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January 19, 2016

Report on Soil Vapor Investigations

Property Identification:
Lucasey Manufacturing Site
2744 East Eleventh Street
Oakland, California

AEI Project No. 345989

Prepared for:
Risa Investments, LLC

Prepared by:
AEI Consultants
2550 Camino Diablo
Walnut Creek, California 94567
(925) 746-6000

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CAPITAL

January 19, 2016

Mr. Jerry Wickham

Alameda County Department of Environmental Health

1131 Harbor Bay Parkway, Suite 250

Alameda, California 94502

Subject: Transmittal, Report on Soil Vapor Investigations
Lucasey Manufacturing Site
2744 East Eleventh Street, Oakland, California
Toxics Case No. RO0003183

Dear Mr. Wickham:

Enclosed is the *Report on Soil Vapor Investigations* prepared at your request for activities at 2744 East Eleventh Street in Oakland, California.

On behalf of Risa Investments, LLC, I declare under penalty of perjury, that the information and/or recommendations contained in the attached report for the above-referenced site are true and correct to the best of my knowledge.

If you have any questions or need additional information, please do not hesitate to contact Mr. Trent Weise of AEI Consultants at (408) 559-7600.

Sincerely,

Risa Investments, LLC
Paul DiCarlo

Paul DiCarlo
Director

Enclosure

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This document was prepared by, or under the direction of, the undersigned:

Trent A. Weise, P.E.
Principal Engineer

1. Introduction

On behalf of Risa Investments, LLC, AEI Consultants (AEI) has prepared this document presenting the methodology and results of soil vapor sampling performed at the Lucasey Manufacturing Site located at 2744 East Eleventh Street in Oakland, California ("the Site"). The Site is currently in the planning stages of redevelopment for residential use of the existing buildings. In preparation for redevelopment, AEI prepared a Risk Management Plan (RMP) dated October 20, 2015 to address the known petroleum hydrocarbon impacts at the Site from a former fuel oil underground storage tank at the Site for review and comment by the Alameda County Department of Environmental Health (ACEH). To address potential risks posed by the known petroleum hydrocarbon impacts at the Site, the RMP recommended installation of a vapor intrusion mitigation system. In discussions with the ACEH, a soil vapor investigation at the Site was requested.

To assess whether petroleum hydrocarbons present in the sub-surface present a potential risk to indoor air quality that could pose an unacceptable risk to new residential users of the property, AEI performed the following two soil vapor sampling events at the Site:

- On November 6, 2015, a limited soil vapor sampling event was performed along the southwestern perimeter of the Site. Soil vapor sampling was performed in general accordance with the October 30, 2015 Work Plan, Soil Vapor Sampling ("the Work Plan") that was approved by the ACEH in a letter dated November 2, 2015. A total of 16 soil vapor samples were collected from 8 locations in the vicinity of the known petroleum hydrocarbon impacts. The soil vapor samples yielded tetrachloroethylene (PCE), which was identified as an additional chemical of potential concern and additional soil vapor sampling was requested by the ACEH in a telephone conference on November 12, 2015.

- On December 16 and 17, 2015, an additional 17 soil vapor samples were collected at 17 locations across the building footprint. The proposed sample locations and approach were provided to the ACEH in an electronic mail message dated December 6, 2015.

As presented below, these two investigations have characterized the lateral extent of volatile organic compounds (VOCs) including petroleum hydrocarbons and PCE, beneath the existing building at the Site. Benzene and PCE concentrations in soil vapor were observed at concentrations slightly above conservative risk screening levels for the protection of indoor air under a residential use scenario. Therefore, AEI continues to recommend implementation of the vapor intrusion mitigation system as specified in the RMP and requests that the ACEH approve the RMP for the Site.

2. Background

The Site comprises approximately 2.32 acres and is located in an urban mixed use area of Oakland, California, consisting of commercial, residential, and industrial uses. The Site is currently developed with a 104,008 square-foot building built between 1920 and 1922 that is currently used for manufacturing, warehousing, and office space and a four-story tower. The Site vicinity is shown on Figure 1.

The Site is underlain by generally discontinuous layers of fine-grained deposits comprised of gravely-silt, silty-sands and clay. Two water-yielding horizons have been identified at the Site. First encountered water is observed in an upper unconfined to semi-confined zone present to a depth of approximately 21 feet below ground surface (bgs). A deeper confined zone is present from 24 feet bgs to an unknown depth, which is comprised of clayey-sands.

Petroleum hydrocarbons were released to the subsurface at the Site presumably from a fuel oil tank formerly located in what is now a parking lot located in the southern corner of the Site. Figure 2 presents a Site Plan. Residual petroleum hydrocarbons in Site media include:

- The presence of petroleum hydrocarbons in soil vapor were assessed across the Site and documented in an August 18, 2008 *Results of Gore-Sorber™ Soil Vapor Survey and Recovery Well Installation* report. However, Gore-Sorber™ sampling does not provide sufficient information to assess the potential for vapor intrusion at the Site.

- Soil vapor samples collected on-site in June 2009 yielded benzene at a maximum concentration of 22 micrograms per cubic meter (µg/m^3) in the soil vapor sample collected from ASV-7. Elevated concentrations of benzene and ethylbenzene were detected in soil vapor samples collected from off-site locations ASV-3 and ASV-4 at maximum concentrations of 740 micrograms per cubic meter (µg/m^3) and 2,600 µg/m^3, respectively. Naphthalene was not detected in soil vapor samples collected and analyzed at or above laboratory method detection limits.

The fuel release case (RO0002902) was granted closure by ACEH in a letter dated July 31, 2014. The case was granted closure under Scenario 4 of the Low-Threat Underground Storage Tank Closure Policy (LTCP). The Site Management Requirements of the Case Closure Summary includes that "[b]ased on the depth and type of petroleum hydrocarbons, the potential for exposure is low and the contamination does not appear to present a risk unless exposed by excavation. Therefore, case closure is granted for the current commercial land use." The conclusion section of the Case Closure Summary notes that "…re-evaluation of this case is required if any excavation takes place below a depth of 8 feet bgs."

To address potential risks posed by residual petroleum hydrocarbons in soil vapor, soil, and groundwater at the Site to future construction workers, commercial workers, and residents, AEI prepared a RMP. The RMP recommended installing a vapor intrusion mitigation system within the building to protect indoor air from the concern of vapor intrusion. In discussions with the ACEH upon their review of the RMP, the ACEH requested a work plan to assess soil vapor beneath the building in the vicinity of the known area were residual petroleum hydrocarbons are present beneath the Site.

This document presents the results of soil vapor sampling performed to meet the ACEH's request for soil vapor data at the Site.

3. Investigation Activities

To assess potential impacts to soil vapor beneath the building at the Site adjacent to the residual petroleum hydrocarbons present in soil and groundwater at the Site, AEI implemented the following scope of work to collect and analyze soil vapor samples from beneath the building in general accordance with the Work Plan. As described in the Work Plan, AEI proposed to collect nine soil vapor samples from the locations shown on Figure 2. Soil vapor sample locations were numbered ASV-16 through ASV-24. At each location, a sub-slab soil vapor and five-foot bgs soil vapor sample were collected. Following the review of the results of the initial soil vapor samples and the detection of PCE in soil vapor additional soil vapor samples were collected across the building footprint. A total of 17 additional soil vapor samples were collected at numbered locations ASV-25 through ASV-41, at the locations shown on Figure 2. The investigation activities are described below.

3.1 Preliminary Field Activities

Prior to performing field activities, AEI performed the following preliminary field activities:

- AEI obtained soil boring permits from the Alameda County Water District, copies of which are included in Appendix A.
- A site-specific Health and Safety Plan (HASP) was prepared for this scope of work.
- ACEH was notified of the field schedule.
- Underground Service Alert was notified of the proposed subsurface drilling activities.

3.2 Field Activities (November 2015)

Following completion of the preliminary field activities, on November 5, 2015, AEI contracted a private utility locator to confirm the location of public and private utilities at the Site and confirm the absence of public or private utilities or other obstructions at all drilling locations as shown on Figure 2. Locations ASV-17 and ASV-24 were moved towards the northeast to limit impacts to the current offices within the building.

On November 5 and 6, 2015, AEI contracted a concrete coring company to core the concrete at each location once cleared. Two cores were advanced at each location. A five-inch diameter core was advanced for the soil vapor boring and a 1.25-inch diameter core was advanced for the sub-slab soil vapor point. At location ASV 18, coring was stopped at 36-inches in concrete and the location was abandoned due to the presence of a significant thickness of concrete. Once each five-inch core was completed, it was backfilled with bentonite to seal the slab. Once each sub-slab location was cored, a sub-slab soil vapor probe was constructed. Each sub-slab soil vapor probe was constructed using 0.25-inch diameter Teflon™ tubing tipped with a screen-lined point inserted through the recently cored concrete slab to approximately one-inch beneath the slab. The annular space surrounding the probe tip was filled with a sand pack and the surface was sealed with hydrated granular bentonite.

On November 6, 2015, AEI contracted a State of California-licensed drilling company, Environmental Control Associates, Inc. to advance soil borings to construct temporary soil vapor probes using a limited access direct-push drilling rig. At each location a soil boring was advanced to a depth of approximately 5.5-feet bgs. Once advanced a soil vapor probe was constructed

using 0.25-inch diameter Teflon™ tubing tipped with a screen-lined point inserted to a depth of approximately five-feet bgs and encapsulated in an annular filter pack consisting of a roughly one-foot layer of #2 to #4 sand. The temporary soil vapor probe was then sealed by backfilling the remaining section of the borehole with one-foot of dry bentonite with the remainder consisting of bentonite to surface, hydrated in six-inch lifts. A closed gas-tight valve was installed at the end of the sample tubing and to seal probe.

Soil vapor sampling was performed in general accordance with the *Advisory – Active Soil Gas Investigation,* July 2015, issued by the California Department of Toxic Substances Control (DTSC), and Los Angeles and San Francisco Regional Water Quality Control Boards. After waiting the Advisory-recommended equilibration time of a minimum of two-hours, soil vapor samples were collected. Soil vapor samples were collected using laboratory-supplied, certified clean, one-liter vacuum canisters. Prior to collecting the samples, a shut-in test was performed by placing a vacuum on the above-grade sampling train and vacuum canisters. The vacuum was observed for approximately six minutes and verified to not change. Isopropyl alcohol was used as a leak-check compound. Prior to sampling, and following purging of the sampling lines and approximately three pore volumes of the sand pack and dried bentonite, the purge valve was closed and the initial vacuum of the vacuum canister was recorded. Soil vapor samples were collected through laboratory-supplied, certified clean, regulators at approximately 150-milliliters per minute. After approximately five minutes (depending on the down-hole vacuum), or -5 in Hg vacuum in the canister, each canister was closed and removed from the sampling line and the final canister vacuum recorded. The vacuum canister sample was sealed with a gas tight cap, appropriately labeled, and entered onto a chain-of-custody for delivery to the laboratory.

The collected soil vapor samples were transported under chain-of-custody protocol to State of California-certified laboratory analysis. Each soil gas sample was analyzed for volatile organic compounds (VOCs) using US EPA Testing Method TO-15.

Following the collection of soil vapor samples, each soil vapor probe was destroyed by removing the sample tubing, hydrating the existing bentonite, and completing the borehole with cement to match the existing ground surface.

3.3 Field Activities (December 2015)

On December 16 and 17, AEI collected additional soil vapor samples. AEI contracted a private utility locator to confirm the location of public and private utilities at the Site and confirm the absence of public or private utilities or other obstructions at all drilling locations as shown on Figure 2. Proposed sample locations were laid out in a uniform grid and field modified based on the results of the private utility locate, the location of interior walls equipment and materials, and the professional judgment of the on-site engineer.

AEI contracted a State of California-licensed drilling company, Environmental Control Associates, Inc. to advance each of the soil borings and construct temporary soil vapor probes using a limited access direct-push drilling rig. At each location a soil boring was advanced to a depth of approximately 5.5-feet bgs and a temporary soil vapor probe was constructed as and sampled described above in Section 3.2.

The collected soil vapor samples were transported under chain-of-custody protocol to State of California-certified laboratory analysis. Each soil gas sample was analyzed for volatile organic compounds (VOCs) using US EPA Testing Method TO-15.

Following the collection of soil vapor samples, each soil vapor probe was destroyed by removing the sample tubing and the top one foot of bentonite. The remaining bentonite was compacted and hydrated and a bentonite slurry was introduced up to 4 inches bgs. The borehole was then completed with neat cement to match existing ground surface.

4. Analytical Results

Table 1 presents a summary of the compounds detected in soil vapor. Table 2 presents a summary of select VOC concentrations detected in soil vapor. Figures 3 and 4 present posted benzene and PCE concentrations in soil vapor, respectively. A copy of the laboratory analytical reports are included as Appendix B. The analytical results from each soil vapor sampling event are presented below.

4.1 Analytical Results (November 2015)

A total of 16 soil vapor samples were collected for the initial investigation in November 2015, including eight sub-slab and eight five-foot bgs soil vapor samples collected at the locations shown on Figure 2. The soil vapor results can be summarized as follows:

- Benzene was detected in four of the eight sub-slab soil vapor samples collected and analyzed, and observed at a maximum concentration of 3.89 µg/m^3. Benzene was detected in seven of the eight soil vapor samples collected at a depth of five-feet bgs, and observed at a maximum concentration of 46.9 µg/m^3.
- Ethylbenzene was detected in four of the eight sub-slab soil vapor samples collected and analyzed, and observed at a maximum concentration of 5.48 µg/m^3. Ethylbenzene was detected in seven of the eight soil vapor samples collected at a depth of five-feet bgs, and observed at a maximum concentration of 21.8 µg/m^3.
- Tetrachloroethylene (PCE) was detected in each of the sub-slab and five-foot bgs soil vapor samples collected and analyzed, and observed at maximum concentrations of 340 µg/m^3 and 1,100 µg/m3, respectively.
- Trichloroethylene (TCE) was detected in one of the sub-slab and one of the five-foot bgs soil vapor samples collected and analyzed, and observed at concentrations of 2.43 µg/m^3 and 2.82 µg/m^3, respectively.
- Cis-1,2-dichloroethylene (cis-1,2-DCE) was detected in one soil vapor sample collected at five-feet bgs at a concentration of 3.53 µg/m^3.

4.2 Analytical Results (December 2015)

To further characterize VOCs in soil vapor at the Site total of 17 soil vapor samples were collected from a depth of five-feet bgs in December 2015 at locations as shown on Figure 2. The soil vapor results can be summarized as follows:

- Benzene was detected in each of the 17 soil vapor samples collected and analyzed, and observed at a maximum concentration of 19.1 µg/m^3.
- Ethylbenzene was detected in 16 of the 17 slab soil vapor samples collected and analyzed, and observed at a maximum concentration of 32.4 µg/m^3.
- PCE was detected in 15 of the 17 five-foot bgs soil vapor samples collected and analyzed, and observed at a maximum concentration of 680 µg/m^3.
- TCE was detected in one of the five-foot bgs soil vapor samples collected and analyzed at a concentration of 3.26 µg/m^3.
- Cis-1,2-DCE was not detected in the soil vapor samples collected at five-feet bgs at or above the laboratory method detection limit.

4.3 Quality Assurance / Quality Control

Quality Assurance / Quality Control (QA/QC) measures were performed during the sample collection and chemical analysis processes. The ultimate objective of these QA/QC measures is to ensure that the data are of adequate quality for their intended use. During soil vapor sample collection, isopropyl alcohol was used as a leak-check compound. Isopropyl alcohol was not observed at significant concentrations in the samples collected in November 2015, with the exception of the soil vapor probe at ASV-23. However, isopropyl alcohol was observed in each of the samples collected during December 2015. In reviewing the data, it appears that the observed concentrations of isopropyl alcohol in each of the samples likely do not represent a leak, with the following considerations:

- IPA concentrations were below what is typically observed during a leak (>100,000 µg/m^3) with concentrations of IPA ranging from 274 µg/m^3 to 3,090 µg/m^3 with a mean of 1,376 µg/m^3 and a standard deviation of 747 µg/m^3.
- IPA concentrations are found to be normally distributed by means of normal probability plot with an estimated population mean of 1,301 µg/m3 and population standard deviation of 838 µg/m^3.

Although IPA was detected above the DTSC Advisory leak check threshold in all samples, the ubiquity, distribution, and normality of the IPA detections is indicative of a systemic error caused by cross contamination of sampling materials and not of a leak. As such, these analytical data are likely valid for the Site. To confirm the validity of these data, AEI will conduct confirmation sampling which will replicate samples from three locations.

No other anomalies were identified in the laboratory QA/QC processes. Therefore, based upon the review of the QA/QC results, the data are considered to be of adequate quality for their intended use.

5. Hypothetical Exposure to Affected Soil Vapor

To assess whether the concentrations of VOCs identified in soil vapor beneath the Site pose a significant potential risk to a hypothetical future resident at the Site, AEI has compared the concentrations of constituents detected to Environmental Screening Levels (ESLs) issued by the

California Regional Water Quality Control Board, San Francisco Bay Region and using the procedures outlined in the *Final, Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)*, October 2011, issued by the DTSC.

The primary chemicals of potential concern (COPCs) initially were petroleum hydrocarbons, benzene, toluene, ethylbenzene, and xylenes (collectively "BTEX compounds"). A significant number of samples also yielded PCE, therefore PCE has been included as a COPC.

To assess whether the COPC concentrations observed in sub-slab soil vapor samples collected and analyzed pose a potential unacceptable health risk to the indoor air, AEI compared the maximum detected concentrations against attenuated ambient/indoor air ESLs. The ambient/indoor air ESLs provided in Table E-3 were divided by the attenuation factor of 0.05 provided in the DTSC vapor intrusion guidance Table 2. Table 3 below provides a summary of maximum COPC concentrations observed and the attenuated ESL.

Table 3 – Sub-Slab Soil Vapor ESL Comparison

COPC	Maximum Concentration Observed ($\mu g/m^3$)	Ambient / Indoor Air ESL ($\mu g/m^3$)	Attenuated ESL ($\mu g/m^3$)
Benzene	3.89	0.084	1.68
Toluene	34.4	310	6,200
Ethylbenzene	5.48	0.97	19.4
Total Xylenes	28.0	100	2,000
PCE	561	0.41	8.2

The ESLs for exposure to soil vapor, relative to samples collected at the source as estimated by the five-foot bgs soil vapor samples, are calculated using an attenuation factor for existing construction of 0.002 from the indoor air screening levels. However, since the hypothetical human receptor is for a newly renovated building, the more appropriate attenuation factor may be that for new construction of 0.001 (DTSC, October 2011). Table 4 below summarizes the maximum COPC concentration and existing and new construction ESLs.

Table 4 – Soil Vapor ESL Comparison

COPC	Maximum Concentration Observed ($\mu g/m^3$)	Attenuated Soil vapor ESL – Existing Construction ($\mu g/m^3$)	Attenuated Soil vapor ESL – New Construction ($\mu g/m^3$)
Benzene	46.9	42	84
Toluene	240	160,000	310,000
Ethylbenzene	32.4	490	970
Total Xylenes	167	54,000	110,000
PCE	1,100	210	410

This comparison performed identified the following:

- Benzene concentrations observed in sub-slab and five-foot bgs soil vapor samples slightly exceed the ESLs for the protection of indoor air under a residential use scenario using existing construction attenuation factors, but are below the ESL when using the attenuation factor for new-construction.
- PCE concentrations observed in sub-slab and five-foot bgs soil vapor samples exceed both ESLs for the protection of residential indoor air.
- Toluene, ethylbenzene, and total xylene concentrations observed in sub-slab or five-foot bgs soil vapor samples do not exceed their respective ESLs for the protection of residential indoor air.

Therefore, it appears that PCE, and to a lesser extent benzene concentrations, observed in soil vapor beneath the Site may pose an unacceptable risk to a hypothetical human residential receptor. It should be noted that the ambient air goals identified by the California Office of Environmental Health Hazard Assessment (OEHHA) has issued chronic reference exposure levels (chRELs) that are the goals for the Bay Area Air Quality Management District (BAAQMD) of 3 µg/m^3 for benzene, compared to the ESL for ambient air of 0.84 µg/m^3. If this goal were to be used in lieu of the ESL, the sub-slab and five-foot bgs screening levels would become 60 µg/m^3 and 1,500 µg/m^3, respectively.

The proposed vapor intrusion mitigation system proposed in the RMP would be protective of indoor air within the building. Therefore, AEI recommends designing and installing the vapor intrusion mitigation system as proposed in the RMP.

6. References

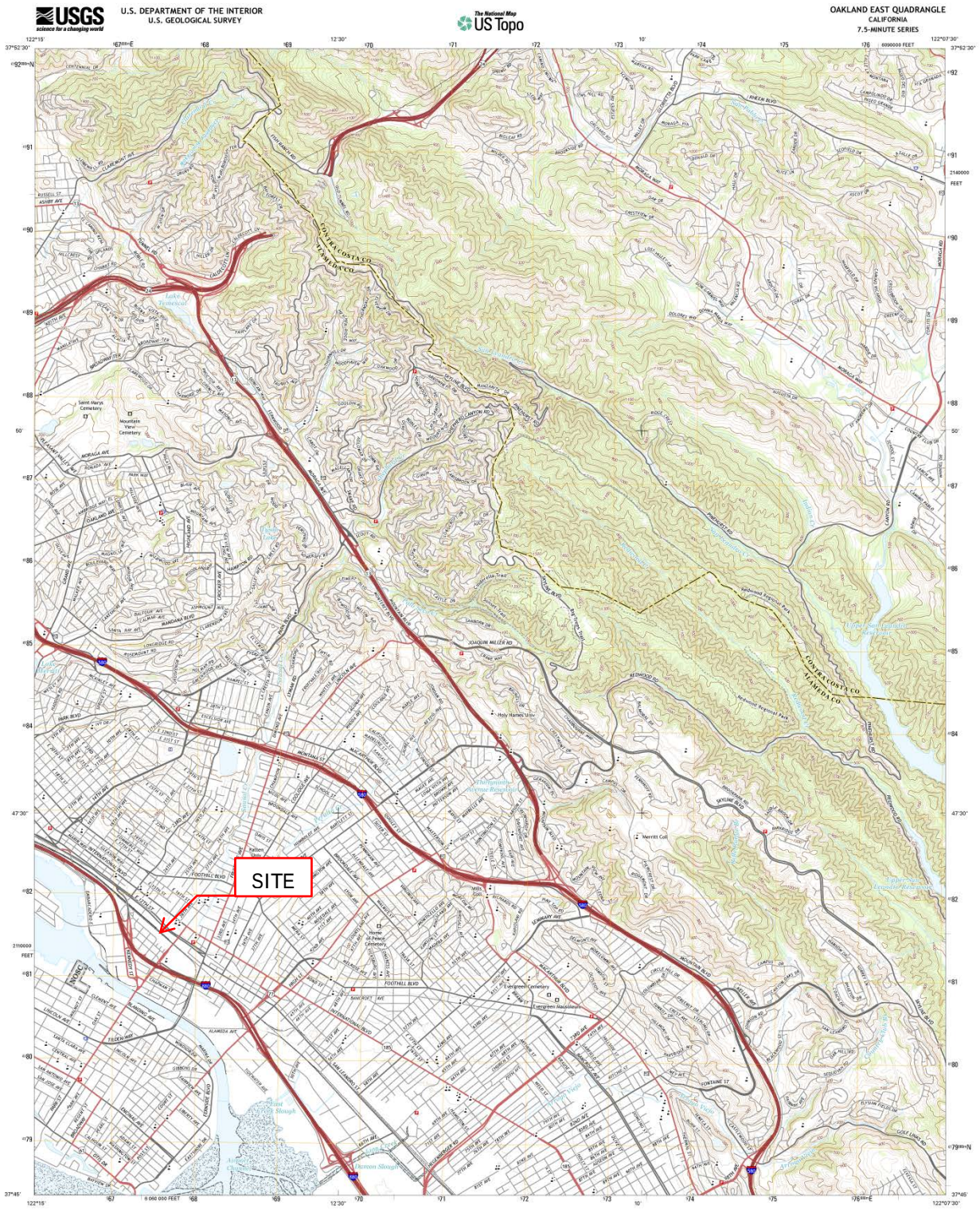
The regulatory record for this Site can be found on the State of California GeoTracker Website at http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600133151.

California Department of Toxic Substances Control (DTSC). 2015. *Advisory – Active Soil Gas Investigation*. July. http://www.dtsc.ca.gov/SiteCleanup/upload/VI_ActiveSoilGasAdvisory_FINAL_043012.pdf

California Regional Water Quality Control Board, San Francisco Bay Region. 2013. *User's Guide: Derivation and Application of Environmental Screening Levels – Interim Final*. December. http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.shtml

AEI
Consultants

FIGURES



QUADRANGLE LOCATION

AEI Consultants

2500 CAMINO DIABLO, WALNUT CREEK, CALIFORNIA

SITE LOCATION MAP

2744 East 11th Street Oakland, CA	FIGURE 1 Project No. 345989

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ASV-41
ASV-40
ASV-37
ASV-39
ASV-36
ASV-33
ASV-38
ASV-35
ASV-32
ASV-29
ASV-31
ASV-28
ASV-34
ASV-27
ASV-24
ASV-30
ASV-26
ASV-23
ASV-20
ASV-25
ASV-16
ASV-21
ASV-19
ASV-22
ASV-17
ASV-18
ASV-10
PMW-3
ASV-3
ASV-15
ASV-4
ASV-14
ASV-5
B-2
ASV-9
ASV-17

B-1
SB-24
SB-22
SB-21
SB-3
SB-12
ASV-7
ASV-8
RW-3
SB-4
SB-13
SB-6
BH-3
BH-1
RW-1
ASV-6
PMW-1B
SB-15
SB-2
PMW-1A
PMW-2B
SB-14
BH-4
PMW-2A
BH-2
RW-2
ASV-13
SB-1
ASV-11
SB-10
SB-14
ASV-1
SB-9
SB-23
BH-6
SB-8
ASV-12
SB-16
SB-7

27th AVENUE
EAST 11th STREET
EAST 10th STREET
LISBON AVENUE
RAIL TRACKS
OAKLAND ANIMAL SHELTER

LEGEND

- ASV-24 — Soil Vapor Sample Location (AEI)
- ASV-18 — Incomplete Soil Vapor Sample Location (AEI)
- RW-3 — Product Recovery Well (Clearwater)
- PMW-3 — Product Monitoring Well (ERM)
- SB-24 — Soil Boring (Clearwater)
- SB-6 — Soil Boring (Terra Firma)
- SB-14 — Soil Boring (AEI)
- B-2 — Soil Boring (ERM 2010)
- ASV-11 — Soil Vapor Sample Location (ERM, 2009)
- ASV-15 — Soil Vapor Sample Location (ERM, 2010)

NOTE:
Base Map Sources:
ERM, Exhibit 1, 03/2011
Google Earth, Image Date 5/11/2015

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APPROXIMATE SCALE
IN FEET

AEI Consultants
San Jose, California

SITE PLAN

2744 East 11th Street
Oakland, California

FIGURE 2
Project No. 345989

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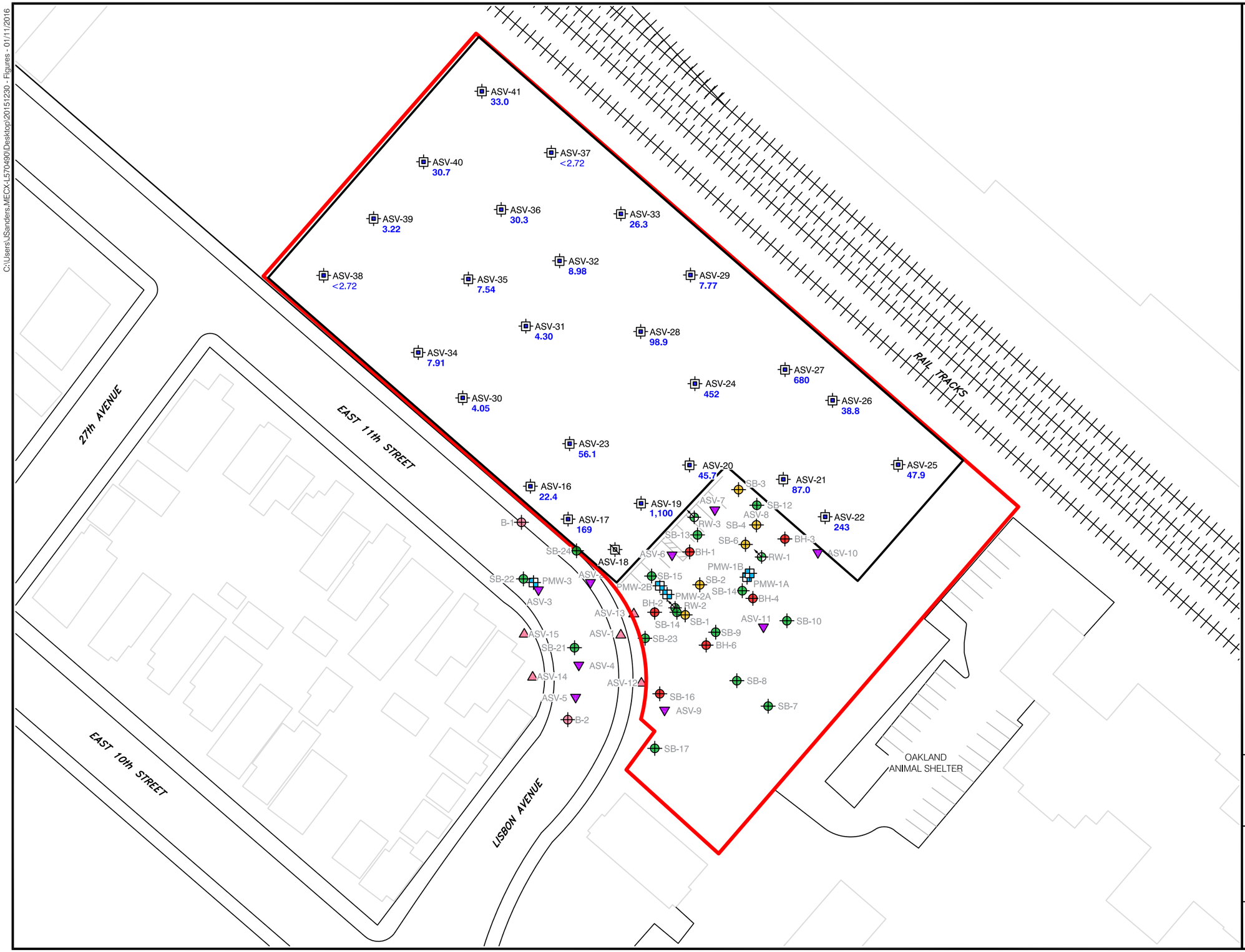

LEGEND

- ASV-24 — Soil Vapor Sample Location (AEI)
- ASV-18 — Incomplete Soil Vapor Sample Location (AEI)
- 139 — PCE Concentration (5 ft bgs soil vapor probe) [ug/m^3]
- RW-3 — Product Recovery Well (Clearwater)
- PMW-3 — Product Monitoring Well (ERM)
- SB-24 — Soil Boring (Clearwater)
- SB-6 — Soil Boring (Terra Firma)
- SB-14 — Soil Boring (AEI)
- B-2 — Soil Boring (ERM 2010)
- ASV-11 — Soil Vapor Sample Location (ERM, 2009)
- ASV-15 — Soil Vapor Sample Location (ERM, 2010)

NOTE:
Base Map Sources:
ERM, Exhibit 1, 03/2011
Google Earth, Image Date 5/11/2015

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APPROXIMATE SCALE
IN FEET

AEI Consultants
San Jose, California

Soil Vapor PCE Concentration

2744 East 11th Street
Oakland, California

FIGURE 3
Project No. 345989

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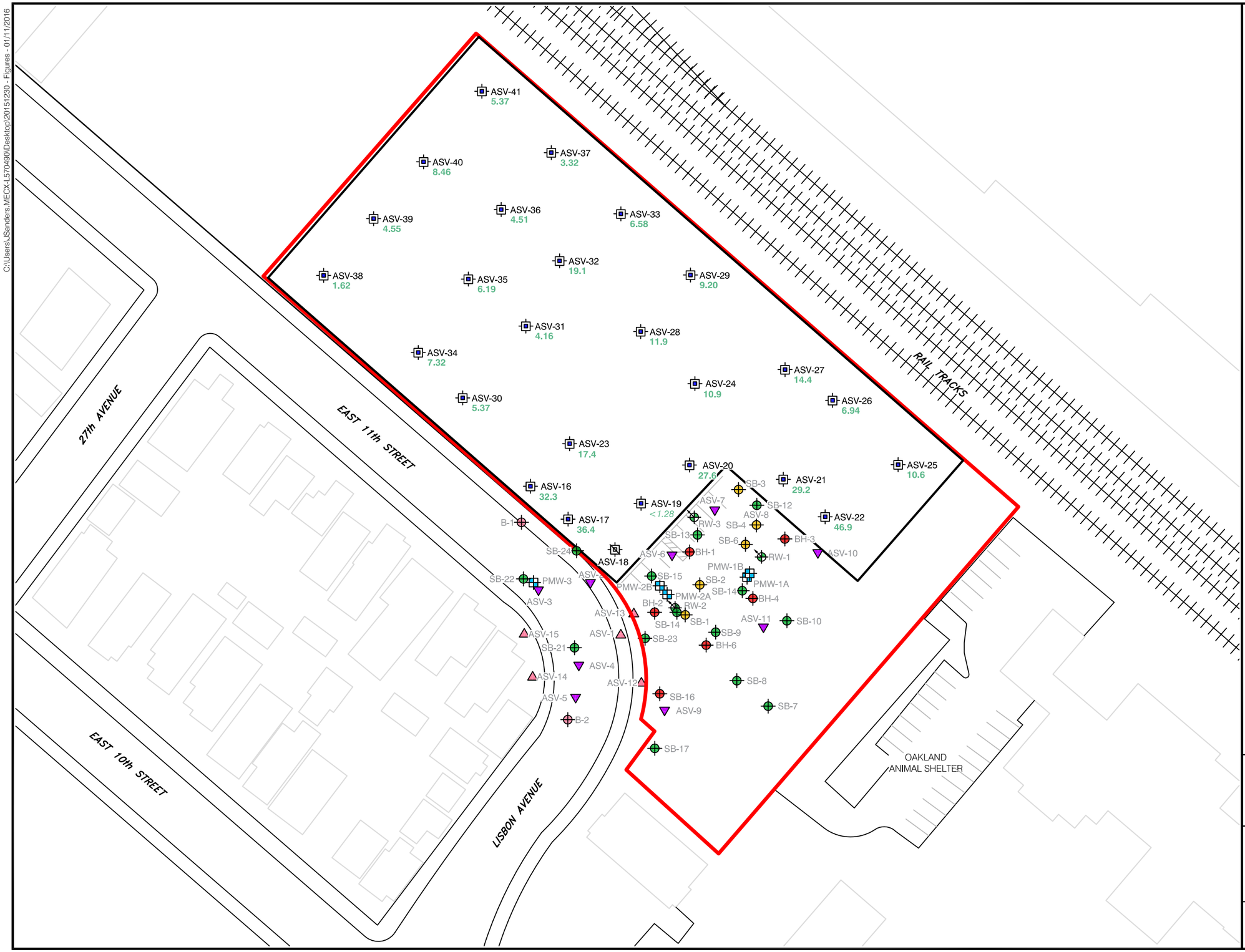

LEGEND

- ASV-24 — Soil Vapor Sample Location (AEI)
- ASV-18 — Incomplete Soil Vapor Sample Location (AEI)
- 4.16 — Benzene Concentration (5 ft bgs soil vapor probe) [ug/m^3]
- RW-3 — Product Recovery Well (Clearwater)
- PMW-3 — Product Monitoring Well (ERM)
- SB-24 — Soil Boring (Clearwater)
- SB-6 — Soil Boring (Terra Firma)
- SB-14 — Soil Boring (AEI)
- B-2 — Soil Boring (ERM 2010)
- ASV-11 — Soil Vapor Sample Location (ERM, 2009)
- ASV-15 — Soil Vapor Sample Location (ERM, 2010)

NOTE:
Base Map Sources:
ERM, Exhibit 1, 03/2011
Google Earth, Image Date 5/11/2015

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APPROXIMATE SCALE
IN FEET

AEI Consultants
San Jose, California

Soil Vapor Benzene Concentration

2744 East 11th Street
Oakland, California

FIGURE 4
Project No. 345989

TABLES

TABLE 1
SUMMARY OF DETECTED COMPOUNDS IN SOIL VAPOR
Lucasey Manufacturing Site
2744 East Eleventh St., Oakland, California

Sample ID	Date Collected	Analyte	Result (µg/m3)
ASV-16-05	11/06/2015	1,2,4-Trimethylbenzene	14.7
		1,3,5-Trimethylbenzene	5.39
		1,4-Dioxane	7.96
		2,2,4-Trimethylpentane	16.5
		2-Butanone (MEK)	126
		2-Propanol	337
		4-Ethyltoluene	4.96
		Acetone	500
		Benzene	32.3
		Carbon disulfide	4.58
		Cyclohexane	4.8
		Dichlorodifluoromethane	3.23
		Ethanol	30.7
		Ethylbenzene	21.8
		Heptane	27.1
		m&p-Xylene	78.7
		Methylene Chloride	1.48
		n-Hexane	10.9
		o-Xylene	25.1
		Propene	7.45
		Tetrachloroethylene	22.4
		Tetrahydrofuran	70.2
		Toluene	167
		Trichlorofluoromethane	3.53
ASV-16-SS	11/06/2015	1,2,4-Trimethylbenzene	2.39
		1,4-Dioxane	6.66
		2-Butanone (MEK)	51.7
		2-Propanol	2,900
		Acetone	242
		Benzene	3.52
		Carbon disulfide	15.4
		Chloromethane	1.01
		Cyclohexane	1.75
		Dichlorodifluoromethane	2.49
		Ethanol	27.6
		Ethylbenzene	5.48
		Heptane	2.07
		m&p-Xylene	18.9
		Methylene Chloride	1.81
		n-Hexane	1.91
		o-Xylene	9.14
		Propene	3.45
		Tetrachloroethylene	14.2
		Tetrahydrofuran	14.3
		Toluene	15.1
		Trichloroethylene	2.43

TABLE 1
SUMMARY OF DETECTED COMPOUNDS IN SOIL VAPOR
Lucasey Manufacturing Site
2744 East Eleventh St., Oakland, California

Sample ID	Date Collected	Analyte	Result (µg/m3)
ASV-17-05	11/06/2015	1,1,1-Trichloroethane	2.36
		1,2,4-Trimethylbenzene	6.02
		1,3,5-Trimethylbenzene	2.55
		2,2,4-Trimethylpentane	18.5
		2-Butanone (MEK)	55.6
		2-Propanol	61.8
		4-Ethyltoluene	2.2
		Acetone	187
		Benzene	36.4
		Carbon disulfide	10.1
		Cyclohexane	5.46
		Dichlorodifluoromethane	11.2
		Ethanol	17.7
		Ethylbenzene	18.4
		Heptane	30.8
		m&p-Xylene	62.0
		Methyl methacrylate	7.73
		Methylene Chloride	1.66
		n-Hexane	11.1
		o-Xylene	19.9
		Propene	12.4
		Tetrachloroethylene	169
		Tetrahydrofuran	28.8
		Toluene	181
		Trichlorofluoromethane	3.35
ASV-17-SS	11/06/2015	1,1,1-Trichloroethane	3.18
		2-Propanol	8.65
		Acetone	35.6
		Chloroform	2.81
		Dichlorodifluoromethane	5.78
		Ethanol	21.5
		Methylene Chloride	1.39
		Tetrachloroethylene	236
		Tetrahydrofuran	2.07
		Trichlorofluoromethane	2.55
ASV-19-05	11/06/2015	2-Butanone (MEK)	15.9
		2-Propanol	392
		Acetone	31.2
		Carbon disulfide	3.1
		Dichlorodifluoromethane	9.89
		Ethanol	18.7
		Propene	4.1
		Tetrachloroethylene	1,100
		Tetrahydrofuran	3.95
		Toluene	4.74

