

#### AGENDA

Special Meeting of the Board of Directors Zoom Meeting June 12<sup>th</sup>, 2020 @ 11:00 AM Join Zoom Meeting Meeting ID: 862 0232 8277 Password: 642088

- 1. Call to Order
- 2. Public Comment
- 3. <u>Approval of the Minutes of the May 21<sup>st</sup>, 2020 Board of Directors Meeting</u> (<u>Attachment</u>)
- 4. Executive Directors Report
  - A. Status Update on EGR Bus Yard at Mandela Parkway
    - i. Review of Project Schedule
  - ii. CTC Approval of Airspace Lease June 24th
  - iii. Status Update on Bid Package & Advertisement of Construction
- 5. Business Items
  - A. Review and Consider Approval of Airspace Lease with Caltrans (Attachments)
  - B. Review and Consider Approval of Purchase Agreement with Classic Graphics for the Purchase and Installation of Protective Barriers on all Fleet Vehicles for a Not to Exceed Amount of \$43,000 (*Attachment*)
- 6. Confirm date of Next Meeting July 16th, 2020 @ 9:15 AM
- 7. Adjournment

Chair

Geoffrey Sears, Wareham Development

**Vice Chair** Betsy Cooley, At-Large Residential Member

**Secretary** Vacant

**Treasurer** Andrew Allen At-Large Business Member

**Directors** Peter Schreiber, Pixar

Colin Osborne At-Large Business Member

Kassandra Kappelos Public Market

Bobby Lee, At-Large Residential Member

#### **ACTION SUMMARY MINUTES**

Board of Directors Meeting

May 21, 2020

1. Call to Order

The meeting was called to order at 9:16 AM by Chair, Geoffrey Sears.

Directors Present: Geoff Sears, Betsy Cooley, Andrew Allen, Bobby Lee, Peter Schreiber, Colin Osborne, Kassandra Kappelos Staff Present: Roni Hattrup, Tiffany Gephart, Gray-Bowen-Scott Others: Christine Daniel, City of Emeryville

- 2. <u>Public Comment</u> No public comment.
- 3. <u>Approval of the Minutes of the March 19<sup>th</sup>, 2020 Board of Directors Meeting (Attachment)</u> Betsy motioned for approval of the minutes. Bobby Lee seconded the motion.

This item was approved by a unanimous vote. AYE: 7 NAY: 0 ABSTAIN: 0

- 4. Executive Directors Report
  - A. Status Update on EGR Bus Yard at Mandela Parkway
    - i. Review of Project Schedule
  - ii. CTC Approval of Airspace Lease

Roni provided an overview of the project schedule. Roni commented that CTC postponed the approval of the Airspace lease and that the new approval date is scheduled for June 24<sup>th</sup>. Roni reviewed the project schedule and noted that the critical Board items include: approval of the CA firm bid package and Airspace Lease Agreement by June 12th, approval of contractor selection and contract, and approval to order equipment for the modular office units by July 16<sup>th</sup>. Roni commented that staff will coordinate with the Board to schedule a special meeting on June 12<sup>th</sup> to approve the bid package and airspace lease agreement.

Roni expressed her concerns of low interest by contractors. Andrew Allen and Kassandra Kappelos offered to reach out to some firms for construction advertisement. Roni commented that she would welcome the referrals and would ensure a fair procurement process.

B. Status Update on Emery Go Round Ridership & Performance during COVID-19

Roni commented that ridership has remained steady at nearly 500 riders per day with no notable increase as of May 10, 2020. Roni noted that staff will watch ridership closely to

#### **ACTION SUMMARY MINUTES**

Board of Directors Meeting May 21, 2020

maintain social distancing and appropriate staffing. Roni noted that she anticipates returning to a normal staff plan in the September/October timeframe regardless of ridership to avoid overcrowding and will monitor what other transit agencies are doing.

Roni noted that service has maintained a 90% on-time performance rate, and she may need evaluate timing delays on Shellmound/Powell route.

Colin Osborne asked if there have been any comments or concerns from the drivers. Roni noted that she has not heard any concerns from drivers and that people seem to be honoring social distancing. So far, no one has been sick within the staff.

#### C. Review of Annual Report Draft

Roni presented the Emery Go-Round Draft Annual Report. Roni commented that the 2019 At-a-Glance and Ridership sections have been modified for 2019. Roni noted that throughout the state of California and the Bay Area there has been a decline in public transit usage during off-peak hours beginning in 2017 due to a decrease in workers living in urban areas and an increase in the utilization of ride hailing services.

Roni noted that the summary of financials are taken directly from the financial statements and include revenue from reimbursables as well as the depreciation of equipment. The pie charts include ETMA revenue and expenditures and exclude revenue from reimbursables. Geoff Sears requested a footnote be added to clarify the discrepancy.

Geoff Sears asked where the report is posted and if it will be available on the buses. Roni commented that the report will be available on the Emery Go-Round website and mailed to every member in the PBID. Roni commented that would not be made available on the buses.

#### 5. Business Items

- A. Construction Administration Services (Attachments)
  - i. Review of Statement of Qualifications
  - ii. Selection of Construction Administration Firm
  - iii. Approval of Professional Services Agreement and Authorization of Phase 1 Project Budget

Roni noted that of the 3 firms approached one firm submitted a statement of qualifications, and the other two declined due to lack of availability.

Roni reviewed the statement of qualifications and approach submitted by Zoon and key tasks. Roni noted that Gray-Bowen-Scott has an existing working relationship with the firm and the qualifications have been reviewed and the proposed tasks and budgets are reasonable.

Roni commented that she requested a modified cost proposal for tasks 4 and 5 from Zoon in order to work with Zoon and staff to further revise and detail those tasks. Roni

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requested Board approval to execute the agreement for a not to exceed amount of \$78,100 to be billed hourly for tasks 1, 2,3 6 and 7 and that tasks 4 and 5 will be revised and presented to the Board in the future.

Andrew Allen motioned for Approval and Geoff Sears seconded the motion to approve the Professional Services agreement and authorization of Phase 1 project budget with Zoon.

This item was approved by unanimous vote. AYE: 7 NAY: 0 ABSTAIN: 0

- B. Revenue/Cost Projections and 2021 Preliminary Budget (Attachments)
  - i. Review and Discuss Revenue and Cost Projections through 2030
  - ii. Review and Consider approval of the 2021 Preliminary Budget and
  - iii. Recommendation for PBID Levy increase to Emeryville City Council

Roni reviewed the three budget scenarios: Scenario 1 with a 3% increase per year in PBID levy assessments starting in 2021; scenario 2 with a 5% increase per year for calendar year 2021-2024 and 3% thereafter; scenario 3 with a 4% increase per year from 2021-2024 and annual 3% increase thereafter. Roni recommended Scenario 1, a 3% increase per year in PBID levy assessments.

Bobby Lee asked why not approve a levy increase of 5%. Roni noted that she anticipates some reductions in overall costs and want to be mindful of members who may be facing financial hardships.

Andrew motioned for approval, Betsy seconded the motion to approve the 2021 preliminary budget and the recommendation to Emeryville City Council of an annual 3% increase in PBID levy assessments.

This item was approved by unanimous vote. AYE: 7 NAY: 0 ABSTAIN: 0

*Christine Daniels noted that she appreciated the 3% increase recommendation. The City of Emeryville anticipates a significant revenue shortfall over the next two years.* 

#### C. Review of 1st Quarter Financial Report (Attachment)

Roni provided a summary of the 1<sup>st</sup> quarter financial reports. Roni noted that ETMA has received 40% of projected revenue for Emery Go Round. Roni will be going to the City of Emeryville to request the release of CIP funds for the Bus Yard project. Roni noted that ETMA 1<sup>st</sup> quarter direct bill invoices have gone out but not all payments have been received.

#### **ACTION SUMMARY MINUTES**

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Roni noted that budget costs and overall expenses for direct costs is running high at 27% due installation of APC equipment in 2019 that was paid in 2020. Indirect expenses are trending below budget and actual expenditures for professional for services is at 20% and not 13% as reflected in the 1<sup>st</sup> quarter report.

*Roni noted that total TMA expenditures are approximately 20% and budget expenditures for West Berkeley Shuttle and 8 to Go are on target.* 

- 6. <u>Confirm date of Next Meeting June 12<sup>th</sup>, 2020 @ 9:15 AM (NOTE SPECIAL MEETING DATE)</u> Roni commented that Tiffany Gephart will reach out to Board members to request availability for the special meeting on June 12th.
- 7. <u>Adjournment</u> <u>The meeting was adjourned at 10:25AM.</u>

## (Lease Area No 04-ALA-580-34) (Account No. 04-ALA-580-0034-04)

## STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION <u>AIRSPACE LEASE</u>

THIS LEASE, dated July 1, 2020 (the "Execution Date") is by and between the STATE OF CALIFORNIA, acting by and through its Department of Transportation, hereinafter called "Landlord," and EMERYVILLE TRANSPORTATION MANAGEMENT ASSOCIATION, a California nonprofit corporation, doing business as Emery-Go-Round, hereinafter called "Tenant."

## WITNESSETH

For and in consideration of the rental and of the covenants and agreements hereinafter set forth to be kept and performed by the Tenant, Landlord hereby leases to Tenant and Tenant hereby leases from Landlord the Premises herein described for the term, at the rental and subject to and upon all of the terms, covenants and agreements hereinafter set forth.

ARTICLE 1. SUMMARY OF LEASE PROVISIONS

Landlord: California Department of Transportation

Tenant: Emeryville Transportation Management Association

Premises: 04-ALA-580-34 located in the City of <u>Oakland</u> County of Alameda, State of California, and more particularly described in Article 2.

Lease Term: Thirty (30) years, commencing on July 1, 2020 and expiring on June 30, 2050.

Monthly Rent: \$ <u>14,325.00</u> (Article 4) Security Deposit: \$ <u>14,325.00</u> (Article 18)

Use: Bus and vehicle parking, staging and dispatching, and as a bus driver rest area, and for office and administrative functions. (Article 5)

Commercial General Liability Insurance: \$5 million (Article 10) Business Automobile Liability Insurance: \$1 million (Article 10) Workers' Compensation Insurance: \$1 million (Article 10)

Addresses for Notices: (Article 19)

To Landlord:

Department of Transportation Right of Way Airspace Development MS 11 US Mail: PO Box 23440, Oakland, CA 94623-0440 Street Address: 111 Grand Avenue, 13<sup>th</sup> floor, Oakland, CA 94612-3771

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To Tenant:

Veronica "Roni" Hattrup Emeryville Transportation Management Association Gray-Bowen-Scott 1211 Newell Ave., Suite 200 Walnut Creek, CA 94596 T: (925)937-0980 ext. 212 Email: Roni@graybowenscott.com

References in this Article 1 to the other Articles are for convenience and designate other Articles where references to the particular item contained in the Summary of Lease Provisions appear. Each reference in this Lease to the Summary of Lease Provisions contained in this Article 1 shall be construed to incorporate all of the terms provided under the Summary of Lease Provisions. In the event of any conflict between the Summary of Lease Provisions and the balance of the Lease, the latter shall control.

#### ARTICLE 2. PREMISES

Landlord hereby leases to Tenant, and Tenant hereby leases from Landlord, for the Lease Term, at the monthly rent, and upon the covenants and conditions hereinafter set forth, that certain Premises known as Freeway Lease Area No. 04-ALA-580-34, situated in the City of Oakland\_and County of Alameda, said land or interest therein being shown on the map or plat marked "Exhibit A," attached hereto and by this reference made a part hereof.

EXCEPTING THEREFROM all those portions of the above-described Premises occupied by the supports and foundations of the existing structure.

ALSO EXCEPTING THEREFROM all that portion of the Premises above a horizontal plane 5 feet below the underside of the superstructure of the existing structure, which plane extends to a line 10 feet, measured horizontally, beyond the outermost protrusion of the superstructure of the structure.

California Civil Code Section 1938 requires commercial landlords to disclose to tenants whether the property being leased has undergone inspection by a Certified Access Specialist ("CASp") to determine whether the property meets all applicable construction-related accessibility requirements. Tenant is hereby advised that the Premises have NOT been inspected by a CASp.

A CASp can inspect the subject premises and determine whether the subject Premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject Premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject Premises for the occupany or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangement for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the Premises. Any CASp inspection shall be conducted in compliance with reasonable rules in effect at the Premises with regard to suchinspections and shall be subject to Landlord's prior written consent. Tenant shall be responsible for all costs associated with a CASp inspection.

This Lease is subject to (1) all easements, covenants, conditions, restrictions, reservations, rights of way, liens, encumbrances and other matters of record, (2) all matters discoverable by physical inspection of the Premises or that would be discovered by an accurate survey of the Premises and (3) all

matters known to Tenant or of which Tenant has notice, constructive or otherwise including, without limitations, those shown on attached Exhibit "A".

#### ARTICLE 3. TERM

The term of this Lease shall be for <u>Thirty (30) Years</u>, commencing July 1, 2020, and expiring on <u>June 30, 2050</u>. Tenant shall notify Landlord in writing 30 days prior to vacating the Premises to arrange a Premises inspection. If Tenant vacates without notice to Landlord, or remains in possession of all or any part of the Premises after the expiration of the term hereof, with or without the express or implied consent of Landlord, such tenancy shall be from month to month per Section 19.10 herein.

#### ARTICLE 4. RENT

#### 4.1 Monthly Rent

Tenant shall pay to Landlord as monthly rent, without deduction, setoff, prior notice, or demand, the sum of  $\frac{14,325.00}{2021}$  per month, in advance on the first day of each month, commencing on January 1, 2021 and continuing during the Lease Term.

Monthly rent for any partial month shall be prorated at the rate of 1/30th of the monthly rent per day. All rent checks shall have printed on their face the following tenancy reference number <u>04-ALA-580-0034-04</u> and shall be paid to Landlord at the following address: State of California, Department of Transportation, Attention: Cashier, P. O. Box 168019, Sacramento, CA 95816-8019.

#### 4.2 Adjustment to Rent

The monthly rent provided for in Section 4.1 shall be subject to adjustment as of the first day of the third year of the term and every year thereafter, via a fixed 3% increase (rounded to closest \$5.00 increment), subject to adjustment pursuant to Section 4.4 below. Table 4.2.1 below provides the Tenant's rent obligation for the first ten (10) years of the Lease Term.

Table 4.2.1		_	
<u>Lease Year</u>	Period	Rent	
Year 1a	July 1, 2020 – Dec 31, 2020	\$ 0.00	
Year 1b	Jan 1, 2021 – June 30, 2021	\$ 14,325.00	
Year 2	July 1, 2021 – June 30, 2022	\$ 14,325.00	
Year 3	July 1, 2022 – June 30, 2023	\$ 14,755.00	
Year 4	July 1, 2023 – June 30, 2024	\$ 15,195.00	
Year 5	July 1, 2024 – June 30, 2025	\$ 15,655.00	
Year 6	April 1, 2025 – March 31, 2026	\$ 16,125.00	
Year 7	April 1, 2016 – March 31, 2027	\$ 16,605.00	
Year 8	April 1, 2027 – March 31, 2028	\$ 17,100.00	
Year 9	April 1, 2028 – March 31, 2029	\$ 17,615.00	
Year 10	April 1, 2029 – March 31, 2030	\$ 18,145.00	
Year 11	April 1, 2030 – March 31, 2031	\$ 18,690.00 (subject t	o reevaluation)

#### 4.3 Landlord's Compensation upon Assignment, Transfer or Sublease of Tenant's Leasehold

(a) In the event that Tenant voluntarily assigns, transfers or subleases any of Tenant's rights in the Premises, Tenant shall pay to Landlord compensation in connection with the transaction in an amount equal to fifty percent (50%) of any and all consideration, whether in present payments or in future payments, which Tenant receives from an assignee, transferee or subtenant in excess of the amount of rent Tenant is obligated to pay to Landlord under this Lease.

(b) Payment by Tenant of the amount of compensation required under this Section 4.3 is a condition to Landlord's giving its consent to any assignment, transfer or sublease under Section 16.1, and Landlord may withhold its consent to any such assignment, transfer or sublease until this compensation has been paid. In addition, before Landlord gives its consent to any such transaction, Tenant shall deliver to the assignee, transferee or subtenant a written summary of all sums due and owing to Landlord under this section and shall deliver to Landlord a written acknowledgement by the assignee, transferee or subtenant that said person affirms that the sums are due and owing to Landlord and that said person accepts responsibility for ensuring that such sums are paid directly to Landlord.

#### 4.4 Reevaluation of Monthly Rent

(a) Landlord, at its sole discretion, expressly reserves the right to reevaluate the monthly rent twice during the term of this Lease. As of the commencement of the 11<sup>th</sup>, and 21<sup>st</sup> years after the commencement of the initial term, or as soon thereafter as Landlord desires, a fair market lease rate may be determined in the manner set forth below and shall be established as the monthly rent commencing on the start of such 11<sup>th</sup> and 21<sup>st</sup> years or as soon thereafter upon the running of the notice period as provided for below. If a new rent determined via a reevaluation does not take effect on the 11<sup>th</sup> and 21<sup>st</sup> year of the Lease term, then the rent will continue to adjust annually at the set 3% fixed amount until a reevaluation, if any, takes place. Landlord shall not be required to provide any further notice to Tenant regarding annual rent adjustments during the Lease term.

(b) The monthly rent established by this section shall continue to be subject to the 3% annual adjustment established in Section 4.2. Table 4.2.1 shall be amended to reflect the new monthly rent for the remaining Lease Term pursuant to the reevaluation.

(c) The term "fair market lease rate" means the highest lease rate estimated in terms of money which the leased premises, excluding improvements constructed by Tenant thereon, would bring if exposed for lease in the open market, with a reasonable time allowed to find a tenant, leasing with full knowledge of the purpose and uses to which the leased premises is being put and the restrictions on use contained in Article 5 of this Lease.

(d) The parties intend to establish the fair market lease rate through negotiation. At least 90 days prior to implementation of a new reevaluated lease rate, Landlord shall notice Tenant of its intent to reevaluate the rent, and shall propose to Tenant a new fair market lease rate. In an effort to encourage productive negotiations, if Landlord and Tenant have not mutually agreed upon the fair market lease rate for the Premises 60 days after the notice, after engaging in good-faith negotiations to agree upon such fair market lease rate, then Landlord shall unilaterally set the fair market lease rate based on data collected from a rent survey of reasonably comparable Caltrans and non-Caltrans owned properties and shall use the highest per square foot rate paid by a tenant for a comparable property (but adjusting for the fact of the improvements constructed by Tenant on the Premises), with a comparable use within approximately a one mile radius of the subject Premises.

(e) If Landlord unilaterally sets the fair market lease rate, Tenant shall have the option to accept the new lease rate or Tenant may object to the new lease rate and elect to terminate the Lease with no penalty by providing to Landlord a 30 Day Notice of its intent to Quit. Such termination notice must be 00028147.6

provided by Tenant to Landlord in writing. Tenant's election to Quit shall place the Tenant in the same legal position as if the entire term of this Lease had run its course and expired. Tenant shall have no further rights other than those expressed within this Lease relevant to the natural expiration of the term of the Lease. In the case that Tenant does not provide notice of intent to terminate, the new fair market lease rate established by Landlord shall become effective on the first day of the month following Landlord's 90 day notice of its intent to implement the new reevaluated lease rate. For example, if Landlord provides notice to Tenant of its proposed new rent on February 1, 2021, the new rent would take effect on May 1, 2021. If Tenant fails to pay the new fair market lease rate, Landlord shall treat Tenant's failure to pay the new lease rate as a material breach.

#### 4.5 Reevaluation on Change in Use

Landlord expressly reserves the right to establish a new monthly rent as a condition to Landlord's approval of any use of the Premises not specifically permitted by Section 5.1 and as a condition to any amendment to or changes in the uses permitted by that section.

#### ARTICLE 5. USE

#### 5.1 Specified Use

The Premises shall be used and occupied by Tenant only and exclusively for the purpose of bus and vehicle parking, staging and dispatching, and as a bus driver rest area, and ofr office and administrative functions related to Tenant's Emery Go Round transportation operations and for no other purpose whatsoever without obtaining prior written consent of Landlord and the concurrence of the Federal Highway Administration. Landlord expressly reserves the right to establish a new monthly rent as a condition to Landlord's approval of any use of the leased premises not specifically permitted by this section.

Tenant intends to execute an operations and maintenance agreement with a third party ("Contractor") that will perform day to day transportation operations for Tenant. Contractor may also utilize the Premises for the uses specified herein, and all terms of this Lease regarding the use of the Premises also shall apply to Contractor.

#### 5.2 Condition of Premises

Tenant hereby accepts the Premises in the AS-IS condition existing as of the Execution Date, subject to all applicable zoning, municipal, county, state and federal laws, ordinances and regulations governing and regulating the use of the Premises, and accepts this Lease subject thereto and to all matters disclosed thereby and by any exhibits attached hereto. Tenant acknowledges that neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the condition of the Premises or the suitability thereof for the conduct of Tenant's business, nor has Landlord agreed to undertake any modification, alteration or improvement to the Premises except as provided in this Lease.

Except as may be otherwise expressly provided in this Lease, the taking of possession of the Premises by Tenant shall in itself constitute acknowledgement that the Premises are in good and Tenantable condition, and Tenant agrees to accept the Premises in its presently existing condition "as is", and that the Landlord shall not be obligated to make any improvements or modifications thereto except to the extent that may otherwise be expressly provided in this Lease.

Tenant represents and acknowledges that it has made a sufficient investigation of the conditions

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of the Premises existing immediately prior to the execution of this Lease (including investigation of the surface, subsurface and groundwater for contamination and hazardous materials) and is satisfied that the Premises will safely support the type of improvements, if any, to be constructed and maintained by Tenant upon the Premises, that the Premises is otherwise fully fit physically and lawfully for the uses required and permitted by this Lease and that Tenant accepts all risks associated therewith.

Tenant acknowledges that (1) Landlord has informed Tenant prior to the commencement of the term that the Landlord does not know nor has reasonable cause to believe that any release of any hazardous material has come to be located on or beneath the Premises; (2) prior to the commencement of the term, the Landlord has made available to Tenant, for review and inspection, records in the possession or control of the Landlord which might reflect the potential existence of hazardous materials on or beneath the Premises; (3) Landlord has provided Tenant access to the Premises for a reasonable time and upon reasonable terms and conditions for purposes of providing to Tenant the opportunity to investigate, sample and analyze the soil and groundwater on the Premises for the presence of hazardous materials; (4) by signing this Lease, Tenant represents to Landlord that, except as otherwise may be stated on "Exhibit C" attached hereto and by this reference incorporated herein, Tenant does not know nor has reasonable cause to believe that any release of hazardous material has come to be located on or beneath the Premises; and (5) with respect to any hazardous material which Tenant knows or has reasonable cause to believe has come or will come to be located on or beneath the Premises, Tenant has listed the hazardous material on attached "Exhibit C" and agrees promptly to commence and complete the removal of or other appropriate remedial action regarding the hazardous material at no cost or expense to Landlord and in full compliance with all applicable laws, regulations, permits, approvals and authorizations. The phrase "hazardous material," as used herein, has the same meaning as that phrase has in Section 5.7 of this Lease.

Tenant agrees that, except as otherwise expressly provided in this Lease, Tenant is solely responsible without any cost or expense to the Landlord to take all actions necessary to improve and continuously use the Premises as required by this Lease and in compliance with all applicable laws and regulations; provided, however, Tenant shall not be responsible for any hazardous materials that migrate onto the Premises from sources outside the Premises.

#### 5.3 Compliance with Law

Tenant shall not use the Premises or permit anything to be done in or about the Premises which will in any way conflict with any law, statute, zoning restriction, ordinance or governmental rule or regulation or requirements of duly constituted public authorities now in force or which may hereafter be in force, or with the requirements of the State Fire Marshal or other similar body now or hereafter constituted, relating to or affecting the condition, use or occupancy of the Premises. The judgment of any court of competent jurisdiction or the admission of Tenant in any action against Tenant, whether Landlord be a party thereto or not, that Tenant has violated any law, statute, ordinance or governmental rule, regulation or requirement, shall be conclusive of that fact as between Landlord and Tenant. Tenant shall not allow the Premises to be used for any unlawful purpose, nor shall Tenant cause, maintain or permit any nuisance in, on or about the Premises. Tenant shall not commit or suffer to be committed any waste in or upon the Premises.

#### 5.4 Compliance with Requirements of Lease Application

By executing this Lease, Tenant certifies that all the statements made in the lease application Tenant submitted to Landlord in connection with this Lease are true and correct. If at any time during 00028147.6 the term of this Lease Landlord discovers that any statement Tenant made in the Lease Application is false, this Lease may be terminated immediately by Landlord and be of no further force or effect.

## 5.5 Petroleum Products

Tenant shall not install facilities for, nor operate on the Premises, a gasoline or petroleum supply station. Tenant shall not permit on the Premises any vehicles used or designed for the transportation or storage of gasoline or petroleum products. Tenant shall also not permit on the Premises any bulk storage of gasoline or petroleum products.

Landlord acknowledges that vehicles will be parked on the Premises which contain petroleum products. Tenant may use petroleum products in connection with its transportation operations on the Premises, subject to compliance with all applicable federal, state and local requirements. Tenant or Contractor may conduct Light Maintenance of Emery Go Round fleet vehicles on the Premises. For purposes of this Lease "Light Maintenance" shall mean: (i) the performance of minor repairs to vehicles, including exterior and interior lighting, door mechanics, tires, and windshield wipers; and (ii) the addition ("topping off" only, as distinguished from draining and/or changing, as the case may be) of petroleum-based or other motor vehicle fluids in Tenant's buses in compliance with terms and conditions provided in this Paragraph 5.5, Paragraph 5.3 above and Paragraph 5.7 below; and (iii) the exterior cleaning of Tenant's and Contractor's buses. Tenant shall employ industry standard best management practices to prevent fluid spills onto the surface of the Premises, and contain all spills if at any time fluids contact the Premises. Tenant shall not store tires on the Premises.

## 5.6 Explosives and Flammable Materials

The Premises shall not be used for the manufacture of flammable materials or explosives, or for any storage of flammable materials, explosives or other materials or other purposes deemed by Landlord to be a potential fire or other hazard to the transportation facility. The operation and maintenance of the Premises shall be subject to regulations of Landlord so as to protect against fire or other hazard impairing the use, safety and appearance of the transportation facility. The occupancy and use of the Premises shall not be such as will permit hazardous or unreasonably objectionable smoke, fumes, vapors or odors to rise above the surface of the traveled way of the transportation facility.

#### 5.7 Hazardous Materials

Tenant shall at all times and in all respects comply with all federal, state and local laws, ordinances and regulations, including, but not limited to, the Federal Water Pollution Control Act (33 U.S.C. section 1251, et seq.), Resource Conservation and Recovery Act (42 U.S.C. section 6901, et seq.), Safe Drinking Water Act (42 U.S.C. section 300f, et seq.), Toxic Substances Control Act (15 U.S.C. section 2601, et seq.), Clean Air Act (42 U.S.C. section 7401, et seq.), Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. section 9601, et seq.), Safe Drinking Water and Toxic Enforcement Act (California Health and Safety Code section 25249.5, et seq.), other applicable provisions of the California Health and Safety Code (section 25100, et seq.), and section 39000, et seq.), California Water Code (section 13000, et seq.), and other comparable state laws, regulations and local ordinances relating to industrial hygiene, environmental protection or the use, analysis, generation, manufacture, storage, disposal or transportation of any oil, flammable explosives, asbestos, urea formaldehyde, radioactive materials or waste, or other hazardous, toxic, contaminated or polluting materials, substances or regulations (collectively "Hazardous Materials Laws"). As used in the

provisions of this Lease, "hazardous materials" include any "hazardous substance" as that term is defined in section 25316 of the California Health and Safety Code and any other material or substance listed or regulated by any Hazardous Materials Law or posing a hazard to health or the environment. Except as otherwise expressly permitted in this Lease, Tenant shall not use, create, store or allow any hazardous materials on the premises. Fuel stored in a motor vehicle for the exclusive use in such vehicle is excepted.

In no case shall Tenant cause or allow the deposit or disposal of any hazardous materials on the Premises. Landlord, or its agents or contractors, shall at all times have the right to go upon and inspect the Premises and the operations thereon to assure compliance with the requirements herein stated. This inspection may include taking samples of substances and materials present for testing, and/or the testing of soils or underground tanks on the Premises.

In the event Tenant breaches any of the provisions of this Section, this Lease may be terminated immediately by Landlord and be of no further force or effect. It is the intent of the parties hereto that Tenant shall be responsible for and bear the entire cost of removal and disposal of hazardous materials introduced to the Premises during Tenant's period of use and possession as owner, operator or Tenant of the Premises. Tenant shall also be responsible for any clean-up and decontamination on or off the Premises necessitated by the introduction of such hazardous materials on the Premises. Tenant shall not be responsible for or bear the cost of removal or disposal of hazardous materials introduced to the Premises by any party other than Tenant during any period prior to commencement of Tenant's period of use and possession of the Premises as owner, operator or Tenant.

Tenant shall further hold Landlord, and its officers and employees, harmless from all responsibility, liability and claim for damages resulting from the presence or use of hazardous materials on the Premises during Tenant's period of use and possession of the Premises.

#### 5.8 Signs

Not more than four (4) advertising signs of a size not greater than thirty (30) square feet of surface area may be erected on the Premises. The wording on these signs shall be limited to Tenant's name or trade name, the words "Parking," or "Auto Parking," a statement of rates, and a directional arrow. The location of all these signs shall be subject to Landlord's prior approval. None of these signs shall be attached to or painted on any bridge structure or building without the express written consent of Landlord. All of these signs shall also comply with all applicable requirements of local governmental entitles, including governmental approval and payment of any fees.

Except as set forth in the previous paragraph of this Section, Tenant shall not construct, erect, maintain or permit any sign, banner or flag upon the Premises without the prior written approval of Landlord. Tenant shall not place, construct or maintain upon the Premises any advertising media that include moving or rotating parts, searchlights, flashing lights, loudspeakers, phonographs or other similar visual or audio media. The term "sign" means any card, cloth, paper, metal, painted or wooden sign of any character placed for any purpose on or to the ground or any tree, wall, bush, rock, fence, building, structure, trailer or thing. Landlord may remove any unapproved sign, banner or flag existing on the Premises, and Tenant shall be liable to and shall reimburse Landlord for the cost of such removal plus interest as provided in Section 19.11 from the date of completion of such removal.

#### 5.9 Landlord's Rules and Regulations

Tenant shall faithfully observe and comply with the rules and regulations that Landlord shall from time to time promulgate for the protection of the transportation facility and the safety of the traveling public. Landlord reserves the right from time to time to make reasonable modifications to said rules and regulations. The additions and modifications to those rules and regulations shall be binding 00028147.6

upon Tenant upon delivery of a copy of them to Tenant.

#### 5.10 Wrecked Vehicles

Tenant shall not park or store wrecked or inoperable vehicles of any kind on the Premises.

#### 5.11 Vending

No third party vending of any kind or character shall be conducted, permitted or allowed upon the Premises without the prior express written consent of Landlord.

#### 5.12 Water Pollution Control

Tenant shall comply with all applicable State and Federal water pollution control requirements regarding storm water and non-storm water discharges from the Premises and will be responsible for all applicable permits including but not limited to the National Pollutant Discharge Elimination System (NPDES) General Permit and Waste Discharge Requirements for Discharges of Stormwater Associated with Industrial Activities (Excluding Construction), the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, and the Caltrans Municipal Separate Storm Sewer System NPDES Permit, and permits and ordinances issued to and promulgated by municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water and non-storm water to sewer systems, storm drain systems, or any watercourses under the jurisdiction of the above agencies. Copies of the current storm water related NPDES permits are available on the State Water Resources Control Board's website at http://www.swrcb.ca.gov/water issues/programs/stormwater/.

Tenant understands the discharge of non-storm water into the storm sewer system is prohibited unless specifically authorized by one of the permits or ordinances listed above. In order to prevent the discharge of non-storm water into the storm sewer system, vehicle or equipment washing, fueling, maintenance and repair on the Premises is prohibited.

In order to prevent the discharge of pollutants to storm water resulting from contact with hazardous material, the storage or stockpile of hazardous material on Premises is strictly prohibited.

Tenant shall implement and maintain the Best Management Practices (BMPs) shown in the attached Stormwater Pollution Prevention Fact Sheet(s) for: Parking, Vehicle Storage, and Trash Removal marked "Exhibit B." Tenant shall identify any other potential sources of storm water and non-storm water pollution resulting from Tenant's activities on the premises, which are not addressed by the BMPs, contained in the attached Fact Sheet(s), and shall implement additional BMPs to prevent pollution from those sources. Additional BMPs may be obtained from 2 other manuals:

(1) Right of Way Property Management and Airspace Storm Water Guidance Manual available for review online at: www.dot.ca.gov/hq/row/rwstormwater, and

(2) Construction Site Best Management Practices Manual, available for review online at: www.dot.ca.gov/hq/construc/stormwater/manuals.htm.

In the event of conflict between the attached fact sheet(s), the above-referenced manuals, and this Lease, this Lease shall control.

Tenant shall provide Landlord with the Standard Industrial Classification (SIC) code applicable to Tenant's facilities and activities on the Premises. A list of SIC codes regulated under the General Industrial Permit SIC codes may be found at the State Water Resources Control Board website: http://www.waterboards.ca.gov/water\_issues/programs/stormwater/gen\_indus.shtml. Other SIC codes may be found at www.osha.gov/pls/imis/sicsearch.html.

Landlord, or its agents or contractors, shall at all times have the right to enter and inspect the Premises and the operations thereon to assure compliance with the applicable permits, and ordinances listed above. Inspection may include taking samples of substances and materials present for testing, and/or the testing of storm sewer systems or watercourses on the Premises.

## **ARTICLE 6. IMPROVEMENTS**

6.1 No Improvements Without Prior Written Consent of Landlord

No improvements of any kind shall be placed in, on, or upon the Premises, and no alterations shall be made in, on, or upon the Premises without the prior written consent of Landlord and the concurrence of the Federal Highway Administration. Tenant may, at its sole expense, install and maintain any additional fencing and entrances that may be required by its use of the Premises, subject to the approval of the location by Landlord, the Federal Highway Administration and the City of Oakland and County of Alameda; provided that Tenant shall at its sole expense construct and maintain sidewalks and driveways at the locations where the additional entrances are installed. In the event Tenant violates any of the provisions of this Article, this Lease may be terminated immediately by Landlord and be of no further force or effect.

## 6.2 Approved Improvements

Tenant has proposed, and Landlord has approved Tenant's conceptual proposal to improve the Premises to support its Emery Go Round transportation operations. Construction may not begin until Landlord provides final construction plan approvals pursuant to this Article. Tenant conceptually plans to install, at Tenant's sole cost and expense: (As Applicable)

- a) Electric power pedestal, meter, service;
- b) Lighting;
- c) Paving
- d) Fencing.
- 6.3 Encroachment Permit

Tenant, prior to construction or alteration of any improvements on or of the leased premises, shall obtain an executed encroachment permit (the "Encroachment Permit") from Landlord.

Issuance by Landlord of an Encroachment Permit shall be contingent upon Tenant's providing, at Landlord's sole discretion, all or a combination of, the following, to the extent applicable:

(a) Final construction plans and detailed specifications. All such plans and specifications submitted by Tenant to Landlord shall be subject to the review and approval of Landlord, the State Fire Marshal and if on an interstate freeway the Federal Highway Administration.

(b) Evidence of coverage that assures Landlord that sufficient monies will be available to complete the proposed construction or alteration. The amount of coverage shall be at least equal to the total estimated construction cost. Such coverage shall take one of the following forms:

(1) Completion bond issued to Landlord as obligee.

(2) Performance bond and labor and material bond or performance bond containing the provisions of the labor and material bond supplied by Tenant's contractor or contractors, provided said bonds are issued jointly to Tenant and Landlord as obligees.

(3) Satisfactory evidence of availability of funds necessary for completion of the proposed

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construction or alteration.

(4) Any combination of the above.

All bonds shall be issued by a company qualified to do business in the State of California and acceptable to Landlord. All bonds be in a form acceptable to Landlord and shall ensure faithful and full observance and performance by Tenant of all terms, conditions, covenants and agreements relating to the construction of improvements within the leased premises.

(c) Liability insurance as provided in Article 10.

(d) A copy of a building permit issued by the appropriate local jurisdiction.

(e) A copy of Tenant's contract with the general contractor actually performing construction.

(f) Note and Deed of Trust, if any.

(g) Loan escrow instructions, if any.

(h) Final landscaping and irrigation plans and detailed specifications including a maintenance plan for litter removal, watering, fertilization and replacement of landscaping.

(i) Evidence of compliance with the applicable provisions of all federal, state and local environmental statutes, laws, regulations and ordinances.

Tenant agrees to diligently apply for and meet all requirements for issuance of the Encroachment Permit and Landlord agrees to not unreasonably withhold issuance of said Encroachment Permit. Tenant is obligated to deliver to Landlord the documents described in subdivisions (a) through (i) of this section regardless of whether an Encroachment Permit may have been issued inadvertently before these documents have been provided to Landlord.

6.4 Planning and Zoning

Tenant's use and proposed improvements shall be subject to all applicable zoning, municipal, county, state and federal laws, ordinances and regulations governing and regulating the use of the Premises.

#### 6.5 Standard of Construction

Tenant agrees that any improvements or construction upon the premises shall: (a) be consistent with all fire safety requirements including State Fire Marshall approval, (b) be subject to the approval of Landlord, and (c) in every respect comply with the laws, ordinances and regulations, federal, state, municipal or otherwise, that may govern construction of the same. Tenant shall not construct or place on the leased premises any improvements which impair Landlord's ability to maintain, operate, use, repair or improve any part of the transportation facility situated on the leased premises or on adjoining real property. Tenant shall save Landlord harmless of and from any loss or damage caused by reason of the construction of said improvements.

## 6.6 Soil Testing

At Tenant's sole cost and expense, Tenant shall secure soil compaction tests and other tests as necessary for construction of Tenant's improvements and for the support of the improvements on the underlying land or structures thereon. Tenant shall notify Landlord of the location of all test borings, which shall not materially interfere with the operation of any of Landlord's facilities located on the Premises. Tenant hereby agrees that Landlord is making no representation regarding existing soil compaction or structural capability of the land or any existing structure thereon. Responsibility for any loss or damage caused by inadequate soil compaction or other structural capacity for Tenant's proposed improvements shall be subject to the indemnification provisions of Section 10.1

### 6.7 Commencement of Construction

Tenant shall commence construction of the improvements described in Tenant's final construction plans and detailed specifications within 90 calendar days of receipt of the Encroachment Permit. In the event construction is not commenced within the time set forth herein, this Lease may be terminated by Landlord and thereafter be of no further force and effect.

## 6.8 Completion of Construction and Occupancy of Improvements

Construction of the improvements shall be completed consistent with the approved construction plans within 270 calendar days after the commencement of construction. Tenant shall not occupy or use any of the improvements until Tenant has received final building approval and a Certificate of Occupancy from the appropriate local agency and Landlord has issued to Tenant an executed Encroachment Permit Completion Notice. In the event Tenant violates any of the provisions of this section, this Lease may be terminated by Landlord and be of no further force and effect.

## 6.9 "As-Built" Plans

Within ninety (90) days after completion of construction of improvements or alterations, Tenant shall furnish Landlord, at Tenant's expense, one set of "As-Built" plans, according to a scale and size reasonably designated by Landlord, showing said improvements as constructed in detail, including the location of underground and aboveground utility lines.

6.10 Termination If Required Construction Proves Economically Infeasible

This Lease requires Tenant to submit plans for any proposed improvements and construction activities conducted on the premises and to obtain an Encroachment Permit prior to beginning any construction related activities on the premises. If Landlord's Encroachment Permits office reviews Tenant's plans, and thereafter requires Tenant to construct certain improvements or to employ certain construction methods as a condition of the Encroachment Permit, Tenant shall have the option to elect not to proceed with the construction or to terminate this lease agreement if the required improvements or construction methods prove economically infeasible to Tenant.

## ARTICLE 7. SURRENDER OF PREMISES AT EXPIRATION OR TERMINATION OF LEASE

At the expiration or earlier termination of this Lease, Tenant shall peaceably and quietly leave, surrender, and yield up to Landlord the Premises together with all appurtenances and fixtures in good order, condition and repair, reasonable wear and tear excepted.

# ARTICLE 8. OWNERSHIP AND REMOVAL OF IMPROVEMENTS AND PERSONAL PROPERTY

## 8.1 Ownership of Improvements During Term

All improvements constructed on the premises by Tenant as permitted or required by this Lease shall, during the term of this Lease, be and remain the property of Tenant; provided, however, that 00028147.6

Tenant's rights and powers with respect to the improvements are subject to the terms and limitations of this Lease and Tenant's interest in such improvements shall terminate upon the expiration or earlier termination of this Lease. Following completion of construction, Tenant shall not remove any improvements from the premises nor waste, destroy or modify any improvements on the premises, except as specifically permitted by this Lease. At the expiration or termination of this Lease, all improvements constructed on the Premises by Tenant shall vest in Landlord. Tenant shall deliver said improvements to Landlord in good condition and repair, reasonable wear and tear, and damage due to destruction or condemnation, excepted, without compensation to Tenant, any subtenant or third party, free and clear of all claims to or against them by Tenant, any subtenant or third party, and Tenant shall defend and hold Landlord harmless from all liability arising from such claims or from the exercise by Landlord of its rights under this section. In the event said improvements are not delivered to Landlord in good condition and repair, reasonable wear and teal exercise by Landlord of its rights under this section. In the event said improvements are not delivered to Landlord in good condition and repairs and Tenant shall be liable to and shall reimburse Landlord for any such expenditures made, plus interest as provided in Section 22.11 from the date of completion of work. Landlord and Tenant covenant for themselves and all persons claiming under or through them that the improvements are real property.

#### 8.2 Removal of Personal Property and Ownership at Termination

At the expiration or earlier termination of this Lease, Landlord may, at Landlord's sole election, require the removal from the premises, at Tenant's sole cost and expense, of all personal property (other than fixtures), or of certain personal property (other than fixtures), as specified in the notice provided for below. A demand to take effect at the normal expiration of the term shall be effected by notice given at least thirty (30) days before the expiration date. A demand to take effect on any other termination of the term of this Lease shall be effectuated by notice given concurrently with notice of such termination or within ten (10) days after such termination. Tenant shall be liable to Landlord for costs incurred by Landlord in effecting the removal of personal property which Tenant has failed to remove after demand pursuant to this Section 8.2.

Tenant may remove any personal property and trade fixtures from time to time within forty-five (45) days of the expiration of the term. Tenant shall repair all damage (structural or otherwise) caused by any such removal. Any personal property or trade fixtures not removed by Tenant within forty-five (45) days following expiration of the term shall be deemed to be abandoned by Tenant and shall, without compensation to Tenant, become the Landlord's property, free and clear of all claims to or against them by Tenant or any other person.

#### 8.3 <u>Removal of Improvements at Termination</u>

Upon the expiration or earlier termination of this Lease, Landlord may, upon written notice, require Tenant to remove, at the sole cost and expense of Tenant, and not later than ninety (90) days after the expiration or earlier termination of this Lease, all structures, buildings and improvements of any kind whatsoever placed or maintained on the premises, whether below, on or above the ground by Tenant or others, including, but not limited to, foundations, structures, buildings, utility lines, switchboards, transformer vaults and all other service facilities constructed or installed upon the premises (except for paving, lighting, and fencing); and Tenant shall, upon the expiration or earlier termination of this Lease, immediately restore, and quit and peacefully surrender possession of the premises to Landlord in at least as good and usable condition, acceptable to Landlord, as the same was in at the time of first occupation thereof by Tenant or others, ordinary wear and tear excepted, and shall, in any event, leave the surface of the ground in a level, graded condition, with no excavations, holes, hollows, hills or humps. Should

Tenant fail to so remove said structures, buildings and improvements and restore the premises, Landlord may sell, remove or demolish the same, and in the event of said sale, removal or demolition, Tenant shall reimburse Landlord for any cost or expense thereof in excess of any consideration received by Landlord as a result of such sale, removal or demolition.

### 8.4 Liens

## (a) Exemption of Landlord from Liability

Tenant shall at all times indemnify and save Landlord harmless from all claims for labor or materials in connection with construction, repair, alteration, or installation of structures, improvements, equipment or facilities by Tenant or Tenant's agents within the premises, and from the cost of defending against such claims, including attorney fees.

(b) Tenant's Obligations

In the event a lien is imposed upon the premises as a result of such construction, repair, alteration or installation by Tenant or Tenant's agents, Tenant shall either:

(1) Record a valid Release of Lien, or

(2) Deposit sufficient cash with Landlord to cover the amount of the claim on the lien in question and authorize payment to the extent of said deposit to any subsequent judgment holder that may arise as a matter of public record from litigation with regard to a lienholder claim, or

(3) Procure and record a bond in accordance with Section 3143 of the California Civil Code, which frees the premises from the claim of the lien and from any action brought to foreclose the lien.

Should Tenant fail to accomplish one of the three optional actions within 30 days after Landlord's written notice to Tenant of the filing of such a lien, the Lease shall be in default and shall be subject to immediate termination.

## ARTICLE 9. MAINTENANCE AND REPAIRS

9.1 Tenant's Obligations

Tenant, at its own cost and expense, shall maintain the Premises, and keep it free of all grass, weeds and debris, and of flammable materials (except to the extent Tenant is permitted to use and store same in minimal quantities pursuant to the provisions of this Lease). Tenant shall ensure that the Premises is at all times in an orderly, clean, safe, and sanitary condition. Landlord requires a high standard of cleanliness, consistent with the location of the Premises as an adjunct of the California State Highway System.

Tenant hereby expressly waives the right to make repairs at the expense of Landlord and waives the benefit of the provisions of Sections 1941 and 1942 of the California Civil Code or any successor thereto.

Tenant shall take all steps necessary to protect effectively the fences, guardrails, and the piers and columns, if any, of the all structures from damage incident to Tenant's use of the Premises and any improvements, all without expense to Landlord. Tenant shall, at its own cost and expense, repair in accordance with Landlord's standards any damage to any property owned by Landlord, including, but not limited to, all fences, guardrails, piers and columns, caused by Tenant, its contractors, subtenants, invitees or other third parties. At Tenant's request, Landlord will repair such damage to its property, and Tenant agrees to reimburse Landlord promptly after demand for the amount Landlord has reasonably

expended to complete the repair work.

Tenant shall be responsible for the care, maintenance, and any required pruning of trees, shrubs, or any other landscaping on the Premises. Tenant assumes the liability for any damage or injury caused by any falling branches or other such materials from any tree or shrub whether the branches fall due to lack of maintenance or act of god or any other natural or unnatural causes. Tenant's liability insurance required within Article 10 shall cover any damage caused by any falling tree or shrub branches or other materials; and, furthermore, per the same Article 10, Tenant covenants and agrees to indemnify and save harmless Landlord from all liability, loss, cost, and obligation on account of any injuries or losses caused by any falling branches or material from any tree or shrub.

Tenant shall designate in writing to Landlord a representative who shall be responsible for the day-to-day operation and level of maintenance, cleanliness and general order.

#### 9.2 Landlord's Rights

In the event Tenant fails to perform Tenant's obligations under this Article, Landlord shall give Tenant notice to do such acts as are reasonably required to so maintain the Premises. If within ten (10) days after Landlord sends written notice to repair, Tenant fails to do the work and diligently proceed in good faith to prosecute it to completion, Landlord shall have the right, but not the obligation, to do such acts and expend such funds at the expense of Tenant as are reasonably required to perform such work. Any amount so expended by Landlord shall be paid by Tenant promptly after demand plus interest as provided in Section 19.11 from the date of completion of such work to date of payment. Landlord shall have no liability to Tenant for any damage, inconvenience or interference with the use of the Premises by Tenant as a result of performing any such work.

#### 9.3 Retention of Existing Improvements

Landlord may at its option retain existing State improvements including fencing, lighting and irrigation facilities.

#### ARTICLE 10. INSURANCE

#### 10.1 Indemnification

Neither Landlord nor any of Landlord's officers or employees is responsible for any injury, damage, or liability occurring by reason of anything done or omitted to be done by Tenant under or in connection with any work, authority, or jurisdiction conferred upon Tenant or arising under this Lease.

It is understood and agreed Tenant will fully defend, indemnify, and save harmless Landlord and all of its officers and employees from all claims, suits, or actions of every kind brought forth under any theory of liability occurring by reason of anything done or omitted to be done by Tenant under this Lease. Tenant's obligations to defend, indemnify, and save harmless Landlord extends to any and all claims, suits, or actions of every kind brought forth under any theory of liability occurring due to the use of the premises and Tenant's operations under this Lease, any accompanying agreement with Landlord, and any Encroachment Permit issued by Landlord, excluding those arising by reason of the negligence or intentional misconduct of Landlord, its officers, employees, and agents.

Tenant shall include in any contract it enters with any third party to conduct work in association with this Lease, including any contractors who design, construct, or maintain equipment, structures, fixtures or other property, a requirement the contractor will fully defend, indemnify and save harmless

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Landlord and its officers and employees from any and all claims, suits or actions of every kind brought forth under any theory of liability occurring due to the work conducted in association with this Lease. If Tenant has any additional insured endorsements executed by any third parties conducting work in association with this Lease naming Landlord to comply with this provision, Tenant shall provide copies of the additional insured endorsements and a Certificate of Insurance to Landlord within thirty (30) days of executing this lease.

If the Lease is terminated due to Tenant's breach, Tenant also agrees to indemnify, defend, and save harmless Landlord from any third party claims for damages arising out of the termination of the Lease. Such third party claims include any claims from any contractors retained by Tenant or its successors.

Furthermore, Tenant agrees it controls the premises. As such, Tenant agrees to defend, indemnify and hold harmless Landlord, its officers, agents, and employees for any and all claims arising out of any allegedly dangerous condition of public property based upon the condition of the premises.

Tenant agrees to defend, indemnify and save harmless Landlord, its officers, employees, and agents from any and all claims, suits or actions of every kind brought forth under any theory of liability with respect to the premises or the activities of Tenant or its officers, employees, and agents at the premises, excluding those arising by reason of the negligence or intentional misconduct of Landlord, its officers, employees, and agents.

Tenant's obligations to defend Landlord is not excused because of Tenant's inability to evaluate liability or because Tenant evaluates liability and determines Tenant is not liable. Tenant must respond within 30 days to the tender of any defense and indemnity by Landlord, unless this time has been extended by Landlord.

## 10.2 Liability Insurance

Nothing in this Lease is intended to establish a standard of care owed to any member of the public or to extend to the public the status of a third-party beneficiary for any of these insurance specifications.

## Commercial General Liability Insurance

Tenant shall procure Commercial General Liability Insurance with \$1 million per occurrence and \$5 million aggregate limits covering all operations by or on behalf of Tenant, providing insurance for bodily injury liability and property damage liability, and including coverage for:

- 1. Premises, operations and mobile equipment
- 2. Products and completed operations
- 3. Broad form property damage (including completed operations)
- 4. Explosion, collapse, and underground hazards
- 5. Personal injury
- 6. Contractual liability

Tenant shall provide proof of the Commercial General insurance policy with all endorsements, riders, and amendments to Landlord on or before the Commencement Date by a Certificate of Additional Insured.

The Commercial General Liability insurance procured by Tenant shall also comply with the following:

1. Shall extend to all of Tenant's operations and remain in full force and effect during the term of this Lease.

2. Must be with an insurance company with a rating from A.M. Best Financial Strength Rating of

A- or better and a Financial Size Category of VII or better.

