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THIRD QUARTER 2019 STATUS REPORT
Maricopa County Cave Creek Landfill
Phoenix, Arizona

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EXECUTIVE SUMMARY

In response to the detection of elevated levels of trichloroethene (TCE) in groundwater underlying Cave Creek Landfill, Maricopa County entered into a Consent Order in 1999 with the Arizona Department of Environmental Quality (ADEQ) to characterize the nature and extent of site groundwater contamination, develop a Remedial Action Plan (RAP) to address contamination impacts, implement the RAP, and provide quarterly status updates on project activities. This status report documents site assessment and remediation efforts conducted pursuant to the RAP during the third calendar quarter of 2019 (July through September 2019).

Groundwater Data Collection and Discussion. Quarterly groundwater levels were monitored on August 20 through August 22, 2019. During the reporting period, the predominant direction of groundwater flow was 171 degrees from north with a gradient of 0.002 feet per foot (ft/ft). Groundwater elevations at the site remained relatively stable in the year between Third Quarter 2018 and Third Quarter 2019, with an average site-wide decrease in groundwater elevation of 0.32 feet (ft).

Maricopa County collected quarterly groundwater samples concurrent with quarterly groundwater level monitoring. Analytical results from Third Quarter 2019 indicate that the highest concentrations of TCE underlie the southern and western portions of the New Landfill near TSSV-03-PZ and MW-10, respectively. The concentration of TCE in the sample collected from TSSV-03-PZ continued to decline and was 110 micrograms per liter (µg/L). The TCE concentration in the sample collected from MW-02, 1,200 ft downgradient of TSSV-03-PZ, has increased from previous quarters at 120 µg/L, suggesting that the concentrations previously detected at TSSV-03-PZ have reached this well. The TCE concentration in the sample collected from MW-10, on the southwest boundary of the New Landfill, was 360 µg/L which is consistent with TCE concentrations observed at this well for the last few quarters. The concentration reported at MW-10 represents the highest concentration of TCE observed during site groundwater monitoring in Third Quarter 2019.

TCE is present above the Arizona Water Quality Standard for TCE of 5 µg/L in off-site downgradient wells MW-05 (54 µg/L), MW-07 (33 µg/L), and MW-11 (32 µg/L). The TCE concentration in the sample collected from MW-08, south of the Old Landfill, was 48 µg/L. This represents a decrease from previous quarters.

Samples from EW-01 were collected on July 1, 2019; prior to the installation of the extraction pump components. In addition to the standard sampling depth of 15 feet below water table (ft bwt) that is routinely evaluated during quarterly groundwater monitoring, a supplemental depth-specific sample was collected from EW-01 at a depth of 40 ft bwt. TCE concentrations in the depth-specific samples were consistent, suggesting mixing in the well.

Soil Vapor Data Collection and Discussion. Wood collected quarterly soil vapor samples between September 18 through October 7, 2019. The analytical results from Third Quarter 2019 indicate that the highest concentrations of TCE in site soil vapor occur in the above the water table zone around TSSV-07-PZ, in the southwest corner of the Old Landfill. In general, compared to First Quarter 2019, TCE concentrations in soil vapor at all depth profiles have decreased. This suggests that the soil vapor extraction (SVE) system operating at the site is successfully extracting contaminated vapors from the subsurface. TCE concentrations in soil vapor samples collected from the shallow and middle zones were less than 20 milligrams per cubic meter (mg/m^3). Samples collected from TSSV-07-D and SVE-04 in the deep zone had TCE concentrations of 170 mg/m^3 and 110 mg/m^3, respectively. Concentrations at SVE-04 increased from 120 mg/m^3 in Second Quarter 2019 but are comparable to First Quarter 2019 (200 mg/m^3). TCE concentrations in soil vapor from TSSV-07-PZ and TSSV-04-PZ were the highest observed in the above water table zone, at 460 mg/m^3 and 16 mg/m^3, respectively.

SVE System Performance. Based on the results of SVE system performance sampling, the soil vapor treatment system captured or destroyed over 99 percent (%) of extracted volatile organic compounds (VOCs), as defined by Maricopa County Air Quality Department Rule 100 Section 200.113, and over 95% of Federal Hazardous Air Pollutants (HAPs) present in extracted vapors during the reporting period. The calculated total mass of VOCs removed from the vadose zone since full-scale SVE system startup on September 15, 2015 is 43,068 pounds (lbs). During Third Quarter 2019, the SVE system removed 1,046 lbs of VOCs, which is equivalent to a daily mass removal rate of approximately 11 lbs per day.

1.0 INTRODUCTION

In response to the detection of elevated levels of trichloroethene (TCE) in groundwater underlying Cave Creek Landfill, Maricopa County entered into a Consent Order (CO) in 1999 with the Arizona Department of Environmental Quality (ADEQ) to characterize the nature and extent of site groundwater contamination. Since that time, the CO has been revised based on the results of multiple site investigations, and the current CO (ADEQ Identification Number 30604, Docket No. S-2-10) requires Maricopa County to complete groundwater characterization, develop a revised Remedial Action Plan (RAP), and complete ADEQ-approved remedial activities (ADEQ, 2010). Maricopa County submitted the final version of the RAP in May 2016 which includes soil vapor extraction (SVE) to address TCE-impacted vapor that serves as a source of groundwater contamination and an on-site pump and treat groundwater system to contain and remediate the existing groundwater plume (Amec Foster Wheeler Environment & Infrastructure, Inc. [Amec Foster Wheeler], 2016a). ADEQ approved the RAP in their letter dated November 23, 2016 (ADEQ, 2016a).

Section IV of the CO requires quarterly status reports to document Maricopa County's progress implementing the stipulations of the CO and provide evidence of regulatory compliance (ADEQ, 2016b). This status report documents site assessment and remediation efforts conducted pursuant to the RAP during the third calendar quarter of 2019 (July through September 2019).

Wood Environment and Infrastructure Solutions, Inc. (Wood) prepared this quarterly report on behalf of Maricopa County Risk Management and Maricopa County Waste Resources & Recycling under the terms and conditions of Environmental Services Contract 13134-ITN.

2.0 SUMMARY OF MEASURES TAKEN TO IMPLEMENT THE RAP

Activities conducted in support of RAP implementation during the reporting period are as follows:

Monitoring Program

- Maricopa County collected quarterly groundwater levels and samples from site monitoring wells on August 20 through August 22, 2019, with the exception of EW-01, which was sampled on July 1, 2019.
- SGS North America, Inc. (SGS), an environmental laboratory certified by the Arizona Department of Health Services (ADHS) (AZ0769), analyzed the groundwater samples. This excludes samples collected at EW-01 which were analyzed by Eurofins TestAmerica (TestAmerica), an environmental laboratory certified by the Arizona Department of Health Services (ADHS) (AZ0728).
- Maricopa County collected quarterly soil vapor samples between September 19 through October 07, 2019.
- Airtech Environmental Laboratories (AEL), an environmental laboratory certified by the ADHS (AZ0740), analyzed the soil vapor samples for volatile organic compounds (VOCs) in air by United States Environmental Protection Agency (EPA) Method TO-15.

SVE System Operation and Compliance

- The SVE system operated in the Third Quarter 2019 from July 1 to September 30, 2019.
- Maricopa County collected monthly SVE system performance samples on July 17, August 21, and September 18, 2019.
- AEL analyzed the monthly SVE system performance samples for VOCs in air by EPA Method TO-15.

- On behalf of Maricopa County, Wood submitted the quarterly SVE system performance report in compliance with the Maricopa County Air Quality permit on September 20, 2019.

Design, Permitting, and Construction of the Groundwater Treatment System (GWTS):

- Maricopa County completed the following activities with regards to Phase 1, On-Site Infrastructure:
  - Construction oversight of the groundwater treatment system at the New Landfill. Work included:
    - Installation of electrical cabinets at the treatment system pad;
    - Installation of canopy and cooling system for variable frequency drives (VFDs);
    - Arizona Public Service (APS) set the electrical transformer for the GWTS;
    - Pressure and hydrostatic testing performed on system piping;
    - System passed electrical testing on September 4, 2019;
    - Begin installation of system fencing and protective bollards; and,
    - Construction of extraction well EW-01 wellhead infrastructure and placement of extraction pump and VFD.
- Maricopa County completed the following activities with regards to Phase 2, Conveyance Pipeline:
  - A Submission of Exhibits requested by City of Phoenix (COP) for amendment of an existing easement in Arizona State Land Department property to allow access for installation of the conveyance pipeline was accepted on August 19, 2019;
  - A Notice of Intent to Clear State Land beginning November 4, 2019 was confirmed on September 17, 2019; and,
  - Wood surveyed the project area for the presence of protected native plants on September 19, 2019 and Class III Cultural Resources on September 26, 2019.
- Maricopa County completed the following activities with regard to Phase 3, Injection Well:
  - Began drilling of borehole for IW-01 and was completed at a total depth of 1,605 feet (ft) below ground surface (ft bgs) on August 20, 2019. The design depth of IW-01 was 1,060 ft bgs based upon the assumed depth to bedrock of 1,100 ft bgs. Bedrock was not encountered therefore Maricopa County elected to extend the depth of IW-01 to improve the performance of the well and allow for increased pumping of the groundwater plume with the goal of reducing the overall remedial timeframe; and,
  - Began reaming of the 30-inch borehole for IW-01 well installation and achieved a depth of 1,389 ft bgs on September 30,2019.

Appendix A summarizes the progress of activities scheduled for Cave Creek Landfill RAP implementation. The schedule has been updated with the current status of project tasks. Notable revisions include:

- Phase 1 On-Site Infrastructure Construction has been extended to January 2020 due to delays in obtaining an easement from the City of Phoenix (COP) for the Arizona Power Service (APS) electrical service line.
- Phase 2 Conveyance Pipeline Contractor Procurement has been completed and Construction is projected to start in February 2020 and finish in May 2020.

- IW-01 installation, testing, and reporting has been extended to March 2020 due to the increased depth of the pilot boring that was achieved during drilling and associated decision to install a deeper injection well.
- The groundwater model update has been extended to April 2020 (the update has a schedule dependency of IW-01 testing and reporting).
- GWTS operations are currently projected to begin in February 2021.

3.0 DATA COLLECTED DURING THE REPORTING PERIOD

3.1 Groundwater Elevations

On behalf of Maricopa County, Wood collected quarterly groundwater levels on August 20 through August 22, 2019. Locations and construction details of site wells are presented in **Figure 1** and **Table 1**, respectively. Groundwater elevations and the calculated groundwater flow direction and gradient for the reporting period are presented in **Table 2**. Contoured water table elevations and the calculated flow direction and gradient are shown in **Figure 2**. During the reporting period, the direction of groundwater flow was 171.4 degrees from north with a gradient of 0.002 feet per foot (ft/ft). As discussed in the Fourth Quarter 2018 status report (Wood, 2019), only groundwater elevations derived from the groundwater monitoring wells (i.e., well identifiers starting with MW and PW) were used for contouring the water table surface.

3.2 Groundwater Quality Monitoring

Maricopa County conducts groundwater quality monitoring at Cave Creek Landfill in accordance with the requirements of 40 Code of Federal Regulations (CFR) 258.50, as detailed in the Post-Closure Care Plan for Maricopa County Solid Waste Landfills (Post-Closure Care Plan) (Hydro Geo Chem, 2014). Groundwater samples from applicable Cave Creek Landfill wells are collected and analyzed for VOCs on a quarterly basis (typically February, May, August, and November). In addition to the evaluation of organic constituents, Maricopa County also samples compliance wells (i.e., MW-02, MW-03, MW-04, MW-05, MW-06, MW-07, MW-08, and PW) semi-annually (typically in February and August) for 40 CFR 258 Appendix I inorganic constituents (total metals) and general chemistry parameters.

Wood, on behalf of Maricopa County, collected quarterly groundwater samples on August 20 through August 22, 2019 with the exception of EW-01, which was sampled on July 1, 2019. In addition to the compliance wells noted above, the following site wells were also sampled: EW-01, MW-09, MW-10, MW-11, MW-12, MW-13, TSSV-02-PZ, TSSV-03-PZ, TSSV-04-PZ, TSSV-05-PZ, TSSV-06-PZ, and TSSV-07-PZ. Third Quarter 2019 groundwater samples were collected using passive sampling devices (i.e., passive diffusion bags [PDBs] and HydraSleeve™ samplers) placed approximately 15 feet below the water table (ft bwt) during the previous quarterly sampling event (i.e., May 2019 for the August 2019 sampling event). PDBs in EW-01 were placed at 15 and 40 ft bwt to evaluate VOC concentrations prior to the installation of the pump and associated equipment.

SGS analyzed the groundwater samples for VOCs in water by EPA Method 8260 and TestAmerica analyzed groundwater samples at EW-01 for VOCs in water by EPA Method 8260. EW-01 samples were sent to TestAmerica due to laboratory availability of sampling equipment. Samples collected from the compliance wells were additionally analyzed for total metals by 6010C, alkalinity by SM 2320B, specific conductance by SM 2510B, total dissolved solids by SM 2540C, pH by SM 4500-H, inorganic anions by EPA Method 300, nitrite by SM 4500-NO2B, and nitrogen and nitrate-nitrite by EPA Method 353.2. Laboratory results of analyses reports for samples collected during the reporting period are included in **Appendix B**.

Groundwater analytical results for Third Quarter 2019 are presented in **Table 3** (VOCs), **Table 4** (General Chemistry), and **Table 5** (Metals). The estimated extent of the TCE plume in groundwater and results of sampling at individual wells are shown in **Figure 2**.

3.3 Soil Vapor Monitoring

Maricopa County conducts quarterly soil vapor monitoring at the Cave Creek Landfill to evaluate the concentration and extent of contaminated soil vapors in the vadose zone. Wood, on behalf of Maricopa County, collected quarterly soil vapor samples from 52 site wells on September 18 through September 20, September 23, October 3, October 4, and October 7, 2019. Samples were collected outside of the reporting period due to a shutdown of the SVE system accompanied by heavy rains. SVE system repairs were done on September 25 and 27, 2019 (Section 4.4).

Wood collected the soil vapor samples using laboratory-supplied 1.0-liter passivated vacuum canisters. AEL analyzed the soil vapor samples for VOCs in air by EPA Method TO-15. The sample collected for MW-12-D was received at the laboratory without pressure inside the sample cannister. The sample was not reportable and not included in the third quarter sample set. The duplicate sample collected at SVE-04 had a significant relative percent difference (RPD). The duplicate sample was presented on **Table 6** and **Figure 5** but not used for the TCE plume extent due to the variability. All soil vapor analytical results for the Third Quarter 2019 are presented in **Table 6**. The estimated extent of the TCE plume in soil vapor in the shallow, middle, deep, and above water table zones is shown in **Figures 3**, **4**, **5**, and **6**, respectively. The estimated extent of 1,1-Dichloroethene (1,1-DCE) in soil vapor in the deep zone is shown in **Figure 7**. Laboratory results of analytical reports for samples collected during the reporting period are included in **Appendix B**.

3.4 SVE System Performance Monitoring

The SVE system is part of the remedy identified in the RAP and provides source control (extraction of contaminated soil vapors) at the site. It was fully operational with both skids functioning and had a runtime of 92 percent (%) from July 1 to September 30, 2019. The system extracted vapor from SVE-03 and SVE-04 during that time. The Carbon Adsorption System (CAS) treated the extracted vapor under pressurized flow (**Figure 8**).

The SVE system consists of three Granular Activated Carbon (GAC) vessels, identified as C1, C2, and C3, and one Hydrosil (i.e., potassium permanganate impregnated media) vessel, identified as H1. During routine operation, two GAC vessels are operated in lead/lag series configuration and the Hydrosil vessel is operated as the third and final vessel in the series. The remaining GAC vessel is a standby (offline) vessel and is placed into service as a lag vessel when the lead GAC vessel is spent and removed from service. During a change-out event, the lag vessel is moved into the lead position and the standby vessel is moved into the lag position. GAC is replaced in the former lead vessel and it becomes the new standby vessel.

Ten GAC vessel change-outs were conducted during the reporting period. The change-outs occurred on the following dates:

- July 8, 2019
- July 19, 2019
- July 31, 2019
- August 9, 2019
- August 19, 2019
- September 4, 2019
- September 17, 2019

- September 30, 2019

No Hydrosil change-outs were required during the reporting period.

Discharge of treated effluent from the SVE system is permitted by Maricopa County Air Quality Permit 980398 (Maricopa County Air Quality Department, 2016a). Under this permit, Maricopa County is required to collect monthly samples to calculate 12-month rolling total emissions and quarterly performance samples to demonstrate compliance with the performance requirements of the site air quality permit. Wood collected monthly process samples on July 17 and August 21, 2019 and the monthly/quarterly performance sample on September 18, 2019. Process samples were collected with laboratory-supplied 1.0-liter passivated vacuum canisters at four locations: entering the CAS (at sample port [SP]-01), after the lead carbon vessel (at SP-02), after the lag carbon vessel (at SP-03), and after the Hydrosil vessel (at SP-04). These samples are named using the following convention: the sample port (e.g., SP-02) – the vessel that is monitored (e.g., C1 or H1) – the sample date in MMDDYY format. Sample locations are shown in **Figure 8**.

AEL analyzed process samples for VOCs in air by EPA Method TO-15. Results of process sample analysis are presented in **Table 7**. Laboratory results of analyses for samples collected during the reporting period are included in **Appendix B**.

4.0 DISCUSSION OF COLLECTED DATA

4.1 Groundwater Elevations

Groundwater elevations at the site remained relatively stable between Third Quarter 2018 and Third Quarter 2019 with an average site-wide decrease in groundwater elevations measured at monitoring wells of 0.32 ft. Observed declines in groundwater elevations ranged from 0.1 ft (at MW-11) to 0.5 ft (at MW-08). A groundwater elevation rise of 0.6 ft was noted at TSSV-03-PZ from Third Quarter 2018 to Third Quarter 2019. The groundwater flow direction and gradient observed during Third Quarter were consistent with the groundwater flow direction and gradient observed during the previous four quarters (**Table 2**).

4.2 Groundwater Quality

Analytical results from Third Quarter 2019 indicate that the highest concentrations of TCE underlie the southern and western portions of the New Landfill near TSSV-03-PZ and MW-10, respectively. The concentration of TCE in the sample collected from TSSV-03-PZ was 110 micrograms per liter (µg/L), which has shown a declining trend in TCE concentrations indicating that the higher concentrations previously observed at this well may have migrated to the south. The TCE concentration in the sample collected from MW-02, 1,200 ft downgradient of TSSV-03-PZ, has increased from 97 µg/L in the Second Quarter 2019 to 120 µg/L in the Third Quarter 2019, suggesting that concentrations previously detected at upgradient well TSSV-03-PZ are beginning to be detected at MW-02. The TCE concentration in the sample collected from MW-10, on the southwest boundary of the New Landfill, was 360 µg/L; which is consistent with TCE concentrations observed at this well for the last few quarters. The concentration at MW-10 represents the highest TCE concentration observed during groundwater monitoring in Third Quarter 2019.

TCE was present above the Arizona Water Quality Standard (AWQS) for TCE of 5 µg/L in off-site downgradient wells MW-05 (54 µg/L), MW-07 (33 µg/L), and MW-11 (32 µg/L). The TCE concentration in the sample collected from MW-08, south of the Old Landfill, was 48 µg/L. TCE concentrations at MW-08 display an overall declining trend (from a high of 140/130 µg/L in the original/duplicate samples collected in Fourth Quarter 2018) and TCE concentrations decreased from 59 µg/L in Second Quarter 2019. The TCE concentration measured in TSSV-04-PZ, on the northern boundary of the New Landfill, was 110 µg/L, which

is the highest concentration reported at this location. TCE concentrations have been consistently increasing since February 2017 (20 µg/L).

Depth-specific samples were collected in Third Quarter 2019 from the groundwater extraction well; EW-01. The objective of sampling was to evaluate the vertical profile of the TCE concentrations in EW-01. PDBs were deployed at 15 and 40 ft bwt. Site-wide, depth-specific samples were previously collected in Third Quarter 2017 and the results of that effort suggested an apparent vertical stratification of TCE concentrations at select wells, with the highest concentrations at the top of the water table and lower concentrations with depth. When EW-01 was resampled in Third Quarter 2019, TCE concentrations at the two depths showed minimal variation. TCE concentrations (shown in **Figure 2**) at EW-01 for 15 and 40 ft bwt were 16 and 19 µg/L; respectively. These results are consistent with depth-specific samples collected from EW-01 following installation and development (Amec Foster Wheeler, 2016b), and indicate that mixing in the well screen is likely occurring.

Co-contaminants 1,1-DCE and PCE have been observed in groundwater samples collected from site monitoring wells for some time, although concentrations do not routinely exceed applicable AWQSs. Analytical results from Third Quarter 2019 indicate that the highest concentrations of 1,1-DCE and PCE were generally observed in the wells that have the highest concentrations of TCE. The sample from MW-10, for example, has PCE concentrations of 8.8 µg/L (above the AWQS for PCE of 5 µg/L) and 1,1-DCE concentrations of 7.7 µg/L (above the AWQS for 1,1-DCE of 7 µg/L). The sample collected from TSSV-04-PZ has a PCE concentration of 5.5 µg/L. No other samples collected from site monitoring wells contained concentrations of PCE, 1,1-DCE, or other constituents above the respective AWQS.

Due to contracting constraints with the environmental laboratory from the First Quarter 2019 reporting period, SGS was selected to analyze samples collected in the Third Quarter 2019. Wood conducted a review of Third Quarter 2019 groundwater sample results to evaluate consistency with historical trends, laboratory dilution factors, and laboratory reporting limits. Based on a comparison of Third Quarter 2019 data to historical data, Third Quarter 2019 groundwater data are consistent with previous results and usable for evaluation of long-term trends in contaminant concentrations in groundwater at the site. A review of data consistency with laboratory results corresponding to recent monitoring events will continue throughout 2019.

4.3 Soil Vapor

The analytical results from Third Quarter 2019 indicate that the highest concentrations of TCE in site soil vapor occur in the deep zone and above the water table around SVE-04, TSSV-07-D, and TSSV-07-PZ, in the southwest corner of the Old Landfill (**Figure 5**). In general, compared to the historical results, TCE concentrations in soil vapor at all depth profiles have decreased. This suggests the SVE system is successfully extracting contaminant mass from the subsurface. TCE concentrations in soil vapor samples collected from the shallow zone were less than 20 mg/m^3 (**Figure 3**). TCE concentrations in soil vapor samples collected from the middle zone were less than 20 mg/m^3 (**Figure 3**) excluding the duplicate sample from TSSV-01-M which had a TCE concentration of 23 mg/m^3.

TCE concentrations in select deep zone (**Figure 5**) locations have increased from the Second Quarter 2019, although concentrations are comparable to First Quarter 2019 and generally show a declining trend when compared to historical analytical. These locations, with corresponding Third Quarter 2019 TCE concentrations in parentheses, are: SVE-01 (13 milligrams per cubic meter [mg/m^3]), SVE-02 (14 mg/m^3), SVE-03 (68 mg/m^3), SVE-04 (172 mg/m^3), and TSSV-01-D (26 mg/m^3).

TCE concentrations in soil vapor from TSSV-07-PZ was the highest observed site-wide and in the above water table zone, at 460 mg/m^3 (**Figure 6**). The highest concentration of TCE at this well was 810 mg/m^3 in Fourth Quarter 2018, suggesting that the SVE system is successfully extracting contaminant mass in the Old Landfill.

1,1-DCE is frequently observed in soil vapor samples collected from wells in and near the Old Landfill (**Figure 7**). During Third Quarter 2019, and consistent with previous quarters, the highest concentrations of 1,1-DCE in the soil vapor occurred in the deep zone around TSSV-07-D in the Old Landfill.

4.4 SVE System Performance

Based on the results of SVE system performance sampling, the CAS captured or destroyed over 99% of extracted VOCs, as defined by Maricopa County Air Quality Department Rule 100 Section 200.113, and over 95% of Federal Hazardous Air Pollutants (HAPs) in extracted vapors, during the reporting period.

The calculated total mass removed from the vadose zone since SVE system startup is presented in **Table 8**. Mass removal rates are based on actual hours of operation (hour meter readings) and the estimated hourly VOC extraction rate derived from performance testing. During the reporting period, the SVE system removed 1,046 pounds (lbs) of VOCs over a time period of 92 days, which is equivalent to a daily mass extraction rate of approximately 11 lbs per day. Since operations began on September 15, 2015, the calculated total mass of VOCs removed through March 20, 2019 is 43,068 lbs.

The SVE system operated for 92% of the time in the Third Quarter 2019. The system was commonly turned off for the weekend if on Friday, the field readings to estimate VOC removal efficiency of the CAS indicated that the removal efficiency on Saturday or Sunday would fall below the minimum VOC removal efficiency of 90% mandated by the air quality permit. The system was also turned off for several hours approximately every week to change the GAC order. The SVE system was turned off for several hours on September 25 and 27, 2019 due to an electrical fuse failure and LEL sensor replacement. Monthly testing of the CAS indicates that the system is operating as intended and is compliant with the air quality permit issued by Maricopa County.

5.0 FUTURE ACTIVITIES

Maricopa County will continue to conduct quarterly monitoring as described in Section 3.0 of this report. Other upcoming activities targeted for completion during the Third Quarter of 2019 and/or scheduled through the Fourth Quarter of 2019 include:

- Continued operation of the SVE system for source control;
- Continued Phase 1 GWTS construction. This activity is currently on-going and completion is estimated in January 2020;
- Initiation of Phase 2 construction which a projected completion date of May 2020;
- Completion of well installation at IW-01; and,
- Aquifer and pump testing at IW-01, which is projected to extend through December 2019.

6.0 REFERENCES

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2016. *Draft Final Revised Remedial Action Plan*. Prepared on behalf of the Maricopa County Risk Management and Maricopa County Waste Resources & Recycling Management. May 6, 2016.

Amec Foster Wheeler, 2016b. *2016 Well Installation and Aquifer Testing Report*. Prepared on behalf of the Maricopa County Risk Management and Maricopa County Waste Resources & Recycling Management. December 16, 2016.

Arizona Department of Environmental Quality (ADEQ), 2010. *Consent Order in the matter of Cave Creek Landfill located at 8.3 miles east of I-17 approximately ½ mile south of Carefree Highway Phoenix, Maricopa, Arizona, Azurite Place ID 1169*. Docket No. S-2-10. Filed on January 19, 2010.

ADEQ, 2016a. *Letter to Ms. Rita Neill of Maricopa County from Ms. Laura Malone of ADEQ regarding Approval of the Revised Remedial Action Plan (RAP) dated 5-6-2016*; *Maricopa County, Cave Creek Landfill; Azurite Place ID Number 1169*. PRU16-513. Dated November 23, 2016.

ADEQ, 2016b. *Amendment No. 1 to Consent Order in the matter of Cave Creek Landfill located at 8.3 miles east of I-17 approximately ½ mile south of Carefree Highway Phoenix, Maricopa, Arizona, Azurite Place ID 1169*. Docket No. S-2-10. Signed on September 27, 2016.

Hydro Geo Chem, Inc. (Hydro Geo Chem), 2014. *Post-Closure Care Plan for Maricopa County Solid Waste Landfills*. Prepared for Maricopa County Waste Resources and Recycling. June 19, 2014.

Maricopa County Air Quality Department, 2016a. *Air Quality Permit to Operate and/or Construct Issued to Cave Creek Landfill. Permit Number 980398*. Revision Date: June 16, 2016. Expiration Date: November 30, 2021.

TABLES

Table 1. Well Construction Summary

Cave Creek Landfill, Maricopa County

WellName	Location Type	ADWR ID	Northing (NAD83SP Int'l Ft)	Easting (NAD83SP Int'l Ft)	TOC (ft amsl)	Ground Surface (ft amsl)	Total Well Depth (ft)	Date Installed	Casing Diameter (I.D.)	CasingType	Top Screen Depth (ft bgs)	Bottom Screen Depth (ft bgs)	Top Screen Elevation (ft amsl)	Pump Intake Depth (ft bgs)	Pump Intake Elevation (ft amsl)	Comment
EW-01	Groundwater	55-226136	1012934.6	675653.9	1,854.5	1,852.9	830	8/20/2016	12	HSLA	729.1	809.4	1,123.8	-	-	-
MW-01	Groundwater	55-538298	1013459.3	675955.8	1,895.6	1,895.6	820	5/1/1993	6 inch	LCS	660	820	1,235.6	-	-	Originally installed at 695 ft bgs; moved to 740 ft bgs (at bottom of pump) on 3/2/2005.
MW-02	Groundwater	55-538299	1012899.4	675673.9	1,856.0	1,855.0	805	5/1/1993	6 inch	LCS	630	805	1,225.0	-	-	Originally installed at 675 ft bgs; moved to 704 ft bgs (at bottom of pump) on 3/1/2005; moved to 714 ft bgs on 6/26/2009. Pump removed 8/2017
MW-03	Groundwater	55-216293	1013323.0	676495.2	1,866.4	1,867.0	830	12/13/2007	6 inch	LCS	679	799	1,188.0	-	-	Originally installed at 777 ft bgs; moved to 724 ft bgs on 6/25/2009. Pump removed 8/2017
MW-04	Groundwater	55-912575	1012613.0	675427.0	1,849.8	1,848.7	768	10/26/2010	6 inch	LCS	667.5	752.7	1,181.2	-	-	Pump removed 8/2017
MW-05	Groundwater	55-912728	1012467.6	674571.8	1,845.1	1,843.2	767	12/15/2010	6 inch	LCS	660	740.2	1,183.2	-	-	Pump removed 8/2017
MW-06	Groundwater	55-913112	1012139.1	675961.1	1,860.7	1,858.6	776.9	5/16/2011	6 inch	LCS	683	763	1,175.6	-	-	Pump removed 8/2017
MW-07	Groundwater	55-914001	1012607.3	675919.7	1,859.6	1,857.8	765	2/8/2012	8.25 inch	LCS	674.8	754.8	1,183.0	-	-	Pump removed 8/2017
MW-08	Groundwater	55-913859	1015700.0	676938.9	1,889.1	1,887.5	766.5	1/9/2012	8.25 inch	LCS	691.5	761.5	1,196.0	-	-	Pump removed 8/2017
MW-09	Groundwater	55-920632	1015090.4	675043.7	1,864.8	1,864.2	775	7/25/2017	6 inch	Sch 80 PVC	685	775	1,179.2	-	-	-
MW-09-S	Soil Vapor	55-920632	1015090.4	675043.7	1,864.8	1,864.2	160	7/25/2017	1 inch	Sch 80 PVC	140	160	1,724.2	-	-	-
MW-09-M	Soil Vapor	55-920632	1015090.4	675043.7	1,864.8	1,864.2	360	7/25/2017	1 inch	Sch 80 PVC	340	360	1,524.2	-	-	-
MW-09-D	Soil Vapor	55-920632	1015090.4	675043.7	1,864.8	1,864.2	585	7/25/2017	1 inch	Sch 80 PVC	535	585	1,329.2	-	-	-
MW-10	Groundwater	55-920633	1013594.3	674997.4	1,848.3	1,847.4	765	9/3/2017	6 inch	Sch 80 PVC	670	760	1,177.4	-	-	-
MW-10-S	Soil Vapor	55-920633	1013594.3	674997.4	1,848.3	1,847.4	140	9/6/2017	1 inch	Sch 80 PVC	120	140	1,727.4	-	-	-
MW-10-M	Soil Vapor	55-920633	1013594.3	674997.4	1,848.3	1,847.4	340	9/6/2017	1 inch	Sch 80 PVC	320	340	1,527.4	-	-	-
MW-10-D	Soil Vapor	55-920633	1013594.3	674997.4	1,848.3	1,847.4	570	9/6/2017	1 inch	Sch 80 PVC	520	570	1,327.4	-	-	-
MW-11	Groundwater	55-229174	1011611.5	675676.7	1,850.8	1,851.1	781	10/8/2018	6 inch	Sch 80 PVC	686	776	1,165.1	-	-	-
MW-12	Groundwater	55-921934	1014678.7	676009.7	1,873.2	1,873.6	785	9/5/2018	6 inch	Sch 80 PVC	690	780	1,183.6	-	-	-

Table 1. Well Construction Summary

Cave Creek Landfill, Maricopa County

WellName	Location Type	ADWR ID	Northing (NAD83SP Int'l Ft)	Easting (NAD83SP Int'l Ft)	TOC (ft amsl)	Ground Surface (ft amsl)	Total Well Depth (ft)	Date Installed	Casing Diameter (I.D.)	CasingType	Top Screen Depth (ft bgs)	Bottom Screen Depth (ft bgs)	Top Screen Elevation (ft amsl)	Pump Intake Depth (ft bgs)	Pump Intake Elevation (ft amsl)	Comment
MW-12-S	Soil Vapor	55-921934	1014679.0	676009.8	1,873.5	1,873.6	196	9/5/2018	1 inch	Sch 80 PVC	146	196	1,727.6	-	-	-
MW-12-M	Soil Vapor	55-921934	1014678.8	676009.5	1,873.4	1,873.6	396	9/5/2018	1 inch	Sch 80 PVC	346	396	1,527.6	-	-	-
MW-12-D	Soil Vapor	55-921934	1014679.2	676009.7	1,873.3	1,873.6	596	9/5/2018	2 inch	Sch 80 PVC	546	596	1,327.6	-	-	-
MW-13	Groundwater	55-229175	1016320.9	676680.0	1,900.7	1,900.0	802	11/10/2018	6 inch	Sch 80 PVC	707	797	1,193.0	-	-	-
MW-13-S	Soil Vapor	55-229175	1016321.0	676680.3	1,900.5	1,900.0	223	11/10/2018	1 inch	Sch 80 PVC	173	223	1,727.0	-	-	-
MW-13-M	Soil Vapor	55-229175	1016321.1	676680.0	1,900.5	1,900.0	423	11/10/2018	1 inch	Sch 80 PVC	373	423	1,527.0	-	-	-
MW-13-D	Soil Vapor	55-229175	1016320.9	676679.8	1,900.5	1,900.0	623	11/10/2018	2 inch	Sch 80 PVC	573	623	1,327.0	-	-	-
PW	Groundwater	55-503913	1015806.0	675722.2	1,882.0	1,881.4	820	10/1/1982	6 inch	LCS	680	810	1,201.4	-	-	Originally installed at 750 ft bgs; moved to 729 ft bgs on 6/25/2009. Pump removed 8/2017
SVE-01	Soil Vapor Extraction	55-917896	1015834.8	675971.9	-	1,882.1	610	5/18/2015	6 inch	Sch 80 PVC	120	600	1,762.1	-	-	-
SVE-01-S	Soil Vapor	55-917896	1015834.8	675971.9	1,882.1	1,882.1	610	5/18/2015	1 inch	Sch 80 PVC	180	200	1,702.1	-	-	-
SVE-01-M	Soil Vapor	55-917896	1015834.8	675971.9	1,882.1	1,882.1	610	5/18/2015	1 inch	Sch 80 PVC	360	380	1,522.1	-	-	-
SVE-01-D	Soil Vapor	55-917896	1015834.8	675971.9	1,882.1	1,882.1	610	5/18/2015	1 inch	Sch 80 PVC	480	500	1,402.1	-	-	-
SVE-02	Soil Vapor Extraction	55-917897	1015472.6	675617.9	1,900.4	1,900.4	630	5/5/2015	6 inch	Sch 80 PVC	400	620	1,500.4	-	-	-
SVE-02-S	Soil Vapor	55-917897	1015472.6	675617.9	1,900.4	1,900.4	630	5/5/2015	1 inch	Sch 80 PVC	150	170	1,750.4	-	-	-
SVE-02-M	Soil Vapor	55-917897	1015472.6	675617.9	1,900.4	1,900.4	630	5/5/2015	1 inch	Sch 80 PVC	300	350	1,600.4	-	-	-
SVE-03	Soil Vapor Extraction	55-920634	1015112.6	675423.8	1,907.5	1,905.1	655	8/8/2017	6 inch	Sch 80 PVC	530	650	1,375.1	-	-	-
SVE-03-S	Soil Vapor	55-920634	1015112.6	675423.8	1,907.5	1,905.1	200	8/8/2017	1 inch	Sch 80 PVC	180	200	1,725.1	-	-	-
SVE-03-M	Soil Vapor	55-920634	1015112.6	675423.8	1,907.5	1,905.1	400	8/8/2017	1 inch	Sch 80 PVC	380	400	1,525.1	-	-	-
SVE-04	Soil Vapor Extraction	55-920878	1015934.6	676182.8	1,893.0	1,890.8	644	10/4/2017	6 inch	Sch 80 PVC	514	639	1,376.8	-	-	-
SVE-04-S	Soil Vapor	55-920878	1015934.6	676182.8	1,893.0	1,890.8	185	10/4/2017	1 inch	Sch 80 PVC	165	185	1,725.8	-	-	-
SVE-04-M	Soil Vapor	55-920878	1015934.6	676182.8	1,893.0	1,890.8	385	10/4/2017	1 inch	Sch 80 PVC	365	385	1,525.8	-	-	-
TSSV-01-S	Soil Vapor	55-911519	1015918.8	675991.0	1,881.0	1,881.0	610	1/22/2010	2 inch	Sch 80 PVC	150	200	1,731.0	-	-	-

Table 1. Well Construction Summary

Cave Creek Landfill, Maricopa County

WellName	Location Type	ADWR ID	Northing (NAD83SP Int'l Ft)	Easting (NAD83SP Int'l Ft)	TOC (ft amsl)	Ground Surface (ft amsl)	Total Well Depth (ft)	Date Installed	Casing Diameter (I.D.)	CasingType	Top Screen Depth (ft bgs)	Bottom Screen Depth (ft bgs)	Top Screen Elevation (ft amsl)	Pump Intake Depth (ft bgs)	Pump Intake Elevation (ft amsl)	Comment
TSSV-01-M	Soil Vapor	55-911519	1015918.8	675991.0	1,881.0	1,881.0	610	1/22/2010	2 inch	Sch 80 PVC	350	400	1,531.0	-	-	-
TSSV-01-D	Soil Vapor	55-911519	1015918.8	675991.0	1,881.0	1,881.0	610	1/22/2010	2 inch	Sch 80 PVC	549	599	1,332.0	-	-	-
TSSV-02-S	Soil Vapor	55-915432	1015688.3	675875.9	1,880.2	1,881.4	210	5/3/2013	2 inch	Sch 80 PVC	150.3	200.3	1,731.1	-	-	-
TSSV-02-M	Soil Vapor	55-915432	1015688.3	675875.9	1,880.2	1,881.4	410	5/3/2013	2 inch	Sch 80 PVC	350.3	400.3	1,531.1	-	-	-
TSSV-02-D	Soil Vapor	55-915279	1015688.8	675860.8	1,880.2	1,881.2	609	4/24/2013	2 inch	Sch 80 PVC	549.3	599.3	1,331.9	-	-	-
TSSV-02-PZ	Groundwater	55-915279	1015688.8	675860.8	1,880.2	1,881.2	779	4/24/2013	2 inch	Sch 80 PVC	699.3	769.3	1,181.9	-	-	-
TSSV-03-S	Soil Vapor	55-915281	1014061.5	675688.5	1,902.7	1,901.8	230	4/26/2013	2 inch	Sch 80 PVC	170.5	220.5	1,731.3	-	-	-
TSSV-03-M	Soil Vapor	55-915281	1014061.5	675688.5	1,902.7	1,901.8	430	4/26/2013	2 inch	Sch 80 PVC	370.5	420.5	1,531.3	-	-	-
TSSV-03-D	Soil Vapor	55-915281	1014061.5	675688.5	1,902.7	1,901.8	629	4/26/2013	2 inch	Sch 80 PVC	569.5	619.5	1,332.3	-	-	-
TSSV-03-PZ	Groundwater	55-915281	1014061.5	675688.5	1,902.7	1,901.8	799	4/26/2013	2 inch	Sch 80 PVC	719.5	789.5	1,182.3	-	-	-
TSSV-03-P	Soil Vapor	55-915281	1014061.5	675688.5	1,902.7	1,901.8	73	4/26/2013	1 inch	Sch 80 PVC	60	70	1,841.8	-	-	-
TSSV-04-S	Soil Vapor	55-915282	1015319.7	675423.9	1,906.0	1,905.4	235	5/31/2013	2 inch	Sch 80 PVC	174.5	224.5	1,730.9	-	-	-
TSSV-04-M	Soil Vapor	55-915282	1015319.7	675423.9	1,906.0	1,905.4	435	5/31/2013	2 inch	Sch 80 PVC	374.5	424.5	1,530.9	-	-	-
TSSV-04-D	Soil Vapor	55-915629	1015319.7	675423.9	1,906.0	1,905.0	635	6/10/2013	2 inch	Sch 80 PVC	575	625	1,330.0	-	-	-
TSSV-04-PZ	Groundwater	55-915282	1015319.7	675423.9	1,906.0	1,905.8	804	5/31/2013	3 inch	Sch 80 PVC	723.5	793.5	1,182.3	-	-	-
TSSV-05-S	Soil Vapor	55-917870	1014659.1	675396.6	1,905.7	1,904.7	430	3/8/2015	2 inch	Sch 80 PVC	170	220	1,734.7	-	-	-
TSSV-05-M	Soil Vapor	55-917870	1014659.1	675396.6	1,905.7	1,904.7	430	3/8/2015	2 inch	Sch 80 PVC	370	420	1,534.7	-	-	-
TSSV-05-D	Soil Vapor	55-917892	1014659.1	675396.6	1,905.7	1,905.1	805	4/21/2015	2 inch	Sch 80 PVC	570	620	1,335.1	-	-	-
TSSV-05-PZ	Groundwater	55-917892	1014659.1	675396.6	1,905.7	1,905.1	805	4/21/2015	4 inch	Sch 80 PVC	720	790	1,185.1	-	-	-
TSSV-06-S	Soil Vapor	55-917894	1015997.6	675654.5	1,876.9	1,876.5	610	3/18/2015	2 inch	Sch 80 PVC	150	200	1,726.5	-	-	-
TSSV-06-M	Soil Vapor	55-917894	1015997.6	675654.5	1,876.9	1,876.5	610	3/18/2015	2 inch	Sch 80 PVC	350	400	1,526.5	-	-	-
TSSV-06-D	Soil Vapor	55-917894	1015997.6	675654.5	1,876.9	1,876.5	610	3/18/2015	2 inch	Sch 80 PVC	550	600	1,326.5	-	-	-
TSSV-06-PZ	Groundwater	55-917895	1015997.6	675654.5	1,876.9	1,876.1	794	4/8/2015	4 inch	Sch 80 PVC	700	785	1,176.1	-	-	-

Table 1. Well Construction Summary

Cave Creek Landfill, Maricopa County

WellName	Location Type	ADWR ID	Northing (NAD83SP Int'l Ft)	Easting (NAD83SP Int'l Ft)	TOC (ft amsl)	Ground Surface (ft amsl)	Total Well Depth (ft)	Date Installed	Casing Diameter (I.D.)	CasingType	Top Screen Depth (ft bgs)	Bottom Screen Depth (ft bgs)	Top Screen Elevation (ft amsl)	Pump Intake Depth (ft bgs)	Pump Intake Elevation (ft amsl)	Comment
TSSV-07-S	Soil Vapor	55-917947	1015855.0	676202.1	1,889.9	1,889.5	620	3/30/2015	2 inch	Sch 80 PVC	160	210	1,729.5	-	-	-
TSSV-07-M	Soil Vapor	55-917947	1015855.0	676202.1	1,889.9	1,889.5	620	3/30/2015	2 inch	Sch 80 PVC	360	410	1,529.5	-	-	-
TSSV-07-D	Soil Vapor	55-917947	1015855.0	676202.1	1,889.9	1,889.5	620	3/30/2015	2 inch	Sch 80 PVC	560	610	1,329.5	-	-	-
TSSV-07-PZ	Groundwater	55-917946	1015855.0	676202.1	1,889.9	1,889.0	795	4/13/2015	4 inch	Sch 80 PVC	710	780	1,179.0	-	-	-

Notes: LFG - Landfill Gas
ft - Feet
ft bgs - Feet below ground surface
ft amsl - Feet above mean sea level
I.D. - Inner Diameter
Pumps removed for wells MW-02 - MW-08 and PW 8/2017.

Table 2. Groundwater Elevation, Gradient, and Flow Direction

Cave Creek Landfill, Maricopa County

Groundwater Elevation by Well (ft amsl)

Well ID	Third Quarter 2018	Fourth Quarter 2018	First Quarter 2019	Second Quarter 2019	Third Quarter 2019
EW-01[1]	1156.66	1156.63	1156.54	1156.22	NM
PW	1162.91	1162.73	1162.45	1162.43	1162.54
MW-02	1156.80	1156.79	1156.61	1156.32	1156.37
MW-03	1157.66	1157.71	1157.33	1157.32	1157.38
MW-04	1156.31	1156.39	1156.15	1155.97	1156.09
MW-05	1156.04	1155.94	1155.74	1155.56	1155.81
MW-06	1155.15	1155.21	1154.93	1154.91	1154.88
MW-07	1156.29	1156.40	1156.21	1156.13	1156.00
MW-08	1162.60	1162.47	1162.06	1162.01	1162.11
MW-09	1161.45	1161.30	1161.11	1160.98	1161.13
MW-10	1158.46	1158.40	1158.20	1158.02	1158.12
MW-11	NM	1154.12	1153.97	1154.03	1154.06
MW-12	NM	1158.69	1158.46	1158.02	1158.43
MW-13	NM	1163.27	1162.93	1162.80	1163.04
TSSV-02-PZ[1]	1162.66	1162.69	1161.70	1162.24	1162.35
TSSV-03-PZ[1]	1158.04	1157.87	1158.72	1158.47	1158.68
TSSV-04-PZ*	1160.65	1160.60	1163.90	1160.04	1160.28
TSSV-05-PZ[1]	1160.37	1160.34	1160.06	1159.78	1160.12
TSSV-06-PZ[1]	1162.64	1162.52	1162.16	1162.20	1162.35
TSSV-07-PZ[1]	1162.35	1162.04	1161.98	1161.84	1162.00
Gradient (ft/ft)	0.002	0.002	0.002	0.002	0.002
Flow Direction (deg. from N)	177.5	176.7	174.3	176.2	171.4

Notes:

Flow direction measured in a clockwise rotation; North is 0 degrees, East is 90 degrees, South is 180 degrees, and West is 270 degrees.

deg. = degrees

ft amsl = Feet above mean sea level

ID = Identification

MW = Monitoring Well

NM = Not Measured

PW = Production Well

PZ = Piezometer

TSSV = Monitoring Well

* = not included in calculation of gradient or flow direction, all quarters

[1] = not included in calculation of gradient or flow direction starting in First Quarter 2019

Table 3. Groundwater Analytical Results - Summary of VOC Data

Cave Creek Landfill, Maricopa County

Well Name	Sample Date	Sample Elevation (ft amsl)	Units	Sample Method	1,1-Dichloroethane	1,1-Dichloroethene	Benzene	Bromoform	Carbon disulfide	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Naphthalene	Tetrachloroethene	Toluene	trans-1,2-dichloroethene	Trichloroethene	Vinyl Chloride	Comments
EW-01																			
	7/1/2019	1,141.5	µg/L	PDB	<1	<1	<1	<1	<2	<1	<1	1.7	<1	<1	<1	<1	16	<1	- -
	7/1/2019	1,116.5	µg/L	PDB	<1	<1	<1	<1	<2	<1	<1	1.7	<1	<1	<1	<1	19	<1	- -
	7/1/2019	1,116.5	µg/L	PDB	<1	<1	<1	<1	<2	<1	<1	1.7	<1	<1	<1	<1	20	<1	Duplicate
MW-02																			
	8/22/2019	1,142.0	µg/L	PDB	3.2	3.4	<1	<1	<5	<1	<1	3.5	<5	4.0	<1	<1	120	<1	- -
MW-03																			
	8/21/2019	1,143.4	µg/L	PDB	<1	1.2	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	1.8	<1	- -
MW-04																			
	8/21/2019	1,141.8	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	<1	<1	- -
MW-05																			
	8/22/2019	1,142.1	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	0.40 J	<1	<1	54	<1	- -
MW-06																			
	8/21/2019	1,140.7	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	1.7	<1	Duplicate
	8/21/2019	1,140.7	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	1.7	<1	- -
MW-07																			
	8/21/2019	1,141.6	µg/L	PDB	<1	1.2	<1	<1	<5	<1	<1	0.66 J	<5	0.61 J	<1	<1	33	<1	- -
MW-08																			
	8/22/2019	1,148.1	µg/L	PDB	0.60 J	6.1	<1	<1	<5	<1	<1	0.43 J	<5	1.3	<1	<1	48	<1	- -
	8/22/2019	1,148.1	µg/L	PDB	0.59 J	5.0	<1	<1	<5	<1	<1	0.46 J	<5	1.3	<1	<1	43	<1	Duplicate
MW-09																			
	8/20/2019	1,146.8	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	23	<1	- -
MW-10																			
	8/20/2019	1,144.3	µg/L	PDB	<2.5	7.7	<2.5	<2.5	<13	<2.5	<2.5	23	<13	8.8	<2.5	<2.5	360	<2.5	- -
MW-11																			
	8/21/2019	1,138.8	µg/L	PDB	<1	1.4	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	32	<1	Duplicate
	8/21/2019	1,138.8	µg/L	PDB	<1	1.3	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	32	<1	- -
AWQS:					**N/A**	**7**	**5**	**80**	**N/A**	**100**	**80**	**70**	**N/A**	**5**	**1,000**	**100**	**5**	**2**	

Table 3. Groundwater Analytical Results - Summary of VOC Data

Well Name	Sample Date	Sample Elevation (ft amsl)	Units	Sample Method	1,1-Dichloroethane	1,1-Dichloroethene	Benzene	Bromoform	Carbon disulfide	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Naphthalene	Tetrachloroethene	Toluene	trans-1,2-dichloroethene	Trichloroethene	Vinyl Chloride	Comments
MW-12																			
	8/22/2019	1,144.2	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	<1	<1	- -
MW-13																			
	8/22/2019	1,148.7	µg/L	PDB	<1	2.4	<1	<1	<5	<1	<1	<1	<5	1.3	<1	<1	3.8	<1	- -
PW																			
	8/22/2019	1,098.0	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	0.63 J	<1	- -
TSSV-02-PZ																			
	8/20/2019	1,148.2	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	<1	<1	- -
TSSV-03-PZ																			
	8/20/2019	1,142.7	µg/L	PDB	<1	2.2	<1	<1	<5	<1	<1	6.8	<5	2.1	<1	<1	110	<1	- -
TSSV-04-PZ																			
	8/20/2019	1,146.0	µg/L	PDB	<1	5.2	<1	<1	<5	<1	<1	6.5	<5	5.5	<1	<1	110	<1	- -
TSSV-05-PZ																			
	8/20/2019	1,145.7	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	2.9	<1	- -
TSSV-06-PZ																			
	8/22/2019	1,147.9	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	1.5	<1	- -
TSSV-07-PZ																			
	8/22/2019	1,147.9	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	<1	<1	- -
AWQS:					**N/A**	**7**	**5**	**80**	**N/A**	**100**	**80**	**70**	**N/A**	**5**	**1,000**	**100**	**5**	**2**	

Notes: AWQS - Aquifer Water Quality Standard
Grey text indicates result was less than the reporting limit
Red text indicates a result detected above the AWQS
µg/L - micrograms per liter
ft amsl - feet above mean sea level
bwt - below water table
PDB - Passive Diffusion Bag
TD - Total Depth
VOC - Volatile Organic Compound
Analytical method is VOCs by SW 8260B unless otherwise noted.
- = data not applicable or not available
* = approximate sample location
B1 = Method blank: Target analyte detected in method blank at or above the method reporting limit.
D2 = Dilution: Sample required dilution due to high concentration of target analyte. See case narrative.
E4 = Estimated Concentration: Concentration estimated. Analyte was detected below laboratory minimum reporting level limit (mrl).
E8 = Analyte reported to mdl per project specification. Target analyte was not detected in the sample.
H1 = Hold time: Sample analysis performed past holding time.
M3 = Matrix spike: The spike recovery value is unusable the analyte concentration in the sample is disproportionate to the spike level the associated blank spike recovery was acceptable
N1 = General: see case narrative.
V1 = Calibration verification: CCV recovery was above method acceptance limits. This target analyte was not detected in the sample

Table 4. Groundwater Analytical Results - Summary of General Chemistry

Cave Creek Landfill, Maricopa County

Well Name	Sample Date	Sample Elevation (ft amsl)	Units	Alkalinity, (as CaCO3)	Chloride	Fluoride	Nitrate (As N)	Sulfate	Comments
MW-02									
	8/22/2019	1,142.0	MG/L	310	18	<0.7	<0.5	2.8	--
MW-03									
	8/21/2019	1,143.4	MG/L	120	18	<0.7	<0.5	1.3	--
MW-04									
	8/21/2019	1,141.8	MG/L	210	22	<0.7	<0.5	7.8	--
MW-05									
	8/22/2019	1,142.1	MG/L	210	18	<0.7	<0.5	9.0	--
MW-06									
	8/21/2019	1,140.7	MG/L	210	16	<0.7	<0.5	15	--
	8/21/2019	1,140.7	MG/L	200	16	<0.7	<0.5	15	Duplicate
MW-07									
	8/21/2019	1,141.6	MG/L	150	22	<0.7	<0.5	0.98	--
MW-08									
	8/22/2019	1,148.1	MG/L	110	18	<0.7	<0.5	<0.5	--
PW									
	8/22/2019	1,098.0	MG/L	210	21	<0.7	1.4	19	--
AWQS:				**N/A**	**N/A**	**4**	**10**	**N/A**	

Notes: AWQS - Aquifer Water Quality Standard
Grey text indicates result was less than the reporting limit
Bold text indicates a result detected above the AWQS
mg/L - milligrams per liter
ft amsl - feet above mean sea level
- = data not applicable or not available
D2 = Dilution: Sample required dilution due to high concentration of target analyte. See case narrative.
E4 = Estimated Concentration: Concentration estimated. Analyte was detected below laboratory minimum reporting level limit (mrl).
M1 = Matrix Spike: Matrix spike recovery was high, the method control sample associated blank spike recovery was acceptable

Table 5. Groundwater Analytical Results - Summary of Metals Data

Cave Creek Landfill, Maricopa County

Well Name	Sample Date	Sample Elevation (ft amsl)	Units	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Comments
MW-02																			
	8/22/2019	1,142.0	MG/L	<0.006	0.013	0.036	<0.004	<0.005	<0.01	<0.01	<0.01	0.015	<0.01	<0.01	<0.01	<0.01	<0.01	0.17	--
MW-03																			
	8/21/2019	1,143.4	MG/L	<0.006	<0.01	0.016	<0.004	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.34	--
MW-04																			
	8/21/2019	1,141.8	MG/L	<0.006	0.012	0.011	<0.004	<0.005	<0.01	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	0.023	0.029	--
MW-05																			
	8/22/2019	1,142.1	MG/L	<0.006	<0.01	0.013	<0.004	<0.005	<0.01	<0.01	<0.01	0.014	<0.01	<0.01	<0.01	<0.01	<0.01	0.15	--
MW-06																			
	8/21/2019	1,140.7	MG/L	<0.006	<0.01	<0.01	<0.004	<0.005	<0.01	<0.01	<0.01	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	0.13	--
	8/21/2019	1,140.7	MG/L	<0.006	<0.01	0.014	<0.004	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.021	Duplicate
MW-07																			
	8/21/2019	1,141.6	MG/L	<0.006	<0.01	0.017	<0.004	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.075	--
MW-08																			
	8/22/2019	1,148.1	MG/L	<0.006	<0.01	<0.01	<0.004	<0.005	<0.01	<0.01	<0.01	0.015	<0.01	<0.01	<0.01	<0.01	<0.01	0.27	--
PW																			
	8/22/2019	1,098.0	MG/L	<0.006	0.012	<0.01	<0.004	<0.005	<0.01	<0.01	<0.01	0.019	<0.01	<0.01	<0.01	<0.01	0.016	0.052	--
AWQS:				**0.006**	**0.01**	**2.0**	**0.004**	**0.005**	**0.1**	**NA**	**NA**	**0.05**	**0.1**	**0.05**	**NA**	**0.002**	**NA**	**NA**	
Upper Background Threshold Value:				*****	**0.1**	**0.25**	*****	*****	**0.025**	**0.025**	**0.025**	**0.1**	**0.25**	**0.05**	*****	*****	**0.045**	**0.7948**	

Notes: AWQS - Aquifer Water Quality Standard
Grey text indicates result was less than the reporting limit
Red text indicates a result detected above the AWQS
mg/L - milligrams per liter
ft amsl - feet above mean sea level
NA = data not applicable or not available
* = Two consecutive detect values in downgradient wells
B1 = Target analyte detected in method blank at or above the method reporting limit.
E4 = Estimated Concentration: Concentration estimated. Analyte was detected below laboratory minimum reporting level limit (mrl).
E8 = Analyte reported to mdl per project specification. Target analyte was not detected in the sample

Table 6. Soil Vapor Analytical Results - Wellhead TO-15 Analysis Data

Cave Creek Landfill, Maricopa County

Well Name	Sample Date	Sample Elevation (ft amsl)	Units	Acetone	2-Butanone (MEK)	Chlorobenzene	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Freon 11	Freon 12	Freon 113	Methylene chloride	Tetrachloroethene	Tetrahydrofuran	Trichloroethene	Vinyl Chloride	Comments
MW-09-M																					
	10/4/2019	1,524.2	µg/m³	<23.8	<29.5	<4.60	<4.88	8.91	<4.05	<3.97	<3.96	<3.96	17.2	15.2	20.7	16.7	43.5	<11.8	16.9	<2.56	- -
MW-09-D																					
	10/4/2019	1,329.2	µg/m³	<23.8	<29.5	<4.60	<4.88	<4.05	<4.05	<3.97	<3.96	<3.96	23.0	29.9	27.4	<13.9	36.1	<11.8	258	<2.56	- -
MW-10																					
	9/18/2019	1,177.4	µg/m³	<2,380	<2,950	<460	<488	9,400	<405	2,620	<396	<396	17,200	36,900	4,000	<1,390	6,220	<1,180	18,800	<256	- -
MW-10-S																					
	9/18/2019	1,727.4	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	<39.7	<39.6	<39.6	934	3,240	205	<139	1,200	<118	<53.7	<25.6	- -
MW-10-M																					
	9/18/2019	1,527.4	µg/m³	<2,380	<2,950	<460	<488	3,650	<405	1,860	<396	<396	12,300	49,000	3,420	<1,390	2,360	<1,180	1,140	<256	- -
MW-10-D																					
	9/18/2019	1,327.4	µg/m³	<2,380	<2,950	<460	<488	12,600	<405	1,600	<396	<396	7,810	26,400	1,470	3,020	5,070	<1,180	2,540	<256	- -
MW-11																					
	10/3/2019	1,165.1	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	341	<39.6	<39.6	77.6	130	869	<139	<136	<118	1,900	<25.6	- -
MW-12																					
	9/19/2019	1,183.6	µg/m³	<23.8	<29.5	<4.60	<4.88	<4.05	<4.05	<3.97	<3.96	<3.96	<5.62	<9.90	<7.66	<13.9	<13.6	<11.8	<5.37	<2.56	- -
MW-12-S																					
	9/20/2019	1,727.6	µg/m³	<23.8	<29.5	<4.60	<4.88	<4.05	<4.05	<3.97	<3.96	<3.96	7.64	15.0	128	<13.9	69.3	<11.8	30.9	<2.56	- -
MW-12-M																					
	9/20/2019	1,527.6	µg/m³	57.4	46.8	<4.60	<4.88	<4.05	<4.05	<3.97	<3.96	<3.96	<5.62	<9.90	<7.66	<13.9	<13.6	177	<5.37	<2.56	- -
PW																					
	10/7/2019	1,201.4	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	<39.7	50.7	<39.6	<56.2	<99.0	437	<139	304	<118	4,310	<25.6	- -
SVE-01																					
	10/7/2019	1,762.1	µg/m³	<238	<295	3,490	304	-	<40.5	54.0	721	<39.6	153	<99.0	440	<139	797	<118	12,900	<25.6	- -