TABLE 1
SUMMARY OF DETECTED COMPOUNDS IN SOIL VAPOR
Lucasey Manufacturing Site
2744 East Eleventh St., Oakland, California

Sample ID	Date Collected	Analyte	Result (µg/m3)
ASV-19-SS	11/06/2015	1,2,4-Trimethylbenzene	2.44
		2-Butanone (MEK)	7.93
		2-Propanol	7.06
		4-Methyl-2-pentanone (MIBK)	24.3
		Acetone	39.7
		Benzene	3.22
		Bromodichloromethane	13.6
		Bromoform	20.1
		Carbon disulfide	6.37
		Chloroform	8.66
		Cyclohexane	3.34
		Dibromochloromethane	24.2
		Dichlorodifluoromethane	7.43
		Ethanol	17.4
		Ethylbenzene	2.96
		m&p-Xylene	13.2
		Methyl methacrylate	3.59
		Methylene Chloride	1.41
		o-Xylene	5.43
		Tetrachloroethylene	561
		Toluene	17.1
ASV-20-05	11/06/2015	1,2,4-Trimethylbenzene	7.24
		1,3,5-Trimethylbenzene	2.7
		2,2,4-Trimethylpentane	9.24
		2-Butanone (MEK)	65.9
		2-Propanol	8.55
		4-Ethyltoluene	2.45
		Acetone	155
		Benzene	27.6
		Carbon disulfide	30.9
		Cyclohexane	4.06
		Dichlorodifluoromethane	8.88
		Ethanol	29.3
		Ethylbenzene	11.8
		Heptane	21.5
		m&p-Xylene	41.5
		Methyl methacrylate	5.25
		Methylene Chloride	1.71
		n-Hexane	10.6
		o-Xylene	14.0
		Propene	3.53
		Tetrachloroethylene	45.7
		Tetrahydrofuran	34.9
		Toluene	118

TABLE 1
SUMMARY OF DETECTED COMPOUNDS IN SOIL VAPOR
Lucasey Manufacturing Site
2744 East Eleventh St., Oakland, California

Sample ID	Date Collected	Analyte	Result (µg/m3)
ASV-20-SS	11/06/2015	1,2,4-Trimethylbenzene	2.12
		1,4-Dioxane	37.1
		2-Butanone (MEK)	16.0
		2-Propanol	7.6
		Acetone	190
		Benzene	3.85
		Carbon disulfide	1.29
		Chloroform	9.67
		Chloromethane	2.81
		Cyclohexane	1.57
		Dichlorodifluoromethane	5.86
		Ethanol	43.4
		Heptane	1.66
		m&p-Xylene	3.49
		Methyl methacrylate	4.48
		Methylene Chloride	2.57
		n-Hexane	3.73
		Propene	15.1
		Tetrachloroethylene	188
		Tetrahydrofuran	14.4
		Toluene	8.88
ASV-21-05	11/06/2015	1,2,4-Trimethylbenzene	5.13
		2,2,4-Trimethylpentane	24.1
		2-Butanone (MEK)	78.8
		2-Propanol	14.8
		Acetone	232
		Benzene	29.2
		Carbon disulfide	10.7
		cis-1,2-Dichloroethene	3.53
		Cyclohexane	4.74
		Dichlorodifluoromethane	5.42
		Ethanol	23.2
		Ethylbenzene	12.4
		Heptane	30.8
		m&p-Xylene	42.0
		Methylene Chloride	1.49
		n-Hexane	15.1
		o-Xylene	13.6
		Propene	2.99
		Tetrachloroethylene	87.0
		Tetrahydrofuran	33.4
		Toluene	134
		Trichloroethylene	2.82

TABLE 1
SUMMARY OF DETECTED COMPOUNDS IN SOIL VAPOR
Lucasey Manufacturing Site
2744 East Eleventh St., Oakland, California

Sample ID	Date Collected	Analyte	Result (µg/m3)
ASV-21-SS	11/06/2015	1,2,4-Trimethylbenzene	2.39
		1,2-Dichloroethane	2.59
		2-Butanone (MEK)	51.3
		2-Propanol	14.7
		Acetone	247
		Benzene	3.89
		Carbon disulfide	9.08
		Chloroform	5.13
		Chloromethane	.91
		Cyclohexane	2.35
		Dichlorodifluoromethane	4.04
		Ethanol	28.3
		Ethylbenzene	3.31
		Heptane	2.12
		m&p-Xylene	9.76
		Methyl methacrylate	4.06
		Methylene Chloride	1.51
		n-Hexane	2.01
		o-Xylene	3.76
		Tetrachloroethylene	26.9
		Tetrahydrofuran	12.1
		Toluene	17.1
ASV-22-05	11/06/2015	1,2,4-Trimethylbenzene	7.56
		1,3,5-Trimethylbenzene	2.62
		1,3-Butadiene	20.4
		2,2,4-Trimethylpentane	38.9
		2-Butanone (MEK)	154
		2-Propanol	105
		4-Ethyltoluene	2.31
		4-Methyl-2-pentanone (MIBK)	13.7
		Acetone	1,140
		Benzene	46.9
		Carbon disulfide	1,560
		Chloroform	3.2
		Chloromethane	2.56
		Cyclohexane	32.3
		Dichlorodifluoromethane	2.85
		Ethanol	52.9
		Ethylbenzene	14.3
		Heptane	45.4
		m&p-Xylene	44.5
		Methylene Chloride	2.34
		n-Hexane	75.2
		o-Xylene	14.8
		Propene	854
		Tetrachloroethylene	243
		Tetrahydrofuran	39.6
		Toluene	156
		Trichlorofluoromethane	2.57

TABLE 1
SUMMARY OF DETECTED COMPOUNDS IN SOIL VAPOR
Lucasey Manufacturing Site
2744 East Eleventh St., Oakland, California

Sample ID	Date Collected	Analyte	Result (µg/m3)
ASV-22-SS	11/06/2015	1,1,1-Trichloroethane	5.01
		1,2,4-Trimethylbenzene	4.65
		2-Butanone (MEK)	10.9
		2-Propanol	9.17
		Acetone	96.5
		Carbon disulfide	8.93
		Chloroform	3.12
		Cyclohexane	4.59
		Dichlorodifluoromethane	10.7
		Ethanol	40.6
		Ethylbenzene	2.07
		m&p-Xylene	7.87
		Methylene Chloride	3.1
		n-Hexane	4.57
		o-Xylene	3.68
		Tetrachloroethylene	227
		Tetrahydrofuran	3.38
		Toluene	34.4
ASV-23-05	11/06/2015	2-Butanone (MEK)	50.6
		2-Propanol	132,000
		Acetone	195
		Benzene	17.4
		Ethylbenzene	7.48
		Heptane	9.86
		m&p-Xylene	28.2
		n-Hexane	9.1
		o-Xylene	8.69
		Propene	7.05
		Tetrachloroethylene	56.1
		Tetrahydrofuran	17.5
		Toluene	75.4
ASV-23-SS	11/06/2015	1,1,1-Trichloroethane	6.7
		2-Butanone (MEK)	21.2
		2-Propanol	226
		Acetone	133
		Dichlorodifluoromethane	6.99
		Ethanol	17.6
		Tetrachloroethylene	340
		Tetrahydrofuran	7.52
		Toluene	4.27
		Trichlorofluoromethane	2.75

TABLE 1
SUMMARY OF DETECTED COMPOUNDS IN SOIL VAPOR
Lucasey Manufacturing Site
2744 East Eleventh St., Oakland, California

Sample ID	Date Collected	Analyte	Result (µg/m3)
ASV-24-05	11/06/2015	1,1,1-Trichloroethane	4.14
		1,2,4-Trimethylbenzene	5.49
		1,4-Dioxane	35.9
		2,2,4-Trimethylpentane	5.01
		2-Butanone (MEK)	151
		2-Propanol	31.9
		Acetone	508
		Benzene	10.9
		Carbon disulfide	1.92
		Cyclohexane	12.6
		Dichlorodifluoromethane	14.5
		Ethanol	76.5
		Ethylbenzene	4.48
		Heptane	8.97
		m&p-Xylene	16.5
		n-Hexane	10.3
		o-Xylene	5.57
		Propene	9.91
		Tetrachloroethylene	452
		Tetrahydrofuran	69.9
		Toluene	33.7
		Trichlorofluoromethane	3.51
ASV-24-SS	11/06/2015	1,1,1-Trichloroethane	5.07
		2-Butanone (MEK)	18.8
		2-Propanol	20.1
		Acetone	85.0
		Carbon disulfide	2.05
		Cyclohexane	2.11
		Dichlorodifluoromethane	13.7
		Ethanol	25.8
		Heptane	2.45
		m&p-Xylene	4.41
		n-Hexane	2.6
		o-Xylene	1.77
		Tetrachloroethylene	63.4
		Tetrahydrofuran	5.52
		Toluene	4.63
		Trichlorofluoromethane	2.91

TABLE 1
SUMMARY OF DETECTED COMPOUNDS IN SOIL VAPOR
Lucasey Manufacturing Site
2744 East Eleventh St., Oakland, California

Sample ID	Date Collected	Analyte	Result (µg/m3)
ASV-25	12/16/2015	Acetone	195
		Benzene	10.6
		Carbon disulfide	177
		Chloromethane	1.67
		Cyclohexane	37.3
		Ethanol	64.9
		Etylbenzene	6.29
		Dichlorodifluoromethane	71.8
		Heptane	8.61
		n-Hexane	12.4
		2-Butanone (MEK)	28.2
		2-Propanol	1110
		Propene	32.7
		Tetrachloroethylene	47.9
		Tetrahydrofuran	1.76
		Toluene	183
		1,2,4-Trimethylbenzene	2.95
		2,2,4-Trimethylpentane	9.55
		m&p-Xylene	21.1
		o-Xylene	5.67
ASV-26	12/16/2015	Acetone	91.8
		Benzene	6.94
		Carbon disulfide	107
		Chloromethane	1.23
		Cyclohexane	18.8
		1,4-Dioxane	10.8
		Ethanol	49.1
		Etylbenzene	5.07
		Dichlorodifluoromethane	2.64
		Heptane	5.61
		n-Hexane	7.3
		2-Butanone (MEK)	20.6
		2-Propanol	1010
		Propene	16.7
		Tetrachloroethylene	38.8
		Tetrahydrofuran	3.27
		Toluene	181
		1,2,4-Trimethylbenzene	4.93
		2,2,4-Trimethylpentane	5.8
		m&p-Xylene	18.3
		o-Xylene	4.94

TABLE 1
SUMMARY OF DETECTED COMPOUNDS IN SOIL VAPOR
Lucasey Manufacturing Site
2744 East Eleventh St., Oakland, California

Sample ID	Date Collected	Analyte	Result (µg/m3)
ASV-27	12/16/2015	Acetone	136
		Benzene	14.4
		Carbon disulfide	109
		Chloromethane	1.21
		Cyclohexane	27.7
		Ethanol	53.1
		Etylbenzene	8.77
		Dichlorodifluoromethane	14.9
		Heptane	54.7
		n-Hexane	51.6
		2-Butanone (MEK)	25.1
		2-Propanol	1150
		Propene	31.5
		Tetrachloroethylene	**680**
		Tetrahydrofuran	3.47
		Toluene	240
		1,2,4-Trimethylbenzene	2.96
		2,2,4-Trimethylpentane	9.38
		m&p-Xylene	31.5
		o-Xylene	9.46
ASV-28	12/17/2015	Acetone	150
		Benzene	11.9
		Carbon disulfide	118
		Cyclohexane	13
		Ethanol	49.6
		Etylbenzene	20.5
		4-Ethyltoluene	8.7
		Trichlorofluoromethane	2.88
		Dichlorodifluoromethane	25
		Heptane	10.3
		n-Hexane	7.87
		Isopropylbenzene	2.12
		Methyl Butyl Ketone	45
		2-Butanone (MEK)	67.3
		2-Propanol	1870
		Propene	6.64
		Tetrachloroethylene	98.9
		Tetrahydrofuran	5.74
		Toluene	146
		1,1,1-Trichloroethane	3.43
		1,2,4-Trimethylbenzene	82.4
		1,3,5-Trimethylbenzene	22.1
		2,2,4-Trimethylpentane	5.96
		m&p-Xylene	86.2
		o-Xylene	38.5

TABLE 1
SUMMARY OF DETECTED COMPOUNDS IN SOIL VAPOR
Lucasey Manufacturing Site
2744 East Eleventh St., Oakland, California

Sample ID	Date Collected	Analyte	Result (µg/m3)
ASV-29	12/16/2015	Acetone	41.2
		Benzene	9.2
		Carbon disulfide	62.2
		Cyclohexane	16.2
		Ethanol	37
		Etylbenzene	11.1
		Dichlorodifluoromethane	12.5
		Heptane	8.79
		n-Hexane	8.17
		2-Butanone (MEK)	20.3
		2-Propanol	1080
		Propene	35.9
		Tetrachloroethylene	7.77
		Tetrahydrofuran	1.63
		Toluene	193
		1,2,4-Trimethylbenzene	3.29
		2,2,4-Trimethylpentane	6.48
		m&p-Xylene	37.5
		o-Xylene	11.7
ASV-30	12/17/2015	Acetone	61.4
		Benzene	5.37
		Carbon disulfide	70.8
		Chloromethane	1.02
		Cyclohexane	5.93
		Ethanol	17.8
		Etylbenzene	4.51
		Dichlorodifluoromethane	8.78
		Heptane	3.22
		n-Hexane	3.56
		2-Butanone (MEK)	28.1
		2-Propanol	2050
		Propene	29.7
		Tetrachloroethylene	4.05
		Tetrahydrofuran	1.57
		Toluene	65.4
		1,2,4-Trimethylbenzene	3.4
		2,2,4-Trimethylpentane	1.95
		m&p-Xylene	14.4
		o-Xylene	4.51

TABLE 1
SUMMARY OF DETECTED COMPOUNDS IN SOIL VAPOR
Lucasey Manufacturing Site
2744 East Eleventh St., Oakland, California

Sample ID	Date Collected	Analyte	Result (µg/m3)
ASV-31	12/17/2015	Acetone	89.4
		Benzene	4.16
		Carbon disulfide	71
		Chloromethane	1.04
		Cyclohexane	2.46
		Ethanol	18.8
		Etylbenzene	3.83
		Dichlorodifluoromethane	7.7
		Heptane	2.58
		n-Hexane	3.04
		2-Butanone (MEK)	32.4
		2-Propanol	2500
		Propene	17.8
		Tetrachloroethylene	4.3
		Tetrahydrofuran	1.46
		Toluene	79.6
		1,2,4-Trimethylbenzene	3.79
		m&p-Xylene	12.9
		o-Xylene	3.83
ASV-32	12/17/2015	Acetone	64.2
		Benzene	19.1
		Carbon disulfide	59.1
		Cyclohexane	11.1
		Ethanol	14.7
		Etylbenzene	6.48
		Dichlorodifluoromethane	8.45
		Heptane	11.4
		n-Hexane	8.24
		2-Butanone (MEK)	31.9
		2-Propanol	1410
		Propene	63.5
		Tetrachloroethylene	8.98
		Tetrahydrofuran	3.16
		Toluene	88.9
		Trichloroethylene	3.26
		1,2,4-Trimethylbenzene	4.13
		2,2,4-Trimethylpentane	4.09
		m&p-Xylene	19.1
		o-Xylene	6.21

TABLE 1
SUMMARY OF DETECTED COMPOUNDS IN SOIL VAPOR
Lucasey Manufacturing Site
2744 East Eleventh St., Oakland, California

Sample ID	Date Collected	Analyte	Result (µg/m3)
ASV-33	12/16/2015	Acetone	86.9
		Benzene	6.58
		Carbon disulfide	56.3
		Chloromethane	1.43
		Cyclohexane	17.5
		Ethanol	22.4
		Etylbenzene	13.9
		Trichlorofluoromethane	2.89
		Dichlorodifluoromethane	4.03
		Heptane	5.24
		n-Hexane	6.93
		2-Butanone (MEK)	31.2
		2-Propanol	594
		Propene	36.2
		Styrene	2
		Tetrachloroethylene	26.3
		Toluene	181
		1,2,4-Trimethylbenzene	3.26
		m&p-Xylene	57.4
		o-Xylene	17.6
ASV-34	12/17/2015	Acetone	57.4
		Benzene	7.32
		1,3-Butadiene	11
		Carbon disulfide	31.2
		Chloromethane	3.17
		Cyclohexane	8.7
		Ethanol	8.03
		Etylbenzene	32.4
		Trichlorofluoromethane	3.7
		Dichlorodifluoromethane	3.99
		Heptane	3.41
		n-Hexane	4.72
		2-Butanone (MEK)	31.2
		Methyl methacrylate	4.13
		2-Propanol	1380
		Propene	80.7
		Styrene	2.94
		Tetrachloroethylene	7.91
		Toluene	88
		1,2,4-Trimethylbenzene	4.74
		m&p-Xylene	128
		o-Xylene	38.9

TABLE 1
SUMMARY OF DETECTED COMPOUNDS IN SOIL VAPOR
Lucasey Manufacturing Site
2744 East Eleventh St., Oakland, California

Sample ID	Date Collected	Analyte	Result (µg/m3)
ASV-35	12/17/2015	Acetone	171
		Benzene	6.19
		Carbon disulfide	96.3
		Chloromethane	1.4
		Cyclohexane	3.36
		Ethanol	19
		Etylbenzene	7.48
		Trichlorofluoromethane	5.85
		Dichlorodifluoromethane	8.57
		Heptane	3.93
		n-Hexane	5.98
		2-Butanone (MEK)	34.9
		2-Propanol	1790
		Propene	15.8
		Tetrachloroethylene	7.54
		Toluene	70.1
		1,2,4-Trimethylbenzene	4.49
		m&p-Xylene	25.8
		o-Xylene	7.85
ASV-36	12/17/2015	Acetone	57.1
		Benzene	4.51
		Carbon disulfide	28.7
		Carbon tetrachloride	3.65
		Cyclohexane	7.8
		Ethanol	6.78
		Etylbenzene	12.9
		Trichlorofluoromethane	3.39
		Dichlorodifluoromethane	11.8
		1,1,2-Trichlorotrifluoroethane	3.74
		Heptane	9.55
		n-Hexane	21
		2-Butanone (MEK)	20
		Methyl methacrylate	3.84
		2-Propanol	3090
		Propene	9.26
		Styrene	1.83
		Tetrachloroethylene	30.3
		Toluene	144
		1,1,1-Trichloroethane	4.14
		1,2,4-Trimethylbenzene	2.79
		m&p-Xylene	46.6
		o-Xylene	15.6

TABLE 1
SUMMARY OF DETECTED COMPOUNDS IN SOIL VAPOR
Lucasey Manufacturing Site
2744 East Eleventh St., Oakland, California

Sample ID	Date Collected	Analyte	Result (µg/m3)
ASV-37	12/16/2015	Acetone	22.3
		Benzene	3.32
		Carbon disulfide	23.8
		Chloromethane	1.64
		Cyclohexane	5.82
		Ethanol	33.3
		Etylbenzene	2.51
		Dichlorodifluoromethane	3.17
		Heptane	3.04
		n-Hexane	3.25
		2-Butanone (MEK)	1.74
		2-Propanol	333
		Toluene	72.1
		Trichloroethylene	10.6
		2,2,4-Trimethylpentane	2.67
		m&p-Xylene	8.04
		o-Xylene	2.27
ASV-38	12/17/2015	Acetone	36.3
		Benzene	1.62
		Carbon disulfide	2.03
		Chloromethane	1.34
		Ethanol	26.5
		Dichlorodifluoromethane	3.61
		2-Butanone (MEK)	10.1
		2-Propanol	274
		Propene	4.36
		Toluene	13.6
		m&p-Xylene	3.89
ASV-39	12/17/2015	Acetone	27.9
		Benzene	4.55
		Chloromethane	2.04
		Cyclohexane	2.39
		Ethanol	8
		Etylbenzene	3.21
		Dichlorodifluoromethane	3.82
		Heptane	3.08
		n-Hexane	3.26
		2-Butanone (MEK)	19.5
		2-Propanol	1850
		Propene	23.4
		Tetrachloroethylene	3.22
		Toluene	57.8
		Trichloroethylene	10.5
		1,2,4-Trimethylbenzene	2.33
		m&p-Xylene	10.5
		o-Xylene	3.27

TABLE 1
SUMMARY OF DETECTED COMPOUNDS IN SOIL VAPOR
Lucasey Manufacturing Site
2744 East Eleventh St., Oakland, California

Sample ID	Date Collected	Analyte	Result (µg/m3)
ASV-40	12/16/2015	Acetone	51.2
		Benzene	8.46
		Carbon disulfide	67.5
		Carbon tetrachloride	5.33
		Chloromethane	1.49
		Cyclohexane	24.5
		Ethanol	23.1
		Etylbenzene	8.54
		Trichlorofluoromethane	4.04
		Dichlorodifluoromethane	5.39
		Heptane	6.87
		n-Hexane	8.07
		2-Butanone (MEK)	26.1
		2-Propanol	926
		Propene	12.3
		Tetrachloroethylene	30.7
		Toluene	192
		1,2,4-Trimethylbenzene	2.16
		2,2,4-Trimethylpentane	6.2
		m&p-Xylene	31.6
		o-Xylene	8.18
ASV-41	12/16/2015	Acetone	37.7
		Benzene	5.37
		Carbon disulfide	88.3
		Carbon tetrachloride	3.49
		Chloromethane	1.74
		Cyclohexane	15.4
		Ethanol	53.2
		Etylbenzene	6.05
		Trichlorofluoromethane	2.76
		Dichlorodifluoromethane	11.9
		Heptane	4.22
		n-Hexane	5.87
		2-Butanone (MEK)	14.6
		Methyl methacrylate	2.49
		2-Propanol	973
		Propene	49.9
		Tetrachloroethylene	33
		Tetrahydrofuran	1.54
		Toluene	180
		2,2,4-Trimethylpentane	3.65
		m&p-Xylene	21.4
		o-Xylene	4.83

Notes:

µg/m3	micrograms per cubic meter
<MRL	less than the method reporting limit
bgs	below ground surface

TABLE 2
SUMMARY OF BTEX AND CVOC CONCENTRATIONS IN SOIL VAPOR
Lucasey Manufacturing Site
2744 East Eleventh St., Oakland, California

Sample Location	Date	Depth (feet bgs)	PCE (µg/m3)	TCE (µg/m3)	cis-1,2-DCE (µg/m3)	Benzene (µg/m3)	Ethylbenzene (µg/m3)	Toluene (µg/m3)	Xylenes, Total (µg/m3)	IPA (µg/m3)
ASV-16	11/6/2015	sub-slab	14.2	2.43	<1.59	3.52	5.48	15.1	28.04	2,900
		5.0	**22.4**	<2.14	<1.59	**32.3**	**21.8**	**167**	**103.8**	**337**
ASV-17	11/6/2015	sub-slab	**236**	<2.14	<1.59	<1.28	<1.73	<1.51	<3.47	8.65
		5.0	**169**	<2.14	<1.59	**36.4**	**18.4**	**181**	**19.9**	**61.8**
ASV-19	11/6/2015	sub-slab	**561**	<2.14	<1.59	**27.6**	**11.8**	**118**	**55.5**	**8.55**
		5.0	**1100**	<2.14	<1.59	<1.28	<1.73	**4.74**	<3.47	**392**
ASV-20	11/6/2015	sub-slab	**188**	<2.14	<1.59	**3.85**	<1.73	**8.88**	**3.49**	**7.6**
		5.0	**45.7**	<2.14	<1.59	**27.6**	**11.8**	**118**	**55.5**	**8.55**
ASV-21	11/6/2015	sub-slab	**26.9**	<2.14	<1.59	**3.89**	**3.31**	**17.1**	**13.52**	**14.7**
		5.0	**87**	**2.82**	**3.53**	**29.2**	**12.4**	**134**	**55.6**	**14.8**
ASV-22	11/6/2015	sub-slab	**227**	<2.14	<1.59	<1.28	**2.07**	**34.4**	**11.55**	**9.17**
		5.0	**243**	<2.14	<1.59	**46.9**	**14.3**	**156**	**59.3**	**105**
ASV-23	11/6/2015	sub-slab	**340**	<2.14	<1.59	<1.28	<1.73	**4.27**	<3.47	**226**
		5.0	**56.1**	<2.14	<1.59	**17.4**	**7.48**	**75.4**	**36.9**	**132,000**
ASV-24	11/6/2015	sub-slab	**63.4**	<2.14	<1.59	<1.28	<1.73	**4.63**	**1.77**	**20.1**
		5.0	**452**	<2.14	<1.59	**10.9**	**4.48**	**22.1**	**36.9**	**31.9**
ASV-25	12/16/2015	5.0	**47.9**	<2.14	<1.59	**10.6**	**6.29**	**183**	**26.8**	**1,110**
ASV-26	12/16/2015	5.0	**38.8**	<2.14	<1.59	**6.94**	**5.07**	**181**	**23.2**	**1,010**
ASV-27	12/16/2015	5.0	**680**	<2.14	<1.59	**14.4**	**8.77**	**240**	**41.0**	**1,150**
ASV-28	12/17/2015	5.0	**98.9**	<2.14	<1.59	**11.9**	**20.5**	**146**	**125**	**1,870**
ASV-29	12/16/2015	5.0	**7.77**	<2.14	<1.59	**9.20**	**11.1**	**193**	**49.2**	**1,080**
ASV-30	12/17/2015	5.0	**4.05**	<2.14	<1.59	**5.37**	**4.51**	**65.4**	**18.9**	**2,050**
ASV-31	12/17/2015	5.0	**4.30**	<2.14	<1.59	**4.16**	**3.83**	**79.6**	**16.7**	**2,500**
ASV-32	12/17/2015	5.0	**8.98**	**3.26**	<1.59	**19.1**	**6.48**	**88.9**	**25.3**	**1,410**
ASV-33	12/16/2015	5.0	**26.3**	<2.14	<1.59	**6.58**	**13.9**	**181**	**75.0**	**594**
ASV-34	12/17/2015	5.0	**7.91**	<2.14	<1.59	**7.32**	**32.4**	**88.0**	**167**	**1,380**
ASV-35	12/17/2015	5.0	**7.54**	<2.14	<1.59	**6.19**	**7.48**	**70.1**	**33.7**	**1,790**
ASV-36	12/17/2015	5.0	**30.3**	<2.14	<1.59	**4.51**	**12.9**	**144**	**62.2**	**3,090**
ASV-37	12/16/2015	5.0	<2.72	<2.14	<1.59	**3.32**	**2.51**	**72.1**	**10.3**	**333**
ASV-38	12/17/2015	5.0	<2.72	<2.14	<1.59	**1.62**	<1.73	**13.6**	**3.89**	**274**
ASV-39	12/17/2015	5.0	**3.22**	<2.14	<1.59	**4.55**	**3.21**	**57.8**	**13.8**	**1,850**
ASV-40	12/16/2015	5.0	**30.7**	<2.14	<1.59	**8.46**	**8.54**	**192**	**39.8**	**926**
ASV-41	12/16/2015	5.0	**33.0**	<2.14	<1.59	**5.37**	**6.05**	**180**	**26.2**	**973**

Notes:

ug/m3	microgram per cubic meter
<	Analyte not present at or above the method detection limit
bgs	below ground surface
IPA	Isopropyl alcohol (reported as 2-propanol)
PCE	Tetrachloroethylene
TCE	Trichloroethylene
DCE	Dichloroethylene

APPENDIX A

PERMITS

Alameda County Public Works Agency - Water Resources Well Permit

Public Works Agency
Alameda County

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 11/04/2015 By jamesy

Permit Numbers: W2015-1003
Permits Valid from 11/05/2015 to 11/06/2015

Application Id: 1446159771515 **City of Project Site:** Oakland
Site Location: 2744 East 11th Street
Project Start Date: 11/05/2015 **Completion Date:** 11/06/2015
Assigned Inspector: Contact Balance Hydrologics, Inc at (510) 473-5663 or acwells@balancehydro.com

Applicant: AEI Consultants - Andrew Armstrong **Phone:** 925-746-6000 x1140
2500 Camino Diablo, Walnut Creek, CA 94597
Property Owner: JP Trias **Phone:** --
2744 East 11th Street, Oakland, CA 94601
Client: Paul DiCarlo **Phone:** --
160 Franklin Street, Suite 300, Oakland, CA 94607

Total Due: $265.00
Receipt Number: WR2015-0544 **Total Amount Paid:** $265.00
Payer Name : Andrew Armstrong Paid By: VISA **PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Vapor Sampling 24 to 48 hours only - 9 Boreholes
Driller: Environmental Control Associates, Inc. - Lic #: 695970 - Method: DP **Work Total: $265.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2015-1003	11/04/2015	02/03/2016	9	2.25 in.	5.00 ft

Specific Work Permit Conditions

1. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

2. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

4. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost and liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

5. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

6. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

7. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

8. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.

9. NOTE:
Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

10. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Temp Vapor wells shall not be converted to monitoring Vapor wells, without a seperate permit application process.

11. Vapor monitoring wells constructed with tubing shall be decomissioned by complete removal of tubing, grout seal, and fill material of sand or bentonite. Fill material may be removed by hand auger if material can be removed completely.

Vapor monitoring wells constructed with pvc pipe less than 2" shall be overdrilled to total depth.

Vapor monitoring wells constructed with 2" pvc pipe or larger may be grouted by tremie pipe (any depth) or pressure grouted (less than 30', 25 psi for 5 min).

Alameda County Public Works Agency - Water Resources Well Permit

Public Works Agency
Alameda County

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 12/08/2015 By jamesy

Permit Numbers: W2015-1069
Permits Valid from 12/16/2015 to 12/17/2015

Application Id:	1449013759557	**City of Project Site:** Alameda
Site Location:	2744 East 11th Street	
Project Start Date:	12/16/2015	**Completion Date:** 12/17/2015
Assigned Inspector:	Contact Lindsay Furuyama at (925) 956-2311 or Lfuruyama@groundzonees.com	
Applicant:	AEI Consultants - Jonathan Sanders 2500 Camino Diablo, Walnut Creek, CA 94597	**Phone:** 925-746-6009
Property Owner:	JP Trias 2744 East 11th Street, Oakland, CA 94601	**Phone:** --
Client:	Paul DiCarlo 160 Franklin Street, Suite 300, Oakland, CA 94607	**Phone:** --

	Total Due:	$265.00
Receipt Number: WR2015-0586	**Total Amount Paid:**	$265.00
Payer Name : Jonathan Sanders	Paid By: VISA	**PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Vapor Sampling 24 to 48 hours only - 20 Boreholes
Driller: ENVIRONMENTAL CONTROL ASSOCIATES - Lic #: 695970 - Method: DP **Work Total: $265.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2015-1069	12/08/2015	03/15/2016	20	4.00 in.	15.00 ft

Specific Work Permit Conditions

1. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

2. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

4. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost and liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

5. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

6. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

7. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

8. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.

9. NOTE:
Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

10. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Temp Vapor wells shall not be converted to monitoring Vapor wells, without a seperate permit application process.

11. Vapor monitoring wells constructed with tubing shall be decomissioned by complete removal of tubing, grout seal, and fill material of sand or bentonite. Fill material may be removed by hand auger if material can be removed completely.

Vapor monitoring wells constructed with pvc pipe less than 2" shall be overdrilled to total depth.

Vapor monitoring wells constructed with 2" pvc pipe or larger may be grouted by tremie pipe (any depth) or pressure grouted (less than 30', 25 psi for 5 min).

APPENDIX B

BORING LOGS

BORING NUMBER ASV-25

AEI Consultants

Environmental & Engineering Services

CLIENT Risa Investments, LLC
PROJECT NAME Lucasey Manufacturing Corporation
PROJECT NUMBER 345989
PROJECT LOCATION 2744 East Eleventh Street, Oakland, California
DATE STARTED 12/16/15 **COMPLETED** 12/17/15
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY J.Vida **CHECKED BY** _____
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					Concrete slab	
0.5					(ML) Clayey silt, black (2/1 10YR), moist, medium stiff, trace gravel	
1			0			
2						
2.0					(ML) Sandy clayey silt, very dark grayish brown (3/2 10YR), moist, medium stiff, trace gravel, increase in clay content with depth	
3			0			
4						
5			0			
5.0					Bottom of borehole at 5.0 feet.	

AEI Consultants
Environmental & Engineering Services

AEI Consultants

BORING NUMBER ASV-26

CLIENT Risa Investments, LLC
PROJECT NAME Lucasey Manufacturing Corporation
PROJECT NUMBER 345989
PROJECT LOCATION 2744 East Eleventh Street, Oakland, California
DATE STARTED 12/16/15 **COMPLETED** 12/17/15
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY J.Vida **CHECKED BY** _____
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					Concrete slab	
0.5					(ML) Clayey silt, black (2/1 10YR), moist, medium stiff, trace gravel	
2.0			0		(ML) Sandy clayey silt, dark brown (3/3 10YR), moist, medium stiff, trace gravel	
5.0			0		Bottom of borehole at 5.0 feet.	

BORING NUMBER ASV-27

AEI Consultants

Environmental & Engineering Services

CLIENT Risa Investments, LLC
PROJECT NAME Lucasey Manufacturing Corporation
PROJECT NUMBER 345989
PROJECT LOCATION 2744 East Eleventh Street, Oakland, California
DATE STARTED 12/16/15 **COMPLETED** 12/17/15
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY J.Vida **CHECKED BY** _____
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					Concrete slab	
0.5					(ML) Clayey silt, black (2/1 10YR), moist, medium stiff, trace gravel	
1						
1.5					(ML) Clayey silt, dark yellowish brown (3/6 10YR), moist, medium stiff, trace gravel	
2			0			
3						
4						
5			0			
5.0					Bottom of borehole at 5.0 feet.	

BORING NUMBER ASV-28

AEI Consultants

Environmental & Engineering Services

CLIENT Risa Investments, LLC
PROJECT NAME Lucasey Manufacturing Corporation
PROJECT NUMBER 345989
PROJECT LOCATION 2744 East Eleventh Street, Oakland, California
DATE STARTED 12/16/15 **COMPLETED** 12/17/15
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY J.Vida **CHECKED BY** _____
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					Concrete slab	
0.5					(ML) Clayey silt, very dark brown (2/2 10YR), moist, medium stiff, trace gravel	
1			0.2			
2					(ML) Clayey silt, dark brown (3/3 10YR), moist, medium stiff, trace gravel, mottling	
3			3.9			
4						
5			2.5			
5.0					Bottom of borehole at 5.0 feet.	

BORING NUMBER ASV-29

AEI Consultants

Environmental & Engineering Services

CLIENT Risa Investments, LLC
PROJECT NAME Lucasey Manufacturing Corporation
PROJECT NUMBER 345989
PROJECT LOCATION 2744 East Eleventh Street, Oakland, California
DATE STARTED 12/16/15 **COMPLETED** 12/17/15
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY J.Vida **CHECKED BY** _____
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					Concrete slab	
0.5					(ML) Clayey silt, very dark brown (2/2 10YR), moist, medium stiff, trace gravel	
1			0			
2						
3			0			
4						
4.0					(ML) Clayey silt, dark yellowish brown (3/6 10YR), moist, medium stiff, trace gravel	
5			0			
5.0					Bottom of borehole at 5.0 feet.	

BORING NUMBER ASV-30

AEI Consultants

Environmental & Engineering Services

CLIENT Risa Investments, LLC
PROJECT NAME Lucasey Manufacturing Corporation
PROJECT NUMBER 345989
PROJECT LOCATION 2744 East Eleventh Street, Oakland, California
DATE STARTED 12/16/15 **COMPLETED** 12/17/15
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY J.Vida **CHECKED BY** _____
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					Concrete slab	
0.5					(ML) Sandy clayey silt, brown (4/3 10YR), moist, medium stiff, mottling, trace gravel	
2.0			0.1		(ML) Clayey silt, very dark brown (2/2 10YR), moist, medium stiff, gravel lense at 4.5 feet	
5.0			2.2		Bottom of borehole at 5.0 feet.	

AEI Consultants
Environmental & Engineering Services

AEI Consultants

BORING NUMBER ASV-32

CLIENT Risa Investments, LLC
PROJECT NAME Lucasey Manufacturing Corporation
PROJECT NUMBER 345989
PROJECT LOCATION 2744 East Eleventh Street, Oakland, California
DATE STARTED 12/16/15 **COMPLETED** 12/17/15
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY J.Vida **CHECKED BY** _____
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					Concrete slab	
0.5					(ML) Sandy silt, very dark brown (2/2 10YR), soft, moist	
1.0					(ML) Clayey silt, very dark brown (2/2 10YR), moist, medium stiff, trace gravel	
1						
2			0			
3						
3.5					(ML) Clayey silt, dark brown (3/3 10YR), moist, medium stiff, trace gravel	
4						
5			0			
5.0					Bottom of borehole at 5.0 feet.	

BORING NUMBER ASV-33

AEI Consultants

Environmental & Engineering Services

CLIENT Risa Investments, LLC
PROJECT NAME Lucasey Manufacturing Corporation
PROJECT NUMBER 345989
PROJECT LOCATION 2744 East Eleventh Street, Oakland, California
DATE STARTED 12/16/15 **COMPLETED** 12/17/15
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY J.Vida **CHECKED BY** _____
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					Concrete slab	
0.5					(ML) Clayey silt, dark brown (3/3 10YR), moist, medium stiff, trace gravel	
1			0.1			
2			0.1			
3						
4			0.2			
5						
5.0					Bottom of borehole at 5.0 feet.	

BORING NUMBER ASV-34

AEI Consultants

Environmental & Engineering Services

CLIENT Risa Investments, LLC
PROJECT NAME Lucasey Manufacturing Corporation
PROJECT NUMBER 345989
PROJECT LOCATION 2744 East Eleventh Street, Oakland, California
DATE STARTED 12/16/15 **COMPLETED** 12/17/15
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY J.Vida **CHECKED BY** _____
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					Concrete slab	
0.5					(ML) Sandy clayey silt, brown (4/3 10YR), moist, medium stiff, mottling, trace gravel	
1			0.2			
2						
2.0					(ML) Clayey silt, very dark brown (2/2 10YR), moist, medium stiff, trace gravel	
3			1.2			
4						
5						
5.0					Bottom of borehole at 5.0 feet.	