- 3. Shall be on Commercial General Liability policy form no. CG0001 as published by the Insurance Services Office (ISO) or under a policy form at least as broad as policy form no. CG0001.
- 4. Shall contain completed operations coverage with a carrier acceptable to Landlord through the expiration of the latent and patent deficiency in construction statutes of repose set forth in Code of Civil Procedure section 337.15.
- 5. Shall name Landlord, including its officers, directors, agents (excluding agents who are design professionals), and employees, as additional insureds under the General Liability Policy with respect to liability arising out of or connected with work or operations performed in connection with this Lease. Coverage for such additional insureds does not extend to liability to the extent prohibited by Insurance Code section 11580.04.
- 6. Shall provide additional insured coverage by a policy provision or by an endorsement providing coverage at least as broad as Additional Insured (Form B) endorsement form CG 2010, as published by the Insurance Services Office (ISO), or other form designated by Landlord.
- 7. Shall state the insurance afforded the additional insureds applies as primary insurance. Any other insurance or self-insurance maintained by Landlord is excess only and must not be called upon to contribute with this insurance.

Workers' Compensation and Employer's Liability Insurance

Tenant shall provide workers' compensation and employer's liability insurance as required under the Labor Code and provide Landlord the following certification before performing any work (Labor Code § 1861) in connection with this Lease: "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract."

Tenant shall provide Employer's Liability Insurance in amounts not less than:

- 1. \$1,000,000 for each accident for bodily injury by accident
- 2. \$1,000,000 policy limit for bodily injury by disease
- 3. \$1,000,000 for each employee for bodily injury by disease

Tenant shall carry automobile liability insurance, including coverage for all owned, hired, and non-owned automobiles. The primary limits of liability must be not less than \$1,000,000 combined single limit for each accident for bodily injury and property damage.

Tenant intends to contract with a third party ("Contractor") to operate Tenant's transportation service. Tenant shall cause Contractor to carry the above commercial general liability insurance. As to the Workers' Compensation, Employer's Liability and automobile liability insurance, Tenant either shall carry such insurance itself or cause Contractor to carry same. Tenant shall cause Contractor to provide Landlord with evidence of all insurance carried by Contractor pursuant to the terms of this Lease. Tenant shall be included as an additional insured on Contractor's policy so to afford Tenant the same coverage benefits, including the duty to defend, as if Tenant was the primary insured.

Landlord allows reasonable deductible clauses not overly broad, exceeding \$250,000, or harmful to Landlord. Tenant agrees by executing this Lease it shall defend, indemnify, and hold harmless Landlord until such deductible is paid or applied to any claim arising out of this Lease, regardless of Tenant's evaluation of liability, as discussed in Section 9.1. Landlord may assure Tenant's compliance with these insurance obligations. Ten days before an insurance policy lapses or is canceled during the

term of this Lease, Tenant must submit evidence of renewal or replacement of the policy. Tenant is not relieved of its duties and responsibilities to indemnify, defend, and hold harmless Landlord, its officers, agents, and employees by Landlord's acceptance of insurance policies and certificates. The minimum insurance coverage amounts do not relieve Tenant from liability in excess of such coverage.

#### 10.3. Self-Insurance

Landlord acknowledges that Tenant may be self-insured. Reasonable self-insurance programs and self-insured retentions in insurance policies are permitted by Landlord. If Tenant uses a selfinsurance program or self-insured retention, Tenant must provide Landlord with the same protection from liability and defense of suits as would be afforded by first-dollar insurance. Further, execution of this Agreement is Tenant's acknowledgment Tenant will be bound by all laws as if Tenant were an insurer as defined under Insurance Code section 23 and Tenant's self-insurance program or self- insured retention shall operate as insurance as defined under Insurance Code section 22. Tenant shall notify Landlord in writing not less than thirty (30) days prior to the effective date of the termination of its selfinsurance coverage and shall obtain the insurance coverage required by this section effective on that termination date.

#### 10.4 Failure to Procure and Maintain Insurance

If Tenant fails to procure or maintain the insurance required by this Article in full force and effect, this Lease may be terminated immediately by Landlord. In addition, if Tenant fails to procure or maintain the insurance required by this Article, Tenant shall cease and desist from operating any business on the premises and the improvements erected thereon and shall prevent members of the public from gaining access to the premises during any period in which such insurance policies are not in full force and effect.

#### 10.5 Waiver of Subrogation

Tenant hereby waives any and all rights of recovery against Landlord, or against the officers, employees, agents and representatives of Landlord, for loss of or damage to Tenant or its property or the property of others under its control to the extent that such loss or damage is insured against under any insurance policy in force at the time of such loss or damages. Tenant shall give notice to its insurance carrier or carriers that the foregoing waiver of subrogation is contained in the Lease.

#### ARTICLE 11. PAYMENT OF TAXES

Tenant agrees to pay and discharge, or cause to be paid and discharged when due, before the same become delinquent, all taxes, assessments, impositions, levies and charges of every kind, nature and description, whether general or special, ordinary or extraordinary, which may at any time or from time to time during the term of this Lease, by or according to any law or governmental, legal, political, or other authority whatsoever, directly or indirectly, be taxed, levied, charged, assessed or imposed upon or against, or which shall be or may be or become a lien upon the Premises or any buildings, improvements or structures at any time located thereon, or any estate, right, title or interest of Tenant in and to the Premises, buildings, improvements or structures. Specifically, and without placing any limitation on Tenant's obligations under the immediately preceding sentence, Tenant shall pay when due, before delinquency, any and all possessory interest taxes, parking taxes, workers' compensation, taxes payable to the California Franchise Tax Board, personal property taxes on fixtures, equipment and output taxes.

facilities owned by Tenant, whether or not the same have become so fixed to the land as to comprise a part of the real estate.

Tenant understands that any possessory interest of Tenant created in the Premises by this Lease may be subject to property taxation and that Tenant may be liable for payment of any such tax levied on such interest. Any obligation of Tenant under this Article, including possessory interest tax that the city or county may impose upon Tenant's interest herein, shall not reduce any rent due Landlord hereunder and any such obligation shall become the liability of and be paid by Tenant. In the event Tenant defaults in the payment of any of the obligations set forth in this Article, this Lease may be terminated immediately by Landlord and be of no further force or effect.

#### ARTICLE 12. RIGHT OF ENTRY

#### 12.1 Inspection, Maintenance, Construction and Operation of Freeway Structures

Landlord, through its agents or representatives, and other city, county, state and federal agencies, through their agents or representatives, shall have full right and authority to enter in and upon the Premises and any building or improvements situated thereon at any and all reasonable times during the term of this Lease for the purpose of inspecting the same without interference or hindrance by Tenant, its agents or representatives.

Landlord further reserves the right of entry for the purpose of inspecting the Premises, or the doing of any and all acts necessary or proper on said Premises in connection with the protection, maintenance, reconstruction, and operation of the freeway structures and its appurtenances; provided, further, that Landlord reserves the further right, at its discretion, to immediate possession of the same in case of any national or other emergency, or for the purpose of preventing sabotage, and for the protection of said freeway structures, in which event the term of this Lease shall be extended for a period equal to the emergency occupancy by Landlord, and during said period Tenant shall be relieved, to the degree of interference, from the performance of conditions or covenants specified herein. Landlord further reserves the right of entry by any authorized officer, engineer, employee, contractor or agent of the Landlord for the purpose of performing any maintenance activities upon the property which Tenant has failed to perform after the expiration of the applicable cure period specified in Article 9.

#### 12.2 Future Transportation Projects

(a) Landlord's Right to Possession of Premises.

Tenant understands and acknowledges that Landlord may, during the Term of this Lease, construct an "Approved and Funded Transportation Project", which may require the temporary or permanent use of all or a portion of the premises. An "Approved and Funded Transportation Project" is defined as a proposed transportation facility to be constructed by Landlord where the funds necessary to construct the facility are available to Landlord (regardless of the source of the funds) and where the transportation facility can reasonably be expected to be constructed within a reasonable period of time following termination of this Lease as provided in this Article.

In the event Landlord determines that the premises or any portion thereof will be affected by an "Approved and Funded Transportation Project", Landlord shall immediately notify Tenant of its intent to take possession of all or a portion of the premises and shall provide Tenant with at least ninety (90) days written notice within which to vacate the required area. Landlord's notice to Tenant shall indicate the area of the premises to be taken. If possession is to be a temporaryuse of all or part of the premises, 00028147.6

Landlord shall additionally state in such notice to Tenant Landlord's reasonable estimate of the period of time of such temporary use by Landlord. If possession is to be permanent, Landlord shall have the right to terminate the Lease. Upon the date Landlord is entitled to possession of the premises, or portion thereof, Tenant shall peaceably surrender possession of the premises, or portion thereof, and comply with the restriction as stated in the notice. The failure of Tenant to vacate the required area of the premises shall constitute a material default and breach of this Lease entitling Landlord to exercise its rights and remedies. If an alternative location or locations are available, Landlord shall meet with Tenant prior to terminating the Lease to discuss with Tenant the possibility of leasing such alternate location.

#### (b) Reduction of Monthly Rent if Lease Remains Effective

For the period during which Landlord has taken possession of the premises under this section, and if this Lease remains effective, Tenant shall be entitled to receive a reduction in Monthly Rent for the term of Landlord's use of the area of the premises used by Landlord. The rent will be reduced by the same percentage as the useable square footage reduction as required by State's project.

#### (c) Tenant's Sole Rights; Tenant's Waiver.

Landlord's taking of possession of the premises under this Section 12.2 does not constitute a taking or damaging entitling Tenant to compensation under any Condemnation provisions. The reduction in Monthly Rent as provided herein shall be Tenant's sole remedy against Landlord for Tenant's inability to possess or use part or all of the area of the premises as a result of an "Approved and Funded Transportation Project", and Tenant expressly agrees to hold Landlord harmless from any and all liability for, and expressly waives any right it may have to recover against Landlord, damages to the Premises, any improvements constructed on the premises or improvements thereon, and damages to any other property, project or operations including any claim for loss of business goodwill or resulting from Tenant's inability to use or possess all or any portion of the premises as a result of an "Approved and Funded Transportation Project". In addition, Tenant expressly recognizes that it is not entitled to receive benefits under the federal or state Uniform Relocation Assistance Act (United States Code, Section 7260, et seq.) as a result of Landlord's use or possession of any portion of the premises an "Approved and Funded Transportation Project". Landlord agrees to instruct its authorized representatives to minimize the effect of any required construction on Tenant's use of the premises, both in the construction phase and in the permanent effect on the premises in connection with an "Approved and Funded Transportation Project".

#### 12.3 Maintenance Work and Retrofitting of Freeway Structures

Tenant understands and agrees that Landlord may be required to perform maintenance or retrofit work on all or a part of the freeway structures that are situated on and above the premises. Landlord shall have the right to impose such restrictions on Tenant's right to enter, occupy, and use the premises and to maintain the existing improvements or construct improvements thereon as Landlord deems are necessary to enable it to complete construction of all freeway maintenance or structural retrofit work without interference from Tenant.

In the event Landlord determines that it needs to obtain possession of all or a portion of the premises, or needs to place restrictions on Tenant's use of the premises, Landlord shall, if possible, at least ninety (90) days prior to the effective date of the commencement of such possession or restrictions notify Tenant in writing describing the extent of the possession or restrictions and the effective date of their commencement. Upon the effective date of said notice, Tenant shall peaceably surrender possession or provide the possession of the possession of the provide the possession of the possession of the effective date of the possession of the provide the provide the possession of t

of the premises and comply with the restrictions as stated therein. The monthly rent stated in Section 4.1, as adjusted in Section 4.2, shall be reduced by an amount equal to the proportion which the area of the portion of the premises which Tenant is restricted from using or which has been surrendered to Landlord bears to the total area of the leased premises. This reduction in rent shall be Tenant's sole remedy against Landlord for Tenant's inability to possess or use the entire area of the premises, and Tenant expressly agrees to hold Landlord harmless from any and all liability for, and expressly waives any right it may have to recover against Landlord, damages to the premises, any improvements constructed on the premises, and waives its right to use or possess any portion of the premises or improvements thereon, and damages to any other property, project or operation caused by Landlord's possession, imposition of restrictions or Tenant's inability to use or possess all or any portion of the premises. In addition, Tenant expressly recognizes that it is not entitled to receive benefits under the federal or state Uniform Relocation Assistance Acts (United States Code, title 42, Section 4601, et seq.; California Government Code, Section 7260, et seq.) as a result of Landlord's use or possession of any portion of the premises.

Tenant shall conduct its operations on the premises in such a manner so as not to interfere with Landlord's or its contractor's performance of any structural retrofit work done on or above the premises. Tenant acknowledges that the performance of the structural retrofit work may cause damage to paving or other improvements constructed by Tenant on the premises. Tenant expressly agrees to hold Landlord harmless from all such damage to its improvements, except that at the conclusion of the retrofit work, Landlord shall restore the premises to their preexisting condition at no cost to Tenant.

## 12.4 Reinstitution of Lease.

If Landlord takes possession of all or a portion of the Premises in accordance with the preceding provisions of this Article 12, Landlord shall notify Tenant that Landlord has completed the use or work requiring such repossession within thirty days after Landlord completes such use or work, and if requested by Tenant in writing within ninety days thereafter, either (i) in the case of a partial repossession by Landlord, Tenant shall be entitled to lease the entire Premises (i.e., the initialPremises leased before Landlord's repossession) and pay the corresponding monthly rent for the remainder of the Lease term and (ii) in the case of a total repossession by Landlord and termination of the Lease, Landlord shall enter into a new lease with Tenant with respect to the entire Premises with substantially the same terms and conditions as set forth in this Lease (except that the expiration date of the new lease shall be extended one day for each day between the date of Landlord's repossession and the commencement date of the new lease, which shall be Landlord's only obligation to Tenant in the case it repossesses all of the Premises).

## 12.5 Tenant's Termination Rights.

Notwithstanding any provisions of this Article 12 to the contrary, in the event Tenant determines that: (i) the portion of the Premises that will be taken pursuant to this Article 12 constitutes a material portion of the Premises, or (ii) Landlord's construction activities will unreasonably interfere with Tenant's use of the Premises, Tenant shall have the right to terminate this Lease, unless Landlord is able to provide an alternative site with comparable improvements to which Tenant is able to relocate at minimal cost and disruption to Tenant.

## ARTICLE 13. CONDEMNATION BY PUBLIC ENTITIES OTHER THAN LANDLORD

## 13.1 Definitions

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(a) "Condemnation" means (1) the exercise of the power of eminent domain, whether by legal proceedings or otherwise, by a public entity having that power, that is, a condemnor, and (2) a voluntary sale or transfer to any condemnor, either under the threat of condemnation or while legal proceedings in condemnation are pending.

(b) "Award" means all compensation, sums, or anything of value awarded, paid or received upon a total or partial condemnation of the leased premises.

(c) "Substantial taking" means a taking of a portion of the leased premises by condemnation which, assuming a reasonable amount of reconstruction on the remainder, substantially impairs Tenant's ability to use the remainder for the purposes permitted under this Lease.

## 13.2 Termination of Lease as to Part Condemned

In the event the whole or any part of the premises is taken by condemnation by a public entity, other than Landlord, in the lawful exercise of its power of eminent domain, this Lease shall cease as to the whole or the part condemned upon the date possession of the whole or that part is taken by the public entity.

## 13.3 Partial Taking

If a part of the leased premises is taken by condemnation but there is no substantial taking of the premises, Tenant shall continue to be bound by the terms, covenants, and conditions of this Lease. However, if the fair rental value of the remainder will be less than the rent required by this Lease, the monthly rent and adjusted monthly rent shall be reduced to an amount equal to the fair rental value as of the date possession of the part is taken by the public entity.

If the part taken by condemnation constitutes a substantial taking of the leased premises, Tenant may elect to:

(a) Terminate this Lease and be absolved of obligations hereunder which have not accrued at the date possession is taken by the public entity; or

(b) Continue to occupy the remainder of the premises and remain bound by the terms, covenants and conditions of this Lease. If Tenant elects to continue to occupy the remainder, and if the fair rental value of the remainder will be less than the rent required by this Lease, the monthly rent and adjusted monthly rent shall be reduced to the fair rental value as of the date possession of the part is taken by the public entity.

Tenant shall give notice in writing of its election to terminate this Lease hereunder within thirty (30) days of the date possession of the part is taken by the public entity. If Tenant fails to give Landlord its written notice of termination within the time specified, this Lease shall remain in full force and effect except that the monthly rental shall be reduced as provided in this section.

If it continues to occupy the remainder, Tenant, whether or not the award upon the taking by condemnation is sufficient for the purpose, shall, at its expense, within a reasonable period of time, commence and complete restoration of the remainder of the leased premises as nearly as possible to its value, condition and character immediately prior to such taking; provided, however, that in the case of a taking for temporary use, Tenant shall not be required to effect restoration until such taking is terminated. Tenant shall submit to Landlord its plans for the restoration of the remainder within ninety (90) days of the date possession of the part is taken by the public entity.

## 13.4 Adjustment of Rent

Should a portion of the premises be condemned and the rent be reduced as provided above, the

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reduced rent shall continue to be subject to adjustment and reevaluation in accordance with Article 4.

#### 13.5 Compensation

Landlord shall be entitled to receive and shall receive all compensation for the condemnation of all or any portion of the premises by exercise of eminent domain except as hereinafter provided. Tenant shall be entitled to that portion of said compensation which represents the present worth as of the date possession is taken by the public entity of the remaining use under the Lease of all improvements constructed by Tenant on the leased premises located within the part taken by the public entity. Tenant may also assert a claim for loss of business goodwill under the provisions of Section 1263.510 of the California Code of Civil Procedure. Tenant shall assert no claim for loss of bonus value. For the purposes of this Article, "condemnation bonus value" means that value attributable to the fact that the rental rate Tenant is obligated to pay under this Lease is less than the fair market lease rate of the premises as defined in Article 4 above.

If all or a portion of the leased premises is condemned at a time when Tenant possesses an interest in real property located outside the leased premises (hereinafter called "outside property"), Tenant may claim entitlement to an award of damages accruing to the outside property by reason of the severance therefrom of the condemned portion of the leased premises as provided in the Eminent Domain Law (California Code of Civil Procedure Sections 1230.010 through 1273.050).

#### ARTICLE 14. UTILITIES

Tenant shall pay when due, and shall hold Landlord harmless from any liability for, all charges for water, gas, heat, light, power, telephone, sewage, air conditioning and ventilating, scavenger, janitorial and landscaping services and all other materials and utilities supplied to the Premises. Landlord shall not be liable in damages or otherwise for any failure or interruption of any utility service furnished to the Premises, and no such failure or interruption shall entitle Tenant to terminate this Lease.

#### ARTICLE 15. DEFAULT

#### 15.1 Default

The occurrence of any of the following shall constitute a material breach and default of this Lease by Tenant.

(a) Any failure by Tenant to pay rent or any other monetary sums required to be paid hereunder, where such failure continues for ten (10) days after written notice thereof has been given by Landlord to Tenant.

(b) The abandonment or vacation of the Premises by Tenant. Failure to occupy and operate the Premises for thirty (30) consecutive days following the mailing of written notice from Landlord to Tenant calling attention to the abandonment shall be deemed an abandonment or vacation.

(c) The making by Tenant of any general assignment or general arrangement for the benefit of creditors; the filing by or against Tenant of a petition to have Tenant adjudged bankrupt or of a petition for reorganization or arrangement under any law relating to bankruptcy (unless, in the case of a petition filed against Tenant the same is dismissed within sixty (60) days); the appointment of a trustee or receiver to take possession of substantially all of Tenant's assets, where possession is not restored to Tenant within forty-five (45) days; or the attachment, execution or other judicial seizure of substantially all of Tenant's assets, where such seizure is not discharged within thirty (30) days.

(d) The failure by Tenant to comply with any provision of any law, statute, zoning restriction,

ordinance or governmental rule, regulation or requirement as set forth in Section 5.3 of this Lease.

(e) The failure by Tenant to comply with the requirements of the Lease Application.

(f) The failure by Tenant to comply with the requirements regarding hazardous materials as set forth in Article 5 of this Lease.

(g) The construction by Tenant of any improvements on the Premises contrary to the provisions of Article 6 of this Lease.

(h) The failure by Tenant to pay any tax, assessment, imposition, levy or charge of any kind as set forth in Article 11 of this Lease.

(i) The failure by Tenant to observe and perform any other provision of this Lease to be observed or performed by Tenant, where such failure continues for thirty (30) days after written notice thereof by Landlord to Tenant; provided, however, that if the nature of such default is such that it cannot be reasonably cured within such thirty (30) day period, Tenant shall not be deemed to be in default if Tenant shall within such period commence such cure and thereafter diligently prosecute the same to completion.

#### 15.2 Landlord's Remedies

In the event of any material default or breach by Tenant, Landlord may at any time thereafter, without limiting Landlord in the exercise of any right of remedy at law or in equity which Landlord may have by reason of such default or breach, terminate Tenant's right to possession by any lawful means, in which case this Lease shall immediately terminate and Tenant shall immediately surrender possession of the Premises to Landlord. In such event Landlord shall be entitled to recover from Tenant all damages incurred by Landlord by reason of Tenant's default including, but not limited to, the following:

(a) the worth at the time of award of any unpaid rent which had been earned at the time of such termination; plus

(b) the worth at the time of award of the amount by which the unpaid rent which would have been earned after termination until the time of award exceeds the amount of such rental loss that is proved could have been reasonably avoided; plus

(c) the worth at the time of award of the amount by which the unpaid rent for the balance of the term after the time of award exceeds the amount of such rental loss that is proved could be reasonably avoided; plus

(d) any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or which in the ordinary course of events would be likely to result therefrom; plus

(e) at Landlord's election, such other amounts in addition to or in lieu of the foregoing as may be permitted from time to time by applicable State law. Upon any such re-entry Landlord shall have the right to make any reasonable repairs, alterations or modifications to the premises, which Landlord in its sole discretion deems reasonable and necessary. As used in subparagraphs (a) and (b), above, the "worth at the time of award" is computed by including interest on the principal sum at a rate one percent (1%) above the discount rate of the Federal Reserve Bank of San Francisco from the date of default. As used in subparagraph (c), above, the "worth at the time of award" is computed by discounting such amount at a rate one percent (1%) above the discount rate of the Federal Reserve Bank of San Francisco at the time of award. The term "rent" as used in this Article shall be deemed to be and to mean rent to be paid pursuant to Article 4 and all other monetary sums required to be paid by Tenant pursuant to the terms of this Lease.

#### 15.3 Late Charges

Tenant hereby acknowledges that late payment by Tenant to Landlord of rent and other sums due hereunder will cause Landlord to incur costs not contemplated by this Lease, the exact amount of which will be extremely difficult to ascertain. Such costs include, but are not limited to, processing and accounting charges. Accordingly, if any installment of rent or any other sum due from Tenant shall not be received by Landlord or Landlord's designee within ten (10) days after such amount shall be due, a late charge equal to one and one-half percent (1.5%) of the payment due and unpaid plus \$100.00 shall be added to the payment, and the total sum shall become immediately due and payable to Landlord. An additional charge of one and one-half percent (1.5%) of such payment, excluding late charges, shall be added for each additional month that such payment remains unpaid. Landlord shall apply any monies received from Tenant first to any accrued delinquency charges and then to any other payments due under the Lease. The parties hereby agree that such late charges represent a fair and reasonable estimate of the costs Landlord will incur by reason of late payment by Tenant. Acceptance of such late charges by Landlord shall in no event constitute a waiver of Tenant's default with respect to such overdue amount, nor prevent Landlord from exercising any of the other rights and remedies granted hereunder.

## 15.4 Landlord's Right to Cure Tenant's Default

At any time after Tenant is in default or material breach of this Lease, and such default or material breach continues following thirty (30) days prior written notice to Tenant (or, such shorter written notice period as may be (a) expressly provided for in this Lease or (b) reasonably necessary given the nature of the default or breach), Landlord may cure such default or breach at Tenant's cost. If Landlord at any time, by reason of such default or breach, pays any sum or does any act that requires the payment of any sum, the sum paid by Landlord shall be due immediately from Tenant to Landlord at the time the sum is paid, and if paid at a later date shall bear interest as provided in Section 19.11 from the date the sum is paid by Landlord until Landlord is reimbursed by Tenant. The sum, together with interest on it, shall be additional rent.

## ARTICLE 16. ASSIGNMENTS, TRANSFERS, SUBLEASES AND ENCUMBRANCES

## 16.1 Prohibition on Assignments, Transfers and Subleases

Tenant shall not assign, transfer or sublease all or any part of its interest in this Lease or in the Premises, and Landlord reserves the right to deny its consent to any assignment, transfer or sublease of all or any part of this Lease or the Premises.

#### 16.2 Voluntary Assignments and Subleases

In addition, with respect to transactions not expressly prohibited under Section 16.1, Tenant shall not voluntarily assign or transfer all or any part of its interest in this Lease or in the Premises, or sublet all or any part of the Premises, or allow any other person or entity (except Tenant's authorized representatives) to occupy or use all or any part of the Premises without first obtaining Landlord's written consent and the concurrence of the Federal Highway Administration.

Landlord may, at its sole discretion, elect to consent to any such assignment, transfer or sublease if all of the following express conditions are satisfied:

(a) Landlord receives compensation from Tenant upon the assignment, transfer, sale or sublease of any of Tenant's rights in the Premises per the provisions of Article 4.3.

(b) The prospective assignee, transferee or subtenant completes a lease application and meets all

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of the requirements for eligibility to lease from the State of California.

Tenant's failure to obtain Landlord's required written approval prior to any assignment, transfer or sublease shall render such assignment, transfer or sublease void. Occupancy of the Premises by a prospective transferee, subtenant or assignee before approval of the transfer, sublease or assignment by Landlord shall constitute a breach of this Lease. Landlord's consent to any assignment, transfer or sublease shall not constitute a waiver of any of the terms, covenants or conditions of this Lease. Such terms, covenants and conditions shall apply to each and every assignment, sublease and transfer of rights under this Lease and shall be severally binding upon each and every party thereto. Any document to transfer, sublet, or assign the Premises or any part thereof shall incorporate directly or by reference all the provisions of this Lease.

## 16.3 Change in Partnership or Limited Liability Partnership

If Tenant is a partnership or limited liability partnership, a withdrawal or change, voluntary, involuntary or by operation of law, or the dissolution of the partnership, shall be deemed a voluntary assignment subject to the provisions of Section 16.2.

## 16.4 Change in Tenants

If Tenant consists of more than one person, a purported assignment, voluntary, involuntary or by operation of law, from one tenant to another shall be deemed a voluntary assignment subject to the provisions of Section 16.2.

## 16.5 Change in Corporation or Limited Liability Company

If Tenant is a corporation or limited liability company, any dissolution, merger, consolidation, or other reorganization of Tenant, or the sale or other transfer of a controlling percentage of the capital stock of Tenant, or the sale of 51% of the value of the assets of Tenant, shall be deemed a voluntary assignment subject to the provisions of Section 16.2. The phrase "controlling percentage" means the ownership of, and the right to vote, stock possessing at least 51% of the total combined voting power of all classes of Tenant's capital stock issued, outstanding, and entitled to vote for the election of directors or a controlling interest in the LLC.

## 16.6 Assignment of Rent from Subtenants

Tenant immediately and irrevocably assigns to Landlord, as security for Tenant's obligations under this Lease, all rent from any subletting of all or a part of the Premises as permitted by this Lease, and Landlord, as assignee and attorney-in-fact for Tenant, or a receiver for Tenant appointed on Landlord's application, may collect such rent and apply it toward Tenant's obligations under this Lease; except that, until the occurrence of an act of default by Tenant, Tenant shall have the right to collect such rent.

## 16.7 Information to be Supplied to Landlord

Tenant shall supply Landlord with all information Landlord determines to be necessary on all persons or firms to which Tenant proposes to sublet, transfer or assign any of its interest in the Premises, or which might establish rights to enter, control, or otherwise encumber the Premises by reason of any agreement made by Tenant. In addition, with respect to any proposed sublease, transfer or assignment,

Tenant shall provide Landlord with:

(a) a copy of all documents relating thereto,

(b) a statement of all terms and conditions of said transaction, including the consideration therefor, and

(c) a copy of the financial statement of the prospective subtenant, transferee or assignee.

(d) a copy of all documents showing compliance by the prospective subtenant, transferee or assignee with all of the bid eligibility requirements contained in the bid package.

16.8 Processing Fees for Assignments, Transfers and Subleases

(a) In addition to the sum specified in Section 4.3, a fee of one thousand five hundred dollars (\$1,500) shall be paid to Landlord for processing each consent to assignment, transfer, or sublease to Landlord as required by this Lease. This processing fee shall be deemed earned by Landlord when paid and shall not be refundable.

(b) If a processing fee has been paid by Tenant for another phase of the same transaction, a second fee will not be charged.

(c) The amounts specified above for processing fees shall be automatically adjusted at the end of the first year of this Lease and every year thereafter in accordance with an annual fee schedule adopted by Landlord. Landlord shall make said fee schedule available to Tenant upon receiving a request therefor.

16.9 Encumbrances

Tenant shall not encumber the Premises in any manner whatsoever.

## ARTICLE 17. NONDISCRIMINATION

Tenant, for itself, its personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree as a covenant running with the land that: (1) no person, on the ground of race, color, or national origin shall be excluded from participation in, be denied the benefits of, or otherwise subjected to discrimination in the use of said facilities, (2) in connection with the construction of any improvements on said land and the furnishing of services thereon, no discrimination shall be practiced in the selection of employees and contractors, by contractors in the selection and retention of first-tier subcontractors, and by first-tier subcontractors in the selection and retention of second-tier subcontractors, (3) such discrimination shall not be practiced against the public in its access to and use of the facilities and services provided for public accommodations (such as eating, sleeping, rest, recreation, and vehicle servicing) constructed or operated on, over, or under the premises, and (4) Tenant shall use the land in compliance with all other requirements imposed pursuant to Title 49, Code of Federal Regulations, Part 21 (49 C.F.R., Part 21) and as said regulations may be amended. In the event of breach of any of the above nondiscrimination covenants, the Landlord shall have the right to terminate this Lease, and to re-enter and repossess said land and the facilities thereon, and hold the same as if said Lease had never been made or issued.

## ARTICLE 18. SECURITY DEPOSIT

Concurrently with Tenant's execution of this Lease, Tenant shall deposit with Landlord the sum of \$0.00 as a Security Deposit. Said sum shall be held by Landlord as a Security Deposit for the faithful performance by Tenant of all of the terms, covenants and conditions of this Lease to be kept and

performed by Tenant during the term hereof. If Tenant defaults with respect to any provision of this Lease, including but not limited to the provisions relating to the payment of rent and any of the monetary sums due herewith, Landlord may use, apply or retain all or any part of this Security Deposit for the payment of any other amount which Landlord may spend by reason of Tenant's default or use it to compensate Landlord for any other loss or damage which Landlord may suffer by reason of Tenant's default. If any portion of said Deposit is so used or applied, Tenant shall within ten (10) days after written demand therefor, deposit cash with Landlord in an amount sufficient to restore the Security Deposit to its original amount; Tenant's failure to do so shall be a material breach of this Lease. Landlord shall not be required to keep this Security Deposit separate from its general funds, and Tenant shall not be entitled to interest on such deposit. If Tenant shall fully and faithfully perform every provision of this Lease to be performed by it, the Security Deposit or any balance thereof shall be returned to Tenant at the expiration of the Lease term and after Tenant has vacated the premises.

## **ARTICLE 19. ADDITIONAL PROVISIONS**

## 19.1 Quiet Enjoyment

Landlord covenants and agrees with Tenant that upon Tenant paying rent and other monetary sums due under the Lease and performing its covenants and conditions, Tenant shall and may peaceably and quietly have, hold and enjoy the Premises for the term.

## 19.2 Captions, Attachments, Defined Terms

The captions of the Articles of this Lease are for convenience only and shall not be deemed to be relevant in resolving any question of interpretation or construction of any section of this Lease. Exhibits attached hereto, and addenda and schedules initiated by the parties, are deemed by attachment to constitute part of this Lease and are incorporated herein. The words "Landlord" and "Tenant," as used herein, shall include the plural as well as the singular. Words used in neuter gender include the masculine and feminine and words in the masculine or feminine gender include the neuter. If there be more than one Landlord or Tenant, the obligations hereunder imposed upon Landlord or Tenant shall be joint and several. If the Tenants are husband and wife, the obligations shall extend individually to their sole and separate property as well as to their community property.

#### 19.3 Entire Agreement

This instrument along with any exhibits and attachments hereto constitutes the entire agreement between Landlord and Tenant relative to the premises and this agreement and the exhibits and attachments may be altered, amended or revoked only by an instrument in writing signed by both Landlord and Tenant. Landlord and Tenant agree hereby that all prior or contemporaneous oral agreements between and among themselves and their agents and representatives relative to the leasing of the premises are merged in or revoked by this agreement.

#### 19.4 Severability

If any terms or provision of this Lease shall, to any extent, be determined by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this Lease shall not be affected thereby, and each term and provision of this Lease shall be valid and be enforceable to the fullest extent permitted by

law.

#### 19.5 Costs of Suit

If Tenant or Landlord shall bring any action for any relief against the other, declaratory or otherwise, arising out of this Lease, including any suit by Landlord for the recovery of rent or possession of the premises, the losing party shall pay the successful party a reasonable sum for attorney's fees which shall be deemed to have accrued on the commencement of such action and shall be paid whether or not such action is prosecuted to judgment. Should Landlord, without fault on Landlord's part, be made a party to any litigation instituted by Tenant or by any third party against Tenant, or by or against any person holding under or using the premises by license of Tenant, or for the foreclosure of any lien for labor or materials furnished to or for Tenant or any such other person, Tenant shall save and hold Landlord harmless from any judgment rendered against Landlord or the premises or any part thereof, and all costs and expenses, including reasonable attorney's fees, incurred by Landlord in connection with such litigation.

## 19.6 Time, Joint and Several Liability

Time is of the essence of this Lease and each and every provision hereof, except as to the conditions relating to the delivery of possession of the premises to Tenant. All the terms, covenants and conditions contained in this Lease to be performed by either party if such party shall consist of more than one person or organization, shall be deemed to be joint and several, and all rights and remedies of the parties shall be cumulative and non-exclusive of any other remedy at law or in equity.

#### 19.7 Binding Effect; Choice of Law

The parties hereto agree that all the provisions hereof are to be construed as both covenants and conditions as though the words importing such covenants and conditions were used in each separate section hereof; and all of the provisions hereof shall bind and inure to the benefit of the parties hereto and their respective heirs, legal representatives, successors and assigns. This Lease shall be governed by the laws of the State of California.

#### 19.8 Waiver

No covenant, term or condition or the breach thereof shall be deemed waived, except by written consent of the party against whom the waiver is claimed and any waiver or the breach of any covenant, term or condition shall not be deemed to be a waiver of any preceding or succeeding breach of the same or any other covenant, term or condition. Acceptance by Landlord of any performance by Tenant after the time the same shall have become due shall not constitute a waiver by Landlord of the breach or default of any covenant, term or condition. Acceptance by Landlord of any performance by Tenant after the time the same shall have become due shall not constitute a waiver by Landlord of the breach or default of any covenant, term or condition unless otherwise expressly agreed to by Landlord in writing.

#### 19.9 Surrender of Premises

The voluntary or other surrender of this Lease by Tenant, or a mutual cancellation thereof, shall not work a merger and shall, at the option of the Landlord, terminate all or any existing subleases or 00028147.6

subtenancies, or may, at the option of Landlord, operate as an assignment to it of any or all such subleases or subtenancies.

## 19.10 Holding Over

If Tenant remains in possession of all or any part of the premises after the expiration of the term hereof, with or without the express or implied consent of Landlord, such tenancy shall be from month to month only and not a renewal hereof or an extension for any further term, and in such case, rent and other monetary sums due hereunder shall be payable at the time specified in this Lease and such month-to-month tenancy shall be subject to every other term, covenant, condition and agreement contained herein, except that the monthly rental rate set forth in Section 4.1 may be increased by Landlord effective the first month of the holdover period, or upon 30 days notice any time thereafter, to 125% of the monthly rental rate in effect prior to the holdover period.

## 19.11 Interest on Past Due Obligations

Except as expressly herein provided, any amount due to Landlord not paid when due shall bear interest at a rate one percent (1%) above the discount rate of the Federal Reserve Bank of San Francisco from the due date. Payment of such interest together with the amount due shall excuse or cure any default by Tenant under this Lease.

## 19.12 Recording

Neither Landlord nor Tenant shall record this Lease.

## 19.13 Notices

All notices or demands of any kind required or desired to be given by Landlord or Tenant hereunder shall be in writing and shall be deemed delivered forty-eight (48) hours after depositing the notice or demand in the United States mail, certified or registered, postage prepaid, addressed to the Landlord or Tenant respectively at the addresses set forth in Article 1.

## 19.14 No Reservation

Submission of this instrument for examination or signature by Tenant does not constitute a reservation of or option for lease; it is not effective as a lease or otherwise until execution and delivery by both Landlord and Tenant.

#### 19.15 Corporate Authority

If Tenant is a corporation, each individual executing this Lease on behalf of said corporation represents and warrants that he/she is duly authorized to execute and deliver this Lease on behalf of said corporation in accordance with a duly adopted resolution of the Board of Directors of said corporation or in accordance with the Bylaws of said corporation, and that this Lease is binding upon said corporation in accordance with its terms. If Tenant is a corporation, Tenant shall, within thirty (30) days after execution of this Lease, deliver to Landlord a certified copy of resolution of the Board of Directors of said corporation said corporation of this Lease.

#### 19.16 Force Majeure

If either Landlord or Tenant shall be delayed or prevented from the performance of any act required hereunder by reason of acts of God, governmental restrictions, regulations or controls (except those reasonably foreseeable in connection with the uses contemplated by this Lease) or other cause without fault and beyond the control of the party obligated (except financial inability), performance of such act shall be excused for the period of the delay and the period for the performance of any such act shall be extended for a period equivalent to the period of such delay. Nothing in this clause shall excuse Tenant from prompt payment of any rent, taxes, insurance or any other charge required of Tenant, except as may be expressly provided in this Lease.

#### ARTICLE 20. TERMINATION OF LEASE

#### 20.1 Termination by Mutual Consent

Notwithstanding any provision herein to the contrary, this Lease may be terminated, and the provisions of this Lease may be altered, changed or amended by mutual consent of Landlord and Tenant.

20.2 Termination by One Party

Notwithstanding any provision herein to the contrary, this Lease may be terminated at any time by: (a) Tenant, if (i) Tenant ceases to have sufficient funding to meet its obligations under this Lease, upon providing Landlord with one hundred eighty days (180) days prior notice in writing, or (ii) pursuant to Section 4.4(e) above; or (b) Landlord, pursuant to Article 12 above. Notices of termination under this section shall be delivered in accordance with the provisions of Section 19.13 to the addresses set forth in Article 1.

If at the time Tenant terminates this Lease, and the entire cost of Tenant's improvements has not been amortized over the remaining term, those improvements shall become the property of Landlord, and Landlord shall not refund or otherwise reimburse Tenant for the remaining unamortized cost of the improvements.

XXXXXXXX

#### XXXXXXXX

Signature Page Follows

XXXXXXXX

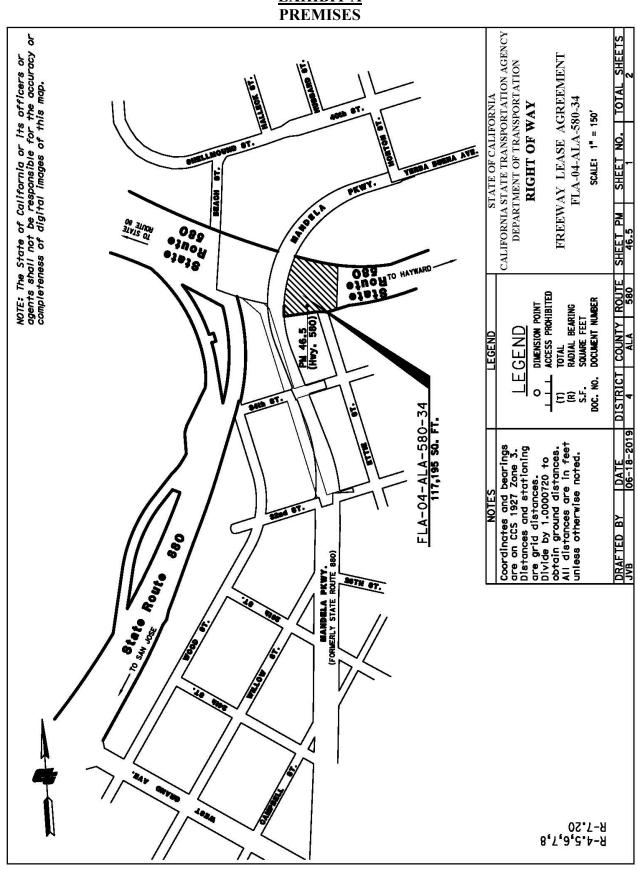
#### In Witness Whereof Landlord and Tenant have executed this Lease as of the Execution Date.

#### LANDLORD: STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

\_\_\_\_\_ District Office Chief Right of Way Airspace Development, Local Programs, Relocation Assistance and Utility Relocations

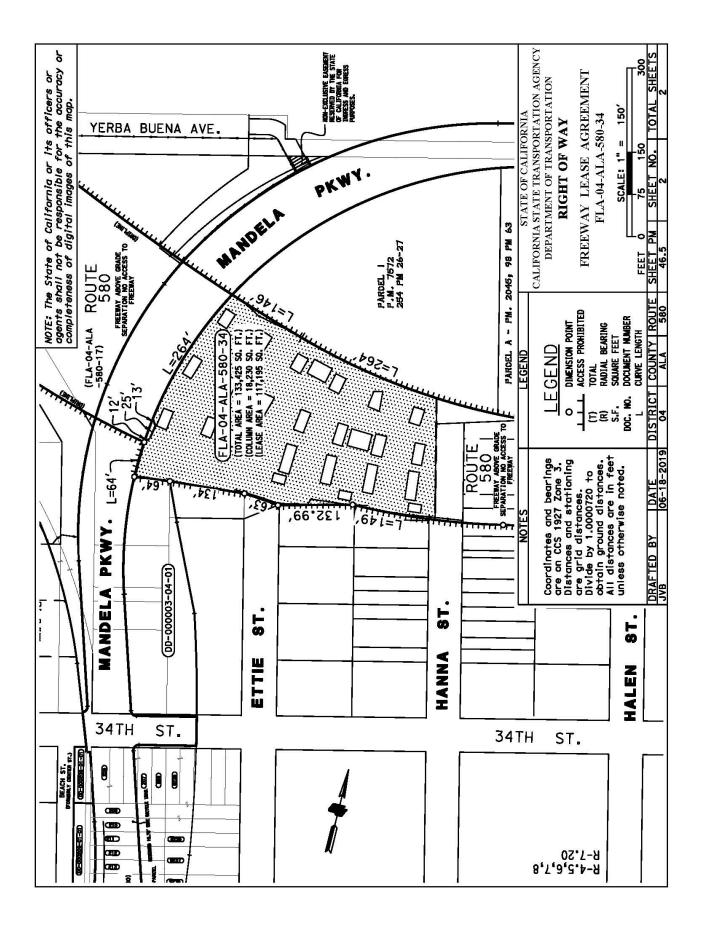
TENANT: EMERYVILLE TRANSPORTATION MANAGEMENT ASSOCIATION, a California nonprofit corporation, doing business as Emery-Go-Round

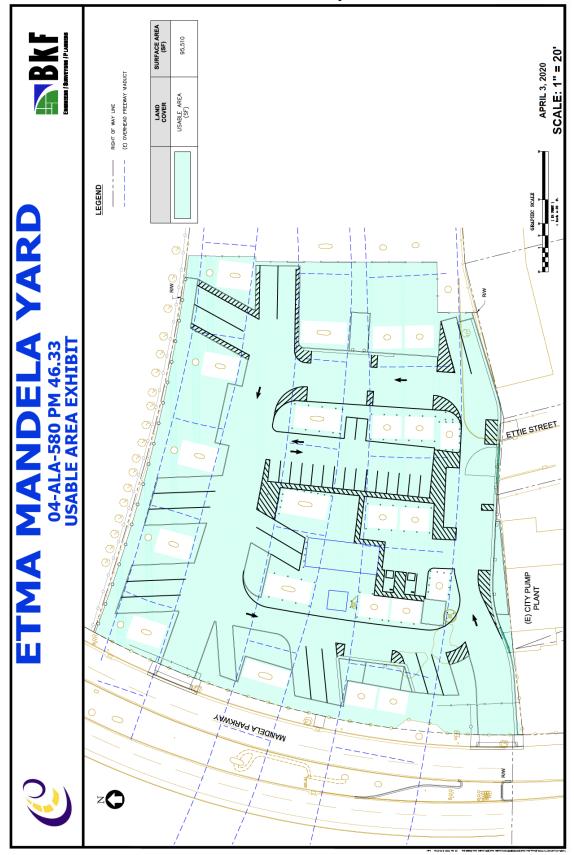
Dated: By:



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# EXHIBIT A





Useable Area After Site Improvements

#### EXHIBIT B STORMWATER POLLUTION PREVENTION FACT SHEET(S)

# **Stormwater Pollution Prevention**

## **Parking Lots**

#### Leaking Vehicles

Clean parking lots on a regular basis to prevent accumulated wastes and pollutants from being discharged into storm drain systems during rainy conditions. When cleaning heavy oily deposits, use absorbent materials on oily spots prior to sweeping or washing. Dispose of used absorbents appropriately.

Allow sheet runoff to flow into biofilters (vegetated strip and swale) and/or infiltration devices. Utilize sand filters or oleophilic collectors for oily waste in low concentrations. Clean out oil/water/sand separators regularly, especially after heavy storms.

Have designated personnel conduct inspections of the parking facilities and storm drain systems associated with them on a regular basis. Inspect cleaning equipment/sweepers for leaks on a regular basis.



Have spill cleanup materials readily available and in a known location. Cleanup spills immediately and use dry methods if possible. Properly dispose of spill cleanup material.

#### Trash

- Post "No Littering" signs and enforce anti-litter laws.
- Provide trash receptacles in parking lots to discourage litter. Clean out and cover trash receptacles frequently to prevent spillage. Regularly inspect, repair, and/or replace trash receptacles.
- Routinely sweep, shovel and dispose of litter in the trash. Remove litter and debris from drainage grates, trash racks and ditch lines to reduce discharge to the storm water drainage systems and watercourses.
- Provide regular training to field employees and/or contractors regarding cleaning of paved areas and proper operation of equipment.



# Vehicle or Equipment Storage

#### **Oil Leaks**

Place drip pans under leaking vehicles. Drain all vehicles in long-term storage. Clean storage facilities on a regular basis to prevent accumulated wastes and pollutants from being discharged into conveyance systems during rainy conditions. When cleaning heavy oily deposits, use absorbent materials on oily spots prior to sweeping or washing.

Dispose of used absorbents appropriately.

Use dry cleaning methods as much as possible. When wet cleaning methods are necessary, storm drains should be blocked and the wash water should be collected and pumped to the sanitary sewer or discharged to a pervious surface. After cleaning, remove blocks from storm drains. Wash water should not be allowed to enter the storm drains. Do not discharge wash water to the sanitary sewer before contacting the local sewer authority.

Train employees on proper spill containment and cleanup. Have spill cleanup materials readily available and in a known location. Cleanup spills immediately using dry methods if possible. Properly dispose of spill cleanup material. Designate personnel to conduct inspections of the facility and stormwater conveyance systems associated with them. Inspect cleaning equipment/sweepers for leaks on a regular basis.



Allow sheet runoff to flow into biofilters (vegetated strip and swale) and/or infiltration devices. Utilize sand filters or oleophilic collectors for oily waste in low concentrations. Clean out oil/water/sand separators regularly, especially after heavy storms.

#### **Caked Dirt on Tires**

 Conduct regular cleaning. Sweeping or vacuuming the storage facility is encouraged over wet cleaning methods. Sweep all storage lots at least once before the onset of the wet season. Establish frequency of sweeping based on usage and field observations of sediment accumulation.



- Washing or rinsing of equipment shall be performed in designated areas and the resulting runoff shall not be discharged to the storm drain system.
- Train employees on appropriate Best Management Practices, storm water discharge prohibitions, and wastewater discharge requirements.



## Storage

#### Trash/Trash Bins/Dumpsters

 Post "No Littering" signs and enforce anti-litter laws. Provide a sufficient number of litter receptacles for the facility. Clean out and cover litter receptacles frequently to prevent spillage.

Keep dumpster areas clean. Recycle materials whenever possible. Use all of a product before disposing of the container. Ensure that
only appropriate solid wastes are added to the solid waste container. Certain wastes such as hazardous wastes, appliances,
fluorescent lamps, pesticides, etc., may not be disposed of in solid waste

containers. Take special care when loading or unloading wastes to minimize losses. Loading systems can be used to minimize spills and fugitive emission losses such as dust or mist. Vacuum transfer systems can minimize waste loss.

- Inspect dumpsters and trash bins weekly for leaks and to ensure that lids are on tightly. Replace any that are leaking, corroded, or otherwise deteriorating. Sweep and clean the storage area regularly and clean up spills immediately.
- If the dumpster area is paved, do not hose it down to a storm drain. Instead, collect the wash water and discharge it to the sewer if allowed by the local sewer authority. Use dry methods when possible (e.g., sweeping, use of absorbents). Prevent stormwater run-on from entering



the dumpster area by enclosing it or building a berm around the area. Prevent waste materials from directly contacting rain. Cover dumpsters to prevent rain from washing waste out of holes or cracks in the bottom of the dumpster.

#### Leaking Vehicles

Place drip pans under leaking vehicles. Drain all vehicles in long-term storage. Clean storage facilities on a regular basis to prevent accumulated wastes and pollutants from being discharged into conveyance systems during rainy conditions. When cleaning heavy oily deposits, use absorbent materials on oily spots prior to sweeping or washing. Dispose of used absorbents appropriately.



Train employees on proper spill containment and cleanup. Have spill cleanup materials readily available and in a known location. Cleanup spills immediately and use dry methods if possible. Properly dispose of spill cleanup material.

Allow sheet runoff to flow into biofilters (vegetated strip and swale) and/or infiltration devices. Utilize sand filters or oleophilic collectors for oily waste in low concentrations. Clean out oil/water/sand separators regularly, especially after heavy storms.

#### Sediment on Stored Construction Equipment

- Conduct regular cleaning. Sweeping or vacuuming the storage facility is encouraged over other methods. Sweep all storage lots at least once before the onset of the wet season. Establish frequency of sweeping based on usage and field observations of sediment accumulation.
- Washing or rinsing of equipment shall be performed in designated areas and the resulting runoff shall not be discharged to the storm drain system.

#### Potential Illegal Discharge from Unknown Materials Inside Storage Units

- Design storage areas to minimize stormwater exposure. Construct a berm or intercept trench at doorways. Install a collection system for pretreatment and sewer disposal under permit by the local sewer authority.
- Utilize dry cleanup methods such as sweeping for removal of litter and debris, or use of rags and absorbents for leaks and spills. Properly dispose of collected wastes.
- Use secondary containment or protective barriers for indoor liquid storage.
- Train employees on the proper implementation of Best Management Practices, storm water discharge prohibitions, and wastewater discharge requirements. Train employees on proper spill containment and cleanup.

#### **Outdoor Storage of Loose Materials**

Store materials indoors, if feasible. Designate a secure material storage area that is paved with Portland cement concrete, free of cracks and gaps, and impervious in order to contain leaks and spills.

Protect materials stored outside from rainfall and wind dispersal by covering them with a fixed roof or a temporary waterproof covering made of polyethylene, polypropylene, or hypalon. Keep covers in place at all times when work is not occurring. If areas are so large that they cannot feasibly be covered and contained, implement erosion control practices at the perimeter of the area and at catch basins to prevent dispersion of the stockpiled material. Implement erosion control practices at the perimeter of your site and at catch basins to prevent dispersion of the stockpiled material off-site, if the stockpiles are so large that they cannot feasibly be covered and contained. Minor slides/slipouts usually occur during major storms. Stockpiles should be removed as soon as practicable and materials should be placed so that waterways are not impacted.