Table 6. Soil Vapor Analytical Results - Wellhead TO-15 Analysis Data

Cave Creek Landfill, Maricopa County

Well Name	Sample Date	Sample Elevation (ft amsl)	Units	Acetone	2-Butanone (MEK)	Chlorobenzene	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Freon 11	Freon 12	Freon 113	Methylene chloride	Tetrachloroethene	Tetrahydrofuran	Trichloroethene	Vinyl Chloride	Comments
SVE-01-S																					
	10/4/2019	1,702.1	µg/m³	<23.8	<29.5	<4.60	<4.88	<4.05	<4.05	<3.97	<3.96	<3.96	<5.62	<9.90	<7.66	<13.9	<13.6	<11.8	32.8	<2.56	- -
SVE-01-M																					
	10/4/2019	1,522.1	µg/m³	<23.8	<29.5	4.97	<4.88	<4.05	<4.05	<3.97	<3.96	<3.96	<5.62	<9.90	<7.66	<13.9	<13.6	<11.8	21.4	<2.56	- -
SVE-02																					
	10/7/2019	1,500.4	µg/m³	<1,190	<1,480	<230	303	<203	<203	<199	242	<198	<281	<495	996	<694	1,240	<590	13,600	<128	- -
	10/7/2019	1,500.4	µg/m³	<1,190	<1,480	<230	278	<203	<203	<199	234	<198	<281	<495	965	<694	895	<590	12,100	<128	Duplicate
SVE-02-S																					
	10/7/2019	1,750.4	µg/m³	<238	<295	54.3	<48.8	<40.5	<40.5	<39.7	4,950	<39.6	284	736	<76.6	<139	556	<118	688	700	- -
SVE-02-M																					
	10/7/2019	1,600.4	µg/m³	<23.8	<29.5	<4.60	<4.88	<4.05	<4.05	<3.97	9.27	<3.96	<5.62	<9.90	<7.66	<13.9	14.9	<11.8	24.0	<2.56	- -
SVE-03																					
	10/7/2019	1,375.1	µg/m³	<2,380	<2,950	<460	<488	632	<405	3,080	4,320	<396	2,630	6,240	13,600	<1,390	3,760	<1,180	67,700	<256	- -
SVE-03-S																					
	10/7/2019	1,725.1	µg/m³	<59.5	<73.8	<11.5	<12.2	<10.1	<10.1	<9.93	18.6	<9.90	34.3	149	47.9	<34.7	333	<29.5	149	<6.40	- -
SVE-03-M																					
	10/7/2019	1,525.1	µg/m³	<59.5	<73.8	<11.5	119	17.8	<10.1	<9.93	<9.90	<9.90	143	255	118	239	1,350	<29.5	937	<6.40	- -
SVE-04																					
	10/7/2019	1,376.8	µg/m³	<23,800	<29,500	<4,600	<4,880	<4,050	<4,050	73,000	18,100	<3,960	<5,620	<9,900	46,600	184,000	20,900	<11,800	172,000	<2,560	- -
	10/7/2019	1,376.8	µg/m³	<23,800	<29,500	<4,600	<4,880	<4,050	<4,050	28,700	5,390	<3,960	<5,620	<9,900	18,400	69,400	10,400	<11,800	58,500	<2,560	Duplicate
SVE-04-S																					
	10/7/2019	1,725.8	µg/m³	<59.5	<73.8	101	<12.2	<10.1	<10.1	<9.93	14.5	<9.90	279	50.2	51.7	<34.7	147	<29.5	495	<6.40	- -
SVE-04-M																					
	10/7/2019	1,525.8	µg/m³	<2,380	<2,950	10,700	<488	<405	<405	<397	2,270	<396	<562	<990	<766	<1,390	1,780	<1,180	3,440	<256	- -

Table 6. Soil Vapor Analytical Results - Wellhead TO-15 Analysis Data

Cave Creek Landfill, Maricopa County

Well Name	Sample Date	Sample Elevation (ft amsl)	Units	Acetone	2-Butanone (MEK)	Chlorobenzene	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Freon 11	Freon 12	Freon 113	Methylene chloride	Tetrachloroethene	Tetrahydrofuran	Trichloroethene	Vinyl Chloride	Comments
TSSV-01-S																					
	10/3/2019	1,731.0	µg/m³	<238	<295	<46.0	106	<40.5	<40.5	<39.7	51.5	<39.6	<56.2	<99.0	480	<139	839	<118	6,660	<25.6	- -
TSSV-01-M																					
	10/3/2019	1,531.0	µg/m³	<238	<295	2,970	1,130	<40.5	<40.5	44.5	447	<39.6	139	<99.0	475	<139	1,710	645	18,700	<25.6	- -
	10/3/2019	1,531.0	µg/m³	<1,190	<1,480	6,440	1,320	<203	<203	<199	424	<198	<281	<495	659	<694	4,080	<590	22,700	<128	Duplicate
TSSV-01-D																					
	10/3/2019	1,332.0	µg/m³	<1,190	<1,480	1,170	1,170	<203	<203	250	2,480	<198	<281	<495	475	<694	2,050	<590	25,800	<128	- -
TSSV-02-S																					
	10/4/2019	1,731.2	µg/m³	25.3	<29.5	8.92	<4.88	<4.05	<4.05	<3.97	<3.96	<3.96	<5.62	<9.90	<7.66	<13.9	<13.6	69.9	38.7	<2.56	- -
TSSV-02-M																					
	10/4/2019	1,531.2	µg/m³	37.9	53.7	5.06	12.0	<4.05	<4.05	8.34	5.31	<3.96	<5.62	<9.90	18.4	<13.9	65.9	310	687	<2.56	- -
TSSV-02-D																					
	10/4/2019	1,331.9	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	<39.7	225	<39.6	<56.2	<99.0	214	<139	<136	1,100	1,870	<25.6	- -
TSSV-02-PZ																					
	10/4/2019	1,181.9	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	77.0	668	<39.6	<56.2	<99.0	<76.6	<139	<136	<118	324	<25.6	- -
TSSV-03-S																					
	9/20/2019	1,731.3	µg/m³	<238	<295	<46.0	<48.8	164	<40.5	<39.7	121	<39.6	146	3,570	95.0	341	1,260	<118	213	<25.6	- -
TSSV-03-M																					
	9/20/2019	1,531.3	µg/m³	<1,190	<1,480	<230	<244	2,070	<203	<199	285	<198	2,840	11,300	797	1,690	2,050	<590	634	<128	- -
TSSV-03-D																					
	9/20/2019	1,332.3	µg/m³	<238	<295	<46.0	<48.8	212	<40.5	<39.7	<39.6	<39.6	115	172	<76.6	<139	2,000	<118	658	<25.6	- -
TSSV-04-M																					
	10/3/2019	1,530.9	µg/m³	<59.5	<73.8	<11.5	49.5	<10.1	<10.1	<9.93	<9.90	<9.90	35.4	54.7	53.6	<34.7	439	<29.5	109	<6.40	- -
TSSV-04-D																					
	10/3/2019	1,330.0	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	148	95.0	<39.6	<56.2	203	3,470	<139	434	<118	4,380	<25.6	- -

Table 6. Soil Vapor Analytical Results - Wellhead TO-15 Analysis Data

Cave Creek Landfill, Maricopa County

Well Name	Sample Date	Sample Elevation (ft amsl)	Units	Acetone	2-Butanone (MEK)	Chlorobenzene	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Freon 11	Freon 12	Freon 113	Methylene chloride	Tetrachloroethene	Tetrahydrofuran	Trichloroethene	Vinyl Chloride	Comments
TSSV-04-PZ																					
	10/3/2019	1,182.2	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	1,670	1,210	<39.6	<56.2	112	3,040	<139	1,280	<118	15,700	43.0	- -
TSSV-05-S																					
	9/23/2019	1,734.7	µg/m³	<59.5	<73.8	12.0	35.4	50.4	<10.1	15.3	195	<9.90	111	627	87.7	<34.7	906	<29.5	170	13.1	- -
TSSV-05-M																					
	9/23/2019	1,534.7	µg/m³	<238	<295	<46.0	<48.8	90.7	<40.5	<39.7	93.5	<39.6	697	1,960	216	270	1,630	<118	175	34.3	- -
TSSV-05-D																					
	9/23/2019	1,335.1	µg/m³	<238	<295	<46.0	<48.8	311	<40.5	143	154	<39.6	982	2,950	239	165	773	<118	484	<25.6	- -
TSSV-05-PZ																					
	9/23/2019	1,185.1	µg/m³	<238	<295	<46.0	51.7	43.7	<40.5	172	184	<39.6	1,660	3,860	669	<139	910	<118	6,230	<25.6	- -
TSSV-06-S																					
	9/18/2019	1,726.5	µg/m³	<238	<295	<46.0	83.0	<40.5	<40.5	<39.7	<39.6	<39.6	<56.2	<99.0	666	<139	496	<118	4,850	<25.6	- -
TSSV-06-M																					
	9/18/2019	1,526.5	µg/m³	<238	<295	<46.0	183	<40.5	<40.5	<39.7	116	<39.6	<56.2	<99.0	265	<139	620	<118	6,550	<25.6	- -
TSSV-06-D																					
	9/18/2019	1,326.5	µg/m³	<238	<295	<46.0	142	<40.5	<40.5	<39.7	193	<39.6	<56.2	<99.0	195	<139	239	<118	2,910	<25.6	- -
TSSV-07-M																					
	9/19/2019	1,529.5	µg/m³	<238	<295	808	<48.8	<40.5	<40.5	111	149	<39.6	294	317	78.1	<139	473	<118	1,270	<25.6	- -
TSSV-07-D																					
	9/19/2019	1,329.5	µg/m³	<11,900	<14,800	<2,300	<2,440	<2,030	<2,030	18,200	3,490	<1,980	<2,810	<4,950	5,750	<6,940	<6,780	<5,900	114,000	<1,280	- -
TSSV-07-PZ																					
	9/19/2019	1,179.0	µg/m³	<47,600	<59,000	<9,200	<9,760	<8,100	<8,100	464,000	127,000	<7,920	<11,200	<19,800	230,000	<27,800	129,000	<23,600	478,000	8,090	Duplicate
	9/19/2019	1,179.0	µg/m³	<47,600	<59,000	<9,200	<9,760	<8,100	<8,100	370,000	130,000	<7,920	<11,200	<19,800	216,000	<27,800	102,000	<23,600	455,000	7,070	- -

Table 6. Soil Vapor Analytical Results - Wellhead TO-15 Analysis Data

Cave Creek Landfill, Maricopa County

Well Name	Sample Date	Sample Elevation (ft amsl)	Units	Acetone	2-Butanone (MEK)	Chlorobenzene	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Freon 11	Freon 12	Freon 113	Methylene chloride	Tetrachloroethene	Tetrahydrofuran	Trichloroethene	Vinyl Chloride	Comments

Notes: Grey text indicates a non-detected compound
µg/m³ - micrograms per cubic meter
ft amsl - feet above mean sea level
- = data not applicable or not available
L5 = Laboratory fortified blank/blank spike: The associated blank spike recovery was below method acceptance limits.

Table 7. Soil Vapor Analytical Results - Process Sample TO-15 Analysis Data

Cave Creek Landfill, Maricopa County

Sample Location Identifier	Sample Date	Sample Elevation (ft amsl)	Units	Acetone	2-Butanone (MEK)	Chloroform	Chlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Freon 11	Freon 12	Freon 113	Methylene chloride	Tetrachloroethene	Tetrahydrofuran	Trichloroethene	Vinyl Chloride	Comment
SP-01																					
	7/17/2019	-	µg/m³	<23,800	<29,500	<4,880	<4,600	<4,050	<4,050	56,400 R6	14,000	<3,960	<5,620	<9,900	42,000	92,600	33,100	<11,800	169,000	<2,560	- -
	8/21/2019	-	µg/m³	<23,800	<29,500	<4,880	<4,600	<4,050	<4,050	64,300	14,100	<3,960	<5,620	<9,900	42,000	130,000	16,400	<11,800	131,000	<2,560	- -
	9/18/2019	-	µg/m³	<23,800	<29,500	<4,880	<4,600	<4,050	<4,050	45,300	11,600	<3,960	<5,620	<9,900	34,200	86,400	21,600	<11,800	142,000	<2,560	- -
SP-02																					
	7/17/2019	-	µg/m³	<11,900	<14,800	<2,440	<2,300	<2,030	<2,030	16,200 R6	<1,980	<1,980	<2,810	<4,950	<3,830	74,600	<6,780	<5,900	<2,690	<1,280	- -
	8/21/2019	-	µg/m³	<11,900	<14,800	<2,440	<2,300	<2,030	<2,030	<1,990	<1,980	<1,980	<2,810	4,950	<3,830	113,000	<6,780	<5,900	<2,690	<1,280	- -
	9/18/2019	-	µg/m³	<23,800	<29,500	<4,880	<4,600	<4,050	<4,050	<3,970	<3,960	<3,960	<5,620	<9,900	<7,660	145,000	<13,600	<11,800	<5,370	<2,560	- -
SP-03																					
	7/17/2019	-	µg/m³	<11,900	<14,800	<2,440	<2,300	<2,030	<2,030	<1,990 R6	<1,980	<1,980	<2,810	<4,950	<3,830	104,000	<6,780	<5,900	<2,690	<1,280	- -
	8/21/2019	-	µg/m³	<238	<295	<48.8	<46.0	<40.5	<40.5	<39.7	<39.6	<39.6	<56.2	2,850	<76.6	<139	<136	<118	<53.7	167	- -
	9/18/2019	-	µg/m³	<23.8	<29.5	<4.88	<4.60	<4.05	<4.05	<3.97	<3.96	<3.96	<5.62	173	<7.66	<13.9	<13.6	<11.8	<5.37	<2.56	- -
SP-04																					
	7/17/2019	-	µg/m³	<2,380	<2,950	<488	<460	<405	<405	<397 R6	<396	<396	<562	3,150	<766	53,800	<1,360	<1,180	<537	<256	- -
	8/21/2019	-	µg/m³	<238	<295	<48.8	<46.0	<40.5	<40.5	<39.7	<39.6	<39.6	<56.2	2,770	<76.6	<139	<136	<118	<53.7	148	- -
	9/18/2019	-	µg/m³	<23.8	<29.5	<4.88	<4.60	<4.05	<4.05	<3.97	<3.96	<3.96	<5.62	176	<7.66	<13.9	<13.6	<11.8	<5.37	<2.56	- -

Notes: Grey text indicates a non-detected compound
µg/m³ - micrograms per cubic meter
ft amsl - feet above mean sea level
- = data not applicable or not available
L5 = Laboratory fortified blank/blank spike: The associated blank spike recovery was below method acceptance limits.
R6 = Duplicates: lfb/lfbd rpd exceeded the method control acceptance limit. Recovery met acceptance criteria

Table 8. Soil Vapor Extraction Mass Removal

Cave Creek Landfill, Maricopa County

Date of Reading [Mon-DD-YR]	Blower Hour Meter Reading [hrs]	Time Operated Since Last Reading [hrs]	System Uptime [%]	VOC Concentration in Extracted Soil Vapor [mg/m^3]	SVE Flow Rate [scfm]	Hourly Rate of VOC Mass Extracted [lbs/hr]	VOC Mass Removed Since Last Reading [lbs]	Total VOC Mass Extracted Since Startup [lbs]
1/16/2019	22,131	286	43	518	934	1.81	574	37,880
3/4/2019	23,039	908	81	396	927	1.38	1,646	39,526
3/20/2019	23,418	379	99	178	932	0.62	521	40,047
4/17/2019	24,082	664	99	313	907	1.06	413	40,460
5/15/2019	24,747	665	99	218	909	0.74	707	41,167
6/19/2019	25,467	720	86	142	901	0.48	534	41,702
7/17/2019	26,135	668	99	239	904	0.81	320	42,022
8/21/2019	26,964	828	99	209	896	0.70	670	42,692
9/18/2019	27,499	536	80	199	899	0.67	376	43,068

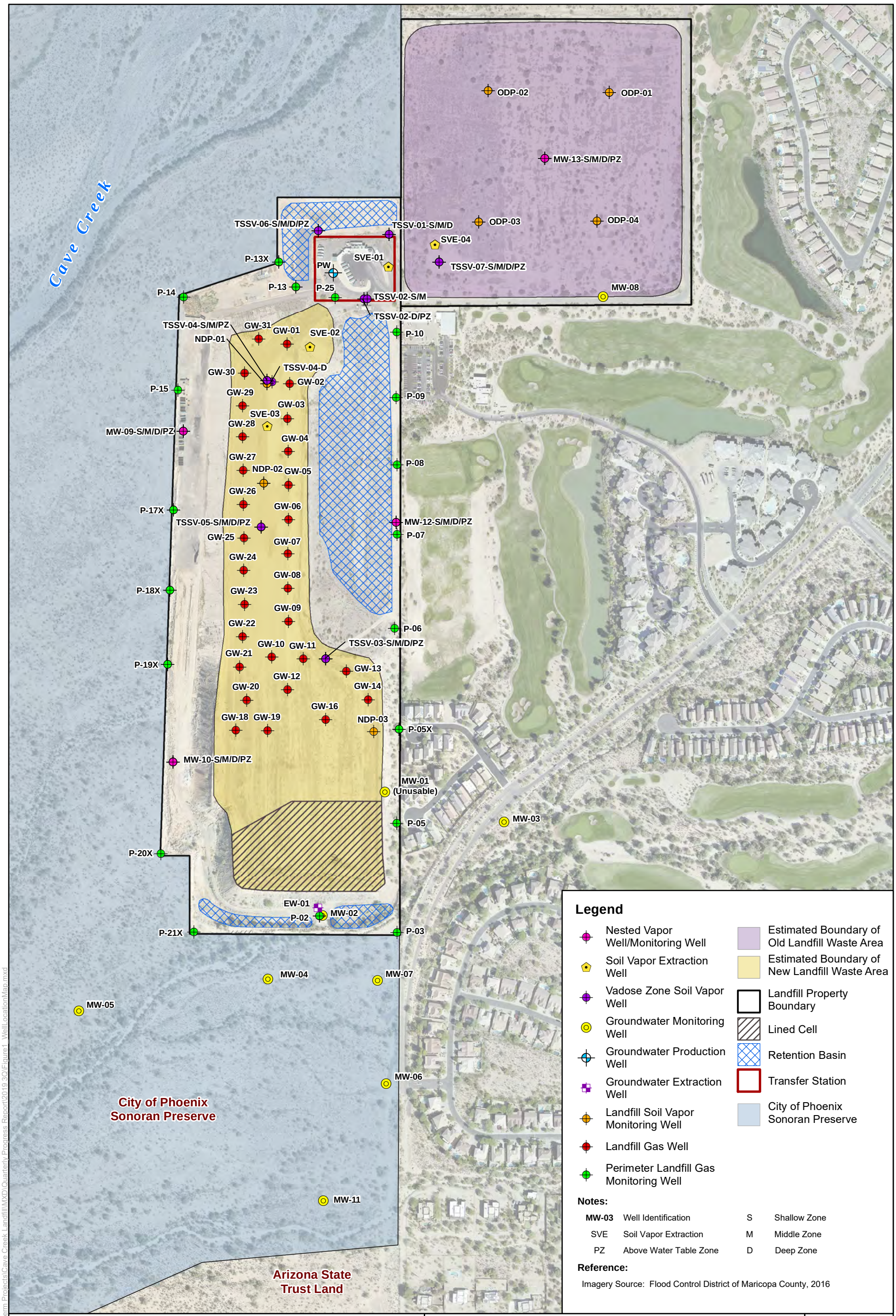
Notes:

Startup of the full-scale SVE system occurred on September 15, 2015. Mass totals presented in this table reflect full-scale SVE operations only.

Acronyms and Abbreviations:

DD - day of the month
hrs - hours
lbs - pounds
lbs/hr - pounds per hour
mg/m^3 - milligrams per cubic meter
Mon - month
scfm - standard cubic feet per minute
YR - year
VOC - Volatile Organic Compound per Maricopa County Air Quality Department Rule 100 Section 200.113

FIGURES



Job No.	1420192004
PM:	DF
Date:	11/26/2019
Scale:	1" = 400'

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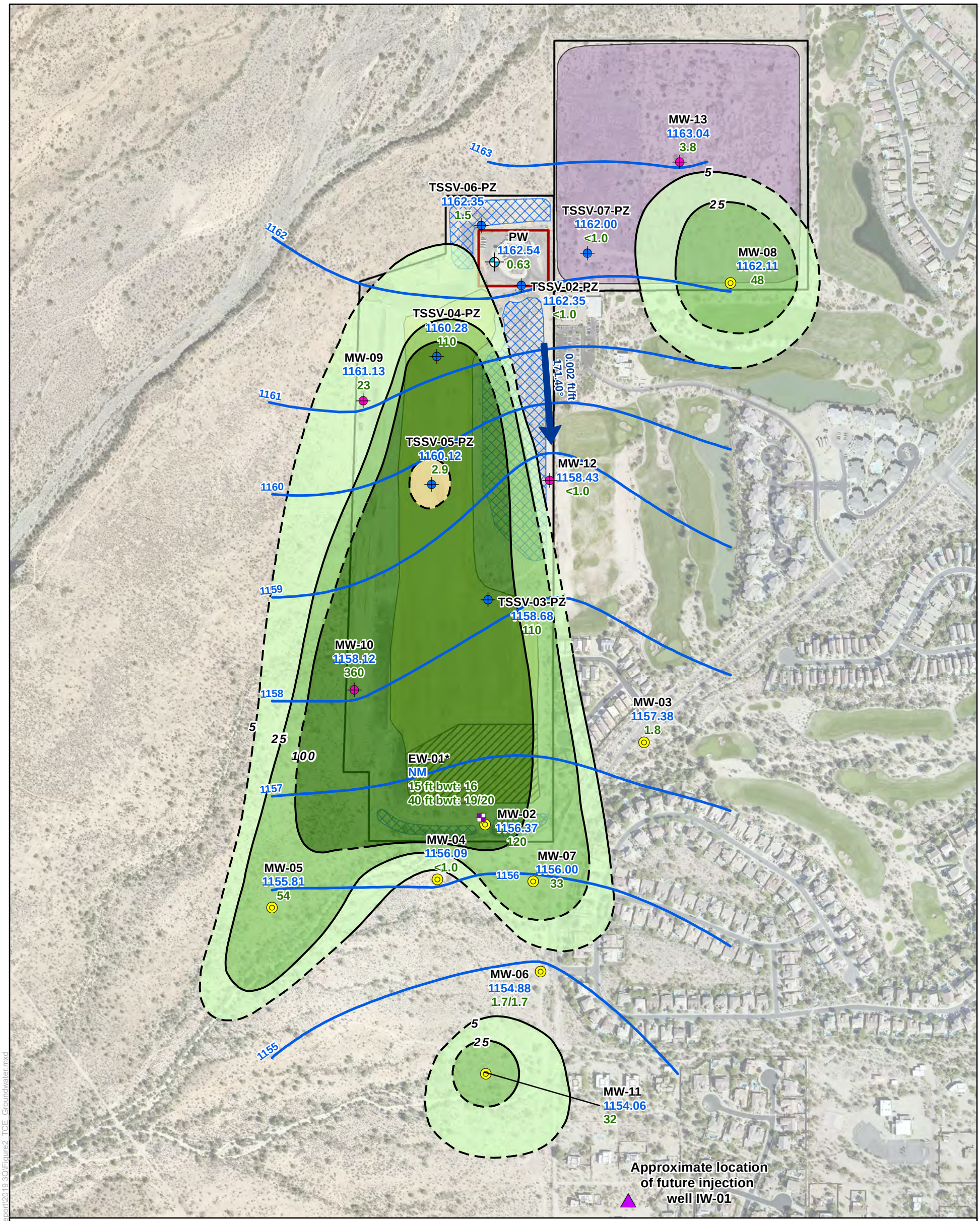
2019 3rd Quarter Progress Report
Maricopa County Cave Creek Landfill
Phoenix, Arizona

Well Map

FIGURE
1

wood.

Path: X:\Projects\20-Longterm Projects\Cave Creek Landfill\MXD\Quarterly Progress Report\2019 3Q\Figure1_WellLocationMap.mxd



Legend

TCE Concentrations (µg/L) in Groundwater
(Dashed Where Inferred)

- 5-25
- 25-100
- 100-500

- Nested Vapor Well/ Monitoring Well
- Production Well
- Nested Vapor Well/ Piezometer
- Groundwater Monitoring Well
- Groundwater Extraction Well

- Groundwater Elevation Contour (ft amsl) based upon May 2019 Data
- Groundwater Flow Direction (degrees) Groundwater Flow Gradient (ft/ft)
- Estimated Boundary of Old Landfill Waste Area
- Estimated Boundary of New Landfill Waste Area
- Landfill Property Boundaries
- Lined Cell
- Retention Basin
- Transfer Station

Notes:

MW-07	Well Identification
1156.00	Groundwater Elevation (ft amsl) collected in August 2019
33	TCE Concentration (µg/L) collected in August 2019
1.7/1.7	Original/Duplicate Results
*	EW-01 has a different screen interval and concentrations in this well are not comparable to the others on this figure.
bwt	Below water table
µg/L	microgram per liter
ft amsl	feet above mean sea level
TCE	Trichloroethene
TD	Total Depth

Reference:
Imagery Source: Flood Control District of Maricopa County, 2016

0 250 500 1,000 Feet

Job No.	1420192004
PM:	DF
Date:	12/4/2019
Scale:	1" = 500'

N

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Maricopa County Cave Creek Landfill
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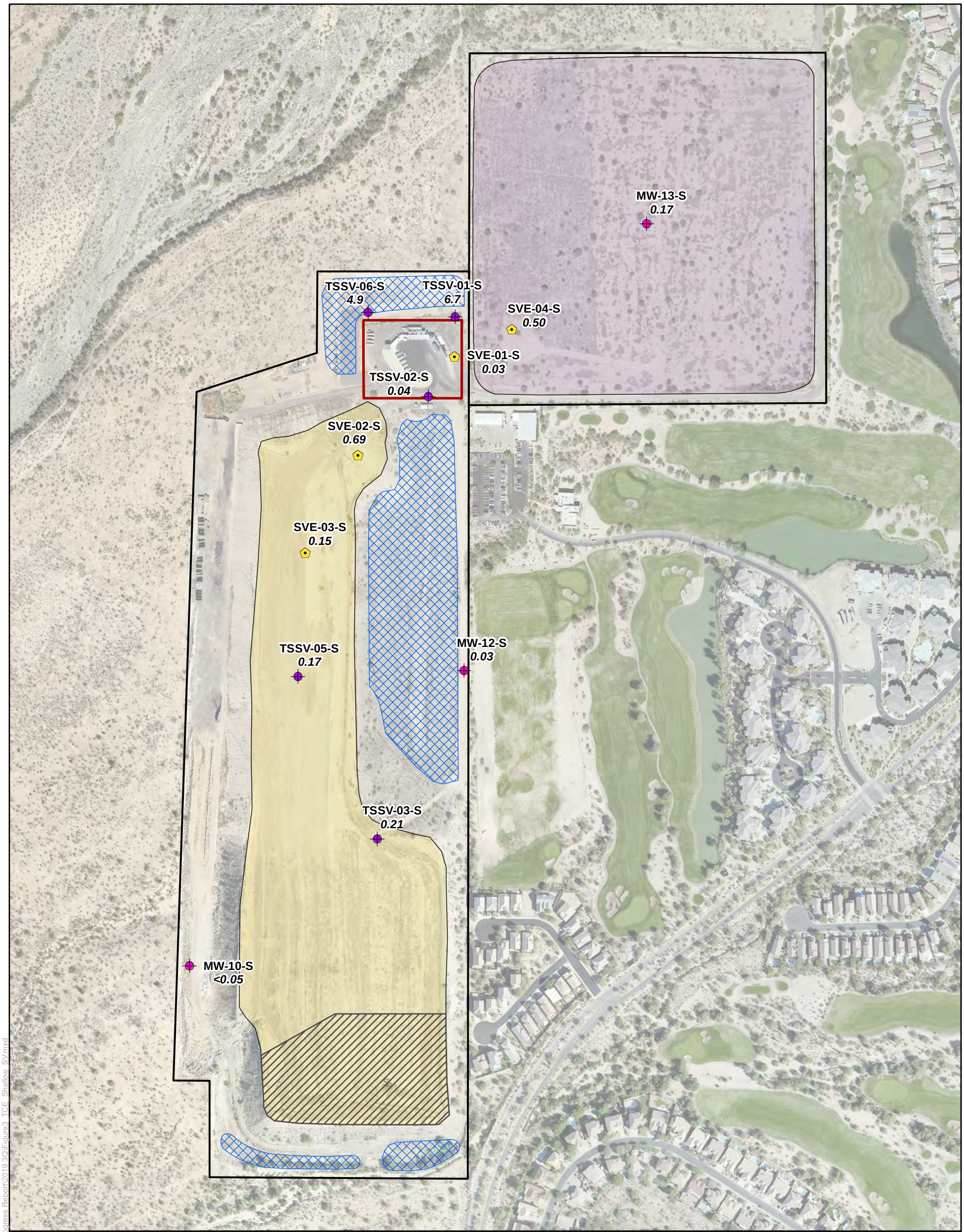
Estimated Extent of TCE Plume in Groundwater August 2019

FIGURE **2**

wood.

Path: X:\Projects\20-Longterm Projects\Cave Creek Landfill\MXD\Quarterly Progress Report\2019 3Q\Figure2_TCE_Groundwater.mxd



Legend

TCE Concentrations (mg/m³) in Soil Vapor

No concentrations exceeded 10 mg/m³ this quarter

- Nested Vapor Well/Monitoring Well
- Soil Vapor Extraction Well
- Vadose Zone Soil Vapor Well
- Estimated Boundary of Old Landfill Waste Area
- Estimated Boundary of New Landfill Waste Area
- Landfill Property Boundaries
- Lined Cell
- Retention Basin
- Transfer Station

Notes:

TSSV-02-S	Well Identification
0.04	TCE soil gas result (mg/m³) collected September/October 2019
ft amsl	Feet above mean sea level
mg/m³	Milligram per cubic meter
ND	Not Detected
TCE	Trichloroethene

Range of Vapor Well Screen Intervals: 1702-1750 ft amsl

Reference:

Imagery Source: Flood Control District of Maricopa County, 2016

0 175 350 525 700 Feet

Job No.:	1420192004
PM:	DF
Date:	12/4/2019
Scale:	1" = 350'

N

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Maricopa County Cave Creek Landfill
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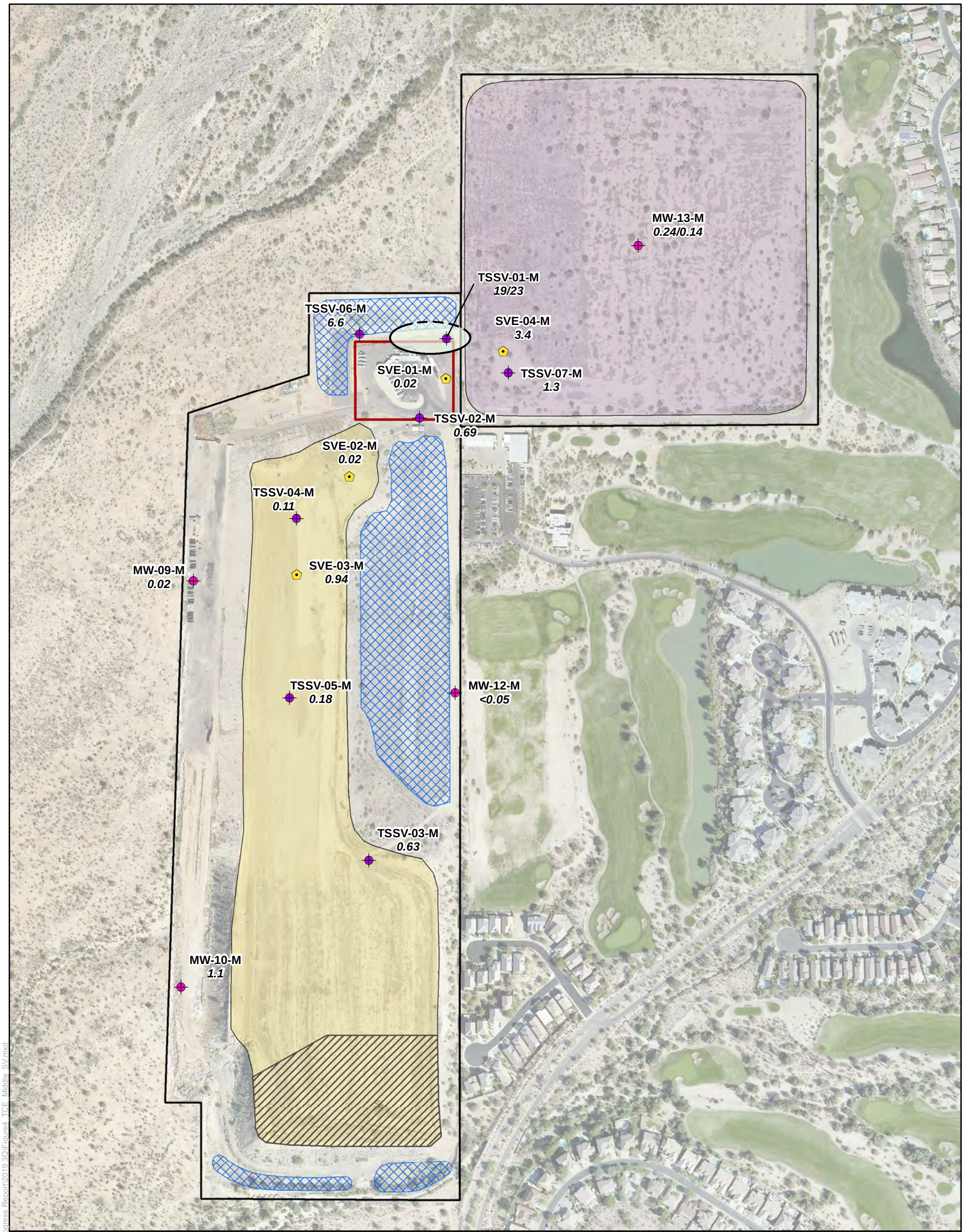
Shallow Zone TCE Soil Vapor Concentrations September 2019

FIGURE **3**

wood.

Path: X:\Projects\20-Longterm Projects\Cave Creek Landfill\MXD\Quarterly Progress Report\2019 3Q\Figure3_TCE_Shallow_SV.mxd



Legend

TCE Concentrations (mg/m³) in Soil Vapor

(Dashed Where Inferred)

10-100

- Nested Vapor Well/Monitoring Well
- Soil Vapor Extraction Well
- Vadose Zone Soil Vapor Well
- Estimated Boundary of Old Landfill Waste Area
- Estimated Boundary of New Landfill Waste Area
- Landfill Property Boundaries
- Lined Cell
- Retention Basin
- Transfer Station

Notes:

TSSV-07-M	Well Identification
1.3	TCE soil gas result (mg/m³) collected September/October 2019
18.7/22.7	Duplicate Result
ft amsl	Feet above mean sea level
mg/m³	Milligram per cubic meter
TCE	Trichloroethene

Range of Vapor Well Screen Intervals: 1522-1600 ft amsl

Reference:

Imagery Source: Flood Control District of Maricopa County, 2016

0 175 350 525 700 Feet

Job No.:	1420192004
PM:	DF
Date:	12/4/2019
Scale:	1" = 350'

N

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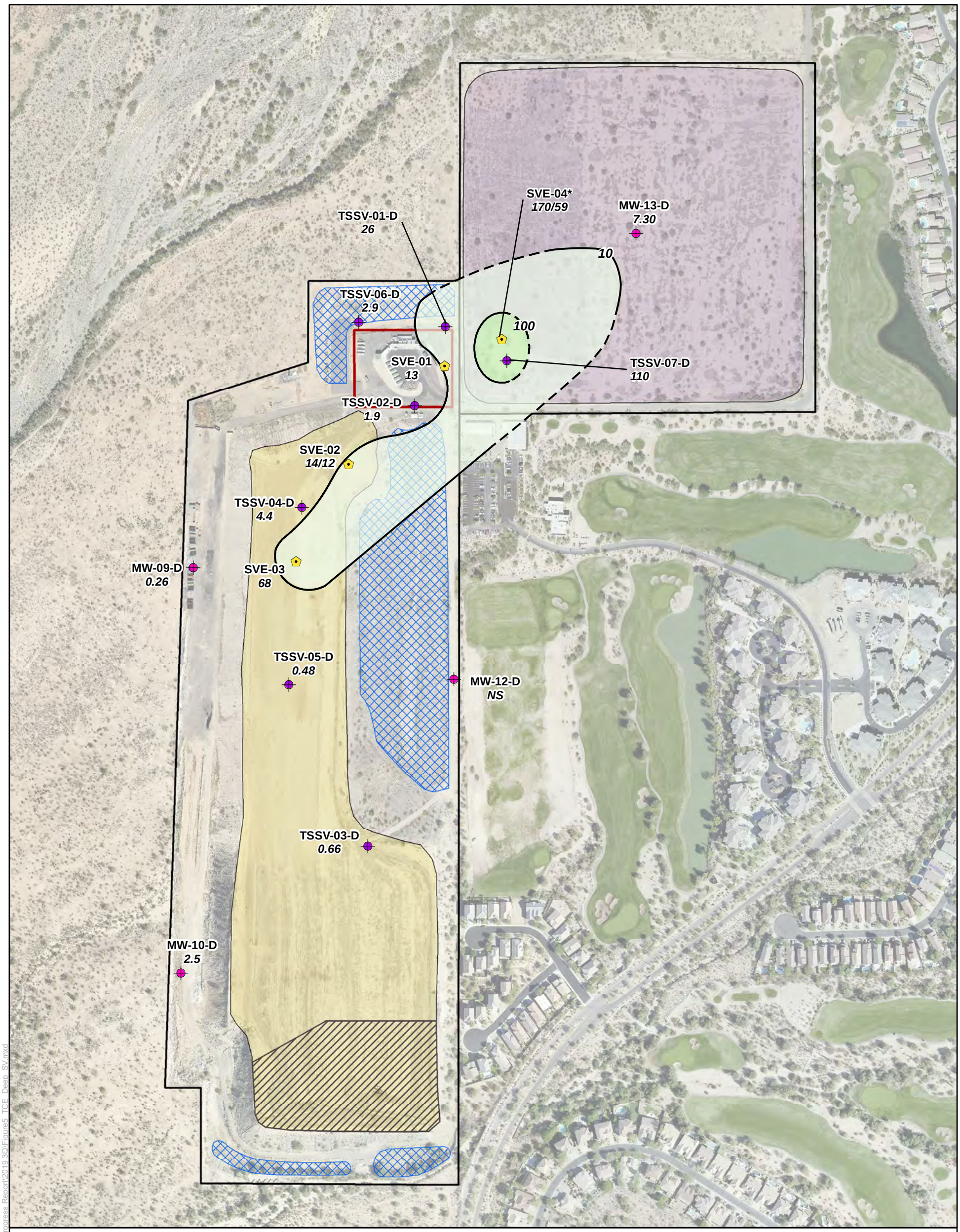
2019 3rd Quarter Progress Report
Maricopa County Cave Creek Landfill
Phoenix, Arizona

Middle Zone TCE Soil Vapor Concentrations
September 2019

FIGURE
4

wood.

Path: X:\Projects\20-Longterm Projects\Cave Creek Landfill\MXD\Quarterly Progress Report\2019 3Q\Figure4_TCE_Middle_SV.mxd



Legend

TCE Concentrations (mg/m³) in Soil Vapor

(Dashed Where Inferred)

10-100

100-200

Nested Vapor Well/Monitoring Well

Vadose Zone Soil Vapor Well

Estimated Boundary of Old Landfill Waste Area

Estimated Boundary of New Landfill Waste Area

Landfill Property Boundaries

Lined Cell

Retention Basin

Transfer Station

Notes:

TSSV-01-D	Well Identification
26	TCE soil gas result (mg/m³) collected September/October 2019
*	Vapor extent based on original sample concentration
ft amsl	Feet above mean sea level
mg/m³	Milligram per cubic meter
NS	Not Sampled
TCE	Trichloroethene

Range of Vapor Well Screen Intervals: 1327-1500 ft amsl

Reference:

Imagery Source: Flood Control District of Maricopa County, 2016

0 175 350 525 700 Feet

Job No.:	1420192004
PM:	DF
Date:	12/5/2019
Scale:	1" = 350'

N

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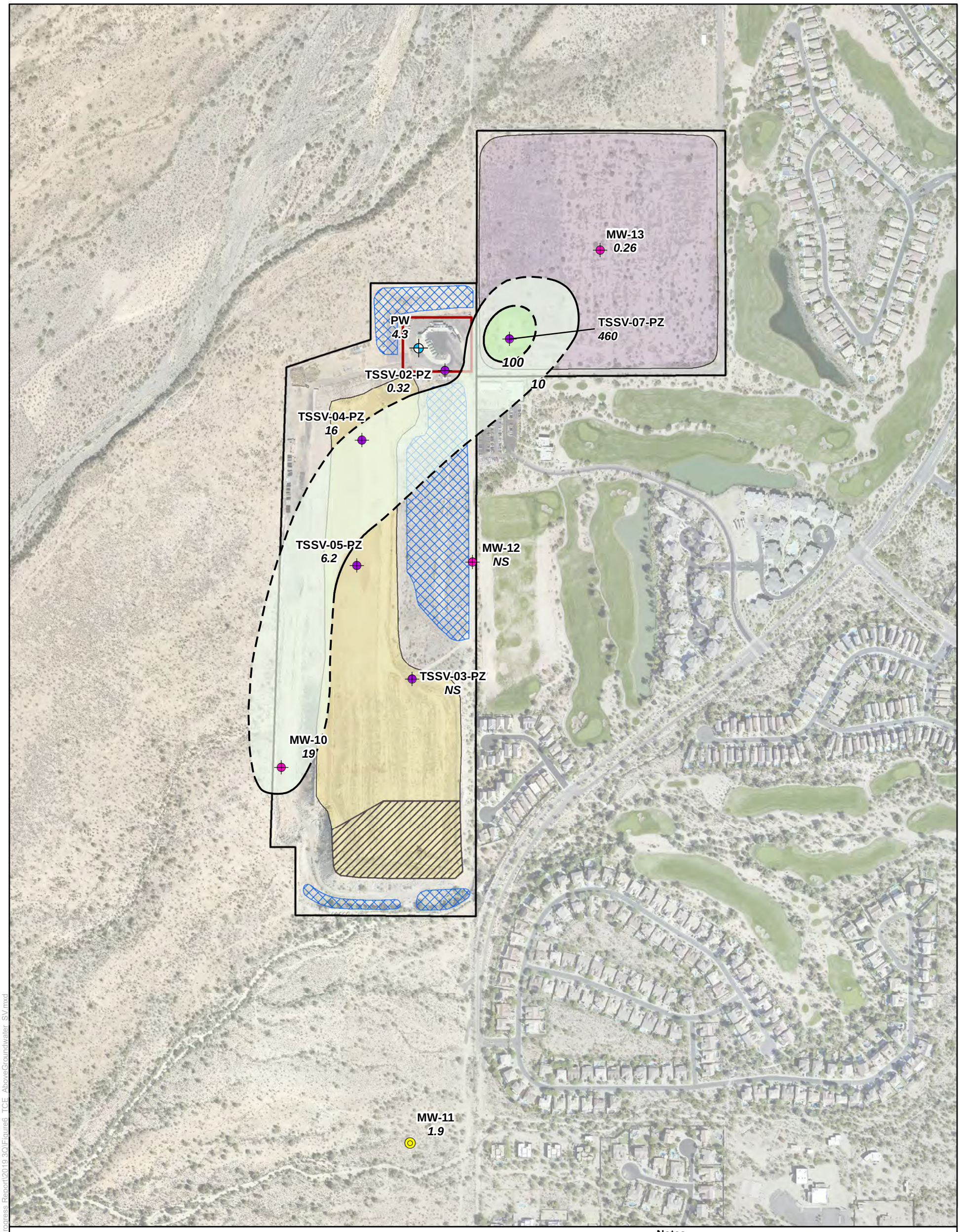
2019 3rd Quarter Progress Report
Maricopa County Cave Creek Landfill
Phoenix, Arizona

Deep Zone TCE Soil Vapor Concentrations
September 2019

FIGURE
5

wood.

Path: X:\Projects\20-Longterm Projects\Cave Creek Landfill\MXD\Quarterly Progress Report\2019 3Q\Figure5_TCE_Deep_SV.mxd



Legend

TCE Concentrations (mg/m³) in Soil Vapor
(Dashed Where Inferred)

10-100
100-500

- Nested Vapor Well/Monitoring Well
- Deep Soil Vapor Well
- Groundwater Monitoring Well
- Production Well
- Estimated Boundary of Old Landfill Waste Area
- Landfill Property Boundaries
- Lined Cell
- Retention Basin
- Transfer Station
- Estimated Boundary of New Landfill Waste Area

Notes:

MW-10	Well Identification
18.8	TCE soil gas result (mg/m³) collected September/October 2019
455/478	Duplicate Result
ft amsl	Feet above mean sea level
mg/m³	Milligram per cubic meter
NS	Not Sampled
TCE	Trichloroethene

Range of Vapor Well Screen Intervals: 1162-1201 ft amsl

Reference:
Imagery Source: Flood Control District of Maricopa County, 2016

0 250 500 750 1,000 Feet

Job No.:	1420192004
PM:	DF
Date:	12/4/2019
Scale:	1" = 500'

N

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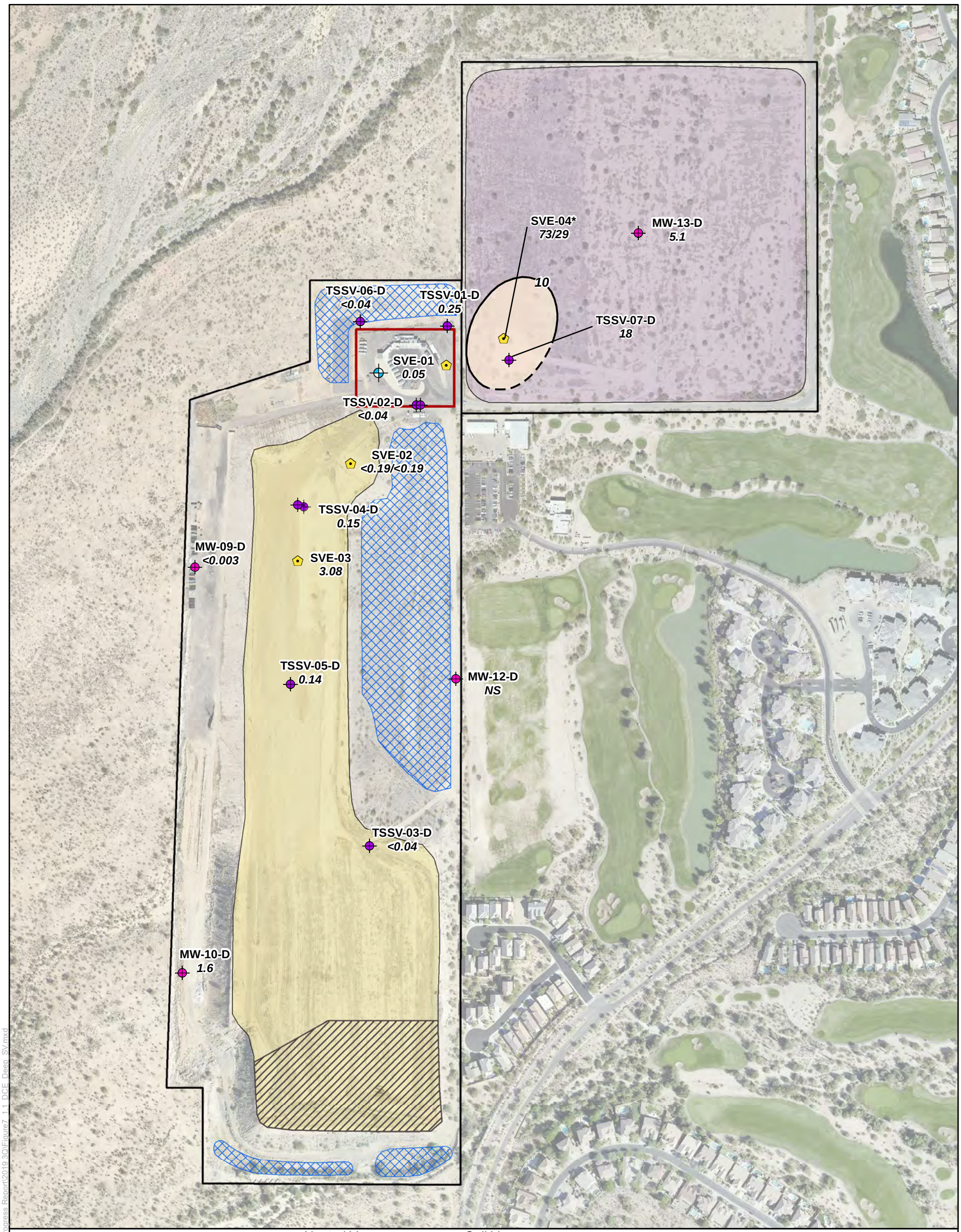
2019 3rd Quarter Progress Report
Maricopa County Cave Creek Landfill
Phoenix, Arizona

Above Water Table TCE Soil Vapor Concentrations September 2019

FIGURE **6**

wood.

Path: X:\Projects\20-Longterm Projects\Cave Creek Landfill\MXD\Quarterly Progress Report\2019 3Q\Figure6_TCE_AboveGroundwater_SV.mxd



Legend

1,1-DCE Concentrations (mg/m³) in Soil Vapor

(Dash Where Inferred)

10-100

- Nested Vapor Well/Monitoring Well
- Vadose Zone Soil Vapor Well
- Estimated Boundary of Old Landfill Waste Area
- Estimated Boundary of New Landfill Waste Area
- Landfill Property Boundaries
- Soil Vapor Extraction Well
- Production Well
- Lined Cell
- Retention Basin
- Transfer Station

Notes:

MW-13-D	Well Identification
5.08	1,1-DCE soil gas result (mg/m³) collected September/October 2019
*	Vapor extent based on original sample concentration
ft amsl	Feet above mean sea level
mg/m³	Milligram per cubic meter
NS	Not Sampled
1,1-DCE	1,1-Dichloroethene

Range of Vapor Well Screen Intervals: 1327-1500 ft amsl

Reference:

Imagery Source: Flood Control District of Maricopa County, 2016

0 175 350 525 700 Feet

Job No.:	1420192004
PM:	DF
Date:	12/4/2019
Scale:	1" = 350'

N

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2019 3rd Quarter Progress Report
Maricopa County Cave Creek Landfill
Phoenix, Arizona

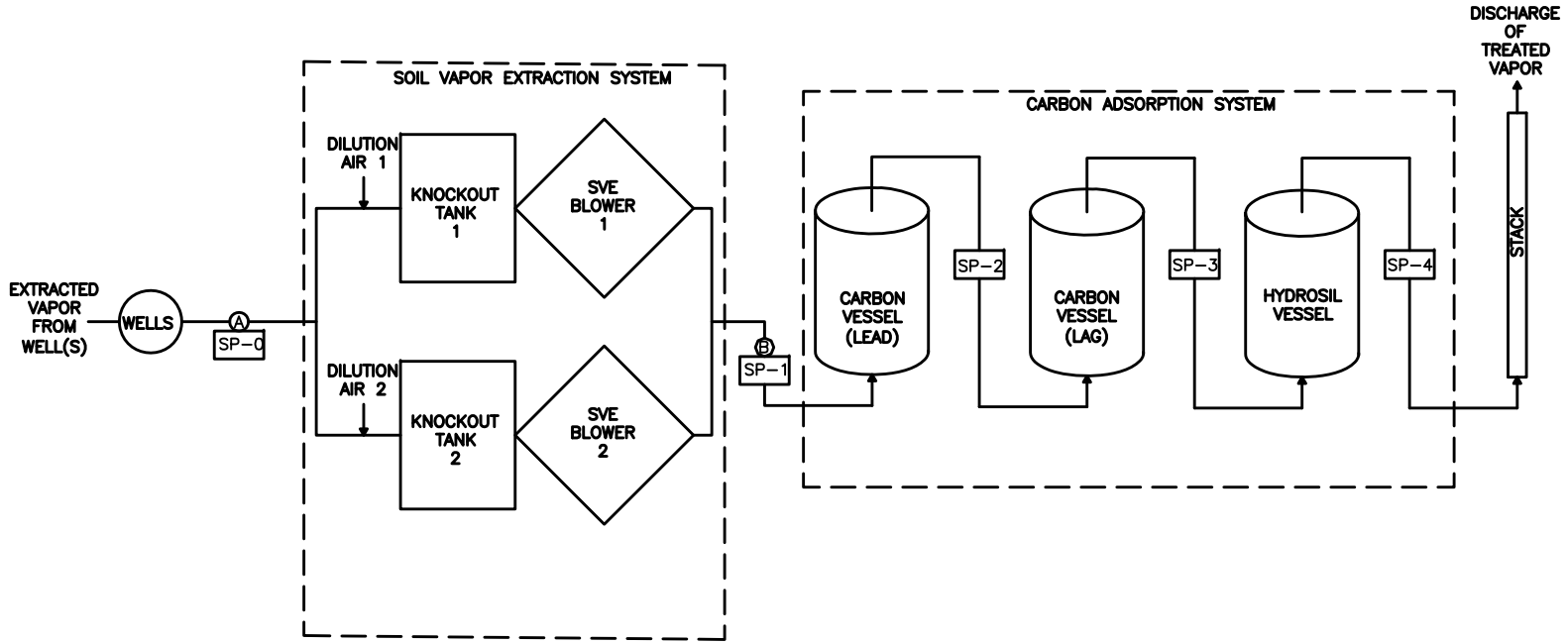
Deep Zone 1,1-DCE Soil Vapor Concentrations September 2019

FIGURE **7**

wood.

Path: X:\Projects\20-Longterm Projects\Cave Creek Landfill\MXD\Quarterly Progress Report\2019 3Q\Figure7_1,1_DCE_Deep_SV.mxd

PRESSURE FLOW THROUGH CARBON ADSORPTION SYSTEM



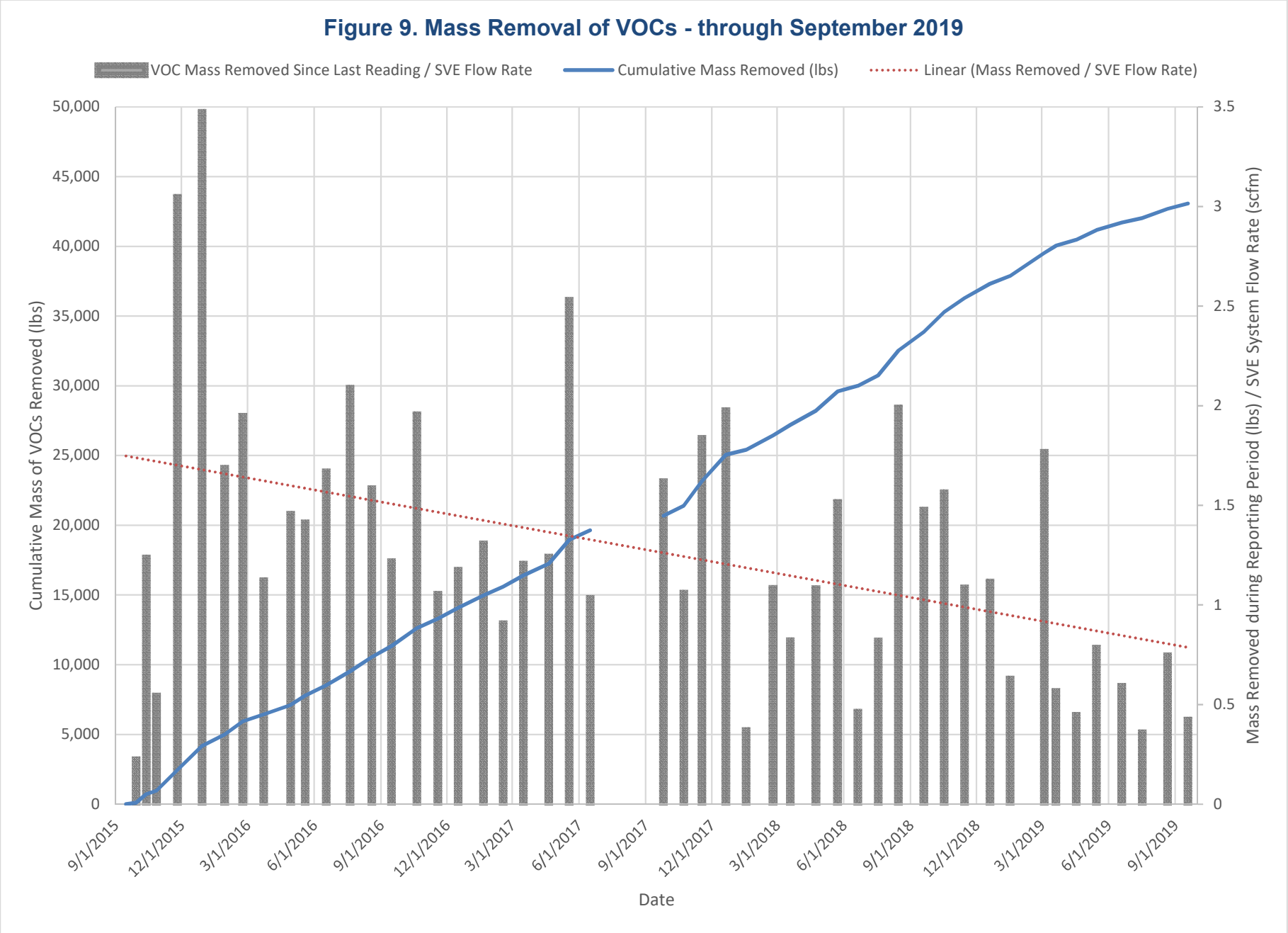
LEGEND

- Ⓐ SYSTEM FLOW MEASUREMENT (PRE-DILUTION LOCATION)
- Ⓑ SYSTEM FLOW MEASUREMENT (POST-DILUTION LOCATION)
- SP-0 SYSTEM INLET SAMPLE LOCATION
- SP-1 CAS INLET SAMPLE LOCATION
- SP-2 CAS LEAD VESSEL OUTLET SAMPLE LOCATION
- SP-3 CAS LAG VESSEL OUTLET SAMPLE LOCATION
- SP-4 CAS OUTLET SAMPLE LOCATION

CLIENT	MARICOPA COUNTY				
PROJECT	CAVE CREEK LANDFILL				
TITLE	SVE SYSTEM PROCESS FLOW DIAGRAM – PRESSURE FLOW				
DESIGNED BY	BJN	CHECKED BY	AY	DATE	ISSUED FOR
DRAWN BY	BJN	APPROVED BY	NC	11/15/16	FINAL
FILENAME	FIGURE 8	FIGURE No.	8.1	REV	1
PROJECT NO.	14-2017-2034				

wood.