BORING NUMBER ASV-35

AEI Consultants

Environmental & Engineering Services

CLIENT Risa Investments, LLC
PROJECT NAME Lucasey Manufacturing Corporation
PROJECT NUMBER 345989
PROJECT LOCATION 2744 East Eleventh Street, Oakland, California
DATE STARTED 12/16/15 **COMPLETED** 12/17/15
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY J.Vida **CHECKED BY** _____
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					Concrete slab	
0.5					(ML) Sandy silt, dark yellowish brown (3/4 10YR), moist, medium stiff, mottling	
1.0			0.2		(ML) Clayey silt, black (2/1 10YR), moist, medium stiff	
2			0.4			
3						
4			0.3			
5						
5.0					Bottom of borehole at 5.0 feet.	

BORING NUMBER ASV-36

AEI Consultants

Environmental & Engineering Services

CLIENT Risa Investments, LLC
PROJECT NAME Lucasey Manufacturing Corporation
PROJECT NUMBER 345989
PROJECT LOCATION 2744 East Eleventh Street, Oakland, California
DATE STARTED 12/16/15 **COMPLETED** 12/17/15
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY J.Vida **CHECKED BY** _____
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					Concrete slab	
					0.5	
					(ML) Sandy clayey silt, very dark brown (2/2 10YR), moist, medium stiff, trace gravel	
1			0.1			
2						
3					3.0	
			0.2		(ML) Sandy clayey silt, dark brown (3/3 10YR), moist, medium stiff, gravel lense at 4.5 feet, mottling	
4						
5					5.0	

Bottom of borehole at 5.0 feet.

BORING NUMBER ASV-37

AEI Consultants

Environmental & Engineering Services

CLIENT Risa Investments, LLC
PROJECT NAME Lucasey Manufacturing Corporation
PROJECT NUMBER 345989
PROJECT LOCATION 2744 East Eleventh Street, Oakland, California
DATE STARTED 12/16/15 **COMPLETED** 12/17/15
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY J.Vida **CHECKED BY** _____
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					Concrete slab	
0.5					(ML) Clayey silt, dark brown (2/2 10YR), moist, medium stiff, trace gravel	
1			0.2			
2						
3			0.3			
4						
5			0.4			
5.0					Bottom of borehole at 5.0 feet.	

BORING NUMBER ASV-38

AEI Consultants

Environmental & Engineering Services

CLIENT Risa Investments, LLC
PROJECT NAME Lucasey Manufacturing Corporation
PROJECT NUMBER 345989
PROJECT LOCATION 2744 East Eleventh Street, Oakland, California
DATE STARTED 12/16/15 **COMPLETED** 12/17/15
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY J.Vida **CHECKED BY** _____
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					Concrete slab	
0.5					(ML) Sandy clayey silt, dark yellowish brown (4/4 10YR), moist, medium stiff, mottling, trace gravel	
1			0.2			
2						
2.0					(ML) Clayey silt, very dark brown (2/2 10YR), moist, medium stiff, trace gravel	
3			0.6			
4						
5						
5.0					Bottom of borehole at 5.0 feet.	

BORING NUMBER ASV-39

AEI Consultants

Environmental & Engineering Services

CLIENT Risa Investments, LLC
PROJECT NAME Lucasey Manufacturing Corporation
PROJECT NUMBER 345989
PROJECT LOCATION 2744 East Eleventh Street, Oakland, California
DATE STARTED 12/16/15 **COMPLETED** 12/17/15
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY J.Vida **CHECKED BY** _____
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					Concrete slab	
0.5					(ML) Sandy clayey silt, brown (4/3 10YR), moist, medium stiff	
1.0			0.2		(ML) Clayey silt, very dark brown (2/2 10YR), moist, medium stiff, trace gravel	
1						
2						
3			0.4			
4						
5			2.0			
5.0						

Bottom of borehole at 5.0 feet.

AEI Consultants
Environmental & Engineering Services

AEI Consultants

BORING NUMBER ASV-40

CLIENT Risa Investments, LLC
PROJECT NAME Lucasey Manufacturing Corporation
PROJECT NUMBER 345989
PROJECT LOCATION 2744 East Eleventh Street, Oakland, California
DATE STARTED 12/16/15 **COMPLETED** 12/17/15
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY J.Vida **CHECKED BY** _____
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					Concrete slab	
0.5					(ML) Clayey silt, very dark brown (2/2 10YR), moist, medium stiff, trace gravel	
1						
2			0			
3						
3.0					(ML) Clayey silt, dark brown (3/3 10YR), moist, medium stiff, trace gravel, mottling from 4.8 to 5 feet	
4			0			
5						
5.0					Bottom of borehole at 5.0 feet.	

BORING NUMBER ASV-41

AEI Consultants

Environmental & Engineering Services

CLIENT Risa Investments, LLC
PROJECT NAME Lucasey Manufacturing Corporation
PROJECT NUMBER 345989
PROJECT LOCATION 2744 East Eleventh Street, Oakland, California
DATE STARTED 12/16/15 **COMPLETED** 12/17/15
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR Environmental Control Associates, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY J.Vida **CHECKED BY** _____
AT END OF DRILLING ---
NOTES _____
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0					Concrete slab	
0.5					(ML) Clayey silt, very dark brown (2/2 10YR), moist medium stiff, trace gravel	
1			0.1			
2						
2.5					(ML) Clayey silt, very dark grayish brown (3/2 10YR), moist medium stiff, trace gravel	
3			0.3			
4						
5			0.4			
5.0					Bottom of borehole at 5.0 feet.	

APPENDIX C

LABORATORY ANALYTICAL REPORTS

ANALYTICAL REPORT

November 09, 2015

AEI Consultants- Walnut Creek, CA

Sample Delivery Group:	L799672
Samples Received:	11/09/2015
Project Number:	345989
Description:	2744 East Eleventh Street

Report To: Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Entire Report Reviewed By:

Jarred Willis
Technical Service Representative

TABLE OF CONTENTS

ASV-19-SS L799672-01 Air

Collected by: Jordan Vida
Collected date/time: 11/06/15 11:39
Received date/time: 11/09/15 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG827725	2	11/09/15 14:46	11/09/15 14:46	DWR

ASV-20-SS L799672-02 Air

Collected by: Jordan Vida
Collected date/time: 11/06/15 11:15
Received date/time: 11/09/15 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG827725	2	11/09/15 15:35	11/09/15 15:35	DWR

ASV-21-SS L799672-03 Air

Collected by: Jordan Vida
Collected date/time: 11/06/15 08:15
Received date/time: 11/09/15 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG827725	2	11/09/15 16:24	11/09/15 16:24	DWR

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jarred Willis
Technical Service Representative

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	16.7	39.7		2	WG827725
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG827725
Benzene	71-43-2	78.10	0.400	1.28	1.01	3.22		2	WG827725
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG827725
Bromodichloromethane	75-27-4	164	0.400	2.68	2.02	13.6		2	WG827725
Bromoform	75-25-2	253	1.20	12.4	1.95	20.1		2	WG827725
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG827725
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG827725
Carbon disulfide	75-15-0	76.10	0.400	1.24	2.05	6.37		2	WG827725
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG827725
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG827725
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG827725
Chloroform	67-66-3	119	0.400	1.95	1.78	8.66		2	WG827725
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG827725
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG827725
Cyclohexane	110-82-7	84.20	0.400	1.38	0.971	3.34		2	WG827725
Dibromochloromethane	124-48-1	208	0.400	3.40	2.84	24.2		2	WG827725
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG827725
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG827725
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG827725
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG827725
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG827725
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG827725
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG827725
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG827725
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG827725
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG827725
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG827725
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG827725
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG827725
Ethanol	64-17-5	46.10	1.26	2.38	9.25	17.4		2	WG827725
Ethylbenzene	100-41-4	106	0.400	1.73	0.682	2.96		2	WG827725
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG827725
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG827725
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	1.50	7.43		2	WG827725
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG827725
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG827725
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG827725
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG827725
n-Hexane	110-54-3	86.20	0.400	1.41	ND	ND		2	WG827725
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG827725
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.407	1.41	B	2	WG827725
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG827725
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	2.69	7.93		2	WG827725
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	5.93	24.3		2	WG827725
Methyl methacrylate	80-62-6	100.12	0.400	1.64	0.877	3.59		2	WG827725
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG827725
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG827725
2-Propanol	67-63-0	60.10	2.50	6.15	2.87	7.06		2	WG827725
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG827725
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG827725
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG827725
Tetrachloroethylene	127-18-4	166	0.400	2.72	82.6	561		2	WG827725
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG827725
Toluene	108-88-3	92.10	0.400	1.51	4.54	17.1		2	WG827725
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG827725

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG827725
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG827725
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG827725
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.497	2.44		2	WG827725
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG827725
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG827725
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG827725
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG827725
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG827725
m&p-Xylene	1330-20-7	106	0.800	3.47	3.05	13.2		2	WG827725
o-Xylene	95-47-6	106	0.400	1.73	1.25	5.43		2	WG827725
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*111*				WG827725

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	79.8	190		2	WG827725
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG827725
Benzene	71-43-2	78.10	0.400	1.28	1.21	3.85		2	WG827725
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG827725
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG827725
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG827725
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG827725
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG827725
Carbon disulfide	75-15-0	76.10	0.400	1.24	0.413	1.29		2	WG827725
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG827725
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG827725
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG827725
Chloroform	67-66-3	119	0.400	1.95	1.99	9.67		2	WG827725
Chloromethane	74-87-3	50.50	0.400	0.826	1.36	2.81		2	WG827725
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG827725
Cyclohexane	110-82-7	84.20	0.400	1.38	0.455	1.57		2	WG827725
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG827725
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG827725
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG827725
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG827725
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG827725
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG827725
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG827725
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG827725
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG827725
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG827725
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG827725
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG827725
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG827725
1,4-Dioxane	123-91-1	88.10	0.400	1.44	10.3	37.1		2	WG827725
Ethanol	64-17-5	46.10	1.26	2.38	23.0	43.4		2	WG827725
Ethylbenzene	100-41-4	106	0.400	1.73	ND	ND		2	WG827725
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG827725
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG827725
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	1.19	5.86		2	WG827725
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG827725
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG827725
Heptane	142-82-5	100	0.400	1.64	0.405	1.66		2	WG827725
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG827725
n-Hexane	110-54-3	86.20	0.400	1.41	1.06	3.73		2	WG827725
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG827725
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.740	2.57	B	2	WG827725
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG827725
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	5.43	16.0		2	WG827725
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG827725
Methyl methacrylate	80-62-6	100.12	0.400	1.64	1.09	4.48		2	WG827725
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG827725
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG827725
2-Propanol	67-63-0	60.10	2.50	6.15	3.09	7.60		2	WG827725
Propene	115-07-1	42.10	0.800	1.38	8.78	15.1		2	WG827725
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG827725
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG827725
Tetrachloroethylene	127-18-4	166	0.400	2.72	27.7	188		2	WG827725
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	4.89	14.4		2	WG827725
Toluene	108-88-3	92.10	0.400	1.51	2.36	8.88		2	WG827725
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG827725

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	ppbv	ug/m3	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG827725
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG827725
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG827725
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.433	2.12		2	WG827725
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG827725
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG827725
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG827725
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG827725
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG827725
m&p-Xylene	1330-20-7	106	0.800	3.47	0.804	3.49		2	WG827725
o-Xylene	95-47-6	106	0.400	1.73	ND	ND		2	WG827725
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*105*				WG827725

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	104	247	E	2	WG827725
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG827725
Benzene	71-43-2	78.10	0.400	1.28	1.22	3.89		2	WG827725
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG827725
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG827725
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG827725
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG827725
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG827725
Carbon disulfide	75-15-0	76.10	0.400	1.24	2.92	9.08		2	WG827725
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG827725
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG827725
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG827725
Chloroform	67-66-3	119	0.400	1.95	1.05	5.13		2	WG827725
Chloromethane	74-87-3	50.50	0.400	0.826	0.441	0.911		2	WG827725
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG827725
Cyclohexane	110-82-7	84.20	0.400	1.38	0.683	2.35		2	WG827725
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG827725
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG827725
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG827725
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG827725
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG827725
1,2-Dichloroethane	107-06-2	99	0.400	1.62	0.639	2.59		2	WG827725
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG827725
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG827725
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG827725
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG827725
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG827725
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG827725
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG827725
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG827725
Ethanol	64-17-5	46.10	1.26	2.38	15.0	28.3		2	WG827725
Ethylbenzene	100-41-4	106	0.400	1.73	0.764	3.31		2	WG827725
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG827725
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG827725
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.817	4.04		2	WG827725
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG827725
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG827725
Heptane	142-82-5	100	0.400	1.64	0.517	2.12		2	WG827725
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG827725
n-Hexane	110-54-3	86.20	0.400	1.41	0.570	2.01		2	WG827725
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG827725
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.435	1.51	B	2	WG827725
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG827725
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	17.4	51.3		2	WG827725
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG827725
Methyl methacrylate	80-62-6	100.12	0.400	1.64	0.993	4.06		2	WG827725
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG827725
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG827725
2-Propanol	67-63-0	60.10	2.50	6.15	5.97	14.7		2	WG827725
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG827725
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG827725
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG827725
Tetrachloroethylene	127-18-4	166	0.400	2.72	3.96	26.9		2	WG827725
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	4.11	12.1		2	WG827725
Toluene	108-88-3	92.10	0.400	1.51	4.53	17.1		2	WG827725
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG827725

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG827725
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG827725
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG827725
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.487	2.39		2	WG827725
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG827725
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG827725
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG827725
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG827725
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG827725
m&p-Xylene	1330-20-7	106	0.800	3.47	2.25	9.76		2	WG827725
o-Xylene	95-47-6	106	0.400	1.73	0.868	3.76		2	WG827725
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*104*				WG827725

Method Blank (MB)

(MB) 11/09/15 13:58

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Acetone	ND		1.25
Allyl Chloride	ND		0.200
Benzene	ND		0.200
Benzyl Chloride	ND		0.200
Bromodichloromethane	ND		0.200
Bromoform	ND		0.600
Bromomethane	ND		0.200
1,3-Butadiene	ND		2.00
Carbon disulfide	ND		0.200
Carbon tetrachloride	ND		0.200
Chlorobenzene	ND		0.200
Chloroethane	ND		0.200
Chloroform	ND		0.200
Chloromethane	ND		0.200
2-Chlorotoluene	ND		0.200
Cyclohexane	ND		0.200
Dibromochloromethane	ND		0.200
1,2-Dibromoethane	ND		0.200
1,2-Dichlorobenzene	ND		0.200
1,3-Dichlorobenzene	ND		0.200
1,4-Dichlorobenzene	ND		0.200
1,2-Dichloroethane	ND		0.200
1,1-Dichloroethane	ND		0.200
1,1-Dichloroethene	ND		0.200
cis-1,2-Dichloroethene	ND		0.200
trans-1,2-Dichloroethene	ND		0.200
1,2-Dichloropropane	ND		0.200
cis-1,3-Dichloropropene	ND		0.200
trans-1,3-Dichloropropene	ND		0.200
1,4-Dioxane	ND		0.200
Ethylbenzene	ND		0.200
4-Ethyltoluene	ND		0.200
Trichlorofluoromethane	ND		0.200
Dichlorodifluoromethane	ND		0.200
1,1,2-Trichlorotrifluoroethane	ND		0.200
1,2-Dichlorotetrafluoroethane	ND		0.200

Method Blank (MB)

(MB) 11/09/15 13:58

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Heptane	ND		0.200
Hexachloro-1,3-butadiene	ND		0.630
n-Hexane	ND		0.200
Isopropylbenzene	ND		0.200
Methylene Chloride	ND		0.200
Methyl Butyl Ketone	ND		1.25
2-Butanone (MEK)	ND		1.25
4-Methyl-2-pentanone (MIBK)	ND		1.25
Methyl Methacrylate	ND		0.200
MTBE	ND		0.200
Naphthalene	ND		0.630
2-Propanol	ND		1.25
Propene	ND		0.400
Styrene	ND		0.200
1,1,2,2-Tetrachloroethane	ND		0.200
Tetrachloroethylene	ND		0.200
Tetrahydrofuran	ND		0.200
Toluene	ND		0.200
1,2,4-Trichlorobenzene	ND		0.630
1,1,1-Trichloroethane	ND		0.200
1,1,2-Trichloroethane	ND		0.200
Trichloroethylene	ND		0.200
1,2,4-Trimethylbenzene	ND		0.200
1,3,5-Trimethylbenzene	ND		0.200
2,2,4-Trimethylpentane	ND		0.200
Vinyl chloride	ND		0.200
Vinyl Bromide	ND		0.200
Vinyl acetate	ND		0.200
m&p-Xylene	ND		0.400
o-Xylene	ND		0.200
Ethanol	ND		0.630
(S) 1,4-Bromofluorobenzene	*98.0*		*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/09/15 12:25 • (LCSD) 11/09/15 13:11

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	3.72	3.88	99.1	103	34.3-167			4.23	25
Propene	3.75	3.80	3.84	101	102	53.9-143			1.06	25
Dichlorodifluoromethane	3.75	4.01	4.36	107	116	56.7-140			8.39	25
1,2-Dichlorotetrafluoroethane	3.75	3.86	4.04	103	108	70.0-130			4.49	25
Chloromethane	3.75	3.85	4.04	103	108	70.0-130			4.71	25
Vinyl chloride	3.75	3.92	4.03	104	108	70.0-130			2.94	25
1,3-Butadiene	3.75	3.90	3.89	104	104	70.0-130			0.370	25
Bromomethane	3.75	3.89	4.02	104	107	70.0-130			3.17	25
Chloroethane	3.75	3.98	4.13	106	110	70.0-130			3.55	25
Trichlorofluoromethane	3.75	3.76	3.97	100	106	70.0-130			5.59	25
1,1,2-Trichlorotrifluoroethane	3.75	3.88	4.06	104	108	70.0-130			4.56	25
1,1-Dichloroethene	3.75	3.86	4.00	103	107	70.0-130			3.38	25
1,1-Dichloroethane	3.75	3.85	3.97	103	106	70.0-130			3.07	25
Acetone	3.75	3.81	3.90	102	104	70.0-130			2.51	25
2-Propanol	3.75	4.08	4.15	109	111	50.4-152			1.79	25
Carbon disulfide	3.75	3.81	3.95	102	105	70.0-130			3.43	25
Methylene Chloride	3.75	3.22	3.37	85.8	90.0	70.0-130			4.72	25
MTBE	3.75	3.83	4.00	102	107	70.0-130			4.16	25
trans-1,2-Dichloroethene	3.75	3.87	3.94	103	105	70.0-130			1.85	25
n-Hexane	3.75	3.92	4.04	105	108	70.0-130			2.92	25
Vinyl acetate	3.75	3.74	3.80	99.7	101	70.0-130			1.55	25
Methyl Ethyl Ketone	3.75	4.19	4.18	112	112	70.0-130			0.100	25
cis-1,2-Dichloroethene	3.75	3.92	4.01	105	107	70.0-130			2.19	25
Chloroform	3.75	3.84	3.97	102	106	70.0-130			3.33	25
Cyclohexane	3.75	3.87	4.09	103	109	70.0-130			5.59	25
1,1,1-Trichloroethane	3.75	3.80	3.99	101	106	70.0-130			4.84	25
Carbon tetrachloride	3.75	3.82	3.97	102	106	70.0-130			3.90	25
Benzene	3.75	3.85	4.01	103	107	70.0-130			4.18	25
1,2-Dichloroethane	3.75	3.82	3.96	102	106	70.0-130			3.76	25
Heptane	3.75	3.88	4.01	104	107	70.0-130			3.08	25
Trichloroethylene	3.75	3.91	4.03	104	107	70.0-130			3.03	25
1,2-Dichloropropane	3.75	3.87	4.03	103	108	70.0-130			4.18	25
1,4-Dioxane	3.75	4.43	4.60	118	123	48.0-156			3.67	25
Bromodichloromethane	3.75	3.88	4.00	104	107	70.0-130			2.90	25
cis-1,3-Dichloropropene	3.75	3.94	4.11	105	109	70.0-130			4.24	25
4-Methyl-2-pentanone (MIBK)	3.75	3.84	4.04	102	108	55.3-154			5.05	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/09/15 12:25 • (LCSD) 11/09/15 13:11

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Toluene	3.75	3.95	4.07	105	109	70.0-130			2.99	25
trans-1,3-Dichloropropene	3.75	3.99	4.07	106	109	70.0-130			2.12	25
1,1,2-Trichloroethane	3.75	3.96	4.11	106	110	70.0-130			3.53	25
Tetrachloroethylene	3.75	3.99	4.08	106	109	70.0-130			2.30	25
Methyl Butyl Ketone	3.75	4.06	4.21	108	112	47.9-165			3.69	25
Dibromochloromethane	3.75	3.87	4.07	103	109	70.0-130			5.10	25
1,2-Dibromoethane	3.75	3.96	4.09	106	109	70.0-130			3.21	25
Chlorobenzene	3.75	3.94	4.06	105	108	70.0-130			3.14	25
Ethylbenzene	3.75	3.99	4.05	106	108	70.0-130			1.55	25
m&p-Xylene	7.50	8.01	8.17	107	109	70.0-130			1.88	25
o-Xylene	3.75	3.92	4.06	105	108	70.0-130			3.42	25
Styrene	3.75	4.07	4.17	109	111	70.0-130			2.22	25
Bromoform	3.75	3.97	4.08	106	109	70.0-130			2.75	25
1,1,2,2-Tetrachloroethane	3.75	3.91	4.03	104	107	70.0-130			3.02	25
4-Ethyltoluene	3.75	4.04	4.16	108	111	70.0-130			2.80	25
1,3,5-Trimethylbenzene	3.75	4.00	4.07	107	109	70.0-130			1.97	25
1,2,4-Trimethylbenzene	3.75	4.07	4.20	109	112	70.0-130			3.10	25
1,3-Dichlorobenzene	3.75	4.11	4.21	110	112	70.0-130			2.37	25
1,4-Dichlorobenzene	3.75	4.17	4.27	111	114	70.0-130			2.34	25
Benzyl Chloride	3.75	4.29	4.28	114	114	55.6-160			0.230	25
1,2-Dichlorobenzene	3.75	4.11	4.21	109	112	70.0-130			2.63	25
1,2,4-Trichlorobenzene	3.75	4.28	4.33	114	116	53.6-154			1.25	25
Hexachloro-1,3-butadiene	3.75	4.02	4.20	107	112	62.1-143			4.36	25
Naphthalene	3.75	4.24	4.25	113	113	52.0-158			0.110	25
Allyl Chloride	3.75	3.89	4.01	104	107	70.0-130			3.20	25
2-Chlorotoluene	3.75	3.99	4.11	106	110	70.0-130			3.12	25
Methyl Methacrylate	3.75	3.67	3.78	97.9	101	70.0-130			2.93	25
Tetrahydrofuran	3.75	3.85	4.00	103	107	65.0-140			3.83	25
2,2,4-Trimethylpentane	3.75	3.91	4.04	104	108	70.0-130			3.18	25
Vinyl Bromide	3.75	3.97	4.04	106	108	70.0-130			1.91	25
Isopropylbenzene	3.75	3.95	4.13	105	110	70.0-130			4.69	25
(S) 1,4-Bromofluorobenzene				*100*	*101*	*60.0-140*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

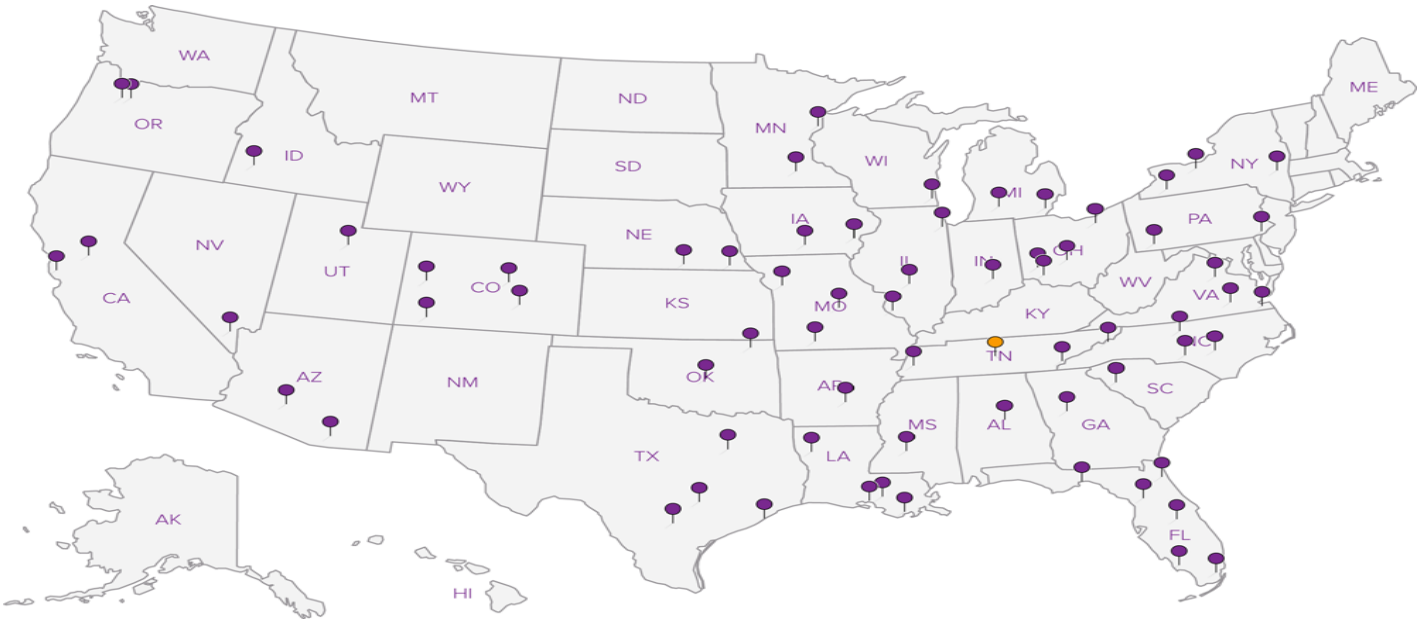
[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
Canada	1461.01	DOD	1461.01
EPA–Crypto	TN00003	USDA	S-67674

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



AEI Consultants- Walnut Creek, CA

2500 Camino Diablo
Walnut Creek, CA 94597

Billing Information:
Accounts Payable- Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Report to: Jeremy Smith

Email To: jasmith@aeiconsultants.com; jsanders@aeiconsultants.com

Project Description: 2744 East Eleventh Street

City/State Collected: Oakland CA

Phone: 925-746-6028
Fax:

Client Project # 345989

Lab Project # AEICONWCCA-SANDERS

Collected by (print): Jordan Vida

Site/Facility ID #

P.O. # 97076

Collected by (signature):

Immediately Packed on Ice N X Y ___

Rush? (Lab MUST Be Notified)
X Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X Yes
FAX? ___No ___Yes

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TO-15 Summa	IPA								Rem./Contaminant	Sample # (lab only)
~~ASV-18-SS~~		Air	SS	11/06/15		1	X										
ASV-19-SS		Air	SS	11/06/15	1139	1	X	X									-01
ASV-20-SS		Air	SS	11/06/15	1115	1	X	X									-02
ASV-21-SS		Air	SS	11/06/15	0815	1	X	X									-03
		Air				1	X										
		Air				1	X										
		Air				1	X										
		Air				1	X										

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L799672
A022

Acctnum: AEICONWCCA
Template: T107005
Prelogin: P529397
TSR: 358 - Jarred Willis
PB: BAK 10-30-15
Shipped Via: FedEX Ground

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other ___

Remarks: SAME-DAY RUSH TAT NEEDED with results by COB on Monday, 11/9.
(18) 1L summa cans and (18) CA sampling manifolds

6503 756 8778

pH ___ Temp ___
Flow ___ Other ___

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ___

Temp: Amb. °C Bottles Received: 37 SUMMA 1 EMPTY

Date: 11/9/15 Time: 0930

Hold #

Condition: (lab use only) TD
+4 FC

COC Seal Intact: ___Y ___N ✓NA OK

pH Checked: NCF:

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/6/15	1645	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

ANALYTICAL REPORT

November 09, 2015

AEI Consultants- Walnut Creek, CA

Sample Delivery Group:	L799515
Samples Received:	11/07/2015
Project Number:	345989
Description:	2744 East Eleventh Street

Report To: Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Entire Report Reviewed By:

Jarred Willis
Technical Service Representative

TABLE OF CONTENTS

ASV-16-SS L799515-01 Air

Collected by: Jordan V
Collected date/time: 11/06/15 09:53
Received date/time: 11/07/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG827530	2	11/08/15 00:45	11/08/15 00:45	SNH

ASV-17-SS L799515-02 Air

Collected by: Jordan V
Collected date/time: 11/06/15 10:59
Received date/time: 11/07/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG827530	2	11/08/15 01:38	11/08/15 01:38	SNH

ASV-23-SS L799515-03 Air

Collected by: Jordan V
Collected date/time: 11/06/15 09:58
Received date/time: 11/07/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG827530	2	11/08/15 02:30	11/08/15 02:30	SNH

ASV-24-SS L799515-04 Air

Collected by: Jordan V
Collected date/time: 11/06/15 09:06
Received date/time: 11/07/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG827530	2	11/08/15 03:23	11/08/15 03:23	SNH

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jarred Willis
Technical Service Representative

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	102	242	E	2	WG827530
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG827530
Benzene	71-43-2	78.10	0.400	1.28	1.10	3.52		2	WG827530
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG827530
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG827530
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG827530
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG827530
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG827530
Carbon disulfide	75-15-0	76.10	0.400	1.24	4.95	15.4		2	WG827530
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG827530
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG827530
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG827530
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG827530
Chloromethane	74-87-3	50.50	0.400	0.826	0.488	1.01		2	WG827530
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG827530
Cyclohexane	110-82-7	84.20	0.400	1.38	0.509	1.75		2	WG827530
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG827530
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG827530
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG827530
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG827530
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG827530
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG827530
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG827530
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG827530
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG827530
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG827530
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG827530
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG827530
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG827530
1,4-Dioxane	123-91-1	88.10	0.400	1.44	1.85	6.66		2	WG827530
Ethanol	64-17-5	46.10	1.26	2.38	14.6	27.6		2	WG827530
Ethylbenzene	100-41-4	106	0.400	1.73	1.26	5.48		2	WG827530
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG827530
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG827530
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.504	2.49		2	WG827530
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG827530
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG827530
Heptane	142-82-5	100	0.400	1.64	0.506	2.07		2	WG827530
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG827530
n-Hexane	110-54-3	86.20	0.400	1.41	0.541	1.91		2	WG827530
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG827530
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.522	1.81	B	2	WG827530
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG827530
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	17.5	51.7		2	WG827530
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG827530
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG827530
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG827530
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG827530
2-Propanol	67-63-0	60.10	2.50	6.15	1180	2900	E	2	WG827530
Propene	115-07-1	42.10	0.800	1.38	2.00	3.45		2	WG827530
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG827530
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG827530
Tetrachloroethylene	127-18-4	166	0.400	2.72	2.10	14.2		2	WG827530
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	4.84	14.3		2	WG827530
Toluene	108-88-3	92.10	0.400	1.51	4.02	15.1		2	WG827530
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	ppbv	ug/m3	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG827530
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG827530
Trichloroethylene	79-01-6	131	0.400	2.14	0.454	2.43		2	WG827530
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.488	2.39		2	WG827530
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG827530
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG827530
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG827530
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG827530
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG827530
m&p-Xylene	1330-20-7	106	0.800	3.47	4.37	18.9		2	WG827530
o-Xylene	95-47-6	106	0.400	1.73	2.11	9.14		2	WG827530
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*103*				WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	15.0	35.6		2	WG827530
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG827530
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG827530
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG827530
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG827530
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG827530
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG827530
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG827530
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG827530
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG827530
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG827530
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG827530
Chloroform	67-66-3	119	0.400	1.95	0.578	2.81		2	WG827530
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG827530
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG827530
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG827530
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG827530
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG827530
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG827530
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG827530
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG827530
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG827530
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG827530
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG827530
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG827530
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG827530
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG827530
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG827530
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG827530
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG827530
Ethanol	64-17-5	46.10	1.26	2.38	11.4	21.5		2	WG827530
Ethylbenzene	100-41-4	106	0.400	1.73	ND	ND		2	WG827530
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG827530
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.453	2.55		2	WG827530
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	1.17	5.78		2	WG827530
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG827530
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG827530
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG827530
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG827530
n-Hexane	110-54-3	86.20	0.400	1.41	ND	ND		2	WG827530
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG827530
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.400	1.39		2	WG827530
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG827530
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	ND	ND		2	WG827530
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG827530
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG827530
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG827530
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG827530
2-Propanol	67-63-0	60.10	2.50	6.15	3.52	8.65		2	WG827530
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG827530
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG827530
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG827530
Tetrachloroethylene	127-18-4	166	0.400	2.72	34.8	236		2	WG827530
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	0.701	2.07		2	WG827530
Toluene	108-88-3	92.10	0.400	1.51	ND	ND		2	WG827530
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	0.584	3.18		2	WG827530
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG827530
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG827530
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG827530
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG827530
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG827530
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG827530
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG827530
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG827530
m&p-Xylene	1330-20-7	106	0.800	3.47	ND	ND		2	WG827530
o-Xylene	95-47-6	106	0.400	1.73	ND	ND		2	WG827530
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.9*				WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv	ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	56.0	133		2	WG827530
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG827530
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG827530
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG827530
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG827530
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG827530
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG827530
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG827530
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG827530
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG827530
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG827530
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG827530
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG827530
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG827530
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG827530
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG827530
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG827530
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG827530
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG827530
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG827530
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG827530
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG827530
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG827530
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG827530
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG827530
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG827530
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG827530
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG827530
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG827530
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG827530
Ethanol	64-17-5	46.10	1.26	2.38	9.33	17.6		2	WG827530
Ethylbenzene	100-41-4	106	0.400	1.73	ND	ND		2	WG827530
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG827530
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.490	2.75		2	WG827530
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	1.41	6.99		2	WG827530
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG827530
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG827530
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG827530
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG827530
n-Hexane	110-54-3	86.20	0.400	1.41	ND	ND		2	WG827530
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG827530
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG827530
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG827530
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	7.18	21.2		2	WG827530
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG827530
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG827530
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG827530
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG827530
2-Propanol	67-63-0	60.10	2.50	6.15	91.9	226		2	WG827530
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG827530
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG827530
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG827530
Tetrachloroethylene	127-18-4	166	0.400	2.72	50.1	340		2	WG827530
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	2.55	7.52		2	WG827530
Toluene	108-88-3	92.10	0.400	1.51	1.13	4.27		2	WG827530
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	1.23	6.70		2	WG827530
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG827530
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG827530
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG827530
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG827530
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG827530
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG827530
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG827530
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG827530
m&p-Xylene	1330-20-7	106	0.800	3.47	ND	ND		2	WG827530
o-Xylene	95-47-6	106	0.400	1.73	ND	ND		2	WG827530
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*100*				WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv	ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	35.8	85.0		2	WG827530
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG827530
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG827530
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG827530
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG827530
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG827530
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG827530
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG827530
Carbon disulfide	75-15-0	76.10	0.400	1.24	0.660	2.05		2	WG827530
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG827530
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG827530
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG827530
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG827530
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG827530
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG827530
Cyclohexane	110-82-7	84.20	0.400	1.38	0.612	2.11		2	WG827530
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG827530
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG827530
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG827530
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG827530
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG827530
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG827530
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG827530
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG827530
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG827530
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG827530
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG827530
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG827530
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG827530
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG827530
Ethanol	64-17-5	46.10	1.26	2.38	13.7	25.8		2	WG827530
Ethylbenzene	100-41-4	106	0.400	1.73	ND	ND		2	WG827530
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG827530
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.519	2.91		2	WG827530
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	2.77	13.7		2	WG827530
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG827530
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG827530
Heptane	142-82-5	100	0.400	1.64	0.600	2.45		2	WG827530
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG827530
n-Hexane	110-54-3	86.20	0.400	1.41	0.738	2.60		2	WG827530
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG827530
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG827530
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG827530
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	6.36	18.8		2	WG827530
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG827530
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG827530
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG827530
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG827530
2-Propanol	67-63-0	60.10	2.50	6.15	8.17	20.1		2	WG827530
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG827530
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG827530
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG827530
Tetrachloroethylene	127-18-4	166	0.400	2.72	9.34	63.4		2	WG827530
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	1.87	5.52		2	WG827530
Toluene	108-88-3	92.10	0.400	1.51	1.23	4.63		2	WG827530
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	0.932	5.07		2	WG827530
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG827530
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG827530
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG827530
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG827530
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG827530
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG827530
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG827530
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG827530
m&p-Xylene	1330-20-7	106	0.800	3.47	1.02	4.41		2	WG827530
o-Xylene	95-47-6	106	0.400	1.73	0.409	1.77		2	WG827530
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*101*				WG827530

Method Blank (MB)

(MB) 11/07/15 15:02

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Acetone	ND		1.25
Allyl Chloride	ND		0.200
Benzene	ND		0.200
Benzyl Chloride	ND		0.200
Bromodichloromethane	ND		0.200
Bromoform	ND		0.600
Bromomethane	ND		0.200
1,3-Butadiene	ND		2.00
Carbon disulfide	ND		0.200
Carbon tetrachloride	ND		0.200
Chlorobenzene	ND		0.200
Chloroethane	ND		0.200
Chloroform	ND		0.200
Chloromethane	ND		0.200
2-Chlorotoluene	ND		0.200
Cyclohexane	ND		0.200
Dibromochloromethane	ND		0.200
1,2-Dibromoethane	ND		0.200
1,2-Dichlorobenzene	ND		0.200
1,3-Dichlorobenzene	ND		0.200
1,4-Dichlorobenzene	ND		0.200
1,2-Dichloroethane	ND		0.200
1,1-Dichloroethane	ND		0.200
1,1-Dichloroethene	ND		0.200
cis-1,2-Dichloroethene	ND		0.200
trans-1,2-Dichloroethene	ND		0.200
1,2-Dichloropropane	ND		0.200
cis-1,3-Dichloropropene	ND		0.200
trans-1,3-Dichloropropene	ND		0.200
1,4-Dioxane	ND		0.200
Ethylbenzene	ND		0.200
4-Ethyltoluene	ND		0.200
Trichlorofluoromethane	ND		0.200
Dichlorodifluoromethane	ND		0.200
1,1,2-Trichlorotrifluoroethane	ND		0.200
1,2-Dichlorotetrafluoroethane	ND		0.200

Method Blank (MB)

(MB) 11/07/15 15:02

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Heptane	ND		0.200
Hexachloro-1,3-butadiene	ND		0.630
n-Hexane	ND		0.200
Isopropylbenzene	ND		0.200
Methylene Chloride	ND		0.200
Methyl Butyl Ketone	ND		1.25
2-Butanone (MEK)	ND		1.25
4-Methyl-2-pentanone (MIBK)	ND		1.25
Methyl Methacrylate	ND		0.200
MTBE	ND		0.200
Naphthalene	ND		0.630
2-Propanol	ND		1.25
Propene	ND		0.400
Styrene	ND		0.200
1,1,2,2-Tetrachloroethane	ND		0.200
Tetrachloroethylene	ND		0.200
Tetrahydrofuran	ND		0.200
Toluene	ND		0.200
1,2,4-Trichlorobenzene	ND		0.630
1,1,1-Trichloroethane	ND		0.200
1,1,2-Trichloroethane	ND		0.200
Trichloroethylene	ND		0.200
1,2,4-Trimethylbenzene	ND		0.200
1,3,5-Trimethylbenzene	ND		0.200
2,2,4-Trimethylpentane	ND		0.200
Vinyl chloride	ND		0.200
Vinyl Bromide	ND		0.200
Vinyl acetate	ND		0.200
m&p-Xylene	ND		0.400
o-Xylene	ND		0.200
Ethanol	ND		0.630
(S) 1,4-Bromofluorobenzene	*94.9*		*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/07/15 13:17 • (LCSD) 11/07/15 14:10