Cover wood products treated with chromated copper arsenate, ammonical sopper zinc arsenate, creosote, or pentachlorophenol with tarps or store indoors.

Protect materials stored outside from stormwater runon. Construct a berm around the perimeter of the material storage area to prevent the runon of uncontaminated stormwater from adjacent areas as well as runoff of stormwater from the material. Paved areas should be sloped in a manner that minimizes pooling of water on the site. A minimum slope of 1.5% is recommended.

Keep storage areas clean and dry. Sweep and maintain routes to and from storage areas. Conduct regular inspections of storage areas.



## **Trash Removal**

#### Waste Handling and Disposal

- Recycle, reuse or properly dispose of solid waste.
- Take special care when loading or unloading wastes to minimize losses.
- Secure or cover transported materials to prevent spillage to the roadway. Do not fill waste containers with washout water or any other liquid.



#### **Good Housekeeping**

- Keep waste collection areas clean
- If possible, sweep and clean the trash storage area particularly after trash removal. If it is paved, do not hose down the area to a storm drain.
- Remove litter and debris from drainage grates, trash racks and ditch lines to reduce discharge to the storm water drainage systems and watercourses.





## EXHIBIT C PRE-EXISTING HAZARDOUS MATERIALS

[add results of Phase I and Phase II reports here, if any

# PRELIMINARY SITE INVESTIGATION REPORT

# EMERYVILLE TRANSPORTATION MANAGEMENT ASSOCIATION MANDELA PARKWAY BUS YARD OAKLAND, CALIFORNIA

PREPARED FOR

BKF ENGINEERS 1730 N. FIRST STREET, SUITE 600 SAN JOSE, CALIFORNIA

GEOCON PROJECT NO. E9133-02-02

AUGUST 2019



GEOTECHNICAL ENVIRONMENTAL MATERIALS

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- Laboratory Reports and Chain-of-Custody Documentation A.
- Metal Statistical Analysis Β.

#### **REPORT LIMITATIONS**

This report has been prepared exclusively for BKF Engineers. The information contained herein is only valid as of the date of the report and will require an update to reflect additional information obtained at a later date.

This report is not a comprehensive site characterization and should not be construed as such. The findings as presented in this report are predicated on the results of the limited sampling and laboratory testing performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein. Therefore, the report should be deemed conclusive with respect to only the information obtained. We make no warranty, express or implied, with respect to the content of this report or any subsequent reports, correspondence or consultation. Geocon Consultants, Inc. strived to perform the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.

The contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein. This report does not constitute a standard, specification, or regulation.

GEOCON CONSULTANTS, INC.

**DRAFT** Suzanne Nase Project Geologist **DRAFT** Richard Day, CEG, CHG Senior Geologist

### PRELIMINARY SITE INVESTIGATION REPORT

## 1.0 INTRODUCTION

This *Preliminary Site Investigation (PSI) Report* for the proposed Emeryville Transportation Management Association (ETMA) Mandela Parkway Bus Yard Project in the City of Emeryville in Alameda County, California was prepared by Geocon Consultants, Inc (Geocon) for BKF Engineers (BKF).

## 1.1 Project Description and Proposed Improvements

The project proposes to construct a new bus yard on Caltrans-owned parcels beneath the Interstate 580 (I-580) viaducts, east of Mandela Parkway. The new facility will accommodate approximately 30 buses and 20 passenger vehicles with driveway access to/from Mandela Parkway near the northwest and southwest corners of the site. New parking stalls and interior driveways will be constructed throughout the site, around column foundations for the overhead I-580 viaducts.

The project area is depicted on the Site Location Map, Figure 1.

## 1.2 General Objectives

The purpose of the investigation was to evaluate concentrations of California Assessment Manual 17 (CAM 17) metals; total petroleum hydrocarbons (TPH) as diesel (TPHd), as motor oil (TPHmo), and as gasoline (TPHg); benzene, toluene, ethylbenzene, and total xylenes (BTEX); and semi-volatile organic compounds (SVOCs) in soil within the project limits.

The information obtained from this investigation will be used to evaluate soil handling practices, disposal options, worker health and safety, and soil reuse options.

## 2.0 BACKGROUND

## 2.1 Hazardous Waste Determination Criteria

Regulatory criteria to classify a waste as California hazardous for handling and disposal purposes are contained in the CCR, Title 22, Division 4.5, Chapter 11, Article 3, §66261.24. Criteria to classify a waste as Resource, Conservation, and Recovery Act (RCRA) hazardous are contained in Chapter 40 of the Code of Federal Regulations (40 CFR), Section 261.

For waste containing metals, the waste is classified as California hazardous when: 1) the representative total metal content equals or exceeds the respective Total Threshold Limit Concentration (TTLC); or 2) the representative soluble metal content equals or exceeds the respective Soluble Threshold Limit Concentration (STLC) based on the standard Waste Extraction Test (WET). A waste has the potential of exceeding the STLC when the waste's total metal content is greater than or equal to 10 times the respective STLC value since the WET uses a 1:10 dilution ratio. Hence, when a total metal is detected at

a concentration greater than or equal to 10 times the respective STLC, and assuming that 100 percent of the total metals are soluble, soluble metal analysis is required. A material is classified as RCRA hazardous, or Federal hazardous, when the representative soluble metal content equals or exceeds the Federal regulatory level based on the Toxicity Characteristic Leaching Procedure (TCLP).

The above regulatory criteria are based on chemical concentrations. Wastes may also be classified as hazardous based on other criteria such as ignitability and corrosivity; however, for the purposes of this investigation, toxicity (i.e., representative lead concentrations) is the primary factor considered for waste classification since waste generated during the construction activities would not likely warrant testing for ignitability or other criteria. Waste that is classified as either California hazardous or RCRA hazardous requires management as a hazardous waste.

## 2.2 Environmental Screening Levels

The San Francisco Bay Regional Water Quality Control Board (SFRWQCB) has published Environmental Screening Levels (ESLs) for commonly found contaminants in soil, groundwater, soil gas, and surface water, to assist in evaluating sites impacted by releases of hazardous chemicals. The ESLs are commonly used by contractors, soil trucking companies, and private and commercial land owners as default acceptance criteria to evaluate suitability of import soil material. The respective ESLs are listed at the end of Tables 2 and 3 for comparative purposes.

## 3.0 SCOPE OF SERVICES

The scope of services included the following:

#### 3.1 **Pre-field Activities**

- Notified Underground Service Alert (USA) at least 72 hours prior to drilling activities.
- Retained the services of Exploration Geoservices, Inc (EGI) in San Jose, California, a California-licensed driller, to advance the auger borings.
- Retained the services of Advanced Technology Laboratories (ATL) in Signal Hill, California, a Caltrans-approved and California-certified analytical laboratory, to perform the chemical analyses of soil samples.

#### 3.2 Field Activities

Our field investigation was performed on May 9, 2019. A total of six borings were advanced using hollow stem auger drilling techniques and soil samples were collected from various depth intervals within the top 2.5 feet. Groundwater was not encountered during boring advancement.

## 4.0 INVESTIGATIVE METHODS

#### 4.1 Sampling Procedures

Soil samples were collected using hollow stem auger drilling techniques advanced in soil in the unpaved lot under the I-580 viaducts.

Soil samples were collected into stainless steel sleeves and capped with Teflon tape and plastic end caps. Sample containers were labeled, placed in a chest cooled with ice, and transported to ATL using standard chain-of-custody documentation. The shallow soil borings were backfilled with soil cuttings and surrounding native material.

## 4.2 Laboratory Analyses

Laboratory analyses were performed by ATL under standard turnaround times. The laboratory reports and COC documentation are included in Appendix A.

All samples were analyzed as follows:

- CAM 17 total metals using EPA Test Methods 6010B/7471A.
- TPHd and TPHmo using EPA Test Method 8015B.
- TPHg using EPA Test Method 8015B (Modified)
- BTEX using EPA Test Method 8260B.
- SVOCs using EPA Test Method 8270C.

Based on the total metal results, soluble metal analysis was performed as follows:

- 1 sample for WET chromium and 5 samples for WET lead using EPA Test Method 6010B.
- 1 sample for TCLP lead using EPA Test Method 6010B.

## 4.3 Laboratory QA/QC

QA/QC procedures were performed for each method of analysis with specificity for each analyte listed in the test method's QA/QC. The laboratory QA/QC procedures included the following:

- One method blank for every 10 samples, batch of samples or type of matrix, whichever was more frequent.
- One sample analyzed in duplicate for every 10 samples, batch of samples or type of matrix, whichever was more frequent.
- One spiked sample for every 10 samples, batch of samples or type of matrix; whichever was more frequent, with the spike made at 10 times the detection limit or at the analyte level.

Prior to submitting the samples to the laboratories, the COC documentation was reviewed for accuracy and completeness.

#### 5.0 INVESTIGATIVE RESULTS

#### 5.1 Subsurface Conditions

The subsurface soils consisted of brown sand/clay with trace gravels to a depth of one to two feet, underlain by dark brown to black and brown-orange moist, medium stiff clay to a depth of 4.5 feet in most borings. Trace gravels and sands were observed in some locations. Groundwater was not encountered during boring advancement.

### 5.2 Laboratory Analytical Results

The analytical results are presented in Tables 1 through 3 and summarized below:

- The following metals were not detected above their respective laboratory reporting limits: antimony, beryllium, cadmium, molybdenum, selenium, silver, and thallium.
- Total chromium was reported at concentrations ranging from 18 mg/kg to 81 mg/kg.
- WET chromium was not detected at or above the reporting limit of 1.0 mg/l.
- Total lead was reported at concentrations ranging from not detected (laboratory reporting limit of 1.0 mg/kg) to 200 mg/kg.
- WET lead was reported at concentrations ranging from 1.9 mg/l to 11 mg/l.
- TCLP lead was reported at concentrations of not detected (laboratory reporting limit of 0.25 mg/l).
- Remaining CAM 17 metals were reported in the samples at total concentrations below 10 times their respective STLCs.
- TPHd was reported at concentrations ranging from 2.1 mg/kg to 3,200 mg/kg.
- TPHmo was reported at concentrations ranging from 4.2 mg/kg to 7,400 mg/kg.
- TPHg was not detected at or above the laboratory reporting limit of 1.0 mg/kg to 100 mg/kg.
- BTEX compounds were not detected at or above the laboratory reporting limits.
- SVOCs compounds were not detected at or above the laboratory reporting limits, although the laboratory reporting limits in some samples were increased due to sample dilution as noted on the analytical laboratory report.

## 5.3 Laboratory Quality Assurance/Quality Control

We reviewed the QA/QC results provided with the laboratory analytical reports (Appendix A). Based on this limited data review, no additional qualifications of the soil data are necessary, and the data are of sufficient quality for the purposes of this report.

### 5.4 Statistical Evaluation for Lead Detected in Soil Samples

Statistical methods were applied to the total lead data to evaluate: 1) the upper confidence limits (UCLs) of the arithmetic means of the total lead concentrations for each sampling depth; and 2) if an acceptable correlation between total and WET lead concentrations exists that would allow the prediction of WET lead concentrations based on calculated UCLs.

## 5.4.1 Calculating the UCLs for the Arithmetic Mean

The upper one-sided 95% UCL of the arithmetic mean is defined as the value that, when calculated repeatedly for randomly drawn subsets of site data, equals or exceeds the true mean 95% of the time. Statistical confidence limits are the classical tool for addressing uncertainties of a distribution mean. The UCLs of the arithmetic mean concentration are used as the mean concentrations because it is not possible to know the true mean due to the essentially infinite number of soil samples that could be collected from a site. The UCLs therefore account for uncertainties due to limited sampling data. As data become less limited at a site, uncertainties decrease, and the UCLs move closer to the true mean.

ProUCL (ver 5.1) was used to calculate the 95% UCLs. The ProUCL output is included in Appendix B. The following tables present the calculated UCL and statistics for the site:

Total Lead	Total Lead	Total Lead	Total Lead
95% UCL	Mean	Minimum	Maximum
(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
90.85	57.5	<1.0	200

## 5.4.2 Correlation of Total and WET Lead

Total and corresponding WET lead concentrations are bivariate data with a linear structure. This linear structure should allow for the prediction of WET lead concentrations based on the 95% UCL total lead concentrations for the site.

To estimate the degree of interrelation between total and corresponding WET lead values (*x* and *y*, respectively), the *correlation coefficient* [*r*] is used. The correlation coefficient is a ratio that ranges from +1 to -1. A *correlation coefficient* of +1 indicates a perfect direct relationship between two variables; a *correlation coefficient* of -1 indicates that one variable changes inversely with relation to the other. Between the two extremes is a spectrum of less-than-perfect relationships, including zero, which indicates the lack of any sort of linear relationship at all. The *correlation coefficient* was calculated for 5 (*x*, *y*) data points (i.e., soil samples analyzed for both total lead [*x*] and WET lead [*y*]) from the site. The resulting *coefficient of determination* ( $r^2$ ) equaled 0.7600, which yields a corresponding *correlation coefficient* (*r*) of 0.8718.

For the *correlation coefficient* that indicates a linear relationship between total and WET lead concentrations, it is possible to compute the line of dependence or a best-fit line between the two variables. A least squares method was used to find the equation of a best-fit line (regression line). The equation of the regression line was determined to be y = 0.0565(x)-2.0839, where x represents total lead concentrations, y represents predicted WET lead concentrations, and -2.0839 represents the y-intercept.

This equation was used to predict an expected WET lead concentration of 3.05 mg/l for site soils as a whole.

Regression analysis results and a scatter plot depicting the (x, y) data points along with the regression line are included in Appendix B.

#### 6.0 CONCLUSIONS AND RECOMMENDATIONS

#### 6.1 CAM 17 Metals in Soil

Site soil site excavated to a depth of 2.5 feet is expected to be classified as non-hazardous based on lead content because the maximum total lead concentration of 200 mg/kg is less than the TTLC of 1,000 mg/kg and the 95% UCL-predicted WET lead concentration for site soil as a whole of 3.05 mg/l is less than the STLC of 5.0 mg/l. Site soil excavated to a depth of 2.5 feet would also be classified as non-hazardous based on chromium content. Other CAM 17 metals were reported in the samples at total concentrations below 10 times their respective STLCs. Accordingly, soil to a depth of 2.5 feet would be classified as non-hazardous based on CAM 17 metal content.

The CAM 17 metals concentrations in site soil were compared to ESLs. Arsenic, lead, and nickel were reported at concentrations greater than one or more ESL value. Because concentrations of arsenic, lead, and nickel exceeded one or more ESL, statistical methods were used to calculate the 95% UCL for total arsenic, lead, and nickel. The test results are included in Appendix B. ESLs, UCLs, and published background concentrations for arsenic, lead, and nickel are summarized in the following table.

Metal	Maximum	95% UCL	Tier 1 ESL	Shallow Soil Residential ESL	Shallow Soil Commercial/ Industrial ESL	Worker Direct Exposure ESL	Published Background Mean <sup>1</sup>	Published Background Range <sup>1</sup>
Arsenic	3.9	2.985	0.067	0.067	0.31	0.98	3.5	0.6 to 11
Lead	200	90.85	80	80	320	160	23.9	12.4 to 97.1
Nickel	88	43.24	86	820	11,000	86	57	9.0 to 509

Concentrations reported in mg/kg

<sup>1</sup> Kearney Foundation of Soil Science, March 1996

Based on the maximum and/or the 95% UCL concentrations for arsenic, lead, and nickel, offsite reuse or disposal of excavated soil may be restricted depending on proposed use.

Metals results for soil samples are summarized in Tables 1 and 2.

## 6.2 Petroleum Hydrocarbons in Soil

TPHg was reported in one sample at 100 mg/kg, below residential and commercial/industrial direct exposure ESLs. TPHg was not detected at or above the laboratory reporting limit of 1.0 mg/kg in the other samples.

TPHd was reported at concentrations ranging from 2.1 mg/kg to 3,200 mg/kg, above the residential and commercial/industrial direct exposure ESLs.

TPHmo was reported at concentrations ranging from 4.2 mg/kg to 7,400 mg/kg, below the residential NS commercial/industrial direct exposure ESLs.

Based on the reported TPHd concentrations, offsite reuse or disposal of excavated soil may be restricted depending on proposed use.

A summary of petroleum hydrocarbons compounds concentrations in site soil is presented in Table 3.

## 6.3 Organic Compounds in Soil

BTEX and SVOC compounds were not detected at or above the laboratory reporting limits.

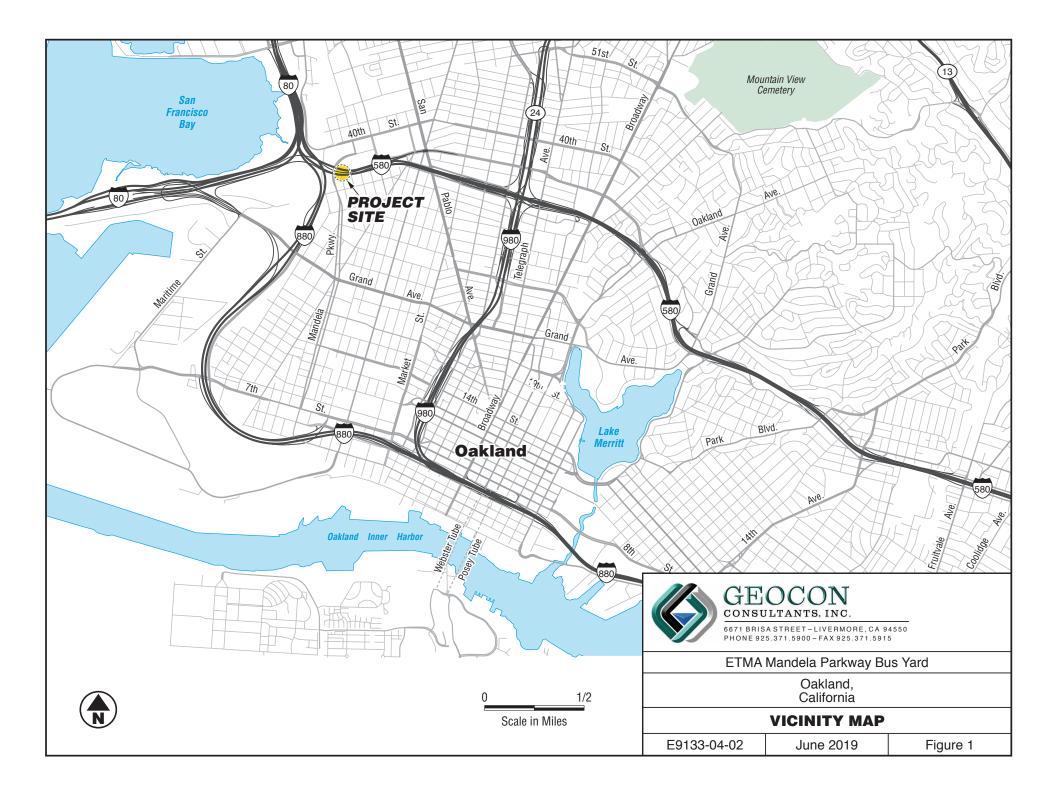
A summary of organic compounds concentrations in site soil is presented in Table 3.

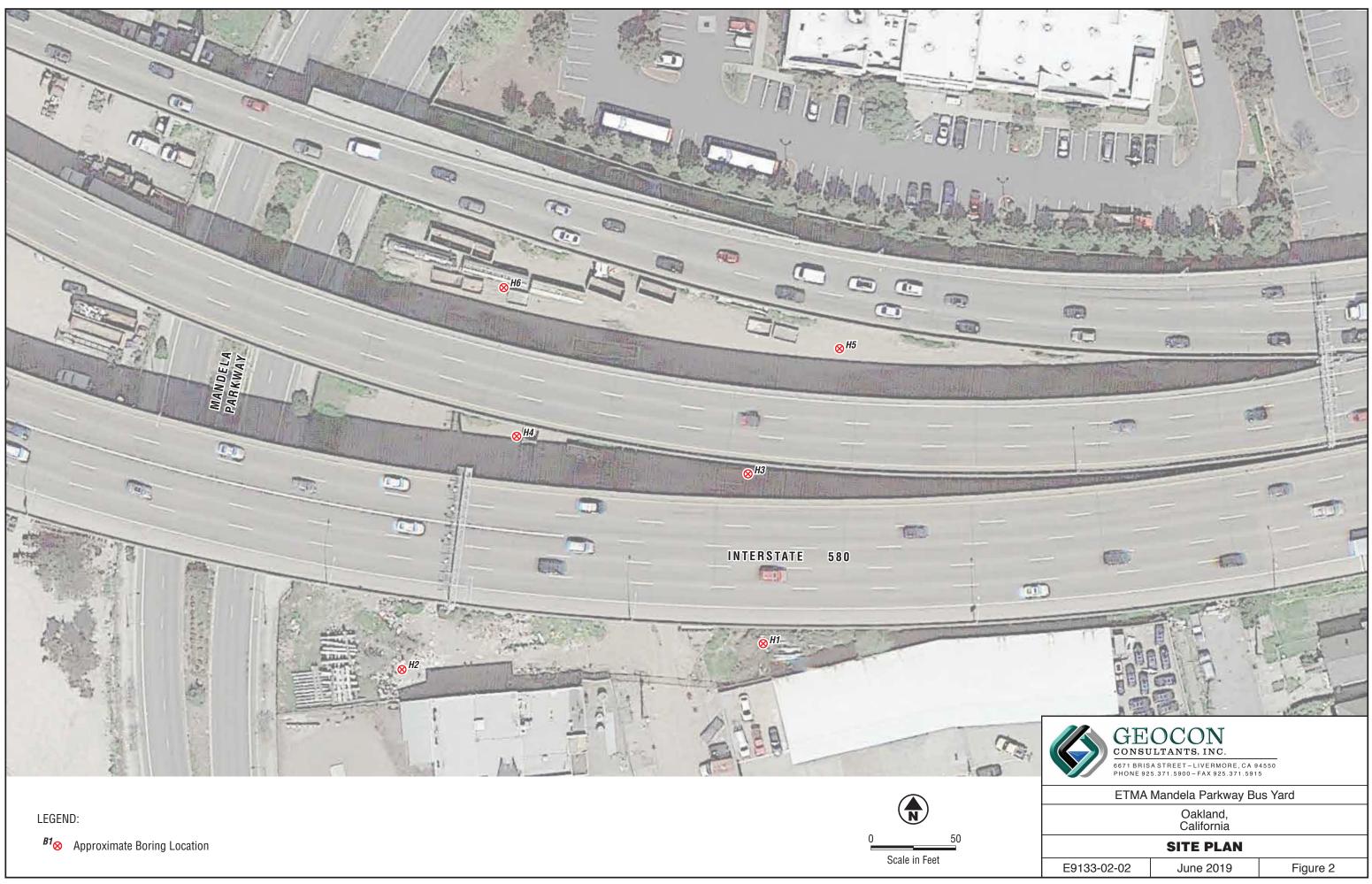
## 6.4 Worker Protection

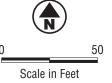
The contractor(s) should prepare a project-specific health and safety plan to prevent or minimize worker exposure to metals and petroleum hydrocarbons in soil. The plan should include protocols for environmental and personnel monitoring, requirements for personal protective equipment, and other health and safety protocols and procedures for the handling of soil.

## 6.5 Excess Soil Disposal

Geocon anticipates that excess soil would not be classified as a hazardous waste (based on metal content), would not be accepted at offsite reuse sites (based on metal and petroleum hydrocarbon content), and will require disposal at a Class II landfill facility. Geocon recommends stockpiling and sampling of excess soil in accordance with the designated Class II landfill waste profiling requirements.







## TABLE 1 Summary of Lead Results ETMA Mandela Parkway Bus Yard Oakland, California

Somula ID	Sample Depth (feet)	Total Lead	WET Lead	TCLP Lead
Sample ID	(leet)	(mg/kg)	( <b>mg/l</b> )	(mg/l)
H1-0	0 to 0.5	130	4.1	
H1-1	1 to 1.5	20		
H2-0.5	0.5 to 1.0	28		
H2-1.5	1.5 to 2	27		
H3-0.5	0.5 to 1.0	6.9		
H3-1	1 to 1.5	71	3.1	
H4-1	1 to 1.5	200	11	< 0.25
H4-2	2 to 2.5	18		
H5-0.5	0.5 to 1.0	57	1.9	
H5-1.5	1.5 to 2	130	2.7	
H6-0.5	0.5 to 1.0	<1.0		
H6-1.5	1.5 to 2	<1.0		

Hazardous Waste Criteria	a		
TTLC (mg/kg)	1,000		
STLC (mg/l)		5.0	
TCLP (mg/l)			5.0

Notes:

mg/kg = Milligrams per kilogram

mg/l = Milligrams per liter

--- = Not analyzed or no standard

< = Not detected above the laboratory reporting limit

WET = Waste Extraction Test using citric acid as the extraction fluid

TCLP = Toxicity Characteristic Leaching Procedure

TTLC = Total Threshold Limit Concentration

STLC = Soluble Threshold Limit Concentration

#### TABLE 2 Summary of CAM 17 Metals Results ETMA Mandela Parkway Bus Yard Oakland, California

Sample ID	Sample Depth (ft)	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
H1-0	0 to 0.5	<2.0	3.7	140	<1.0	<1.0	23	6.2	20	130	0.13	<1.0	23	<1.0	<1.0	<1.0	20	81
H1-1	1 to 1.5	<2.0	2.5	120	<1.0	<1.0	18	5.6	14	20	0.14	<1.0	24	<1.0	<1.0	<1.0	16	36
H2-0.5	0.5 to 1.0	<2.0	3.6	48	<1.0	<1.0	29	7.4	27	28	0.13	<1.0	18	<1.0	<1.0	<1.0	36	59
H2-1.5	1.5 to 2	<2.0	2.2	130	<1.0	<1.0	33	9.7	19	27	<0.10	<1.0	51	<1.0	<1.0	<1.0	25	44
H3-0.5	0.5 to 1.0	<2.0	<1.0	33	<1.0	<1.0	24	13	33	6.9	<0.10	<1.0	25	<1.0	<1.0	<1.0	43	23
H3-1	1 to 1.5	<2.0	3.5	120	<1.0	<1.0	18	6.8	30	71	0.62	<1.0	26	<1.0	<1.0	<1.0	21	79
H4-1	1 to 1.5	<2.0	2.0	73	<1.0	<1.0	20	5.6	22	200	0.14	<1.0	24	<1.0	<1.0	<1.0	20	58
H4-2	2 to 2.5	<2.0	3.4	58	<1.0	<1.0	39	13	16	18	<0.10	<1.0	88	<1.0	<1.0	<1.0	43	33
H5-0.5	0.5 to 1.0	<2.0	1.1	48	<1.0	<1.0	26	8.8	39	57	<0.10	<1.0	26	<1.0	<1.0	<1.0	26	39
H5-1.5	1.5 to 2	<2.0	3.9	160	<1.0	<1.0	26	8.0	54	130	0.66	<1.0	38	<1.0	<1.0	<1.0	22	95
H6-0.5	0.5 to 1.0	<2.0	<1.0	2.7	<1.0	<1.0	81 <1.0	15	64	<1.0	0.13	<1.0	34	<1.0	<1.0	<1.0	29	13
H6-1.5	1.5 to 2	<2.0	<1.0	1.8	<1.0	<1.0	43	16	61	<1.0	0.14	<1.0	22	<1.0	<1.0	<1.0	45	12
<u> </u>	Hazardous Waste Criteria TTLC (mg/kg) STLC (mg/l) TCLP (mg/l)	500 15 	500 5.0 5.0	10,000 100 100	75 0.75	100 1.0 1.0	2,500 5.0 5.0	8,000 80 	2,500 25	1,000 5.0 5.0	20 0.2 0.2	3,500 350	2,000 20	100 1.0 1.0	500 5.0 5.0	700 7.0	2,400 24	5,000 250
	ESLs esidential Direct Exposure Industrial Direct Exposure	11 160	0.067 0.31	15,000 220,000	16 230	78 1,100	120,000 1,800,000	23 350	3,100 47,000	80 320	13 190	390 5,800	820 11,000	390 5,800	390 5,800	0.78 12	390 5,800	23,000 350,000
Back	ground Concentrations <sup>(2)</sup> Minimum Mean Maximum	0.15 0.60 1.95	0.6 3.5 11	133 509 1,400	0.25 1.28 2.70	0.05 0.36 1.70	23 122 1,579	2.7 14.9 46.9	9.1 28.7 96.4	12.4 23.9 97.1	0.10 0.26 0.90	0.1 1.3 9.6	9.0 57 509	0.015 0.058 0.430	0.10 0.80 8.30	0.17 0.56 1.10	39 112 288	88 149 236
	E Results are shown in mill < = not detected at or above Results shown in italics a s = Environmental	e laboratory rej re soluble resi	porting limit ults in milligrams								STLC	= Soluble Three	old Limit Concer shold Limit Conc racteristic Leachi	centration				

< = not detected at or above laboratory reporting limit Results shown in italics are soluble results in milligrams per liter (mg/l) ESLs = Environmental Screening Levels, SFRWQCB, 2019 (Rev 2)

(1) = Value listed is for Chromium III, as there is no construction exposure standard for total chromium

(2) = Background Concentrations of Trace and Major Elements in California Soils (Kearney Foundation of Soil Science, Division of Agricultural and Natural Resources, University of California, March 1996)

#### TABLE 3

#### Summary of Petroleum Hydrocarbons and Semi-Volatile Organic Componds Results ETMA Mandela Parkway Bus Yard Oakland, California

Sample ID	Sample Depth (ft)	TPHg (mg/kg)	TPHd (mg/kg)	TPHmo (mg/kg)	BTEX (mg/kg)	SVOCs (mg/kg
<b>U</b> 1 0	0 / 0 5	.1.0	120	550	ND	ND
H1-0	0 to 0.5	<1.0	120	550	ND	ND
H1-1	1 to 1.5	<1.0	3.4	5.9	ND	ND
H2-0.5	0.5 to 1.0	<1.0	1,000	3,700	ND	ND
H2-1.5	1.5 to 2	<1.0	25	44	ND	ND
H3-0.5	0.5 to 1.0	100	3,200	7,400	ND	ND
H3-1	1 to 1.5	<1.0	210	860	ND	ND
H4-1	1 to 1.5	<1.0	280	1,100	ND	ND
H4-2	2 to 2.5	<1.0	20	39	ND	ND
H5-0.5	0.5 to 1.0	<1.0	82	250	ND	ND
H5-1.5	1.5 to 2	<1.0	520	2,200	ND	ND
H6-0.5	0.5 to 1.0	<1.0	30	67	ND	ND
H6-1.5	1.5 to 2	<1.0	2.1	4.2	ND	ND

2020				
Residential Direct Exposure	430	260	12,000	 
Commercial/Industrial Direct Exposure	2,000	1,200	180,000	 

#### Notes:

BTEX = Benzene, Toluene, Ethylbenzene, Xlyenes

mg/kg = milligrams per kilogram

ND = No detections above the laboratory reporting limit for the suite of analytes

SVOCs = Semi-Volatile Organic Compounds

TPHd = Total petroleum hydrocarbons as diesel

TPHmo = Total petroleum hydrocarbons as motor oil

TPHg = Total petroleum hydrocarbons as gasoline

< = Not detected above the stated laboratory reporting limit

ESLs = Environmental Screening Levels, SFRWQCB, 2019 (Rev 2)







May 21, 2019

Rick Day Geocon Consultants, Inc. 6671 Brisa Street Livermore, CA 94550 Tel: (925) 961-5270 Fax:(925) 371-5915

ELAP No.: 1838 CSDLAC No.: 10196 ORELAP No.: CA300003

Re: ATL Work Order Number : 1901964 Client Reference : ETMA Bus Yard, E9133-02-02

Enclosed are the results for sample(s) received on May 14, 2019 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Edgar Caballero President & Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

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## **Certificate of Analysis**

Geocon Consultants, Inc.

6671 Brisa Street

Livermore, CA 94550

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

#### SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
H1-0	1901964-01	Soil	5/09/19 9:00	5/14/19 9:18
H1-1	1901964-02	Soil	5/09/19 9:00	5/14/19 9:18
H2-0.5	1901964-03	Soil	5/09/19 9:30	5/14/19 9:18
H2-1.5	1901964-04	Soil	5/09/19 9:30	5/14/19 9:18
Н3-0.5	1901964-05	Soil	5/09/19 11:00	5/14/19 9:18
H3-1	1901964-06	Soil	5/09/19 11:00	5/14/19 9:18
H4-1	1901964-07	Soil	5/09/19 10:30	5/14/19 9:18
H4-2	1901964-08	Soil	5/09/19 10:30	5/14/19 9:18
Н5-0.5	1901964-09	Soil	5/09/19 12:30	5/14/19 9:18
H5-1.5	1901964-10	Soil	5/09/19 12:30	5/14/19 9:18
Н6-0.5	1901964-11	Soil	5/09/19 11:30	5/14/19 9:18
H6-1.5	1901964-12	Soil	5/09/19 11:30	5/14/19 9:18



6671 Brisa Street

Livermore, CA 94550

## **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H1-0 Lab ID: 1901964-01

#### Title 22 Metals by ICP-AES EPA 6010B

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B9E0656	05/20/2019	05/21/19 09:16	
Arsenic	3.7	1.0	1	B9E0656	05/20/2019	05/21/19 09:16	
Barium	140	1.0	1	B9E0656	05/20/2019	05/21/19 09:16	
Beryllium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:16	
Cadmium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:16	
Chromium	23	1.0	1	B9E0656	05/20/2019	05/21/19 09:16	
Cobalt	6.2	1.0	1	B9E0656	05/20/2019	05/21/19 09:16	
Copper	20	2.0	1	B9E0656	05/20/2019	05/21/19 09:16	
Lead	130	1.0	1	B9E0656	05/20/2019	05/21/19 09:16	
Molybdenum	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:16	
Nickel	23	1.0	1	B9E0656	05/20/2019	05/21/19 09:16	
Selenium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:16	
Silver	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:16	
Thallium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:16	
Vanadium	20	1.0	1	B9E0656	05/20/2019	05/21/19 09:16	
Zinc	81	1.0	1	B9E0656	05/20/2019	05/21/19 09:16	

#### Mercury by AA (Cold Vapor) EPA 7471A

	Result	PQL				Date/Time	
Analyte	(mg/kg)	(mg/kg)	Dilution	Batch	Prepared	Analyzed	Notes
Mercury	0.13	0.10	1	B9E0659	05/20/2019	05/20/19 17:24	

#### Gasoline Range Organics by EPA 8015B (Modified)

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B9E0619	05/18/2019	05/18/19 09:39	
Surrogate: 4-Bromofluorobenzene	98.5 %	45 - 149		B9E0619	05/18/2019	05/18/19 09:39	

#### **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	120	10	10	B9E0616	05/17/2019	05/18/19 01:54	
ORO	550	10	10	B9E0616	05/17/2019	05/18/19 01:54	

Analyst: GO

Analyst: KEK

Analyst: JBL

Analyst: HT



6671 Brisa Street

Livermore, CA 94550

## **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H1-0 Lab ID: 1901964-01

#### **Diesel Range Organics by EPA 8015B**

	Result	PQL				Date/Time	
Analyte	(mg/kg)	(mg/kg)	Dilution	Batch	Prepared	Analyzed	Notes
Surrogate: p-Terphenyl	0%	34 - 158		B9E0616	05/17/2019	05/18/19 01:54	S4

#### Volatile Organic Compounds by EPA 8260B

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 08:51	
Ethylbenzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 08:51	
m,p-Xylene	ND	10	1	B9E0588	05/17/2019	05/17/19 08:51	
o-Xylene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 08:51	
Toluene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 08:51	
Surrogate: 1,2-Dichloroethane-d4	110 %	60 - 145		B9E0588	05/17/2019	05/17/19 08:51	
Surrogate: 4-Bromofluorobenzene	92.7 %	68 - 121		B9E0588	05/17/2019	05/17/19 08:51	
Surrogate: Dibromofluoromethane	106 %	65 - 137		B9E0588	05/17/2019	05/17/19 08:51	
Surrogate: Toluene-d8	104 %	82 - 119		B9E0588	05/17/2019	05/17/19 08:51	

#### Semivolatile Organic Compounds by EPA 8270C

÷ 1	•						J
Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
1,2-Dichlorobenzene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
1,3-Dichlorobenzene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
1,4-Dichlorobenzene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
2,4,5-Trichlorophenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
2,4,6-Trichlorophenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
2,4-Dichlorophenol	ND	33000	20	B9E0623	05/17/2019	05/17/19 18:48	D1
2,4-Dimethylphenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
2,4-Dinitrophenol	ND	33000	20	B9E0623	05/17/2019	05/17/19 18:48	D1
2,4-Dinitrotoluene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
2,6-Dinitrotoluene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
2-Chloronaphthalene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
2-Chlorophenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
2-Methylnaphthalene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
2-Methylphenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
-Nitroaniline	ND	33000	20	B9E0623	05/17/2019	05/17/19 18:48	D1
2-Nitrophenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1

Analyst: VW

Analyst: HT



6671 Brisa Street

Livermore, CA 94550

## **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

### Client Sample ID H1-0 Lab ID: 1901964-01

#### Semivolatile Organic Compounds by EPA 8270C

	Result	PQL				Date/Time	
Analyte	(ug/kg)	(ug/kg)	Dilution	Batch	Prepared	Analyzed	Notes
3,3'-Dichlorobenzidine	ND	13000	20	B9E0623	05/17/2019	05/17/19 18:48	D1
3-Nitroaniline	ND	33000	20	B9E0623	05/17/2019	05/17/19 18:48	D1
4,6-Dinitro-2-methyphenol	ND	33000	20	B9E0623	05/17/2019	05/17/19 18:48	D1
4-Bromophenyl-phenylether	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
4-Chloro-3-methylphenol	ND	13000	20	B9E0623	05/17/2019	05/17/19 18:48	D1
4-Chloroaniline	ND	13000	20	B9E0623	05/17/2019	05/17/19 18:48	D1
4-Chlorophenyl-phenylether	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
4-Methylphenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
4-Nitroaniline	ND	33000	20	B9E0623	05/17/2019	05/17/19 18:48	D1
4-Nitrophenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Acenaphthene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Acenaphthylene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Anthracene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Benzidine (M)	ND	33000	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Benzo(a)anthracene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Benzo(a)pyrene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Benzo(b)fluoranthene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Benzo(g,h,i)perylene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Benzo(k)fluoranthene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Benzoic acid	ND	33000	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Benzyl alcohol	ND	13000	20	B9E0623	05/17/2019	05/17/19 18:48	D1
bis(2-chloroethoxy)methane	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
bis(2-Chloroethyl)ether	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
bis(2-chloroisopropyl)ether	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
bis(2-ethylhexyl)phthalate	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Butylbenzylphthalate	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Chrysene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Di-n-butylphthalate	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Di-n-octylphthalate	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Dibenz(a,h)anthracene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Dibenzofuran	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Diethyl phthalate	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Dimethyl phthalate	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Fluoranthene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Fluorene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Hexachlorobenzene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Hexachlorobutadiene	ND	13000	20	B9E0623	05/17/2019	05/17/19 18:48	D1



6671 Brisa Street

Livermore, CA 94550

## **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

### Client Sample ID H1-0 Lab ID: 1901964-01

#### Semivolatile Organic Compounds by EPA 8270C

							1 Mildiy St. K
Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	13000	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Hexachloroethane	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Indeno(1,2,3-cd)pyrene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Isophorone	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
N-Nitroso-di-n propylamine	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
N-Nitrosodiphenylamine	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Naphthalene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Nitrobenzene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Pentachlorophenol	ND	33000	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Phenanthrene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Phenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Pyrene	ND	6600	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Pyridine	ND	33000	20	B9E0623	05/17/2019	05/17/19 18:48	D1
Surrogate: 1,2-Dichlorobenzene-d4	0%	16 - 87		B9E0623	05/17/2019	05/17/19 18:48	S4
Surrogate: 2,4,6-Tribromophenol	0%	0 - 148		B9E0623	05/17/2019	05/17/19 18:48	S4
Surrogate: 2-Chlorophenol-d4	0%	17 - 96		B9E0623	05/17/2019	05/17/19 18:48	S4
Surrogate: 2-Fluorobiphenyl	0%	16 - 107		B9E0623	05/17/2019	05/17/19 18:48	S4
Surrogate: 2-Fluorophenol	0%	16 - 86		B9E0623	05/17/2019	05/17/19 18:48	S4
Surrogate: 4-Terphenyl-d14	0%	3 - 156		B9E0623	05/17/2019	05/17/19 18:48	S4
Surrogate: Nitrobenzene-d5	0%	16 - 99		B9E0623	05/17/2019	05/17/19 18:48	S4
Surrogate: Phenol-d6	0%	17 - 90		B9E0623	05/17/2019	05/17/19 18:48	S4



6671 Brisa Street

Livermore, CA 94550

## **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H1-1 Lab ID: 1901964-02

#### Title 22 Metals by ICP-AES EPA 6010B

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Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B9E0656	05/20/2019	05/21/19 09:20	
Arsenic	2.5	1.0	1	B9E0656	05/20/2019	05/21/19 09:20	
Barium	120	1.0	1	B9E0656	05/20/2019	05/21/19 09:20	
Beryllium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:20	
Cadmium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:20	
Chromium	18	1.0	1	B9E0656	05/20/2019	05/21/19 09:20	
Cobalt	5.6	1.0	1	B9E0656	05/20/2019	05/21/19 09:20	
Copper	14	2.0	1	B9E0656	05/20/2019	05/21/19 09:20	
Lead	20	1.0	1	B9E0656	05/20/2019	05/21/19 09:20	
Molybdenum	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:20	
Nickel	24	1.0	1	B9E0656	05/20/2019	05/21/19 09:20	
Selenium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:20	
Silver	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:20	
Thallium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:20	
Vanadium	16	1.0	1	B9E0656	05/20/2019	05/21/19 09:20	
Zinc	36	1.0	1	B9E0656	05/20/2019	05/21/19 09:20	

#### Mercury by AA (Cold Vapor) EPA 7471A

	Result	PQL				Date/Time	
Analyte	(mg/kg)	(mg/kg)	Dilution	Batch	Prepared	Analyzed	Notes
Mercury	0.14	0.10	1	B9E0659	05/20/2019	05/20/19 17:31	

#### Gasoline Range Organics by EPA 8015B (Modified)

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B9E0619	05/18/2019	05/18/19 09:58	
Surrogate: 4-Bromofluorobenzene	94.6 %	45 - 149		B9E0619	05/18/2019	05/18/19 09:58	

#### **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	3.4	1.0	1	B9E0616	05/17/2019	05/18/19 00:32	
ORO	5.9	1.0	1	B9E0616	05/17/2019	05/18/19 00:32	

Analyst: GO

Analyst: KEK

Analyst: JBL

Analyst: HT



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Livermore, CA 94550

## **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H1-1 Lab ID: 1901964-02

#### **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	113 %	34 - 158		B9E0616	05/17/2019	05/18/19 00:32	

#### Volatile Organic Compounds by EPA 8260B

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 10:06	
Ethylbenzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 10:06	
m,p-Xylene	ND	10	1	B9E0588	05/17/2019	05/17/19 10:06	
o-Xylene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 10:06	
Toluene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 10:06	
Surrogate: 1,2-Dichloroethane-d4	110 %	60 - 145		B9E0588	05/17/2019	05/17/19 10:06	
Surrogate: 4-Bromofluorobenzene	97.5 %	68 - 121		B9E0588	05/17/2019	05/17/19 10:06	
Surrogate: Dibromofluoromethane	111 %	65 - 137		B9E0588	05/17/2019	05/17/19 10:06	
Surrogate: Toluene-d8	96.1 %	82 - 119		B9E0588	05/17/2019	05/17/19 10:06	

#### Semivolatile Organic Compounds by EPA 8270C

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
1,2-Dichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
1,3-Dichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
1,4-Dichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
2,4,5-Trichlorophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
2,4,6-Trichlorophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
2,4-Dichlorophenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 19:14	
2,4-Dimethylphenol	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
2,4-Dinitrophenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 19:14	
2,4-Dinitrotoluene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
2,6-Dinitrotoluene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
2-Chloronaphthalene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
2-Chlorophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
2-Methylnaphthalene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
2-Methylphenol	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
-Nitroaniline	ND	1600	1	B9E0623	05/17/2019	05/17/19 19:14	
-Nitrophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	

Analyst: VW

Analyst: HT



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H1-1 Lab ID: 1901964-02

### Semivolatile Organic Compounds by EPA 8270C

	Result	PQL				Date/Time	
Analyte	(ug/kg)	(ug/kg)	Dilution	Batch	Prepared	Analyzed	Notes
3,3'-Dichlorobenzidine	ND	660	1	B9E0623	05/17/2019	05/17/19 19:14	
3-Nitroaniline	ND	1600	1	B9E0623	05/17/2019	05/17/19 19:14	
4,6-Dinitro-2-methyphenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 19:14	
4-Bromophenyl-phenylether	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
4-Chloro-3-methylphenol	ND	660	1	B9E0623	05/17/2019	05/17/19 19:14	
4-Chloroaniline	ND	660	1	B9E0623	05/17/2019	05/17/19 19:14	
4-Chlorophenyl-phenylether	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
4-Methylphenol	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
4-Nitroaniline	ND	1600	1	B9E0623	05/17/2019	05/17/19 19:14	
4-Nitrophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Acenaphthene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Acenaphthylene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Anthracene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Benzidine (M)	ND	1600	1	B9E0623	05/17/2019	05/17/19 19:14	
Benzo(a)anthracene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Benzo(a)pyrene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Benzo(b)fluoranthene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Benzo(g,h,i)perylene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Benzo(k)fluoranthene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Benzoic acid	ND	1600	1	B9E0623	05/17/2019	05/17/19 19:14	
Benzyl alcohol	ND	660	1	B9E0623	05/17/2019	05/17/19 19:14	
bis(2-chloroethoxy)methane	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
bis(2-Chloroethyl)ether	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
bis(2-chloroisopropyl)ether	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
bis(2-ethylhexyl)phthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Butylbenzylphthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Chrysene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Di-n-butylphthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Di-n-octylphthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Dibenz(a,h)anthracene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Dibenzofuran	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Diethyl phthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Dimethyl phthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Fluoranthene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Fluorene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Hexachlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Hexachlorobutadiene	ND	660	1	B9E0623	05/17/2019	05/17/19 19:14	



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H1-1 Lab ID: 1901964-02

## Semivolatile Organic Compounds by EPA 8270C

Analyte Hexachlorocyclopentadiene Hexachloroethane	Result (ug/kg) ND ND	PQL (ug/kg) 660	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
		660	1				
Iexachloroethane	ND		1	B9E0623	05/17/2019	05/17/19 19:14	
		330	1	B9E0623	05/17/2019	05/17/19 19:14	
ndeno(1,2,3-cd)pyrene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
sophorone	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
N-Nitroso-di-n propylamine	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
N-Nitrosodiphenylamine	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Vaphthalene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Vitrobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Pentachlorophenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 19:14	
henanthrene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Phenol	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Pyrene	ND	330	1	B9E0623	05/17/2019	05/17/19 19:14	
Pyridine	ND	1600	1	B9E0623	05/17/2019	05/17/19 19:14	
Surrogate: 1,2-Dichlorobenzene-d4	34.7 %	16 - 87		B9E0623	05/17/2019	05/17/19 19:14	
Surrogate: 2,4,6-Tribromophenol	139 %	0 - 148		B9E0623	05/17/2019	05/17/19 19:14	
Surrogate: 2-Chlorophenol-d4 7	78.6 %	17 - 96		B9E0623	05/17/2019	05/17/19 19:14	
Surrogate: 2-Fluorobiphenyl	9.6 %	16 - 107		B9E0623	05/17/2019	05/17/19 19:14	
Surrogate: 2-Fluorophenol	72.0 %	16 - 86		B9E0623	05/17/2019	05/17/19 19:14	
Surrogate: 4-Terphenyl-d14	111 %	3 - 156		B9E0623	05/17/2019	05/17/19 19:14	
Surrogate: Nitrobenzene-d5 7	79.0 %	16 - 99		B9E0623	05/17/2019	05/17/19 19:14	
Surrogate: Phenol-d6 7	77.8 %	17 - 90		B9E0623	05/17/2019	05/17/19 19:14	



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H2-0.5 Lab ID: 1901964-03

#### Title 22 Metals by ICP-AES EPA 6010B

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Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B9E0656	05/20/2019	05/21/19 09:21	
Arsenic	3.6	1.0	1	B9E0656	05/20/2019	05/21/19 09:21	
Barium	48	1.0	1	B9E0656	05/20/2019	05/21/19 09:21	
Beryllium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:21	
Cadmium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:21	
Chromium	29	1.0	1	B9E0656	05/20/2019	05/21/19 09:21	
Cobalt	7.4	1.0	1	B9E0656	05/20/2019	05/21/19 09:21	
Copper	27	2.0	1	B9E0656	05/20/2019	05/21/19 09:21	
Lead	28	1.0	1	B9E0656	05/20/2019	05/21/19 09:21	
Molybdenum	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:21	
Nickel	18	1.0	1	B9E0656	05/20/2019	05/21/19 09:21	
Selenium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:21	
Silver	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:21	
Thallium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:21	
Vanadium	36	1.0	1	B9E0656	05/20/2019	05/21/19 09:21	
Zinc	59	1.0	1	B9E0656	05/20/2019	05/21/19 09:21	

### Mercury by AA (Cold Vapor) EPA 7471A

	Result	PQL				Date/Time	
Analyte	(mg/kg)	(mg/kg)	Dilution	Batch	Prepared	Analyzed	Notes
Mercury	0.13	0.10	1	B9E0659	05/20/2019	05/20/19 17:37	

### Gasoline Range Organics by EPA 8015B (Modified)

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B9E0619	05/18/2019	05/18/19 10:16	
Surrogate: 4-Bromofluorobenzene	94.1 %	45 - 149		B9E0619	05/18/2019	05/18/19 10:16	

### **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	1000	100	100	B9E0616	05/17/2019	05/18/19 03:16	
ORO	3700	100	100	B9E0616	05/17/2019	05/18/19 03:16	

Analyst: GO

Analyst: KEK

Analyst: JBL



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

# Client Sample ID H2-0.5 Lab ID: 1901964-03

#### **Diesel Range Organics by EPA 8015B**

	Result	PQL				Date/Time	
Analyte	(mg/kg)	(mg/kg)	Dilution	Batch	Prepared	Analyzed	Notes
Surrogate: p-Terphenyl	0%	34 - 158		B9E0616	05/17/2019	05/18/19 03:16	S4

#### Volatile Organic Compounds by EPA 8260B

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 10:25	
Ethylbenzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 10:25	
m,p-Xylene	ND	10	1	B9E0588	05/17/2019	05/17/19 10:25	
o-Xylene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 10:25	
Toluene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 10:25	
Surrogate: 1,2-Dichloroethane-d4	106 %	60 - 145		B9E0588	05/17/2019	05/17/19 10:25	
Surrogate: 4-Bromofluorobenzene	95.9 %	68 - 121		B9E0588	05/17/2019	05/17/19 10:25	
Surrogate: Dibromofluoromethane	110 %	65 - 137		B9E0588	05/17/2019	05/17/19 10:25	
Surrogate: Toluene-d8	92.8 %	82 - 119		B9E0588	05/17/2019	05/17/19 10:25	