G:\Environmental-Development\2017 Projects\14-2017-2034 Cave Creek Landfill FY2018\5.0_Technical\5.1_Reports_Deliverables\5.1.27_SVE Expansion OMM\Support-6/5/2017 11:11 AM



G:\Environmental-Development\2017 Projects\14-2017-2034 Cave Creek Landfill FY2018\5.0_Technical\5.1_Reports_Deliverables\QuarterlyReports\2019 3Q\Support\Table 6-Mass Removal_ThruSept2019

APPENDIX A

Cave Creek Landfill Progress Schedule

ID		Task Name	Duration	Start	Finish
1		**SVE Operations**	1306 days?	Tue 9/15/15	Tue 9/15/20
2		**GWTS Installation**	**1061 days**	**Fri 12/16/16**	**Fri 1/8/21**
3		**Phase I (On-Site Infrastructure)**	**811 days**	**Fri 12/16/16**	**Fri 1/24/20**
4	✓	*Design*	192 days	Fri 12/16/16	Mon 9/11/17
5	✓	*Permitting*	107 days	Thu 10/5/17	Fri 3/2/18
6	✓	*Contractor Procurement*	138 days	Fri 6/1/18	Tue 12/11/18
7		*Construction*	255 days	Mon 2/4/19	Fri 1/24/20
8		**Phase 2 (Conveyance Pipeline)**	**607 days**	**Thu 1/11/18**	**Fri 5/8/20**
9	✓	*Design*	132 days	Thu 1/11/18	Fri 7/13/18
10		*Permitting*	325 days	Mon 9/24/18	Fri 12/20/19
11	✓	*Contractor Procurement*	4.05 mons	Sat 6/1/19	Fri 9/20/19
12		*Construction*	3.5 mons	Mon 2/3/20	Fri 5/8/20
13		**Phase 3 (Injection Well Site)**	**220 days**	**Mon 3/9/20**	**Fri 1/8/21**
14		*Design*	3 mons	Mon 3/9/20	Fri 5/29/20
15		*Permitting*	1 mon	Mon 6/1/20	Fri 6/26/20
16		*Contractor Procurement*	2 mons	Mon 6/29/20	Fri 8/21/20
17		*Construction*	4 mons	Mon 9/21/20	Fri 1/8/21
18		**Injection Well (IW-01) Installation**	**185 days**	**Mon 6/24/19**	**Fri 3/6/20**
19	✓	*Drilling/Installation*	106 days	Mon 6/24/19	Sat 11/16/19
20		*Testing*	17 days	Mon 12/2/19	Tue 12/24/19
21		*IW-01 Installation Reporting*	45 days	Mon 1/6/20	Fri 3/6/20
22		**GWTS Operations**	**40 days**	**Mon 1/11/21**	**Fri 3/5/21**
23		GWTS As-Built Plan Development	2 mons	Mon 1/11/21	Fri 3/5/21
24		GWTS Operations Planning	2 mons	Mon 1/11/21	Fri 3/5/21
25	✓	**2018 Well Installation Program**	**220 days**	**Sun 8/12/18**	**Fri 6/14/19**
26	✓	MW-11 Drilling/Installation	26 days	Wed 9/19/18	Wed 10/24/18
27	✓	MW-12 Drilling/Installation	52 days	Sun 8/12/18	Sun 10/21/18
28	✓	MW-13 Drilling/Installation	32 days	Mon 10/15/18	Tue 11/27/18
29	✓	Well Installation Reporting	135 days	Mon 12/10/18	Fri 6/14/19
30	✓	**Site Groundwater Characterization Work Plan (Draft)**	**5.05 mons**	Mon 3/18/19	Mon 8/5/19
31		**Groundwater Model Update**	4 mons	Mon 3/9/20	Fri 6/26/20

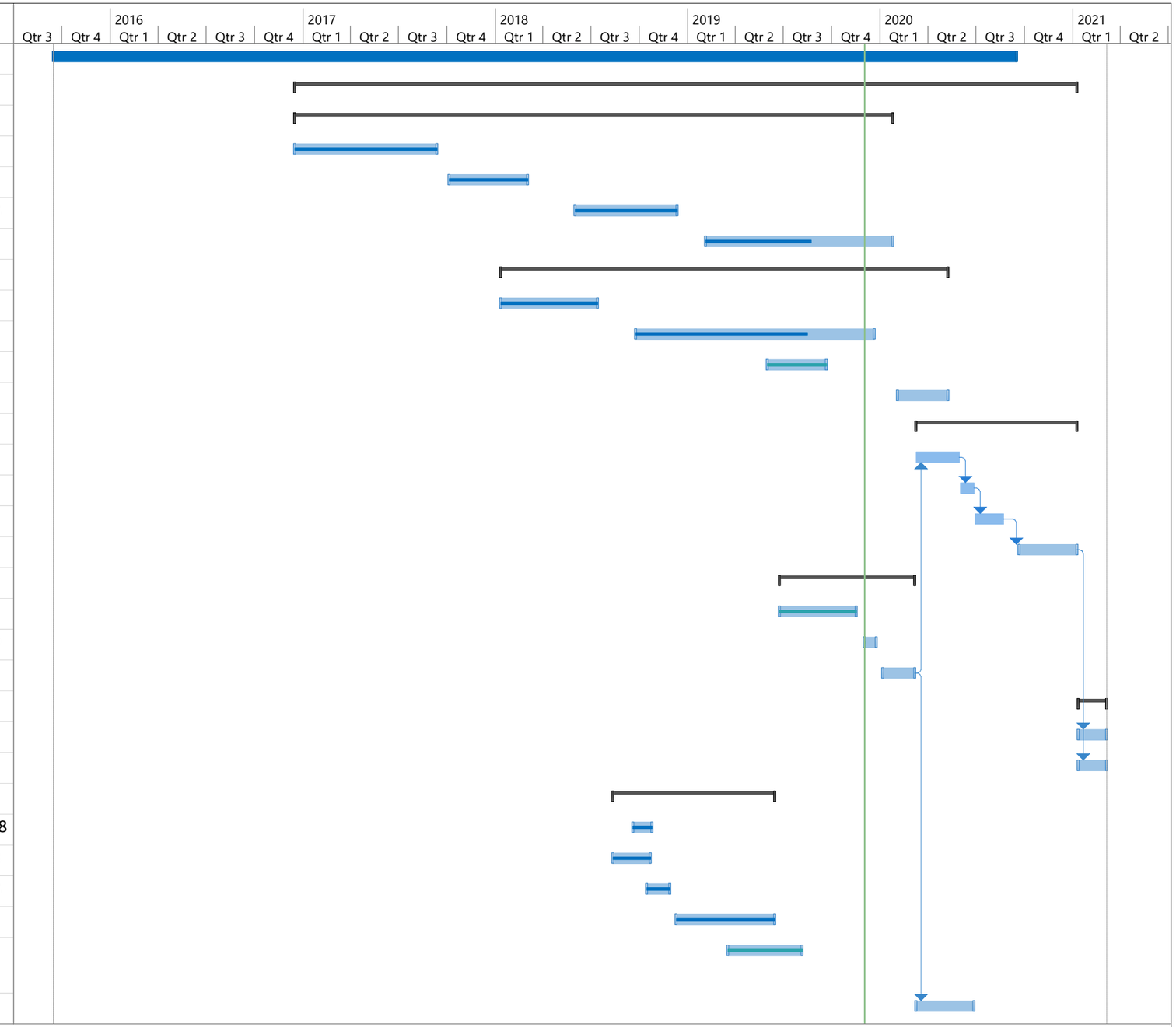


EXHIBIT 1
Project: CCL Project Progress Sc
Date: Tue 12/3/19

Task		Project Summary		Manual Task		Start-only		Deadline	
Split		Inactive Task		Duration-only		Finish-only		Progress	
Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
Summary		Inactive Summary		Manual Summary		External Milestone			

APPENDIX B

Laboratory Reports of Analysis

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-125174-1
Client Project/Site: Cave Creek Landfill - GW

For:
Wood E&I Solutions Inc
4634 South 36th Place
Lab
Phoenix, Arizona 85040

Attn: Samantha Sargent

Authorized for release by:
7/19/2019 1:56:51 PM

Rachel Sester, Project Manager I
(602)509-7615
rachel.sester@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Wood E&I Solutions Inc
Project/Site: Cave Creek Landfill - GW

Job ID: 550-125174-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
L3	The associated blank spike recovery was above method acceptance limits.
L4	The associated blank spike recovery was below method acceptance limits.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
R4	MS/MSD RPD exceeded the method control limit. Recovery met acceptance criteria.
R6	LFB/LFBD RPD exceeded method control limit. Recovery met acceptance criteria.

GC/MS VOA TICs

Qualifier	Qualifier Description
T4	Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 550-125174-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-125174-1

Comments
No additional comments.

Receipt
The samples were received on 7/1/2019 1:12 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0º C.

GC/MS VOA
Method(s) 8260B: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for analytical batch 280-464513 recovered outside control limits for the following analyte: Bromomethane. Bromomethane has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for this analyte. These results have been reported and qualified. Bromomethane 32%R, 30%R (limit 45-135)%R
EW01-713-070119 (550-125174-1), EW01-738-070119 (550-125174-2), DUP01-070119 (550-125174-3), (LCS 280-464513/5) and (LCSD 280-464513/6)

Method(s) 8260B: The laboratory control sample (LCS) for analytical batch 280-464513 recovered outside control limits for the following analytes: Hexachloro-1,3-butadiene. This analyte was biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. Hexachloro-1,3-butadiene 139%R (65-135)%R
EW01-713-070119 (550-125174-1), EW01-738-070119 (550-125174-2), DUP01-070119 (550-125174-3) and (LCS 280-464513/5)

Method(s) 8260B: The following compounds were outside control limits in the continuing calibration verification (CCV) associated with batch 280-464513: Bromomethane. This compound is not classified as Calibration Check Compounds (CCCs) in the reference method, and the laboratory defaults to in-house and/or project-specific criteria for evaluation. There is insufficient holding time remaining for re-analysis; therefore, the data have been reported. The associated samples were non-detect for the affected analytes. Bromomethane -58.3%D
EW01-713-070119 (550-125174-1), EW01-738-070119 (550-125174-2), DUP01-070119 (550-125174-3) and (CCV 280-464513/13)

Method(s) 8260B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 280-464513 recovered outside control limits for the following analytes: Chloroethane and Vinyl chloride, Bromomethane, Dichlorodifluoromethane, Trichlorofluoromethane and Chloromethane. The gas was double spiked in the LCSD causing the RPD failure. The %R was in control however.
EW01-713-070119 (550-125174-1), EW01-738-070119 (550-125174-2), DUP01-070119 (550-125174-3) and (LCSD 280-464513/6)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Wood E&I Solutions Inc
Project/Site: Cave Creek Landfill - GW

Job ID: 550-125174-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-125174-1	EW01-713-070119	Water	07/01/19 09:25	07/01/19 13:12	
550-125174-2	EW01-738-070119	Water	07/01/19 09:30	07/01/19 13:12	
550-125174-3	DUP01-070119	Water	07/01/19 09:40	07/01/19 13:12	

Detection Summary

Client: Wood E&I Solutions Inc
Project/Site: Cave Creek Landfill - GW

Job ID: 550-125174-1

Client Sample ID: EW01-713-070119 — Lab Sample ID: 550-125174-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	30		10		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.7		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	16		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: EW01-738-070119 — Lab Sample ID: 550-125174-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.7		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	19		1.0		ug/L	1		8260B	Total/NA

Client Sample ID: DUP01-070119 — Lab Sample ID: 550-125174-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.7		1.0		ug/L	1		8260B	Total/NA
Trichloroethene	20		1.0		ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Cave Creek Landfill - GW

Job ID: 550-125174-1

Client Sample ID: EW01-713-070119

Lab Sample ID: 550-125174-1

Date Collected: 07/01/19 09:25
Matrix: Water
Date Received: 07/01/19 13:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			07/15/19 14:19	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/15/19 14:19	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			07/15/19 14:19	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/15/19 14:19	1
1,1,2-Trichlorotrifluoroethane	ND		3.0		ug/L			07/15/19 14:19	1
1,1-Dichloroethane	ND		1.0		ug/L			07/15/19 14:19	1
1,1-Dichloroethene	ND		1.0		ug/L			07/15/19 14:19	1
1,1-Dichloropropene	ND		1.0		ug/L			07/15/19 14:19	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/15/19 14:19	1
1,2,3-Trichloropropane	ND		2.5		ug/L			07/15/19 14:19	1
1,2,3-Trimethylbenzene	ND		2.0		ug/L			07/15/19 14:19	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/15/19 14:19	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/15/19 14:19	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/15/19 14:19	1
1,2-Dibromoethane	ND		1.0		ug/L			07/15/19 14:19	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/15/19 14:19	1
1,2-Dichloroethane	ND		1.0		ug/L			07/15/19 14:19	1
1,2-Dichloropropane	ND		1.0		ug/L			07/15/19 14:19	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/15/19 14:19	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/15/19 14:19	1
1,3-Dichloropropane	ND		1.0		ug/L			07/15/19 14:19	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/15/19 14:19	1
2,2-Dichloropropane	ND		1.0		ug/L			07/15/19 14:19	1
2-Butanone (MEK)	ND		6.0		ug/L			07/15/19 14:19	1
2-Chlorotoluene	ND		1.0		ug/L			07/15/19 14:19	1
2-Hexanone	ND		5.0		ug/L			07/15/19 14:19	1
4-Chlorotoluene	ND		1.0		ug/L			07/15/19 14:19	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			07/15/19 14:19	1
Acetone	**30**		10		ug/L			07/15/19 14:19	1
Benzene	ND		1.0		ug/L			07/15/19 14:19	1
Bromobenzene	ND		1.0		ug/L			07/15/19 14:19	1
Bromodichloromethane	ND		1.0		ug/L			07/15/19 14:19	1
Bromoform	ND		1.0		ug/L			07/15/19 14:19	1
Bromomethane	ND	L4 R6	2.0		ug/L			07/15/19 14:19	1
Carbon disulfide	ND		2.0		ug/L			07/15/19 14:19	1
Carbon tetrachloride	ND		1.0		ug/L			07/15/19 14:19	1
Chlorobenzene	ND		1.0		ug/L			07/15/19 14:19	1
Chlorobromomethane	ND		1.0		ug/L			07/15/19 14:19	1
Chlorodibromomethane	ND		1.0		ug/L			07/15/19 14:19	1
Chloroethane	ND	R6	2.0		ug/L			07/15/19 14:19	1
Chloroform	ND		1.0		ug/L			07/15/19 14:19	1
Chloromethane	ND	R6	2.0		ug/L			07/15/19 14:19	1
cis-1,2-Dichloroethene	**1.7**		1.0		ug/L			07/15/19 14:19	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			07/15/19 14:19	1
Dibromomethane	ND		1.0		ug/L			07/15/19 14:19	1
Dichlorodifluoromethane	ND	R6	2.0		ug/L			07/15/19 14:19	1
Diisopropyl ether	ND		10		ug/L			07/15/19 14:19	1
Ethylbenzene	ND		1.0		ug/L			07/15/19 14:19	1
Hexachloro-1,3-butadiene	ND	L3	1.0		ug/L			07/15/19 14:19	1

Client Sample ID: EW01-713-070119

Lab Sample ID: 550-125174-1

Date Collected: 07/01/19 09:25
Matrix: Water
Date Received: 07/01/19 13:12

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		1.0		ug/L			07/15/19 14:19	1
Isopropylbenzene	ND		1.0		ug/L			07/15/19 14:19	1
Methyl tert-butyl ether	ND		5.0		ug/L			07/15/19 14:19	1
Methylene Chloride	ND		2.0		ug/L			07/15/19 14:19	1
m-Xylene & p-Xylene	ND		2.0		ug/L			07/15/19 14:19	1
Naphthalene	ND		1.0		ug/L			07/15/19 14:19	1
n-Butylbenzene	ND		1.0		ug/L			07/15/19 14:19	1
N-Propylbenzene	ND		1.0		ug/L			07/15/19 14:19	1
o-Xylene	ND		1.0		ug/L			07/15/19 14:19	1
p-Isopropyltoluene	ND		1.0		ug/L			07/15/19 14:19	1
sec-Butylbenzene	ND		1.0		ug/L			07/15/19 14:19	1
Styrene	ND		1.0		ug/L			07/15/19 14:19	1
tert-Butylbenzene	ND		1.0		ug/L			07/15/19 14:19	1
Tetrachloroethene	ND		1.0		ug/L			07/15/19 14:19	1
Toluene	ND		1.0		ug/L			07/15/19 14:19	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/15/19 14:19	1
trans-1,3-Dichloropropene	ND		3.0		ug/L			07/15/19 14:19	1
Trichloroethene	**16**		1.0		ug/L			07/15/19 14:19	1
Trichlorofluoromethane	ND	R6	2.0		ug/L			07/15/19 14:19	1
Vinyl acetate	ND		3.0		ug/L			07/15/19 14:19	1
Vinyl chloride	ND	R6	1.0		ug/L			07/15/19 14:19	1
Xylenes, Total	ND		2.0		ug/L			07/15/19 14:19	1
Hexane	ND		2.0		ug/L			07/15/19 14:19	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Butadiene TIC	*ND*	*T4*	*ug/L*			*106-99-0*		*07/15/19 14:19*	*1*
4-Ethyltoluene TIC	*ND*	*T4*	*ug/L*			*622-96-8*		*07/15/19 14:19*	*1*
Cyclohexane TIC	*ND*	*T4*	*ug/L*			*110-82-7*		*07/15/19 14:19*	*1*
Dicyclopentadiene TIC	*ND*	*T4*	*ug/L*			*77-73-6*		*07/15/19 14:19*	*1*
Methyl cyclohexane TIC	*ND*	*T4*	*ug/L*			*108-87-2*		*07/15/19 14:19*	*1*
Propylene TIC	*ND*	*T4*	*ug/L*			*115-07-1*		*07/15/19 14:19*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*78 - 120*		*07/15/19 14:19*	*1*
Dibromofluoromethane (Surr)	*104*		*77 - 120*		*07/15/19 14:19*	*1*
Toluene-d8 (Surr)	*103*		*80 - 125*		*07/15/19 14:19*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 127*		*07/15/19 14:19*	*1*

Client Sample ID: EW01-738-070119

Lab Sample ID: 550-125174-2

Date Collected: 07/01/19 09:30
Matrix: Water
Date Received: 07/01/19 13:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			07/15/19 14:40	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/15/19 14:40	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			07/15/19 14:40	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/15/19 14:40	1
1,1,2-Trichlorotrifluoroethane	ND		3.0		ug/L			07/15/19 14:40	1
1,1-Dichloroethane	ND		1.0		ug/L			07/15/19 14:40	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Cave Creek Landfill - GW

Job ID: 550-125174-1

Client Sample ID: EW01-738-070119

Lab Sample ID: 550-125174-2

Date Collected: 07/01/19 09:30
Matrix: Water
Date Received: 07/01/19 13:12

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.0		ug/L			07/15/19 14:40	1
1,1-Dichloropropene	ND		1.0		ug/L			07/15/19 14:40	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/15/19 14:40	1
1,2,3-Trichloropropane	ND		2.5		ug/L			07/15/19 14:40	1
1,2,3-Trimethylbenzene	ND		2.0		ug/L			07/15/19 14:40	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/15/19 14:40	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/15/19 14:40	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/15/19 14:40	1
1,2-Dibromoethane	ND		1.0		ug/L			07/15/19 14:40	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/15/19 14:40	1
1,2-Dichloroethane	ND		1.0		ug/L			07/15/19 14:40	1
1,2-Dichloropropane	ND		1.0		ug/L			07/15/19 14:40	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/15/19 14:40	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/15/19 14:40	1
1,3-Dichloropropane	ND		1.0		ug/L			07/15/19 14:40	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/15/19 14:40	1
2,2-Dichloropropane	ND		1.0		ug/L			07/15/19 14:40	1
2-Butanone (MEK)	ND		6.0		ug/L			07/15/19 14:40	1
2-Chlorotoluene	ND		1.0		ug/L			07/15/19 14:40	1
2-Hexanone	ND		5.0		ug/L			07/15/19 14:40	1
4-Chlorotoluene	ND		1.0		ug/L			07/15/19 14:40	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			07/15/19 14:40	1
Acetone	ND		10		ug/L			07/15/19 14:40	1
Benzene	ND		1.0		ug/L			07/15/19 14:40	1
Bromobenzene	ND		1.0		ug/L			07/15/19 14:40	1
Bromodichloromethane	ND		1.0		ug/L			07/15/19 14:40	1
Bromoform	ND		1.0		ug/L			07/15/19 14:40	1
Bromomethane	ND	L4 R6	2.0		ug/L			07/15/19 14:40	1
Carbon disulfide	ND		2.0		ug/L			07/15/19 14:40	1
Carbon tetrachloride	ND		1.0		ug/L			07/15/19 14:40	1
Chlorobenzene	ND		1.0		ug/L			07/15/19 14:40	1
Chlorobromomethane	ND		1.0		ug/L			07/15/19 14:40	1
Chlorodibromomethane	ND		1.0		ug/L			07/15/19 14:40	1
Chloroethane	ND	R6	2.0		ug/L			07/15/19 14:40	1
Chloroform	ND		1.0		ug/L			07/15/19 14:40	1
Chloromethane	ND	R6	2.0		ug/L			07/15/19 14:40	1
cis-1,2-Dichloroethene	**1.7**		1.0		ug/L			07/15/19 14:40	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			07/15/19 14:40	1
Dibromomethane	ND		1.0		ug/L			07/15/19 14:40	1
Dichlorodifluoromethane	ND	R6	2.0		ug/L			07/15/19 14:40	1
Diisopropyl ether	ND		10		ug/L			07/15/19 14:40	1
Ethylbenzene	ND		1.0		ug/L			07/15/19 14:40	1
Hexachloro-1,3-butadiene	ND	L3	1.0		ug/L			07/15/19 14:40	1
Iodomethane	ND		1.0		ug/L			07/15/19 14:40	1
Isopropylbenzene	ND		1.0		ug/L			07/15/19 14:40	1
Methyl tert-butyl ether	ND		5.0		ug/L			07/15/19 14:40	1
Methylene Chloride	ND		2.0		ug/L			07/15/19 14:40	1
m-Xylene & p-Xylene	ND		2.0		ug/L			07/15/19 14:40	1
Naphthalene	ND		1.0		ug/L			07/15/19 14:40	1

Client Sample ID: EW01-738-070119

Lab Sample ID: 550-125174-2
Date Collected: 07/01/19 09:30
Matrix: Water
Date Received: 07/01/19 13:12

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		1.0		ug/L			07/15/19 14:40	1
N-Propylbenzene	ND		1.0		ug/L			07/15/19 14:40	1
o-Xylene	ND		1.0		ug/L			07/15/19 14:40	1
p-Isopropyltoluene	ND		1.0		ug/L			07/15/19 14:40	1
sec-Butylbenzene	ND		1.0		ug/L			07/15/19 14:40	1
Styrene	ND		1.0		ug/L			07/15/19 14:40	1
tert-Butylbenzene	ND		1.0		ug/L			07/15/19 14:40	1
Tetrachloroethene	ND		1.0		ug/L			07/15/19 14:40	1
Toluene	ND		1.0		ug/L			07/15/19 14:40	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/15/19 14:40	1
trans-1,3-Dichloropropene	ND		3.0		ug/L			07/15/19 14:40	1
Trichloroethene	**19**		1.0		ug/L			07/15/19 14:40	1
Trichlorofluoromethane	ND	R6	2.0		ug/L			07/15/19 14:40	1
Vinyl acetate	ND		3.0		ug/L			07/15/19 14:40	1
Vinyl chloride	ND	R6	1.0		ug/L			07/15/19 14:40	1
Xylenes, Total	ND		2.0		ug/L			07/15/19 14:40	1
Hexane	ND		2.0		ug/L			07/15/19 14:40	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Butadiene TIC	*ND*	*T4*	*ug/L*			*106-99-0*		*07/15/19 14:40*	*1*
4-Ethyltoluene TIC	*ND*	*T4*	*ug/L*			*622-96-8*		*07/15/19 14:40*	*1*
Cyclohexane TIC	*ND*	*T4*	*ug/L*			*110-82-7*		*07/15/19 14:40*	*1*
Dicyclopentadiene TIC	*ND*	*T4*	*ug/L*			*77-73-6*		*07/15/19 14:40*	*1*
Methyl cyclohexane TIC	*ND*	*T4*	*ug/L*			*108-87-2*		*07/15/19 14:40*	*1*
Propylene TIC	*ND*	*T4*	*ug/L*			*115-07-1*		*07/15/19 14:40*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*78 - 120*		*07/15/19 14:40*	*1*
Dibromofluoromethane (Surr)	*103*		*77 - 120*		*07/15/19 14:40*	*1*
Toluene-d8 (Surr)	*104*		*80 - 125*		*07/15/19 14:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 127*		*07/15/19 14:40*	*1*

Client Sample ID: DUP01-070119

Lab Sample ID: 550-125174-3
Date Collected: 07/01/19 09:40
Matrix: Water
Date Received: 07/01/19 13:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			07/15/19 15:01	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/15/19 15:01	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			07/15/19 15:01	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/15/19 15:01	1
1,1,2-Trichlorotrifluoroethane	ND		3.0		ug/L			07/15/19 15:01	1
1,1-Dichloroethane	ND		1.0		ug/L			07/15/19 15:01	1
1,1-Dichloroethene	ND		1.0		ug/L			07/15/19 15:01	1
1,1-Dichloropropene	ND		1.0		ug/L			07/15/19 15:01	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/15/19 15:01	1
1,2,3-Trichloropropane	ND		2.5		ug/L			07/15/19 15:01	1
1,2,3-Trimethylbenzene	ND		2.0		ug/L			07/15/19 15:01	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/15/19 15:01	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Cave Creek Landfill - GW

Job ID: 550-125174-1

Client Sample ID: DUP01-070119

Lab Sample ID: 550-125174-3

Date Collected: 07/01/19 09:40
Matrix: Water
Date Received: 07/01/19 13:12

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/15/19 15:01	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/15/19 15:01	1
1,2-Dibromoethane	ND		1.0		ug/L			07/15/19 15:01	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/15/19 15:01	1
1,2-Dichloroethane	ND		1.0		ug/L			07/15/19 15:01	1
1,2-Dichloropropane	ND		1.0		ug/L			07/15/19 15:01	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/15/19 15:01	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/15/19 15:01	1
1,3-Dichloropropane	ND		1.0		ug/L			07/15/19 15:01	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/15/19 15:01	1
2,2-Dichloropropane	ND		1.0		ug/L			07/15/19 15:01	1
2-Butanone (MEK)	ND		6.0		ug/L			07/15/19 15:01	1
2-Chlorotoluene	ND		1.0		ug/L			07/15/19 15:01	1
2-Hexanone	ND		5.0		ug/L			07/15/19 15:01	1
4-Chlorotoluene	ND		1.0		ug/L			07/15/19 15:01	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			07/15/19 15:01	1
Acetone	ND		10		ug/L			07/15/19 15:01	1
Benzene	ND		1.0		ug/L			07/15/19 15:01	1
Bromobenzene	ND		1.0		ug/L			07/15/19 15:01	1
Bromodichloromethane	ND		1.0		ug/L			07/15/19 15:01	1
Bromoform	ND		1.0		ug/L			07/15/19 15:01	1
Bromomethane	ND	L4 R6	2.0		ug/L			07/15/19 15:01	1
Carbon disulfide	ND		2.0		ug/L			07/15/19 15:01	1
Carbon tetrachloride	ND		1.0		ug/L			07/15/19 15:01	1
Chlorobenzene	ND		1.0		ug/L			07/15/19 15:01	1
Chlorobromomethane	ND		1.0		ug/L			07/15/19 15:01	1
Chlorodibromomethane	ND		1.0		ug/L			07/15/19 15:01	1
Chloroethane	ND	R6	2.0		ug/L			07/15/19 15:01	1
Chloroform	ND		1.0		ug/L			07/15/19 15:01	1
Chloromethane	ND	R6	2.0		ug/L			07/15/19 15:01	1
cis-1,2-Dichloroethene	**1.7**		1.0		ug/L			07/15/19 15:01	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			07/15/19 15:01	1
Dibromomethane	ND		1.0		ug/L			07/15/19 15:01	1
Dichlorodifluoromethane	ND	R6	2.0		ug/L			07/15/19 15:01	1
Diisopropyl ether	ND		10		ug/L			07/15/19 15:01	1
Ethylbenzene	ND		1.0		ug/L			07/15/19 15:01	1
Hexachloro-1,3-butadiene	ND	L3	1.0		ug/L			07/15/19 15:01	1
Iodomethane	ND		1.0		ug/L			07/15/19 15:01	1
Isopropylbenzene	ND		1.0		ug/L			07/15/19 15:01	1
Methyl tert-butyl ether	ND		5.0		ug/L			07/15/19 15:01	1
Methylene Chloride	ND		2.0		ug/L			07/15/19 15:01	1
m-Xylene & p-Xylene	ND		2.0		ug/L			07/15/19 15:01	1
Naphthalene	ND		1.0		ug/L			07/15/19 15:01	1
n-Butylbenzene	ND		1.0		ug/L			07/15/19 15:01	1
N-Propylbenzene	ND		1.0		ug/L			07/15/19 15:01	1
o-Xylene	ND		1.0		ug/L			07/15/19 15:01	1
p-Isopropyltoluene	ND		1.0		ug/L			07/15/19 15:01	1
sec-Butylbenzene	ND		1.0		ug/L			07/15/19 15:01	1
Styrene	ND		1.0		ug/L			07/15/19 15:01	1

Client Sample Results

Client: Wood E&I Solutions Inc
Project/Site: Cave Creek Landfill - GW

Job ID: 550-125174-1

Client Sample ID: DUP01-070119

Lab Sample ID: 550-125174-3

Date Collected: 07/01/19 09:40

Matrix: Water

Date Received: 07/01/19 13:12

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		1.0		ug/L			07/15/19 15:01	1
Tetrachloroethene	ND		1.0		ug/L			07/15/19 15:01	1
Toluene	ND		1.0		ug/L			07/15/19 15:01	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/15/19 15:01	1
trans-1,3-Dichloropropene	ND		3.0		ug/L			07/15/19 15:01	1
Trichloroethene	**20**		1.0		ug/L			07/15/19 15:01	1
Trichlorofluoromethane	ND	R6	2.0		ug/L			07/15/19 15:01	1
Vinyl acetate	ND		3.0		ug/L			07/15/19 15:01	1
Vinyl chloride	ND	R6	1.0		ug/L			07/15/19 15:01	1
Xylenes, Total	ND		2.0		ug/L			07/15/19 15:01	1
Hexane	ND		2.0		ug/L			07/15/19 15:01	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Butadiene TIC	*ND*	*T4*	*ug/L*			*106-99-0*		*07/15/19 15:01*	*1*
4-Ethyltoluene TIC	*ND*	*T4*	*ug/L*			*622-96-8*		*07/15/19 15:01*	*1*
Cyclohexane TIC	*ND*	*T4*	*ug/L*			*110-82-7*		*07/15/19 15:01*	*1*
Dicyclopentadiene TIC	*ND*	*T4*	*ug/L*			*77-73-6*		*07/15/19 15:01*	*1*
Methyl cyclohexane TIC	*ND*	*T4*	*ug/L*			*108-87-2*		*07/15/19 15:01*	*1*
Propylene TIC	*ND*	*T4*	*ug/L*			*115-07-1*		*07/15/19 15:01*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*78 - 120*		*07/15/19 15:01*	*1*
Dibromofluoromethane (Surr)	*104*		*77 - 120*		*07/15/19 15:01*	*1*
Toluene-d8 (Surr)	*103*		*80 - 125*		*07/15/19 15:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 127*		*07/15/19 15:01*	*1*

Surrogate Summary

Client: Wood E&I Solutions Inc
Project/Site: Cave Creek Landfill - GW

Job ID: 550-125174-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	TOL	DCA
Lab Sample ID	**Client Sample ID**	**(78-120)**	**(77-120)**	**(80-125)**	**(70-127)**
280-125898-B-4 MS	Matrix Spike	104	107	103	108
280-125898-C-4 MSD	Matrix Spike Duplicate	102	107	103	111
550-125174-1	EW01-713-070119	102	104	103	109
550-125174-2	EW01-738-070119	101	103	104	109
550-125174-3	DUP01-070119	100	104	103	108
LCS 280-464513/5	Lab Control Sample	101	108	104	111
LCSD 280-464513/6	Lab Control Sample Dup	102	107	103	110
MB 280-464513/9	Method Blank	101	104	103	110

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-464513/9
Matrix: Water
Analysis Batch: 464513

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			07/15/19 12:32	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/15/19 12:32	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			07/15/19 12:32	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/15/19 12:32	1
1,1,2-Trichlorotrifluoroethane	ND		3.0		ug/L			07/15/19 12:32	1
1,1-Dichloroethane	ND		1.0		ug/L			07/15/19 12:32	1
1,1-Dichloroethene	ND		1.0		ug/L			07/15/19 12:32	1
1,1-Dichloropropene	ND		1.0		ug/L			07/15/19 12:32	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/15/19 12:32	1
1,2,3-Trichloropropane	ND		2.5		ug/L			07/15/19 12:32	1
1,2,3-Trimethylbenzene	ND		2.0		ug/L			07/15/19 12:32	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/15/19 12:32	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/15/19 12:32	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/15/19 12:32	1
1,2-Dibromoethane	ND		1.0		ug/L			07/15/19 12:32	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/15/19 12:32	1
1,2-Dichloroethane	ND		1.0		ug/L			07/15/19 12:32	1
1,2-Dichloropropane	ND		1.0		ug/L			07/15/19 12:32	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/15/19 12:32	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/15/19 12:32	1
1,3-Dichloropropane	ND		1.0		ug/L			07/15/19 12:32	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/15/19 12:32	1
2,2-Dichloropropane	ND		1.0		ug/L			07/15/19 12:32	1
2-Butanone (MEK)	ND		6.0		ug/L			07/15/19 12:32	1
2-Chlorotoluene	ND		1.0		ug/L			07/15/19 12:32	1
2-Hexanone	ND		5.0		ug/L			07/15/19 12:32	1
4-Chlorotoluene	ND		1.0		ug/L			07/15/19 12:32	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			07/15/19 12:32	1
Acetone	ND		10		ug/L			07/15/19 12:32	1
Benzene	ND		1.0		ug/L			07/15/19 12:32	1
Bromobenzene	ND		1.0		ug/L			07/15/19 12:32	1
Bromodichloromethane	ND		1.0		ug/L			07/15/19 12:32	1
Bromoform	ND		1.0		ug/L			07/15/19 12:32	1
Bromomethane	ND		2.0		ug/L			07/15/19 12:32	1
Carbon disulfide	ND		2.0		ug/L			07/15/19 12:32	1
Carbon tetrachloride	ND		1.0		ug/L			07/15/19 12:32	1
Chlorobenzene	ND		1.0		ug/L			07/15/19 12:32	1
Chlorobromomethane	ND		1.0		ug/L			07/15/19 12:32	1
Chlorodibromomethane	ND		1.0		ug/L			07/15/19 12:32	1
Chloroethane	ND		2.0		ug/L			07/15/19 12:32	1
Chloroform	ND		1.0		ug/L			07/15/19 12:32	1
Chloromethane	ND		2.0		ug/L			07/15/19 12:32	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/15/19 12:32	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			07/15/19 12:32	1
Dibromomethane	ND		1.0		ug/L			07/15/19 12:32	1
Dichlorodifluoromethane	ND		2.0		ug/L			07/15/19 12:32	1
Diisopropyl ether	ND		10		ug/L			07/15/19 12:32	1
Ethylbenzene	ND		1.0		ug/L			07/15/19 12:32	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-464513/9
Matrix: Water
Analysis Batch: 464513

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachloro-1,3-butadiene	ND		1.0		ug/L			07/15/19 12:32	1
Iodomethane	ND		1.0		ug/L			07/15/19 12:32	1
Isopropylbenzene	ND		1.0		ug/L			07/15/19 12:32	1
Methyl tert-butyl ether	ND		5.0		ug/L			07/15/19 12:32	1
Methylene Chloride	ND		2.0		ug/L			07/15/19 12:32	1
m-Xylene & p-Xylene	ND		2.0		ug/L			07/15/19 12:32	1
Naphthalene	ND		1.0		ug/L			07/15/19 12:32	1
n-Butylbenzene	ND		1.0		ug/L			07/15/19 12:32	1
N-Propylbenzene	ND		1.0		ug/L			07/15/19 12:32	1
o-Xylene	ND		1.0		ug/L			07/15/19 12:32	1
p-Isopropyltoluene	ND		1.0		ug/L			07/15/19 12:32	1
sec-Butylbenzene	ND		1.0		ug/L			07/15/19 12:32	1
Styrene	ND		1.0		ug/L			07/15/19 12:32	1
tert-Butylbenzene	ND		1.0		ug/L			07/15/19 12:32	1
Tetrachloroethene	ND		1.0		ug/L			07/15/19 12:32	1
Toluene	ND		1.0		ug/L			07/15/19 12:32	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/15/19 12:32	1
trans-1,3-Dichloropropene	ND		3.0		ug/L			07/15/19 12:32	1
Trichloroethene	ND		1.0		ug/L			07/15/19 12:32	1
Trichlorofluoromethane	ND		2.0		ug/L			07/15/19 12:32	1
Vinyl acetate	ND		3.0		ug/L			07/15/19 12:32	1
Vinyl chloride	ND		1.0		ug/L			07/15/19 12:32	1
Xylenes, Total	ND		2.0		ug/L			07/15/19 12:32	1
Hexane	ND		2.0		ug/L			07/15/19 12:32	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*T4*	*ug/L*			*110-82-7*		*07/15/19 12:32*	*1*
Methyl cyclohexane TIC	*ND*	*T4*	*ug/L*			*108-87-2*		*07/15/19 12:32*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*78 - 120*		*07/15/19 12:32*	*1*
Dibromofluoromethane (Surr)	*104*		*77 - 120*		*07/15/19 12:32*	*1*
Toluene-d8 (Surr)	*103*		*80 - 125*		*07/15/19 12:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 127*		*07/15/19 12:32*	*1*

Lab Sample ID: LCS 280-464513/5
Matrix: Water
Analysis Batch: 464513

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	27.0		ug/L		108	65 - 135
1,1,1-Trichloroethane	25.0	27.3		ug/L		109	65 - 135
1,1,2,2-Tetrachloroethane	25.0	27.9		ug/L		112	58 - 135
1,1,2-Trichloroethane	25.0	28.8		ug/L		115	64 - 135
1,1,2-Trichlorotrifluoroethane	25.0	28.1		ug/L		112	65 - 140
1,1-Dichloroethane	25.0	28.5		ug/L		114	65 - 135
1,1-Dichloroethene	25.0	29.7		ug/L		119	65 - 136
1,1-Dichloropropene	25.0	28.5		ug/L		114	65 - 135

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-464513/5
Matrix: Water
Analysis Batch: 464513

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichlorobenzene	25.0	29.9		ug/L		120	60 - 135
1,2,3-Trichloropropane	25.0	28.5		ug/L		114	65 - 135
1,2,4-Trichlorobenzene	25.0	30.0		ug/L		120	58 - 135
1,2,4-Trimethylbenzene	25.0	30.9		ug/L		124	65 - 135
1,2-Dibromo-3-Chloropropane	25.0	24.2		ug/L		97	57 - 135
1,2-Dibromoethane	25.0	29.5		ug/L		118	65 - 135
1,2-Dichlorobenzene	25.0	27.9		ug/L		112	65 - 135
1,2-Dichloroethane	25.0	27.9		ug/L		112	65 - 135
1,2-Dichloropropane	25.0	25.1		ug/L		101	64 - 135
1,3,5-Trimethylbenzene	25.0	31.1		ug/L		124	65 - 135
1,3-Dichlorobenzene	25.0	28.2		ug/L		113	65 - 135
1,3-Dichloropropane	25.0	28.5		ug/L		114	64 - 135
1,4-Dichlorobenzene	25.0	27.7		ug/L		111	65 - 135
2,2-Dichloropropane	25.0	24.8		ug/L		99	65 - 135
2-Butanone (MEK)	100	105		ug/L		105	44 - 177
2-Chlorotoluene	25.0	28.8		ug/L		115	65 - 135
2-Hexanone	100	107		ug/L		107	57 - 139
4-Chlorotoluene	25.0	28.2		ug/L		113	65 - 135
4-Methyl-2-pentanone (MIBK)	100	111		ug/L		111	60 - 150
Acetone	100	102		ug/L		102	39 - 156
Benzene	25.0	27.4		ug/L		110	65 - 135
Bromobenzene	25.0	28.2		ug/L		113	65 - 135
Bromodichloromethane	25.0	26.8		ug/L		107	65 - 135
Bromoform	25.0	24.4		ug/L		97	62 - 135
Bromomethane	25.0	7.99	L4	ug/L		32	45 - 135
Carbon disulfide	25.0	28.7		ug/L		115	55 - 143
Carbon tetrachloride	25.0	26.6		ug/L		107	65 - 135
Chlorobenzene	25.0	27.8		ug/L		111	65 - 135
Chlorobromomethane	25.0	27.9		ug/L		111	65 - 135
Chlorodibromomethane	25.0	26.7		ug/L		107	65 - 135
Chloroethane	25.0	20.9		ug/L		83	46 - 136
Chloroform	25.0	29.6		ug/L		118	65 - 135
Chloromethane	25.0	19.9		ug/L		80	34 - 145
cis-1,2-Dichloroethene	25.0	29.3		ug/L		117	65 - 135
cis-1,3-Dichloropropene	25.0	26.3		ug/L		105	65 - 135
Dibromomethane	25.0	29.8		ug/L		119	65 - 135
Dichlorodifluoromethane	25.0	23.4		ug/L		93	43 - 142
Ethylbenzene	25.0	29.2		ug/L		117	65 - 135
Hexachloro-1,3-butadiene	25.0	34.7	L3	ug/L		139	65 - 135
Iodomethane	25.0	23.3		ug/L		93	65 - 142
Isopropylbenzene	25.0	30.8		ug/L		123	65 - 135
Methyl tert-butyl ether	25.0	29.4		ug/L		117	54 - 135
Methylene Chloride	25.0	27.1		ug/L		108	54 - 141
m-Xylene & p-Xylene	25.0	28.8		ug/L		115	65 - 135
Naphthalene	25.0	29.2		ug/L		117	42 - 135
n-Butylbenzene	25.0	30.9		ug/L		123	64 - 135
N-Propylbenzene	25.0	29.1		ug/L		116	65 - 135
o-Xylene	25.0	29.5		ug/L		118	65 - 135
p-Isopropyltoluene	25.0	31.7		ug/L		127	65 - 135

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-464513/5
Matrix: Water
Analysis Batch: 464513

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
sec-Butylbenzene	25.0	30.6		ug/L		122	64 - 135
Styrene	25.0	30.2		ug/L		121	65 - 135
tert-Butylbenzene	25.0	30.4		ug/L		122	65 - 135
Tetrachloroethene	25.0	30.3		ug/L		121	65 - 135
Toluene	25.0	28.0		ug/L		112	65 - 135
trans-1,2-Dichloroethene	25.0	27.1		ug/L		108	65 - 135
trans-1,3-Dichloropropene	25.0	21.8		ug/L		87	65 - 135
Trichloroethene	25.0	28.6		ug/L		114	65 - 135
Trichlorofluoromethane	25.0	25.2		ug/L		101	53 - 137
Vinyl acetate	50.0	57.3		ug/L		115	11 - 187
Vinyl chloride	25.0	21.3		ug/L		85	40 - 137
Xylenes, Total	50.0	58.3		ug/L		117	65 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*78 - 120*
Dibromofluoromethane (Surr)	*108*		*77 - 120*
Toluene-d8 (Surr)	*104*		*80 - 125*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 127*

Lab Sample ID: LCSD 280-464513/6
Matrix: Water
Analysis Batch: 464513

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	24.9		ug/L		99	65 - 135	8	20
1,1,1-Trichloroethane	25.0	25.0		ug/L		100	65 - 135	9	20
1,1,2,2-Tetrachloroethane	25.0	27.3		ug/L		109	58 - 135	2	20
1,1,2-Trichloroethane	25.0	27.4		ug/L		110	64 - 135	5	27
1,1,2-Trichlorotrifluoroethane	25.0	24.8		ug/L		99	65 - 140	13	20
1,1-Dichloroethane	25.0	26.3		ug/L		105	65 - 135	8	21
1,1-Dichloroethene	25.0	26.6		ug/L		106	65 - 136	11	20
1,1-Dichloropropene	25.0	26.0		ug/L		104	65 - 135	9	21
1,2,3-Trichlorobenzene	25.0	28.2		ug/L		113	60 - 135	6	36
1,2,3-Trichloropropane	25.0	27.7		ug/L		111	65 - 135	3	23
1,2,4-Trichlorobenzene	25.0	27.7		ug/L		111	58 - 135	8	25
1,2,4-Trimethylbenzene	25.0	29.1		ug/L		116	65 - 135	6	20
1,2-Dibromo-3-Chloropropane	25.0	26.3		ug/L		105	57 - 135	8	22
1,2-Dibromoethane	25.0	27.9		ug/L		111	65 - 135	6	27
1,2-Dichlorobenzene	25.0	26.5		ug/L		106	65 - 135	5	20
1,2-Dichloroethane	25.0	26.1		ug/L		104	65 - 135	7	20
1,2-Dichloropropane	25.0	24.0		ug/L		96	64 - 135	5	20
1,3,5-Trimethylbenzene	25.0	28.9		ug/L		115	65 - 135	7	20
1,3-Dichlorobenzene	25.0	26.3		ug/L		105	65 - 135	7	20
1,3-Dichloropropane	25.0	27.0		ug/L		108	64 - 135	6	20
1,4-Dichlorobenzene	25.0	25.7		ug/L		103	65 - 135	7	23
2,2-Dichloropropane	25.0	21.8		ug/L		87	65 - 135	13	20
2-Butanone (MEK)	100	104		ug/L		104	44 - 177	1	32
2-Chlorotoluene	25.0	27.3		ug/L		109	65 - 135	5	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-464513/6
Matrix: Water
Analysis Batch: 464513

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Hexanone	100	106		ug/L		106	57 - 139	1	25
4-Chlorotoluene	25.0	26.7		ug/L		107	65 - 135	5	20
4-Methyl-2-pentanone (MIBK)	100	111		ug/L		111	60 - 150	1	22
Acetone	100	103		ug/L		103	39 - 156	1	23
Benzene	25.0	25.2		ug/L		101	65 - 135	8	20
Bromobenzene	25.0	26.5		ug/L		106	65 - 135	6	26
Bromodichloromethane	25.0	24.7		ug/L		99	65 - 135	8	20
Bromoform	25.0	22.9		ug/L		91	62 - 135	6	27
Bromomethane	50.0	14.8	L4 R6	ug/L		30	45 - 135	60	33
Carbon disulfide	25.0	24.8		ug/L		99	55 - 143	14	20
Carbon tetrachloride	25.0	23.6		ug/L		94	65 - 135	12	21
Chlorobenzene	25.0	25.7		ug/L		103	65 - 135	8	20
Chlorobromomethane	25.0	25.9		ug/L		104	65 - 135	7	29
Chlorodibromomethane	25.0	24.7		ug/L		99	65 - 135	8	20
Chloroethane	50.0	39.8	R6	ug/L		80	46 - 136	63	25
Chloroform	25.0	27.9		ug/L		112	65 - 135	6	20
Chloromethane	50.0	38.8	R6	ug/L		78	34 - 145	64	24
cis-1,2-Dichloroethene	25.0	26.5		ug/L		106	65 - 135	10	20
cis-1,3-Dichloropropene	25.0	24.1		ug/L		96	65 - 135	9	26
Dibromomethane	25.0	28.0		ug/L		112	65 - 135	6	26
Dichlorodifluoromethane	50.0	44.5	R6	ug/L		89	43 - 142	62	30
Ethylbenzene	25.0	26.2		ug/L		105	65 - 135	11	20
Hexachloro-1,3-butadiene	25.0	31.1		ug/L		125	65 - 135	11	25
Iodomethane	25.0	23.4		ug/L		94	65 - 142	0	25
Isopropylbenzene	25.0	28.3		ug/L		113	65 - 135	9	20
Methyl tert-butyl ether	25.0	28.0		ug/L		112	54 - 135	5	21
Methylene Chloride	25.0	25.2		ug/L		101	54 - 141	7	26
m-Xylene & p-Xylene	25.0	26.3		ug/L		105	65 - 135	9	20
Naphthalene	25.0	28.5		ug/L		114	42 - 135	3	23
n-Butylbenzene	25.0	28.7		ug/L		115	64 - 135	7	21
N-Propylbenzene	25.0	26.9		ug/L		108	65 - 135	8	20
o-Xylene	25.0	26.9		ug/L		107	65 - 135	9	20
p-Isopropyltoluene	25.0	28.9		ug/L		115	65 - 135	9	20
sec-Butylbenzene	25.0	28.0		ug/L		112	64 - 135	9	21
Styrene	25.0	27.7		ug/L		111	65 - 135	8	26
tert-Butylbenzene	25.0	28.3		ug/L		113	65 - 135	7	21
Tetrachloroethene	25.0	26.7		ug/L		107	65 - 135	13	20
Toluene	25.0	26.0		ug/L		104	65 - 135	7	20
trans-1,2-Dichloroethene	25.0	24.9		ug/L		100	65 - 135	8	24
trans-1,3-Dichloropropene	25.0	20.4		ug/L		82	65 - 135	6	26
Trichloroethene	25.0	26.3		ug/L		105	65 - 135	8	20
Trichlorofluoromethane	50.0	47.1	R6	ug/L		94	53 - 137	61	27
Vinyl acetate	50.0	55.8		ug/L		112	11 - 187	3	24
Vinyl chloride	50.0	40.6	R6	ug/L		81	40 - 137	63	24
Xylenes, Total	50.0	53.2		ug/L		106	65 - 135	9	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*78 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-464513/6
Matrix: Water
Analysis Batch: 464513

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*107*		*77 - 120*
Toluene-d8 (Surr)	*103*		*80 - 125*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 127*

Lab Sample ID: 280-125898-B-4 MS
Matrix: Water
Analysis Batch: 464513

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	26.7		ug/L		107	65 - 135
1,1,1-Trichloroethane	ND		25.0	26.8		ug/L		107	65 - 135
1,1,2,2-Tetrachloroethane	ND		25.0	28.1		ug/L		112	58 - 135
1,1,2-Trichloroethane	ND		25.0	29.0		ug/L		116	64 - 135
1,1,2-Trichlorotrifluoroethane	ND		25.0	26.9		ug/L		108	65 - 140
1,1-Dichloroethane	ND		25.0	29.4		ug/L		118	65 - 135
1,1-Dichloroethene	ND		25.0	29.8		ug/L		119	65 - 136
1,1-Dichloropropene	ND		25.0	28.7		ug/L		115	65 - 135
1,2,3-Trichlorobenzene	12		25.0	42.6		ug/L		123	60 - 135
1,2,3-Trichloropropane	ND		25.0	29.6		ug/L		112	65 - 135
1,2,4-Trichlorobenzene	20		25.0	50.7		ug/L		122	58 - 135
1,2,4-Trimethylbenzene	ND		25.0	31.9		ug/L		128	65 - 135
1,2-Dibromo-3-Chloropropane	ND		25.0	24.7		ug/L		99	57 - 135
1,2-Dibromoethane	ND		25.0	29.5		ug/L		118	65 - 135
1,2-Dichlorobenzene	40		25.0	64.2		ug/L		96	65 - 135
1,2-Dichloroethane	ND		25.0	27.8		ug/L		111	65 - 135
1,2-Dichloropropane	ND		25.0	25.6		ug/L		100	64 - 135
1,3,5-Trimethylbenzene	ND		25.0	31.4		ug/L		126	65 - 135
1,3-Dichlorobenzene	17		25.0	44.3		ug/L		108	65 - 135
1,3-Dichloropropane	ND		25.0	28.7		ug/L		115	64 - 135
1,4-Dichlorobenzene	15		25.0	41.5		ug/L		106	65 - 135
2,2-Dichloropropane	ND		25.0	22.9		ug/L		92	65 - 135
2-Butanone (MEK)	ND		100	103		ug/L		103	44 - 177
2-Chlorotoluene	ND		25.0	29.4		ug/L		118	65 - 135
2-Hexanone	ND		100	108		ug/L		108	57 - 139
4-Chlorotoluene	ND		25.0	28.8		ug/L		115	65 - 135
4-Methyl-2-pentanone (MIBK)	ND		100	114		ug/L		114	60 - 150
Acetone	ND		100	95.3		ug/L		95	39 - 156
Benzene	ND		25.0	28.4		ug/L		111	65 - 135
Bromobenzene	ND		25.0	28.9		ug/L		116	65 - 135
Bromodichloromethane	ND		25.0	26.4		ug/L		106	65 - 135
Bromoform	ND		25.0	23.2		ug/L		93	62 - 135
Bromomethane	ND	L4 R6 M2	25.0	5.25	M2	ug/L		21	45 - 135
Carbon disulfide	ND		25.0	27.8		ug/L		110	55 - 143
Carbon tetrachloride	ND		25.0	25.2		ug/L		101	65 - 135
Chlorobenzene	1.7		25.0	29.4		ug/L		111	65 - 135
Chlorobromomethane	ND		25.0	28.2		ug/L		113	65 - 135
Chlorodibromomethane	ND		25.0	25.9		ug/L		104	65 - 135
Chloroethane	ND	R6	25.0	22.1		ug/L		86	46 - 136

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-125898-B-4 MS
Matrix: Water
Analysis Batch: 464513

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	ND		25.0	29.5		ug/L		118	65 - 135
Chloromethane	ND	R6	25.0	21.8		ug/L		87	34 - 145
cis-1,2-Dichloroethene	24		25.0	47.5		ug/L		93	65 - 135
cis-1,3-Dichloropropene	ND		25.0	25.3		ug/L		101	65 - 135
Dibromomethane	ND		25.0	29.2		ug/L		117	65 - 135
Dichlorodifluoromethane	ND	R6	25.0	21.8		ug/L		87	43 - 142
Ethylbenzene	ND		25.0	29.2		ug/L		114	65 - 135
Hexachloro-1,3-butadiene	ND	L3	25.0	31.3		ug/L		125	65 - 135
Iodomethane	ND	M2 R4	25.0	11.7	M2	ug/L		47	65 - 142
Isopropylbenzene	ND		25.0	31.7		ug/L		125	65 - 135
Methyl tert-butyl ether	ND		25.0	29.0		ug/L		116	54 - 135
Methylene Chloride	ND		25.0	27.0		ug/L		108	54 - 141
m-Xylene & p-Xylene	ND		25.0	29.4		ug/L		118	65 - 135
Naphthalene	ND		25.0	30.5		ug/L		122	42 - 135
n-Butylbenzene	ND		25.0	31.1		ug/L		123	64 - 135
N-Propylbenzene	ND		25.0	29.6		ug/L		119	65 - 135
o-Xylene	ND		25.0	30.1		ug/L		120	65 - 135
p-Isopropyltoluene	ND		25.0	31.5		ug/L		126	65 - 135
sec-Butylbenzene	1.3		25.0	31.9		ug/L		122	64 - 135
Styrene	ND		25.0	30.7		ug/L		123	65 - 135
tert-Butylbenzene	1.7		25.0	32.6		ug/L		124	65 - 135
Tetrachloroethene	ND		25.0	29.4		ug/L		118	65 - 135
Toluene	1.2		25.0	29.1		ug/L		112	65 - 135
trans-1,2-Dichloroethene	1.5		25.0	29.5		ug/L		112	65 - 135
trans-1,3-Dichloropropene	ND		25.0	20.8		ug/L		83	65 - 135
Trichloroethene	4.7		25.0	33.5		ug/L		115	65 - 135
Trichlorofluoromethane	ND	R6	25.0	23.0		ug/L		92	53 - 137
Vinyl acetate	ND		50.0	57.4		ug/L		115	11 - 187
Vinyl chloride	33	R6 M2	25.0	42.2	M2	ug/L		37	40 - 137
Xylenes, Total	ND		50.0	59.5		ug/L		119	65 - 135

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*78 - 120*
Dibromofluoromethane (Surr)	*107*		*77 - 120*
Toluene-d8 (Surr)	*103*		*80 - 125*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 127*

Lab Sample ID: 280-125898-C-4 MSD
Matrix: Water
Analysis Batch: 464513

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		25.0	25.4		ug/L		102	65 - 135	5	20
1,1,1-Trichloroethane	ND		25.0	26.2		ug/L		105	65 - 135	2	20
1,1,2,2-Tetrachloroethane	ND		25.0	27.4		ug/L		110	58 - 135	2	20
1,1,2-Trichloroethane	ND		25.0	28.4		ug/L		114	64 - 135	2	27
1,1,2-Trichlorotrifluoroethane	ND		25.0	25.0		ug/L		100	65 - 140	8	20
1,1-Dichloroethane	ND		25.0	28.1		ug/L		112	65 - 135	5	21

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-125898-C-4 MSD
Matrix: Water
Analysis Batch: 464513