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.25	5.06	113	135	34.3-167			17.3	25
Propene	3.75	3.41	3.51	91.0	93.7	53.9-143			2.89	25
Dichlorodifluoromethane	3.75	3.72	3.52	99.3	93.9	56.7-140			5.50	25
1,2-Dichlorotetrafluoroethane	3.75	3.82	3.97	102	106	70.0-130			3.84	25
Chloromethane	3.75	3.86	3.99	103	106	70.0-130			3.37	25
Vinyl chloride	3.75	3.77	4.13	101	110	70.0-130			8.99	25
1,3-Butadiene	3.75	3.72	4.26	99.1	114	70.0-130			13.5	25
Bromomethane	3.75	3.65	4.04	97.4	108	70.0-130			10.2	25
Chloroethane	3.75	3.78	4.29	101	114	70.0-130			12.7	25
Trichlorofluoromethane	3.75	3.74	4.17	99.8	111	70.0-130			10.8	25
1,1,2-Trichlorotrifluoroethane	3.75	3.75	4.10	99.9	109	70.0-130			9.00	25
1,1-Dichloroethene	3.75	3.93	4.25	105	113	70.0-130			7.79	25
1,1-Dichloroethane	3.75	4.00	4.25	107	113	70.0-130			6.00	25
Acetone	3.75	4.00	4.25	107	113	70.0-130			5.94	25
2-Propanol	3.75	4.41	4.54	118	121	50.4-152			2.77	25
Carbon disulfide	3.75	3.84	4.15	102	111	70.0-130			7.78	25
Methylene Chloride	3.75	3.36	3.64	89.7	97.0	70.0-130			7.80	25
MTBE	3.75	4.15	4.45	111	119	70.0-130			7.01	25
trans-1,2-Dichloroethene	3.75	3.96	4.18	106	111	70.0-130			5.42	25
n-Hexane	3.75	3.85	4.07	103	109	70.0-130			5.74	25
Vinyl acetate	3.75	4.27	4.43	114	118	70.0-130			3.64	25
Methyl Ethyl Ketone	3.75	4.40	4.55	117	121	70.0-130			3.36	25
cis-1,2-Dichloroethene	3.75	4.11	4.26	110	114	70.0-130			3.67	25
Chloroform	3.75	3.95	4.12	105	110	70.0-130			4.30	25
Cyclohexane	3.75	4.13	4.39	110	117	70.0-130			6.12	25
1,1,1-Trichloroethane	3.75	4.00	4.15	107	111	70.0-130			3.80	25
Carbon tetrachloride	3.75	3.95	4.23	105	113	70.0-130			7.06	25
Benzene	3.75	4.06	4.29	108	114	70.0-130			5.51	25
1,2-Dichloroethane	3.75	4.14	4.34	110	116	70.0-130			4.69	25
Heptane	3.75	4.20	4.38	112	117	70.0-130			4.18	25
Trichloroethylene	3.75	4.14	4.29	111	114	70.0-130			3.40	25
1,2-Dichloropropane	3.75	4.12	4.29	110	115	70.0-130			4.06	25
1,4-Dioxane	3.75	5.01	5.27	134	141	48.0-156			5.11	25
Bromodichloromethane	3.75	4.10	4.25	109	113	70.0-130			3.69	25
cis-1,3-Dichloropropene	3.75	4.36	4.55	116	121	70.0-130			4.37	25
4-Methyl-2-pentanone (MIBK)	3.75	4.62	4.83	123	129	55.3-154			4.51	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/07/15 13:17 • (LCSD) 11/07/15 14:10

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Toluene	3.75	4.24	4.39	113	117	70.0-130			3.43	25
trans-1,3-Dichloropropene	3.75	4.46	4.60	119	123	70.0-130			3.23	25
1,1,2-Trichloroethane	3.75	4.13	4.29	110	114	70.0-130			3.71	25
Tetrachloroethylene	3.75	4.08	4.24	109	113	70.0-130			3.94	25
Methyl Butyl Ketone	3.75	4.89	5.00	130	133	47.9-165			2.22	25
Dibromochloromethane	3.75	4.17	4.31	111	115	70.0-130			3.34	25
1,2-Dibromoethane	3.75	4.29	4.37	114	117	70.0-130			1.95	25
Chlorobenzene	3.75	4.15	4.19	111	112	70.0-130			0.990	25
Ethylbenzene	3.75	4.27	4.37	114	117	70.0-130			2.39	25
m&p-Xylene	7.50	8.47	8.62	113	115	70.0-130			1.81	25
o-Xylene	3.75	4.50	4.54	120	121	70.0-130			0.940	25
Styrene	3.75	4.44	4.50	118	120	70.0-130			1.27	25
Bromoform	3.75	4.26	4.32	114	115	70.0-130			1.50	25
1,1,2,2-Tetrachloroethane	3.75	4.18	4.27	111	114	70.0-130			2.09	25
4-Ethyltoluene	3.75	4.46	4.58	119	122	70.0-130			2.66	25
1,3,5-Trimethylbenzene	3.75	4.41	4.56	118	122	70.0-130			3.35	25
1,2,4-Trimethylbenzene	3.75	4.44	4.61	118	123	70.0-130			3.75	25
1,3-Dichlorobenzene	3.75	4.38	4.51	117	120	70.0-130			2.88	25
1,4-Dichlorobenzene	3.75	4.53	4.57	121	122	70.0-130			0.930	25
Benzyl Chloride	3.75	4.67	4.84	125	129	55.6-160			3.63	25
1,2-Dichlorobenzene	3.75	4.29	4.43	114	118	70.0-130			3.12	25
1,2,4-Trichlorobenzene	3.75	4.80	4.75	128	127	53.6-154			1.03	25
Hexachloro-1,3-butadiene	3.75	4.24	4.28	113	114	62.1-143			1.01	25
Naphthalene	3.75	4.82	4.86	129	130	52.0-158			0.840	25
Allyl Chloride	3.75	3.96	4.31	106	115	70.0-130			8.46	25
2-Chlorotoluene	3.75	4.31	4.40	115	117	70.0-130			2.11	25
Methyl Methacrylate	3.75	4.33	4.47	115	119	70.0-130			3.33	25
Tetrahydrofuran	3.75	4.37	4.56	116	122	65.0-140			4.33	25
2,2,4-Trimethylpentane	3.75	4.18	4.36	111	116	70.0-130			4.39	25
Vinyl Bromide	3.75	3.70	4.13	98.6	110	70.0-130			11.0	25
Isopropylbenzene	3.75	4.45	4.55	119	121	70.0-130			2.19	25
(S) 1,4-Bromofluorobenzene				*103*	*101*	*60.0-140*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

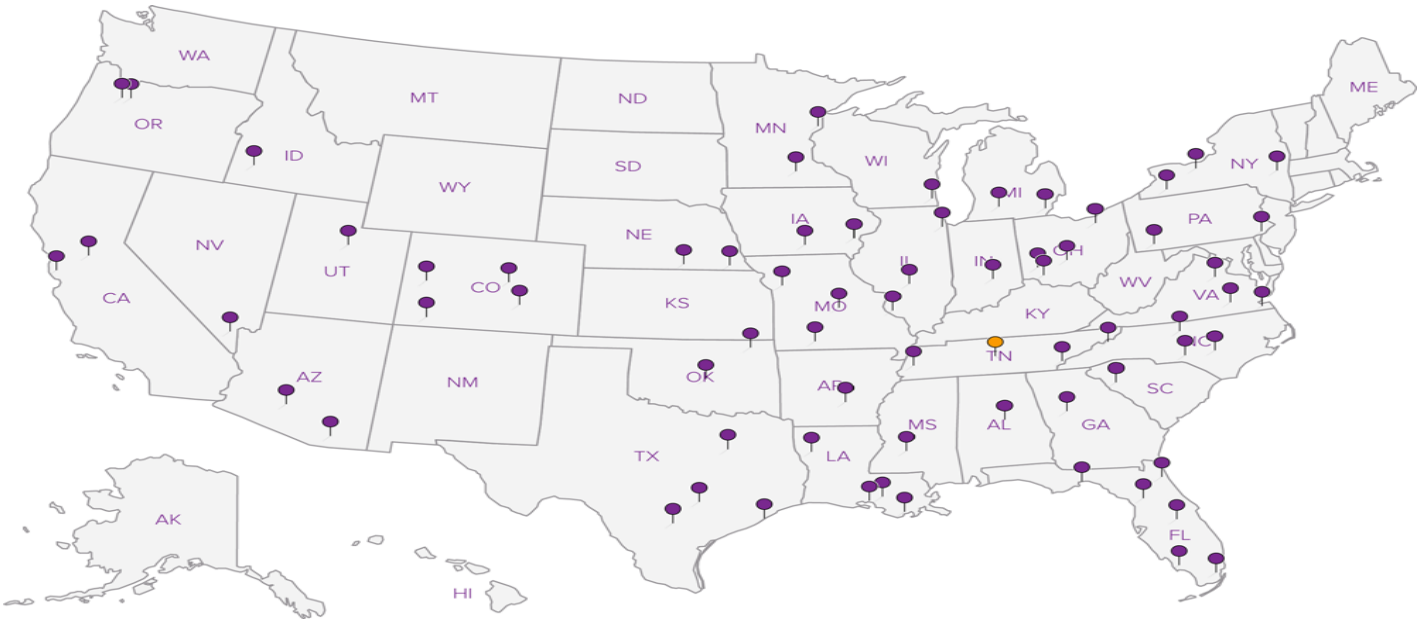
[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
Canada	1461.01	DOD	1461.01
EPA–Crypto	TN00003	USDA	S-67674

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



AEI Consultants- Walnut Creek, CA

2500 Camino Diablo
Walnut Creek, CA 94597

Billing Information:
Accounts Payable- Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Report to: Jeremy Smith

Email To: jasmith@aeiconsultants.com; jsanders@aeiconsultants.com

Project Description: 2744 East Eleventh Street

City/State Collected: Oakland CA

Phone: 925-746-6028
Fax:

Client Project # 345989

Lab Project # AEICONWCCA-SANDERS

Collected by (print): Jordan Vida

Site/Facility ID # 97076

P.O. #

Collected by (signature):

Immediately Packed on Ice N X Y ___

Rush? (Lab MUST Be Notified)
X Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X_Yes
FAX? ___No ___Yes

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TO-15 Summa	IPA									Rem./Contaminant	Sample # (lab only)
ASV-16-SS		Air	SS	11/6/15	0953	1	X	X										01
ASV-17-SS		Air	SS	11/6/15	1059	1	X	X										02
ASV-23-SS		Air	SS	11/6/15	0958	1	X	X										03
ASV-24-SS		Air	SS	11/6/15	0906	1	X	X										04
		Air				1	X											
		Air				1	X											
		Air				1	X											
		Air				1	X											

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 799515
L126

Acctnum: AEICONWCCA
Template: T107005
Prelogin: P529397
TSR: 358 - Jarred Willis
PB: SAK 10-20-15
Shipped Via: FedEX Ground

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other ___

Remarks:SAME-DAY RUSH TAT NEEDED with results by COB on Monday, 11/9.
(18) 1L summa cans and (18) CA sampling manifolds

pH ___ Temp ___
Flow ___ Other ___

6803 7156 8826

Hold #

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ___

Condition: 7 for 4=ST (lab use only)

Temp: Amb °C Bottles Received: 4

COC Seal Intact: ___Y ___N ___NA

pH Checked: NCF:

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/6/15	1645 ~~1730~~	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Date: 11-7-15 Time: 0900

ANALYTICAL REPORT

November 09, 2015

AEI Consultants- Walnut Creek, CA

Sample Delivery Group:	L799514
Samples Received:	11/07/2015
Project Number:	345989
Description:	2744 East Eleventh Street

Report To: Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Entire Report Reviewed By:

Jarred Willis
Technical Service Representative

TABLE OF CONTENTS

ASV-23-05 L799514-01 Air

Collected by	Collected date/time	Received date/time
	11/06/15 14:20	11/07/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG827530	8	11/07/15 23:00	11/07/15 23:00	SNH
Volatile Organic Compounds (MS) by Method TO-15	WG827572	8000	11/08/15 18:02	11/08/15 18:02	DWR

ASV-24-05 L799514-02 Air

Collected by	Collected date/time	Received date/time
	11/06/15 13:35	11/07/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG827530	2	11/07/15 23:52	11/07/15 23:52	SNH

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jarred Willis
Technical Service Representative

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	10.0	23.8	82.1	195		8	WG827530
Allyl chloride	107-05-1	76.53	1.60	5.01	ND	ND		8	WG827530
Benzene	71-43-2	78.10	1.60	5.11	5.45	17.4		8	WG827530
Benzyl Chloride	100-44-7	127	1.60	8.31	ND	ND		8	WG827530
Bromodichloromethane	75-27-4	164	1.60	10.7	ND	ND		8	WG827530
Bromoform	75-25-2	253	4.80	49.7	ND	ND		8	WG827530
Bromomethane	74-83-9	94.90	1.60	6.21	ND	ND		8	WG827530
1,3-Butadiene	106-99-0	54.10	16.0	35.4	ND	ND		8	WG827530
Carbon disulfide	75-15-0	76.10	1.60	4.98	ND	ND		8	WG827530
Carbon tetrachloride	56-23-5	154	1.60	10.1	ND	ND		8	WG827530
Chlorobenzene	108-90-7	113	1.60	7.39	ND	ND		8	WG827530
Chloroethane	75-00-3	64.50	1.60	4.22	ND	ND		8	WG827530
Chloroform	67-66-3	119	1.60	7.79	ND	ND		8	WG827530
Chloromethane	74-87-3	50.50	1.60	3.30	ND	ND		8	WG827530
2-Chlorotoluene	95-49-8	126	1.60	8.25	ND	ND		8	WG827530
Cyclohexane	110-82-7	84.20	1.60	5.51	ND	ND		8	WG827530
Dibromochloromethane	124-48-1	208	1.60	13.6	ND	ND		8	WG827530
1,2-Dibromoethane	106-93-4	188	1.60	12.3	ND	ND		8	WG827530
1,2-Dichlorobenzene	95-50-1	147	1.60	9.62	ND	ND		8	WG827530
1,3-Dichlorobenzene	541-73-1	147	1.60	9.62	ND	ND		8	WG827530
1,4-Dichlorobenzene	106-46-7	147	1.60	9.62	ND	ND		8	WG827530
1,2-Dichloroethane	107-06-2	99	1.60	6.48	ND	ND		8	WG827530
1,1-Dichloroethane	75-34-3	98	1.60	6.41	ND	ND		8	WG827530
1,1-Dichloroethene	75-35-4	96.90	1.60	6.34	ND	ND		8	WG827530
cis-1,2-Dichloroethene	156-59-2	96.90	1.60	6.34	ND	ND		8	WG827530
trans-1,2-Dichloroethene	156-60-5	96.90	1.60	6.34	ND	ND		8	WG827530
1,2-Dichloropropane	78-87-5	113	1.60	7.39	ND	ND		8	WG827530
cis-1,3-Dichloropropene	10061-01-5	111	1.60	7.26	ND	ND		8	WG827530
trans-1,3-Dichloropropene	10061-02-6	111	1.60	7.26	ND	ND		8	WG827530
1,4-Dioxane	123-91-1	88.10	1.60	5.77	ND	ND		8	WG827530
Ethanol	64-17-5	46.10	5.04	9.50	ND	ND		8	WG827530
Ethylbenzene	100-41-4	106	1.60	6.94	1.73	7.48		8	WG827530
4-Ethyltoluene	622-96-8	120	1.60	7.85	ND	ND		8	WG827530
Trichlorofluoromethane	75-69-4	137.40	1.60	8.99	ND	ND		8	WG827530
Dichlorodifluoromethane	75-71-8	120.92	1.60	7.91	ND	ND		8	WG827530
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	1.60	12.3	ND	ND		8	WG827530
1,2-Dichlorotetrafluoroethane	76-14-2	171	1.60	11.2	ND	ND		8	WG827530
Heptane	142-82-5	100	1.60	6.54	2.41	9.86		8	WG827530
Hexachloro-1,3-butadiene	87-68-3	261	5.04	53.8	ND	ND		8	WG827530
n-Hexane	110-54-3	86.20	1.60	5.64	2.58	9.10		8	WG827530
Isopropylbenzene	98-82-8	120.20	1.60	7.87	ND	ND		8	WG827530
Methylene Chloride	75-09-2	84.90	1.60	5.56	ND	ND		8	WG827530
Methyl Butyl Ketone	591-78-6	100	10.0	40.9	ND	ND		8	WG827530
2-Butanone (MEK)	78-93-3	72.10	10.0	29.5	17.2	50.6		8	WG827530
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	10.0	40.9	ND	ND		8	WG827530
Methyl methacrylate	80-62-6	100.12	1.60	6.55	ND	ND		8	WG827530
MTBE	1634-04-4	88.10	1.60	5.77	ND	ND		8	WG827530
Naphthalene	91-20-3	128	5.04	26.4	ND	ND		8	WG827530
2-Propanol	67-63-0	60.10	10000	24600	53600	132000		8000	WG827572
Propene	115-07-1	42.10	3.20	5.51	4.09	7.05		8	WG827530
Styrene	100-42-5	104	1.60	6.81	ND	ND		8	WG827530
1,1,2,2-Tetrachloroethane	79-34-5	168	1.60	11.0	ND	ND		8	WG827530
Tetrachloroethylene	127-18-4	166	1.60	10.9	8.26	56.1		8	WG827530
Tetrahydrofuran	109-99-9	72.10	1.60	4.72	5.94	17.5		8	WG827530
Toluene	108-88-3	92.10	1.60	6.03	20.0	75.4		8	WG827530
1,2,4-Trichlorobenzene	120-82-1	181	5.04	37.3	ND	ND		8	WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	1.60	8.70	ND	ND		8	WG827530
1,1,2-Trichloroethane	79-00-5	133	1.60	8.70	ND	ND		8	WG827530
Trichloroethylene	79-01-6	131	1.60	8.57	ND	ND		8	WG827530
1,2,4-Trimethylbenzene	95-63-6	120	1.60	7.85	ND	ND		8	WG827530
1,3,5-Trimethylbenzene	108-67-8	120	1.60	7.85	ND	ND		8	WG827530
2,2,4-Trimethylpentane	540-84-1	114.22	1.60	7.47	ND	ND		8	WG827530
Vinyl chloride	75-01-4	62.50	1.60	4.09	ND	ND		8	WG827530
Vinyl Bromide	593-60-2	106.95	1.60	7.00	ND	ND		8	WG827530
Vinyl acetate	108-05-4	86.10	1.60	5.63	ND	ND		8	WG827530
m&p-Xylene	1330-20-7	106	3.20	13.9	6.51	28.2		8	WG827530
o-Xylene	95-47-6	106	1.60	6.94	2.00	8.69		8	WG827530
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*103*				WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	214	508	E	2	WG827530
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG827530
Benzene	71-43-2	78.10	0.400	1.28	3.42	10.9		2	WG827530
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG827530
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG827530
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG827530
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG827530
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG827530
Carbon disulfide	75-15-0	76.10	0.400	1.24	0.618	1.92		2	WG827530
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG827530
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG827530
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG827530
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG827530
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG827530
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG827530
Cyclohexane	110-82-7	84.20	0.400	1.38	3.67	12.6		2	WG827530
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG827530
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG827530
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG827530
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG827530
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG827530
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG827530
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG827530
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG827530
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG827530
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG827530
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG827530
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG827530
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG827530
1,4-Dioxane	123-91-1	88.10	0.400	1.44	9.96	35.9		2	WG827530
Ethanol	64-17-5	46.10	1.26	2.38	40.6	76.5		2	WG827530
Ethylbenzene	100-41-4	106	0.400	1.73	1.03	4.48		2	WG827530
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG827530
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.624	3.51		2	WG827530
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	2.94	14.5		2	WG827530
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG827530
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG827530
Heptane	142-82-5	100	0.400	1.64	2.19	8.97		2	WG827530
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG827530
n-Hexane	110-54-3	86.20	0.400	1.41	2.92	10.3		2	WG827530
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG827530
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG827530
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG827530
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	51.1	151		2	WG827530
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG827530
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG827530
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG827530
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG827530
2-Propanol	67-63-0	60.10	2.50	6.15	13.0	31.9		2	WG827530
Propene	115-07-1	42.10	0.800	1.38	5.75	9.91		2	WG827530
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG827530
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG827530
Tetrachloroethylene	127-18-4	166	0.400	2.72	66.6	452		2	WG827530
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	23.7	69.9		2	WG827530
Toluene	108-88-3	92.10	0.400	1.51	8.95	33.7		2	WG827530
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	0.761	4.14		2	WG827530
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG827530
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG827530
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	1.12	5.49		2	WG827530
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG827530
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	1.07	5.01		2	WG827530
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG827530
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG827530
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG827530
m&p-Xylene	1330-20-7	106	0.800	3.47	3.81	16.5		2	WG827530
o-Xylene	95-47-6	106	0.400	1.73	1.28	5.57		2	WG827530
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.6*				WG827530

Method Blank (MB)

(MB) 11/07/15 15:02

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Acetone	ND		1.25
Allyl Chloride	ND		0.200
Benzene	ND		0.200
Benzyl Chloride	ND		0.200
Bromodichloromethane	ND		0.200
Bromoform	ND		0.600
Bromomethane	ND		0.200
1,3-Butadiene	ND		2.00
Carbon disulfide	ND		0.200
Carbon tetrachloride	ND		0.200
Chlorobenzene	ND		0.200
Chloroethane	ND		0.200
Chloroform	ND		0.200
Chloromethane	ND		0.200
2-Chlorotoluene	ND		0.200
Cyclohexane	ND		0.200
Dibromochloromethane	ND		0.200
1,2-Dibromoethane	ND		0.200
1,2-Dichlorobenzene	ND		0.200
1,3-Dichlorobenzene	ND		0.200
1,4-Dichlorobenzene	ND		0.200
1,2-Dichloroethane	ND		0.200
1,1-Dichloroethane	ND		0.200
1,1-Dichloroethene	ND		0.200
cis-1,2-Dichloroethene	ND		0.200
trans-1,2-Dichloroethene	ND		0.200
1,2-Dichloropropane	ND		0.200
cis-1,3-Dichloropropene	ND		0.200
trans-1,3-Dichloropropene	ND		0.200
1,4-Dioxane	ND		0.200
Ethylbenzene	ND		0.200
4-Ethyltoluene	ND		0.200
Trichlorofluoromethane	ND		0.200
Dichlorodifluoromethane	ND		0.200
1,1,2-Trichlorotrifluoroethane	ND		0.200
1,2-Dichlorotetrafluoroethane	ND		0.200

Method Blank (MB)

(MB) 11/07/15 15:02

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Heptane	ND		0.200
Hexachloro-1,3-butadiene	ND		0.630
n-Hexane	ND		0.200
Isopropylbenzene	ND		0.200
Methylene Chloride	ND		0.200
Methyl Butyl Ketone	ND		1.25
2-Butanone (MEK)	ND		1.25
4-Methyl-2-pentanone (MIBK)	ND		1.25
Methyl Methacrylate	ND		0.200
MTBE	ND		0.200
Naphthalene	ND		0.630
2-Propanol	ND		1.25
Propene	ND		0.400
Styrene	ND		0.200
1,1,2,2-Tetrachloroethane	ND		0.200
Tetrachloroethylene	ND		0.200
Tetrahydrofuran	ND		0.200
Toluene	ND		0.200
1,2,4-Trichlorobenzene	ND		0.630
1,1,1-Trichloroethane	ND		0.200
1,1,2-Trichloroethane	ND		0.200
Trichloroethylene	ND		0.200
1,2,4-Trimethylbenzene	ND		0.200
1,3,5-Trimethylbenzene	ND		0.200
2,2,4-Trimethylpentane	ND		0.200
Vinyl chloride	ND		0.200
Vinyl Bromide	ND		0.200
Vinyl acetate	ND		0.200
m&p-Xylene	ND		0.400
o-Xylene	ND		0.200
Ethanol	ND		0.630
(S) 1,4-Bromofluorobenzene	*94.9*		*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/07/15 13:17 • (LCSD) 11/07/15 14:10

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.25	5.06	113	135	34.3-167			17.3	25
Propene	3.75	3.41	3.51	91.0	93.7	53.9-143			2.89	25
Dichlorodifluoromethane	3.75	3.72	3.52	99.3	93.9	56.7-140			5.50	25
1,2-Dichlorotetrafluoroethane	3.75	3.82	3.97	102	106	70.0-130			3.84	25
Chloromethane	3.75	3.86	3.99	103	106	70.0-130			3.37	25
Vinyl chloride	3.75	3.77	4.13	101	110	70.0-130			8.99	25
1,3-Butadiene	3.75	3.72	4.26	99.1	114	70.0-130			13.5	25
Bromomethane	3.75	3.65	4.04	97.4	108	70.0-130			10.2	25
Chloroethane	3.75	3.78	4.29	101	114	70.0-130			12.7	25
Trichlorofluoromethane	3.75	3.74	4.17	99.8	111	70.0-130			10.8	25
1,1,2-Trichlorotrifluoroethane	3.75	3.75	4.10	99.9	109	70.0-130			9.00	25
1,1-Dichloroethene	3.75	3.93	4.25	105	113	70.0-130			7.79	25
1,1-Dichloroethane	3.75	4.00	4.25	107	113	70.0-130			6.00	25
Acetone	3.75	4.00	4.25	107	113	70.0-130			5.94	25
2-Propanol	3.75	4.41	4.54	118	121	50.4-152			2.77	25
Carbon disulfide	3.75	3.84	4.15	102	111	70.0-130			7.78	25
Methylene Chloride	3.75	3.36	3.64	89.7	97.0	70.0-130			7.80	25
MTBE	3.75	4.15	4.45	111	119	70.0-130			7.01	25
trans-1,2-Dichloroethene	3.75	3.96	4.18	106	111	70.0-130			5.42	25
n-Hexane	3.75	3.85	4.07	103	109	70.0-130			5.74	25
Vinyl acetate	3.75	4.27	4.43	114	118	70.0-130			3.64	25
Methyl Ethyl Ketone	3.75	4.40	4.55	117	121	70.0-130			3.36	25
cis-1,2-Dichloroethene	3.75	4.11	4.26	110	114	70.0-130			3.67	25
Chloroform	3.75	3.95	4.12	105	110	70.0-130			4.30	25
Cyclohexane	3.75	4.13	4.39	110	117	70.0-130			6.12	25
1,1,1-Trichloroethane	3.75	4.00	4.15	107	111	70.0-130			3.80	25
Carbon tetrachloride	3.75	3.95	4.23	105	113	70.0-130			7.06	25
Benzene	3.75	4.06	4.29	108	114	70.0-130			5.51	25
1,2-Dichloroethane	3.75	4.14	4.34	110	116	70.0-130			4.69	25
Heptane	3.75	4.20	4.38	112	117	70.0-130			4.18	25
Trichloroethylene	3.75	4.14	4.29	111	114	70.0-130			3.40	25
1,2-Dichloropropane	3.75	4.12	4.29	110	115	70.0-130			4.06	25
1,4-Dioxane	3.75	5.01	5.27	134	141	48.0-156			5.11	25
Bromodichloromethane	3.75	4.10	4.25	109	113	70.0-130			3.69	25
cis-1,3-Dichloropropene	3.75	4.36	4.55	116	121	70.0-130			4.37	25
4-Methyl-2-pentanone (MIBK)	3.75	4.62	4.83	123	129	55.3-154			4.51	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/07/15 13:17 • (LCSD) 11/07/15 14:10

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Toluene	3.75	4.24	4.39	113	117	70.0-130			3.43	25
trans-1,3-Dichloropropene	3.75	4.46	4.60	119	123	70.0-130			3.23	25
1,1,2-Trichloroethane	3.75	4.13	4.29	110	114	70.0-130			3.71	25
Tetrachloroethylene	3.75	4.08	4.24	109	113	70.0-130			3.94	25
Methyl Butyl Ketone	3.75	4.89	5.00	130	133	47.9-165			2.22	25
Dibromochloromethane	3.75	4.17	4.31	111	115	70.0-130			3.34	25
1,2-Dibromoethane	3.75	4.29	4.37	114	117	70.0-130			1.95	25
Chlorobenzene	3.75	4.15	4.19	111	112	70.0-130			0.990	25
Ethylbenzene	3.75	4.27	4.37	114	117	70.0-130			2.39	25
m&p-Xylene	7.50	8.47	8.62	113	115	70.0-130			1.81	25
o-Xylene	3.75	4.50	4.54	120	121	70.0-130			0.940	25
Styrene	3.75	4.44	4.50	118	120	70.0-130			1.27	25
Bromoform	3.75	4.26	4.32	114	115	70.0-130			1.50	25
1,1,2,2-Tetrachloroethane	3.75	4.18	4.27	111	114	70.0-130			2.09	25
4-Ethyltoluene	3.75	4.46	4.58	119	122	70.0-130			2.66	25
1,3,5-Trimethylbenzene	3.75	4.41	4.56	118	122	70.0-130			3.35	25
1,2,4-Trimethylbenzene	3.75	4.44	4.61	118	123	70.0-130			3.75	25
1,3-Dichlorobenzene	3.75	4.38	4.51	117	120	70.0-130			2.88	25
1,4-Dichlorobenzene	3.75	4.53	4.57	121	122	70.0-130			0.930	25
Benzyl Chloride	3.75	4.67	4.84	125	129	55.6-160			3.63	25
1,2-Dichlorobenzene	3.75	4.29	4.43	114	118	70.0-130			3.12	25
1,2,4-Trichlorobenzene	3.75	4.80	4.75	128	127	53.6-154			1.03	25
Hexachloro-1,3-butadiene	3.75	4.24	4.28	113	114	62.1-143			1.01	25
Naphthalene	3.75	4.82	4.86	129	130	52.0-158			0.840	25
Allyl Chloride	3.75	3.96	4.31	106	115	70.0-130			8.46	25
2-Chlorotoluene	3.75	4.31	4.40	115	117	70.0-130			2.11	25
Methyl Methacrylate	3.75	4.33	4.47	115	119	70.0-130			3.33	25
Tetrahydrofuran	3.75	4.37	4.56	116	122	65.0-140			4.33	25
2,2,4-Trimethylpentane	3.75	4.18	4.36	111	116	70.0-130			4.39	25
Vinyl Bromide	3.75	3.70	4.13	98.6	110	70.0-130			11.0	25
Isopropylbenzene	3.75	4.45	4.55	119	121	70.0-130			2.19	25
(S) 1,4-Bromofluorobenzene				*103*	*101*	*60.0-140*				

Method Blank (MB)

(MB) 11/08/15 17:11

Analyte	MB Result	MB Qualifier	MB RDL
	ppb		ppb
2-Propanol	ND		1.25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/08/15 13:57 • (LCSD) 11/08/15 14:51

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppb	ppb	ppb	%	%	%			%	%
2-Propanol	3.75	4.87	4.50	130	120	50.4-152			7.78	25

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

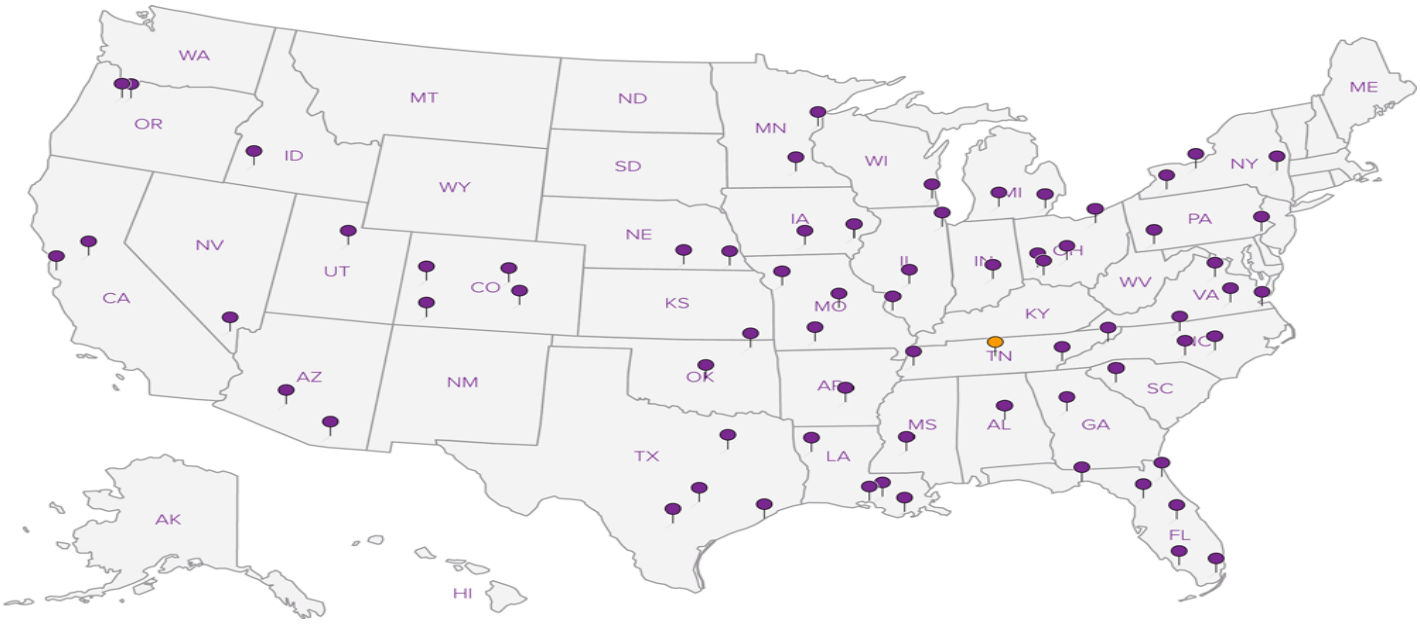
[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
Canada	1461.01	DOD	1461.01
EPA–Crypto	TN00003	USDA	S-67674

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Chain of Custody Page ___ of ___

ESC LAB SCIENCES

YOUR LAB OF CHOICE

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L# 749514

L126

Acctnum: AEICONWCCA
Template: T107005
Prelogin: P529397
TSR: 358 - Jarred Willis
PB: JAK 10-20-15
Shipped Via: FedEX Ground

AEI Consultants- Walnut Creek, CA

2500 Camino Diablo
Walnut Creek, CA 94597

Billing Information:
Accounts Payable- Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Report to:
Jeremy Smith

Email To: jasmith@aeiconsultants.com; jsanders@aeiconsultants.com

Project Description: 2744 East Eleventh Street

City/State Collected: Oakland CA

Phone: 925-746-6028
Fax:

Client Project # 345989

Lab Project # AEICONWCCA-SANDERS

Collected by (print):

Site/Facility ID #

P.O. # 97076

Collected by (signature):

Immediately Packed on Ice N X Y ___

Rush? (Lab MUST Be Notified)
X Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TO-15 Summa	IPA	Rem./Contaminant	Sample # (lab only)
ASV-23-05		Air	5	11/06/15	1402	1	X	X		01
ASV-24-05		Air	5	11/06/15	1335	1	X	X		02
		Air				1	X	X		
		Air				1	X	X		
		Air				1	X			
		Air				1	X			
		Air				1	X			
		Air				1	X			

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other ___

Remarks:SAME-DAY RUSH TAT NEEDED with results by COB on Monday, 11/9.
(18) 1L summa cans and (18) CA sampling manifolds

pH ___ Temp ___
Flow ___ Other ___

6037156 0815

Hold #

Condition: (lab use only)

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ___

Temp: Amb °C Bottles Received: 2

Date: 11-7-15 Time: 0700

COC Seal Intact: ___ Y ___ N ___ NA

pH Checked: NCF:

ANALYTICAL REPORT

November 09, 2015

AEI Consultants- Walnut Creek, CA

Sample Delivery Group:	L799513
Samples Received:	11/07/2015
Project Number:	345989
Description:	2744 East Eleventh Street

Report To: Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Entire Report Reviewed By:

Jarred Willis
Technical Service Representative

ASV-19-05 L799513-01 Air

Collected by: Jordan V
Collected date/time: 11/06/15 15:33
Received date/time: 11/07/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG827530	2	11/07/15 20:25	11/07/15 20:25	SNH
Volatile Organic Compounds (MS) by Method TO-15	WG827550	20	11/08/15 10:55	11/08/15 10:55	DWR

ASV-20-05 L799513-02 Air

Collected by: Jordan V
Collected date/time: 11/06/15 11:15
Received date/time: 11/07/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG827530	2	11/07/15 21:17	11/07/15 21:17	SNH

ASV-17-05 L799513-03 Air

Collected by: Jordan V
Collected date/time: 11/06/15 14:45
Received date/time: 11/07/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG827530	2	11/07/15 22:09	11/07/15 22:09	SNH

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jarred Willis
Technical Service Representative