#### Semivolatile Organic Compounds by EPA 8270C

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
1,2-Dichlorobenzene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
1,3-Dichlorobenzene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
1,4-Dichlorobenzene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
2,4,5-Trichlorophenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
2,4,6-Trichlorophenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
2,4-Dichlorophenol	ND	160000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
2,4-Dimethylphenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
2,4-Dinitrophenol	ND	160000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
2,4-Dinitrotoluene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
2,6-Dinitrotoluene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
2-Chloronaphthalene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
2-Chlorophenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
2-Methylnaphthalene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
2-Methylphenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
2-Nitroaniline	ND	160000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
2-Nitrophenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1

Analyst: VW

Analyst: SP



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H2-0.5 Lab ID: 1901964-03

## Semivolatile Organic Compounds by EPA 8270C

Sennvolathe Organic Compound	as by E1110270C						Analyst: SP
Analyta	Result	PQL	Diller	D-4 1	Deces 1	Date/Time	Nata-
Analyte	(ug/kg)	(ug/kg)	Dilution	Batch	Prepared	Analyzed	Notes
3,3'-Dichlorobenzidine	ND	66000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
3-Nitroaniline	ND	160000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
4,6-Dinitro-2-methyphenol	ND	160000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
4-Bromophenyl-phenylether	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
4-Chloro-3-methylphenol	ND	66000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
4-Chloroaniline	ND	66000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
4-Chlorophenyl-phenylether	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
4-Methylphenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
4-Nitroaniline	ND	160000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
4-Nitrophenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Acenaphthene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Acenaphthylene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Anthracene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Benzidine (M)	ND	160000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Benzo(a)anthracene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Benzo(a)pyrene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Benzo(b)fluoranthene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Benzo(g,h,i)perylene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Benzo(k)fluoranthene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Benzoic acid	ND	160000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Benzyl alcohol	ND	66000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
bis(2-chloroethoxy)methane	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
bis(2-Chloroethyl)ether	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
bis(2-chloroisopropyl)ether	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
bis(2-ethylhexyl)phthalate	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Butylbenzylphthalate	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Chrysene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Di-n-butylphthalate	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Di-n-octylphthalate	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Dibenz(a,h)anthracene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Dibenzofuran	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Diethyl phthalate	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Dimethyl phthalate	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Fluoranthene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Fluorene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Hexachlorobenzene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Hexachlorobutadiene	ND	66000	100	B9E0623	05/17/2019	05/17/19 19:40	D1



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H2-0.5 Lab ID: 1901964-03

### Semivolatile Organic Compounds by EPA 8270C

Result         PQL (ug/kg)         Dilution         Batch         Prepared         Date/Time           Hexachlorocyclopentadiene         ND         66000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Hexachlorocyclopentadiene         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Indeno(1,2,3-cd)pyrene         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           N-Nitroso-di-n propylamine         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           N-Nitroso-di-n propylamine         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           N-Nitroso-di-n propylamine         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Naphthalene         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Pentachlorophenol         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Phenol <td< th=""><th>Seini einene organie oompound</th><th>is by EIII 02.00</th><th></th><th></th><th></th><th></th><th></th><th>maryst. S.</th></td<>	Seini einene organie oompound	is by EIII 02.00						maryst. S.
HexachlorythyminitiND33000100B9E062305/17/201905/17/19 19:40D1Indeno(1,2,3-cdpyreneND33000100B9E062305/17/201905/17/19 19:40D1IsophoroneND33000100B9E062305/17/201905/17/19 19:40D1N-Nitroso-di-n propylamineND33000100B9E062305/17/201905/17/19 19:40D1N-Nitroso-di-n propylamineND33000100B9E062305/17/201905/17/19 19:40D1N-Nitroso-di-n propylamineND33000100B9E062305/17/201905/17/19 19:40D1NaphthaleneND33000100B9E062305/17/201905/17/19 19:40D1NitrobenzeneND33000100B9E062305/17/201905/17/19 19:40D1PentachlorophenolND160000100B9E062305/17/201905/17/19 19:40D1PhenanthreneND33000100B9E062305/17/201905/17/19 19:40D1PyreneND33000100B9E062305/17/201905/17/19 19:40D1PyreneND33000100B9E062305/17/201905/17/19 19:40D1Surrogate:1,2-Dichlorobenzene-d40%16 - 87B9E062305/17/201905/17/19 19:40S4Surrogate:2,4.6-Tribromophenol0%17 - 96B9E062305/17/201905/17/19 19:40S4Surrogate:2,4.6-Tribromophenol </th <th>Analyte</th> <th></th> <th></th> <th>Dilution</th> <th>Batch</th> <th>Prepared</th> <th></th> <th>Notes</th>	Analyte			Dilution	Batch	Prepared		Notes
Indeno(1,2,3-ed)pyrene         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Isophorone         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           N-Nitroso-di-n propylamine         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           N-Nitroso-di-n propylamine         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           N-Nitroso-di-n propylamine         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Naphthalene         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Nitrobenzene         ND         160000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Phenol         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Pyrene         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Surrogate: 1,2-Dichloro	Hexachlorocyclopentadiene	ND	66000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Isophorone         ND         3300         100         B9E0623         05/17/2019         05/17/19         19:40         D1           N-Nitroso-di-n propylamine         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           N-Nitroso-di-n propylamine         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Naphthalene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Nitrobenzene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Pentachlorophenol         ND         160000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Phenol         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Pyrene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Surrogate: 1,2-Dichlorobenzene-d4         0%         16 - 87         B9E0623         05/1	Hexachloroethane	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           N-Nitrosodiphenylamine         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Naphthalene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Nitrobenzene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Pentachlorophenol         ND         160000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Phenathrene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Phenol         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Pyrene         ND         33000         100         B9E0623         05/17/2019         05/17/19         10           Surrogate: 1,2-Dichlorobenzene-d4         0%         16 - 87         B9E0623         05/17/2019         05/17/19         10 <td< td=""><td>Indeno(1,2,3-cd)pyrene</td><td>ND</td><td>33000</td><td>100</td><td>B9E0623</td><td>05/17/2019</td><td>05/17/19 19:40</td><td>D1</td></td<>	Indeno(1,2,3-cd)pyrene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
N-Nitrosodiphenylamine         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         DI           Naphthalene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         DI           Nitrobenzene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         DI           Pentachlorophenol         ND         160000         100         B9E0623         05/17/2019         05/17/19         19:40         DI           Phenanthrene         ND         160000         100         B9E0623         05/17/2019         05/17/19         19:40         DI           Pyrene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         DI           Pyrene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         DI           Surrogate:         1,2-Dichlorobenzene-d4         0%         16 - 87         B9E0623         05/17/2019         05/17/19         19:40         S4           Surrogate:         2,4,6-Tribromophenol         0%         0 - 148         B9E0623 </td <td>Isophorone</td> <td>ND</td> <td>33000</td> <td>100</td> <td>B9E0623</td> <td>05/17/2019</td> <td>05/17/19 19:40</td> <td>D1</td>	Isophorone	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Naphthalene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Nitrobenzene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Pentachlorophenol         ND         160000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Phenanthrene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Phenol         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Pyrene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Pyridine         ND         160000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Surrogate:         1,2-Dichlorobenzene-d4         0%         16 - 87         B9E0623         05/17/2019         05/17/19         19:40         S4           Surrogate:         2,4,6-Tribromophenol         0%         0/4         17 - 96         B9	N-Nitroso-di-n propylamine	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Nitrobenzene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Pentachlorophenol         ND         160000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Phenanthrene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Phenol         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Pyrene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Pyrene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Surrogate: 1,2-Dichlorobenzene-d4         0%         16 - 87         B9E0623         05/17/2019         05/17/19         19:40         S4           Surrogate: 2,4,6-Tribromophenol         0%         0 - 148         B9E0623         05/17/2019         05/17/19         19:40         S4           Surrogate: 2-Fluorobiphenyl         0%         16 - 107         B9E0623         05/17/2019         05/17/19<	N-Nitrosodiphenylamine	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Pentachlorophenol         ND         160000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Phenanthrene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Phenol         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Pyrene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Pyrene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Surrogate:         1,2-Dichlorobenzene-d4         0%         16 - 87         B9E0623         05/17/2019         05/17/19         19:40         S4           Surrogate:         2,4,6-Tribromophenol         0%         0 - 148         B9E0623         05/17/2019         05/17/19         19:40         S4           Surrogate:         2-Fluorophenol-d4         0%         17 - 96         B9E0623         05/17/2019         05/17/19         19:40         S4           Surrogate:         2-Fluorophenol         0%         16 - 107 <td< td=""><td>Naphthalene</td><td>ND</td><td>33000</td><td>100</td><td>B9E0623</td><td>05/17/2019</td><td>05/17/19 19:40</td><td>D1</td></td<>	Naphthalene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Phenanthrene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Phenol         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Pyrene         ND         33000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Pyridine         ND         160000         100         B9E0623         05/17/2019         05/17/19         19:40         D1           Surrogate:         1,2-Dichlorobenzene-d4         0%         16 - 87         B9E0623         05/17/2019         05/17/19         19:40         S4           Surrogate:         2,4,6-Tribromophenol         0%         0 - 148         B9E0623         05/17/2019         05/17/19         19:40         S4           Surrogate:         2-Chlorophenol-d4         0%         17 - 96         B9E0623         05/17/2019         05/17/19         19:40         S4           Surrogate:         2-Fluorobiphenyl         0%         16 - 107         B9E0623         05/17/2019         05/17/19         19:40         S4           Surrogate:         2-Fluorophenol         0%         16 - 86	Nitrobenzene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Phenol         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Pyrene         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Pyridine         ND         160000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Surrogate: 1,2-Dichlorobenzene-d4         0%         16 - 87         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: 2,4,6-Tribromophenol         0%         0 - 148         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: 2-Chlorophenol-d4         0%         17 - 96         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: 2-Fluorobiphenyl         0%         16 - 107         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: 2-Fluorophenol         0%         16 - 86         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: 4-Terphenyl-d14         0%         3 - 156         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: Nitrobenzene-d5         0%         16 - 99         B9	Pentachlorophenol	ND	160000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Pyrene         ND         33000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Pyridine         ND         160000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Surrogate: 1,2-Dichlorobenzene-d4         0%         16 - 87         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: 2,4,6-Tribromophenol         0%         0 - 148         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: 2-Chlorophenol-d4         0%         17 - 96         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: 2-Fluorobiphenyl         0%         16 - 107         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: 2-Fluorophenol         0%         16 - 86         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: 4-Terphenyl-d14         0%         3 - 156         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: Nitrobenzene-d5         0%         16 - 99         B9E0623         05/17/2019         05/17/19 19:40         S4	Phenanthrene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Pyridine         ND         160000         100         B9E0623         05/17/2019         05/17/19 19:40         D1           Surrogate: 1,2-Dichlorobenzene-d4         0%         16 - 87         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: 2,4,6-Tribromophenol         0%         0 - 148         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: 2-Chlorophenol-d4         0%         17 - 96         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: 2-Fluorobiphenyl         0%         16 - 107         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: 2-Fluorophenol         0%         16 - 86         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: 4-Terphenyl-d14         0%         3 - 156         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate: Nitrobenzene-d5         0%         16 - 99         B9E0623         05/17/2019         05/17/19 19:40         S4	Phenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Surrogate:         1,2-Dichlorobenzene-d4         0%         16 - 87         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate:         2,4,6-Tribromophenol         0%         0 - 148         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate:         2-Chlorophenol-d4         0%         17 - 96         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate:         2-Fluorobiphenyl         0%         16 - 107         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate:         2-Fluorophenol         0%         16 - 86         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate:         4-Terphenyl-d14         0%         3 - 156         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate:         Nitrobenzene-d5         0%         16 - 99         B9E0623         05/17/2019         05/17/19 19:40         S4	Pyrene	ND	33000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Surrogate: 2,4,6-Tribromophenol       0%       0 - 148       B9E0623       05/17/2019       05/17/19 19:40       S4         Surrogate: 2-Chlorophenol-d4       0%       17 - 96       B9E0623       05/17/2019       05/17/19 19:40       S4         Surrogate: 2-Fluorobiphenyl       0%       16 - 107       B9E0623       05/17/2019       05/17/19 19:40       S4         Surrogate: 2-Fluorophenol       0%       16 - 86       B9E0623       05/17/2019       05/17/19 19:40       S4         Surrogate: 4-Terphenyl-d14       0%       3 - 156       B9E0623       05/17/2019       05/17/19 19:40       S4         Surrogate: Nitrobenzene-d5       0%       16 - 99       B9E0623       05/17/2019       05/17/19 19:40       S4	Pyridine	ND	160000	100	B9E0623	05/17/2019	05/17/19 19:40	D1
Surrogate: 2-Chlorophenol-d4       0%       17 - 96       B9E0623       05/17/2019       05/17/19 19:40       S4         Surrogate: 2-Fluorobiphenyl       0%       16 - 107       B9E0623       05/17/2019       05/17/19 19:40       S4         Surrogate: 2-Fluorophenol       0%       16 - 86       B9E0623       05/17/2019       05/17/19 19:40       S4         Surrogate: 4-Terphenyl-d14       0%       3 - 156       B9E0623       05/17/2019       05/17/19 19:40       S4         Surrogate: Nitrobenzene-d5       0%       16 - 99       B9E0623       05/17/2019       05/17/19 19:40       S4	Surrogate: 1,2-Dichlorobenzene-d4	0%	16 - 87		B9E0623	05/17/2019	05/17/19 19:40	S4
Surrogate: 2-Fluorobiphenyl       0%       16 - 107       B9E0623       05/17/2019       05/17/19 19:40       S4         Surrogate: 2-Fluorophenol       0%       16 - 86       B9E0623       05/17/2019       05/17/19 19:40       S4         Surrogate: 4-Terphenyl-d14       0%       3 - 156       B9E0623       05/17/2019       05/17/19 19:40       S4         Surrogate: Nitrobenzene-d5       0%       16 - 99       B9E0623       05/17/2019       05/17/19 19:40       S4	Surrogate: 2,4,6-Tribromophenol	0%	0 - 148		B9E0623	05/17/2019	05/17/19 19:40	S4
Surrogate: 2-Fluorophenol       0%       16 - 86       B9E0623       05/17/2019       05/17/19 19:40       S4         Surrogate: 4-Terphenyl-d14       0%       3 - 156       B9E0623       05/17/2019       05/17/19 19:40       S4         Surrogate: Nitrobenzene-d5       0%       16 - 99       B9E0623       05/17/2019       05/17/19 19:40       S4	Surrogate: 2-Chlorophenol-d4	0%	17 - 96		B9E0623	05/17/2019	05/17/19 19:40	S4
Surrogate:         A-Terphenyl-d14         0%         3 - 156         B9E0623         05/17/2019         05/17/19 19:40         S4           Surrogate:         Nitrobenzene-d5         0%         16 - 99         B9E0623         05/17/2019         05/17/19 19:40         S4	Surrogate: 2-Fluorobiphenyl	0%	16 - 107		B9E0623	05/17/2019	05/17/19 19:40	S4
Surrogate: Nitrobenzene-d5         0%         16 - 99         B9E0623         05/17/2019         05/17/19 19:40         S4	Surrogate: 2-Fluorophenol	0%	16 - 86		B9E0623	05/17/2019	05/17/19 19:40	S4
	Surrogate: 4-Terphenyl-d14	0%	3 - 156		B9E0623	05/17/2019	05/17/19 19:40	S4
Surrogate: Phenol-d6 0% 17 - 90 B9E0623 05/17/2019 05/17/19 19:40 S4	Surrogate: Nitrobenzene-d5	0%	16 - 99		B9E0623	05/17/2019	05/17/19 19:40	S4
	Surrogate: Phenol-d6	0%	17 - 90		B9E0623	05/17/2019	05/17/19 19:40	S4



6671 Brisa Street

Livermore, CA 94550

## **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H2-1.5 Lab ID: 1901964-04

#### Title 22 Metals by ICP-AES EPA 6010B

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Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B9E0656	05/20/2019	05/21/19 09:22	
Arsenic	2.2	1.0	1	B9E0656	05/20/2019	05/21/19 09:22	
Barium	130	1.0	1	B9E0656	05/20/2019	05/21/19 09:22	
Beryllium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:22	
Cadmium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:22	
Chromium	33	1.0	1	B9E0656	05/20/2019	05/21/19 09:22	
Cobalt	9.7	1.0	1	B9E0656	05/20/2019	05/21/19 09:22	
Copper	19	2.0	1	B9E0656	05/20/2019	05/21/19 09:22	
Lead	27	1.0	1	B9E0656	05/20/2019	05/21/19 09:22	
Molybdenum	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:22	
Nickel	51	1.0	1	B9E0656	05/20/2019	05/21/19 09:22	
Selenium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:22	
Silver	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:22	
Thallium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:22	
Vanadium	25	1.0	1	B9E0656	05/20/2019	05/21/19 09:22	
Zinc	44	1.0	1	B9E0656	05/20/2019	05/21/19 09:22	

### Mercury by AA (Cold Vapor) EPA 7471A

Analida	Result	PQL	Dilation	Detab	Duou o uo 4	Date/Time	Nata
Analyte	(mg/kg)	(mg/kg)	Dilution	Batch	Prepared	Analyzed	Notes
Mercury	ND	0.10	1	B9E0659	05/20/2019	05/20/19 17:39	

### Gasoline Range Organics by EPA 8015B (Modified)

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B9E0619	05/18/2019	05/18/19 10:35	
Surrogate: 4-Bromofluorobenzene	97.6 %	45 - 149		B9E0619	05/18/2019	05/18/19 10:35	

### **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	25	1.0	1	B9E0616	05/17/2019	05/18/19 00:48	
ORO	44	1.0	1	B9E0616	05/17/2019	05/18/19 00:48	

Analyst: GO

Analyst: KEK

Analyst: JBL



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

# Client Sample ID H2-1.5 Lab ID: 1901964-04

#### **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	105 %	34 - 158		B9E0616	05/17/2019	05/18/19 00:48	

#### Volatile Organic Compounds by EPA 8260B

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 10:43	
Ethylbenzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 10:43	
m,p-Xylene	ND	10	1	B9E0588	05/17/2019	05/17/19 10:43	
o-Xylene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 10:43	
Toluene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 10:43	
Surrogate: 1,2-Dichloroethane-d4	104 %	60 - 145		B9E0588	05/17/2019	05/17/19 10:43	
Surrogate: 4-Bromofluorobenzene	94.4 %	68 - 121		B9E0588	05/17/2019	05/17/19 10:43	
Surrogate: Dibromofluoromethane	105 %	65 - 137		B9E0588	05/17/2019	05/17/19 10:43	
Surrogate: Toluene-d8	105 %	82 - 119		B9E0588	05/17/2019	05/17/19 10:43	

#### Semivolatile Organic Compounds by EPA 8270C

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Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
1,2-Dichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
1,3-Dichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
1,4-Dichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
2,4,5-Trichlorophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
2,4,6-Trichlorophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
2,4-Dichlorophenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 20:06	
2,4-Dimethylphenol	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
2,4-Dinitrophenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 20:06	
2,4-Dinitrotoluene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
2,6-Dinitrotoluene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
2-Chloronaphthalene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
2-Chlorophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
2-Methylnaphthalene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
2-Methylphenol	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
2-Nitroaniline	ND	1600	1	B9E0623	05/17/2019	05/17/19 20:06	
2-Nitrophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	

Analyst: VW

Analyst: HT



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## **Client Sample ID H2-1.5** Lab ID: 1901964-04

### Semivolatile Organic Compounds by EPA 8270C

	Result	PQL				Date/Time	
Analyte	(ug/kg)	(ug/kg)	Dilution	Batch	Prepared	Analyzed	Notes
3,3'-Dichlorobenzidine	ND	660	1	B9E0623	05/17/2019	05/17/19 20:06	
3-Nitroaniline	ND	1600	1	B9E0623	05/17/2019	05/17/19 20:06	
4,6-Dinitro-2-methyphenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 20:06	
4-Bromophenyl-phenylether	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
4-Chloro-3-methylphenol	ND	660	1	B9E0623	05/17/2019	05/17/19 20:06	
4-Chloroaniline	ND	660	1	B9E0623	05/17/2019	05/17/19 20:06	
4-Chlorophenyl-phenylether	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
4-Methylphenol	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
4-Nitroaniline	ND	1600	1	B9E0623	05/17/2019	05/17/19 20:06	
4-Nitrophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Acenaphthene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Acenaphthylene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Anthracene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Benzidine (M)	ND	1600	1	B9E0623	05/17/2019	05/17/19 20:06	
Benzo(a)anthracene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Benzo(a)pyrene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Benzo(b)fluoranthene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Benzo(g,h,i)perylene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Benzo(k)fluoranthene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Benzoic acid	ND	1600	1	B9E0623	05/17/2019	05/17/19 20:06	
Benzyl alcohol	ND	660	1	B9E0623	05/17/2019	05/17/19 20:06	
bis(2-chloroethoxy)methane	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
bis(2-Chloroethyl)ether	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
bis(2-chloroisopropyl)ether	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
bis(2-ethylhexyl)phthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Butylbenzylphthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Chrysene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Di-n-butylphthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Di-n-octylphthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Dibenz(a,h)anthracene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Dibenzofuran	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Diethyl phthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Dimethyl phthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Fluoranthene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Fluorene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Hexachlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Hexachlorobutadiene	ND	660	1	B9E0623	05/17/2019	05/17/19 20:06	



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H2-1.5 Lab ID: 1901964-04

## Semivolatile Organic Compounds by EPA 8270C

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Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	1	B9E0623	05/17/2019	05/17/19 20:06	
Hexachloroethane	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Indeno(1,2,3-cd)pyrene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Isophorone	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
N-Nitroso-di-n propylamine	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
N-Nitrosodiphenylamine	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Naphthalene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Nitrobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Pentachlorophenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 20:06	
Phenanthrene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Phenol	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Pyrene	ND	330	1	B9E0623	05/17/2019	05/17/19 20:06	
Pyridine	ND	1600	1	B9E0623	05/17/2019	05/17/19 20:06	
Surrogate: 1,2-Dichlorobenzene-d4	83.7 %	16 - 87		B9E0623	05/17/2019	05/17/19 20:06	
Surrogate: 2,4,6-Tribromophenol	134 %	0 - 148		B9E0623	05/17/2019	05/17/19 20:06	
Surrogate: 2-Chlorophenol-d4	79.4 %	17 - 96		B9E0623	05/17/2019	05/17/19 20:06	
Surrogate: 2-Fluorobiphenyl	99.5 %	16 - 107		B9E0623	05/17/2019	05/17/19 20:06	
Surrogate: 2-Fluorophenol	72.4 %	16 - 86		B9E0623	05/17/2019	05/17/19 20:06	
Surrogate: 4-Terphenyl-d14	115 %	3 - 156		B9E0623	05/17/2019	05/17/19 20:06	
Surrogate: Nitrobenzene-d5	78.9 %	16 - 99		B9E0623	05/17/2019	05/17/19 20:06	
Surrogate: Phenol-d6	79.4 %	17 - 90		B9E0623	05/17/2019	05/17/19 20:06	



6671 Brisa Street

Livermore, CA 94550

## **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H3-0.5 Lab ID: 1901964-05

#### Title 22 Metals by ICP-AES EPA 6010B

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Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B9E0656	05/20/2019	05/21/19 09:23	
Arsenic	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:23	
Barium	33	1.0	1	B9E0656	05/20/2019	05/21/19 09:23	
Beryllium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:23	
Cadmium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:23	
Chromium	24	1.0	1	B9E0656	05/20/2019	05/21/19 09:23	
Cobalt	13	1.0	1	B9E0656	05/20/2019	05/21/19 09:23	
Copper	33	2.0	1	B9E0656	05/20/2019	05/21/19 09:23	
Lead	6.9	1.0	1	B9E0656	05/20/2019	05/21/19 09:23	
Molybdenum	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:23	
Nickel	25	1.0	1	B9E0656	05/20/2019	05/21/19 09:23	
Selenium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:23	
Silver	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:23	
Thallium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:23	
Vanadium	43	1.0	1	B9E0656	05/20/2019	05/21/19 09:23	
Zinc	23	1.0	1	B9E0656	05/20/2019	05/21/19 09:23	

### Mercury by AA (Cold Vapor) EPA 7471A

	Result	PQL			_	Date/Time	
Analyte	(mg/kg)	(mg/kg)	Dilution	Batch	Prepared	Analyzed	Notes
Mercury	ND	0.10	1	B9E0659	05/20/2019	05/20/19 17:41	

## Gasoline Range Organics by EPA 8015B (Modified)

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	100	50	50	B9E0619	05/18/2019	05/18/19 13:04	
Surrogate: 4-Bromofluorobenzene	97.8 %	45 - 149		B9E0619	05/18/2019	05/18/19 13:04	

## **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	3200	100	100	B9E0616	05/17/2019	05/18/19 03:00	
ORO	7400	100	100	B9E0616	05/17/2019	05/18/19 03:00	

Analyst: GO

Analyst: KEK

Analyst: JBL



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

# Client Sample ID H3-0.5 Lab ID: 1901964-05

#### **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	0%	34 - 158		B9E0616	05/17/2019	05/18/19 03:00	S4

#### Volatile Organic Compounds by EPA 8260B

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	250	50	B9E0588	05/17/2019	05/17/19 13:14	D2
Ethylbenzene	ND	250	50	B9E0588	05/17/2019	05/17/19 13:14	D2
m,p-Xylene	ND	500	50	B9E0588	05/17/2019	05/17/19 13:14	D2
o-Xylene	ND	250	50	B9E0588	05/17/2019	05/17/19 13:14	D2
Toluene	ND	250	50	B9E0588	05/17/2019	05/17/19 13:14	D2
Surrogate: 1,2-Dichloroethane-d4	95.9 %	60 - 145		B9E0588	05/17/2019	05/17/19 13:14	
Surrogate: 4-Bromofluorobenzene	97.5 %	68 - 121		B9E0588	05/17/2019	05/17/19 13:14	
Surrogate: Dibromofluoromethane	97.8 %	65 - 137		B9E0588	05/17/2019	05/17/19 13:14	
Surrogate: Toluene-d8	99.4 %	82 - 119		B9E0588	05/17/2019	05/17/19 13:14	

#### Semivolatile Organic Compounds by EPA 8270C

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
1,2-Dichlorobenzene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
1,3-Dichlorobenzene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
1,4-Dichlorobenzene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
2,4,5-Trichlorophenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
2,4,6-Trichlorophenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
2,4-Dichlorophenol	ND	160000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
2,4-Dimethylphenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
2,4-Dinitrophenol	ND	160000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
2,4-Dinitrotoluene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
2,6-Dinitrotoluene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
2-Chloronaphthalene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
2-Chlorophenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
2-Methylnaphthalene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
2-Methylphenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
2-Nitroaniline	ND	160000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
-Nitrophenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1

Analyst: VW

Analyst: SP



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H3-0.5 Lab ID: 1901964-05

#### Semivolatile Organic Compounds by EPA 8270C

Semivolatile Organic Compound	·						Analyst: SP
Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
-					-	-	
3,3'-Dichlorobenzidine	ND	66000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
3-Nitroaniline	ND	160000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
4,6-Dinitro-2-methyphenol	ND	160000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
4-Bromophenyl-phenylether	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
4-Chloro-3-methylphenol	ND	66000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
4-Chloroaniline	ND	66000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
4-Chlorophenyl-phenylether	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
4-Methylphenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
4-Nitroaniline	ND	160000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
4-Nitrophenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Acenaphthene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Acenaphthylene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Anthracene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Benzidine (M)	ND	160000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Benzo(a)anthracene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Benzo(a)pyrene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Benzo(b)fluoranthene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Benzo(g,h,i)perylene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Benzo(k)fluoranthene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Benzoic acid	ND	160000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Benzyl alcohol	ND	66000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
bis(2-chloroethoxy)methane	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
bis(2-Chloroethyl)ether	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
bis(2-chloroisopropyl)ether	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
bis(2-ethylhexyl)phthalate	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Butylbenzylphthalate	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Chrysene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Di-n-butylphthalate	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Di-n-octylphthalate	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Dibenz(a,h)anthracene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Dibenzofuran	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Diethyl phthalate	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Dimethyl phthalate	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Fluoranthene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Fluorene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Hexachlorobenzene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Hexachlorobutadiene	ND	66000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Texaeliforobullatene		00000	100	D/10023	00/1//2017	00/1//1/ 20:02	<i>D</i> 1



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H3-0.5 Lab ID: 1901964-05

### Semivolatile Organic Compounds by EPA 8270C

semiteration of game compound	is sy hirotroe						maryst. 91
Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	66000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Hexachloroethane	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Indeno(1,2,3-cd)pyrene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Isophorone	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
N-Nitroso-di-n propylamine	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
N-Nitrosodiphenylamine	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Naphthalene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Nitrobenzene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Pentachlorophenol	ND	160000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Phenanthrene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Phenol	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Pyrene	ND	33000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Pyridine	ND	160000	100	B9E0623	05/17/2019	05/17/19 20:32	D1
Surrogate: 1,2-Dichlorobenzene-d4	0%	16 - 87		B9E0623	05/17/2019	05/17/19 20:32	S4
Surrogate: 2,4,6-Tribromophenol	0%	0 - 148		B9E0623	05/17/2019	05/17/19 20:32	S4
Surrogate: 2-Chlorophenol-d4	0%	17 - 96		B9E0623	05/17/2019	05/17/19 20:32	S4
Surrogate: 2-Fluorobiphenyl	0%	16 - 107		B9E0623	05/17/2019	05/17/19 20:32	S4
Surrogate: 2-Fluorophenol	0%	16 - 86		B9E0623	05/17/2019	05/17/19 20:32	S4
Surrogate: 4-Terphenyl-d14	0%	3 - 156		B9E0623	05/17/2019	05/17/19 20:32	S4
Surrogate: Nitrobenzene-d5	0%	16 - 99		B9E0623	05/17/2019	05/17/19 20:32	S4
Surrogate: Phenol-d6	0%	17 - 90		B9E0623	05/17/2019	05/17/19 20:32	S4



6671 Brisa Street

Livermore, CA 94550

## **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H3-1 Lab ID: 1901964-06

#### Title 22 Metals by ICP-AES EPA 6010B

							maryst. OC
Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B9E0656	05/20/2019	05/21/19 09:24	
Arsenic	3.5	1.0	1	B9E0656	05/20/2019	05/21/19 09:24	
Barium	120	1.0	1	B9E0656	05/20/2019	05/21/19 09:24	
Beryllium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:24	
Cadmium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:24	
Chromium	18	1.0	1	B9E0656	05/20/2019	05/21/19 09:24	
Cobalt	6.8	1.0	1	B9E0656	05/20/2019	05/21/19 09:24	
Copper	30	2.0	1	B9E0656	05/20/2019	05/21/19 09:24	
Lead	71	1.0	1	B9E0656	05/20/2019	05/21/19 09:24	
Molybdenum	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:24	
Nickel	26	1.0	1	B9E0656	05/20/2019	05/21/19 09:24	
Selenium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:24	
Silver	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:24	
Thallium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:24	
Vanadium	21	1.0	1	B9E0656	05/20/2019	05/21/19 09:24	
Zinc	79	1.0	1	B9E0656	05/20/2019	05/21/19 09:24	

### Mercury by AA (Cold Vapor) EPA 7471A

	Result	PQL				Date/Time	
Analyte	(mg/kg)	(mg/kg)	Dilution	Batch	Prepared	Analyzed	Notes
Mercury	0.62	0.10	1	B9E0659	05/20/2019	05/20/19 17:43	

### Gasoline Range Organics by EPA 8015B (Modified)

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B9E0619	05/18/2019	05/18/19 10:54	
Surrogate: 4-Bromofluorobenzene	97.8 %	45 - 149		B9E0619	05/18/2019	05/18/19 10:54	

## **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	210	10	10	B9E0616	05/17/2019	05/18/19 02:11	
ORO	860	10	10	B9E0616	05/17/2019	05/18/19 02:11	

Analyst: GO

Analyst: KEK

Analyst: JBL



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

# Client Sample ID H3-1 Lab ID: 1901964-06

#### **Diesel Range Organics by EPA 8015B**

	Result	PQL			_	Date/Time	
Analyte	(mg/kg)	(mg/kg)	Dilution	Batch	Prepared	Analyzed	Notes
Surrogate: p-Terphenyl	0%	34 - 158		B9E0616	05/17/2019	05/18/19 02:11	S4

#### Volatile Organic Compounds by EPA 8260B

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 11:02	
Ethylbenzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 11:02	
m,p-Xylene	ND	10	1	B9E0588	05/17/2019	05/17/19 11:02	
o-Xylene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 11:02	
Toluene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 11:02	
Surrogate: 1,2-Dichloroethane-d4	107 %	60 - 145		B9E0588	05/17/2019	05/17/19 11:02	
Surrogate: 4-Bromofluorobenzene	90.5 %	68 - 121		B9E0588	05/17/2019	05/17/19 11:02	
Surrogate: Dibromofluoromethane	109 %	65 - 137		B9E0588	05/17/2019	05/17/19 11:02	
Surrogate: Toluene-d8	104 %	82 - 119		B9E0588	05/17/2019	05/17/19 11:02	

#### Semivolatile Organic Compounds by EPA 8270C

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Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
1,2-Dichlorobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
1,3-Dichlorobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
1,4-Dichlorobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
2,4,5-Trichlorophenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
2,4,6-Trichlorophenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
2,4-Dichlorophenol	ND	82000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
2,4-Dimethylphenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
2,4-Dinitrophenol	ND	82000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
2,4-Dinitrotoluene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
2,6-Dinitrotoluene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
2-Chloronaphthalene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
2-Chlorophenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
2-Methylnaphthalene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
2-Methylphenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
2-Nitroaniline	ND	82000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
2-Nitrophenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
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Analyst: VW

Analyst: SP



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H3-1 Lab ID: 1901964-06

### Semivolatile Organic Compounds by EPA 8270C

	Result	PQL				Date/Time	
Analyte	(ug/kg)	(ug/kg)	Dilution	Batch	Prepared	Analyzed	Notes
3,3'-Dichlorobenzidine	ND	33000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
3-Nitroaniline	ND	82000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
4,6-Dinitro-2-methyphenol	ND	82000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
4-Bromophenyl-phenylether	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
4-Chloro-3-methylphenol	ND	33000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
4-Chloroaniline	ND	33000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
4-Chlorophenyl-phenylether	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
4-Methylphenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
4-Nitroaniline	ND	82000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
4-Nitrophenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Acenaphthene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Acenaphthylene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Anthracene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Benzidine (M)	ND	82000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Benzo(a)anthracene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Benzo(a)pyrene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Benzo(b)fluoranthene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Benzo(g,h,i)perylene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Benzo(k)fluoranthene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Benzoic acid	ND	82000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Benzyl alcohol	ND	33000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
bis(2-chloroethoxy)methane	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
bis(2-Chloroethyl)ether	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
bis(2-chloroisopropyl)ether	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
bis(2-ethylhexyl)phthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Butylbenzylphthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Chrysene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Di-n-butylphthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Di-n-octylphthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Dibenz(a,h)anthracene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Dibenzofuran	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Diethyl phthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Dimethyl phthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Fluoranthene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Fluorene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Hexachlorobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Hexachlorobutadiene	ND	33000	50	B9E0623	05/17/2019	05/17/19 20:57	D1



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H3-1 Lab ID: 1901964-06

## Semivolatile Organic Compounds by EPA 8270C

							1 that y st.
Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	33000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Hexachloroethane	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Indeno(1,2,3-cd)pyrene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Isophorone	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
N-Nitroso-di-n propylamine	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
N-Nitrosodiphenylamine	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Naphthalene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Nitrobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Pentachlorophenol	ND	82000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Phenanthrene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Phenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Pyrene	ND	16000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Pyridine	ND	82000	50	B9E0623	05/17/2019	05/17/19 20:57	D1
Surrogate: 1,2-Dichlorobenzene-d4	0%	16 - 87		B9E0623	05/17/2019	05/17/19 20:57	S4
Surrogate: 2,4,6-Tribromophenol	0%	0 - 148		B9E0623	05/17/2019	05/17/19 20:57	S4
Surrogate: 2-Chlorophenol-d4	0%	17 - 96		B9E0623	05/17/2019	05/17/19 20:57	S4
Surrogate: 2-Fluorobiphenyl	0%	16 - 107		B9E0623	05/17/2019	05/17/19 20:57	S4
Surrogate: 2-Fluorophenol	0%	16 - 86		B9E0623	05/17/2019	05/17/19 20:57	S4
Surrogate: 4-Terphenyl-d14	0%	3 - 156		B9E0623	05/17/2019	05/17/19 20:57	S4
Surrogate: Nitrobenzene-d5	0%	16 - 99		B9E0623	05/17/2019	05/17/19 20:57	S4
Surrogate: Phenol-d6	0%	17 - 90		B9E0623	05/17/2019	05/17/19 20:57	S4



6671 Brisa Street

Livermore, CA 94550

## **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H4-1 Lab ID: 1901964-07

#### Title 22 Metals by ICP-AES EPA 6010B

							Tinaiyst. O
Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B9E0656	05/20/2019	05/21/19 09:25	
Arsenic	2.0	1.0	1	B9E0656	05/20/2019	05/21/19 09:25	
Barium	73	1.0	1	B9E0656	05/20/2019	05/21/19 09:25	
Beryllium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:25	
Cadmium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:25	
Chromium	20	1.0	1	B9E0656	05/20/2019	05/21/19 09:25	
Cobalt	5.6	1.0	1	B9E0656	05/20/2019	05/21/19 09:25	
Copper	22	2.0	1	B9E0656	05/20/2019	05/21/19 09:25	
Lead	200	1.0	1	B9E0656	05/20/2019	05/21/19 09:25	
Molybdenum	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:25	
Nickel	24	1.0	1	B9E0656	05/20/2019	05/21/19 09:25	
Selenium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:25	
Silver	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:25	
Thallium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:25	
Vanadium	20	1.0	1	B9E0656	05/20/2019	05/21/19 09:25	
Zinc	58	1.0	1	B9E0656	05/20/2019	05/21/19 09:25	

### Mercury by AA (Cold Vapor) EPA 7471A

	Result	PQL		D (1		Date/Time	
Analyte	(mg/kg)	(mg/kg)	Dilution	Batch	Prepared	Analyzed	Notes
Mercury	0.14	0.10	1	B9E0659	05/20/2019	05/20/19 17:45	

### Gasoline Range Organics by EPA 8015B (Modified)

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B9E0619	05/18/2019	05/18/19 11:12	
Surrogate: 4-Bromofluorobenzene	96.1 %	45 - 149		B9E0619	05/18/2019	05/18/19 11:12	

### **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	280	25	25	B9E0616	05/17/2019	05/18/19 02:27	
ORO	1100	25	25	B9E0616	05/17/2019	05/18/19 02:27	

Analyst: GO

Analyst: KEK

Analyst: JBL



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

# Client Sample ID H4-1 Lab ID: 1901964-07

#### **Diesel Range Organics by EPA 8015B**

	Result	PQL				Date/Time	
Analyte	(mg/kg)	(mg/kg)	Dilution	Batch	Prepared	Analyzed	Notes
Surrogate: p-Terphenyl	0%	34 - 158		B9E0616	05/17/2019	05/18/19 02:27	S4

#### Volatile Organic Compounds by EPA 8260B

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 11:21	
Ethylbenzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 11:21	
m,p-Xylene	ND	10	1	B9E0588	05/17/2019	05/17/19 11:21	
o-Xylene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 11:21	
Toluene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 11:21	
Surrogate: 1,2-Dichloroethane-d4	99.5 %	60 - 145		B9E0588	05/17/2019	05/17/19 11:21	
Surrogate: 4-Bromofluorobenzene	91.4 %	68 - 121		B9E0588	05/17/2019	05/17/19 11:21	
Surrogate: Dibromofluoromethane	104 %	65 - 137		B9E0588	05/17/2019	05/17/19 11:21	
Surrogate: Toluene-d8	102 %	82 - 119		B9E0588	05/17/2019	05/17/19 11:21	

#### Semivolatile Organic Compounds by EPA 8270C

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
1,2-Dichlorobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
1,3-Dichlorobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
1,4-Dichlorobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
2,4,5-Trichlorophenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
2,4,6-Trichlorophenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
2,4-Dichlorophenol	ND	82000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
2,4-Dimethylphenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
2,4-Dinitrophenol	ND	82000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
2,4-Dinitrotoluene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
2,6-Dinitrotoluene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
2-Chloronaphthalene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
2-Chlorophenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
2-Methylnaphthalene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
2-Methylphenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
2-Nitroaniline	ND	82000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
2-Nitrophenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1

Analyst: VW

Analyst: HT



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H4-1 Lab ID: 1901964-07

### Semivolatile Organic Compounds by EPA 8270C

	Result	PQL				Date/Time	
Analyte	(ug/kg)	(ug/kg)	Dilution	Batch	Prepared	Analyzed	Notes
3,3'-Dichlorobenzidine	ND	33000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
3-Nitroaniline	ND	82000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
4,6-Dinitro-2-methyphenol	ND	82000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
4-Bromophenyl-phenylether	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
4-Chloro-3-methylphenol	ND	33000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
4-Chloroaniline	ND	33000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
4-Chlorophenyl-phenylether	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
4-Methylphenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
4-Nitroaniline	ND	82000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
4-Nitrophenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Acenaphthene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Acenaphthylene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Anthracene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Benzidine (M)	ND	82000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Benzo(a)anthracene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Benzo(a)pyrene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Benzo(b)fluoranthene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Benzo(g,h,i)perylene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Benzo(k)fluoranthene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Benzoic acid	ND	82000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Benzyl alcohol	ND	33000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
bis(2-chloroethoxy)methane	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
bis(2-Chloroethyl)ether	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
bis(2-chloroisopropyl)ether	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
bis(2-ethylhexyl)phthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Butylbenzylphthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Chrysene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Di-n-butylphthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Di-n-octylphthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Dibenz(a,h)anthracene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Dibenzofuran	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Diethyl phthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Dimethyl phthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Fluoranthene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Fluorene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Hexachlorobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Hexachlorobutadiene	ND	33000	50	B9E0623	05/17/2019	05/17/19 21:23	D1



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H4-1 Lab ID: 1901964-07

## Semivolatile Organic Compounds by EPA 8270C

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Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	33000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Hexachloroethane	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Indeno(1,2,3-cd)pyrene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Isophorone	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
N-Nitroso-di-n propylamine	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
N-Nitrosodiphenylamine	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Naphthalene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Nitrobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Pentachlorophenol	ND	82000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Phenanthrene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Phenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Pyrene	ND	16000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Pyridine	ND	82000	50	B9E0623	05/17/2019	05/17/19 21:23	D1
Surrogate: 1,2-Dichlorobenzene-d4	0%	16 - 87		B9E0623	05/17/2019	05/17/19 21:23	S4
Surrogate: 2,4,6-Tribromophenol	0%	0 - 148		B9E0623	05/17/2019	05/17/19 21:23	S4
Surrogate: 2-Chlorophenol-d4	0%	17 - 96		B9E0623	05/17/2019	05/17/19 21:23	S4
Surrogate: 2-Fluorobiphenyl	0%	16 - 107		B9E0623	05/17/2019	05/17/19 21:23	S4
Surrogate: 2-Fluorophenol	0%	16 - 86		B9E0623	05/17/2019	05/17/19 21:23	S4
Surrogate: 4-Terphenyl-d14	0%	3 - 156		B9E0623	05/17/2019	05/17/19 21:23	S4
Surrogate: Nitrobenzene-d5	0%	16 - 99		B9E0623	05/17/2019	05/17/19 21:23	S4
Surrogate: Phenol-d6	0%	17 - 90		B9E0623	05/17/2019	05/17/19 21:23	S4



6671 Brisa Street

Livermore, CA 94550

## **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

# Client Sample ID H4-2 Lab ID: 1901964-08

#### Title 22 Metals by ICP-AES EPA 6010B

· · · · · · · · · · · · · · · · · · ·							Thaiysti GO
Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B9E0656	05/20/2019	05/21/19 09:26	
Arsenic	3.4	1.0	1	B9E0656	05/20/2019	05/21/19 09:26	
Barium	58	1.0	1	B9E0656	05/20/2019	05/21/19 09:26	
Beryllium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:26	
Cadmium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:26	
Chromium	39	1.0	1	B9E0656	05/20/2019	05/21/19 09:26	
Cobalt	13	1.0	1	B9E0656	05/20/2019	05/21/19 09:26	
Copper	16	2.0	1	B9E0656	05/20/2019	05/21/19 09:26	
Lead	18	1.0	1	B9E0656	05/20/2019	05/21/19 09:26	
Molybdenum	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:26	
Nickel	88	1.0	1	B9E0656	05/20/2019	05/21/19 09:26	
Selenium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:26	
Silver	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:26	
Thallium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:26	
Vanadium	43	1.0	1	B9E0656	05/20/2019	05/21/19 09:26	
Zinc	33	1.0	1	B9E0656	05/20/2019	05/21/19 09:26	

### Mercury by AA (Cold Vapor) EPA 7471A

	Result	PQL				Date/Time	
Analyte	(mg/kg)	(mg/kg)	Dilution	Batch	Prepared	Analyzed	Notes
Mercury	ND	0.10	1	B9E0659	05/20/2019	05/20/19 17:47	

### Gasoline Range Organics by EPA 8015B (Modified)

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B9E0619	05/18/2019	05/18/19 11:31	
Surrogate: 4-Bromofluorobenzene	<b>93</b> .7 %	45 - 149		B9E0619	05/18/2019	05/18/19 11:31	

### **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	20	1.0	1	B9E0616	05/17/2019	05/18/19 01:05	
ORO	39	1.0	1	B9E0616	05/17/2019	05/18/19 01:05	

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Analyst: GO

Analyst: KEK

Analyst: JBL



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

# **Client Sample ID H4-2** Lab ID: 1901964-08

#### **Diesel Range Organics by EPA 8015B**

Diesel Range Organics by EPA 8015	5B						Analyst: HT
Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	111 %	34 - 158		B9E0616	05/17/2019	05/18/19 01:05	

#### Volatile Organic Compounds by EPA 8260B

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 11:40	
Ethylbenzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 11:40	
m,p-Xylene	ND	10	1	B9E0588	05/17/2019	05/17/19 11:40	
o-Xylene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 11:40	
Toluene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 11:40	
Surrogate: 1,2-Dichloroethane-d4	107 %	60 - 145		B9E0588	05/17/2019	05/17/19 11:40	
Surrogate: 4-Bromofluorobenzene	94.2 %	68 - 121		B9E0588	05/17/2019	05/17/19 11:40	
Surrogate: Dibromofluoromethane	105 %	65 - 137		B9E0588	05/17/2019	05/17/19 11:40	
Surrogate: Toluene-d8	99.7 %	82 - 119		B9E0588	05/17/2019	05/17/19 11:40	

### Semivolatile Organic Compounds by EPA 8270C

							J
Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
1,2-Dichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
1,3-Dichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
1,4-Dichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
2,4,5-Trichlorophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
2,4,6-Trichlorophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
2,4-Dichlorophenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 21:49	
2,4-Dimethylphenol	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
2,4-Dinitrophenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 21:49	
2,4-Dinitrotoluene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
2,6-Dinitrotoluene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
2-Chloronaphthalene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
2-Chlorophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
2-Methylnaphthalene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
2-Methylphenol	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
2-Nitroaniline	ND	1600	1	B9E0623	05/17/2019	05/17/19 21:49	
2-Nitrophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	

Analyst: VW



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H4-2 Lab ID: 1901964-08

### Semivolatile Organic Compounds by EPA 8270C

	Result	PQL				Date/Time	
Analyte	(ug/kg)	(ug/kg)	Dilution	Batch	Prepared	Analyzed	Notes
3,3'-Dichlorobenzidine	ND	660	1	B9E0623	05/17/2019	05/17/19 21:49	
3-Nitroaniline	ND	1600	1	B9E0623	05/17/2019	05/17/19 21:49	
4,6-Dinitro-2-methyphenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 21:49	
4-Bromophenyl-phenylether	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
4-Chloro-3-methylphenol	ND	660	1	B9E0623	05/17/2019	05/17/19 21:49	
4-Chloroaniline	ND	660	1	B9E0623	05/17/2019	05/17/19 21:49	
4-Chlorophenyl-phenylether	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
4-Methylphenol	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
4-Nitroaniline	ND	1600	1	B9E0623	05/17/2019	05/17/19 21:49	
4-Nitrophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Acenaphthene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Acenaphthylene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Anthracene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Benzidine (M)	ND	1600	1	B9E0623	05/17/2019	05/17/19 21:49	
Benzo(a)anthracene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Benzo(a)pyrene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Benzo(b)fluoranthene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Benzo(g,h,i)perylene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Benzo(k)fluoranthene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Benzoic acid	ND	1600	1	B9E0623	05/17/2019	05/17/19 21:49	
Benzyl alcohol	ND	660	1	B9E0623	05/17/2019	05/17/19 21:49	
bis(2-chloroethoxy)methane	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
bis(2-Chloroethyl)ether	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
bis(2-chloroisopropyl)ether	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
bis(2-ethylhexyl)phthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Butylbenzylphthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Chrysene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Di-n-butylphthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Di-n-octylphthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Dibenz(a,h)anthracene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Dibenzofuran	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Diethyl phthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Dimethyl phthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Fluoranthene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Fluorene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Hexachlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Hexachlorobutadiene	ND	660	1	B9E0623	05/17/2019	05/17/19 21:49	



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H4-2 Lab ID: 1901964-08

### Semivolatile Organic Compounds by EPA 8270C

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Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	1	B9E0623	05/17/2019	05/17/19 21:49	
Hexachloroethane	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Indeno(1,2,3-cd)pyrene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Isophorone	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
N-Nitroso-di-n propylamine	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
N-Nitrosodiphenylamine	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Naphthalene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Nitrobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Pentachlorophenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 21:49	
Phenanthrene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Phenol	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Pyrene	ND	330	1	B9E0623	05/17/2019	05/17/19 21:49	
Pyridine	ND	1600	1	B9E0623	05/17/2019	05/17/19 21:49	
Surrogate: 1,2-Dichlorobenzene-d4	79.0 %	16 - 87		B9E0623	05/17/2019	05/17/19 21:49	
Surrogate: 2,4,6-Tribromophenol	125 %	0 - 148		B9E0623	05/17/2019	05/17/19 21:49	
Surrogate: 2-Chlorophenol-d4	79.2 %	17 - 96		B9E0623	05/17/2019	05/17/19 21:49	
Surrogate: 2-Fluorobiphenyl	97.7 %	16 - 107		B9E0623	05/17/2019	05/17/19 21:49	
Surrogate: 2-Fluorophenol	71.0 %	16 - 86		B9E0623	05/17/2019	05/17/19 21:49	
Surrogate: 4-Terphenyl-d14	102 %	3 - 156		B9E0623	05/17/2019	05/17/19 21:49	
Surrogate: Nitrobenzene-d5	78.3 %	16 - 99		B9E0623	05/17/2019	05/17/19 21:49	
Surrogate: Phenol-d6	77.6 %	17 - 90		B9E0623	05/17/2019	05/17/19 21:49	



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H5-0.5 Lab ID: 1901964-09

#### Title 22 Metals by ICP-AES EPA 6010B

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B9E0656	05/20/2019	05/21/19 09:30	
Arsenic	1.1	1.0	1	B9E0656	05/20/2019	05/21/19 09:30	
Barium	48	1.0	1	B9E0656	05/20/2019	05/21/19 09:30	
Beryllium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:30	
Cadmium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:30	
Chromium	26	1.0	1	B9E0656	05/20/2019	05/21/19 09:30	
Cobalt	8.8	1.0	1	B9E0656	05/20/2019	05/21/19 09:30	
Copper	39	2.0	1	B9E0656	05/20/2019	05/21/19 09:30	
Lead	57	1.0	1	B9E0656	05/20/2019	05/21/19 09:30	
Molybdenum	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:30	
Nickel	26	1.0	1	B9E0656	05/20/2019	05/21/19 09:30	
Selenium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:30	
Silver	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:30	
Thallium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:30	
Vanadium	26	1.0	1	B9E0656	05/20/2019	05/21/19 09:30	
Zinc	39	1.0	1	B9E0656	05/20/2019	05/21/19 09:30	