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		25.0	28.9		ug/L		116	65 - 136	3	20
1,1-Dichloropropene	ND		25.0	27.9		ug/L		112	65 - 135	3	21
1,2,3-Trichlorobenzene	12		25.0	42.0		ug/L		121	60 - 135	1	36
1,2,3-Trichloropropane	ND		25.0	28.3		ug/L		108	65 - 135	4	23
1,2,4-Trichlorobenzene	20		25.0	50.0		ug/L		119	58 - 135	1	25
1,2,4-Trimethylbenzene	ND		25.0	30.2		ug/L		121	65 - 135	5	20
1,2-Dibromo-3-Chloropropane	ND		25.0	23.6		ug/L		94	57 - 135	5	22
1,2-Dibromoethane	ND		25.0	28.7		ug/L		115	65 - 135	3	27
1,2-Dichlorobenzene	40		25.0	59.8		ug/L		79	65 - 135	7	20
1,2-Dichloroethane	ND		25.0	27.4		ug/L		110	65 - 135	2	20
1,2-Dichloropropane	ND		25.0	25.1		ug/L		98	64 - 135	2	20
1,3,5-Trimethylbenzene	ND		25.0	30.4		ug/L		122	65 - 135	3	20
1,3-Dichlorobenzene	17		25.0	40.0		ug/L		91	65 - 135	10	20
1,3-Dichloropropane	ND		25.0	27.8		ug/L		111	64 - 135	3	20
1,4-Dichlorobenzene	15		25.0	39.2		ug/L		97	65 - 135	6	23
2,2-Dichloropropane	ND		25.0	23.1		ug/L		92	65 - 135	1	20
2-Butanone (MEK)	ND		100	100		ug/L		100	44 - 177	3	32
2-Chlorotoluene	ND		25.0	28.5		ug/L		114	65 - 135	3	20
2-Hexanone	ND		100	104		ug/L		104	57 - 139	4	25
4-Chlorotoluene	ND		25.0	27.8		ug/L		111	65 - 135	4	20
4-Methyl-2-pentanone (MIBK)	ND		100	110		ug/L		110	60 - 150	3	22
Acetone	ND		100	94.2		ug/L		94	39 - 156	1	23
Benzene	ND		25.0	27.4		ug/L		107	65 - 135	3	20
Bromobenzene	ND		25.0	27.5		ug/L		110	65 - 135	5	26
Bromodichloromethane	ND		25.0	26.1		ug/L		104	65 - 135	1	20
Bromoform	ND		25.0	23.0		ug/L		92	62 - 135	1	27
Bromomethane	ND	L4 R6 M2	25.0	5.33	M2	ug/L		21	45 - 135	1	33
Carbon disulfide	ND		25.0	27.8		ug/L		110	55 - 143	0	20
Carbon tetrachloride	ND		25.0	24.9		ug/L		100	65 - 135	1	21
Chlorobenzene	1.7		25.0	28.2		ug/L		106	65 - 135	4	20
Chlorobromomethane	ND		25.0	27.1		ug/L		109	65 - 135	4	29
Chlorodibromomethane	ND		25.0	25.1		ug/L		101	65 - 135	3	20
Chloroethane	ND	R6	25.0	22.6		ug/L		88	46 - 136	2	25
Chloroform	ND		25.0	29.0		ug/L		116	65 - 135	2	20
Chloromethane	ND	R6	25.0	20.0		ug/L		80	34 - 145	9	24
cis-1,2-Dichloroethene	24		25.0	45.8		ug/L		87	65 - 135	3	20
cis-1,3-Dichloropropene	ND		25.0	24.6		ug/L		98	65 - 135	3	26
Dibromomethane	ND		25.0	28.8		ug/L		115	65 - 135	1	26
Dichlorodifluoromethane	ND	R6	25.0	22.0		ug/L		88	43 - 142	1	30
Ethylbenzene	ND		25.0	28.8		ug/L		113	65 - 135	1	20
Hexachloro-1,3-butadiene	ND	L3	25.0	32.0		ug/L		128	65 - 135	2	25
Iodomethane	ND	M2 R4	25.0	15.4	M2 R4	ug/L		62	65 - 142	28	25
Isopropylbenzene	ND		25.0	30.3		ug/L		120	65 - 135	4	20
Methyl tert-butyl ether	ND		25.0	28.7		ug/L		115	54 - 135	1	21
Methylene Chloride	ND		25.0	26.1		ug/L		105	54 - 141	3	26
m-Xylene & p-Xylene	ND		25.0	28.2		ug/L		113	65 - 135	4	20
Naphthalene	ND		25.0	29.7		ug/L		119	42 - 135	3	23
n-Butylbenzene	ND		25.0	30.1		ug/L		119	64 - 135	3	21
N-Propylbenzene	ND		25.0	28.6		ug/L		114	65 - 135	4	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-125898-C-4 MSD
Matrix: Water
Analysis Batch: 464513

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
o-Xylene	ND		25.0	28.7		ug/L		115	65 - 135	5	20
p-Isopropyltoluene	ND		25.0	30.6		ug/L		122	65 - 135	3	20
sec-Butylbenzene	1.3		25.0	30.8		ug/L		118	64 - 135	3	21
Styrene	ND		25.0	29.2		ug/L		117	65 - 135	5	26
tert-Butylbenzene	1.7		25.0	31.1		ug/L		118	65 - 135	5	21
Tetrachloroethene	ND		25.0	28.9		ug/L		116	65 - 135	2	20
Toluene	1.2		25.0	28.2		ug/L		108	65 - 135	3	20
trans-1,2-Dichloroethene	1.5		25.0	29.4		ug/L		112	65 - 135	0	24
trans-1,3-Dichloropropene	ND		25.0	20.5		ug/L		82	65 - 135	1	26
Trichloroethene	4.7		25.0	32.7		ug/L		112	65 - 135	2	20
Trichlorofluoromethane	ND	R6	25.0	23.7		ug/L		95	53 - 137	3	27
Vinyl acetate	ND		50.0	56.5		ug/L		113	11 - 187	1	24
Vinyl chloride	33	R6 M2	25.0	40.7	M2	ug/L		31	40 - 137	4	24
Xylenes, Total	ND		50.0	56.9		ug/L		114	65 - 135	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*78 - 120*
Dibromofluoromethane (Surr)	*107*		*77 - 120*
Toluene-d8 (Surr)	*103*		*80 - 125*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 127*

QC Association Summary

Client: Wood E&I Solutions Inc
Project/Site: Cave Creek Landfill - GW

Job ID: 550-125174-1

GC/MS VOA

Analysis Batch: 464513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-125174-1	EW01-713-070119	Total/NA	Water	8260B	
550-125174-2	EW01-738-070119	Total/NA	Water	8260B	
550-125174-3	DUP01-070119	Total/NA	Water	8260B	
MB 280-464513/9	Method Blank	Total/NA	Water	8260B	
LCS 280-464513/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-464513/6	Lab Control Sample Dup	Total/NA	Water	8260B	
280-125898-B-4 MS	Matrix Spike	Total/NA	Water	8260B	
280-125898-C-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Lab Chronicle

Client: Wood E&I Solutions Inc
Project/Site: Cave Creek Landfill - GW

Job ID: 550-125174-1

Client Sample ID: EW01-713-070119 — Lab Sample ID: 550-125174-1

Date Collected: 07/01/19 09:25
Date Received: 07/01/19 13:12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	464513	07/15/19 14:19	JLS	TAL DEN

Client Sample ID: EW01-738-070119 — Lab Sample ID: 550-125174-2

Date Collected: 07/01/19 09:30
Date Received: 07/01/19 13:12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	464513	07/15/19 14:40	JLS	TAL DEN

Client Sample ID: DUP01-070119 — Lab Sample ID: 550-125174-3

Date Collected: 07/01/19 09:40
Date Received: 07/01/19 13:12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	464513	07/15/19 15:01	JLS	TAL DEN

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Wood E&I Solutions Inc
Project/Site: Cave Creek Landfill - GW

Job ID: 550-125174-1

Laboratory: Eurofins TestAmerica, Phoenix

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arizona	State Program	9	AZ0728	06-09-20

Laboratory: Eurofins TestAmerica, Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP		2907.01	10-31-19
A2LA	DoD		2907.01	10-31-19
A2LA	ISO/IEC 17025		2907.01	10-31-19
Alabama	State Program	4	40730	09-30-12 *
Alaska (UST)	State Program	10	UST-30	01-08-20
Arizona	State Program	9	AZ0713	12-20-19
Arkansas DEQ	State Program	6	88-0687	06-01-20
California	State		2513	01-08-20
California	State Program	9	2513	01-08-20
Connecticut	State Program	1	PH-0686	09-30-20
Florida	NELAP	4	E87667	06-30-20
Georgia	State Program	4	N/A	01-08-20
Illinois	NELAP	5	200017	04-30-20
Iowa	State Program	7	370	12-01-20
Kansas	NELAP	7	E-10166	04-30-20
Louisiana	NELAP	6	02096	06-30-20
Maine	State Program	1	CO0002	03-03-21
Minnesota	NELAP	5	8-999-405	12-31-19
Nevada	State Program	9	CO0026	07-31-19
New Hampshire	NELAP	1	205310	04-28-20
New Jersey	NELAP	2	CO004	06-30-20
New York	NELAP	2	11964	04-01-20
North Carolina (WW/SW)	State Program	4	358	12-31-19
North Dakota	State Program	8	R-034	01-08-20
Oklahoma	State		2018-006	08-31-19
Oregon	NELAP	10	4025	01-08-20
Oregon	NELAP		4025-011	01-08-20
Pennsylvania	NELAP	3	68-00664	07-31-19
Pennsylvania	NELAP		013	07-31-19
South Carolina	State Program	4	72002001	01-08-20
Texas	NELAP	6	T104704183-18-15	09-30-19
Texas	NELAP		T104704183-18-15	09-30-19
US Fish & Wildlife	Federal			07-31-19
USDA	Federal			03-26-21
Utah	NELAP	8	CO00026	07-31-19
Virginia	NELAP	3	460232	06-14-20
Washington	State Program	10	C583	08-03-19
West Virginia DEP	State Program	3	354	11-30-19
Wisconsin	State Program	5	999615430	08-31-19 *
Wyoming (UST)	A2LA	8	2907.01	10-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Wood E&I Solutions Inc
Project/Site: Cave Creek Landfill - GW

Job ID: 550-125174-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
5030B	Purge and Trap	SW846	TAL DEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Eurofins TestAmerica, Phoenix
4625 East Cotton Center Boulevard
Suite 189
Phoenix, AZ 85040-4807
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

125174

eurofins Environment Testing TestAmerica

7/19/2019

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Project Manager: Natalie Chrisman
Email: natalie.chrisman@woodplc.com/ samantha.sargent@woodplc.com

Client Contact
Wood Environment & Infrastructure Solutions, Inc.
4600 E Washington St Suite 600
Phoenix, AZ 85034
(602) 733-60000
(xxx) xxx-xxxx FAX
Project Name: Cave Creek Landfill
Site: Cave Creek GW 14-2019-2004
P O #

Tel/Fax: 602-733-6000

Analysis Turnaround Time
☐ CALENDAR DAYS ☐ WORKING DAYS
TAT if different from Below STANDARD
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

Site Contact: Samantha Sargent
Lab Contact: Rachel Sester
Date: 7.1.19
Carrier:

COC No: 1 of 1 COCs
Sampler: Eric Miller
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	8260B VOCs - see List	Sample Specific Notes:
EW01-713-070119 -01	7.1.19	925	G	AQ	3			X	
EW01-738-070119 -02	↓	930	G	AQ	3			X	
DUP01-070119 -03	↓	940	G	AQ	3			X	

550-125174 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

TA-PHX

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company: Wood	Date/Time: 7.1.19 1312	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company: CDD	Date/Time:	Received in Laboratory by:	Company: TA Phx Lab	Date/Time: 07-01-19 13:12

Temp 4.0-C

8260B	ACETONE	ug/l
8260B	BENZENE	ug/l
8260B	BROMOBENZENE	ug/l
8260B	BROMODICHLOROMETHANE	ug/l
8260B	BROMOFORM	ug/l
8260B	BROMOMETHANE	ug/l
8260B	1,3-BUTADIENE	ug/l
8260B	N-BUTYLBENZENE	ug/l
8260B	SEC-BUTYLBENZENE	ug/l
8260B	TERT-BUTYLBENZENE	ug/l
8260B	CARBON TETRACHLORIDE	ug/l
8260B	CARBON DISULFIDE	ug/l
8260B	CHLOROBENZENE	ug/l
8260B	CHLORODIBROMOMETHANE	ug/l
8260B	CHLOROETHANE	ug/l
8260B	CHLOROFORM	ug/l
8260B	CHLOROMETHANE	ug/l
8260B	CYCLOHEXANE	ug/l
8260B	2-CHLOROTOLUENE	ug/l
8260B	4-CHLOROTOLUENE	ug/l
8260B	1,2-DIBROMO-3-CHLOROPROPANE	ug/l
8260B	1,2-DIBROMOETHANE	ug/l
8260B	DIBROMOMETHANE	ug/l
8260B	1,2-DICHLOROBENZENE	ug/l
8260B	1,3-DICHLOROBENZENE	ug/l
8260B	1,4-DICHLOROBENZENE	ug/l
8260B	DICHLORODIFLUOROMETHANE	ug/l
8260B	1,1-DICHLOROETHANE	ug/l
8260B	1,2-DICHLOROETHANE	ug/l
8260B	1,1-DICHLOROETHENE	ug/l
8260B	CIS-1,2-DICHLOROETHENE	ug/l
8260B	TRANS-1,2-DICHLOROETHENE	ug/l
8260B	1,2-DICHLOROPROPANE	ug/l
8260B	1,1-DICHLOROPROPENE	ug/l
8260B	1,3-DICHLOROPROPANE	ug/l
8260B	CIS-1,3-DICHLOROPROPENE	ug/l
8260B	TRANS-1,3-DICHLOROPROPENE	ug/l
8260B	2,2-DICHLOROPROPANE	ug/l
8260B	DICYCLOPENTADIENE	ug/l
8260B	DI-ISOPROPYL ETHER	ug/l
8260B	ETHYLBENZENE	ug/l
8260B	4-ETHYLTOLUENE	ug/l
8260B	HEXACHLORO-1,3-BUTADIENE	ug/l
8260B	N-HEXANE	ug/l
8260B	ISOPROPYLBENZENE	ug/l
8260B	P-ISOPROPYLTOLUENE	ug/l
8260B	2-BUTANONE (MEK)	ug/l

8260B	METHYL CYCLOHEXANE	ug/l
8260B	METHYLENE CHLORIDE	ug/l
8260B	4-METHYL-2-PENTANONE (MIBK)	ug/l
8260B	METHYL TERT-BUTYL ETHER	ug/l
8260B	NAPHTHALENE	ug/l
8260B	PROPENE	ug/l
8260B	N-PROPYLBENZENE	ug/l
8260B	STYRENE	ug/l
8260B	1,1,1,2-TETRACHLOROETHANE	ug/l
8260B	1,1,2,2-TETRACHLOROETHANE	ug/l
8260B	1,1,2-TRICHLOROTRIFLUOROETHANE	ug/l
8260B	TETRACHLOROETHENE	ug/l
8260B	TOLUENE	ug/l
8260B	1,2,3-TRICHLOROBENZENE	ug/l
8260B	1,2,4-TRICHLOROBENZENE	ug/l
8260B	1,1,1-TRICHLOROETHANE	ug/l
8260B	1,1,2-TRICHLOROETHANE	ug/l
8260B	TRICHLOROETHENE	ug/l
8260B	TRICHLOROFLUOROMETHANE	ug/l
8260B	1,2,3-TRICHLOROPROPANE	ug/l
8260B	1,2,4-TRIMETHYLBENZENE	ug/l
8260B	1,2,3-TRIMETHYLBENZENE	ug/l
8260B	1,3,5-TRIMETHYLBENZENE	ug/l
8260B	VINYL CHLORIDE	ug/l
8260B	XYLENES, TOTAL	ug/l
8260B	TOLUENE-D8	% Rec
8260B	4-BROMOFLUOROBENZENE	% Rec
8260B	1,2-DICHLOROETHANE-D4	% Rec

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Phoenix, AZ 85040
Phone: 602-437-3340 Fax

550-125174 Chain of Custody

hain of Custody Record

eurofins Environment Testing TestAmerica

Lab PM: Sester, Rachel E	Carrier Tracking No(s):	COC No: 550-24993.1
E-Mail: rachel.sester@testamericainc.com	State of Origin: Arizona	Page: Page 1 of 1

Client Information (

Client Contact: Shipping/Receiving
Company: TestAmerica Laboratories, Inc.
Address: 4955 Yarrow Street,
City: Arvada
State, Zip: CO, 80002
Phone: 303-736-0100(Tel) 303-431-7171(Fax)
Email:
Project Name: Cave Creek Landfill - GW
Site:

Due Date Requested: 7/12/2019
TAT Requested (days):
PO #:
WO #:
Project #: 55013002
SSOW#:

Accreditations Required (See note): State Program - Arizona

Job #: 550-125174-1

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B/5030B (MOD) Standard List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
EW01-713-070119 (550-125174-1)	7/1/19	09:25 Arizona		Water			X	3	
EW01-738-070119 (550-125174-2)	7/1/19	09:30 Arizona		Water			X	3	
DUP01-070119 (550-125174-3)	7/1/19	09:40 Arizona		Water			X	3	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: Time: Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[illegible]	07-05-19 1440	TAL	[illegible]	7/6/19 0845	GTA den

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 1.6, IR8 + 0 HW 7/6/19

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Wood E&I Solutions Inc

Job Number: 550-125174-1

Login Number: 125174
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Wood E&I Solutions Inc

Job Number: 550-125174-1

Login Number: 125174
List Number: 2
Creator: Paul, Ryan D

List Source: Eurofins TestAmerica, Denver
List Creation: 07/06/19 12:20 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Wood Environment & Infrastructure Soln.

CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

1420192004

SGS Job Number: TD43898

Sampling Dates: 08/20/19 - 08/22/19

Report to:

Wood Environment & Infrastructure Soln.
4600 East Washington Street Suite 600
Phoenix, AZ 85034
Samantha.sargent@woodplc.com; emily.lodolce@woodplc.com

ATTN: Samantha Sargent

Total number of pages in report: **61**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

John Watson
Technical Director

Client Service contact: Anita Patel 713-271-4700

Certifications: TX (T104704220-19-33) AR (14-016-0) AZ (AZ0769) FL (E87628) KS (E-10366) LA (85695/04004) NJ (TX010) OK (2018-129) VA (10171)

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SGS North America Inc.

Sample Summary

Wood Environment & Infrastructure Soln.

Job No: TD43898

CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ
Project No: 1420192004

This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the RL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
TD43898-1	08/20/19	13:00		08/23/19	AQ	Water	MW09-718-082019
TD43898-2	08/20/19	12:20		08/23/19	AQ	Water	MW10-704-082019
TD43898-3	08/21/19	11:40		08/23/19	AQ	Water	MW11-712-082119
TD43898-4	08/22/19	12:20		08/23/19	AQ	Water	MW12-729-082219
TD43898-5	08/22/19	12:00		08/23/19	AQ	Water	MW13-752-082219
TD43898-6	08/20/19	08:25		08/23/19	AQ	Water	TSSV02-732-082019
TD43898-7	08/20/19	10:40		08/23/19	AQ	Water	TSSV03-760-082019
TD43898-8	08/20/19	09:50		08/23/19	AQ	Water	TSSV04-760-082019
TD43898-9	08/20/19	11:25		08/23/19	AQ	Water	TSSV05-760-082019
TD43898-10	08/22/19	13:15		08/23/19	AQ	Water	TSSV06-729-082219
TD43898-11	08/22/19	11:30		08/23/19	AQ	Water	TSSVO7-742-082219
TD43898-12	08/21/19	16:30		08/23/19	AQ	Water	DUP03-082119

SGS North America Inc.

Sample Summary

(continued)

Wood Environment & Infrastructure Soln.

Job No: TD43898

CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ
Project No: 1420192004

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
TD43898-13	08/22/19	00:00		08/23/19	AQ	Trip Blank Water	TRIP BLANK-082219

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Wood Environment & Infrastructure Soln.	**Job No**	TD43898
Site:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ	**Report Date**	8/30/2019 9:22:46 AM

12 Samples were collected on between 08/20/2019 and 08/22/2019 and received intact at SGS North America Inc (SGS) on 08/23/2019 and properly preserved in 1 cooler at 2.7 Deg C. The samples received an SGS job number of TD43898. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** VZ6410

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- TD43898-2: AZ:D2
- VZ6410-BSD: Insufficient sample available for MS/MSD. AZ:Q9
- TD43898-2 for 2,2-Dichloropropane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD43898-13 for 2,2-Dichloropropane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD43898-1 for 2,2-Dichloropropane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD43898-5 for 2,2-Dichloropropane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD43898-12 for 2,2-Dichloropropane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD43898-3 for 2,2-Dichloropropane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD43898-6 for 2,2-Dichloropropane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD43898-7 for 2,2-Dichloropropane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD43898-8 for 2,2-Dichloropropane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD43898-9 for 2,2-Dichloropropane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD43898-10 for 2,2-Dichloropropane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD43898-11 for 2,2-Dichloropropane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD43898-4 for 2,2-Dichloropropane: Associated CCV outside of control limits high, sample was ND. AZ:V1

SGS certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS and as stated on the COC. SGS certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Quality Manual except as noted above. This report is to be used in its entirety. SGS is not responsible for any assumptions of data quality if partial data packages are used.

Summary of Hits

Job Number: TD43898
Account: Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ
Collected: 08/20/19 thru 08/22/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
TD43898-1	**MW09-718-082019**					
Trichloroethylene		22.7	1.0		ug/l	SW846 8260C
TD43898-2	**MW10-704-082019**					
1,1-Dichloroethylene [a]		7.7	2.5		ug/l	SW846 8260C
cis-1,2-Dichloroethylene [a]		23.3	2.5		ug/l	SW846 8260C
Tetrachloroethylene [a]		8.8	2.5		ug/l	SW846 8260C
Trichloroethylene [a]		361	2.5		ug/l	SW846 8260C
TD43898-3	**MW11-712-082119**					
1,1-Dichloroethylene		1.3	1.0		ug/l	SW846 8260C
Trichloroethylene		31.9	1.0		ug/l	SW846 8260C
TD43898-4	**MW12-729-082219**					
No hits reported in this sample.						
TD43898-5	**MW13-752-082219**					
1,1-Dichloroethylene		2.4	1.0		ug/l	SW846 8260C
Tetrachloroethylene		1.3	1.0		ug/l	SW846 8260C
Trichloroethylene		3.8	1.0		ug/l	SW846 8260C
TD43898-6	**TSSV02-732-082019**					
No hits reported in this sample.						
TD43898-7	**TSSV03-760-082019**					
1,1-Dichloroethylene		2.2	1.0		ug/l	SW846 8260C
cis-1,2-Dichloroethylene		6.8	1.0		ug/l	SW846 8260C
Tetrachloroethylene		2.1	1.0		ug/l	SW846 8260C
Trichloroethylene		109	1.0		ug/l	SW846 8260C
TD43898-8	**TSSV04-760-082019**					
1,1-Dichloroethylene		5.2	1.0		ug/l	SW846 8260C
cis-1,2-Dichloroethylene		6.5	1.0		ug/l	SW846 8260C
Freon 113		1.2	1.0		ug/l	SW846 8260C
Tetrachloroethylene		5.5	1.0		ug/l	SW846 8260C
Trichloroethylene		106	1.0		ug/l	SW846 8260C

Summary of Hits

Job Number: TD43898
Account: Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ
Collected: 08/20/19 thru 08/22/19

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
TD43898-9	**TSSV05-760-082019**					
Trichloroethylene		2.9	1.0		ug/l	SW846 8260C
TD43898-10	**TSSV06-729-082219**					
Trichloroethylene		1.5	1.0		ug/l	SW846 8260C
TD43898-11	**TSSVO7-742-082219**					
No hits reported in this sample.						
TD43898-12	**DUP03-082119**					
1,1-Dichloroethylene		1.4	1.0		ug/l	SW846 8260C
Trichloroethylene		32.3	1.0		ug/l	SW846 8260C
TD43898-13	**TRIP BLANK-082219**					
No hits reported in this sample.						

(a) AZ:D2

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW09-718-082019		
Lab Sample ID:	TD43898-1	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78142.D	1	08/29/19 12:20	FT	n/a	n/a	VZ6410
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane [a]	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW09-718-082019		
Lab Sample ID:	TD43898-1	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	22.7	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW09-718-082019		
Lab Sample ID:	TD43898-1	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		72-122%
17060-07-0	1,2-Dichloroethane-D4	101%		68-124%
2037-26-5	Toluene-D8	102%		80-119%
460-00-4	4-Bromofluorobenzene	106%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-704-082019		
Lab Sample ID:	TD43898-2	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	Z78158.D	2.5	08/29/19 18:50	FT	n/a	n/a	VZ6410
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	130	ug/l	
71-43-2	Benzene	ND	2.5	ug/l	
108-86-1	Bromobenzene	ND	2.5	ug/l	
75-27-4	Bromodichloromethane	ND	2.5	ug/l	
75-25-2	Bromoform	ND	2.5	ug/l	
106-99-0	1,3-Butadiene	ND	2.5	ug/l	
104-51-8	n-Butylbenzene	ND	2.5	ug/l	
135-98-8	sec-Butylbenzene	ND	2.5	ug/l	
98-06-6	tert-Butylbenzene	ND	2.5	ug/l	
108-90-7	Chlorobenzene	ND	2.5	ug/l	
75-00-3	Chloroethane	ND	2.5	ug/l	
67-66-3	Chloroform	ND	2.5	ug/l	
95-49-8	o-Chlorotoluene	ND	2.5	ug/l	
106-43-4	p-Chlorotoluene	ND	2.5	ug/l	
75-15-0	Carbon disulfide	ND	13	ug/l	
56-23-5	Carbon tetrachloride	ND	2.5	ug/l	
110-82-7	Cyclohexane	ND	13	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.5	ug/l	
75-35-4	1,1-Dichloroethylene	7.7	2.5	ug/l	
563-58-6	1,1-Dichloropropene	ND	2.5	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.5	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.5	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.5	ug/l	
142-28-9	1,3-Dichloropropane	ND	2.5	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.5	ug/l	
594-20-7	2,2-Dichloropropane [b]	ND	2.5	ug/l	
124-48-1	Dibromochloromethane	ND	2.5	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	23.3	2.5	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.5	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-704-082019		
Lab Sample ID:	TD43898-2	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	2.5	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.5	ug/l	
77-73-6	Dicyclopentadiene	ND	2.5	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.5	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	ug/l	
100-41-4	Ethylbenzene	ND	2.5	ug/l	
76-13-1	Freon 113	ND	2.5	ug/l	
110-54-3	Hexane	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.5	ug/l	
98-82-8	Isopropylbenzene	ND	2.5	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.5	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	25	ug/l	
74-83-9	Methyl bromide	ND	2.5	ug/l	
74-87-3	Methyl chloride	ND	2.5	ug/l	
108-87-2	Methylcyclohexane	ND	2.5	ug/l	
74-95-3	Methylene bromide	ND	2.5	ug/l	
75-09-2	Methylene chloride	ND	13	ug/l	
78-93-3	Methyl ethyl ketone	ND	25	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.5	ug/l	
91-20-3	Naphthalene	ND	13	ug/l	
103-65-1	n-Propylbenzene	ND	2.5	ug/l	
100-42-5	Styrene	ND	2.5	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.5	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.5	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.5	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	ug/l	
127-18-4	Tetrachloroethylene	8.8	2.5	ug/l	
108-88-3	Toluene	ND	2.5	ug/l	
79-01-6	Trichloroethylene	361	2.5	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.5	ug/l	
75-01-4	Vinyl chloride	ND	2.5	ug/l	
1330-20-7	Xylene (total)	ND	2.5	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-704-082019		
Lab Sample ID:	TD43898-2	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		72-122%
17060-07-0	1,2-Dichloroethane-D4	98%		68-124%
2037-26-5	Toluene-D8	105%		80-119%
460-00-4	4-Bromofluorobenzene	107%		72-126%

CAS No.	Tentatively Identified Compounds [c]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) AZ:D2
(b) Associated CCV outside of control limits high, sample was ND. AZ:V1
(c) Propylene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-712-082119		
Lab Sample ID:	TD43898-3	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78143.D	1	08/29/19 12:45	FT	n/a	n/a	VZ6410
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	1.3	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane [a]	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-712-082119		
Lab Sample ID:	TD43898-3	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	31.9	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-712-082119		
Lab Sample ID:	TD43898-3	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		72-122%
17060-07-0	1,2-Dichloroethane-D4	101%		68-124%
2037-26-5	Toluene-D8	104%		80-119%
460-00-4	4-Bromofluorobenzene	107%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW12-729-082219		
Lab Sample ID:	TD43898-4	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78144.D	1	08/29/19 13:09	FT	n/a	n/a	VZ6410
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane [a]	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW12-729-082219		
Lab Sample ID:	TD43898-4	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW12-729-082219		
Lab Sample ID:	TD43898-4	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		72-122%
17060-07-0	1,2-Dichloroethane-D4	101%		68-124%
2037-26-5	Toluene-D8	104%		80-119%
460-00-4	4-Bromofluorobenzene	108%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW13-752-082219		
Lab Sample ID:	TD43898-5	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78145.D	1	08/29/19 13:34	FT	n/a	n/a	VZ6410
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	2.4	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane [a]	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13-752-082219		
Lab Sample ID:	TD43898-5	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	1.3	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	3.8	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13-752-082219		
Lab Sample ID:	TD43898-5	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		72-122%
17060-07-0	1,2-Dichloroethane-D4	101%		68-124%
2037-26-5	Toluene-D8	104%		80-119%
460-00-4	4-Bromofluorobenzene	108%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV02-732-082019		
Lab Sample ID:	TD43898-6	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78146.D	1	08/29/19 13:58	FT	n/a	n/a	VZ6410
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane [a]	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV02-732-082019		
Lab Sample ID:	TD43898-6	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV02-732-082019		
Lab Sample ID:	TD43898-6	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		72-122%
17060-07-0	1,2-Dichloroethane-D4	100%		68-124%
2037-26-5	Toluene-D8	105%		80-119%
460-00-4	4-Bromofluorobenzene	106%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	TSSV03-760-082019		
Lab Sample ID:	TD43898-7	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78147.D	1	08/29/19 14:22	FT	n/a	n/a	VZ6410
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	2.2	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane [a]	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	6.8	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV03-760-082019		
Lab Sample ID:	TD43898-7	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	2.1	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	109	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV03-760-082019		
Lab Sample ID:	TD43898-7	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		72-122%
17060-07-0	1,2-Dichloroethane-D4	100%		68-124%
2037-26-5	Toluene-D8	105%		80-119%
460-00-4	4-Bromofluorobenzene	106%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	TSSV04-760-082019		
Lab Sample ID:	TD43898-8	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78148.D	1	08/29/19 14:46	FT	n/a	n/a	VZ6410
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	5.2	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane [a]	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	6.5	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV04-760-082019		
Lab Sample ID:	TD43898-8	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	1.2	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	5.5	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	106	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV04-760-082019		
Lab Sample ID:	TD43898-8	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		72-122%
17060-07-0	1,2-Dichloroethane-D4	100%		68-124%
2037-26-5	Toluene-D8	103%		80-119%
460-00-4	4-Bromofluorobenzene	107%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	TSSV05-760-082019		
Lab Sample ID:	TD43898-9	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78149.D	1	08/29/19 15:11	FT	n/a	n/a	VZ6410
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane [a]	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV05-760-082019		
Lab Sample ID:	TD43898-9	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	2.9	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV05-760-082019		
Lab Sample ID:	TD43898-9	**Date Sampled:**	08/20/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		72-122%
17060-07-0	1,2-Dichloroethane-D4	102%		68-124%
2037-26-5	Toluene-D8	105%		80-119%
460-00-4	4-Bromofluorobenzene	107%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV06-729-082219		
Lab Sample ID:	TD43898-10	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78150.D	1	08/29/19 15:35	FT	n/a	n/a	VZ6410
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane [a]	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV06-729-082219		
Lab Sample ID:	TD43898-10	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	1.5	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV06-729-082219		
Lab Sample ID:	TD43898-10	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		72-122%
17060-07-0	1,2-Dichloroethane-D4	101%		68-124%
2037-26-5	Toluene-D8	104%		80-119%
460-00-4	4-Bromofluorobenzene	106%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	.63	9.2	ug/l	JN
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSVO7-742-082219		
Lab Sample ID:	TD43898-11	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78151.D	1	08/29/19 15:59	FT	n/a	n/a	VZ6410
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane [a]	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSVO7-742-082219		
Lab Sample ID:	TD43898-11	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSVO7-742-082219		
Lab Sample ID:	TD43898-11	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		72-122%
17060-07-0	1,2-Dichloroethane-D4	102%		68-124%
2037-26-5	Toluene-D8	105%		80-119%
460-00-4	4-Bromofluorobenzene	106%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP03-082119		
Lab Sample ID:	TD43898-12	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78152.D	1	08/29/19 16:24	FT	n/a	n/a	VZ6410
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	1.4	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane [a]	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP03-082119		
Lab Sample ID:	TD43898-12	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	32.3	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP03-082119		
Lab Sample ID:	TD43898-12	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		72-122%
17060-07-0	1,2-Dichloroethane-D4	101%		68-124%
2037-26-5	Toluene-D8	104%		80-119%
460-00-4	4-Bromofluorobenzene	106%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-082219		
Lab Sample ID:	TD43898-13	**Date Sampled:**	08/22/19
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78141.D	1	08/29/19 11:56	FT	n/a	n/a	VZ6410
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane [a]	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-082219		
Lab Sample ID:	TD43898-13	**Date Sampled:**	08/22/19
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-082219		
Lab Sample ID:	TD43898-13	**Date Sampled:**	08/22/19
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		72-122%
17060-07-0	1,2-Dichloroethane-D4	101%		68-124%
2037-26-5	Toluene-D8	104%		80-119%
460-00-4	4-Bromofluorobenzene	106%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: TD43898
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
D2	Sample required dilution due to high concentration of target analyte.
N1	See case narrative.
Q9	Insufficient sample received to meet method QC requirements.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

SGS

CHAIN OF CUSTODY

SGS North America Inc. - Houston
10165 Harwin Dr, Ste 150 Houston, TX 77036
TEL. 713-271-4700 FAX: 713-271-4770
www.sgs.com/ehsusa

PAGE 1 OF 2

FED-EX Tracking # 7760 5859 4420
Bottle Order Control #
SGS Quote #
SGS Job # TD43898

Client / Reporting Information

Company Name: Wood E&IS
Street Address: 4600 E Washington St Suite 600
City: Phoenix State: AZ Zip: 85034
Project Contact: Samantha Sargent E-mail: samantha.sargent@woodplc.com
Phone #: 602-733-6000
Sampler(s) Name(s): E. Miller & J. Ramirez Phone #: 602-733-6000

Project Information

Project Name: Cave Creek Landfill
Street: 3955 E Carefree Highway
City: Cave Creek State: AZ
Project #: 1420192004.****.021
Client Purchase Order #:
Project Manager: Doug Fisher

Billing Information (if different from Report to)
Company Name: Wood E&IS
Street Address: 4600 E Washington St Suite 600
City: Phoenix State: AZ Zip: 85034
Attention: Samantha Sargent

Requested Analyses

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	Collection Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZnAc/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	Na2S2O3	ENCORE	OTHER	8260B VOCs	6010C Total Metals (See List)	300.0 General Chemistry (See List)	LAB USE ONLY
1	MW09-718-082019	8/20/19	13:00	Ramirez	W	3	3												X			
2	MW10-704-082019	8/20/19	12:20		W	3	3												X			
3	MW11-712-082119	8/21/19	11:40		W	3	3												X			
4	MW12-729-082219	8/22/19	12:20		W	3	3												X			
5	MW13-752-082219	8/22/19	12:00		W	3	3												X			
	~~EW01-712~~				W																	
6	TSSV02-732-082019	8/20/19	08:25		W	3	3												X			
7	TSSV03-760-082019	8/20/19	10:40		W	3	3												X			
8	TSSV04-760-082019	8/20/19	09:50		W	3	3												X			
9	TSSV05-760-082019	8/20/19	11:25		W	3	3												X			
10	TSSV06-729-082219	8/22/19	13:15		W	3	3												X			
11	TSSV07-742-082219	8/22/19	11:30	↓	W	3	3												X			

Turnaround Time (Business days)

- [x] Standard 10 Business Days
- [ ] 5 Business Days *RUSH*
- [ ] 4 Business Days *RUSH*
- [ ] 3 Business Days *RUSH*
- [ ] 2 Business Days *RUSH*
- [ ] 1 Business Day *EMERGENCY*

Approved By (SGS PM): / Date:

Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other ___

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw Data

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by:	Date / Time:	Received By:	Date / Time:	Relinquished By:	Date / Time:	Received By:	Date / Time:
1	8/22/19 1415	1	8/22/19 1415	2	8/22/19 1600	2 FedEx	8/22/19 1600
3		3	8/23/19 1020	4		4	
5		5					

Custody Seal # ☐ Intact ☐ Not intact ☐ Absent Preserved where applicable ☐ On Ice ☐ Cooler Temp. °C Therm. ID

http://www.sgs.com/en/terms-and-conditions

EHSA-QAC-0024-00-FORM-Houston - Standard COC

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TD43898: Chain of Custody
Page 1 of 5

CHAIN OF CUSTODY

SGS North America Inc. - Houston
10165 Harwin Dr, Ste 150 Houston, TX 77036
TEL. 713-271-4700 FAX: 713-271-4770
www.sgs.com/ehsusa

FED-EX Tracking # 7760 5859 4420
Bottle Order Control #
SGS Quote #
SGS Job # TD43898

Client / Reporting Information

Company Name: Wood E&IS
Street Address: 4600 E Washington St Suite 600
City: Phoenix State: AZ Zip: 85034
Project Contact: Samantha Sargent E-mail: samantha.sargent@woodplc.com
Phone #: 602-733-6000
Sampler(s) Name(s): E. Miller & J. Ramirez Phone #: 602-733-6000

Project Information

Project Name: Cave Creek Landfill
Street: 3955 E Carefree Highway
City: Cave Creek State: AZ
Project #: 1420192004.****.021
Client Purchase Order #
Project Manager: Doug Fisher

Billing Information (if different from Report to)
Company Name: Wood E&IS
Street Address: 4600 E Washington St Suite 600
City: Phoenix State: AZ Zip: 85034
Attention: Samantha Sargent

Requested Analyses

SGS Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZnAc/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	Na2S2O3	ENCORE	OTHER	8260B VOCs	6010C Total Metals (See List)	300.0 General Chemistry (See List)	LAB USE ONLY
12	DUP03-082219	8/21/19	16:30	Ramirez	W	3	3												X			
13	Trip Blank-082219	8/22/19	—	↓	W	2																
	Temperature Blank-082219	8/22/19	—	↓	W	1																
					W																	
					W																	
					W																	
					W																	
					W																	
					W																	
					W																	
					W																	

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

Turnaround Time (Business days)

- [x] Standard 10 Business Days
- [ ] 5 Business Days *RUSH*
- [ ] 4 Business Days *RUSH*
- [ ] 3 Business Days *RUSH*
- [ ] 2 Business Days *RUSH*
- [ ] 1 Business Day *EMERGENCY*

Approved By (SGS PM): / Date:

Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other ___

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw Data

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by	Date / Time	Received By	Date / Time	Relinquished By	Date / Time	Received By	Date / Time
1	8/22/19 1415	2	8/22/19 1415	2	8/22/19 1600	2 Fed Ex	8/22/19 1600
3		3	8/23/19 1025	4		4	
5		5		Custody Seal #	Intact / Not intact / Absent	Preserved where applicable	On Ice / Cooler Temp. °C / Therm. ID

http://www.sgs.com/en/terms-and-conditions

EHSA-QAC-0024-00-FORM-Houston - Standard COC

5.2 5

TD43898: Chain of Custody
Page 2 of 5

SGS Sample Receipt Summary

Job Number: TD43898 **Client:** WOOD **Project:** CAVE CREEK LANDFILL

Date / Time Received: 8/23/2019 10:25:00 AM **Delv Method:** FEDEX **Airbill #'s:** 776058594420

# of Coolers: 1 **Therm ID:** IR-9; **Temp Adjustment Factor:** 0;

Cooler Temps (Initial/Adjusted): #1: (2.7/2.7);

Test Strip Lot #s: **pH 1-12:** _____ **pH 12+:** _____ **Other: (Specify)** _____ _____

Cooler Information	Y	or	N
1. Custody Seals Present:	☑		☐
2. Custody Seals Intact:	☑		☐
3. Temp criteria achieved:	☑		☐
4. Cooler temp verification:			
3. Cooler media:	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Type Of TB Received	W	or	S	N/A
	☐		☐	☐

Misc. Information

Number of terracores: _____ Number of Lab Filtered Metals: _____

Number of 5035 Field Kits: _____

Residual Chlorine Test Strip Lot #: _____

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles:	☑		☐	
2. Samples preserved properly:	☑		☐	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Condition of sample:		Intact		
5. Sample recvd within HT:	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. Container labeling complete:	☑		☐	
8. Analysis requested is clear:	☑		☐	
9. VOCs headspace free:	☑		☐	☐
10. Bottles received for unspecified tests	☐		☑	
11. COC Present:	☑		☐	
12. Special Instructions (compositing/filtering) clear:	☐		☐	☑
13. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☐
14. % Solids Jar received?	☐		☐	☐
15. Residual Chlorine Present?	☐		☐	☐

Comments

Sample Receipt Log

Job #: TD43898 **Date / Time Received:** 8/23/2019 10:25:00 AM **Initials:** BELINDG

Client: WOOD

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TD43898-1	40ml	1	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-1	40ml	2	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-1	40ml	3	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-2	40ml	1	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-2	40ml	2	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-2	40ml	3	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-3	40ml	1	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-3	40ml	2	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-3	40ml	3	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-4	40ml	1	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-4	40ml	2	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-5	40ml	1	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-5	40ml	2	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-5	40ml	3	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-6	40ml	1	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-6	40ml	2	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-6	40ml	3	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-7	40ml	1	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-7	40ml	2	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-7	40ml	3	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-8	40ml	1	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-8	40ml	2	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7
1	TD43898-8	40ml	3	VR222	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	2.7	0	2.7

Sample Receipt Log

Job #: TD43898 **Date / Time Received:** 8/23/2019 10:25:00 AM **Initials:** BELINDG

Client: WOOD

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
	TD43898-9	40ml	1	VR218	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43898-9	40ml	2	VR218	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43898-9	40ml	3	VR218	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43898-10	40ml	1	VR218	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43898-10	40ml	2	VR218	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43898-11	40ml	1	VR218	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43898-11	40ml	2	VR218	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43898-11	40ml	3	VR218	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43898-12	40ml	1	VR218	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43898-12	40ml	2	VR218	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43898-12	40ml	3	VR218	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43898-13	40ml	1	VR218	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43898-13	40ml	2	VR218	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: TD43898
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ6410-MB	Z78138.D	1	08/29/19	FT	n/a	n/a	VZ6410

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD43898-1, TD43898-2, TD43898-3, TD43898-4, TD43898-5, TD43898-6, TD43898-7, TD43898-8, TD43898-9, TD43898-10, TD43898-11, TD43898-12, TD43898-13

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	

Method Blank Summary

Job Number: TD43898
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ6410-MB	Z78138.D	1	08/29/19	FT	n/a	n/a	VZ6410

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD43898-1, TD43898-2, TD43898-3, TD43898-4, TD43898-5, TD43898-6, TD43898-7, TD43898-8, TD43898-9, TD43898-10, TD43898-11, TD43898-12, TD43898-13

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

Method Blank Summary

Job Number: TD43898
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ6410-MB	Z78138.D	1	08/29/19	FT	n/a	n/a	VZ6410

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD43898-1, TD43898-2, TD43898-3, TD43898-4, TD43898-5, TD43898-6, TD43898-7, TD43898-8, TD43898-9, TD43898-10, TD43898-11, TD43898-12, TD43898-13

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	72-122%
17060-07-0	1,2-Dichloroethane-D4	100%	68-124%
2037-26-5	Toluene-D8	103%	80-119%
460-00-4	4-Bromofluorobenzene	106%	72-126%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike/Blank Spike Duplicate Summary

Job Number: TD43898
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ6410-BS	Z78135.D	5	08/29/19	FT	n/a	n/a	VZ6410
VZ6410-BSD [a]	Z78136.D	5	08/29/19	FT	n/a	n/a	VZ6410

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD43898-1, TD43898-2, TD43898-3, TD43898-4, TD43898-5, TD43898-6, TD43898-7, TD43898-8, TD43898-9, TD43898-10, TD43898-11, TD43898-12, TD43898-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	625	562	90	518	83	8	46-129/30
71-43-2	Benzene	125	116	93	111	89	4	68-119/30
108-86-1	Bromobenzene	125	119	95	116	93	3	71-119/30
75-27-4	Bromodichloromethane	125	121	97	115	92	5	72-118/30
75-25-2	Bromoform	125	107	86	102	82	5	54-123/30
106-99-0	1,3-Butadiene	125	122	98	114	91	7	37-172/30
104-51-8	n-Butylbenzene	125	134	107	130	104	3	66-123/30
135-98-8	sec-Butylbenzene	125	133	106	129	103	3	72-123/30
98-06-6	tert-Butylbenzene	125	127	102	120	96	6	70-124/30
108-90-7	Chlorobenzene	125	123	98	115	92	7	74-120/30
75-00-3	Chloroethane	125	132	106	129	103	2	61-132/30
67-66-3	Chloroform	125	122	98	117	94	4	73-122/30
95-49-8	o-Chlorotoluene	125	123	98	120	96	2	71-122/30
106-43-4	p-Chlorotoluene	125	122	98	119	95	2	73-120/30
75-15-0	Carbon disulfide	125	128	102	122	98	5	55-140/30
56-23-5	Carbon tetrachloride	125	125	100	118	94	6	68-133/30
110-82-7	Cyclohexane	125	132	106	125	100	5	57-160/30
75-34-3	1,1-Dichloroethane	125	122	98	117	94	4	72-121/30
75-35-4	1,1-Dichloroethylene	125	125	100	115	92	8	67-140/30
563-58-6	1,1-Dichloropropene	125	120	96	118	94	2	73-130/30
96-12-8	1,2-Dibromo-3-chloropropane	125	113	90	108	86	5	47-133/30
106-93-4	1,2-Dibromoethane	125	124	99	120	96	3	69-121/30
107-06-2	1,2-Dichloroethane	125	117	94	112	90	4	68-121/30
78-87-5	1,2-Dichloropropane	125	126	101	119	95	6	72-116/30
142-28-9	1,3-Dichloropropane	125	117	94	111	89	5	70-118/30
108-20-3	Di-Isopropyl ether	125	126	101	120	96	5	67-117/30
594-20-7	2,2-Dichloropropane	125	148	118	140	112	6	57-141/30
124-48-1	Dibromochloromethane	125	117	94	111	89	5	68-119/30
75-71-8	Dichlorodifluoromethane	125	120	96	118	94	2	29-182/30
156-59-2	cis-1,2-Dichloroethylene	125	123	98	118	94	4	72-117/30
10061-01-5	cis-1,3-Dichloropropene	125	113	90	109	87	4	71-118/30
541-73-1	m-Dichlorobenzene	125	124	99	120	96	3	73-117/30
95-50-1	o-Dichlorobenzene	125	122	98	116	93	5	71-117/30
106-46-7	p-Dichlorobenzene	125	116	93	113	90	3	71-116/30
77-73-6	Dicyclopentadiene	125	132	106	126	101	5	57-144/30
156-60-5	trans-1,2-Dichloroethylene	125	124	99	115	92	8	68-124/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: TD43898
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ6410-BS	Z78135.D	5	08/29/19	FT	n/a	n/a	VZ6410
VZ6410-BSD [a]	Z78136.D	5	08/29/19	FT	n/a	n/a	VZ6410

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD43898-1, TD43898-2, TD43898-3, TD43898-4, TD43898-5, TD43898-6, TD43898-7, TD43898-8, TD43898-9, TD43898-10, TD43898-11, TD43898-12, TD43898-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	125	121	97	113	90	7	72-127/30
100-41-4	Ethylbenzene	125	127	102	119	95	7	71-117/30
76-13-1	Freon 113	125	127	102	121	97	5	57-167/30
110-54-3	Hexane	125	125	100	118	94	6	44-179/30
87-68-3	Hexachlorobutadiene	125	126	101	121	97	4	62-143/30
98-82-8	Isopropylbenzene	125	134	107	128	102	5	74-141/30
99-87-6	p-Isopropyltoluene	125	128	102	123	98	4	72-126/30
108-10-1	4-Methyl-2-pentanone	625	565	90	537	86	5	54-122/30
74-83-9	Methyl bromide	125	127	102	127	102	0	53-138/30
74-87-3	Methyl chloride	125	128	102	126	101	2	50-145/30
108-87-2	Methylcyclohexane	125	128	102	121	97	6	54-162/30
74-95-3	Methylene bromide	125	123	98	115	92	7	71-117/30
75-09-2	Methylene chloride	125	121	97	114	91	6	60-125/30
78-93-3	Methyl ethyl ketone	625	617	99	580	93	6	51-129/30
1634-04-4	Methyl Tert Butyl Ether	125	130	104	125	100	4	65-119/30
91-20-3	Naphthalene	125	124	99	120	96	3	43-139/30
103-65-1	n-Propylbenzene	125	126	101	121	97	4	72-123/30
100-42-5	Styrene	125	122	98	114	91	7	74-119/30
630-20-6	1,1,1,2-Tetrachloroethane	125	127	102	116	93	9	74-119/30
71-55-6	1,1,1-Trichloroethane	125	130	104	123	98	6	72-129/30
79-34-5	1,1,2,2-Tetrachloroethane	125	122	98	120	96	2	62-121/30
79-00-5	1,1,2-Trichloroethane	125	126	101	118	94	7	70-119/30
87-61-6	1,2,3-Trichlorobenzene	125	123	98	120	96	2	44-144/30
96-18-4	1,2,3-Trichloropropane	125	113	90	108	86	5	61-124/30
120-82-1	1,2,4-Trichlorobenzene	125	127	102	122	98	4	57-132/30
95-63-6	1,2,4-Trimethylbenzene	125	123	98	120	96	2	70-121/30
108-67-8	1,3,5-Trimethylbenzene	125	129	103	125	100	3	66-119/30
127-18-4	Tetrachloroethylene	125	124	99	118	94	5	72-132/30
108-88-3	Toluene	125	122	98	114	91	7	73-119/30
79-01-6	Trichloroethylene	125	120	96	115	92	4	73-121/30
75-69-4	Trichlorofluoromethane	125	129	103	131	105	2	46-152/30
75-01-4	Vinyl chloride	125	126	101	128	102	2	54-126/30
1330-20-7	Xylene (total)	375	380	101	359	96	6	74-119/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: TD43898
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ6410-BS	Z78135.D	5	08/29/19	FT	n/a	n/a	VZ6410
VZ6410-BSD [a]	Z78136.D	5	08/29/19	FT	n/a	n/a	VZ6410

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD43898-1, TD43898-2, TD43898-3, TD43898-4, TD43898-5, TD43898-6, TD43898-7, TD43898-8, TD43898-9, TD43898-10, TD43898-11, TD43898-12, TD43898-13

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	100%	100%	72-122%
17060-07-0	1,2-Dichloroethane-D4	102%	101%	68-124%
2037-26-5	Toluene-D8	101%	100%	80-119%
460-00-4	4-Bromofluorobenzene	100%	101%	72-126%

(a) Insufficient sample available for MS/MSD. AZ:Q9

* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Maricopa County Waste Resources & RD

Cave Creek Landfill-Groundwater

SGS Job Number: TD43905

Sampling Dates: 08/21/19 - 08/22/19

Report to:

Wood Environment & Infrastructure Soln.