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv	ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	13.1	31.2		2	WG827530
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG827530
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG827530
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG827530
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG827530
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG827530
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG827530
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG827530
Carbon disulfide	75-15-0	76.10	0.400	1.24	0.995	3.10		2	WG827530
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG827530
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG827530
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG827530
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG827530
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG827530
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG827530
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG827530
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG827530
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG827530
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG827530
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG827530
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG827530
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG827530
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG827530
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG827530
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG827530
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG827530
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG827530
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG827530
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG827530
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG827530
Ethanol	64-17-5	46.10	1.26	2.38	9.90	18.7		2	WG827530
Ethylbenzene	100-41-4	106	0.400	1.73	ND	ND		2	WG827530
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG827530
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG827530
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	2.00	9.89		2	WG827530
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG827530
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG827530
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG827530
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG827530
n-Hexane	110-54-3	86.20	0.400	1.41	ND	ND		2	WG827530
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG827530
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG827530
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG827530
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	5.39	15.9		2	WG827530
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG827530
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG827530
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG827530
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG827530
2-Propanol	67-63-0	60.10	25.0	61.5	159	392		20	WG827550
Propene	115-07-1	42.10	0.800	1.38	2.38	4.10		2	WG827530
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG827530
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG827530
Tetrachloroethylene	127-18-4	166	4.00	27.2	162	1100		20	WG827550
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	1.34	3.95		2	WG827530
Toluene	108-88-3	92.10	0.400	1.51	1.26	4.74		2	WG827530
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG827530
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG827530
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG827530
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG827530
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG827530
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG827530
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG827530
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG827530
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG827530
m&p-Xylene	1330-20-7	106	0.800	3.47	ND	ND		2	WG827530
o-Xylene	95-47-6	106	0.400	1.73	ND	ND		2	WG827530
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.9*				WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv	ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	65.2	155		2	WG827530
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG827530
Benzene	71-43-2	78.10	0.400	1.28	8.63	27.6		2	WG827530
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG827530
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG827530
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG827530
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG827530
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG827530
Carbon disulfide	75-15-0	76.10	0.400	1.24	9.94	30.9		2	WG827530
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG827530
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG827530
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG827530
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG827530
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG827530
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG827530
Cyclohexane	110-82-7	84.20	0.400	1.38	1.18	4.06		2	WG827530
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG827530
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG827530
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG827530
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG827530
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG827530
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG827530
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG827530
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG827530
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG827530
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG827530
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG827530
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG827530
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG827530
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG827530
Ethanol	64-17-5	46.10	1.26	2.38	15.5	29.3		2	WG827530
Ethylbenzene	100-41-4	106	0.400	1.73	2.72	11.8		2	WG827530
4-Ethyltoluene	622-96-8	120	0.400	1.96	0.498	2.45		2	WG827530
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG827530
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	1.80	8.88		2	WG827530
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG827530
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG827530
Heptane	142-82-5	100	0.400	1.64	5.25	21.5		2	WG827530
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG827530
n-Hexane	110-54-3	86.20	0.400	1.41	3.01	10.6		2	WG827530
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG827530
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.493	1.71	B	2	WG827530
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG827530
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	22.3	65.9		2	WG827530
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG827530
Methyl methacrylate	80-62-6	100.12	0.400	1.64	1.28	5.25		2	WG827530
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG827530
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG827530
2-Propanol	67-63-0	60.10	2.50	6.15	3.48	8.55		2	WG827530
Propene	115-07-1	42.10	0.800	1.38	2.05	3.53		2	WG827530
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG827530
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG827530
Tetrachloroethylene	127-18-4	166	0.400	2.72	6.72	45.7		2	WG827530
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	11.8	34.9		2	WG827530
Toluene	108-88-3	92.10	0.400	1.51	31.3	118		2	WG827530
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	ppbv	ug/m3	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG827530
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG827530
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG827530
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	1.48	7.24		2	WG827530
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	0.550	2.70		2	WG827530
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	1.98	9.24		2	WG827530
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG827530
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG827530
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG827530
m&p-Xylene	1330-20-7	106	0.800	3.47	9.57	41.5		2	WG827530
o-Xylene	95-47-6	106	0.400	1.73	3.23	14.0		2	WG827530
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.0*				WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	78.7	187		2	WG827530
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG827530
Benzene	71-43-2	78.10	0.400	1.28	11.4	36.4		2	WG827530
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG827530
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG827530
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG827530
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG827530
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG827530
Carbon disulfide	75-15-0	76.10	0.400	1.24	3.26	10.1		2	WG827530
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG827530
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG827530
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG827530
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG827530
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG827530
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG827530
Cyclohexane	110-82-7	84.20	0.400	1.38	1.59	5.46		2	WG827530
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG827530
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG827530
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG827530
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG827530
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG827530
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG827530
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG827530
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG827530
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG827530
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG827530
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG827530
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG827530
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG827530
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG827530
Ethanol	64-17-5	46.10	1.26	2.38	9.37	17.7		2	WG827530
Ethylbenzene	100-41-4	106	0.400	1.73	4.24	18.4		2	WG827530
4-Ethyltoluene	622-96-8	120	0.400	1.96	0.448	2.20		2	WG827530
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.595	3.35		2	WG827530
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	2.27	11.2		2	WG827530
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG827530
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG827530
Heptane	142-82-5	100	0.400	1.64	7.54	30.8		2	WG827530
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG827530
n-Hexane	110-54-3	86.20	0.400	1.41	3.15	11.1		2	WG827530
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG827530
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.478	1.66	B	2	WG827530
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG827530
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	18.9	55.6		2	WG827530
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG827530
Methyl methacrylate	80-62-6	100.12	0.400	1.64	1.89	7.73		2	WG827530
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG827530
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG827530
2-Propanol	67-63-0	60.10	2.50	6.15	25.2	61.8		2	WG827530
Propene	115-07-1	42.10	0.800	1.38	7.22	12.4		2	WG827530
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG827530
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG827530
Tetrachloroethylene	127-18-4	166	0.400	2.72	25.0	169		2	WG827530
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	9.77	28.8		2	WG827530
Toluene	108-88-3	92.10	0.400	1.51	48.0	181		2	WG827530
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	0.434	2.36		2	WG827530
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG827530
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG827530
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	1.23	6.02		2	WG827530
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	0.520	2.55		2	WG827530
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	3.95	18.5		2	WG827530
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG827530
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG827530
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG827530
m&p-Xylene	1330-20-7	106	0.800	3.47	14.3	62.0		2	WG827530
o-Xylene	95-47-6	106	0.400	1.73	4.59	19.9		2	WG827530
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*101*				WG827530

Method Blank (MB)

(MB) 11/07/15 15:02

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Acetone	ND		1.25
Allyl Chloride	ND		0.200
Benzene	ND		0.200
Benzyl Chloride	ND		0.200
Bromodichloromethane	ND		0.200
Bromoform	ND		0.600
Bromomethane	ND		0.200
1,3-Butadiene	ND		2.00
Carbon disulfide	ND		0.200
Carbon tetrachloride	ND		0.200
Chlorobenzene	ND		0.200
Chloroethane	ND		0.200
Chloroform	ND		0.200
Chloromethane	ND		0.200
2-Chlorotoluene	ND		0.200
Cyclohexane	ND		0.200
Dibromochloromethane	ND		0.200
1,2-Dibromoethane	ND		0.200
1,2-Dichlorobenzene	ND		0.200
1,3-Dichlorobenzene	ND		0.200
1,4-Dichlorobenzene	ND		0.200
1,2-Dichloroethane	ND		0.200
1,1-Dichloroethane	ND		0.200
1,1-Dichloroethene	ND		0.200
cis-1,2-Dichloroethene	ND		0.200
trans-1,2-Dichloroethene	ND		0.200
1,2-Dichloropropane	ND		0.200
cis-1,3-Dichloropropene	ND		0.200
trans-1,3-Dichloropropene	ND		0.200
1,4-Dioxane	ND		0.200
Ethylbenzene	ND		0.200
4-Ethyltoluene	ND		0.200
Trichlorofluoromethane	ND		0.200
Dichlorodifluoromethane	ND		0.200
1,1,2-Trichlorotrifluoroethane	ND		0.200
1,2-Dichlorotetrafluoroethane	ND		0.200

Method Blank (MB)

(MB) 11/07/15 15:02

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Heptane	ND		0.200
Hexachloro-1,3-butadiene	ND		0.630
n-Hexane	ND		0.200
Isopropylbenzene	ND		0.200
Methylene Chloride	ND		0.200
Methyl Butyl Ketone	ND		1.25
2-Butanone (MEK)	ND		1.25
4-Methyl-2-pentanone (MIBK)	ND		1.25
Methyl Methacrylate	ND		0.200
MTBE	ND		0.200
Naphthalene	ND		0.630
2-Propanol	ND		1.25
Propene	ND		0.400
Styrene	ND		0.200
1,1,2,2-Tetrachloroethane	ND		0.200
Tetrachloroethylene	ND		0.200
Tetrahydrofuran	ND		0.200
Toluene	ND		0.200
1,2,4-Trichlorobenzene	ND		0.630
1,1,1-Trichloroethane	ND		0.200
1,1,2-Trichloroethane	ND		0.200
Trichloroethylene	ND		0.200
1,2,4-Trimethylbenzene	ND		0.200
1,3,5-Trimethylbenzene	ND		0.200
2,2,4-Trimethylpentane	ND		0.200
Vinyl chloride	ND		0.200
Vinyl Bromide	ND		0.200
Vinyl acetate	ND		0.200
m&p-Xylene	ND		0.400
o-Xylene	ND		0.200
Ethanol	ND		0.630
(S) 1,4-Bromofluorobenzene	*94.9*		*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/07/15 13:17 • (LCSD) 11/07/15 14:10

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.25	5.06	113	135	34.3-167			17.3	25
Propene	3.75	3.41	3.51	91.0	93.7	53.9-143			2.89	25
Dichlorodifluoromethane	3.75	3.72	3.52	99.3	93.9	56.7-140			5.50	25
1,2-Dichlorotetrafluoroethane	3.75	3.82	3.97	102	106	70.0-130			3.84	25
Chloromethane	3.75	3.86	3.99	103	106	70.0-130			3.37	25
Vinyl chloride	3.75	3.77	4.13	101	110	70.0-130			8.99	25
1,3-Butadiene	3.75	3.72	4.26	99.1	114	70.0-130			13.5	25
Bromomethane	3.75	3.65	4.04	97.4	108	70.0-130			10.2	25
Chloroethane	3.75	3.78	4.29	101	114	70.0-130			12.7	25
Trichlorofluoromethane	3.75	3.74	4.17	99.8	111	70.0-130			10.8	25
1,1,2-Trichlorotrifluoroethane	3.75	3.75	4.10	99.9	109	70.0-130			9.00	25
1,1-Dichloroethene	3.75	3.93	4.25	105	113	70.0-130			7.79	25
1,1-Dichloroethane	3.75	4.00	4.25	107	113	70.0-130			6.00	25
Acetone	3.75	4.00	4.25	107	113	70.0-130			5.94	25
2-Propanol	3.75	4.41	4.54	118	121	50.4-152			2.77	25
Carbon disulfide	3.75	3.84	4.15	102	111	70.0-130			7.78	25
Methylene Chloride	3.75	3.36	3.64	89.7	97.0	70.0-130			7.80	25
MTBE	3.75	4.15	4.45	111	119	70.0-130			7.01	25
trans-1,2-Dichloroethene	3.75	3.96	4.18	106	111	70.0-130			5.42	25
n-Hexane	3.75	3.85	4.07	103	109	70.0-130			5.74	25
Vinyl acetate	3.75	4.27	4.43	114	118	70.0-130			3.64	25
Methyl Ethyl Ketone	3.75	4.40	4.55	117	121	70.0-130			3.36	25
cis-1,2-Dichloroethene	3.75	4.11	4.26	110	114	70.0-130			3.67	25
Chloroform	3.75	3.95	4.12	105	110	70.0-130			4.30	25
Cyclohexane	3.75	4.13	4.39	110	117	70.0-130			6.12	25
1,1,1-Trichloroethane	3.75	4.00	4.15	107	111	70.0-130			3.80	25
Carbon tetrachloride	3.75	3.95	4.23	105	113	70.0-130			7.06	25
Benzene	3.75	4.06	4.29	108	114	70.0-130			5.51	25
1,2-Dichloroethane	3.75	4.14	4.34	110	116	70.0-130			4.69	25
Heptane	3.75	4.20	4.38	112	117	70.0-130			4.18	25
Trichloroethylene	3.75	4.14	4.29	111	114	70.0-130			3.40	25
1,2-Dichloropropane	3.75	4.12	4.29	110	115	70.0-130			4.06	25
1,4-Dioxane	3.75	5.01	5.27	134	141	48.0-156			5.11	25
Bromodichloromethane	3.75	4.10	4.25	109	113	70.0-130			3.69	25
cis-1,3-Dichloropropene	3.75	4.36	4.55	116	121	70.0-130			4.37	25
4-Methyl-2-pentanone (MIBK)	3.75	4.62	4.83	123	129	55.3-154			4.51	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/07/15 13:17 • (LCSD) 11/07/15 14:10

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Toluene	3.75	4.24	4.39	113	117	70.0-130			3.43	25
trans-1,3-Dichloropropene	3.75	4.46	4.60	119	123	70.0-130			3.23	25
1,1,2-Trichloroethane	3.75	4.13	4.29	110	114	70.0-130			3.71	25
Tetrachloroethylene	3.75	4.08	4.24	109	113	70.0-130			3.94	25
Methyl Butyl Ketone	3.75	4.89	5.00	130	133	47.9-165			2.22	25
Dibromochloromethane	3.75	4.17	4.31	111	115	70.0-130			3.34	25
1,2-Dibromoethane	3.75	4.29	4.37	114	117	70.0-130			1.95	25
Chlorobenzene	3.75	4.15	4.19	111	112	70.0-130			0.990	25
Ethylbenzene	3.75	4.27	4.37	114	117	70.0-130			2.39	25
m&p-Xylene	7.50	8.47	8.62	113	115	70.0-130			1.81	25
o-Xylene	3.75	4.50	4.54	120	121	70.0-130			0.940	25
Styrene	3.75	4.44	4.50	118	120	70.0-130			1.27	25
Bromoform	3.75	4.26	4.32	114	115	70.0-130			1.50	25
1,1,2,2-Tetrachloroethane	3.75	4.18	4.27	111	114	70.0-130			2.09	25
4-Ethyltoluene	3.75	4.46	4.58	119	122	70.0-130			2.66	25
1,3,5-Trimethylbenzene	3.75	4.41	4.56	118	122	70.0-130			3.35	25
1,2,4-Trimethylbenzene	3.75	4.44	4.61	118	123	70.0-130			3.75	25
1,3-Dichlorobenzene	3.75	4.38	4.51	117	120	70.0-130			2.88	25
1,4-Dichlorobenzene	3.75	4.53	4.57	121	122	70.0-130			0.930	25
Benzyl Chloride	3.75	4.67	4.84	125	129	55.6-160			3.63	25
1,2-Dichlorobenzene	3.75	4.29	4.43	114	118	70.0-130			3.12	25
1,2,4-Trichlorobenzene	3.75	4.80	4.75	128	127	53.6-154			1.03	25
Hexachloro-1,3-butadiene	3.75	4.24	4.28	113	114	62.1-143			1.01	25
Naphthalene	3.75	4.82	4.86	129	130	52.0-158			0.840	25
Allyl Chloride	3.75	3.96	4.31	106	115	70.0-130			8.46	25
2-Chlorotoluene	3.75	4.31	4.40	115	117	70.0-130			2.11	25
Methyl Methacrylate	3.75	4.33	4.47	115	119	70.0-130			3.33	25
Tetrahydrofuran	3.75	4.37	4.56	116	122	65.0-140			4.33	25
2,2,4-Trimethylpentane	3.75	4.18	4.36	111	116	70.0-130			4.39	25
Vinyl Bromide	3.75	3.70	4.13	98.6	110	70.0-130			11.0	25
Isopropylbenzene	3.75	4.45	4.55	119	121	70.0-130			2.19	25
(S) 1,4-Bromofluorobenzene				*103*	*101*	*60.0-140*				

Method Blank (MB)

(MB) 11/07/15 17:30

Analyte	MB Result	MB Qualifier	MB RDL
	ppb		ppb
2-Propanol	ND		1.25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/07/15 15:57 • (LCSD) 11/07/15 16:42

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppb	ppb	ppb	%	%	%			%	%
2-Propanol	3.75	3.14	3.43	83.8	91.4	50.4-152			8.65	25
Tetrachloroethylene	3.75	3.29	3.64	87.6	97.0	70.0-130			10.1	25

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
B	The same analyte is found in the associated blank.

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

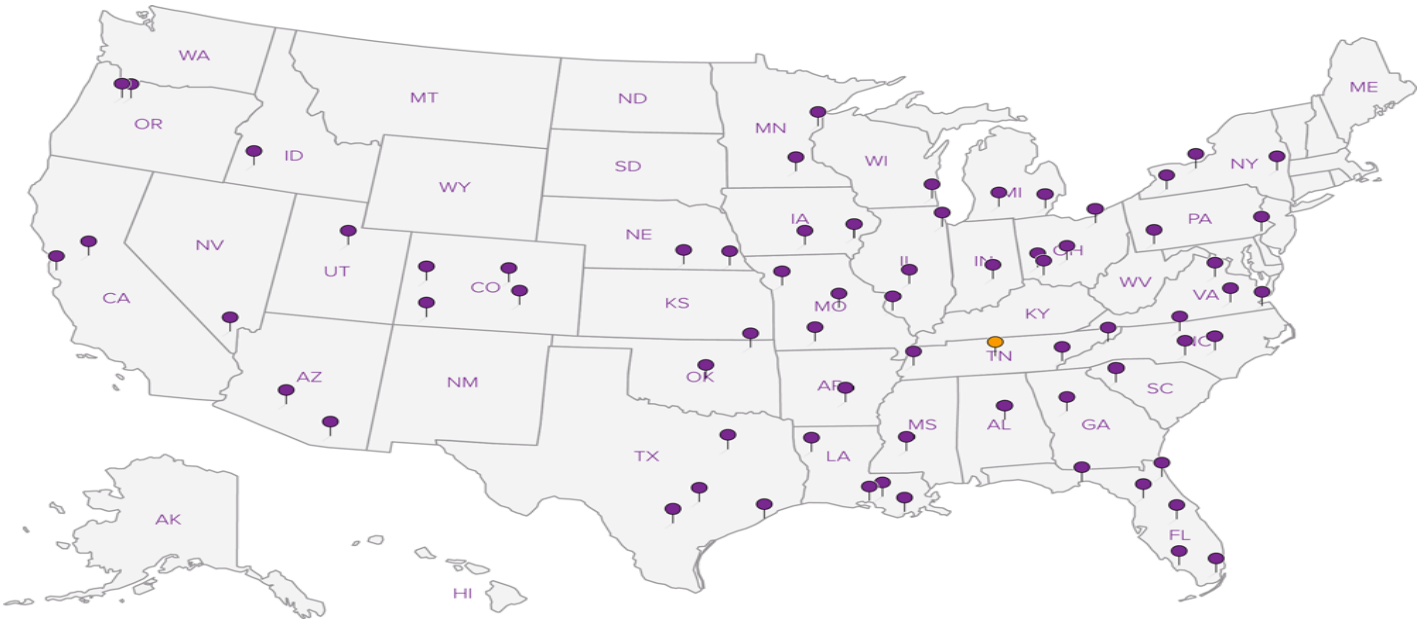
[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
Canada	1461.01	DOD	1461.01
EPA–Crypto	TN00003	USDA	S-67674

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



AEI Consultants- Walnut Creek, CA

2500 Camino Diablo
Walnut Creek, CA 94597

Billing Information:
Accounts Payable- Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Report to: Jeremy Smith

Email To: jasmith@aeiconsultants.com; jsanders@aeiconsultants.com

Project Description: 2744 East Eleventh Street

City/State Collected: Oakland CA

Phone: 925-746-6028
Fax:

Client Project # 345989

Lab Project # AEICONWCCA-SANDERS

Collected by (print): Jordan Vida

Site/Facility ID #

P.O. # 97076

Collected by (signature):

Immediately Packed on Ice N X Y ___

Rush? (Lab MUST Be Notified)
X Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X_Yes
FAX? ___No ___Yes

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TO-15 Summa	IPA
~~ASV-18-05~~		Air	5	11/06/15		1	X	—
ASV-19-05		Air	5	11/06/15	1553	1	X	X
ASV-20-05		Air	5	11/06/15	1115	1	X	X
ASV-17-05		Air	5	11/06/15	1495	1	X	X
		Air				1	X	
		Air				1	X	
		Air				1	X	
		Air				1	X	

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABSCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 759513
L127

Acctnum: AEICONWCCA
Template: T107005
Prelogin: P529397
TSR: 358 - Jarred Willis
PB: BAK 10-30-15
Shipped Via: FedEX Ground

Rem./Contaminant	Sample # (lab only)
	01
	02
	03

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other ___

Remarks:SAME-DAY RUSH TAT NEEDED with results by COB on Monday, 11/9.
(18) 1L summa cans and (18) CA sampling manifolds

pH ___ Temp ___
Flow ___ Other ___

6503715 8804

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ___

Temp: Amb °C Bottles Received: 3

Date: 11-7-15 Time: 0940

Condition: 4°ST (lab use only)

COC Seal Intact: ___Y ___N ___NA

pH Checked: NCF:

ANALYTICAL REPORT

November 09, 2015

AEI Consultants- Walnut Creek, CA

Sample Delivery Group:	L799509
Samples Received:	11/07/2015
Project Number:	345989
Description:	2744 East Eleventh Street

Report To: Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Entire Report Reviewed By:

Jarred Willis
Technical Service Representative

TABLE OF CONTENTS

ASV-22-SS L799509-01 Air

Collected by: Jonatham Sanders
Collected date/time: 11/06/15 07:31
Received date/time: 11/07/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG827530	2	11/07/15 16:04	11/07/15 16:04	SNH

ASV-22-05 L799509-02 Air

Collected by: Jonatham Sanders
Collected date/time: 11/06/15 15:48
Received date/time: 11/07/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG827530	2	11/07/15 16:57	11/07/15 16:57	SNH
Volatile Organic Compounds (MS) by Method TO-15	WG827550	20	11/08/15 10:10	11/08/15 10:10	SNH

ASV-21-05 L799509-03 Air

Collected by: Jonatham Sanders
Collected date/time: 11/06/15 11:22
Received date/time: 11/07/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG827530	2	11/07/15 17:49	11/07/15 17:49	SNH

ASV-16-05 L799509-04 Air

Collected by: Jonatham Sanders
Collected date/time: 11/06/15 14:21
Received date/time: 11/07/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG827530	2	11/07/15 18:42	11/07/15 18:42	SNH

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jarred Willis
Technical Service Representative

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv	ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	40.6	96.5		2	WG827530
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG827530
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG827530
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG827530
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG827530
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG827530
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG827530
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG827530
Carbon disulfide	75-15-0	76.10	0.400	1.24	2.87	8.93		2	WG827530
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG827530
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG827530
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG827530
Chloroform	67-66-3	119	0.400	1.95	0.641	3.12		2	WG827530
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG827530
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG827530
Cyclohexane	110-82-7	84.20	0.400	1.38	1.33	4.59		2	WG827530
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG827530
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG827530
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG827530
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG827530
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG827530
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG827530
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG827530
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG827530
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG827530
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG827530
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG827530
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG827530
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG827530
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG827530
Ethanol	64-17-5	46.10	1.26	2.38	21.5	40.6		2	WG827530
Ethylbenzene	100-41-4	106	0.400	1.73	0.478	2.07		2	WG827530
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG827530
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG827530
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	2.17	10.7		2	WG827530
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG827530
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG827530
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG827530
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG827530
n-Hexane	110-54-3	86.20	0.400	1.41	1.30	4.57		2	WG827530
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG827530
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.892	3.10	B	2	WG827530
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG827530
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	3.71	10.9		2	WG827530
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG827530
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG827530
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG827530
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG827530
2-Propanol	67-63-0	60.10	2.50	6.15	3.73	9.17		2	WG827530
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG827530
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG827530
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG827530
Tetrachloroethylene	127-18-4	166	0.400	2.72	33.4	227		2	WG827530
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	1.15	3.38		2	WG827530
Toluene	108-88-3	92.10	0.400	1.51	9.13	34.4		2	WG827530
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	0.920	5.01		2	WG827530
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG827530
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG827530
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.947	4.65		2	WG827530
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG827530
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG827530
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG827530
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG827530
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG827530
m&p-Xylene	1330-20-7	106	0.800	3.47	1.82	7.87		2	WG827530
o-Xylene	95-47-6	106	0.400	1.73	0.848	3.68		2	WG827530
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*103*				WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv	ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	25.0	59.4	480	1140		20	WG827550
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG827530
Benzene	71-43-2	78.10	0.400	1.28	14.7	46.9		2	WG827530
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG827530
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG827530
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG827530
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG827530
1,3-Butadiene	106-99-0	54.10	4.00	8.85	9.20	20.4		2	WG827530
Carbon disulfide	75-15-0	76.10	4.00	12.4	502	1560		20	WG827550
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG827530
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG827530
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG827530
Chloroform	67-66-3	119	0.400	1.95	0.658	3.20		2	WG827530
Chloromethane	74-87-3	50.50	0.400	0.826	1.24	2.56		2	WG827530
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG827530
Cyclohexane	110-82-7	84.20	0.400	1.38	9.38	32.3		2	WG827530
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG827530
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG827530
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG827530
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG827530
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG827530
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG827530
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG827530
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG827530
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG827530
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG827530
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG827530
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG827530
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG827530
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG827530
Ethanol	64-17-5	46.10	1.26	2.38	28.1	52.9		2	WG827530
Ethylbenzene	100-41-4	106	0.400	1.73	3.29	14.3		2	WG827530
4-Ethyltoluene	622-96-8	120	0.400	1.96	0.471	2.31		2	WG827530
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.458	2.57		2	WG827530
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.576	2.85		2	WG827530
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG827530
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG827530
Heptane	142-82-5	100	0.400	1.64	11.1	45.4		2	WG827530
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG827530
n-Hexane	110-54-3	86.20	0.400	1.41	21.3	75.2		2	WG827530
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG827530
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.675	2.34	B	2	WG827530
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG827530
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	52.2	154		2	WG827530
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	3.35	13.7		2	WG827530
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG827530
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG827530
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG827530
2-Propanol	67-63-0	60.10	2.50	6.15	42.9	105		2	WG827530
Propene	115-07-1	42.10	8.00	13.8	496	854		20	WG827550
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG827530
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG827530
Tetrachloroethylene	127-18-4	166	0.400	2.72	35.9	243		2	WG827530
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	13.4	39.6		2	WG827530
Toluene	108-88-3	92.10	0.400	1.51	41.5	156		2	WG827530
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG827530
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG827530
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG827530
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	1.54	7.56		2	WG827530
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	0.533	2.62		2	WG827530
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	8.32	38.9		2	WG827530
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG827530
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG827530
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG827530
m&p-Xylene	1330-20-7	106	0.800	3.47	10.3	44.5		2	WG827530
o-Xylene	95-47-6	106	0.400	1.73	3.42	14.8		2	WG827530
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*103*				WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv ppb	ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	97.6	232		2	WG827530
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG827530
Benzene	71-43-2	78.10	0.400	1.28	9.15	29.2		2	WG827530
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG827530
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG827530
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG827530
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG827530
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG827530
Carbon disulfide	75-15-0	76.10	0.400	1.24	3.43	10.7		2	WG827530
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG827530
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG827530
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG827530
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG827530
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG827530
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG827530
Cyclohexane	110-82-7	84.20	0.400	1.38	1.38	4.74		2	WG827530
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG827530
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG827530
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG827530
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG827530
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG827530
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG827530
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG827530
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG827530
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	0.892	3.53		2	WG827530
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG827530
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG827530
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG827530
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG827530
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG827530
Ethanol	64-17-5	46.10	1.26	2.38	12.3	23.2		2	WG827530
Ethylbenzene	100-41-4	106	0.400	1.73	2.85	12.4		2	WG827530
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG827530
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG827530
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	1.10	5.42		2	WG827530
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG827530
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG827530
Heptane	142-82-5	100	0.400	1.64	7.53	30.8		2	WG827530
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG827530
n-Hexane	110-54-3	86.20	0.400	1.41	4.27	15.1		2	WG827530
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG827530
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.429	1.49	B	2	WG827530
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG827530
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	26.7	78.8		2	WG827530
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG827530
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG827530
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG827530
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG827530
2-Propanol	67-63-0	60.10	2.50	6.15	6.03	14.8		2	WG827530
Propene	115-07-1	42.10	0.800	1.38	1.74	2.99		2	WG827530
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG827530
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG827530
Tetrachloroethylene	127-18-4	166	0.400	2.72	12.8	87.0		2	WG827530
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	11.3	33.4		2	WG827530
Toluene	108-88-3	92.10	0.400	1.51	35.5	134		2	WG827530
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	ppbv	ug/m3	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG827530
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG827530
Trichloroethylene	79-01-6	131	0.400	2.14	0.526	2.82		2	WG827530
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	1.05	5.13		2	WG827530
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG827530
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	5.16	24.1		2	WG827530
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG827530
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG827530
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG827530
m&p-Xylene	1330-20-7	106	0.800	3.47	9.69	42.0		2	WG827530
o-Xylene	95-47-6	106	0.400	1.73	3.15	13.6		2	WG827530
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*102*				WG827530

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	ppbv	ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	210	500	E	2	WG827530
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG827530
Benzene	71-43-2	78.10	0.400	1.28	10.1	32.3		2	WG827530
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG827530
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG827530
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG827530
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG827530
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG827530
Carbon disulfide	75-15-0	76.10	0.400	1.24	1.47	4.58		2	WG827530
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG827530
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG827530
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG827530
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG827530
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG827530
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG827530
Cyclohexane	110-82-7	84.20	0.400	1.38	1.39	4.80		2	WG827530
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG827530
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG827530
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG827530
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG827530
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG827530
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG827530
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG827530
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG827530
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG827530
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG827530
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG827530
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG827530
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG827530
1,4-Dioxane	123-91-1	88.10	0.400	1.44	2.21	7.96		2	WG827530
Ethanol	64-17-5	46.10	1.26	2.38	16.3	30.7		2	WG827530
Ethylbenzene	100-41-4	106	0.400	1.73	5.03	21.8		2	WG827530
4-Ethyltoluene	622-96-8	120	0.400	1.96	1.01	4.96		2	WG827530
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.628	3.53		2	WG827530
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.653	3.23		2	WG827530
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG827530
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG827530
Heptane	142-82-5	100	0.400	1.64	6.62	27.1		2	WG827530
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG827530
n-Hexane	110-54-3	86.20	0.400	1.41	3.09	10.9		2	WG827530
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG827530
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.426	1.48	B	2	WG827530
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG827530
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	42.9	126		2	WG827530
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG827530
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG827530
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG827530
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG827530
2-Propanol	67-63-0	60.10	2.50	6.15	137	337	E	2	WG827530
Propene	115-07-1	42.10	0.800	1.38	4.32	7.45		2	WG827530
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG827530
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG827530
Tetrachloroethylene	127-18-4	166	0.400	2.72	3.30	22.4		2	WG827530
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	23.8	70.2		2	WG827530
Toluene	108-88-3	92.10	0.400	1.51	44.3	167		2	WG827530
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG827530

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	ppbv	ug/m3	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG827530
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG827530
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG827530
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	2.99	14.7		2	WG827530
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	1.10	5.39		2	WG827530
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	3.54	16.5		2	WG827530
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG827530
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG827530
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG827530
m&p-Xylene	1330-20-7	106	0.800	3.47	18.2	78.7		2	WG827530
o-Xylene	95-47-6	106	0.400	1.73	5.79	25.1		2	WG827530
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*101*				WG827530

Method Blank (MB)

(MB) 11/07/15 15:02

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Acetone	ND		1.25
Allyl Chloride	ND		0.200
Benzene	ND		0.200
Benzyl Chloride	ND		0.200
Bromodichloromethane	ND		0.200
Bromoform	ND		0.600
Bromomethane	ND		0.200
1,3-Butadiene	ND		2.00
Carbon disulfide	ND		0.200
Carbon tetrachloride	ND		0.200
Chlorobenzene	ND		0.200
Chloroethane	ND		0.200
Chloroform	ND		0.200
Chloromethane	ND		0.200
2-Chlorotoluene	ND		0.200
Cyclohexane	ND		0.200
Dibromochloromethane	ND		0.200
1,2-Dibromoethane	ND		0.200
1,2-Dichlorobenzene	ND		0.200
1,3-Dichlorobenzene	ND		0.200
1,4-Dichlorobenzene	ND		0.200
1,2-Dichloroethane	ND		0.200
1,1-Dichloroethane	ND		0.200
1,1-Dichloroethene	ND		0.200
cis-1,2-Dichloroethene	ND		0.200
trans-1,2-Dichloroethene	ND		0.200
1,2-Dichloropropane	ND		0.200
cis-1,3-Dichloropropene	ND		0.200
trans-1,3-Dichloropropene	ND		0.200
1,4-Dioxane	ND		0.200
Ethylbenzene	ND		0.200
4-Ethyltoluene	ND		0.200
Trichlorofluoromethane	ND		0.200
Dichlorodifluoromethane	ND		0.200
1,1,2-Trichlorotrifluoroethane	ND		0.200
1,2-Dichlorotetrafluoroethane	ND		0.200

Method Blank (MB)

(MB) 11/07/15 15:02

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Heptane	ND		0.200
Hexachloro-1,3-butadiene	ND		0.630
n-Hexane	ND		0.200
Isopropylbenzene	ND		0.200
Methylene Chloride	ND		0.200
Methyl Butyl Ketone	ND		1.25
2-Butanone (MEK)	ND		1.25
4-Methyl-2-pentanone (MIBK)	ND		1.25
Methyl Methacrylate	ND		0.200
MTBE	ND		0.200
Naphthalene	ND		0.630
2-Propanol	ND		1.25
Propene	ND		0.400
Styrene	ND		0.200
1,1,2,2-Tetrachloroethane	ND		0.200
Tetrachloroethylene	ND		0.200
Tetrahydrofuran	ND		0.200
Toluene	ND		0.200
1,2,4-Trichlorobenzene	ND		0.630
1,1,1-Trichloroethane	ND		0.200
1,1,2-Trichloroethane	ND		0.200
Trichloroethylene	ND		0.200
1,2,4-Trimethylbenzene	ND		0.200
1,3,5-Trimethylbenzene	ND		0.200
2,2,4-Trimethylpentane	ND		0.200
Vinyl chloride	ND		0.200
Vinyl Bromide	ND		0.200
Vinyl acetate	ND		0.200
m&p-Xylene	ND		0.400
o-Xylene	ND		0.200
Ethanol	ND		0.630
(S) 1,4-Bromofluorobenzene	*94.9*		*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/07/15 13:17 • (LCSD) 11/07/15 14:10

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.25	5.06	113	135	34.3-167			17.3	25
Propene	3.75	3.41	3.51	91.0	93.7	53.9-143			2.89	25
Dichlorodifluoromethane	3.75	3.72	3.52	99.3	93.9	56.7-140			5.50	25
1,2-Dichlorotetrafluoroethane	3.75	3.82	3.97	102	106	70.0-130			3.84	25
Chloromethane	3.75	3.86	3.99	103	106	70.0-130			3.37	25
Vinyl chloride	3.75	3.77	4.13	101	110	70.0-130			8.99	25
1,3-Butadiene	3.75	3.72	4.26	99.1	114	70.0-130			13.5	25
Bromomethane	3.75	3.65	4.04	97.4	108	70.0-130			10.2	25
Chloroethane	3.75	3.78	4.29	101	114	70.0-130			12.7	25
Trichlorofluoromethane	3.75	3.74	4.17	99.8	111	70.0-130			10.8	25
1,1,2-Trichlorotrifluoroethane	3.75	3.75	4.10	99.9	109	70.0-130			9.00	25
1,1-Dichloroethene	3.75	3.93	4.25	105	113	70.0-130			7.79	25
1,1-Dichloroethane	3.75	4.00	4.25	107	113	70.0-130			6.00	25
Acetone	3.75	4.00	4.25	107	113	70.0-130			5.94	25
2-Propanol	3.75	4.41	4.54	118	121	50.4-152			2.77	25
Carbon disulfide	3.75	3.84	4.15	102	111	70.0-130			7.78	25
Methylene Chloride	3.75	3.36	3.64	89.7	97.0	70.0-130			7.80	25
MTBE	3.75	4.15	4.45	111	119	70.0-130			7.01	25
trans-1,2-Dichloroethene	3.75	3.96	4.18	106	111	70.0-130			5.42	25
n-Hexane	3.75	3.85	4.07	103	109	70.0-130			5.74	25
Vinyl acetate	3.75	4.27	4.43	114	118	70.0-130			3.64	25
Methyl Ethyl Ketone	3.75	4.40	4.55	117	121	70.0-130			3.36	25
cis-1,2-Dichloroethene	3.75	4.11	4.26	110	114	70.0-130			3.67	25
Chloroform	3.75	3.95	4.12	105	110	70.0-130			4.30	25
Cyclohexane	3.75	4.13	4.39	110	117	70.0-130			6.12	25
1,1,1-Trichloroethane	3.75	4.00	4.15	107	111	70.0-130			3.80	25
Carbon tetrachloride	3.75	3.95	4.23	105	113	70.0-130			7.06	25
Benzene	3.75	4.06	4.29	108	114	70.0-130			5.51	25
1,2-Dichloroethane	3.75	4.14	4.34	110	116	70.0-130			4.69	25
Heptane	3.75	4.20	4.38	112	117	70.0-130			4.18	25
Trichloroethylene	3.75	4.14	4.29	111	114	70.0-130			3.40	25
1,2-Dichloropropane	3.75	4.12	4.29	110	115	70.0-130			4.06	25
1,4-Dioxane	3.75	5.01	5.27	134	141	48.0-156			5.11	25
Bromodichloromethane	3.75	4.10	4.25	109	113	70.0-130			3.69	25
cis-1,3-Dichloropropene	3.75	4.36	4.55	116	121	70.0-130			4.37	25
4-Methyl-2-pentanone (MIBK)	3.75	4.62	4.83	123	129	55.3-154			4.51	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/07/15 13:17 • (LCSD) 11/07/15 14:10

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Toluene	3.75	4.24	4.39	113	117	70.0-130			3.43	25
trans-1,3-Dichloropropene	3.75	4.46	4.60	119	123	70.0-130			3.23	25
1,1,2-Trichloroethane	3.75	4.13	4.29	110	114	70.0-130			3.71	25
Tetrachloroethylene	3.75	4.08	4.24	109	113	70.0-130			3.94	25
Methyl Butyl Ketone	3.75	4.89	5.00	130	133	47.9-165			2.22	25
Dibromochloromethane	3.75	4.17	4.31	111	115	70.0-130			3.34	25
1,2-Dibromoethane	3.75	4.29	4.37	114	117	70.0-130			1.95	25
Chlorobenzene	3.75	4.15	4.19	111	112	70.0-130			0.990	25
Ethylbenzene	3.75	4.27	4.37	114	117	70.0-130			2.39	25
m&p-Xylene	7.50	8.47	8.62	113	115	70.0-130			1.81	25
o-Xylene	3.75	4.50	4.54	120	121	70.0-130			0.940	25
Styrene	3.75	4.44	4.50	118	120	70.0-130			1.27	25
Bromoform	3.75	4.26	4.32	114	115	70.0-130			1.50	25
1,1,2,2-Tetrachloroethane	3.75	4.18	4.27	111	114	70.0-130			2.09	25
4-Ethyltoluene	3.75	4.46	4.58	119	122	70.0-130			2.66	25
1,3,5-Trimethylbenzene	3.75	4.41	4.56	118	122	70.0-130			3.35	25
1,2,4-Trimethylbenzene	3.75	4.44	4.61	118	123	70.0-130			3.75	25
1,3-Dichlorobenzene	3.75	4.38	4.51	117	120	70.0-130			2.88	25
1,4-Dichlorobenzene	3.75	4.53	4.57	121	122	70.0-130			0.930	25
Benzyl Chloride	3.75	4.67	4.84	125	129	55.6-160			3.63	25
1,2-Dichlorobenzene	3.75	4.29	4.43	114	118	70.0-130			3.12	25
1,2,4-Trichlorobenzene	3.75	4.80	4.75	128	127	53.6-154			1.03	25
Hexachloro-1,3-butadiene	3.75	4.24	4.28	113	114	62.1-143			1.01	25
Naphthalene	3.75	4.82	4.86	129	130	52.0-158			0.840	25
Allyl Chloride	3.75	3.96	4.31	106	115	70.0-130			8.46	25
2-Chlorotoluene	3.75	4.31	4.40	115	117	70.0-130			2.11	25
Methyl Methacrylate	3.75	4.33	4.47	115	119	70.0-130			3.33	25
Tetrahydrofuran	3.75	4.37	4.56	116	122	65.0-140			4.33	25
2,2,4-Trimethylpentane	3.75	4.18	4.36	111	116	70.0-130			4.39	25
Vinyl Bromide	3.75	3.70	4.13	98.6	110	70.0-130			11.0	25
Isopropylbenzene	3.75	4.45	4.55	119	121	70.0-130			2.19	25
(S) 1,4-Bromofluorobenzene				*103*	*101*	*60.0-140*				

Method Blank (MB)

(MB) 11/07/15 17:30

Analyte	MB Result	MB Qualifier	MB RDL
	ppb		ppb
Acetone	ND		1.25
Carbon disulfide	ND		0.200
Propene	ND		0.400

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/07/15 15:57 • (LCSD) 11/07/15 16:42

