moderate rainfall
- Maintains integrity up to 72 hours
- No leachate interference
- No clean-up necessary
- Easy to use
- Scavengers cannot see or smell the trash

FROM INDUSTRY LEADING TECHNOLOGY TO ON-SITE SERVICE, ATMOS' FOAM TECHNOLOGY IS THE MOST ADVANCED AND COST EFFECTIVE ALTERNATIVE DAILY COVER AND ODOR CONTROL SOLUTION

Atmos Cover ADC

Atmos Technologies' Alternative Daily Cover is a highly engineered system of aqueous foam and application equipment that effectively meets the performance criteria of Subtitle D. The cover material, Atmos Cover ADC, is a non-hardening protein based foam that can be adjusted to last from overnight to over a weekend.

Atmos Cover ADC forms a barrier between the waste and the atmosphere to provide both an immediate and effective barrier to minimize odors, VOC's, disease vectors and blowing litter. It can also be applied directly to liquid surfaces such as lagoons and retention ponds.

Pneumatic Foam Unit (PFU) 2500

Big, Quick & Powerful

The self-propelled unit is ideal for sites where quick coverage of large areas is important. The PFU 2500 is self-contained and designed to meet the rugged demands of solid waste landfills and environmental remediation sites. The Atmos Cover ADC is applied by our 12 foot wide, rear-mounted, bi-directional spray bars, hose reels, or front monitor system. A climate controlled safety cab provides the operator with superior safety and comfort while applying the cover. The Atmos ADC system is built for a quick, one-person operation.

The unit includes diesel driven hydraulics, air compressor, rubber tracks and drive assemblies, pump, hoses, solution storage tank, freeze protection and our proprietary foam-generating technology. This unit is designed to operate with Atmos' Bulk Storage & Dilution System (BSD).

ATMOS

Pioneering Environmental Solutions

17 Campus Boulevard, Suite 100, Newtown Square, PA 19073

Phone: 610-436-4314 atmos-technologies.com

FEATURES

Durable, rubber tracks

CAT ® C-7 Engine
Maintenance free

SPECIFICATIONS

Solution Tank
2500 Gallons

Coverage Rate
400-800 Sq. Ft./Min.

Size
Length: 29'6"
Width: 8'6"W
Height: 10'9"H

Weight
40,000 Lbs

Application
Spray bars, hose reel, monitor nozzle

Freeze Protection
120 VAC or 230 VAC, 30A, single phase

Atmos Cover ADC
The Best Solution for Odor and VOC Control

The Turn Key Solution

The Atmos setup includes foam concentrate, application equipment, bulk storage, mixing center training and a full maintenance program.

Cost Effective

No capital investment and no rental fees for equipment. Overall cost lower than other ADCs.

Zero Lost Airspace

Improves the value of the landfill by extended the useful life and maximizes the return on investment

Superior Coverage

The foam layer provides superior performance versus other products. The multi-directional spray bars ensure no gaps or shadowing for odors to escape.

Quick & Easy to Use

Atmos Cover ADC can be applied effectively by a single trained employee; simple daily setup and no clean-up is required

Apply in All Temperatures

Improves site operations even under the harshest, cold weather conditions. Withstands snow, moderate rainfall, extreme temperatures, and wind.

Atmos Cover performs as a soil equivalent cover

CONTROL FOUL ODORS
Atmos Cover ADC forms a complete barrier to odors. The foam forms an impenetrable barrier around the working face .

CONTROL BLOWING LITTER
Atmos Cover ADC is holds down the waste to prevent blowing trash.

CONTROL FIRE HAZARDS
Atmos Cover ADC is non-combustible. Sites often write it into their fire prevention plan. Our combustibility testing is available upon request.

CONTROL DISEASE VECTORS
Atmos Cover ADC forms a barrier that prevents odors or visual attraction. Vectors will not land on, peck at or move into the foam covered area.

CONTROL SCAVENGERS
Atmos Cover ADC prevents scavengers' sight or smell of the trash

Technical Data Sheet

ATMOS

Atmos Cover ADC

The Alternative Daily Cover

Atmos Cover ADC foam concentrate is a patented formulation that produces a thick, long lasting foam barrier for immediate control of blowing litter, disease vectors, and scavengers when applied to landfills as a daily cover. Atmos Cover ADC is specifically designed for use with Atmos' Bulk Storage and Dilution Center (BSD) and Moroo-ka-based Pneumatic Foam Unit (PFU). The system provides a Daily Cover capable of lasting 72 hours.

Features

Zero PFOS / PFAS
Biodegradable
Non-Hazardous
Non-Combustible
Use at any ambient temperature

Benefits

Consumes zero airspace
Repels scavengers
Withstands moderate rainfall
No clean-up
No leachate interference

Applications

The primary application for Atmos Cover ADC is for use as a Daily Cover for Solid Waste Landfills replacinging soil, tarps and other ineffective and labor-intensive materials. Atmos Cover ADC provides an immediate and effective barrier between the waste and the atmo-sphere to minimize working face odors. The product adheres to near-vertical surfaces such as balefills or liquid surfaces such as lagoons and retention ponds.

ATMOS
Pioneering Environmental Solutions

17 Campus Boulevard, Suite 100
Newtown Square, PA 19073
Phone: 610-436-4314
atmostechnologies.com

Technical Data Sheet

ATMOS

Bulk Storage & Dilution Center (BSD)

The All-In-One System

Atmos' Bulk Storage & Dilution system is designed to handle bulk tank truck quantities of foam concentrate. The system allows for the foam concentrate to be automatically diluted, metered, and transferred into the on-board solution storage tank of Atmos' Pneumatic Foam Unit. The BSD is designed for use at a solid waste landfill or environmental remediation site. The system is freeze protected and insulated allowing for optimum use of our Foam Products year-round in any ambient temperature.

Features

Insulated and Freeze Protected
Eliminates drum handling
One-touch control panel
Auto on/off

Benefits

Easy-to-operate
Skid-Mounted for easy setup
Fast product transfer
No monitoring required during fill time

Specifications

Capacity	7,000 Gallons
Transfer Rate	0 - 60 Gallons per Minute (gpm)
Products	Atmos Foam Products
Uses	Sanitary Landfills / Remediation sites
Electrical System:	240 V, 100 amp, single phase

ATMOS
Pioneering Environmental Solutions

17 Campus Boulevard, Suite 100
Newtown Square, PA 19073
Phone: 610-436-4314
atmos-technologies.com

Daily Cover

Superior Alternative Daily Cover System

Atmos lowers your risks, protects your workers and improves your profit where it counts, at the landfill site. We do this by providing you the most comprehensive daily cover program, highly engineered and field proven application equipment and world class technical service.

Atmos' ADC System is a highly engineered system of cover material, application equipment and storage and dilution equipment that effectively meets the performance criteria of Subtitle D. The cover material, Atmos Cover ADC, is a non-hardening protein based foam that can be adjusted to last from overnight to over a weekend by changing the dilution ratio and the depth of coverage. The PFU2500 is a self- propelled, single operator, Caterpillar based application unit that will cover a 28,000 ft² working face with a single fill in 40 minutes. The BSD7000 storage and dilution system is designed for bulk deliveries of Atmos Cover ADC and connects to the PFU2500 with a single hose. The

BSD7000 automatically dilutes the Atmos Cover ADC concentrate and pumps the desired volume of diluted material to the PFU2500. The PFU2500 uses compressed air to generate 50,000 gallons of foam per fill.

In addition to the PFU2500, Rusmar fabricates trailer mounted foam generations units of various sizes designed to meet the needs of smaller landfills. These units come fitted with either hose reels or turrets for ease of application.

Program Benefits	Value Provided to Landfill Operator
Superior Coverage	Meets or exceeds all Subtitle D performance criteria
All-Weather Performance	Improves site operations even under the harshest cold weather conditions
Superior Odor Control	Reduces risk of non-compliance fines and enhances "good neighbor" image
Consumes Zero Airspace	Improves value of landfill, extends landfill life and maximizes return on capital
Improves Operator Safety	Creates a safer work environment, minimizes lost time accidents and minimizes workman's compensation exposures
Enhances Litter Control	Reduces risk of non-compliance fines and enhances "good neighbor" image
Quick Application Time	Reduces overtime, equipment maintenance and improves profitability

Exceptional Dust Control	Reduces risk of noncompliance fines and improves working conditions and worker safety	
Simple, Easy to Use	Reduces waste, enhances profitability	

SAFETY DATA SHEET

SOIL EQUIVALENT FOAM
ATMOS COVER ADC

Section 1. Identification

GHS product identifier : ATMOS COVER ADC

Chemical name : Proprietary Surfactant.

Other means of identification : Aqueous anionic surfactant mixture.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Aqueous Surfactant. Spray application for VOC and Odor control.

Area of application : Industrial applications.

Supplier/Manufacturer : CCR Specialty Chemicals (Subs: Rusmar, Inc.)
17 Campus Blvd., Suite 100
Newtown Square, PA 19073
Phone: 1-800-733-3626 or
610-436-4314

E-mail : info@atmos-technologies.com
Website: www.atmos-technologies.com

Emergency telephone number (with hours of operation) : CHEMTREC 800 424 9300

Section 2. Hazards identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture : Not classified.

GHS label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

Chemical name : Proprietary Surfactant.

Other means of identification : Aqueous anionic surfactant mixture.

CAS number/other identifiers

CAS number : Not available.

Product code : Not available.

Ingredient name	Other names	%	CAS number
Proprietary Surfactant.	-	100	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Section 4. First aid measures

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. [Clear viscous liquid.]

Color : Translucent. White.

Odor : Odorless.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : 99°C (210.2°F)

Flash point : Not applicable.

Evaporation rate : Not available.

Flammability (solid, gas) : Not applicable.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : 3.3 kPa (25 mm Hg) [room temperature]

Vapor density : Not available.

Relative density : 1.01 to 1.06

Solubility : Easily soluble in the following materials: cold water and hot water.

Solubility in water : Easily soluble.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

SADT : Not available.

Viscosity : Not available.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid : Keep away from heat.

Incompatible materials : No specific data.

Hazardous decomposition products : Low levels of sulfur oxides on exposure to high temperatures (concentrate).

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Conclusion/Summary : Not expected.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Section 11. Toxicological information

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

United States

Section 12. Ecological information

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b)**: Not determined.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

No products were found.

SARA 313

Not applicable.

State regulations

Massachusetts : This material is not listed.

New York : This material is not listed.

New Jersey : This material is not listed.

Pennsylvania : This material is not listed.

California Prop. 65

None of the components are listed.

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

United States

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	0
Flammability	0
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
Not classified.	

History

Date of issue/Date of revision : 11/23/2020

Date of previous issue : No previous validation

Version : 1

Prepared by : IHS

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Section 16. Other information

References : HCS (U.S.A.)- Hazard Communication Standard
International transport regulations

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

HOLIDAY TIER 3 ECO FRIENDLY

Version number: GHS 3.0
Replaces version of: 2024-03-19 (GHS 2)

Revision: 2024-03-19

SECTION 1: Identification

1.1 Product identifier

Trade name **HOLIDAY TIER 3 ECO FRIENDLY**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses General use

1.3 Details of the supplier of the safety data sheet

O&E SOLUTIONS
813 Harbor Blvd #292
West Sacramento, CA 95691

Phone: 570-236-0750

1.4 Emergency telephone number If swallowed, call your poison control center @ (800) 222-1222

Emergency information service

InfoTrac contract number: H7V9634012.

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

This mixture does not meet the criteria for classification.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word not required
- Pictograms not required

2.3 Other hazards

There is no additional information.

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0.1%.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.