## Mercury by AA (Cold Vapor) EPA 7471A

	Result	PQL				Date/Time	
Analyte	(mg/kg)	(mg/kg)	Dilution	Batch	Prepared	Analyzed	Notes
Mercury	ND	0.10	1	B9E0659	05/20/2019	05/20/19 17:49	

### Gasoline Range Organics by EPA 8015B (Modified)

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B9E0619	05/18/2019	05/18/19 11:50	
Surrogate: 4-Bromofluorobenzene	93.5 %	45 - 149		B9E0619	05/18/2019	05/18/19 11:50	

### **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	82	5.0	5	B9E0616	05/17/2019	05/18/19 01:38	
ORO	250	5.0	5	B9E0616	05/17/2019	05/18/19 01:38	

Analyst: GO

Analyst: KEK

Analyst: JBL



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

# Client Sample ID H5-0.5 Lab ID: 1901964-09

#### **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	113 %	34 - 158		B9E0616	05/17/2019	05/18/19 01:38	

#### Volatile Organic Compounds by EPA 8260B

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 11:59	
Ethylbenzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 11:59	
m,p-Xylene	ND	10	1	B9E0588	05/17/2019	05/17/19 11:59	
o-Xylene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 11:59	
Toluene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 11:59	
Surrogate: 1,2-Dichloroethane-d4	104 %	60 - 145		B9E0588	05/17/2019	05/17/19 11:59	
Surrogate: 4-Bromofluorobenzene	92.5 %	68 - 121		B9E0588	05/17/2019	05/17/19 11:59	
Surrogate: Dibromofluoromethane	103 %	65 - 137		B9E0588	05/17/2019	05/17/19 11:59	
Surrogate: Toluene-d8	100 %	82 - 119		B9E0588	05/17/2019	05/17/19 11:59	

#### Semivolatile Organic Compounds by EPA 8270C

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
1,2-Dichlorobenzene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
1,3-Dichlorobenzene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
1,4-Dichlorobenzene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
2,4,5-Trichlorophenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
2,4,6-Trichlorophenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
2,4-Dichlorophenol	ND	33000	20	B9E0623	05/17/2019	05/17/19 22:15	D1
2,4-Dimethylphenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
2,4-Dinitrophenol	ND	33000	20	B9E0623	05/17/2019	05/17/19 22:15	D1
2,4-Dinitrotoluene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
2,6-Dinitrotoluene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
2-Chloronaphthalene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
2-Chlorophenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
2-Methylnaphthalene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
2-Methylphenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
2-Nitroaniline	ND	33000	20	B9E0623	05/17/2019	05/17/19 22:15	D1
-Nitrophenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1

Analyst: VW

Analyst: HT



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H5-0.5 Lab ID: 1901964-09

#### Semivolatile Organic Compounds by EPA 8270C

Semivolatile Organic Compound	as by E1110270C						Analyst: Sr
	Result	PQL				Date/Time	
Analyte	(ug/kg)	(ug/kg)	Dilution	Batch	Prepared	Analyzed	Notes
3,3'-Dichlorobenzidine	ND	13000	20	B9E0623	05/17/2019	05/17/19 22:15	D1
3-Nitroaniline	ND	33000	20	B9E0623	05/17/2019	05/17/19 22:15	D1
4,6-Dinitro-2-methyphenol	ND	33000	20	B9E0623	05/17/2019	05/17/19 22:15	D1
4-Bromophenyl-phenylether	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
4-Chloro-3-methylphenol	ND	13000	20	B9E0623	05/17/2019	05/17/19 22:15	D1
4-Chloroaniline	ND	13000	20	B9E0623	05/17/2019	05/17/19 22:15	D1
4-Chlorophenyl-phenylether	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
4-Methylphenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
4-Nitroaniline	ND	33000	20	B9E0623	05/17/2019	05/17/19 22:15	D1
4-Nitrophenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Acenaphthene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Acenaphthylene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Anthracene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Benzidine (M)	ND	33000	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Benzo(a)anthracene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Benzo(a)pyrene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Benzo(b)fluoranthene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Benzo(g,h,i)perylene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Benzo(k)fluoranthene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Benzoic acid	ND	33000	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Benzyl alcohol	ND	13000	20	B9E0623	05/17/2019	05/17/19 22:15	D1
bis(2-chloroethoxy)methane	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
bis(2-Chloroethyl)ether	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
bis(2-chloroisopropyl)ether	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
bis(2-ethylhexyl)phthalate	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Butylbenzylphthalate	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Chrysene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Di-n-butylphthalate	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Di-n-octylphthalate	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Dibenz(a,h)anthracene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Dibenzofuran	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Diethyl phthalate	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Dimethyl phthalate	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Fluoranthene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Fluorene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Hexachlorobenzene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Hexachlorobutadiene	ND	13000	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Texaemoroouuurene		13000	20	10020	00/1//2017	00/1//1/ 22.10	21



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H5-0.5 Lab ID: 1901964-09

### Semivolatile Organic Compounds by EPA 8270C

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Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	13000	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Hexachloroethane	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Indeno(1,2,3-cd)pyrene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Isophorone	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
N-Nitroso-di-n propylamine	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
N-Nitrosodiphenylamine	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Naphthalene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Nitrobenzene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Pentachlorophenol	ND	33000	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Phenanthrene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Phenol	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Pyrene	ND	6600	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Pyridine	ND	33000	20	B9E0623	05/17/2019	05/17/19 22:15	D1
Surrogate: 1,2-Dichlorobenzene-d4	0%	16 - 87		B9E0623	05/17/2019	05/17/19 22:15	S4
Surrogate: 2,4,6-Tribromophenol	0%	0 - 148		B9E0623	05/17/2019	05/17/19 22:15	S4
Surrogate: 2-Chlorophenol-d4	0%	17 - 96		B9E0623	05/17/2019	05/17/19 22:15	S4
Surrogate: 2-Fluorobiphenyl	0%	16 - 107		B9E0623	05/17/2019	05/17/19 22:15	S4
Surrogate: 2-Fluorophenol	0%	16 - 86		B9E0623	05/17/2019	05/17/19 22:15	S4
Surrogate: 4-Terphenyl-d14	0%	3 - 156		B9E0623	05/17/2019	05/17/19 22:15	S4
Surrogate: Nitrobenzene-d5	0%	16 - 99		B9E0623	05/17/2019	05/17/19 22:15	S4
Surrogate: Phenol-d6	0%	17 - 90		B9E0623	05/17/2019	05/17/19 22:15	S4



6671 Brisa Street

Livermore, CA 94550

## **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H5-1.5 Lab ID: 1901964-10

#### Title 22 Metals by ICP-AES EPA 6010B

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Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B9E0656	05/20/2019	05/21/19 09:31	
Arsenic	3.9	1.0	1	B9E0656	05/20/2019	05/21/19 09:31	
Barium	160	1.0	1	B9E0656	05/20/2019	05/21/19 09:31	
Beryllium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:31	
Cadmium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:31	
Chromium	26	1.0	1	B9E0656	05/20/2019	05/21/19 09:31	
Cobalt	8.0	1.0	1	B9E0656	05/20/2019	05/21/19 09:31	
Copper	54	2.0	1	B9E0656	05/20/2019	05/21/19 09:31	
Lead	130	1.0	1	B9E0656	05/20/2019	05/21/19 09:31	
Molybdenum	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:31	
Nickel	38	1.0	1	B9E0656	05/20/2019	05/21/19 09:31	
Selenium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:31	
Silver	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:31	
Thallium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:31	
Vanadium	22	1.0	1	B9E0656	05/20/2019	05/21/19 09:31	
Zinc	95	1.0	1	B9E0656	05/20/2019	05/21/19 09:31	

### Mercury by AA (Cold Vapor) EPA 7471A

	Result	PQL				Date/Time	
Analyte	(mg/kg)	(mg/kg)	Dilution	Batch	Prepared	Analyzed	Notes
Mercury	0.66	0.10	1	B9E0659	05/20/2019	05/20/19 17:50	

### Gasoline Range Organics by EPA 8015B (Modified)

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B9E0619	05/18/2019	05/18/19 12:08	
Surrogate: 4-Bromofluorobenzene	93.2 %	45 - 149		B9E0619	05/18/2019	05/18/19 12:08	

## **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	520	50	50	B9E0616	05/17/2019	05/18/19 02:44	
ORO	2200	50	50	B9E0616	05/17/2019	05/18/19 02:44	

Analyst: GO

Analyst: KEK

Analyst: JBL



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

# Client Sample ID H5-1.5 Lab ID: 1901964-10

#### **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	0%	34 - 158		B9E0616	05/17/2019	05/18/19 02:44	S4

#### Volatile Organic Compounds by EPA 8260B

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 12:17	
Ethylbenzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 12:17	
m,p-Xylene	ND	10	1	B9E0588	05/17/2019	05/17/19 12:17	
o-Xylene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 12:17	
Toluene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 12:17	
Surrogate: 1,2-Dichloroethane-d4	104 %	60 - 145		B9E0588	05/17/2019	05/17/19 12:17	
Surrogate: 4-Bromofluorobenzene	86.7 %	68 - 121		B9E0588	05/17/2019	05/17/19 12:17	
Surrogate: Dibromofluoromethane	104 %	65 - 137		B9E0588	05/17/2019	05/17/19 12:17	
Surrogate: Toluene-d8	98.3 %	82 - 119		B9E0588	05/17/2019	05/17/19 12:17	

#### Semivolatile Organic Compounds by EPA 8270C

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Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
1,2-Dichlorobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
1,3-Dichlorobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
1,4-Dichlorobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
2,4,5-Trichlorophenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
2,4,6-Trichlorophenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
2,4-Dichlorophenol	ND	82000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
2,4-Dimethylphenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
2,4-Dinitrophenol	ND	82000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
2,4-Dinitrotoluene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
2,6-Dinitrotoluene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
2-Chloronaphthalene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
2-Chlorophenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
2-Methylnaphthalene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
2-Methylphenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
2-Nitroaniline	ND	82000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
2-Nitrophenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1

Analyst: VW

Analyst: HT



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H5-1.5 Lab ID: 1901964-10

### Semivolatile Organic Compounds by EPA 8270C

Semivolathe Organic Compound	45 JJ 111104/0C						Analyst: SP
	Result	PQL		D. ( 1		Date/Time	Neter
Analyte	(ug/kg)	(ug/kg)	Dilution	Batch	Prepared	Analyzed	Notes
3,3'-Dichlorobenzidine	ND	33000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
3-Nitroaniline	ND	82000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
4,6-Dinitro-2-methyphenol	ND	82000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
4-Bromophenyl-phenylether	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
4-Chloro-3-methylphenol	ND	33000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
4-Chloroaniline	ND	33000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
4-Chlorophenyl-phenylether	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
4-Methylphenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
4-Nitroaniline	ND	82000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
4-Nitrophenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Acenaphthene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Acenaphthylene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Anthracene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Benzidine (M)	ND	82000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Benzo(a)anthracene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Benzo(a)pyrene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Benzo(b)fluoranthene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Benzo(g,h,i)perylene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Benzo(k)fluoranthene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Benzoic acid	ND	82000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Benzyl alcohol	ND	33000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
bis(2-chloroethoxy)methane	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
bis(2-Chloroethyl)ether	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
bis(2-chloroisopropyl)ether	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
bis(2-ethylhexyl)phthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Butylbenzylphthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Chrysene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Di-n-butylphthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Di-n-octylphthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Dibenz(a,h)anthracene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Dibenzofuran	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Diethyl phthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Dimethyl phthalate	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Fluoranthene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Fluorene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Hexachlorobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Hexachlorobutadiene	ND	33000	50	B9E0623	05/17/2019	05/17/19 22:41	D1



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# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H5-1.5 Lab ID: 1901964-10

### Semivolatile Organic Compounds by EPA 8270C

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Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	33000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Hexachloroethane	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Indeno(1,2,3-cd)pyrene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Isophorone	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
N-Nitroso-di-n propylamine	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
N-Nitrosodiphenylamine	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Naphthalene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Nitrobenzene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Pentachlorophenol	ND	82000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Phenanthrene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Phenol	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Pyrene	ND	16000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Pyridine	ND	82000	50	B9E0623	05/17/2019	05/17/19 22:41	D1
Surrogate: 1,2-Dichlorobenzene-d4	0%	16 - 87		B9E0623	05/17/2019	05/17/19 22:41	S4
Surrogate: 2,4,6-Tribromophenol	0%	0 - 148		B9E0623	05/17/2019	05/17/19 22:41	S4
Surrogate: 2-Chlorophenol-d4	0%	17 - 96		B9E0623	05/17/2019	05/17/19 22:41	S4
Surrogate: 2-Fluorobiphenyl	0%	16 - 107		B9E0623	05/17/2019	05/17/19 22:41	S4
Surrogate: 2-Fluorophenol	0%	16 - 86		B9E0623	05/17/2019	05/17/19 22:41	S4
Surrogate: 4-Terphenyl-d14	0%	3 - 156		B9E0623	05/17/2019	05/17/19 22:41	S4
Surrogate: Nitrobenzene-d5	0%	16 - 99		B9E0623	05/17/2019	05/17/19 22:41	S4
Surrogate: Phenol-d6	0%	17 - 90		B9E0623	05/17/2019	05/17/19 22:41	S4



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Livermore, CA 94550

# **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

## Client Sample ID H6-0.5 Lab ID: 1901964-11

#### Title 22 Metals by ICP-AES EPA 6010B

Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
ND	2.0	1	B9E0656	05/20/2019	05/21/19 09:32	
ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:32	
2.7	1.0	1	B9E0656	05/20/2019	05/21/19 09:32	
ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:32	
ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:32	
81	1.0	1	B9E0656	05/20/2019	05/21/19 09:32	
15	1.0	1	B9E0656	05/20/2019	05/21/19 09:32	
64	2.0	1	B9E0656	05/20/2019	05/21/19 09:32	
ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:32	
ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:32	
34	1.0	1	B9E0656	05/20/2019	05/21/19 09:32	
ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:32	
ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:32	
ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:32	
29	1.0	1	B9E0656	05/20/2019	05/21/19 09:32	
13	1.0	1	B9E0656	05/20/2019	05/21/19 09:32	
	(mg/kg) ND ND 2.7 ND ND 81 15 64 ND ND 34 ND ND ND ND 29	(mg/kg)         (mg/kg)           ND         2.0           ND         1.0           2.7         1.0           ND         1.0           ND         1.0           ND         1.0           ND         1.0           ND         1.0           81         1.0           15         1.0           64         2.0           ND         1.0           29         1.0	(mg/kg)(mg/kg)DilutionND2.01ND1.012.71.01ND1.01ND1.01811.01151.01642.01ND1.01	(mg/kg)(mg/kg)DilutionBatchND2.01B9E0656ND1.01B9E06562.71.01B9E0656ND1.01B9E0656ND1.01B9E0656811.01B9E0656642.01B9E0656ND1.01B9E0656 <td>(mg/kg)(mg/kg)DilutionBatchPreparedND2.01B9E065605/20/2019ND1.01B9E065605/20/20192.71.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019811.01B9E065605/20/2019642.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.0&lt;</td> <td>(mg/kg)(mg/kg)DilutionBatchPreparedAnalyzedND2.01B9E065605/20/201905/21/19 09:32ND1.01B9E065605/20/201905/21/19 09:322.71.01B9E065605/20/201905/21/19 09:32ND1.01B9E065605/20/201905/21/19 09:32ND1.01B9E065605/20/201905/21/19 09:32ND1.01B9E065605/20/201905/21/19 09:32811.01B9E065605/20/201905/21/19 09:32151.01B9E065605/20/201905/21/19 09:32642.01B9E065605/20/201905/21/19 09:32ND1.01B9E065605/20/201905/21/19 09:32ND1.0</td>	(mg/kg)(mg/kg)DilutionBatchPreparedND2.01B9E065605/20/2019ND1.01B9E065605/20/20192.71.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019811.01B9E065605/20/2019642.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.01B9E065605/20/2019ND1.0<	(mg/kg)(mg/kg)DilutionBatchPreparedAnalyzedND2.01B9E065605/20/201905/21/19 09:32ND1.01B9E065605/20/201905/21/19 09:322.71.01B9E065605/20/201905/21/19 09:32ND1.01B9E065605/20/201905/21/19 09:32ND1.01B9E065605/20/201905/21/19 09:32ND1.01B9E065605/20/201905/21/19 09:32811.01B9E065605/20/201905/21/19 09:32151.01B9E065605/20/201905/21/19 09:32642.01B9E065605/20/201905/21/19 09:32ND1.01B9E065605/20/201905/21/19 09:32ND1.0

### Mercury by AA (Cold Vapor) EPA 7471A

	Result	PQL				Date/Time	
Analyte	(mg/kg)	(mg/kg)	Dilution	Batch	Prepared	Analyzed	Notes
Mercury	0.13	0.10	1	B9E0659	05/20/2019	05/20/19 17:52	

## Gasoline Range Organics by EPA 8015B (Modified)

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B9E0619	05/18/2019	05/18/19 12:27	
Surrogate: 4-Bromofluorobenzene	93.2 %	45 - 149		B9E0619	05/18/2019	05/18/19 12:27	

### **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	30	1.0	1	B9E0616	05/17/2019	05/18/19 01:21	
ORO	67	1.0	1	B9E0616	05/17/2019	05/18/19 01:21	

Analyst: GO

Analyst: KEK

Analyst: JBL



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

# Client Sample ID H6-0.5 Lab ID: 1901964-11

#### **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	105 %	34 - 158		B9E0616	05/17/2019	05/18/19 01:21	

#### Volatile Organic Compounds by EPA 8260B

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 12:36	
Ethylbenzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 12:36	
m,p-Xylene	ND	10	1	B9E0588	05/17/2019	05/17/19 12:36	
o-Xylene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 12:36	
Toluene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 12:36	
Surrogate: 1,2-Dichloroethane-d4	109 %	60 - 145		B9E0588	05/17/2019	05/17/19 12:36	
Surrogate: 4-Bromofluorobenzene	83.8 %	68 - 121		B9E0588	05/17/2019	05/17/19 12:36	
Surrogate: Dibromofluoromethane	105 %	65 - 137		B9E0588	05/17/2019	05/17/19 12:36	
Surrogate: Toluene-d8	104 %	82 - 119		B9E0588	05/17/2019	05/17/19 12:36	

#### Semivolatile Organic Compounds by EPA 8270C

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Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
1,2-Dichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
1,3-Dichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
1,4-Dichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
2,4,5-Trichlorophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
2,4,6-Trichlorophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
2,4-Dichlorophenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:07	
2,4-Dimethylphenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
2,4-Dinitrophenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:07	
2,4-Dinitrotoluene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
2,6-Dinitrotoluene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
2-Chloronaphthalene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
2-Chlorophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
2-Methylnaphthalene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
2-Methylphenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
2-Nitroaniline	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:07	
2-Nitrophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	

Analyst: VW

Analyst: HT



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

### Client Sample ID H6-0.5 Lab ID: 1901964-11

#### Semivolatile Organic Compounds by EPA 8270C

	Result	PQL				Date/Time	
Analyte	(ug/kg)	(ug/kg)	Dilution	Batch	Prepared	Analyzed	Notes
3,3'-Dichlorobenzidine	ND	660	1	B9E0623	05/17/2019	05/17/19 23:07	
3-Nitroaniline	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:07	
4,6-Dinitro-2-methyphenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:07	
4-Bromophenyl-phenylether	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
4-Chloro-3-methylphenol	ND	660	1	B9E0623	05/17/2019	05/17/19 23:07	
4-Chloroaniline	ND	660	1	B9E0623	05/17/2019	05/17/19 23:07	
4-Chlorophenyl-phenylether	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
4-Methylphenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
4-Nitroaniline	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:07	
4-Nitrophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Acenaphthene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Acenaphthylene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Anthracene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Benzidine (M)	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:07	
Benzo(a)anthracene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Benzo(a)pyrene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Benzo(b)fluoranthene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Benzo(g,h,i)perylene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Benzo(k)fluoranthene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Benzoic acid	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:07	
Benzyl alcohol	ND	660	1	B9E0623	05/17/2019	05/17/19 23:07	
bis(2-chloroethoxy)methane	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
bis(2-Chloroethyl)ether	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
bis(2-chloroisopropyl)ether	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
bis(2-ethylhexyl)phthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Butylbenzylphthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Chrysene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Di-n-butylphthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Di-n-octylphthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Dibenz(a,h)anthracene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Dibenzofuran	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Diethyl phthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Dimethyl phthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Fluoranthene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Fluorene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Hexachlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Hexachlorobutadiene	ND	660	1	B9E0623	05/17/2019	05/17/19 23:07	



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

### Client Sample ID H6-0.5 Lab ID: 1901964-11

### Semivolatile Organic Compounds by EPA 8270C

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Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	1	B9E0623	05/17/2019	05/17/19 23:07	
Hexachloroethane	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Indeno(1,2,3-cd)pyrene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Isophorone	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
N-Nitroso-di-n propylamine	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
N-Nitrosodiphenylamine	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Naphthalene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Nitrobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Pentachlorophenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:07	
Phenanthrene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Phenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Pyrene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:07	
Pyridine	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:07	
Surrogate: 1,2-Dichlorobenzene-d4	77.4 %	16 - 87		B9E0623	05/17/2019	05/17/19 23:07	
Surrogate: 2,4,6-Tribromophenol	129 %	0 - 148		B9E0623	05/17/2019	05/17/19 23:07	
Surrogate: 2-Chlorophenol-d4	74.4 %	17 - 96		B9E0623	05/17/2019	05/17/19 23:07	
Surrogate: 2-Fluorobiphenyl	91.5 %	16 - 107		B9E0623	05/17/2019	05/17/19 23:07	
Surrogate: 2-Fluorophenol	67.5 %	16 - 86		B9E0623	05/17/2019	05/17/19 23:07	
Surrogate: 4-Terphenyl-d14	104 %	3 - 156		B9E0623	05/17/2019	05/17/19 23:07	
Surrogate: Nitrobenzene-d5	74.9 %	16 - 99		B9E0623	05/17/2019	05/17/19 23:07	
Surrogate: Phenol-d6	75.5 %	17 - 90		B9E0623	05/17/2019	05/17/19 23:07	



6671 Brisa Street

Livermore, CA 94550

### **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

### Client Sample ID H6-1.5 Lab ID: 1901964-12

#### Title 22 Metals by ICP-AES EPA 6010B

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Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes	
Antimony	ND	2.0	1	B9E0656	05/20/2019	05/21/19 09:33		
Arsenic	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:33		
Barium	1.8	1.0	1	B9E0656	05/20/2019	05/21/19 09:33		
Beryllium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:33		
Cadmium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:33		
Chromium	43	1.0	1	B9E0656	05/20/2019	05/21/19 09:33		
Cobalt	16	1.0	1	B9E0656	05/20/2019	05/21/19 09:33		
Copper	61	2.0	1	B9E0656	05/20/2019	05/21/19 09:33		
Lead	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:33		
Molybdenum	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:33		
Nickel	22	1.0	1	B9E0656	05/20/2019	05/21/19 09:33		
Selenium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:33		
Silver	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:33		
Thallium	ND	1.0	1	B9E0656	05/20/2019	05/21/19 09:33		
Vanadium	45	1.0	1	B9E0656	05/20/2019	05/21/19 09:33		
Zinc	12	1.0	1	B9E0656	05/20/2019	05/21/19 09:33		

#### Mercury by AA (Cold Vapor) EPA 7471A

	Result	PQL				Date/Time	
Analyte	(mg/kg)	(mg/kg)	Dilution	Batch	Prepared	Analyzed	Notes
Mercury	0.14	0.10	1	B9E0659	05/20/2019	05/20/19 17:54	

### Gasoline Range Organics by EPA 8015B (Modified)

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B9E0619	05/18/2019	05/18/19 12:45	
Surrogate: 4-Bromofluorobenzene	95.3 %	45 - 149		B9E0619	05/18/2019	05/18/19 12:45	

### **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	2.1	1.0	1	B9E0616	05/17/2019	05/18/19 00:15	
ORO	4.2	1.0	1	B9E0616	05/17/2019	05/18/19 00:15	

Analyst: GO

Analyst: KEK

Analyst: JBL

Analyst: HT



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

# Client Sample ID H6-1.5 Lab ID: 1901964-12

#### **Diesel Range Organics by EPA 8015B**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	116 %	34 - 158		B9E0616	05/17/2019	05/18/19 00:15	

#### Volatile Organic Compounds by EPA 8260B

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 12:55	
Ethylbenzene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 12:55	
m,p-Xylene	ND	10	1	B9E0588	05/17/2019	05/17/19 12:55	
o-Xylene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 12:55	
Toluene	ND	5.0	1	B9E0588	05/17/2019	05/17/19 12:55	
Surrogate: 1,2-Dichloroethane-d4	107 %	60 - 145		B9E0588	05/17/2019	05/17/19 12:55	
Surrogate: 4-Bromofluorobenzene	87.8 %	68 - 121		B9E0588	05/17/2019	05/17/19 12:55	
Surrogate: Dibromofluoromethane	104 %	65 - 137		B9E0588	05/17/2019	05/17/19 12:55	
Surrogate: Toluene-d8	105 %	82 - 119		B9E0588	05/17/2019	05/17/19 12:55	

#### Semivolatile Organic Compounds by EPA 8270C

÷ 1 V							
Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
1,2-Dichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
1,3-Dichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
1,4-Dichlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
2,4,5-Trichlorophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
2,4,6-Trichlorophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
2,4-Dichlorophenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:33	
2,4-Dimethylphenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
2,4-Dinitrophenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:33	
2,4-Dinitrotoluene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
2,6-Dinitrotoluene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
2-Chloronaphthalene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
2-Chlorophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
2-Methylnaphthalene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
2-Methylphenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
2-Nitroaniline	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:33	
2-Nitrophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	

Analyst: VW

Analyst: HT



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

### Client Sample ID H6-1.5 Lab ID: 1901964-12

#### Semivolatile Organic Compounds by EPA 8270C

	Result	PQL				Date/Time	
Analyte	(ug/kg)	(ug/kg)	Dilution	Batch	Prepared	Analyzed	Notes
3,3'-Dichlorobenzidine	ND	660	1	B9E0623	05/17/2019	05/17/19 23:33	
3-Nitroaniline	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:33	
4,6-Dinitro-2-methyphenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:33	
4-Bromophenyl-phenylether	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
4-Chloro-3-methylphenol	ND	660	1	B9E0623	05/17/2019	05/17/19 23:33	
4-Chloroaniline	ND	660	1	B9E0623	05/17/2019	05/17/19 23:33	
4-Chlorophenyl-phenylether	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
4-Methylphenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
4-Nitroaniline	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:33	
4-Nitrophenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Acenaphthene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Acenaphthylene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Anthracene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Benzidine (M)	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:33	
Benzo(a)anthracene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Benzo(a)pyrene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Benzo(b)fluoranthene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Benzo(g,h,i)perylene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Benzo(k)fluoranthene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Benzoic acid	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:33	
Benzyl alcohol	ND	660	1	B9E0623	05/17/2019	05/17/19 23:33	
bis(2-chloroethoxy)methane	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
bis(2-Chloroethyl)ether	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
bis(2-chloroisopropyl)ether	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
bis(2-ethylhexyl)phthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Butylbenzylphthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Chrysene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Di-n-butylphthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Di-n-octylphthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Dibenz(a,h)anthracene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Dibenzofuran	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Diethyl phthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Dimethyl phthalate	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Fluoranthene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Fluorene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Hexachlorobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Hexachlorobutadiene	ND	660	1	B9E0623	05/17/2019	05/17/19 23:33	



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number: ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 05/21/2019

### Client Sample ID H6-1.5 Lab ID: 1901964-12

### Semivolatile Organic Compounds by EPA 8270C

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Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	1	B9E0623	05/17/2019	05/17/19 23:33	
Hexachloroethane	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Indeno(1,2,3-cd)pyrene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Isophorone	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
N-Nitroso-di-n propylamine	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
N-Nitrosodiphenylamine	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Naphthalene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Nitrobenzene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Pentachlorophenol	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:33	
Phenanthrene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Phenol	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Pyrene	ND	330	1	B9E0623	05/17/2019	05/17/19 23:33	
Pyridine	ND	1600	1	B9E0623	05/17/2019	05/17/19 23:33	
Surrogate: 1,2-Dichlorobenzene-d4	80.8 %	16 - 87		B9E0623	05/17/2019	05/17/19 23:33	
Surrogate: 2,4,6-Tribromophenol	130 %	0 - 148		B9E0623	05/17/2019	05/17/19 23:33	
Surrogate: 2-Chlorophenol-d4	78.9 %	17 - 96		B9E0623	05/17/2019	05/17/19 23:33	
Surrogate: 2-Fluorobiphenyl	95.1 %	16 - 107		B9E0623	05/17/2019	05/17/19 23:33	
Surrogate: 2-Fluorophenol	70.8 %	16 - 86		B9E0623	05/17/2019	05/17/19 23:33	
Surrogate: 4-Terphenyl-d14	108 %	3 - 156		B9E0623	05/17/2019	05/17/19 23:33	
Surrogate: Nitrobenzene-d5	78.0 %	16 - 99		B9E0623	05/17/2019	05/17/19 23:33	
Surrogate: Phenol-d6	78.3 %	17 - 90		B9E0623	05/17/2019	05/17/19 23:33	



Geocon Consultants, Inc. 6671 Brisa Street

Livermore, CA 94550

**Certificate of Analysis** 

Project Number : ETMA Bus Yard, E9133-02-02 Report To : Rick Day

Reported : 05/21/2019

### **QUALITY CONTROL SECTION**

#### Title 22 Metals by ICP-AES EPA 6010B - Quality Control

	Result	PQL	MDL	Spike	Source		% Rec		RPD	
Analyte	(mg/kg)	(mg/kg)	(mg/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes
Batch B9E0656 - EPA 3050B_S										
Blank (B9E0656-BLK1)					Prepared	: 5/20/2019	Analyzed: 5/21	/2019		
Antimony	ND	2.0	0.51							
Arsenic	ND	1.0	0.12							
Barium	ND	1.0	0.12							
Beryllium	ND	1.0	0.03							
Cadmium	ND	1.0	0.14							
Chromium	ND	1.0	0.26							
Cobalt	ND	1.0	0.07							
Copper	ND	2.0	0.19							
Lead	ND	1.0	0.18							
Molybdenum	ND	1.0	0.12							
Nickel	ND	1.0	0.18							
Selenium	ND	1.0	0.40							
Silver	ND	1.0	0.12							
Гhallium	ND	1.0	0.38							
Vanadium	ND	1.0	0.06							
Zinc	ND	1.0	0.15							
LCS (B9E0656-BS1)					Prepared	: 5/20/2019	Analyzed: 5/21	/2019		
Antimony	43.9557	2.0	0.51	50.0000		87.9	80 - 120			
Arsenic	43.7753	1.0	0.12	50.0000		87.6	80 - 120			
Barium	46.1043	1.0	0.12	50.0000		92.2	80 - 120			
Beryllium	45.1959	1.0	0.03	50.0000		90.4	80 - 120			
Cadmium	43.4241	1.0	0.14	50.0000		86.8	80 - 120			
Chromium	46.0249	1.0	0.26	50.0000		92.0	80 - 120			
Cobalt	45.0746	1.0	0.07	50.0000		90.1	80 - 120			
Copper	46.6357	2.0	0.19	50.0000		93.3	80 - 120			
Lead	44.2980	1.0	0.18	50.0000		88.6	80 - 120			
Molybdenum	45.8589	1.0	0.12	50.0000		91.7	80 - 120			
Nickel	44.7095	1.0	0.18	50.0000		89.4	80 - 120			
Selenium	41.5998	1.0	0.40	50.0000		83.2	80 - 120			
Silver	44.0735	1.0	0.12	50.0000		88.1	80 - 120			
Thallium	45.3220	1.0	0.38	50.0000		90.6	80 - 120			
Vanadium	46.6509	1.0	0.06	50.0000		93.3	80 - 120			
Zinc	42.7566	1.0	0.15	50.0000		85.5	80 - 120			
Matrix Spike (B9E0656-MS1)		S	ource: 19019	64-01	Prepared	: 5/20/2019	Analyzed: 5/21	/2019		
Antimony	75.2439	2.0	0.51	124.378	0.935644	59.7	21 - 102			
Arsenic	88.9474	1.0	0.12	124.378	3.70476	68.5	49 - 96			
Barium	228.007	1.0	0.12	124.378	139.539	71.1	26 - 121			
Beryllium	89.3885	1.0	0.03	124.378	0.220934	71.7	51 - 96			

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Geocon Consultants, Inc. 6671 Brisa Street

Livermore, CA 94550

Project Number : ETMA Bus Yard, E9133-02-02 Report To : Rick Day Reported : 05/21/2019

#### Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

	Result	PQL	MDL	Spike	Source	0 / P	% Rec	222	RPD	<b>NT</b> .
Analyte	(mg/kg)	(mg/kg)	(mg/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes
Batch B9E0656 - EPA 30	50B_S (continued)									
Matrix Spike (B9E0656-MS	S1) - Continued	Source: 1901964-01			Prepared:	: 5/20/2019	2019			
Cadmium	82.6850	1.0	0.14	124.378	0.379155	66.2	46 - 93			
Chromium	112.267	1.0	0.26	124.378	22.6857	72.0	44 - 107			
Cobalt	97.2023	1.0	0.07	124.378	6.21536	73.2	49 - 100			
Copper	116.762	2.0	0.19	124.378	20.4955	77.4	46 - 115			
Lead	240.431	1.0	0.18	124.378	125.230	92.6	29 - 126			
Molybdenum	87.4176	1.0	0.12	124.378	ND	70.3	48 - 99			
Nickel	110.834	1.0	0.18	124.378	23.4778	70.2	37 - 108			
Selenium	80.8419	1.0	0.40	124.378	ND	65.0	48 - 95			
Silver	90.8559	1.0	0.12	124.378	ND	73.0	53 - 99			
Thallium	82.9958	1.0	0.38	124.378	ND	66.7	38 - 93			
Vanadium	114.883	1.0	0.06	124.378	20.3880	76.0	48 - 104			
Zinc	168.389	1.0	0.15	124.378	81.4886	69.9	24 - 111			
Matrix Spike Dup (B9E065	56-MSD1)	Se	ource: 19019	64-01	Prepared	: 5/20/2019	Analyzed: 5/21/2	2019		
Antimony	76.8084	2.0	0.51	124.378	0.935644	61.0	21 - 102	2.06	20	
Arsenic	88.6126	1.0	0.12	124.378	3.70476	68.3	49 - 96	0.377	20	
Barium	226.758	1.0	0.12	124.378	139.539	70.1	26 - 121	0.550	20	
Beryllium	91.1597	1.0	0.03	124.378	0.220934	73.1	51 - 96	1.96	20	
Cadmium	83.9403	1.0	0.14	124.378	0.379155	67.2	46 - 93	1.51	20	
Chromium	116.092	1.0	0.26	124.378	22.6857	75.1	44 - 107	3.35	20	
Cobalt	96.8466	1.0	0.07	124.378	6.21536	72.9	49 - 100	0.367	20	
Copper	121.118	2.0	0.19	124.378	20.4955	80.9	46 - 115	3.66	20	
Lead	259.248	1.0	0.18	124.378	125.230	108	29 - 126	7.53	20	
Molybdenum	88.8161	1.0	0.12	124.378	ND	71.4	48 - 99	1.59	20	
Nickel	112.851	1.0	0.18	124.378	23.4778	71.9	37 - 108	1.80	20	
Selenium	83.4129	1.0	0.40	124.378	ND	67.1	48 - 95	3.13	20	
Silver	93.2115	1.0	0.12	124.378	ND	74.9	53 - 99	2.56	20	
Thallium	83.7274	1.0	0.38	124.378	ND	67.3	38 - 93	0.878	20	
Vanadium	115.714	1.0	0.06	124.378	20.3880	76.6	48 - 104	0.720	20	
Zinc	172.399	1.0	0.15	124.378	81.4886	73.1	24 - 111	2.35	20	



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#### Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B9E0659 - EPA 7471_S										
Blank (B9E0659-BLK1)					Prepared	: 5/20/2019 A	analyzed: 5/20/	2019		
Mercury	ND	0.10	0.007							
LCS (B9E0659-BS1)					Prepared	: 5/20/2019 A	nalyzed: 5/20/	2019		
Mercury	0.410631	0.10	0.007	0.416667		98.6	80 - 120			
Matrix Spike (B9E0659-MS1)		Se	ource: 19019	064-01	Prepared	: 5/20/2019 A	nalyzed: 5/20/	2019		
Mercury	1.04244	0.10	0.007	0.819672	0.125175	112	70 - 130			
Matrix Spike Dup (B9E0659-MSD1)		Source: 1901964-01			Prepared: 5/20/2019 Analyzed: 5/20/2019			2019		
Mercury	1.09390	0.10	0.007	0.847458	0.125175	114	70 - 130	4.82	20	



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Livermore, CA 94550	Reported : 05/21/	1/2019

#### Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B9E0659 - EPA 7471_S									
Post Spike (B9E0659-PS1)		Source: 1	901964-01	Prepared	: 5/20/2019 A	Analyzed: 5/20	/2019		
Mercury	0.004253		2.00000E-3	1.5021E-3	138	85 - 115			M1



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### Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

	Result	PQL	MDL	Spike	Source		% Rec		RPD	
Analyte	(mg/kg)	(mg/kg)	(mg/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes
Batch B9E0619 - GCVOA_S										
Blank (B9E0619-BLK1)					Prepare	d: 5/18/2019	Analyzed: 5/18	/2019		
Gasoline Range Organics	ND	1.0	0.20							
Surrogate: 4-Bromofluorobenzene	0.1859			0.200000		93.0	45 - 149			
LCS (B9E0619-BS1)					Prepare	d: 5/18/2019	Analyzed: 5/18	/2019		
Gasoline Range Organics	4.16500	1.0	0.20	5.00000		83.3	70 - 130			
Surrogate: 4-Bromofluorobenzene	0.1896			0.200000		94.8	45 - 149			
Matrix Spike (B9E0619-MS1)		S	ource: 19019	964-01	Prepare	d: 5/18/2019	Analyzed: 5/18	/2019		
Gasoline Range Organics	3.10300	1.0	0.20	5.00000	ND	62.1	24 - 129			
Surrogate: 4-Bromofluorobenzene	0.2007			0.200000		100	45 - 149			
Matrix Spike Dup (B9E0619-MSD1)		s	ource: 19019	964-01	Prepare	d: 5/18/2019	Analyzed: 5/18	/2019		
Gasoline Range Organics	2.58900	1.0	0.20	5.00000	ND	51.8	24 - 129	18.1	20	
Surrogate: 4-Bromofluorobenzene	0.1920			0.200000		96.0	45 - 149			



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### Diesel Range Organics by EPA 8015B - Quality Control

	Result	PQL	MDL	Spike	Source		% Rec		RPD	
Analyte	(mg/kg)	(mg/kg)	(mg/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes
Batch B9E0616 - GCSEMI_DRO_	LL_S									
Blank (B9E0616-BLK1)					Prepared	: 5/17/2019	Analyzed: 5/17/	2019		
DRO	ND	1.0	1.0							
ORO	ND	1.0	1.0							
Surrogate: p-Terphenyl	2.186			2.66667		82.0	34 - 158			
LCS (B9E0616-BS1)					Prepared	: 5/17/2019	Analyzed: 5/17/	2019		
DRO	28.8330	1.0	1.0	33.3333		86.5	47 - 152			
Surrogate: p-Terphenyl	2.409			2.66667		90.3	34 - 158			
Matrix Spike (B9E0616-MS1)		S	Source: 19019	64-12	Prepared	: 5/17/2019	Analyzed: 5/17/	2019		
DRO	24.3083	1.0	1.0	33.3333	2.14533	66.5	34 - 130			
Surrogate: p-Terphenyl	3.108			2.66667		117	34 - 158			
Matrix Spike Dup (B9E0616-MSD1)		S	Source: 19019	64-12	Prepared	: 5/17/2019	Analyzed: 5/17/	2019		
DRO	27.0383	1.0	1.0	33.3333	2.14533	74.7	34 - 130	10.6	20	
Surrogate: p-Terphenyl	3.279			2.66667		123	34 - 158			



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#### Volatile Organic Compounds by EPA 8260B - Quality Control

	Result	PQL	MDL	Spike	Source		% Rec		RPD	
Analyte	(ug/kg)	(ug/kg)	(ug/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes
Batch B9E0588 - MSVOA_S										
Blank (B9E0588-BLK1)					Prepareo	d: 5/17/2019	Analyzed: 5/17/	2019		
Benzene	ND	5.0	0.64							
Ethylbenzene	ND	5.0	0.91							
m,p-Xylene	ND	10	1.5							
o-Xylene	ND	5.0	0.87							
Toluene	ND	5.0	0.94							
Surrogate: 1,2-Dichloroethane-d4	51.86			50.0000		104	60 - 145			
Surrogate: 4-Bromofluorobenzene	46.24			50.0000		92.5	68 - 121			
Surrogate: Dibromofluoromethan	50.19			50.0000		100	65 - 137			
Surrogate: Toluene-d8	50.34			50.0000		101	82 - 119			
Blank (B9E0588-BLK2)					Prepareo	d: 5/17/2019 A	Analyzed: 5/17/	2019		
Benzene	ND	5.0	0.64							
Ethylbenzene	ND	5.0	0.91							
m,p-Xylene	ND	10	1.5							
o-Xylene	ND	5.0	0.87							
Toluene	ND	5.0	0.94							
Surrogate: 1,2-Dichloroethane-d4	51.47			50.0000		103	60 - 145			
Surrogate: 4-Bromofluorobenzene	46.66			50.0000		93.3	68 - 121			
Surrogate: Dibromofluoromethan	50.14			50.0000		100	65 - 137			
Surrogate: Toluene-d8	52.35			50.0000		105	82 - 119			
LCS (B9E0588-BS1)					Prepare	d: 5/17/2019 A	Analyzed: 5/17/	2019		
Benzene	92.1300	5.0	0.64	100.000		92.1	78 - 112			
Ethylbenzene	90.1600	5.0	0.91	100.000		90.2	82 - 121			
m,p-Xylene	94.3300	10	1.5	100.000		94.3	85 - 118			
o-Xylene	88.9500	5.0	0.87	100.000		89.0	86 - 118			
Toluene	95.2900	5.0	0.94	100.000		95.3	79 - 114			
Surrogate: 1,2-Dichloroethane-d4	53.62			50.0000		107	60 - 145			
Surrogate: 4-Bromofluorobenzene	49.11			50.0000		98.2	68 - 121			
Surrogate: Dibromofluoromethan	52.85			50.0000		106	65 - 137			
Surrogate: Toluene-d8	52.19			50.0000		104	82 - 119			
LCS Dup (B9E0588-BSD1)					Prepareo	d: 5/17/2019	Analyzed: 5/17/	2019		
Benzene	88.6700	5.0	0.64	100.000	*	88.7	78 - 112	3.83	20	
Ethylbenzene	89.1600	5.0	0.91	100.000		89.2	82 - 121	1.12	20	
m,p-Xylene	93.7100	10	1.5	100.000		93.7	85 - 118	0.659	20	
p-Xylene	91.3700	5.0	0.87	100.000		91.4	86 - 118	2.68	20	
Toluene	93.3900	5.0	0.94	100.000		93.4	79 - 114	2.01	20	
Surrogate: 1,2-Dichloroethane-d4	54.04			50.0000		108	60 - 145	-	-	
Surrogate: 4-Bromofluorobenzene	50.61			50.0000		103	68 - 121			
Surrogate: Dibromofluoromethan	54.55			50.0000		101	65 - 137			



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	Result	PQL		Spike	Source		% Rec		RPD	
				1		0/ D		מתת		NT (
Analyte	(ug/kg)	(ug/kg)		Level	Result	% Rec	Limits	RPD	Limit	Notes
Batch B9E0588 - MSVOA_S (co	ntinued)									
LCS Dup (B9E0588-BSD1) - Contin	ued				Prepareo	d: 5/17/2019	Analyzed: 5/17/	2019		
Surrogate: Toluene-d8	50.01			50.0000		100	82 - 119			
Matrix Spike (B9E0588-MS1)		So	Source: 1901964-01			d: 5/17/2019	Analyzed: 5/17/	2019		
Benzene	82.1900	5.0	0.64	100.000	ND	82.2	48 - 117			
Ethylbenzene	75.5900	5.0	0.91	100.000	ND	75.6	38 - 131			
m,p-Xylene	77.7500	10	1.5	100.000	ND	77.8	38 - 130			
o-Xylene	76.7900	5.0	0.87	100.000	ND	76.8	41 - 129			
Toluene	81.6200	5.0	0.94	100.000	ND	81.6	45 - 122			
Surrogate: 1,2-Dichloroethane-d4	55.25			50.0000		110	60 - 145			
Surrogate: 4-Bromofluorobenzene	47.54			50.0000		95.1	68 - 121			
Surrogate: Dibromofluoromethan	52.36			50.0000		105	65 - 137			
Surrogate: Toluene-d8	49.98			50.0000		100	82 - 119			
Matrix Spike Dup (B9E0588-MSD1	)	So	ource: 1901	964-01	Prepared: 5/17/2019 Analyzed: 5/17/2019					
Benzene	82.7000	5.0	0.64	100.000	ND	82.7	48 - 117	0.619	20	
Ethylbenzene	74.7700	5.0	0.91	100.000	ND	74.8	38 - 131	1.09	20	
m,p-Xylene	77.0800	10	1.5	100.000	ND	77.1	38 - 130	0.865	20	
o-Xylene	75.2000	5.0	0.87	100.000	ND	75.2	41 - 129	2.09	20	
Toluene	82.1000	5.0	0.94	100.000	ND	82.1	45 - 122	0.586	20	
Surrogate: 1,2-Dichloroethane-d4	55.15			50.0000		110	60 - 145			
Surrogate: 4-Bromofluorobenzene	48.87			50.0000		97.7	68 - 121			
Surrogate: Dibromofluoromethan	52.92			50.0000		106	65 - 137			
Surrogate: Toluene-d8	51.98			50.0000		104	82 - 119			



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	Result	PQL	MDL	Spike	Source		% Rec		RPD	
Analyte	(ug/kg)	(ug/kg)	(ug/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes
Batch B9E0623 - MSSEMI_S										
Blank (B9E0623-BLK1)					Prepareo	d: 5/17/2019 A	Analyzed: 5/17/	/2019		
1,2,4-Trichlorobenzene	ND	330	71							
1,2-Dichlorobenzene	ND	330	60							
1,3-Dichlorobenzene	ND	330	65							
1,4-Dichlorobenzene	ND	330	60							
2,4,5-Trichlorophenol	ND	330	61							
2,4,6-Trichlorophenol	ND	330	220							
2,4-Dichlorophenol	ND	1600	120							
2,4-Dimethylphenol	ND	330	120							
2,4-Dinitrophenol	ND	1600	86							
2,4-Dinitrotoluene	ND	330	46							
2,6-Dinitrotoluene	ND	330	49							
2-Chloronaphthalene	ND	330	59							
2-Chlorophenol	ND	330	120							
2-Methylnaphthalene	ND	330	67							
2-Methylphenol	ND	330	67							
2-Nitroaniline	ND	1600	200							
2-Nitrophenol	ND	330	110							
3,3'-Dichlorobenzidine	ND	660	280							
3-Nitroaniline	ND	1600	44							
4,6-Dinitro-2-methyphenol	ND	1600	300							
4-Bromophenyl-phenylether	ND	330	50							
4-Chloro-3-methylphenol	ND	660	110							
4-Chloroaniline	ND	660	53							
4-Chlorophenyl-phenylether	ND	330	48							
4-Methylphenol	ND	330	66							
4-Nitroaniline	ND	1600	290							
4-Nitrophenol	ND	330	150							
Acenaphthene	ND	330	48							
Acenaphthylene	ND	330	51							
Anthracene	ND	330	49							
Benzidine (M)	ND	1600	1400							
Benzo(a)anthracene	ND	330	39							
Benzo(a)pyrene	ND	330	45							
Benzo(b)fluoranthene	ND	330	55							
Benzo(g,h,i)perylene	ND	330	38							
Benzo(k)fluoranthene	ND	330	52							
Benzoic acid	ND	1600	890							
Benzyl alcohol	ND	660	67							
bis(2-chloroethoxy)methane	ND	330	59							
bis(2-Chloroethyl)ether	ND	330	57							
bis(2-chloroisopropyl)ether	ND	330	65							



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	Result	PQL	MDL	Spike	Source		% Rec		RPD	
Analyte	(ug/kg)	(ug/kg)	(ug/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes
Batch B9E0623 - MSSEMI_S (co	ontinued)									
Blank (B9E0623-BLK1) - Continued	1				Prepareo	d: 5/17/2019	Analyzed: 5/17	/2019		
bis(2-ethylhexyl)phthalate	ND	330	83							
Butylbenzylphthalate	ND	330	250							
Chrysene	ND	330	43							
Di-n-butylphthalate	ND	330	230							
Di-n-octylphthalate	ND	330	48							
Dibenz(a,h)anthracene	ND	330	43							
Dibenzofuran	ND	330	55							
Diethyl phthalate	ND	330	47							
Dimethyl phthalate	ND	330	46							
Fluoranthene	ND	330	47							
Fluorene	ND	330	49							
Hexachlorobenzene	ND	330	41							
Hexachlorobutadiene	ND	660	61							
Hexachlorocyclopentadiene	ND	660	64							
Hexachloroethane	ND	330	71							
Indeno(1,2,3-cd)pyrene	ND	330	44							
Isophorone	ND	330	57							
N-Nitroso-di-n propylamine	ND	330	65							
N-Nitrosodiphenylamine	ND	330	48							
Naphthalene	ND	330	60							
Nitrobenzene	ND	330	67							
Pentachlorophenol	ND	1600	190							
Phenanthrene	ND	330	46							
Phenol	ND	330	130							
Pyrene	ND	330	53							
Pyridine	ND	1600	270							
Surrogate: 1,2-Dichlorobenzene-d	2456			3333.33		73.7	16 - 87			
Surrogate: 2,4,6-Tribromophenol	3636			3325.00		109	0 - 148			
Surrogate: 2-Chlorophenol-d4	2318			3325.00		69.7	17 - 96			
Surrogate: 2-Fluorobiphenyl	2885			3333.33		86.6	16 - 107			
Surrogate: 2-Fluorophenol	2274			3325.00		68.4	16 - 86			
Surrogate: 4-Terphenyl-d14	3205			3333.33		96.2	3 - 156			
Surrogate: Nitrobenzene-d5	2384			3333.33		71.5	16 - 99			
Surrogate: Phenol-d6	2360			3325.00		71.0	17 - 90			
LCS (B9E0623-BS1)					Prepareo	d: 5/17/2019	Analyzed: 5/17	/2019		
1,2,4-Trichlorobenzene	2828.67	330	71	3333.33		84.9	48 - 92			
1,2-Dichlorobenzene	2511.67	330	60	3333.33		75.4	40 - 86			
1,3-Dichlorobenzene	2506.00	330	65	3333.33		75.2	39 - 82			
1,4-Dichlorobenzene	2467.00	330	60	3333.33		74.0	40 - 82			
2,4,5-Trichlorophenol	3400.33	330	61	3333.33		102	70 - 111			