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppb	ppb	ppb	%	%	%			%	%
Propene	3.75	3.10	3.31	82.6	88.2	53.9-143			6.57	25
Acetone	3.75	3.05	3.34	81.2	89.1	70.0-130			9.26	25
Carbon disulfide	3.75	3.14	3.43	83.8	91.5	70.0-130			8.78	25

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

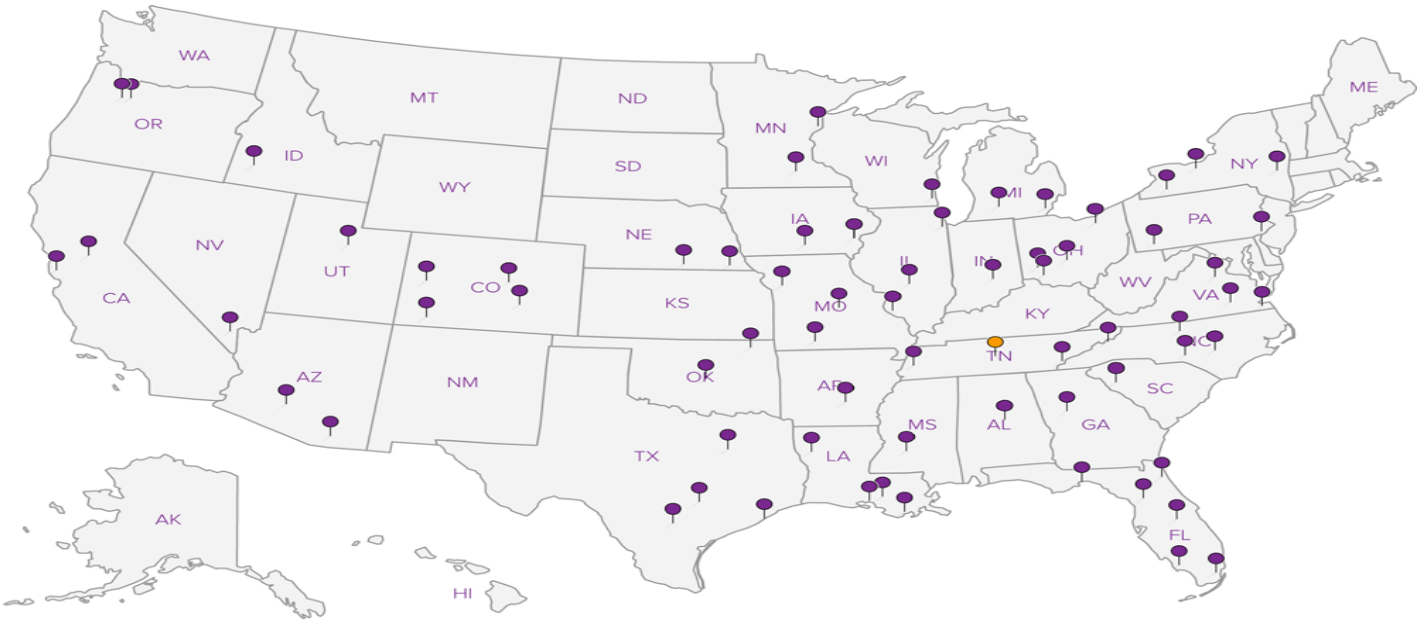
[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
Canada	1461.01	DOD	1461.01
EPA–Crypto	TN00003	USDA	S-67674

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



AEI Consultants- Walnut Creek, CA

2500 Camino Diablo
Walnut Creek, CA 94597

Billing Information:
Accounts Payable- Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Report to: Jeremy Smith

Email To: jasmith@aeiconsultants.com; jsanders@aeiconsultants.com

Project Description: 2744 East Eleventh Street

City/State Collected: Oakland CA

Phone: 925-746-6028
Fax:

Client Project # 345989

Lab Project # AEICONWCCA-SANDERS

Collected by (print): Jonathan Sanders

Site/Facility ID #

P.O. # 97076

Collected by (signature):

Immediately Packed on Ice N X Y ___

Rush? (Lab MUST Be Notified)
X Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X_Yes
FAX? ___No ___Yes

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TO-15 Summa	TPA
ASV-22-SS		Air	SS	11/06/15	0731	1	X	X
ASV-22-05		Air	5	11/06/15	1548	1	X	X
ASV-21-05		Air	5	11/06/15	1122	1	X	X
ASV-16-05		Air	5	11/06/15	1921	1	X	X
		Air				1	X	
		Air				1	X	
		Air				1	X	
		Air				1	X	

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 794509

L128

Acctnum: AEICONWCCA
Template: T107005
Prelogin: P529397
TSR: 358 - Jarred Willis
PB: BAK 10-20-15
Shipped Via: FedEX Ground

Rem./Contaminant	Sample # (lab only)
	01
	02
	03
	04

6503 7156 8790

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other ___

Remarks:SAME-DAY RUSH TAT NEEDED with results by COB on Monday, 11/9.
(18) 1L summa cans and (18) CA sampling manifolds

pH ___ Temp ___
Flow ___ Other ___

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ___

Hold #

Condition: (lab use only) TF 02

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/6/15	1645	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Temp: Amb °C Bottles Received: 4

Date: 11-7-15 Time: 0940

COC Seal Intact: ___ Y ___ N ___ NA

pH Checked: NCF:

ANALYTICAL REPORT

December 29, 2015

AEI Consultants- Walnut Creek, CA

Sample Delivery Group:	L807883
Samples Received:	12/18/2015
Project Number:	345989
Description:	Lucasey Manufacturing
Site:	2744 EAST ELEVENTH STREET
Report To:	Jonathan Sanders 2500 Camino Diablo Walnut Creek, CA 94597

Entire Report Reviewed By:

Jarred Willis
Technical Service Representative

TABLE OF CONTENTS

ASV-29 5.0FT L807883-01 Air

Collected by: Jordan Vida
Collected date/time: 12/16/15 14:32
Received date/time: 12/18/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838563	2	12/27/15 00:30	12/27/15 00:30	MBF

ASV-30 5.0FT L807883-02 Air

Collected by: Jordan Vida
Collected date/time: 12/17/15 12:54
Received date/time: 12/18/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838563	2	12/27/15 01:22	12/27/15 01:22	MBF

ASV-31 5.0FT L807883-03 Air

Collected by: Jordan Vida
Collected date/time: 12/17/15 11:40
Received date/time: 12/18/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838563	2	12/27/15 02:15	12/27/15 02:15	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG838698	200	12/28/15 21:05	12/28/15 21:05	MBF

ASV-32 5.0FT L807883-04 Air

Collected by: Jordan Vida
Collected date/time: 12/17/15 08:57
Received date/time: 12/18/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838563	2	12/27/15 03:08	12/27/15 03:08	MBF

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jarred Willis
Technical Service Representative

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	17.4	41.2		2	WG838563
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838563
Benzene	71-43-2	78.10	0.400	1.28	2.88	9.20		2	WG838563
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838563
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838563
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838563
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838563
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG838563
Carbon disulfide	75-15-0	76.10	0.400	1.24	20.0	62.2		2	WG838563
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG838563
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838563
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838563
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838563
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG838563
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838563
Cyclohexane	110-82-7	84.20	0.400	1.38	4.69	16.2		2	WG838563
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838563
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838563
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838563
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838563
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838563
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838563
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838563
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838563
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838563
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838563
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838563
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838563
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838563
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG838563
Ethanol	64-17-5	46.10	1.26	2.38	19.6	37.0		2	WG838563
Ethylbenzene	100-41-4	106	0.400	1.73	2.55	11.1		2	WG838563
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG838563
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG838563
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	2.52	12.5		2	WG838563
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG838563
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838563
Heptane	142-82-5	100	0.400	1.64	2.15	8.79		2	WG838563
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838563
n-Hexane	110-54-3	86.20	0.400	1.41	2.32	8.17		2	WG838563
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG838563
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838563
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG838563
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	6.87	20.3		2	WG838563
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838563
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG838563
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838563
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG838563
2-Propanol	67-63-0	60.10	2.50	6.15	441	1080	E	2	WG838563
Propene	115-07-1	42.10	0.800	1.38	20.8	35.9		2	WG838563
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG838563
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838563
Tetrachloroethylene	127-18-4	166	0.400	2.72	1.14	7.77		2	WG838563
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	0.554	1.63		2	WG838563
Toluene	108-88-3	92.10	0.400	1.51	51.3	193		2	WG838563
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838563

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG838563
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838563
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG838563
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.671	3.29		2	WG838563
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG838563
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	1.39	6.48		2	WG838563
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838563
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838563
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838563
m&p-Xylene	1330-20-7	106	0.800	3.47	8.66	37.5		2	WG838563
o-Xylene	95-47-6	106	0.400	1.73	2.69	11.7		2	WG838563
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.9*				WG838563

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	25.8	61.4		2	WG838563
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838563
Benzene	71-43-2	78.10	0.400	1.28	1.68	5.37		2	WG838563
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838563
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838563
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838563
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838563
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG838563
Carbon disulfide	75-15-0	76.10	0.400	1.24	22.7	70.8		2	WG838563
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG838563
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838563
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838563
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838563
Chloromethane	74-87-3	50.50	0.400	0.826	0.496	1.02		2	WG838563
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838563
Cyclohexane	110-82-7	84.20	0.400	1.38	1.72	5.93		2	WG838563
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838563
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838563
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838563
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838563
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838563
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838563
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838563
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838563
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838563
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838563
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838563
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838563
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838563
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG838563
Ethanol	64-17-5	46.10	1.26	2.38	9.45	17.8		2	WG838563
Ethylbenzene	100-41-4	106	0.400	1.73	1.04	4.51		2	WG838563
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG838563
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG838563
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	1.78	8.78		2	WG838563
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG838563
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838563
Heptane	142-82-5	100	0.400	1.64	0.788	3.22		2	WG838563
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838563
n-Hexane	110-54-3	86.20	0.400	1.41	1.01	3.56		2	WG838563
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG838563
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838563
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG838563
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	9.53	28.1		2	WG838563
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838563
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG838563
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838563
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG838563
2-Propanol	67-63-0	60.10	2.50	6.15	834	2050	E	2	WG838563
Propene	115-07-1	42.10	0.800	1.38	17.3	29.7		2	WG838563
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG838563
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838563
Tetrachloroethylene	127-18-4	166	0.400	2.72	0.596	4.05		2	WG838563
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	0.533	1.57		2	WG838563
Toluene	108-88-3	92.10	0.400	1.51	17.4	65.4		2	WG838563
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838563

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG838563
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838563
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG838563
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.693	3.40		2	WG838563
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG838563
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	0.417	1.95		2	WG838563
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838563
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838563
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838563
m&p-Xylene	1330-20-7	106	0.800	3.47	3.33	14.4		2	WG838563
o-Xylene	95-47-6	106	0.400	1.73	1.04	4.51		2	WG838563
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.2*				WG838563

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	37.6	89.4		2	WG838563
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838563
Benzene	71-43-2	78.10	0.400	1.28	1.30	4.16		2	WG838563
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838563
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838563
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838563
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838563
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG838563
Carbon disulfide	75-15-0	76.10	0.400	1.24	22.8	71.0		2	WG838563
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG838563
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838563
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838563
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838563
Chloromethane	74-87-3	50.50	0.400	0.826	0.502	1.04		2	WG838563
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838563
Cyclohexane	110-82-7	84.20	0.400	1.38	0.715	2.46		2	WG838563
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838563
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838563
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838563
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838563
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838563
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838563
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838563
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838563
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838563
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838563
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838563
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838563
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838563
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG838563
Ethanol	64-17-5	46.10	1.26	2.38	9.96	18.8		2	WG838563
Ethylbenzene	100-41-4	106	0.400	1.73	0.884	3.83		2	WG838563
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG838563
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG838563
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	1.56	7.70		2	WG838563
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG838563
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838563
Heptane	142-82-5	100	0.400	1.64	0.632	2.58		2	WG838563
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838563
n-Hexane	110-54-3	86.20	0.400	1.41	0.863	3.04		2	WG838563
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG838563
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838563
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG838563
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	11.0	32.4		2	WG838563
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838563
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG838563
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838563
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG838563
2-Propanol	67-63-0	60.10	250	615	1020	2500		200	WG838698
Propene	115-07-1	42.10	0.800	1.38	10.3	17.8		2	WG838563
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG838563
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838563
Tetrachloroethylene	127-18-4	166	0.400	2.72	0.633	4.30		2	WG838563
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	0.496	1.46		2	WG838563
Toluene	108-88-3	92.10	0.400	1.51	21.1	79.6		2	WG838563
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838563

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG838563
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838563
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG838563
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.771	3.79		2	WG838563
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG838563
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG838563
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838563
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838563
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838563
m&p-Xylene	1330-20-7	106	0.800	3.47	2.97	12.9		2	WG838563
o-Xylene	95-47-6	106	0.400	1.73	0.884	3.83		2	WG838563
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.6*				WG838563

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	27.0	64.2		2	WG838563
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838563
Benzene	71-43-2	78.10	0.400	1.28	5.97	19.1		2	WG838563
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838563
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838563
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838563
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838563
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG838563
Carbon disulfide	75-15-0	76.10	0.400	1.24	19.0	59.1		2	WG838563
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG838563
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838563
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838563
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838563
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG838563
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838563
Cyclohexane	110-82-7	84.20	0.400	1.38	3.23	11.1		2	WG838563
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838563
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838563
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838563
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838563
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838563
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838563
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838563
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838563
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838563
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838563
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838563
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838563
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838563
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG838563
Ethanol	64-17-5	46.10	1.26	2.38	7.78	14.7		2	WG838563
Ethylbenzene	100-41-4	106	0.400	1.73	1.49	6.48		2	WG838563
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG838563
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG838563
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	1.71	8.45		2	WG838563
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG838563
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838563
Heptane	142-82-5	100	0.400	1.64	2.79	11.4		2	WG838563
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838563
n-Hexane	110-54-3	86.20	0.400	1.41	2.34	8.24		2	WG838563
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG838563
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838563
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG838563
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	10.8	31.9		2	WG838563
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838563
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG838563
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838563
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG838563
2-Propanol	67-63-0	60.10	2.50	6.15	575	1410	E	2	WG838563
Propene	115-07-1	42.10	0.800	1.38	36.9	63.5		2	WG838563
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG838563
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838563
Tetrachloroethylene	127-18-4	166	0.400	2.72	1.32	8.98		2	WG838563
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	1.07	3.16		2	WG838563
Toluene	108-88-3	92.10	0.400	1.51	23.6	88.9		2	WG838563
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838563

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG838563
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838563
Trichloroethylene	79-01-6	131	0.400	2.14	0.608	3.26		2	WG838563
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.841	4.13		2	WG838563
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG838563
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	0.875	4.09		2	WG838563
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838563
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838563
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838563
m&p-Xylene	1330-20-7	106	0.800	3.47	4.40	19.1		2	WG838563
o-Xylene	95-47-6	106	0.400	1.73	1.43	6.21		2	WG838563
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.9*				WG838563

Method Blank (MB)

(MB) 12/26/15 12:52

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Acetone	ND		1.25
Allyl Chloride	ND		0.200
Benzene	ND		0.200
Benzyl Chloride	ND		0.200
Bromodichloromethane	ND		0.200
Bromoform	ND		0.600
Bromomethane	ND		0.200
1,3-Butadiene	ND		2.00
Carbon disulfide	ND		0.200
Carbon tetrachloride	ND		0.200
Chlorobenzene	ND		0.200
Chloroethane	ND		0.200
Chloroform	ND		0.200
Chloromethane	ND		0.200
2-Chlorotoluene	ND		0.200
Cyclohexane	ND		0.200
Dibromochloromethane	ND		0.200
1,2-Dibromoethane	ND		0.200
1,2-Dichlorobenzene	ND		0.200
1,3-Dichlorobenzene	ND		0.200
1,4-Dichlorobenzene	ND		0.200
1,2-Dichloroethane	ND		0.200
1,1-Dichloroethane	ND		0.200
1,1-Dichloroethene	ND		0.200
cis-1,2-Dichloroethene	ND		0.200
trans-1,2-Dichloroethene	ND		0.200
1,2-Dichloropropane	ND		0.200
cis-1,3-Dichloropropene	ND		0.200
trans-1,3-Dichloropropene	ND		0.200
1,4-Dioxane	ND		0.200
Ethylbenzene	ND		0.200
4-Ethyltoluene	ND		0.200
Trichlorofluoromethane	ND		0.200
Dichlorodifluoromethane	ND		0.200
1,1,2-Trichlorotrifluoroethane	ND		0.200
1,2-Dichlorotetrafluoroethane	ND		0.200

Method Blank (MB)

(MB) 12/26/15 12:52

Analyte	MB Result	MB Qualifier	MB RDL
	ppb		ppb
Heptane	ND		0.200
Hexachloro-1,3-butadiene	ND		0.630
n-Hexane	ND		0.200
Isopropylbenzene	ND		0.200
Methylene Chloride	ND		0.200
Methyl Butyl Ketone	ND		1.25
2-Butanone (MEK)	ND		1.25
4-Methyl-2-pentanone (MIBK)	ND		1.25
Methyl Methacrylate	ND		0.200
MTBE	ND		0.200
Naphthalene	ND		0.630
2-Propanol	ND		1.25
Propene	ND		0.400
Styrene	ND		0.200
1,1,2,2-Tetrachloroethane	ND		0.200
Tetrachloroethylene	ND		0.200
Tetrahydrofuran	ND		0.200
Toluene	ND		0.200
1,2,4-Trichlorobenzene	ND		0.630
1,1,1-Trichloroethane	ND		0.200
1,1,2-Trichloroethane	ND		0.200
Trichloroethylene	ND		0.200
1,2,4-Trimethylbenzene	ND		0.200
1,3,5-Trimethylbenzene	ND		0.200
2,2,4-Trimethylpentane	ND		0.200
Vinyl chloride	ND		0.200
Vinyl Bromide	ND		0.200
Vinyl acetate	ND		0.200
m&p-Xylene	ND		0.400
o-Xylene	ND		0.200
Ethanol	ND		0.630
(S) 1,4-Bromofluorobenzene	*93.9*		*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/26/15 11:06 • (LCSD) 12/26/15 11:58

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.10	4.23	109	113	34.3-167			3.11	25
Propene	3.75	3.96	3.94	105	105	53.9-143			0.380	25
Dichlorodifluoromethane	3.75	4.20	4.29	112	114	56.7-140			2.07	25
1,2-Dichlorotetrafluoroethane	3.75	3.98	4.05	106	108	70.0-130			1.66	25
Chloromethane	3.75	3.97	4.00	106	107	70.0-130			0.590	25
Vinyl chloride	3.75	3.92	4.06	104	108	70.0-130			3.47	25
1,3-Butadiene	3.75	3.94	4.02	105	107	70.0-130			2.02	25
Bromomethane	3.75	4.02	4.02	107	107	70.0-130			0.110	25
Chloroethane	3.75	4.08	3.96	109	106	70.0-130			2.85	25
Trichlorofluoromethane	3.75	4.05	4.01	108	107	70.0-130			0.930	25
1,1,2-Trichlorotrifluoroethane	3.75	3.99	4.01	107	107	70.0-130			0.310	25
1,1-Dichloroethene	3.75	3.99	3.96	106	106	70.0-130			0.760	25
1,1-Dichloroethane	3.75	4.00	3.98	107	106	70.0-130			0.400	25
Acetone	3.75	4.07	4.05	108	108	70.0-130			0.430	25
2-Propanol	3.75	4.21	4.28	112	114	50.4-152			1.67	25
Carbon disulfide	3.75	4.02	4.12	107	110	70.0-130			2.32	25
Methylene Chloride	3.75	4.29	4.36	114	116	70.0-130			1.62	25
MTBE	3.75	4.02	4.14	107	110	70.0-130			3.08	25
trans-1,2-Dichloroethene	3.75	3.94	4.09	105	109	70.0-130			3.72	25
n-Hexane	3.75	3.95	4.03	105	107	70.0-130			2.14	25
Vinyl acetate	3.75	4.21	4.16	112	111	70.0-130			1.20	25
Methyl Ethyl Ketone	3.75	3.87	4.34	103	116	70.0-130			11.5	25
cis-1,2-Dichloroethene	3.75	3.99	4.02	106	107	70.0-130			0.620	25
Chloroform	3.75	4.05	4.01	108	107	70.0-130			0.910	25
Cyclohexane	3.75	4.01	4.02	107	107	70.0-130			0.380	25
1,1,1-Trichloroethane	3.75	4.05	4.06	108	108	70.0-130			0.300	25
Carbon tetrachloride	3.75	4.05	4.06	108	108	70.0-130			0.320	25
Benzene	3.75	3.96	4.00	106	107	70.0-130			0.960	25
1,2-Dichloroethane	3.75	3.94	4.06	105	108	70.0-130			2.96	25
Heptane	3.75	3.93	3.97	105	106	70.0-130			1.21	25
Trichloroethylene	3.75	3.98	3.97	106	106	70.0-130			0.0500	25
1,2-Dichloropropane	3.75	3.97	3.95	106	105	70.0-130			0.450	25
1,4-Dioxane	3.75	4.59	4.64	122	124	48.0-156			1.15	25
Bromodichloromethane	3.75	4.06	4.11	108	110	70.0-130			1.23	25
cis-1,3-Dichloropropene	3.75	4.11	4.15	109	111	70.0-130			1.01	25
4-Methyl-2-pentanone (MIBK)	3.75	4.21	4.48	112	119	55.3-154			6.11	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/26/15 11:06 • (LCSD) 12/26/15 11:58

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Toluene	3.75	3.99	4.09	106	109	70.0-130			2.47	25
trans-1,3-Dichloropropene	3.75	4.13	4.25	110	113	70.0-130			3.00	25
1,1,2-Trichloroethane	3.75	3.97	4.09	106	109	70.0-130			2.96	25
Tetrachloroethylene	3.75	3.96	4.07	106	109	70.0-130			2.80	25
Methyl Butyl Ketone	3.75	4.41	4.60	118	123	47.9-165			4.11	25
Dibromochloromethane	3.75	4.11	4.26	110	113	70.0-130			3.41	25
1,2-Dibromoethane	3.75	4.07	4.17	109	111	70.0-130			2.30	25
Chlorobenzene	3.75	3.94	4.05	105	108	70.0-130			2.63	25
Ethylbenzene	3.75	4.00	4.06	107	108	70.0-130			1.52	25
m&p-Xylene	7.50	7.87	8.04	105	107	70.0-130			2.15	25
o-Xylene	3.75	4.01	4.13	107	110	70.0-130			2.97	25
Styrene	3.75	4.23	4.28	113	114	70.0-130			1.09	25
Bromoform	3.75	4.34	4.46	116	119	70.0-130			2.72	25
1,1,2,2-Tetrachloroethane	3.75	4.10	4.20	109	112	70.0-130			2.53	25
4-Ethyltoluene	3.75	4.21	4.33	112	115	70.0-130			2.84	25
1,3,5-Trimethylbenzene	3.75	4.19	4.30	112	115	70.0-130			2.52	25
1,2,4-Trimethylbenzene	3.75	4.20	4.25	112	113	70.0-130			1.10	25
1,3-Dichlorobenzene	3.75	4.36	4.42	116	118	70.0-130			1.49	25
1,4-Dichlorobenzene	3.75	4.48	4.57	120	122	70.0-130			1.94	25
Benzyl Chloride	3.75	4.58	4.57	122	122	55.6-160			0.140	25
1,2-Dichlorobenzene	3.75	4.21	4.28	112	114	70.0-130			1.70	25
1,2,4-Trichlorobenzene	3.75	4.95	5.09	132	136	53.6-154			2.79	25
Hexachloro-1,3-butadiene	3.75	4.25	4.33	113	115	62.1-143			1.80	25
Naphthalene	3.75	5.14	5.20	137	139	52.0-158			1.27	25
Allyl Chloride	3.75	3.97	3.99	106	106	70.0-130			0.510	25
2-Chlorotoluene	3.75	4.03	4.16	107	111	70.0-130			3.25	25
Methyl Methacrylate	3.75	3.91	4.05	104	108	70.0-130			3.51	25
Tetrahydrofuran	3.75	4.12	4.30	110	115	65.0-140			4.34	25
2,2,4-Trimethylpentane	3.75	4.01	4.02	107	107	70.0-130			0.220	25
Vinyl Bromide	3.75	4.03	4.04	108	108	70.0-130			0.170	25
Isopropylbenzene	3.75	4.04	4.18	108	111	70.0-130			3.39	25
(S) 1,4-Bromofluorobenzene				*98.3*	*102*	*60.0-140*				

Method Blank (MB)

(MB) 12/28/15 08:55

Analyte	MB Result	MB Qualifier	MB RDL
	ppb		ppb
2-Propanol	ND		1.25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/28/15 07:35 • (LCSD) 12/28/15 08:14

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppb	ppb	ppb	%	%	%			%	%
2-Propanol	3.75	3.84	3.86	102	103	50.4-152			0.510	25

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

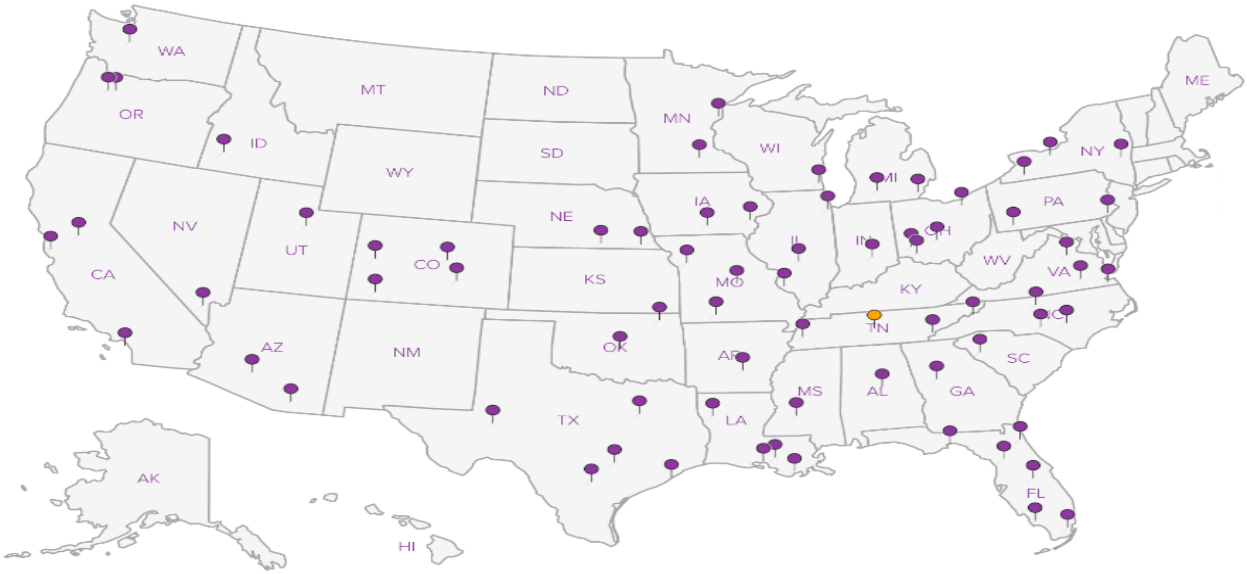
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 [5]	1461.02
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



AEI Consultants- Walnut Creek, CA

2500 Camino Diablo
Walnut Creek, CA 94597

Billing Information:
Accounts Payable- Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Report to: **Jonathan Sanders**

Email To: **jsanders@aeiconsultants.com; jasmith@aeiconsultants.com**

Project Description: **Lucasey Manufacturing**

City/State Collected:

Phone: **925-746-6028**
Fax:

Client Project # **345989**

Lab Project # **AEICONWCCA-345989**

Collected by (print): Jordan Vida

Site/Facility ID # **2744 EAST ELEVENTH STREET**

P.O. # **99527**

Collected by (signature):

Immediately Packed on Ice N ____ Y ____

Rush? (Lab MUST Be Notified)
____ Same Day 200%
____ Next Day 100%
____ Two Day 50%
____ Three Day 25%

Date Results Needed: Regular Turn

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TO-15 Summa										Rem./Contaminant	Sample # (lab only)
ASV-29		Air	5.0	12-16-15	1432	1	X											-01
ASV-30		Air	5.0	12-17-15	1254	1	X											02
ASV-31		Air	5.0	12-17-15	1140	1	X											03
ASV-32		Air	5.0	12-17-15	0857	1	X											04
		Air				1	X											
		Air				1	X											
		Air				1	X											
		Air				1	X											
		Air				1	X											
		Air				1	X											

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Chain of Custody Page 2 of 5

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # L807883

F156

Acctnum: **AEICONWCCA**
Template: **T107887**
Prelogin: **P534307**
TSR: **358 - Jarred Willis**
PB:

Shipped Via:

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	12-17-15	1300	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ _____

Temp: 4.3 °C Bottles Received: 4

Date: 12-18-15 Time: 0900

Hold #

Condition: 1 EC X4 (lab use only)

COC Seal Intact: ____Y ____N ____NA

pH Checked: NCF:

ANALYTICAL REPORT

December 29, 2015

AEI Consultants- Walnut Creek, CA

Sample Delivery Group:	L807889
Samples Received:	12/18/2015
Project Number:	345989
Description:	Lucasey Manufacturing
Site:	2744 EAST ELEVENTH STREET
Report To:	Jonathan Sanders 2500 Camino Diablo Walnut Creek, CA 94597

Entire Report Reviewed By:

Jarred Willis
Technical Service Representative

TABLE OF CONTENTS

ASV-25 L807889-01 Air

Collected by: Jordan Vida
Collected date/time: 12/16/15 13:13
Received date/time: 12/18/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838563	2	12/27/15 04:00	12/27/15 04:00	MBF

ASV-26 L807889-02 Air

Collected by: Jordan Vida
Collected date/time: 12/16/15 13:43
Received date/time: 12/18/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838563	2	12/27/15 04:52	12/27/15 04:52	MBF

ASV-27 L807889-03 Air

Collected by: Jordan Vida
Collected date/time: 12/16/15 13:51
Received date/time: 12/18/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838563	2	12/27/15 05:46	12/27/15 05:46	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG838698	25	12/28/15 21:41	12/28/15 21:41	MBF

ASV-28 L807889-04 Air

Collected by: Jordan Vida
Collected date/time: 12/17/15 09:02
Received date/time: 12/18/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838563	2	12/27/15 06:39	12/27/15 06:39	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG838698	200	12/28/15 22:18	12/28/15 22:18	MBF

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jarred Willis
Technical Service Representative

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	82.3	195		2	WG838563
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838563
Benzene	71-43-2	78.10	0.400	1.28	3.32	10.6		2	WG838563
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838563
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838563
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838563
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838563
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG838563
Carbon disulfide	75-15-0	76.10	0.400	1.24	57.0	177		2	WG838563
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG838563
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838563
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838563
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838563
Chloromethane	74-87-3	50.50	0.400	0.826	0.808	1.67		2	WG838563
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838563
Cyclohexane	110-82-7	84.20	0.400	1.38	10.8	37.3		2	WG838563
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838563
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838563
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838563
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838563
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838563
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838563
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838563
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838563
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838563
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838563
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838563
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838563
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838563
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG838563
Ethanol	64-17-5	46.10	1.26	2.38	34.4	64.9		2	WG838563
Ethylbenzene	100-41-4	106	0.400	1.73	1.45	6.29		2	WG838563
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG838563
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG838563
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	14.5	71.8		2	WG838563
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG838563
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838563
Heptane	142-82-5	100	0.400	1.64	2.10	8.61		2	WG838563
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838563
n-Hexane	110-54-3	86.20	0.400	1.41	3.51	12.4		2	WG838563
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG838563
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838563
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG838563
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	9.55	28.2		2	WG838563
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838563
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG838563
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838563
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG838563
2-Propanol	67-63-0	60.10	2.50	6.15	453	1110	E	2	WG838563
Propene	115-07-1	42.10	0.800	1.38	19.0	32.7		2	WG838563
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG838563
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838563
Tetrachloroethylene	127-18-4	166	0.400	2.72	7.06	47.9		2	WG838563
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	0.596	1.76		2	WG838563
Toluene	108-88-3	92.10	0.400	1.51	48.6	183		2	WG838563
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838563

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG838563
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838563
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG838563
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.600	2.95		2	WG838563
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG838563
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	2.04	9.55		2	WG838563
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838563
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838563
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838563
m&p-Xylene	1330-20-7	106	0.800	3.47	4.86	21.1		2	WG838563
o-Xylene	95-47-6	106	0.400	1.73	1.31	5.67		2	WG838563
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.7*				WG838563

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	38.6	91.8		2	WG838563
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838563
Benzene	71-43-2	78.10	0.400	1.28	2.17	6.94		2	WG838563
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838563
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838563
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838563
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838563
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG838563
Carbon disulfide	75-15-0	76.10	0.400	1.24	34.5	107		2	WG838563
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG838563
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838563
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838563
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838563
Chloromethane	74-87-3	50.50	0.400	0.826	0.594	1.23		2	WG838563
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838563
Cyclohexane	110-82-7	84.20	0.400	1.38	5.47	18.8		2	WG838563
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838563
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838563
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838563
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838563
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838563
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838563
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838563
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838563
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838563
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838563
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838563
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838563
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838563
1,4-Dioxane	123-91-1	88.10	0.400	1.44	3.00	10.8		2	WG838563
Ethanol	64-17-5	46.10	1.26	2.38	26.0	49.1		2	WG838563
Ethylbenzene	100-41-4	106	0.400	1.73	1.17	5.07		2	WG838563
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG838563
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG838563
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.535	2.64		2	WG838563
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG838563
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838563
Heptane	142-82-5	100	0.400	1.64	1.37	5.61		2	WG838563
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838563
n-Hexane	110-54-3	86.20	0.400	1.41	2.07	7.30		2	WG838563
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG838563
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838563
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG838563
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	6.99	20.6		2	WG838563
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838563
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG838563
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838563
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG838563
2-Propanol	67-63-0	60.10	2.50	6.15	411	1010	E	2	WG838563
Propene	115-07-1	42.10	0.800	1.38	9.71	16.7		2	WG838563
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG838563
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838563
Tetrachloroethylene	127-18-4	166	0.400	2.72	5.72	38.8		2	WG838563
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	1.11	3.27		2	WG838563
Toluene	108-88-3	92.10	0.400	1.51	48.0	181		2	WG838563
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838563

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG838563
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838563
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG838563
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	1.01	4.93		2	WG838563
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG838563
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	1.24	5.80		2	WG838563
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838563
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838563
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838563
m&p-Xylene	1330-20-7	106	0.800	3.47	4.22	18.3		2	WG838563
o-Xylene	95-47-6	106	0.400	1.73	1.14	4.94		2	WG838563
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*100*				WG838563

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	57.3	136		2	WG838563
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838563
Benzene	71-43-2	78.10	0.400	1.28	4.50	14.4		2	WG838563
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838563
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838563
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838563
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838563
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG838563
Carbon disulfide	75-15-0	76.10	0.400	1.24	35.1	109		2	WG838563
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG838563
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838563
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838563
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838563
Chloromethane	74-87-3	50.50	0.400	0.826	0.585	1.21		2	WG838563
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838563
Cyclohexane	110-82-7	84.20	0.400	1.38	8.05	27.7		2	WG838563
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838563
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838563
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838563
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838563
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838563
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838563
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838563
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838563
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838563
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838563
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838563
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838563
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838563
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG838563
Ethanol	64-17-5	46.10	1.26	2.38	28.1	53.1		2	WG838563
Ethylbenzene	100-41-4	106	0.400	1.73	2.02	8.77		2	WG838563
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG838563
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG838563
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	3.02	14.9		2	WG838563
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG838563
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838563
Heptane	142-82-5	100	0.400	1.64	13.4	54.7		2	WG838563
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838563
n-Hexane	110-54-3	86.20	0.400	1.41	14.6	51.6		2	WG838563
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG838563
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838563
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG838563
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	8.50	25.1		2	WG838563
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838563
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG838563
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838563
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG838563
2-Propanol	67-63-0	60.10	31.2	76.7	469	1150		25	WG838698
Propene	115-07-1	42.10	0.800	1.38	18.3	31.5		2	WG838563
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG838563
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838563
Tetrachloroethylene	127-18-4	166	5.00	33.9	100	680		25	WG838698
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	1.18	3.47		2	WG838563
Toluene	108-88-3	92.10	0.400	1.51	63.7	240		2	WG838563
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838563

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG838563
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838563
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG838563
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.603	2.96		2	WG838563
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG838563
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	2.01	9.38		2	WG838563
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838563
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838563
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838563
m&p-Xylene	1330-20-7	106	0.800	3.47	7.26	31.5		2	WG838563
o-Xylene	95-47-6	106	0.400	1.73	2.18	9.46		2	WG838563
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*97.0*				WG838563

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	63.0	150		2	WG838563
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838563
Benzene	71-43-2	78.10	0.400	1.28	3.72	11.9		2	WG838563
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838563
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838563
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838563
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838563
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG838563
Carbon disulfide	75-15-0	76.10	0.400	1.24	37.9	118		2	WG838563
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG838563
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838563
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838563
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838563
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG838563
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838563
Cyclohexane	110-82-7	84.20	0.400	1.38	3.78	13.0		2	WG838563
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838563
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838563
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838563
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838563
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838563
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838563
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838563
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838563
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838563
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838563
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838563
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838563
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838563
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG838563
Ethanol	64-17-5	46.10	1.26	2.38	26.3	49.6		2	WG838563
Ethylbenzene	100-41-4	106	0.400	1.73	4.72	20.5		2	WG838563
4-Ethyltoluene	622-96-8	120	0.400	1.96	1.77	8.70		2	WG838563
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.513	2.88		2	WG838563
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	5.06	25.0		2	WG838563
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG838563
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838563
Heptane	142-82-5	100	0.400	1.64	2.52	10.3		2	WG838563
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838563
n-Hexane	110-54-3	86.20	0.400	1.41	2.23	7.87		2	WG838563
Isopropylbenzene	98-82-8	120.20	0.400	1.97	0.432	2.12		2	WG838563
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838563
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	11.0	45.0		2	WG838563
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	22.8	67.3		2	WG838563
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838563
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG838563
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838563
Naphthalene	91-20-3	128	126	660	ND	ND		200	WG838698
2-Propanol	67-63-0	60.10	250	615	761	1870		200	WG838698
Propene	115-07-1	42.10	0.800	1.38	3.86	6.64		2	WG838563
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG838563
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838563
Tetrachloroethylene	127-18-4	166	0.400	2.72	14.6	98.9		2	WG838563
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	1.95	5.74		2	WG838563
Toluene	108-88-3	92.10	0.400	1.51	38.7	146		2	WG838563
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838563

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	0.631	3.43		2	WG838563
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838563
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG838563
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	16.8	82.4		2	WG838563
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	4.51	22.1		2	WG838563
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	1.28	5.96		2	WG838563
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838563
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838563
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838563
m&p-Xylene	1330-20-7	106	0.800	3.47	19.9	86.2		2	WG838563
o-Xylene	95-47-6	106	0.400	1.73	8.88	38.5		2	WG838563
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*120*				WG838563

Method Blank (MB)