Samantha.sargent@amecfw.com

ATTN: Samantha Sargent

Total number of pages in report: **66**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

John Watson
Technical Director

Client Service contact: Anita Patel 713-271-4700

Certifications: TX (T104704220-19-34) AR (14-016-0) AZ (AZ0769) FL (E87628) KS (E-10366) LA (85695/04004) NJ (TX010) OK (2018-129) VA (10171)

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EHS.US.CustomerCare@sgs.com

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SGS LabLink@88894 08:41 12-Nov-2019

Sample Summary

Maricopa County Waste Resources & RD

Cave Creek Landfill-Groundwater

Job No: TD43905

This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the MDL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
TD43905-1	08/22/19	07:10		08/23/19	AQ	Water	PW-784-082219
TD43905-2	08/22/19	09:30		08/23/19	AQ	Water	MW02-714-082219
TD43905-3	08/21/19	18:00		08/23/19	AQ	Water	MW03-723-082119
TD43905-4	08/21/19	08:50		08/23/19	AQ	Water	MW04-708-082119
TD43905-5	08/22/19	08:55		08/23/19	AQ	Water	MW05-703-082219
TD43905-6	08/21/19	11:00		08/23/19	AQ	Water	MW06-720-082119
TD43905-7	08/21/19	09:45		08/23/19	AQ	Water	MW07-718-082119
TD43905-7D	08/21/19	09:45		08/23/19	AQ	Water Dup/MSD	MW07-718-082119 MSD
TD43905-7S	08/21/19	09:45		08/23/19	AQ	Water Matrix Spike	MW07-718-082119 MS
TD43905-8	08/22/19	10:10		08/23/19	AQ	Water	MW08-741-082219
TD43905-9	08/21/19	15:30		08/23/19	AQ	Water	DUP01-082119
TD43905-10	08/22/19	15:30		08/23/19	AQ	Water	DUP02-082219

2

Summary of Hits

Job Number: TD43905
Account: Maricopa County Waste Resources & RD
Project: Cave Creek Landfill-Groundwater
Collected: 08/21/19 thru 08/22/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
TD43905-1	**PW-784-082219**					
Acetone [a]		15.4 J	50	10	ug/l	SW846 8260C
Trichloroethylene [a]		0.63 J	1.0	0.41	ug/l	SW846 8260C
Arsenic [b]		0.0116	0.010		mg/l	SW846 6010C
Lead [b]		0.0192	0.010		mg/l	SW846 6010C
Vanadium [b]		0.0159	0.010		mg/l	SW846 6010C
Zinc [b]		0.0523	0.020		mg/l	SW846 6010C
Alkalinity, Total as CaCO3		209	5.0		mg/l	SM 2320B-2011
Chloride		20.5	0.70		mg/l	EPA 300.0
Nitrogen, Nitrate		1.4	0.50		mg/l	EPA 300.0
Solids, Total Dissolved		329	10		mg/l	SM 2540C-2011
Specific Conductivity [c]		548	1.0		umhos/cm	EPA 120.1
Sulfate		18.5	0.50		mg/l	EPA 300.0
pH [d]		7.88			su	SM 4500H+ B-2011
TD43905-2	**MW02-714-082219**					
Acetone [a]		24.6 J	50	10	ug/l	SW846 8260C
1,1-Dichloroethane		3.2	1.0	0.43	ug/l	SW846 8260C
1,1-Dichloroethylene		3.4	1.0	0.36	ug/l	SW846 8260C
Dichlorodifluoromethane [a]		1.1 J	2.0	0.67	ug/l	SW846 8260C
cis-1,2-Dichloroethylene		3.5	1.0	0.42	ug/l	SW846 8260C
Tetrachloroethylene		4.0	1.0	0.37	ug/l	SW846 8260C
Trichloroethylene		124	1.0	0.41	ug/l	SW846 8260C
Arsenic [b]		0.0126	0.010		mg/l	SW846 6010C
Barium [b]		0.0361	0.010		mg/l	SW846 6010C
Lead [b]		0.0153	0.010		mg/l	SW846 6010C
Zinc [b]		0.168	0.020		mg/l	SW846 6010C
Alkalinity, Total as CaCO3		310	5.0		mg/l	SM 2320B-2011
Chloride		17.8	0.70		mg/l	EPA 300.0
Solids, Total Dissolved		428	10		mg/l	SM 2540C-2011
Specific Conductivity [c]		725	1.0		umhos/cm	EPA 120.1
Sulfate		2.8	0.50		mg/l	EPA 300.0
pH [e]		7.65			su	SM 4500H+ B-2011
TD43905-3	**MW03-723-082119**					
Acetone [a]		11.6 J	50	10	ug/l	SW846 8260C
1,1-Dichloroethylene		1.2	1.0	0.36	ug/l	SW846 8260C
Trichloroethylene		1.8	1.0	0.41	ug/l	SW846 8260C
Barium [b]		0.0161	0.010		mg/l	SW846 6010C
Zinc [b]		0.337	0.020		mg/l	SW846 6010C
Alkalinity, Total as CaCO3		120	5.0		mg/l	SM 2320B-2011
Chloride		18.2	0.70		mg/l	EPA 300.0

Summary of Hits

Job Number: TD43905
Account: Maricopa County Waste Resources & RD
Project: Cave Creek Landfill-Groundwater
Collected: 08/21/19 thru 08/22/19

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Solids, Total Dissolved	186	10		mg/l	SM 2540C-2011
Specific Conductivity [c]	311	1.0		umhos/cm	EPA 120.1
Sulfate	1.3	0.50		mg/l	EPA 300.0
pH [f]	9.07			su	SM 4500H+ B-2011
TD43905-4 MW04-708-082119					
Acetone [a]	14.9 J	50	10	ug/l	SW846 8260C
Arsenic [b]	0.0122	0.010		mg/l	SW846 6010C
Barium [b]	0.0110	0.010		mg/l	SW846 6010C
Lead [b]	0.0131	0.010		mg/l	SW846 6010C
Vanadium [b]	0.0233	0.010		mg/l	SW846 6010C
Zinc [b]	0.0285	0.020		mg/l	SW846 6010C
Alkalinity, Total as CaCO3	206	5.0		mg/l	SM 2320B-2011
Chloride	22.3	0.70		mg/l	EPA 300.0
Solids, Total Dissolved	286	10		mg/l	SM 2540C-2011
Specific Conductivity [c]	505	1.0		umhos/cm	EPA 120.1
Sulfate	7.8	0.50		mg/l	EPA 300.0
pH [g]	7.58			su	SM 4500H+ B-2011
TD43905-5 MW05-703-082219					
Tetrachloroethylene [a]	0.40 J	1.0	0.37	ug/l	SW846 8260C
Trichloroethylene	53.9	1.0	0.41	ug/l	SW846 8260C
Barium [b]	0.0132	0.010		mg/l	SW846 6010C
Lead [b]	0.0139	0.010		mg/l	SW846 6010C
Zinc [b]	0.149	0.020		mg/l	SW846 6010C
Alkalinity, Total as CaCO3	207	5.0		mg/l	SM 2320B-2011
Chloride	18.1	0.70		mg/l	EPA 300.0
Solids, Total Dissolved	283	10		mg/l	SM 2540C-2011
Specific Conductivity [c]	484	1.0		umhos/cm	EPA 120.1
Sulfate	9.0	0.50		mg/l	EPA 300.0
pH [g]	7.79			su	SM 4500H+ B-2011
TD43905-6 MW06-720-082119					
Acetone [a]	13.4 J	50	10	ug/l	SW846 8260C
Trichloroethylene	1.7	1.0	0.41	ug/l	SW846 8260C
Lead [b]	0.0155	0.010		mg/l	SW846 6010C
Zinc [b]	0.129	0.020		mg/l	SW846 6010C
Alkalinity, Total as CaCO3	206	5.0		mg/l	SM 2320B-2011
Chloride	16.4	0.70		mg/l	EPA 300.0
Solids, Total Dissolved	261	10		mg/l	SM 2540C-2011
Specific Conductivity [c]	477	1.0		umhos/cm	EPA 120.1
Sulfate	14.5	0.50		mg/l	EPA 300.0

2

Summary of Hits

Job Number: TD43905
Account: Maricopa County Waste Resources & RD
Project: Cave Creek Landfill-Groundwater
Collected: 08/21/19 thru 08/22/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
pH [g]		8.34			su	SM 4500H+ B-2011
TD43905-7	**MW07-718-082119**					
Acetone [a]		16.1 J	50	10	ug/l	SW846 8260C
1,1-Dichloroethylene		1.2	1.0	0.36	ug/l	SW846 8260C
cis-1,2-Dichloroethylene [a]		0.66 J	1.0	0.42	ug/l	SW846 8260C
Tetrachloroethylene [a]		0.61 J	1.0	0.37	ug/l	SW846 8260C
Trichloroethylene		33.2	1.0	0.41	ug/l	SW846 8260C
Barium [b]		0.0171	0.010		mg/l	SW846 6010C
Zinc [b]		0.0752	0.020		mg/l	SW846 6010C
Alkalinity, Total as CaCO3		153	5.0		mg/l	SM 2320B-2011
Chloride		21.5	0.70		mg/l	EPA 300.0
Solids, Total Dissolved		210	10		mg/l	SM 2540C-2011
Specific Conductivity [c]		382	1.0		umhos/cm	EPA 120.1
Sulfate		0.98	0.50		mg/l	EPA 300.0
pH [g]		8.42			su	SM 4500H+ B-2011
TD43905-8	**MW08-741-082219**					
1,1-Dichloroethane [a]		0.60 J	1.0	0.43	ug/l	SW846 8260C
1,1-Dichloroethylene		6.1	1.0	0.36	ug/l	SW846 8260C
cis-1,2-Dichloroethylene [a]		0.43 J	1.0	0.42	ug/l	SW846 8260C
Tetrachloroethylene		1.3	1.0	0.37	ug/l	SW846 8260C
Trichloroethylene		48.2	1.0	0.41	ug/l	SW846 8260C
Lead [b]		0.0153	0.010		mg/l	SW846 6010C
Zinc [b]		0.270	0.020		mg/l	SW846 6010C
Alkalinity, Total as CaCO3		109	5.0		mg/l	SM 2320B-2011
Chloride		17.9	0.70		mg/l	EPA 300.0
Solids, Total Dissolved		155	10		mg/l	SM 2540C-2011
Specific Conductivity [c]		291	1.0		umhos/cm	EPA 120.1
pH [g]		8.65			su	SM 4500H+ B-2011
TD43905-9	**DUP01-082119**					
Acetone [a]		19.0 J	50	10	ug/l	SW846 8260C
Trichloroethylene		1.7	1.0	0.41	ug/l	SW846 8260C
Barium [b]		0.0136	0.010		mg/l	SW846 6010C
Zinc [b]		0.0206	0.020		mg/l	SW846 6010C
Alkalinity, Total as CaCO3		199	5.0		mg/l	SM 2320B-2011
Chloride		16.2	0.70		mg/l	EPA 300.0
Solids, Total Dissolved		274	10		mg/l	SM 2540C-2011
Specific Conductivity [c]		479	1.0		umhos/cm	EPA 120.1
Sulfate		14.5	0.50		mg/l	EPA 300.0
pH [f]		8.35			su	SM 4500H+ B-2011

2

Summary of Hits

Job Number: TD43905
Account: Maricopa County Waste Resources & RD
Project: Cave Creek Landfill-Groundwater
Collected: 08/21/19 thru 08/22/19

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
TD43905-10	**DUP02-082219**					
Acetone [a]		27.2 J	50	10	ug/l	SW846 8260C
1,1-Dichloroethane [a]		0.59 J	1.0	0.43	ug/l	SW846 8260C
1,1-Dichloroethylene		5.0	1.0	0.36	ug/l	SW846 8260C
cis-1,2-Dichloroethylene [a]		0.46 J	1.0	0.42	ug/l	SW846 8260C
Tetrachloroethylene		1.3	1.0	0.37	ug/l	SW846 8260C
Trichloroethylene		43.2	1.0	0.41	ug/l	SW846 8260C

(a) AZ:E4
(b) Analysis performed at SGS Scott, LA. Cert# AZ0805
(c) Conductivity results corrected to 25 degrees Celsius.
(d) Field analysis required. Received out of hold time and analyzed by request.temp. 20.4 c
(e) Field analysis required. Received out of hold time and analyzed by request.temp. 20.6 c
(f) Field analysis required. Received out of hold time and analyzed by request.temp. 20.7 c
(g) Field analysis required. Received out of hold time and analyzed by request.temp. 20.9 c

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	PW-784-082219		
Lab Sample ID:	TD43905-1	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78154.D	1	08/29/19 17:13	FT	n/a	n/a	VZ6410
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	15.4	50	10	ug/l	J
71-43-2	Benzene	ND	1.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.44	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.39	ug/l	
75-25-2	Bromoform	ND	1.0	0.36	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.42	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.38	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.39	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.39	ug/l	
75-00-3	Chloroethane	ND	1.0	0.35	ug/l	
67-66-3	Chloroform	ND	1.0	0.39	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.41	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.35	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.55	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.43	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.36	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.41	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.39	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.40	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.38	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.56	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	0.39	ug/l	
594-20-7	2,2-Dichloropropane [b]	ND	1.0	0.35	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.46	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.42	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.39	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PW-784-082219		
Lab Sample ID:	TD43905-1	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	0.40	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.39	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	0.67	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.37	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.41	ug/l	
76-13-1	Freon 113	ND	1.0	0.59	ug/l	
110-54-3	Hexane	ND	2.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.39	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.30	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.42	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.52	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.39	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.6	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.6	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.37	ug/l	
91-20-3	Naphthalene	ND	5.0	1.6	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.42	ug/l	
100-42-5	Styrene	ND	1.0	0.40	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.36	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.48	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.45	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.41	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.37	ug/l	
108-88-3	Toluene	ND	1.0	0.42	ug/l	
79-01-6	Trichloroethylene [a]	0.63	1.0	0.41	ug/l	J
75-69-4	Trichlorofluoromethane	ND	1.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.39	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PW-784-082219		
Lab Sample ID:	TD43905-1	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		72-122%
17060-07-0	1,2-Dichloroethane-D4	100%		68-124%
2037-26-5	Toluene-D8	105%		80-119%
460-00-4	4-Bromofluorobenzene	108%		72-126%

CAS No.	Tentatively Identified Compounds [c]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) AZ:E4
(b) Associated CCV outside of control limits high, sample was ND. AZ:V1
(c) Propene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PW-784-082219		
Lab Sample ID:	TD43905-1	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 0.0060	0.0060	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Arsenic [a]	0.0116	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Barium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Beryllium [a]	< 0.0040	0.0040	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Cadmium [a]	< 0.0050	0.0050	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Chromium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Cobalt [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Copper [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Lead [a]	0.0192	0.010	mg/l	1	08/28/19	09/02/19	ALA	SW846 6010C [2]	SW846 3010A [3]
Nickel [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Selenium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Silver [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Thallium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Vanadium [a]	0.0159	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Zinc [a]	0.0523	0.020	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]

(1) Instrument QC Batch: L:MA16811
(2) Instrument QC Batch: L:MA16815
(3) Prep QC Batch: L:MP16177

(a) Analysis performed at SGS Scott, LA. Cert# AZ0805

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PW-784-082219		
Lab Sample ID:	TD43905-1	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	209	5.0	mg/l	1	08/29/19 15:10	PA	SM 2320B-2011
Chloride	20.5	0.70	mg/l	1	08/23/19 15:13	ES	EPA 300.0
Fluoride	< 0.70	0.70	mg/l	1	08/23/19 15:13	ES	EPA 300.0
Nitrogen, Nitrate	1.4	0.50	mg/l	1	08/23/19 15:13	ES	EPA 300.0
Nitrogen, Nitrite	< 0.80	0.80	mg/l	1	08/23/19 15:13	ES	EPA 300.0
Solids, Total Dissolved	329	10	mg/l	1	08/27/19	BG	SM 2540C-2011
Specific Conductivity [a]	548	1.0	umhos/cm	1	08/29/19 12:35	PA	EPA 120.1
Sulfate	18.5	0.50	mg/l	1	08/23/19 15:13	ES	EPA 300.0
pH [b]	7.88		su	1	08/23/19 16:20	PK	SM 4500H+ B-2011

(a) Conductivity results corrected to 25 degrees Celsius.
(b) Field analysis required. Received out of hold time and analyzed by request.temp. 20.4 c

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW02-714-082219		
Lab Sample ID:	TD43905-2	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78155.D	1	08/29/19 17:37	FT	n/a	n/a	VZ6410
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	24.6	50	10	ug/l	J
71-43-2	Benzene	ND	1.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.44	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.39	ug/l	
75-25-2	Bromoform	ND	1.0	0.36	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.42	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.38	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.39	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.39	ug/l	
75-00-3	Chloroethane	ND	1.0	0.35	ug/l	
67-66-3	Chloroform	ND	1.0	0.39	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.41	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.35	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.55	ug/l	
75-34-3	1,1-Dichloroethane	3.2	1.0	0.43	ug/l	
75-35-4	1,1-Dichloroethylene	3.4	1.0	0.36	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.41	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.39	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.40	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.38	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.56	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	0.39	ug/l	
594-20-7	2,2-Dichloropropane [b]	ND	1.0	0.35	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.46	ug/l	
75-71-8	Dichlorodifluoromethane [a]	1.1	2.0	0.67	ug/l	J
156-59-2	cis-1,2-Dichloroethylene	3.5	1.0	0.42	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.39	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW02-714-082219		
Lab Sample ID:	TD43905-2	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	0.40	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.39	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	0.67	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.37	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.41	ug/l	
76-13-1	Freon 113	ND	1.0	0.59	ug/l	
110-54-3	Hexane	ND	2.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.39	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.30	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.42	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.52	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.39	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.6	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.6	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.37	ug/l	
91-20-3	Naphthalene	ND	5.0	1.6	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.42	ug/l	
100-42-5	Styrene	ND	1.0	0.40	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.36	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.48	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.45	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.41	ug/l	
127-18-4	Tetrachloroethylene	4.0	1.0	0.37	ug/l	
108-88-3	Toluene	ND	1.0	0.42	ug/l	
79-01-6	Trichloroethylene	124	1.0	0.41	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.39	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW02-714-082219		
Lab Sample ID:	TD43905-2	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		72-122%
17060-07-0	1,2-Dichloroethane-D4	100%		68-124%
2037-26-5	Toluene-D8	103%		80-119%
460-00-4	4-Bromofluorobenzene	107%		72-126%

CAS No.	Tentatively Identified Compounds [c]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) AZ:E4
(b) Associated CCV outside of control limits high, sample was ND. AZ:V1
(c) Propene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW02-714-082219		
Lab Sample ID:	TD43905-2	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 0.0060	0.0060	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Arsenic [a]	0.0126	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Barium [a]	0.0361	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Beryllium [a]	< 0.0040	0.0040	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Cadmium [a]	< 0.0050	0.0050	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Chromium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Cobalt [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Copper [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Lead [a]	0.0153	0.010	mg/l	1	08/28/19	09/02/19	ALA	SW846 6010C [2]	SW846 3010A [3]
Nickel [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Selenium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Silver [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Thallium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Vanadium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Zinc [a]	0.168	0.020	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]

(1) Instrument QC Batch: L:MA16811
(2) Instrument QC Batch: L:MA16815
(3) Prep QC Batch: L:MP16177

(a) Analysis performed at SGS Scott, LA. Cert# AZ0805

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW02-714-082219		
Lab Sample ID:	TD43905-2	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	310	5.0	mg/l	1	08/29/19 15:10	PA	SM 2320B-2011
Chloride	17.8	0.70	mg/l	1	08/23/19 15:30	ES	EPA 300.0
Fluoride	< 0.70	0.70	mg/l	1	08/23/19 15:30	ES	EPA 300.0
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	08/23/19 15:30	ES	EPA 300.0
Nitrogen, Nitrite	< 0.80	0.80	mg/l	1	08/23/19 15:30	ES	EPA 300.0
Solids, Total Dissolved	428	10	mg/l	1	08/27/19	BG	SM 2540C-2011
Specific Conductivity [a]	725	1.0	umhos/cm	1	08/29/19 12:35	PA	EPA 120.1
Sulfate	2.8	0.50	mg/l	1	08/23/19 15:30	ES	EPA 300.0
pH [b]	7.65		su	1	08/23/19 16:20	PK	SM 4500H+ B-2011

(a) Conductivity results corrected to 25 degrees Celsius.
(b) Field analysis required. Received out of hold time and analyzed by request.temp. 20.6 c

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW03-723-082119		
Lab Sample ID:	TD43905-3	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78204.D	1	08/30/19 14:41	FT	n/a	n/a	VZ6413
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	11.6	50	10	ug/l	J
71-43-2	Benzene	ND	1.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.44	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.39	ug/l	
75-25-2	Bromoform	ND	1.0	0.36	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.42	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.38	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.39	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.39	ug/l	
75-00-3	Chloroethane	ND	1.0	0.35	ug/l	
67-66-3	Chloroform	ND	1.0	0.39	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.41	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.35	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.55	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.43	ug/l	
75-35-4	1,1-Dichloroethylene	1.2	1.0	0.36	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.41	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [b]	ND	2.0	0.39	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.40	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.38	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.56	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	0.39	ug/l	
594-20-7	2,2-Dichloropropane [c]	ND	1.0	0.35	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.46	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.42	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.39	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW03-723-082119		
Lab Sample ID:	TD43905-3	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	0.40	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.39	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	0.67	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.37	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.41	ug/l	
76-13-1	Freon 113	ND	1.0	0.59	ug/l	
110-54-3	Hexane	ND	2.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.39	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.30	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.42	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.52	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.39	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.6	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.6	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.37	ug/l	
91-20-3	Naphthalene	ND	5.0	1.6	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.42	ug/l	
100-42-5	Styrene	ND	1.0	0.40	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.36	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.48	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.45	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.41	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.37	ug/l	
108-88-3	Toluene	ND	1.0	0.42	ug/l	
79-01-6	Trichloroethylene	1.8	1.0	0.41	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.39	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW03-723-082119		
Lab Sample ID:	TD43905-3	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		72-122%
17060-07-0	1,2-Dichloroethane-D4	91%		68-124%
2037-26-5	Toluene-D8	105%		80-119%
460-00-4	4-Bromofluorobenzene	108%		72-126%

CAS No.	Tentatively Identified Compounds [d]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) AZ:E4
(b) Associated CCV outside of control limits low. Low check standard confirms detectability. AZ:V9,N1
(c) Associated CCV outside of control limits high, sample was ND. AZ:V1
(d) Propene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW03-723-082119		
Lab Sample ID:	TD43905-3	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 0.0060	0.0060	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Arsenic [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Barium [a]	0.0161	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Beryllium [a]	< 0.0040	0.0040	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Cadmium [a]	< 0.0050	0.0050	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Chromium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Cobalt [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Copper [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Lead [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Nickel [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Selenium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Silver [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Thallium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Vanadium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Zinc [a]	0.337	0.020	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: L:MA16811
(2) Prep QC Batch: L:MP16177

(a) Analysis performed at SGS Scott, LA. Cert# AZ0805

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW03-723-082119		
Lab Sample ID:	TD43905-3	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	120	5.0	mg/l	1	08/29/19 15:10	PA	SM 2320B-2011
Chloride	18.2	0.70	mg/l	1	08/23/19 12:41	ES	EPA 300.0
Fluoride	< 0.70	0.70	mg/l	1	08/23/19 12:41	ES	EPA 300.0
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	08/23/19 12:41	ES	EPA 300.0
Nitrogen, Nitrite	< 0.80	0.80	mg/l	1	08/23/19 12:41	ES	EPA 300.0
Solids, Total Dissolved	186	10	mg/l	1	08/27/19	BG	SM 2540C-2011
Specific Conductivity [a]	311	1.0	umhos/cm	1	08/29/19 12:35	PA	EPA 120.1
Sulfate	1.3	0.50	mg/l	1	08/23/19 12:41	ES	EPA 300.0
pH [b]	9.07		su	1	08/23/19 16:20	PK	SM 4500H+ B-2011

(a) Conductivity results corrected to 25 degrees Celsius.
(b) Field analysis required. Received out of hold time and analyzed by request.temp. 20.7 c

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW04-708-082119		
Lab Sample ID:	TD43905-4	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78205.D	1	08/30/19 15:05	FT	n/a	n/a	VZ6413
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	14.9	50	10	ug/l	J
71-43-2	Benzene	ND	1.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.44	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.39	ug/l	
75-25-2	Bromoform	ND	1.0	0.36	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.42	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.38	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.39	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.39	ug/l	
75-00-3	Chloroethane	ND	1.0	0.35	ug/l	
67-66-3	Chloroform	ND	1.0	0.39	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.41	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.35	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.55	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.43	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.36	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.41	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [b]	ND	2.0	0.39	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.40	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.38	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.56	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	0.39	ug/l	
594-20-7	2,2-Dichloropropane [c]	ND	1.0	0.35	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.46	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.42	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.39	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW04-708-082119		
Lab Sample ID:	TD43905-4	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	0.40	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.39	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	0.67	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.37	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.41	ug/l	
76-13-1	Freon 113	ND	1.0	0.59	ug/l	
110-54-3	Hexane	ND	2.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.39	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.30	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.42	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.52	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.39	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.6	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.6	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.37	ug/l	
91-20-3	Naphthalene	ND	5.0	1.6	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.42	ug/l	
100-42-5	Styrene	ND	1.0	0.40	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.36	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.48	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.45	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.41	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.37	ug/l	
108-88-3	Toluene	ND	1.0	0.42	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.41	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.39	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW04-708-082119		
Lab Sample ID:	TD43905-4	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		72-122%
17060-07-0	1,2-Dichloroethane-D4	91%		68-124%
2037-26-5	Toluene-D8	107%		80-119%
460-00-4	4-Bromofluorobenzene	110%		72-126%

CAS No.	Tentatively Identified Compounds [d]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) AZ:E4
(b) Associated CCV outside of control limits low. Low check standard confirms detectability. AZ:V9,N1
(c) Associated CCV outside of control limits high, sample was ND. AZ:V1
(d) Propene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW04-708-082119		
Lab Sample ID:	TD43905-4	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 0.0060	0.0060	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Arsenic [a]	0.0122	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Barium [a]	0.0110	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Beryllium [a]	< 0.0040	0.0040	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Cadmium [a]	< 0.0050	0.0050	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Chromium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Cobalt [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Copper [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Lead [a]	0.0131	0.010	mg/l	1	08/28/19	09/02/19	ALA	SW846 6010C [2]	SW846 3010A [3]
Nickel [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Selenium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Silver [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Thallium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Vanadium [a]	0.0233	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Zinc [a]	0.0285	0.020	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]

(1) Instrument QC Batch: L:MA16811
(2) Instrument QC Batch: L:MA16815
(3) Prep QC Batch: L:MP16177

(a) Analysis performed at SGS Scott, LA. Cert# AZ0805

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW04-708-082119		
Lab Sample ID:	TD43905-4	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	206	5.0	mg/l	1	08/29/19 15:10	PA	SM 2320B-2011
Chloride	22.3	0.70	mg/l	1	08/23/19 19:43	ES	EPA 300.0
Fluoride	< 0.70	0.70	mg/l	1	08/23/19 19:43	ES	EPA 300.0
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	08/23/19 19:43	ES	EPA 300.0
Nitrogen, Nitrite	< 0.80	0.80	mg/l	1	08/23/19 19:43	ES	EPA 300.0
Solids, Total Dissolved	286	10	mg/l	1	08/27/19	BG	SM 2540C-2011
Specific Conductivity [a]	505	1.0	umhos/cm	1	08/29/19 12:35	PA	EPA 120.1
Sulfate	7.8	0.50	mg/l	1	08/23/19 19:43	ES	EPA 300.0
pH [b]	7.58		su	1	08/23/19 16:20	PK	SM 4500H+ B-2011

(a) Conductivity results corrected to 25 degrees Celsius.
(b) Field analysis required. Received out of hold time and analyzed by request.temp. 20.9 c

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW05-703-082219		
Lab Sample ID:	TD43905-5	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78206.D	1	08/30/19 15:30	FT	n/a	n/a	VZ6413
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.44	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.39	ug/l	
75-25-2	Bromoform	ND	1.0	0.36	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.42	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.38	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.39	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.39	ug/l	
75-00-3	Chloroethane	ND	1.0	0.35	ug/l	
67-66-3	Chloroform	ND	1.0	0.39	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.41	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.35	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.55	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.43	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.36	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.41	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.39	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.40	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.38	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.56	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	0.39	ug/l	
594-20-7	2,2-Dichloropropane [b]	ND	1.0	0.35	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.46	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.42	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.39	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW05-703-082219		
Lab Sample ID:	TD43905-5	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	0.40	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.39	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	0.67	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.37	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.41	ug/l	
76-13-1	Freon 113	ND	1.0	0.59	ug/l	
110-54-3	Hexane	ND	2.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.39	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.30	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.42	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.52	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.39	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.6	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.6	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.37	ug/l	
91-20-3	Naphthalene	ND	5.0	1.6	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.42	ug/l	
100-42-5	Styrene	ND	1.0	0.40	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.36	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.48	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.45	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.41	ug/l	
127-18-4	Tetrachloroethylene [c]	0.40	1.0	0.37	ug/l	J
108-88-3	Toluene	ND	1.0	0.42	ug/l	
79-01-6	Trichloroethylene	53.9	1.0	0.41	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.39	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW05-703-082219		
Lab Sample ID:	TD43905-5	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		72-122%
17060-07-0	1,2-Dichloroethane-D4	89%		68-124%
2037-26-5	Toluene-D8	105%		80-119%
460-00-4	4-Bromofluorobenzene	111%		72-126%

CAS No.	Tentatively Identified Compounds [d]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low. Low check standard confirms detectability. AZ:V9,N1
(b) Associated CCV outside of control limits high, sample was ND. AZ:V1
(c) AZ:E4
(d) Propene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW05-703-082219		
Lab Sample ID:	TD43905-5	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 0.0060	0.0060	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Arsenic [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Barium [a]	0.0132	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Beryllium [a]	< 0.0040	0.0040	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Cadmium [a]	< 0.0050	0.0050	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Chromium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Cobalt [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Copper [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Lead [a]	0.0139	0.010	mg/l	1	08/28/19	09/02/19	ALA	SW846 6010C [2]	SW846 3010A [3]
Nickel [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Selenium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Silver [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Thallium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Vanadium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Zinc [a]	0.149	0.020	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]

(1) Instrument QC Batch: L:MA16811
(2) Instrument QC Batch: L:MA16815
(3) Prep QC Batch: L:MP16177

(a) Analysis performed at SGS Scott, LA. Cert# AZ0805

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW05-703-082219		
Lab Sample ID:	TD43905-5	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	207	5.0	mg/l	1	08/29/19 15:10	PA	SM 2320B-2011
Chloride	18.1	0.70	mg/l	1	08/24/19 05:01	ES	EPA 300.0
Fluoride	< 0.70	0.70	mg/l	1	08/24/19 05:01	ES	EPA 300.0
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	08/24/19 05:01	ES	EPA 300.0
Nitrogen, Nitrite	< 0.80	0.80	mg/l	1	08/24/19 05:01	ES	EPA 300.0
Solids, Total Dissolved	283	10	mg/l	1	08/27/19	BG	SM 2540C-2011
Specific Conductivity [a]	484	1.0	umhos/cm	1	08/29/19 12:35	PA	EPA 120.1
Sulfate	9.0	0.50	mg/l	1	08/24/19 05:01	ES	EPA 300.0
pH [b]	7.79		su	1	08/23/19 16:20	PK	SM 4500H+ B-2011

(a) Conductivity results corrected to 25 degrees Celsius.
(b) Field analysis required. Received out of hold time and analyzed by request.temp. 20.9 c

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW06-720-082119		
Lab Sample ID:	TD43905-6	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78207.D	1	08/30/19 15:55	FT	n/a	n/a	VZ6413
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	13.4	50	10	ug/l	J
71-43-2	Benzene	ND	1.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.44	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.39	ug/l	
75-25-2	Bromoform	ND	1.0	0.36	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.42	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.38	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.39	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.39	ug/l	
75-00-3	Chloroethane	ND	1.0	0.35	ug/l	
67-66-3	Chloroform	ND	1.0	0.39	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.41	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.35	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.55	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.43	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.36	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.41	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [b]	ND	2.0	0.39	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.40	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.38	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.56	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	0.39	ug/l	
594-20-7	2,2-Dichloropropane [c]	ND	1.0	0.35	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.46	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.42	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.39	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW06-720-082119		
Lab Sample ID:	TD43905-6	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	0.40	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.39	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	0.67	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.37	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.41	ug/l	
76-13-1	Freon 113	ND	1.0	0.59	ug/l	
110-54-3	Hexane	ND	2.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.39	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.30	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.42	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.52	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.39	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.6	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.6	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.37	ug/l	
91-20-3	Naphthalene	ND	5.0	1.6	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.42	ug/l	
100-42-5	Styrene	ND	1.0	0.40	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.36	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.48	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.45	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.41	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.37	ug/l	
108-88-3	Toluene	ND	1.0	0.42	ug/l	
79-01-6	Trichloroethylene	1.7	1.0	0.41	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.39	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW06-720-082119		
Lab Sample ID:	TD43905-6	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		72-122%
17060-07-0	1,2-Dichloroethane-D4	90%		68-124%
2037-26-5	Toluene-D8	104%		80-119%
460-00-4	4-Bromofluorobenzene	109%		72-126%

CAS No.	Tentatively Identified Compounds [d]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) AZ:E4
(b) Associated CCV outside of control limits low. Low check standard confirms detectability. AZ:V9,N1
(c) Associated CCV outside of control limits high, sample was ND. AZ:V1
(d) Propene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW06-720-082119		
Lab Sample ID:	TD43905-6	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 0.0060	0.0060	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Arsenic [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Barium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Beryllium [a]	< 0.0040	0.0040	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Cadmium [a]	< 0.0050	0.0050	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Chromium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Cobalt [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Copper [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Lead [a]	0.0155	0.010	mg/l	1	08/28/19	09/02/19	ALA	SW846 6010C [2]	SW846 3010A [3]
Nickel [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Selenium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Silver [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Thallium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Vanadium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Zinc [a]	0.129	0.020	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]

(1) Instrument QC Batch: L:MA16811
(2) Instrument QC Batch: L:MA16815
(3) Prep QC Batch: L:MP16177

(a) Analysis performed at SGS Scott, LA. Cert# AZ0805

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW06-720-082119		
Lab Sample ID:	TD43905-6	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	206	5.0	mg/l	1	08/29/19 15:10	PA	SM 2320B-2011
Chloride	16.4	0.70	mg/l	1	08/24/19 06:43	ES	EPA 300.0
Fluoride	< 0.70	0.70	mg/l	1	08/24/19 06:43	ES	EPA 300.0
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	08/24/19 06:43	ES	EPA 300.0
Nitrogen, Nitrite	< 0.80	0.80	mg/l	1	08/24/19 06:43	ES	EPA 300.0
Solids, Total Dissolved	261	10	mg/l	1	08/27/19	BG	SM 2540C-2011
Specific Conductivity [a]	477	1.0	umhos/cm	1	08/29/19 12:35	PA	EPA 120.1
Sulfate	14.5	0.50	mg/l	1	08/24/19 06:43	ES	EPA 300.0
pH [b]	8.34		su	1	08/23/19 16:20	PK	SM 4500H+ B-2011

(a) Conductivity results corrected to 25 degrees Celsius.
(b) Field analysis required. Received out of hold time and analyzed by request.temp. 20.9 c

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW07-718-082119		
Lab Sample ID:	TD43905-7	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78193.D	1	08/30/19 10:12	FT	n/a	n/a	VZ6413
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	16.1	50	10	ug/l	J
71-43-2	Benzene	ND	1.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.44	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.39	ug/l	
75-25-2	Bromoform	ND	1.0	0.36	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.42	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.38	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.39	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.39	ug/l	
75-00-3	Chloroethane	ND	1.0	0.35	ug/l	
67-66-3	Chloroform	ND	1.0	0.39	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.41	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.35	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.55	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.43	ug/l	
75-35-4	1,1-Dichloroethylene	1.2	1.0	0.36	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.41	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [b]	ND	2.0	0.39	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.40	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.38	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.56	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	0.39	ug/l	
594-20-7	2,2-Dichloropropane [c]	ND	1.0	0.35	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.46	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene [a]	0.66	1.0	0.42	ug/l	J
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.39	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW07-718-082119		
Lab Sample ID:	TD43905-7	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	0.40	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.39	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	0.67	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.37	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.41	ug/l	
76-13-1	Freon 113	ND	1.0	0.59	ug/l	
110-54-3	Hexane	ND	2.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.39	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.30	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.42	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.52	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.39	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.6	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.6	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.37	ug/l	
91-20-3	Naphthalene	ND	5.0	1.6	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.42	ug/l	
100-42-5	Styrene	ND	1.0	0.40	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.36	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.48	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.45	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.41	ug/l	
127-18-4	Tetrachloroethylene [a]	0.61	1.0	0.37	ug/l	J
108-88-3	Toluene	ND	1.0	0.42	ug/l	
79-01-6	Trichloroethylene	33.2	1.0	0.41	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.39	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW07-718-082119		
Lab Sample ID:	TD43905-7	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		72-122%
17060-07-0	1,2-Dichloroethane-D4	95%		68-124%
2037-26-5	Toluene-D8	104%		80-119%
460-00-4	4-Bromofluorobenzene	108%		72-126%

CAS No.	Tentatively Identified Compounds [d]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) AZ:E4
(b) Associated CCV outside of control limits low. Low check standard confirms detectability. AZ:V9,N1
(c) Associated CCV outside of control limits high, sample was ND. AZ:V1
(d) Propene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW07-718-082119		
Lab Sample ID:	TD43905-7	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 0.0060	0.0060	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Arsenic [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Barium [a]	0.0171	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Beryllium [a]	< 0.0040	0.0040	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Cadmium [a]	< 0.0050	0.0050	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Chromium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Cobalt [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Copper [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Lead [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Nickel [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Selenium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Silver [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Thallium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Vanadium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Zinc [a]	0.0752	0.020	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: L:MA16811
(2) Prep QC Batch: L:MP16177

(a) Analysis performed at SGS Scott, LA. Cert# AZ0805

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW07-718-082119		
Lab Sample ID:	TD43905-7	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	153	5.0	mg/l	1	08/29/19 15:10	PA	SM 2320B-2011
Chloride	21.5	0.70	mg/l	1	08/24/19 05:18	ES	EPA 300.0
Fluoride	< 0.70	0.70	mg/l	1	08/24/19 05:18	ES	EPA 300.0
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	08/24/19 05:18	ES	EPA 300.0
Nitrogen, Nitrite	< 0.80	0.80	mg/l	1	08/24/19 05:18	ES	EPA 300.0
Solids, Total Dissolved	210	10	mg/l	1	08/27/19	BG	SM 2540C-2011
Specific Conductivity [a]	382	1.0	umhos/cm	1	08/29/19 12:35	PA	EPA 120.1
Sulfate	0.98	0.50	mg/l	1	08/24/19 05:18	ES	EPA 300.0
pH [b]	8.42		su	1	08/23/19 16:20	PK	SM 4500H+ B-2011

(a) Conductivity results corrected to 25 degrees Celsius.
(b) Field analysis required. Received out of hold time and analyzed by request.temp. 20.9 c

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW08-741-082219		
Lab Sample ID:	TD43905-8	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z78208.D	1	08/30/19 16:19	FT	n/a	n/a	VZ6413
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.44	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.39	ug/l	
75-25-2	Bromoform	ND	1.0	0.36	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.42	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.38	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.39	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.39	ug/l	
75-00-3	Chloroethane	ND	1.0	0.35	ug/l	
67-66-3	Chloroform	ND	1.0	0.39	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.41	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.35	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.55	ug/l	
75-34-3	1,1-Dichloroethane [a]	0.60	1.0	0.43	ug/l	J
75-35-4	1,1-Dichloroethylene	6.1	1.0	0.36	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.41	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [b]	ND	2.0	0.39	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.40	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.38	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.56	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	0.39	ug/l	
594-20-7	2,2-Dichloropropane [c]	ND	1.0	0.35	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.46	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene [a]	0.43	1.0	0.42	ug/l	J
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.39	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW08-741-082219		
Lab Sample ID:	TD43905-8	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	0.40	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.39	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	0.67	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.37	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.41	ug/l	
76-13-1	Freon 113	ND	1.0	0.59	ug/l	
110-54-3	Hexane	ND	2.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.39	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.30	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.42	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.52	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.39	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.6	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.6	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.37	ug/l	
91-20-3	Naphthalene	ND	5.0	1.6	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.42	ug/l	
100-42-5	Styrene	ND	1.0	0.40	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.36	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.48	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.45	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.41	ug/l	
127-18-4	Tetrachloroethylene	1.3	1.0	0.37	ug/l	
108-88-3	Toluene	ND	1.0	0.42	ug/l	
79-01-6	Trichloroethylene	48.2	1.0	0.41	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.39	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW08-741-082219		
Lab Sample ID:	TD43905-8	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		72-122%
17060-07-0	1,2-Dichloroethane-D4	88%		68-124%
2037-26-5	Toluene-D8	106%		80-119%
460-00-4	4-Bromofluorobenzene	110%		72-126%

CAS No.	Tentatively Identified Compounds [d]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) AZ:E4
(b) Associated CCV outside of control limits low. Low check standard confirms detectability. AZ:V9,N1
(c) Associated CCV outside of control limits high, sample was ND. AZ:V1
(d) Propene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW08-741-082219		
Lab Sample ID:	TD43905-8	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 0.0060	0.0060	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Arsenic [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Barium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Beryllium [a]	< 0.0040	0.0040	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Cadmium [a]	< 0.0050	0.0050	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Chromium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Cobalt [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Copper [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Lead [a]	0.0153	0.010	mg/l	1	08/28/19	09/02/19	ALA	SW846 6010C [2]	SW846 3010A [3]
Nickel [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Selenium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Silver [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Thallium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Vanadium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]
Zinc [a]	0.270	0.020	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [3]

(1) Instrument QC Batch: L:MA16811
(2) Instrument QC Batch: L:MA16815
(3) Prep QC Batch: L:MP16177

(a) Analysis performed at SGS Scott, LA. Cert# AZ0805

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW08-741-082219		
Lab Sample ID:	TD43905-8	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	109	5.0	mg/l	1	08/29/19 15:10	PA	SM 2320B-2011
Chloride	17.9	0.70	mg/l	1	08/23/19 15:47	ES	EPA 300.0
Fluoride	< 0.70	0.70	mg/l	1	08/23/19 15:47	ES	EPA 300.0
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	08/23/19 15:47	ES	EPA 300.0
Nitrogen, Nitrite	< 0.80	0.80	mg/l	1	08/23/19 15:47	ES	EPA 300.0
Solids, Total Dissolved	155	10	mg/l	1	08/27/19	BG	SM 2540C-2011
Specific Conductivity [a]	291	1.0	umhos/cm	1	08/29/19 12:35	PA	EPA 120.1
Sulfate	< 0.50	0.50	mg/l	1	08/23/19 15:47	ES	EPA 300.0
pH [b]	8.65		su	1	08/23/19 16:20	PK	SM 4500H+ B-2011

(a) Conductivity results corrected to 25 degrees Celsius.
(b) Field analysis required. Received out of hold time and analyzed by request.temp. 20.9 c

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DUP01-082119		
Lab Sample ID:	TD43905-9	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R03485931.D	1	08/29/19 03:42	FI	n/a	n/a	VR2264
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	19.0	50	10	ug/l	J
71-43-2	Benzene	ND	1.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.44	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.39	ug/l	
75-25-2	Bromoform	ND	1.0	0.36	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.42	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.38	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.39	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.39	ug/l	
75-00-3	Chloroethane	ND	1.0	0.35	ug/l	
67-66-3	Chloroform	ND	1.0	0.39	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.41	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.35	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.55	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.43	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.36	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.41	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.39	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.40	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.38	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.56	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	0.39	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.35	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.46	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.42	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.39	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP01-082119		
Lab Sample ID:	TD43905-9	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	0.40	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.39	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	0.67	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.37	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.41	ug/l	
76-13-1	Freon 113	ND	1.0	0.59	ug/l	
110-54-3	Hexane	ND	2.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.39	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.30	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.42	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.52	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.39	ug/l	
75-09-2	Methylene chloride [b]	ND	5.0	1.6	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.6	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.37	ug/l	
91-20-3	Naphthalene	ND	5.0	1.6	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.42	ug/l	
100-42-5	Styrene	ND	1.0	0.40	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.36	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.48	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.45	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.41	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.37	ug/l	
108-88-3	Toluene	ND	1.0	0.42	ug/l	
79-01-6	Trichloroethylene	1.7	1.0	0.41	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.39	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP01-082119		
Lab Sample ID:	TD43905-9	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		72-122%
17060-07-0	1,2-Dichloroethane-D4	101%		68-124%
2037-26-5	Toluene-D8	99%		80-119%
460-00-4	4-Bromofluorobenzene	102%		72-126%

CAS No.	Tentatively Identified Compounds [c]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) AZ:E4
(b) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:N1,V9
(c) Propylene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP01-082119		
Lab Sample ID:	TD43905-9	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 0.0060	0.0060	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Arsenic [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Barium [a]	0.0136	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Beryllium [a]	< 0.0040	0.0040	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Cadmium [a]	< 0.0050	0.0050	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Chromium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Cobalt [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Copper [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Lead [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Nickel [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Selenium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Silver [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Thallium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Vanadium [a]	< 0.010	0.010	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]
Zinc [a]	0.0206	0.020	mg/l	1	08/28/19	09/01/19	ALA	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: L:MA16811
(2) Prep QC Batch: L:MP16177

(a) Analysis performed at SGS Scott, LA. Cert# AZ0805

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DUP01-082119		
Lab Sample ID:	TD43905-9	**Date Sampled:**	08/21/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
		Percent Solids:	n/a
Project:	Cave Creek Landfill-Groundwater		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	199	5.0	mg/l	1	08/29/19 15:10	PA	SM 2320B-2011
Chloride	16.2	0.70	mg/l	1	08/23/19 13:32	ES	EPA 300.0
Fluoride	< 0.70	0.70	mg/l	1	08/23/19 13:32	ES	EPA 300.0
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	08/23/19 13:32	ES	EPA 300.0
Nitrogen, Nitrite	< 0.80	0.80	mg/l	1	08/23/19 13:32	ES	EPA 300.0
Solids, Total Dissolved	274	10	mg/l	1	08/27/19	BG	SM 2540C-2011
Specific Conductivity [a]	479	1.0	umhos/cm	1	08/29/19 12:35	PA	EPA 120.1
Sulfate	14.5	0.50	mg/l	1	08/23/19 13:32	ES	EPA 300.0
pH [b]	8.35		su	1	08/23/19 16:20	PK	SM 4500H+ B-2011

(a) Conductivity results corrected to 25 degrees Celsius.
(b) Field analysis required. Received out of hold time and analyzed by request.temp. 20.7 c

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DUP02-082219		
Lab Sample ID:	TD43905-10	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R03485930.D	1	08/29/19 03:16	FI	n/a	n/a	VR2264
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	27.2	50	10	ug/l	J
71-43-2	Benzene	ND	1.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.44	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.39	ug/l	
75-25-2	Bromoform	ND	1.0	0.36	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.42	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.38	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.39	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.39	ug/l	
75-00-3	Chloroethane	ND	1.0	0.35	ug/l	
67-66-3	Chloroform	ND	1.0	0.39	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.41	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.39	ug/l	
75-15-0	Carbon disulfide	ND	5.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.35	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.55	ug/l	
75-34-3	1,1-Dichloroethane [a]	0.59	1.0	0.43	ug/l	J
75-35-4	1,1-Dichloroethylene	5.0	1.0	0.36	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.41	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.39	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.40	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.38	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.56	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	0.39	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.35	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.46	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene [a]	0.46	1.0	0.42	ug/l	J
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.39	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP02-082219		
Lab Sample ID:	TD43905-10	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	0.40	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.39	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	0.67	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.42	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.37	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.41	ug/l	
76-13-1	Freon 113	ND	1.0	0.59	ug/l	
110-54-3	Hexane	ND	2.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.39	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.30	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.42	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.52	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.39	ug/l	
75-09-2	Methylene chloride [b]	ND	5.0	1.6	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.6	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.37	ug/l	
91-20-3	Naphthalene	ND	5.0	1.6	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.42	ug/l	
100-42-5	Styrene	ND	1.0	0.40	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.36	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.48	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.45	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.46	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.41	ug/l	
127-18-4	Tetrachloroethylene	1.3	1.0	0.37	ug/l	
108-88-3	Toluene	ND	1.0	0.42	ug/l	
79-01-6	Trichloroethylene	43.2	1.0	0.41	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.39	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP02-082219		
Lab Sample ID:	TD43905-10	**Date Sampled:**	08/22/19
Matrix:	AQ - Water	**Date Received:**	08/23/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Cave Creek Landfill-Groundwater		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		72-122%
17060-07-0	1,2-Dichloroethane-D4	99%		68-124%
2037-26-5	Toluene-D8	99%		80-119%
460-00-4	4-Bromofluorobenzene	101%		72-126%

CAS No.	Tentatively Identified Compounds [c]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) AZ:E4
(b) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:N1,V9
(c) Propylene, 4-Ethyltoluene, 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody
- Chain of Custody (SGS Scott, LA)

Arizona Qualifiers

Job Number: TD43905
Account: MCWRAZP Maricopa County Waste Resources & RD
Project: Cave Creek Landfill-Groundwater

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting limit (MRL) but above MDL.
N1	See case narrative.
Q9	Insufficient sample received to meet method QC requirements.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.
V9	CCV recovery was below method acceptance limits.

SGS

CHAIN OF CUSTODY

SGS North America Inc. - Houston
10165 Harwin Dr, Ste 150 Houston, TX 77036
TEL. 713-271-4700 FAX: 713-271-4770
www.sgs.com/ehsusa

FEDEX Tracking # 7760 5859 4420
Bottle Order Control #
SGS Quote #
SGS Job # TD43905

Client / Reporting Information

Company Name: Maricopa County WR&R
Street Address: 2910 W Durango St
City: Phoenix State: AZ Zip: 85009
Project Contact: Samantha Sargent E-mail: samantha.sargent@
Phone #: 602-733-6000
Sampler(s) Name(s): E. Miller & J. Ramirez Phone #: 602-733-6000

Project Information

Project Name: Cave Creek Landfill
Street: 3955 E Carefree Highway
City: Cave Creek State: AZ
Project #: 1420192004.****.021
Client Purchase Order #:
Project Manager: Doug Fisher

Billing information (if different from Report to):
Company Name: Maricopa County WR&R
Street Address: 2910 W Durango St
City: Phoenix State: AZ Zip: 85009
Attention: Kathryn Snyder

Requested Analyses

SGS Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZnAc/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	Trip	NaHSO4	ENCORE	OTHER	8260B VOCs	6010C Total Metals (See List)	300.0 General Chemistry (See List)									LAB USE ONLY
1	PW-[redacted]784-082219	8/22/19	07:10	Ramirez	W	5	3			1									3	1	1									
2	MW02-714-082219	8/22/19	09:30		W	5	3			1									3	1	1									
3	MW03-723-082119	8/21/19	13:00		W	5	3			1									3	1	1									
4	MW04-708-082119	8/21/19	08:50		W	5	3			1									3	1	1									
5	MW05-703-082219	8/22/19	08:55		W	5	3			1									3	1	1									
6	MW06-720-082119	8/21/19	11:00		W	5	3			1									3	1	1									
7	MW07-718-082119	8/21/19	09:45		W	5	3			1									3	1	1									
8	MW08-741-082219	8/22/19	10:10		W	5	3			1									3	1	1									
9	DUP01-082119	8/21/19	15:30		W	5	3			1									3	1	1									
10	DUP02-082219	8/22/19	15:30		W	3	3												3											
7	MW07-718-082119-MS/MSD	8/21/19	0945	✓	W	5	3			1									3	1	1									
					W																									

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

Turnaround Time / Business days:
- [x] Standard 10 Business Days
- [ ] 5 Business Days *RUSH*
- [ ] 4 Business Days *RUSH*
- [ ] 3 Business Days *RUSH*
- [ ] 2 Business Days *RUSH*
- [ ] 1 Business Day *EMERGENCY*

Approved By (SGS PM): / Date:

Emergency & Rush T/A data available via Labtlink. Approval needed for RUSH/Emergency TAT

Data Deliverable Information:
- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other ___

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw Data

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by:	Date / Time:	Received By:	Date / Time:	Relinquished By:	Date / Time:	Received By:	Date / Time:
1	8/22/19 1415	1	8/22/19 1945	2	8/22/19 1000	2	8/22/19 1000
3		3	8/23/19 1025	4		4	
5		5					

Custody Seal #: ☐ Intact ☐ Not intact ☐ Absent
Preserved where applicable ☐ On Ice ☐ Cooler Temp. °C
Therm ID

http://www.sgs.com/en/terms-and-conditions

EHSA-QAC-0024-00-FORM-Houston - Standard COC

4.2
4

TD43905: Chain of Custody
Page 1 of 6

Total Metals (SW846 6010C)	General Chemistry 300, SM2320B, SM4500 (NO2B/H), 353.2, SM2510B, SM2540C
Antimony	pH
Arsenic	Electrical Conductivity
Barium	Alkalinity (total)
Beryllium	Chloride
Cadmium	Fluoride
Chromium	Nitrate (as N)
Cobalt	Nitrite
Copper	Sulfate
Lead	Total Dissolved Solids (TDS)
Nickel	
Selenium	
Silver	
Thallium	
Vanadium	
Zinc	

2 of 2

TD43905: Chain of Custody
Page 2 of 6

SGS Sample Receipt Summary

Job Number: TD43905 **Client:** MARICOPA **Project:** CAVE CREEK

Date / Time Received: 8/23/2019 10:25:00 AM **Delv Method:** **Airbill #'s:** 776058594430

# of Coolers: 1 **Therm ID:** IR-9; **Temp Adjustment Factor:** 0;

Cooler Temps (Initial/Adjusted): #1: (3.9/3.9);

Test Strip Lot #s: **pH 1-12:** _____ **pH 12+:** _____ **Other: (Specify)** _____ _____

Cooler Information	Y	or	N
1. Custody Seals Present:	☑		☐
2. Custody Seals Intact:	☑		☐
3. Temp criteria achieved:	☑		☐
4. Cooler temp verification:			
3. Cooler media:	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Type Of TB Received	W	or	S	N/A
	☐		☐	☐

Misc. Information

Number of terracores: _____ Number of Lab Filtered Metals: _____

Number of 5035 Field Kits: _____

Residual Chlorine Test Strip Lot #: _____

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles:	☑		☐	
2. Samples preserved properly:	☑		☐	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Condition of sample:		Intact		
5. Sample recvd within HT:	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. Container labeling complete:	☑		☐	
8. Analysis requested is clear:	☑		☐	
9. VOCs headspace free:	☑		☐	☐
10. Bottles received for unspecified tests	☐		☑	
11. COC Present:	☑		☐	
12. Special Instructions (compositing/filtering) clear:	☐		☐	☑
13. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☐
14. % Solids Jar received?	☐		☐	☐
15. Residual Chlorine Present?	☐		☐	☐

Comments

Sample Receipt Log

Job #: TD43905 **Date / Time Received:** 8/23/2019 10:25:00 AM **Initials:** BELINDG

Client: MARICOPA

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TD43905-1	1000ml	1	3-O	N/P	Note #2 - Preservative check not applicable.	IR-9	3.9	0	3.9
1	TD43905-1	250ml	2	SUB	HNO3	pH < 2	IR-9	3.9	0	3.9
1	TD43905-1	40ml	3	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
1	TD43905-1	40ml	4	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
1	TD43905-1	40ml	5	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
1	TD43905-2	1000ml	1	3-O	N/P	Note #2 - Preservative check not applicable.	IR-9	3.9	0	3.9
1	TD43905-2	250ml	2	SUB	HNO3	pH < 2	IR-9	3.9	0	3.9
1	TD43905-2	40ml	3	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
1	TD43905-2	40ml	4	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
1	TD43905-2	40ml	5	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
1	TD43905-3	1000ml	1	3-O	N/P	Note #2 - Preservative check not applicable.	IR-9	3.9	0	3.9
1	TD43905-3	250ml	2	SUB	HNO3	pH < 2	IR-9	3.9	0	3.9
1	TD43905-3	40ml	3	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
1	TD43905-3	40ml	4	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
1	TD43905-3	40ml	5	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
1	TD43905-4	1000ml	1	3-O	N/P	Note #2 - Preservative check not applicable.	IR-9	3.9	0	3.9
1	TD43905-4	250ml	2	SUB	HNO3	pH < 2	IR-9	3.9	0	3.9
1	TD43905-4	40ml	3	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
1	TD43905-4	40ml	4	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
1	TD43905-4	40ml	5	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
1	TD43905-5	1000ml	1	3-O	N/P	Note #2 - Preservative check not applicable.	IR-9	3.9	0	3.9
1	TD43905-5	250ml	2	SUB	HNO3	pH < 2	IR-9	3.9	0	3.9
1	TD43905-5	40ml	3	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9

Sample Receipt Log

Job #: TD43905 **Date / Time Received:** 8/23/2019 10:25:00 AM **Initials:** BELINDG

Client: MARICOPA

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TD43905-5	40ml	4	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
1	TD43905-5	40ml	5	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
1	TD43905-6	1000ml	1	3-O	N/P	Note #2 - Preservative check not applicable.	IR-9	3.9	0	3.9
1	TD43905-6	250ml	2	SUB	HNO3	pH < 2	IR-9	3.9	0	3.9
1	TD43905-6	40ml	3	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
1	TD43905-6	40ml	4	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
1	TD43905-6	40ml	5	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-9	3.9	0	3.9
	TD43905-7	1000ml	1	3-O	N/P	Note #2 - Preservative check not applicable.				
	TD43905-7	250ml	2	SUB	HNO3	pH < 2				
	TD43905-7	40ml	3	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43905-7	40ml	4	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43905-7	40ml	5	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43905-7	1000ml	6	3-O	N/P	Note #2 - Preservative check not applicable.				
	TD43905-7	250ml	7	SUB	HNO3	pH < 2				
	TD43905-7	40ml	8	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43905-7	40ml	9	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43905-7	40ml	10	VR286	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43905-8	1000ml	1	3-O	N/P	Note #2 - Preservative check not applicable.				
	TD43905-8	250ml	2	SUB	HNO3	pH < 2				
	TD43905-8	40ml	3	VR212	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43905-8	40ml	4	VR212	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43905-8	40ml	5	VR212	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43905-9	1000ml	1	3-O	N/P	Note #2 - Preservative check not applicable.				

Sample Receipt Log

Job #: TD43905 **Date / Time Received:** 8/23/2019 10:25:00 AM **Initials:** BELINDG

Client: MARICOPA

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
	TD43905-9	250ml	2	SUB	HNO3	pH < 2				
	TD43905-9	40ml	3	VR212	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43905-9	40ml	4	VR212	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43905-9	40ml	5	VR212	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD43905-10	40ml	1	VR212	HCL	Note #2 - Preservative check not applicable.				
	TD43905-10	40ml	2	VR212	HCL	pH < 2				
	TD43905-10	40ml	3	VR212	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				

SGS

CHAIN OF CUSTODY

10165 Harwin Drive, Houston, TX 77036
TEL 713-271-4700 FAX 713-271-4770
www.sgs.com

FED-EX Tracking #	Bottle Order Control #
SGS Quote #	SGS Job # TD43905

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 10165 Harwin Drive
City: Houston State: TX Zip: 77036
Project Contact: Trameshia.Brown@sgs.com E-mail:
Phone #: 713-271-4700 Fax #:
Sampler(s) Name(s): Phone:

Project Information

Project Name: Cave Creek Landfill-Groundwater
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)
Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	AG,AS,BA,BE,CD,CO,CR,CU,NI,PB,SB,SE,TL,V,ZN,	LAB USE ONLY
1	PW-784-082219		8/22/19	7:10:00 AM		AQ	1			x						X	1
2	MW02-714-082219		8/22/19	9:30:00 AM		AQ	1			x						X	1
3	MW03-723-082119		8/21/19	6:00:00 PM		AQ	1			x						X	1
4	MW04-708-082119		8/21/19	8:50:00 AM		AQ	1			x						X	1
5	MW05-703-082219		8/22/19	8:55:00 AM		AQ	1			x						X	1
6	MW06-720-082119		8/21/19	11:00:00 AM		AQ	1			x						X	1
7	MW07-718-082119		8/21/19	9:45:00 AM		AQ	1			x						X	1
7D	MW07-718-082119 MSD		8/21/19	9:45:00 AM		AQ	1			x						X	1
7S	MW07-718-082119 MS		8/21/19	9:45:00 AM		AQ	0			x						X	0
8	MW08-741-082219		8/22/19	10:10:00 AM		AQ	1			x						X	1
9	DUP01-082119		8/21/19	3:30:00 PM		AQ	1			x						X	1

Turnaround Time (Business days)

- [ ] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [X] other Due 9/9/2019

Approved By (SGS PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [X] Other COMMB

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

LA
8-27-19 07:15 ML
SW2

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 S. [illegible]	8-26-19 1400	1 [illegible] - Pitarka 1800	2 [illegible]	8-26-19 2130	2 [illegible]
3		3	4		4
5		5			

Custody Seal # Not Sealed — Intact / Not intact — Preserved where applicable — On Ice — Cooler Temp. 2.3 DV439

TD43905: Chain of Custody
Page 1 of 2
SGS Scott, LA

SGS Sample Receipt Summary

Job Number: TD43905 **Client:** SGS NORTH AMERICA **Project:** CAVE CREEK LANDFILL

Date / Time Received: 8/27/2019 7:15:00 AM **Delivery Method:** Accutest Courier **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (2.3/2.3); DV439

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☐		☑	3. COC Present:	☑		☐
2. Custody Seals Intact:	☐		☑	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Thermometer ID:	DV439;		
3. Cooler media:	Ice (direct contact)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

TD43905: Chain of Custody
Page 2 of 2

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: October 6, 2019

Client:	Doug Fisher	Work Order #:	19I029
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	9/20/2019

Dear Client:

Airtech Environmental Laboratories received twenty-three (23) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi
Technical Director
Airtech Environmental Labs

Arizona ADHS License No. AZ0740

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: October 6, 2019

Client:	Doug Fisher	Work Order #:	19I029
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	9/20/2019

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLE DATE	SAMPLE TIME
19I029-01	MW-10-SG-091819	TO-15	9/18/2019	1011
19I029-02	MW-10S-SG-091819	TO-15	9/18/2019	1027
19I029-03	MW-10M-SG-091819	TO-15	9/18/2019	1051
19I029-04	MW-10D-SG-091819	TO-15	9/18/2019	1106
19I029-05	TSSV-6S-SG-191819	TO-15	9/18/2019	1156
19I029-06	TSSV-6M-SG-091819	TO-15	9/18/2019	1218
19I029-07	TSSV-6D-SG-091819	TO-15	9/18/2019	1241
19I029-08	TSSV-7PZ-SG-091919	TO-15	9/19/2019	722
19I029-09	DUP01-091919	TO-15	9/19/2019	730
19I029-10	TSSV-7M-SG-091919	TO-15	9/19/2019	811
19I029-11	TSSV-7D-SG-091919	TO-15	9/19/2019	831
19I029-12	MW-13-SG-091919	TO-15	9/19/2019	1021
19I029-13	MW-13S-SG-091919	TO-15	9/19/2019	1035
19I029-14	MW-13D-SG-091919	TO-15	9/19/2019	1056
19I029-15	MW-13M-SG-091919	TO-15	9/19/2019	1126
19I029-16	DUP02-091919	TO-15	9/19/2019	1142
19I029-17	MW-12-SG-091919	TO-15	9/19/2019	1321
19I029-18	MW-12S-SG-092019	TO-15	9/20/2019	834
19I029-19	MW-12M-SG-092019	TO-15	9/20/2019	856
19I029-20	MW-12D-SG-092019	TO-15	9/20/2019	914
19I029-21	TSSV-3S-SG-092019	TO-15	9/20/2019	1008
19I029-22	TSSV-3M-SG-092019	TO-15	9/20/2019	1031
19I029-23	TSSV-3D-SG-092019	TO-15	9/20/2019	1231

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Date: October 6, 2019

Client:	Doug Fisher	Work Order #:	19I029
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	09/20/19

Case Narrative

All samples and QC associated with your samples met the quality control objectives.
Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

N1: There was no pressure measured on sample of 19I029-20, MW-12D-SG -092019. The sample was not reportable.