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Andyst         (ug/kg)         (ug/kg)         (ug/kg)         Level         Reult         % Rec         Linis         RPD         Linit         Notes           Batch BPE0623 - MSSFML_5 (continued)           LCS (B9E0623-BS1) - Continued         3150.3         330         220         3333.3         84.8         54-121         -		Result	PQL	MDL	Spike	Source		% Rec		RPD	
CS (99:0623-KS) - Continued         Preprint: 5/17:2019 / nutry str. 5/17:2019           2,4,6-Trichlorophenol         3159,33         300         220         3333,33         94.8         54 - 121           2,4-Dindtolyphenol         2810,00         130         120         3333,33         85.6         49 - 111           2,4-Dindtolyphenol         2810,00         160         853,33         105         48         158           2,4-Dinitroblence         3390,07         300         49         3333,33         101         62 - 112           2,6-Dinitroblence         398,07         300         49         3333,33         101         57 - 92           2,Chlorophenol         2511,00         300         120         3333,33         101         57 - 120           2,Nitrophenol         232,57         330         67         3333,33         101         57 - 120           2,Nitrophenol         2903,33         660         280         3333,33         101         57 - 120           2,Nitrophenol         204,07         1600         44         333,33         101         67 - 135           4,Nitrophenol         293,33         60         53         333,33         101         67 - 136 <td< th=""><th>Analyte</th><th>(ug/kg)</th><th>(ug/kg)</th><th>(ug/kg)</th><th>Level</th><th>Result</th><th>% Rec</th><th>Limits</th><th>RPD</th><th>Limit</th><th>Notes</th></td<>	Analyte	(ug/kg)	(ug/kg)	(ug/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes
CS (99:0623-KS) - Continued         Preprint: 5/17:2019 / nutry str. 5/17:2019           2,4,6-Trichlorophenol         3159,33         300         220         3333,33         94.8         54 - 121           2,4-Dindtolyphenol         2810,00         130         120         3333,33         85.6         49 - 111           2,4-Dindtolyphenol         2810,00         160         853,33         105         48         158           2,4-Dinitroblence         3390,07         300         49         3333,33         101         62 - 112           2,6-Dinitroblence         398,07         300         49         3333,33         101         57 - 92           2,Chlorophenol         2511,00         300         120         3333,33         101         57 - 120           2,Nitrophenol         232,57         330         67         3333,33         101         57 - 120           2,Nitrophenol         2903,33         660         280         3333,33         101         57 - 120           2,Nitrophenol         204,07         1600         44         333,33         101         67 - 135           4,Nitrophenol         293,33         60         53         333,33         101         67 - 136 <td< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<>											
2.4.6-Trichlorophenol       3159.33       330       220       3333.33       88.6       49-111         2.4-Dinethylphenol       2810.00       300       120       3333.33       88.6       49-111         2.4-Dinethylphenol       397.00       160       86       3333.33       105       64-113         2.4-Dinitroblemen       389.67       330       49       3333.33       101       62-112         2.6-Dinitroblemen       389.67       330       49       3333.33       101       62-112         2.Chorophenol       251.00       330       67       3333.33       91.8       57-92         2.Chorophenol       253.57       330       67       3333.33       101       57.120         2.Nitrophenol       253.57       330       67       3333.33       101       57.120         2.Nitrophenol       290.00       330       67       3333.33       101       57.136         2.Nitrophenol       290.01       330       50       333.33       101       57.136         2.Nitrophenol       304.67       1600       333.33       101       57.136         4.Chorobaniline       304.67       1600       333.33       101       57.136<	Batch B9E0623 - MSSEMI_S (co	ontinued)									
2.4-Dichlorophanol       285.00       1600       120       3333.33       88.6       49-111         2.4-Dintrophanol       349.00       330       120       3333.33       84.3       84.3       81.18         2.4-Dintrophanol       349.00       300       46       3333.33       101       62-112         2.6-Dintrotolucenc       389.67       330       49       3333.33       101       62-112         2.Chloroophtanlenc       308.67       330       67       3333.33       91.8       57-92         2.Chloroophtanlenc       303.10       67       3333.33       75.8       50-95         2.Metryliphenol       252.67       330       67       3333.33       80.1       48-100         2.Metryliphenol       353.13       1600       200       333.33       87.1       88-115         3.Nitromiline       390.467       1600       44       333.33       89.1       62-110         4.Brintrophenol       290.07       330       66       333.33       89.1       62-110         4.Formaline       393.3       660       101       333.33       89.1       62-110         4.Brintrophenol       378.3       30       66       333.33	LCS (B9E0623-BS1) - Continued					Prepared	d: 5/17/2019	Analyzed: 5/17/	2019		
2.4-Dimitrophenol       2810.00       330       120       3333.33       184.3       43.116         2.4-Dimitrophenol       3490.00       1600       86       3333.33       105       84.138         2.4-Dimitrobulene       3380.07       330       49       3333.33       101       62.112         2.Choronphilahene       308.07       330       49       3333.33       101       97.14         2.Choronphilahene       300.00       330       67       3333.33       91.8       57.92         2.Choronphilahene       253.57       330       67       333.33       101       57.8       50.95         2.Nitrophenol       253.57       330       660       200       333.33       101       57.120         2.Nitrophenol       290.33       660       280       333.33       90.1       57.136         3.Nitrophenol       304.67       1600       44       333.33       91.0       57.16         4.Forminine       304.67       1600       333.33       93.5       64.106         4.Choronnine       2043.67       660       110       333.33       93.5       64.106         4.Choronnine       290.33       360       160	2,4,6-Trichlorophenol	3159.33	330	220	3333.33		94.8	54 - 121			
2.4-Dinitrophenel       3497.00       1600       86       3333.33       105       48.18         2.4-Dinitrotolaren       3380.00       330       46       3333.33       101       62-112         2.6-Dinitrotolaren       3389.07       330       49       333.33       102       59-114         2.Chorophend       2510       330       67       333.33       75.3       43-94         2.Methylphenol       252.67       330       67       333.33       75.3       43-94         2.Nitroniline       3351.3       1600       200       333.33       101       57-120         2.Nitroniline       294.07       300       100       333.33       87.1       88-115         3.Vichlorobenzidine       293.33       660       280       333.33       91.0       62-110         4.6-Dinitro-2-methylphenylether       316.03       50       333.33       93.0       60       103         3.Vichlorobenzidine       298.36       60       110       333.33       93.0       60       104         4.8-Bomylethylphenylether       317.00       30       60       333.33       93.0       60       104         4.8-Bomylethylphenylether       317.00	2,4-Dichlorophenol	2852.00	1600	120	3333.33		85.6	49 - 111			
2.4-Dimitroolucene       338 040       330       46       3333.33       101       62-112         2.6-Dimitroolucene       338.67       330       49       333.33       102       59-114         2.Chiorophenol       251.00       330       120       333.33       75.8       57-92         2.Metryhaphthalene       3030       67       333.33       90.1       49-109         2.Metryhaphthalene       3351.33       100       200       333.33       90.1       57-120         2.Nitropinon       290.33       660       280       333.33       90.1       57-120         2.Nitropinon       304.67       1600       40       333.33       90.1       57-136         4.Bromophenyl-phenylether       317.0       160       44       333.33       91.0       57-136         4.Chior-3-methyphenol       284.67       660       53       333.33       93.0       60-103         4.Chiora-3-methyphenol       284.37       660       53       333.33       93.0       60-103         4.Chiora-methyphenol       284.37       660       53       333.33       85.3       64-1106         4.Chiora-methyphenol       284.33       30       46       33	2,4-Dimethylphenol	2810.00	330	120	3333.33		84.3	43 - 116			
2.6.Dimirotolucee       3389.67       330       49       3333.33       102       59 - 114         2.Chloropahthalene       308.67       330       59       333.33       75.3       43 - 94         2.Microphanthalene       3003.00       330       67       333.33       90.1       49 - 109         2.Microphenol       255.67       330       67       333.33       101       57 - 120         2.Nitrooniline       351.33       1600       200       333.33       101       57 - 120         3.Nitrooniline       203.33       600       280       333.33       90.1       62 - 110         4.Bornophenyl-phenyletner       310.67       1600       44       333.33       99.1       62 - 110         4.Bornophenyl-phenyletner       317.01       330       50       333.33       93.5       64 - 110         4.Bornophenyl-phenyletner       317.01       330       66       53       333.33       93.5       64 - 110         4.Chloro-s-methylphenol       243.67       660       110       333.33       93.0       60 - 103         4.Mitrophenol       273.83       330       64       333.33       101       67 - 106         4.Nitrophenol	2,4-Dinitrophenol	3497.00	1600	86	3333.33		105	48 - 138			
2-Chiorophthalane       3958,67       330       59       333,33       91.8       57.92         2-Chiorophtend       2511.00       330       120       333,33       90.1       49 - 109         2-Metyhaphthalene       300.0       330       67       333,33       90.1       49 - 109         2-Metyhaphthalene       2525.67       330       67       333,33       101       57 - 120         2-Nitroaphtenol       2691.00       330       100       333,33       101       57 - 120         2-Nitroaphtenol       2691.00       330       100       333,33       80.7       48 - 110         3.3'-Dichlorobenzidine       304.67       1600       44       333,33       99.1       62 - 110         4-Chiorob-methyhenol       243.67       660       130       333,33       93.0       64 - 106         4-Chiorob-methyhenol       243.67       660       133       333.3       93.0       60 - 103         4-Chiorob-methyhenol       243.67       660       333.33       101       57 - 136         4-Nitrophenol       243.67       610       203       333.33       101       67 - 130         4-Nitrophenol       243.63       64       1333.33 <td>2,4-Dinitrotoluene</td> <td>3369.00</td> <td>330</td> <td>46</td> <td>3333.33</td> <td></td> <td>101</td> <td>62 - 112</td> <td></td> <td></td> <td></td>	2,4-Dinitrotoluene	3369.00	330	46	3333.33		101	62 - 112			
2-Chlorophenol       2511.00       330       120       333.33       75.3       43 - 94         2-Methylphaphthalene       3003.00       330       67       333.33       97.8       50 - 95         2-Methylphenol       2525.67       330       67       333.33       101       57.8       50 - 95         2-Nitrophenol       263.13       1600       200       333.33       101       57.120         2-Nitrophenol       2003.3       600       200       333.33       87.1       48 - 110         3-Nichorbohznidine       2003.3       600       200       333.33       90.1       62 - 110         4-Bromophenyl-phenylcher       310.47       1600       44       333.33       90.1       67 - 136         4-Chloroninine       304.67       600       110       333.33       93.5       64 - 106         4-Chloroninine       393.3       60       53       333.33       101       57 - 106         4-Chloroninine       393.33       30       66       333.33       101       67 - 106         4-Methylphenol       278.33       330       68       333.33       101       67 - 106         4-Nitroaninine       395.7       160	2,6-Dinitrotoluene	3389.67	330	49	3333.33		102	59 - 114			
2-Methylphenol       300,00       330       67       333.33       90.1       49.109         2-Methylphenol       2525.67       330       67       333.33       101       57.120         2-Nitrophenol       2691.00       330       110       333.33       80.7       48110         3.3'-Diohorobenzidine       2903.33       660       280       333.33       90.1       57.136         4.6-Dinitro-2-methylphenol       300.467       1600       40       333.33       93.5       64.106         4-Choro-3-methylphenol       284.67       660       110       333.33       93.5       64.106         4-Choro-anitrubylphenol       284.76       660       101       333.33       85.3       54.114         4-Choro-anitrubylphenol       284.76       660       100       333.33       101       69.103         4-Chiroranitrubylphenol       278.33       330       66       333.33       82.2       53.96         4-Nitrophenol       278.33       330       64       333.33       86.6       61.105         Accemaphthylce       296.00       330       51       333.33       87.3       66.1105         Accemaphthylce       290.67       330	2-Chloronaphthalene	3058.67	330	59	3333.33		91.8	57 - 92			
2-Methylphenol         2525.67         330         67         3333.33         75.8         50-95           2-Nitrophenol         2501.00         330         110         333.33         807         48.110           3.3'-Dichlorobenzidine         2903.33         660         280         333.33         87.1         38-115           3Nitroaniline         304.67         1600         440         333.33         90.1         57.136           4Bromophenyl-phenylether         317.00         330         50         333.33         93.5         64.106           4Choros-methylphenol         2843.67         660         110         333.33         93.0         60         103           4Choros-methylphenol         2843.67         660         110         333.33         93.0         60         103           4Chorosniline         396.33         660         53         333.33         101         57.106           4Methylphenol         278.33         330         46         333.33         101         69.111           4Nitroaniline         2353.67         1600         290         333.33         87.3         66.1105           Acemaphthylene         2968.00         330	2-Chlorophenol	2511.00	330	120	3333.33		75.3	43 - 94			
2-Nitronniline       3351.33       1600       200       3333.33       101       57-120         2-Nitrophenol       2691.00       330       110       3333.33       80.7       48-110         3.3'-Dichlorobenzidine       290.3       3333.33       80.7       48-110         3.3'-Dichlorobenzidine       300.467       1600       444       3333.33       99.1       62-110         4-Bromophenylphenylphenyl       310.0       300       333.33       95.5       64-106         4-Bromophenylphenylphenylphenyl       2843.67       660       110       333.33       95.0       60-103         4-Chloron-3-methylphenyl       2843.67       660       110       333.33       95.0       60-103         4-Chlorophenylphenylether       335.33       300       66       333.33       85.3       54-114         4-Chlorophenylphenylether       335.37       160       290       333.33       101       69-111         4-Nitrophenol       2738.33       30       66       333.33       82.2       53 -96         4-Nitrophenol       325.67       1600       290       333.33       86.6       61-105         Acenaphthylene       295.00       330       48       3	2-Methylnaphthalene	3003.00	330	67	3333.33		90.1	49 - 109			
2-Nitrophenol       2691.00       330       110       3333.33       80.7       48 - 110         3.3'-Dichlorobenzidine       2905.33       660       280       3333.33       87.1       38 - 115         3-Nitroaniline       3004.67       1600       440       3333.33       90.1       57 - 136         4-Bromophenyl-phenyl-phenylether       3117.00       330       50       3333.33       93.5       64 - 106         4-Chloros-I-methylphenol       2843.67       660       51       3333.33       93.0       60 - 103         4-Chloroshinine       398.33       660       53       3333.33       91.0       65 - 103         4-Nitroaniline       3353.57       1600       290       3333.33       101       57 - 106         4-Nitroaniline       3243.00       330       150       3333.33       101       65 - 111         4-Nitroaniline       3243.00       330       150       3333.33       88.6       61 - 105         Acenaphtylene       295.00       330       51       3333.33       88.7       64 - 117         Acenaphtylene       296.0       330       51       3333.33       85.3       68 - 113         Benzo(a)funcene       290.6	2-Methylphenol	2525.67	330	67	3333.33		75.8	50 - 95			
3.3'-Dichlorobenzidine       2903.33       660       280       3333.33       87.1       38-115         3-Nitroaniline       3304.67       1600       44       3333.33       99.1       62 - 110         4-Bromophenyl-phenylether       3117.00       330       50       3333.33       93.5       64 - 106         4-Chloro-3-methylphenol       2843.67       660       110       3333.33       93.5       64 - 106         4-Chlorophenyl-phenylether       3363.33       660       53       3333.33       93.0       60 - 103         4-Chlorophenyl-phenylether       3363.37       660       53       3333.33       91.0       57 - 106         4-Mitrophenol       273.83       330       66       3333.33       82.2       53 - 96         4-Nitrophenol       273.83       330       66       3333.33       86.6       61 - 105         Acenaphthene       2952.00       330       48       3333.33       87.3       68 - 114         Acenaphthylene       2968.00       330       51       3333.33       87.3       68 - 114         Benzo(a)prene       2904.7       330       49       3333.33       87.3       68 - 114         Benzo(a)prene       2904.7	2-Nitroaniline	3351.33	1600	200	3333.33		101	57 - 120			
3-Nitroaniline       3304.67       1600       44       3333.33       99.1       62-110         4.6-Dinitro-2-methyphenol       3004.67       1600       300       3333.33       90.1       57-136         4-Bromophenyl-phenylether       3117.00       330       50       3333.33       93.5       64-106         4-Chloro-3-methylphenol       2843.67       660       110       3333.33       93.0       60-103         4-Chloro-anithylphenol       278.33       330       66       3333.33       101       57-106         4-Methylphenol       2738.33       330       66       3333.33       101       69-111         4-Nitroaniline       353.67       1600       290       3333.33       88.6       61-105         Acenaphthene       2952.00       330       48       333.33       88.6       61-105         Acenaphthene       2968.00       330       51       333.33       88.6       61-105         Acenaphthene       2968.00       330       51       333.33       87.3       66-110         Benzo(anithracene       296.07       330       53       333.33       87.3       66-110         Benzo(anithracene       296.07       330	2-Nitrophenol	2691.00	330	110	3333.33		80.7	48 - 110			
4.6-Dinitro-2-methyphenol3004.6716003003333.3390.157 - 1364-Bromophenyl-phenylether3117.00330503333.3393.564 - 1064-Chloro-3-methylphenol2843.676601103333.3385.354 - 1144-Chloroadilline3098.33660533333.3310157 - 1064-Chloroadilline3363.33330483333.3310157 - 1064-Methylphenol2738.33330663333.3310169 - 1114-Nitropaniline3243.003301503333.3387.366105Acenaphthene2952.00330483333.3388.661 - 105Acenaphthylene2968.00330513333.3387.366 - 110Benzidine (M)ND16001400333.3387.366 - 110Benzo(a)qhurthacene2909.6733039333.3387.366 - 110Benzo(a)qhurthacene2909.6733038333.3387.366 - 110Benzo(a)qhurthacene2969.0033038333.3387.366 - 110Benzo(b)fuoranthene386.6733052333.3389.768 - 114Benzo(b)fuoranthene386.6733052333.3389.768 - 114Benzo(b)fuoranthene276.3333059333.3383.041 - 90bis(2-chloroethyl)ether254.0033065333.3376.438.	3,3'-Dichlorobenzidine	2903.33	660	280	3333.33		87.1	38 - 115			
4-Bromophenyl-phenyl-phenylether       3117.00       330       50       333.33       93.5       64 - 106         4-Chloro-3-methylphenol       2843.67       660       110       3333.33       85.3       54 - 114         4-Chloropalmenyl-phenylether       3363.33       330       660       53       3333.33       101       57 - 106         4-Methylphenol       2738.33       330       66       3333.33       101       69 - 111         4-Nitrophenol       3243.00       330       150       333.33       101       69 - 111         A-Nitrophenol       2952.00       330       48       333.33       88.6       61 - 105         Acenaphthylene       2968.00       330       51       333.33       89.0       62 - 103         Anthracene       2968.00       330       51       333.33       89.0       62 - 103         Benzidine (M)       ND       1600       1400       333.33       87.3       66 - 110         Benzo(a)anthracene       2909.67       330       55       333.33       87.3       66 - 110         Benzo(a)(prene       304.00       30       45       333.33       87.3       66 - 110         Benzo(a)(prene       299.0	3-Nitroaniline	3304.67	1600	44	3333.33		99.1	62 - 110			
4-Chloro-3-methylphenol2843.676601103333.3385.354 - 1144-Chloroaniline3098.33660533333.3393.060 - 1034-Chlorophenyl-phenyl-phenylether3363.33330483333.3393.060 - 1034-Methylphenol2788.33330663333.3382.253 - 964-Nitroaniline3243.003301503333.3397.351 - 141Acenaphthene2952.00330483333.3388.661 - 105Acenaphthylene2968.00330513333.3385.368 - 113Benzolaputene2968.00330493333.3385.368 - 113Benzolapyrene290.6733039333.3387.366 - 110Benzolapyrene290.6733039333.3387.366 - 110Benzolapyrene299.6733055333.3387.366 - 110Benzolaphthene295.6733055333.3387.768 - 118Benzolaphtene298.0033038333.3389.768 - 114Benzolaphthene296.3366067333.3389.768 - 114Benzolaphtene296.6733052333.3389.768 - 114Benzolaphtene296.6733052333.3389.764 - 117Benzolaphtene296.6733059333.3389.768 - 114Benzolaphtene296.6367	4,6-Dinitro-2-methyphenol	3004.67	1600	300	3333.33		90.1	57 - 136			
4-Chloroanilne3098.33660533333.3393.060 - 1034-Chlorophenyl-phenylether3363.33330483333.3310157 - 1064-Methylphenol2738.33330663333.3382.253 - 964-Nitroaniline353.6716002903333.3310169 - 111Acenaphthenol295.003301503333.3397.351 - 141Acenaphthene2952.0033048333.3388.661 - 105Acenaphthylene2968.00330513333.3389.062 - 103Anthracene2844.33330493333.3387.366 - 110Benzo(a)anthracene290.6733039333.3387.366 - 110Benzo(a)anthracene299.6733055333.3387.366 - 110Benzo(b)fluoranthene2957.0733055333.3389.768 - 118Benzo(b)fluoranthene298.0033055333.3389.768 - 114Benzo(a)privene308.6733052333.3389.768 - 114Benzo(b)fluoranthene296.3366067333.3380.947 - 99bis(2-Chloroethylyther2547.0033057333.3376.423 - 115Benzyl alcohol266.3365333.3376.438 - 84bis(2-chloroithylyther2547.0033057333.3376.438 - 84bis(2-chloroithylythet <td>4-Bromophenyl-phenylether</td> <td>3117.00</td> <td>330</td> <td>50</td> <td>3333.33</td> <td></td> <td>93.5</td> <td>64 - 106</td> <td></td> <td></td> <td></td>	4-Bromophenyl-phenylether	3117.00	330	50	3333.33		93.5	64 - 106			
4-Chlorophenyl-phenylether3363.33330483333.3310157 - 1064-Methylphenol2738.33330663333.3382.253 - 964-Nitrophenol3243.003301503333.3310169 - 1114-Nitrophenol2243.003301503333.3388.661 - 105Acenaphthene2952.00330513333.3388.661 - 105Acenaphthylene2968.00330513333.3385.368 - 113Benzidine (M)ND160014003333.3387.366 - 100Benzo(a)mthracene2909.67330393333.3387.366 - 100Benzo(a)mthracene2909.67330393333.3387.366 - 100Benzo(a)pyrene3041.00330453333.3388.764 - 117Benzo(b)fluoranthene2957.67330553333.3389.768 - 114Benzo(b)fluoranthene2966.3366067333.3389.947 - 99bis(2-chloroethoxy)methane2766.3333057333.3376.438 - 84bis(2-chloroethy)pether2544.0033057333.3376.320 - 100bis(2-chloroethy)phthalate3070.3333083333.3392.157 - 111Burylbenzylphthalate310.67330250333.3392.157 - 111Burylbenzylphthalate310.67330250333.3392.157 - 111	4-Chloro-3-methylphenol	2843.67	660	110	3333.33		85.3	54 - 114			
4-Methylphenol2738.33330663333.3382.253 - 964-Nitroaniline3533.6716002903333.3310169 - 1114-Nitrophenol3243.003301503333.3397.351 - 141Acenaphthene2952.00330483333.3388.661 - 105Acenaphthylene2968.00330513333.3389.062 - 103Anthracene2844.33330493333.3385.368 - 113Benzidine (M)ND160014003333.3387.366 - 110Benzo(a)anthracene2909.67330393333.3387.366 - 110Benzo(a)anthracene2957.67330553333.3387.768 - 118Benzo(b)fluoranthene2958.0033038333.3389.768 - 114Benzo(k)fluoranthene308.6733052333.3389.768 - 114Benzo(k)fluoranthene308.6733059333.3380.947 - 99bis(2-chloroethyl)ether254.0033065333.3380.947 - 99bis(2-chloroethyl)ether254.0033065333.3376.438 - 84bis(2-chlorosiopropyl)ether254.0033065333.3376.320 - 100bis(2-chlorosiopropyl)ether254.0033065333.3392.157 - 111Burylobnzylphthalate310.67330250333.3392.157 - 111 <td>4-Chloroaniline</td> <td>3098.33</td> <td>660</td> <td>53</td> <td>3333.33</td> <td></td> <td>93.0</td> <td>60 - 103</td> <td></td> <td></td> <td></td>	4-Chloroaniline	3098.33	660	53	3333.33		93.0	60 - 103			
4-Nitroaniline3353.6716002903333.3310169 - 1114-Nitrophenol3243.003301503333.3397.351 - 141Acenaphthene2952.00330483333.3388.661 - 105Acenaphthylene2968.00330513333.3389.062 - 103Anthracene2844.33330493333.3385.368 - 113Benzo(a)anthracene2909.6733039333.3387.366 - 110Benzo(a)anthracene2909.67330453333.3391.268 - 118Benzo(a)pyrene3041.00330453333.3388.764 - 117Benzo(a)hjperylene2980.0033052333.3392.662 - 121Benzo(a)thuranthene308.6733052333.3389.768 - 114Benzo(a)thuranthene308.6733059333.3389.774 - 19bis(2-chloroethyl)enther254.0033057333.3389.947 - 99bis(2-chloroethyl)enther254.0033065333.3376.438 - 84bis(2-chloroisopropyl)enter254.0033065333.3376.438 - 84bis(2-chloroisopropyl)enter254.0033065333.3376.438 - 84bis(2-chloroisopropyl)enter254.0033065333.3376.320 - 100bis(2-chloroisopropyl)enter254.0033065333.3392.15	4-Chlorophenyl-phenylether	3363.33	330	48	3333.33		101	57 - 106			
4-Nitrophenol3243.003301503333.3397.351-141Acenaphthene2952.00330483333.3388.661-105Acenaphthylene2968.00330513333.3389.062-103Anthracene2844.33330493333.3385.368-113Benzolaine (M)ND160014003333.3387.366-110Benzolaintracene2909.6733039333.3387.366-110Benzolaipyrene3041.00330453333.3388.764-117Benzolajhuranthene2957.6733055333.3389.768-114Benzolk/fluoranthene296.636067333.3389.768-114Benzolk/fluoranthene266.336067333.3389.947-99bis(2-chlorethxy)methane2766.3333057333.3380.947-99bis(2-chlorethxy)methane2547.0033057333.3376.438-84bis(2-chlorethxy)methane2547.0033065333.3376.320-100bis(2-chlorethylphthalate3070.3333083333.3393.154-109Chrysene2973.0033043333.3392.661-113Di-n-butylphthalate318.00330250333.3393.154-109Di-n-octylphthalate316.0733043333.3395.665-113Di-n-octylphthalate318.00	4-Methylphenol	2738.33	330	66	3333.33		82.2	53 - 96			
Acenaphthene2952.0033048333.3388.661 - 105Acenaphthylene2968.0033051333.3389.062 - 103Anthracene2844.3333049333.3385.368 - 113Benzidine (M)ND16001400333.33NR25 - 109L4Benzo(a)anthracene2909.6733039333.3387.366 - 110Benzo(a)pyrene3041.0033045333.3387.366 - 110Benzo(a)pyrene3041.0033045333.3388.764 - 117Benzo(a)hi)perylene2957.6733052333.3388.764 - 117Benzo(k)fluoranthene2957.6733052333.3389.768 - 114Benzo(k)fluoranthene3086.6733052333.3380.947 - 99bis(2-chloroethoxy)methane2766.3333059333.3383.041 - 90bis(2-chloroethoxy)methane2766.3333065333.3376.438 - 84bis(2-chloroisopropyl)ether2544.0033065333.3376.320 - 100bis(2-chlyroispluther370.3333083333.3393.154 - 109Chrysene2973.0033043333.3389.261 - 113Di-n-butylphthalate318.60330230333.3395.665 - 113Di-n-octylphthalate318.00330230333.3395.665 - 113<	4-Nitroaniline	3353.67	1600	290	3333.33		101	69 - 111			
Acenaphthylene2968.00330513333.3389.062 - 103Anthracene2844.33330493333.3385.368 - 113Benzidine (M)ND160014003333.33NR25 - 109L4Benzo(a)anthracene2909.67330393333.3387.366 - 110Benzo(a)pyrene3041.00330453333.3391.268 - 118Benzo(a)pyrene2957.6733055333.3388.764 - 117Benzo(g),i)perylene2989.0033038333.3389.768 - 114Benzo(x)(h)oranthene398.6733052333.3392.662 - 121Benzo(x)(h)oranthene2696.3366067333.3380.947 - 99bis(2-chloroethoxy)methane2766.3333059333.3383.041 - 90bis(2-chloroethyl)ether2541.0033065333.3376.438 - 84bis(2-chloroisopropyl)ether254.0033065333.3392.157 - 111Butylbenzylphthalate3101.67330250333.3393.154 - 109Chrysene2973.0033043333.3389.261 - 113Di-n-octylphthalate318.60330230333.3395.665 - 113Di-n-octylphthalate318.60330230333.3395.665 - 113Di-n-octylphthalate318.60330230333.3395.665 - 113 <td>4-Nitrophenol</td> <td>3243.00</td> <td>330</td> <td>150</td> <td>3333.33</td> <td></td> <td>97.3</td> <td>51 - 141</td> <td></td> <td></td> <td></td>	4-Nitrophenol	3243.00	330	150	3333.33		97.3	51 - 141			
Anthracene2844.33330493333.3385.368 - 113Benzidine (M)ND160014003333.33NR25 - 109L4Benzo(a)anthracene2909.6733039333.3387.366 - 110Benzo(a)pyrene3041.00330453333.3391.268 - 118Benzo(g,h.i)perylene2957.6733055333.3388.764 - 117Benzo(g,h.i)perylene2989.0033038333.3389.768 - 114Benzo(k)fluoranthene3086.6733052333.3392.662 - 121Benzoic acid2112.331600890333.3363.423 - 115Benzyl alcohol2696.3366067333.3383.041 - 90bis(2-chloroethoxy)methane2766.3333057333.3376.438 - 84bis(2-chloroisopropyl)ether2544.0033065333.3376.320 - 100bis(2-chlylhexyl)phthalate310.67330250333.3393.154 - 109Chrysene2973.0033043333.3389.261 - 113Di-n-butylphthalate3186.00330230333.3395.665 - 113Di-n-octylphthalate318.600330230333.3395.665 - 113Di-n-octylphthalate318.03230333.3396.654 - 111	Acenaphthene	2952.00	330	48	3333.33		88.6	61 - 105			
Benzidine (M)ND160014003333.33NR25 - 109L4Benzo(a)anthracene2909.67330393333.3387.366 - 110Benzo(a)pyrene3041.00330453333.3391.268 - 118Benzo(b)fluoranthene2957.67330553333.3388.764 - 117Benzo(g,h,i)perylene2989.0033038333.3389.768 - 114Benzo(k)fluoranthene3086.6733052333.3392.662 - 121Benzoic acid2112.331600890333.3363.423 - 115Benzyl alcohol2696.33660673333.3380.947 - 99bis(2-chloroethoxy)methane2766.3333059333.3376.438 - 84bis(2-chloroisopropyl)ether2547.00330653333.3392.157 - 111Butylbenzylphthalate3101.67330250333.3393.154 - 109Chrysene2973.0033043333.3389.261 - 113Di-n-butylphthalate3186.00330230333.3395.665 - 113Di-n-octylphthalate3186.00330230333.3396.654 - 111	Acenaphthylene	2968.00	330	51	3333.33		89.0	62 - 103			
Benzo(a)anthracene2909.67330393333.3387.366 - 110Benzo(a)pyrene3041.00330453333.3391.268 - 118Benzo(b)fluoranthene2957.67330553333.3388.764 - 117Benzo(g,h,i)perylene2989.00330383333.3389.768 - 114Benzo(k)fluoranthene3086.67330523333.3392.662 - 121Benzoic acid2112.3316008903333.3363.423 - 115Benzyl alcohol2696.33660673333.3380.947 - 99bis(2-chloroethoxy)methane2766.33330593333.3376.438 - 84bis(2-chloroethyl)ether2547.00330653333.3376.320 - 100bis(2-chloroethyl)pthralate3070.3333083333.3392.157 - 111Butylbenzylphthalate3101.67330250333.3393.154 - 109Chrysene2973.0033043333.3389.261 - 113Di-n-butylphthalate3186.00330230333.3395.665 - 113Di-n-octylphthalate3186.00330230333.3395.665 - 113Di-n-octylphthalate3219.6733048333.3396.654 - 111	Anthracene	2844.33	330	49	3333.33		85.3	68 - 113			
Benzo(a)pyrene3041.00330453333.3391.268 - 118Benzo(b)fluoranthene2957.67330553333.3388.764 - 117Benzo(g,h,i)perylene2989.00330383333.3389.768 - 114Benzo(k)fluoranthene3086.67330523333.3392.662 - 121Benzoic acid2112.3316008903333.3363.423 - 115Benzyl alcohol2696.33660673333.3380.947 - 99bis(2-chloroethoxy)methane2766.33330593333.3383.041 - 90bis(2-chloroethyl)ether2547.00330653333.3376.438 - 84bis(2-chloroethyl)pthalate3070.33330653333.3392.157 - 111Butylbenzylphthalate3101.673302503333.3393.154 - 109Chrysene2973.00330433333.3389.261 - 113Di-n-butylphthalate3186.00330230333.3395.665 - 113Di-n-octylphthalate3219.67330483333.3396.654 - 111	Benzidine (M)	ND	1600	1400	3333.33		NR	25 - 109			L4
Benzo(b)fluoranthene2957.67330553333.3388.764 - 117Benzo(g,h,i)perylene2989.00330383333.3389.768 - 114Benzo(k)fluoranthene3086.67330523333.3392.662 - 121Benzoic acid2112.3316008903333.3363.423 - 115Benzyl alcohol2696.33660673333.3380.947 - 99bis(2-chloroethoxy)methane2766.33330593333.3383.041 - 90bis(2-chloroethyl)ether2547.00330653333.3376.438 - 84bis(2-chloroisopropyl)ether2544.00330653333.3392.157 - 111Butylbenzylphthalate3101.673302503333.3393.154 - 109Chrysene2973.00330433333.3395.665 - 113Di-n-octylphthalate3186.00330230333.3395.665 - 113	Benzo(a)anthracene	2909.67	330	39	3333.33		87.3	66 - 110			
Benzo(g,h,i)perylene2989.0033038333.3389.768 - 114Benzo(k)fluoranthene3086.6733052333.3392.662 - 121Benzoic acid2112.331600890333.3363.423 - 115Benzyl alcohol2696.33660673333.3380.947 - 99bis(2-chloroethoxy)methane2766.3333059333.3383.041 - 90bis(2-chloroethyl)ether2547.0033057333.3376.438 - 84bis(2-chloroisopropyl)ether2544.0033065333.3376.320 - 100bis(2-ethylhexyl)phthalate3070.3333083333.3392.157 - 111Butylbenzylphthalate3101.67330250333.3389.261 - 113Di-n-butylphthalate3186.00330230333.3395.665 - 113Di-n-octylphthalate3219.6733048333.3396.654 - 111	Benzo(a)pyrene	3041.00	330	45	3333.33		91.2	68 - 118			
Benzo(k)fluoranthene3086.67330523333.3392.662 - 121Benzoic acid2112.3316008903333.3363.423 - 115Benzyl alcohol2696.33660673333.3380.947 - 99bis(2-chloroethoxy)methane2766.33330593333.3383.041 - 90bis(2-chloroethyl)ether2547.00330573333.3376.438 - 84bis(2-chloroisopropyl)ether2544.00330653333.3376.320 - 100bis(2-ethylhexyl)phthalate3070.33330833333.3392.157 - 111Butylbenzylphthalate3101.673302503333.3389.261 - 113Di-n-butylphthalate3186.003302303333.3395.665 - 113Di-n-octylphthalate3219.67330483333.3396.654 - 111	Benzo(b)fluoranthene	2957.67	330	55	3333.33		88.7	64 - 117			
Benzoic acid2112.3316008903333.3363.423 - 115Benzyl alcohol2696.33660673333.3380.947 - 99bis(2-chloroethoxy)methane2766.33330593333.3383.041 - 90bis(2-chloroethyl)ether2547.00330573333.3376.438 - 84bis(2-chloroisopropyl)ether2544.00330653333.3376.320 - 100bis(2-ethylhexyl)phthalate3070.33330833333.3392.157 - 111Butylbenzylphthalate3101.673302503333.3393.154 - 109Chrysene2973.00330433333.3389.261 - 113Di-n-butylphthalate3186.003302303333.3395.665 - 113Di-n-octylphthalate3219.67330483333.3396.654 - 111	Benzo(g,h,i)perylene	2989.00	330	38	3333.33		89.7	68 - 114			
Benzyl alcohol2696.33660673333.3380.947 - 99bis(2-chloroethoxy)methane2766.33330593333.3383.041 - 90bis(2-Chloroethyl)ether2547.00330573333.3376.438 - 84bis(2-chloroisopropyl)ether2544.00330653333.3376.320 - 100bis(2-ethylhexyl)phthalate3070.33330833333.3392.157 - 111Butylbenzylphthalate3101.673302503333.3393.154 - 109Chrysene2973.00330433333.3389.261 - 113Di-n-butylphthalate3186.003302303333.3395.665 - 113Di-n-octylphthalate3219.67330483333.3396.654 - 111	Benzo(k)fluoranthene	3086.67	330	52	3333.33		92.6	62 - 121			
bis(2-chloroethoxy)methane2766.33330593333.3383.041 - 90bis(2-chloroethyl)ether2547.0033057333.3376.438 - 84bis(2-chloroisopropyl)ether2544.00330653333.3376.320 - 100bis(2-ethylhexyl)phthalate3070.33330833333.3392.157 - 111Butylbenzylphthalate3101.673302503333.3393.154 - 109Chrysene2973.00330433333.3389.261 - 113Di-n-butylphthalate3186.003302303333.3395.665 - 113Di-n-octylphthalate3219.67330483333.3396.654 - 111	Benzoic acid	2112.33	1600	890	3333.33		63.4	23 - 115			
bis(2-Chloroethyl)ether2547.00330573333.3376.438 - 84bis(2-chloroisopropyl)ether2544.00330653333.3376.320 - 100bis(2-ethylhexyl)phthalate3070.33330833333.3392.157 - 111Butylbenzylphthalate3101.673302503333.3393.154 - 109Chrysene2973.00330433333.3389.261 - 113Di-n-butylphthalate3186.003302303333.3395.665 - 113Di-n-octylphthalate3219.67330483333.3396.654 - 111	Benzyl alcohol	2696.33	660	67	3333.33		80.9	47 - 99			
bis(2-chloroisopropyl)ether2544.00330653333.3376.320 - 100bis(2-ethylhexyl)phthalate3070.33330833333.3392.157 - 111Butylbenzylphthalate3101.673302503333.3393.154 - 109Chrysene2973.00330433333.3389.261 - 113Di-n-butylphthalate3186.003302303333.3395.665 - 113Di-n-octylphthalate3219.67330483333.3396.654 - 111	bis(2-chloroethoxy)methane	2766.33	330	59	3333.33		83.0	41 - 90			
bis(2-ethylhexyl)phthalate3070.33330833333.3392.157 - 111Butylbenzylphthalate3101.673302503333.3393.154 - 109Chrysene2973.00330433333.3389.261 - 113Di-n-butylphthalate3186.003302303333.3395.665 - 113Di-n-octylphthalate3219.67330483333.3396.654 - 111	bis(2-Chloroethyl)ether	2547.00	330	57	3333.33		76.4	38 - 84			
Butylbenzylphthalate3101.673302503333.3393.154 - 109Chrysene2973.00330433333.3389.261 - 113Di-n-butylphthalate3186.003302303333.3395.665 - 113Di-n-octylphthalate3219.67330483333.3396.654 - 111	bis(2-chloroisopropyl)ether	2544.00	330	65	3333.33		76.3	20 - 100			
Chrysene2973.00330433333.3389.261 - 113Di-n-butylphthalate3186.003302303333.3395.665 - 113Di-n-octylphthalate3219.67330483333.3396.654 - 111	bis(2-ethylhexyl)phthalate	3070.33	330	83	3333.33		92.1	57 - 111			
Di-n-butylphthalate3186.003302303333.3395.665 - 113Di-n-octylphthalate3219.67330483333.3396.654 - 111	Butylbenzylphthalate	3101.67	330	250	3333.33		93.1	54 - 109			
Di-n-octylphthalate 3219.67 330 48 3333.33 96.6 54 - 111	Chrysene	2973.00	330	43	3333.33		89.2	61 - 113			
Di-n-octylphthalate 3219.67 330 48 3333.33 96.6 54 - 111	Di-n-butylphthalate	3186.00	330	230	3333.33		95.6	65 - 113			
	Di-n-octylphthalate	3219.67	330	48	3333.33		96.6	54 - 111			
Dibenz(a,h)anthracene 2937.67 330 43 3333.33 88.1 63 - 126	Dibenz(a,h)anthracene	2937.67	330	43	3333.33		88.1	63 - 126			



Geocon Consultants, Inc.Project Number :ETMA Bus Yard, E9133-02-026671 Brisa StreetReport To :Rick DayLivermore, CA 94550Reported :05/21/2019

	Result	PQL	MDL	Spike	Source		% Rec		RPD	
Analyte	(ug/kg)	(ug/kg)	(ug/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes
Batch B9E0623 - MSSEMI_S (co										
LCS (B9E0623-BS1) - Continued	,				Prenared	1: 5/17/2019 /	Analyzed: 5/17	/2019		
	2401.22	220	55	2222.22	Treputer		•	2017		
Dibenzofuran	3401.33	330	55	3333.33		102	67 - 103			
Diethyl phthalate	3154.33	330	47	3333.33		94.6	62 - 108			
Dimethyl phthalate	3202.00	330	46	3333.33		96.1	65 - 103			
Fluoranthene	3038.00	330	47	3333.33		91.1	66 - 117 65 - 112			
Fluorene	3214.67	330	49	3333.33		96.4 05.0				
Hexachlorobenzene	3165.33	330	41	3333.33		95.0 92.7	59 - 117			
Hexachlorobutadiene	2790.33	660	61	3333.33		83.7	44 - 99			
Hexachlorocyclopentadiene	3283.67	660	64	3333.33		98.5 70.4	44 - 102			
Hexachloroethane	2346.67	330	71	3333.33		70.4	38 - 85			
Indeno(1,2,3-cd)pyrene	3042.33	330	44	3333.33		91.3	63 - 123			
Isophorone	2782.67	330	57	3333.33		83.5	46 - 98			
N-Nitroso-di-n propylamine	2497.33	330	65	3333.33		74.9	45 - 98			
N-Nitrosodiphenylamine	3034.00	330	48	3333.33		91.0	67 - 101			
Naphthalene	2610.00	330	60	3333.33		78.3	54 - 92			
Nitrobenzene	2732.33	330	67	3333.33		82.0	45 - 94			
Pentachlorophenol	2854.33	1600	190	3333.33		85.6	45 - 137			
Phenanthrene	2882.00	330	46	3333.33		86.5	68 - 113			
Phenol	2550.67	330	130	3333.33		76.5	40 - 95			
Pyrene	2990.33	330	53	3333.33		89.7	62 - 124			
Pyridine	407.000	1600	270	3333.33		12.2	3 - 93			
Surrogate: 1,2-Dichlorobenzene-d	2367			3333.33		71.0	16 - 87			
Surrogate: 2,4,6-Tribromophenol	3349			3325.00		101	0 - 148			
Surrogate: 2-Chlorophenol-d4	2377			3325.00		71.5	17 - 96			
Surrogate: 2-Fluorobiphenyl	2948			3333.33		88.4	16 - 107			
Surrogate: 2-Fluorophenol	2233			3325.00		67.2	16 - 86			
Surrogate: 4-Terphenyl-d14	2974			3333.33		89.2	3 - 156			
Surrogate: Nitrobenzene-d5	2546			3333.33		76.4	16 - 99			
Surrogate: Phenol-d6	2504			3325.00		75.3	17 - 90			
Matrix Spike (B9E0623-MS1)		S	ource: 19019	96-05	Prepared	l: 5/17/2019 A	Analyzed: 5/17	/2019		
1.2.4-Trichlorobenzene	2668.00	330	71	3333.33	ND	80.0	27 - 96			
1,2-Dichlorobenzene	2488.00	330	60	3333.33	ND	74.6	25 - 87			
1,3-Dichlorobenzene	2488.00 2506.67	330	65	3333.33	ND	75.2	23 - 87			
1,4-Dichlorobenzene	2451.33	330	60	3333.33	ND	73.5	24 - 84 25 - 85			
2,4,5-Trichlorophenol	2431.33 3198.67	330	60 61	3333.33	ND	73.3 96.0	23 - 83 29 - 122			
2,4,5-Trichlorophenol										
	2978.67	330	220	3333.33	ND	89.4	21 - 127			
2,4-Dichlorophenol	2677.33	1600	120	3333.33	ND	80.3	24 - 115			
2,4-Dimethylphenol	2548.33	330	120	3333.33	ND	76.4	19 - 124			
2,4-Dinitrophenol	3342.67	1600	86	3333.33	ND	100	0 - 118			
2,4-Dinitrotoluene	3328.67	330	46	3333.33	ND	99.9	35 - 112			
2,6-Dinitrotoluene	3167.33	330	49	3333.33	ND	95.0	15 - 137			



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### Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

	Result	PQL	MDL	Spike	Source		% Rec		RPD	
Analyte	(ug/kg)	(ug/kg)	(ug/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes

#### Batch B9E0623 - MSSEMI\_S (continued)

Matrix Spike (B9E0623-MS1) - C	Continued	s	ource: 1901	996-05	Prepared	l: 5/17/2019	Analyzed: 5/17/2019
2-Chloronaphthalene	2984.00	330	59	3333.33	ND	89.5	35 - 95
2-Chlorophenol	2408.00	330	120	3333.33	ND	72.2	22 - 100
2-Methylnaphthalene	2792.00	330	67	3333.33	ND	83.8	17 - 123
2-Methylphenol	2490.33	330	67	3333.33	ND	74.7	28 - 100
2-Nitroaniline	3287.33	1600	200	3333.33	ND	98.6	34 - 120
2-Nitrophenol	2574.00	330	110	3333.33	ND	77.2	22 - 116
3,3'-Dichlorobenzidine	2556.00	660	280	3333.33	ND	76.7	9 - 117
3-Nitroaniline	3234.33	1600	44	3333.33	ND	97.0	29 - 116
4,6-Dinitro-2-methyphenol	2931.33	1600	300	3333.33	ND	87.9	21 - 126
4-Bromophenyl-phenylether	3024.67	330	50	3333.33	ND	90.7	36 - 108
4-Chloro-3-methylphenol	2684.00	660	110	3333.33	ND	80.5	32 - 116
4-Chloroaniline	2895.67	660	53	3333.33	ND	86.9	22 - 115
4-Chlorophenyl-phenylether	3131.67	330	48	3333.33	ND	94.0	36 - 104
4-Methylphenol	2672.67	330	66	3333.33	ND	80.2	32 - 98
4-Nitroaniline	3259.67	1600	290	3333.33	ND	97.8	37 - 116
4-Nitrophenol	3103.67	330	150	3333.33	ND	93.1	0 - 148
Acenaphthene	2847.67	330	48	3333.33	ND	85.4	35 - 108
Acenaphthylene	2886.67	330	51	3333.33	ND	86.6	35 - 108
Anthracene	2882.67	330	49	3333.33	ND	86.5	40 - 114
Benzidine (M)	ND	1600	1400	3333.33	ND	NR	0 - 161
Benzo(a)anthracene	2848.00	330	39	3333.33	ND	85.4	42 - 113
Benzo(a)pyrene	2916.67	330	45	3333.33	ND	87.5	38 - 117
Benzo(b)fluoranthene	2857.33	330	55	3333.33	ND	85.7	35 - 117
Benzo(g,h,i)perylene	2804.67	330	38	3333.33	ND	84.1	32 - 121
Benzo(k)fluoranthene	2875.67	330	52	3333.33	ND	86.3	34 - 119
Benzoic acid	2085.33	1600	890	3333.33	ND	62.6	19 - 133
Benzyl alcohol	2693.67	660	67	3333.33	ND	80.8	24 - 102
bis(2-chloroethoxy)methane	2652.33	330	59	3333.33	ND	79.6	27 - 88
bis(2-Chloroethyl)ether	2549.33	330	57	3333.33	ND	76.5	26 - 82
bis(2-chloroisopropyl)ether	2522.67	330	65	3333.33	ND	75.7	15 - 92
bis(2-ethylhexyl)phthalate	3130.33	330	83	3333.33	ND	93.9	21 - 128
Butylbenzylphthalate	3091.00	330	250	3333.33	ND	92.7	14 - 136
Chrysene	2974.67	330	43	3333.33	ND	89.2	37 - 113
Di-n-butylphthalate	3172.67	330	230	3333.33	ND	95.2	40 - 112
Di-n-octylphthalate	3161.67	330	48	3333.33	ND	94.9	8 - 137
Dibenz(a,h)anthracene	2750.33	330	43	3333.33	ND	82.5	29 - 128
Dibenzofuran	3219.33	330	55	3333.33	ND	96.6	40 - 109
Diethyl phthalate	3111.67	330	47	3333.33	ND	93.4	38 - 108
Dimethyl phthalate	3099.00	330	46	3333.33	ND	93.0	38 - 106
Fluoranthene	2917.00	330	47	3333.33	ND	87.5	37 - 118
Fluorene	3021.33	330	49	3333.33	ND	90.6	38 - 114
Hexachlorobenzene	3058.00	330	41	3333.33	ND	91.7	35 - 115



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	Result	PQL	MDL	Spike	Source		% Rec		RPD	
Analyte	(ug/kg)	(ug/kg)	(ug/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes
Batch B9E0623 - MSSEMI_S (co	ontinued)									
Matrix Spike (B9E0623-MS1) - Cor	ntinued	S	ource: 19019	96-05	Prepared	l: 5/17/2019 A	Analyzed: 5/17	/2019		
Hexachlorobutadiene	2637.33	660	61	3333.33	ND	79.1	31 - 101			
Hexachlorocyclopentadiene	3057.00	660	64	3333.33	ND	91.7	28 - 99			
Hexachloroethane	2330.00	330	71	3333.33	ND	69.9	27 - 87			
Indeno(1,2,3-cd)pyrene	2890.00	330	44	3333.33	ND	86.7	29 - 125			
Isophorone	2696.33	330	57	3333.33	ND	80.9	26 - 97			
N-Nitroso-di-n propylamine	2534.00	330	65	3333.33	ND	76.0	27 - 97			
N-Nitrosodiphenylamine	2964.00	330	48	3333.33	ND	88.9	19 - 123			
Naphthalene	2457.33	330	60	3333.33	ND	73.7	26 - 103			
Nitrobenzene	2668.00	330	67	3333.33	ND	80.0	24 - 99			
Pentachlorophenol	2755.67	1600	190	3333.33	ND	82.7	13 - 130			
Phenanthrene	2849.33	330	46	3333.33	ND	85.5	40 - 116			
Phenol	2475.67	330	130	3333.33	ND	74.3	23 - 96			
Pyrene	2901.67	330	53	3333.33	ND	87.1	36 - 122			
Pyridine	1621.33	1600	270	3333.33	ND	48.6	7 - 87			
Surrogate: 1,2-Dichlorobenzene-d	2087			3333.33		62.6	16 - 87			
Surrogate: 2,4,6-Tribromophenol	2961			3325.00		89.1	0 - 148			
Surrogate: 2-Chlorophenol-d4	2173			3325.00		65.4	17 - 96			
Surrogate: 2-Fluorobiphenyl	2713			3333.33		81.4	16 - 107			
Surrogate: 2-Fluorophenol	2035			3325.00		61.2	16 - 86			
Surrogate: 4-Terphenyl-d14	2789			3333.33		83.7	3 - 156			
Surrogate: Nitrobenzene-d5	2301			3333.33		69.0	16 - 99			
Surrogate: Phenol-d6	2325			3325.00		69.9	17 - 90			
Matrix Spike (B9E0623-MS2)		S	ource: 19019	64-12	Prepared	l: 5/17/2019 A	Analyzed: 5/20	2019		
1,2,4-Trichlorobenzene	3023.33	330	71	3333.33	ND	90.7	27 - 96			
1,2-Dichlorobenzene	2716.00	330	60	3333.33	ND	81.5	25 - 87			
1,3-Dichlorobenzene	2762.67	330	65	3333.33	ND	82.9	24 - 84			
1,4-Dichlorobenzene	2726.67	330	60	3333.33	ND	81.8	25 - 85			
2,4,5-Trichlorophenol	3705.33	330	61	3333.33	ND	111	29 - 122			
2,4,6-Trichlorophenol	3473.67	330	220	3333.33	ND	104	21 - 127			
2,4-Dichlorophenol	3040.33	1600	120	3333.33	ND	91.2	24 - 115			
2,4-Dimethylphenol	2874.00	330	120	3333.33	ND	86.2	19 - 124			
2,4-Dinitrophenol	3503.33	1600	86	3333.33	ND	105	0 - 118			
2,4-Dinitrotoluene	3791.67	330	46	3333.33	ND	114	35 - 112			M2
2,6-Dinitrotoluene	3638.67	330	49	3333.33	ND	109	15 - 137			
2-Chloronaphthalene	3439.67	330	59	3333.33	ND	103	35 - 95			M2
2-Chlorophenol	2650.67	330	120	3333.33	ND	79.5	22 - 100			
2-Methylnaphthalene	3307.00	330	67	3333.33	ND	99.2	17 - 123			
2-Methylphenol	2801.00	330	67	3333.33	ND	84.0	28 - 100			
2-Nitroaniline	3592.67	1600	200	3333.33	ND	108	34 - 120			
2-Nitrophenol	2898.33	330	110	3333.33	ND	87.0	22 - 116			