HOLIDAY TIER 3 ECO FRIENDLY

Version number: GHS 3.0
Replaces version of: 2024-03-19 (GHS 2)

Revision: 2024-03-19

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

IUPAC name	Identifier	Wt%	Classification acc. to GHS
2-methoxy-4-(prop-2-en-1-yl)phenol	CAS No 97-53-0	1 – < 5	Acute Tox. 4 / H302

Remarks

For full text of abbreviations: see SECTION 16

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

HOLIDAY TIER 3 ECO FRIENDLY

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, Alcohol resistant foam, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

not required

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Control of the effects

Protect against external exposure, such as

frost

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)
this information is not available

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Color	colorless - clear
Particle	not relevant (liquid)
Odor	Comparable to standard

Other safety parameters

pH (value)	not determined
Melting point/freezing point	not determined
Initial boiling point and boiling range	≥309.2 °F at 1,013 hPa
Flash point	200 °F
Evaporation rate	Not determined
Flammability (solid, gas)	not relevant, (fluid)

Vapor pressure	2,600 Pa at 25 °C
Density	not determined
Vapor density	this information is not available
Relative density	Information on this property is not available

Solubility(ies)

- Water solubility	miscible in any proportion

Partition coefficient

- n-octanol/water (log KOW)	this information is not available

Auto-ignition temperature	518 °F
Viscosity	not determined
Explosive properties	none
Oxidizing properties	none

9.2 Other information

Liquid content	99.93 %
Solid content	0.071 %
Temperature class (USA, acc. to NEC 500)	T2B (maximum permissible surface temperature on the equipment: 260°C)

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

This mixture does not meet the criteria for classification.

Acute toxicity

Shall not be classified as acutely toxic.

GHS of the United Nations, annex 4: May be harmful if inhaled.

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as toxic to the aquatic environment.

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0.1%.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1	**UN number**	not subject to transport regulations
14.2	**UN proper shipping name**	not relevant
14.3	**Transport hazard class(es)**	none
14.4	**Packing group**	not assigned
14.5	**Environmental hazards**	non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Not subject to transport regulations.

International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not subject to ICAO-IATA.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA) not all ingredients are listed (ACTIVE)

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

none of the ingredients are listed

- Specific Toxic Chemical Listings (EPCRA Section 313)

none of the ingredients are listed

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

none of the ingredients are listed

Clean Air Act

none of the ingredients are listed

Right to Know Hazardous Substance List

- Cleaning Product Right to Know Act Substance List (CA-RTK)

Name of substance	CAS No	Functionality	Authoritative Lists
2-methoxy-4-(prop-2-en-1-yl)phenol	97-53-0		EU Fragrance Allergens

- Toxic or Hazardous Substance List (MA-TURA)

none of the ingredients are listed

- Hazardous Substance List (NJ-RTK)

none of the ingredients are listed

- Hazardous Substance List (Chapter 323) (PA-RTK)

none of the ingredients are listed

- Hazardous Substance List (RI-RTK)

none of the ingredients are listed

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

none of the ingredients are listed

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	/	none
Health	0	no significant risk to health
Flammability	1	material that must be preheated before ignition can occur

Category	Rating	Description
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	1	material that must be preheated before ignition can occur
Health	0	material that, under emergency conditions, would offer no hazard beyond that of ordinary combustible material
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
1.3	Details of the supplier of the safety data sheet: Alpha Aromatics 294 Alpha Dr Pittsburgh PA 15238 United States Telephone: 412-252-1012 Telefax: 412-252-1014 e-mail: info@alphaaromatics.com Website: http://www.alphaaromatics.com/	Details of the supplier of the safety data sheet: O&E SOLUTIONS 813 Harbor Blvd #292 West Sacramento, CA 95691 Phone: 570-236-0750	yes
1.3	e-mail (competent person): info@alphaaromatics.com		yes

HOLIDAY TIER 3 ECO FRIENDLY

Version number: GHS 3.0
Replaces version of: 2024-03-19 (GHS 2)

Revision: 2024-03-19

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
1.4	Emergency information service: (800) 535-5053 This number is only available during the following office hours: Mon-Fri 08:00 AM - 05:00 PM InfoTrac contract number: H7V9634012.	Emergency information service: InfoTrac contract number: H7V9634012.	yes
12.1	Toxicity: Test data are not available for the complete mixture.	Toxicity: Shall not be classified as toxic to the aquatic environment.	yes

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
Acute Tox.	Acute toxicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
ED	Endocrine disruptor
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
IUPAC	International Union of Pure and Applied Chemistry
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H302	Harmful if swallowed.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.