Airtech Environmental Laboratories (AEL) - AZ 0740
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Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Pressure	Type	
	Client	1.0 liter		before sampled	after sampled	1 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
19I029-01	MW-10-SG-091819	1794	1909-05	29.0	13.36	068	1909-01
19I029-02	MW-10S-SG-091819	1819	1909-05	29.0	13.33	037	1909-01
19I029-03	MW-10M-SG-091819	E2400	1909-02	29.0	13.34	072	1909-01
19I029-04	MW-10D-SG-091819	E2086	1909-02	29.0	13.29	202	1909-01
19I029-05	TSSV-6S-SG-191819	1817	1909-02	29.0	13.17	062	1909-01
19I029-06	TSSV-6M-SG-091819	E2359	1909-02	29.0	13.14	219	1909-01
19I029-07	TSSV-6D-SG-091819	E2401	1909-02	29.0	13.18	207	1909-01
19I029-08	TSSV-7PZ-SG-091919	E2100	1909-06	29.0	13.77	065	1908-06
19I029-09	DUP01-091919	1797	1909-06	29.0	13.79	143	1908-06
19I029-10	TSSV-7M-SG-091919	E2290	1909-06	29.0	13.67	189	1908-06
19I029-11	TSSV-7D-SG-091919	1874	1909-05	29.0	13.53	092	1908-06
19I029-12	MW-13-SG-091919	1857	1909-05	29.0	13.18	107	1908-06
19I029-13	MW-13S-SG-091919	E2374	1909-06	29.0	13.38	060	1907-05
19I029-14	MW-13D-SG-091919	E2408	1909-06	29.0	13.02	063	1907-05
19I029-15	MW-13M-SG-091919	E2287	1909-06	29.0	13.30	221	1908-06
19I029-16	DUP02-091919	E2099	1909-06	29.0	13.31	163	1907-05
19I029-17	MW-12-SG-091919	E2369	1909-02	29.0	13.25	196	1909-01
19I029-18	MW-12S-SG-092019	1798	1909-05	29.0	13.59	117	1908-02
19I029-19	MW-12M-SG-092019	0265	1909-05	29.0	13.48	198	1908-02
19I029-20	MW-12D-SG-092019	E2101	1909-02	29.0	0.71	206	1909-01
19I029-21	TSSV-3S-SG-092019	1880	1909-05	29.0	13.29	179	1908-02
19I029-22	TSSV-3M-SG-092019	1793	1909-05	29.0	13.36	199	1908-02
19I029-23	TSSV-3D-SG-092019	0272	1909-05	29.0	13.33	135	1908-02

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Client:	Wood	**Client Sample ID:**	MW-10-SG-091819
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/18/2019
Lab ID:	01	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**2,320**	**100**	**9,400**	**405**		200	9/25/2019	75-34-3
1,1-Dichloroethene	**660**	**100**	**2,620**	**397**		200	9/25/2019	75-35-4
1,2-Dichlorobenzene	< 100	100	< 601	601		200	9/25/2019	95-50-1
1,2-Dichloroethane	< 100	100	< 405	405		200	9/25/2019	107-06-2
2-Butanone (MEK)	< 1,000	1,000	< 2,950	2,950		200	9/25/2019	78-93-3
Acetone	< 1,000	1,000	< 2,380	2,380		200	9/25/2019	67-64-1
Benzene	**260**	**100**	**829**	**319**		200	9/25/2019	71-43-2
Chlorobenzene	< 100	100	< 460	460		200	9/25/2019	108-90-7
Chloroform	< 100	100	< 488	488		200	9/25/2019	67-66-3
cis-1,2-Dichloroethene	< 100	100	< 396	396		200	9/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	**7,460**	**200**	**36,900**	**990**		200	9/25/2019	75-71-8
Ethylbenzene	**230**	**100**	**998**	**434**		200	9/25/2019	100-41-4
m&p-Xylene	< 200	200	< 868	868		200	9/25/2019	179601-23-1
Methylene chloride	< 400	400	< 1,390	1,390		200	9/25/2019	75-09-2
o-Xylene	< 100	100	< 434	434		200	9/25/2019	95-47-6
Tetrachloroethene	**918**	**200**	**6,220**	**1,360**		200	9/25/2019	127-18-4
Tetrahydrofuran	< 400	400	< 1,180	1,180		200	9/25/2019	109-99-9
Toluene	**298**	**100**	**1,120**	**377**		200	9/25/2019	108-88-3
trans-1,2-Dichloroethene	< 100	100	< 396	396		200	9/25/2019	156-60-5
Trichloroethene	**3,510**	**100**	**18,800**	**537**		200	9/25/2019	79-01-6
Trichlorofluoromethane(F-11)	**3,060**	**100**	**17,200**	**562**		200	9/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**522**	**100**	**4,000**	**766**		200	9/25/2019	76-13-1
Vinyl chloride	< 100	100	< 256	256		200	9/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	98.2	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 2,000	2,000	ppbv		T4	200	9/25/2019

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Client:	Wood	**Client Sample ID:**	MW-10S-SG-091819
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/18/2019
Lab ID:	02	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	9/23/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	9/23/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	9/23/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	9/23/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	9/23/2019	78-93-3
Acetone	< 100	100	< 238	238		20	9/23/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	9/23/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	9/23/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	9/23/2019	67-66-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/23/2019	156-59-2
Dichlorodifluoromethane(F-12)	**654**	**20**	**3,240**	**99.0**		20	9/23/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	9/23/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	9/23/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	9/23/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	9/23/2019	95-47-6
Tetrachloroethene	**178**	**20**	**1,200**	**136**		20	9/23/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	9/23/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	9/23/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/23/2019	156-60-5
Trichloroethene	< 10	10	< 53.7	53.7		20	9/23/2019	79-01-6
Trichlorofluoromethane(F-11)	**166**	**10**	**934**	**56.2**		20	9/23/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**27**	**10**	**205**	**76.6**		20	9/23/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	9/23/2019	75-01-4
Surr: 4-Bromofluorobenzene	88.5	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	9/23/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-10M-SG-091819
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/18/2019
Lab ID:	03	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**900**	**100**	**3,650**	**405**		200	9/25/2019	75-34-3
1,1-Dichloroethene	**468**	**100**	**1,860**	**397**		200	9/25/2019	75-35-4
1,2-Dichlorobenzene	< 100	100	< 601	601		200	9/25/2019	95-50-1
1,2-Dichloroethane	< 100	100	< 405	405		200	9/25/2019	107-06-2
2-Butanone (MEK)	< 1,000	1,000	< 2,950	2,950		200	9/25/2019	78-93-3
Acetone	< 1,000	1,000	< 2,380	2,380		200	9/25/2019	67-64-1
Benzene	< 100	100	< 319	319		200	9/25/2019	71-43-2
Chlorobenzene	< 100	100	< 460	460		200	9/25/2019	108-90-7
Chloroform	< 100	100	< 488	488		200	9/25/2019	67-66-3
cis-1,2-Dichloroethene	< 100	100	< 396	396		200	9/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	**9,890**	**200**	**49,000**	**990**		200	9/25/2019	75-71-8
Ethylbenzene	< 100	100	< 434	434		200	9/25/2019	100-41-4
m&p-Xylene	< 200	200	< 868	868		200	9/25/2019	179601-23-1
Methylene chloride	< 400	400	< 1,390	1,390		200	9/25/2019	75-09-2
o-Xylene	< 100	100	< 434	434		200	9/25/2019	95-47-6
Tetrachloroethene	**348**	**200**	**2,360**	**1,360**		200	9/25/2019	127-18-4
Tetrahydrofuran	< 400	400	< 1,180	1,180		200	9/25/2019	109-99-9
Toluene	< 100	100	< 377	377		200	9/25/2019	108-88-3
trans-1,2-Dichloroethene	< 100	100	< 396	396		200	9/25/2019	156-60-5
Trichloroethene	**212**	**100**	**1,140**	**537**		200	9/25/2019	79-01-6
Trichlorofluoromethane(F-11)	**2,180**	**100**	**12,300**	**562**		200	9/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**446**	**100**	**3,420**	**766**		200	9/25/2019	76-13-1
Vinyl chloride	< 100	100	< 256	256		200	9/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	91.8	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 2,000	2,000	ppbv	T4	200	9/25/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-10D-SG-091819
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/18/2019
Lab ID:	04	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**3,110**	**100**	**12,600**	**405**		200	9/24/2019	75-34-3
1,1-Dichloroethene	**404**	**100**	**1,600**	**397**		200	9/24/2019	75-35-4
1,2-Dichlorobenzene	< 100	100	< 601	601		200	9/24/2019	95-50-1
1,2-Dichloroethane	< 100	100	< 405	405		200	9/24/2019	107-06-2
2-Butanone (MEK)	< 1,000	1,000	< 2,950	2,950		200	9/24/2019	78-93-3
Acetone	< 1,000	1,000	< 2,380	2,380		200	9/24/2019	67-64-1
Benzene	**336**	**100**	**1,070**	**319**		200	9/24/2019	71-43-2
Chlorobenzene	< 100	100	< 460	460		200	9/24/2019	108-90-7
Chloroform	< 100	100	< 488	488		200	9/24/2019	67-66-3
cis-1,2-Dichloroethene	< 100	100	< 396	396		200	9/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	**5,340**	**200**	**26,400**	**990**		200	9/24/2019	75-71-8
Ethylbenzene	< 100	100	< 434	434		200	9/24/2019	100-41-4
m&p-Xylene	< 200	200	< 868	868		200	9/24/2019	179601-23-1
Methylene chloride	**870**	**400**	**3,020**	**1,390**		200	9/24/2019	75-09-2
o-Xylene	< 100	100	< 434	434		200	9/24/2019	95-47-6
Tetrachloroethene	**748**	**200**	**5,070**	**1,360**		200	9/24/2019	127-18-4
Tetrahydrofuran	< 400	400	< 1,180	1,180		200	9/24/2019	109-99-9
Toluene	**598**	**100**	**2,250**	**377**		200	9/24/2019	108-88-3
trans-1,2-Dichloroethene	< 100	100	< 396	396		200	9/24/2019	156-60-5
Trichloroethene	**472**	**100**	**2,540**	**537**		200	9/24/2019	79-01-6
Trichlorofluoromethane(F-11)	**1,390**	**100**	**7,810**	**562**		200	9/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**192**	**100**	**1,470**	**766**		200	9/24/2019	76-13-1
Vinyl chloride	< 100	100	< 256	256		200	9/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	90.0	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 2,000	2,000	ppbv	T4	200	9/24/2019	

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Client:	Wood	**Client Sample ID:**	TSSV-6S-SG-191819
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/18/2019
Lab ID:	05	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	9/24/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	9/24/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	9/24/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	9/24/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	9/24/2019	78-93-3
Acetone	< 100	100	< 238	238		20	9/24/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	9/24/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	9/24/2019	108-90-7
Chloroform	**17**	**10**	**83.0**	**48.8**		20	9/24/2019	67-66-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	9/24/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	9/24/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	9/24/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	9/24/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	9/24/2019	95-47-6
Tetrachloroethene	**73**	**20**	**496**	**136**		20	9/24/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	9/24/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	9/24/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/24/2019	156-60-5
Trichloroethene	**904**	**10**	**4,850**	**53.7**		20	9/24/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	9/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**87**	**10**	**666**	**76.6**		20	9/24/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	9/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	87.9	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	9/24/2019

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Client:	Wood	**Client Sample ID:**	TSSV-6M-SG-091819
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/18/2019
Lab ID:	06	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	9/25/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	9/25/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	9/25/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	9/25/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	9/25/2019	78-93-3
Acetone	< 100	100	< 238	238		20	9/25/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	9/25/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	9/25/2019	108-90-7
Chloroform	**37**	**10**	**183**	**48.8**		20	9/25/2019	67-66-3
cis-1,2-Dichloroethene	**29**	**10**	**116**	**39.6**		20	9/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	9/25/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	9/25/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	9/25/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	9/25/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	9/25/2019	95-47-6
Tetrachloroethene	**91**	**20**	**620**	**136**		20	9/25/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	9/25/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	9/25/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/25/2019	156-60-5
Trichloroethene	**1,220**	**100**	**6,550**	**537**		200	9/24/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	9/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**35**	**10**	**265**	**76.6**		20	9/25/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	9/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	88.9	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	9/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-6D-SG-091819
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/18/2019
Lab ID:	07	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	9/25/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	9/25/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	9/25/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	9/25/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	9/25/2019	78-93-3
Acetone	< 100	100	< 238	238		20	9/25/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	9/25/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	9/25/2019	108-90-7
Chloroform	**29**	**10**	**142**	**48.8**		20	9/25/2019	67-66-3
cis-1,2-Dichloroethene	**49**	**10**	**193**	**39.6**		20	9/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	9/25/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	9/25/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	9/25/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	9/25/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	9/25/2019	95-47-6
Tetrachloroethene	**35**	**20**	**239**	**136**		20	9/25/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	9/25/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	9/25/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/25/2019	156-60-5
Trichloroethene	**542**	**10**	**2,910**	**53.7**		20	9/25/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	9/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**25**	**10**	**195**	**76.6**		20	9/25/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	9/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	91.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	9/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-7PZ-SG-091919
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/19/2019
Lab ID:	08	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 2,000	2,000	< 8,100	8,100		4,000	9/24/2019	75-34-3
1,1-Dichloroethene	**93,300**	**2,000**	**370,000**	**7,940**		4,000	9/24/2019	75-35-4
1,2-Dichlorobenzene	< 2,000	2,000	< 12,000	12,000		4,000	9/24/2019	95-50-1
1,2-Dichloroethane	< 2,000	2,000	< 8,100	8,100		4,000	9/24/2019	107-06-2
2-Butanone (MEK)	< 20,000	20,000	< 59,000	59,000		4,000	9/24/2019	78-93-3
Acetone	< 20,000	20,000	< 47,600	47,600		4,000	9/24/2019	67-64-1
Benzene	< 2,000	2,000	< 6,380	6,380		4,000	9/24/2019	71-43-2
Chlorobenzene	< 2,000	2,000	< 9,200	9,200		4,000	9/24/2019	108-90-7
Chloroform	< 2,000	2,000	< 9,760	9,760		4,000	9/24/2019	67-66-3
cis-1,2-Dichloroethene	**32,900**	**2,000**	**130,000**	**7,920**		4,000	9/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 4,000	4,000	< 19,800	19,800		4,000	9/24/2019	75-71-8
Ethylbenzene	< 2,000	2,000	< 8,680	8,680		4,000	9/24/2019	100-41-4
m&p-Xylene	< 4,000	4,000	< 17,400	17,400		4,000	9/24/2019	179601-23-1
Methylene chloride	< 8,000	8,000	< 27,800	27,800		4,000	9/24/2019	75-09-2
o-Xylene	< 2,000	2,000	< 8,680	8,680		4,000	9/24/2019	95-47-6
Tetrachloroethene	**15,000**	**4,000**	**102,000**	**27,100**		4,000	9/24/2019	127-18-4
Tetrahydrofuran	< 8,000	8,000	< 23,600	23,600		4,000	9/24/2019	109-99-9
Toluene	< 2,000	2,000	< 7,540	7,540		4,000	9/24/2019	108-88-3
trans-1,2-Dichloroethene	< 2,000	2,000	< 7,920	7,920		4,000	9/24/2019	156-60-5
Trichloroethene	**84,800**	**2,000**	**455,000**	**10,700**		4,000	9/24/2019	79-01-6
Trichlorofluoromethane(F-11)	< 2,000	2,000	< 11,200	11,200		4,000	9/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**28,200**	**2,000**	**216,000**	**15,300**		4,000	9/24/2019	76-13-1
Vinyl chloride	**2,760**	**2,000**	**7,070**	**5,120**		4,000	9/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	95.6	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 40,000	40,000	ppbv	T4	4,000	9/24/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	DUP01-091919
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/19/2019
Lab ID:	09	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 2,000	2,000	< 8,100	8,100		4,000	9/24/2019	75-34-3
1,1-Dichloroethene	**117,000**	**2,000**	**464,000**	**7,940**		4,000	9/24/2019	75-35-4
1,2-Dichlorobenzene	< 2,000	2,000	< 12,000	12,000		4,000	9/24/2019	95-50-1
1,2-Dichloroethane	< 2,000	2,000	< 8,100	8,100		4,000	9/24/2019	107-06-2
2-Butanone (MEK)	< 20,000	20,000	< 59,000	59,000		4,000	9/24/2019	78-93-3
Acetone	< 20,000	20,000	< 47,600	47,600		4,000	9/24/2019	67-64-1
Benzene	< 2,000	2,000	< 6,380	6,380		4,000	9/24/2019	71-43-2
Chlorobenzene	< 2,000	2,000	< 9,200	9,200		4,000	9/24/2019	108-90-7
Chloroform	< 2,000	2,000	< 9,760	9,760		4,000	9/24/2019	67-66-3
cis-1,2-Dichloroethene	**32,100**	**2,000**	**127,000**	**7,920**		4,000	9/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 4,000	4,000	< 19,800	19,800		4,000	9/24/2019	75-71-8
Ethylbenzene	< 2,000	2,000	< 8,680	8,680		4,000	9/24/2019	100-41-4
m&p-Xylene	< 4,000	4,000	< 17,400	17,400		4,000	9/24/2019	179601-23-1
Methylene chloride	< 8,000	8,000	< 27,800	27,800		4,000	9/24/2019	75-09-2
o-Xylene	< 2,000	2,000	< 8,680	8,680		4,000	9/24/2019	95-47-6
Tetrachloroethene	**19,000**	**4,000**	**129,000**	**27,100**		4,000	9/24/2019	127-18-4
Tetrahydrofuran	< 8,000	8,000	< 23,600	23,600		4,000	9/24/2019	109-99-9
Toluene	< 2,000	2,000	< 7,540	7,540		4,000	9/24/2019	108-88-3
trans-1,2-Dichloroethene	< 2,000	2,000	< 7,920	7,920		4,000	9/24/2019	156-60-5
Trichloroethene	**89,100**	**2,000**	**478,000**	**10,700**		4,000	9/24/2019	79-01-6
Trichlorofluoromethane(F-11)	< 2,000	2,000	< 11,200	11,200		4,000	9/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**30,000**	**2,000**	**230,000**	**15,300**		4,000	9/24/2019	76-13-1
Vinyl chloride	**3,160**	**2,000**	**8,090**	**5,120**		4,000	9/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	98.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 40,000	40,000	ppbv	T4	4,000	9/24/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-7M-SG-091919
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/19/2019
Lab ID:	10	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	9/25/2019	75-34-3
1,1-Dichloroethene	**28**	**10**	**111**	**39.7**		20	9/25/2019	75-35-4
1,2-Dichlorobenzene	**38**	**10**	**231**	**60.1**		20	9/25/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	9/25/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	9/25/2019	78-93-3
Acetone	< 100	100	< 238	238		20	9/25/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	9/25/2019	71-43-2
Chlorobenzene	**176**	**10**	**808**	**46.0**		20	9/25/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	9/25/2019	67-66-3
cis-1,2-Dichloroethene	**38**	**10**	**149**	**39.6**		20	9/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	**64**	**20**	**317**	**99.0**		20	9/25/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	9/25/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	9/25/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	9/25/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	9/25/2019	95-47-6
Tetrachloroethene	**70**	**20**	**473**	**136**		20	9/25/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	9/25/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	9/25/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/25/2019	156-60-5
Trichloroethene	**237**	**10**	**1,270**	**53.7**		20	9/25/2019	79-01-6
Trichlorofluoromethane(F-11)	**52**	**10**	**294**	**56.2**		20	9/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**10**	**10**	**78.1**	**76.6**		20	9/25/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	9/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	95.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	9/25/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-7D-SG-091919
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/19/2019
Lab ID:	11	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 500	500	< 2,030	2,030		1,000	9/25/2019	75-34-3
1,1-Dichloroethene	**4,590**	**500**	**18,200**	**1,990**		1,000	9/25/2019	75-35-4
1,2-Dichlorobenzene	< 500	500	< 3,010	3,010		1,000	9/25/2019	95-50-1
1,2-Dichloroethane	< 500	500	< 2,030	2,030		1,000	9/25/2019	107-06-2
2-Butanone (MEK)	< 5,000	5,000	< 14,800	14,800		1,000	9/25/2019	78-93-3
Acetone	< 5,000	5,000	< 11,900	11,900		1,000	9/25/2019	67-64-1
Benzene	< 500	500	< 1,600	1,600		1,000	9/25/2019	71-43-2
Chlorobenzene	< 500	500	< 2,300	2,300		1,000	9/25/2019	108-90-7
Chloroform	< 500	500	< 2,440	2,440		1,000	9/25/2019	67-66-3
cis-1,2-Dichloroethene	**880**	**500**	**3,490**	**1,980**		1,000	9/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1,000	1,000	< 4,950	4,950		1,000	9/25/2019	75-71-8
Ethylbenzene	< 500	500	< 2,170	2,170		1,000	9/25/2019	100-41-4
m&p-Xylene	< 1,000	1,000	< 4,340	4,340		1,000	9/25/2019	179601-23-1
Methylene chloride	< 2,000	2,000	< 6,940	6,940		1,000	9/25/2019	75-09-2
o-Xylene	< 500	500	< 2,170	2,170		1,000	9/25/2019	95-47-6
Tetrachloroethene	< 1,000	1,000	< 6,780	6,780		1,000	9/25/2019	127-18-4
Tetrahydrofuran	< 2,000	2,000	< 5,900	5,900		1,000	9/25/2019	109-99-9
Toluene	< 500	500	< 1,890	1,890		1,000	9/25/2019	108-88-3
trans-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	9/25/2019	156-60-5
Trichloroethene	**21,200**	**500**	**114,000**	**2,685**		1,000	9/25/2019	79-01-6
Trichlorofluoromethane(F-11)	< 500	500	< 2,810	2,810		1,000	9/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**750**	**500**	**5,750**	**3,830**		1,000	9/25/2019	76-13-1
Vinyl chloride	< 500	500	< 1,280	1,280		1,000	9/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	94.9	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10,000	10,000	ppbv	T4	1,000	9/25/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-13-SG-091919
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/19/2019
Lab ID:	12	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 5.0	5.0	< 20.3	20.3		10	9/26/2019	75-34-3
1,1-Dichloroethene	**95**	**5.0**	**378**	**19.9**		10	9/26/2019	75-35-4
1,2-Dichlorobenzene	< 5.0	5.0	< 30.1	30.1		10	9/26/2019	95-50-1
1,2-Dichloroethane	< 5.0	5.0	< 20.3	20.3		10	9/26/2019	107-06-2
2-Butanone (MEK)	< 50	50	< 148	148		10	9/26/2019	78-93-3
Acetone	< 50	50	< 119	119		10	9/26/2019	67-64-1
Benzene	< 5.0	5.0	< 16.0	16.0		10	9/26/2019	71-43-2
Chlorobenzene	< 5.0	5.0	< 23.0	23.0		10	9/26/2019	108-90-7
Chloroform	< 5.0	5.0	< 24.4	24.4		10	9/26/2019	67-66-3
cis-1,2-Dichloroethene	**5.9**	**5.0**	**23.4**	**19.8**		10	9/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	**19**	**10**	**95.0**	**49.5**		10	9/26/2019	75-71-8
Ethylbenzene	< 5.0	5.0	< 21.7	21.7		10	9/26/2019	100-41-4
m&p-Xylene	< 10	10	< 43.4	43.4		10	9/26/2019	179601-23-1
Methylene chloride	**28**	**20**	**95.4**	**69.4**		10	9/26/2019	75-09-2
o-Xylene	< 5.0	5.0	< 21.7	21.7		10	9/26/2019	95-47-6
Tetrachloroethene	**21**	**10**	**144**	**67.8**		10	9/26/2019	127-18-4
Tetrahydrofuran	< 20	20	< 59.0	59.0		10	9/26/2019	109-99-9
Toluene	< 5.0	5.0	< 18.9	18.9		10	9/26/2019	108-88-3
trans-1,2-Dichloroethene	< 5.0	5.0	< 19.8	19.8		10	9/26/2019	156-60-5
Trichloroethene	**48**	**5.0**	**258**	**26.9**		10	9/26/2019	79-01-6
Trichlorofluoromethane(F-11)	< 5.0	5.0	< 28.1	28.1		10	9/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**26**	**5.0**	**199**	**38.3**		10	9/26/2019	76-13-1
Vinyl chloride	< 5.0	5.0	< 12.8	12.8		10	9/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	97.5	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 100	100	ppbv		T4	10	9/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-13S-SG-091919
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/19/2019
Lab ID:	13	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	9/25/2019	75-34-3
1,1-Dichloroethene	**81**	**10**	**322**	**39.7**		20	9/25/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	9/25/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	9/25/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	9/25/2019	78-93-3
Acetone	< 100	100	< 238	238		20	9/25/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	9/25/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	9/25/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	9/25/2019	67-66-3
cis-1,2-Dichloroethene	**24**	**10**	**96.6**	**39.6**		20	9/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	**5,920**	**200**	**29,300**	**990**		200	9/26/2019	75-71-8
Ethylbenzene	**19**	**10**	**81.6**	**43.4**		20	9/25/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	9/25/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	9/25/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	9/25/2019	95-47-6
Tetrachloroethene	**110**	**20**	**744**	**136**		20	9/25/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	9/25/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	9/25/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/25/2019	156-60-5
Trichloroethene	**31**	**10**	**169**	**53.7**		20	9/25/2019	79-01-6
Trichlorofluoromethane(F-11)	**17**	**10**	**94.4**	**56.2**		20	9/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 10	10	< 76.6	76.6		20	9/25/2019	76-13-1
Vinyl chloride	**55**	**10**	**141**	**25.6**		20	9/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	101	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	9/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-13D-SG-091919
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/19/2019
Lab ID:	14	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	9/25/2019	75-34-3
1,1-Dichloroethene	**1,280**	**1,000**	**5,080**	**3,970**		2,000	9/25/2019	75-35-4
1,2-Dichlorobenzene	< 1,000	1,000	< 6,010	6,010		2,000	9/25/2019	95-50-1
1,2-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	9/25/2019	107-06-2
2-Butanone (MEK)	< 10,000	10,000	< 29,500	29,500		2,000	9/25/2019	78-93-3
Acetone	< 10,000	10,000	< 23,800	23,800		2,000	9/25/2019	67-64-1
Benzene	< 1,000	1,000	< 3,190	3,190		2,000	9/25/2019	71-43-2
Chlorobenzene	< 1,000	1,000	< 4,600	4,600		2,000	9/25/2019	108-90-7
Chloroform	< 1,000	1,000	< 4,880	4,880		2,000	9/25/2019	67-66-3
cis-1,2-Dichloroethene	**1,560**	**1,000**	**6,180**	**3,960**		2,000	9/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2,000	2,000	< 9,900	9,900		2,000	9/25/2019	75-71-8
Ethylbenzene	< 1,000	1,000	< 4,340	4,340		2,000	9/25/2019	100-41-4
m&p-Xylene	< 2,000	2,000	< 8,680	8,680		2,000	9/25/2019	179601-23-1
Methylene chloride	**52,100**	**4,000**	**181,000**	**13,900**		2,000	9/25/2019	75-09-2
o-Xylene	< 1,000	1,000	< 4,340	4,340		2,000	9/25/2019	95-47-6
Tetrachloroethene	< 2,000	2,000	< 13,600	13,600		2,000	9/25/2019	127-18-4
Tetrahydrofuran	< 4,000	4,000	< 11,800	11,800		2,000	9/25/2019	109-99-9
Toluene	< 1,000	1,000	< 3,770	3,770		2,000	9/25/2019	108-88-3
trans-1,2-Dichloroethene	< 1,000	1,000	< 3,960	3,960		2,000	9/25/2019	156-60-5
Trichloroethene	**1,360**	**1,000**	**7,300**	**5,370**		2,000	9/25/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1,000	1,000	< 5,620	5,620		2,000	9/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 1,000	1,000	< 7,660	7,660		2,000	9/25/2019	76-13-1
Vinyl chloride	< 1,000	1,000	< 2,560	2,560		2,000	9/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	95.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20,000	20,000	ppbv	T4	2,000	9/25/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-13M-SG-091919
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/19/2019
Lab ID:	15	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**2.0**	**1.0**	**7.94**	**4.05**		2	9/26/2019	75-34-3
1,1-Dichloroethene	**42**	**1.0**	**165**	**3.97**		2	9/26/2019	75-35-4
1,2-Dichlorobenzene	**3.2**	**1.0**	**19.1**	**6.01**		2	9/26/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/26/2019	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/26/2019	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	9/26/2019	67-64-1
Benzene	**1.4**	**1.0**	**4.40**	**3.19**		2	9/26/2019	71-43-2
Chlorobenzene	**70**	**5.0**	**323**	**23.0**		10	9/26/2019	108-90-7
Chloroform	**1.1**	**1.0**	**5.17**	**4.88**		2	9/26/2019	67-66-3
cis-1,2-Dichloroethene	**3.1**	**1.0**	**12.2**	**3.96**		2	9/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/26/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	9/26/2019	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	9/26/2019	179601-23-1
Methylene chloride	**23**	**4.0**	**78.3**	**13.9**		2	9/26/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	9/26/2019	95-47-6
Tetrachloroethene	**72**	**10**	**490**	**67.8**		10	9/26/2019	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/26/2019	109-99-9
Toluene	**3.0**	**1.0**	**11.3**	**3.77**		2	9/26/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/26/2019	156-60-5
Trichloroethene	**44**	**1.0**	**237**	**5.37**		2	9/26/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**1.6**	**1.0**	**12.6**	**7.66**		2	9/26/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	97.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv		T4	2	9/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	DUP02-091919
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/19/2019
Lab ID:	16	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 5.0	5.0	< 20.3	20.3		10	9/26/2019	75-34-3
1,1-Dichloroethene	**37**	**5.0**	**146**	**19.9**		10	9/26/2019	75-35-4
1,2-Dichlorobenzene	< 5.0	5.0	< 30.1	30.1		10	9/26/2019	95-50-1
1,2-Dichloroethane	< 5.0	5.0	< 20.3	20.3		10	9/26/2019	107-06-2
2-Butanone (MEK)	< 50	50	< 148	148		10	9/26/2019	78-93-3
Acetone	< 50	50	< 119	119		10	9/26/2019	67-64-1
Benzene	< 5.0	5.0	< 16.0	16.0		10	9/26/2019	71-43-2
Chlorobenzene	**83**	**5.0**	**384**	**23.0**		10	9/26/2019	108-90-7
Chloroform	< 5.0	5.0	< 24.4	24.4		10	9/26/2019	67-66-3
cis-1,2-Dichloroethene	< 5.0	5.0	< 19.8	19.8		10	9/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 10	10	< 49.5	49.5		10	9/26/2019	75-71-8
Ethylbenzene	< 5.0	5.0	< 21.7	21.7		10	9/26/2019	100-41-4
m&p-Xylene	< 10	10	< 43.4	43.4		10	9/26/2019	179601-23-1
Methylene chloride	< 20	20	< 69.4	69.4		10	9/26/2019	75-09-2
o-Xylene	< 5.0	5.0	< 21.7	21.7		10	9/26/2019	95-47-6
Tetrachloroethene	**83**	**10**	**561**	**67.8**		10	9/26/2019	127-18-4
Tetrahydrofuran	< 20	20	< 59.0	59.0		10	9/26/2019	109-99-9
Toluene	< 5.0	5.0	< 18.9	18.9		10	9/26/2019	108-88-3
trans-1,2-Dichloroethene	< 5.0	5.0	< 19.8	19.8		10	9/26/2019	156-60-5
Trichloroethene	**26**	**5.0**	**137**	**26.9**		10	9/26/2019	79-01-6
Trichlorofluoromethane(F-11)	< 5.0	5.0	< 28.1	28.1		10	9/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 5.0	5.0	< 38.3	38.3		10	9/26/2019	76-13-1
Vinyl chloride	< 5.0	5.0	< 12.8	12.8		10	9/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	96.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 100	100	ppbv		T4	10	9/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-12-SG-091919
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/19/2019
Lab ID:	17	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/26/2019	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/26/2019	75-35-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/26/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/26/2019	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/26/2019	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	9/26/2019	67-64-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	9/26/2019	71-43-2
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/26/2019	108-90-7
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/26/2019	67-66-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/26/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	9/26/2019	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	9/26/2019	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/26/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	9/26/2019	95-47-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/26/2019	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/26/2019	109-99-9
Toluene	< 1.0	1.0	< 3.77	3.77		2	9/26/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/26/2019	156-60-5
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/26/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/26/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	96.0	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv		T4	2	9/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-12S-SG-092019
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/20/2019
Lab ID:	18	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/26/2029	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/26/2029	75-35-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/26/2029	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/26/2029	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/26/2029	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	9/26/2029	67-64-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	9/26/2029	71-43-2
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/26/2029	108-90-7
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/26/2029	67-66-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/26/2029	156-59-2
Dichlorodifluoromethane(F-12)	**3.0**	**2.0**	**15.0**	**9.90**		2	9/26/2029	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	9/26/2029	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	9/26/2029	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/26/2029	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	9/26/2029	95-47-6
Tetrachloroethene	**10**	**2.0**	**69.3**	**13.6**		2	9/26/2029	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/26/2029	109-99-9
Toluene	< 1.0	1.0	< 3.77	3.77		2	9/26/2029	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/26/2029	156-60-5
Trichloroethene	**5.8**	**1.0**	**30.9**	**5.37**		2	9/26/2029	79-01-6
Trichlorofluoromethane(F-11)	**1.4**	**1.0**	**7.64**	**5.62**		2	9/26/2029	75-69-4
Trichlorotrifluoroethane(F-113)	**17**	**1.0**	**128**	**7.66**		2	9/26/2029	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/26/2029	75-01-4
Surr: 4-Bromofluorobenzene	93.2	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv		T4	2	9/26/2029

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-12M-SG-092019
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/20/2019
Lab ID:	19	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/26/2019	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/26/2019	75-35-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/26/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/26/2019	107-06-2
2-Butanone (MEK)	**16**	**10**	**46.8**	**29.5**		2	9/26/2019	78-93-3
Acetone	**24**	**10**	**57.4**	**23.8**		2	9/26/2019	67-64-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	9/26/2019	71-43-2
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/26/2019	108-90-7
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/26/2019	67-66-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	9/26/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	9/26/2019	100-41-4
m&p-Xylene	**3.6**	**2.0**	**15.7**	**8.68**		2	9/26/2019	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/26/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	9/26/2019	95-47-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/26/2019	127-18-4
Tetrahydrofuran	**60**	**4.0**	**177**	**11.8**		2	9/26/2019	109-99-9
Toluene	**5.3**	**1.0**	**20.1**	**3.77**		2	9/26/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/26/2019	156-60-5
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/26/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/26/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	97.0	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv		T4	2	9/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-3S-SG-092019
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/20/2019
Lab ID:	21	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**40**	**10**	**164**	**40.5**		20	9/26/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	9/26/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	9/26/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	9/26/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	9/26/2019	78-93-3
Acetone	< 100	100	< 238	238		20	9/26/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	9/26/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	9/26/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	9/26/2019	67-66-3
cis-1,2-Dichloroethene	**31**	**10**	**121**	**39.6**		20	9/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	**720**	**20**	**3,570**	**99.0**		20	9/26/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	9/26/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	9/26/2019	179601-23-1
Methylene chloride	**98**	**40**	**341**	**139**		20	9/26/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	9/26/2019	95-47-6
Tetrachloroethene	**186**	**20**	**1,260**	**136**		20	9/26/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	9/26/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	9/26/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/26/2019	156-60-5
Trichloroethene	**40**	**10**	**213**	**53.7**		20	9/26/2019	79-01-6
Trichlorofluoromethane(F-11)	**26**	**10**	**146**	**56.2**		20	9/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**12**	**10**	**95.0**	**76.6**		20	9/26/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	9/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	96.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	9/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-3M-SG-092019
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/20/2019
Lab ID:	22	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**511**	**50**	**2,070**	**203**		100	9/26/2019	75-34-3
1,1-Dichloroethene	< 50	50	< 199	199		100	9/26/2019	75-35-4
1,2-Dichlorobenzene	< 50	50	< 301	301		100	9/26/2019	95-50-1
1,2-Dichloroethane	< 50	50	< 203	203		100	9/26/2019	107-06-2
2-Butanone (MEK)	< 500	500	< 1,480	1,480		100	9/26/2019	78-93-3
Acetone	< 500	500	< 1,190	1,190		100	9/26/2019	67-64-1
Benzene	< 50	50	< 160	160		100	9/26/2019	71-43-2
Chlorobenzene	< 50	50	< 230	230		100	9/26/2019	108-90-7
Chloroform	< 50	50	< 244	244		100	9/26/2019	67-66-3
cis-1,2-Dichloroethene	**72**	**50**	**285**	**198**		100	9/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	**2,280**	**100**	**11,300**	**495**		100	9/26/2019	75-71-8
Ethylbenzene	< 50	50	< 217	217		100	9/26/2019	100-41-4
m&p-Xylene	< 100	100	< 434	434		100	9/26/2019	179601-23-1
Methylene chloride	**488**	**200**	**1,690**	**694**		100	9/26/2019	75-09-2
o-Xylene	< 50	50	< 217	217		100	9/26/2019	95-47-6
Tetrachloroethene	**302**	**100**	**2,050**	**678**		100	9/26/2019	127-18-4
Tetrahydrofuran	< 200	200	< 590	590		100	9/26/2019	109-99-9
Toluene	< 50	50	< 189	189		100	9/26/2019	108-88-3
trans-1,2-Dichloroethene	< 50	50	< 198	198		100	9/26/2019	156-60-5
Trichloroethene	**118**	**50**	**634**	**269**		100	9/26/2019	79-01-6
Trichlorofluoromethane(F-11)	**506**	**50**	**2,840**	**281**		100	9/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**104**	**50**	**797**	**383**		100	9/26/2019	76-13-1
Vinyl chloride	< 50	50	< 128	128		100	9/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	93.2	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 1,000	1,000	ppbv		T4	100	9/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-3D-SG-092019
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	9/20/2019
Lab ID:	23	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	**52**	**10**	**212**	**40.5**		20	9/26/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	9/26/2019	75-35-4
1,2-Dichlorobenzene	**15**	**10**	**87.7**	**60.1**		20	9/26/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	9/26/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	9/26/2019	78-93-3
Acetone	< 100	100	< 238	238		20	9/26/2019	67-64-1
Benzene	**32**	**10**	**103**	**31.9**		20	9/26/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	9/26/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	9/26/2019	67-66-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	**35**	**20**	**172**	**99.0**		20	9/26/2019	75-71-8
Ethylbenzene	**23**	**10**	**101**	**43.4**		20	9/26/2019	100-41-4
m&p-Xylene	**104**	**20**	**450**	**86.8**		20	9/26/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	9/26/2019	75-09-2
o-Xylene	**30**	**10**	**130**	**43.4**		20	9/26/2019	95-47-6
Tetrachloroethene	**295**	**20**	**2,000**	**136**		20	9/26/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	9/26/2019	109-99-9
Toluene	**72**	**10**	**272**	**37.7**		20	9/26/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/26/2019	156-60-5
Trichloroethene	**123**	**10**	**658**	**53.7**		20	9/26/2019	79-01-6
Trichlorofluoromethane(F-11)	**20**	**10**	**115**	**56.2**		20	9/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 10	10	< 76.6	76.6		20	9/26/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	9/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	100	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	9/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010923 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/23/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	9/23/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/23/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/23/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	9/23/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	9/23/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	9/23/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	9/23/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	9/23/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/23/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	9/23/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	9/23/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	9/23/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	9/23/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	9/23/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	9/23/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	9/23/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	9/23/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/23/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	9/23/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	9/23/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	9/23/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	9/23/2019	75-01-4
Surr: 4-Bromofluorobenzene	97.6	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10	10	ppbv		T4	1	9/23/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 9/23/2019 Batch: MS010923 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	9.5	94.7	10.1	101	10.0	6.5	ppbv			
Vinyl Chloride	8.8	88.1	8.9	88.8	10.0	0.8	ppbv			
Trichlorofluoromethane (F-11)	9.8	97.5	9.8	98.1	10.0	0.6	ppbv			
Acetone	8.1	80.6	8.7	87.0	10.0	7.6	ppbv			
1,1-Dichloroethene	8.4	84.4	8.8	87.6	10.0	3.7	ppbv			
Trichlorotrifluoroethane (F-113)	9.6	96.0	9.7	97.1	10.0	1.1	ppbv			
Methylene Chloride	8.8	87.7	9.6	95.7	10.0	8.7	ppbv			
trans-1,2-Dichloroethene	9.5	94.7	10.7	107	10.0	11.9	ppbv			
1,1-Dichloroethane	9.4	93.9	10.1	101	10.0	7.3	ppbv			
2-Butanone (MEK)	10.3	103	11.6	116	10.0	11.7	ppbv			
cis-1,2-Dichloroethene	9.7	96.5	10.7	107	10.0	10.7	ppbv			
Chloroform	9.4	93.7	10.0	100	10.0	6.5	ppbv			
Tetrahydrofuran	9.4	94.2	11.0	110	10.0	15.6	ppbv			
1,2-Dichloroethane	9.1	91.1	9.8	98.3	10.0	7.6	ppbv			
Benzene	9.7	97.0	10.4	104	10.0	6.9	ppbv			
Trichloroethene	9.8	97.6	10.3	103	10.0	5.4	ppbv			
Toluene	11.0	110	11.9	119	10.0	7.9	ppbv			
Tetrachloroethene	10.3	103	10.9	109	10.0	5.5	ppbv			
Chlorobenzene	9.6	96.4	10.5	105	10.0	8.1	ppbv			
Ethylbenzene	10.2	102	11.5	115	10.0	12.5	ppbv			
m&p-Xylene	20.4	102	23.0	115	20.0	12.0	ppbv			
o-Xylene	9.9	98.6	11.4	114	10.0	14.6	ppbv			
1,2-Dichlorobenzene	9.7	96.7	11.2	112	10.0	14.3	ppbv			
Surr: 4-Bromofluorobenzene	9.8	97.7	10.1	101		3.1	%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010924 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/24/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	9/24/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/24/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/24/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	9/24/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	9/24/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	9/24/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	9/24/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	9/24/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	9/24/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	9/24/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	9/24/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	9/24/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	9/24/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	9/24/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	9/24/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	9/24/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/24/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	9/24/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	9/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	9/24/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	9/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	97.6	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10	10	ppbv		T4	1	9/24/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 9/24/2019 Batch: MS010924 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	9.1	91.2	9.3	93.0	10.0	2.0	ppbv			
Vinyl Chloride	8.9	88.6	8.6	85.9	10.0	3.1	ppbv			
Trichlorofluoromethane (F-11)	8.9	89.0	9.0	89.9	10.0	1.0	ppbv			
Acetone	8.0	79.5	7.7	77.0	10.0	3.2	ppbv			
1,1-Dichloroethene	8.5	85.4	8.3	83.2	10.0	2.6	ppbv			
Trichlorotrifluoroethane (F-113)	9.1	90.6	9.0	89.7	10.0	1.0	ppbv			
Methylene Chloride	8.0	79.5	8.3	82.5	10.0	3.7	ppbv			
trans-1,2-Dichloroethene	8.9	89.1	9.2	91.8	10.0	3.0	ppbv			
1,1-Dichloroethane	8.4	84.3	8.8	88.1	10.0	4.4	ppbv			
2-Butanone (MEK)	9.0	89.7	9.2	92.4	10.0	3.0	ppbv			
cis-1,2-Dichloroethene	9.0	89.8	9.3	92.6	10.0	3.1	ppbv			
Chloroform	8.5	85.4	8.8	87.6	10.0	2.5	ppbv			
Tetrahydrofuran	8.1	81.3	8.8	87.7	10.0	7.6	ppbv			
1,2-Dichloroethane	7.7	77.1	7.9	78.9	10.0	2.3	ppbv			
Benzene	8.5	85.1	8.4	84.3	10.0	0.9	ppbv			
Trichloroethene	9.5	94.7	9.8	97.9	10.0	3.3	ppbv			
Toluene	9.9	98.5	10.1	101	10.0	2.7	ppbv			
Tetrachloroethene	9.6	96.2	9.7	96.9	10.0	0.7	ppbv			
Chlorobenzene	8.9	89.2	9.0	89.6	10.0	0.4	ppbv			
Ethylbenzene	9.9	98.7	10.1	101	10.0	1.8	ppbv			
m&p-Xylene	19.8	99.1	20.2	101	20.0	1.7	ppbv			
o-Xylene	9.9	99.2	9.9	98.6	10.0	0.6	ppbv			
1,2-Dichlorobenzene	9.8	97.7	9.8	97.8	10.0	0.1	ppbv			
Surr: 4-Bromofluorobenzene	10.7	107	10.7	107		0.6	%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010925 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/25/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	9/25/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/25/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/25/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	9/25/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	9/25/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	9/25/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	9/25/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	9/25/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	9/25/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	9/25/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	9/25/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	9/25/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	9/25/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	9/25/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	9/25/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	9/25/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/25/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	9/25/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	9/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	9/25/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	9/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	89.0	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10	10	ppbv		T4	1	9/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 9/25/2019 Batch: MS010925 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	9.4	93.8	9.1	91.3	10.0	2.7	ppbv			
Vinyl Chloride	9.3	92.7	8.6	85.6	10.0	8.0	ppbv			
Trichlorofluoromethane (F-11)	10.1	101	8.6	85.8	10.0	15.9	ppbv			
Acetone	9.7	97.0	8.4	83.5	10.0	15.0	ppbv			
1,1-Dichloroethene	9.7	97.2	8.4	83.5	10.0	15.2	ppbv			
Trichlorotrifluoroethane (F-113)	10.3	103	8.7	87.1	10.0	16.3	ppbv			
Methylene Chloride	9.2	92.4	8.2	82.3	10.0	11.6	ppbv			
trans-1,2-Dichloroethene	9.8	98.2	9.0	89.6	10.0	9.2	ppbv			
1,1-Dichloroethane	9.6	96.0	8.7	87.0	10.0	9.8	ppbv			
2-Butanone (MEK)	10.6	106	9.5	94.5	10.0	11.3	ppbv			
cis-1,2-Dichloroethene	10.1	101	9.1	91.4	10.0	9.5	ppbv			
Chloroform	9.6	96.4	8.7	86.6	10.0	10.7	ppbv			
Tetrahydrofuran	10.1	101	9.2	91.6	10.0	9.3	ppbv			
1,2-Dichloroethane	9.4	93.5	8.3	82.9	10.0	12.0	ppbv			
Benzene	9.9	99.3	8.8	88.2	10.0	11.8	ppbv			
Trichloroethene	10.0	99.6	9.2	92.2	10.0	7.7	ppbv			
Toluene	11.1	111	9.9	98.9	10.0	11.6	ppbv			
Tetrachloroethene	10.2	102	9.4	93.7	10.0	8.9	ppbv			
Chlorobenzene	10.1	101	9.0	89.5	10.0	12.3	ppbv			
Ethylbenzene	11.1	111	10.1	101	10.0	9.2	ppbv			
m&p-Xylene	22.4	112	20.1	100	20.0	11.0	ppbv			
o-Xylene	11.2	112	10.0	99.9	10.0	11.2	ppbv			
1,2-Dichlorobenzene	11.2	112	10.0	99.5	10.0	11.9	ppbv			
Surr: 4-Bromofluorobenzene	10.4	104	10.6	106		1.6	%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	NA
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I029	**Collection:**	NA
Lab ID:	Standards	**Matrix:**	Nitrogen

AEL ID#	STD Name	Vendor	SGI Order#	Description	CONC.	Accuracy	Exp.Date
S-190611-01	Stock	Spectra Gases	116447993	TO-14 39 Analytes	1.0 ppmv	± 5%	6/11/2020
S-190611-03	Stock	Spectra Gases	116447993	TO-15 25 Analytes	1.0 ppmv	± 5%	6/13/2020
S-190611-02	Stock	Spectra Gases	116447993	15 Additional Compounds	1.0 ppmv	± 5%	6/11/2020
S-181011-01	Stock	Spectra Gases	116849616	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	10/11/2019
A-190909-02	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	12/9/2019
A-190916-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	10/11/2019

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer : Wood	Page 1 of 3		AEL Lab #
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	19I029
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000 / Fax: 602.733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@woodplc.com	E-Mail Results: Y N		

Sample Receipt

Temperature_____ °C
Custody Seals: Yes_____ No_____
Custody Seals Intact: Yes_____ No_____
Total # of Containers:_____

Turn Around Request

_____ 24 Hours _____ 48 Hours
_____ 72 Hours
_____ 5 working Day
X Standard 10 Working Days

Sample Type

SVE: soil vapor extraction
A: ambient air
I: indoor air
S: soil vapor
W: water
GW: ground water
WW: waste water

Analyses Requested

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	~~TO-15 full list~~ SHORT LIST	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			DFA tracer cmpd. as TIC
01	1794	068	6 (1) bag	(1) 2 5	MW-10-SG-091819	9.18.19	1011	S	1	X									X
02	1819	037	6 (1) bag	(1) 2 5	MW-10S-SG-091819	↓	1027	↓	↓	X									X
03	E2400	072	6 (1) bag	(1) 2 5	MW-10M-SG-091819		1051			X									X
04	E2086	202	6 (1) bag	(1) 2 5	MW-10D-SG-091819		1106			X									X
05	1817	062	6 (1) bag	(1) 2 5	TSSV-6S-SG-091819		1156			X									X
06	E2359	219	6 (1) bag	(1) 2 5	TSSV-6M-SG-091819		1218			X									X
07	E2401	207	6 (1) bag	(1) 2 5	TSSV-6D-SG-091819		1241			X									X
08	E2100	065	6 (1) bag	(1) 2 5	TSSV-7PZ-SG-091919	9.19.19	722			X									X
09	1797	143	6 (1) bag	(1) 2 5	DuPol-091919		730			X									X
10	E2290	189	6 (1) bag	(1) 2 5	TSSV-7M-SG-091919	↓	811	↓	↓	X									X

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
9.20.19	1422	E. Miller	

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Wood	Page 2 of 3		AEL Lab #
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	19I029
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000 Fax: 602.733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@woodplc.com	E-Mail Results: (Y) N		

Sample Receipt

Temperature_____ °C
Custody Seals: Yes_____ No_____
Custody Seals Intact: Yes_____ No_____
Total # of Containers:_____

Turn Around Request

_____ 24 Hours _____ 48 Hours
_____ 72 Hours
_____ 5 working Day
X Standard 10 Working Days

Sample Type

SVE: soil vapor extraction
A: ambient air
I: indoor air
S: soil vapor
W: water
GW: ground water
WW: waste water

Analyses Requested

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list (SHORT LIST)	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			DFA tracer cmpd. as TIC
11	1874	092	6 (1) bag	(1) 2 5	TSSV-7D-SG-09.19.19	9.19.19	831	S	1	X									X
12	1857	107	6 (1) bag	(1) 2 5	MW-13-SG-09.19.19	↓	1021	↓	↓	X									X
13	E2374	030	6 (1) bag	(1) 2 5	MW-13S-SG-09.19.19	↓	1035	↓	↓	X									X
14	E2408	063	6 (1) bag	(1) 2 5	MW-13M-SG-09.19.19	↓	1056	↓	↓	X									X
15	E2287	221	6 (1) bag	(1) 2 5	MW-13M-SG-09.19.19	↓	1126	↓	↓	X									X
16	E2099	163	6 (1) bag	(1) 2 5	DUP02-09.19.19	↓	1142	↓	↓	X									X
17	E2369	196	6 (1) bag	(1) 2 5	MW-12-SG-09.19.19	↓	1321	↓	↓	X									X
18	1798	117	6 (1) bag	(1) 2 5	MW-12S-SG-092019	9.20.19	834	↓	↓	X									X
19	0265	198	6 (1) bag	(1) 2 5	MW-12M-SG-092019	↓	856	↓	↓	X									X
20	E2101	206	6 (1) bag	(1) 2 5	MW-12D-SG-092019	↓	914	↓	↓	X									X

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
9.20.19	1422	E. Mill	[signature]

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Wood	Page 3 of 3		AEL Lab#
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	19I029
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000 / Fax: 602.733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@woodplc.com	E-Mail Results: Y N		

Sample Receipt

Temperature_____ °C
Custody Seals: Yes_____ No_____
Custody Seals Intact: Yes_____ No_____
Total # of Containers:_____

Turn Around Request

____ 24 Hours ____ 48 Hours
____ 72 Hours
____ 5 working Day
X Standard 10 Working Days

Sample Type

SVE: soil vapor extraction
A: ambient air
I: indoor air
S: soil vapor
W: water
GW: ground water
WW: waste water

Analyses Requested

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	~~TO-15 full list~~ SHORT LIST	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			DFA tracer cmpd. as TIC
21	1880	179	6 (1) bag	(1) 2 5	TSSV-3S-SG-092019	9.20.19	1008	S	1	X									X
22	1793	199	6 (1) bag	(1) 2 5	TSSV-3M-SG-092019	↓	1031	↓	↓	X									X
23	0272	135	6 (1) bag	(1) 2 5	TSSV-3D-SG-092019	↓	1231 ~~1057~~	↓	↓	X									X
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
9.20.19	1422	E. Miller	[signature]

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: October 17, 2019

Client:	Doug Fisher	Work Order #:	19J014
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	10/8/2019

Dear Client:

Airtech Environmental Laboratories received thirty-four (34) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi
Technical Director
Airtech Environmental Labs

Arizona ADHS License No. AZ0740

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: October 17, 2019

Client:	Doug Fisher	Work Order #:	19J014
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	10/8/2019

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLE DATE	SAMPLE TIME
19J014-01	TSSV-5S-SG-092319	TO-15	9/23/2019	826
19J014-02	TSSV-5M-SG-092319	TO-15	9/23/2019	849
19J014-03	TSSV-5D-SG-092319	TO-15	9/23/2019	916
19J014-04	TSSV-5PZ-SG-092319	TO-15	9/23/2019	1016
19J014-05	MW-11-SG-100319	TO-15	10/3/2019	821
19J014-06	TSSV-4M-SG-100319	TO-15	10/3/2019	946
19J014-07	TSSV-4PZ-SG-100319	TO-15	10/3/2019	1021
19J014-08	TSSV-4D-SG-100319	TO-15	10/3/2019	1046
19J014-09	TSSV-1S-SG-100319	TO-15	10/3/2019	1151
19J014-10	TSSV-1M-SG-100319	TO-15	10/3/2019	1216
19J014-11	DUP03-100319	TO-15	10/3/2019	1231
19J014-12	TSSV-1D-SG-100319	TO-15	10/3/2019	1246
19J014-13	SVE-1S-SG-100419	TO-15	10/4/2019	813
19J014-14	SVE-1M-SG-100419	TO-15	10/4/2019	836
19J014-15	SVE-1D-SG-100419	TO-15	10/4/2019	853
19J014-16	TSSV-2S-SG-100419	TO-15	10/4/2019	926
19J014-17	TSSV-2M-SG-100419	TO-15	10/4/2019	946
19J014-18	TSSV-2D-SG-100419	TO-15	10/4/2019	1011
19J014-19	TSSV-2PZ-SG-100419	TO-15	10/4/2019	1037
19J014-20	MW-9M-SG-100419	TO-15	10/4/2019	1121
19J014-21	MW-9D-SG-100419	TO-15	10/4/2019	1138
19J014-22	SVE-3S-SG-100719	TO-15	10/7/2019	843
19J014-23	SVE-3M-SG-100719	TO-15	10/7/2019	905
19J014-24	SVE-3-SG-100719	TO-15	10/7/2019	913
19J014-25	SVE-4S-SG-100719	TO-15	10/7/2019	943
19J014-26	SVE-4M-SG-100719	TO-15	10/7/2019	1001
19J014-27	SVE-4-SG-100719	TO-15	10/7/2019	1013
19J014-28	DUP04-100719	TO-15	10/7/2019	1022
19J014-29	SVE-2S-SG-100719	TO-15	10/7/2019	1052
19J014-30	SVE-2M-SG-100719	TO-15	10/7/2019	1113
19J014-31	SVE-2-SG-100719	TO-15	10/7/2019	1128
19J014-32	DUP05-100719	TO-15	10/7/2019	1140
19J014-33	TSSV-PW-SG-100719	TO-15	10/7/2019	1151
19J014-34	SVE-1-SG-100719	TO-15	10/7/2019	1212

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: October 17, 2019

Client:	Doug Fisher	Work Order #:	19J014
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	10/08/19

Case Narrative

All samples and QC associated with your samples met the quality control objectives.
Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

Airtech Environmental Laboratories (AEL) - AZ 0740
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Pressure	Type	
	Client	1.0 liter		before sampled	after sampled	1 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
19J014-01	TSSV-5S-SG-092319	1850	1909-09	29.0	14.00	149	1909-05
19J014-02	TSSV-5M-SG-092319	E2363	1909-15	29.0	13.92	165	1909-05
19J014-03	TSSV-5D-SG-092319	E2391	1909-15	29.0	13.93	028	1909-05
19J014-04	TSSV-5PZ-SG-092319	E2393	1909-15	29.0	14.11	010	1909-05
19J014-05	MW-11-SG-100319	E2368	1909-15	29.0	13.74	191	1909-05
19J014-06	TSSV-4M-SG-100319	E2384	1909-15	29.0	13.68	023	1909-05
19J014-07	TSSV-4PZ-SG-100319	E2087	1909-15	29.0	13.36	086	1909-05
19J014-08	TSSV-4D-SG-100319	E2295	1909-13	29.0	13.44	018	1909-05
19J014-09	TSSV-1S-SG-100319	E1398	1909-13	29.0	13.36	024	1909-05
19J014-10	TSSV-1M-SG-100319	1809	1909-11	29.0	13.37	022	1908-06
19J014-11	DUP03-100319	E2284	1909-13	29.0	13.37	074	1909-05
19J014-12	TSSV-1D-SG-100319	1846	1909-11	29.0	13.36	201	1908-06
19J014-13	SVE-1S-SG-100419	1801	1909-09	29.0	13.71	158	1909-02
19J014-14	SVE-1M-SG-100419	E2396	1909-13	29.0	13.83	123	1909-05
19J014-15	SVE-1D-SG-100419	E2371	1909-14	29.0	13.80	150	1909-05
19J014-16	TSSV-2S-SG-100419	E2288	1909-14	29.0	13.62	020	1909-05
19J014-17	TSSV-2M-SG-100419	E2412	1909-14	29.0	13.56	014	1909-05
19J014-18	TSSV-2D-SG-100419	E2289	1909-14	29.0	13.36	091	1909-05
19J014-19	TSSV-2PZ-SG-100419	E2298	1909-14	29.0	13.09	167	1909-05
19J014-20	MW-9M-SG-100419	E2411	1909-14	29.0	12.94	035	1909-05

Airtech Environmental Laboratories (AEL) - AZ 0740
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Pressure	Type	
	Client	1.0 liter		before sampled	after sampled	1 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
19J014-21	MW-9D-SG-100419	E2102	1909-14	29.0	12.88	071	1909-05
19J014-22	SVE-3S-SG-100719	1859	1909-11	29.0	13.84	047	1908-06
19J014-23	SVE-3M-SG-100719	1861	1909-11	29.0	13.74	085	1908-06
19J014-24	SVE-3-SG-100719	1822	1909-11	29.0	13.12	171	1908-06
19J014-25	SVE-4S-SG-100719	1676	1909-11	29.0	13.50	095	1908-06
19J014-26	SVE-4M-SG-100719	1837	1909-12	29.0	13.57	057	1908-02
19J014-27	SVE-4-SG-100719	E2376	1909-13	29.0	12.76	012	1908-02
19J014-28	DUP04-100719	E2409	1909-13	29.0	12.72	193	1908-02
19J014-29	SVE-2S-SG-100719	E2362	1909-12	29.0	13.35	170	1908-02
19J014-30	SVE-2M-SG-100719	E2365	1909-12	29.0	13.50	136	1908-02
19J014-31	SVE-2-SG-100719	1871	1909-12	29.0	12.32	144	1908-02
19J014-32	DUP05-100719	E2385	1909-12	29.0	12.42	026	1908-02
19J014-33	TSSV-PW-SG-100719	E2285	1909-12	29.0	11.98	205	1908-02
19J014-34	SVE-1-SG-100719	E2410	1909-12	29.0	12.74	021	1908-02