(MB) 12/26/15 12:52

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Acetone	ND		1.25
Allyl Chloride	ND		0.200
Benzene	ND		0.200
Benzyl Chloride	ND		0.200
Bromodichloromethane	ND		0.200
Bromoform	ND		0.600
Bromomethane	ND		0.200
1,3-Butadiene	ND		2.00
Carbon disulfide	ND		0.200
Carbon tetrachloride	ND		0.200
Chlorobenzene	ND		0.200
Chloroethane	ND		0.200
Chloroform	ND		0.200
Chloromethane	ND		0.200
2-Chlorotoluene	ND		0.200
Cyclohexane	ND		0.200
Dibromochloromethane	ND		0.200
1,2-Dibromoethane	ND		0.200
1,2-Dichlorobenzene	ND		0.200
1,3-Dichlorobenzene	ND		0.200
1,4-Dichlorobenzene	ND		0.200
1,2-Dichloroethane	ND		0.200
1,1-Dichloroethane	ND		0.200
1,1-Dichloroethene	ND		0.200
cis-1,2-Dichloroethene	ND		0.200
trans-1,2-Dichloroethene	ND		0.200
1,2-Dichloropropane	ND		0.200
cis-1,3-Dichloropropene	ND		0.200
trans-1,3-Dichloropropene	ND		0.200
1,4-Dioxane	ND		0.200
Ethylbenzene	ND		0.200
4-Ethyltoluene	ND		0.200
Trichlorofluoromethane	ND		0.200
Dichlorodifluoromethane	ND		0.200
1,1,2-Trichlorotrifluoroethane	ND		0.200
1,2-Dichlorotetrafluoroethane	ND		0.200

Method Blank (MB)

(MB) 12/26/15 12:52

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Heptane	ND		0.200
Hexachloro-1,3-butadiene	ND		0.630
n-Hexane	ND		0.200
Isopropylbenzene	ND		0.200
Methylene Chloride	ND		0.200
Methyl Butyl Ketone	ND		1.25
2-Butanone (MEK)	ND		1.25
4-Methyl-2-pentanone (MIBK)	ND		1.25
Methyl Methacrylate	ND		0.200
MTBE	ND		0.200
Naphthalene	ND		0.630
2-Propanol	ND		1.25
Propene	ND		0.400
Styrene	ND		0.200
1,1,2,2-Tetrachloroethane	ND		0.200
Tetrachloroethylene	ND		0.200
Tetrahydrofuran	ND		0.200
Toluene	ND		0.200
1,2,4-Trichlorobenzene	ND		0.630
1,1,1-Trichloroethane	ND		0.200
1,1,2-Trichloroethane	ND		0.200
Trichloroethylene	ND		0.200
1,2,4-Trimethylbenzene	ND		0.200
1,3,5-Trimethylbenzene	ND		0.200
2,2,4-Trimethylpentane	ND		0.200
Vinyl chloride	ND		0.200
Vinyl Bromide	ND		0.200
Vinyl acetate	ND		0.200
m&p-Xylene	ND		0.400
o-Xylene	ND		0.200
Ethanol	ND		0.630
(S) 1,4-Bromofluorobenzene	*93.9*		*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/26/15 11:06 • (LCSD) 12/26/15 11:58

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.10	4.23	109	113	34.3-167			3.11	25
Propene	3.75	3.96	3.94	105	105	53.9-143			0.380	25
Dichlorodifluoromethane	3.75	4.20	4.29	112	114	56.7-140			2.07	25
1,2-Dichlorotetrafluoroethane	3.75	3.98	4.05	106	108	70.0-130			1.66	25
Chloromethane	3.75	3.97	4.00	106	107	70.0-130			0.590	25
Vinyl chloride	3.75	3.92	4.06	104	108	70.0-130			3.47	25
1,3-Butadiene	3.75	3.94	4.02	105	107	70.0-130			2.02	25
Bromomethane	3.75	4.02	4.02	107	107	70.0-130			0.110	25
Chloroethane	3.75	4.08	3.96	109	106	70.0-130			2.85	25
Trichlorofluoromethane	3.75	4.05	4.01	108	107	70.0-130			0.930	25
1,1,2-Trichlorotrifluoroethane	3.75	3.99	4.01	107	107	70.0-130			0.310	25
1,1-Dichloroethene	3.75	3.99	3.96	106	106	70.0-130			0.760	25
1,1-Dichloroethane	3.75	4.00	3.98	107	106	70.0-130			0.400	25
Acetone	3.75	4.07	4.05	108	108	70.0-130			0.430	25
2-Propanol	3.75	4.21	4.28	112	114	50.4-152			1.67	25
Carbon disulfide	3.75	4.02	4.12	107	110	70.0-130			2.32	25
Methylene Chloride	3.75	4.29	4.36	114	116	70.0-130			1.62	25
MTBE	3.75	4.02	4.14	107	110	70.0-130			3.08	25
trans-1,2-Dichloroethene	3.75	3.94	4.09	105	109	70.0-130			3.72	25
n-Hexane	3.75	3.95	4.03	105	107	70.0-130			2.14	25
Vinyl acetate	3.75	4.21	4.16	112	111	70.0-130			1.20	25
Methyl Ethyl Ketone	3.75	3.87	4.34	103	116	70.0-130			11.5	25
cis-1,2-Dichloroethene	3.75	3.99	4.02	106	107	70.0-130			0.620	25
Chloroform	3.75	4.05	4.01	108	107	70.0-130			0.910	25
Cyclohexane	3.75	4.01	4.02	107	107	70.0-130			0.380	25
1,1,1-Trichloroethane	3.75	4.05	4.06	108	108	70.0-130			0.300	25
Carbon tetrachloride	3.75	4.05	4.06	108	108	70.0-130			0.320	25
Benzene	3.75	3.96	4.00	106	107	70.0-130			0.960	25
1,2-Dichloroethane	3.75	3.94	4.06	105	108	70.0-130			2.96	25
Heptane	3.75	3.93	3.97	105	106	70.0-130			1.21	25
Trichloroethylene	3.75	3.98	3.97	106	106	70.0-130			0.0500	25
1,2-Dichloropropane	3.75	3.97	3.95	106	105	70.0-130			0.450	25
1,4-Dioxane	3.75	4.59	4.64	122	124	48.0-156			1.15	25
Bromodichloromethane	3.75	4.06	4.11	108	110	70.0-130			1.23	25
cis-1,3-Dichloropropene	3.75	4.11	4.15	109	111	70.0-130			1.01	25
4-Methyl-2-pentanone (MIBK)	3.75	4.21	4.48	112	119	55.3-154			6.11	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/26/15 11:06 • (LCSD) 12/26/15 11:58

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Toluene	3.75	3.99	4.09	106	109	70.0-130			2.47	25
trans-1,3-Dichloropropene	3.75	4.13	4.25	110	113	70.0-130			3.00	25
1,1,2-Trichloroethane	3.75	3.97	4.09	106	109	70.0-130			2.96	25
Tetrachloroethylene	3.75	3.96	4.07	106	109	70.0-130			2.80	25
Methyl Butyl Ketone	3.75	4.41	4.60	118	123	47.9-165			4.11	25
Dibromochloromethane	3.75	4.11	4.26	110	113	70.0-130			3.41	25
1,2-Dibromoethane	3.75	4.07	4.17	109	111	70.0-130			2.30	25
Chlorobenzene	3.75	3.94	4.05	105	108	70.0-130			2.63	25
Ethylbenzene	3.75	4.00	4.06	107	108	70.0-130			1.52	25
m&p-Xylene	7.50	7.87	8.04	105	107	70.0-130			2.15	25
o-Xylene	3.75	4.01	4.13	107	110	70.0-130			2.97	25
Styrene	3.75	4.23	4.28	113	114	70.0-130			1.09	25
Bromoform	3.75	4.34	4.46	116	119	70.0-130			2.72	25
1,1,2,2-Tetrachloroethane	3.75	4.10	4.20	109	112	70.0-130			2.53	25
4-Ethyltoluene	3.75	4.21	4.33	112	115	70.0-130			2.84	25
1,3,5-Trimethylbenzene	3.75	4.19	4.30	112	115	70.0-130			2.52	25
1,2,4-Trimethylbenzene	3.75	4.20	4.25	112	113	70.0-130			1.10	25
1,3-Dichlorobenzene	3.75	4.36	4.42	116	118	70.0-130			1.49	25
1,4-Dichlorobenzene	3.75	4.48	4.57	120	122	70.0-130			1.94	25
Benzyl Chloride	3.75	4.58	4.57	122	122	55.6-160			0.140	25
1,2-Dichlorobenzene	3.75	4.21	4.28	112	114	70.0-130			1.70	25
1,2,4-Trichlorobenzene	3.75	4.95	5.09	132	136	53.6-154			2.79	25
Hexachloro-1,3-butadiene	3.75	4.25	4.33	113	115	62.1-143			1.80	25
Naphthalene	3.75	5.14	5.20	137	139	52.0-158			1.27	25
Allyl Chloride	3.75	3.97	3.99	106	106	70.0-130			0.510	25
2-Chlorotoluene	3.75	4.03	4.16	107	111	70.0-130			3.25	25
Methyl Methacrylate	3.75	3.91	4.05	104	108	70.0-130			3.51	25
Tetrahydrofuran	3.75	4.12	4.30	110	115	65.0-140			4.34	25
2,2,4-Trimethylpentane	3.75	4.01	4.02	107	107	70.0-130			0.220	25
Vinyl Bromide	3.75	4.03	4.04	108	108	70.0-130			0.170	25
Isopropylbenzene	3.75	4.04	4.18	108	111	70.0-130			3.39	25
(S) 1,4-Bromofluorobenzene				*98.3*	*102*	*60.0-140*				

Method Blank (MB)

(MB) 12/28/15 08:55

Analyte	MB Result	MB Qualifier	MB RDL
	ppb		ppb
Naphthalene	ND		0.630
2-Propanol	ND		1.25
Tetrachloroethylene	ND		0.200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/28/15 07:35 • (LCSD) 12/28/15 08:14

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppb	ppb	ppb	%	%	%			%	%
2-Propanol	3.75	3.84	3.86	102	103	50.4-152			0.510	25
Tetrachloroethylene	3.75	3.77	3.81	101	102	70.0-130			0.950	25
Naphthalene	3.75	3.66	3.71	97.7	99.0	52.0-158			1.31	25

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

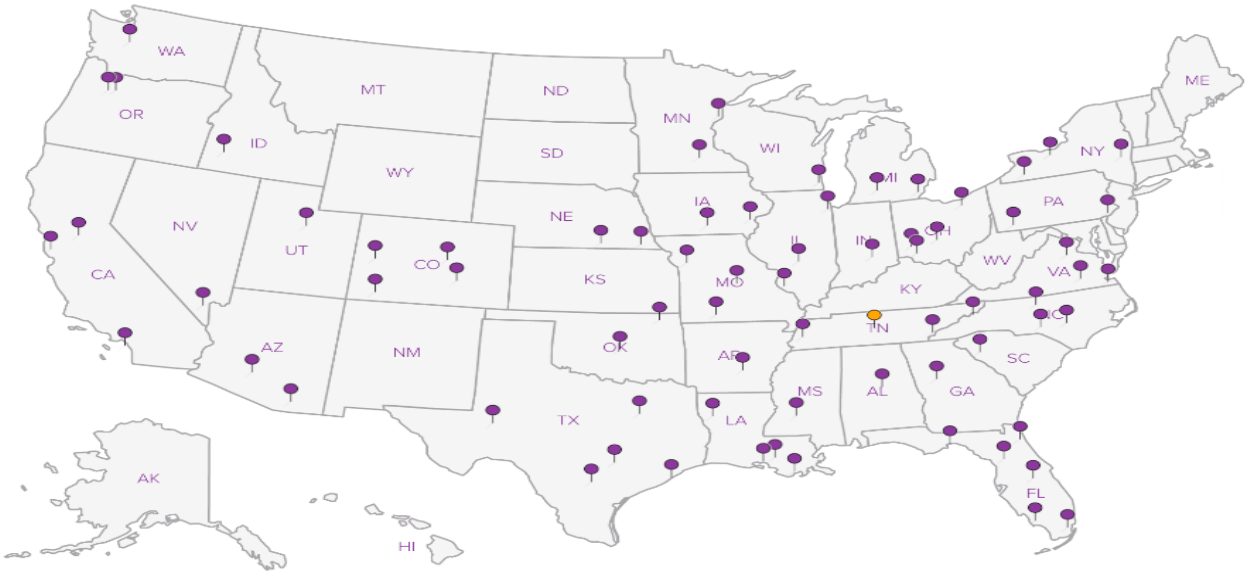
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



AEI Consultants- Walnut Creek, CA

2500 Camino Diablo
Walnut Creek, CA 94597

Billing Information:
Accounts Payable- Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Report to: **Jonathan Sanders**

Email To: **jsanders@aeiconsultants.com; jasmith@aeiconsultants.com**

Project Description: **Lucasey Manufacturing**

City/State Collected: Oakland, CA

Phone: **925-746-6028**
Fax:

Client Project # **345989**

Lab Project # **AEICONWCCA-345989**

Collected by (print): Jordan Virig

Site/Facility ID # **2744 EAST ELEVENTH STREET**

P.O. # **99527**

Collected by (signature):

Immediately Packed on Ice N____ Y____

Rush? (Lab MUST Be Notified)
____ Same Day 200%
____ Next Day 100%
____ Two Day 50%
____ Three Day 25%

Date Results Needed: Regular Turn

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TO-15 Summa	Rem./Contaminant	Sample # (lab only)
ASV-25		Air	5 ft	12-16-15	1313	1	X		-01
ASV-26		Air		12-16-15	1343	1	X		02
ASV-27		Air		12-16-15	1351	1	X		03
ASV-28		Air		12-17-15	0902	1	X		04
		Air				1	X		
		Air				1	X		
		Air				1	X		
		Air				1	X		
		Air				1	X		
		Air				1	X		

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	12-17-15	1300	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____

Temp: AIR °C Bottles Received: 4

Date: 12-18-15 Time: 0900

Hold #

Condition: FED (lab use only) OK

COC Seal Intact: ____Y ____N ____NA

pH Checked: NCF:

Chain of Custody Page 1 of 5

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
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L # L807889
F155

Acctnum: **AEICONWCCA**
Template: **T107887**
Prelogin: **P534307**
TSR: **358 - Jarred Willis**
PB:
Shipped Via:

ANALYTICAL REPORT

December 29, 2015

AEI Consultants- Walnut Creek, CA

Sample Delivery Group:	L807890
Samples Received:	12/18/2015
Project Number:	345989
Description:	Lucasey Manufacturing
Site:	2744 EAST ELEVENTH STREET
Report To:	Jonathan Sanders 2500 Camino Diablo Walnut Creek, CA 94597

Entire Report Reviewed By:

Jarred Willis
Technical Service Representative

TABLE OF CONTENTS

ASV-41 L807890-01 Air

Collected by: Jordan Vida
Collected date/time: 12/16/15 15:25
Received date/time: 12/18/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838705	2	12/28/15 13:50	12/28/15 13:50	MBF

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jarred Willis
Technical Service Representative

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	15.9	37.7		2	WG838705
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838705
Benzene	71-43-2	78.10	0.400	1.28	1.68	5.37		2	WG838705
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838705
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838705
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838705
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838705
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG838705
Carbon disulfide	75-15-0	76.10	0.400	1.24	28.4	88.3		2	WG838705
Carbon tetrachloride	56-23-5	154	0.400	2.52	0.554	3.49		2	WG838705
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838705
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838705
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838705
Chloromethane	74-87-3	50.50	0.400	0.826	0.840	1.74		2	WG838705
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838705
Cyclohexane	110-82-7	84.20	0.400	1.38	4.48	15.4		2	WG838705
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838705
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838705
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838705
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838705
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838705
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838705
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838705
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838705
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838705
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838705
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838705
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838705
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838705
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG838705
Ethanol	64-17-5	46.10	1.26	2.38	28.2	53.2		2	WG838705
Ethylbenzene	100-41-4	106	0.400	1.73	1.40	6.05		2	WG838705
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG838705
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.492	2.76		2	WG838705
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	2.41	11.9		2	WG838705
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG838705
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838705
Heptane	142-82-5	100	0.400	1.64	1.03	4.22		2	WG838705
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838705
n-Hexane	110-54-3	86.20	0.400	1.41	1.67	5.87		2	WG838705
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG838705
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838705
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG838705
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	4.94	14.6		2	WG838705
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838705
Methyl methacrylate	80-62-6	100.12	0.400	1.64	0.608	2.49		2	WG838705
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838705
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG838705
2-Propanol	67-63-0	60.10	2.50	6.15	396	973	E	2	WG838705
Propene	115-07-1	42.10	0.800	1.38	29.0	49.9		2	WG838705
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG838705
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838705
Tetrachloroethylene	127-18-4	166	0.400	2.72	4.86	33.0		2	WG838705
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	0.523	1.54		2	WG838705
Toluene	108-88-3	92.10	0.400	1.51	47.7	180		2	WG838705
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838705

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG838705
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838705
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG838705
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG838705
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG838705
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	0.782	3.65		2	WG838705
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838705
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838705
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838705
m&p-Xylene	1330-20-7	106	0.800	3.47	4.93	21.4		2	WG838705
o-Xylene	95-47-6	106	0.400	1.73	1.11	4.83		2	WG838705
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.7*				WG838705

Method Blank (MB)

(MB) 12/28/15 09:18

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Acetone	ND		1.25
Allyl Chloride	ND		0.200
Benzene	ND		0.200
Benzyl Chloride	ND		0.200
Bromodichloromethane	ND		0.200
Bromoform	ND		0.600
Bromomethane	ND		0.200
1,3-Butadiene	ND		2.00
Carbon disulfide	ND		0.200
Carbon tetrachloride	ND		0.200
Chlorobenzene	ND		0.200
Chloroethane	ND		0.200
Chloroform	ND		0.200
Chloromethane	ND		0.200
2-Chlorotoluene	ND		0.200
Cyclohexane	ND		0.200
Dibromochloromethane	ND		0.200
1,2-Dibromoethane	ND		0.200
1,2-Dichlorobenzene	ND		0.200
1,3-Dichlorobenzene	ND		0.200
1,4-Dichlorobenzene	ND		0.200
1,2-Dichloroethane	ND		0.200
1,1-Dichloroethane	ND		0.200
1,1-Dichloroethene	ND		0.200
cis-1,2-Dichloroethene	ND		0.200
trans-1,2-Dichloroethene	ND		0.200
1,2-Dichloropropane	ND		0.200
cis-1,3-Dichloropropene	ND		0.200
trans-1,3-Dichloropropene	ND		0.200
1,4-Dioxane	ND		0.200
Ethylbenzene	ND		0.200
4-Ethyltoluene	ND		0.200
Trichlorofluoromethane	ND		0.200
Dichlorodifluoromethane	ND		0.200
1,1,2-Trichlorotrifluoroethane	ND		0.200
1,2-Dichlorotetrafluoroethane	ND		0.200

Method Blank (MB)

(MB) 12/28/15 09:18

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Heptane	ND		0.200
Hexachloro-1,3-butadiene	ND		0.630
n-Hexane	ND		0.200
Isopropylbenzene	ND		0.200
Methylene Chloride	ND		0.200
Methyl Butyl Ketone	ND		1.25
2-Butanone (MEK)	ND		1.25
4-Methyl-2-pentanone (MIBK)	ND		1.25
Methyl Methacrylate	ND		0.200
MTBE	ND		0.200
Naphthalene	ND		0.630
2-Propanol	ND		1.25
Propene	ND		0.400
Styrene	ND		0.200
1,1,2,2-Tetrachloroethane	ND		0.200
Tetrachloroethylene	ND		0.200
Tetrahydrofuran	ND		0.200
Toluene	ND		0.200
1,2,4-Trichlorobenzene	ND		0.630
1,1,1-Trichloroethane	ND		0.200
1,1,2-Trichloroethane	ND		0.200
Trichloroethylene	ND		0.200
1,2,4-Trimethylbenzene	ND		0.200
1,3,5-Trimethylbenzene	ND		0.200
2,2,4-Trimethylpentane	ND		0.200
Vinyl chloride	ND		0.200
Vinyl Bromide	ND		0.200
Vinyl acetate	ND		0.200
m&p-Xylene	ND		0.400
o-Xylene	ND		0.200
Ethanol	ND		0.630
(S) 1,4-Bromofluorobenzene	*94.7*		*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/28/15 07:31 • (LCSD) 12/28/15 08:24

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.52	4.61	120	123	34.3-167			2.09	25
Propene	3.75	3.97	4.12	106	110	53.9-143			3.87	25
Dichlorodifluoromethane	3.75	4.19	4.02	112	107	56.7-140			4.13	25
1,2-Dichlorotetrafluoroethane	3.75	3.97	4.15	106	111	70.0-130			4.55	25
Chloromethane	3.75	4.05	4.19	108	112	70.0-130			3.43	25
Vinyl chloride	3.75	3.94	4.12	105	110	70.0-130			4.41	25
1,3-Butadiene	3.75	3.94	4.13	105	110	70.0-130			4.74	25
Bromomethane	3.75	4.01	4.12	107	110	70.0-130			2.94	25
Chloroethane	3.75	4.10	4.07	109	109	70.0-130			0.740	25
Trichlorofluoromethane	3.75	4.02	4.04	107	108	70.0-130			0.590	25
1,1,2-Trichlorotrifluoroethane	3.75	3.99	4.05	106	108	70.0-130			1.43	25
1,1-Dichloroethene	3.75	3.96	4.05	105	108	70.0-130			2.27	25
1,1-Dichloroethane	3.75	4.02	4.09	107	109	70.0-130			1.86	25
Acetone	3.75	4.07	4.27	109	114	70.0-130			4.76	25
2-Propanol	3.75	4.45	4.66	119	124	50.4-152			4.51	25
Carbon disulfide	3.75	4.06	4.21	108	112	70.0-130			3.72	25
Methylene Chloride	3.75	4.31	4.47	115	119	70.0-130			3.48	25
MTBE	3.75	4.14	4.36	110	116	70.0-130			5.21	25
trans-1,2-Dichloroethene	3.75	4.04	4.16	108	111	70.0-130			3.00	25
n-Hexane	3.75	4.02	4.16	107	111	70.0-130			3.38	25
Vinyl acetate	3.75	4.26	4.43	114	118	70.0-130			3.89	25
Methyl Ethyl Ketone	3.75	4.22	4.47	113	119	70.0-130			5.64	25
cis-1,2-Dichloroethene	3.75	4.08	4.18	109	111	70.0-130			2.31	25
Chloroform	3.75	4.04	4.13	108	110	70.0-130			2.14	25
Cyclohexane	3.75	4.01	4.10	107	109	70.0-130			2.17	25
1,1,1-Trichloroethane	3.75	4.04	4.17	108	111	70.0-130			3.02	25
Carbon tetrachloride	3.75	4.06	4.11	108	110	70.0-130			1.31	25
Benzene	3.75	4.06	4.16	108	111	70.0-130			2.33	25
1,2-Dichloroethane	3.75	4.04	4.15	108	111	70.0-130			2.69	25
Heptane	3.75	4.15	4.28	111	114	70.0-130			3.01	25
Trichloroethylene	3.75	4.07	4.19	108	112	70.0-130			2.91	25
1,2-Dichloropropane	3.75	4.06	4.26	108	114	70.0-130			4.89	25
1,4-Dioxane	3.75	4.99	5.31	133	142	48.0-156			6.25	25
Bromodichloromethane	3.75	4.17	4.31	111	115	70.0-130			3.32	25
cis-1,3-Dichloropropene	3.75	4.21	4.31	112	115	70.0-130			2.29	25
4-Methyl-2-pentanone (MIBK)	3.75	4.55	4.54	121	121	55.3-154			0.280	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/28/15 07:31 • (LCSD) 12/28/15 08:24

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Toluene	3.75	4.09	4.28	109	114	70.0-130			4.63	25
trans-1,3-Dichloropropene	3.75	4.29	4.44	114	118	70.0-130			3.41	25
1,1,2-Trichloroethane	3.75	4.05	4.27	108	114	70.0-130			5.40	25
Tetrachloroethylene	3.75	4.03	4.23	107	113	70.0-130			4.90	25
Methyl Butyl Ketone	3.75	4.79	5.02	128	134	47.9-165			4.77	25
Dibromochloromethane	3.75	4.23	4.41	113	118	70.0-130			4.18	25
1,2-Dibromoethane	3.75	4.15	4.32	111	115	70.0-130			3.98	25
Chlorobenzene	3.75	4.02	4.22	107	113	70.0-130			4.77	25
Ethylbenzene	3.75	4.14	4.29	110	114	70.0-130			3.66	25
m&p-Xylene	7.50	8.16	8.45	109	113	70.0-130			3.57	25
o-Xylene	3.75	4.21	4.35	112	116	70.0-130			3.18	25
Styrene	3.75	4.34	4.53	116	121	70.0-130			4.22	25
Bromoform	3.75	4.48	4.65	119	124	70.0-130			3.68	25
1,1,2,2-Tetrachloroethane	3.75	4.16	4.30	111	115	70.0-130			3.28	25
4-Ethyltoluene	3.75	4.34	4.44	116	118	70.0-130			2.28	25
1,3,5-Trimethylbenzene	3.75	4.27	4.35	114	116	70.0-130			1.73	25
1,2,4-Trimethylbenzene	3.75	4.33	4.34	115	116	70.0-130			0.330	25
1,3-Dichlorobenzene	3.75	4.45	4.46	119	119	70.0-130			0.360	25
1,4-Dichlorobenzene	3.75	4.55	4.60	121	123	70.0-130			0.950	25
Benzyl Chloride	3.75	4.69	4.64	125	124	55.6-160			1.14	25
1,2-Dichlorobenzene	3.75	4.33	4.27	115	114	70.0-130			1.30	25
1,2,4-Trichlorobenzene	3.75	5.15	5.33	137	142	53.6-154			3.46	25
Hexachloro-1,3-butadiene	3.75	4.37	4.42	116	118	62.1-143			1.10	25
Naphthalene	3.75	5.28	5.47	141	146	52.0-158			3.36	25
Allyl Chloride	3.75	4.08	4.12	109	110	70.0-130			1.02	25
2-Chlorotoluene	3.75	4.18	4.34	111	116	70.0-130			3.85	25
Methyl Methacrylate	3.75	4.14	4.27	110	114	70.0-130			3.11	25
Tetrahydrofuran	3.75	4.31	4.53	115	121	65.0-140			5.11	25
2,2,4-Trimethylpentane	3.75	4.11	4.21	109	112	70.0-130			2.50	25
Vinyl Bromide	3.75	3.99	4.15	106	111	70.0-130			3.91	25
Isopropylbenzene	3.75	4.18	4.34	111	116	70.0-130			3.87	25
(S) 1,4-Bromofluorobenzene				*101*	*101*	*60.0-140*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

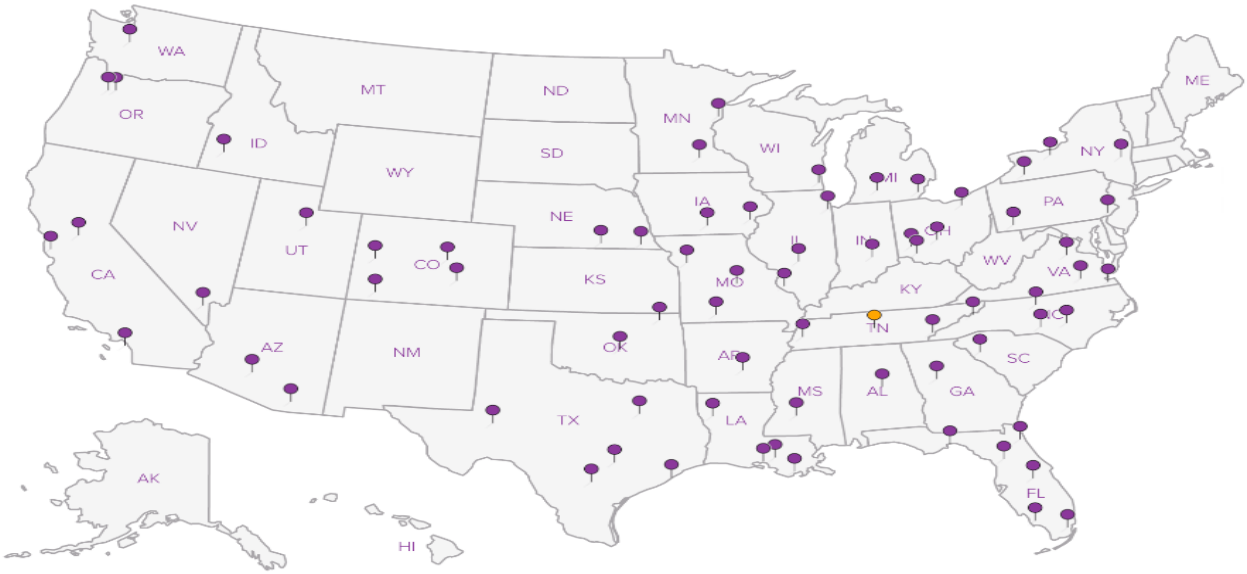
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



AEI Consultants- Walnut Creek, CA

2500 Camino Diablo
Walnut Creek, CA 94597

Billing Information:
Accounts Payable- Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Report to: **Jonathan Sanders**

Email To: **jsanders@aeiconsultants.com; jasmith@aeiconsultants.com**

Project Description: **Lucasey Manufacturing**

City/State Collected:

Phone: **925-746-6028**
Fax:

Client Project # **345989**

Lab Project # **AEICONWCCA-345989**

Collected by (print): Jordan Vidy

Site/Facility ID # **2744 EAST ELEVENTH STREET**

P.O. # **99527**

Collected by (signature):

Immediately Packed on Ice N____ Y____

Rush? (Lab MUST Be Notified)
____ Same Day 200%
____ Next Day 100%
____ Two Day 50%
____ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TO-15 Summa										Rem./Contaminant	Sample # (lab only)
ASV-41		Air	5.0	12-16-15	1525	1	X											-01
		Air				1	X											

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Chain of Custody Page 1 of 1

ESC LABORATORIES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # L807890
F154

Acctnum: **AEICONWCCA**
Template: **T107887**
Prelogin: **P534307**
TSR: **358 - Jarred Willis**
PB:
Shipped Via:

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	12-17-15	1300	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____

Temp: AMB °C Bottles Received: 1

Date: 12-18-15 Time: 0900

Hold #

Condition: (lab use only) OK

COC Seal Intact: ____Y ____N ____NA

pH Checked: NCF:

ANALYTICAL REPORT

December 29, 2015

AEI Consultants- Walnut Creek, CA

Sample Delivery Group:	L807892
Samples Received:	12/18/2015
Project Number:	345989
Description:	Lucasey Manufacturing
Site:	2744 EAST ELEVENTH STREET
Report To:	Jonathan Sanders 2500 Camino Diablo Walnut Creek, CA 94597

Entire Report Reviewed By:

Jarred Willis
Technical Service Representative

TABLE OF CONTENTS

ASV-37 5.0FT L807892-01 Air

Collected by: Jordan Vida
Collected date/time: 12/16/15 15:06
Received date/time: 12/18/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838564	2	12/26/15 18:28	12/26/15 18:28	MBF

ASV-38 5.0FT L807892-02 Air

Collected by: Jordan Vida
Collected date/time: 12/17/15 12:19
Received date/time: 12/18/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838564	2	12/26/15 19:12	12/26/15 19:12	MBF

ASV-39 5.0FT L807892-03 Air

Collected by: Jordan Vida
Collected date/time: 12/17/15 12:05
Received date/time: 12/18/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838564	2	12/26/15 19:58	12/26/15 19:58	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG838698	25	12/28/15 22:56	12/28/15 22:56	MBF

ASV-40 5.0FT L807892-04 Air

Collected by: Jordan Vida
Collected date/time: 12/16/15 15:29
Received date/time: 12/18/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838564	2	12/26/15 20:44	12/26/15 20:44	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG838698	25	12/28/15 23:32	12/28/15 23:32	MBF

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jarred Willis
Technical Service Representative

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	9.40	22.3		2	WG838564
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838564
Benzene	71-43-2	78.10	0.400	1.28	1.04	3.32		2	WG838564
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838564
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838564
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838564
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838564
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG838564
Carbon disulfide	75-15-0	76.10	0.400	1.24	7.64	23.8		2	WG838564
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG838564
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838564
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838564
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838564
Chloromethane	74-87-3	50.50	0.400	0.826	0.792	1.64		2	WG838564
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838564
Cyclohexane	110-82-7	84.20	0.400	1.38	1.69	5.82		2	WG838564
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838564
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838564
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838564
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838564
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838564
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838564
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838564
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838564
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838564
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838564
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838564
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838564
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838564
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG838564
Ethanol	64-17-5	46.10	1.26	2.38	17.7	33.3		2	WG838564
Ethylbenzene	100-41-4	106	0.400	1.73	0.580	2.51		2	WG838564
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG838564
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG838564
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.641	3.17		2	WG838564
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG838564
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838564
Heptane	142-82-5	100	0.400	1.64	0.743	3.04		2	WG838564
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838564
n-Hexane	110-54-3	86.20	0.400	1.41	0.922	3.25		2	WG838564
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG838564
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838564
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG838564
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	ND	ND		2	WG838564
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838564
Methyl methacrylate	80-62-6	100.12	0.400	1.64	0.424	1.74		2	WG838564
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838564
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG838564
2-Propanol	67-63-0	60.10	2.50	6.15	135	333	E	2	WG838564
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG838564
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG838564
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838564
Tetrachloroethylene	127-18-4	166	0.400	2.72	ND	ND		2	WG838564
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG838564
Toluene	108-88-3	92.10	0.400	1.51	19.1	72.1		2	WG838564
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838564

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG838564
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838564
Trichloroethylene	79-01-6	131	0.400	2.14	1.98	10.6		2	WG838564
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG838564
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG838564
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	0.572	2.67		2	WG838564
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838564
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838564
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838564
m&p-Xylene	1330-20-7	106	0.800	3.47	1.85	8.04		2	WG838564
o-Xylene	95-47-6	106	0.400	1.73	0.523	2.27		2	WG838564
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*103*				WG838564

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	15.3	36.3		2	WG838564
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838564
Benzene	71-43-2	78.10	0.400	1.28	0.509	1.62		2	WG838564
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838564
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838564
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838564
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838564
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG838564
Carbon disulfide	75-15-0	76.10	0.400	1.24	0.652	2.03		2	WG838564
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG838564
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838564
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838564
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838564
Chloromethane	74-87-3	50.50	0.400	0.826	0.648	1.34		2	WG838564
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838564
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG838564
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838564
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838564
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838564
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838564
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838564
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838564
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838564
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838564
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838564
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838564
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838564
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838564
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838564
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG838564
Ethanol	64-17-5	46.10	1.26	2.38	14.1	26.5		2	WG838564
Ethylbenzene	100-41-4	106	0.400	1.73	ND	ND		2	WG838564
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG838564
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG838564
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.730	3.61		2	WG838564
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG838564
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838564
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG838564
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838564
n-Hexane	110-54-3	86.20	0.400	1.41	ND	ND		2	WG838564
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG838564
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838564
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG838564
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	3.43	10.1		2	WG838564
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838564
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG838564
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838564
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG838564
2-Propanol	67-63-0	60.10	2.50	6.15	111	274	E	2	WG838564
Propene	115-07-1	42.10	0.800	1.38	2.53	4.36		2	WG838564
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG838564
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838564
Tetrachloroethylene	127-18-4	166	0.400	2.72	ND	ND		2	WG838564
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG838564
Toluene	108-88-3	92.10	0.400	1.51	3.61	13.6		2	WG838564
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838564

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG838564
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838564
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG838564
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG838564
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG838564
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG838564
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838564
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838564
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838564
m&p-Xylene	1330-20-7	106	0.800	3.47	0.898	3.89		2	WG838564
o-Xylene	95-47-6	106	0.400	1.73	ND	ND		2	WG838564
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*103*				WG838564

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	11.7	27.9		2	WG838564
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838564
Benzene	71-43-2	78.10	0.400	1.28	1.42	4.55		2	WG838564
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838564
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838564
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838564
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838564
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG838564
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG838564
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG838564
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838564
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838564
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838564
Chloromethane	74-87-3	50.50	0.400	0.826	0.986	2.04		2	WG838564
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838564
Cyclohexane	110-82-7	84.20	0.400	1.38	0.694	2.39		2	WG838564
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838564
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838564
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838564
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838564
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838564
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838564
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838564
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838564
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838564
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838564
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838564
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838564
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838564
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG838564
Ethanol	64-17-5	46.10	1.26	2.38	4.24	8.00		2	WG838564
Ethylbenzene	100-41-4	106	0.400	1.73	0.740	3.21		2	WG838564
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG838564
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG838564
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.772	3.82		2	WG838564
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG838564
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838564
Heptane	142-82-5	100	0.400	1.64	0.753	3.08		2	WG838564
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838564
n-Hexane	110-54-3	86.20	0.400	1.41	0.924	3.26		2	WG838564
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG838564
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838564
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG838564
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	6.61	19.5		2	WG838564
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838564
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG838564
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838564
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG838564
2-Propanol	67-63-0	60.10	31.2	76.7	753	1850		25	WG838698
Propene	115-07-1	42.10	0.800	1.38	13.6	23.4		2	WG838564
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG838564
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838564
Tetrachloroethylene	127-18-4	166	0.400	2.72	0.475	3.22		2	WG838564
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG838564
Toluene	108-88-3	92.10	0.400	1.51	15.3	57.8		2	WG838564
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838564

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG838564
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838564
Trichloroethylene	79-01-6	131	0.400	2.14	1.96	10.5		2	WG838564
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.475	2.33		2	WG838564
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG838564
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG838564
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838564
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838564
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838564
m&p-Xylene	1330-20-7	106	0.800	3.47	2.43	10.5		2	WG838564
o-Xylene	95-47-6	106	0.400	1.73	0.754	3.27		2	WG838564
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*101*				WG838564

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	21.6	51.2		2	WG838564
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838564
Benzene	71-43-2	78.10	0.400	1.28	2.65	8.46		2	WG838564
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838564
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838564
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838564
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838564
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG838564
Carbon disulfide	75-15-0	76.10	0.400	1.24	21.7	67.5		2	WG838564
Carbon tetrachloride	56-23-5	154	0.400	2.52	0.846	5.33		2	WG838564
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838564
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838564
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838564
Chloromethane	74-87-3	50.50	0.400	0.826	0.721	1.49		2	WG838564
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838564
Cyclohexane	110-82-7	84.20	0.400	1.38	7.10	24.5		2	WG838564
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838564
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838564
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838564
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838564
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838564
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838564
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838564
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838564
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838564
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838564
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838564
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838564
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838564
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG838564
Ethanol	64-17-5	46.10	1.26	2.38	12.3	23.1		2	WG838564
Ethylbenzene	100-41-4	106	0.400	1.73	1.97	8.54		2	WG838564
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG838564
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.719	4.04		2	WG838564
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	1.09	5.39		2	WG838564
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG838564
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838564
Heptane	142-82-5	100	0.400	1.64	1.68	6.87		2	WG838564
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838564
n-Hexane	110-54-3	86.20	0.400	1.41	2.29	8.07		2	WG838564
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG838564
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838564
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG838564
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	8.84	26.1		2	WG838564
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838564
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG838564
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838564
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG838564
2-Propanol	67-63-0	60.10	31.2	76.7	377	926		25	WG838698
Propene	115-07-1	42.10	0.800	1.38	7.12	12.3		2	WG838564
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG838564
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838564
Tetrachloroethylene	127-18-4	166	0.400	2.72	4.53	30.7		2	WG838564
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG838564
Toluene	108-88-3	92.10	0.400	1.51	50.9	192		2	WG838564
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838564