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#### Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

	Result	PQL	MDL	Spike	Source		% Rec		RPD	
Analyte	(ug/kg)	(ug/kg)	(ug/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes
Batch B9E0623 - MSSEMI_S (	(continued)									
Matrix Spike (B9E0623-MS2) - C	ontinued	So	ource: 19019	64-12	Prepared	1: 5/17/2019 A	Analyzed: 5/20/2	2019		
3,3'-Dichlorobenzidine	3054.33	660	280	3333.33	ND	91.6	9 - 117			
3-Nitroaniline	3595.00	1600	44	3333.33	ND	108	29 - 116			
4,6-Dinitro-2-methyphenol	3327.33	1600	300	3333.33	ND	99.8	21 - 126			
4-Bromophenyl-phenylether	3481.00	330	50	3333.33	ND	104	36 - 108			
4-Chloro-3-methylphenol	3134.00	660	110	3333.33	ND	94.0	32 - 116			
4-Chloroaniline	3350.00	660	53	3333.33	ND	100	22 - 115			
4-Chlorophenyl-phenylether	3561.00	330	48	3333.33	ND	107	36 - 104			M2
4-Methylphenol	3099.33	330	66	3333.33	ND	93.0	32 - 98			
4-Nitroaniline	3662.67	1600	290	3333.33	ND	110	37 - 116			
4-Nitrophenol	3458.00	330	150	3333.33	ND	104	0 - 148			
Acenaphthene	3228.33	330	48	3333.33	ND	96.8	35 - 108			
Acenaphthylene	3246.33	330	51	3333.33	ND	97.4	35 - 108			
Anthracene	3132.33	330	49	3333.33	ND	94.0	40 - 114			
Benzidine (M)	2859.67	1600	1400	3333.33	ND	85.8	0 - 161			
Benzo(a)anthracene	3157.33	330	39	3333.33	ND	94.7	42 - 113			
Benzo(a)pyrene	3319.00	330	45	3333.33	ND	99.6	38 - 117			
Benzo(b)fluoranthene	3354.33	330	55	3333.33	ND	101	35 - 117			
Benzo(g,h,i)perylene	3043.00	330	38	3333.33	ND	91.3	32 - 121			
Benzo(k)fluoranthene	3276.00	330	52	3333.33	ND	98.3	32 - 121 34 - 119			
Benzoic acid	1217.00	1600	890	3333.33	ND	36.5	19 - 133			
Benzyl alcohol	3108.00	660	67	3333.33	ND ND	93.2	19 - 133 24 - 102			
bis(2-chloroethoxy)methane	3021.33	330	59	3333.33	ND	93.2 90.6	24 - 102 27 - 88			M2
bis(2-Chloroethyl)ether	2921.00	330	59	3333.33	ND	90.0 87.6	27 - 88 26 - 82			M2 M2
bis(2-chloroisopropyl)ether	2867.00	330	65	3333.33	ND ND	87.0	20 - 82 15 - 92			
bis(2-ethylhexyl)phthalate	3629.33	330	83	3333.33	ND ND	80.0 109	21 - 128			
Butylbenzylphthalate	3629.33 3743.67	330	83 250	3333.33	ND ND	109	21 - 128 14 - 136			
Chrysene	3743.67 3353.67	330	250 43	3333.33	ND ND	112	14 - 136 37 - 113			
Onrysene Di-n-butylphthalate	3353.67 3704.33	330	43 230	3333.33	ND ND	101	37 - 113 40 - 112			
Di-n-outylphthalate Di-n-octylphthalate	3704.33 4133.00	330	230 48	3333.33	ND ND	111 124	40 - 112 8 - 137			
Di-n-octylphtnalate Dibenz(a,h)anthracene	4133.00 3050.67	330	48 43	3333.33	ND ND	124 91.5	8 - 137 29 - 128			
Dibenz(a,h)anthracene Dibenzofuran	3050.67 3773.33	330	43 55	3333.33	ND ND	91.5 113	29 - 128 40 - 109			M2
	3773.33 3651.00	330 330	55 47	3333.33	ND ND	113	40 - 109 38 - 108			M2 M2
Diethyl phthalate Dimethyl phthalate	3651.00 3640.33	330 330		3333.33 3333.33	ND ND	110 109	38 - 108 38 - 106			M2 M2
Dimethyl phthalate Fluoranthene	3640.33 3370.67		46 47			109 101	38 - 106 37 - 118			IVIZ
		330 330	47 49	3333.33	ND ND					
luorene	3421.67 3473.67	330 330	49 41	3333.33	ND	103	38 - 114			
Hexachlorobenzene Hexachlorobutadiene	3473.67 2938 33	330 660	41 61	3333.33	ND	104 88 2	35 - 115 31 - 101			
Iexachlorobutadiene	2938.33	660	61 64	3333.33	ND	88.2	31 - 101			MO
Hexachlorocyclopentadiene	3584.33	660 330	64 71	3333.33	ND	108	28 - 99 27 87			M2
Iexachloroethane	2598.00	330	71	3333.33	ND	77.9	27 - 87			
ndeno(1,2,3-cd)pyrene	3175.00	330	44	3333.33	ND	95.3	29 - 125			
sophorone	3059.00	330	57	3333.33	ND	91.8	26 - 97			
-Nitroso-di-n propylamine	2959.33	330	65	3333.33	ND	88.8	27 - 97			

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	Result	PQL	MDL	Spike	Source		% Rec		RPD	
Analyte	(ug/kg)	(ug/kg)	(ug/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes
Batch B9E0623 - MSSEMI_S (co	ontinued)									
Matrix Spike (B9E0623-MS2) - Con	itinued	Se	ource: 19019	64-12	Prepared	d: 5/17/2019	Analyzed: 5/20/	/2019		
N-Nitrosodiphenylamine	3391.33	330	48	3333.33	ND	102	19 - 123			
Naphthalene	2816.00	330	60	3333.33	ND	84.5	26 - 103			
Nitrobenzene	2925.33	330	67	3333.33	ND	87.8	24 - 99			
Pentachlorophenol	3287.67	1600	190	3333.33	ND	98.6	13 - 130			
Phenanthrene	3219.67	330	46	3333.33	ND	96.6	40 - 116			
Phenol	2767.33	330	130	3333.33	ND	83.0	23 - 96			
Pyrene	3167.67	330	53	3333.33	ND	95.0	36 - 122			
Pyridine	2430.00	1600	270	3333.33	ND	72.9	7 - 87			
Surrogate: 1,2-Dichlorobenzene-d	2564			3333.33		76.9	16 - 87			
Surrogate: 2,4,6-Tribromophenol	3494			3325.00		105	0 - 148			
Surrogate: 2-Chlorophenol-d4	2595			3325.00		78.0	17 - 96			
Surrogate: 2-Fluorobiphenyl	3208			3333.33		96.2	16 - 107			
Surrogate: 2-Fluorophenol	2429			3325.00		73.1	16 - 86			
Surrogate: 4-Terphenyl-d14	3408			3333.33		102	3 - 156			
Surrogate: 4-terphenyt-a14 Surrogate: Nitrobenzene-d5	2668			3333.33		80.0	3 - 150 16 - 99			
Surrogate: Nurobenzene-as Surrogate: Phenol-d6	2008 2667			3325.00		80.0 80.2	10 - 99 17 - 90			
-										
Matrix Spike Dup (B9E0623-MSD1	.)		ource: 19019		Prepareo		Analyzed: 5/17/			
,2,4-Trichlorobenzene	2473.00	330	71	3333.33	ND	74.2	27 - 96	7.59	20	
,2-Dichlorobenzene	2283.67	330	60	3333.33	ND	68.5	25 - 87	8.56	20	
,3-Dichlorobenzene	2282.33	330	65	3333.33	ND	68.5	24 - 84	9.37	20	
,4-Dichlorobenzene	2282.33	330	60	3333.33	ND	68.5	25 - 85	7.14	20	
2,4,5-Trichlorophenol	3033.67	330	61	3333.33	ND	91.0	29 - 122	5.29	20	
2,4,6-Trichlorophenol	2863.00	330	220	3333.33	ND	85.9	21 - 127	3.96	20	
2,4-Dichlorophenol	2515.33	1600	120	3333.33	ND	75.5	24 - 115	6.24	20	
2,4-Dimethylphenol	2492.67	330	120	3333.33	ND	74.8	19 - 124	2.21	20	
2,4-Dinitrophenol	3327.33	1600	86	3333.33	ND	99.8	0 - 118	0.460	20	
2,4-Dinitrotoluene	3229.67	330	46	3333.33	ND	96.9	35 - 112	3.02	20	
2,6-Dinitrotoluene	3179.33	330	49	3333.33	ND	95.4	15 - 137	0.378	20	
2-Chloronaphthalene	2897.67	330	59	3333.33	ND	86.9	35 - 95	2.94	20	
2-Chlorophenol	2257.33	330	120	3333.33	ND	67.7	22 - 100	6.46	20	
2-Methylnaphthalene	2688.33	330	67	3333.33	ND	80.6	17 - 123	3.78	20	
2-Methylphenol	2349.00	330	67	3333.33	ND	70.5	28 - 100	5.84	20	
2-Nitroaniline	3193.33	1600	200	3333.33	ND	95.8	34 - 120	2.90	20	
2-Nitrophenol	2484.33	330	110	3333.33	ND	74.5	22 - 116	3.55	20	
,3'-Dichlorobenzidine	2417.67	660	280	3333.33	ND	72.5	9 - 117	5.56	20	
-Nitroaniline	3181.33	1600	44	3333.33	ND	95.4	29 - 116	1.65	20	
l,6-Dinitro-2-methyphenol	2892.33	1600	300	3333.33	ND	86.8	21 - 126	1.34	20	
-Bromophenyl-phenylether	2930.67	330	50	3333.33	ND	87.9	36 - 108	3.16	20	
-Chloro-3-methylphenol	2659.00	660	110	3333.33	ND	79.8	32 - 116	0.936	20	
-Chloroaniline	2039.00	660	53	3333.33	ND	82.6	22 - 115	5.02	20	
-cinoroannine	2754.00	000	55	5555.55	ND	02.0	22 - 113	5.02	20	



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#### Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

	Result	PQL	MDL	Spike	Source		% Rec		RPD	
Analyte	(ug/kg)	(ug/kg)	(ug/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes

#### Batch B9E0623 - MSSEMI\_S (continued)

Matrix Spike Dup (B9E0623-MSD1)	) - Continued		Source: 19019	996-05	Prepared	: 5/17/2019	Analyzed: 5/17/2	2019	
4-Chlorophenyl-phenylether	3050.67	330	48	3333.33	ND	91.5	36 - 104	2.62	20
4-Methylphenol	2507.67	330	66	3333.33	ND	75.2	32 - 98	6.37	20
4-Nitroaniline	3304.67	1600	290	3333.33	ND	99.1	37 - 116	1.37	20
4-Nitrophenol	2961.33	330	150	3333.33	ND	88.8	0 - 148	4.69	20
Acenaphthene	2790.00	330	48	3333.33	ND	83.7	35 - 108	2.05	20
Acenaphthylene	2774.67	330	51	3333.33	ND	83.2	35 - 108	3.96	20
Anthracene	2737.67	330	49	3333.33	ND	82.1	40 - 114	5.16	20
Benzidine (M)	ND	1600	1400	3333.33	ND	NR	0 - 161	NR	20
Benzo(a)anthracene	2741.67	330	39	3333.33	ND	82.3	42 - 113	3.80	20
Benzo(a)pyrene	2802.67	330	45	3333.33	ND	84.1	38 - 117	3.99	20
Benzo(b)fluoranthene	2798.33	330	55	3333.33	ND	84.0	35 - 117	2.09	20
Benzo(g,h,i)perylene	2738.33	330	38	3333.33	ND	82.2	32 - 121	2.39	20
Benzo(k)fluoranthene	2780.00	330	52	3333.33	ND	83.4	34 - 119	3.38	20
Benzoic acid	2170.00	1600	890	3333.33	ND	65.1	19 - 133	3.98	20
Benzyl alcohol	2520.67	660	67	3333.33	ND	75.6	24 - 102	6.64	20
bis(2-chloroethoxy)methane	2550.33	330	59	3333.33	ND	76.5	27 - 88	3.92	20
bis(2-Chloroethyl)ether	2381.00	330	57	3333.33	ND	71.4	26 - 82	6.83	20
bis(2-chloroisopropyl)ether	2381.67	330	65	3333.33	ND	71.5	15 - 92	5.75	20
bis(2-ethylhexyl)phthalate	3021.67	330	83	3333.33	ND	90.7	21 - 128	3.53	20
Butylbenzylphthalate	3034.00	330	250	3333.33	ND	91.0	14 - 136	1.86	20
Chrysene	2911.33	330	43	3333.33	ND	87.3	37 - 113	2.15	20
Di-n-butylphthalate	3127.33	330	230	3333.33	ND	93.8	40 - 112	1.44	20
Di-n-octylphthalate	3165.67	330	48	3333.33	ND	95.0	8 - 137	0.126	20
Dibenz(a,h)anthracene	2707.00	330	43	3333.33	ND	81.2	29 - 128	1.59	20
Dibenzofuran	3180.33	330	55	3333.33	ND	95.4	40 - 109	1.22	20
Diethyl phthalate	3117.00	330	47	3333.33	ND	93.5	38 - 108	0.171	20
Dimethyl phthalate	3085.67	330	46	3333.33	ND	92.6	38 - 106	0.431	20
Fluoranthene	2914.33	330	47	3333.33	ND	87.4	37 - 118	0.0915	20
Fluorene	2987.67	330	49	3333.33	ND	89.6	38 - 114	1.12	20
Hexachlorobenzene	2896.67	330	41	3333.33	ND	86.9	35 - 115	5.42	20
Hexachlorobutadiene	2403.67	660	61	3333.33	ND	72.1	31 - 101	9.27	20
Hexachlorocyclopentadiene	2914.33	660	64	3333.33	ND	87.4	28 - 99	4.78	20
Hexachloroethane	2182.67	330	71	3333.33	ND	65.5	27 - 87	6.53	20
Indeno(1,2,3-cd)pyrene	2787.00	330	44	3333.33	ND	83.6	29 - 125	3.63	20
Isophorone	2638.67	330	57	3333.33	ND	79.2	26 - 97	2.16	20
N-Nitroso-di-n propylamine	2436.33	330	65	3333.33	ND	73.1	27 - 97	3.93	20
N-Nitrosodiphenylamine	2844.33	330	48	3333.33	ND	85.3	19 - 123	4.12	20
Naphthalene	2321.67	330	60	3333.33	ND	69.7	26 - 103	5.68	20
Nitrobenzene	2545.00	330	67	3333.33	ND	76.4	24 - 99	4.72	20
Pentachlorophenol	2628.00	1600	190	3333.33	ND	78.8	13 - 130	4.74	20
Phenanthrene	2754.33	330	46	3333.33	ND	82.6	40 - 116	3.39	20
Phenol	2327.33	330	130	3333.33	ND	69.8	23 - 96	6.18	20



4-Nitrophenol

Acenaphthene

Acenaphthylene

3945.00

3570.00

3515.67

330

330

330

# **Certificate of Analysis**

Geocon Consultants, Inc.	Project Number :	ETMA Bus Yard, E9133-02-02
6671 Brisa Street	Report To :	Rick Day
Livermore, CA 94550	Reported :	05/21/2019

#### Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

	Result	PQL	MDL	Spike	Source		% Rec		RPD	
Analyte	(ug/kg)	(ug/kg)	(ug/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes
Batch B9E0623 - MSSEMI_S (co	ontinued)									
Matrix Spike Dup (B9E0623-MSD1	) - Continued	Se	ource: 19019	96-05	Prepareo	d: 5/17/2019	Analyzed: 5/17/	2019		
yrene	2872.00	330	53	3333.33	ND	86.2	36 - 122	1.03	20	
yridine	1395.67	1600	270	3333.33	ND	41.9	7 - 87	15.0	20	
Surrogate: 1,2-Dichlorobenzene-d	1856			3333.33		55.7	16 - 87			
Surrogate: 2,4,6-Tribromophenol	2888			3325.00		86.9	0 - 148			
Surrogate: 2-Chlorophenol-d4	1948			3325.00		58.6	17 - 96			
Surrogate: 2-Fluorobiphenyl	2536			3333.33		76.1	16 - 107			
Surrogate: 2-Fluorophenol	1832			3325.00		55.1	16 - 86			
Surrogate: 4-Terphenyl-d14	2742			3333.33		82.3	3 - 156			
Surrogate: Nitrobenzene-d5	2168			3333.33		65.0	16 - 99			
Surrogate: Phenol-d6	2039			3325.00		61.3	17 - 90			
Matrix Spike Dup (B9E0623-MSD2	2)	S	ource: 19019	64-12	Prepared	d: 5/17/2019	Analyzed: 5/20/	2019		
2,4-Trichlorobenzene	3188.33	330	71	3333.33	ND	95.6	27 - 96	5.31	20	
2-Dichlorobenzene	2838.00	330	60	3333.33	ND	85.1	25 - 87	4.39	20	
3-Dichlorobenzene	2834.00	330	65	3333.33	ND	85.0	24 - 84	2.55	20	M2
4-Dichlorobenzene	2829.33	330	60	3333.33	ND	84.9	25 - 85	3.70	20	
4,5-Trichlorophenol	4046.67	330	61	3333.33	ND	121	29 - 122	8.81	20	
4,6-Trichlorophenol	3701.33	330	220	3333.33	ND	111	21 - 127	6.35	20	
4-Dichlorophenol	3290.33	1600	120	3333.33	ND	98.7	24 - 115	7.90	20	
4-Dimethylphenol	3108.33	330	120	3333.33	ND	93.2	19 - 124	7.83	20	
4-Dinitrophenol	3757.67	1600	86	3333.33	ND	113	0 - 118	7.01	20	
4-Dinitrotoluene	4249.00	330	46	3333.33	ND	127	35 - 112	11.4	20	M2
6-Dinitrotoluene	4100.00	330	49	3333.33	ND	123	15 - 137	11.9	20	
-Chloronaphthalene	3696.00	330	59	3333.33	ND	111	35 - 95	7.18	20	M2
Chlorophenol	2809.00	330	120	3333.33	ND	84.3	22 - 100	5.80	20	
Methylnaphthalene	3644.67	330	67	3333.33	ND	109	17 - 123	9.71	20	
Methylphenol	2982.00	330	67	3333.33	ND	89.5	28 - 100	6.26	20	
Nitroaniline	3925.67	1600	200	3333.33	ND	118	34 - 120	8.86	20	
Nitrophenol	3170.00	330	110	3333.33	ND	95.1	22 - 116	8.95	20	
3'-Dichlorobenzidine	3408.67	660	280	3333.33	ND	102	9 - 117	11.0	20	
Nitroaniline	3973.33	1600	44	3333.33	ND	119	29 - 116	10.0	20	M2
6-Dinitro-2-methyphenol	3635.67	1600	300	3333.33	ND	109	21 - 126	8.86	20	
Bromophenyl-phenylether	3742.00	330	50	3333.33	ND	112	36 - 108	7.23	20	M2
Chloro-3-methylphenol	3475.00	660	110	3333.33	ND	104	32 - 116	10.3	20	
Chloroaniline	3612.00	660	53	3333.33	ND	108	22 - 115	7.53	20	
Chlorophenyl-phenylether	3985.67	330	48	3333.33	ND	120	36 - 104	11.3	20	M2
Methylphenol	3261.00	330	66	3333.33	ND	97.8	32 - 98	5.08	20	
-Nitroaniline	4128.67	1600	290	3333.33	ND	124	37 - 116	12.0	20	M2

3333.33

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ND

ND

ND

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35 - 108

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Geocon Consultants, Inc.Project Number :ETMA Bus Yard, E9133-02-026671 Brisa StreetReport To :Rick DayLivermore , CA 94550Reported :05/21/2019

#### Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

	Result	PQL	MDL	Spike	Source		% Rec		RPD	
Analyte	(ug/kg)	(ug/kg)	(ug/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes

#### Batch B9E0623 - MSSEMI\_S (continued)

Matrix Spike Dup (B9E0623-MSD2	) - Continued	S	Source: 1901	964-12	Prepared	l: 5/17/2019	Analyzed: 5/20/2	2019		
Anthracene	3313.00	330	49	3333.33	ND	99.4	40 - 114	5.61	20	
Benzidine (M)	2852.00	1600	1400	3333.33	ND	85.6	0 - 161	0.268	20	
Benzo(a)anthracene	3408.33	330	39	3333.33	ND	102	42 - 113	7.65	20	
Benzo(a)pyrene	3563.67	330	45	3333.33	ND	107	38 - 117	7.11	20	
Benzo(b)fluoranthene	3579.67	330	55	3333.33	ND	107	35 - 117	6.50	20	
Benzo(g,h,i)perylene	3347.33	330	38	3333.33	ND	100	32 - 121	9.52	20	
Benzo(k)fluoranthene	3699.67	330	52	3333.33	ND	111	34 - 119	12.1	20	
Benzoic acid	1033.33	1600	890	3333.33	ND	31.0	19 - 133	16.3	20	
Benzyl alcohol	3224.33	660	67	3333.33	ND	96.7	24 - 102	3.67	20	
bis(2-chloroethoxy)methane	3317.67	330	59	3333.33	ND	99.5	27 - 88	9.35	20	M2
bis(2-Chloroethyl)ether	3018.67	330	57	3333.33	ND	90.6	26 - 82	3.29	20	M2
bis(2-chloroisopropyl)ether	3091.67	330	65	3333.33	ND	92.8	15 - 92	7.54	20	M2
bis(2-ethylhexyl)phthalate	4015.67	330	83	3333.33	ND	120	21 - 128	10.1	20	
Butylbenzylphthalate	4038.33	330	250	3333.33	ND	121	14 - 136	7.57	20	
Chrysene	3525.00	330	43	3333.33	ND	106	37 - 113	4.98	20	
Di-n-butylphthalate	4033.00	330	230	3333.33	ND	121	40 - 112	8.50	20	M2
Di-n-octylphthalate	4619.33	330	48	3333.33	ND	139	8 - 137	11.1	20	M2
Dibenz(a,h)anthracene	3306.67	330	43	3333.33	ND	99.2	29 - 128	8.05	20	
Dibenzofuran	4050.33	330	55	3333.33	ND	122	40 - 109	7.08	20	M2
Diethyl phthalate	4069.00	330	47	3333.33	ND	122	38 - 108	10.8	20	M2
Dimethyl phthalate	3999.67	330	46	3333.33	ND	120	38 - 106	9.41	20	M2
Fluoranthene	3474.33	330	47	3333.33	ND	104	37 - 118	3.03	20	
Fluorene	3844.00	330	49	3333.33	ND	115	38 - 114	11.6	20	M2
Hexachlorobenzene	3586.00	330	41	3333.33	ND	108	35 - 115	3.18	20	
Hexachlorobutadiene	3075.33	660	61	3333.33	ND	92.3	31 - 101	4.56	20	
Hexachlorocyclopentadiene	3823.00	660	64	3333.33	ND	115	28 - 99	6.44	20	M2
Hexachloroethane	2765.67	330	71	3333.33	ND	83.0	27 - 87	6.25	20	
Indeno(1,2,3-cd)pyrene	3425.00	330	44	3333.33	ND	103	29 - 125	7.58	20	
Isophorone	3382.67	330	57	3333.33	ND	101	26 - 97	10.0	20	M2
N-Nitroso-di-n propylamine	3236.67	330	65	3333.33	ND	97.1	27 - 97	8.95	20	M2
N-Nitrosodiphenylamine	3575.33	330	48	3333.33	ND	107	19 - 123	5.28	20	
Naphthalene	2985.33	330	60	3333.33	ND	89.6	26 - 103	5.84	20	
Nitrobenzene	3130.33	330	67	3333.33	ND	93.9	24 - 99	6.77	20	
Pentachlorophenol	3518.33	1600	190	3333.33	ND	106	13 - 130	6.78	20	
Phenanthrene	3442.33	330	46	3333.33	ND	103	40 - 116	6.68	20	
Phenol	2859.67	330	130	3333.33	ND	85.8	23 - 96	3.28	20	
Pyrene	3342.00	330	53	3333.33	ND	100	36 - 122	5.36	20	
Pyridine	2427.67	1600	270	3333.33	ND	72.8	7 - 87	0.0961	20	
Surrogate: 1,2-Dichlorobenzene-d	2661			3333.33		79.8	16 - 87			
Surrogate: 2,4,6-Tribromophenol	3869			3325.00		116	0 - 148			
Surrogate: 2-Chlorophenol-d4	2723			3325.00		81.9	17 - 96			
- •										



Geocon Consultants, Inc.	Project Number :	ETMA Bus Yard, E9133-02-02
6671 Brisa Street	Report To :	Rick Day
Livermore, CA 94550	Reported :	05/21/2019

#### Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

	Result	PQL	Spike	Source		% Rec		RPD	
Analyte	(ug/kg)	(ug/kg)	Level	Result	% Rec	Limits	RPD	Limit	Notes

#### Batch B9E0623 - MSSEMI\_S (continued)

Matrix Spike Dup (B9E0623-MSD	2) - Continued	Source: 1901964-12	Prepared: 5/17/2019	Analyzed: 5/20/2019
Surrogate: 2-Fluorobiphenyl	3427	3333.33	103	16 - 107
Surrogate: 2-Fluorophenol	2506	3325.00	75.4	16 - 86
Surrogate: 4-Terphenyl-d14	3675	3333.33	110	3 - 156
Surrogate: Nitrobenzene-d5	2912	3333.33	87.4	16 - 99
Surrogate: Phenol-d6	2791	3325.00	83.9	17 - 90



Geocon Consultants, Inc.	Project Number :	ETMA Bus Yard, E9133-02-02
6671 Brisa Street	Report To :	Rick Day
Livermore, CA 94550	Reported :	05/21/2019

#### **Notes and Definitions**

S4 Surrogate was diluted out.

- M2 Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
- M1 Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
- L4 Laboratory Control Sample outside of control limit but within Marginal Exceedance (ME) limit.
- D2 Sample required dilution due to high concentration of non-target analyte.
- D1 Sample required dilution due to possible matrix interference.
- ND Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
- PQL Practical Quantitation Limit
- MDL Method Detection Limit
- NR Not Reported
- RPD Relative Percent Difference
- CA2 CA-ELAP (CDPH)
- OR1 OR-NELAP (OSPHL)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

			CHAIN	OF CUSTODY		RECORD		Pg	L of 2
		P.O.#(	Quote #1				FOR LABORATORY USE ONL	USE ONLY:	
Al	ADVANCED TECHNOLOGY L A B O R A T O R I E S	As the authorized agent of the below named company, I hereby purchase testing services from ATL as dictated below and guarantee payment in full.	f the below named services from ATL	company, as dictated below and	Method of Client	Method of Transport	Sampl 1. CHILLED <b>4.2</b> Y	Sample Condition Upon Receipt	N CY
ц, З,	3275 Walnut Ave., Signal Hill, CA 90755 Tal: (562) 080 4045 • Fav. (562) 080-4040	Submitter (Pripty, Jo,	ab Bahu	up-Macar	- Ceso		2. HEADSPACE (VOA) Y	Y N SHLS MATCH COC	COC Y N I
Sut	Submitter - Please complete all SHADED areas and incide QUOTE # above to	eas and include QUOTI		ensure proper involcing	- Other:		3. CONTAINER INTACT Y	Y 📈 N 🗆 6. PRESERVED	Z Z Z Z
Ū	Client: Geocon Consultant, Inc.		Address	essi 6671 Brisa Street	eet			TELI (925) 371-5900	0
				cityt Livermore		State: CA	Zlp Code: 94550	FAX: (925) 371-5915	10
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52) 989-4045 • ] ar - Please comi	Tel: (562) 989-4045 • Fax: (562) 989-4040 Signaturet	Signature:	DTF # ab	ove to et	Isure pro	ner Involcir		Other:		3. CONTAINER INTACT		Υ [] Ν [] 6.	6. PRESERVED	∠ →	 z
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				City	cityr Llvermore	ore		Stater	e CA	Zip Coder	1		925) 371-5915	15	
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Imples Submitted AFTER 3.3 considered received the follor business day at 8:30 AM	3 3.30 PM, are Weekend, Hollda following AM. ASK for	Weekend, Hollday, Off Hours Work Con ASK for QUOTE	Container Types:	ۍ <del>۱</del>		2=VOA 3=Liter 4= 6=Tedlar 7= Canister	ter 4=Pint anister		Material: 1=Glass	2=Plastic	3=Metal	Preservatives: 1=HCI, 4=4°C 5=Zn(Ac)2		2=HNO3 3=H2SO4 6=NaOH 7=NA2S2O4	04 S204
	TAT 1 100% SURCHARGE NEXT BUSINESS	TAT 2 50% SURCHARGE 2ND BUSINESS DAY 500 BM	30% 370 B	TAT 3 30% SURCHARGE 3RD BUSINESS DAY		7AT 4 20% SURCHARGE 4TH BUSINESS DAY	ARGE IS DAY	NO SURCHARGE	IARGE S DAYS	TAT 10 10% DISCOUNT 10th BUSINESS DAY	0 OUNT SS DAY	For RUSH TCL Subcon. TATIS	For RUSH TCL P/STLC, add 2 days to respective Subcon. TAT is 10-15 business days, Dioxin and Eurans 21 husiness days	For RUSH TCLP/STLC, add 2 days to respective TAT Subcon. TAT is 10-15 business days. Dioxin and Eurons 21 business days.	TAT.
	DAY 5130 PM		530 PM	(ALC)		5/30 PW	)	5130 PI	MI Michaelessonsection: 199000	1093	M mecanimican and a second	LUIGHS ZI DUSI	ness uays.		



June 05, 2019

Rick Day Geocon Consultants, Inc. 6671 Brisa Street Livermore, CA 94550 Tel: (925) 961-5270 Fax:(925) 371-5915

ELAP No.: 1838 CSDLAC No.: 10196 ORELAP No.: CA300003

Re: ATL Work Order Number : 1901964 Client Reference : ETMA Bus Yard, E9133-02-02

Enclosed are the results for sample(s) received on May 14, 2019 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Edgar Caballero President & Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

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Geocon Consultants, Inc.

6671 Brisa Street

Livermore, CA 94550

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 06/05/2019

### SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
H1-0	1901964-01	Soil	5/09/19 9:00	5/14/19 9:18
H3-1	1901964-06	Soil	5/09/19 11:00	5/14/19 9:18
H4-1	1901964-07	Soil	5/09/19 10:30	5/14/19 9:18
Н5-0.5	1901964-09	Soil	5/09/19 12:30	5/14/19 9:18
H5-1.5	1901964-10	Soil	5/09/19 12:30	5/14/19 9:18
Н6-0.5	1901964-11	Soil	5/09/19 11:30	5/14/19 9:18



Geocon Consultants, Inc.

6671 Brisa Street

Livermore, CA 94550

Project Number : ETMA Bus Yard, E9133-02-02

Analyst: GO

Report To: Rick Day

Reported : 06/05/2019

# Client Sample ID H1-0 Lab ID: 1901964-01

#### STLC Metals by ICP-AES by EPA 6010B

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.1	1.0	20	B9E1029	06/03/2019	06/03/19 14:22	D1



Geocon Consultants, Inc. 6671 Brisa Street

Livermore, CA 94550

Project Number: ETMA Bus Yard, E9133-02-02

Analyst: GO

Report To: Rick Day

Reported : 06/05/2019

# **Client Sample ID H3-1** Lab ID: 1901964-06

#### STLC Metals by ICP-AES by EPA 6010B

	Result	PQL				Date/Time	
Analyte	(mg/L)	(mg/L)	Dilution	Batch	Prepared	Analyzed	Notes
Lead	3.1	1.0	20	B9E1029	06/03/2019	06/03/19 14:32	D1



Geocon Consultants, Inc.

6671 Brisa Street

Livermore, CA 94550

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 06/05/2019

# Client Sample ID H4-1 Lab ID: 1901964-07

#### STLC Metals by ICP-AES by EPA 6010B

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	20	B9E1029	06/03/2019	06/03/19 14:36	D1

Analyst: GO



6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 06/05/2019

# Client Sample ID H5-0.5 Lab ID: 1901964-09

#### STLC Metals by ICP-AES by EPA 6010B

	Result	PQL				Date/Time	
Analyte	(mg/L)	(mg/L)	Dilution	Batch	Prepared	Analyzed	Notes
Lead	1.9	1.0	20	B9E1029	06/03/2019	06/03/19 14:37	D1

Analyst: GO



Geocon Consultants, Inc.

6671 Brisa Street Livermore, CA 94550

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 06/05/2019

# Client Sample ID H5-1.5 Lab ID: 1901964-10

#### STLC Metals by ICP-AES by EPA 6010B

	Result	PQL				Date/Time	
Analyte	(mg/L)	(mg/L)	Dilution	Batch	Prepared	Analyzed	Notes
Lead	2.7	1.0	20	B9E1029	06/03/2019	06/03/19 14:38	D1

Analyst: GO



Geocon Consultants, Inc.

6671 Brisa Street

Livermore, CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02

Analyst: GO

Report To: Rick Day

Reported : 06/05/2019

# Client Sample ID H6-0.5 Lab ID: 1901964-11

#### STLC Metals by ICP-AES by EPA 6010B

	Result	PQL				Date/Time	
Analyte	(mg/L)	(mg/L)	Dilution	Batch	Prepared	Analyzed	Notes
Chromium	ND	1.0	20	B9E1029	06/03/2019	06/03/19 14:40	D1



Geocon Consultants, Inc. 6671 Brisa Street Livermore , CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02 Report To : Rick Day Reported : 06/05/2019

### **QUALITY CONTROL SECTION**

#### STLC Metals by ICP-AES by EPA 6010B - Quality Control

	Result	PQL	MDL	Spike	Source		% Rec		RPD	
Analyte	(mg/L)	(mg/L)	(mg/L)	Level	Result	% Rec	Limits	RPD	Limit	Notes
Batch B9E1029 - STLC_S Extrac	ction									
Blank (B9E1029-BLK1)					Prepared	: 6/3/2019 A	nalyzed: 6/3/201	9		
Chromium	ND	1.0	0.039							
Lead	ND	1.0	0.094							
LCS (B9E1029-BS1)					Prepared	: 6/3/2019 A	nalyzed: 6/3/201	9		
Chromium	1.92184			2.00000		96.1	80 - 120			
Lead	1.83071			2.00000		91.5	80 - 120			
Duplicate (B9E1029-DUP1)			Source: 1901	964-01	Prepared	: 6/3/2019 A	nalyzed: 6/3/201	9		
Chromium	ND	1.0	0.039		ND			NR	20	
Lead	3.75717	1.0	0.094		4.05874			7.72	20	
Duplicate (B9E1029-DUP2)			Source: 1902	078-15	Prepared	: 6/3/2019 A	nalyzed: 6/3/201	9		
Chromium	0.057577	1.0	0.039		0.056367			2.12	20	
Lead	6.20907	1.0	0.094		6.30928			1.60	20	
Matrix Spike (B9E1029-MS1)			Source: 1901	964-01	Prepared	: 6/3/2019 A	nalyzed: 6/3/201	9		
Chromium	2.35320			2.50000	0.031829	92.9	70 - 130			
Lead	6.20976			2.50000	4.05874	86.0	70 - 130			
Matrix Spike (B9E1029-MS2)			Source: 1902	078-15	Prepared	: 6/3/2019 A	nalyzed: 6/3/201	9		
Chromium	2.26460			2.50000	0.056367	88.3	70 - 130			
Lead	8.21351			2.50000	6.30928	76.2	70 - 130			
Matrix Spike Dup (B9E1029-MSD1)	)		Source: 1901	964-01	Prepared	: 6/3/2019 A	nalyzed: 6/3/201	9		
Chromium	2.31888			2.50000	0.031829	91.5	70 - 130	1.47	20	
Lead	6.10806			2.50000	4.05874	82.0	70 - 130	1.65	20	



Geocon Consultants, Inc.	Project Number :	ETMA Bus Yard, E9133-02-02
6671 Brisa Street	Report To :	Rick Day
Livermore, CA 94550	Reported :	06/05/2019

#### **Notes and Definitions**

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:

D1

(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.

Sample required dilution due to possible matrix interference.

(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.

(3) Results are wet unless otherwise specified.

### **Carmen Aguila**

From:	Rick Day <day@geoconinc.com></day@geoconinc.com>
Sent:	Wednesday, May 29, 2019 1:56 PM
То:	Carmen Aguila
Cc:	customer.relations@atlglobal.com
Subject:	RE: Results/ Invoice - ETMA Bus Yard, E9133-02-02, ATL# 1901964

Hi, Carmen.

Please analyze the following for STLC on standard TAT:

1901964-01	H1-0	Lead
1901964-06	H3-1	Lead
1901964-07	H4-1	Lead
1901964-09	H5-0.5	Lead
1901964-10	H5-1.5	Lead
1901964-11	H6-0.5	Chromium

Thanks, Rick.

http://www.geoconinc.com/" style='position:absolute;margin-left:0;margintop:0;width:96pt;height:67.5pt;z-index:251661312;visibility:visible;mso-wrap-style:square;mso-width-percent:0;msoheight-percent:0;mso-wrap-distance-left:0;mso-wrap-distance-top:0;mso-wrap-distance-right:0;mso-wrap-distancebottom:0;mso-position-horizontal:left;mso-position-horizontal-relative:text;mso-position-vertical:absolute;msoposition-vertical-relative:line;mso-width-percent:0;mso-height-percent:0;mso-width-relative:page;mso-heightrelative:page' o:allowoverlap="f" o:button="t">Richard Day, CEG, CHG | *President* 

GEOCON CONSULTANTS, INC.

6671 Brisa Street, Livermore, California 94550 P|925.371.5900 ext. 401 M|925.872.5860 day@geoconinc.com / www.geoconinc.com / Facebook / Linkedin

Bay Area ~ Sacramento ~ Fairfield ~ Los Angeles ~ Orange County ~ Riverside County ~ Coachella Valley ~ San Diego

Geotechnical Engineering Environmental Services Land Development Transportation Infrastructure Institutional Brownfields/Redevelopment Natural Resources

From: Carmen Aguila <Carmen.Aguila@atlglobal.com> Sent: Tuesday, May 21, 2019 3:49 PM To: Rick Day <day@geoconinc.com>

### **Cc:** customer.relations@atlglobal.com **Subject:** Results/ Invoice - ETMA Bus Yard, E9133-02-02, ATL# 1901964

Good afternoon Rick,

Please find your results for the above project attached. If I can further assist, please let me know.

Thank you,



Carmen Aguila | Project Manager ADVANCED TECHNOLOGY LABORATORIES 3275 Walnut Avenue, Signal Hill CA 90755 0: 562.989.4045 ext 245 |F: 562.989-6348 |M: 562.715.8770 http://www.atlglobal.com Caboratory Excellence Defined

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. Advanced Technology Labs - Your Partner for Quality Environmental Testing

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June 07, 2019

Rick Day Geocon Consultants, Inc. 6671 Brisa Street Livermore, CA 94550 Tel: (925) 961-5270 Fax:(925) 371-5915

ELAP No.: 1838 CSDLAC No.: 10196 ORELAP No.: CA300003

Re: ATL Work Order Number : 1901964 Client Reference : ETMA Bus Yard, E9133-02-02

Enclosed are the results for sample(s) received on May 14, 2019 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Edgar Caballero President & Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

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Geocon Consultants, Inc.

6671 Brisa Street

Livermore, CA 94550

Project Number : ETMA Bus Yard, E9133-02-02

Report To: Rick Day

Reported : 06/07/2019

### SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
H4-1	1901964-07	Soil	5/09/19 10:30	5/14/19 9:18



Geocon Consultants, Inc.

6671 Brisa Street

Livermore, CA 94550

Project Number : ETMA Bus Yard, E9133-02-02

Analyst: GO

Report To: Rick Day

Reported : 06/07/2019

# Client Sample ID H4-1 Lab ID: 1901964-07

#### TCLP Metals by ICP-AES EPA 6010B

	Result	PQL				Date/Time	
Analyte	(mg/L)	(mg/L)	Dilution	Batch	Prepared	Analyzed	Notes
Lead	ND	0.25	5	B9F0183	06/07/2019	06/07/19 14:59	D1



Geocon Consultants, Inc. 6671 Brisa Street Livermore , CA 94550

# **Certificate of Analysis**

Project Number : ETMA Bus Yard, E9133-02-02 Report To : Rick Day Reported : 06/07/2019

### **QUALITY CONTROL SECTION**

#### TCLP Metals by ICP-AES EPA 6010B - Quality Control

	Result	PQL	MDL	Spike	Source		% Rec		RPD	
Analyte	(mg/L)	(mg/L)	(mg/L)	Level	Result	% Rec	Limits	RPD	Limit	Notes
Batch B9F0183 - EPA 3010A_S										
Blank (B9F0183-BLK1)					Prepared	l: 6/7/2019 Ai	nalyzed: 6/7/201	9		
Lead	ND	0.050	0.0047							
LCS (B9F0183-BS1)					Prepared	l: 6/7/2019 Ai	nalyzed: 6/7/201	9		
Lead	0.813963	0.050	0.0047	1.00000		81.4	80 - 120			
Duplicate (B9F0183-DUP1)		S	ource: 19019	64-07	Prepared	l: 6/7/2019 Ai	nalyzed: 6/7/201	9		
Lead	ND	0.25	0.024		ND			NR	20	
Duplicate (B9F0183-DUP2)		S	ource: 19020	78-15	Prepared	l: 6/7/2019 Ai	nalyzed: 6/7/201	9		
Lead	ND	0.25	0.024		ND			NR	20	
Matrix Spike (B9F0183-MS1)		S	ource: 19019	64-07	Prepared	l: 6/7/2019 Ai	nalyzed: 6/7/201	9		
Lead	2.18870	0.25	0.024	2.50000	ND	87.5	59 - 123			
Matrix Spike Dup (B9F0183-MSD1)		S	ource: 19019	64-07	Prepared	l: 6/7/2019 A	nalyzed: 6/7/201	9		
Lead	2.18784	0.25	0.024	2.50000	ND	87.5	59 - 123	0.0390	20	



Geocon Consultants, Inc.	Project Number :	ETMA Bus Yard, E9133-02-02
6671 Brisa Street	Report To :	Rick Day
Livermore, CA 94550	Reported :	06/07/2019

#### **Notes and Definitions**

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:

D1

(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.

Sample required dilution due to possible matrix interference.

(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.

(3) Results are wet unless otherwise specified.

### **Carmen Aguila**

From:	Rick Day <day@geoconinc.com></day@geoconinc.com>
Sent:	Wednesday, June 5, 2019 6:08 PM
То:	Carmen Aguila
Cc:	customer.relations@atlglobal.com
Subject:	RE: Add'l Results/ Invoice - ETMA Bus Yard, E9133-02-02, ATL# 1901964

Hi, Carmen.

Please analyze sample H4-1 (1901964-07) for TCLP Lead.

48-hr TAT please.

Thanks, Rick.

http://www.geoconinc.com/" style='position:absolute;margin-left:0;margin-

top:0;width:96pt;height:67.5pt;z-index:251661312;visibility:visible;mso-wrap-style:square;mso-width-percent:0;mso-height-percent:0;mso-wrap-distance-left:0;mso-wrap-distance-top:0;mso-wrap-distance-right:0;mso-wrap-distance-bottom:0;mso-position-horizontal:left;mso-position-horizontal-relative:text;mso-position-vertical:absolute;mso-position-vertical-relative:line;mso-width-percent:0;mso-height-percent:0;mso-width-relative:page;mso-height-relative:page' o:allowoverlap="f" o:button="t">Richard Day, CEG, CHG | President

#### **GEOCON CONSULTANTS, INC.**

6671 Brisa Street, Livermore, California 94550 P|925.371.5900 ext. 401 M|925.872.5860 day@geoconinc.com / www.geoconinc.com / Facebook / Linkedin

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 Geotechnical Engineering
 Environmental Services
 Engineering Geology
 Construction Inspection

 Land Development
 Transportation
 Infrastructure
 Institutional
 Brownfields/Redevelopment
 Natural Resources

From: Carmen Aguila <Carmen.Aguila@atlglobal.com>
Sent: Wednesday, June 05, 2019 5:56 PM
To: Rick Day <day@geoconinc.com>
Cc: customer.relations@atlglobal.com
Subject: Add'l Results/ Invoice - ETMA Bus Yard, E9133-02-02, ATL# 1901964

Good afternoon Rick,

Please find your results for the above project attached. If I can further assist, please let me know.



Image: Selected Options         ULL Statistics for Data Sets with Non-Detects           1         User Selected Options         PowerRise of Computation           2         DawerRise of Computation         PowerRise of Computation           3         Total Precision         Precision           6         Full Precision         Precision           7         Confidence Coefficient         SPS           8         Inter of Bootshrap Operations         2000           9         Confidence Coefficient         SPS           8         More of Bootshrap Operations         2000           9         Confidence Coefficient         SPS           9         Mumber of Observations         12         Number of Distinct Deservations           14         Number of Deservations         12         Number of Distinct Deservations           15         Number of Distinct Detects         9         Number of Distinct Deservations           16         Maximum Detect         6.9         Mumor Detect           17         Maximum Non-Detect         8.9         Supproversite           18         Variance Detects         1.7         Precisite           20         Mean Detects         1.7.7         Precisite           21 <td< th=""><th></th><th>A B C</th><th>D E</th><th>F</th><th>G H I J K</th><th></th></td<>		A B C	D E	F	G H I J K								
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6         Full Precision         OFF           2         Conditions Confidences Confidences         98%           mber of Bootstrap Operations         2000           3         Inter of Bootstrap Operations         12           10         Lead         Inter of Dotation Observations         12           13         Total Number of Distinct Detects         9         Number of Distinct Observations           14         Number of Distinct Detects         9         Number of Distinct Non-Detects           16         Marinum Detect         20         Marinum Non-Detect           17         Marinum Detect         20         Marinum Non-Detect           18         Variance Detects         63.79         SD Detects           20         Median Detects         62.79         SD of Logged Detects           21         Skewness Detects         10.99         Kurtosis Detects           22         Mean of Logged Detects         3.78         SD of Logged Detects           23         Statistics or Class         99         Kurtosis Detects           24         Normal GOP Test         Detected Data appear Normal at 5% Significance Lead           25         Shapito Wilk Test Statistics         0.83         Sinaplato Nilk COP Test													
Full Precision         OPF           2         Confidence Coefficient (95%)         amber of Bootstrap Operations (2000)           3         mber of Bootstrap Operations (2000)         amber of Distinct Observations (12)         Number of Distinct Observations (12)           11         Centeral Statistics         number of Distinct Observations (12)         Number of Distinct Observations (12)           13         Total Number of Distinct Observations (12)         Number of Distinct Observations (12)         Number of Distinct Observations (12)           14         Number of Distinct Observations (12)         Maximum Non-Detect (20)         Maximum Non-Detect (13)           15         Number of Distinct Observations (14)         Percent Non-Observations (12)         Non-Detect (13)           19         Mean Detects (16)         9         Maximum Non-Detect (13)         Non-Detect (13)           20         Median Detects (10)         90         Kurtosis Detects (13)         Statistis Detects (13)           21         Skewness Detects (10)         0.822         Detected Data appear Normal at 5%. Significance Level (14)           22         Shapiro Wilk Cell Centeral Values and other Nonparametric UCLs         Ske Significance Level (14)           23         Shapiro Vilk Cell Centeral Values and other Nonparametric UCLs         Ske Significance Level (11)           24         Detected		From File											
Confidence Coefficient         35%           a Imber of Bootstrap Operations         2000           a         Inter of Bootstrap Operations         2000           a         Inter of Bootstrap Operations         12           10         Lead         11           12         Ceneral Statistics           13         Total Number of Obtects         10         Number of Non-Detects           14         Number of Distinc Detects         9         Number of Manno Non-Detects           15         Number of Distinc Detects         9.9         Maximum Non-Detect           17         Maximum Detect         6.9         Maximum Non-Detect           18         Variance Detects         41.7         Percent Non-Detect           19         Mean Detects         42.5         GV Detects           20         Meanin Detects         3.78         SD of Logged Detects           21         Mean of Logged Detects         3.778         SD of Logged Detects           22         Mean of Logged Detects         3.778         SD of Logged Detects           23         Shapiro Wilk Critical Value         0.42         Detected Data appear Normal at 5% Significance Level           24         Normal GOF Test on Detects Only         2.38         Signi	_	Full Precision	OFF										
Import of Bootstrap Operations         2000           0         Lead           11         Ceneral Statistics           12         Total Number of Detects         10           13         Total Number of Detects         9           14         Number of Distinct Detects         9           15         Number of Distinct Detects         9           16         Minimum Non-Detect         6           17         Maximum Detect         6.9           18         Variance Detects         9           19         Mean Detect         6.8.79           20         Median Detect         4.2.5           21         Skewress Detects         0.99           22         Mean of Logged Detects         3.778           23         Datacts         10           24         Normal QOF Test on Detects Only           25         Shapiro Wilk Test Statistic         0.823           26         Shapiro Wilk Test Statistic         0.262           27         Lillefors Crical Value         0.262           28         Detected Data appear Normal at 5% Significance Lead           29         Detected Data appear Normal at 5% Significance Lead           30         KM Stod 0.10		Confidence Coefficient											
9         10         Leed           11         Ceneral Statistics           12         Total Number of Distinct Observations         12         Number of Distinct Observations           14         Number of Distinct Detects         9         Number of Number of Distinct Observations           15         Number of Distinct Detects         9         Number of Number of Distinct Non-Detects           16         Minimum Non-Detect         6.9         Minimum Non-Detect           17         Maximum Detect         6.9         Minimum Non-Detect           18         Variance Detects         4117         Percent Non-Detects           20         Mean Detects         42.5         CV Detects           21         Stawness Detects         1.099         Kurosis Detects           22         Mean of Logged Detects         3.778         SD of Logged Detects           23         Shapiro Wilk Critical Value         0.842         Detected Data appear Normal at 5% Significance Lee           24         Normal COF Test on Detected Data appear Normal at 5% Significance Lee         Detected Data appear Normal at 5% Significance Lee           23         Detected Data appear Normal at 5% Significance Lee         Significance Lee           24         Normal CoF Test         Detected Data appear Normal at 5% Signifi													
In       General Statistics         12       Total Number of Detects       12       Number of Distinct Observations       12         13       Total Number of Detects       9       Number of Non-Detects         14       Number of Distinct Detects       9       Number of Distinct Observations         15       Number of Distinct Detects       9       Number of Distinct Observations         16       Minimum Detect       6       Minimum Non-Detect         17       Maximum Detects       68.79       SD Detects         18       Mean of Logged Detects       3.778       SD of Logged Detects         21       Skewness Detects       10.99       Kurtosis Detects         22       Mean of Logged Detects       3.778       SD of Logged Detects         23       Shapiro Wilk Chies Test Statistic       0.883       Detected Data appear Normal at 5% Significance Lee         24       Shapiro Wilk Chies Test Statistic       0.238       Lilliefors Critical Value       2.42         23       Detected Data appear Normal at 5% Significance Lee       29       Detected Data appear Normal at 5% Significance Lee         24       Shapiro Wilk Chies Usalue       0.281       Detected Data appear Normal at 5% Significance Lee         25       Shapiro Wilk Chies Detects       <	-												
11         General Statistics           12         Total Number of Observations         12         Number of Distinct Observations           14         Number of Distinct Detects         10         Number of Number of Distinct Non-Detects           15         Number of Distinct Detects         9         Number of Nummer On Detects           16         Minimum Non-Detect         117         Maximum Non-Detect           18         Variance Detects         817         Percent Non-Detect           19         Mean Detects         82.9         CV Detects           20         Median Detects         82.9         CV Detects           21         Skawness Detects         1.099         Kurtosis Detects         1.099           22         Mean of Logged Detects         3.778         SD of Logged Detects         1.019           23         Shapiro Wik Critic Test statistic         0.282         Detected Data appear Normal at 5% Significance Lev           24         Normal CoP Test on Detacts         Bis Shapiro Wik CoP Test         1.0116/ors GOF Test           25         Shapiro Wik Test Statistic         0.282         Detected Data appear Normal at 5% Significance Lev           26         5% Shapiro Wik KoW Statistics using Normal Critical Values and other Nonparametric UCLs         1.0116/or Significance Lev	-	Lead											
13         Total Number of Deservations         12         Number of Distinct Deservations           14         Number of Distinct Detects         10         Number of Distinct Non-Detects           15         Number of Distinct Detects         9         Number of Distinct Non-Detects           16         Minimum Detect         200         Maximum Non-Detect           17         Maximum Detect         200         Maximum Non-Detect           18         Variance Detects         68.79         SD Detects         7           20         Mean Detects         42.5         CV Detects         7           21         Skewness Detects         1.099         Kurtosis Detects         3.778         SD of Logged Detects           23         Mean of Logged Detects         3.778         SD of Logged Detects         3.778           24         Normal GOF Test on Detected Data appear Normal at 5% Significance Lee         29         Detected Data appear Normal at 5% Significance Lee           25         Shapiro Wilk Test Statistic         0.282         Detected Data appear Normal at 5% Significance Lee           29         Detected Data appear Normal at 5% Significance Lee         30         KM Mean         57.49         KM Standard Error of Mean           31         Kaplan-Meler (KM) Statistics on Detected Observati	11												
Number of Detects         10         Number of Non-Detects           15         Number of Distinct Detects         9         Number of Oistinct Non-Detects           16         Minimum Non-Detect         200         Maximum Non-Detects           17         Maximum Detect         6.9         Minimum Non-Detects           18         Variance Detects         4117         Percent Non-Detects           19         Mean Detects         68.79         SD Detects           20         Median Detects         42.5         CV Detects           21         Skewness Detects         1.099         Kurtosis Detects           23	12			General	Statistics								
15         Number of Distinct Detects         9         Number of Distinct Detects         9           16         Minimum Detect         6.9         Minimum Non-Detects           17         Maximum Non-Detects         200         Maximum Non-Detects           18         Variance Detects         6.79         SD Detects           19         Mean Detects         6.79         SD Detects           20         Median Detects         6.79         SD Detects           21         Skewness Detects         1.099         Kutrosis Detects           22         Mean of Logged Detects         3.778         SD of Logged Detects           23         Shapiro Wilk CotF Test         0.853         Shapiro Wilk GotF Test           24         Normal GOF Test on Detects Only         Elilifeors Critical Value         0.282         Detected Data appear Normal at 5% Significance Lee           27         Lillifeors Critical Value         0.282         Detected Data appear Normal at 5% Significance Lee           31         Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs         134           32         KM Maan         57.49         KM Standard Error of Mean           33         KM Maan         57.49         Statistico (CA) UCL 1           34 <td>13</td> <td>Total Nur</td> <td>mber of Observations</td> <td>12</td> <td>Number of Distinct Observations</td> <td>10</td>	13	Total Nur	mber of Observations	12	Number of Distinct Observations	10							
Image: Second	14		Number of Detects	10	Number of Non-Detects	2							
17         Maximum Detect         200         Maximum Non-Detect           18         Variance Detects         4117         Percent Non-Detects           19         Median Detects         68.79         SD Detects           20         Median Detects         62.7         CV Detects           21         Skewness Detects         1.099         Kurtosis Detects           22         Mean of Lagged Detects         3.778         SD of Lagged Detects           23	15	Numb	er of Distinct Detects	9	Number of Distinct Non-Detects	1							
18         Variance Detects         4117         Percent Non-Detects           19         Mean Detects         68.79         SD Detects         12           20         Median Detects         42.5         CV Detects         12           21         Skewness Detects         1.099         Kurtosis Detects         12           22         Mean of Logged Detects         3.778         SD of Logged Detects           23         Normal GOF Test on Detects Only         12           24         Normal GOF Test         Detected Data appear Normal at 5% Significance Level           25         Sthapiro Wilk Critical Value         0.842         Detected Data appear Normal at 5% Significance Level           26         5% Lilliefors Test Statistic         0.282         Detected Data appear Normal at 5% Significance Level           29         Detected Data appear Normal at 5% Significance Level         13         KM Mean         57.49           31         Kaptan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs         14         95% KM (OBCA) UCL         13           32         SM MC hebyshev UCL         113.2         95% KM (BCA) UCL         14           33         Gamma GOF Test on Detected Observations Only         14         95% Significance Level         24 <tr< td=""><td>16</td><td></td><td>Minimum Detect</td><td>6.9</td><td>Minimum Non-Detect</td><td>1</td></tr<>	16		Minimum Detect	6.9	Minimum Non-Detect	1							
19         Mean Detects         68.79         SD Detects         10           20         Median Detects         42.5         CV Detects         12           21         Skewness Detects         1.099         Kutroiss Detects         12           23         Mean of Logged Detects         3.778         SD of Logged Detects           23         Normal GOF Test on Detects Only         SS of Logged Detects         3.778           24         Normal GOF Test on Detects Only         Significance Lex         1.116/075 CF Test           26         5% Shapiro Wik Trotical Value         0.842         Detected Data appear Normal at 5% Significance Lex           29         Detected Data appear Normal at 5% Significance Lex         1.116/075 CF Test         1.116/075 CF Test           30         Statistics using Normal Critical Values and other Nonparametric UCLs         1.116/075 CF Test         1.116/075 CF Test           31         Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs         1.116/075 CF Test         1.116/075 CF Test           32         KM Mean         57.49         KM Standard Error of Mean         1.112           33         CKM Chebyshev UCL         1.13.2         95% KM (Detected Data appear Normal at 5% Significance         1.112           34         975% KM Chebyshev	17		Maximum Detect	200	Maximum Non-Detect	1							
20         Median Detects         42.5         CV Detects           21         Skewness Detects         1.099         Kurtosis Detects           22         Mean of Logged Detects         3.78         SD of Logged Detects           23         Normal GOF Test on Detects Only         25           24         Normal GOF Test         0.853         Shapiro Wilk Critical Value         0.842           25         Shapiro Wilk Critical Value         0.842         Detected Data appear Normal at 5% Significance Level           28         5% Lilliefors Test Statistic         0.282         Detected Data appear Normal at 5% Significance Level           30         Detected Data appear Normal at 5% Significance Level         33         KM Mean         57.49           31         Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs         34         95% KM (b(CA) UCL         34           33         KM Stad CP         9.85         95% KM (BCA) UCL         34           34         95% KM (b) UCL         9.85         95% KM (BCA) UCL         13.2         95% KM (BCA) UCL         13.2           39         Gamma GOF Tests on Detected Observations Only         24         27         24           40         A-D Test Statistic         0.21         Kolmogorov-Smirnov GOF </td <td>18</td> <td></td> <td>Variance Detects</td> <td>4117</td> <td>Percent Non-Detects</td> <td>16.67%</td>	18		Variance Detects	4117	Percent Non-Detects	16.67%							
20         Median Detects         42.5         CV Detects           21         Skewness Detects         1.099         Kurtosis Detects           22         Mean of Logged Detects         3.778         SD of Logged Detects           23			Mean Detects	68.79	SD Detects	64.16							
21       Skewness Detects       1.099       Kurtosis Detects         22       Mean of Logged Detects       3.778       SD of Logged Detects         23       Normal GOF Test on Detects Only         25       Shapiro Wilk Critical Value       0.863       Shapiro Wilk GOF Test         26       5% Shapiro Wilk Critical Value       0.282       Detected Data appear Normal at 5% Significance Level         27       Lilliefors Test Statistic       0.282       Detected Data appear Normal at 5% Significance Level         30       Detected Data appear Normal at 5% Significance Level       30         31       Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs         32       KM Mean       57.49       KM Standard Error of Mean         33       KM SD 61.04       95% KM (BCA) UCL       13         34       95% KM (pu UCL       90% KM Chebyshev UCL       173.5       99% KM Chebyshev UCL       2         36       95% KM Chebyshev UCL       173.5       95% KM Chebyshev UCL       2       2         39       Gamma GOF Tests on Detected Data appear Gamma Distributed at 5% Significant       2       2       K-S Test Statistic       0.21       Kolmogrow-Smirnov GOF         41       5% A-D Critical Value       0.724       Petected data appear Gamma Distr			Median Detects	42.5	CV Detects	0.933							
22         Mean of Logged Detects         3.778         SD of Logged Detects           23         Normal GOF Test on Detects Only         25           24         Shapiro Wilk Cest Statistic         0.853         Shapiro Wilk GOF Test           26         5% Shapiro Wilk Critical Value         0.842         Detected Data appear Normal at 5% Significance Level           28         5% Lilliefors Test Statistic         0.228         Lilliefors GOF Test           29         Detected Data appear Normal at 5% Significance Level         30           31         Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs           32         KM Mon         57.49         KM Standard Error of Mean           33         95% KM (1) UCL         90.85         95% KM (BCA) UCL         11           34         95% KM (2) UCL         80.40         95% KM (Chebysher UCL         11           35         90% KM Chebysher UCL         173.5         95% KM (Chebysher UCL         12           38         Gamma GOF Tests on Detected Observations Only         2         2           41         5% A-D Critical Value         0.272         Petected data appear Gamma Distributed at 5% Significan           42         K-S Test Statistic         0.21         Kolmogorov-Sminov GOF         2     <	-		Skewness Detects	1.099	Kurtosis Detects	0.261							
23         Normal GOF Test on Detects Only           25         Shapiro Wilk Test Statistic         0.853         Shapiro Wilk GOF Test           26         5% Shapiro Wilk Critical Value         0.842         Detected Data appear Normal at 5% Significance Let           28         5% Lillefors Critical Value         0.842         Detected Data appear Normal at 5% Significance Let           29         Detected Data appear Normal at 5% Significance Level         30           30         KM Statistics using Normal Critical Values and other Nonparametric UCLs           31         Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs           32         KM Waan         57.49           33         KM SD 61.04         95% KM (BCA) UCL           34         95% KM (BCA) UCL         88.04           35         95% KM (Chebyshev UCL         13.2           36         90% KM Chebyshev UCL         13.2           37         97.5% KM (Chebyshev UCL         2.2           38         Gamma GOF Tests on Detected Observations Only           40         A-D Test Statistic         0.326           41         5% A-D Critical Value         0.724           42         K-S Critical Value         0.272           43         5% K-S Critical Value		Mea	an of Logged Detects	3.778	SD of Logged Detects	1.066							
25         Shapiro Wilk Test Statistic         0.853         Shapiro Wilk GOF Test           26         5% Shapiro Wilk Critical Value         0.842         Detected Data appear Normal at 5% Significance Lev           28         5% Lilliefors Critical Value         0.262         Detected Data appear Normal at 5% Significance Level           29         Detected Data appear Normal at 5% Significance Level         30           31         Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs           32         KM Mean         57.49           33         KK 05 61.04         95% KM (BCA) UCL           34         95% KM (2) UCL         88.04           35         95% KM (2) UCL         88.04           36         90% KM Chebyshev UCL         173.5           37         97.5% KM chebyshev UCL         173.5           38         Gamma GOF Tests on Detected Observations Only           40         A-D Test Statistic         0.326           41         5% AD Critical Value         0.272           42         K-S Test Statistic         0.212           43         5% K-S Critical Value         0.227           44         Detected data appear Gamma Distributed at 5% Significance Level           45         Gamma Statistics on Detected Da	23												
25         Shapiro Wilk Test Statistic         0.853         Shapiro Wilk GOF Test           26         5% Shapiro Wilk Critical Value         0.842         Detected Data appear Normal at 5% Significance Lev           28         5% Lilliefors Critical Value         0.262         Detected Data appear Normal at 5% Significance Level           29         Detected Data appear Normal at 5% Significance Level         30           31         Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs           32         KM Mean         57.49           33         KK 05 61.04         95% KM (BCA) UCL           34         95% KM (2) UCL         88.04           35         95% KM (2) UCL         88.04           36         90% KM Chebyshev UCL         173.5           37         97.5% KM chebyshev UCL         173.5           38         Gamma GOF Tests on Detected Observations Only           40         A-D Test Statistic         0.326           41         5% AD Critical Value         0.272           42         K-S Test Statistic         0.212           43         5% K-S Critical Value         0.227           44         Detected data appear Gamma Distributed at 5% Significance Level           45         Gamma Statistics on Detected Da	_												
26         5% Shapiro Wilk Critical Value         0.842         Detected Data appear Normal at 5% Significance Let           27         Lilliefors Test Statistic         0.238         Lilliefors QOF Test           28         5% Lilliefors Critical Value         0.262         Detected Data appear Normal at 5% Significance Level           30         Detected Data appear Normal at 5% Significance Level         30           31         Kaplan-Meler (KM) Statistics using Normal Critical Values and other Nonparametric UCLs           32         KM Mean         57.49         KM Standard Error of Mean           33         KM SD         61.04         95% KM (60.04) UCL         33           34         95% KM (2) UCL         88.04         95% KM Bootstrap UCL         13           35         95% KM (2) UCL         88.04         95% KM Bootstrap UCL         1           36         90% KM Chebyshev UCL         173.5         99% KM Chebyshev UCL         2           38         Ostatistic         0.326         Anderson-Darling QOF Test         2           41         5% K-S Critical Value         0.724         betected data appear Gamma Distributed at 5% Significance Level           45         Gamma Statistics on Detected Data appear Gamma Distributed at 5% Significance Level         45          46         Gamma Statistics		Shap			•								
28         5% Lilliefors Critical Value         0.262         Detected Data appear Normal at 5% Significance Level           30         0	26	5% Shap	iro Wilk Critical Value	0.842	Detected Data appear Normal at 5% Significance	Level							
28         5% Lilliefors Critical Value         0.262         Detected Data appear Normal at 5% Significance Level           30         31         Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs           32         KM Mean         57.49         KM Standard Error of Mean           33         SKM D0         61.04         95% KM (BCA) UCL         13           34         95% KM (t) UCL         90.85         95% KM (Percentile Bootstrap) UCL         11           36         95% KM (c) UCL         88.04         95% KM Chebyshev UCL         11           37         97.5% KM Chebyshev UCL         173.5         99% KM Chebyshev UCL         2           38         Gamma GOF Tests on Detected Observations Only         40         A-D Test Statistic         0.326         Anderson-Darling GOF Test           41         5% A-D Critical Value         0.212         Kolmogorov-Smirnov GOF         43         5% K-S Critical Value         0.212         Kolmogorov-Smirnov GOF           43         5% K-S Critical Value         0.212         Kolmogorov-Smirnov GOF         44         Detected data appear Gamma Distributed at 5% Significance Level           44         Detected data appear Gamma Distributed at 5% Significance Level         45         52         Theta star (MLE)         1.245         K star (	27	L	lliefors Test Statistic	0.238	Lilliefors GOF Test								
29         Detected Data appear Normal at 5% Significance Level           30													
30         31         Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs           32         KM Mean         57.49         KM Standard Error of Mean           33         KM SD         61.04         95% KM (BCA) UCL         4           34         95% KM (t) UCL         90.85         95% KM (Percentile Bootstrap) UCL         1           35         95% KM (z) UCL         88.04         95% KM Bootstrap t UCL         1           36         90% KM Chebyshev UCL         113.2         95% KM Chebyshev UCL         2           37         97.5% KM Chebyshev UCL         173.5         99% KM Chebyshev UCL         2           38           34         35% KM Chebyshev UCL         2           40         A-D Test Statistic         0.212         Anderson-Darling GOF Test         36           41         5% K-S Critical Value         0.724         >tected data appear Gamma Distributed at 5% Significan           42         K-S Test Statistic         0.21         Kolmogorov-Smirnov GOF         43           44         Detected data appear Gamma Distributed at 5% Significanc         44         Detected data appear Gamma Distributed at 5% Significanc           45           1.245         k star (bias corrected MLE) </td <td>29</td> <td></td> <td>Detected Data ap</td> <td>pear Norn</td> <td></td> <td></td>	29		Detected Data ap	pear Norn									
31         Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs           32         KM Mean         57.49         KM Standard Error of Mean           33         KM SD         61.04         95% KM (BcA) UCL         1           34         95% KM (1) UCL         90.85         95% KM (Percentile Bootstrap) UCL         1           35         95% KM (Chebyshev UCL         113.2         95% KM Chebyshev UCL         1           37         97.5% KM Chebyshev UCL         173.5         99% KM Chebyshev UCL         2           38          99% KM Chebyshev UCL         1         2         99% KM Chebyshev UCL         2           40         A-D Test Statistic         0.326         Anderson-Darling GOF Test         4           41         5% A-D Critical Value         0.744         betected data appear Gamma Distributed at 5% Significan           42         K-S Test Statistic         0.21         Kolmogorov-Smirnov GOF           43         5% K-S Critical Value         0.724         betected data appear Gamma Distributed at 5% Significan           44         Detected data appear Gamma Distributed at 5% Significan         4           45          statistics on rected Data Only           47         k hat (MLE)         5.25	_		-	-									
32KM Mean57.49KM Standard Error of Mean33KM SD61.0495% KM (ECA) UCL3495% KM (t) UCL90.8595% KM (Percentile Bootstrap) UCL3595% KM (2) UCL88.0495% KM Chebyshev UCL3690% KM Chebyshev UCL113.295% KM Chebyshev UCL3797.5% KM Chebyshev UCL173.599% KM Chebyshev UCL3893Gamma GOF Tests on Detected Observations Only40A-D Test Statistic0.326Anderson-Darling GOF Test415% A-D Critical Value0.744Petected data appear Gamma Distributed at 5% Significan42K-S Test Statistic0.21Kolmogorov-Smirnov GOF435% K-S Critical Value0.272Petected data appear Gamma Distributed at 5% Significan44Detected data appear Gamma Distributed at 5% Significan459nu hat (MLE)1.24548Theta hat (MLE)55.2550Mean (detects)5168.795153GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs54GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs55For such situations, GROS method may yield incorrect values of UCLs and BTVS56This is especially true when the sample size is small.57For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates58Minimum0.0159Maximum20060SD <td></td> <td>Kaplan-Meier</td> <td>(KM) Statistics using</td> <td>Normal C</td> <td>ritical Values and other Nonparametric UCLs</td> <td></td>		Kaplan-Meier	(KM) Statistics using	Normal C	ritical Values and other Nonparametric UCLs								
34         95% KM (t) UCL         90.85         95% KM (Percentile Bootstrap) UCL         1           35         95% KM (2) UCL         88.04         95% KM Chebyshev UCL         1           36         90% KM Chebyshev UCL         113.2         95% KM Chebyshev UCL         1           37         97.5% KM Chebyshev UCL         173.5         99% KM Chebyshev UCL         2           38			KM Mean	57.49	KM Standard Error of Mean	18.57							
35         95% KM (2) UCL         88.04         95% KM Bootstrap t UCL         11           36         90% KM Chebyshev UCL         113.2         95% KM Chebyshev UCL         12           37         97.5% KM Chebyshev UCL         173.5         99% KM Chebyshev UCL         2           38         97.5% KM Chebyshev UCL         173.5         99% KM Chebyshev UCL         2           38         99% CM Chebyshev UCL         173.5         99% KM Chebyshev UCL         2           40         A-D Test Statistic         0.326         Anderson-Darling GOF Test           41         5% A-D Critical Value         0.744 betected data appear Gamma Distributed at 5% Significan           42         K-S Test Statistic         0.21         Kolmogorov-Smirnov GOF           43         5% K-S Critical Value         0.272 betected data appear Gamma Distributed at 5% Significan           44         Detected data appear Gamma Distributed at 5% Significance Level         45           45         Gamma Statistics on Detected Data Only         48           46         Gamma ROS Statistics using Imputed Non-Detects           50         Mean (detects)         68.79           51         52         Theta star (bias corrected MLE)           52         Gamma ROS Statistics using Imputed Non-Detects	33		KM SD	61.04	95% KM (BCA) UCL	89.33							
35         95% KM (z) UCL         88.04         95% KM Bootstrap t UCL         11           36         90% KM Chebyshev UCL         113.2         95% KM Chebyshev UCL         12           37         97.5% KM Chebyshev UCL         173.5         99% KM Chebyshev UCL         2           38			95% KM (t) UCL	90.85	95% KM (Percentile Bootstrap) UCL	88.75							
36         90% KM Chebyshev UCL         113.2         95% KM Chebyshev UCL         1           37         97.5% KM Chebyshev UCL         173.5         99% KM Chebyshev UCL         2           38         39         Gamma GOF Tests on Detected Observations Only         40         A-D Test Statistic         0.326         Anderson-Darling GOF Test         41           40         A-D Test Statistic         0.326         Anderson-Darling GOF Test         42           41         5% A-D Critical Value         0.744         betected data appear Gamma Distributed at 5% Significan           42         K-S Test Statistic         0.21         Kolmogorov-Smirnov GOF           43         5% K-S Critical Value         0.272         betected data appear Gamma Distributed at 5% Significan           44         Detected data appear Gamma Distributed at 5% Significance Level         45           45         46         Gamma Statistics on Detected Data Only           47         k hat (MLE)         1.245         k star (bias corrected MLE)           48         Theta hat (MLE)         52.25         Theta star (bias corrected MLE)           50         Mean (detects)         68.79         51           52         Gamma ROS Statistics using Imputed Non-Detects         55           53         GROS	35		95% KM (z) UCL	88.04	95% KM Bootstrap t UCL								
38         39       Gamma GOF Tests on Detected Observations Only         40       A-D Test Statistic       0.326       Anderson-Darling GOF Test         41       5% A-D Critical Value       0.744 Petected data appear Gamma Distributed at 5% Significan         42       K-S Test Statistic       0.21       Kolmogorov-Smirnov GOF         43       5% K-S Critical Value       0.272 Petected data appear Gamma Distributed at 5% Significance         44       Detected data appear Gamma Distributed at 5% Significance Level         45		90%	KM Chebyshev UCL	113.2	95% KM Chebyshev UCL 13								
33       Gamma GOF Tests on Detected Observations Only         40       A-D Test Statistic       0.326       Anderson-Darling GOF Test         41       5% A-D Critical Value       0.744       Petected data appear Gamma Distributed at 5% Significan         42       K-S Test Statistic       0.21       Kolmogorov-Smirnov GOF         43       5% K-S Critical Value       0.272       Petected data appear Gamma Distributed at 5% Significance Level         44       Detected data appear Gamma Distributed at 5% Significance Level       45         45	37	97.5%	KM Chebyshev UCL	173.5	99% KM Chebyshev UCL	242.3							
40       A-D Test Statistic       0.326       Anderson-Darling GOF Test         41       5% A-D Critical Value       0.744       Vetected data appear Gamma Distributed at 5% Significant         42       K-S Test Statistic       0.21       Kolmogorov-Smirnov GOF         43       5% K-S Critical Value       0.272       Vetected data appear Gamma Distributed at 5% Significance         44       Detected data appear Gamma Distributed at 5% Significance Level       45         45	38				· /								
41       5% A-D Critical Value       0.744       betected data appear Gamma Distributed at 5% Significant         42       K-S Test Statistic       0.21       Kolmogorov-Smirnov GOF         43       5% K-S Critical Value       0.272       betected data appear Gamma Distributed at 5% Significant         44       Detected data appear Gamma Distributed at 5% Significance Level       45         45	39		Gamma GOF T	ests on De	etected Observations Only								
42       K-S Test Statistic       0.21       Kolmogorov-Smirnov GOF         43       5% K-S Critical Value       0.272       Petected data appear Gamma Distributed at 5% Significance         44       Detected data appear Gamma Distributed at 5% Significance Level       45         45	40		A-D Test Statistic	0.326	Anderson-Darling GOF Test								
43       5% K-S Critical Value       0.272       etected data appear Gamma Distributed at 5% Significance         44       Detected data appear Gamma Distributed at 5% Significance Level         45         46       Gamma Statistics on Detected Data Only         47       k hat (MLE)       1.245       k star (bias corrected MLE)         48       Theta hat (MLE)       55.25       Theta star (bias corrected MLE)         49       nu hat (MLE)       24.9       nu star (bias corrected MLE)         50       Mean (detects)       68.79       51         51       52       Gamma ROS Statistics using Imputed Non-Detects         53       GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs         54       GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs         55       For such situations, GROS method may yield incorrect values of UCLs and BTVs         56       This is especially true when the sample size is small (e.g., <15	41	Ę	5% A-D Critical Value	0.744	etected data appear Gamma Distributed at 5% Signific	ance Lev							
44       Detected data appear Gamma Distributed at 5% Significance Level         45         46       Gamma Statistics on Detected Data Only         47       k hat (MLE)       1.245       k star (bias corrected MLE)         48       Theta hat (MLE)       55.25       Theta star (bias corrected MLE)         49       nu hat (MLE)       24.9       nu star (bias corrected MLE)         50       Mean (detects)       68.79       51         51       52       Gamma ROS Statistics using Imputed Non-Detects         53       GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs         54       GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15	42		K-S Test Statistic	0.21	Kolmogorov-Smirnov GOF								
45         46       Gamma Statistics on Detected Data Only         47       k hat (MLE)       1.245       k star (bias corrected MLE)         48       Theta hat (MLE)       55.25       Theta star (bias corrected MLE)         49       nu hat (MLE)       24.9       nu star (bias corrected)         50       Mean (detects)       68.79       1         51       52       Gamma ROS Statistics using Imputed Non-Detects         53       GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs         54       GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15         55       For such situations, GROS method may yield incorrect values of UCLs and BTVs         56       This is especially true when the sample size is small.         57       For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates         58       Minimum       0.01       Mean         59       Maximum       200       Mean       24         60       SD       63.92       CV       61         61       k hat (MLE)       0.395       k star (bias corrected MLE)       145         62       Theta star (bias corrected MLE)       145	43	!	5% K-S Critical Value	0.272	etected data appear Gamma Distributed at 5% Signific	ance Lev							
46       Gamma Statistics on Detected Data Only         47       k hat (MLE)       1.245       k star (bias corrected MLE)         48       Theta hat (MLE)       55.25       Theta star (bias corrected MLE)         49       nu hat (MLE)       24.9       nu star (bias corrected MLE)         50       Mean (detects)       68.79       51         51       52       Gamma ROS Statistics using Imputed Non-Detects         53       GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs         54       GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15	44	De	etected data appear C	Gamma Di	stributed at 5% Significance Level								
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	45												
48Theta hat (MLE)55.25Theta star (bias corrected MLE)49nu hat (MLE)24.9nu star (bias corrected)50Mean (detects)68.795152Gamma ROS Statistics using Imputed Non-Detects53GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs54GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15	46		Gamma S	tatistics or	Detected Data Only								
49       nu hat (MLE)       24.9       nu star (bias corrected)         50       Mean (detects)       68.79         51       52       Gamma ROS Statistics using Imputed Non-Detects         53       GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs         54       GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15	47		k hat (MLE)	1.245	k star (bias corrected MLE)	0.938							
50       Mean (detects)       68.79         51         52       Gamma ROS Statistics using Imputed Non-Detects         53       GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs         54       GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15	48		Theta hat (MLE)	55.25	Theta star (bias corrected MLE)	73.32							
51         52       Gamma ROS Statistics using Imputed Non-Detects         53       GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs         54       GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15	49		nu hat (MLE)	24.9	nu star (bias corrected)	18.76							
51         52       Gamma ROS Statistics using Imputed Non-Detects         53       GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs         54       GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15         55       For such situations, GROS method may yield incorrect values of UCLs and BTVs         56       This is especially true when the sample size is small.         57       For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates         58       Minimum       0.01       Mean       Statistics         59       Maximum       200       Median       Statistics       CV         61       K hat (MLE)       0.395       k star (bias corrected MLE)       10         62       Theta hat (MLE)       145       Theta star (bias corrected MLE)       11         63       nu hat (MLE)       9.489       nu star (bias corrected)         64       Adjusted Level of Significance (β)       0.029       0.029	50		Mean (detects)	68.79									
53       GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs         54       GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15	51												
54       GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15	52				÷ .								
55       For such situations, GROS method may yield incorrect values of UCLs and BTVs         56       This is especially true when the sample size is small.         57       For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates         58       Minimum       0.01         59       Maximum       200         60       SD       63.92         61       K hat (MLE)       0.395         62       Theta hat (MLE)       145         63       nu hat (MLE)       9.489         64       Adjusted Level of Significance (β)       0.029	53												
56       This is especially true when the sample size is small.         57       For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates         58       Minimum       0.01       Mean       9         59       Maximum       200       Median       2         60       SD       63.92       CV       61       K hat (MLE)       0.395       k star (bias corrected MLE)         62       Theta hat (MLE)       145       Theta star (bias corrected MLE)       14         63       nu hat (MLE)       9.489       nu star (bias corrected)       64	54	-				<15-20)							
57For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates58Minimum0.01Mean5959Maximum200Median5060SD63.92CV6161k hat (MLE)0.395k star (bias corrected MLE)62Theta hat (MLE)145Theta star (bias corrected MLE)63nu hat (MLE)9.489nu star (bias corrected)64Adjusted Level of Significance (β)0.02960	55	For such			-								
58         Minimum         0.01         Mean         9           59         Maximum         200         Median         2           60         SD         63.92         CV         6           61         K hat (MLE)         0.395         k star (bias corrected MLE)         16           62         Theta hat (MLE)         145         Theta star (bias corrected MLE)         16           63         nu hat (MLE)         9.489         nu star (bias corrected)         16           64         Adjusted Level of Significance (β)         0.029         10         10	56			-									
59Maximum200Median260SD63.92CV61k hat (MLE)0.395k star (bias corrected MLE)62Theta hat (MLE)145Theta star (bias corrected MLE)63nu hat (MLE)9.489nu star (bias corrected)64Adjusted Level of Significance (β)0.029	57	For gamma distributed de	tected data, BTVs and		y be computed using gamma distribution on KM estima								
60         SD         63.92         CV           61         k hat (MLE)         0.395         k star (bias corrected MLE)           62         Theta hat (MLE)         145         Theta star (bias corrected MLE)           63         nu hat (MLE)         9.489         nu star (bias corrected)           64         Adjusted Level of Significance (β)         0.029         1000000000000000000000000000000000000	58		Minimum		Mean	57.33							
61       k hat (MLE)       0.395       k star (bias corrected MLE)         62       Theta hat (MLE)       145       Theta star (bias corrected MLE)       145         63       nu hat (MLE)       9.489       nu star (bias corrected)       145         64       Adjusted Level of Significance (β)       0.029       145       145	59		Maximum		Median	27.5							
62       Theta hat (MLE)       145       Theta star (bias corrected MLE)       145         63       nu hat (MLE)       9.489       nu star (bias corrected)       145         64       Adjusted Level of Significance (β)       0.029       145       145	60		SD	63.92	CV	1.115							
63     nu hat (MLE)     9.489     nu star (bias corrected)       64     Adjusted Level of Significance (β)     0.029	61		k hat (MLE)		k star (bias corrected MLE)	0.352							
64     Adjusted Level of Significance (β)     0.029	62		Theta hat (MLE)	145	Theta star (bias corrected MLE)	162.8							
64     Adjusted Level of Significance (β)     0.029	63		nu hat (MLE)	9.489	nu star (bias corrected)	8.45							
	64	Adjusted Lev	vel of Significance (β)	0.029									
65Approximate Chi Square Value (8.45, $\alpha$ )2.998Adjusted Chi Square Value (8.45, $\beta$ )	65	Approximate Chi S	quare Value (8.45, α)	2.998	Adjusted Chi Square Value (8.45, β)	2.525							

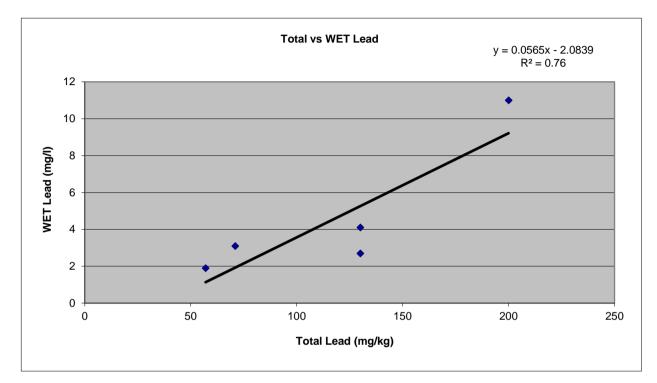
		T =	0				14						
66	A B C D E 95% Gamma Approximate UCL (use when n>=50	F ) 161.6	G 9	H 5% Gamma	I hatsuid A	J ICL (use w	K hen n<50)	L 191.9					
67		/ 101.0	5		Aujusteu t		nen n 500)	101.0					
67	Estimates of Gamma Parameters using KM Estimates												
69	Mean (KM		ineters us		mates		SD (KM)	61.04					
69 70	Variance (KM	,				SE of M	lean (KM)	18.57					
70	k hat (KM	,					star (KM)	0.721					
71	nu hat (KM						star (KM)	17.3					
-	theta hat (KM	,					star (KM)	79.75					
73 74	80% gamma percentile (KM	,			00% as	imma perce	( )	143.3					
	95% gamma percentile (KM	·			-	imma perce	. ,	313.4					
75		193.0			99 % ya	inina perce		515.4					
76	Gamm	a Kaplan-M	oior (KM)	Statistics									
77 78	Approximate Chi Square Value (17.30, α				ted Chi Sa	uare Value	(17 30 B)	7.983					
-	5% Gamma Approximate KM-UCL (use when n>=50	·	05%	Gamma Adji			,	124.6					
$ \rightarrow $	5% Gamma Approximate KM-OCE (use when h>=50	) 111.9	95%	Gamma Auj		JCL (use wi	nen n<50)	124.0					
80													
81	Shapiro Wilk Test Statistic				•	k GOF Tes		-					
82			Detect		-								
83	5% Shapiro Wilk Critical Value Lilliefors Test Statistic		Delect	ted Data app	-	GOF Test	Significant	e Level					
84	5% Lilliefors Critical Value		Detect	ted Data app			Significant						
85	Detected Data ap					iiiidi at 3%	Significant						
86		pear Logno	rmai at 55	% Significan	ce Level								
87	Lognormal ROS	Statiation	loing Imr	uted Nep D	otooto								
88	Mean in Original Scale		Using imp		elecis	Maan in	Log Scale	3.352					
89	0						<u> </u>	1.392					
90	SD in Original Scale 95% t UCL (assumes normality of ROS data					centile Boot	Log Scale	88.08					
91	95% LOCE (assumes normality of ROS data 95% BCA Bootstrap UCI	,						105.5					
92						95% Bootst	trap t UCL	105.5					
93	95% H-UCL (Log ROS	) 351.3						ι					
94	Statistics using KM estimates		Data and	Accuming	ognormol	Distribution							
95	KM Mean (logged		Jala anu /	Assuming L	ognormal		Geo Mean	23.31					
96	KM SD (logged				0E% Criti	cal H Value		4.281					
97	KM Standard Error of Mean (logged					5% H-UCL		845.6					
98	KM Standard Erfor of Mean (logged KM SD (logged					cal H Value	( 0)	4.281					
99	KM Standard Error of Mean (logged				95 % Chu		(RIVI-LOG)	4.201					
100	KM Standard Error of Mean (logged	0.512						υ					
101		DL/2 S	totiotico										
102	DL/2 Normal	0023	เลแอแตอ	r		ransformed	4						
103	Mean in Original Scale	e 57.41					Log Scale	3.033					
104	SD in Original Scale						Log Scale	1.99					
105	95% t UCL (Assumes normality						-Stat UCL	2913					
106 107	DL/2 is not a recommended me	,	ded for co	mnarieone	and hietori			2010					
107							,						
108	Nonparame	tric Dietribu	tion Free	UCI Statiet	ics								
	Detected Data appear					/el							
110													
111		Suggested		60									
112													
113		. 30.00											
114	Note: Suggestions regarding the selection of a 95%		ovided to	heln the use	r to select	the most on	nronriate (						
115	Recommendations are bas			•		-	propriate :	/5 /0 UCL.					
116	These recommendations are based upon the result							a (2006)					
117						-		. ,					
	lowever, simulations results will not cover all Real W	Jilu uata se	15, 101 200	nuonai msigr	it the user	may want to	o consult a	statisticial					
119													

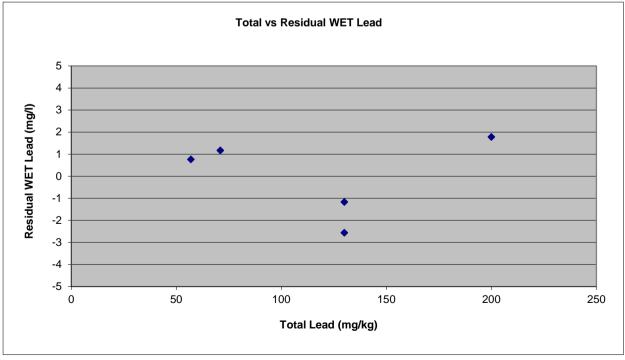
		F	GHJJK	L M						
1			ensored Full Data Sets	L IVI						
2										
3	User Selected Options									
4	Date/Time of Computation ProUCL 5.16/20/2019 2:49:38 PM									
5	From File E9133-02-02 ProU	CL Output	AS and Ni.xls							
6 7	Full Precision OFF Confidence Coefficient 95%									
8	per of Bootstrap Operations 2000									
9										
10										
11	Arsenic									
12					-					
13	General Statistics									
14	Total Number of Observations	s 12	Number of Distinct Observations	10						
15 16	Minimum	0.5	Number of Missing Observations Mean	1 2.283						
17	Maximum		Median	2.35						
18	SD		Std. Error of Mean	0.391						
19	Coefficient of Variation		Skewness	-0.27						
20										
21	Normal GOF Test									
22	Shapiro Wilk Test Statistic		Shapiro Wilk GOF Test							
23			k Critical Value							
24			est Statistic	val						
25 26	5% Lilliefors Critical Value Data appear Normal at 5% Significance Leve		Data appear Normal at 5% Significance Le	vei	-					
20		+								
28	Assuming Normal Distribution									
29			rmal UCL							
30		95% Stud	lent's-t UCL							
31										
32										
33	Gamma GOF Test									
34 35	A-D Test Statistic 5% A-D Critical Value		Anderson-Darling Gamma GOF Test Not Gamma Distributed at 5% Significance Level							
36	K-S Test Statistic		Kolmogorov-Smirnov Gamma GOF Test							
37	5% K-S Critical Value		pear Gamma Distributed at 5% Significance Level							
38			Distribution at 5% Significance Level							
39										
40	Gamma Statistics									
41	k hat (MLE)		k star (bias corrected MLE)							
42	Theta hat (MLE)		Theta star (bias corrected MLE)							
43 44	nu hat (MLE)		nu star (bias corrected) ias corrected)							
44										
46	Adiu	sted Level	of Significance							
47	,									
48	Assuming Gamma Distribution									
	% Approximate Gamma UCL (use when n>=50))	3.46	95% Adjusted Gamma UCL (use when n<50)	3.695						
50										
51			GOF Test							
52 53			Test Statistic lk Critical Value							
53			est Statistic							
55			Critical Value							
56			normal at 5% Significance Level							
57		-								
58	Lognormal Statistics									
59	Minimum of Logged Data		Mean of logged Data	0.57						
60	Maximum of Logged Data	1.361	SD of logged Data	0.84	-					
61 62	Assuming Lognormal Distribution	<u> </u>								
63	Assuming Lognormal Distribution 95% H-UCL		90% Chebyshev (MVUE) UCL	4.287						
64	95% Chebyshev (MVUE) UCL		97.5% Chebyshev (MVUE) UCL	6.301						
65	99% Chebyshev (MVUE) UCL			-						
66										
67			tion Free UCL Statistics							
68	Data appear to follow a D	scernible I	Distribution at 5% Significance Level							
69		l								
70	Nonparametric Distribution Free UCLs 95% CLT UCL		OF9/ Josephysics LIO	2 0 0 5						
74		/ 9/0	95% Jackknife UCL	2.985						
71 72	95% Standard Bootstrap UCL		95% Bootstrap-t UCL	2.93						

	Α	В	С	D	E	F	G	Н	1	J	K	L	М
70	~	U	-	_						ntile Boots		 2.892	IVI
73	-			Iall's Boots		2.852		,	J 70 Perce		suap UCL	2.692	
74													
75	90% Chebyshev(Mean, Sd) UCL 3.456 95% Chebyshev(Mean, Sd) UCL 3.987												
76					97.5%	Chebyshe	ev(Mean, S	Sd) UCL					
77													
78			Sug	gested U	CL to Use								
79			9	5% Studer	nt's-t UCL	2.985							
80													
81	Suggesti	ons regar	ding the s	election of	f a 95% U	CL are pr	ovided to	help the u	user to sel	ect the mo	ost approp	riate 95%	
82			ita distribut			•		•					
			ngh, Maich										
84			/ want to c										
85	noight are		want to c	onour a or	ausucian.								
	lote: For I		jatively-sk	owod date	a confida	nce limite	la a Che	n Johne	on Logno	rmal and	Gamma)	may not h	
87			. Chen's a									nay not b	
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	Nickel												
	INICKEI												
91				0	01-1-1-1-								
92			T - 4 - 1 N 1		Statistics	10						10	
93			Total Num	uer of Ubs	ervations	12		Nu	unper of D	istinct Obs	servations	10	
94													
95							mum					05 -	
96					Maximum	88					Median	25.5	
97					SD	19.41					or of Mean	5.603	
98			Co	efficient of	Variation	0.584				S	Skewness	2.4	
99													
100				Normal (	GOF Test								
101					Sha	apiro Wilk	Test Stat	istic					
102					5% S	hapiro Wi	lk Critical	Value					
103		L	illiefors Te	est Statist	ic				Lilliefors	GOF Test	1		
104			5% Lill	iefors Crit	ical Value	0.243	Da	ata Not No	ormal at 59	% Significa	nce Level		
105	Da	ata Not No	ormal at 5%	6 Significa	nce Level								
106													
107					Assu	mina Nor	mal Distrit	oution					
108							ormal UCL						
109							dent's-t UC						
110						0070 0101							
111													
112						Gamma	GOF Test						
113					t Statistic				on Darlin	g Gamma			
114				A-D Tes			' ritical Valu		on-Daning	y Gamma	GOFTESI		
115					ü		t Statistic	e					
116							ritical Valu	~					
				Data N									
117				Data N	ot Gamma	a Distribut	ed at 5% S	Significant	ce Level				
118						0	04-04-01						
119	1. h / * *		1				Statistics			1		0 700	
	k hat (ML						k star (bia					3.726	
	Theta hat	· ,					Theta sta			_ <b>_</b> _)		8.923	
	nu hat (M						nu star (b					89.43	
	MLE Mea	in (bias co	prrected)			33.25	MLE Sd (					17.22	
124	A 11								quare Val	ue (0.05)		68.63	
	Adjusted	Level of S	Significance	e		0.029	Adjusted	Chi Squa	re Value			65.85	
126			<u> </u>										
			Distributio							<u> </u>			
128	95% Ap	proximate	e Gamma I	UCL (use	when n>=	43.33	95% Ac	justed Ga	amma UCI	_ (use whe	n n<50)	45.16	
129													
	Lognorma												
	Shapiro V						Shapiro V						
			ritical Valu	e						ignificance	Level		
133	Lilliefors 7	Fest Statis	stic				Lilliefors I						
	5% Lillief					0.243	Data Not	Lognorma	al at 5% S	ignificance	Level		
135	Data Not	Lognorma	al at 5% Si	gnificance	Level								
136									1	1			
	Lognorma	al Statistic	s						1	1			
	Minimum					2.89	Mean of I	ogged Da	ta	1		3.398	
	Maximum						SD of log			1		0.438	
140							g						
	Assuming		nal Distribu	ition						1			
141	95% H-					43.28	90% CH	ehvshev	(MVUE) L			45.27	
142			(MVUE) U	CL		50.99			(MVUE) (			58.93	
			(MVUE) U			74.52	57.570 0	lebysilev				50.95	
144	39% U	enter	(שטעטב) ט			74.52	1		1	1	1		

	Α	В	С	D	E	F	G	Н	I	J	K	L	М
145													
146	Nonparar	netric Dist	ribution Fr	ee UCL S	tatistics								
147	Data do r	ot follow a	Discernit	ole Distribu	ution (0.05	)							
148													
149	Nonparar	netric Dist	ribution Fr	ee UCLs									
150	95% CL	T UCL				42.47	95% Ja	ckknife U	CL			43.31	
151		andard Bo	otstrap UC	CL		42.12	95% Bo	otstrap-t I	JCL			61.48	
152		II's Bootst				79.55	95% Pe	rcentile B	ootstrap U	CL		43.08	
153		CA Bootstr				46.75							
154		ebyshev(	. ,			50.06		, ,	Mean, Sd)			57.67	
		hebyshev	(Mean, Sd	) UCL		68.24	99% Ch	ebyshev(	Mean, Sd)	UCL		89	
156													
	00	d UCL to											
		lent's-t UC	L			43.31	or 95% M	odified-t l	JCL			43.96	
159													
			0 0						ne user to	select the	most appr	opriate 95	% UCL.
-					a size, data		,						
									ummarize	-			-
	However,	simulatio	ns results	will not co	ver all Rea	al World da	ata sets; fo	or additior	al insight t	he user m	ay want to	o consult a	statistician.
164													

Sample ID	Total Lead (mg/kg)	WET Lead (mg/l)	Predicted WET Lead (mg/l)	Residual WET Lead (mg/l)	Squared Residual WET Lead (mg/l)
H1-0	130	4.1	5.3	-1.16	1.35
H3-1	71	3.1	1.9	1.17	1.38
H4-1	200	11	9.2	1.78	3.19
H5-0.5	57	1.9	1.1	0.76	0.58
H5-1.5	130	2.7	5.3	-2.56	6.56





Т&Ј	Lewis	Inc.			Estimate #		
CL		SIC GRAPH	IICS	ESTIMATE	Date	,	
					Repair Order #	ESTIM	ATE
		s & custoм veнicle wғ rprise Drive	CAP5	Customer			
		A 94560	Name/Division	Emeryville Transportation Managemer	nt Association 451 City of N	Jewark	1
		190 office		1211 Newell Ave. #200		<b>Newan</b>	
510-	713-8	541 fax			CA 94596		
BAR#	# AB220	)336			aren Boggs		
VIN:				NA Number: BUSES	E-Mail: <u>karen@graybo</u>	Terms:	]
	MAKE	MODEL	LICENSE NO.	SPEEDOMETER			COD
	INTEF	BUSES					
	R/P/P/D			NORK PERFORMED RTS AND MATERIALS	LABOR HOURS	PARTS AMOUNT	PAINT AMOUNT
Bin	Number	DE	SCRIPTION OF PA	RTS AND MATERIALS	HOURS	AMOUNT	AWOUNT
			EMERY GO RO				
		1	IEW DRIVERS				
			RICE IS FOR 2	/ DUJEJ			
SU	PPLY	AND INSTALL PROTE	CTIVE BARRIE	R BETWEEN DRIVER AN	D 202.50	\$16,065.00	
		CUSTOM CUT CLEAF			•		
		FROM FLOOR TO RC		UBING FRAME SUPPORT			
				AND PICK UP BUSES AT	•	[	
		CLASSIC GRAPHICS	TO SAVE IN D	ELIVERY FEE'S			
S	ign		DESCRIPTION	OF SIGN/DECAL	Labor	Sign/Decal Amt.	
<u> </u>	hop						
		Redy Meteriale Dec	arintian	Marta dala Array	Total Labor Total Parts	\$ 18,225.00 \$ 16,065.00	total hrs labor 202.50
RIVF	ΤS ΑΝΓ	Body Materials Des DBOLTS	scription	Materials Amount \$499.50	Total Materials	\$ 16,065.00	Labor rate
				ψ 100.00	Total Paint	\$ -	\$ 90.00
		Sublet Descrip		Sublet Amount	Total Sign/Decals	<b>\$</b> -	per hour
CLAS	SSIC GF	RAPHICS TO PICK UP	AND DELIVER	\$4,725.00	Sublet 9.75% CA Sales Tx	\$ 4,725.00 \$ 1,615.04	
					Estmate Amount	<b>\$</b> 1,615.04 <b>\$</b> 41,129.54	
		Thank-You	,		Estimate Amount		
		1 nank-1 0u	l		Deposit	\$-	
					Balance Due	\$-	
				Customer Copy	Customer P.O. #		

T & J Lewis	Inc.			Estimate #		
CLAS	SIC GRAPH	HICS	ESTIMATE	Date	June 9,	2020
COMPLETE PA	AINTING & BODY REPAIRS	- FABRICATION		 Repair Order #	ESTIM	ATE
	S & CUSTOM VEHICLE WI	RAPS				
	rprise Drive		Customer	=		r
Newark, C			West Berkeley Bus	451 City of	Newark	
510-744-2 510-713-8			1211 Newell Ave. #200	CA 94596		
BAR# AB220			-	aren Boggs		
			NA	E-Mail: <u>karen@graybo</u>	wenscott.com	
VIN:			Number: NA		Terms:	
YEAR MAKE	MODEL R/FORIBUSES	LICENSE NO.	SPEEDOMETER		NET	30
R/R/P/P/D		DESCRIPTION OF V		LABOR	PARTS	PAINT
Bin Number			RTS AND MATERIALS	HOURS	AMOUNT	AMOUNT
		NEW DRIVERS	BADDIED			
		PRICE PER B				
SUPPLY	AND INSTALL PROTI	ECTIVE BARRIE	R BETWEEN DRIVER AN	D 8.50	\$595.00	
	CUSTOM CUT CLEA		VATE TO FIT			
	NOTE CAN CLEAN A					
Sign		DESCRIPTION	OF SIGN/DECAL	Labor	Sign/Decal Amt.	
Shop						
	Dody Motorials De	oorintion	NA-L-2-J A	Total Labor Total Parts	\$    765.00 \$    595.00	total hrs labor
RIVETS / BC	Body Materials De	scription	Materials Amount \$18.50	Total Parts	\$ 595.00 \$ 18.50	8.50 Labor rate
			ψ10.00	Total Paint	\$ 10.50 \$ -	\$ 90.00
	Sublet Descrip	otion	Sublet Amount	Total Sign/Decals	\$ -	per hour
PICK UP AN	D DELIVER		\$175.00	Sublet	\$ 175.00	
				9.75% CA Sales Tx Estmate Amount	\$ 59.82 <b>\$ 1,613.32</b>	
				Estimate Amount		
	Thank-Yoi	U		Deposit	тт	
				Balance Due	\$-	
					т	
			Customer Copy	Customer P.O. #		
				·		