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-5S-SG-092319
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	9/23/2019
Lab ID:	01	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	**12**	**2.5**	**50.4**	**10.1**		5	10/10/2019	75-34-3
1,1-Dichloroethene	**3.9**	**2.5**	**15.3**	**9.93**		5	10/10/2019	75-35-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/10/2019	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/10/2019	107-06-2
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/10/2019	78-93-3
Acetone	< 25	25	< 59.5	59.5		5	10/10/2019	67-64-1
Benzene	**24**	**2.5**	**77.7**	**7.98**		5	10/10/2019	71-43-2
Chlorobenzene	**2.6**	**2.5**	**12.0**	**11.5**		5	10/10/2019	108-90-7
Chloroform	**7.3**	**2.5**	**35.4**	**12.2**		5	10/10/2019	67-66-3
cis-1,2-Dichloroethene	**49**	**2.5**	**195**	**9.90**		5	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	**127**	**5.0**	**627**	**24.8**		5	10/10/2019	75-71-8
Ethylbenzene	**10**	**2.5**	**44.1**	**10.9**		5	10/10/2019	100-41-4
m&p-Xylene	**37**	**5.0**	**161**	**21.7**		5	10/10/2019	179601-23-1
Methylene chloride	< 10	10	< 34.7	34.7		5	10/10/2019	75-09-2
o-Xylene	**6.4**	**2.5**	**27.6**	**10.9**		5	10/10/2019	95-47-6
Tetrachloroethene	**134**	**5.0**	**906**	**33.9**		5	10/10/2019	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/10/2019	109-99-9
Toluene	**28**	**2.5**	**105**	**9.43**		5	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/10/2019	156-60-5
Trichloroethene	**32**	**2.5**	**170**	**13.4**		5	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	**20**	**2.5**	**111**	**14.1**		5	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**11**	**2.5**	**87.7**	**19.2**		5	10/10/2019	76-13-1
Vinyl chloride	**5.1**	**2.5**	**13.1**	**6.40**		5	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	97.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 50	50	ppbv		T4	5	10/10/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-5M-SG-092319
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	9/23/2019
Lab ID:	02	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	**22**	**10**	**90.7**	**40.5**		20	10/9/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	10/9/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	10/9/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	10/9/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	10/9/2019	78-93-3
Acetone	< 100	100	< 238	238		20	10/9/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	10/9/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	10/9/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	10/9/2019	67-66-3
cis-1,2-Dichloroethene	**24**	**10**	**93.5**	**39.6**		20	10/9/2019	156-59-2
Dichlorodifluoromethane(F-12)	**396**	**20**	**1,960**	**99.0**		20	10/9/2019	75-71-8
Ethylbenzene	**46**	**10**	**199**	**43.4**		20	10/9/2019	100-41-4
m&p-Xylene	**98**	**20**	**424**	**86.8**		20	10/9/2019	179601-23-1
Methylene chloride	**78**	**40**	**270**	**139**		20	10/9/2019	75-09-2
o-Xylene	**26**	**10**	**113**	**43.4**		20	10/9/2019	95-47-6
Tetrachloroethene	**240**	**20**	**1,630**	**136**		20	10/9/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	10/9/2019	109-99-9
Toluene	**82**	**10**	**310**	**37.7**		20	10/9/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	10/9/2019	156-60-5
Trichloroethene	**33**	**10**	**175**	**53.7**		20	10/9/2019	79-01-6
Trichlorofluoromethane(F-11)	**124**	**10**	**697**	**56.2**		20	10/9/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**28**	**10**	**216**	**76.6**		20	10/9/2019	76-13-1
Vinyl chloride	**13**	**10**	**34.3**	**25.6**		20	10/9/2019	75-01-4
Surr: 4-Bromofluorobenzene	97.9	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	10/9/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-5D-SG-092319
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	9/23/2019
Lab ID:	03	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**77**	**10**	**311**	**40.5**		20	10/10/2019	75-34-3
1,1-Dichloroethene	**36**	**10**	**143**	**39.7**		20	10/10/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	10/10/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	10/10/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	10/10/2019	78-93-3
Acetone	< 100	100	< 238	238		20	10/10/2019	67-64-1
Benzene	**10**	**10**	**31.9**	**31.9**		20	10/10/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	10/10/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	10/10/2019	67-66-3
cis-1,2-Dichloroethene	**39**	**10**	**154**	**39.6**		20	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	**596**	**20**	**2,950**	**99.0**		20	10/10/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	10/10/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	10/10/2019	179601-23-1
Methylene chloride	**48**	**40**	**165**	**139**		20	10/10/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	10/10/2019	95-47-6
Tetrachloroethene	**114**	**20**	**773**	**136**		20	10/10/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	10/10/2019	109-99-9
Toluene	**83**	**10**	**311**	**37.7**		20	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	10/10/2019	156-60-5
Trichloroethene	**90**	**10**	**484**	**53.7**		20	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	**175**	**10**	**982**	**56.2**		20	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**31**	**10**	**239**	**76.6**		20	10/10/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	92.1	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv	T4	20	10/10/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-5PZ-SG-092319
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	9/23/2019
Lab ID:	04	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	**11**	**10**	**43.7**	**40.5**		20	10/9/2019	75-34-3
1,1-Dichloroethene	**43**	**10**	**172**	**39.7**		20	10/9/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	10/9/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	10/9/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	10/9/2019	78-93-3
Acetone	< 100	100	< 238	238		20	10/9/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	10/9/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	10/9/2019	108-90-7
Chloroform	**11**	**10**	**51.7**	**48.8**		20	10/9/2019	67-66-3
cis-1,2-Dichloroethene	**46**	**10**	**184**	**39.6**		20	10/9/2019	156-59-2
Dichlorodifluoromethane(F-12)	**779**	**20**	**3,860**	**99.0**		20	10/9/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	10/9/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	10/9/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	10/9/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	10/9/2019	95-47-6
Tetrachloroethene	**134**	**20**	**910**	**136**		20	10/9/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	10/9/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	10/9/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	10/9/2019	156-60-5
Trichloroethene	**1,160**	**20**	**6,230**	**107**		40	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	**296**	**10**	**1,660**	**56.2**		20	10/9/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**87**	**10**	**669**	**76.6**		20	10/9/2019	76-13-1
Vinyl chloride	< 10	10	< 26	26		20	10/9/2019	75-01-4
Surr: 4-Bromofluorobenzene	90.5	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv	T4	20	10/9/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-11-SG-100319
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/3/2019
Lab ID:	05	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	10/9/2019	75-34-3
1,1-Dichloroethene	**86**	**10**	**341**	**39.7**		20	10/9/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	10/9/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	10/9/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	10/9/2019	78-93-3
Acetone	< 100	100	< 238	238		20	10/9/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	10/9/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	10/9/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	10/9/2019	67-66-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	10/9/2019	156-59-2
Dichlorodifluoromethane(F-12)	**26**	**20**	**130**	**99.0**		20	10/9/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	10/9/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	10/9/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	10/9/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	10/9/2019	95-47-6
Tetrachloroethene	< 20	20	< 136	136		20	10/9/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	10/9/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	10/9/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	10/9/2019	156-60-5
Trichloroethene	**354**	**10**	**1,900**	**53.7**		20	10/9/2019	79-01-6
Trichlorofluoromethane(F-11)	**14**	**10**	**77.6**	**56.2**		20	10/9/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**113**	**10**	**869**	**76.6**		20	10/9/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	10/9/2019	75-01-4
Surr: 4-Bromofluorobenzene	89.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	10/9/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-4M-SG-100319
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/3/2019
Lab ID:	06	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/10/2019	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/10/2019	75-35-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/10/2019	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/10/2019	107-06-2
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/10/2019	78-93-3
Acetone	< 25	25	< 59.5	59.5		5	10/10/2019	67-64-1
Benzene	< 2.5	2.5	< 8.0	7.98		5	10/10/2019	71-43-2
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/10/2019	108-90-7
Chloroform	**10**	**2.5**	**49.5**	**12.2**		5	10/10/2019	67-66-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	**11**	**5.0**	**54.7**	**24.8**		5	10/10/2019	75-71-8
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/10/2019	100-41-4
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/10/2019	179601-23-1
Methylene chloride	< 10	10	< 34.7	34.7		5	10/10/2019	75-09-2
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/10/2019	95-47-6
Tetrachloroethene	**65**	**5.0**	**439**	**33.9**		5	10/10/2019	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/10/2019	109-99-9
Toluene	< 2.5	2.5	< 9.43	9.43		5	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/10/2019	156-60-5
Trichloroethene	**20**	**2.5**	**109**	**13.4**		5	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	**6.3**	**2.5**	**35.4**	**14.1**		5	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**7.0**	**2.5**	**53.6**	**19.2**		5	10/10/2019	76-13-1
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	91.1	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 50	50	ppbv		T4	5	10/10/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-4PZ-SG-100319
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/3/2019
Lab ID:	07	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	10/9/2019	75-34-3
1,1-Dichloroethene	**419**	**10**	**1,670**	**39.7**		20	10/9/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	10/9/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	10/9/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	10/9/2019	78-93-3
Acetone	< 100	100	< 238	238		20	10/9/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	10/9/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	10/9/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	10/9/2019	67-66-3
cis-1,2-Dichloroethene	**305**	**10**	**1,210**	**39.6**		20	10/9/2019	156-59-2
Dichlorodifluoromethane(F-12)	**23**	**20**	**112**	**99.0**		20	10/9/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	10/9/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	10/9/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	10/9/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	10/9/2019	95-47-6
Tetrachloroethene	**188**	**20**	**1,280**	**136**		20	10/9/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	10/9/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	10/9/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	10/9/2019	156-60-5
Trichloroethene	**2,920**	**50**	**15,700**	**269**		100	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	10/9/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**397**	**10**	**3,040**	**76.6**		20	10/9/2019	76-13-1
Vinyl chloride	**17**	**10**	**43.0**	**25.6**		20	10/9/2019	75-01-4
Surr: 4-Bromofluorobenzene	94.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	10/9/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-4D-SG-100319
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/3/2019
Lab ID:	08	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	10/13/2019	75-34-3
1,1-Dichloroethene	**37**	**10**	**148**	**39.7**		20	10/13/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	10/13/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	10/13/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	10/13/2019	78-93-3
Acetone	< 100	100	< 238	238		20	10/13/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	10/13/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	10/13/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	10/13/2019	67-66-3
cis-1,2-Dichloroethene	**24**	**10**	**95.0**	**39.6**		20	10/13/2019	156-59-2
Dichlorodifluoromethane(F-12)	**41**	**20**	**203**	**99.0**		20	10/13/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	10/13/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	10/13/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	10/13/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	10/13/2019	95-47-6
Tetrachloroethene	**64**	**20**	**434**	**136**		20	10/13/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	10/13/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	10/13/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	10/13/2019	156-60-5
Trichloroethene	**816**	**10**	**4,380**	**53.7**		20	10/13/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	10/13/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**453**	**10**	**3,470**	**76.6**		20	10/13/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	10/13/2019	75-01-4
Surr: 4-Bromofluorobenzene	98.6	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	10/13/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-1S-SG-100319
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/3/2019
Lab ID:	09	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	10/9/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	10/9/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	10/9/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	10/9/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	10/9/2019	78-93-3
Acetone	< 100	100	< 238	238		20	10/9/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	10/9/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	10/9/2019	108-90-7
Chloroform	**22**	**10**	**106**	**48.8**		20	10/9/2019	67-66-3
cis-1,2-Dichloroethene	**13**	**10**	**51.5**	**39.6**		20	10/9/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	10/9/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	10/9/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	10/9/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	10/9/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	10/9/2019	95-47-6
Tetrachloroethene	**124**	**20**	**839**	**136**		20	10/9/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	10/9/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	10/9/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	10/9/2019	156-60-5
Trichloroethene	**1,240**	**50**	**6,660**	**269**		100	10/11/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	10/9/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**63**	**10**	**480**	**76.6**		20	10/9/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	10/9/2019	75-01-4
Surr: 4-Bromofluorobenzene	89.1	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	10/9/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-1M-SG-100319
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/3/2019
Lab ID:	10	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	10/9/2019	75-34-3
1,1-Dichloroethene	**11**	**10**	**44.5**	**39.7**		20	10/9/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	10/9/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	10/9/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	10/9/2019	78-93-3
Acetone	< 100	100	< 238	238		20	10/9/2019	67-64-1
Benzene	**15**	**10**	**48.5**	**31.9**		20	10/9/2019	71-43-2
Chlorobenzene	**644**	**10**	**2,970**	**46.0**		20	10/9/2019	108-90-7
Chloroform	**231**	**10**	**1,130**	**48.8**		20	10/9/2019	67-66-3
cis-1,2-Dichloroethene	**113**	**10**	**447**	**39.6**		20	10/9/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	10/9/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	10/9/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	10/9/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	10/9/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	10/9/2019	95-47-6
Tetrachloroethene	**252**	**20**	**1,710**	**136**		20	10/9/2019	127-18-4
Tetrahydrofuran	**219**	**40**	**645**	**118**		20	10/9/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	10/9/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	10/9/2019	156-60-5
Trichloroethene	**3,490**	**100**	**18,700**	**537**		200	10/14/2019	79-01-6
Trichlorofluoromethane(F-11)	**25**	**10**	**139**	**56.2**		20	10/9/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**62**	**10**	**475**	**76.6**		20	10/9/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	10/9/2019	75-01-4
Surr: 4-Bromofluorobenzene	92.2	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	10/9/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	DUP03-100319
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/3/2019
Lab ID:	11	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 50	50	< 203	203		100	10/9/2019	75-34-3
1,1-Dichloroethene	< 50	50	< 199	199		100	10/9/2019	75-35-4
1,2-Dichlorobenzene	< 50	50	< 301	301		100	10/9/2019	95-50-1
1,2-Dichloroethane	< 50	50	< 203	203		100	10/9/2019	107-06-2
2-Butanone (MEK)	< 500	500	< 1,480	1,480		100	10/9/2019	78-93-3
Acetone	< 500	500	< 1,190	1,190		100	10/9/2019	67-64-1
Benzene	< 50	50	< 160	160		100	10/9/2019	71-43-2
Chlorobenzene	**1,400**	**50**	**6,440**	**230**		100	10/9/2019	108-90-7
Chloroform	**271**	**50**	**1,320**	**244**		100	10/9/2019	67-66-3
cis-1,2-Dichloroethene	**107**	**50**	**424**	**198**		100	10/9/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 100	100	< 495	495		100	10/9/2019	75-71-8
Ethylbenzene	< 50	50	< 217	217		100	10/9/2019	100-41-4
m&p-Xylene	< 100	100	< 434	434		100	10/9/2019	179601-23-1
Methylene chloride	< 200	200	< 694	694		100	10/9/2019	75-09-2
o-Xylene	< 50	50	< 217	217		100	10/9/2019	95-47-6
Tetrachloroethene	**602**	**100**	**4,080**	**678**		100	10/9/2019	127-18-4
Tetrahydrofuran	< 200	200	< 590	590		100	10/9/2019	109-99-9
Toluene	< 50	50	< 189	189		100	10/9/2019	108-88-3
trans-1,2-Dichloroethene	< 50	50	< 198	198		100	10/9/2019	156-60-5
Trichloroethene	**4,230**	**250**	**22,700**	**1,340**		500	10/13/2019	79-01-6
Trichlorofluoromethane(F-11)	< 50	50	< 281	281		100	10/9/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**86**	**50**	**659**	**383**		100	10/9/2019	76-13-1
Vinyl chloride	< 50	50	< 128	128		100	10/9/2019	75-01-4
Surr: 4-Bromofluorobenzene	95.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 1,000	1,000	ppbv	T4	100	10/9/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-1D-SG-100319
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/3/2019
Lab ID:	12	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 50	50	< 203	203		100	10/9/2019	75-34-3
1,1-Dichloroethene	**63**	**50**	**250**	**199**		100	10/9/2019	75-35-4
1,2-Dichlorobenzene	**180**	**50**	**1,080**	**301**		100	10/9/2019	95-50-1
1,2-Dichloroethane	< 50	50	< 203	203		100	10/9/2019	107-06-2
2-Butanone (MEK)	< 500	500	< 1,475	1,475		100	10/9/2019	78-93-3
Acetone	< 500	500	< 1,190	1,190		100	10/9/2019	67-64-1
Benzene	< 50	50	< 160	160		100	10/9/2019	71-43-2
Chlorobenzene	**255**	**50**	**1,170**	**230**		100	10/9/2019	108-90-7
Chloroform	**240**	**50**	**1,170**	**244**		100	10/9/2019	67-66-3
cis-1,2-Dichloroethene	**629**	**50**	**2,480**	**198**		100	10/9/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 100	100	< 495	495		100	10/9/2019	75-71-8
Ethylbenzene	< 50	50	< 217	217		100	10/9/2019	100-41-4
m&p-Xylene	< 100	100	< 434	434		100	10/9/2019	179601-23-1
Methylene chloride	< 200	200	< 694	694		100	10/9/2019	75-09-2
o-Xylene	< 50	50	< 217	217		100	10/9/2019	95-47-6
Tetrachloroethene	**302**	**100**	**2,050**	**678**		100	10/9/2019	127-18-4
Tetrahydrofuran	< 200	200	< 590	590		100	10/9/2019	109-99-9
Toluene	< 50	50	< 189	189		100	10/9/2019	108-88-3
trans-1,2-Dichloroethene	< 50	50	< 198	198		100	10/9/2019	156-60-5
Trichloroethene	**4,800**	**50**	**25,800**	**269**		100	10/9/2019	79-01-6
Trichlorofluoromethane(F-11)	< 50	50	< 281	281		100	10/9/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**62**	**50**	**475**	**383**		100	10/9/2019	76-13-1
Vinyl chloride	< 50	50	< 128	128		100	10/9/2019	75-01-4
Surr: 4-Bromofluorobenzene	94.8	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 1,000	1,000	ppbv		T4	100	10/9/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-1S-SG-100419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/4/2019
Lab ID:	13	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	10/10/2019	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	10/10/2019	75-35-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	10/10/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	10/10/2019	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	10/10/2019	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	10/10/2019	67-64-1
Benzene	**2.0**	**1.0**	**6.32**	**3.19**		2	10/10/2019	71-43-2
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	10/10/2019	108-90-7
Chloroform	< 1.0	1.0	< 4.88	4.88		2	10/10/2019	67-66-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	10/10/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	10/10/2019	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	10/10/2019	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	10/10/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	10/10/2019	95-47-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	10/10/2019	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	10/10/2019	109-99-9
Toluene	**3.2**	**1.0**	**12.1**	**3.77**		2	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	10/10/2019	156-60-5
Trichloroethene	**6.1**	**1.0**	**32.8**	**5.37**		2	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	10/10/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	92.0	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv		T4	2	10/10/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-1M-SG-100419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/4/2019
Lab ID:	14	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	10/11/2019	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	10/11/2019	75-35-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	10/11/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	10/11/2019	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	10/11/2019	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	10/11/2019	67-64-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	10/11/2019	71-43-2
Chlorobenzene	**1.1**	**1.0**	**4.97**	**4.60**		2	10/11/2019	108-90-7
Chloroform	< 1.0	1.0	< 4.88	4.88		2	10/11/2019	67-66-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	10/11/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	10/11/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	10/11/2019	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	10/11/2019	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	10/11/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	10/11/2019	95-47-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	10/11/2019	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	10/11/2019	109-99-9
Toluene	< 1.0	1.0	< 3.77	3.77		2	10/11/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	10/11/2019	156-60-5
Trichloroethene	**4.0**	**1.0**	**21.4**	**5.37**		2	10/11/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	10/11/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	10/11/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	10/11/2019	75-01-4
Surr: 4-Bromofluorobenzene	93.2	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv		T4	2	10/11/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-1D-SG-100419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/4/2019
Lab ID:	15	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	10/11/2019	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	10/11/2019	75-35-4
1,2-Dichlorobenzene	**1.6**	**1.0**	**9.62**	**6.01**		2	10/11/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	10/11/2019	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	10/11/2019	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	10/11/2019	67-64-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	10/11/2019	71-43-2
Chlorobenzene	**5.2**	**1.0**	**23.9**	**4.60**		2	10/11/2019	108-90-7
Chloroform	**1.0**	**1.0**	**5.08**	**4.88**		2	10/11/2019	67-66-3
cis-1,2-Dichloroethene	**1.1**	**1.0**	**4.28**	**3.96**		2	10/11/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	10/11/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	10/11/2019	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	10/11/2019	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	10/11/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	10/11/2019	95-47-6
Tetrachloroethene	**3.4**	**2.0**	**23.3**	**13.6**		2	10/11/2019	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	10/11/2019	109-99-9
Toluene	< 1.0	1.0	< 3.77	3.77		2	10/11/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	10/11/2019	156-60-5
Trichloroethene	**40**	**1.0**	**216**	**5.37**		2	10/11/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	10/11/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**1.5**	**1.0**	**11.5**	**7.66**		2	10/11/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	10/11/2019	75-01-4
Surr: 4-Bromofluorobenzene	89.5	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv		T4	2	10/11/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-2S-SG-100419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/4/2019
Lab ID:	16	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	10/11/2019	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	10/11/2019	75-35-4
1,2-Dichlorobenzene	**2.0**	**1.0**	**12.1**	**6.01**		2	10/11/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	10/11/2019	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	10/11/2019	78-93-3
Acetone	**11**	**10**	**25.3**	**23.8**		2	10/11/2019	67-64-1
Benzene	**3.8**	**1.0**	**12.0**	**3.19**		2	10/11/2019	71-43-2
Chlorobenzene	**1.9**	**1.0**	**8.92**	**4.60**		2	10/11/2019	108-90-7
Chloroform	< 1.0	1.0	< 4.88	4.88		2	10/11/2019	67-66-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	10/11/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	10/11/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	10/11/2019	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	10/11/2019	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	10/11/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	10/11/2019	95-47-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	10/11/2019	127-18-4
Tetrahydrofuran	**24**	**4.0**	**69.9**	**11.8**		2	10/11/2019	109-99-9
Toluene	**5.0**	**1.0**	**19.0**	**3.77**		2	10/11/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	10/11/2019	156-60-5
Trichloroethene	**7.2**	**1.0**	**38.7**	**5.37**		2	10/11/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	10/11/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	10/11/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	10/11/2019	75-01-4
Surr: 4-Bromofluorobenzene	92.6	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv		T4	2	10/11/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-2M-SG-100419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/4/2019
Lab ID:	17	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	10/11/2019	75-34-3
1,1-Dichloroethene	**2.1**	**1.0**	**8.34**	**3.97**		2	10/11/2019	75-35-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	10/11/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	10/11/2019	107-06-2
2-Butanone (MEK)	**18**	**10**	**53.7**	**29.5**		2	10/11/2019	78-93-3
Acetone	**16**	**10**	**37.9**	**23.8**		2	10/11/2019	67-64-1
Benzene	**7.1**	**1.0**	**22.8**	**3.19**		2	10/11/2019	71-43-2
Chlorobenzene	**1.1**	**1.0**	**5.06**	**4.60**		2	10/11/2019	108-90-7
Chloroform	**2.5**	**1.0**	**12.0**	**4.88**		2	10/11/2019	67-66-3
cis-1,2-Dichloroethene	**1.3**	**1.0**	**5.31**	**3.96**		2	10/11/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	10/11/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	10/11/2019	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	10/11/2019	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	10/11/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	10/11/2019	95-47-6
Tetrachloroethene	**9.7**	**2.0**	**65.9**	**13.6**		2	10/11/2019	127-18-4
Tetrahydrofuran	**105**	**40**	**310**	**118**		20	10/10/2019	109-99-9
Toluene	**8.5**	**1.0**	**32.2**	**3.77**		2	10/11/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	10/11/2019	156-60-5
Trichloroethene	**128**	**10**	**687**	**53.7**		20	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	10/11/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**2.4**	**1.0**	**18.4**	**7.66**		2	10/11/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	10/11/2019	75-01-4
Surr: 4-Bromofluorobenzene	91.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv		T4	2	10/11/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-2D-SG-100419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/4/2019
Lab ID:	18	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	10/10/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	10/10/2019	75-35-4
1,2-Dichlorobenzene	**15**	**10**	**87.7**	**60.1**		20	10/10/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	10/10/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	10/10/2019	78-93-3
Acetone	< 100	100	< 238	238		20	10/10/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	10/10/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	10/10/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	10/10/2019	67-66-3
cis-1,2-Dichloroethene	**57**	**10**	**225**	**39.6**		20	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	10/10/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	10/10/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	10/10/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	10/10/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	10/10/2019	95-47-6
Tetrachloroethene	< 20	20	< 136	136		20	10/10/2019	127-18-4
Tetrahydrofuran	**372**	**40**	**1,100**	**118**		20	10/10/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	10/10/2019	156-60-5
Trichloroethene	**348**	**10**	**1,870**	**54**		20	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**28**	**10**	**214**	**76.6**		20	10/10/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	96.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	10/10/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-2PZ-SG-100419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/4/2019
Lab ID:	19	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	10/10/2019	75-34-3
1,1-Dichloroethene	**19**	**10**	**77.0**	**39.7**		20	10/10/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	10/10/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	10/10/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	10/10/2019	78-93-3
Acetone	< 100	100	< 238	238		20	10/10/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	10/10/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	10/10/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	10/10/2019	67-66-3
cis-1,2-Dichloroethene	**169**	**10**	**668**	**39.6**		20	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	10/10/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	10/10/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	10/10/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	10/10/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	10/10/2019	95-47-6
Tetrachloroethene	< 20	20	< 136	136		20	10/10/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	10/10/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	10/10/2019	156-60-5
Trichloroethene	**60**	**10**	**324**	**54**		20	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 10	10	< 76.6	76.6		20	10/10/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	90.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	10/10/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-9M-SG-100419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/4/2019
Lab ID:	20	**Matrix:**	Soil Vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	**2.2**	**1.0**	**8.91**	**4.05**		2	10/11/2019	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	10/11/2019	75-35-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	10/11/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	10/11/2019	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	10/11/2019	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	10/11/2019	67-64-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	10/11/2019	71-43-2
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	10/11/2019	108-90-7
Chloroform	< 1.0	1.0	< 4.88	4.88		2	10/11/2019	67-66-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	10/11/2019	156-59-2
Dichlorodifluoromethane(F-12)	**3.1**	**2.0**	**15.2**	**9.90**		2	10/11/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	10/11/2019	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	10/11/2019	179601-23-1
Methylene chloride	**4.8**	**4.0**	**16.7**	**13.9**		2	10/11/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	10/11/2019	95-47-6
Tetrachloroethene	**6.4**	**2.0**	**43.5**	**13.6**		2	10/11/2019	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	10/11/2019	109-99-9
Toluene	< 1.0	1.0	< 3.77	3.77		2	10/11/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	10/11/2019	156-60-5
Trichloroethene	**3.1**	**1.0**	**16.9**	**5.37**		2	10/11/2019	79-01-6
Trichlorofluoromethane(F-11)	**3.1**	**1.0**	**17.2**	**5.62**		2	10/11/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**2.7**	**1.0**	**20.7**	**7.66**		2	10/11/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	10/11/2019	75-01-4
Surr: 4-Bromofluorobenzene	93.0	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv		T4	2	10/11/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-9D-SG-100419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/4/2019
Lab ID:	21	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	10/11/2019	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	10/11/2019	75-35-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	10/11/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	10/11/2019	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	10/11/2019	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	10/11/2019	67-64-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	10/11/2019	71-43-2
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	10/11/2019	108-90-7
Chloroform	< 1.0	1.0	< 4.88	4.88		2	10/11/2019	67-66-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	10/11/2019	156-59-2
Dichlorodifluoromethane(F-12)	**6.0**	**2.0**	**29.9**	**9.90**		2	10/11/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	10/11/2019	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	10/11/2019	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	10/11/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	10/11/2019	95-47-6
Tetrachloroethene	**5.3**	**2.0**	**36.1**	**13.6**		2	10/11/2019	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	10/11/2019	109-99-9
Toluene	< 1.0	1.0	< 3.77	3.77		2	10/11/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	10/11/2019	156-60-5
Trichloroethene	**48**	**1.0**	**258**	**5.37**		2	10/11/2019	79-01-6
Trichlorofluoromethane(F-11)	**4.1**	**1.0**	**23.0**	**5.62**		2	10/11/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**3.6**	**1.0**	**27.4**	**7.66**		2	10/11/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	10/11/2019	75-01-4
Surr: 4-Bromofluorobenzene	92.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv	T4	2	10/11/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-3S-SG-100719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/7/2019
Lab ID:	22	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/10/2019	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/10/2019	75-35-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/10/2019	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/10/2019	107-06-2
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/10/2019	78-93-3
Acetone	< 25	25	< 59.5	59.5		5	10/10/2019	67-64-1
Benzene	< 2.5	2.5	< 8.0	7.98		5	10/10/2019	71-43-2
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/10/2019	108-90-7
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/10/2019	67-66-3
cis-1,2-Dichloroethene	**4.7**	**2.5**	**18.6**	**9.90**		5	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	**30**	**5.0**	**149**	**24.8**		5	10/10/2019	75-71-8
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/10/2019	100-41-4
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/10/2019	179601-23-1
Methylene chloride	< 10	10	< 34.7	34.7		5	10/10/2019	75-09-2
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/10/2019	95-47-6
Tetrachloroethene	**49**	**5.0**	**333**	**33.9**		5	10/10/2019	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/10/2019	109-99-9
Toluene	< 2.5	2.5	< 9.43	9.43		5	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/10/2019	156-60-5
Trichloroethene	**28**	**2.5**	**149**	**13.4**		5	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	**6.1**	**2.5**	**34.3**	**14.1**		5	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**6.3**	**2.5**	**47.9**	**19.2**		5	10/10/2019	76-13-1
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	97.5	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 50	50	ppbv		T4	5	10/10/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-3M-SG-100719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/7/2019
Lab ID:	23	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**4.4**	**2.5**	**17.8**	**10.1**		5	10/11/2019	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/11/2019	75-35-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	10/11/2019	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/11/2019	107-06-2
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/11/2019	78-93-3
Acetone	< 25	25	< 59.5	59.5		5	10/11/2019	67-64-1
Benzene	< 2.5	2.5	< 8.0	7.98		5	10/11/2019	71-43-2
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	10/11/2019	108-90-7
Chloroform	**24**	**2.5**	**119**	**12.2**		5	10/11/2019	67-66-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/11/2019	156-59-2
Dichlorodifluoromethane(F-12)	**52**	**5.0**	**255**	**24.8**		5	10/11/2019	75-71-8
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/11/2019	100-41-4
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/11/2019	179601-23-1
Methylene chloride	**69**	**10**	**239**	**34.7**		5	10/11/2019	75-09-2
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/11/2019	95-47-6
Tetrachloroethene	**198**	**5.0**	**1,350**	**33.9**		5	10/11/2019	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/11/2019	109-99-9
Toluene	< 2.5	2.5	< 9.43	9.43		5	10/11/2019	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/11/2019	156-60-5
Trichloroethene	**174**	**2.5**	**937**	**13.4**		5	10/11/2019	79-01-6
Trichlorofluoromethane(F-11)	**26**	**2.5**	**143**	**14.1**		5	10/11/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**15**	**2.5**	**118**	**19.2**		5	10/11/2019	76-13-1
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/11/2019	75-01-4
Surr: 4-Bromofluorobenzene	89.1	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 50	50	ppbv	T4	5	10/11/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-3-SG-100719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/7/2019
Lab ID:	24	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**156**	**100**	**632**	**405**		200	10/10/2019	75-34-3
1,1-Dichloroethene	**776**	**100**	**3,080**	**397**		200	10/10/2019	75-35-4
1,2-Dichlorobenzene	< 100	100	< 601	601		200	10/10/2019	95-50-1
1,2-Dichloroethane	< 100	100	< 405	405		200	10/10/2019	107-06-2
2-Butanone (MEK)	< 1,000	1,000	< 2,950	2,950		200	10/10/2019	78-93-3
Acetone	< 1,000	1,000	< 2,380	2,380		200	10/10/2019	67-64-1
Benzene	< 100	100	< 319	319		200	10/10/2019	71-43-2
Chlorobenzene	< 100	100	< 460	460		200	10/10/2019	108-90-7
Chloroform	< 100	100	< 488	488		200	10/10/2019	67-66-3
cis-1,2-Dichloroethene	**1,090**	**100**	**4,320**	**396**		200	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	**1,260**	**200**	**6,240**	**990**		200	10/10/2019	75-71-8
Ethylbenzene	< 100	100	< 434	434		200	10/10/2019	100-41-4
m&p-Xylene	< 200	200	< 868	868		200	10/10/2019	179601-23-1
Methylene chloride	< 400	400	< 1,390	1,390		200	10/10/2019	75-09-2
o-Xylene	< 100	100	< 434	434		200	10/10/2019	95-47-6
Tetrachloroethene	**554**	**200**	**3,760**	**1,360**		200	10/10/2019	127-18-4
Tetrahydrofuran	< 400	400	< 1,180	1,180		200	10/10/2019	109-99-9
Toluene	**108**	**100**	**407**	**377**		200	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 100	100	< 396	396		200	10/10/2019	156-60-5
Trichloroethene	**12,600**	**500**	**67,700**	**2,690**		1,000	10/13/2019	79-01-6
Trichlorofluoromethane(F-11)	**468**	**100**	**2,630**	**562**		200	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**1,770**	**100**	**13,600**	**766**		200	10/10/2019	76-13-1
Vinyl chloride	< 100	100	< 256	256		200	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	96.1	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 2,000	2,000	ppbv		T4	200	10/10/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-4S-SG-100719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/7/2019
Lab ID:	25	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/10/2019	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	10/10/2019	75-35-4
1,2-Dichlorobenzene	**20**	**2.5**	**117**	**15.0**		5	10/10/2019	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	10/10/2019	107-06-2
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	10/10/2019	78-93-3
Acetone	< 25	25	< 59.5	59.5		5	10/10/2019	67-64-1
Benzene	< 2.5	2.5	< 8.0	7.98		5	10/10/2019	71-43-2
Chlorobenzene	**22**	**2.5**	**101**	**11.5**		5	10/10/2019	108-90-7
Chloroform	< 2.5	2.5	< 12.2	12.2		5	10/10/2019	67-66-3
cis-1,2-Dichloroethene	**3.7**	**2.5**	**14.5**	**9.90**		5	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	**10**	**5.0**	**50.2**	**24.8**		5	10/10/2019	75-71-8
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	10/10/2019	100-41-4
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	10/10/2019	179601-23-1
Methylene chloride	< 10	10	< 34.7	34.7		5	10/10/2019	75-09-2
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	10/10/2019	95-47-6
Tetrachloroethene	**22**	**5.0**	**147**	**33.9**		5	10/10/2019	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	10/10/2019	109-99-9
Toluene	< 2.5	2.5	< 9.43	9.43		5	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	10/10/2019	156-60-5
Trichloroethene	**92**	**2.5**	**495**	**13.4**		5	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	**50**	**2.5**	**279**	**14.1**		5	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**6.8**	**2.5**	**51.7**	**19.2**		5	10/10/2019	76-13-1
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	98.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 50	50	ppbv	T4	5	10/10/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-4M-SG-100719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/7/2019
Lab ID:	26	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 100	100	< 405	405		200	10/10/2019	75-34-3
1,1-Dichloroethene	< 100	100	< 397	397		200	10/10/2019	75-35-4
1,2-Dichlorobenzene	< 100	100	< 601	601		200	10/10/2019	95-50-1
1,2-Dichloroethane	< 100	100	< 405	405		200	10/10/2019	107-06-2
2-Butanone (MEK)	< 1,000	1,000	< 2,950	2,950		200	10/10/2019	78-93-3
Acetone	< 1,000	1,000	< 2,380	2,380		200	10/10/2019	67-64-1
Benzene	< 100	100	< 319	319		200	10/10/2019	71-43-2
Chlorobenzene	**2,330**	**100**	**10,700**	**460**		200	10/10/2019	108-90-7
Chloroform	< 100	100	< 488	488		200	10/10/2019	67-66-3
cis-1,2-Dichloroethene	**574**	**100**	**2,273**	**396**		200	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 200	200	< 990	990		200	10/10/2019	75-71-8
Ethylbenzene	< 100	100	< 434	434		200	10/10/2019	100-41-4
m&p-Xylene	< 200	200	< 868	868		200	10/10/2019	179601-23-1
Methylene chloride	< 400	400	< 1,390	1,390		200	10/10/2019	75-09-2
o-Xylene	< 100	100	< 434	434		200	10/10/2019	95-47-6
Tetrachloroethene	**262**	**200**	**1,780**	**1,360**		200	10/10/2019	127-18-4
Tetrahydrofuran	< 400	400	< 1,180	1,180		200	10/10/2019	109-99-9
Toluene	< 100	100	< 377	377		200	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 100	100	< 396	396		200	10/10/2019	156-60-5
Trichloroethene	**640**	**100**	**3,440**	**537**		200	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	< 100	100	< 562	562		200	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 100	100	< 766	766		200	10/10/2019	76-13-1
Vinyl chloride	< 100	100	< 256	256		200	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	96.8	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 2,000	2,000	ppbv		T4	200	10/10/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-4-SG-100719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/7/2019
Lab ID:	27	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	10/10/2019	75-34-3
1,1-Dichloroethene	**18,400**	**1,000**	**73,048**	**3,970**		2,000	10/10/2019	75-35-4
1,2-Dichlorobenzene	< 1,000	1,000	< 6,010	6,010		2,000	10/10/2019	95-50-1
1,2-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	10/10/2019	107-06-2
2-Butanone (MEK)	< 10,000	10,000	< 29,500	29,500		2,000	10/10/2019	78-93-3
Acetone	< 10,000	10,000	< 23,800	23,800		2,000	10/10/2019	67-64-1
Benzene	< 1,000	1,000	< 3,190	3,190		2,000	10/10/2019	71-43-2
Chlorobenzene	< 1,000	1,000	< 4,600	4,600		2,000	10/10/2019	108-90-7
Chloroform	< 1,000	1,000	< 4,880	4,880		2,000	10/10/2019	67-66-3
cis-1,2-Dichloroethene	**4,580**	**1,000**	**18,100**	**3,960**		2,000	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2,000	2,000	< 9,900	9,900		2,000	10/10/2019	75-71-8
Ethylbenzene	< 1,000	1,000	< 4,340	4,340		2,000	10/10/2019	100-41-4
m&p-Xylene	< 2,000	2,000	< 8,680	8,680		2,000	10/10/2019	179601-23-1
Methylene chloride	**53,100**	**4,000**	**184,000**	**13,880**		2,000	10/10/2019	75-09-2
o-Xylene	< 1,000	1,000	< 4,340	4,340		2,000	10/10/2019	95-47-6
Tetrachloroethene	**3,080**	**2,000**	**20,900**	**13,560**		2,000	10/10/2019	127-18-4
Tetrahydrofuran	< 4,000	4,000	< 11,800	11,800		2,000	10/10/2019	109-99-9
Toluene	< 1,000	1,000	< 3,770	3,770		2,000	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 1,000	1,000	< 3,960	3,960		2,000	10/10/2019	156-60-5
Trichloroethene	**32,000**	**1,000**	**172,000**	**5,370**		2,000	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1,000	1,000	< 5,620	5,620		2,000	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**6,080**	**1,000**	**46,600**	**7,660**		2,000	10/10/2019	76-13-1
Vinyl chloride	< 1,000	1,000	< 2,560	2,560		2,000	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	98.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20,000	20,000	ppbv		T4	2,000	10/10/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	DUP04-100719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/7/2019
Lab ID:	28	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	10/10/2019	75-34-3
1,1-Dichloroethene	**7,220**	**1,000**	**28,700**	**3,970**		2,000	10/10/2019	75-35-4
1,2-Dichlorobenzene	< 1,000	1,000	< 6,010	6,010		2,000	10/10/2019	95-50-1
1,2-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	10/10/2019	107-06-2
2-Butanone (MEK)	< 10,000	10,000	< 29,500	29,500		2,000	10/10/2019	78-93-3
Acetone	< 10,000	10,000	< 23,800	23,800		2,000	10/10/2019	67-64-1
Benzene	< 1,000	1,000	< 3,190	3,190		2,000	10/10/2019	71-43-2
Chlorobenzene	< 1,000	1,000	< 4,600	4,600		2,000	10/10/2019	108-90-7
Chloroform	< 1,000	1,000	< 4,880	4,880		2,000	10/10/2019	67-66-3
cis-1,2-Dichloroethene	**1,360**	**1,000**	**5,390**	**3,960**		2,000	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2,000	2,000	< 9,900	9,900		2,000	10/10/2019	75-71-8
Ethylbenzene	< 1,000	1,000	< 4,340	4,340		2,000	10/10/2019	100-41-4
m&p-Xylene	< 2,000	2,000	< 8,680	8,680		2,000	10/10/2019	179601-23-1
Methylene chloride	**20,000**	**4,000**	**69,400**	**13,880**		2,000	10/10/2019	75-09-2
o-Xylene	< 1,000	1,000	< 4,340	4,340		2,000	10/10/2019	95-47-6
Tetrachloroethene	**1,540**	**1,000**	**10,400**	**6,780**		1,000	10/11/2019	127-18-4
Tetrahydrofuran	< 4,000	4,000	< 11,800	11,800		2,000	10/10/2019	109-99-9
Toluene	< 1,000	1,000	< 3,770	3,770		2,000	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 1,000	1,000	< 3,960	3,960		2,000	10/10/2019	156-60-5
Trichloroethene	**10,900**	**1,000**	**58,500**	**5,370**		2,000	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1,000	1,000	< 5,620	5,620		2,000	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**2,400**	**1,000**	**18,400**	**7,660**		2,000	10/10/2019	76-13-1
Vinyl chloride	< 1,000	1,000	< 2,560	2,560		2,000	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	97.9	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20,000	20,000	ppbv	T4	2,000	10/10/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-2S-SG-100719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/7/2019
Lab ID:	29	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	10/10/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	10/10/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	10/10/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	10/10/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	10/10/2019	78-93-3
Acetone	< 100	100	< 238	238		20	10/10/2019	67-64-1
Benzene	**65**	**10**	**207**	**31.9**		20	10/10/2019	71-43-2
Chlorobenzene	**12**	**10**	**54.3**	**46.0**		20	10/10/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	10/10/2019	67-66-3
cis-1,2-Dichloroethene	**1,250**	**20**	**4,950**	**79.2**		40	10/11/2019	156-59-2
Dichlorodifluoromethane(F-12)	**149**	**20**	**736**	**99.0**		20	10/10/2019	75-71-8
Ethylbenzene	**25**	**10**	**108**	**43.4**		20	10/10/2019	100-41-4
m&p-Xylene	**30**	**20**	**132**	**86.8**		20	10/10/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	10/10/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	10/10/2019	95-47-6
Tetrachloroethene	**82**	**20**	**556**	**136**		20	10/10/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	10/10/2019	109-99-9
Toluene	**48**	**10**	**182**	**37.7**		20	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	10/10/2019	156-60-5
Trichloroethene	**128**	**10**	**688**	**54**		20	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	**51**	**10**	**284**	**56.2**		20	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 10	10	< 76.6	76.6		20	10/10/2019	76-13-1
Vinyl chloride	**274**	**10**	**700**	**25.6**		20	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	101	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	10/10/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-2M-SG-100719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/7/2019
Lab ID:	30	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	10/11/2019	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	10/11/2019	75-35-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	10/11/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	10/11/2019	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	10/11/2019	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	10/11/2019	67-64-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	10/11/2019	71-43-2
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	10/11/2019	108-90-7
Chloroform	< 1.0	1.0	< 4.88	4.88		2	10/11/2019	67-66-3
cis-1,2-Dichloroethene	**2.3**	**1.0**	**9.27**	**3.96**		2	10/11/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	10/11/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	10/11/2019	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	10/11/2019	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	10/11/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	10/11/2019	95-47-6
Tetrachloroethene	**2.2**	**2.0**	**14.9**	**13.6**		2	10/11/2019	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	10/11/2019	109-99-9
Toluene	< 1.0	1.0	< 3.77	3.77		2	10/11/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	10/11/2019	156-60-5
Trichloroethene	**4.5**	**1.0**	**24.0**	**5.37**		2	10/11/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	10/11/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	10/11/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	10/11/2019	75-01-4
Surr: 4-Bromofluorobenzene	96.0	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv		T4	2	10/11/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-2-SG-100719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/7/2019
Lab ID:	31	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 50	50	< 203	203		100	10/10/2019	75-34-3
1,1-Dichloroethene	< 50	50	< 199	199		100	10/10/2019	75-35-4
1,2-Dichlorobenzene	< 50	50	< 301	301		100	10/10/2019	95-50-1
1,2-Dichloroethane	< 50	50	< 203	203		100	10/10/2019	107-06-2
2-Butanone (MEK)	< 500	500	< 1,475	1,475		100	10/10/2019	78-93-3
Acetone	< 500	500	< 1,190	1,190		100	10/10/2019	67-64-1
Benzene	< 50	50	< 160	160		100	10/10/2019	71-43-2
Chlorobenzene	< 50	50	< 230	230		100	10/10/2019	108-90-7
Chloroform	**62**	**50**	**303**	**244**		100	10/10/2019	67-66-3
cis-1,2-Dichloroethene	**61**	**50**	**242**	**198**		100	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 100	100	< 495	495		100	10/10/2019	75-71-8
Ethylbenzene	< 50	50	< 217	217		100	10/10/2019	100-41-4
m&p-Xylene	< 100	100	< 434	434		100	10/10/2019	179601-23-1
Methylene chloride	< 200	200	< 694	694		100	10/10/2019	75-09-2
o-Xylene	< 50	50	< 217	217		100	10/10/2019	95-47-6
Tetrachloroethene	**183**	**100**	**1,240**	**678**		100	10/10/2019	127-18-4
Tetrahydrofuran	< 200	200	< 590	590		100	10/10/2019	109-99-9
Toluene	< 50	50	< 189	189		100	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 50	50	< 198	198		100	10/10/2019	156-60-5
Trichloroethene	**2,540**	**50**	**13,600**	**269**		100	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	< 50	50	< 281	281		100	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**130**	**50**	**996**	**383**		100	10/10/2019	76-13-1
Vinyl chloride	< 50	50	< 128	128		100	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	98.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 1,000	1,000	ppbv		T4	100	10/10/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	DUP05-100719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/7/2019
Lab ID:	32	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 50	50	< 203	203		100	10/10/2019	75-34-3
1,1-Dichloroethene	< 50	50	< 199	199		100	10/10/2019	75-35-4
1,2-Dichlorobenzene	< 50	50	< 301	301		100	10/10/2019	95-50-1
1,2-Dichloroethane	< 50	50	< 203	203		100	10/10/2019	107-06-2
2-Butanone (MEK)	< 500	500	< 1,475	1,475		100	10/10/2019	78-93-3
Acetone	< 500	500	< 1,190	1,190		100	10/10/2019	67-64-1
Benzene	< 50	50	< 160	160		100	10/10/2019	71-43-2
Chlorobenzene	< 50	50	< 230	230		100	10/10/2019	108-90-7
Chloroform	**57**	**50**	**278**	**244**		100	10/10/2019	67-66-3
cis-1,2-Dichloroethene	**59**	**50**	**234**	**198**		100	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 100	100	< 495	495		100	10/10/2019	75-71-8
Ethylbenzene	< 50	50	< 217	217		100	10/10/2019	100-41-4
m&p-Xylene	< 100	100	< 434	434		100	10/10/2019	179601-23-1
Methylene chloride	< 200	200	< 694	694		100	10/10/2019	75-09-2
o-Xylene	< 50	50	< 217	217		100	10/10/2019	95-47-6
Tetrachloroethene	**132**	**100**	**895**	**678**		100	10/10/2019	127-18-4
Tetrahydrofuran	< 200	200	< 590	590		100	10/10/2019	109-99-9
Toluene	< 50	50	< 189	189		100	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 50	50	< 198	198		100	10/10/2019	156-60-5
Trichloroethene	**2,260**	**50**	**12,100**	**269**		100	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	< 50	50	< 281	281		100	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**126**	**50**	**965**	**383**		100	10/10/2019	76-13-1
Vinyl chloride	< 50	50	< 128	128		100	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	95.5	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 1,000	1,000	ppbv		T4	100	10/10/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-PW-SG-100719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/7/2019
Lab ID:	33	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	10/10/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	10/10/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	10/10/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	10/10/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	10/10/2019	78-93-3
Acetone	< 100	100	< 238	238		20	10/10/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	10/10/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	10/10/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	10/10/2019	67-66-3
cis-1,2-Dichloroethene	**13**	**10**	**50.7**	**39.6**		20	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	10/10/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	10/10/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	10/10/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	10/10/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	10/10/2019	95-47-6
Tetrachloroethene	**45**	**20**	**304**	**136**		20	10/10/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	10/10/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	10/10/2019	156-60-5
Trichloroethene	**803**	**10**	**4,310**	**53.7**		20	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**57**	**10**	**437**	**76.6**		20	10/10/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	93.8	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	10/10/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-1-SG-100719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	10/7/2019
Lab ID:	34	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	10/10/2019	75-34-3
1,1-Dichloroethene	**14**	**10**	**54.0**	**39.7**		20	10/10/2019	75-35-4
1,2-Dichlorobenzene	**32**	**10**	**194**	**60.1**		20	10/10/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	10/10/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	10/10/2019	78-93-3
Acetone	< 100	100	< 238	238		20	10/10/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	10/10/2019	71-43-2
Chlorobenzene	**758**	**10**	**3,490**	**46.0**		20	10/10/2019	108-90-7
Chloroform	**62**	**10**	**304**	**48.8**		20	10/10/2019	67-66-3
cis-1,2-Dichloroethene	**182**	**10**	**721**	**39.6**		20	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	10/10/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	10/10/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	10/10/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	10/10/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	10/10/2019	95-47-6
Tetrachloroethene	**118**	**20**	**797**	**136**		20	10/10/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	10/10/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	10/10/2019	156-60-5
Trichloroethene	**2,410**	**50**	**12,900**	**269**		100	10/13/2019	79-01-6
Trichlorofluoromethane(F-11)	**27**	**10**	**153**	**56.2**		20	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**57**	**10**	**440**	**76.6**		20	10/10/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		**20**	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	93.8	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv	T4	20	10/10/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011009 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	10/9/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	10/9/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/9/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	10/9/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	10/9/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	10/9/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	10/9/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	10/9/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	10/9/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	10/9/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	10/9/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	10/9/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	10/9/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	10/9/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	10/9/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	10/9/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	10/9/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	10/9/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	10/9/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	10/9/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	10/9/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	10/9/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	10/9/2019	75-01-4
Surr: 4-Bromofluorobenzene	94.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10	10	ppbv		T4	1	10/9/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

9-Oct

Date Analyzed: 10/9/2019 Batch: MS011009 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	10.8	108	10.6	106	10.0	2.1	ppbv			
Vinyl Chloride	9.0	90.4	8.4	84.0	10.0	7.3	ppbv			
Trichlorofluoromethane (F-11)	10.0	99.5	9.3	93.2	10.0	6.5	ppbv			
Acetone	8.0	80.2	7.8	78.2	10.0	2.5	ppbv			
1,1-Dichloroethene	10.9	109	10.8	108	10.0	1.1	ppbv			
Trichlorotrifluoroethane (F-113)	10.3	103	9.9	98.6	10.0	4.2	ppbv			
Methylene Chloride	9.5	94.8	9.2	92.3	10.0	2.7	ppbv			
trans-1,2-Dichloroethene	10.5	105	10.6	106	10.0	1.2	ppbv			
1,1-Dichloroethane	10.2	102	10.0	100	10.0	2.1	ppbv			
2-Butanone (MEK)	10.8	108	11.0	110	10.0	1.2	ppbv			
cis-1,2-Dichloroethene	10.7	107	10.8	108	10.0	0.9	ppbv			
Chloroform	10.3	103	10.2	102	10.0	1.1	ppbv			
Tetrahydrofuran	10.6	106	11.0	110	10.0	3.2	ppbv			
1,2-Dichloroethane	9.4	94.3	9.3	93.3	10.0	1.1	ppbv			
Benzene	9.7	97.2	9.8	97.7	10.0	0.5	ppbv			
Trichloroethene	11.1	111	10.9	109	10.0	2.0	ppbv			
Toluene	11.6	116	11.3	113	10.0	2.6	ppbv			
Tetrachloroethene	11.2	112	11.1	111	10.0	1.0	ppbv			
Chlorobenzene	10.4	104	10.1	101	10.0	2.2	ppbv			
Ethylbenzene	11.7	117	11.6	116	10.0	0.9	ppbv			
m&p-Xylene	22.7	114	22.8	114	20.0	0.5	ppbv			
o-Xylene	11.7	117	11.2	112	10.0	3.8	ppbv			
1,2-Dichlorobenzene	11.6	116	11.4	114	10.0	2.3	ppbv			
Surr: 4-Bromofluorobenzene	10.9	109	10.5	105		2.9	%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011010 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	10/10/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	10/10/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/10/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	10/10/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	10/10/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	10/10/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	10/10/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	10/10/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	10/10/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	10/10/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	10/10/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	10/10/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	10/10/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	10/10/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	10/10/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	10/10/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	10/10/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	10/10/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	10/10/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	10/10/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	10/10/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	10/10/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	10/10/2019	75-01-4
Surr: 4-Bromofluorobenzene	98.2	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10	10	ppbv		T4	1	10/10/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 10/10/2019 Batch: MS011010 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	10.8	108	11.6	116	10.0	6.8	ppbv			
Vinyl Chloride	11.0	110	9.6	96.3	10.0	13.6	ppbv			
Trichlorofluoromethane (F-11)	11.6	116	10.8	108	10.0	7.7	ppbv			
Acetone	10.4	104	8.3	82.7	10.0	22.3	ppbv			
1,1-Dichloroethene	9.9	99.0	10.4	104	10.0	4.4	ppbv			
Trichlorotrifluoroethane (F-113)	10.3	103	10.5	105	10.0	1.7	ppbv			
Methylene Chloride	10.9	109	10.4	104	10.0	4.5	ppbv			
trans-1,2-Dichloroethene	9.2	92.3	9.9	99.1	10.0	7.1	ppbv			
1,1-Dichloroethane	10.8	108	10.5	105	10.0	2.4	ppbv			
2-Butanone (MEK)	10.5	105	10.4	104	10.0	0.7	ppbv			
cis-1,2-Dichloroethene	9.9	98.6	10.0	100	10.0	1.4	ppbv			
Chloroform	10.9	109	10.5	105	10.0	3.3	ppbv			
Tetrahydrofuran	12.1	121	11.8	118	10.0	2.0	ppbv			
1,2-Dichloroethane	10.9	109	10.5	105	10.0	4.6	ppbv			
Benzene	10.2	102	9.9	99.4	10.0	3.0	ppbv			
Trichloroethene	10.3	103	10.1	101	10.0	2.4	ppbv			
Toluene	10.8	108	10.1	101	10.0	6.3	ppbv			
Tetrachloroethene	10.0	100	9.9	98.7	10.0	1.4	ppbv			
Chlorobenzene	10.0	100	9.8	97.6	10.0	2.7	ppbv			
Ethylbenzene	10.3	103	9.9	99.0	10.0	3.7	ppbv			
m&p-Xylene	21.3	107	20.3	102	20.0	4.8	ppbv			
o-Xylene	11.1	111	10.6	106	10.0	5.0	ppbv			
1,2-Dichlorobenzene	11.4	114	10.6	106	10.0	7.0	ppbv			
Surr: 4-Bromofluorobenzene	11.2	112	10.6	106			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011013 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1,1-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	10/13/2019	71-55-6
1,1,2,2-Tetrachloroethane	< 0.5	0.5	< 3.44	3.44		1	10/13/2019	79-34-5
1,1,2-Trichloroethane	< 0.5	0.5	< 2.73	2.73		1	10/13/2019	79-00-5
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	10/13/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	10/13/2019	75-35-4
1,2,4-Trichlorobenzene	< 2.0	2.0	< 14.8	14.8		1	10/13/2019	120-82-1
1,2,4-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	10/13/2019	95-63-6
1,2-Dibromoethane	< 0.5	0.5	< 3.84	3.84		1	10/13/2019	106-93-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/13/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	10/13/2019	107-06-2
1,2-Dichloropropane	< 0.5	0.5	< 2.31	2.31		1	10/13/2019	78-87-5
1,3,5-Trimethylbenzene	< 0.5	0.5	< 2.46	2.46		1	10/13/2019	108-67-8
1,3-Butadiene	< 0.5	0.5	< 1.11	1.11		1	10/13/2019	106-99-0
1,3-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/13/2019	541-73-1
1,4-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	10/13/2019	106-46-7
1,4-Dioxane	< 2.0	2.0	< 7.20	7.20		1	10/13/2019	123-91-1
2,2,4-Trimethylpentane	< 0.5	0.5	< 2.33	2.33		1	10/13/2019	540-84-1
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	10/13/2019	78-93-3
2-Hexanone	< 5.0	5.0	< 20.5	20.5		1	10/13/2019	591-78-6
2-Propanol (IPA)	< 5.0	5.0	< 12.3	12.3		1	10/13/2019	67-63-0
4-Ethyltoluene	< 1.0	1.0	< 4.92	4.92		1	10/13/2019	622-96-8
4-Methyl-2-pentanone (MIK)	< 5.0	5.0	< 20.5	20.5		1	10/13/2019	108-10-1
Acetone	< 5.0	5.0	< 11.9	11.9		1	10/13/2019	67-64-1
Allyl chloride	< 1.0	1.0	< 3.13	3.13		1	10/13/2019	107-05-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	10/13/2019	71-43-2
Benzyl chloride	< 2.0	2.0	< 10.4	10.4		1	10/13/2019	100-44-7
Bromodichloromethane	< 0.5	0.5	< 3.35	3.35		1	10/13/2019	75-27-4
Bromoethene(Vinyl Bromide)	< 0.5	0.5	< 2.19	2.19		1	10/13/2019	593-60-2
Bromoform	< 0.5	0.5	< 5.17	5.17		1	10/13/2019	75-25-2
Bromomethane	< 0.5	0.5	< 1.94	1.94		1	10/13/2019	74-83-9
Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/13/2019	104-51-8
Carbon disulfide	< 5.0	5.0	< 15.6	15.6		1	10/13/2019	75-15-0
Carbon tetrachloride	< 0.5	0.5	< 3.15	3.15		1	10/13/2019	56-23-5
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	10/13/2019	108-90-7
Chloroethane	< 0.5	0.5	< 1.32	1.32		1	10/13/2019	75-00-3
Chloroform	< 0.5	0.5	< 2.44	2.44		1	10/13/2019	67-66-3
Chloromethane	< 2.0	2.0	< 4.14	4.14		1	10/13/2019	74-87-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	10/13/2019	156-59-2
cis-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	10/13/2019	542-75-6
Cyclohexane	< 0.5	0.5	< 1.72	1.72		1	10/13/2019	110-82-7
Dibromochloromethane	< 0.5	0.5	< 4.26	4.26		1	10/13/2019	124-48-1
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	10/13/2019	75-71-8
Dichlorotetrafluoroethane(F-114)	< 0.5	0.5	< 3.50	3.50		1	10/13/2019	76-14-2
Ethanol	< 5.0	5.0	< 9.40	9.40		1	10/13/2019	64-17-5

Ethyl Acetate	< 0.5	0.5	< 1.80	1.80	1	10/13/2019	141-78-6
Ethylbenzene	< 0.5	0.5	< 2.17	2.17	1	10/13/2019	100-41-4

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-200
Lab Order:	19J014	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS011013 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
Heptane	< 0.5	0.5	< 2.05	2.05		1	10/13/2019	142-82-5
Hexachlorobutadiene	< 1.0	1.0	< 10.7	10.7		1	10/13/2019	87-68-3
Hexane	< 1.0	1.0	< 3.52	3.52		1	10/13/2019	110-54-3
Isopropylbenzene	< 1.0	1.0	< 4.92	4.92		1	10/13/2019	98-82-8
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	10/13/2019	179601-23-1
Methyl tert-butyl ether	< 2.0	2.0	< 7.22	7.22		1	10/13/2019	1634-04-4
Methylcyclohexane	< 1.0	1.0	< 4.02	4.02		1	10/13/2019	108-87-2
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	10/13/2019	75-09-2
Naphthalene	< 2.0	2.0	< 10.5	10.5		1	10/13/2019	91-20-3
Nonane	< 1.0	1.0	< 5.24	5.24		1	10/13/2019	111-84-2
Octane	< 1.0	1.0	< 4.67	4.67		1	10/13/2019	111-65-9
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	10/13/2019	95-47-6
Propene (Propylene)	< 1.0	1.0	< 1.72	1.72		1	10/13/2019	115-07-1
Propylbenzene	< 1.0	1.0	< 4.92	4.92		1	10/13/2019	103-65-1
Sec-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/13/2019	135-98-8
Styrene	< 0.5	0.5	< 2.13	2.13		1	10/13/2019	100-42-5
Tert-Butyl benzene	< 1.0	1.0	< 5.49	5.49		1	10/13/2019	98-06-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	10/13/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	10/13/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	10/13/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	10/13/2019	156-60-5
trans-1,3-Dichloropropene	< 0.5	0.5	< 2.27	2.27		1	10/13/2019	542-75-6
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	10/13/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	10/13/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	10/13/2019	76-13-1
Vinyl acetate	< 0.5	0.5	< 1.76	1.76		1	10/13/2019	108-05-4
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	10/13/2019	75-01-4
Surr: 4-Bromofluorobenzene	97.0	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 10/13/2019 Batch: MS011013 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Propene (Propylene)	9.8	97.7	8.1	81.2	10.0	18.4	ppbv			
Dichlorodifluoromethane(F-12)	10.4	104	9.8	97.9	10.0	5.9	ppbv			
Chloromethane	10.6	106	9.5	95.4	10.0	10.3	ppbv			
Dichlorotetrafluoroethane(F-114)	10.3	103	9.7	97.1	10.0	5.6	ppbv			
Vinyl Chloride	10.6	106	9.7	96.9	10.0	8.8	ppbv			
1,3-Butadiene	11.3	113	10.1	101	10.0	11.8	ppbv			
Bromomethane	10.0	100	9.7	96.7	10.0	3.2	ppbv			
Chloroethane	10.5	105	9.7	97.0	10.0	7.5	ppbv			
Ethanol	9.6	96.4	8.8	87.9	10.0	9.2	ppbv			
Bromoethene(Vinyl Bromide)	9.6	95.9	9.4	94.4	10.0	1.6	ppbv			
Trichlorofluoromethane (F-11)	9.8	98.0	9.4	93.6	10.0	4.6	ppbv			
Acetone	9.5	95.3	9.2	91.6	10.0	4.0	ppbv			
Isopropyl Alcohol (2-Propanol)	9.6	95.7	9.0	90.0	10.0	6.1	ppbv			
1,1-Dichloroethene	7.8	77.5	7.2	72.0	10.0	7.4	ppbv			
Trichlorotrifluoroethane (F-113)	8.9	88.9	8.7	87.4	10.0	1.7	ppbv			
Methylene Chloride	9.5	94.8	8.5	85.4	10.0	10.4	ppbv			
Allyl Chloride	9.7	97.4	9.4	93.9	10.0	3.7	ppbv			
Carbon disulfide	10.0	99.5	9.6	96.2	10.0	3.4	ppbv			
trans-1,2-Dichloroethene	9.2	92.4	9.5	94.5	10.0	2.2	ppbv			
Methyl tert-butyl ether	8.6	86.0	9.6	95.8	10.0	10.8	ppbv			
1,1-Dichloroethane	10.1	101	9.6	96.4	10.0	5.0	ppbv			
Vinyl acetate	9.7	97.4	9.0	89.8	10.0	8.1	ppbv			
2-Butanone (MEK)	9.7	96.8	9.7	96.9	10.0	0.1	ppbv			
Hexane	10.3	103	9.7	96.9	10.0	6.1	ppbv			
cis-1,2-Dichloroethene	9.5	95.0	9.7	96.7	10.0	1.8	ppbv			
Ethyl Acetate	10.2	102	9.4	93.7	10.0	8.3	ppbv			
Chloroform	10.1	101	9.8	98.3	10.0	2.4	ppbv			
Tetrahydrofuran	11.0	110	10.1	101	10.0	8.3	ppbv			
1,1,1-Trichloroethane	9.9	99.1	9.8	98.0	10.0	1.1	ppbv			
1,2-Dichloroethane	10.2	102	9.7	97.2	10.0	5.1	ppbv			
Benzene	9.6	95.5	9.5	94.8	10.0	0.7	ppbv			
Carbon tetrachloride	9.9	99.1	9.7	96.7	10.0	2.5	ppbv			
Cyclohexane	10.8	108	10.4	104	10.0	4.6	ppbv			
2,2,4-Trimethylpentane	9.8	98.2	9.4	94.1	10.0	4.3	ppbv			
Heptane	10.2	102	9.3	92.7	10.0	9.6	ppbv			
1,2-Dichloropropane	9.1	91.0	9.0	90.0	10.0	1.1	ppbv			
Trichloroethene	8.7	87.2	8.9	89.0	10.0	2.0	ppbv			
Bromodichloromethane	9.8	98.0	9.5	95.1	10.0	3.0	ppbv			
1,4-Dioxane	8.3	82.9	8.6	86.2	10.0	3.9	ppbv			
Methylcyclohexane	9.0	90.2	9.1	91.0	10.0	0.9	ppbv			
cis-1,3-Dichloropropene	9.4	94.3	9.4	94.0	10.0	0.3	ppbv			

4-methyl-2-pentanone	10.1	101	9.6	95.8	10.0	5.6	ppbv
trans-1,3-Dichloropropene	9.2	92.3	9.3	93.0	10.0	0.8	ppbv
Toluene	8.8	87.9	8.9	89.0	10.0	1.2	ppbv

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 10/13/2019 Batch: MS011013 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
1,1,2-Trichloroethane	8.5	85.1	8.7	86.7	10.0	1.9	ppbv			
2-Hexanone	8.6	85.7	9.4	93.6	10.0	8.8	ppbv			
n-Octane	10.7	107	9.8	98.2	10.0	8.9	ppbv			
Dibromochloromethane	9.0	89.9	9.0	90.2	10.0	0.3	ppbv			
1,2-Dibromoethane	8.5	85.2	8.8	88.1	10.0	3.3	ppbv			
Tetrachloroethene	8.4	84.4	8.6	86.0	10.0	1.9	ppbv			
Chlorobenzene	8.6	85.7	8.7	87.1	10.0	1.6	ppbv			
Ethylbenzene	8.7	86.7	8.8	88.3	10.0	1.8	ppbv			
m&p-Xylene	17.2	86.2	17.9	89.4	20.0	3.6	ppbv			
Bromoform	9.5	95.4	9.5	94.8	10.0	0.6	ppbv			
Styrene	9.2	92.0	9.3	93.3	10.0	1.4	ppbv			
Nonane	10.7	107	9.6	96.1	10.0	10.9	ppbv			
o-Xylene	9.1	91.0	9.1	91.1	10.0	0.1	ppbv			
1,1,2,2-Tetrachloroethane	9.2	91.8	9.1	91.2	10.0	0.7	ppbv			
Isopropylbenzene	9.1	91.3	9.2	92.3	10.0	1.1	ppbv			
n-Propylbenzene	9.4	93.5	9.3	93.4	10.0	0.1	ppbv			
4-Ethyltoluene	9.3	93.4	9.4	93.5	10.0	0.1	ppbv			
1,3,5-Trimethylbenzene	9.2	91.5	9.1	91.0	10.0	0.5	ppbv			
Tert-Butyl Benzene	9.0	89.9	8.9	89.0	10.0	1.0	ppbv			
1,2,4-Trimethylbenzene	9.1	91.1	9.1	90.6	10.0	0.6	ppbv			
Sec-Butyl Benzene	9.4	93.8	9.3	92.6	10.0	1.3	ppbv			
1,3-Dichlorobenzene	9.1	91.0	9.1	91.0	10.0	0.0	ppbv			
Benzyl chloride	9.6	95.8	9.6	96.3	10.0	0.5	ppbv			
1,4-Dichlorobenzene	8.9	89.0	9.0	89.6	10.0	0.7	ppbv			
1,2-Dichlorobenzene	8.9	89.3	10.0	100	10.0	10.8	ppbv			
n-Butyl Benzene	9.5	95.1	9.3	93.4	10.0	1.8	ppbv			
1,2,4-Trichlorobenzene	8.1	81.3	10.1	101	10.0	21.4	ppbv			
Naphthalene	7.7	77.0	7.9	78.5	10.0	1.9	ppbv			
Hexachlorobutadiene	7.8	78.0	7.7	77.3	10.0	0.9	ppbv			
Surr: 4-Bromofluorobenzene	10.8	108	10.4	104			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	NA
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19J014	**Collection:**	NA
Lab ID:	Standards	**Matrix:**	Nitrogen

AEL ID#	STD Name	Vendor	SGI Order#	Description	CONC.	Accuracy	Exp.Date
S-190611-01	Stock	Spectra Gases	116447993	TO-14 39 Analytes	1.0 ppmv	± 5%	6/11/2020
S-190611-03	Stock	Spectra Gases	116447993	TO-15 25 Analytes	1.0 ppmv	± 5%	6/13/2020
S-190611-02	Stock	Spectra Gases	116447993	15 Additional Compounds	1.0 ppmv	± 5%	6/11/2020
S-181011-01	Stock	Spectra Gases	116849616	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	10/11/2019
A-190909-02	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	12/9/2019
A-190923-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	10/11/2019

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Wood	Page 1 of 4		AEL Lab#
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	19J014
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000 / Fax: 602.733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@woodplc.com	E-Mail Results: (Y) N		

Sample Receipt

Temperature_____ °C
Custody Seals: Yes_____ No_____
Custody Seals Intact: Yes_____ No_____
Total # of Containers:_____

Turn Around Request

_____ 24 Hours _____ 48 Hours
_____ 72 Hours
_____ 5 working Day
X Standard 10 Working Days

Sample Type

SVE: soil vapor extraction
A: ambient air
I: indoor air
S: soil vapor
W: water
GW: ground water
WW: waste water

Analyses Requested

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	~~TO-15 full list~~ (SHORT LIST)	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			DFA tracer cmpd. as TIC
01	1850	149	6 (1) bag	(1) 2 5	TSSV-SS-S6-092319	9.23.19	826	S	1	X									X
02	E2363	165	6 (1) bag	(1) 2 5	TSSV-SM-S6-092319	↓	849	↓	↓	X									X
03	E2391	028	6 (1) bag	(1) 2 5	TSSV-SD-S6-092319	↓	916	↓	↓	X									X
04	E2393	010	6 (1) bag	(1) 2 5	TSSV-SPZ-S6-092319	↓	1016	↓	↓	X									X
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
10.8.19	947	E. Miller	[signature]

Chain of Custody

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Wood	Page 2 of ~~3~~ 4		AEL Lab#
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	19J014
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000 / Fax: 602.733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@woodplc.com	E-Mail Results: (Y) N		

Sample Receipt

Temperature_____ °C
Custody Seals: Yes_____ No_____
Custody Seals Intact: Yes_____ No_____
Total # of Containers:_____

Turn Around Request

_____ 24 Hours _____ 48 Hours
_____ 72 Hours
_____ 5 working Day
X Standard 10 Working Days

Sample Type

SVE: soil vapor extraction
A: ambient air
I: indoor air
S: soil vapor
W: water
GW: ground water
WW: waste water

Analyses Requested

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 ~~full list~~ (SHORT LIST)	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			DFA tracer cmpd. as TIC
05	E2368	191	6 (1) bag	(1) 2 5	MW-11-SG-100319	10.3.19	821	S	1	X									X
06	2384	023	6 (1) bag	(1) 2 5	TSSV-4M-SG-100319	↓	946	↓	↓	X									X
07	E2087	086	6 (1) bag	(1) 2 5	TSSV-4PZ-SG-100319		1021			X									X
08	E2295	018	6 (1) bag	(1) 2 5	TSSV-4D-SG-100319		1046			X									X
09	E2398	024	6 (1) bag	(1) 2 5	TSSV-1S-SG-100319		1151			X									X
10	1809	022	6 (1) bag	(1) 2 5	TSSV-1M-SG-100319		1216			X									X
11	E2284	074	6 (1) bag	(1) 2 5	DUP03-100319		1231			X									X
12	1846	201	6 (1) bag	(1) 2 5	TSSV-1D-SG-100319	↓	1246			X									X
13	1801	158	6 (1) bag	(1) 2 5	SVE-1S-SG-100419	10.4.19	813			X									X
14	E2396	123	6 (1) bag	(1) 2 5	SVE-1M-SG-100419	↓	836	↓	↓	X									X

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
10.8.19	947	E. Miller	[signature]

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Wood	Page 3 of 4		AEL Lab#
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	19J014
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000 / Fax: 602.733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@woodplc.com	E-Mail Results: Y N		

Sample Receipt	Turn Around Request	Sample Type
Temperature_____ °C	____ 24 Hours ____ 48 Hours	SVE: soil vapor extraction GW: ground water
Custody Seals: Yes____ No____	____ 72 Hours	A: ambient air WW: waste water
Custody Seals Intact: Yes____ No____	____ 5 working Day	I: indoor air
Total # of Containers:_____	X Standard 10 Working Days	S: soil vapor
		W: water

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 ~~full list~~ Short List	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			DFA tracer cmpd. as TIC
15	E2371	150	6 1 bag	1 2 5	SVE-1D-SG-100419	10.4.19	853	S	1	X									X
16	E2288	020	6 1 bag	1 2 5	TSSV-2S-SG-100419	↓	926			X									X
17	E2412	014	6 1 bag	1 2 5	TSSV-2M-SG-100419		946			X									X
18	E2289	091	6 1 bag	1 2 5	TSSV-2D-SG-100419		1011			X									X
19	E2298	167	6 1 bag	1 2 5	TSSV-2DZ-SG-100419		1037			X									X
20	E2411	035	6 1 bag	1 2 5	MW-9M-SG-100419		1121			X									X
21	E2102	071	6 1 bag	1 2 5	MW-9D-SG-100419	↓	1138			X									X
22	1869	047	6 1 bag	1 2 5	SVE-3S-SG-100719	10.7.19	843			X									X
23	1861	085	6 1 bag	1 2 5	SVE-3M-SG-100719		905			X									X
24	1822	171	6 1 bag	1 2 5	SVE-3-SG-100719	↓	913			X									X

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
10.8.19	947	E. Miller	[signature]

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Wood	Page 34 of 34		AEL Lab#
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	19J014
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000 / Fax: 602.733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@woodplc.com	E-Mail Results: Y N		

Sample Receipt

Temperature_____ °C
Custody Seals: Yes_____ No_____
Custody Seals Intact: Yes_____ No_____
Total # of Containers:_____

Turn Around Request

_____ 24 Hours _____ 48 Hours
_____ 72 Hours
_____ 5 working Day
X Standard 10 Working Days

Sample Type

SVE: soil vapor extraction
A: ambient air
I: indoor air
S: soil vapor
W: water
GW: ground water
WW: waste water

Analyses Requested

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list (SHORT LIST)	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			DFA tracer cmpd. as TIC
25	1676	095	6 (1) bag	(1) 2 5	SVE-4S-SG-100719	10.7.19	943	S	1	X									X
26	1837	057	6 (1) bag	(1) 2 5	SVE-4M-SG-100719	↓	1001	↓	↓	X									X
27	E2376	012	6 (1) bag	(1) 2 5	SVE-4-SG-100719	↓	1013	↓	↓	X									X
28	E2408	193	6 (1) bag	(1) 2 5	DUP04-100719	↓	1022	↓	↓	X									X
29	E2362	170	6 (1) bag	(1) 2 5	SVE-2S-SG-100719	↓	1052	↓	↓	X									X
30	E2365	136	6 (1) bag	(1) 2 5	SVE-2M-SG-100719	↓	1113	↓	↓	X									X
31	1871	144	6 (1) bag	(1) 2 5	SVE-2-SG-100719	↓	1128	↓	↓	X									X
32	E2385	026	6 (1) bag	(1) 2 5	DUP05-100719	↓	1140	↓	↓	X									X
33	E2285	205	6 (1) bag	(1) 2 5	TSSV-PW-SG-100719	↓	1151	↓	↓	X									X
34	E2410	021	6 (1) bag	(1) 2 5	SVE-1-SG-100719	↓	1212	↓	↓	X									X

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
10.8.19	947	E. Miller	[signature]

Chain of Custody

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: August 12, 2019

Client:	Natalie Chrisman	Work Order #:	19G025
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	7/18/2019

Dear Client:

Airtech Environmental Laboratories received four (4) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi
Technical Director
Airtech Environmental Labs

Arizona ADHS License No. AZ0740

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: August 12, 2019

Client:	Natalie Chrisman	Work Order #:	19G025
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	7/18/2019

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLE DATE	SAMPLE TIME
19G025-01	SP4-H1-071719	TO-15	7/17/2019	810
19G025-02	SP3-C2-071719	TO-15	7/17/2019	815
19G025-03	SP2-C3-071719	TO-15	7/17/2019	820
19G025-04	SP1-SkidOutlet-071719	TO-15	7/17/2019	825

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: August 12, 2019

Client:	Natalie Chrisman	Work Order #:	19G025
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	07/18/19

Case Narrative

All samples and QC associated with your samples met the quality control objectives.
Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

R6: BS/BSD RPD exceeded the method acceptance limit. Recovery met acceptance criteria.

Airtech Environmental Laboratories (AEL) - AZ 0740
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19G025	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Pressure	Type	
	Client	1.0 liter		before sampled	after sampled	1 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
19G025-01	SP4-H1-071719	E2280	1907-02	29.0	13.78	023	1906-03
19G025-02	SP3-C2-071719	E2398	1907-02	29.0	14.02	191	1906-03
19G025-03	SP2-C3-071719	1805	1907-02	29.0	14.28	030	1906-03
19G025-04	SP1-SkidOutlet-071719	E2094	1907-02	29.0	14.25	062	1906-03

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP4-H1-071719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19G025	**Collection:**	7/17/2019
Lab ID:	01	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 100	100	< 405	405		200	8/6/2019	75-34-3
1,1-Dichloroethene	< 100	100	< 397	397	R6	200	8/6/2019	75-35-4
1,2-Dichlorobenzene	< 100	100	< 601	601		200	8/6/2019	95-50-1
1,2-Dichloroethane	< 100	100	< 405	405		200	8/6/2019	107-06-2
2-Butanone (MEK)	< 1,000	1,000	< 2,950	2,950		200	8/6/2019	78-93-3
Acetone	< 1,000	1,000	< 2,380	2,380		200	8/6/2019	67-64-1
Benzene	< 100	100	< 319	319		200	8/6/2019	71-43-2
Chlorobenzene	< 100	100	< 460	460		200	8/6/2019	108-90-7
Chloroform	< 100	100	< 488	488		200	8/6/2019	67-66-3
cis-1,2-Dichloroethene	< 100	100	< 396	396		200	8/6/2019	156-59-2
Dichlorodifluoromethane(F-12)	**636**	**200**	**3,150**	**990**		200	8/6/2019	75-71-8
Ethylbenzene	< 100	100	< 434	434		200	8/6/2019	100-41-4
m&p-Xylene	< 200	200	< 868	868		200	8/6/2019	179601-23-1
Methylene chloride	**15,500**	**2,000**	**53,800**	**6,940**		1,000	8/6/2019	75-09-2
o-Xylene	< 100	100	< 434	434		200	8/6/2019	95-47-6
Tetrachloroethene	< 200	200	< 1,360	1,360		200	8/6/2019	127-18-4
Tetrahydrofuran	< 400	400	< 1,180	1,180		200	8/6/2019	109-99-9
Toluene	< 100	100	< 377	377		200	8/6/2019	108-88-3
trans-1,2-Dichloroethene	< 100	100	< 396	396		200	8/6/2019	156-60-5
Trichloroethene	< 100	100	< 537	537		200	8/6/2019	79-01-6
Trichlorofluoromethane(F-11)	< 100	100	< 562	562		200	8/6/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 100	100	< 766	766		200	8/6/2019	76-13-1
Vinyl chloride	< 100	100	< 256	256		200	8/6/2019	75-01-4
Surr: 4-Bromofluorobenzene	87.2	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP3-C2-071719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19G025	**Collection:**	7/17/2019
Lab ID:	02	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 500	500	< 2,030	2,030		1,000	8/6/2019	75-34-3
1,1-Dichloroethene	< 500	500	< 1,990	1,990	R6	1,000	8/6/2019	75-35-4
1,2-Dichlorobenzene	< 500	500	< 3,010	3,010		1,000	8/6/2019	95-50-1
1,2-Dichloroethane	< 500	500	< 2,030	2,030		1,000	8/6/2019	107-06-2
2-Butanone (MEK)	< 5,000	5,000	< 14,800	14,800		1,000	8/6/2019	78-93-3
Acetone	< 5,000	5,000	< 11,900	11,900		1,000	8/6/2019	67-64-1
Benzene	< 500	500	< 1,600	1,600		1,000	8/6/2019	71-43-2
Chlorobenzene	< 500	500	< 2,300	2,300		1,000	8/6/2019	108-90-7
Chloroform	< 500	500	< 2,440	2,440		1,000	8/6/2019	67-66-3
cis-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	8/6/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1,000	1,000	< 4,950	4,950		1,000	8/6/2019	75-71-8
Ethylbenzene	< 500	500	< 2,170	2,170		1,000	8/6/2019	100-41-4
m&p-Xylene	< 1,000	1,000	< 4,340	4,340		1,000	8/6/2019	179601-23-1
Methylene chloride	**30,100**	**2,000**	**104,000**	**6,940**		1,000	8/6/2019	75-09-2
o-Xylene	< 500	500	< 2,170	2,170		1,000	8/6/2019	95-47-6
Tetrachloroethene	< 1,000	1,000	< 6,780	6,780		1,000	8/6/2019	127-18-4
Tetrahydrofuran	< 2,000	2,000	< 5,900	5,900		1,000	8/6/2019	109-99-9
Toluene	< 500	500	< 1,890	1,890		1,000	8/6/2019	108-88-3
trans-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	8/6/2019	156-60-5
Trichloroethene	< 500	500	< 2,690	2,690		1,000	8/6/2019	79-01-6
Trichlorofluoromethane(F-11)	< 500	500	< 2,810	2,810		1,000	8/6/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 500	500	< 3,830	3,830		1,000	8/6/2019	76-13-1
Vinyl chloride	< 500	500	< 1,280	1,280		1,000	8/6/2019	75-01-4
Surr: 4-Bromofluorobenzene	88.1	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP2-C3-071719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19G025	**Collection:**	7/17/2019
Lab ID:	03	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 500	500	< 2,030	2,030		1,000	8/6/2019	75-34-3
1,1-Dichloroethene	**4,070**	**500**	**16,200**	**1,990**	R6	1,000	8/6/2019	75-35-4
1,2-Dichlorobenzene	< 500	500	< 3,010	3,010		1,000	8/6/2019	95-50-1
1,2-Dichloroethane	< 500	500	< 2,030	2,030		1,000	8/6/2019	107-06-2
2-Butanone (MEK)	< 5,000	5,000	< 14,800	14,800		1,000	8/6/2019	78-93-3
Acetone	< 5,000	5,000	< 11,900	11,900		1,000	8/6/2019	67-64-1
Benzene	< 500	500	< 1,600	1,600		1,000	8/6/2019	71-43-2
Chlorobenzene	< 500	500	< 2,300	2,300		1,000	8/6/2019	108-90-7
Chloroform	< 500	500	< 2,440	2,440		1,000	8/6/2019	67-66-3
cis-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	8/6/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1,000	1,000	< 4,950	4,950		1,000	8/6/2019	75-71-8
Ethylbenzene	< 500	500	< 2,170	2,170		1,000	8/6/2019	100-41-4
m&p-Xylene	< 1,000	1,000	< 4,340	4,340		1,000	8/6/2019	179601-23-1
Methylene chloride	**21,500**	**2,000**	**74,600**	**6,940**		1,000	8/6/2019	75-09-2
o-Xylene	< 500	500	< 2,170	2,170		1,000	8/6/2019	95-47-6
Tetrachloroethene	< 1,000	1,000	< 6,780	6,780		1,000	8/6/2019	127-18-4
Tetrahydrofuran	< 2,000	2,000	< 5,900	5,900		1,000	8/6/2019	109-99-9
Toluene	< 500	500	< 1,890	1,890		1,000	8/6/2019	108-88-3
trans-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	8/6/2019	156-60-5
Trichloroethene	< 500	500	< 2,690	2,690		1,000	8/6/2019	79-01-6
Trichlorofluoromethane(F-11)	< 500	500	< 2,810	2,810		1,000	8/6/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 500	500	< 3,830	3,830		1,000	8/6/2019	76-13-1
Vinyl chloride	< 500	500	< 1,280	1,280		1,000	8/6/2019	75-01-4
Surr: 4-Bromofluorobenzene	88.9	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP1-SkidOutlet-071719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19G025	**Collection:**	7/17/2019
Lab ID:	04	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	8/6/2019	75-34-3
1,1-Dichloroethene	**14,200**	**1,000**	**56,400**	**3,970**	R6	2,000	8/6/2019	75-35-4
1,2-Dichlorobenzene	< 1,000	1,000	< 6,010	6,010		2,000	8/6/2019	95-50-1
1,2-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	8/6/2019	107-06-2
2-Butanone (MEK)	< 10,000	10,000	< 29,500	29,500		2,000	8/6/2019	78-93-3
Acetone	< 10,000	10,000	< 23,800	23,800		2,000	8/6/2019	67-64-1
Benzene	< 1,000	1,000	< 3,190	3,190		2,000	8/6/2019	71-43-2
Chlorobenzene	< 1,000	1,000	< 4,600	4,600		2,000	8/6/2019	108-90-7
Chloroform	< 1,000	1,000	< 4,880	4,880		2,000	8/6/2019	67-66-3
cis-1,2-Dichloroethene	**3,540**	**1,000**	**14,000**	**3,960**		2,000	8/6/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2,000	2,000	< 9,900	9,900		2,000	8/6/2019	75-71-8
Ethylbenzene	< 1,000	1,000	< 4,340	4,340		2,000	8/6/2019	100-41-4
m&p-Xylene	< 2,000	2,000	< 8,680	8,680		2,000	8/6/2019	179601-23-1
Methylene chloride	**26,700**	**4,000**	**92,600**	**13,900**		2,000	8/6/2019	75-09-2
o-Xylene	< 1,000	1,000	< 4,340	4,340		2,000	8/6/2019	95-47-6
Tetrachloroethene	**4,880**	**2,000**	**33,100**	**13,600**		2,000	8/6/2019	127-18-4
Tetrahydrofuran	< 4,000	4,000	< 11,800	11,800		2,000	8/6/2019	109-99-9
Toluene	< 1,000	1,000	< 3,770	3,770		2,000	8/6/2019	108-88-3
trans-1,2-Dichloroethene	< 1,000	1,000	< 3,960	3,960		2,000	8/6/2019	156-60-5
Trichloroethene	**31,400**	**1,000**	**169,000**	**5,370**		2,000	8/6/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1,000	1,000	< 5,620	5,620		2,000	8/6/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**5,480**	**1,000**	**42,000**	**7,660**		2,000	8/6/2019	76-13-1
Vinyl chloride	< 1,000	1,000	< 2,560	2,560		2,000	8/6/2019	75-01-4
Surr: 4-Bromofluorobenzene	88.5	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19G025	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010806 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	8/6/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	8/6/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	8/6/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	8/6/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	8/6/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	8/6/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	8/6/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	8/6/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	8/6/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	8/6/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	8/6/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	8/6/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	8/6/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	8/6/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	8/6/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	8/6/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	8/6/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	8/6/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	8/6/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	8/6/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	8/6/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	8/6/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	8/6/2019	75-01-4
Surr: 4-Bromofluorobenzene	88.1	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19G025	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 8/6/2019 Batch: MS010806 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	9.1	90.9	8.4	84.1	10.0	7.8	ppbv			
Vinyl Chloride	12.2	122	11.2	112	10.0	9.1	ppbv			
Trichlorofluoromethane (F-11)	8.7	87.1	9.1	90.9	10.0	4.3	ppbv			
Acetone	10.2	102	10.4	104	10.0	1.7	ppbv			
1,1-Dichloroethene	9.2	91.5	11.8	118	10.0	25.3	ppbv			R6
Trichlorotrifluoroethane (F-113)	10.0	100	9.6	95.9	10.0	4.6	ppbv			
Methylene Chloride	9.1	91.4	9.2	91.7	10.0	0.3	ppbv			
trans-1,2-Dichloroethene	9.9	99.1	10.0	100	10.0	0.9	ppbv			
1,1-Dichloroethane	10.0	100	9.9	98.6	10.0	1.4	ppbv			
2-Butanone (MEK)	10.7	107	11.0	110	10.0	2.5	ppbv			
cis-1,2-Dichloroethene	9.8	98.2	10.0	100	10.0	1.9	ppbv			
Chloroform	8.9	88.6	9.2	92.3	10.0	4.1	ppbv			
Tetrahydrofuran	9.0	90.2	9.5	94.7	10.0	4.9	ppbv			
1,2-Dichloroethane	8.8	88.1	9.4	93.8	10.0	6.3	ppbv			
Benzene	9.8	98.2	10.4	104	10.0	5.9	ppbv			
Trichloroethene	10.0	99.6	10.0	100	10.0	0.6	ppbv			
Toluene	11.1	111	11.6	116	10.0	4.3	ppbv			
Tetrachloroethene	10.7	107	10.5	105	10.0	2.0	ppbv			
Chlorobenzene	10.0	99.5	10.4	104	10.0	4.8	ppbv			
Ethylbenzene	10.8	108	11.6	116	10.0	7.1	ppbv			
m&p-Xylene	22.4	112	23.4	117	20.0	4.5	ppbv			
o-Xylene	10.9	109	11.3	113	10.0	4.2	ppbv			
1,2-Dichlorobenzene	12.1	121	12.1	121	10.0	0.1	ppbv			
Surr: 4-Bromofluorobenzene	9.9	99.3	10.0	100			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	NA
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19G025	**Collection:**	NA
Lab ID:	Standards	**Matrix:**	Nitrogen

AEL ID#	STD Name	Vendor	SGI Order#	Description	CONC.	Accuracy	Exp.Date
S-190611-01	Stock	Spectra Gases	116447993	TO-14 39 Analytes	1.0 ppmv	± 5%	6/11/2020
S-190611-03	Stock	Spectra Gases	116447993	TO-15 25 Analytes	1.0 ppmv	± 5%	6/13/2020
S-190611-02	Stock	Spectra Gases	116447993	15 Additional Compounds	1.0 ppmv	± 5%	6/11/2020
S-181011-01	Stock	Spectra Gases	116849616	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	10/11/2019
A-190722-01	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	10/22/2019
A-190729-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	10/11/2019

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer : Wood	Page 1 of 1		AEL Lab #
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	19G025
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000 Fax: 602.733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@woodplc.com	E-Mail Results: Y N		

Sample Receipt	Turn Around Request	Sample Type
Temperature_____ °C	____ 24 Hours ____ 48 Hours	SVE: soil vapor extraction GW: ground water
Custody Seals: Yes____ No____	____ 72 Hours	A: ambient air WW: waste water
Custody Seals Intact: Yes____ No____	____ 5 working Day	I: indoor air
Total # of Containers:_____	X Standard 10 Working Days	S: soil vapor
		W: water

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			
01	E2280	023	6 1 bag	1 2 5	SP4-H1-071719	7.17.19	810	SVE	1			X							
02	E2398	191	6 1 bag	1 2 5	SP3-C2-071719	↓	815	↓	↓			X							
03	1805	030	6 1 bag	1 2 5	SP2-C3-071719	↓	820	↓	↓			X							
04	E2094	062	6 1 bag	1 2 5	SP1-SKIDOUTLET-071719	↓	825	↓	↓			X							
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
7.18.19	1353	E. Miller	James Jam - Airtech

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: September 4, 2019

Client:	Doug Fisher	Work Order #:	19H037
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	8/22/2019

Dear Client:

Airtech Environmental Laboratories received four (4) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi
Technical Director
Airtech Environmental Labs

Arizona ADHS License No. AZ0740

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: September 4, 2019

Client:	Doug Fisher	Work Order #:	19H037
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	8/22/2019

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLE DATE	SAMPLE TIME
19H037-01	SP4-H1-082119	TO-15	8/21/2019	745
19H037-02	SP3-C2-082119	TO-15	8/21/2019	750
19H037-03	SP2-C3-082119	TO-15	8/21/2019	755
19H037-04	SP1-SkidOutlet-082119	TO-15	8/21/2019	800

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: September 4, 2019

Client:	Doug Fisher	Work Order #:	19H037
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	08/22/19

Case Narrative

All samples and QC associated with your samples met the quality control objectives.
Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

Airtech Environmental Laboratories (AEL) - AZ 0740
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19H037	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Pressure	Type	
	Client	1.0 liter		before sampled	after sampled	1 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
19H037-01	SP4-H1-082119	1800	1908-06	29.0	13.70	085	1906-06
19H037-02	SP3-C2-082119	1876	1908-06	29.0	13.92	092	1906-06
19H037-03	SP2-C3-082119	1809	1908-06	29.0	14.18	171	1906-06
19H037-04	SP1-SkidOutlet-082119	1792	1908-06	29.0	14.32	143	1906-06

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP4-H1-082119
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19H037	**Collection:**	8/21/2019
Lab ID:	01	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	9/3/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	9/3/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	9/3/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	9/3/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	9/3/2019	78-93-3
Acetone	< 100	100	< 238	238		20	9/3/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	9/3/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	9/3/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	9/3/2019	67-66-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/3/2019	156-59-2
Dichlorodifluoromethane(F-12)	**560**	**20**	**2,770**	**99.0**		20	9/3/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	9/3/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	9/3/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	9/3/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	9/3/2019	95-47-6
Tetrachloroethene	< 20	20	< 136	136		20	9/3/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	9/3/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	9/3/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/3/2019	156-60-5
Trichloroethene	< 10	10	< 53.7	53.7		20	9/3/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	9/3/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 10	10	< 76.6	76.6		20	9/3/2019	76-13-1
Vinyl chloride	**58**	**10**	**148**	**25.6**		20	9/3/2019	75-01-4
Surr: 4-Bromofluorobenzene	97.7	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP3-C2-082119
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19H037	**Collection:**	8/21/2019
Lab ID:	02	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	9/3/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	9/3/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	9/3/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	9/3/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	9/3/2019	78-93-3
Acetone	< 100	100	< 238	238		20	9/3/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	9/3/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	9/3/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	9/3/2019	67-66-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/3/2019	156-59-2
Dichlorodifluoromethane(F-12)	**577**	**20**	**2,850**	**99.0**		20	9/3/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	9/3/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	9/3/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	9/3/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	9/3/2019	95-47-6
Tetrachloroethene	< 20	20	< 136	136		20	9/3/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	9/3/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	9/3/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	9/3/2019	156-60-5
Trichloroethene	< 10	10	< 53.7	53.7		20	9/3/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	9/3/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 10	10	< 76.6	76.6		20	9/3/2019	76-13-1
Vinyl chloride	**65**	**10**	**167**	**25.6**		20	9/3/2019	75-01-4
Surr: 4-Bromofluorobenzene	96.3	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP2-C3-082119
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19H037	**Collection:**	8/21/2019
Lab ID:	03	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 500	500	< 2,030	2,030		1,000	8/29/2019	75-34-3
1,1-Dichloroethene	< 500	500	< 1,990	1,990		1,000	8/29/2019	75-35-4
1,2-Dichlorobenzene	< 500	500	< 3,010	3,010		1,000	8/29/2019	95-50-1
1,2-Dichloroethane	< 500	500	< 2,030	2,030		1,000	8/29/2019	107-06-2
2-Butanone (MEK)	< 5,000	5,000	< 14,800	14,800		1,000	8/29/2019	78-93-3
Acetone	< 5,000	5,000	< 11,900	11,900		1,000	8/29/2019	67-64-1
Benzene	< 500	500	< 1,600	1,600		1,000	8/29/2019	71-43-2
Chlorobenzene	< 500	500	< 2,300	2,300		1,000	8/29/2019	108-90-7
Chloroform	< 500	500	< 2,440	2,440		1,000	8/29/2019	67-66-3
cis-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	8/29/2019	156-59-2
Dichlorodifluoromethane(F-12)	**1,000**	**1,000**	**4,950**	**4,950**		1,000	8/29/2019	75-71-8
Ethylbenzene	< 500	500	< 2,170	2,170		1,000	8/29/2019	100-41-4
m&p-Xylene	< 1,000	1,000	< 4,340	4,340		1,000	8/29/2019	179601-23-1
Methylene chloride	**32,500**	**2,000**	**113,000**	**6,940**		1,000	8/29/2019	75-09-2
o-Xylene	< 500	500	< 2,170	2,170		1,000	8/29/2019	95-47-6
Tetrachloroethene	< 1,000	1,000	< 6,780	6,780		1,000	8/29/2019	127-18-4
Tetrahydrofuran	< 2,000	2,000	< 5,900	5,900		1,000	8/29/2019	109-99-9
Toluene	< 500	500	< 1,890	1,890		1,000	8/29/2019	108-88-3
trans-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	8/29/2019	156-60-5
Trichloroethene	< 500	500	< 2,690	2,690		1,000	8/29/2019	79-01-6
Trichlorofluoromethane(F-11)	< 500	500	< 2,810	2,810		1,000	8/29/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 500	500	< 3,830	3,830		1,000	8/29/2019	76-13-1
Vinyl chloride	< 500	500	< 1,280	1,280		1,000	8/29/2019	75-01-4
Surr: 4-Bromofluorobenzene	100	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP1-SkidOutlet-082119
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19H037	**Collection:**	8/21/2019
Lab ID:	04	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	8/29/2019	75-34-3
1,1-Dichloroethene	**16,200**	**1,000**	**64,300**	**3,970**		2,000	8/29/2019	75-35-4
1,2-Dichlorobenzene	< 1,000	1,000	< 6,010	6,010		2,000	8/29/2019	95-50-1
1,2-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	8/29/2019	107-06-2
2-Butanone (MEK)	< 10,000	10,000	< 29,500	29,500		2,000	8/29/2019	78-93-3
Acetone	< 10,000	10,000	< 23,800	23,800		2,000	8/29/2019	67-64-1
Benzene	< 1,000	1,000	< 3,190	3,190		2,000	8/29/2019	71-43-2
Chlorobenzene	< 1,000	1,000	< 4,600	4,600		2,000	8/29/2019	108-90-7
Chloroform	< 1,000	1,000	< 4,880	4,880		2,000	8/29/2019	67-66-3
cis-1,2-Dichloroethene	**3,560**	**1,000**	**14,100**	**3,960**		2,000	8/29/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2,000	2,000	< 9,900	9,900		2,000	8/29/2019	75-71-8
Ethylbenzene	< 1,000	1,000	< 4,340	4,340		2,000	8/29/2019	100-41-4
m&p-Xylene	< 2,000	2,000	< 8,680	8,680		2,000	8/29/2019	179601-23-1
Methylene chloride	**37,600**	**4,000**	**130,000**	**13,900**		2,000	8/29/2019	75-09-2
o-Xylene	< 1,000	1,000	< 4,340	4,340		2,000	8/29/2019	95-47-6
Tetrachloroethene	**2,420**	**2,000**	**16,400**	**13,600**		2,000	8/29/2019	127-18-4
Tetrahydrofuran	< 4,000	4,000	< 11,800	11,800		2,000	8/29/2019	109-99-9
Toluene	< 1,000	1,000	< 3,770	3,770		2,000	8/29/2019	108-88-3
trans-1,2-Dichloroethene	< 1,000	1,000	< 3,960	3,960		2,000	8/29/2019	156-60-5
Trichloroethene	**24,400**	**1,000**	**131,000**	**5,370**		2,000	8/29/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1,000	1,000	< 5,620	5,620		2,000	8/29/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**5,480**	**1,000**	**42,000**	**7,660**		2,000	8/29/2019	76-13-1
Vinyl chloride	< 1,000	1,000	< 2,560	2,560		2,000	8/29/2019	75-01-4
Surr: 4-Bromofluorobenzene	97.2	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19H037	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010829 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	8/29/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	8/29/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	8/29/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	8/29/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	8/29/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	8/29/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	8/29/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	8/29/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	8/29/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	8/29/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	8/29/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	8/29/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	8/29/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	8/29/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	8/29/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	8/29/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	8/29/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	8/29/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	8/29/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	8/29/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	8/29/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	8/29/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	8/29/2019	75-01-4
Surr: 4-Bromofluorobenzene	98.7	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19H037	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 8/29/2019 Batch: MS010829 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	9.2	92.0	9.4	94.0	10.0	2.2	ppbv			
Vinyl Chloride	10.8	108	11.2	112	10.0	3.6	ppbv			
Trichlorofluoromethane (F-11)	10.5	105	10.0	99.9	10.0	5.2	ppbv			
Acetone	12.0	120	11.5	115	10.0	4.6	ppbv			
1,1-Dichloroethene	8.7	86.9	8.3	83.3	10.0	4.2	ppbv			
Trichlorotrifluoroethane (F-113)	9.8	97.8	9.1	90.5	10.0	7.8	ppbv			
Methylene Chloride	9.0	90.3	8.8	87.5	10.0	3.1	ppbv			
trans-1,2-Dichloroethene	8.5	85.0	8.4	83.9	10.0	1.3	ppbv			
1,1-Dichloroethane	9.3	93.2	8.8	88.0	10.0	5.7	ppbv			
2-Butanone (MEK)	9.0	90.2	9.0	90.2	10.0	0.0	ppbv			
cis-1,2-Dichloroethene	8.8	88.4	8.6	85.8	10.0	3.0	ppbv			
Chloroform	9.2	91.5	8.8	88.0	10.0	3.9	ppbv			
Tetrahydrofuran	9.5	94.6	9.6	96.1	10.0	1.6	ppbv			
1,2-Dichloroethane	8.8	88.2	8.4	84.1	10.0	4.8	ppbv			
Benzene	8.9	88.7	8.3	83.3	10.0	6.3	ppbv			
Trichloroethene	8.7	87.4	8.1	81.2	10.0	7.4	ppbv			
Toluene	9.0	89.5	8.1	81.2	10.0	9.7	ppbv			
Tetrachloroethene	8.8	87.6	8.1	80.6	10.0	8.3	ppbv			
Chlorobenzene	8.9	88.8	8.3	82.7	10.0	7.1	ppbv			
Ethylbenzene	9.1	90.5	8.6	85.6	10.0	5.6	ppbv			
m&p-Xylene	19.0	94.9	17.6	87.9	20.0	7.7	ppbv			
o-Xylene	9.7	97.3	9.0	90.0	10.0	7.8	ppbv			
1,2-Dichlorobenzene	9.3	92.9	8.7	86.6	10.0	7.0	ppbv			
Surr: 4-Bromofluorobenzene	10.8	108	10.7	107			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19H037	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010903 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/3/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	9/3/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/3/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/3/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	9/3/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	9/3/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	9/3/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	9/3/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	9/3/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/3/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	9/3/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	9/3/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	9/3/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	9/3/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	9/3/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	9/3/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	9/3/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	9/3/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/3/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	9/3/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	9/3/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	9/3/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	9/3/2019	75-01-4
Surr: 4-Bromofluorobenzene	96.2	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19H037	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 9/3/2019 Batch: MS010903 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	9.3	93.4	9.2	91.5	10.0	2.1	ppbv			
Vinyl Chloride	11.1	111	10.9	109	10.0	2.1	ppbv			
Trichlorofluoromethane (F-11)	10.0	99.6	9.6	96.0	10.0	3.7	ppbv			
Acetone	10.6	106	10.3	103.4	10.0	2.2	ppbv			
1,1-Dichloroethene	8.0	79.8	8.0	80.4	10.0	0.7	ppbv			
Trichlorotrifluoroethane (F-113)	8.7	87.3	8.7	87.1	10.0	0.2	ppbv			
Methylene Chloride	9.0	90.4	9.0	90.3	10.0	0.1	ppbv			
trans-1,2-Dichloroethene	8.7	87.4	8.9	88.9	10.0	1.7	ppbv			
1,1-Dichloroethane	9.3	92.5	9.3	92.7	10.0	0.2	ppbv			
2-Butanone (MEK)	9.5	94.9	9.2	92.3	10.0	2.8	ppbv			
cis-1,2-Dichloroethene	8.6	86.3	8.7	87.1	10.0	0.9	ppbv			
Chloroform	8.8	88.3	8.8	87.8	10.0	0.6	ppbv			
Tetrahydrofuran	10.4	104	10.2	102	10.0	2.0	ppbv			
1,2-Dichloroethane	9.0	89.9	9.0	89.9	10.0	0.0	ppbv			
Benzene	8.8	88.1	8.8	87.7	10.0	0.5	ppbv			
Trichloroethene	8.0	80.0	8.1	80.7	10.0	0.9	ppbv			
Toluene	8.1	80.8	8.1	81.4	10.0	0.7	ppbv			
Tetrachloroethene	8.0	79.5	7.8	77.6	10.0	2.4	ppbv			
Chlorobenzene	8.1	81.4	8.0	80.4	10.0	1.2	ppbv			
Ethylbenzene	8.3	83.0	8.3	83.2	10.0	0.2	ppbv			
m&p-Xylene	17.0	85.0	16.9	84.3	20.0	0.9	ppbv			
o-Xylene	8.8	87.8	8.5	85.4	10.0	2.8	ppbv			
1,2-Dichlorobenzene	8.5	84.5	8.3	82.6	10.0	2.3	ppbv			
Surr: 4-Bromofluorobenzene	10.6	106	10.5	105		1.0	%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	NA
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19H037	**Collection:**	NA
Lab ID:	Standards	**Matrix:**	Nitrogen

AEL ID#	STD Name	Vendor	SGI Order#	Description	CONC.	Accuracy	Exp.Date
S-190611-01	Stock	Spectra Gases	116447993	TO-14 39 Analytes	1.0 ppmv	± 5%	6/11/2020
S-190611-03	Stock	Spectra Gases	116447993	TO-15 25 Analytes	1.0 ppmv	± 5%	6/13/2020
S-190611-02	Stock	Spectra Gases	116447993	15 Additional Compounds	1.0 ppmv	± 5%	6/11/2020
S-181011-01	Stock	Spectra Gases	116849616	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	10/11/2019
A-190815-02	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	11/15/2019
A-190815-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	10/11/2019

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Wood	Page 1 of 1		AEL Lab #
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	19H037
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000	Fax: 602.733-6100	Fax Results: Y N	
E-Mail Address: Natalie.Chrisman@woodplc.com		E-Mail Results: Y N	

Sample Receipt	Turn Around Request	Sample Type
Temperature____ °C	___ 24 Hours ___ 48 Hours	SVE: soil vapor extraction GW: ground water
Custody Seals: Yes___ No___	___ 72 Hours	A: ambient air WW: waste water
Custody Seals Intact: Yes___ No___	___ 5 working Day	I: indoor air
Total # of Containers:___	X Standard 10 Working Days	S: soil vapor
		W: water

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			
01	1800	085	6 (1) bag	(1) 2 5	SP4-H1-082119	8.21.19	745	SVE	1			X							
02	1876	092	6 (1) bag	(1) 2 5	SP3-C2-082119	↓	750	↓	↓			X							
03	1809	171	6 (1) bag	(1) 2 5	SP2-C3-082119	↓	755	↓	↓			X							
04	1792	143	6 1 bag	1 2 5	SP1-SKIDOUTLET-082119	↓	800	↓	↓			X							
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
8.22.19	1413	E. Miller	Jamie Jom - Airtech

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: September 30, 2019

Client:	Doug Fisher	Work Order #:	19I028
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	9/20/2019

Dear Client:

Airtech Environmental Laboratories received four (4) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi
Technical Director
Airtech Environmental Labs

Arizona ADHS License No. AZ0740

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: September 30, 2019

Client:	Doug Fisher	Work Order #:	19I028
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	9/20/2019

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLE DATE	SAMPLE TIME
19I028-01	SP4-H1-091819	TO-15	9/18/2019	805
19I028-02	SP3-C1-091819	TO-15	9/18/2019	810
19I028-03	SP2-C3-091819	TO-15	9/18/2019	815
19I028-04	SP1-SkidOutlet-091819	TO-15	9/18/2019	820

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: September 30, 2019

Client:	Doug Fisher	Work Order #:	19I028
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	09/20/19

Case Narrative

All samples and QC associated with your samples met the quality control objectives.
Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I028	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Pressure	Type	
	Client	1.0 liter		before sampled	after sampled	1 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
19I028-01	SP4-H1-091819	E2352	1909-02	29.0	13.79	190	1906-06
19I028-02	SP3-C1-091819	0606	1909-01	29.0	13.75	007	1909-01
19I028-03	SP2-C3-091819	1836	1909-01	29.0	14.02	197	1909-01
19I028-04	SP1-SkidOutlet-091819	1313	1909-01	29.0	14.40	104	1908-02

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP4-H1-091819
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I028	**Collection:**	9/18/2019
Lab ID:	01	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2019	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	9/23/2019	75-35-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	9/23/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	9/23/2019	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	9/23/2019	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	9/23/2019	67-64-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	9/23/2019	71-43-2
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	9/23/2019	108-90-7
Chloroform	< 1.0	1.0	< 4.88	4.88		2	9/23/2019	67-66-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2019	156-59-2
Dichlorodifluoromethane(F-12)	**36**	**2.0**	**176**	**9.90**		2	9/23/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	9/23/2019	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	9/23/2019	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	9/23/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	9/23/2019	95-47-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	9/23/2019	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	9/23/2019	109-99-9
Toluene	< 1.0	1.0	< 3.77	3.77		2	9/23/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	9/23/2019	156-60-5
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	9/23/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	9/23/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	9/23/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	9/23/2019	75-01-4
Surr: 4-Bromofluorobenzene	89.1	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP3-C1-091819
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I028	**Collection:**	9/18/2019
Lab ID:	02	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	12/28/2016	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	12/28/2016	75-35-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	12/28/2016	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	12/28/2016	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	12/28/2016	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	12/28/2016	67-64-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	12/28/2016	71-43-2
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	12/28/2016	108-90-7
Chloroform	< 1.0	1.0	< 4.88	4.88		2	12/28/2016	67-66-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	12/28/2016	156-59-2
Dichlorodifluoromethane(F-12)	**35**	**2.0**	**173**	**9.90**		2	12/28/2016	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	12/28/2016	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	12/28/2016	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	12/28/2016	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	12/28/2016	95-47-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	12/28/2016	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	12/28/2016	109-99-9
Toluene	< 1.0	1.0	< 3.77	3.77		2	12/28/2016	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	12/28/2016	156-60-5
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	12/28/2016	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	12/28/2016	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	12/28/2016	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	12/28/2016	75-01-4
Surr: 4-Bromofluorobenzene	91.0	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP2-C3-091819
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I028	**Collection:**	9/18/2019
Lab ID:	03	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	9/23/2019	75-34-3
1,1-Dichloroethene	< 1,000	1,000	< 3,970	3,970		2,000	9/23/2019	75-35-4
1,2-Dichlorobenzene	< 1,000	1,000	< 6,010	6,010		2,000	9/23/2019	95-50-1
1,2-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	9/23/2019	107-06-2
2-Butanone (MEK)	< 10,000	10,000	< 29,500	29,500		2,000	9/23/2019	78-93-3
Acetone	< 10,000	10,000	< 23,800	23,800		2,000	9/23/2019	67-64-1
Benzene	< 1,000	1,000	< 3,190	3,190		2,000	9/23/2019	71-43-2
Chlorobenzene	< 1,000	1,000	< 4,600	4,600		2,000	9/23/2019	108-90-7
Chloroform	< 1,000	1,000	< 4,880	4,880		2,000	9/23/2019	67-66-3
cis-1,2-Dichloroethene	< 1,000	1,000	< 3,960	3,960		2,000	9/23/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2,000	2,000	< 9,900	9,900		2,000	9/23/2019	75-71-8
Ethylbenzene	< 1,000	1,000	< 4,340	4,340		2,000	9/23/2019	100-41-4
m&p-Xylene	< 2,000	2,000	< 8,680	8,680		2,000	9/23/2019	179601-23-1
Methylene chloride	**41,900**	**4,000**	**145,000**	**13,900**		2,000	9/23/2019	75-09-2
o-Xylene	< 1,000	1,000	< 4,340	4,340		2,000	9/23/2019	95-47-6
Tetrachloroethene	< 2,000	2,000	< 13,600	13,600		2,000	9/23/2019	127-18-4
Tetrahydrofuran	< 4,000	4,000	< 11,800	11,800		2,000	9/23/2019	109-99-9
Toluene	< 1,000	1,000	< 3,770	3,770		2,000	9/23/2019	108-88-3
trans-1,2-Dichloroethene	< 1,000	1,000	< 3,960	3,960		2,000	9/23/2019	156-60-5
Trichloroethene	< 1,000	1,000	< 5,370	5,370		2,000	9/23/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1,000	1,000	< 5,620	5,620		2,000	9/23/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 1,000	1,000	< 7,660	7,660		2,000	9/23/2019	76-13-1
Vinyl chloride	< 1,000	1,000	< 2,560	2,560		2,000	9/23/2019	75-01-4
Surr: 4-Bromofluorobenzene	98.5	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP1-SkidOutlet-091819
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I028	**Collection:**	9/18/2019
Lab ID:	04	**Matrix:**	Soil Vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	9/23/2019	75-34-3
1,1-Dichloroethene	**11,400**	**1,000**	**45,300**	**3,970**		2,000	9/23/2019	75-35-4
1,2-Dichlorobenzene	< 1,000	1,000	< 6,010	6,010		2,000	9/23/2019	95-50-1
1,2-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	9/23/2019	107-06-2
2-Butanone (MEK)	< 10,000	10,000	< 29,500	29,500		2,000	9/23/2019	78-93-3
Acetone	< 10,000	10,000	< 23,800	23,800		2,000	9/23/2019	67-64-1
Benzene	< 1,000	1,000	< 3,190	3,190		2,000	9/23/2019	71-43-2
Chlorobenzene	< 1,000	1,000	< 4,600	4,600		2,000	9/23/2019	108-90-7
Chloroform	< 1,000	1,000	< 4,880	4,880		2,000	9/23/2019	67-66-3
cis-1,2-Dichloroethene	**2,940**	**1,000**	**11,600**	**3,960**		2,000	9/23/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2,000	2,000	< 9,900	9,900		2,000	9/23/2019	75-71-8
Ethylbenzene	< 1,000	1,000	< 4,340	4,340		2,000	9/23/2019	100-41-4
m&p-Xylene	< 2,000	2,000	< 8,680	8,680		2,000	9/23/2019	179601-23-1
Methylene chloride	**24,900**	**4,000**	**86,400**	**13,900**		2,000	9/23/2019	75-09-2
o-Xylene	< 1,000	1,000	< 4,340	4,340		2,000	9/23/2019	95-47-6
Tetrachloroethene	**3,180**	**2,000**	**21,600**	**13,600**		2,000	9/23/2019	127-18-4
Tetrahydrofuran	< 4,000	4,000	< 11,800	11,800		2,000	9/23/2019	109-99-9
Toluene	< 1,000	1,000	< 3,770	3,770		2,000	9/23/2019	108-88-3
trans-1,2-Dichloroethene	< 1,000	1,000	< 3,960	3,960		2,000	9/23/2019	156-60-5
Trichloroethene	**26,500**	**1,000**	**142,000**	**5,370**		2,000	9/23/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1,000	1,000	< 5,620	5,620		2,000	9/23/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**4,460**	**1,000**	**34,200**	**7,660**		2,000	9/23/2019	76-13-1
Vinyl chloride	< 1,000	1,000	< 2,560	2,560		2,000	9/23/2019	75-01-4
Surr: 4-Bromofluorobenzene	94.5	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I028	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010923 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/23/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	9/23/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	9/23/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	9/23/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	9/23/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	9/23/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	9/23/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	9/23/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	9/23/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/23/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	9/23/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	9/23/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	9/23/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	9/23/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	9/23/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	9/23/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	9/23/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	9/23/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	9/23/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	9/23/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	9/23/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	9/23/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	9/23/2019	75-01-4
Surr: 4-Bromofluorobenzene	97.6	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I028	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 9/23/2019 Batch: MS010923 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	9.5	94.7	10.1	101	10.0	6.5	ppbv			
Vinyl Chloride	8.8	88.1	8.9	88.8	10.0	0.8	ppbv			
Trichlorofluoromethane (F-11)	9.8	97.5	9.8	98.1	10.0	0.6	ppbv			
Acetone	8.1	80.6	8.7	87.0	10.0	7.6	ppbv			
1,1-Dichloroethene	8.4	84.4	8.8	87.6	10.0	3.7	ppbv			
Trichlorotrifluoroethane (F-113)	9.6	96.0	9.7	97.1	10.0	1.1	ppbv			
Methylene Chloride	8.8	87.7	9.6	95.7	10.0	8.7	ppbv			
trans-1,2-Dichloroethene	9.5	94.7	10.7	107	10.0	11.9	ppbv			
1,1-Dichloroethane	9.4	93.9	10.1	101	10.0	7.3	ppbv			
2-Butanone (MEK)	10.3	103	11.6	116	10.0	11.7	ppbv			
cis-1,2-Dichloroethene	9.7	96.5	10.7	107	10.0	10.7	ppbv			
Chloroform	9.4	93.7	10.0	100	10.0	6.5	ppbv			
Tetrahydrofuran	9.4	94.2	11.0	110	10.0	15.6	ppbv			
1,2-Dichloroethane	9.1	91.1	9.8	98.3	10.0	7.6	ppbv			
Benzene	9.7	97.0	10.4	104	10.0	6.9	ppbv			
Trichloroethene	9.8	97.6	10.3	103	10.0	5.4	ppbv			
Toluene	11.0	110	11.9	119	10.0	7.9	ppbv			
Tetrachloroethene	10.3	103	10.9	109	10.0	5.5	ppbv			
Chlorobenzene	9.6	96.4	10.5	105	10.0	8.1	ppbv			
Ethylbenzene	10.2	102	11.5	115	10.0	12.5	ppbv			
m&p-Xylene	20.4	102	23.0	115	20.0	12.0	ppbv			
o-Xylene	9.9	98.6	11.4	114	10.0	14.6	ppbv			
1,2-Dichlorobenzene	9.7	96.7	11.2	112	10.0	14.3	ppbv			
Surr: 4-Bromofluorobenzene	9.8	97.7	10.1	101			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	NA
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19I028	**Collection:**	NA
Lab ID:	Standards	**Matrix:**	Nitrogen

AEL ID#	STD Name	Vendor	SGI Order#	Description	CONC.	Accuracy	Exp.Date
S-190611-01	Stock	Spectra Gases	116447993	TO-14 39 Analytes	1.0 ppmv	± 5%	6/11/2020
S-190611-03	Stock	Spectra Gases	116447993	TO-15 25 Analytes	1.0 ppmv	± 5%	6/13/2020
S-190611-02	Stock	Spectra Gases	116447993	15 Additional Compounds	1.0 ppmv	± 5%	6/11/2020
S-181011-01	Stock	Spectra Gases	116849616	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	10/11/2019
A-190909-02	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	12/9/2019
A-190916-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	10/11/2019
A-190923-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	10/11/2019

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Wood	Page 1 of 1		AEL Lab #
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	191028
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000 / Fax: 602.733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@woodplc.com	E-Mail Results: Y N		

Sample Receipt	Turn Around Request	Sample Type
Temperature____ °C	____ 24 Hours ____ 48 Hours	SVE: soil vapor extraction GW: ground water
Custody Seals: Yes____ No____	____ 72 Hours	A: ambient air WW: waste water
Custody Seals Intact: Yes____ No____	____ 5 working Day	I: indoor air
Total # of Containers:____	X Standard 10 Working Days	S: soil vapor
		W: water

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			
01	E2352	190	6 (1) bag	(1) 2 5	SP4-H1-091819	9.18.19	805	SVE	1			X							
02	0606	007	6 (1) bag	(1) 2 5	SP3-C1-091819	↓	810	↓	↓			X							
03	1836	197	6 (1) bag	(1) 2 5	SP2-C3-091819	↓	815	↓	↓			X							
04	1313	104	6 (1) bag	(1) 2 5	SP1-SKIDOUTLET-091819	↓	820	↓	↓			X							
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
9.20.19	1422	E. Miller	

Chain of Custody