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG838564
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838564
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG838564
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.440	2.16		2	WG838564
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG838564
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	1.33	6.20		2	WG838564
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838564
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838564
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838564
m&p-Xylene	1330-20-7	106	0.800	3.47	7.29	31.6		2	WG838564
o-Xylene	95-47-6	106	0.400	1.73	1.89	8.18		2	WG838564
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*101*				WG838564

Method Blank (MB)

(MB) 12/26/15 12:31

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Acetone	ND		1.25
Allyl Chloride	ND		0.200
Benzene	ND		0.200
Benzyl Chloride	ND		0.200
Bromodichloromethane	ND		0.200
Bromoform	ND		0.600
Bromomethane	ND		0.200
1,3-Butadiene	ND		2.00
Carbon disulfide	ND		0.200
Carbon tetrachloride	ND		0.200
Chlorobenzene	ND		0.200
Chloroethane	ND		0.200
Chloroform	ND		0.200
Chloromethane	ND		0.200
2-Chlorotoluene	ND		0.200
Cyclohexane	ND		0.200
Dibromochloromethane	ND		0.200
1,2-Dibromoethane	ND		0.200
1,2-Dichlorobenzene	ND		0.200
1,3-Dichlorobenzene	ND		0.200
1,4-Dichlorobenzene	ND		0.200
1,2-Dichloroethane	ND		0.200
1,1-Dichloroethane	ND		0.200
1,1-Dichloroethene	ND		0.200
cis-1,2-Dichloroethene	ND		0.200
trans-1,2-Dichloroethene	ND		0.200
1,2-Dichloropropane	ND		0.200
cis-1,3-Dichloropropene	ND		0.200
trans-1,3-Dichloropropene	ND		0.200
1,4-Dioxane	ND		0.200
Ethylbenzene	ND		0.200
4-Ethyltoluene	ND		0.200
Trichlorofluoromethane	ND		0.200
Dichlorodifluoromethane	ND		0.200
1,1,2-Trichlorotrifluoroethane	ND		0.200
1,2-Dichlorotetrafluoroethane	ND		0.200

Method Blank (MB)

(MB) 12/26/15 12:31

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Heptane	ND		0.200
Hexachloro-1,3-butadiene	ND		0.630
n-Hexane	ND		0.200
Isopropylbenzene	ND		0.200
Methylene Chloride	ND		0.200
Methyl Butyl Ketone	ND		1.25
2-Butanone (MEK)	ND		1.25
4-Methyl-2-pentanone (MIBK)	ND		1.25
Methyl Methacrylate	ND		0.200
MTBE	ND		0.200
Naphthalene	ND		0.630
2-Propanol	ND		1.25
Propene	ND		0.400
Styrene	ND		0.200
1,1,2,2-Tetrachloroethane	ND		0.200
Tetrachloroethylene	ND		0.200
Tetrahydrofuran	ND		0.200
Toluene	ND		0.200
1,2,4-Trichlorobenzene	ND		0.630
1,1,1-Trichloroethane	ND		0.200
1,1,2-Trichloroethane	ND		0.200
Trichloroethylene	ND		0.200
1,2,4-Trimethylbenzene	ND		0.200
1,3,5-Trimethylbenzene	ND		0.200
2,2,4-Trimethylpentane	ND		0.200
Vinyl chloride	ND		0.200
Vinyl Bromide	ND		0.200
Vinyl acetate	ND		0.200
m&p-Xylene	ND		0.400
o-Xylene	ND		0.200
Ethanol	ND		0.630
(S) 1,4-Bromofluorobenzene	*99.0*		*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/26/15 11:43 • (LCSD) 12/26/15 13:22

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.09	4.14	109	110	34.3-167			1.25	25
Propene	3.75	4.20	4.48	112	119	53.9-143			6.45	25
Dichlorodifluoromethane	3.75	4.00	4.30	107	115	56.7-140			7.07	25
1,2-Dichlorotetrafluoroethane	3.75	4.23	4.46	113	119	70.0-130			5.33	25
Chloromethane	3.75	4.42	4.66	118	124	70.0-130			5.32	25
Vinyl chloride	3.75	4.18	4.30	112	115	70.0-130			2.88	25
1,3-Butadiene	3.75	4.09	4.25	109	113	70.0-130			3.85	25
Bromomethane	3.75	4.06	4.12	108	110	70.0-130			1.49	25
Chloroethane	3.75	4.26	4.49	114	120	70.0-130			5.09	25
Trichlorofluoromethane	3.75	4.19	4.42	112	118	70.0-130			5.33	25
1,1,2-Trichlorotrifluoroethane	3.75	4.17	4.37	111	117	70.0-130			4.68	25
1,1-Dichloroethene	3.75	4.33	4.58	116	122	70.0-130			5.57	25
1,1-Dichloroethane	3.75	4.30	4.50	115	120	70.0-130			4.61	25
Acetone	3.75	4.37	4.47	116	119	70.0-130			2.28	25
2-Propanol	3.75	4.09	4.38	109	117	50.4-152			6.79	25
Carbon disulfide	3.75	4.21	4.42	112	118	70.0-130			5.03	25
Methylene Chloride	3.75	4.29	4.60	114	123	70.0-130			6.93	25
MTBE	3.75	4.23	4.43	113	118	70.0-130			4.65	25
trans-1,2-Dichloroethene	3.75	4.30	4.58	115	122	70.0-130			6.15	25
n-Hexane	3.75	4.32	4.64	115	124	70.0-130			7.18	25
Vinyl acetate	3.75	4.65	4.75	124	127	70.0-130			2.30	25
Methyl Ethyl Ketone	3.75	4.36	4.71	116	126	70.0-130			7.78	25
cis-1,2-Dichloroethene	3.75	4.29	4.53	114	121	70.0-130			5.50	25
Chloroform	3.75	4.21	4.44	112	118	70.0-130			5.18	25
Cyclohexane	3.75	4.24	4.47	113	119	70.0-130			5.35	25
1,1,1-Trichloroethane	3.75	4.15	4.42	111	118	70.0-130			6.21	25
Carbon tetrachloride	3.75	4.17	4.36	111	116	70.0-130			4.39	25
Benzene	3.75	4.23	4.35	113	116	70.0-130			2.69	25
1,2-Dichloroethane	3.75	4.27	4.52	114	120	70.0-130			5.66	25
Heptane	3.75	4.45	4.72	119	126	70.0-130			5.88	25
Trichloroethylene	3.75	4.25	4.37	113	116	70.0-130			2.72	25
1,2-Dichloropropane	3.75	4.38	4.57	117	122	70.0-130			4.19	25
1,4-Dioxane	3.75	4.29	4.46	114	119	48.0-156			4.05	25
Bromodichloromethane	3.75	4.25	4.46	113	119	70.0-130			4.72	25
cis-1,3-Dichloropropene	3.75	4.35	4.48	116	120	70.0-130			2.98	25
4-Methyl-2-pentanone (MIBK)	3.75	4.39	4.60	117	123	55.3-154			4.79	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/26/15 11:43 • (LCSD) 12/26/15 13:22

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Toluene	3.75	4.18	4.34	111	116	70.0-130			3.76	25
trans-1,3-Dichloropropene	3.75	4.44	4.58	118	122	70.0-130			3.03	25
1,1,2-Trichloroethane	3.75	4.22	4.35	113	116	70.0-130			3.01	25
Tetrachloroethylene	3.75	4.07	4.19	109	112	70.0-130			2.80	25
Methyl Butyl Ketone	3.75	4.52	4.63	121	123	47.9-165			2.33	25
Dibromochloromethane	3.75	4.20	4.34	112	116	70.0-130			3.15	25
1,2-Dibromoethane	3.75	4.26	4.40	114	117	70.0-130			3.16	25
Chlorobenzene	3.75	4.20	4.28	112	114	70.0-130			1.90	25
Ethylbenzene	3.75	4.22	4.40	112	117	70.0-130			4.27	25
m&p-Xylene	7.50	8.28	8.61	110	115	70.0-130			3.97	25
o-Xylene	3.75	4.15	4.35	111	116	70.0-130			4.83	25
Styrene	3.75	4.21	4.40	112	117	70.0-130			4.44	25
Bromoform	3.75	4.09	4.32	109	115	70.0-130			5.48	25
1,1,2,2-Tetrachloroethane	3.75	4.22	4.42	113	118	70.0-130			4.51	25
4-Ethyltoluene	3.75	4.18	4.37	111	117	70.0-130			4.58	25
1,3,5-Trimethylbenzene	3.75	4.10	4.31	109	115	70.0-130			5.09	25
1,2,4-Trimethylbenzene	3.75	4.12	4.33	110	116	70.0-130			5.13	25
1,3-Dichlorobenzene	3.75	4.19	4.40	112	117	70.0-130			4.92	25
1,4-Dichlorobenzene	3.75	4.26	4.43	114	118	70.0-130			3.95	25
Benzyl Chloride	3.75	4.36	4.61	116	123	55.6-160			5.69	25
1,2-Dichlorobenzene	3.75	4.07	4.31	109	115	70.0-130			5.79	25
1,2,4-Trichlorobenzene	3.75	4.45	4.63	119	123	53.6-154			3.83	25
Hexachloro-1,3-butadiene	3.75	4.13	4.28	110	114	62.1-143			3.50	25
Naphthalene	3.75	4.55	4.72	121	126	52.0-158			3.66	25
Allyl Chloride	3.75	4.43	4.73	118	126	70.0-130			6.51	25
2-Chlorotoluene	3.75	4.08	4.30	109	115	70.0-130			5.13	25
Methyl Methacrylate	3.75	4.20	4.36	112	116	70.0-130			3.78	25
Tetrahydrofuran	3.75	4.43	4.75	118	127	65.0-140			6.86	25
2,2,4-Trimethylpentane	3.75	4.37	4.67	117	124	70.0-130			6.47	25
Vinyl Bromide	3.75	4.25	4.43	113	118	70.0-130			4.15	25
Isopropylbenzene	3.75	4.12	4.35	110	116	70.0-130			5.28	25
(S) 1,4-Bromofluorobenzene				*101*	*102*	*60.0-140*				

Method Blank (MB)

(MB) 12/28/15 08:55

Analyte	MB Result	MB Qualifier	MB RDL
	ppb		ppb
2-Propanol	ND		1.25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/28/15 07:35 • (LCSD) 12/28/15 08:14

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppb	ppb	ppb	%	%	%			%	%
2-Propanol	3.75	3.84	3.86	102	103	50.4-152			0.510	25

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

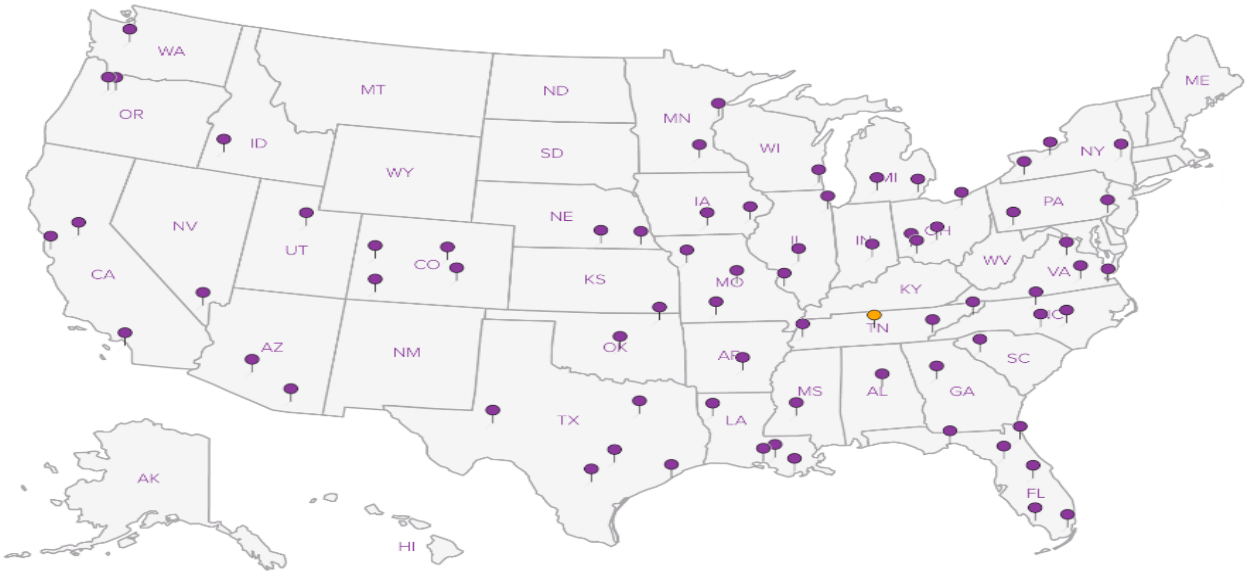
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



AEI Consultants- Walnut Creek, CA **2500 Camino Diablo** **Walnut Creek, CA 94597**	Billing Information: **Accounts Payable- Jeremy Smith** **2500 Camino Diablo** **Walnut Creek, CA 94597**
Report to: **Jonathan Sanders**	Email To: **jsanders@aeiconsultants.com; jasmith@aeiconsultants.com**
Project Description: **Lucasey Manufacturing**	City/State Collected:
Phone: **925-746-6028** Fax:	Client Project # **345989**
Collected by (print): Jordan Vida	Site/Facility ID # **2744 EAST ELEVENTH STREET**
Collected by (signature): Immediately Packed on Ice N____ Y____	***Rush?*** (Lab MUST Be Notified) ____ Same Day .....200% ____ Next Day .....100% ____ Two Day .....50% ____ Three Day 25%

Lab Project #: **AEICONWCCA-345989**

P.O. #: **99527**

Date Results Needed

Email? ___No X__Yes

FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TO-15 Summa										Rem./Contaminant	Sample # (lab only)
ASV-37		Air	5.0	12-16-15	1506	1	X											-01
ASV-38		Air		12-17-15	1219	1	X											02
ASV-39		Air		12-17-15	1205	1	X											03
ASV-40		Air		12-16-15	1529	1	X											04
		Air				1	X											
		Air				1	X											
		Air				1	X											
		Air				1	X											
		Air				1	X											
		Air				1	X											
		Air				1	X											

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	12-17-15	1300	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____

Temp: 4.3 °C Bottles Received: 4

Date: 12-18-15 Time: 0900

Hold #

Condition: (lab use only)

IR x4 OK

COC Seal Intact: ____Y ____N ____NA

pH Checked: NCF:

Chain of Custody Page 4 of 5

ESC LABORATORY SCIENCES

YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L807892

F153

Acctnum: **AEICONWCCA**

Template: **T107887**

Prelogin: **P534307**

TSR: **358 - Jarred Willis**

PB:

Shipped Via:

ANALYTICAL REPORT

December 29, 2015

AEI Consultants- Walnut Creek, CA

Sample Delivery Group:	L808159
Samples Received:	12/19/2015
Project Number:	345989
Description:	Lucasey Manufacturing
Site:	2744 EAST ELEVENTH STREET
Report To:	Jonathan Sanders 2500 Camino Diablo Walnut Creek, CA 94597

Entire Report Reviewed By:

Jarred Willis
Technical Service Representative

TABLE OF CONTENTS

ASV-33 L808159-01 Air

Collected by: Jordan Vida
Collected date/time: 12/16/15 15:02
Received date/time: 12/19/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838706	2	12/28/15 23:59	12/28/15 23:59	SNH
Volatile Organic Compounds (MS) by Method TO-15	WG838877	25	12/29/15 12:04	12/29/15 12:04	MBF

ASV-34 L808159-02 Air

Collected by: Jordan Vida
Collected date/time: 12/16/15 12:43
Received date/time: 12/19/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838706	2	12/29/15 00:44	12/29/15 00:44	SNH
Volatile Organic Compounds (MS) by Method TO-15	WG838877	100	12/29/15 13:27	12/29/15 13:27	MBF

ASV-35 L808159-03 Air

Collected by: Jordan Vida
Collected date/time: 12/16/15 11:50
Received date/time: 12/19/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838706	2	12/29/15 01:31	12/29/15 01:31	SNH
Volatile Organic Compounds (MS) by Method TO-15	WG838877	25	12/29/15 12:51	12/29/15 12:51	MBF

ASV-36 L808159-04 Air

Collected by: Jordan Vida
Collected date/time: 12/16/15 09:02
Received date/time: 12/19/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG838706	2	12/29/15 02:16	12/29/15 02:16	SNH
Volatile Organic Compounds (MS) by Method TO-15	WG838877	100	12/29/15 14:04	12/29/15 14:04	MBF

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jarred Willis
Technical Service Representative

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	36.6	86.9		2	WG838706
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838706
Benzene	71-43-2	78.10	0.400	1.28	2.06	6.58		2	WG838706
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838706
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838706
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838706
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838706
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG838706
Carbon disulfide	75-15-0	76.10	0.400	1.24	18.1	56.3		2	WG838706
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG838706
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838706
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838706
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838706
Chloromethane	74-87-3	50.50	0.400	0.826	0.691	1.43		2	WG838706
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838706
Cyclohexane	110-82-7	84.20	0.400	1.38	5.08	17.5		2	WG838706
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838706
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838706
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838706
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838706
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838706
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838706
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838706
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838706
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838706
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838706
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838706
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838706
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838706
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG838706
Ethanol	64-17-5	46.10	1.26	2.38	11.9	22.4		2	WG838706
Ethylbenzene	100-41-4	106	0.400	1.73	3.20	13.9		2	WG838706
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG838706
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.515	2.89		2	WG838706
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.814	4.03		2	WG838706
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG838706
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838706
Heptane	142-82-5	100	0.400	1.64	1.28	5.24		2	WG838706
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838706
n-Hexane	110-54-3	86.20	0.400	1.41	1.97	6.93		2	WG838706
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG838706
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838706
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG838706
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	10.6	31.2		2	WG838706
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838706
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG838706
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838706
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG838706
2-Propanol	67-63-0	60.10	31.2	76.7	241	594		25	WG838877
Propene	115-07-1	42.10	0.800	1.38	21.0	36.2		2	WG838706
Styrene	100-42-5	104	0.400	1.70	0.470	2.00		2	WG838706
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838706
Tetrachloroethylene	127-18-4	166	0.400	2.72	3.87	26.3		2	WG838706
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG838706
Toluene	108-88-3	92.10	0.400	1.51	48.1	181		2	WG838706
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838706

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG838706
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838706
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG838706
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.665	3.26		2	WG838706
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG838706
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG838706
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838706
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838706
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838706
m&p-Xylene	1330-20-7	106	0.800	3.47	13.2	57.4		2	WG838706
o-Xylene	95-47-6	106	0.400	1.73	4.05	17.6		2	WG838706
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*108*				WG838706

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	36.8	87.4		2	WG838706
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838706
Benzene	71-43-2	78.10	0.400	1.28	2.29	7.32		2	WG838706
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838706
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838706
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838706
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838706
1,3-Butadiene	106-99-0	54.10	4.00	8.85	4.98	11.0		2	WG838706
Carbon disulfide	75-15-0	76.10	0.400	1.24	10.0	31.2		2	WG838706
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG838706
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838706
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838706
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838706
Chloromethane	74-87-3	50.50	0.400	0.826	1.54	3.17		2	WG838706
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838706
Cyclohexane	110-82-7	84.20	0.400	1.38	2.53	8.70		2	WG838706
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838706
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838706
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838706
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838706
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838706
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838706
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838706
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838706
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838706
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838706
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838706
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838706
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838706
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG838706
Ethanol	64-17-5	46.10	1.26	2.38	4.26	8.03		2	WG838706
Ethylbenzene	100-41-4	106	0.400	1.73	7.47	32.4		2	WG838706
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG838706
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.658	3.70		2	WG838706
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.808	3.99		2	WG838706
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG838706
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838706
Heptane	142-82-5	100	0.400	1.64	0.833	3.41		2	WG838706
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838706
n-Hexane	110-54-3	86.20	0.400	1.41	1.34	4.72		2	WG838706
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG838706
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838706
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG838706
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	10.6	31.2		2	WG838706
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838706
Methyl methacrylate	80-62-6	100.12	0.400	1.64	1.01	4.13		2	WG838706
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838706
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG838706
2-Propanol	67-63-0	60.10	125	307	561	1380		100	WG838877
Propene	115-07-1	42.10	0.800	1.38	46.9	80.7		2	WG838706
Styrene	100-42-5	104	0.400	1.70	0.692	2.94		2	WG838706
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838706
Tetrachloroethylene	127-18-4	166	0.400	2.72	1.16	7.91		2	WG838706
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG838706
Toluene	108-88-3	92.10	0.400	1.51	23.4	88.0		2	WG838706
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838706

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG838706
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838706
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG838706
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.967	4.74		2	WG838706
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG838706
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG838706
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838706
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838706
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838706
m&p-Xylene	1330-20-7	106	0.800	3.47	29.5	128		2	WG838706
o-Xylene	95-47-6	106	0.400	1.73	8.98	38.9		2	WG838706
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*119*				WG838706

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	72.2	171		2	WG838706
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838706
Benzene	71-43-2	78.10	0.400	1.28	1.94	6.19		2	WG838706
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838706
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838706
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838706
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838706
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG838706
Carbon disulfide	75-15-0	76.10	0.400	1.24	30.9	96.3		2	WG838706
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG838706
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838706
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838706
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838706
Chloromethane	74-87-3	50.50	0.400	0.826	0.677	1.40		2	WG838706
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838706
Cyclohexane	110-82-7	84.20	0.400	1.38	0.977	3.36		2	WG838706
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838706
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838706
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838706
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838706
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838706
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838706
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838706
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838706
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838706
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838706
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838706
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838706
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838706
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG838706
Ethanol	64-17-5	46.10	1.26	2.38	10.1	19.0		2	WG838706
Ethylbenzene	100-41-4	106	0.400	1.73	1.72	7.48		2	WG838706
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG838706
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	1.04	5.85		2	WG838706
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	1.73	8.57		2	WG838706
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG838706
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838706
Heptane	142-82-5	100	0.400	1.64	0.961	3.93		2	WG838706
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838706
n-Hexane	110-54-3	86.20	0.400	1.41	1.70	5.98		2	WG838706
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG838706
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838706
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG838706
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	11.8	34.9		2	WG838706
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838706
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG838706
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838706
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG838706
2-Propanol	67-63-0	60.10	31.2	76.7	727	1790		25	WG838877
Propene	115-07-1	42.10	0.800	1.38	9.16	15.8		2	WG838706
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG838706
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838706
Tetrachloroethylene	127-18-4	166	0.400	2.72	1.11	7.54		2	WG838706
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG838706
Toluene	108-88-3	92.10	0.400	1.51	18.6	70.1		2	WG838706
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838706

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG838706
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838706
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG838706
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.915	4.49		2	WG838706
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG838706
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG838706
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838706
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838706
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838706
m&p-Xylene	1330-20-7	106	0.800	3.47	5.95	25.8		2	WG838706
o-Xylene	95-47-6	106	0.400	1.73	1.81	7.85		2	WG838706
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*118*				WG838706

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppb	RDL2 ug/m3	Result ppb	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	24.0	57.1		2	WG838706
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG838706
Benzene	71-43-2	78.10	0.400	1.28	1.41	4.51		2	WG838706
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG838706
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG838706
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG838706
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG838706
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG838706
Carbon disulfide	75-15-0	76.10	0.400	1.24	9.21	28.7		2	WG838706
Carbon tetrachloride	56-23-5	154	0.400	2.52	0.580	3.65		2	WG838706
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG838706
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG838706
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG838706
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG838706
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG838706
Cyclohexane	110-82-7	84.20	0.400	1.38	2.27	7.80		2	WG838706
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG838706
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG838706
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG838706
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG838706
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG838706
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG838706
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG838706
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG838706
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG838706
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG838706
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG838706
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG838706
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG838706
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG838706
Ethanol	64-17-5	46.10	1.26	2.38	3.60	6.78		2	WG838706
Ethylbenzene	100-41-4	106	0.400	1.73	2.97	12.9		2	WG838706
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG838706
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.603	3.39		2	WG838706
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	2.39	11.8		2	WG838706
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	0.487	3.74		2	WG838706
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG838706
Heptane	142-82-5	100	0.400	1.64	2.34	9.55		2	WG838706
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG838706
n-Hexane	110-54-3	86.20	0.400	1.41	5.97	21.0		2	WG838706
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG838706
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG838706
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG838706
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	6.78	20.0		2	WG838706
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG838706
Methyl methacrylate	80-62-6	100.12	0.400	1.64	0.939	3.84		2	WG838706
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG838706
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG838706
2-Propanol	67-63-0	60.10	125	307	1260	3090		100	WG838877
Propene	115-07-1	42.10	0.800	1.38	5.38	9.26		2	WG838706
Styrene	100-42-5	104	0.400	1.70	0.429	1.83		2	WG838706
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG838706
Tetrachloroethylene	127-18-4	166	0.400	2.72	4.46	30.3		2	WG838706
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG838706
Toluene	108-88-3	92.10	0.400	1.51	38.2	144		2	WG838706
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG838706

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppb	ug/m3	ppb				
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	0.762	4.14		2	WG838706
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG838706
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG838706
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.568	2.79		2	WG838706
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG838706
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG838706
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG838706
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG838706
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG838706
m&p-Xylene	1330-20-7	106	0.800	3.47	10.8	46.6		2	WG838706
o-Xylene	95-47-6	106	0.400	1.73	3.61	15.6		2	WG838706
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*102*				WG838706

Method Blank (MB)

(MB) 12/28/15 23:12

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Acetone	ND		1.25
Allyl Chloride	ND		0.200
Benzene	ND		0.200
Benzyl Chloride	ND		0.200
Bromodichloromethane	ND		0.200
Bromoform	ND		0.600
Bromomethane	ND		0.200
1,3-Butadiene	ND		2.00
Carbon disulfide	ND		0.200
Carbon tetrachloride	ND		0.200
Chlorobenzene	ND		0.200
Chloroethane	ND		0.200
Chloroform	ND		0.200
Chloromethane	ND		0.200
2-Chlorotoluene	ND		0.200
Cyclohexane	ND		0.200
Dibromochloromethane	ND		0.200
1,2-Dibromoethane	ND		0.200
1,2-Dichlorobenzene	ND		0.200
1,3-Dichlorobenzene	ND		0.200
1,4-Dichlorobenzene	ND		0.200
1,2-Dichloroethane	ND		0.200
1,1-Dichloroethane	ND		0.200
1,1-Dichloroethene	ND		0.200
cis-1,2-Dichloroethene	ND		0.200
trans-1,2-Dichloroethene	ND		0.200
1,2-Dichloropropane	ND		0.200
cis-1,3-Dichloropropene	ND		0.200
trans-1,3-Dichloropropene	ND		0.200
1,4-Dioxane	ND		0.200
Ethylbenzene	ND		0.200
4-Ethyltoluene	ND		0.200
Trichlorofluoromethane	ND		0.200
Dichlorodifluoromethane	ND		0.200
1,1,2-Trichlorotrifluoroethane	ND		0.200
1,2-Dichlorotetrafluoroethane	ND		0.200

Method Blank (MB)

(MB) 12/28/15 23:12

Analyte	MB Result ppb	MB Qualifier	MB RDL ppb
Heptane	ND		0.200
Hexachloro-1,3-butadiene	ND		0.630
n-Hexane	ND		0.200
Isopropylbenzene	ND		0.200
Methylene Chloride	ND		0.200
Methyl Butyl Ketone	ND		1.25
2-Butanone (MEK)	ND		1.25
4-Methyl-2-pentanone (MIBK)	ND		1.25
Methyl Methacrylate	ND		0.200
MTBE	ND		0.200
Naphthalene	ND		0.630
Propene	ND		0.400
Styrene	ND		0.200
1,1,2,2-Tetrachloroethane	ND		0.200
Tetrachloroethylene	ND		0.200
Tetrahydrofuran	ND		0.200
Toluene	ND		0.200
1,2,4-Trichlorobenzene	ND		0.630
1,1,1-Trichloroethane	ND		0.200
1,1,2-Trichloroethane	ND		0.200
Trichloroethylene	ND		0.200
1,2,4-Trimethylbenzene	ND		0.200
1,3,5-Trimethylbenzene	ND		0.200
2,2,4-Trimethylpentane	ND		0.200
Vinyl chloride	ND		0.200
Vinyl Bromide	ND		0.200
Vinyl acetate	ND		0.200
m&p-Xylene	ND		0.400
o-Xylene	ND		0.200
Ethanol	ND		0.630
(S) 1,4-Bromofluorobenzene	*100*		*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/28/15 21:39 • (LCSD) 12/28/15 22:25

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	3.87	3.86	103	103	34.3-167			0.380	25
Propene	3.75	4.17	4.16	111	111	53.9-143			0.340	25
Dichlorodifluoromethane	3.75	4.60	4.60	123	123	56.7-140			0.130	25
1,2-Dichlorotetrafluoroethane	3.75	4.41	4.37	118	117	70.0-130			0.960	25
Chloromethane	3.75	4.25	4.30	113	115	70.0-130			1.10	25
Vinyl chloride	3.75	4.35	4.33	116	115	70.0-130			0.460	25
1,3-Butadiene	3.75	4.37	4.19	116	112	70.0-130			4.24	25
Bromomethane	3.75	4.25	4.24	113	113	70.0-130			0.0300	25
Chloroethane	3.75	4.34	4.32	116	115	70.0-130			0.450	25
Trichlorofluoromethane	3.75	4.40	4.32	117	115	70.0-130			1.69	25
1,1,2-Trichlorotrifluoroethane	3.75	4.38	4.32	117	115	70.0-130			1.44	25
1,1-Dichloroethene	3.75	4.36	4.30	116	115	70.0-130			1.53	25
1,1-Dichloroethane	3.75	4.40	4.31	117	115	70.0-130			1.95	25
Acetone	3.75	4.27	4.25	114	113	70.0-130			0.470	25
Carbon disulfide	3.75	4.26	4.20	113	112	70.0-130			1.32	25
Methylene Chloride	3.75	3.93	3.87	105	103	70.0-130			1.39	25
MTBE	3.75	4.29	4.23	115	113	70.0-130			1.43	25
trans-1,2-Dichloroethene	3.75	4.37	4.30	117	115	70.0-130			1.55	25
n-Hexane	3.75	4.42	4.34	118	116	70.0-130			1.83	25
Vinyl acetate	3.75	4.61	4.52	123	121	70.0-130			1.88	25
Methyl Ethyl Ketone	3.75	4.46	4.33	119	116	70.0-130			2.82	25
cis-1,2-Dichloroethene	3.75	4.34	4.30	116	115	70.0-130			1.02	25
Chloroform	3.75	4.38	4.34	117	116	70.0-130			1.00	25
Cyclohexane	3.75	4.53	4.37	121	117	70.0-130			3.44	25
1,1,1-Trichloroethane	3.75	4.48	4.37	120	117	70.0-130			2.54	25
Carbon tetrachloride	3.75	4.44	4.38	118	117	70.0-130			1.40	25
Benzene	3.75	4.44	4.41	119	118	70.0-130			0.690	25
1,2-Dichloroethane	3.75	4.48	4.44	119	118	70.0-130			0.870	25
Heptane	3.75	4.59	4.61	122	123	70.0-130			0.610	25
Trichloroethylene	3.75	4.37	4.39	117	117	70.0-130			0.520	25
1,2-Dichloropropane	3.75	3.96	3.96	105	105	70.0-130			0.0200	25
1,4-Dioxane	3.75	4.45	4.42	119	118	48.0-156			0.520	25
Bromodichloromethane	3.75	3.92	3.91	105	104	70.0-130			0.150	25
cis-1,3-Dichloropropene	3.75	3.91	3.87	104	103	70.0-130			0.890	25
4-Methyl-2-pentanone (MIBK)	3.75	4.21	4.17	112	111	55.3-154			1.09	25
Toluene	3.75	3.97	3.94	106	105	70.0-130			0.810	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/28/15 21:39 • (LCSD) 12/28/15 22:25

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
trans-1,3-Dichloropropene	3.75	3.88	3.92	103	105	70.0-130			1.08	25
1,1,2-Trichloroethane	3.75	3.91	3.96	104	106	70.0-130			1.33	25
Tetrachloroethylene	3.75	3.96	3.97	106	106	70.0-130			0.400	25
Methyl Butyl Ketone	3.75	4.30	4.29	115	114	47.9-165			0.200	25
Dibromochloromethane	3.75	3.88	3.93	103	105	70.0-130			1.23	25
1,2-Dibromoethane	3.75	3.93	3.93	105	105	70.0-130			0.0400	25
Chlorobenzene	3.75	3.92	3.92	105	105	70.0-130			0.0800	25
Ethylbenzene	3.75	4.50	4.45	120	119	70.0-130			1.05	25
m&p-Xylene	7.50	8.92	8.85	119	118	70.0-130			0.820	25
o-Xylene	3.75	4.42	4.39	118	117	70.0-130			0.750	25
Styrene	3.75	4.49	4.43	120	118	70.0-130			1.23	25
Bromoform	3.75	4.50	4.51	120	120	70.0-130			0.220	25
1,1,2,2-Tetrachloroethane	3.75	4.27	4.24	114	113	70.0-130			0.860	25
4-Ethyltoluene	3.75	4.33	4.29	115	114	70.0-130			0.880	25
1,3,5-Trimethylbenzene	3.75	4.22	4.21	113	112	70.0-130			0.370	25
1,2,4-Trimethylbenzene	3.75	4.28	4.22	114	112	70.0-130			1.49	25
1,3-Dichlorobenzene	3.75	4.45	4.39	119	117	70.0-130			1.29	25
1,4-Dichlorobenzene	3.75	4.49	4.45	120	119	70.0-130			0.700	25
Benzyl Chloride	3.75	4.53	4.52	121	121	55.6-160			0.110	25
1,2-Dichlorobenzene	3.75	4.32	4.30	115	115	70.0-130			0.420	25
1,2,4-Trichlorobenzene	3.75	4.70	4.62	125	123	53.6-154			1.85	25
Hexachloro-1,3-butadiene	3.75	4.55	4.39	121	117	62.1-143			3.44	25
Naphthalene	3.75	4.88	4.89	130	130	52.0-158			0.240	25
Allyl Chloride	3.75	4.33	4.28	115	114	70.0-130			1.04	25
2-Chlorotoluene	3.75	4.37	4.38	116	117	70.0-130			0.320	25
Methyl Methacrylate	3.75	4.07	4.12	108	110	70.0-130			1.37	25
Tetrahydrofuran	3.75	4.37	4.32	117	115	65.0-140			1.19	25
2,2,4-Trimethylpentane	3.75	4.04	3.96	108	106	70.0-130			1.94	25
Vinyl Bromide	3.75	4.33	4.30	115	115	70.0-130			0.590	25
Isopropylbenzene	3.75	4.35	4.31	116	115	70.0-130			1.09	25
(S) 1,4-Bromofluorobenzene				*102*	*101*	*60.0-140*				

Method Blank (MB)

(MB) 12/29/15 10:31

Analyte	MB Result	MB Qualifier	MB RDL
	ppb		ppb
2-Propanol	ND		1.25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/29/15 09:11 • (LCSD) 12/29/15 09:51

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppb	ppb	ppb	%	%	%			%	%
2-Propanol	3.75	4.03	4.12	107	110	50.4-152			2.10	25

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

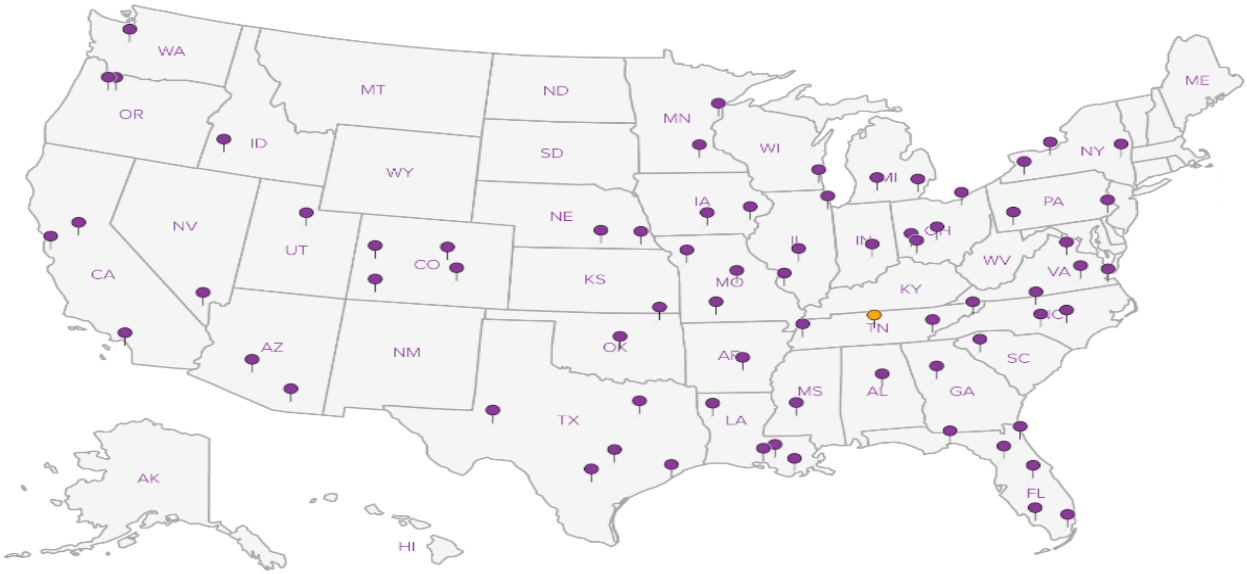
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



AEI Consultants- Walnut Creek, CA

2500 Camino Diablo
Walnut Creek, CA 94597

Billing Information:
Accounts Payable- Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Report to: **Jonathan Sanders**

Email To: **jsanders@aeiconsultants.com; jasmith@aeiconsultants.com**

Project Description: **Lucasey Manufacturing**

City/State Collected:

Phone: **925-746-6028**
Fax:

Client Project # **345989**

Lab Project # **AEICONWCCA-345989**

Collected by (print): Jordan Vida

Site/Facility ID # **2744 EAST ELEVENTH STREET**

P.O. # **99527**

Collected by (signature):

Immediately Packed on Ice N____ Y____

Rush? (Lab MUST Be Notified)
____ Same Day 200%
____ Next Day 100%
____ Two Day 50%
____ Three Day 25%

Date Results Needed

Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TO-15 Summa										Rem./Contaminant	Sample # (lab only)
ASV-33		Air	5.0	12-16-15	1502	1	X											01
ASV-34		Air	5.0	12-17-15	1243	1	X											03
ASV-35		Air	5.0	12-17-15	1150	1	X											04
ASV-36		Air	5.0	12-17-15	0902	1	X											
		Air				1	X											
		Air				1	X											
		Air				1	X											
		Air				1	X											
		Air				1	X											
		Air				1	X											
		Air				1	X											

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	12-17-15	1300	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____

Temp: AMB °C Bottles Received: 4

Date: 12/18/15 Time: 0900

Chain of Custody Page 3 of 5

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 308054

F176

Acctnum: **AEICONWCCA**
Template: **T107887**
Prelogin: **P534307**
TSR: **358 - Jarred Willis**
PB:
Shipped Via:

Hold #

Condition: FCx4 (lab use only)

COC Seal Intact: ____Y ____N ____NA

pH Checked: NCF: