PHASE III ENVIRONMENTAL SITE ASSESSMENT

Subject Property Address

1208 Lincoln Avenue

Alameda, CA 94501

ENCON Project Number

1410097ESAII

Report Date

1/14/2015

Prepared for

Mr. Ryan Shin

Open Bank

1000 Wilshire Blvd. Suite 500

Los Angeles, CA 90017

ENCON Solutions, Inc.

Environmental Consulting and Real Estate Due Diligence
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Attached please find our PHASE III ENVIRONMENTAL SITE ASSESSMENT, ("the Report") for the above-mentioned Subject Property. This report has been prepared by ENCON for the Client under the professional supervision of the principal and/or senior staff whose seal(s) and signatures appear hereon. Neither ENCON, nor any staff member assigned to this investigation has any interest or contemplated interest, financial or otherwise, in the subject or surrounding properties, or in any entity which owns, leases, or occupies the subject or surrounding properties , and has no personal bias with respect to the parties involved.

The assessment was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession, and in accordance with generally accepted practices of other consultants currently practicing in the same locality under similar conditions. No other representation, expressed or implied, and no warranty or guarantee is included or intended. The Report speaks only as of its date, in the absence of a specific written update of the Report, signed and delivered by ENCON.

There are no intended or unintended third party beneficiaries to this Report, unless specifically named. ENCON is an independent contractor, not an employee of either the issuer or the borrower, and its compensation was not based on the findings or recommendations made in the Report or on the closing of any business transaction. Thank you for the opportunity to prepare this Report, and assist you with this project. Please call us if you have any questions or if we may be of further assistance.

By signing below, ENCON declares that, to the best of our professional knowledge and belief, the undersigned meet the definition of an Environmental Professional as defined in §312.10 of 40 CFR 312 and have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. ENCON has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Respectfully Submitted,

Hyung K. Kim, P.E.

Principal Consultant, Professional Engineer

ENCON Solutions, Inc.
Environmental Consulting & Real Estate Due Diligence

3255 Wilshire Blvd., Suite 1508, Los Angeles, CA 90010
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January 14, 2015

To: Open Bank ("Lender")
1000 Wilshire Boulevard, Suite 500
Los Angeles, CA 90017

And

U.S. Small Business Administration ("SBA")

Re: Borrower Name: N/A
Project Address ("Property"): 1208 Lincoln Avenue, Alameda, CA 94501
Environmental Investigation Report Number(s): 1410097ESAIII

Dear Lender and SBA:

Hyung Kim ("Environmental Professional") meets the definition of an Environmental Professional as defined by 40 C.F.R. § 312.10(b) and has performed the following "Environmental Investigation(s)" (check all that apply):

___ A Transaction Screen of the Property dated ____ __, 2015____, conducted in accordance with ASTM International's most recent standard (currently ASTM E1528-06);

___ A Phase I (or an Updated Phase I) Environmental Site Assessment of the Property dated _____ __, 2015____, conducted in accordance with ASTM International's most recent standard (currently ASTM E1527-13). In addition, the Environmental Professional has addressed the performance of the "additional inquiries" set forth at 40 C.F.R. § 312.22;

__X__ A Phase II Environmental Site Assessment of the Property dated January 14, 2015 conducted in accordance with generally-accepted industry standards of practice and consisting of a scope of work that would be considered reasonable and sufficient to identify the presence, nature and extent of a Release as it impacts the Property.

Reliance by SBA and Lender. Environmental Professional (and Environmental Professional's firm, where applicable) understand(s) that the Property may serve as collateral for an SBA guaranteed loan, a condition for which is an Environmental Investigation of the Property by an Environmental Professional. Environmental Professional (and Environmental Professional's firm, where applicable) authorize(s) Lender and SBA to use and rely upon the Environmental Investigation. Further, Environmental Professional (and Environmental Professional's firm, where applicable) authorize(s) Lender and SBA to release a copy of the Environmental Investigation to the borrower for information purposes only. This letter is not an update or modification to the Environmental Investigation. Environmental Professional (and Environmental Professional's firm, where applicable) makes no representation or warranty, express or implied, that the condition of the Property on the date of this letter is the same or similar to the condition of the Property described in the Environmental Investigation.

Insurance Coverage. Environmental Professional (and/or Environmental Professional's firm, where applicable) certifies that he or she or the firm is covered by errors and omissions liability insurance with a minimum coverage of $1,000,000 per claim (or occurrence) and that evidence of this insurance is attached. As to the Lender and SBA, Environmental Professional (and Environmental Professional's firm, where applicable) specifically waive(s) any dollar amount limitations on liability up to $1,000,000.

Waiver of Right to Indemnification. Environmental Professional and Environmental Professional's firm waive any right to indemnification from the Lender and SBA.

Impartiality. Environmental Professional certifies that (1) to the best of his or her knowledge, Environmental Professional is independent of and not a representative, nor an employee or affiliate of seller, borrower, operating company, or any person in which seller has an ownership interest; and (2) the Environmental Professional has not been unduly influenced by any person with regard to the preparation of the Environmental Investigation or the contents thereof.

Acknowledgment. The undersigned acknowledge(s) and agree(s) that intentionally falsifying or concealing any material fact with regard to the subject matter of this letter or the Environmental Investigations may, in addition to other penalties, result in prosecution under applicable laws including 18 U.S.C. § 1001.

_____
Environmental Professional
Printed Name: Hyung Kim

(Note: The Environmental Professional must always sign this letter above. If the Environmental Professional is employed or retained by an Environmental Firm, then an authorized representative of the firm must also sign below).

_____
Signature of representative of firm who is authorized to sign this letter
Printed Name & Title: Hyung Kim, Principal Consultant
Name of Environmental Firm: ENCON Solutions, Inc.
Enclosure: Evidence of Insurance

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 01/28/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER

LEEDS INSURANCE SERVICES, Inc.
18032 Lemon Drive, Suite C428
Yorba Linda, CA 92886

CONTACT NAME: Juan Martinez
PHONE (A/C, No, Ext): (714)978-2000 FAX (A/C, No): (714)978-2075
E-MAIL ADDRESS: jcleeds@concentric.net

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Westchester Surplus Lines Insurance Company	10172
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED

ENCON SOLUTIONS, Inc.
3255 Wilshire Blvd., #1508
Los Angeles, CA 90010

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR X Professional & Pollution Liab GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO-JECT LOC			EGL000327	01/30/2014	01/30/2015	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 2,000,000 $ 50,000 $ 5,000 $ 2,000,000 $ 4,000,000 $ 2,000,000
	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ $ $ $
	UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $						EACH OCCURRENCE AGGREGATE	$ $
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICE/MEMBER EXCLUDED? Y / N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A					WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ $ $

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Certificate holder as additional insured.

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Juan Martinez

Clear All

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1.0 LIMITATIONS

The opinion expressed herein is based on the information collected during our study, our present understanding of the site conditions and our professional judgment in light of such information at the time of preparation of this report. No warranty is either expressed, implied or made as to the conclusions, advice and recommendations offered in this report.

Our investigation was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable Engineers and Geologists practicing in this or similar localities. The samples taken and used for testing and the observations made are believed representative of the study area; however, soil and/or groundwater samples can vary significantly between borings, test pits, and/or test sample locations.

The interpretations and conclusions contained in this report are based on the results of laboratory tests and analysis intended to detect the presence and concentration of certain chemical constituents in samples taken from the subject property. Such testing and analysis have been conducted by an independent laboratory which is certified by the State of California to conduct such test analyses and which used methodologies mandated by the Environmental Protection Agency or the State Department of Health Services in the performance of such test and analyses. The consultant has no involvement in, or control over, such testing and analysis, and has no non-laboratory means of confirming the accuracy of such laboratory results. The consultant, therefore, disclaims any responsibility for any inaccuracy in such laboratory results.

The findings, conclusions and recommendations in this report are considered valid as of the present date. However, changes in the conditions of the property can occur with the passage of time, due to natural process or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur. Accordingly, portions of this report may be invalidated wholly or partially by the changes beyond our control.

INDEPENDANT CONTRACTOR STATUS

In performing Services under the scope of work contained in this Report and agreed Contract/Agreement, ENCON shall operate as, and have the status of, an independent contractor.

PROFESSIONAL RESPONSIBILITY

ENCON shall perform the Services consistent with that level of care and skill ordinarily exercised by other professional consultants under similar circumstances at the time the Services are performed. Client hereby acknowledges that whenever a Project involves hazardous or toxic materials there are certain inherent risk factors involved (such as limitations on laboratory analytical methods, variations in subsurface conditions, economic loss to Client or property owner, a potential obligation for disclosure to regulatory agencies, a potential for a decrease in market value of real property, and the like) that may adversely affect the results of the Project, even though the Services are performed with such skill and care. No other representation, warranty, or guarantee, express or implied, is included or intended by the scope of work contained in this Report and agreed Contract/Agreement.

LIMITATION OF LIABILITY

Client agrees that the liability of ENCON and all officers, employees, agents, and subcontractors of ENCON (the “ENCON Parties”) to Client for all claims, suits, arbitration, or other proceedings arising from the performance of the Services under the scope of work contained in this Report and agreed Contract/Agreement, including, but not limited to, ENCON’s professional negligence, errors and omissions, or other professional acts, shall be limited to the Fee amount. ENCON Parties are not liable for any indirect, incidental or consequential damages, lost profits, lost revenue, or loss of property value

based on the Services provided as part of the scope of work contained in this Report and agreed Contract/Agreement.

HAZARDOUS OR UNSAFE CONDITIONS

Client has fully informed ENCON of the type, quantity, and location of any hazardous, toxic, or dangerous materials or unsafe or unhealthy conditions that may affect the Project which Client knows to exist. If Client hereafter becomes aware of any such information, Client shall immediately inform ENCON. The discovery of unanticipated hazardous, toxic, or dangerous materials or unsafe or unhealthy conditions constitutes a Changed Condition that may justify a revision to Services and/or Fees. If ENCON takes emergency measures to protect the health and safety of ENCON Parties and/or the public or to prevent undue harm to the environment, the Fee shall be appropriately adjusted to compensate ENCON for the cost of such emergency measures.

RIGHT OF ENTRY

Client agrees to grant or arrange permission for right of entry from time to time by ENCON Parties upon all real property included in the Project Site(s) where the Services are to be performed, whether or not the Project Site(s) is owned by Client. Client recognizes that the use of investigative equipment and practice may unavoidable alter conditions or affect the environment at the existing Project Site(s). ENCON will operate with reasonable care to minimize damage to the Project Site(s). The cost of repairing such damage will be borne by Client, and in not included in the Fee unless otherwise stated.

UNDERGROUND UTILITIES

Client shall correctly designate on plans to be furnished to ENCON, the location of all subsurface structures, such as pipes, tanks, cables, and utilities within the property lines of the Project Site(s) and shall be responsible for any damage inadvertently cause by ENCON to any such structure or utility not so designated.

REPORTING AND DISPOSAL REQUIREMENTS

Nothing contained in this Report shall be construed or interpreted as requiring ENCON to assume the status of an owner, operator, generator, person who arranges for disposal, transportation, storage, treatment, or a disposal facility as those terms appear within any federal or state statute governing the treatment, storage, and disposal of hazardous substances or wastes. Client shall be solely responsible for notifying all appropriate federal, state, municipal, or other governmental agencies of the existence of any hazardous, toxic, or dangerous materials located on or in the Project Site(s), or discovered during the performance of the scope of work contained in this Report and agreed Contract/Agreement. Client agrees that ENCON is not responsible for disclosures, notifications, or reports that may be required to be made to third parties. Client shall be responsible for making and paying for all necessary arrangements to lawfully store, treat, recycle, dispose of, or otherwise handle hazardous or toxic substances or wastes, including but no limited to, samples and cuttings, to be handled in connection with the Project.

SAMPLES AND CUTTINGS

ENCON shall not be obligated to preserve samples such as oil, rock, water, building materials, fluids and other samples obtained from the Project Site(s) for a longer period of time than a laboratory will store the samples for no additional fee. If sample storage is requested by Client beyond standard laboratory time, Client will be responsible for any storage fee for those samples.

HEALTH AND SAFETY

ENCON shall not be responsible for the health and safety of any persons other than ENCON Parties, nor shall it have any responsibility for the operations, procedures, or practices of persons or entities other than ENCON Parties.

2.0 INTRODUCTION

2.1 PROJECT INFORMATION

All work was performed in accordance with ENCON's Proposal for Additional Site Characterization dated August 29, 2013.

Project Information	
ITEM	
ENCON Project Number	1410097ESAIII
Subject Property Address	1208 Lincoln Avenue in Alameda, Alameda County, CA 94501
Subject Property Name	Elegant Cleaners
Pre-Drilling Activity	October 27, 2014 through November 4, 2014
Workplan and Well Permits	October 28, 2014, permits received on November 4, 2014
Indoor Air/Geophysical Survey	October 30, 2014
Mark/Notify USA	October 30, 2014 and November 9, 2014
Drilling & Well Installation Dates	November 12, 2014
Soil Vapor Survey Date:	November 19, 2014
Well Development Date:	November 21, 2014
Groundwater Sampling Date	November 25, 2014
Wellhead Survey Date	December 22, 2014
Investigative Waste Disposal	December 23, 2014
Report Date	January 9, 2015
QAQC and Figures	January 14, 2015
Staff Engineer	Cora Olson, Project Engineer, EIT
Project Manager / Author	Thomas Lindros, Senior Geologist, P.G. California Licensed Professional Geologist
QAQC/Reviewer	Hyung Kim, Principal Engineer, P.E. California Licensed Professional Civil Engineer
Property Location	The Property is located on the south side of Lincoln Avenue, immediately east of Bay Street, in the north central portion of the City of Alameda.
General Setting	The general setting is commercial/retail with nearby residential buildings.
Property Type	Dry cleaner

2.2 OBJECTIVES

The objective(s) of this investigation are to 1) determine if indoor air quality has been degraded as a result of vapor intrusion from known subsurface contamination with chlorinated solvent released from historical onsite dry cleaning operation, 2) further evaluate the lateral and vertical extent of known chlorinated solvent contamination in soil vapor, 3) characterize the presence or absence of chlorinated solvents in soil matrix phase, 4) evaluate if shallow groundwater has been impacted by the solvent release, and 5) measure depth to water in the three (3) groundwater wells to calculate the groundwater flow direction and gradient.

2.3 Scope of Work

To satisfy the Site Characterization and Remedial Design objectives described above, ENCON completed the following scope of work:

- Pre-marked the Site in white paint and notified Underground Service Alert of the intent to excavate;
- Conducted a geophysical utility clearance survey;
- Prepared a Site Investigation Workplan; obtained groundwater and soil vapor well permits from Alameda County;
- Collected eight-hour time-weighted average indoor and ambient air quality samples;
- Advanced five soil vapor probe borings to depths of approximately 5 feet bgs, installed permanent soil vapor monitoring wells with vapor inlet screens at depth of 5 feet bgs.
- Advanced three (3) soil borings to target depths of 15 feet bgs, or approximately 6 feet below the water level encountered during drilling;
- Collected relatively undisturbed soil samples at approximate 5-foot intervals in the three (3) monitoring well borings;
- Monitored the headspace of collected soil samples using a photo-ionization detector;
- Installed one (1) ¾-inch diameter pre-packed groundwater well indoors (MW-01) and two (2) two-inch diameter PVC groundwater monitoring wells at outdoor locations (MW-02 and MW-03);
- Following minimum 48 hour equilibration period, ENCON conducted a DTSC-compliant soil vapor survey by purging and collecting soil vapor samples from five (5) newly installed soil vapor monitoring wells (VW-1 through VW-5). Analyzed soil vapor and QA/QC samples in an on-Site mobile laboratory.
- Developed and surveyed the newly installed groundwater monitoring wells;
- Purged and collected groundwater samples from the three (3) newly installed monitoring wells.
- Submitted selected soil and groundwater samples for laboratory analysis of volatile organic compounds (VOCs);
- Recorded data on boring log forms;
- Produced a scaled Site map;
- Characterized and disposed of containerized Investigatively-Derived Waste (IDW) soil and purged groundwater.
- Evaluated data and prepared technical report.

3.0 SUBJECT PROPERTY CHARACTERISTICS

3.1 SITE DESCRIPTION

Property Improvement & Building/Land Description	
ITEM	
General Layout of Property	The Property is a 5,500 square-foot irregularly shaped parcel that is developed with two-story 2,500 square-foot commercial building currently occupied by a dry cleaning business name Elegant Cleaners. The northern portion of the building's first floor features a main entrance door leading into a reception area and clothes racks. The southern portion features a large dry cleaning machine, storage and various pressers and dryers. The second floor is used as storage. There is an unpaved parking area at the southern end of the Property. Access to the Property is achieved from the north along Lincoln Avenue and southwest along Bay Street.

3.2 SITE HISTORY

The Property was developed with the current site building in the late 1800s or early 1900s. The building was originally developed as a meat market and was occupied by a store until the mid-1900s. In the 1970s it was occupied by a general store, and in 1980 it was occupied by a pet store. The current occupant, Elegant Cleaners, began occupying the building in 1986. The dry cleaners upgraded to an eco-friendly dry cleaning machine in 2005, which replaced the previous machine that used Tetrachloroethylene (PCE).

3.3 PHYSICAL SETTING

TOPOGRAPHY

The Property's physical location was researched employing a United States Geological Survey (USGS) 7.5 Minute Topographic Quadrangle (Quad) Map relevant to the Property. The USGS 7.5 Minute Quad Map has an approximate scale of 1 inch to 2,000 feet, and may show physical features with environmental significance such as wetlands, water bodies, roadways, mines, and buildings. The elevation of the Property is approximately 30 feet above mean sea level. There is a regional downslope to the north.

GEOLOGY & HYDROGEOLOGY

The site is located within the Coast Ranges geomorphic province of Northern California. The Coast Ranges are characterized as parallel mountain ranges and valleys displaced by strike-slip earthquake faults. The site is underlain by Quaternary-aged beach and dune sand.

While groundwater flow direction at the subject property cannot be confirmed without survey measurement of static groundwater level at triangulated points, it is expected to flow in the direction of surface topographical contour, or toward the wetland or nearest water body or discharge basin (percolation channel).

It is important to note that groundwater flow direction can be influenced locally and regionally by the presence of local wetland features, surface topography, recharge and discharge areas, horizontal and vertical inconsistencies in the types and location of subsurface soils, and proximity to water pumping wells.

Depth and gradient of the water table can change seasonally in response to variation in precipitation and recharge, and over time, in response to urban development such as storm water controls, impervious surfaces, pumping wells, cleanup activities, dewatering, seawater intrusion barrier projects near the coast, and other factors.

SOURCES OF DATA

Current USGS 7.5 Minute Topographical Map
EDR Radius Map Report
http://geotracker.waterboards.ca.gov/esi/uploads/geo_report/3293363273/T0605900506.PDF

3.4 Previous Investigations

Phase II Subsurface Investigation – 2006

A previous Phase II Subsurface Investigation report was prepared by Eras Environmental Inc in 2006. Three hand auger borings were advanced by ERAS Environmental (ERAS) to about 5' depth in the southern portion of the building around the location of the dry cleaning machine. Soil samples collected from the borings were analyzed for TPH-diesel, TPH-kerosene, and HVOC including PCE. The test results indicated non-detectable concentrations for all contaminants tested, including PCE.

Phase I Environmental Site Assessment – January 2013:

A Phase I Environmental Site Assessment was conducted by Eras Environmental, Inc. in January 2013. Eras concluded:

… the operating dry cleaning operation and historical dry cleaning operation (from 1983) are a recognized environmental condition. Proper operation of the dry cleaning system using less hazardous materials combined with proper storage and disposal practices will minimize the risk of leakage or spillage that might pose a risk to subsurface environmental conditions.

Based on the Phase I ESA results, Eras recommended:

… that the dry cleaning operation continue to operate in compliance with agency guidelines for the use, storage and disposal of dry cleaning fluids. Eras concludes that the risk of contamination at the Property is minimal, provided the dry cleaning operation operates in compliance with agency guidelines and no further investigation is warranted for the property.

Phase II Limited Soil Gas Survey – August 2014:

On August 22, 2014, ENCON Solutions, Inc. (ENCON) advanced six borings for the purposes of a soil gas survey. Soil gas samples were collected at depths of 5 to 12 feet bgs. The results indicated the presence of tetrachloroethylene (PCE) at a maximum concentration of 22.48 micrograms per liter (ug/L) in the southern gravel lot area at SV-5-8.0 feet, and 13.54 ug/L at SV-4-5.0 feet inside the building. Soil sampling was not performed. The results indicated soil vapor concentrations are not protective of indoor air quality, and detected concentrations of PCE in soil vapor exceeded California Human Health Screening Level for PCE for commercial land use as well as Bay Area Environmental Screening Level (See Table 2 and 5 in the Attachments of this Report). Groundwater was not encountered at a maximum refusal depth of 12 feet bgs.

4.0 FIELD METHODOLOGY

4.1 Preliminary Activities

Site Photographs are presented in Appendix A.

Prior to initiating the proposed investigation, a Site-Specific Health and Safety Plan (HASP) was prepared. All field investigation activities will be performed in accordance with health and safety procedures described in the HASP. The HASP is presented in Appendix B.

The Site owner and tenants were notified of the field schedule at least 72 hours in advance. Proposed boring locations were marked on-Site in white paint on October 30, 2014, and Underground Services Alert (USA) was notified of the intent to excavate. USA Ticket No. 0471328-000 is presented along with the HASP in Appendix B.

At the time of boring marking for USA, a geophysical borehole clearance survey was performed by Cruz Brothers Locating, Soquel, California. The purpose of the survey was to identify any subsurface anomalies that might represent an impediment to drilling such as subsurface utility lines, void spaces, etc. A combination of methods including radio-detection, electro-magnetic, and ground penetrating radar were employed to satisfy the stated objectives.

Well permits were obtained from the Alameda County Public Works Agency Water Resources Department (ACPWA). A workplan was prepared to describe the work activities, well construction methods, proposed well types, screened intervals and materials. The workplan was submitted along with the online permit application Number 1414191432944. Permits were obtained for 1) three (3) groundwater monitoring wells (MW-1 through MW-3); and five (5) permanent soil vapor sampling wells (VW-1 through VW-5). Permit Numbers W2014-1027 through W2014-1029 were approved on November 4, 2014 for the groundwater monitoring wells; and permit no. W2014-1030 was also approved on November 4, 2014 for the five (5) vapor monitoring wells. Well permits are presented in Appendix C.

4.2 Indoor Air Survey

An indoor air quality test was completed by ENCON Solutions, Inc. The objective of the survey was to determine if known chlorinated solvent contamination in the Site subsurface has an active migration pathway to the building interior (i.e. vapor intrusion); and if identified, whether degraded indoor air quality represents a significant health risk to the building occupants.

Sampling was performed in accordance with DTSC guidance for vapor intrusion, specifically the guidance document entitled *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor* Air, dated October 2011. The air sampling activities were performed on October 30, 2014, and conducted scope of work included the following tasks:

- Notified the Property owner of the schedule for sampling, and ensured that the air circulation system was operating for at least 24 to 48 hours prior to the start of sampling. Indoor air conditions were consistent with operating conditions on a normal business day at the time of sampling.

- Conducted a survey and screening of the building using the DTSC Building Survey form provided in Appendix L of the *2011 DTSC Vapor Intrusion to Indoor Air Guidance* document.

- Collected two (2) outdoor ambient air samples which were sampled concurrently with indoor air samples. Sample BG-1 was located at the extreme southeast portion of the gravel parking lot. Sample BG-2 was located at the southern entrance to the tenant space near the HVAC system intake. Outdoor air sampling started approximately 15 minutes prior to collection of indoor air

samples, such that the ambient air sampled had entered the building before indoor air sampling begins. Wind direction was noted in the morning and afternoon. Sample locations are shown on Figure 2 and Figure 3.

- Collected two (2) Indoor air samples. Sample IA-1 was located on the southwest stairs near the existing hydrocarbon/former solvent based dry cleaning machines. Sample IA-2 was located in the northern portion of the tenant space near the public counter. Sample locations are shown on Figure 2 and Figure 3.

- All four (4) samples were collected on an eight-hour time-weighted average (TWA) basis using flow controllers. Laboratory-supplied 6-liter Summa canisters were placed at the above described sampling locations. Each of the Summa canisters was fitted with flow controller such that the air samples were collected at a slow rate over the period of 8 hours.

- Upon completion of the 8-hour sampling period, each canister was labeled, packaged, and delivered under chain of custody protocol to Air Technology Laboratories, Inc. in the City of Industry, California.

- The two (2) Outdoor and two (2) Indoor Air samples were analyzed for the 23 compound target list (VOCs) by EPA Test Method TO15 using low level selective ion mode (SIM) method to provide detection limits at or below the California Human Health Screening Levels (CHHSL).

Locations of air samples are shown on Figure 2 and Figure 3. Air Sample Collection Data is presented in Appendix D and on Table 1.

4.3 Soil Matrix Sampling and Analysis

On November 12, 2014, eight (8) soil borings were advanced using either direct push or hollow stem auger methods by Environmental Control Associates, Inc. (ECA) of Santa Cruz, California. Direct push methods were employed for the five (5) soil vapor probe borings (VW-1 through VW-5) and the limited access indoor groundwater monitoring well boring (MW-1). Hollow stem auger (HSA) methods were used for the full access outdoor groundwater monitoring well locations (MW-2 and MW-3). The locations of current and historical Site Assessment borings are shown on Figure 2.

Relatively undisturbed soil samples were collected continuously from each of the three (3) monitoring well borings using the Macrocore system. For each core run, an approximate 4-foot core barrel was advanced and a continuous 4-foot interval of representative soil was recovered in lexan sleeves. Selected samples at minimum 5-foot intervals were cut out for laboratory analysis. All remaining soils were used for lithologic description and headspace monitoring.

Immediately following the retrieval of undisturbed soil samples, selected six-inch portion(s) of lexan tube were lined with teflon, capped, labeled, placed into a Ziploc bag, and stored in an ice-chilled cooler.

All soil samples were recorded on a chain-of-custody form to document sample identification and handling. The soil samples were transported to Asset Laboratories, LLC (Asset) in Las Vegas, Nevada within 24 hours of sample collection. Asset is a State of California Certified Laboratory. Selected soil samples were analyzed for volatile organic compounds (VOCs) using EPA Test Method 8260B. Laboratory Reports and Chain of Custody Records for Soil Matrix Sample Analysis are presented in Appendix E.

Following preparation of soil samples for laboratory analysis, a representative portion of remaining soil was retained in a separate Ziploc bag for lithologic logging. Soils were logged and visually classified in substantial accordance with the United Soil Classification (USCS) system under the direct supervision and oversight of ENCON's Senior Geologist, a State of California Licensed Professional Geologist, and recorded on an appropriate boring log form. Boring Logs are presented in Appendix F.

4.4 Vapor Monitoring Well Construction

On November 12, 2014, Borings VW-1 through VW-5 were advanced to a depth of 5.5 feet below ground surface (bgs) using direct push methods. Prior to advancing the vapor monitoring well borings, it was assumed that depth to groundwater was more than 12 feet deep, however, groundwater was encountered at depths of 9 to 12 feet. As such, the planned 10 to 15 foot probe depths were eliminated from the scope of work. Vapor monitoring well borings were not logged or sampled. Upon reaching the target depth of 5.5 feet, bgs, each boring was converted to a permanent soil vapor monitoring well by removing the drive pipe, and installing one-quarter (1/4)-inch diameter nylaflow tubing fitted with a vapor implant (stainless steel inlet screen). The annular space for 6 inches above and below the inlet screen was backfilled with #2/12 sand. Approximately 1-foot of dry granular bentonite was placed above the sand pack. Hydrated granular bentonite was installed above the dry granular bentonite to near ground surface.

The surface of each vapor monitoring well was completed with a flush mounted traffic box. The sample tubing was labeled, fitted with three-way valve in the closed position, and allowed to equilibrate for at least 2 hours prior to purging and sampling. Probe installation and sealing times were recorded on a field collection form, and are presented in Table 2. Vapor Monitoring Well Construction Details are summarized in Table 3.

4.5 Groundwater Monitoring Well Construction

Groundwater was encountered at depths ranging from 9 to 12 feet bgs in Monitoring Well Borings MW-1 through MW-3. Each boring was therefore advanced to a total depth of 15 to 20 feet, or not greater than approximately 10 feet below the water level encountered during drilling, and converted to a permanent groundwater monitoring well.

Due to limited access, Well MW-1 located inside the building was constructed in a 2-inch diameter direct push boring using a ¾-inch inside diameter pre-packed well screen. Upon reaching the total depth, 8-feet of pre-packed well screen and blank casing was lowered into the boring to set the screen at depth of 7 to 15 feet bgs. Additional #2/12 sand was added to ensure the borehole annulus was completely filled to a level of approximately 2 feet above the well screen or to 5 feet bgs. A minimum 3-foot hydrated granular bentonite seal was subsequently installed from 2 to 5 feet. Following hydration of the bentonite seal, neat cement grout was installed in the upper 2 feet. Well construction details are presented with the boring logs in Appendix F, and are summarized on Table 3.

Hollow Stem Auger borings for wells MW-2 and MW-3 were advanced using 8-inch outside diameter hollow augers. Immediately following drilling and soil sampling, borings MW-2 through MW-3 were converted to 2-inch diameter groundwater monitoring wells. The wells were constructed, developed and sampled in a manner consistent with Title 23, California Code of Regulations (CCR), Division 3, Chapter 16, Section 2649. A minimum annular space of 2 inches was maintained at all time during well construction. The wells were constructed of a 2-inch diameter, schedule 40, flush threaded PVC casing, which was mechanically screwed together. The bottom of the casing was fitted with a threaded PVC bottom plug.

Well installation was performed through the annulus of the hollow stem augers. The PVC well casing (screen and blank) was lowered downhole to the total or target depth. The augers were then slowly removed while #2/12 sand was added to form a filter pack around the casing to a level of approximately 2 feet above the top of the screened interval, or to depth of approximately 8 feet bgs. Prior to placement of a sanitary seal, each well was pre-developed using a surge block to settle the sand pack. Pre-development was performed for approximately 5 minutes, or until no appreciable settlement of the sand pack was measured. The annular space above the filter pack was then sealed with a minimum 3-foot-thick hydrated granular bentonite sanitary seal to depth of approximately 5 feet bgs. Following adequate hydration of the sanitary seal, cement grout was placed from depth of 5 feet to near surface. The surface was completed using a traffic rated well box. A reference mark was established at the top of and on the north side of the groundwater monitoring well casing. Well construction details are presented in Appendix F and summarized in Table 3.

4.6 Well Development

On Wednesday, November 21, 2014, at least 48 hours after installation, the groundwater monitoring wells were developed using a surge block, bailer and for wells with sufficient yield, a submersible pump. Well development was performed by BlaineTech Services located in San Jose, California. The wells were developed until a minimum of 10 well volumes of water were removed or until field observations and/or measurements with field instruments indicate that water quality parameters (pH, temperature, electrical conductivity, and turbidity) had stabilized. Attempts were made to reach a target turbidity of 10 NTU, but this goal could not reasonably be achieved, however turbidity levels of approximately 40 NTU were achieved. Well development information is presented in Appendix G.

Well development water was retained in 55-gallon D.O.T. drums, labeled, and placed in an out of the way location, at the direction of the Property manager or Site representative. Waste profiling, transportation and disposal methods are discussed below.

4.7 Well Surveying

On December 22, 2014, each of the newly installed groundwater monitoring wells MW-1 through MW-3 was surveyed to a benchmark of known elevation by Mid Coast Engineers of Watsonville, California. Mid Coast is a State of California Licensed Civil Surveyor. Prior to surveying, a reference mark was established on the north side, at the top of the well casing. The elevation survey included both the top of casing (TOC) reference mark and the ground surface elevation at the top of the traffic box rim (TOR).

The wells were surveyed relative to the California Coordinate System, Zone III, NAD 83, benchmark NGS HT 0882, a disk set in a concrete seawall west of the center of 5th street in Alameda, California, Elevation of benchmark is 9.13 feet above mean sea level. The elevation survey results have been reported to the nearest 0.01 feet of elevation and were referenced to mean sea level (msl). The survey was performed in accordance with the guidelines for submittal to the State of California Geotracker Database.

A horizontal control survey was also performed by the Mid Coast Engineers. Groundwater monitoring wells MW-1 through MW-3 were surveyed for horizontal (x, y) control using the same benchmark used for vertical control. Horizontal control measurements were reported to the nearest 0.01 feet. The horizontal survey was also performed in accordance with the guidelines for submittal to the State of California Geotracker Database.

Survey results are presented in Appendix H.

4.8 Vapor Monitoring Well and Sub-Slab Vapor Point Sampling and Analysis

On November 19, 2014, approximately 7 days after installation, the five (5) permanent soil vapor monitoring wells (VW-1 to VW-5) and one (1) sub-slab vapor point (SS-1) were purged, sampled, and analyzed for VOCs, including chlorinated solvents, using EPA Test Method 8260B. QA/QC measures included a purge volume vs. concentration test at VW-2, duplicate sample at VW-3, shut in and leak tests, and tracer tests in accordance with the 2012 DTSC Guidance for Active Soil Gas Investigations. Soil vapor sampling and analysis was performed by TEG Northern California, Inc. of Rancho Cordova, California. TEG is an ELAP certified laboratory.

Standard operating methods and procedures for soil gas sampling are presented in Appendix I.

Laboratory reports for on-Site soil vapor sample analysis are presented in Appendix J. Soil gas sampling collection data including probe installation and sealing times; vapor sample purge times, rates, volumes; sample collection and injection times are summarized in Table 2.

4.9 Groundwater Monitoring and Sampling and Analysis

On November 25, 2014, at least 72 hours after development, each well was monitored for depth to groundwater using an electric well sounder. To limit the potential for cross contamination, the wells were monitored and sampled in the order of anticipated increasing concentrations of contaminants. Depth to water measurements was referenced to the surveyed marks established at the top of well casing.

Following well monitoring, each well was purged using a peristaltic pump (MW-1) or single use bailer (MW-2 and MW-3). Purging was performed at a low rate, equal or lower than the recharge capacity of the well, to prevent excessive draw down. Each well was purged until at least three (3) well volumes have been removed; until purged dry twice; until water quality parameters have stabilized. Achieving a target turbidity of approximately 10 NTU or less was not practical for the budgeted scope of work.

Immediately upon completion of purging, the wells were allowed to recover to at least 80 percent of static level. Samples were collected using a single use disposable bailer to transfer samples directly to laboratory-supplied sample containers. Purge water was contained in 55 gallon drums for subsequent profiling and transportation to a treatment and disposal facility as described below.

Groundwater samples were collected in accordance with the following procedures:

- All measuring and sampling equipment was decontaminated prior to and following each use,
- Groundwater samples were collected in laboratory-supplied sample containers filled directly from single-use disposable bailers.

The samples were immediately sealed, labeled, stored in an ice-chilled cooler.

Samples were transported on the same or day following collection to Asset Laboratories in Las Vegas Nevada for analysis of VOCs using EPA Test Method 8260B. Duplicate, Trip Blank, and/or Equipment Blank Samples were not collected or analyzed as part of this investigation.

Groundwater monitoring and purging data are presented in Appendix K. Laboratory Reports and Chain of Custody Records for groundwater sample analysis are presented in Appendix L.

4.10 Equipment Decontamination

All down-hole equipment was decontaminated prior to and after each use. Equipment was decontaminated using steam cleaning methods prior to arriving on-Site and by washing in a Liquinox solution, followed by tap and de-ionized water rinses between borings. All other materials were provided to the Site in a new, factory-packaged, condition, and therefore decontamination was required for such materials.

4.11 Waste Management and Disposal

All Investigatively-Derived Waste (IDW) was placed into 55-gallon Department of Transportation (DOT) drums, which were labeled with Site Name, Date of Generation, Description of Contents, and Emergency Name and Contact Information. Two (2) drums of soil cuttings from hollow stem auger drilling at MW-2 and MW-3 were generated, and two (2) drums of purged groundwater and/or decontamination water were generated during well development and sampling activities. The drums were stored in the southern gravel parking lot area, immediately south and on the western margin of the access driveway. The waste materials were characterized based on the results of discreet depth soil and groundwater sample results. All materials (soil and groundwater) were classified as non-hazardous non-RCRA waste.

On December 23, 2014, four (4) drums were transported off-Site by Belshire Environmental Services of Foothill Ranch, California.

Drums containing purged water were transported under Non-Hazardous Manifest No. 714379. At the time of this Report, the drums have not yet been transported to the final disposal facility, but are planned to be transported by Nieto and Sons, Inc. to Demenno Kerdoon in Compton, California for disposal or recycling.

The two (2) soil drums were transported under Non-Hazardous Manifest No. 714381. At the time of this Report, the drums have not yet been transported to the final disposal facility, but are planned to be transported by unspecified transporter to U.S. Ecology Nevada Operations in Beatty, Nevada for disposal.

Partially signed Non-Hazardous Waste Manifests for soil and groundwater are presented in Appendix M.

5.0 FINDINGS AND RESULTS

5.1 SURFACE/SUBSURFACE CONDITIONS

Boring logs are presented in Appendix F. The following field observations are noted:

- The southern portion of the subject building is constructed with slab-on-grade, and the northern portion with a raised foundation and crawl space under the ground floor. As the raised foundation area with crawl space allows ambient air circulation, and natural ventilation, this may significantly reduce the potential risk of vapor intrusion and degradation in indoor air quality. The approximate limits of raised foundation are shown on Figures 2 through 6 and on the DTSC Building Survey Form in Appendix D.

- Subsurface soil conditions at this Site were predominantly Poorly Graded Sand (SP) and Silty-Sand (SM) to a depth of 20 feet - the maximum depth explored.

- Groundwater was encountered at depths of approximately 9 feet, 12 feet, and 12 feet in groundwater monitoring well borings MW-1 through MW-3, respectively.

- Field evidence of contamination was not observed in any soil matrix samples collected.

5.2 ANALYTICAL RESULTS:

Site photographs are presented in Appendix A. A Site map showing all current and historical investigation locations, including indoor air samples, background or ambient air samples, soil borings, soil gas sampling, permanent vapor monitoring wells, sub-slab vapor point SS-1, and groundwater monitoring wells are shown on Figure 2. The following summarizes the laboratory analytical results:

<u>Indoor Air Survey:</u>

Indoor and Ambient (Background) 8-hour time-weighted average (TWA) air sample results are summarized in Table 1. Site Building Survey results, sample collection data, laboratory reports, and chain of custody documentation are presented in Appendix D. The indoor air sampling results are also shown on Figure 3.

- Based on the building survey and interview with building owner as well as the Site occupant, the following describes the condition and use of the building:

    - The building was constructed about 100 years ago, as a commercial building with 2,500 square feet of tenant space. The southern portion of the building is constructed with slab on grade, while the northern portion has a raised foundation. The building has been occupied by dry cleaning business operation since 1986. In 2005, the chlorinated organic solvent (such as PCE) based dry cleaning machine was replaced with the current hydrocarbon machine. PCE solvent was used at the Site for approximately 19 years. The onsite drycleaners has not used chlorinated solvents for the past 9 or 10 years.

    - The condition of the concrete slab was observed to be in poor condition with numerous cracks observed in the slab on grade portion of the foundation near the current dry-cleaning machine.

The northern approximately 2/3 of the building is occupied by a raised foundation with a crawl space. As such, no investigation was performed in the area of raised foundation. Indoor Air Sample IA-2 is located in the storefront interior approximately 3 feet above the floor within the area of the raised foundation. Permanent soil vapor probe VW-1 is located north of the raised foundation outside the store within the Property line, with the crawl space between the source area and the sampling point. VW-1 is located immediately outside the building in a tiled section under the building overhang. It is located within the Property line as the door is inset and the store front windows extend out of the building.

- The tenant space uses electricity and natural gas for energy sources. There is no air conditioning (air handling) system, The tenant reportedly only uses fans to circulate air. The building interior was very steamy at the time of sampling, and the front and rear doors remain open during normal business hours for natural ventilation.

- The tenant was conducting typical commercial retail business operations during normal business hours at the time of the survey. There were no observed sources of indoor air pollution including chemical storage or products containing chlorinated VOCs. It is not known if the building has been fumigated or sprayed for pests within the past 3 years.

- The building is connected to public water supply and sewer.

- There are no identified potential outdoor sources of chlorinated solvents in the immediate vicinity.

- Wind direction was measured to be from the south-southeast at the start of sample collection. The wind direction was measured to remain unchanged in the afternoon, but with increasing wind velocity.

- Fifteen (15) chemical compounds were detected in the Indoor and Background samples analyzed (see Table 1).

- Of the fifteen (15) detected compounds, only tetrachlorethylene (PCE) is known to be present in shallow soil gas beneath the Site.

- Of the fifteen, all, except tetrachloroethylene (PCE), had ambient air concentrations that were similar to or higher than the indoor air concentrations, indicating that all except PCE are representative of ambient air, and as such cannot the result of vapor intrusion from subsurface soil gas.

- PCE was detected at the maximum indoor air concentration of 1.0 micrograms per cubic meter (ug/m3) in sample IA-1 collected near the former solvent based dry cleaning machine and over the slab on grade portion of the building foundation.

- PCE was detected at concentrations of 0.12 ug/m3 and 0.20 ug/m3 in the background air samples collected from the upwind and near the area where ambient air would enter the building space. As such, the average ambient air concentration for PCE is 0.16 ug/m3.

- Subtracting the average PCE concentration in the ambient air from the maximum concentration of PCE in indoor air samples indicates that the maximum contribution for vapor intrusion from subsurface soil gas at the site can be as high as 0.84 ug/m3. This exceeds the Indoor Air CHHSL for PCE for Commercial Industrial Land Use of 0.693 ug/m3 by a small margin of 0.147

ug/m3, but it is less than the Bay Area Environmental Screening Level (ESL) of 2.1 ug/m3 for PCE in indoor air.

- Carbon Tetrachloride and Benzene were detected at Indoor Air Concentrations that exceed their respective CHHSLs and ESLs for Commercial/Industrial Land Use, Indoor Air. However, because 1) these compounds were not present in the subsurface soil vapor during ENCON's previous soil gas survey conducted in Aug 2014 as well as Nov 2014, and 2) because detected concentrations of these chemicals in the ambient air were similar to indoor air concentrations, Carbon Tetrachloride and Benzene detected in the indoor air of the subject building are considered to be representative of ambient air condition and NOT from vapor intrusion from the subsurface beneath the Property or other sources.

- All other detected compounds are below their respective CHHSLs and ESLs for an industrial/commercial setting.

Soil Matrix Samples:

Soil matrix sample results for current and historical investigations are presented in Tables 4a and 4b, respectively. Laboratory reports and chain of custody reports for soil matrix samples are presented in Appendix E.

Nine (9) soil matrix samples have been analyzed for Volatile Organic Compounds (VOCs) using EPA Test Method 8260B, including chlorinated solvents typically used in dry cleaning operations. In 2006, Eras analyzed one (1) soil sample for Total Extractable Petroleum Hydrocarbons (TPH) using EPA Test Method 8015M.

No TPH or VOCs have been detected above laboratory practical reporting limits in any of the ten (10) soil matrix samples analyzed.

Soil Vapor Samples:

Soil vapor sample results are summarized in Tables 2, 5a (November 2014) and 5b (August 2014). Permanent vapor monitoring well construction details are presented in Table 3. Laboratory reports and chain of custody documentation for soil vapor sample analysis are presented in Appendix J. Shallow soil vapor sampling results are also shown graphically on Figure 6.

- PCE is the only compound detected in the current or historical soil vapor samples analyzed.

- PCE was detected in all eleven (11) shallow soil vapor (5-foot depth) samples analyzed at concentrations ranging from 450 ug/m3 in VW-1 near the storefront to the maximum of 22,480 ug/m3 in SV-5 located south of the building in the gravel parking lot. During ENCON's previous subsurface soil vapor survey conducted in Aug 2014, PCE was also detected at elevated concentrations ranging from 11,110 ug/m3 in SV-3 to 13,540 ug/m3 in SV-4 near the former solvent based dry cleaning machine source area.

- As shown on Figure 6, concentrations of PCE in soil gas decline in all directions away from the source area at the southern end of building and northern end of gravel parking lot.

- PCE concentrations were compared to regulatory screening levels for shallow subsurface soil gas. PCE concentrations exceeded CHHSLs for shallow soil gas in a commercial/industrial setting (603 ug/m3) in all samples except VW-1 and SV-6.

- Detected PCE concentrations exceeded soil gas screening level for PCE for commercial setting at 0.6ug/L for sites with buildings constructed without engineered fill below sub-slab gravel, and

1.6ug/L for sites with buildings constructed with engineered fill below sub-slab gravel (Office of Environmental Health Hazard Assessment (OEHHA), CHHSLs revised Sep 2010).

- PCE concentrations exceed the Bay Area ESLs for shallow soil gas in a commercial/industrial land use (2,100 ug/m3) in all samples except VW-1, VW-5, and SV-6. These samples were collected from locations that are approximately 40 to 70 feet (radial distance) away from the identified source area. As such, the data supports that the maximum extent of vapor phase contamination limited to a radial distance of 40 to 70 feet from the documented source area.

Groundwater Monitoring and Sampling:

Groundwater well construction details are summarized in Table 3, and are presented along with the Boring Logs in Appendix F. Groundwater well development details are provided in Appendix G. Well survey data is presented in Appendix H. Water level monitoring, well purging and sampling data are summarized in Table 6 and presented in Appendix K. Groundwater sampling analytical results are summarized in Table 7. Laboratory reports and chain of custody documentation for groundwater samples are presented in Appendix L.

- Groundwater was encountered at depths of 9 (MW-1) to 12 feet (MW-2 and MW-3) below ground surface (bgs) during drilling.

- Stabilized groundwater levels were measured at depths of 7.82 feet, 9.82 feet, and 10.00 feet, below the Top of Casing (BTOC) in Wells MW-1 through MW-3, respectively.

- Groundwater Surface Elevations are calculated to be 16.39 feet, 16.46 feet, and 16.51 feet above mean seal level (AMSL) in wells MW-1 through MW-3, respectively.

- The groundwater surface elevation slopes toward the northwest at a shallow gradient of 0.003 feet vertical per foot horizontal (ft/ft). Groundwater surface elevation contours and flow direction are shown on Figure 4. This measured groundwater flow direction is consistent with the slope of the ground surface elevation in the Site vicinity as shown on Figure 1.

- Based on the northwesterly flow direction of the groundwater, Wells MW-2 and MW-3 are considered to be upgradient of the source area, and MW-1 is at the source area. Due to limited access to the north-northwest of the source area, installation of a downgradient well was not contracted by the Client as part of the agreed scope of work for this investigation.

- PCE was detected in all three (3) groundwater samples at concentrations of 1.0 micrograms per liter (ug/L), 8.8 ug/L, and 29 ug/L, respectively in Wells MW-3, MW-2, and MW-1. The distribution of PCE in groundwater is shown on Figure 5.

- PCE in groundwater was compared to regulatory screening levels. The State and Federal Maximum Contaminant Level (MCL) for drinking water for PCE is 5.0 ug/L, thus detected concentrations of PCE from Wells MW-1 and MW-2 exceed the MCL. The Bay Area ESL for PCE in groundwater for evaluation of vapor intrusion potential is 23 ug/L. PCE concentration detected from MW-1 exceeds the Bay Area ESL.

- Based on the known concentrations, the groundwater plume is documented to be limited to an approximate 30 foot radius in the up and cross-gradient directions from the source area. The down-gradient extent has not been characterized.

- Trichloroethylene (TCE) was also detected in the groundwater sample collected from MW-1 at a concentration of 0.65 ug/L. However, this is below the MCL for TCE of 5 ug/L.

- No other VOCs were detected above the laboratory practical reporting limits in the groundwater samples analyzed.

6.0 CONCLUSIONS

As stated in this Report, the objective(s) of this investigation were to:

1) Determine if indoor air quality has been degraded as a result of vapor intrusion from known subsurface contamination with chlorinated solvent released from historical onsite dry cleaning operation;

2) Further evaluate the lateral and vertical extent of known chlorinated solvent contamination in soil vapor;

3) Characterize the presence or absence of chlorinated solvents in soil matrix phase;

4) Evaluate if shallow groundwater has been impacted by the solvent release; and

5) Measure depth to water to calculate the groundwater flow direction and gradient.

Based on the current and historical data presented in this Report, ENCON concludes the following:

Objective 1: Indoor Air Quality:

Indoor air quality has been degraded as a result of vapor intrusion from known concentrations of PCE in shallow soil gas. The magnitude of impact slightly exceeds the established regulatory levels, but only by a very small margin. The degraded air quality is concentrated in the southern portion of the building, which is co-located with both the former solvent-based dry cleaning machine and the portion of the building which is slab-on-grade.

As described earlier, the southern portion of the subject building is constructed with slab-on-grade, while the northern portion with a raised foundation and crawl space under the ground floor. As the raised foundation area with crawl space allows ambient air circulation, and natural ventilation, this may significantly reduce the potential risk of vapor intrusion and degradation in indoor air quality.

Based on this distribution, ENCON concludes that there may be adequate ventilation under the northern raised foundation portion of the building to prevent a complete pathway for vapor intrusion to indoor air. ENCON also concludes that the differences in PCE concentrations in indoor air from 1.0 ug/m3 at the former source area, declining to 0.35 ug/m3 away from the source area and over the raised foundation, confirms that there is a lack of mixing of indoor air within the building during normal business operations. Providing an adequate air handling system within the building can be at least part of the remedy to improve indoor air quality in the southern portion of the building. Other remedies may include sealing of the floor in the slab-on-grade portion of the building with an epoxy coating to create a barrier to intrusion of subsurface vapors to indoor air space, and/or the removal of the subsurface source of PCE in soil vapor.

Objective 2: Lateral and Vertical Extent of Solvents in Soil Vapor:

The extent of known chlorinated solvent contamination in soil vapor has been defined to a radial distance of approximately 40 feet in the southerly direction; and up to 80 feet in the northerly direction from the identified source area. The vapor phase plume remains un-characterized in the westerly and easterly directions, due to access concerns. However, because of relatively permeable and laterally consistent sand soils, the vapor phase plume is expected to be equally distributed in all directions from the point of release. The vadose zone beneath the Site has been identified to be no more than 10 feet thick (i.e. the depth to groundwater). Based on this information, the total volume of impacted vadose zone is approximately 113,000 cubic feet, and based on a permeability of 0.25 percent for sandy soils, the estimated volume of impacted vapor beneath the Site is approximately 28,300 cubic feet. At a conservative rate of extraction of 40 cubic feet per minute (CFM), a soil vapor extraction system can be expected to remove one pore volume from within the impacted area in approximately 800 minutes, or 13 hours of operation (assuming linear relationship of mass removal vs. time), without considering reduction

in mass removal rate per time typically in the form of the first degree order decay curve. While removal of a single pore volume of air may not be expected to adequately removal entire PCE in the subsurface vapor phase, it is a good indicator that given the lack of adhesion to soil (detectable concentration of PCE in all soil matrix samples were not identified), soil vapor extraction is expected to be a highly effective remedial method for removing PCE in the soil vapor phase beneath the Property from the vadose zone.

ENCON estimates that the bulk of vadose zone vapor phase solvents known to exist beneath the Site can be effectively removed in as little as 3 months of operating a soil vapor extraction system.

Objective 3: Extent of Solvents in Soil Matrix:

No VOCs or TPH have been detected in all soil matrix samples collected beneath the Site. The presence of detectable PCE concentrations in Indoor Air, Soil Vapor, and Groundwater indicates that there has been a historical release at the Site that directly corresponds to past dry-cleaning operations from 1986 through 2005, or approximately 19 years. The lack of solvents adhering to soil matrix phase can be attributed to the anticipated high air permeability of movement beneath the Site, and the lack of continuing source of solvent release for the past 9 to 10 years, due to the current hydrocarbon-based dry cleaning operation.

Objective 4: Solvent Impact to Shallow Groundwater:

PCE has been detected in shallow groundwater beneath the Property at the maximum concentration of 29 ug/L. This level exceeds the drinking water standard or MCL of 5.0 ug/L by approximately 6 times. Concentrations decline to less than MCL in the cross-and up-gradient directions within approximately 30 feet of radial distance from the source area. The extent of dissolved phase solvents are not defined the in downgradient or northwesterly direction. However, the dissolved phase solvent plume is expected to be elongated in the downgradient direction, thus it may be more than 30 feet radial distance from point of release. The distribution of solvents is consistent with the groundwater flow direction and slope of ground surface elevation. While the downgradient extent has not been entirely defined, ENCON concludes that the magnitude of release has been relatively small over a limited time, due to the relatively low concentrations of detected PCE, and that the primary (solvent based dry cleaning operations) and secondary (the vadose zone) sources have effectively been stabilized to the extent that the plume is characterized by low concentrations and relatively limited lateral extent. Further characterization in the downgradient direction and continued groundwater monitoring and sampling can be helpful to support this hypothesis, and provide data to show that the plume is stable or declining, and will not have any significant impact to human health or the environment.

Objective 5: Depth to Groundwater, Flow Direction, and Gradient:

As stated previously in this Report, the depth to stabilized groundwater beneath the Site is approximately 10 feet below ground surface. The flow direction has been calculated to be toward the northwest at a very shallow gradient of 0.003 feet vertical per horizontal foot. The flow direction is consistent with the ground surface topography and the shallow gradient is consistent with the unconfined and permeable sandy aquifer.

7.0 RECOMMENDATIONS

Based on the results and conclusions presented in this Report, ENCON recommends the following scope of work to mitigate known solvent impacts to Indoor Air, Shallow Soil Vapor, and Groundwater resulting from past chlorinated solvent-based dry cleaning operations at the Site:

1. Install off-Site down-gradient monitoring well in City right-of-way to the northwest of the Site to confirm (1) down-gradient extent of PCE in groundwater and (2) hypothesize a minimal risk to human health or the environment. If this hypothesis is confirmed and vadose zone soil vapor is mitigated, no further action is warranted with respect to known solvent contamination in groundwater.

2. Continue groundwater monitoring and sampling of existing and newly installed groundwater wells on a quarterly basis for a period of 1 year (4 events), ensuring that at least 2 events are completed after mitigating the risk of contamination with PCE at the Property either by engineering/institutional control or source removal (if implemented). This will provide data to support that plume is stable or declining, and validate the hypothesis that there is no continuing source of chlorinated solvents to groundwater beneath the Site.

3. Mitigate a potential risk of degradation in indoor air quality resulting from exposure pathway such as vapor intrusion. As identified in this Report, elevated PCE concentration in the soil vapor of up to 22,480 ug/m3 in the vadose zone beneath the Site was identified.

   As discussed in Section 5.2 of this Report, maximum contribution for PCE vapor intrusion from subsurface soil gas at the Site can be as high as 0.84 ug/m3. Although this exceeds the Indoor Air CHHSL for PCE for Commercial Industrial Land Use of 0.693 ug/m3 by a small margin of 0.147 ug/m3, it is less than the Bay Area Environmental Screening Level (ESL) of 2.1 ug/m3 for PCE in indoor air.

   While no definitive data exists to conclude that the presence of PCE in the subsurface beneath the Property represents a significant threat to the building occupants through vapor intrusion pathway, the application of certain presumptive remedies such as source removal or engineering controls can significantly minimize or even eliminate the potential threat of vapor intrusion. Proactively addressing the potential vapor intrusion condition would enhance protection of human health for building occupants and may facilitate the future Property transaction and unrestricted commercial occupancy of the Property.

   Because the known subsurface contamination is located beneath an existing occupied building, In-Situ removal method can be considered at the Site. Soil Vapor Extraction (SVE) is a very common and cost effective method of removing chlorinated solvents such as PCE from vapor phase in vadose (un-saturated) zone, and subsequent removal of by adsorption onto vapor phase granular activated carbon. The use of SVE is limited to sites with adequate permeability. Vapors are removed from the subsurface by installing vapor extraction and monitoring wells that are screened in the impacted intervals. A vacuum is applied to the extraction well, thus withdrawing solvent mass from the subsurface. Solvents are then adsorbed onto granular activated carbon (primary and secondary vessels), and the effluent treated air is discharged to the atmosphere. Vapor monitoring wells or probes located at variable radial distances from the extraction well are monitored for vacuum response to document that the radius of influence (ROI) is adequate to capture known contamination. Initial concentrations will be the most elevated. As contaminant mass is recovered from the subsurface, influent concentrations will decline with time. At some point, removal of contaminant mass will reach asymptotic conditions, namely, unreasonably excessive effort will be required to remove a relatively small amount of contaminant mass. At this point, rebound testing is performed to be sure the influent concentrations do not significantly increase follow a period of non-operation. Upon completion, the SVE extraction and monitoring

probes must be abandoned, so they do not represent a conduit for future migration of contaminants.

Normally, a pilot test is performed to ensure that adequate ROI and contaminant capture support cost effective remediation, and information obtained from the pilot test is used to design the placement of wells; size/type of extraction blower; and rate contaminant removal/carbon consumption. However, because subsurface soils are found to be generally air permeable; and because the starting contaminant mass is expected to be of limited volume, the pilot test can be performed as part of the initial installation and operation of the SVE system, with operation continuing at the end of the pilot test. The results of pilot test data collection (vacuum response monitoring, rate of extraction, and laboratory testing of influent samples) during that startup phase of operation will be used to confirm that the design is adequate, or modify the initial design, as appropriate. SVE also has the added benefit of removing accumulated vapors from beneath the building slab that may have the potential to intrude into the indoor air space and degrade the indoor air quality.

Engineering Controls are intended control the source in place, and must remain in place as long as there is a continuing source of contamination. Typical Engineering Controls that can be employed to manage the degradation of indoor air quality from the known subsurface contamination may include subsurface depressurization (lower the vapor pressure under the existing building slab and create an alternative pathway for vapor migration); impermeable vapor barrier (i.e. epoxy floor sealing in the slab on grade portion of the building) that can eliminate the migration pathway from the subsurface to indoor air, thereby mitigating the threat of subsurface migration of contaminant vapors through the building slab and into the indoor air; and improved ventilation or addition/modification to air handling within the building interior to provide for increased mixing of indoor air, such that should there be any continued migration to indoor air, contaminant vapors do not remain in the air space or are sufficiently reduced in concentration.

4. Post-remedy Air Sampling will be required to document that the performance of the remedy has been adequate to improve the Site conditions to regulatory acceptable levels.

The above recommended scope of work should be completed with the oversight of a lead regulatory agency. Such oversight will require the Property owner to enter into a voluntary oversight agreement to reimburse the regulatory authority for oversight costs. Agency oversight will also require verbal/written communication, correspondences, memorandum, meetings, preparation of workplans, remedial action plans, pollution characterization report, site conceptual model, site mitigation report, various technical reports, and closure requests. ENCON also notes that the final scope of work required to achieve regulatory closure will depend in part upon the opinion of the regulator.

If so requested, ENCON will gladly provide a detailed scope of work and estimated costs for achieving the objective of regulatory closure.

8.0 REFERENCES

Reference sources for site-specific information, hydro-geologic setting, technical data, historical research data, environmental reports and other records used are identified throughout this Report in corresponding sections. Any additional reference sources not cited in the preceding sections in this report are disclosed in this section.

- *Current USGS 7.5 Minute Topographical Map*
- *EDR Radius Map Report*
- *California Water Resources Control Board Geotracker online database*
- *http://geotracker.waterboards.ca.gov/default.asp*
- *USGS Professional Paper 1401-C, Geology of the Fresh Ground Water Basin, California (1986)*

- *California Department of Toxic Substance Control (DTSC) Human and Ecological Risk Division (HERD) 2009. Modified Johnson and Ettinger (J&E) soil vapor screening model (version 2.0, revised June 2009)*

- *California Regional Water Quality Control Board – Los Angeles Region (RWQCB-LA), Attenuation Factor Method of the RWQCB-LA "Interim Site Assessment and Cleanup Guidebook, Vol. 1" dated February 1995*

- *CA RWQCB- Los Angeles, Dr. Rong, Soil and Groundwater Cleanup Guideline, How to relate soil matrix to soil gas samples, 1996*

- *DTSC/CalEPA, 2005. Interim Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, revised February 7.*

- *Active Soil Gas Investigations superseding the 2003 Advisory – Active Soil Gas Investigations (Cal/EPA, 2003) and 1997 LARWQCB Interim Guidance for Active Soil Gas Investigations (CRWQCB, 1997), April 2012*

- *HERD_Soil_Gas_Screening_Model, Screening Level Implementation of the Johnson and Ettinger Vapor Intrusion Model - revised March 2014*

- *Guidance for the evaluation and mitigation of subsurface vapor intrusion to indoor air (vapor intrusion guidance), Department of Toxic Substances Control, California Environmental Protection Agency, October 2011*

- *The California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties, January 2005, California Environmental Protection Agency, modified Sep 2010 (Office of Environmental Health Hazard Assessment)*

- *ENCON Solutions, 2014. Limited Subsurface Phase II Investigation, report dated August 2014.*

TABLES

Table 1 - Summary of Indoor Air Sampling Collection and Analytical Results
Volatile Organic Compounds by EPA Test Method TO-15 Selective Ion Method
1208 Lincoln Avenue, Alameda, California

	Sample Date: October 20, 2014					
Sample Number:	BG-1	BG-2	IA-1	IA-2		
Start Time :	8:47	8:50	9:00	9:04		
End Time :	16:31	16:35	16:38	16:43		
Elapsed Time (minutes)	464	465	458	459		
Initial Vacuum (in Hg)	30"	30"	30"	30"		
Final Vacuum (in Hg)	5.5"	6.0"	3"	5.5"		
Sample Location	Southeast corner of parking lot	Under HVAC system above gas meter by back door	On southwest stairs behind dry cleaning machine	Northwest corner of store near sewing macine.	CHHSL for Commercial /Industrial Land Use	Dec-13 Bay Area ESL for Commercial /Industrial Land Use
Constituent Units:	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dichlordifluoromethane (12)	2.4	2.5	2.5	2.7	-----	-----
Chloromethane	1.1	1.1	1.4	1.2	-----	390
Vinyl Chloride	< 0.013	< 0.013	< 0.013	< 0.013	0.0524	0.16
Chloroethane	< 0.026	< 0.026	< 0.026	< 0.026	-----	-----
Trichlorofluoromethane (11)	3.0	3.0	3.4	3.0	-----	-----
1,1,2-Cl 1,2,2-F ethane (113)	0.51	0.50	0.50	0.55	-----	-----
1,1-Dichloroethene	<0.020	<0.020	<0.020	<0.020	-----	880
Methylene Chloride	0.83	0.73	0.74	0.73	-----	26
t-1,2-Dichloroethene	<0.040	<0.040	<0.040	<0.040	102	260
1,1-Dichloroethane	<0.040	<0.040	<0.040	<0.040	-----	7.7
c-1,2Dichloroethene	<0.040	<0.040	<0.040	<0.040	51.1	31
Chloroform	0.25	0.40	0.84	0.38	-----	2.3
1,1,1-Trichloroethane	<0.055	<0.055	<0.055	<0.055	3,210	22,000
Carbon Tetrachloride	**0.62**	**0.65**	**0.61**	**0.72**	0.0973	0.29
Benzene	**0.94**	**1**	**1.2**	**1.1**	0.141	0.42
1,2-Dichloroethane	0.087	0.082	0.079	0.092	0.195	7.7
Trichloroethene	<0.054	<0.054	0.061	<0.054	2.04	3.0
1,2-Dichloropropane	<0.092	<0.092	<0.092	<0.092	-----	1.2
Bromodichloromethane	<0.067	<0.067	<0.067	<0.067	-----	0.33
Toluene	3.7	4.2	4.7	4.0	438	1,300
t-1,3-Dichloroethane	<0.045	<0.045	<0.045	<0.045	-----	-----
1,1,2 -Trichloroethane	<0.055	<0.055	<0.055	<0.055	-----	1.6
Tetrachloroethene	0.12	0.20	**1.0**	0.35	0.693	2.1
1,2,-Dibromoethane	<0.15	<0.15	<0.15	<0.15	-----	17
Ethylbenzene	0.88	1.6	1.6	0.97	-----	4.9
p,&m-Xylene	3.2	6.1	6.0	3.5	1,020	440
0-Xylene	1.1	2.1	2.0	1.2	1,020	440
Styrene	0.23	0.31	0.45	0.38	-----	3900
1,1,2,2-Tetrachloroethane	<0.14	<0.14	<0.14	<0.14	-----	0.21

Notes:
ug/m3 indicates micrograms per cubic meter
"<" indicates less than the laboratory reporting limit shown.
"-----" indicates not tested and/or no established regulatory screening level.
CHHSL indicates California Human Health Screening Level, January 2005
Bold Compound Name indicates compound was also detected in subsurface soil vapor
Bold Value indicates result exceeds established Commercial/Industrial CHHSL and/or Bay Area ESL

Table 2 - Summary of Soil Vapor Sampling and Analytical Results
Elegant Cleaners
1208 Lincoln Avenue
Alameda, California

Field Representative: Cora Olson
Project Information: Elegant Cleaners
1208 Lincoln Avenue
Alameda, California

Contractor Information: TEG Norcal on 11/19/14

Probe Installation: ECA Drilling on 11/12/14

Sample Collection On-Site Laboratory Analysis. on 11/19/14

Equipment Information:
Field Instrument: PID - Not used

Tubing (type & diameter): 1/4-inch diameter nylaflow tubing

Purge Method: Volumetric Syringe
Purge Volume Test: 1, 3, and 10 Volumes
Purge rate: 200

Low/No Flow = >10inHg or qualitative if using syringe to purge

Sample ID		Probe Installation				Sampling Collection/Analysis							Results (ug/m3)			Comments
Sample Number	Depth (feet)	Date	Probe Installation (Time)	Seal Completion (Time)	Headspace PID (ppm)	Date	Purge Start Time	Purge Duration (minutes)	Flow Rate (ml/min)	Evacuation Volume (milliliters)	Sample Collection Time	Sample Injection Time	PCE			
VW-1	5.0	11/12/2014	13:00	13:35	NM	11/19/2014	10:52	4.8	200	950	10:57	11:00	450			3PV
VW-2	5.0	11/12/2014	12:15	12:40	NM	11/19/2014	9:43	1.6	200	317	9:45	9:47	12,000			1PV
VW-2	5.0	11/12/2014	12:15	12:40	NM	11/19/2014	10:01	4.8	200	950	10:06	10:09	13,000			3PV
VW-2	5.0	11/12/2014	12:15	12:40	NM	11/19/2014	10:17	15.8	200	3,167	10:33	10:35	12,000			10PV
VW-3	5.0	11/12/2014	14:00	14:30	NM	11/19/2014	11:15	4.8	200	950	11:20	11:22	9,300			3PV
VW-3	5.0	11/12/2014	14:00	14:30	NM	11/19/2014	11:15	4.8	200	950	11:20	11:38	10,000			Duplicate
VW-4	5.0	11/12/2014	14:50	15:30	NM	11/19/2014	11:56	4.8	200	950	12:01	12:04	4,600			3PV
VW-5	5.0	11/12/2014	15:45	16:15	NM	11/19/2014	12:18	4.8	200	950	12:23	12:25	930			3PV
SS-1	<0.5	11/12/2014	13:40	13:45	NM	11/19/2014	12:50	0.3	200	50	12:50	12:53	7,000			3PV

Table 3
Summary of Well Completion Details
Elegant Cleaners
1208 Lincoln Avenue
Alameda, California

Well Completion Details								
Well ID	Drill Date	Total Depth (feet, bgs)	Borehole Diameter (inches)	Casing Diameter (inches)	Total Depth of Casing (feet, bgs)	Screened Interval (feet, bgs)	Subsurface Zone	Slot Size (inches)
Groundwater Monitoring Wells:								
MW-1	11/12/2014	15.0	2"	3/4"	15	7-15	Groundwater	0.010"
MW-2	11/12/2014	20.0	8"	2"	20	10-20	Groundwater	0.010"
MW-3	11/12/2014	20.0	8"	2"	20	10-20	Groundwater	0.010"
Vapor Monitoring Wells:								
VW-2	11/12/2014	5.5	2"	1/4"	5.0	4.5-50	Vadose	SS inlet
VW-2	11/12/2014	5.5	2"	1/4"	5.0	4.5-5.0	Vadose	SS inlet
VW-3	11/12/2014	5.5	2"	1/4"	5.0	4.5-5.0	Vadose	SSinlet
VW-4	11/12/2014	5.5	2"	1/4"	5.0	4.5-5.0	Vadose	SS inlet
VW-5	11/12/2014	5.5	2"	1/4"	5.0	4.5-5.0	Vadose	SS inlet

Notes: ft,bgs indicates feet, below ground surface.

Table 4a - Summary of Current Soil Matrix Sample Analytical Results
Volatile Organic Compounds by EPA 8260B
1208 Lincoln Avenue, Alameda, California

Encon Solutions, Inc.

	Sample Date: November 11, 2014						
SampleName:	MW-1 @ 5'	MW-1 @ 10	MW-1 @ 15'	MW-2 @ 5'	MW-2 @ 10'	MW-3 @ 5'	MW-3 @ 10'
Sample Time	10:10	10:23	10:35	11:10	11:22	9:30	9:45
Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Constituent							
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	<5	<5	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloropropene	<5	<5	<5	<5	<5	<5	<5
1,2,3-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<5
1,2,3-Trichloropropane	<5	<5	<5	<5	<5	<5	<5
1,2,4-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<5
1,2,4-Trimethylbenzene	<5	<5	<5	<5	<5	<5	<5
1,2-Dibromo-3-chloropropane	<10	<10	<10	<10	<10	<10	<10
1,2-Dibromoethane	<5	<5	<5	<5	<5	<5	<5
1,2-Dichlorobenzene	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloropropane	<5	<5	<5	<5	<5	<5	<5
1,3,5-Trimethylbenzene	<5	<5	<5	<5	<5	<5	<5
1,3-Dichlorobenzene	<5	<5	<5	<5	<5	<5	<5
1,3-Dichloropropane	<5	<5	<5	<5	<5	<5	<5
1,3,5-Trimethylbenzene	<5	<5	<5	<5	<5	<5	<5
1,3-Dichlorobenzene	<5	<5	<5	<5	<5	<5	<5
1,3-Dichloropropane	<5	<5	<5	<5	<5	<5	<5
1,4-Dichlorobenzene	<5	<5	<5	<5	<5	<5	<5
2,2-Dichloropropane	<5	<5	<5	<5	<5	<5	<5
2-Chlorotoluene	<5	<5	<5	<5	<5	<5	<5
4-Chlorotoluene	<5	<5	<5	<5	<5	<5	<5
4-Isopropyltoluene	<5	<5	<5	<5	<5	<5	<5
Benzene	<5	<5	<5	<5	<5	<5	<5
Bromobenzene	<5	<5	<5	<5	<5	<5	<5
Bromodichloromethane	<5	<5	<5	<5	<5	<5	<5
Bromoform	<5	<5	<5	<5	<5	<5	<5
Bromomethane	<5	<5	<5	<5	<5	<5	<5
Carbon tetrachloride	<5	<5	<5	<5	<5	<5	<5
Chlorobenzene	<5	<5	<5	<5	<5	<5	<5
Chloroethane	<5	<5	<5	<5	<5	<5	<5
Chloroform	<5	<5	<5	<5	<5	<5	<5
Chloromethane	<5	<5	<5	<5	<5	<5	<5
cis-1,2-Dichloroethene	<5	<5	<5	<5	<5	<5	<5
cis-1,3-Dichloropropene	<5	<5	<5	<5	<5	<5	<5
Dibromochloromethane	<5	<5	<5	<5	<5	<5	<5
Dibromomethane	<5	<5	<5	<5	<5	<5	<5
Dichlorodifluoromethane	<5	<5	<5	<5	<5	<5	<5
Ethylbenzene	<5	<5	<5	<5	<5	<5	<5
Freon-113	<5	<5	<5	<5	<5	<5	<5
Hexachlorobutadiene	<5	<5	<5	<5	<5	<5	<5
Isopropylbenzene	<5	<5	<5	<5	<5	<5	<5
m,p-Xylene	<10	<10	<10	<10	<10	<10	<10
Methylene chloride	<5	<5	<5	<5	<5	<5	<5
MTBE	<5	<5	<5	<5	<5	<5	<5
n-Butylbenzene	<5	<5	<5	<5	<5	<5	<5
n-Propylbenzene	<5	<5	<5	<5	<5	<5	<5
Naphthalene	<5	<5	<5	<5	<5	<5	<5
o-Xylene	<5	<5	<5	<5	<5	<5	<5
sec-Butylbenzene	<5	<5	<5	<5	<5	<5	<5
Styrene	<5	<5	<5	<5	<5	<5	<5
tert-Butylbenzene	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethene	<5	<5	<5	<5	<5	<5	<5
Toluene	<5	<5	<5	<5	<5	<5	<5
trans-1,2-Dichloroethene	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<5	<5	<5	<5	<5	<5	<5
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<5	<5	<5	<5	<5	<5	<5

Notes: ug/Kg indicates micrograms per kilogram
"<" indicates less than the laboratory reporting limit shown.
"-----" indicates not tested and/or no established regulatory screening level.

Table 4b.
Summary of Historical Soil Analytical Data - ERAS Environmental, 2006
Total Petroleum Hydrocarbons (TPH) and Volatile Organic Compounds (VOCs)
Former Service Station
Elegant Cleaners, 1208 Lincoln Avenue
Alameda, California

Sample ID	Depth (ft,bgs)	Date Sampled	EPA 8015M TPH (mg\kg)		EPA 8260B (8010 list, ug\kg)									
			as kerosene	as diesel	PCE	TCE	1,1-DCE	1,1-DCA	cis-1,2-DCE	trans-1,2-DCE	1,2-DCA	CCl4	VC	Other VOCs
B-1	3.25	10/3/06	----	----	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<9.6	<4.8 to <19
B-2	3.25	10/3/06	----	----	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<9.6	<4.8 to <19
B-3	3.25	10/3/06	<1	<1	----	----	----	----	----	----	----	----	----	----

Notes: "mg\kg" indicates milligrams per kilogram.
"ug\kg" indicates micrograms per kilogram
"---" indicates not tested.
"<" indicates constituent not detected at laboratory detection limit shown.
PCE indicates tetrachloroethylene
TCE indicates trichloroethylene
1,1-DCE indicates 1,1-dichloroethylene
1,1-DCA indicates 1,1-dichloroethane
cis-1,2-DCE indicates cis-1,2-dichloroethylene
trans-1,2-DCE indicates trans-1,2-dichloroethylene
CCl4 indicates carbon tetrachloride
VC indicates Vinyl chloride

Table 5a - Summary of November 2014 Soil Vapor Sampling Analytical Results
Volatile Organic Compounds by EPA 8260B
1208 Lincoln Avenue, Alameda, California

	Sample Date: November 25, 2014										
Sample Number :	VW-1	VW-2	VW-2	VW-2	VW-3	VW-3 (dup)	VW-4	VW-5	SS-1		
Sample Depth (feet) :	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.25		
Purge Volume :	3	1	3	10	3	3	3	3	3		
Sample Time :	10:57	9:45	10:06	10:33	11:20	11:20	12:01	12:23	12:50	CHHSLs	ESLs
Dilution Factor :	1	1	1	1	1	1	1	1	1	(commercial)	(commercial)
Units:	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Constituent											
Tetrachloroethene	450	**12,000**	**13,000**	**12,000**	**9,300**	**10,000**	**4,600**	**930**	**7000**	603	2,100
Dichlorodifluoromethane	<100	<100	<100	<100	<100	<100	<100	<100	<100	-----	-----
Vinyl Chloride	<100	<100	<100	<100	<100	<100	<100	<100	<100	44.8	160
Trichlorofluoromethane	<100	<100	<100	<100	<100	<100	<100	<100	<100	-----	-----
1,1,-Dichloroethene	<100	<100	<100	<100	<100	<100	<100	<100	<100	-----	-----
1,1,2-Trichloror-trifluoroethane	<100	<100	<100	<100	<100	<100	<100	<100	<100	-----	-----
Methylene Chloride	<100	<100	<100	<100	<100	<100	<100	<100	<100	-----	26,000
trans-1,2-Dichloroethene	<100	<100	<100	<100	<100	<100	<100	<100	<100	88,700	260,000
1,1-Dichloroethane	<100	<100	<100	<100	<100	<100	<100	<100	<100	-----	7,700
cis-1,2-Dichloroethene	<100	<100	<100	<100	<100	<100	<100	<100	<100	44,400	31,000
Chloroform	<100	<100	<100	<100	<100	<100	<100	<100	<100	-----	2,300
1,2,4-Trimethylbenzene	<100	<100	<100	<100	<100	<100	<100	<100	<100	-----	-----
1,1,1-Trichloroethane	<100	<100	<100	<100	<100	<100	<100	<100	<100	2,790,000	22,000,000
Carbon tetrachloride	<100	<100	<100	<100	<100	<100	<100	<100	<100	84.6	290
1,2-Dichloroethane	<100	<100	<100	<100	<100	<100	<100	<100	<100	167	580
Benzene	<80	<80	<80	<80	<80	<80	<80	<80	<80	122	420
Trichloroethene	<100	<100	<100	<100	<100	<100	<100	<100	<100	1,770	3,000
Toluene	<200	<200	<200	<200	<200	<200	<200	<200	<200	378,000	1,300,000
1,1,2-Trichloroethane	<100	<100	<100	<100	<100	<100	<100	<100	<100	-----	1,600
Ethylbenzene	<100	<100	<100	<100	<100	<100	<100	<100	<100	-----	4,900
m,p-Xylene	<200	<200	<200	<200	<200	<200	<200	<200	<200	887,000	440,000
o-Xylene	<100	<100	<100	<100	<100	<100	<100	<100	<100	879,000	440,000
1,1,2,2-Tetrachloroethane	<100	<100	<100	<100	<100	<100	<100	<100	<100	-----	-----

Notes: ug/m3 indicates micrograms per cubic meter.
"<" indicates less than the laboratory reporting limit shown.
"-----" indicates not tested and/or no established regulatory screening level.
CHHSL indicates California Human Health Screening Level for soil gas at 5' depth, commerical/industrial setting.
ESL indicates the San Francisco Bay Area Environmental Screening Level for shallow soil gas, commercial/industrial setting.

Table 5b - Summary of August 2014 Soil Vapor Sampling Analytical Results
Volatile Organic Compounds by EPA Modified 8021B
1208 Lincoln Avenue, Alameda, California

	Sample Date: August 20, 2014								
Sample Number :	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6	SV-6 Dup		
Sample Depth (feet) :	5.0	5.0	5.0	5.0	5.0	5.0	5.0		
Purge Volume :	3	1	3	10	3	3	3		
Sample Time :	10:57	9:45	10:06	10:33	11:20	11:20	12:01	CHHSLs	ESLs
Dilution Factor :	1	1	1	1	1	1	1	(commercial)	(commercial)
Units:	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Constituent									
Tetrachloroethene	**2,420**	**8,250**	**11,110**	**13,540**	**22,480**	590	**630**	603	2,100
Dichlorodifluoromethane	<100	<100	<100	<100	<100	<100	<100	-----	-----
Vinyl Chloride	<10	<10	<10	<10	<10	<10	<10	44.8	160
Trichlorofluoromethane	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	-----	-----
1,1,-Dichloroethene	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	-----	-----
1,1,2-Trichloror-trifluoroethane	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	-----	-----
Methylene Chloride	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	-----	26,000
trans-1,2-Dichloroethene	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	88,700	260,000
1,1-Dichloroethane	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	-----	7,700
cis-1,2-Dichloroethene	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	44,400	31,000
Chloroform	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	-----	2,300
1,2,4-Trimethylbenzene	-----	-----	-----	-----	-----	-----	-----	-----	-----
1,1,1-Trichloroethane	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	2,790,000	22,000,000
Carbon tetrachloride	<20	<20	<20	<20	<20	<20	<20	84.6	290
1,2-Dichloroethane	<40	<40	<40	<40	<40	<40	<40	167	580
Benzene	<30	<30	<30	<30	<30	<30	<30	122	420
Trichloroethene	<100	<100	<100	<100	<100	<100	<100	1,770	3,000
Toluene	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	378,000	1,300,000
1,1,2-Trichloroethane	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	-----	1,600
Ethylbenzene	<400	<400	<400	<400	<400	<400	<400	-----	4,900
m,p-Xylene	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	887,000	440,000
o-Xylene	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	879,000	440,000
1,1,2,2-Tetrachloroethane	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	-----	-----

Notes: ug/m3 indicates micrograms per cubic meter.
"<" indicates less than the laboratory reporting limit shown.
"-----" indicates not tested and/or no established regulatory screening level.
CHHSL indicates California Human Health Screening Level for soil gas at 5' depth, commerical/industrial setting.
ESL indicates the San Francisco Bay Area Environmental Screening Level for shallow soil gas, commercial/industrial setting.
BOLD indicates result exceeds regulatory screening level(s).

Table 6 - Groundwater Monitoring Data
Elegant Cleaners
1208 Lincoln Avenue
Alameda, California

Well ID	Date	Time	Top of Casing Elevation (ft., AMSL)	Depth to Groundwater (ft.,BTOC)	Groundwater Surface Elevation (ft., AMSL)	Comments
MW-1	11/25/14	8:06	24.21	7.82	16.39	Total Depth = 15.32 ft, BTOC
MW-2	11/25/14	8:10	26.28	9.82	16.46	Total Depth = 19.65 ft, BTOC
MW-3	11/25/14	8:14	26.51	10.00	16.51	Total Depth = 19.90 ft, BTOC

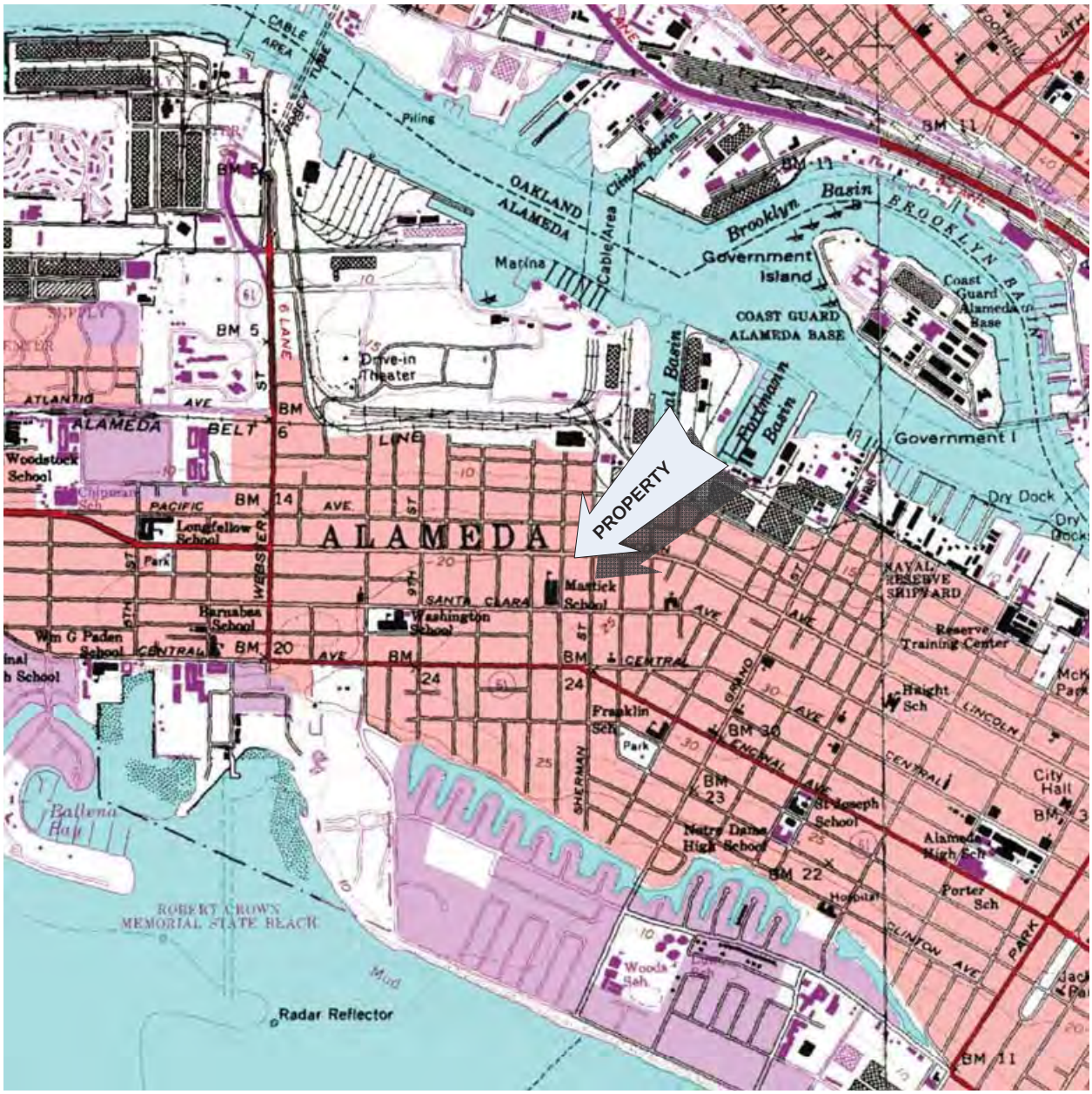
Notes: ft, AMSL indicates feet above mean sea level.
ft,BTOC indicates feet below top of casing.
Wells surveyed December 19, 2014 by Mid-Coast Engineers, Wastonville, California
Survey referenced to benchmark HT0882, a disk set in a concrete seawall 59 feet west of the center of 5th Street and north of the extended center of Atlantic Avenue in Alameda. Elevation = 9.13 feet, NAVD 88 datum

Table 7 - Summary of Groundwater Sample Analytical Results - Detected Constituents
Volatile Organic Compounds by EPA 8260B
1208 Lincoln Avenue, Alameda, California

	Sample Date: November 25, 2014				
SampleName:	MW-1	MW-2	MW-3		San Francisco Bay Area
Sample Time	9:10	8:35	8:55		ESLs
TOC Elevation, ft MSL	24.21	26.28	26.51	Maximum	(to evaluate
Depth to Water Ft TOC	7.82	9.82	10	Contaminant	vapor intrusion,
GW Elevation MSL	16.39	16.46	16.51	Level (MCL)	commerical)
Units:	ug/L	ug/L	ug/L	ug/L	ug/L
Constituent					
Tetrachloroethene	**29**	**8.8**	1.0	5	23
Trichloroethene	0.65	<0.50	<0.50	5	52

Notes: TOC ft MSL indicates the surveyed height of the top of casing from mean sea level
Depth to Water TOC indicated the depth to water from the top of the well casing
Groundwater Elevation MSL indicates the GW elevation from MSL (TOC FT MSL - Depth to Water TOC)
ug/L indicates micrograms per liter
ESLs indicate San Francisco Bay Area Environmental Screening Levels for evaluation of vapor intrusion, Commercial/Industrial property.
"<" indicates less than the laboratory reporting limit shown.
"-----" indicates not tested and/or no established regulatory screening level.
Bold indicates constituent detected at or above regulatory screening level.

FIGURES

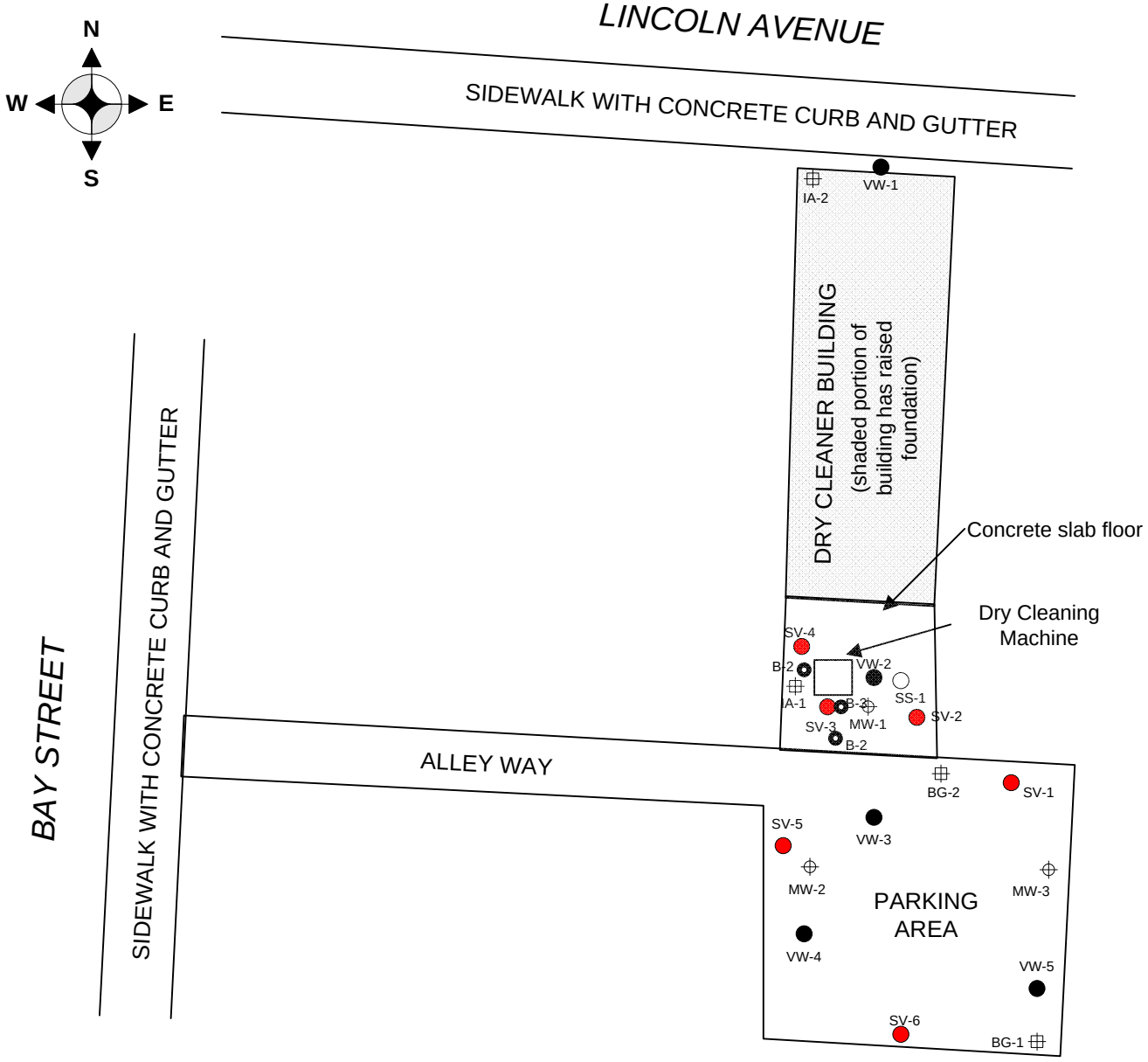


No Scale

FIGURE 1	Site Location Map

SITE ADDRESS: 1208 Lincoln Avenue, Alameda, CA 94501

ENCON Solutions, Inc.
Environmental Consulting & Real Estate Due Diligence



Legend

- Soil Boring Location by ERAS, 2006
- Soil Vapor Sampling Location, 8/20/14
- Air Sampling Location
- Groundwater Monitoring Well Location
- Soil Vapor Sampling Location
- Sub-Slab Vapor Sampling Location

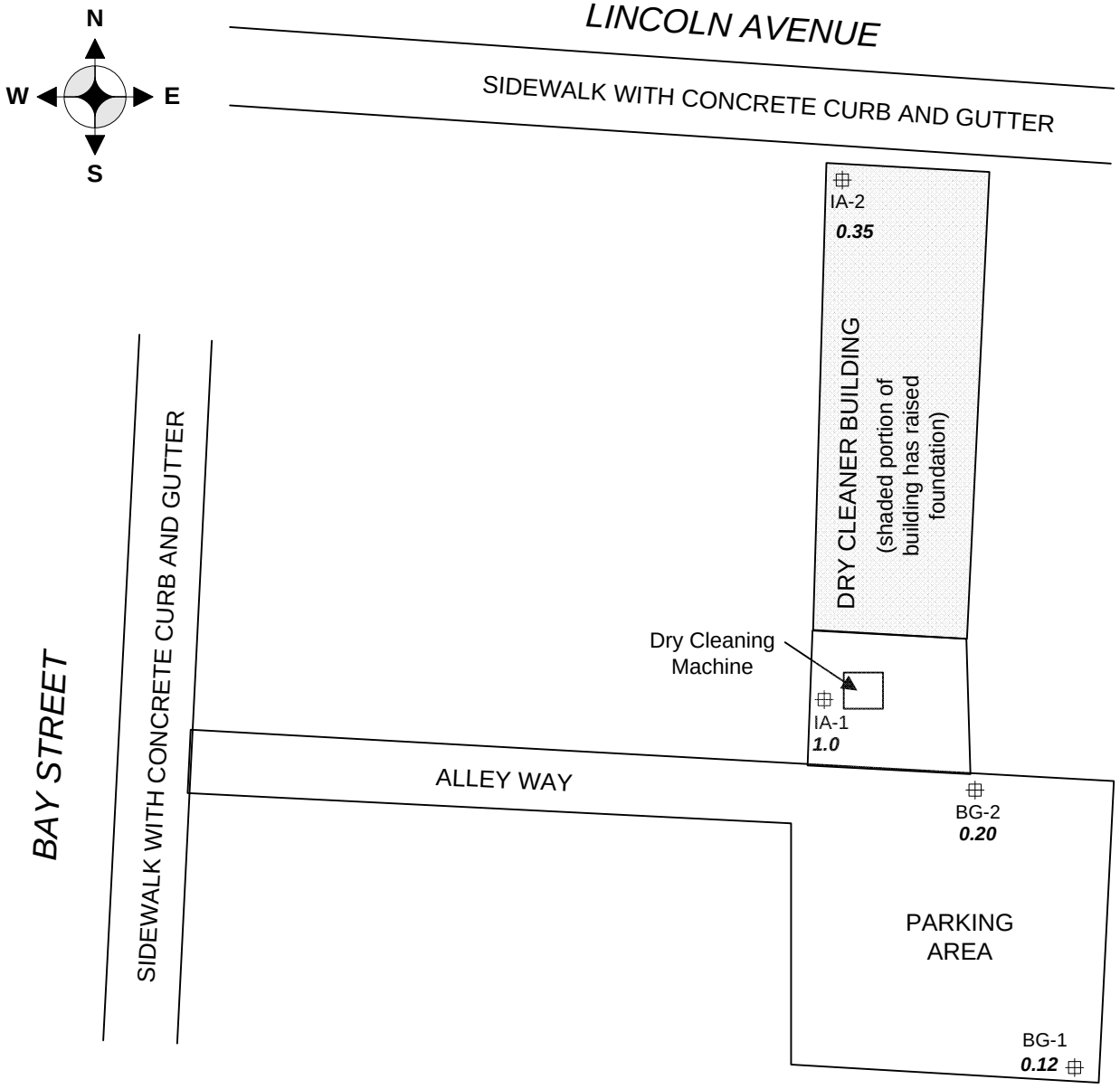
Not to scale

FIGURE 2

Site Map Showing Current and Historical Boring/Well Locations

SITE ADDRESS: 1208 Lincoln Avenue, Alameda, CA 94501

ENCON Solutions, Inc.
Environmental Consulting & Real Estate Due Diligence



Legend

⌗	Air Sampling Location
IA-1	Indoor Air Sample (inside)
BG-1	Background Air Sample (outside)
0.12	Concentration of Tetrachloroethene (micrograms per cubic meter)

Not to scale

FIGURE 3

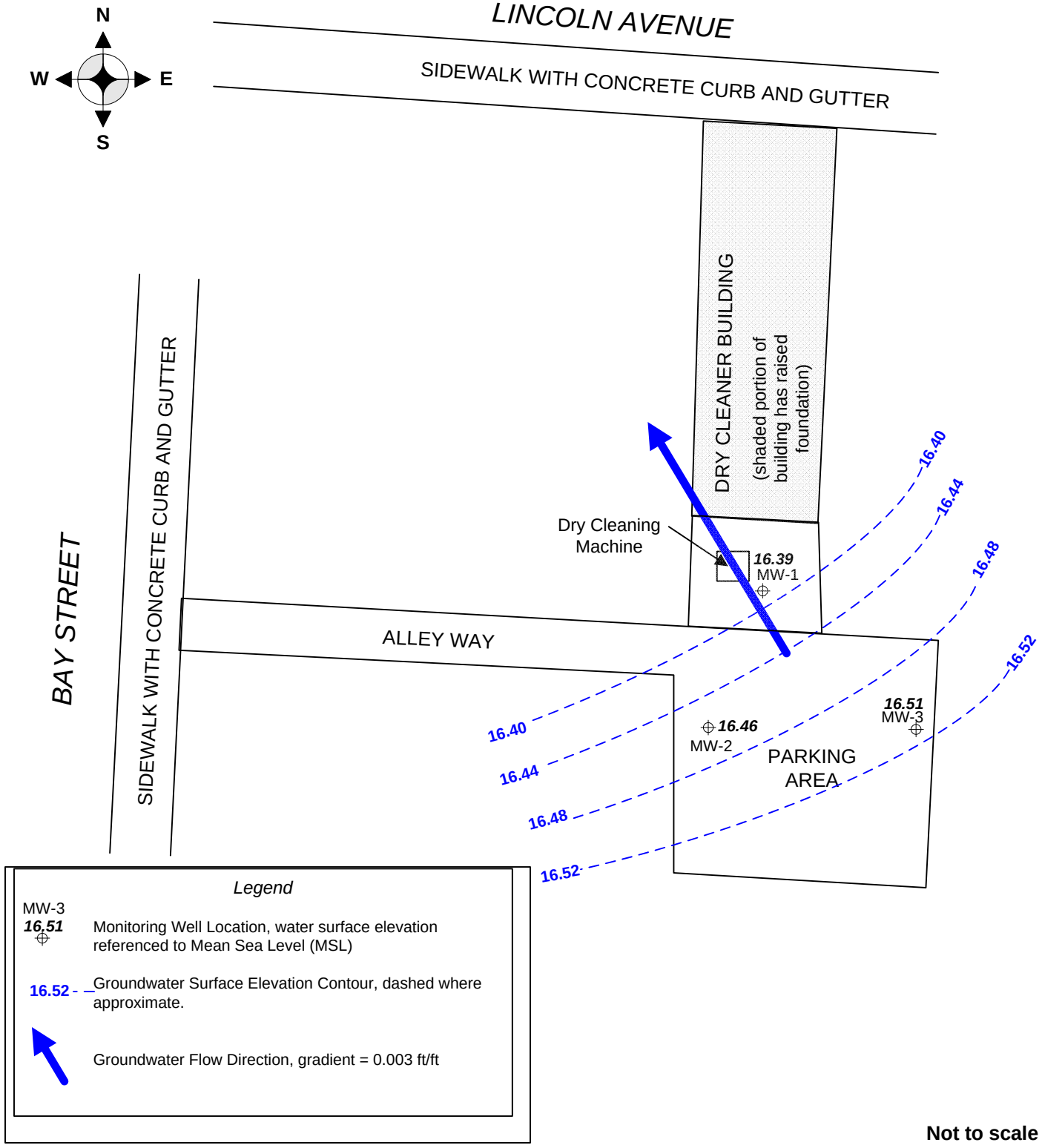
Indoor Air Sampling Results

SITE ADDRESS:

Elegant Cleaners

1208 Lincoln Avenue, Alameda, CA 94501

ENCON Solutions, Inc.
Environmental Consulting & Real Estate Due Diligence



Not to scale

FIGURE 4

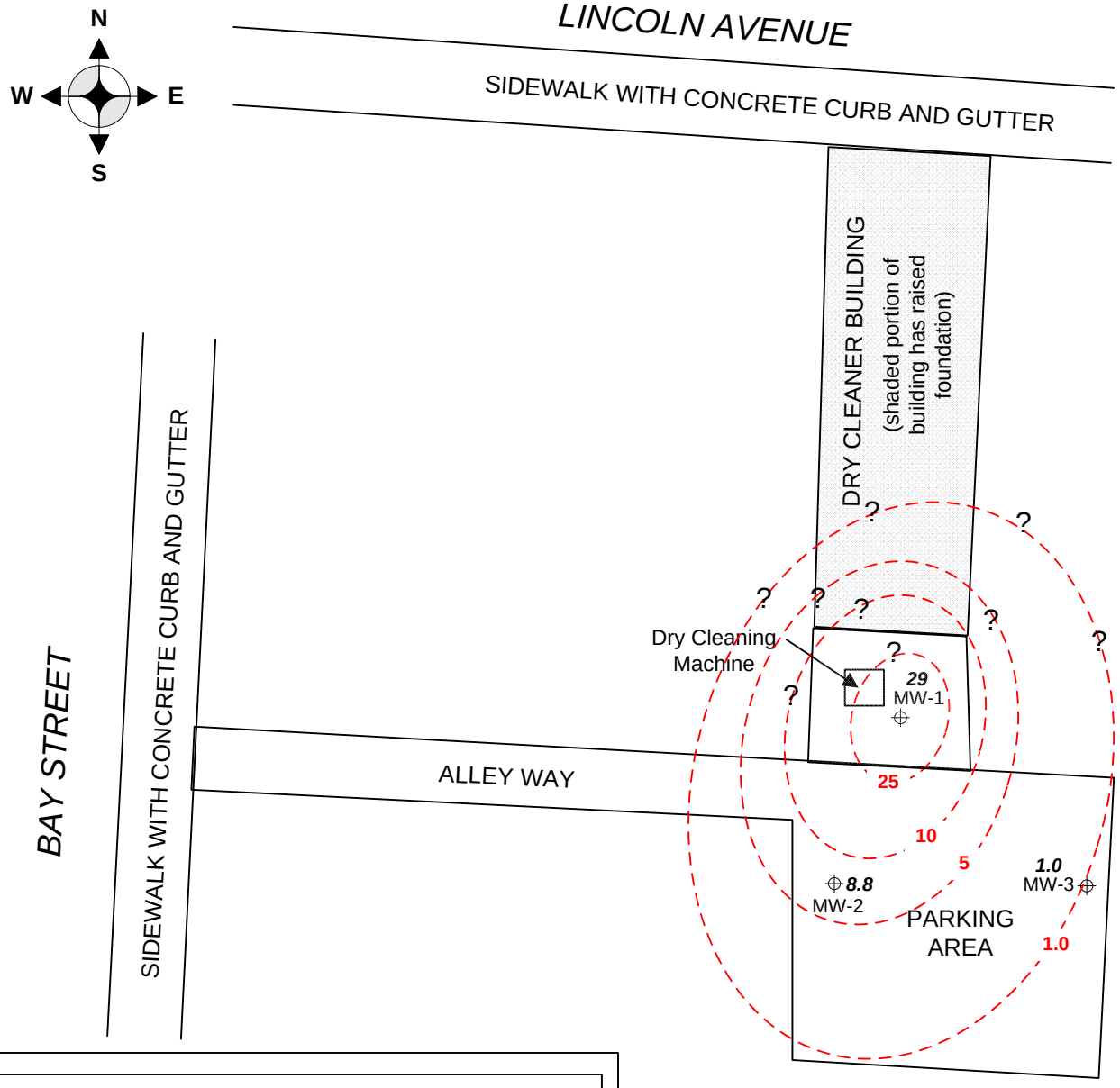
Groundwater Surface Elevation Contour Map

SITE ADDRESS:

Elegant Cleaners

1208 Lincoln Avenue, Alameda, CA 94501

ENCON Solutions, Inc.
Environmental Consulting & Real Estate Due Diligence



Legend

MW-3 *1.0* — Monitoring Well Location, Tetrachloroethene concentration in micrograms per liter (ug/L).

25 – ? — Tetrachloroethene Isoconcentration Contour (ug/L), dashed where approximate, querried where uncertain

Not to scale

FIGURE 5

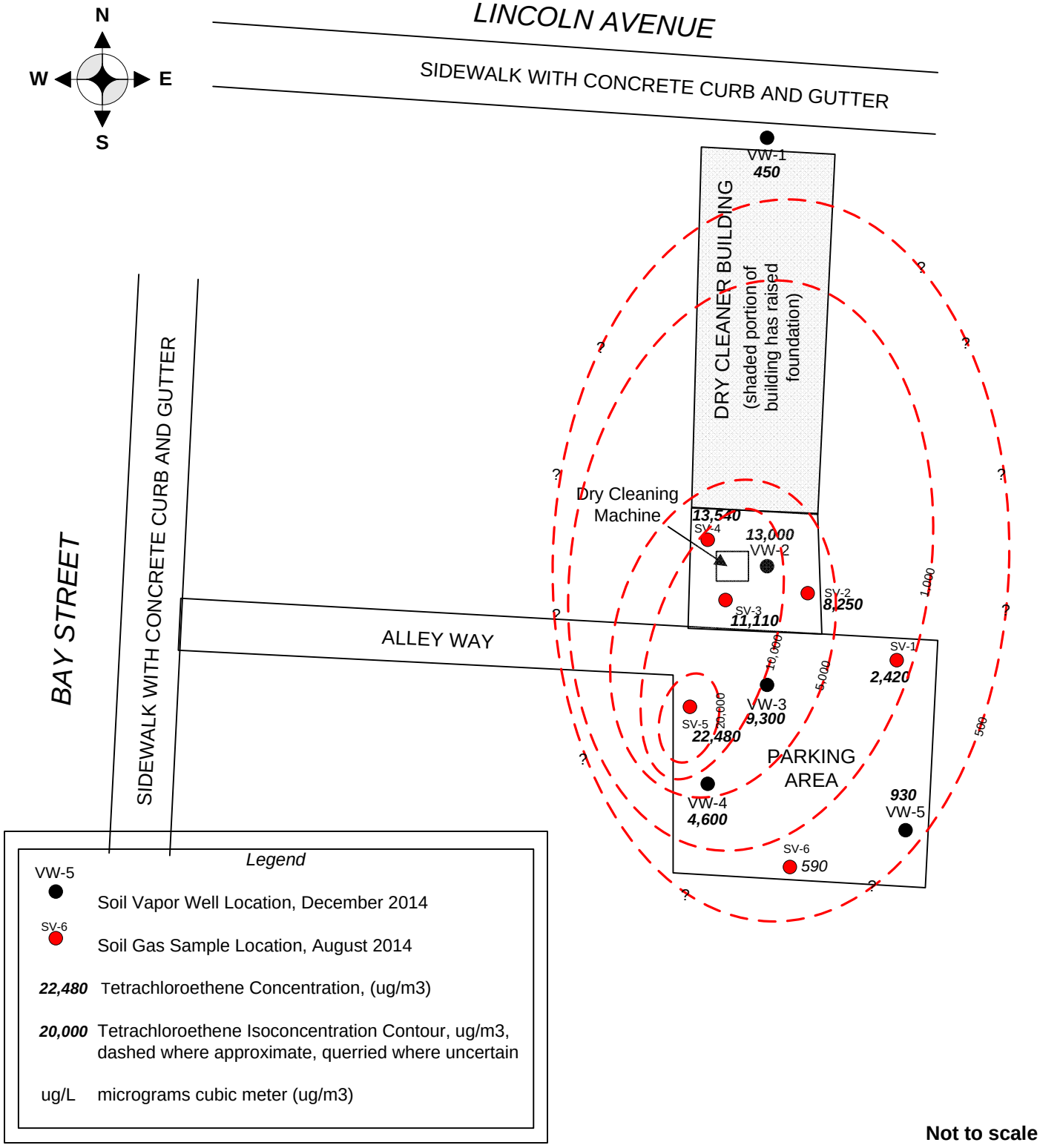
Groundwater Tetrachloroethene Isocontour Map

SITE ADDRESS:

Elegant Cleaners

1208 Lincoln Avenue, Alameda, CA 94501

ENCON Solutions, Inc.
Environmental Consulting & Real Estate Due Diligence



Not to scale

FIGURE 6

Soil Gas Tetrachloroethene Isocontour Map

SITE ADDRESS:

Elegant Cleaners

1208 Lincoln Avenue, Alameda, CA 94501

ENCON Solutions, Inc.
Environmental Consulting & Real Estate Due Diligence

APPENDIX A:

SITE PHOTOGRAPHS

Appendix A
Site Photographs
Elegant Cleaners
1208 Lincoln Avenue
Alameda, California 94501

Drill Rig on Site, south of building in gravel lot.

View of MW-3, looking northward

Appendix A
Site Photographs
Elegant Cleaners
1208 Lincoln Avenue
Alameda, California 94501

Hollow Stem Auger Drilling for Groundwater Monitoring Well

Cored slab, Indoor Limited Acess Drilling

Appendix A
Site Photographs
Elegant Cleaners
1208 Lincoln Avenue
Alameda, California 94501

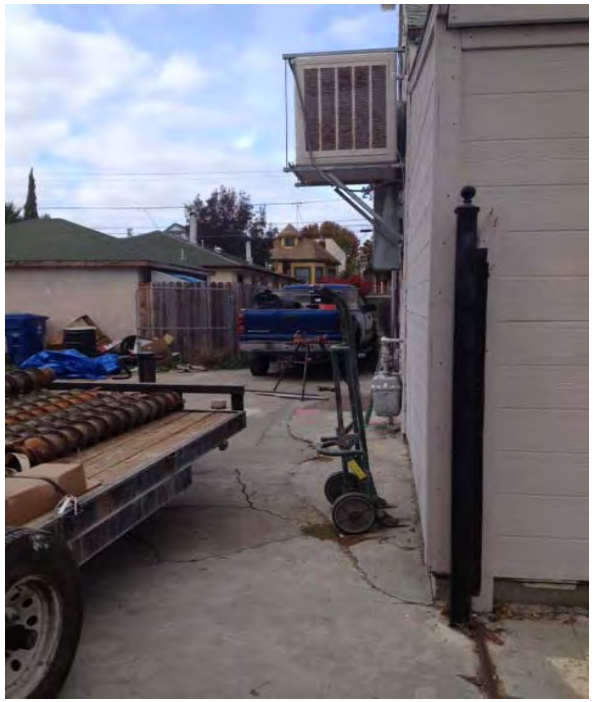
View of Monitoring Well Completion - 2 inch PVC casing.

Permanent Soil Vapor Monitoring Well Completion

View of southern gravel parking lot and VW-3.

Vapor Monitoring Well Completion, Indoors

Appendix A
Site Photographs
Elegant Cleaners
1208 Lincoln Avenue
Alameda, California 94501



View at rear (south) of building

Showing indoor well completions and condition of concrete.

APPENDIX B:

SITE SPECIFIC HEALTH AND SAFETY PLAN

AND

USA TICKET INFORMATION

HEALTH & SAFETY PLAN

COMMERCIAL RETAIL

Encon Solutions, Inc.
Environmental Consulting & Real Estate Due Diligence
3255 Wilshire Blvd. Suite 1508
Los Angeles, CA 90010
213 – 380-0555

Encon Solutions, Inc.
SITE HEALTH & SAFETY PLAN

This Site Health & Safety Plan is specifically prepared for:

Project Location: Elegant Cleaners
1208 Lincoln Avenue
Alameda, California 94501
Job Number: 1410097ESAIII

ALL PERSONNEL PARTICIPATING IN THE FIELD MUST BE TRAINED IN THE GENERAL AND SPECIFIC HAZARDS UNIQUE TO THE JOB AND, IF APPLICABLE, MEET RECOMMENDED MEDICAL EXAMINATION REQUIREMENTS. ALL SAFETY AND FIELD PERSONAL ARE IN COMPLIANCE WITH 8CCR SECTION 5192 AND 29 CFR 1910.120 TRAINING REQUIREMENTS. ALL SITE PERSONNEL AND VISITORS SHALL FOLLOW THE GUIDELINES, RULES, AND PROCEDURES CONTAINED IN THIS SAFETY PLAN. THE PROJECT MANAGER OR SITE SAFETY OFFICER MAY IMPOSE ANY OTHER PROCEDURES OR PROHIBITIONS THAT THEY BELIEVE ARE NECESSARY FOR SAFE OPERATIONS.

THIS PLAN IS PREPARED TO INFORM ALL FIELD PERSONNEL, INCLUDING ENCON CONTRACTORS AND ENCON SUBCONTRACTORS, OF THE POTENTIAL HAZARDS ON THE SITE. HOWEVER, EACH CONTRACTOR OR SUBCONTRACTOR MUST ASSUME DIRECT RESPONSIBILITY FOR HIS OWN EMPLOYEES' HEALTH AND SAFETY.

TABLE OF CONTENTS

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XII.	DECONTAMINATION PROCEDURES	19
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APPENDICES

A - Hazardous Property Information
B – General First Aid Procedures
C – Level D and Level C Standards
D – MSDS Sheets

ILLUSTRATIONS

Figure 1 - Route to Hospital and Site Vicinity Map
Figure 2 - Site Plot Plan

I. INTRODUCTION

A. SITE LOCATION: 1208 Lincoln Avenue, Alameda, CA 94501

B. PLAN PREPARED: Tom Lindros (Name) 10/23/2014 (Date)

C. PLAN APPROVED: Hyung Kim (Project Manager) 10/23/2014 (Date)

D. PLAN REVISED: _____ (Name) _____ (Date)

E. REVISION APPROVED: _____ (Project Manager) _____ (Date)

F. THE POSSIBLE HAZARDS ON THIS JOB ARE EXPECTED TO BE:

Geophsical Survey, traffic in parking lot, Drilling equipment (Push Probe, Hollow Stem Auger) – contact with chlorinated solvent-impacted soil and groundwater, inhalation of dust or vapors, traffic, sunburn, slips, trips, falls, noise, heat stress.

G. REQUIRED PERSONAL PROTECTIVE ITEMS AND EQUIPMENT FOR THIS PROJECT:

Level D PPE - hardhats, steel-toed boots, tyvek suit (hood not required) or dedicated field clothes

II. PERSONS RESPONSIBLE AND INVOLVED

A. PROJECT MANAGER: Mr. Thomas Lindros

Health and Safety Responsibilities: Delegate health and safety responsibilities to site safety officer, to ensure proper procedures are implemented, make available proper PPE, adequate time and budget, and qualified personnel to perform site work in a safe manner.

B. SITE SUPERVISOR: Encon Solutions Field Representative (Cora Olson)

Health and Safety Responsibilities: Ensure that all field personnel have read and sign the master copy of this document. Check that all site personnel meet Occupational Safety and Health Administration (OSHA) requirements regarding training, medical examinations, and fit testing.

C. SITE SAFETY OFFICER: Encon Solutions Field Representative (Cora Olson)

Health and Safety Responsibilities: Ensure that the guidelines, rules, and procedures in this document are followed for all site work. Be familiar with local emergency services. Conduct a tailgate health and safety meeting before work start-up and daily thereafter. Additional meetings may be required for specific job tasks, site activities or new field personnel. Maintain and inspect PPE, monitor onsite hazards, and monitor the physical condition of site personnel. Probably will be the same individual as the site supervisor.

D. SUBCONTRACTORS: ECA Drilling, Geophysical Locator, Mobile Laboratory, Lab Courier, etc.

Health and Safety Responsibilities: Perform work in a safe and neat manner, following the instructions of the Site Safety Officer (SSO), Site Supervisor, and DHSO. Follow guidelines, rules, and procedures in this document. Distribute a copy of the plan among your field personnel for their review prior to initiating field work.

III. FACILITY BACKGROUND

A. FACILITY BACKGROUND AND DESCRIPTION:

The Property is a 5,500 square-foot irregularly shaped parcel that is developed with two-story 2,500 square-foot commercial building currently occupied by a dry cleaning business name Elegant Cleaners. The northern portion of the building's first floor features a main entrance door leading into a reception area and clothes racks. The southern portion features a large dry cleaning machine, storage and various pressers and dryers. The second floor is used as storage. There is an unpaved parking area at the southern end of the Property. Access to the Property is achieved from the north along Lincoln Avenue and southwest along Bay Street.

The Property was developed with the current site building in the late 1800s or early 1900s. The building was originally developed as a meat market and was occupied by a store until the mid 1900s. In the 1970s it was occupied by a general store and in 1980 it was occupied by a pet store. The current occupant, Elegant Cleaners, began occupying the building in 1986. The dry cleaners upgraded to an a eco-friendly dry cleaning machine in 2005, which replaced the previous machine that used Tetrachloroethylene (PCE).

B. SITE HISTORY (USE OF SITE, ORIGIN OF CONTAMINATION):

A previous Phase II Report prepared by Eras Environmental Inc in 2006. Three hand auger borings were advanced by ERAS Environmental (ERAS) to about 5' depth in the southern portion of the building around the location of the dry cleaning machine. Soil samples collected from the borings were analyzed for TPH-diesel, TPH-kerosene, and HVOC including PCE. The test results indicated nondetectable concentrations for all contaminants tested, including PCE.

On August 22, 2014, Encon advanced six borings for the purposes of a soil gas survey. Soil gas samples were collected at depths of 5 to 12 feet bgs. The results indicated the presence of PCE at a maximum concentration of 22.48 ug/L in the southern gravel lot area at SV-5-8.0 feet, and 13.54 ug/L at SV-4-5.0 feet inside the building. Soil sampling was not performed. The results indicated soil vapor concentrations are NOT protective of indoor air quality.

Groundwater was not encountered at a maximum refusal depth of 12 feet bgs.

C. HAZARDOUS INCIDENCE HISTORY (HISTORY OF INJURIES, EXPOSURE, CHEMICAL SPILLS, COMPLAINTS,ETC.): None reported.

D. PURPOSE OF ACTIVITY/OBJECTIVE OF ENCON's WORK (CHARACTERIZATION, REMEDIAL ACTIONS, EXCAVATION, TRENCHING; INCLUDE LOCATION WITH RESPECT TO AREAS OF KNOWN OR SUSPECTED CONTAMINATION):

The objective(s) of this workplan are to:
1.. Further characterize the lateral and vertical extent of chlorinated solvents resulting from current/past dry cleaning operations in soil matrix and soil vapor phase in the vadose zone beneath the Site.
2. Install Groundwater Monitoring Wells to determine if chlorinated solvents have impacted shallow groundwater beneath the Site, and to determine the depth, flow direction groundwater surface gradient.

3. Conduct and Indoor Air Quality survey to determine if indoor air quality has been degraded as a result of known subsurface soil gas concentrations (i.e. vapor intrusion).

E. SITE STATUS: X ACTIVE (gas station) ___ INACTIVE __ UNKNOWN

F. SURROUNDINGS (LOCATION WITH RESPECT TO CITY, ROADS, RESIDENCES, BUSINESSES, NATURAL FEATURES, GRADIENTS, TANKS, ETC.):

See Site Vicinity Plan, attached. .

G. SITE MAP (Attach map at end of this plan showing salient features, including location of ENCON's work and location of contaminated areas): See attached Vicinity and Site maps.

H. CLIMATE:

	January	April	July	October
MEAN HIGH TEMPERATURE	65	80	100+	80
MEAN LOW TEMPERATURE	45	55	68	55
AVERAGE WIND SPEED AND DIRECTION				

IV. IDENTIFIED CHEMICAL CONTAMINANTS

A. IDENTIFIED CHEMICAL CONTAMINANTS KNOWN TO BE PRESENT

List chemical contaminants that have been identified, their concentration, and the environmental media in which they are present. Hazardous property information for selected chemicals appears in the appendix. Review this information for all chemicals listed below. If chemicals are not listed in the appendix, you must enter the hazardous property information in the appendix in the spaces provided.

Chemical	Environmental Media (Enter Code)	Measured Concentration Minimum	Measured Concentration Maximum
Tetrachloroethylene	Soil	ND	ND
Tetrachloroethylene	Soil Vapor	0.45 ug/L	22.48 ug/L
Tetrachloroethylene	GW	1.0 ug/L	29 ug/L

B. SUSPECTED CHEMICAL CONTAMINANTS ONSITE:

List chemical contaminants that are suspected to be present.

Chemical	Environmental Media (Enter Code)
PCE/TCE	So, SV, GW

Code for environmental media:

Sl	Sludge
GW	Groundwater
SW	Surface water
LW	Liquid waste
So	Soil
A	Air
Other	Specify

C. CHEMICAL CONTAMINANTS CHARACTERIZATION

Has the site been adequately characterized to the best of your knowledge?

Yes _____ No ___X____

If yes, list applicable references or previous reports/studies.

1. V. GENERAL WORK PRACTICES

- Use extreme caution when workers or the workers equipment is within 20 feet of powered electrical lines or equipment (i.e. capacitors, transformers, switching banks, etc). Check with electrical substation manager as appropriate.

- No one will be permitted to engage in work operations alone.

- Smoking, eating, drinking, chewing gum or tobacco will not be permitted within the work zones.

- Personnel should keep track of weather conditions and wind direction to the extent they could affect potential exposure.

- Personnel should be alert to any abnormal behavior on the part of other workers that might indicate distress, disorientation, or other ill effects.

- Personnel should never ignore symptoms which could indicate potential exposure to chemical contaminants. These should be immediately reported to their supervisor or the Site Safety Officer.

- Use of equipment that may generate a spark is not permitted at sites where the potential presence of explosive gases is suspected. At these sites, an explosimeter (specific to the potential explosive gas) must be used. Only intrinsically safe monitors will be used.

- If chemical odors are noted during onsite activities, personnel should go upwind until the odors can by identified.

- Follow established procedures for a particular job. Do not wear jewelry or loose-fitting clothing when operating or near equipment.

- Call the supervisor's attention to any behavior or condition that may cause injury or illness to others or damage to property.

- Read warning labels on containers and equipment. Follow specified precautions.

- Discontinue any operation that could lead to injury, illness, or property damage.

- Keep horseplay and other disruptive behavior away from the job.

- Promptly report to the Site Supervisor any occupational injury, illness, or exposure to toxic material. If injured, get first aid. Small injuries can become serious if neglected.

- Promptly inform the Site Supervisor whenever new substances, processes, procedures, or equipment that could present new safety and health hazards are brought into work areas or onto projects.

- Report accidents, incidents, or near misses to the Site Supervisor.

- Do not allow visitors without adequate safety training into the work area.

- Work upwind of any field activity.
- Perform work in a manner that will minimize dust from becoming airborne.
- When appropriate for safety considerations, use the "buddy system."
- Be alert to any abnormal behavior of other personnel that may indicate distress, disorientation, or other ill effects.
- Verify that vehicles have an ABC-rated fire extinguisher, first aid kit, and 32 ounces of eyewash fluid.
- Monitor weather conditions.
- Operate a vehicle only if you are a licensed driver. Seatbelts must be worn when operating a company vehicle or when driving a private vehicle on company business.
- Drive vehicles in a safe manner and obey traffic regulations.
- Contact the Site Supervisor if contact with human blood occurs during the administration of first aid.

VI. SITE CONTROL/WORK ZONES

A. DESCRIBE LOCATION OF EXCLUSION ZONE, HOT LINE, CONTAMINATION REDUCTION ZONE, AND DECONTAMINATION AREA AND SUPPORT ZONE. SHOW LOCATIONS ON SITE PLAN: Traffic cones/caution tape will be used to mark work area. Exclusion Zone - 10 ft radius from perimeter of the work area. Contaminant Reduction Zone - Upwind of Equipment Operations.

B. DEFINE THE SITE CONTROL/SECURITY MEASURES (I.E., FENCING, LOCKED GATES, KEYS, SECURITY GUARDS, FLAGGING, ETC: The site is un-secured. Work areas will be controlled during field activities with caution tape placed around perimeter of work area.

C. DESCRIBE SAFETY PLAN LOCATIONS: Onsite during all field activities, on dash board of field vehicle, and in project files.

VII. SITE RESOURCES

SITE RESOURCES LOCATIONS

Toilet facilities: Onsite

Drinking water supply: Onsite

Telephone: Onsite/mobile phone in field vehicle

First Aid: Field vehicle

Fire Extinguisher: Field vehicle

VIII. HAZARD ANALYSES

This section provides (1) information regarding potential hazards that might be encountered during field activities and (2) a risk assessment relative to hazards identified onsite.

List all activities in the Job Activity Column and assign a number to each activity (example: 1. Ground Water Sampling)

Identify how each category of hazard exists at each activity.

Activity Number	Job Task	Mechanical	Electrical	Chemical	Temperature	Acoustical	Radioactive	O^2 Deficiency Confied Space	Biohazard
1	GeoProbe Soil/Groundwater Sampling/ vapor piezometers	Drilling Equipment, Slip, Trip, Fall, Traffic	overhead and buried lines	Chlorinated Solvents in soil and groundwater	heat stress	equipment noise	NE	NE	NE
2	Geophysical Survey	Drilling Equipment, Overhead, Slip, Trip, Fall, Traffic	overhead and buried lines	None	heat stress	equipment noise	NE	NE	NE
3	Indoor vapor point Installation	Tight working spaces, slip, trip fall,	Equipment, extension cords, subsurface	Soil, soil vapor	Heat stress	Equipment noise	NE	NE	NE
4	Well Installation, Development and Sampling	Rig Tower, rigs, lines, slip trip, fall	Overhead, buried lines, cords	Groundwater	Heat stress	Equipment noise	NE	NE	NE
5	Vapor Sampling	Equipment, Trip, Slip, Fall	Equipment	Soil vapor	Heat stress	Equipment noise	NE	NE	NE

Not Applicable = NA,Not Expected = NE

IX. HAZARD MITIGATION

Procedures that will be used to minimize hazards identified onsite are listed below. Job tasks are identified by activity numbers (see below). The applicable activity number(s) is shown next to the procedure to mitigate the hazard.

Activity Number	Job Task
1	Soil Sampling, DPT, HSA, rigs
2	Geophysical Survey
3	Indoor Vapor Point Installation
4	Well Installation, Development, Sampling
5	Vapor Sampling

Identify procedures to mitigate all hazards listed in Section VIII by placing the task number next to the appropriate mitigating measure. Listing of standard procedures is not inclusive. A specific procedure must be entered to mitigate each hazard identified in Section VIII.

Hazards not presently applicable or anticipated to ever become applicable onsite are identified by N/A.

Activity List Number	A. Mechanical Hazards
1,4	Do not stand near backhoe buckets and earthmoving equipment.
1-5	Verify that all equipment is in good condition.
1-5	Do not stand or walk under elevated loads or ladders.
NE	Do not stand near unguarded excavation and trenches.
NE	Do not enter excavation or trenches over 5 feet deep that are not properly guarded, shored, or sloped. Obtain trenching/excavation permit.
1-5	Consult Site Supervisor if other mechanical hazards exist.
1,4	Caution when backhoe/drill rig is in operation.
1-5	Caution when working in street or sidewalk for traffic hazards.

B. Electrical Hazards

1-5	Locate and mark buried utilities before excavating/drilling.
1-5	Utilities located by: USA Ticket No. A41980130-00A , expires 8/14/14
1-5	Maintain at least 10 foot clearance from overhead power lines.
1-5	Contact utility company for minimum clearance from high voltage power lines.
1-5	If unavoidably close to buried or overhead power lines, have power turned off, with circuit breaker locked and tagged.
1-5	Properly ground all electrical equipment.
1-5	Avoid standing in water when operating electrical equipment.
1-5	If equipment must be connected by splicing wires, make sure all connections are properly taped.
1-5	Be familiar with specific operating instructions for each piece of equipment.

C. Chemical Hazards

1-5	Use personal protective equipment indicated in Section XI.
1-5	Conduct direct reading air monitoring to evaluate respiratory and explosion hazards (list instrument, action level, monitoring location, and action to be taken in Section X).
NA	Consult Site Supervisor for personal air monitoring.

D. Temperature Hazards

1. Heat Stress

1-5 When temperature exceeds 70°F, take frequent breaks in shaded area. Unzip or remove coveralls during breaks. Have cool water or electrolyte replenishment solution available. Drink small amounts frequently to avoid dehydration. Count the pulse rate for 30 seconds as early as possible in the rest period. If the pulse rate exceeds 110 beats per minute at the beginning of the rest period, shorten the work cycle by one–third.

2. Cold Stress

NA Wear multilayer cold weather outfits. The outer layer should be of wind resistant fabric.

NA 0° to 30°F total work time is 4 hours. Alternate 1 hour in and 1 hour out of the low-temperature area. Below 30°F, consult industrial hygienist. Drink warm fluid. Provide warm shelter for resting. Use buddy system. Avoid heavy sweating.

E. Acoustical Hazards

1-5 Use earplugs or earmuffs when noise level prevents conversation in normal voice at distance of 3 feet.

F. O_2 Deficiency - Confined Space Hazards

Confined spaces include trenches, pits, sumps, elevator shafts, tunnels, or any other area where circulation of fresh air is restricted or ability to readily escape from the area is restricted. **Confined space entry NOT PERMITTED!!!**

NA Obtain permit for confined space entry

NA Monitor O_2 and organic vapors. If following values are exceeded, do not enter:
- O_2 less than 19.5 percent or greater than 25%.
- Total hydrocarbons greater than 5 ppm above background, if all air contaminants have not been identified.
- Concentrations of specific contaminants exceeding action level in Section X if all air contaminants are identified.

NA Monitor O_2 and organic vapors continuously while inside confined space. If values cited above are exceeded, evacuate immediately. Record instrument readings.

NA At least one person must be on standby outside the confined space who is capable of pulling workers from confined space in an emergency.

NA Use portable fans or blowers to introduce fresh air to confined spaces whenever use of respirator is required.

NA Work involving the use of flame, arc, spark, or other source of ignition is prohibited within a confined space.

G. Radiation Hazards

NA If radiation meter indicates 2mR/hr or more, leave the area and consult Site Supervisor.

H. Biohazards

NA Learn to recognize and avoid contact with poison oak or poison ivy.

NA Do not touch infectious waste.

NA Do not approach or agitate rabid animals.

NA Avoid breathing dust in dry desert or central valley areas (valley fever).

NA Use insect repellant to avoid contact with ticks, mosquitoes, and other insects (disease carriers or poisonous), as necessary.

NA Do not touch refuse suspected of being from a biological or animal.

NA If possible, avoid contact with poisonous snakes or other reptiles by quietly walking away. If bitten, seek medical assistance immediately.

X. AIR MONITORING

Air monitoring should be conducted with instruments selected to measure contaminants that employees may be exposed to. Measurements should be taken within the breathing zones of workers. If action levels are reached for a 1–minute reading, appropriate action must occur.

A. GASES AND VAPORS

Instrument and Date of Calibration	Calibration Gas Standard	Frequency/Duration of Air Monitoring	Action Level (a) (b) Above Background (Breathing Zone)	Action
PID	100 ppm hexane	continuous	0-15 ppm	Introduce engineering controls (i.e., blower fans) (Level D)
PID	100 ppm hexane	continuous	>15 ppm	Don respirator (Level C)
PID	100 ppm hexane	continuous	15-300 ppm	Leave area (Level C)
				Upgrade to Level B
	Also see Section D - Other Instruments.			Upgrade to Level A

(a) Action Levels for "known contaminants" should be based upon the contaminants Permissible Exposure Level (PEL) or Threshold Limit Values (TLVs).

(b) Action levels for unknown contaminants are based upon the following:

PID Measurements in Breathing Zone
Reading for 1 minute

Background	Level D
>0-5 ppm above background	Level C
5-500 ppm above background	Level B
500-1,000 ppm above background	Level A

Comments: _____

B. EXPLOSION HAZARD

Instrument and Date Calibration	Action Level Above Background (Ambient Air)	Frequency/Duration of Air Monitoring	Action
Combustible gas indicator	Greater than 10% LEL	as needed	Leave Area

C. OXYGEN DEFICIENCY

Instrument and Date of Calibration	Above Background (Ambient Air)	Frequency/Duration of Air Monitoring	Action
O_2 meter	Less than 19.5% O_2 More than 23% O_2	as needed	breathable atmosphere/O2 source for combustion.

D. OTHER INSTRUMENTS

Instrument and Date of Calibration	Above Background (Ambient Air)	Frequency/Duration of Air Monitoring	Action
Draeger pump/tubes			
Radiation monitor			
Heat stress meter			
Noise meter			
H_2s meter			
pH analyzer			
Others			

XI. PERSONAL PROTECTIVE AND RELATED SAFETY EQUIPMENT

Place the activity number from Section VIII next to each item of personal protective equipment required for that task. All personal safety equipment must meet ANSI standards or equivalent. Don Level C respirator if stained soils are observed during sampling.

LEVEL: ___ A ___B __ C __X__ D

Comments: Work will initially be performed in Level D. However, if real-time monitoring indicates as specified in Section X, Level C PPE will be donned accordingly. Don Level C PPE (with respirator) if stained soils are observed during sampling activity.

Head Eye/Face

__X__ Hardhat __X__ Safety Glasses ___ Faceshield ___ Chemical Goggles

Hand

___ Neoprene __X__ Nitrile ___ PVC ___ Viton ___ Underglove

Other =

Body

_____ Full Encapsulating Suit _____

_____ Two Piece Rainsuit, Material _____

_____ One Piece Splash Suit, Material _____

__X__ Tyvek Suit or dedicated cloth coveralls…. _____

_____ Hooded Tyvek/Saranax Suit _____

_____ Hooded Tyvek/Polyethylene Suit _____

__X__ Cloth Coveralls _____

__X__ High Visibility Vest when working in high traffic area's _____

_____ Other _____

Lung

_____ SCBA (open circuit, pressure demand) _____

_____ Full Face Respirator, cartridge = _____

_____ Supplied Air, Airline _____

___ Half Mask Respirator, cartridge = Organic Vapor (OV)/HEPA _____

_____ Other _____

Ear

__X__ Earplug, type foam _____

_____ Earmuff, type _____

Foot

__X__ Steel-toed Boots, type _____

_____ Disposable Overboots, type _____

Other Safety Equipment

_____	Ventilation blower/fan	_____	Ground fault circuit interrupter
__X__	Traffic cones	_____	Lifeline harness
__X__	Barrier tape	_____	Radiation Dosimeter
_____	Blast alarm	_____	Life vests

Required PPE by Task: PPE that should be used for each task is as follows.

Task	Protection Level
1-5	Level D

XII. DECONTAMINATION PROCEDURES

A. EQUIPMENT (SAMPLING, CONSTRUCTION, ETC.) DECONTAMINATION (SOLVENTS USED, EQUIPMENT USED, METHOD OF DISPOSAL). ATTACH SITE DECONTAMINATION MAP AS NECESSARY:

B. PERSONNEL DECONTAMINATION (SOLVENTS USED, METHOD OF SOLVENT DISPOSAL; INCLUDE DECONTAMINATION METHOD OF PPE AND DISPOSAL OF PPE): Decontaminate boots and remove all contaminated clothing before leaving the site, storing them in 55-gallon drums, wash hands and face before leaving site. Dispose of PPE in accordance with federal and State Regulations.

C. INVESTIGATION-DERIVED MATERIAL DISPOSAL

1. Excavated soil, drilling cuttings: Place in Labeled 55 gallon DOT Drums
2. Decontamination solutions: Labeled 55 gallon DOT drums
3. Other:

XIII. DOCUMENTATION

PERSONNEL TRAINING AND MEDICAL RECORDS ARE AT ENCON Solutions, Los Angeles, CALIFORNIA.

A. PROJECT PERSONNEL LIST AND SAFETY PLAN DISTRIBUTION RECORD

1. Encon Representatives

All project staff must sign, indicating they have read and understand the Site Health and Safety Plan. A copy of this Site Health and Safety Plan must be made available for their review and readily available at the job site.

Employee Name/Job Title	Date Distributed	Signature

2. Contractors, Subcontractors

A copy of this safety plan shall be provided to contractors and subcontractors who may be affected by activities covered under the scope of this Site Safety Plan. All contractors and subcontractors must comply with applicable OSHA, EPA, and local government rules and regulations.

Firm Name	Contact Person	Date Distributed

B. HEALTH AND SAFETY MEETING - ALL PERSONNEL PARTICIPATING IN THE PROJECT MUST RECEIVE INITIAL HEALTH AND SAFETY ORIENTATION. THEREAFTER, A BRIEF TAILGATE SAFETY MEETING IS REQUIRED AS DEEMED NECESSARY BY THE SITE SAFETY OFFICER (OR AT LEAST ONCE EVERY 10 WORKING DAYS).

Date	Topics	Name of Attendee	Firm Name	Employee Initials
	Health and safety plan			
	Health and safety			

C. VISITOR - IT IS Encon's POLICY THAT VISITORS MUST FURNISH HIS/HER OWN PERSONAL PROTECTIVE EQUIPMENT. ALL VISITORS ARE REQUIRED TO SIGN THE VISITOR LOG AND COMPLY WITH THE SAFETY PLAN REQUIREMENTS. IF THE VISITOR REPRESENTS A REGULATORY AGENCY CONCERNED WITH SITE HEALTH AND SAFETY ISSUES, THE SITE SAFETY OFFICER SHALL ALSO IMMEDIATELY NOTIFY THE SITE SUPERVISOR.

VISITOR LOG

Name of Visitor	Firm Name	Date of Visit	Firm Name	Signature

XIV. CONTINGENCY/EMERGENCY INFORMATION

A. REQUIRED EMERGENCY EQUIPMENT LOCATION
Safety shower/eyewash: Field vehicle
First aid kit: Field Vehicle
Fire extinguisher: Field Vehicle

B. EMERGENCY TELEPHONE NUMBERS*
Ambulance: 911
Police: 911

Fire department: 911

Hospital: Highland Hospital Emergency Department
1411 East 31st Street, Oakland, California 94602-1018
Phone: 510-437-4559 (ER Direct Line)

Client Contact: Grace Yang – Open Bank
Mr. Rick Pak (408) 202-7814 (Site Access)

Poison Control Center: 911
CHEMTREC:

Project Manager:	Mr. Tom Lindros	Office:	805-498-4937	Cell:	805-410-2725
Site Supervisor:	Cora Olson	Office:	213-380-0555	Cell:	??

C. * STANDARD PROCEDURES FOR REPORTING EMERGENCIES:
When calling for assistance in an emergency situation, the following information should be provided:

1. Name of person making call
2. Telephone number at location of person making call
3. Name of person(s) exposed or injured
4. Nature of emergency
5. Actions already taken

Recipient of call should hang up first--not the caller.

D. EMERGENCY ROUTES: ATTACH MAP SHOWING ROUTE TO NEAREST HOSPITAL. DESCRIBE NARRATIVELY THE ROUTE TO THE HOSPITAL.
See attached step by step directions. 4.6 miles, approximately 15 minutes without traffic.

E. CONTINGENCY PLANS AS APPROPRIATE: DESCRIBE CONTINGENCY PLANS FOR EMERGENCIES SUCH AS: FIRES, EMERGENCY CARE, INJURY, PPE, OR OTHER

EQUIPMENT FAILURE. INCLUDE EMERGENCY SIGNALS AND EVACUATION ROUTES.

1) 3 horn blasts will be warning signal

2) Evacuate work area - -proceed upwind

3) Congregate at pre-established location

4) Follow-up with first aid and medical evacuation, if necessary

APPENDIX A

HAZARDOUS PROPERTY INFORMATION

APPENDIX A

HAZARDOUS PROPERTY INFORMATION

This appendix contains hazardous property information for selected compounds. Place a check mark next to each compound identified in Section IV, and review the hazardous property information for those compounds. If you have identified compounds in Section IV that are not listed in the appendix, you must list the compounds and enter the appropriate information.

HAZARDOUS PROPERTY INFORMATION

*if present	Material	Water Solubility[a]	Specific Gravity	Vapor Density	Flash Point ▒F	Vapor Pressure[e]	LEL UEL	LD_{50} mg/kg	TLV-TWA[g]	IDLH Level	Odor Threshold or Warning Concentration	Hazard[j] Property	Dermal[k] Toxicity	Acute[l] Exposure Symptoms
VOLATILE ORGANIC PRIORITY POLLUTANTS														
	Acrolein	22%	0.8410	1.9	-15	214 mm	2.8% 31%	46	0.1 ppm	5 ppm	0.1-16.6 (0.21-0.5)	BCED	BJ	ABDFGHIKLMNO PQR
	Acrylyenitrile	7.1%	0.8060	1.8	30	83 mm	3% 17%	82	2 ppm	4,000 ppm	19-100	BCEGO	DIG	FGIKLMNOR
	Anthracene	Insoluble	1.25	6.15	250	1.0	0.6%		0.2 mg/m^3	200 mg/m^3		BCG		N
	*Benzene	820 ppm	0.8765	2.8	12	75 mm	0.339% 7/1%	3800	11 ppm	2,000 ppm	4.68	BCGO	CIG	BCDFHIKLMNOQ R
	Benzo(a)pyrene	Slightly	1.351	8.7	N/I	>1	N/I		0.1 mg/m^3	N/I		CG		IM
	Bromomethane	0.1 g	1.732	3.3	none	1.88 atm	13.5%c 14.5%		5 ppmh	2,000 ppm	no odor	CD		BCDEIJKLMNOQ R
	Bromodichloromethane	Insoluble	1.980	--	none	n/a	non flam	916	none established	none specified		CGO		BIMN
	Bromoform	0.01g	2.887	--	none	5 mm	non flam	1147	0.5 ppm	n/a	530	CED		BCDKLM
	Carbon Tetrachloride	0.08%	1.5967	5.3	none	91 mm	non flam	2800	5 ppmh	300 ppm	21.4-200	CD	JGH	ABCFGHKMO
	Chlorobenzene	0.01 g	1.1058	3.9	84	8.8 mm	1.3% 9.6%	2910	75 ppm	2,400 ppm	0.21-60	BCD	CIF	BCFIKLMNOPQR
	Chloroethane	0.6 g	0.8978	2.2	-58	1.36 atm	3.8% 15.4%		1000 ppm	20,000 ppm		BCD		BFHIKMNP
	2-Chloroethylvinyl Ether	Insoluble	1.0475	3.7	80	30 mm	--	250	none established	none specified		BCD		NIM
	Chloroform	0.8 g	1.4832	4.12	none	160 mm	non flam	800	10 ppmh	1,000 ppm	50-307 fatigue (>4096)	CD		BCDGIKLMN
	Chloromethane	0.74%	0.9159	1.8	32	50 atm	7.6% 19%		50 ppmh	10,000 ppm	10-100 no odor (500-1000)	BCD	DHF	ABCDEFGIJKLO QR
	Chrysene	Insoluble	1.274	N/I	N/A	6.3 x 10^{-7}	N/A		0.2 mg/m^3	200 mg/m^3		G		IM
	Dibromochloromethane	Insoluble	2.451	--	--	--	--	848	none established	none specified		BCD		BFHIMNPQ
	1,1-Dichloroethane (DCA)	0.1 g	1.1757	8.4 16%	22	182 mm	6%	725100 ppm	4,000 ppm	5 ppm	BCD		AGHIMNO	

HAZARDOUS PROPERTY INFORMATION

Check if present	Material	Water Solubility[a]	Specific Gravity	Vapor Density	Flash Point °F	Vapor Pressure[e]	LEL UEL	LD_{50} mg/kg	TLV-TWA[g]	IDLH Level	Odor Threshold or Warning Concentration	Hazard[j] Property	Dermal[k] Toxicity	Acute[l] Exposure Symptoms
	1,2-Dichloroethane	0.8%	1.2554	3.4	55	87 mm	6.2% 16%	670	10 ppmh	1,000 ppm	6 ppm	BCDG		BCFGOLMNQ
	1,1-Dichloroethylene (DCE)	2250 mg/l @77of	--	3.4	3	591 mm	7.3% 16.0%	200	5 ppmh	none specified		BCD		BIMN
	Trans-1,2-Dichloroethylene	Slightly soluble	1.2565	--	36	400 mm	9.7% 12.8%		none established	none specified	.0043 mg/l	BCD		ABFILOQ
	1,2 Dichloropropane	0.26%	1.583	3.9	60	40 mm	3.4% 14.5%	1900	75 ppm	2,000 ppm	50	BCD		ABGHIKMNO
	Cis-1,3-Dichloropropane	Insoluble	1.2	3.8	83	28 mm	5% 14.5%		1 ppmh	none specified		BCD		ABGIKLMNP
	Trans-1,3-Dichloropropane	Insoluble	1.2	3.8	83	28 mm	5% 14.5%		1 ppmh	none specified		BCD		ABGIKLMNP
	*Ethylbenzene	0.015 g	0.867	3.7	59	7.1 mm	1.0% 6.7%	3500	100 ppm	2,000 ppm		BCD	CIF	ABFHIKLMNPQR
	Phenanthrene	Insoluble	1.06	6.14	171°C	1 @ 118.3°F	N/A		0.2 mg/m^3	700 mg/m^3		BG		IM
	Methylene Chloride	Slightly soluble	1.335	2.9	none	350 mm	12%c unavailable	167	100 ppmh	5,000 ppm (200)	25-320	CED	CIF	BCIKLMNPR
	Pyrene	1.35 mg/l	1.271	N/I	N/I	6.85 x 10^{-7}	N/I		0.2 mg/m^3	700 mg/m^3		BCG		IMN
	1,1,2,2-Tetrachloroethane	0.19%	1.5953	5.8	none	5 mm	non flam		1 ppmh	150 ppm	3-5	CD		ABCFHIKLMNOQ
	Tetrachloroethylene	0.15 g/ml	1.6227	5.8	none	15.8 mm	non flam	8850	50 ppmh	500 ppm	4.68%-50 (160-690)	CD		ACFHIKLMNP
	1,1,1-Trichloroethane (TCA)	0.7 g	1.3390	4.6	none	100 mm	8.0%c 10.5%	10300	350 ppm	1,000 ppm	20-400 (500-1000)	BCED		ABEFHIKLNOP
	1,1,2-Trichloroethane	0.45	1.4397	4.6	none	19 mm	6%c 15.5%	1140	10 ppm	500 ppm	-0-	C		DEFGHIKMNOPQ
	Trichloroethylene (TCE)	0.1%	1.4642	4.5	90d	58 mm	12.5% 90%	4920	50 ppmh	1,000 ppm	21.4-400	BC		BFKLNOPQ
	Trichlorofluoromethane	0.11 g	1.494	-- flam	none	0.91 atm	non	1000 ppm	10,000 ppm	135-209	CD		BFHKLQ	

HAZARDOUS PROPERTY INFORMATION

Check if present	Material	Water Solubility[a]	Specific Gravity	Vapor Density	Flash Point °F	Vapor Pressure[e]	LEL UEL	LD_{50} mg/kg	TLV-TWA[g]	IDLH Level	Odor Threshold or Warning Concentration	Hazard[j] Property	Dermal[k] Toxicity	Acute[l] Exposure Symptoms
	*Toluene	0.05 g	0.866	3.2	40	22 mm	1.3% 7.1%	5000	100 ppm	2,000 ppm	0.17-40 fatigue (300-400)	BC	BHE	DEFHIKLMNOPQ
	Vinyl Chloride	negligible	0.9100	2.24	-108	3.31 atm	3.6% 33%	500	1 ppm	none specified	260	BCEG	DJG	ABFHIKLMN
METALS														
	Arsenic	b	5.727	n/a	none	n/a	f		10 ŋg/m^3	none specified		CEG	CJG	ACDGJMOQR
	Beryllium	b	1.85	n/a	none	n/a	f		2 ŋg/m^3	none specified		C		IJMNR
	Cadmium	b	8.642	n/a	none	n/a	f	225	0.5 mg/m^3	40/mg^3		C		ABGHIKLMNQR
	Chromium	b	7.20	n/a	none	n/a	f		0.5 mg/m^{3}h	500/mg^3		C		FMNQ
	Copper	b	8.92	n/a	none	n/a	f		0.1 mg/m^3	none specified		C		FGIJMOQR
	*Lead	b	11.3437	n/a	none	n/a	f		50 ŋg/m^3	none specified		C		ACDFGKOQR
	Mercury	b	13.5939	7.0	none	0.0012 mm	f		50 ŋg/m^{3}h	28 mg/m^3		C		AGLMNQ
	Nickel	b	8.9	n/a	none	n/a	f		1 mg/m^3	none specified		C		DGHLMNQ
	Silver	b	10.5	n/a	none	n/a	f		0.01mg/m^3	none specified		C		IN
	Thallium	b	11.85	n/a	none	n/a	f		0.01mg/m^3	20 mg/m^3		C	BG	ABGLNOQ
	Zinc	b	7.14	n/a	none	n/a	f		none established	none specified		C		DF

HAZARDOUS PROPERTY INFORMATION

Check if present	Material	Water Solubility[a]	Specific Gravity	Vapor Density	Flash Point °F	Vapor Pressure[e]	LEL UEL	LD_{50} mg/kg	TLV-TWA[g]	IDLH Level	Odor Threshold or Warning Concentration	Hazard[j] Property	Dermal[k] Toxicity	Acute[l] Exposure Symptoms
MISCELLANEOUS														
	Asbestos	Insoluble	2.5	n/a	none	n/a	non flam		0.2-2 fibers/cc	none specified		CG		MN
	Cyanides	58-72%		n/a	none	n/a	non flam		5 mg/m^3			CE		FKLMPQ
	PCB (generic)	slightly	--	n/a	none	n/a	non flam		1.0 ┤g/m^3i	none specified		CG		CHLPQ
	Phenol	8.4%	1.0576	3.2	175	0.36 mm	1.8% 8.6%	414	5 ppm	100 ppm	0.47-5 (48)	C		ABCDGIKMNOQR
	Xylene	0.00003%	0.8642	3.7	84	9 mm	1.1% 7%	5000	100 ppm	10,000 ppm	0.5-200 (200)	BCD		ABFHIKLMNPQ
	Acetone	soluble	0.8	2.0	-4	400 mm	2.6% 12.8%	9750	750 ppm	10,000 ppm	100	BCD	DI	H
	Chromic Acid	soluble	1.67-2.82	n/a	none	n/a	non flam		none established	none specified		ACEG		GIH
	*Diesel Fuel	insoluble	0.81-0.90	--	130	--	0.6-1.3 6-7.5		none established	none specified	0.08	BC	ABC	IN
	*Gasoline	insoluble	0.72-0.76	3.4	-45	variable	1.4% 7.6%		300 ppm	none specified	0.005-10 x 0.25	CD	AB	IN
	Kerosene	insoluble	0.83-1.0	--	100-165	5	0.7% 5.0%		none established	none specified	1.0	BCD	AB	IN

SAFETY DATA SHEET

Version 4.3
Revision Date 07/01/2014
Print Date 01/15/2015

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name	:	Tetrachloroethylene
Product Number	:	371696
Brand	:	Sigma-Aldrich
Index-No.	:	602-028-00-4
CAS-No.	:	127-18-4

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

Identified uses	:	Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company	:	Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA
Telephone	:	+1 800-325-5832
Fax	:	+1 800-325-5052

1.4 Emergency telephone number

Emergency Phone #	:	(314) 776-6555

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Skin irritation (Category 2), H315
Carcinogenicity (Category 2), H351
Acute aquatic toxicity (Category 2), H401
Chronic aquatic toxicity (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word: Warning

Hazard statement(s)

H315	Causes skin irritation.
H351	Suspected of causing cancer.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash skin thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves.

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P321	Specific treatment (see supplemental first aid instructions on this label).
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms	:	Perchloroethylene PCE
Formula	:	C_2Cl_4
Molecular Weight	:	165.83 g/mol
CAS-No.	:	127-18-4
EC-No.	:	204-825-9
Index-No.	:	602-028-00-4

Hazardous components

Component	Classification	Concentration
Tetrachloroethylene		
	Skin Irrit. 2; Carc. 2; Aquatic Acute 2; Aquatic Chronic 2; H315, H351, H411	-

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

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

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

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

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
no data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture
Carbon oxides, Hydrogen chloride gas

5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information
no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
For personal protection see section 8.

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

6.3 Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Tetrachloroethylene	127-18-4	TWA	25 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Central Nervous System impairment Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans		
		STEL	100 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Central Nervous System impairment Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans		
		Potential Occupational Carcinogen Minimize workplace exposure concentrations. See Appendix A		
		See Table Z-2		

		TWA	100 ppm	USA. Occupational Exposure Limits (OSHA) - Table Z2
		CEIL	200 ppm	USA. Occupational Exposure Limits (OSHA) - Table Z2
		Peak	300 ppm	USA. Occupational Exposure Limits (OSHA) - Table Z2
		TWA	25 ppm 170 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

Biological occupational exposure limits

Component	CAS-No.	Parameters	Value	Biological specimen	Basis
Tetrachloroethylene	127-18-4	Tetrachloroethylene	3parts per million	In end-exhaled air	ACGIH - Biological Exposure Indices (BEI)
	Remarks	Prior to shift (16 hours after exposure ceases)			
		Tetrachloroethylene	0.5 mg/l	In blood	ACGIH - Biological Exposure Indices (BEI)
		Prior to shift (16 hours after exposure ceases)			

8.2 Exposure controls

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

Personal protective equipment

Eye/face protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact
Material: Fluorinated rubber
Minimum layer thickness: 0.7 mm
Break through time: 480 min
Material tested:Vitoject® (KCL 890 / Aldrich Z677698, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.2 mm
Break through time: 49 min
Material tested:Dermatril® P (KCL 743 / Aldrich Z677388, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: liquid, clear Colour: colourless
b)	Odour	no data available
c)	Odour Threshold	no data available
d)	pH	no data available
e)	Melting point/freezing point	Melting point/range: -22 °C (-8 °F) - lit.
f)	Initial boiling point and boiling range	121 °C (250 °F) - lit.
g)	Flash point	no data available
h)	Evapouration rate	no data available
i)	Flammability (solid, gas)	no data available
j)	Upper/lower flammability or explosive limits	no data available
k)	Vapour pressure	25.3 hPa (19.0 mmHg) at 25.0 °C (77.0 °F) 17.3 hPa (13.0 mmHg) at 20.0 °C (68.0 °F)
l)	Vapour density	no data available
m)	Relative density	1.623 g/cm3 at 25 °C (77 °F)
n)	Water solubility	no data available
o)	Partition coefficient: n-octanol/water	log Pow: 3.40
p)	Auto-ignition temperature	no data available
q)	Decomposition temperature	no data available
r)	Viscosity	no data available
s)	Explosive properties	no data available
t)	Oxidizing properties	no data available

9.2 Other safety information
no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
no data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
no data available

10.4 Conditions to avoid
no data available

10.5 Incompatible materials
Strong oxidizing agents, Strong bases

10.6 Hazardous decomposition products
Other decomposition products - no data available
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - rat - 2,629 mg/kg

LC50 Inhalation - rat - 8 h - 34,200 mg/m3

LD50 Dermal - rabbit - 5,000 mg/kg

no data available

Skin corrosion/irritation
Skin - rabbit
Result: Severe skin irritation - 24 h

Serious eye damage/eye irritation
Eyes - rabbit
Result: Mild eye irritation - 24 h

Respiratory or skin sensitisation
no data available

Germ cell mutagenicity
no data available

Carcinogenicity

Limited evidence of carcinogenicity in animal studies

IARC:	2A - Group 2A: Probably carcinogenic to humans (Tetrachloroethylene)
NTP:	Reasonably anticipated to be a human carcinogen (Tetrachloroethylene)
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
no data available

no data available

Specific target organ toxicity - single exposure
no data available

Specific target organ toxicity - repeated exposure
no data available

Aspiration hazard
no data available

Additional Information
RTECS: KX3850000

narcosis, Liver injury may occur., Kidney injury may occur.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	LC50 - Cyprinodon variegatus (sheepshead minnow) - 9.8 mg/l - 96.0 h
	LC50 - Lepomis macrochirus (Bluegill) - 13 mg/l - 96.0 h
	LC50 - Oncorhynchus mykiss (rainbow trout) - 4.9 mg/l - 96.0 h
	NOEC - Oryzias latipes - 17 mg/l - 10.0 d
	NOEC - Cyprinodon variegatus (sheepshead minnow) - 29 mg/l - 96.0 h
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 7.50 mg/l - 48 h

12.2 Persistence and degradability

12.3 Bioaccumulative potential

Bioaccumulation	Lepomis macrochirus (Bluegill) - 21 d - 0.00343 mg/l
	Bioconcentration factor (BCF): 49

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 1897 Class: 6.1 Packing group: III
Proper shipping name: Tetrachloroethylene
Reportable Quantity (RQ): 100 lbs
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG

UN number: 1897 Class: 6.1 Packing group: III EMS-No: F-A, S-A
Proper shipping name: TETRACHLOROETHYLENE
Marine pollutant: Marine pollutant

IATA

UN number: 1897 Class: 6.1 Packing group: III
Proper shipping name: Tetrachloroethylene

15. REGULATORY INFORMATION

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

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
Tetrachloroethylene	127-18-4	2007-07-01

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Tetrachloroethylene	127-18-4	2007-07-01

New Jersey Right To Know Components

	CAS-No.	Revision Date
Tetrachloroethylene	127-18-4	2007-07-01

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.	CAS-No.	Revision Date
Tetrachloroethylene	127-18-4	2007-09-28

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
Carc.	Carcinogenicity
H315	Causes skin irritation.
H351	Suspected of causing cancer.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
Skin Irrit.	Skin irritation

HMIS Rating

Health hazard:	1
Chronic Health Hazard:	*
Flammability:	0
Physical Hazard	0

NFPA Rating

Health hazard:	1
Fire Hazard:	0
Reactivity Hazard:	0

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Preparation Information
Sigma-Aldrich Corporation
Product Safety – Americas Region
1-800-521-8956

Version: 4.3 Revision Date: 07/01/2014 Print Date: 01/15/2015

SAFETY DATA SHEET

Version 5.2
Revision Date 11/18/2014
Print Date 01/15/2015

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Trichloroethylene

Product Number : 133124
Brand : Aldrich
Index-No. : 602-027-00-9

CAS-No. : 79-01-6

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone : +1 800-325-5832
Fax : +1 800-325-5052

1.4 Emergency telephone number

Emergency Phone # : (314) 776-6555

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319
Germ cell mutagenicity (Category 2), H341
Carcinogenicity (Category 1B), H350
Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336
Acute aquatic toxicity (Category 3), H402
Chronic aquatic toxicity (Category 3), H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H341 Suspected of causing genetic defects.
H350 May cause cancer.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear eye protection/ face protection.
P280	Wear protective gloves.
P281	Use personal protective equipment as required.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P312	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms	:	TCE Trichloroethene
Formula	:	C_2HCl_3
Molecular weight	:	131.39 g/mol
CAS-No.	:	79-01-6
EC-No.	:	201-167-4
Index-No.	:	602-027-00-9

Hazardous components

Component	Classification	Concentration
Trichloroethylene Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)		
	Skin Irrit. 2; Eye Irrit. 2A; Muta. 2; Carc. 1B; STOT SE 3; Aquatic Acute 3; Aquatic Chronic 3; H315, H319, H336, H341, H350, H412	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

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

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

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

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture
Carbon oxides, Hydrogen chloride gas

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
For personal protection see section 8.

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

6.3 Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Light sensitive. Handle and store under inert gas.
Storage class (TRGS 510): Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Trichloroethylene	79-01-6	TWA	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Central Nervous System impairment cognitive decrement Renal toxicity Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Suspected human carcinogen		
		STEL	25 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Central Nervous System impairment cognitive decrement Renal toxicity Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Suspected human carcinogen		
		Potential Occupational Carcinogen See Appendix C See Appendix A		
		See Table Z-2		
		TWA	100 ppm	USA. Occupational Exposure Limits (OSHA) - Table Z-2
		Z37.19-1967		
		CEIL	200 ppm	USA. Occupational Exposure Limits (OSHA) - Table Z-2
		Z37.19-1967		
		Peak	300 ppm	USA. Occupational Exposure Limits (OSHA) - Table Z-2
		Z37.19-1967		
		TWA	50 ppm 270 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		Skin notation		
		STEL	200 ppm 1,080 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		Skin notation		

Biological occupational exposure limits

Component	CAS-No.	Parameters	Value	Biological specimen	Basis
Trichloroethylene	79-01-6	Trichloroacetic acid	15.0000 mg/l	Urine	ACGIH - Biological Exposure Indices (BEI)
	Remarks	End of shift at end of workweek			
		Trichloroethanol	0.5000 mg/l	In blood	ACGIH - Biological Exposure Indices (BEI)
		End of shift at end of workweek			
		Trichloroethylene		In blood	ACGIH - Biological Exposure Indices (BEI)
		End of shift at end of workweek			
		Trichloroethylene		In end-exhaled air	ACGIH - Biological Exposure Indices (BEI)
		End of shift at end of workweek			

8.2 Exposure controls

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

Personal protective equipment

Eye/face protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact
Material: Fluorinated rubber
Minimum layer thickness: 0.7 mm
Break through time: 480 min
Material tested:Vitoject® (KCL 890 / Aldrich Z677698, Size M)

Splash contact
Material: Fluorinated rubber
Minimum layer thickness: 0.7 mm
Break through time: 480 min
Material tested:Vitoject® (KCL 890 / Aldrich Z677698, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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

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

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: liquid, clear Colour: colourless
b)	Odour	No data available
c)	Odour Threshold	No data available
d)	pH	No data available
e)	Melting point/freezing point	Melting point/range: -84.8 °C (-120.6 °F) - lit.
f)	Initial boiling point and boiling range	86.7 °C (188.1 °F) - lit.
g)	Flash point	No data available

h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	Upper explosion limit: 10.5 %(V) Lower explosion limit: 8 %(V)
k)	Vapour pressure	81.3 hPa (61.0 mmHg) at 20.0 °C (68.0 °F)
l)	Vapour density	No data available
m)	Relative density	1.463 g/mL at 25 °C (77 °F)
n)	Water solubility	No data available
o)	Partition coefficient: n-octanol/water	log Pow: 2.29log Pow: 5
p)	Auto-ignition temperature	410.0 °C (770.0 °F)
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	No data available

9.2 Other safety information
No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
Oxidizing agents, Strong bases, Magnesium

10.6 Hazardous decomposition products
Other decomposition products - No data available
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - Rat - 4,920 mg/kg

LC50 Inhalation - Mouse - 4 h - 8450 ppm

LD50 Dermal - Rabbit - > 20,000 mg/kg

No data available

Skin corrosion/irritation
Skin - Rabbit
Result: Severe skin irritation - 24 h

Serious eye damage/eye irritation
Eyes - Rabbit
Result: Eye irritation - 24 h

Respiratory or skin sensitisation
No data available

Germ cell mutagenicity
Laboratory experiments have shown mutagenic effects.
In vitro tests showed mutagenic effects

Carcinogenicity

This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

Possible human carcinogen

IARC:	1 - Group 1: Carcinogenic to humans (Trichloroethylene)
NTP:	Reasonably anticipated to be a human carcinogen (Trichloroethylene)
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
No data available

No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information
RTECS: Not available

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Exposure to and/or consumption of alcohol may increase toxic effects., Gastrointestinal disturbance, Kidney injury may occur., narcosis
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	LC50 - Pimephales promelas (fathead minnow) - 41 mg/l - 96.0 h
	LOEC - other fish - 11 mg/l - 10.0 d
	NOEC - Oryzias latipes - 40 mg/l - 10.0 d
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 18.00 mg/l - 48 h
Toxicity to algae	IC50 - Pseudokirchneriella subcapitata (green algae) - 175.00 mg/l - 96 h

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
Does not bioaccumulate.

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

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

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product
Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN number: 1710 Class: 6.1 Packing group: III
Proper shipping name: Trichloroethylene
Reportable Quantity (RQ): 100 lbs

Poison Inhalation Hazard: No

IMDG
UN number: 1710 Class: 6.1 Packing group: III EMS-No: F-A, S-A
Proper shipping name: TRICHLOROETHYLENE

IATA
UN number: 1710 Class: 6.1 Packing group: III
Proper shipping name: Trichloroethylene

15. REGULATORY INFORMATION

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

SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
Trichloroethylene	79-01-6	2007-07-01

Massachusetts Right To Know Components

	CAS-No.	Revision Date
Trichloroethylene	79-01-6	2007-07-01

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Trichloroethylene	79-01-6	2007-07-01

New Jersey Right To Know Components

	CAS-No.	Revision Date
Trichloroethylene	79-01-6	2007-07-01

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.	CAS-No.	Revision Date
Trichloroethylene	79-01-6	2011-09-01

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. Trichloroethylene	CAS-No. 79-01-6	Revision Date 2011-09-01

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
Carc.	Carcinogenicity
Eye Irrit.	Eye irritation
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H402	Harmful to aquatic life.

HMIS Rating

Health hazard:	2
Chronic Health Hazard:	*
Flammability:	0
Physical Hazard	0

NFPA Rating

Health hazard:	2
Fire Hazard:	0
Reactivity Hazard:	0

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Preparation Information

Sigma-Aldrich Corporation
Product Safety – Americas Region
1-800-521-8956

Version: 5.2 Revision Date: 11/18/2014 Print Date: 01/15/2015

HAZARDOUS PROPERTY INFORMATION

EXPLANATIONS AND FOOTNOTES

Water solubility is expressed in different terms in different references. Many references use the term "insoluble" for materials that will not readily mix with water, such as gasoline. However, most of these materials are water soluble at the part per million or part per billion level. Gasoline, for example, is insoluble in the gross sense, and will be found as a discreet layer on top of the groundwater. But certain gasoline constituents, such as benzene, toluene, and xylene will also be found in solution in the groundwater at the part per million of part per billion level.

a. Water solubility expressed as 0.2g means 0.2grams per 100grams water at 20^{o}C.

b. Solubility of metals depends on the compound in which they are present.

c. Several chlorinated hydrocarbons exhibit no flash point in conventional sense, but will burn in presence of high energy ignition source or will form explosive mixtures at temperatures above 200^{o}F.

d. Practically non-flammable under standard conditions.

e. Expressed as mm Hg under standard conditions.

f. Explosive concentrations of airborne dust can occur in confined areas.

g. Values for Threshold Limit Value-Time Weighted Average (TLV-TWA) are OSHA Permissible Exposure Limits except where noted in h and i.

h. TLV-TWA adopted by the American Conference of Governmental Industrial Hygienists, which is lower than the OSHA PEL.

i. TLV-TWA recommended by the national Institute for Occupational Safety and Health (NIOSH). A TLV or PEL has not been adopted by ACGIH or OSHA.

j. A - corrosive
B - flammable
C - toxic
D - volatile
E - reactive
F - radioactive
G - carcinogen
H - infectious

k. Dermal Toxicity data is summarized in the following three categories:

Skin Penetration

- A - negligible penetration (solid-polar)
+ B - slight penetration (solid-nonpolar)
++ C - moderate penetration (liquid/solid-nonpolar)
+++ D - high penetration (gas/liquid-nonpolar)

Systemic Potency

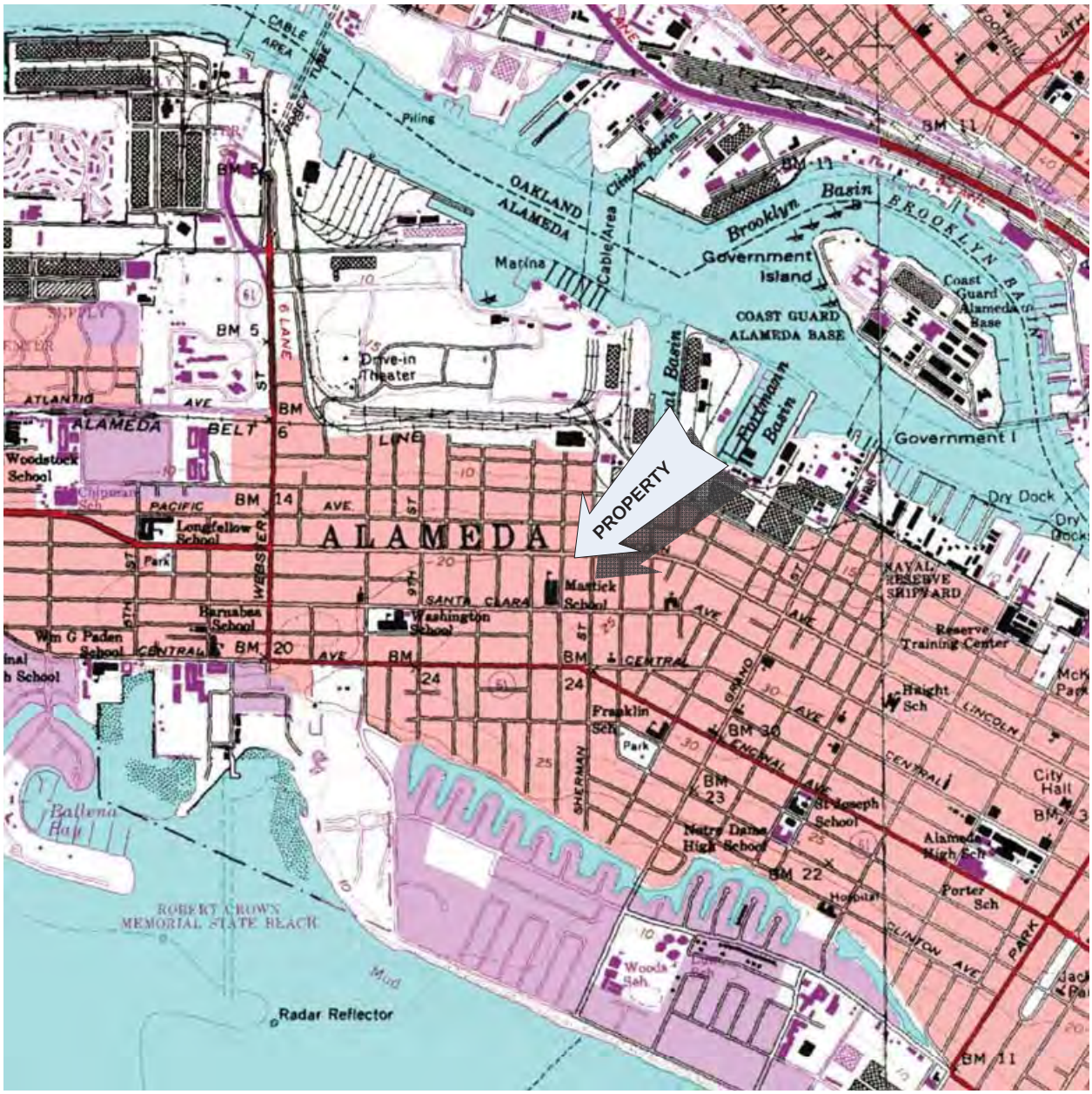
E - slight hazard - LD_{50} = 500-15,000 mg/kg
lethal dose for 70 kg man = 1 pint-1 quart
F - moderate hazard - LD_{50} = 50-500 mg/kg
lethal dose for 70 kg man = 1 ounce-1 pint
G - extreme hazard - LD_{50} = 10-50 mg/kg
lethal dose for 70 kg/man = drops to 20 ml

Local Potency

H - slight - reddening of skin
I - moderate - irritation/inflammation of skin
J - extreme - tissue destruction/necrosis

l. Acute Exposure Symptoms

A - abdominal pain
B - central nervous system depression
C - comatose
D - convulsions
E - confusion
F - dizziness
G - diarrhea
H - drowsiness
I - eye irritation
J - fever
K - headache
L - nausea
M - respiratory system irritation
N - skin irritation
O - tremors
P - unconsciousness
Q - vomiting
R - weakness

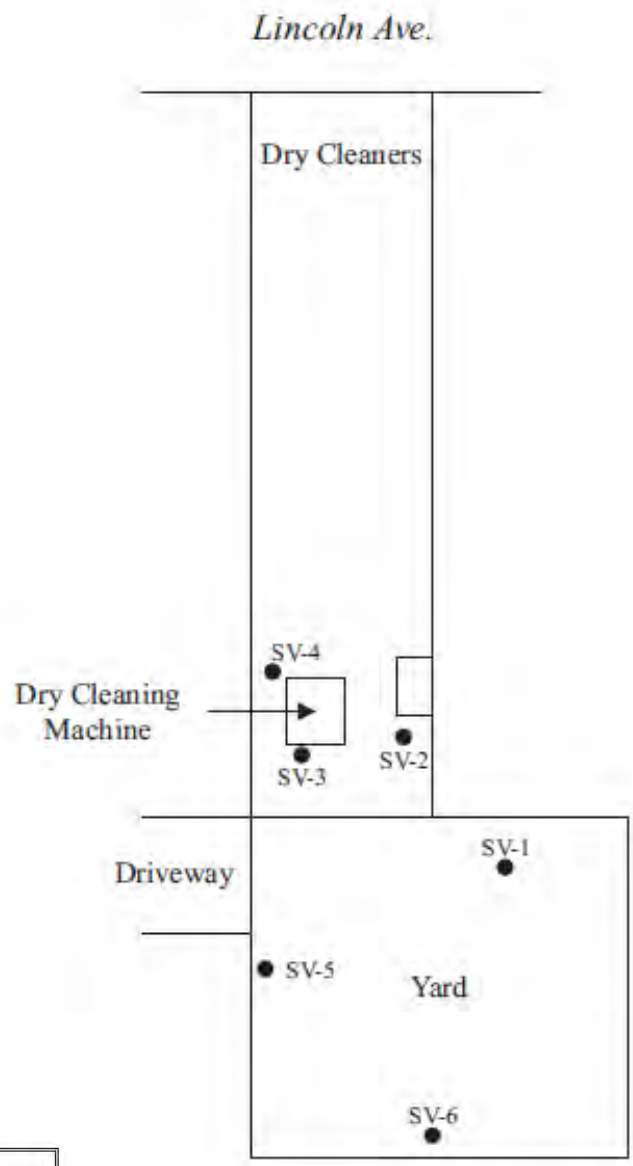


No Scale

FIGURE 1	Site Location Map

SITE ADDRESS: 1208 Lincoln Avenue, Alameda, CA 94501

ENCON Solutions, Inc.
Environmental Consulting & Real Estate Due Diligence

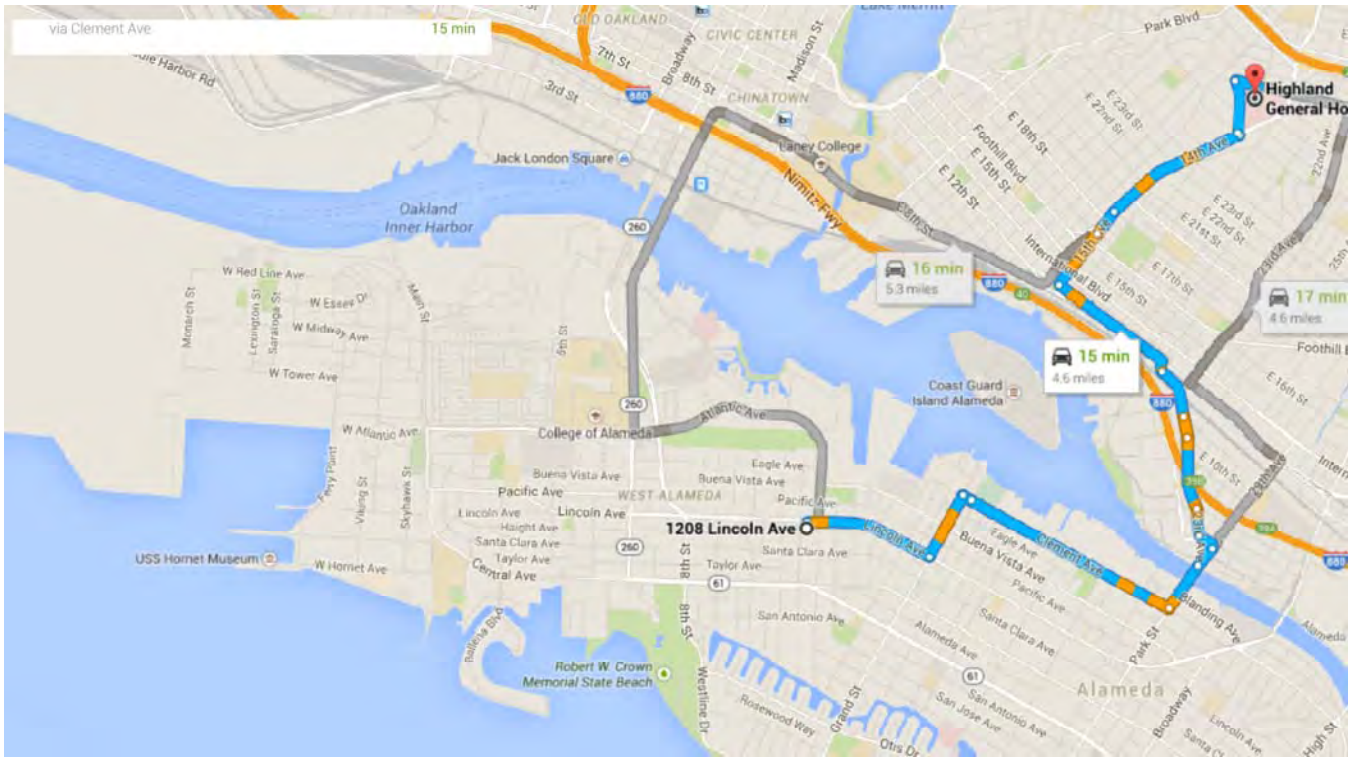


Not to scale

FIGURE 2	Site Boring Location Map

SITE ADDRESS: 1208 Lincoln Avenue, Alameda, CA 94501

ENCON Solutions, Inc.
Environmental Consulting & Real Estate Due Diligence


via Clement Ave
15 min
16 min
5.3 miles
15 min
4.6 miles
17 min
4.6 miles
1208 Lincoln Ave
Highland General Ho
Jack London Square
Oakland Inner Harbor
Laney College
College of Alameda
Coast Guard Island Alameda
USS Hornet Museum
Robert W. Crown Memorial State Beach
Alameda
Nimitz Fwy
Park Blvd
Broadway
Webster St
Madison St
Clement Ave
Lincoln Ave
Pacific Ave
Buena Vista Ave
Santa Clara Ave
Taylor Ave
Central Ave
Atlantic Ave
Eagle Ave
Blanding Ave
Park St
Grand St
Otis Dr
Map data ©2014 Google 2000 ft

Google

Drive 4.6 miles, 12 min

Directions from **1208 Lincoln Ave** to **Alameda Health System**

1208 Lincoln Ave

Alameda, CA 94501

Take **Lincoln Ave**, **Clement Ave**, **E 12th St**, **15th Ave** and **14th Ave** to **E 27th St** in Oakland

4.2 mi / 11 min

1. Head **east** on **Lincoln Ave** toward **Sherman St**

0.5 mi

2. Turn **left** onto **Grand St**

0.3 mi

3. Turn **right** toward **Clement Ave**

200 ft

4. Continue onto **Clement Ave**

0.9 mi

5. Turn **left** onto **Park St**

0.2 mi

6. Continue onto **29th Ave**

456 ft

7. Turn **left** onto **Ford St**

440 ft

8. Slight **right** onto **23rd Ave**

0.1 mi

9. **23rd Ave** turns slightly **left** and becomes **23rd Ave Ovp**

0.3 mi

10. Slight **left** onto **23rd Ave**

449 ft

11. Continue onto **22nd Ave**

0.2 mi

12. Slight **left** onto **E 12th St**

0.5 mi

13. Turn **right** onto **15th Ave**

0.2 mi

14. Slight **right** to stay on **15th Ave**

0.1 mi

15. Continue onto **14th Ave**

0.6 mi

Take **Vallecito Pl** to **E 31st St**

0.3 mi / 2 min

16. Turn **left** onto **E 27th St**

62 ft

17. Slight **right** onto **Vallecito Pl**

0.2 mi

18. Turn **right** onto **E 31st St**

Destination will be on the right

0.1 mi

Alameda Health System

1411 E 31st St, Oakland, CA 94602

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

OPTIMAL TECHNOLOGY
Specializing in Environmental Field Services

SOIL VAPOR RESULTS

Site Name: 1208 Lincoln Ave., Alameda, CA
Analyst: A. Baly **Collector:** A. Baly
Method: Modified EPA 8021B

Lab Name: Optimal Technology
Inst. ID: HP-5890 Series II
Detectors: FID and ECD

Date: 8/20/14

SAMPLE ID	BLANK-1	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6	SV-6 Dup
Sampling Depth (Ft.)	N/A	8.0	5.0	5.0	5.0	8.0	9.0	9.0
Purge Volume (ml)	N/A	2,250	1,500	1,500	1,500	2,250	2,250	2,250
Vacuum (in. of Water)	N/A	15	0	0	0	0	10	10
Injection Volume (ul)	500/2500	500/2500	500/2500	500/2500	500/2500	500/2500	500/2500	500/2500
Dilution Factor (ECD/FID)	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

COMPOUND	REP. LIMIT	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)
Dichlorodifluoromethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.02	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.04	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	0.10	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (PCE)	0.10	ND	**2.42**	**8.25**	**11.11**	**13.54**	**22.48**	**0.59**	**0.63**
1,1,1,2-Tetrachloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.01	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	1.00	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.03	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.40	ND	ND	ND	ND	ND	ND	ND	ND
m/p-Xylene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Isobutane (Tracer Gas)	1.00	ND	ND	ND	ND	ND	ND	ND	ND

Note: ND = Below Listed Reporting Limit

1667 Cross Bridge Place, Thousand Oaks, CA 91362 • Toll Free (877) SOIL GAS (764-5427) • (818) 734-6230 • Fax (818) 734-6235

Tom Lindros

From: Cora O. <engineercora@gmail.com>
Sent: Monday, January 05, 2015 1:19 PM
To: Tom Lindros
Subject: Fwd: USAN 2014/11/09 #00000 0471328-000 SHRT NEW

USA ticket

---------- Forwarded message ----------
From: <support@usan.org>
Date: Sunday, November 9, 2014
Subject: USAN 2014/11/09 #00000 0471328-000 SHRT NEW
To: engineercora@gmail.com

00000 USAN 11/09/14 14:36:12 0471328 SHORT NOTICE

Message Number: 0471328 Received by USAN at 14:18 on 11/09/14 by INTERNET

Work Begins: 11/12/14 at 07:00 Notice: 010 hrs Priority: 1
Night Work: N Weekend Work: N

Expires: 12/07/14 at 23:59 Update By: 12/03/14 at 16:59

Call Requested

Caller: CORA OLSON
Company: ENCON SOLUTIONS
Address: 3255 WILSHIRE BLVD., STE 1510
City: LOS ANGELES State: CA Zip: 90010
Business Tel: 413-519-3781 Fax: 213-380-0505
Email Address: ENGINEERCORA@GMAIL.COM

Nature of Work: SOIL BORINGS
Done for: PROPERTY OWNER Explosives: N
Foreman: CORA OLSON
Field Tel: Cell Tel: 413-519-3781
Area Premarked: Y Premark Method: WHITE PAINT
Permit Type: COUNTY
Vac / Pwr Equip Use In The Approx Location Of Member Facilities Requested: N
Excavation Enters Into Street Or Sidewalk Area: N

Location:
Street Address: 1208 LINCOLN AVE
Cross Street: BAY STREET

REAR OF PROPERTY

Place: ALAMEDA County: ALAMEDA State: CA

Long/Lat Long: -122.264964 Lat: 37.773832 Long: -122.26341 Lat: 37.775084

Sent to:
CTYALA = CITY ALAMEDA CTYOAK = CITY OAKLAND CONST DEPT
COMHAY = COMCAST-HAYWARD COMOAK = COMCAST-OAKLAND
EBWCMS = EAST BAY WATER MPOWER = MPOWER COMMUNICATIONS
PACBEL = PACIFIC BELL PGEOAK = PGE DISTR OAKLAND

Member Contact Information

Member Utility	Main Contact #	Vacuum Contact #	Emergency #	After hours #
CITY ALAMEDA	(510)748-3943	(510)715-6111	(510)748-3966	(510)715-6111
CITY OAKLAND C	(510)238-6348		(510)772-8134	(510)238-7288
COMCAST-HAYWAR	(510)887-1300			
COMCAST-OAKLAN	(925)424-0181		(888)824-8219	
EAST BAY WATER	(510)287-0600		(510)287-0600	
MPOWER COMMUNI	(916)903-6028			(877)370-4482
PACIFIC BELL	(510)645-2929	(510)645-2929	(510)645-2929	(800)332-1321x8
PGE DISTR OAKL	(800)743-5000x00	(800)743-5000	(800)743-5000	(800)743-5000

facts. Further, the Data should not be relied-upon by the recipient for any purposes. USA North does not assume, and expressly disclaims, any and all liability for any damages incurred directly or indirectly, whether foreseeable or not, as a result of errors, omissions or discrepancies contained within or concerning the Data.

APPENDIX C:

ALAMEDA COUNTY WELL PERMITS

Alameda County Public Works Agency - Water Resources Well Permit

Public Works Agency
Alameda County

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

Application Approved on: 11/04/2014 By jamesy

Permit Numbers: W2014-1027 to W2014-1030
Permits Valid from 11/12/2014 to 11/14/2014

Application Id: 1414191432944 **City of Project Site:** Alameda
Site Location: 1208 Lincoln Avenue, Alameda, CA-Elegant Cleaners
Project Start Date: 11/12/2014 **Completion Date:** 11/14/2014
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

Applicant:	Encon Solutions, Inc. - Thomas Lindros 3255 Wilshire Blvd, Suite 1508, Los Angeles, CA 90010	**Phone:** 213-380-0555
Property Owner:	Reza Sheikhai 4 Chateau Court, Danville, CA 94506	**Phone:** 510-377-0233
Client:	Ryan Shin 1000 Wilshire Blvd, Suite 500, Los Angeles, CA 90017	**Phone:** 213-892-1164
Contact:	Thomas Lindros	**Phone:** 805-380-0555 **Cell:** 805-410-2725

Total Due: $1456.00
Receipt Number: WR2014-0439 **Total Amount Paid:** $1456.00
Payer Name : Hyung Kim Paid By: VISA **PAID IN FULL**

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 3 Wells
Driller: ECA Drilling - Lic #: 695970 - Method: hstem **Work Total: $1191.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2014-1027	11/04/2014	02/10/2015	MW-1	2.00 in.	0.75 in.	13.00 ft	30.00 ft
W2014-1028	11/04/2014	02/10/2015	MW-2	8.00 in.	2.00 in.	13.00 ft	30.00 ft
W2014-1029	11/04/2014	02/10/2015	MW-3	8.00 in.	2.00 in.	13.00 ft	30.00 ft

Specific Work Permit Conditions

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

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

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

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.

5. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

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

7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

8. Minimum surface seal thickness is two inches of cement grout placed by tremie.

9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.

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

Well Construction-Vapor monitoring well-Vapor monitoring well - 5 Wells
Driller: ECA Drilling - Lic #: 695970 - Method: hstem **Work Total: $265.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2014-1030	11/04/2014	02/10/2015	VW-1	2.00 in.	0.25 in.	3.00 ft	5.00 ft
W2014-1030	11/04/2014	02/10/2015	VW-2	2.00 in.	0.25 in.	3.00 ft	5.00 ft
W2014-1030	11/04/2014	02/10/2015	VW-3	2.00 in.	0.25 in.	3.00 ft	10.00 ft
W2014-1030	11/04/2014	02/10/2015	VW-4	2.00 in.	0.25 in.	3.00 ft	10.00 ft
W2014-1030	11/04/2014	02/10/2015	VW-5	2.00 in.	0.25 in.	3.00 ft	10.00 ft

Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

2. Compliance with the above well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate state reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days, including permit number and site map.

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

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

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

6. No changes in construction procedures or well type shall change, as described on this permit application. This permit may be voided if it contains incorrect information.

7. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

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

9. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

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

11. Vapor monitoring wells above water level constructed with tubing maybe be backfilled with pancake-batter consistency bentonite. Minimum surface seal thickness is two inches of cement grout around well box.

Vapor monitoring wells above water level constructed with pvc pipe shall have a minimum seal depth (Neat Cement Seal) of 2 feet below ground surface (BGS). Minimum surface seal thickness is two inches of cement grout around well box. All other conditions for monitoring well construction shall apply.

APPENDIX D:

INDOOR AIR SAMPLING DATA:

DTSC BUILDING SURVEY FORM L

SAMPLE COLLECTION DATA

LABORATORY DATA AND COC

APPENDIX L - BUILDING SURVEY FORM

Preparer's Name: Cora Olsen Date/Time Prepared: 10/31/14
Affiliation: Encon Solutions Phone Number: 413-519-3781

Occupant Information

Occupant Name: Elegant Cleaners - Michael Interviewed: ☑ Yes ☐ No
Mailing Address: 1208 Lincoln Ave
City: Alameda State: CA Zip Code: 94501
Phone: 510-865-0331 Email: N/A

Owner/Landlord Information (Check if same as occupant ☑)

Occupant Name: _____ Interviewed: ☐ Yes ☐ No
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Phone: _____ Email: _____

Building Type (Check appropriate boxes)

☐ Residential ☐ Residential Duplex ☐ Apartment Building ☐ Mobile Home ☑ Commercial (office)
☐ Commercial (warehouse) ☐ Industrial ☐ Strip Mall ☐ Split Level ☐ Church ☐ School

Building Characteristics

Approximate Building Age (years): 100 years Number of Stories: 1
Approximate Building Area (square feet): 2,500 Number of Elevators: Ø

Foundation Type (Check appropriate boxes)

☑ Slab-on-Grade ☑ Crawl Space ☐ Basement – Slab in back near D.C machine – Crawl space floor in front

Basement Characteristics (Check appropriate boxes)

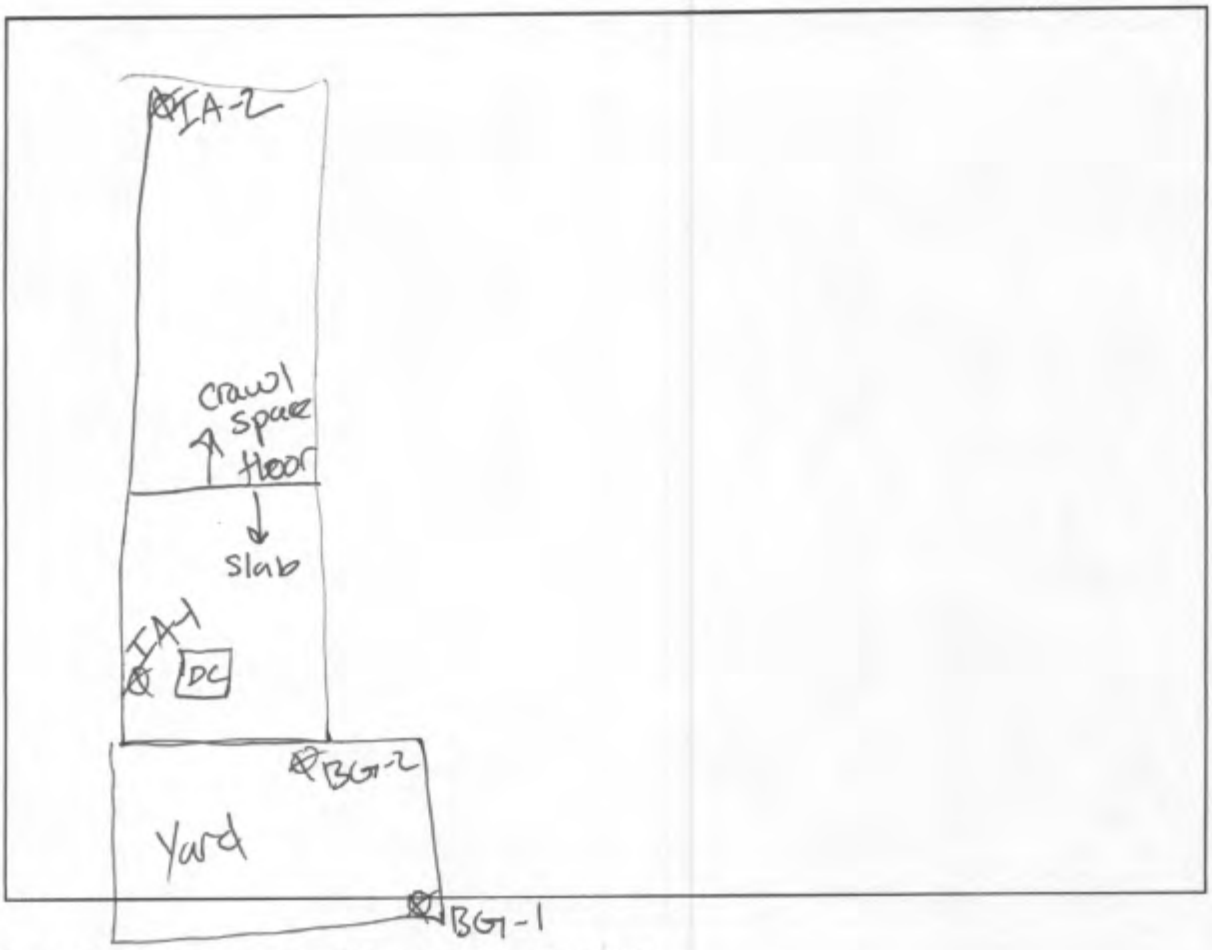
☐ Dirt Floor ☐ Sealed ☐ Wet Surfaces ☐ Sump Pump ☐ Concrete Cracks ☐ Floor Drains

Factors Influencing Indoor Air Quality

Is there an attached garage?	☐ Yes	☑ No	
Is there smoking in the building?	☐ Yes	☑ No	
Is there new carpet or furniture?	☐ Yes	☑ No	Describe:
Have clothes or drapes been recently dry cleaned?	☑ Yes	☐ No	Describe:
Has painting or staining been done with the last six months?	☐ Yes	☑ No	Describe:
Has the building been recently remodeled?	☐ Yes	☑ No	Describe:
Has the building ever had a fire?	☐ Yes	☑ No	
Is there a hobby or craft area in the building?	☐ Yes	☑ No	Describe:
Is gun cleaner stored in the building?	☐ Yes	☑ No	
Is there a fuel oil tank on the property?	☐ Yes	☑ No	
Is there a septic tank on the property?	☐ Yes	☑ No	
Has the building been fumigated or sprayed for pests recently?	☐ Yes	☑ No	Describe:
Do any building occupants use solvents at work?	☑ Yes	☐ No	Describe: Dry Cleaner

Sampling Locations

Draw the general floor plan of the building and denote locations of sample collection. Indicate locations of doors, windows, indoor air contaminant sources and field instrument readings.



Primary Type of Energy Used (Check appropriate boxes)

☑ Natural Gas ☐ Fuel Oil ☐ Propane ☐ Electricity ☐ Wood ☐ Kerosene

Meteorological Conditions

Describe the general weather conditions during the indoor air sampling event.
Sunny to Overcast (65-70° F

General Comments

Provide any other information that may be of importance in understanding the indoor air quality of this building.
The drycleaner is very steamy inside from the ironing + pressing machines. The doors remained open in front and back of building during business hours.

INDOOR AIR SAMPLE COLLECTION DATA

Job No: 1410097 ESAIII
Date: October 30, 2014
To: Tom Lindros
By: Cora Olson

Project: Elegant Cleaners, 1208 Lincoln Avenue, Alameda, California
Subject: Indoor Air Sampling

Sample Number	Canister Number	Flow Controller	Location	Time Start	Initial Vacuum (inHg)	Time Stop	Final Vacuum (inHg)	Elapsed Time (mins)	Comments
BG-1	1046	2056	SE corner of yard	847	30"	1631	5.5"	464	
BG-2	5475	2078	Under HVAC above gas mtr by back door	850	30"	1635	6.0"	465	
IA-1	3647	2085	On Stairs behind DC Mee	900	30"+	1638	3"	458	
IA-2	1343	2084	Front near sewing mach	904	30"	1643	5.5"	459	
			Note: All locations elevated 3 to 5 feet above ground or flooring.						

Instrument Description: See above 5L SUMAS w/ 8 hour flow controllers

Initial CEO

Air TECHNOLOGY Laboratories, Inc.

November 14, 2014

DoD ELAP
ADE-1461
EPA Methods TO-3, TO14A,TO15 SIM & Scan, ASTM D1946

LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-09-TX
EPA Methods TO14A, TO15
UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

Encon Solutions, Inc.
ATTN: Hyung Kim
3255 Wilshire Blvd., Suite 1508
Los Angeles, CA 90010

LABORATORY TEST RESULTS

Project Reference: Elegant Cleaners, 1208 Lincoln Avenue, Alameda, CA
Project Number: 1410097 ESAIII
Lab Number: F110403-01/04

Enclosed are results for sample(s) received 11/04/14 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Ave., Suite 130
City of Industry, CA 91748
Ph: 626-964-4032
Fx: 626-964-5832

CHAIN OF CUSTODY RECORD

TURNAROUND TIME				DELIVERABLES		PAGE: 1 OF 1
Standard	X	48 hours	☐	EDD	☐	Condition upon receipt:
Same Day	☐	72 hours	☐	PDF	X	Sealed Yes ☐ No ☐
24 hours	☐	96 hours	☐	Level 3	☐	Intact Yes ☐ No ☐
Other:				Level 4	☐	Chilled _____ deg C

Project No.:	1410097 ESAIII
Project Name:	Elegant Cleaners, 1208 Lincoln Avenue, Alameda, CA
Report To:	Hyung Kim/Tom Lindros
Company:	Encon Solutions, Inc.
Street:	3255 Wilshire Boulevard, Suite 1508
City/State/Zip:	Los Angeles, California 90010
Phone& Fax:	213-380-0555 / 213-380-0505
e-mail:	hkim@odicenv.com; tom@knollwood.us

BILLING

P.O. No.:	1410097 ESAIII
Bill to:	Hyung Kim/Tom Lindros
	Encon Solutions, Inc.
	3255 Wilshire Boulevard, Suite 15
	Los Angeles, California 90010

ANALYSIS REQUEST

LAB USE ONLY	SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME Start	CONTAINER QTY/TYPE	MATRIX	PRESERVATION	TO-15 SIM, VOCs	End Time			Flow Controller #	Canister # (Ab 11/4/14)
F110403-01	BG-1	10/30/14	847	C-1	Ambient Air	None	X	1631			1046	2056
-02	BG-2	10/30/14	850	C-1	Ambient Air	None	X	1635			5475	2078
-03	IA-1	10/30/14	9:00	C-1	Indoor Air	None	X	1638			3647	2085
-04	IA-2	10/30/14	9:04	C-1	Indoor Air	None	X	1643			1343	2084

AUTHORIZATION TO PERFORM WORK	COMPANY	DATE/TIME
SAMPLED BY: Cora Olson	COMPANY: Encon Solutions	DATE/TIME: 10/30/14 16:58
RELINQUISHED BY: Cora Olson	DATE/TIME: 10/31/14	RECEIVED BY:	DATE/TIME:
RELINQUISHED BY: UPS	DATE/TIME: 11/4/14 10:05	RECEIVED BY:	DATE/TIME: 11/4/14 10:05
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:

METHOD OF TRANSPORT (circle one): Walk-In FedEx UPS Courier ATLI Other_____

COMMENTS:

Email preliminary results.

Provide *.pdf file with final report.

Report results in micrograms per cubic meter (ug/m3)

DISTRIBUTION: White & Yellow - Lab Copies / Pink - Customer Copy

Preservation: H=HCl N=None / Container: B=Bag C=Can V=VOA O=Other

Rev. 03 - 5/7/09

Client: Encon Solutions
Attn: Hyung Kim
Project Name: Elegant Cleaners, 1208 Lincoln Avenue, Alameda, CA
Project No.: 1410097 ESAIII
Date Received: 11/04/14
Matrix: Air
Reporting Units: ug/m3

EPA Method TO15 SIM

Lab No.:	F110403-01		F110403-02		F110403-03		F110403-04	
Client Sample I.D.:	BG-1		BG-2		IA-1		IA-2	
Date/Time Sampled:	10/30/14 8:47		10/30/14 8:50		10/30/14 9:00		10/30/14 9:04	
Date/Time Analyzed:	11/12/14 13:15		11/12/14 13:59		11/12/14 14:44		11/12/14 15:29	
QC Batch No.:	141111MS2A1		141111MS2A1		141111MS2A1		141111MS2A1	
Analyst Initials:	DT		DT		DT		DT	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result ug/m3	RL ug/m3	Result ug/m3	RL ug/m3	Result ug/m3	RL ug/m3	Result ug/m3	RL ug/m3
Dichlorodifluoromethane (12)	2.4	0.049	2.5	0.049	2.5	0.049	2.7	0.049
Chloromethane	1.1	0.021	1.1	0.021	1.4	0.021	1.2	0.021
Vinyl Chloride	ND	0.013	ND	0.013	ND	0.013	ND	0.013
Chloroethane	ND	0.026	ND	0.026	ND	0.026	ND	0.026
Trichlorofluoromethane (11)	3.0	0.11	3.0	0.11	3.4	0.11	3.0	0.11
1,1,2-Cl 1,2,2-F ethane (113)	0.51	0.15	0.50	0.15	0.50	0.15	0.55	0.15
1,1-Dichloroethene	ND	0.020	ND	0.020	ND	0.020	ND	0.020
Methylene Chloride	0.83	0.17	0.73	0.17	0.74	0.17	0.73	0.17
t-1,2-Dichloroethene	ND	0.040	ND	0.040	ND	0.040	ND	0.040
1,1-Dichloroethane	ND	0.040	ND	0.040	ND	0.040	ND	0.040
c-1,2-Dichloroethene	ND	0.040	ND	0.040	ND	0.040	ND	0.040
Chloroform	0.25	0.049	0.40	0.049	0.84	0.049	0.38	0.049
1,1,1-Trichloroethane	ND	0.055	ND	0.055	0.080	0.055	ND	0.055
Carbon Tetrachloride	0.62	0.063	0.65	0.063	0.61	0.063	0.72	0.063
Benzene	0.94	0.16	1.0	0.16	1.2	0.16	1.1	0.16
1,2-Dichloroethane	0.087	0.040	0.082	0.040	0.079	0.040	0.092	0.040
Trichloroethene	ND	0.054	ND	0.054	0.061	0.054	ND	0.054
1,2-Dichloropropane	ND	0.092	ND	0.092	ND	0.092	ND	0.092
Bromodichloromethane	ND	0.067	ND	0.067	ND	0.067	ND	0.067
Toluene	3.7	0.075	4.2	0.075	4.7	0.075	4.0	0.075
t-1,3-Dichloropropene	ND	0.045	ND	0.045	ND	0.045	ND	0.045
1,1,2-Trichloroethane	ND	0.055	ND	0.055	ND	0.055	ND	0.055
Tetrachloroethene	0.12	0.068	0.20	0.068	1.0	0.068	0.35	0.068
1,2-Dibromoethane	ND	0.15	ND	0.15	ND	0.15	ND	0.15
Ethylbenzene	0.88	0.087	1.6	0.087	1.6	0.087	0.97	0.087
p,&m-Xylene	3.2	0.087	6.1	0.087	6.0	0.087	3.5	0.087
o-Xylene	1.1	0.087	2.1	0.087	2.0	0.087	1.2	0.087
Styrene	0.23	0.085	0.31	0.085	0.45	0.085	0.38	0.085
1,1,2,2-Tetrachloroethane	ND	0.14	ND	0.14	ND	0.14	ND	0.14

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit
J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: _____ Date 11/14/14
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Encon Solutions
Attn: Hyung Kim
Project Name: Elegant Cleaners, 1208 Lincoln Avenue, Alameda, CA
Project No.: 1410097 ESAIII
Date Received: 11/04/14
Matrix: Air
Reporting Units: ug/m3

EPA Method TO15 SIM

Lab No.:	METHOD BLANK
Client Sample I.D.:	-
Date/Time Sampled:	-
Date/Time Analyzed:	11/12/14 8:03
QC Batch No.:	141111MS2A1
Analyst Initials:	DT
Dilution Factor:	1.0

ANALYTE	Result ug/m3	RL ug/m3
Dichlorodifluoromethane (12)	ND	0.049
Chloromethane	ND	0.021
Vinyl Chloride	ND	0.013
Chloroethane	ND	0.026
Trichlorofluoromethane (11)	ND	0.11
1,1,2-Cl 1,2,2-F ethane (113)	ND	0.15
1,1-Dichloroethene	ND	0.020
Methylene Chloride	ND	0.17
t-1,2-Dichloroethene	ND	0.040
1,1-Dichloroethane	ND	0.040
c-1,2-Dichloroethene	ND	0.040
Chloroform	ND	0.049
1,1,1-Trichloroethane	ND	0.055
Carbon Tetrachloride	ND	0.063
Benzene	ND	0.16
1,2-Dichloroethane	ND	0.040
Trichloroethene	ND	0.054
1,2-Dichloropropane	ND	0.092
Bromodichloromethane	ND	0.067
Toluene	ND	0.075
t-1,3-Dichloropropene	ND	0.045
1,1,2-Trichloroethane	ND	0.055
Tetrachloroethene	ND	0.068
1,2-Dibromoethane	ND	0.15
Ethylbenzene	ND	0.087
p,&m-Xylene	ND	0.087
o-Xylene	ND	0.087
Styrene	ND	0.085
1,1,2,2-Tetrachloroethane	ND	0.14

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit
J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: _____ Operations Manager Date 11/14/14

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 141111MS2A1

Matrix: Air

EPA Method TO-15 SIM

Lab No:	Method Blank		LCS		LCSD						
Date/Time Analyzed:	11/12/14 8:03		11/11/14 17:27		11/11/14 18:08						
Data File ID:	11NOV017.D		11NOV004.D		11NOV005.D						
Analyst Initials:	DT		DT		DT						
Dilution Factor:	1.0		1.0		1.0			Limits			
ANALYTE	Result pptv	Spike Amount	Result pptv	% Rec	Result pptv	% Rec	RPD	Low %Rec	High %Rec	Max. RPD	Pass/ Fail
Vinyl Chloride	0.0	500	550	110	547	109	0.5	70	130	30	Pass
1,1-Dichloroethene	0.0	500	470	94	464	93	1.3	70	130	30	Pass
1,1,1-Trichloroethane	0.0	500	523	105	517	103	1.3	70	130	30	Pass
Benzene	37.1	500	422	84	414	83	1.7	70	130	30	Pass
Trichloroethene	0.0	500	505	101	482	96	4.7	70	130	30	Pass
Tetrachloroethene	0.0	500	480	96	473	95	1.4	70	130	30	Pass

Reviewed/Approved By: _____ Date: 11/14/14

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

APPENDIX E:

LABORATORY REPORTS

AND

CHAIN-OF-CUSTODY DOCUMENTATION:

SOIL MATRIX SAMPLES

November 26, 2014

Thomas E. Lindros
ENCON Solutions Inc.
3255 Wilshire Blvd. Suite 1508
Los Angeles, CA 90010

TEL: (213) 380-0555
FAX: (213) 380-0505

CA-ELAP No.: 2676
NV Cert. No.: NV-00922

Workorder No.: N013889

RE: Elegant Cleaners, 1410097

Attention: Thomas E. Lindros

Enclosed are the results for sample(s) received on November 15, 2014 by ASSET Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 or Molky Brar at (562)-881-3622 if we can be of further assistance to your company.

Sincerely,

Molky Brar
Project Manager

Nancy Liburcao for

Glen Gesmundo
QA Manager

CLIENT: ENCON Solutions Inc.
Project: Elegant Cleaners, 1410097
Lab Order: N013889

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

Samples were received intact with proper chain of custody documentation.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Samples were analyzed within method holding time.

ASSET Laboratories

Date: *26-Nov-14*

CLIENT: ENCON Solutions Inc.
Project: Elegant Cleaners, 1410097
Lab Order: N013889
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N013889-001A	MW-3@5'	Solid	11/12/2014 9:30:00 AM	11/15/2014	11/26/2014
N013889-002A	MW-3@10'	Solid	11/12/2014 9:45:00 AM	11/15/2014	11/26/2014
N013889-003A	MW-1@5'	Solid	11/12/2014 10:10:00 AM	11/15/2014	11/26/2014
N013889-004A	MW-1@10'	Solid	11/12/2014 10:23:00 AM	11/15/2014	11/26/2014
N013889-005A	MW-1@15'	Solid	11/12/2014 10:35:00 AM	11/15/2014	11/26/2014
N013889-006A	MW-2@5'	Solid	11/12/2014 11:10:00 AM	11/15/2014	11/26/2014
N013889-007A	MW-2@10'	Solid	11/12/2014 11:22:00 AM	11/15/2014	11/26/2014
N013889-008A	Waste Comp	Solid	11/12/2014 2:43:00 PM	11/15/2014	11/26/2014

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

CALIFORNIA
11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F: 562.219.7436

NEVADA
3151 W. Post Rd., Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691

CLIENT:	ENCON Solutions Inc.	**Client Sample ID:**	MW-3@5'
Lab Order:	N013889	**Collection Date:**	11/12/2014 9:30:00 AM
Project:	Elegant Cleaners, 1410097	**Matrix:**	SOLID
Lab ID:	N013889-001A		

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141120A | QC Batch: P14VS093 | PrepDate: | Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,1,1-Trichloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,1,2-Trichloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,1-Dichloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,1-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,1-Dichloropropene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,2,3-Trichloropropane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/Kg	1	11/20/2014 07:05 PM
1,2-Dibromoethane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,2-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,2-Dichloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,2-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,3-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,3-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
1,4-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
2,2-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
2-Chlorotoluene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
4-Chlorotoluene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
4-Isopropyltoluene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Benzene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Bromobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Bromodichloromethane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Bromoform	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Bromomethane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Carbon tetrachloride	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Chlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Chloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Chloroform	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Chloromethane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
cis-1,2-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ENCON Solutions Inc.	**Client Sample ID:**	MW-3@5'
Lab Order:	N013889	**Collection Date:**	11/12/2014 9:30:00 AM
Project:	Elegant Cleaners, 1410097	**Matrix:**	SOLID
Lab ID:	N013889-001A		

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141120A QC Batch: P14VS093 PrepDate: Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Dibromochloromethane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Dibromomethane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Dichlorodifluoromethane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Ethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Freon-113	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Hexachlorobutadiene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Isopropylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
m,p-Xylene	ND	10		µg/Kg	1	11/20/2014 07:05 PM
Methylene chloride	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
MTBE	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
n-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
n-Propylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Naphthalene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
o-Xylene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
sec-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Styrene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
tert-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Tetrachloroethene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Toluene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
trans-1,2-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Trichloroethene	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Trichlorofluoromethane	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Vinyl chloride	ND	5.0		µg/Kg	1	11/20/2014 07:05 PM
Surr: 1,2-Dichloroethane-d4	111	67-136		%REC	1	11/20/2014 07:05 PM
Surr: 4-Bromofluorobenzene	101	59-124		%REC	1	11/20/2014 07:05 PM
Surr: Dibromofluoromethane	107	70-131		%REC	1	11/20/2014 07:05 PM
Surr: Toluene-d8	105	75-120		%REC	1	11/20/2014 07:05 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ENCON Solutions Inc.	**Client Sample ID:**	MW-3@10'
Lab Order:	N013889	**Collection Date:**	11/12/2014 9:45:00 AM
Project:	Elegant Cleaners, 1410097	**Matrix:**	SOLID
Lab ID:	N013889-002A		

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141120A | QC Batch: P14VS093 | PrepDate: | Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,1,1-Trichloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,1,2-Trichloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,1-Dichloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,1-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,1-Dichloropropene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,2,3-Trichloropropane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/Kg	1	11/20/2014 07:27 PM
1,2-Dibromoethane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,2-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,2-Dichloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,2-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,3-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,3-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
1,4-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
2,2-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
2-Chlorotoluene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
4-Chlorotoluene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
4-Isopropyltoluene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Benzene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Bromobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Bromodichloromethane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Bromoform	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Bromomethane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Carbon tetrachloride	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Chlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Chloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Chloroform	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Chloromethane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
cis-1,2-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ENCON Solutions Inc.	**Client Sample ID:**	MW-3@10'
Lab Order:	N013889	**Collection Date:**	11/12/2014 9:45:00 AM
Project:	Elegant Cleaners, 1410097	**Matrix:**	SOLID
Lab ID:	N013889-002A		

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141120A QC Batch: P14VS093 PrepDate: Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Dibromochloromethane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Dibromomethane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Dichlorodifluoromethane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Ethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Freon-113	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Hexachlorobutadiene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Isopropylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
m,p-Xylene	ND	10		µg/Kg	1	11/20/2014 07:27 PM
Methylene chloride	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
MTBE	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
n-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
n-Propylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Naphthalene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
o-Xylene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
sec-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Styrene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
tert-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Tetrachloroethene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Toluene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
trans-1,2-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Trichloroethene	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Trichlorofluoromethane	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Vinyl chloride	ND	5.0		µg/Kg	1	11/20/2014 07:27 PM
Surr: 1,2-Dichloroethane-d4	109	67-136		%REC	1	11/20/2014 07:27 PM
Surr: 4-Bromofluorobenzene	97.8	59-124		%REC	1	11/20/2014 07:27 PM
Surr: Dibromofluoromethane	108	70-131		%REC	1	11/20/2014 07:27 PM
Surr: Toluene-d8	104	75-120		%REC	1	11/20/2014 07:27 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ENCON Solutions Inc.	**Client Sample ID:**	MW-1@5'
Lab Order:	N013889	**Collection Date:**	11/12/2014 10:10:00 AM
Project:	Elegant Cleaners, 1410097	**Matrix:**	SOLID
Lab ID:	N013889-003A		

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141120A QC Batch: P14VS093 PrepDate: Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,1,1-Trichloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,1,2-Trichloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,1-Dichloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,1-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,1-Dichloropropene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,2,3-Trichloropropane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/Kg	1	11/20/2014 07:49 PM
1,2-Dibromoethane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,2-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,2-Dichloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,2-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,3-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,3-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
1,4-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
2,2-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
2-Chlorotoluene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
4-Chlorotoluene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
4-Isopropyltoluene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Benzene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Bromobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Bromodichloromethane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Bromoform	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Bromomethane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Carbon tetrachloride	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Chlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Chloroethane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Chloroform	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Chloromethane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
cis-1,2-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ENCON Solutions Inc.	**Client Sample ID:**	MW-1@5'
Lab Order:	N013889	**Collection Date:**	11/12/2014 10:10:00 AM
Project:	Elegant Cleaners, 1410097	**Matrix:**	SOLID
Lab ID:	N013889-003A		

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141120A QC Batch: P14VS093 PrepDate: Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Dibromochloromethane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Dibromomethane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Dichlorodifluoromethane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Ethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Freon-113	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Hexachlorobutadiene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Isopropylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
m,p-Xylene	ND	10		µg/Kg	1	11/20/2014 07:49 PM
Methylene chloride	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
MTBE	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
n-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
n-Propylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Naphthalene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
o-Xylene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
sec-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Styrene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
tert-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Tetrachloroethene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Toluene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
trans-1,2-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Trichloroethene	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Trichlorofluoromethane	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Vinyl chloride	ND	5.0		µg/Kg	1	11/20/2014 07:49 PM
Surr: 1,2-Dichloroethane-d4	112	67-136		%REC	1	11/20/2014 07:49 PM
Surr: 4-Bromofluorobenzene	98.0	59-124		%REC	1	11/20/2014 07:49 PM
Surr: Dibromofluoromethane	108	70-131		%REC	1	11/20/2014 07:49 PM
Surr: Toluene-d8	103	75-120		%REC	1	11/20/2014 07:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ENCON Solutions Inc.	**Client Sample ID:**	MW-1@10'
Lab Order:	N013889	**Collection Date:**	11/12/2014 10:23:00 AM
Project:	Elegant Cleaners, 1410097	**Matrix:**	SOLID
Lab ID:	N013889-004A		

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141120A QC Batch: P14VS093 PrepDate: Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,1,1-Trichloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,1,2-Trichloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,1-Dichloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,1-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,1-Dichloropropene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,2,3-Trichloropropane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/Kg	1	11/20/2014 08:11 PM
1,2-Dibromoethane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,2-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,2-Dichloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,2-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,3-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,3-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
1,4-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
2,2-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
2-Chlorotoluene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
4-Chlorotoluene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
4-Isopropyltoluene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Benzene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Bromobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Bromodichloromethane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Bromoform	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Bromomethane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Carbon tetrachloride	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Chlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Chloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Chloroform	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Chloromethane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
cis-1,2-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ENCON Solutions Inc.	**Client Sample ID:**	MW-1@10'
Lab Order:	N013889	**Collection Date:**	11/12/2014 10:23:00 AM
Project:	Elegant Cleaners, 1410097	**Matrix:**	SOLID
Lab ID:	N013889-004A		

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141120A QC Batch: P14VS093 PrepDate: Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Dibromochloromethane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Dibromomethane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Dichlorodifluoromethane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Ethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Freon-113	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Hexachlorobutadiene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Isopropylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
m,p-Xylene	ND	10		µg/Kg	1	11/20/2014 08:11 PM
Methylene chloride	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
MTBE	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
n-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
n-Propylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Naphthalene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
o-Xylene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
sec-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Styrene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
tert-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Tetrachloroethene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Toluene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
trans-1,2-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Trichloroethene	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Trichlorofluoromethane	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Vinyl chloride	ND	5.0		µg/Kg	1	11/20/2014 08:11 PM
Surr: 1,2-Dichloroethane-d4	110	67-136		%REC	1	11/20/2014 08:11 PM
Surr: 4-Bromofluorobenzene	98.2	59-124		%REC	1	11/20/2014 08:11 PM
Surr: Dibromofluoromethane	107	70-131		%REC	1	11/20/2014 08:11 PM
Surr: Toluene-d8	104	75-120		%REC	1	11/20/2014 08:11 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ENCON Solutions Inc.	**Client Sample ID:**	MW-1@15'
Lab Order:	N013889	**Collection Date:**	11/12/2014 10:35:00 AM
Project:	Elegant Cleaners, 1410097	**Matrix:**	SOLID
Lab ID:	N013889-005A		

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141120A QC Batch: P14VS093 PrepDate: Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,1,1-Trichloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,1,2-Trichloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,1-Dichloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,1-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,1-Dichloropropene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,2,3-Trichloropropane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/Kg	1	11/20/2014 08:33 PM
1,2-Dibromoethane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,2-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,2-Dichloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,2-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,3-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,3-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
1,4-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
2,2-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
2-Chlorotoluene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
4-Chlorotoluene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
4-Isopropyltoluene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Benzene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Bromobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Bromodichloromethane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Bromoform	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Bromomethane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Carbon tetrachloride	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Chlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Chloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Chloroform	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Chloromethane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
cis-1,2-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ENCON Solutions Inc.	**Client Sample ID:**	MW-1@15'
Lab Order:	N013889	**Collection Date:**	11/12/2014 10:35:00 AM
Project:	Elegant Cleaners, 1410097	**Matrix:**	SOLID
Lab ID:	N013889-005A		

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141120A QC Batch: P14VS093 PrepDate: Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Dibromochloromethane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Dibromomethane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Dichlorodifluoromethane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Ethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Freon-113	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Hexachlorobutadiene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Isopropylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
m,p-Xylene	ND	10		µg/Kg	1	11/20/2014 08:33 PM
Methylene chloride	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
MTBE	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
n-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
n-Propylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Naphthalene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
o-Xylene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
sec-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Styrene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
tert-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Tetrachloroethene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Toluene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
trans-1,2-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Trichloroethene	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Trichlorofluoromethane	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Vinyl chloride	ND	5.0		µg/Kg	1	11/20/2014 08:33 PM
Surr: 1,2-Dichloroethane-d4	110	67-136		%REC	1	11/20/2014 08:33 PM
Surr: 4-Bromofluorobenzene	99.9	59-124		%REC	1	11/20/2014 08:33 PM
Surr: Dibromofluoromethane	107	70-131		%REC	1	11/20/2014 08:33 PM
Surr: Toluene-d8	104	75-120		%REC	1	11/20/2014 08:33 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ENCON Solutions Inc.	**Client Sample ID:**	MW-2@5'
Lab Order:	N013889	**Collection Date:**	11/12/2014 11:10:00 AM
Project:	Elegant Cleaners, 1410097	**Matrix:**	SOLID
Lab ID:	N013889-006A		

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141120A | QC Batch: P14VS093 | PrepDate: | Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,1,1-Trichloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,1,2-Trichloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,1-Dichloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,1-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,1-Dichloropropene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,2,3-Trichloropropane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/Kg	1	11/20/2014 08:55 PM
1,2-Dibromoethane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,2-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,2-Dichloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,2-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,3-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,3-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
1,4-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
2,2-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
2-Chlorotoluene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
4-Chlorotoluene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
4-Isopropyltoluene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Benzene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Bromobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Bromodichloromethane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Bromoform	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Bromomethane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Carbon tetrachloride	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Chlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Chloroethane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Chloroform	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Chloromethane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
cis-1,2-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ENCON Solutions Inc.	**Client Sample ID:**	MW-2@5'
Lab Order:	N013889	**Collection Date:**	11/12/2014 11:10:00 AM
Project:	Elegant Cleaners, 1410097	**Matrix:**	SOLID
Lab ID:	N013889-006A		

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141120A QC Batch: P14VS093 PrepDate: Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Dibromochloromethane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Dibromomethane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Dichlorodifluoromethane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Ethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Freon-113	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Hexachlorobutadiene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Isopropylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
m,p-Xylene	ND	10		µg/Kg	1	11/20/2014 08:55 PM
Methylene chloride	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
MTBE	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
n-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
n-Propylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Naphthalene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
o-Xylene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
sec-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Styrene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
tert-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Tetrachloroethene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Toluene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
trans-1,2-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Trichloroethene	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Trichlorofluoromethane	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Vinyl chloride	ND	5.0		µg/Kg	1	11/20/2014 08:55 PM
Surr: 1,2-Dichloroethane-d4	113	67-136		%REC	1	11/20/2014 08:55 PM
Surr: 4-Bromofluorobenzene	99.8	59-124		%REC	1	11/20/2014 08:55 PM
Surr: Dibromofluoromethane	110	70-131		%REC	1	11/20/2014 08:55 PM
Surr: Toluene-d8	105	75-120		%REC	1	11/20/2014 08:55 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ENCON Solutions Inc.	**Client Sample ID:**	MW-2@10'
Lab Order:	N013889	**Collection Date:**	11/12/2014 11:22:00 AM
Project:	Elegant Cleaners, 1410097	**Matrix:**	SOLID
Lab ID:	N013889-007A		

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141120A | QC Batch: P14VS093 | PrepDate: | Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,1,1-Trichloroethane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,1,2-Trichloroethane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,1-Dichloroethane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,1-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,1-Dichloropropene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,2,3-Trichloropropane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/Kg	1	11/20/2014 09:17 PM
1,2-Dibromoethane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,2-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,2-Dichloroethane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,2-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,3-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,3-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
1,4-Dichlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
2,2-Dichloropropane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
2-Chlorotoluene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
4-Chlorotoluene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
4-Isopropyltoluene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Benzene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Bromobenzene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Bromodichloromethane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Bromoform	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Bromomethane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Carbon tetrachloride	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Chlorobenzene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Chloroethane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Chloroform	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Chloromethane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
cis-1,2-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ENCON Solutions Inc.	**Client Sample ID:**	MW-2@10'
Lab Order:	N013889	**Collection Date:**	11/12/2014 11:22:00 AM
Project:	Elegant Cleaners, 1410097	**Matrix:**	SOLID
Lab ID:	N013889-007A		

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141120A QC Batch: P14VS093 PrepDate: Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Dibromochloromethane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Dibromomethane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Dichlorodifluoromethane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Ethylbenzene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Freon-113	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Hexachlorobutadiene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Isopropylbenzene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
m,p-Xylene	ND	10		µg/Kg	1	11/20/2014 09:17 PM
Methylene chloride	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
MTBE	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
n-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
n-Propylbenzene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Naphthalene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
o-Xylene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
sec-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Styrene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
tert-Butylbenzene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Tetrachloroethene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Toluene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
trans-1,2-Dichloroethene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Trichloroethene	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Trichlorofluoromethane	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Vinyl chloride	ND	5.0		µg/Kg	1	11/20/2014 09:17 PM
Surr: 1,2-Dichloroethane-d4	113	67-136		%REC	1	11/20/2014 09:17 PM
Surr: 4-Bromofluorobenzene	99.3	59-124		%REC	1	11/20/2014 09:17 PM
Surr: Dibromofluoromethane	108	70-131		%REC	1	11/20/2014 09:17 PM
Surr: Toluene-d8	104	75-120		%REC	1	11/20/2014 09:17 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ENCON Solutions Inc.
Work Order: N013889
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260SOIL

Sample ID: **P141120LCS** SampType: **LCS** TestCode: **8260SOIL** Units: **µg/Kg** Prep Date: RunNo: **96882**
Client ID: **LCSS** Batch ID: **P14VS093** TestNo: **EPA 8260B** Analysis Date: **11/20/2014** SeqNo: **1879040**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	41.850	5.0	40.00	0	105	79	128				
1,1,1-Trichloroethane	40.200	5.0	40.00	0	101	80	122				
1,1,2,2-Tetrachloroethane	41.400	5.0	40.00	0	104	80	120				
1,1,2-Trichloroethane	40.910	5.0	40.00	0	102	80	120				
1,1-Dichloroethane	40.060	5.0	40.00	0	100	80	120				
1,1-Dichloroethene	40.030	5.0	40.00	0	100	74	126				
1,1-Dichloropropene	38.980	5.0	40.00	0	97.5	80	120				
1,2,3-Trichlorobenzene	39.470	5.0	40.00	0	98.7	70	124				
1,2,3-Trichloropropane	40.710	5.0	40.00	0	102	78	120				
1,2,4-Trichlorobenzene	37.540	5.0	40.00	0	93.8	73	123				
1,2,4-Trimethylbenzene	40.660	5.0	40.00	0	102	80	120				
1,2-Dibromo-3-chloropropane	40.980	10	40.00	0	102	71	127				
1,2-Dibromoethane	41.940	5.0	40.00	0	105	80	120				
1,2-Dichlorobenzene	40.650	5.0	40.00	0	102	80	120				
1,2-Dichloroethane	40.130	5.0	40.00	0	100	78	122				
1,2-Dichloropropane	40.100	5.0	40.00	0	100	80	120				
1,3,5-Trimethylbenzene	40.740	5.0	40.00	0	102	80	120				
1,3-Dichlorobenzene	40.270	5.0	40.00	0	101	80	120				
1,3-Dichloropropane	40.970	5.0	40.00	0	102	80	120				
1,4-Dichlorobenzene	38.190	5.0	40.00	0	95.5	80	120				
2,2-Dichloropropane	39.680	5.0	40.00	0	99.2	79	128				
2-Chlorotoluene	39.660	5.0	40.00	0	99.2	80	120				
4-Chlorotoluene	40.430	5.0	40.00	0	101	80	120				
4-Isopropyltoluene	40.350	5.0	40.00	0	101	79	122				
Benzene	39.500	5.0	40.00	0	98.8	80	120				
Bromobenzene	40.380	5.0	40.00	0	101	80	120				
Bromodichloromethane	41.460	5.0	40.00	0	104	80	125				
Bromoform	42.090	5.0	40.00	0	105	69	145				
Bromomethane	38.910	5.0	40.00	0	97.3	57	140				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ENCON Solutions Inc.
Work Order: N013889
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260SOIL

Sample ID: **P141120LCS** SampType: **LCS** TestCode: **8260SOIL** Units: **µg/Kg** Prep Date: RunNo: **96882**
Client ID: **LCSS** Batch ID: **P14VS093** TestNo: **EPA 8260B** Analysis Date: **11/20/2014** SeqNo: **1879040**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	40.750	5.0	40.00	0	102	80	125				
Chlorobenzene	39.750	5.0	40.00	0	99.4	80	120				
Chloroethane	41.910	5.0	40.00	0	105	64	139				
Chloroform	39.620	5.0	40.00	0	99.0	80	120				
Chloromethane	38.900	5.0	40.00	0	97.3	73	120				
cis-1,2-Dichloroethene	39.510	5.0	40.00	0	98.8	80	120				
cis-1,3-Dichloropropene	40.430	5.0	40.00	0	101	80	121				
Dibromochloromethane	41.560	5.0	40.00	0	104	80	120				
Dibromomethane	41.190	5.0	40.00	0	103	66	125				
Dichlorodifluoromethane	39.950	5.0	40.00	0	99.9	76	123				
Ethylbenzene	38.940	5.0	40.00	0	97.4	80	120				
Freon-113	40.230	5.0	40.00	0	101	75	130				
Hexachlorobutadiene	38.290	5.0	40.00	0	95.7	69	120				
Isopropylbenzene	40.040	5.0	40.00	0	100	78	120				
m,p-Xylene	79.850	10	80.00	0	99.8	80	120				
Methylene chloride	40.590	5.0	40.00	0	101	73	120				
MTBE	40.540	5.0	40.00	0	101	77	120				
n-Butylbenzene	40.820	5.0	40.00	0	102	79	125				
n-Propylbenzene	40.140	5.0	40.00	0	100	80	120				
Naphthalene	37.200	5.0	40.00	0	93.0	68	126				
o-Xylene	40.200	5.0	40.00	0	101	80	120				
sec-Butylbenzene	40.420	5.0	40.00	0	101	79	120				
Styrene	41.860	5.0	40.00	0	105	80	120				
tert-Butylbenzene	40.160	5.0	40.00	0	100	78	120				
Tetrachloroethene	39.450	5.0	40.00	0	98.6	80	120				
Toluene	39.540	5.0	40.00	0	98.8	80	120				
trans-1,2-Dichloroethene	38.320	5.0	40.00	0	95.8	80	120				
Trichloroethene	39.700	5.0	40.00	0	99.2	80	120				
Trichlorofluoromethane	41.460	5.0	40.00	0	104	71	132				
Vinyl chloride	40.400	5.0	40.00	0	101	75	123				

Qualifiers:

B Analyte detected in the associated Method Blank
E Value above quantitation range
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike/Surrogate outside of limits due to matrix interference
DO Surrogate Diluted Out
Calculations are based on raw values

CLIENT: ENCON Solutions Inc.
Work Order: N013889
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260SOIL

Sample ID: **P141120LCS** SampType: **LCS** TestCode: **8260SOIL** Units: **µg/Kg** Prep Date: RunNo: **96882**
Client ID: **LCSS** Batch ID: **P14VS093** TestNo: **EPA 8260B** Analysis Date: **11/20/2014** SeqNo: **1879040**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	52.590		50.00		105	67	136				
Surr: 4-Bromofluorobenzene	52.510		50.00		105	59	124				
Surr: Dibromofluoromethane	52.520		50.00		105	70	131				
Surr: Toluene-d8	51.660		50.00		103	75	120				

Sample ID: **N013879-006AMS** SampType: **MS** TestCode: **8260SOIL** Units: **µg/Kg** Prep Date: RunNo: **96882**
Client ID: **ZZZZZZ** Batch ID: **P14VS093** TestNo: **EPA 8260B** Analysis Date: **11/20/2014** SeqNo: **1879041**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	39.350	5.0	40.00	0	98.4	71	130				
1,1,1-Trichloroethane	41.230	5.0	40.00	0	103	72	126				
1,1,2,2-Tetrachloroethane	38.940	5.0	40.00	0	97.4	56	135				
1,1,2-Trichloroethane	40.450	5.0	40.00	0	101	73	138				
1,1-Dichloroethane	40.310	5.0	40.00	0	101	75	127				
1,1-Dichloroethene	41.890	5.0	40.00	0	105	72	123				
1,1-Dichloropropene	40.170	5.0	40.00	0	100	71	120				
1,2,3-Trichlorobenzene	40.030	5.0	40.00	0	100	42	134				
1,2,3-Trichloropropane	38.420	5.0	40.00	0	96.0	64	127				
1,2,4-Trichlorobenzene	38.990	5.0	40.00	0	97.5	46	133				
1,2,4-Trimethylbenzene	40.350	5.0	40.00	0	101	66	122				
1,2-Dibromo-3-chloropropane	36.850	10	40.00	0	92.1	53	141				
1,2-Dibromoethane	41.270	5.0	40.00	0	103	72	135				
1,2-Dichlorobenzene	38.740	5.0	40.00	0	96.9	69	120				
1,2-Dichloroethane	38.770	5.0	40.00	0	96.9	70	134				
1,2-Dichloropropane	39.330	5.0	40.00	0	98.3	74	126				
1,3,5-Trimethylbenzene	39.870	5.0	40.00	0	99.7	65	120				
1,3-Dichlorobenzene	39.770	5.0	40.00	0	99.4	70	120				
1,3-Dichloropropane	39.540	5.0	40.00	0	98.8	74	125				
1,4-Dichlorobenzene	38.330	5.0	40.00	0	95.8	70	120				
2,2-Dichloropropane	43.630	5.0	40.00	0	109	72	132				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ENCON Solutions Inc.
Work Order: N013889
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260SOIL

Sample ID: **N013879-006AMS** SampType: **MS** TestCode: **8260SOIL** Units: **µg/Kg** Prep Date: RunNo: **96882**
Client ID: **ZZZZZZ** Batch ID: **P14VS093** TestNo: **EPA 8260B** Analysis Date: **11/20/2014** SeqNo: **1879041**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	39.440	5.0	40.00	0	98.6	67	120				
4-Chlorotoluene	40.020	5.0	40.00	0	100	68	120				
4-Isopropyltoluene	40.770	5.0	40.00	0	102	58	125				
Benzene	39.730	5.0	40.00	0	99.3	75	122				
Bromobenzene	38.810	5.0	40.00	0	97.0	71	120				
Bromodichloromethane	40.270	5.0	40.00	0	101	73	132				
Bromoform	39.510	5.0	40.00	0	98.8	59	152				
Bromomethane	39.190	5.0	40.00	0	98.0	57	144				
Carbon tetrachloride	41.530	5.0	40.00	0	104	70	125				
Chlorobenzene	38.520	5.0	40.00	0	96.3	74	120				
Chloroethane	42.560	5.0	40.00	0	106	40	164				
Chloroform	39.350	5.0	40.00	0	98.4	74	129				
Chloromethane	39.090	5.0	40.00	0	97.7	46	151				
cis-1,2-Dichloroethene	38.880	5.0	40.00	0	97.2	75	129				
cis-1,3-Dichloropropene	40.440	5.0	40.00	0	101	73	132				
Dibromochloromethane	39.780	5.0	40.00	0	99.4	74	133				
Dibromomethane	39.130	5.0	40.00	0	97.8	43	150				
Dichlorodifluoromethane	41.530	5.0	40.00	0	104	72	137				
Ethylbenzene	38.930	5.0	40.00	0	97.3	71	120				
Freon-113	42.400	5.0	40.00	0	106	68	129				
Hexachlorobutadiene	38.780	5.0	40.00	0	97.0	33	125				
Isopropylbenzene	39.570	5.0	40.00	0	98.9	66	120				
m,p-Xylene	78.900	10	80.00	0	98.6	70	120				
Methylene chloride	36.670	5.0	40.00	2.630	85.1	63	137				
MTBE	39.850	5.0	40.00	0	99.6	69	138				
n-Butylbenzene	42.380	5.0	40.00	0	106	56	125				
n-Propylbenzene	40.250	5.0	40.00	0	101	66	120				
Naphthalene	36.610	5.0	40.00	0	91.5	46	135				
o-Xylene	38.990	5.0	40.00	0	97.5	69	121				
sec-Butylbenzene	40.610	5.0	40.00	0	102	61	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ENCON Solutions Inc.
Work Order: N013889
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260SOIL

Sample ID: **N013879-006AMS** SampType: **MS** TestCode: **8260SOIL** Units: **µg/Kg** Prep Date: RunNo: **96882**
Client ID: **ZZZZZZ** Batch ID: **P14VS093** TestNo: **EPA 8260B** Analysis Date: **11/20/2014** SeqNo: **1879041**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Styrene	40.460	5.0	40.00	0	101	69	127				
tert-Butylbenzene	39.760	5.0	40.00	0	99.4	63	120				
Tetrachloroethene	39.580	5.0	40.00	0	99.0	68	120				
Toluene	39.220	5.0	40.00	0	98.0	73	121				
trans-1,2-Dichloroethene	39.050	5.0	40.00	0	97.6	75	126				
Trichloroethene	39.190	5.0	40.00	0	98.0	69	130				
Trichlorofluoromethane	43.070	5.0	40.00	0	108	67	130				
Vinyl chloride	41.870	5.0	40.00	0	105	65	132				
Surr: 1,2-Dichloroethane-d4	54.480		50.00		109	67	136				
Surr: 4-Bromofluorobenzene	52.310		50.00		105	59	124				
Surr: Dibromofluoromethane	54.780		50.00		110	70	131				
Surr: Toluene-d8	52.240		50.00		104	75	120				

Sample ID: **N013879-006AMSD** SampType: **MSD** TestCode: **8260SOIL** Units: **µg/Kg** Prep Date: RunNo: **96882**
Client ID: **ZZZZZZ** Batch ID: **P14VS093** TestNo: **EPA 8260B** Analysis Date: **11/20/2014** SeqNo: **1879042**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	38.920	5.0	40.00	0	97.3	71	130	39.35	1.10	20	
1,1,1-Trichloroethane	41.010	5.0	40.00	0	103	72	126	41.23	0.535	20	
1,1,2,2-Tetrachloroethane	38.460	5.0	40.00	0	96.2	56	135	38.94	1.24	20	
1,1,2-Trichloroethane	39.840	5.0	40.00	0	99.6	73	138	40.45	1.52	20	
1,1-Dichloroethane	40.230	5.0	40.00	0	101	75	127	40.31	0.199	20	
1,1-Dichloroethene	41.200	5.0	40.00	0	103	72	123	41.89	1.66	20	
1,1-Dichloropropene	40.400	5.0	40.00	0	101	71	120	40.17	0.571	20	
1,2,3-Trichlorobenzene	41.220	5.0	40.00	0	103	42	134	40.03	2.93	20	
1,2,3-Trichloropropane	39.560	5.0	40.00	0	98.9	64	127	38.42	2.92	20	
1,2,4-Trichlorobenzene	38.730	5.0	40.00	0	96.8	46	133	38.99	0.669	20	
1,2,4-Trimethylbenzene	39.470	5.0	40.00	0	98.7	66	122	40.35	2.20	20	
1,2-Dibromo-3-chloropropane	38.860	10	40.00	0	97.2	53	141	36.85	5.31	20	
1,2-Dibromoethane	40.890	5.0	40.00	0	102	72	135	41.27	0.925	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ENCON Solutions Inc.
Work Order: N013889
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260SOIL

Sample ID: **N013879-006AMSD** SampType: **MSD** TestCode: **8260SOIL** Units: **µg/Kg** Prep Date: RunNo: **96882**
Client ID: **ZZZZZZ** Batch ID: **P14VS093** TestNo: **EPA 8260B** Analysis Date: **11/20/2014** SeqNo: **1879042**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	39.030	5.0	40.00	0	97.6	69	120	38.74	0.746	20	
1,2-Dichloroethane	39.590	5.0	40.00	0	99.0	70	134	38.77	2.09	20	
1,2-Dichloropropane	39.790	5.0	40.00	0	99.5	74	126	39.33	1.16	20	
1,3,5-Trimethylbenzene	39.620	5.0	40.00	0	99.0	65	120	39.87	0.629	20	
1,3-Dichlorobenzene	39.100	5.0	40.00	0	97.8	70	120	39.77	1.70	20	
1,3-Dichloropropane	39.460	5.0	40.00	0	98.6	74	125	39.54	0.203	20	
1,4-Dichlorobenzene	37.700	5.0	40.00	0	94.3	70	120	38.33	1.66	20	
2,2-Dichloropropane	42.740	5.0	40.00	0	107	72	132	43.63	2.06	20	
2-Chlorotoluene	38.680	5.0	40.00	0	96.7	67	120	39.44	1.95	20	
4-Chlorotoluene	38.940	5.0	40.00	0	97.4	68	120	40.02	2.74	20	
4-Isopropyltoluene	40.220	5.0	40.00	0	101	58	125	40.77	1.36	20	
Benzene	39.800	5.0	40.00	0	99.5	75	122	39.73	0.176	20	
Bromobenzene	37.410	5.0	40.00	0	93.5	71	120	38.81	3.67	20	
Bromodichloromethane	39.310	5.0	40.00	0	98.3	73	132	40.27	2.41	20	
Bromoform	39.650	5.0	40.00	0	99.1	59	152	39.51	0.354	20	
Bromomethane	38.100	5.0	40.00	0	95.2	57	144	39.19	2.82	20	
Carbon tetrachloride	42.040	5.0	40.00	0	105	70	125	41.53	1.22	20	
Chlorobenzene	38.120	5.0	40.00	0	95.3	74	120	38.52	1.04	20	
Chloroethane	41.990	5.0	40.00	0	105	40	164	42.56	1.35	20	
Chloroform	38.530	5.0	40.00	0	96.3	74	129	39.35	2.11	20	
Chloromethane	38.030	5.0	40.00	0	95.1	46	151	39.09	2.75	20	
cis-1,2-Dichloroethene	38.230	5.0	40.00	0	95.6	75	129	38.88	1.69	20	
cis-1,3-Dichloropropene	40.370	5.0	40.00	0	101	73	132	40.44	0.173	20	
Dibromochloromethane	39.790	5.0	40.00	0	99.5	74	133	39.78	0.0251	20	
Dibromomethane	40.000	5.0	40.00	0	100	43	150	39.13	2.20	20	
Dichlorodifluoromethane	41.440	5.0	40.00	0	104	72	137	41.53	0.217	20	
Ethylbenzene	38.460	5.0	40.00	0	96.2	71	120	38.93	1.21	20	
Freon-113	41.600	5.0	40.00	0	104	68	129	42.40	1.90	20	
Hexachlorobutadiene	39.050	5.0	40.00	0	97.6	33	125	38.78	0.694	20	
Isopropylbenzene	38.510	5.0	40.00	0	96.3	66	120	39.57	2.72	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ENCON Solutions Inc.
Work Order: N013889
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260SOIL

Sample ID: **N013879-006AMSD** SampType: **MSD** TestCode: **8260SOIL** Units: **µg/Kg** Prep Date: RunNo: **96882**
Client ID: **ZZZZZZ** Batch ID: **P14VS093** TestNo: **EPA 8260B** Analysis Date: **11/20/2014** SeqNo: **1879042**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	78.480	10	80.00	0	98.1	70	120	78.90	0.534	20	
Methylene chloride	34.040	5.0	40.00	2.630	78.5	63	137	36.67	7.44	20	
MTBE	39.690	5.0	40.00	0	99.2	69	138	39.85	0.402	20	
n-Butylbenzene	42.220	5.0	40.00	0	106	56	125	42.38	0.378	20	
n-Propylbenzene	39.820	5.0	40.00	0	99.6	66	120	40.25	1.07	20	
Naphthalene	38.870	5.0	40.00	0	97.2	46	135	36.61	5.99	20	
o-Xylene	38.820	5.0	40.00	0	97.0	69	121	38.99	0.437	20	
sec-Butylbenzene	40.140	5.0	40.00	0	100	61	120	40.61	1.16	20	
Styrene	39.900	5.0	40.00	0	99.8	69	127	40.46	1.39	20	
tert-Butylbenzene	39.180	5.0	40.00	0	98.0	63	120	39.76	1.47	20	
Tetrachloroethene	39.210	5.0	40.00	0	98.0	68	120	39.58	0.939	20	
Toluene	39.600	5.0	40.00	0	99.0	73	121	39.22	0.964	20	
trans-1,2-Dichloroethene	38.110	5.0	40.00	0	95.3	75	126	39.05	2.44	20	
Trichloroethene	39.760	5.0	40.00	0	99.4	69	130	39.19	1.44	20	
Trichlorofluoromethane	42.730	5.0	40.00	0	107	67	130	43.07	0.793	20	
Vinyl chloride	41.650	5.0	40.00	0	104	65	132	41.87	0.527	20	
Surr: 1,2-Dichloroethane-d4	53.870		50.00		108	67	136		0		
Surr: 4-Bromofluorobenzene	51.540		50.00		103	59	124		0		
Surr: Dibromofluoromethane	53.000		50.00		106	70	131		0		
Surr: Toluene-d8	51.900		50.00		104	75	120		0		

Sample ID: **P141120MB3** SampType: **MBLK** TestCode: **8260SOIL** Units: **µg/Kg** Prep Date: RunNo: **96882**
Client ID: **PBS** Batch ID: **P14VS093** TestNo: **EPA 8260B** Analysis Date: **11/20/2014** SeqNo: **1879043**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ENCON Solutions Inc.
Work Order: N013889
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260SOIL

Sample ID: **P141120MB3** SampType: **MBLK** TestCode: **8260SOIL** Units: **µg/Kg** Prep Date: RunNo: **96882**
Client ID: **PBS** Batch ID: **P14VS093** TestNo: **EPA 8260B** Analysis Date: **11/20/2014** SeqNo: **1879043**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	0.070	5.0									
1,2-Dibromo-3-chloropropane	ND	10									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									
1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	0.340	5.0									
Carbon tetrachloride	ND	5.0									
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	0.470	5.0									
cis-1,2-Dichloroethene	ND	5.0									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ENCON Solutions Inc.
Work Order: N013889
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260SOIL

Sample ID: **P141120MB3** SampType: **MBLK** TestCode: **8260SOIL** Units: **µg/Kg** Prep Date: RunNo: **96882**
Client ID: **PBS** Batch ID: **P14VS093** TestNo: **EPA 8260B** Analysis Date: **11/20/2014** SeqNo: **1879043**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethylbenzene	ND	5.0									
Freon-113	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	10									
Methylene chloride	1.250	5.0									
MTBE	ND	5.0									
n-Butylbenzene	ND	5.0									
n-Propylbenzene	ND	5.0									
Naphthalene	ND	5.0									
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									
Toluene	0.170	5.0									
trans-1,2-Dichloroethene	ND	5.0									
Trichloroethene	ND	5.0									
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									
Surr: 1,2-Dichloroethane-d4	53.090		50.00		106	67	136				
Surr: 4-Bromofluorobenzene	49.100		50.00		98.2	59	124				
Surr: Dibromofluoromethane	52.700		50.00		105	70	131				
Surr: Toluene-d8	51.450		50.00		103	75	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.3072691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F: 562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page ☐ of ☐

Client: Encon Solutions	**Report to:** Tom Lindros	**Bill to:** Tom Lindros	**EDD Requirement**
Address: 3255 Wilshire Blvd STE 1508	**Company:** Encon	**Address:** 3255 Wilshire Blvd, STE 1508	Excel EDD ☐
Address: Los Angeles, CA 90010	**Email:** tom@knollwood.us	Los Angeles, CA 90010	Geotracker ☐
Phone: 213-380-0555 **Fax:** 213-380-0505	**Address:** same	**Email to:** tom@knollwood.us **PO#** 141C097	Labspec ☐
Submitted By: Cora Olson		**Phone:** 805-498-4937 **Fax:** 213-380-0505	Others ☐
Title: Field Engineer	**Phone:** 805-498-4957 **Fax:**		Specify:
Signature: **Date:** 11/13/14	**Sampled By:** Cora Olson		Global ID:
I hereby authorize ASSET Labs to perform the tests indicated below:	*I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.*		
Project Name: Elegant Cleaners	**Signature:** **Date** 11/12/14		
Project Number: 141C097			

QA/QC	
RTNE	☐
RWQCB	☐
CalTrans	☐
Level III	☐
LEVEL IV	☐
Regulatory	☐
Specify State:	

Sample Receipt Condition	Y	N
1. Chilled	☑	☐
2. Headspace	☐	☒
3. Container Intact	☑	☐
4. Seal Present	☐	☑
5. IR number	2	
6. Method of Cooling	ICE	
Sample Temp:	0.1°C	

Courier: CSO
Tracking No.

Item No.	Laboratory Work Order No.	Sample ID/Location	Date	Time	Matrix: Water	Matrix: Solid	Matrix: Others	Analyses Requested: VOCs 8260B	Turn Around Time	No. of container	Container Type	PRESERVATION	Remarks
1	N013889-1	MW-3@5'	11/12/14	9:30		X		X	STD	1	Liter	None	
2	-2	MW-3@10'	11/12/14	9:45									
3	-3	MW-1@5'	11/12/14	10:10									
4	-4	MW-1@10'	11/12/14	10:23									
5	-5	MW-1@15'	11/12/14	10:35									
6	-6	MW-2@5'		11:10									
7	-7	MW-2@10'		11:22									
8	-8	Wash Camp		14:43		✓							HOLD
9													
10													
11													
12													

Relinquished by (Signature and Printed Name): Cora Olson	**Date / Time** 11/13/14 10:15am	**Received by (Signature and Printed Name):**	**Date / Time** 11/14/14 14:55 ON ICE
Relinquished by (Signature and Printed Name):	**Date / Time** 11/14/14 18:00	**Received by (Signature and Printed Name):**	**Date / Time** 11/15/14 @ 8:40
Relinquished by (Signature and Printed Name):	**Date / Time**	**Received by (Signature and Printed Name):**	**Date / Time**

Turn Around Time (TAT)
- ☐ A < 24 Hrs or Same Day TAT
- ☐ B = Next Workday
- ☐ C = 2 Workdays
- ☐ D = 3 Workdays
- ☒ E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00 PM.

Special Instruction: Hold Wash Camp Sample. will update with required analysis when known

Terms
1. All samples will be disposed in 45 days upon receipt and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
   Less than 24 Hrs = 200% Next Day = 100% 2 Workdays = 50% 3 Workdays = 35% 4 Workdays = 20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. ASSET Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 Days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:

H = HCl	N = HNO_3	S = H_2SO_4	C = 4°C	
Z = Zn(AC)2	O = NaOH	T = $Na_2S_2O_3$		
Others/Specify:				

Container Type:

T = Tube	V = VOA	P = Pint
J = Jar	B = Tedlar	G = Glass
M = Metal	P = Plastic	C = Can

White = Laboratory Copy
Yellow = Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	11/15/2014	Workorder:	N013889
Rep sample Temp (Deg C):	0.1	IR Gun ID:	2
Temp Blank:	☑ Yes ☐ No		
Carrier name:	Golden State Overnight		
Last 4 digits of Tracking No.:	2110	Packing Material Used:	Bubble Wrap
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☐	No ☐	NA ☑
15. Did the bottle labels indicate correct preservatives used?	Yes ☐	No ☐	NA ☑
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: MBC MBC 11/15/2014

Reviewed By: 11/18/14

GSO GOLDEN STATE OVERNIGHT

WebShip

800-322-5555 www.gso.com

Ship From:
MEYNARD LARIN
ASSET LABORATORIES
11060 ARTESIA BLVD., SUITE C
CERRITOS, CA 90703

Ship To:
MARLON CARTIN
ATL INC
3151 W. POST RD
LAS VEGAS, NV 89118

COD:
$0.00

Reference:

Delivery Instructions:
TO HOLD FOR PICK UP

Signature Type:
SIGNATURE REQUIRED

Tracking #: 526152110

SDS

LVS

LAS VEGAS

D89103A

30862973

Print Date : 11/14/14 16:38 PM

Package 1 of 1

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

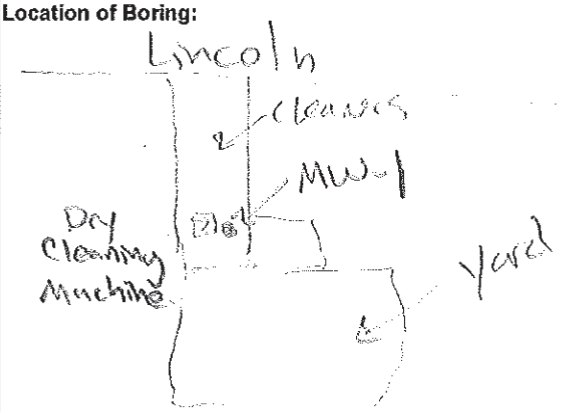
APPENDIX F:

BORING LOGS AND WELL CONSTRUCTION DIAGRAMS

Encon Solutions, Inc.

Field Boring Log Sheet 1 of 2

Location of Boring:



NTS

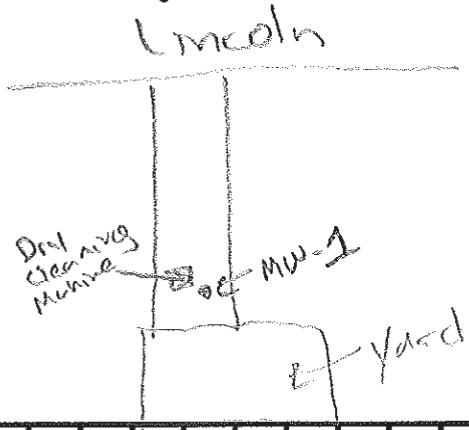
Project: Elegant Cleaners, Alamead	Boring No. MW-1
	Total Depth: 15'
Job No.1410097ESAIII	Logged by: C. Olson
Drilling Contractor: ECA	
Drill Rig Type: Dolly - Direct Push	
Drillers Name: Brent	
Sampling Methods: Acetate Liner	
Hammer WT. N/A	Drop N/A
Start Time 10:00	Date
Completed Time 11:30	Date
Boring Depth: 15'	Screen 7'-15'
Casing Depth: 15'	Sand 2/12 5'-15'
Water Depth: ~9'	Bentonite 2'-5'
Time: 10:15	Cement 0-2'
Date: 11/12/13	3/4" well 2". Boring
Backfilled Time: — Date: — By: —	
Surface Elev: —	Datum: —
Conditions: —	

Depth (feet)	Type	Blows	Driven (inches)	Received (inches)	Condition	Time		Hydrocarbon Stain	Depth (feet)	
0'	FF		48"	20"		10:18		No	1.0	Fill 0-2"
2'	SP								3.0	SP - poorly graded sand, lt. olive brown (2.5Y 5/4), dry, loose
4'	SP		48"	36"		10:23		No	5.0	SP - poorly graded, dk yellowish brown (10YR 4/6), dry, med dense, trace silt
10	SM								7.0	SM - silty sand, dk yellowish brown (10YR 4/6), damp, med dense
			48	3"				No	9.0	SM - Same as above, wet
									10.0	SM - Same as above, increasing silt

Encon Solutions, Inc.

Field Boring Log Sheet 2 of 2

Location of Boring:



Project: Elegant Cleaners, Alamead	Boring No. MW-1
	Total Depth: 15'
Job No. 1410097ESAIII	Logged by: C. Olson
Drilling Contractor: ECA	
Drill Rig Type: Dolly - Direct Push	
Drillers Name: Brent	
Sampling Methods: Acetate Liner	
Hammer WT. N/A	Drop N/A
Start Time 10:00	Date
Completed Time 11:30	Date

Boring Depth:	15'	Screen	7'-15'
Casing Depth:	15'	Sand 2/12	5'-15'
Water Depth:	~9'	Bentonite	2'-5'
Time:	10:15	Cement	0'-2'
Date:	11/12/13		

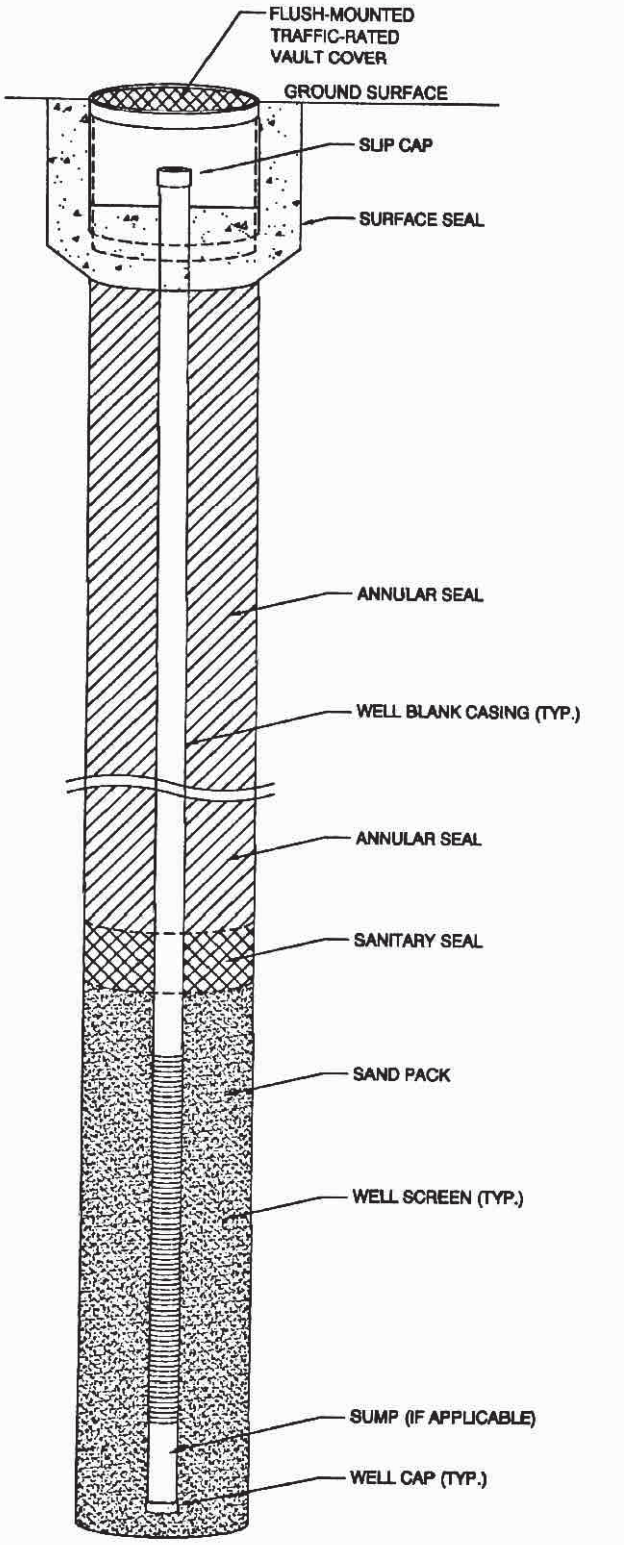
Backfilled Time: — Date: — By: —

Surface Elev: — Datum: —

Conditions: —

Depth (feet)	Type	Blows	Driven (inches)	Received (inches)	Condition	Time		Hydrocarbon Stain	Depth (feet)	
10	SM			33"		1025		No	1.0	SM - Same as above, less silt, very wet
13	SP								3.0	SP - Poorly graded sand, dk yllsh brn (10YR 4/4), med dense, wet
									5.0	End Boring @ 15'
									7.0	
									9.0	
									20.0	

C:\Drawing Files\ENCON Solutions_Standard Figures\Standard MW W-Traffic Rated Cover - 01/08/2015



TOTAL DEPTH OF BOREHOLE 15'

SURFACE SEAL INTERVAL	0" - 3"
TYPE OF SURFACE SEAL	concrete cap
ANNULAR SEAL INTERVAL	3" - 2'
TYPE OF ANNULAR SEAL	neat cement
SANITARY SEAL INTERVAL	2' - 5'
TYPE OF SANITARY SEAL	bentonite
DIAMETER OF WELL CASING	3/4"
TYPE OF WELL CASING	PVC
SAND PACK INTERVAL	5' - 15'
TYPE OF SAND PACK	# 2/12
SCREEN INTERVAL	7' - 15'
DESCRIPTION OF SCREEN	0.010" - slotted
DEPTH OF WELL	15.0'
DIAMETER OF BOREHOLE	2"
DEPTH OF BOREHOLE	15.0'

MW-1

SITE ADDRESS: 1208 Lincoln Ave, Alameda CA

FIGURE:

PROJECT: Elegant Cleaners

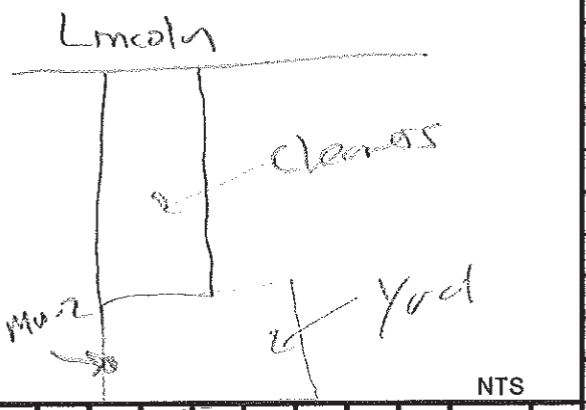
DATE:

ENCON Solutions, Inc.

Encon Solutions, Inc.

Field Boring Log Sheet 1 of 2

Location of Boring:



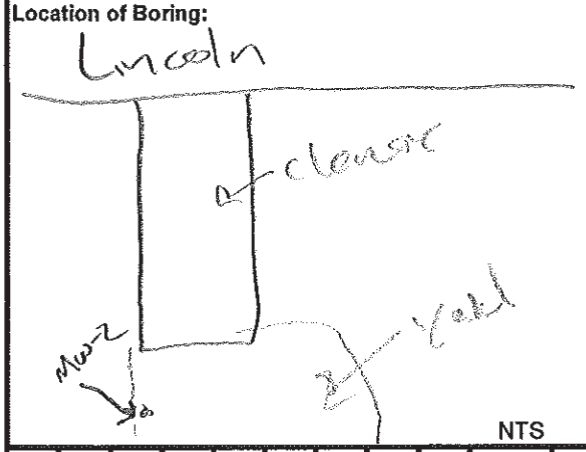
Project: Elegant Cleaners, Alamead		Boring No.	MW-2
		Total Depth:	20'
Job No. 1410097ESAIII		Logged by:	C. Olson
Drilling Contractor:	ECA		
Drill Rig Type:	HSA		
Drillers Name:	John + Jesse		
Sampling Methods:	Split Spoon		
Hammer WT.	140	Drop	N/A
Start Time	11:00	Date	11/12/14
Completed Time	12:15	Date	11/12/14
Boring Depth:	20'	Screen	10'-20'
Casing Depth:	20'	Screen	0.010
Water Depth:	~12'	2/12 Sand	8'-20'
Time:	11:15	Cement	0-5'
Date:	11/12/14	Bentonite	5-8'
Backfilled Time:	Date:	By:	
Surface Elev:	Datum:		
Conditions:			

Depth (feet)	Type	Blows	Driven (inches)	Received (inches)	Condition	Time		Hydrocarbon Stain	Depth (feet)	
									1.0	
									3.0	
									5.0	SP - poorly graded sand, lt olive brown (2.5Y 5/4), loose, dry, trace gravel.
5 - 6.5'	SP	5 9 11	18"	18"		11:10		No		
									7.0	
									9.0	
10 - 11.5	SM	18	18"	12"		11:12		No	10.0	SM - Silty sand, dk yellish brn (10YR 4/4) damp, med dense

Encon Solutions, Inc.

Field Boring Log Sheet 2 of 2

Location of Boring:



NTS

Project: Elegant Cleaners, Alamead	Boring No. MW-2
	Total Depth: 20'
Job No.1410097ESAIII	Logged by: C. Olson
Drilling Contractor: ECA	
Drill Rig Type: HSA	
Drillers Name: John + Jessie	
Sampling Methods: Split Spoon	
Hammer WT. ~~N/A~~ 140	Drop N/A
Start Time 11:00	Date 11/12/14
Completed Time 12:15	Date 11/12/14

Boring Depth:	20	screen	10'-20'
Casing Depth:	20'	screen	0.010
Water Depth:	~12	2/12 sand	8'-20'
Time:	11:15	cement	0-5'
Date:	11/12/14	bentonite	5'-8'

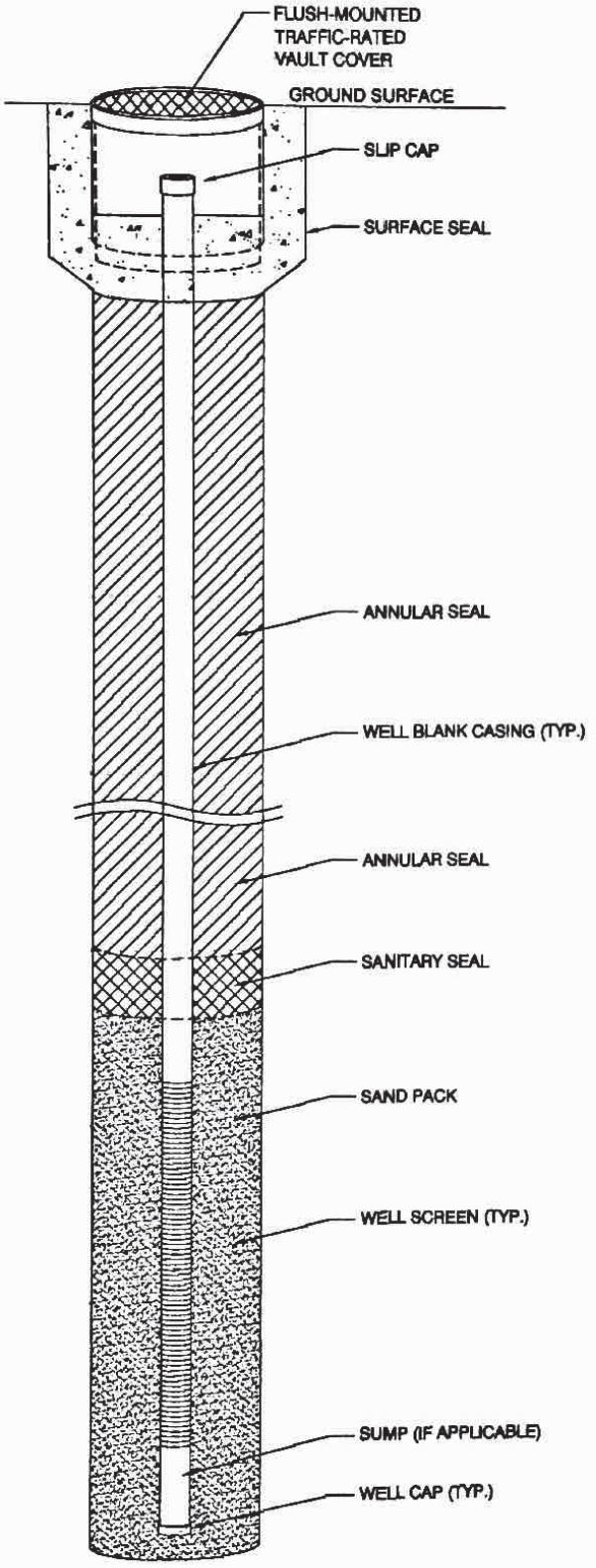
Backfilled Time: — Date: — By: —

Surface Elev: — Datum: —

Conditions: —

Depth (feet)	Type	Blows	Driven (inches)	Received (inches)	Condition	Time		Hydrocarbon Stain	Depth (feet)	
	SS	30/35						No	1.0	Same as above, med dense
										↓
									12	SP- Poorly graded sand, lt olive brn, (2.5Y5/6), dense, trace silt, wet
12 ↓	SS	28/60	18"	12"		11:39		No	13.0	
13.5		X								
									5.0	
									7.0	
									9.0	
									20.0	End of Boring @ 20'

C:\Drawing Files\ENCON Solutions_Standard Figures\Standard MW W-Traffic Rated Cover - 01/08/2015



TOTAL DEPTH OF BOREHOLE 20'

SURFACE SEAL INTERVAL	0" - 3"
TYPE OF SURFACE SEAL	concrete
ANNULAR SEAL INTERVAL	3" - 5'
TYPE OF ANNULAR SEAL	neat cement
SANITARY SEAL INTERVAL	5'-8'
TYPE OF SANITARY SEAL	bentonite
DIAMETER OF WELL CASING	2"
TYPE OF WELL CASING	PVC
SAND PACK INTERVAL	8' - 20'
TYPE OF SAND PACK	#2/12
SCREEN INTERVAL	10'-20'
DESCRIPTION OF SCREEN	0.010" - slotted
DEPTH OF WELL	20.0'
DIAMETER OF BOREHOLE	8"
DEPTH OF BOREHOLE	20.0'

MW-2

SITE ADDRESS: 1208 Lincoln Ave, Alameda CA

FIGURE:

PROJECT: Elegant Cleaners

DATE:

ENCON Solutions, Inc.

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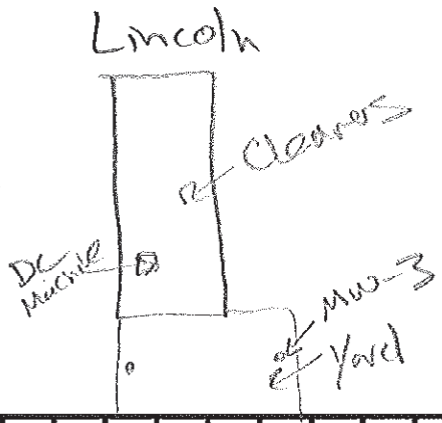
Field Boring Log Sheet 1 of 2

Location of Boring:



Project: Elegant Cleaners, Alameda		Boring No. MW-3	
		Total Depth: 20'	
Job No. 1410097ESAIII	Logged by: C. Olson		
Drilling Contractor: ECA			
Drill Rig Type: HSA			
Drillers Name: John + Jesse			
Sampling Methods: Split Spoon			
Hammer WT. N/A		Drop N/A	
Start Time 9:15		Date 11/12/14	
Completed Time 10:30		Date 11/12/14	
Boring Depth:	20'	Cement	0-5'
Casing Depth:	20'	Bentonite	5'-8'
Water Depth:	~12'	#2/12 Sand	8'-20'
Time:	9:30	Screen	0.010
Date:	11/12/14	Screen	10'-20'
Backfilled Time: —	Date: —	By: —	
Surface Elev: —	Datum: —		
Conditions:			

0 Cement
5 Bent
8' Sand
10' Screen
20

Depth (feet)	Type	Blows	Driven (inches)	Received (inches)	Condition	Time		Hydrocarbon Stain	Depth (feet)	Well
									1.0	
									3.0 Cement	
									5.0	
5'	SP	9 11	18"	18"		9:37		No		
6.5'		14							Bentonite 7.0	
									9.0 Sand	
		13 24 31				9:45		No	10.0	

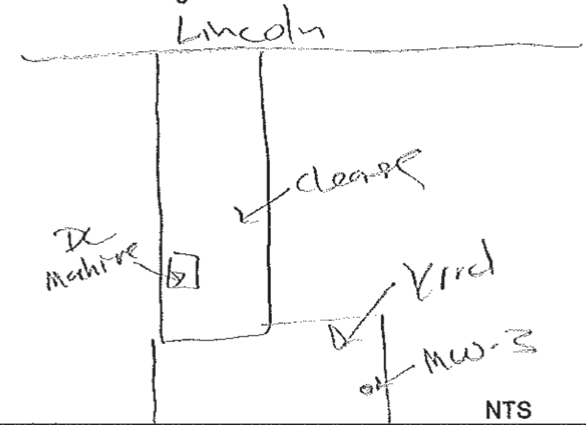
SP — Poorly graded sand, lt yellowish brown (10YR 6/4), fine grain, loose, dry, trace gravel

SM - Silty sand, dk yellowish brn (10YR 4/6), fine sand, med dense, moist,

Encon Solutions, Inc.

Field Boring Log Sheet 2 of 2

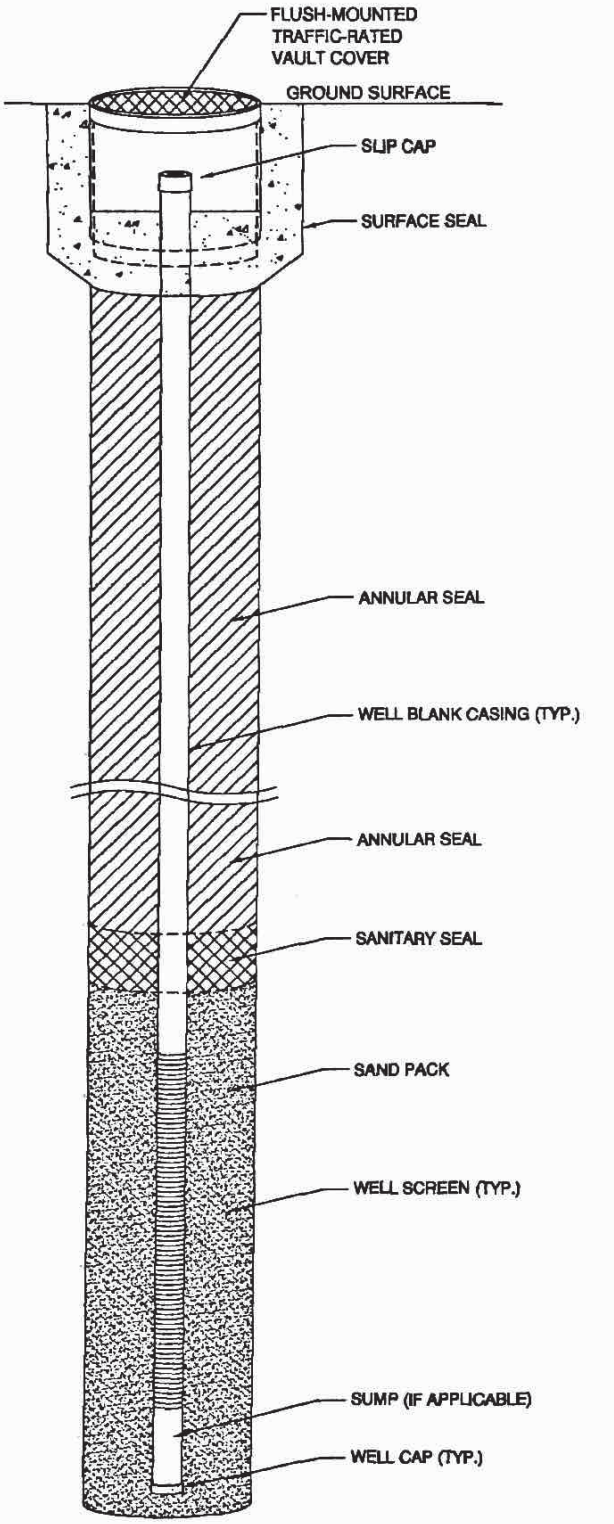
Location of Boring:



Project: Elegant Cleaners, Alamead		Boring No. MW-3	
		Total Depth:	
Job No.1410097ESAIII		Logged by: C. Olson	
Drilling Contractor: ECA			
Drill Rig Type: HSA			
Drillers Name: John + Jesse			
Sampling Methods: ~~MacroCore~~ Split Spoon			
Hammer WT. ~~N/A~~ 140 lb		Drop N/A	
Start Time 915		Date 11/12/14	
Completed Time 1030		Date 11/12/14	
Boring Depth:	20'	Cement	0-5'
Casing Depth:	20'	Bentonite	5'-8'
Water Depth:	~12'	2/12 Sand	8-20'
Time:	9:30	Screen	0.010
Date:	11/12/14	Screen	10'-20'
Backfilled Time: –		Date: –	By: –
Surface Elev: –		Datum: –	
Conditions: –			

Depth (feet)	Type	Blows	Driven (inches)	Received (inches)	Condition	Time		Hydrocarbon Stain	Depth (feet)	Description
									1 1.0	
									▼	
									1 3.0	
									2/12 Sand	
									1 5.0	Sample Lost - wet sands
15		13 18	18"	0"	9:50			No	0.010 Slotted	
16.5		28								
									1 7.0	
									1 9.0	
									2 0.0	

C:\Drawing Files\ENCON Solutions\ Standard Figures\Standard MW W-Traffic Rated Cover - 01/08/2015



TOTAL DEPTH OF BOREHOLE 20'

SURFACE SEAL INTERVAL 0" - 3"
TYPE OF SURFACE SEAL concrete
ANNULAR SEAL INTERVAL 3" - 5'
TYPE OF ANNULAR SEAL Neat cement
SANITARY SEAL INTERVAL 5' - 8'
TYPE OF SANITARY SEAL bentonite
DIAMETER OF WELL CASING 2"
TYPE OF WELL CASING PVC
SAND PACK INTERVAL 8' - 20'
TYPE OF SAND PACK # 2/12
SCREEN INTERVAL 10' - 20'
DESCRIPTION OF SCREEN 0.010" - slotted
DEPTH OF WELL 20.0'
DIAMETER OF BOREHOLE 8"
DEPTH OF BOREHOLE 20.0'

MW-3

SITE ADDRESS: 1208 Lincoln Ave, Alameda CA

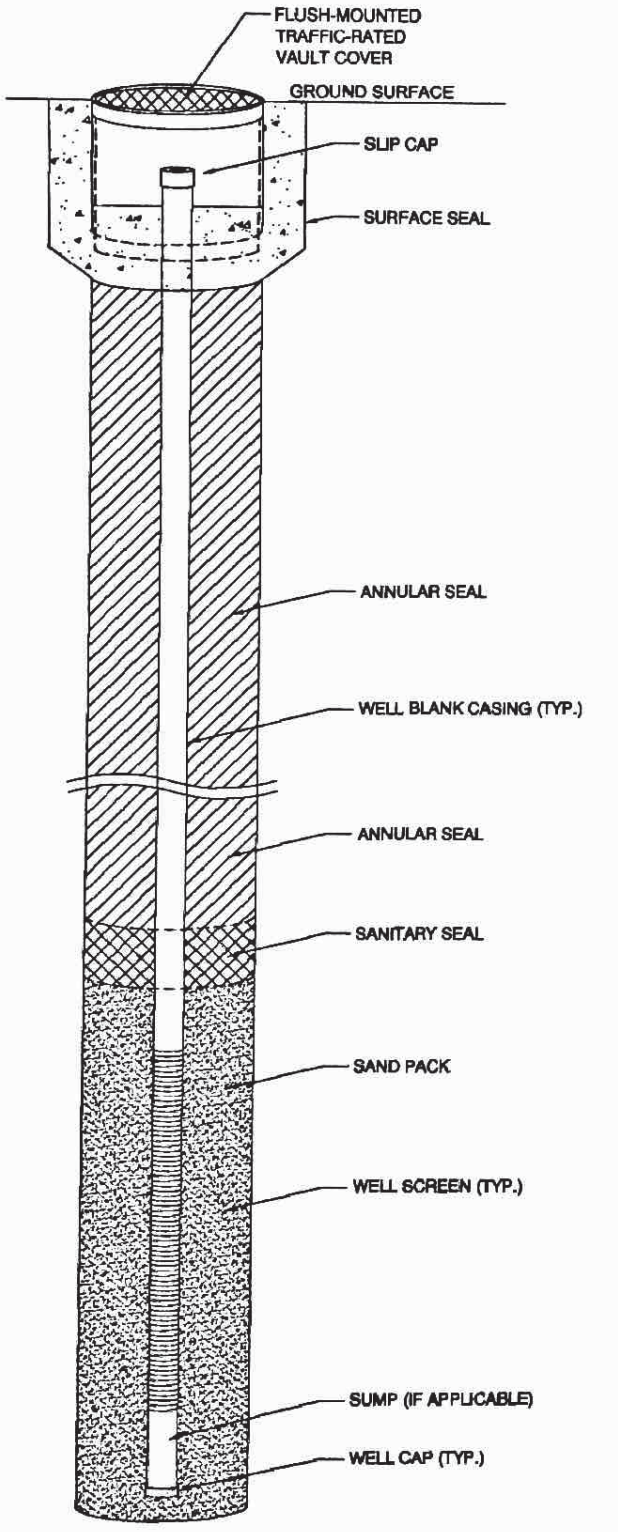
FIGURE:

PROJECT: Elegant Cleaners

DATE:

ENCON Solutions, Inc.

C:\Drawing Files\ENCON Solutions_Standard Figures\Standard MW W-Traffic Rated Cover - 01/08/2015



TOTAL DEPTH OF BOREHOLE _____

SURFACE SEAL INTERVAL	0" - 3"
TYPE OF SURFACE SEAL	concrete
ANNULAR SEAL INTERVAL	3" - 2.5'
TYPE OF ANNULAR SEAL	neat cement
SANITARY SEAL INTERVAL	2.5' - 4.5'
TYPE OF SANITARY SEAL	bentonite
DIAMETER OF WELL CASING	1/4"
TYPE OF WELL CASING	teflon tubing
SAND PACK INTERVAL	4.5' - 5.5'
TYPE OF SAND PACK	# 2/12
SCREEN INTERVAL	at 5'
DESCRIPTION OF SCREEN	stone diffuser
DEPTH OF WELL	5'
DIAMETER OF BOREHOLE	2"
DEPTH OF BOREHOLE	5.5'

VW - 1

SITE ADDRESS: 1208 Lincoln Ave, Alameda CA

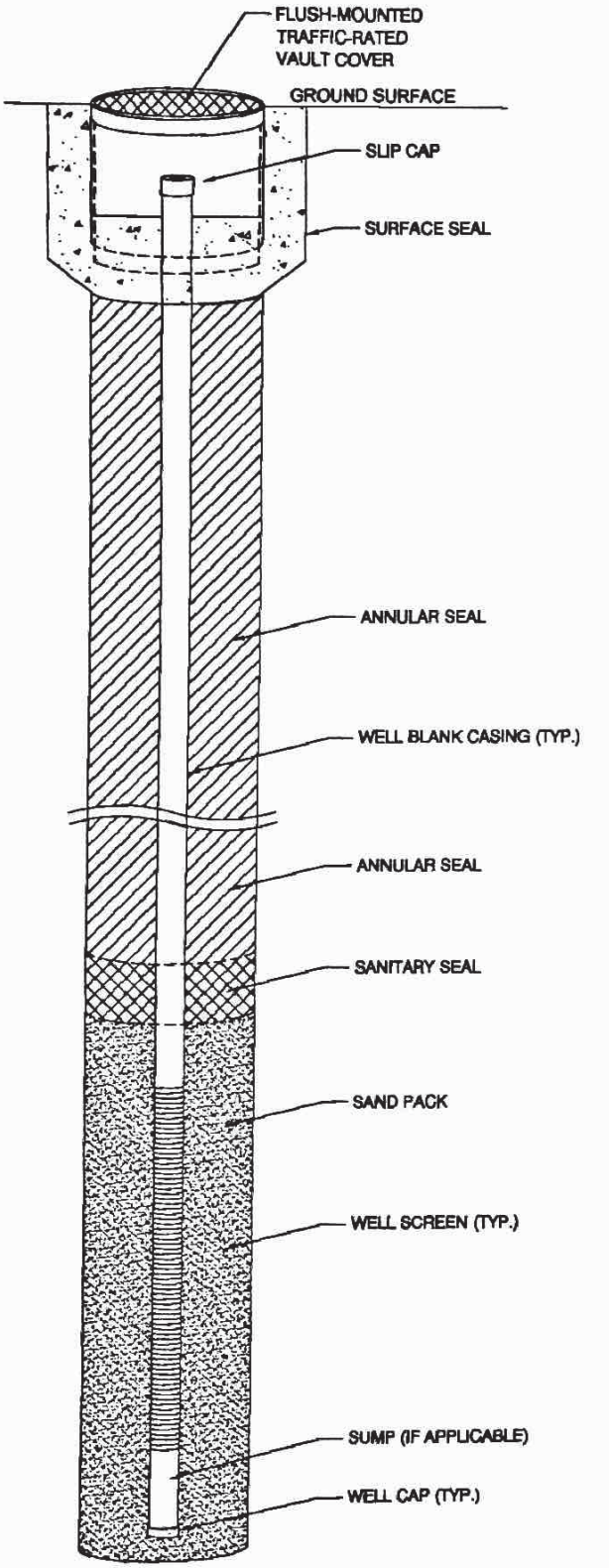
FIGURE:

PROJECT: Elegant Cleaners

DATE:

ENCON Solutions, Inc

C:\Drawing Files\ENCON Solutions_Standard Figures\Standard MW W-Traffic Rated Cover - 01/08/2015



TOTAL DEPTH OF BOREHOLE _____

SURFACE SEAL INTERVAL 0'' - 3''

TYPE OF SURFACE SEAL concrete

ANNULAR SEAL INTERVAL 3'' - 2.5'

TYPE OF ANNULAR SEAL Neat cement

SANITARY SEAL INTERVAL 2.5' - 4.5'

TYPE OF SANITARY SEAL bentonite

DIAMETER OF WELL CASING 1/4''

TYPE OF WELL CASING teflon tubing

SAND PACK INTERVAL 4.5' - 5.5'

TYPE OF SAND PACK #2/12

SCREEN INTERVAL at 5'

DESCRIPTION OF SCREEN stone diffuser

DEPTH OF WELL 5'

DIAMETER OF BOREHOLE 2''

DEPTH OF BOREHOLE 5.5'

VW - 2

SITE ADDRESS: 1208 Lincoln Ave, Alameda CA

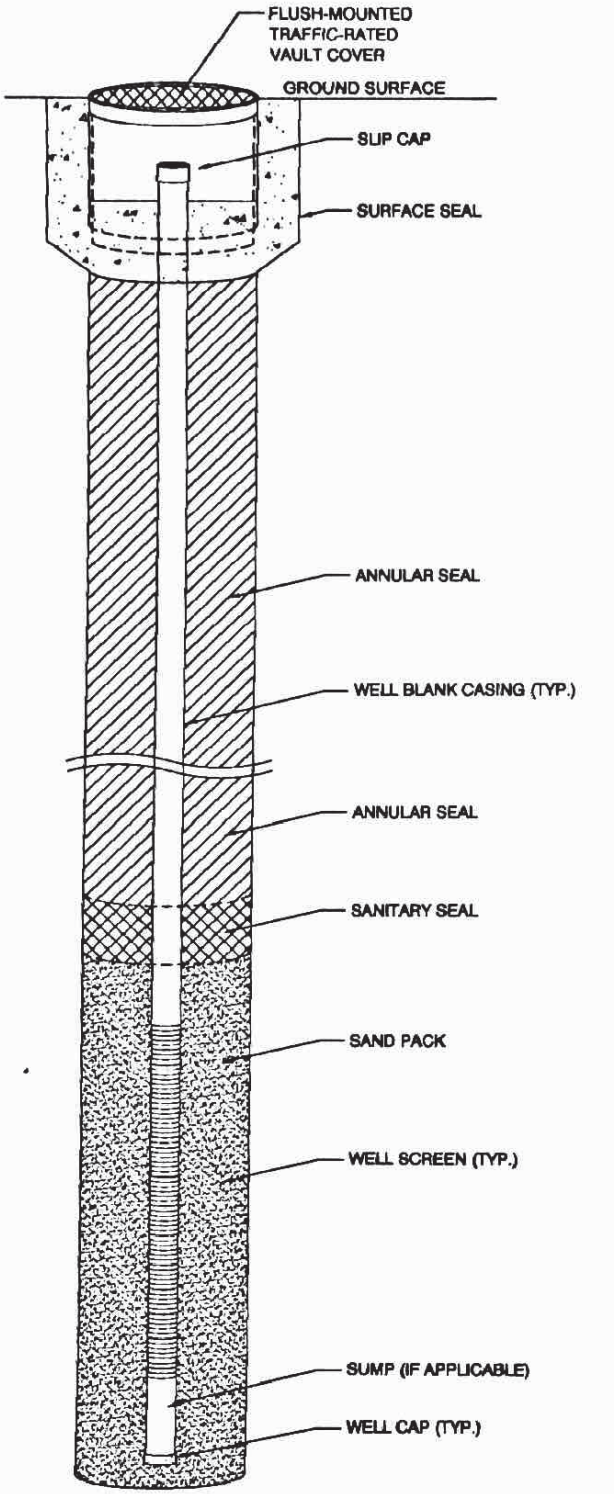
FIGURE:

PROJECT: Elegant Cleaners

DATE:

ENCON Solutions, Inc

C:\Drawing Files\ENCON Solutions\ Standard Figures\Standard MW W-Traffic Rated Cover - 01/09/2015



TOTAL DEPTH OF BOREHOLE _____

SURFACE SEAL INTERVAL	0" - 3"
TYPE OF SURFACE SEAL	concrete
ANNULAR SEAL INTERVAL	3" - 2.5'
TYPE OF ANNULAR SEAL	Neat cement
SANITARY SEAL INTERVAL	2.5' - 4.5'
TYPE OF SANITARY SEAL	bentonite
DIAMETER OF WELL CASING	1/4"
TYPE OF WELL CASING	teflon tubing
SAND PACK INTERVAL	4.5' - 5.5'
TYPE OF SAND PACK	#2/12
SCREEN INTERVAL	at 5'
DESCRIPTION OF SCREEN	stone diffuser
DEPTH OF WELL	5'
DIAMETER OF BOREHOLE	2"
DEPTH OF BOREHOLE	5.5'

VW - 3

SITE ADDRESS: 1208 Lincoln Ave, Alameda CA

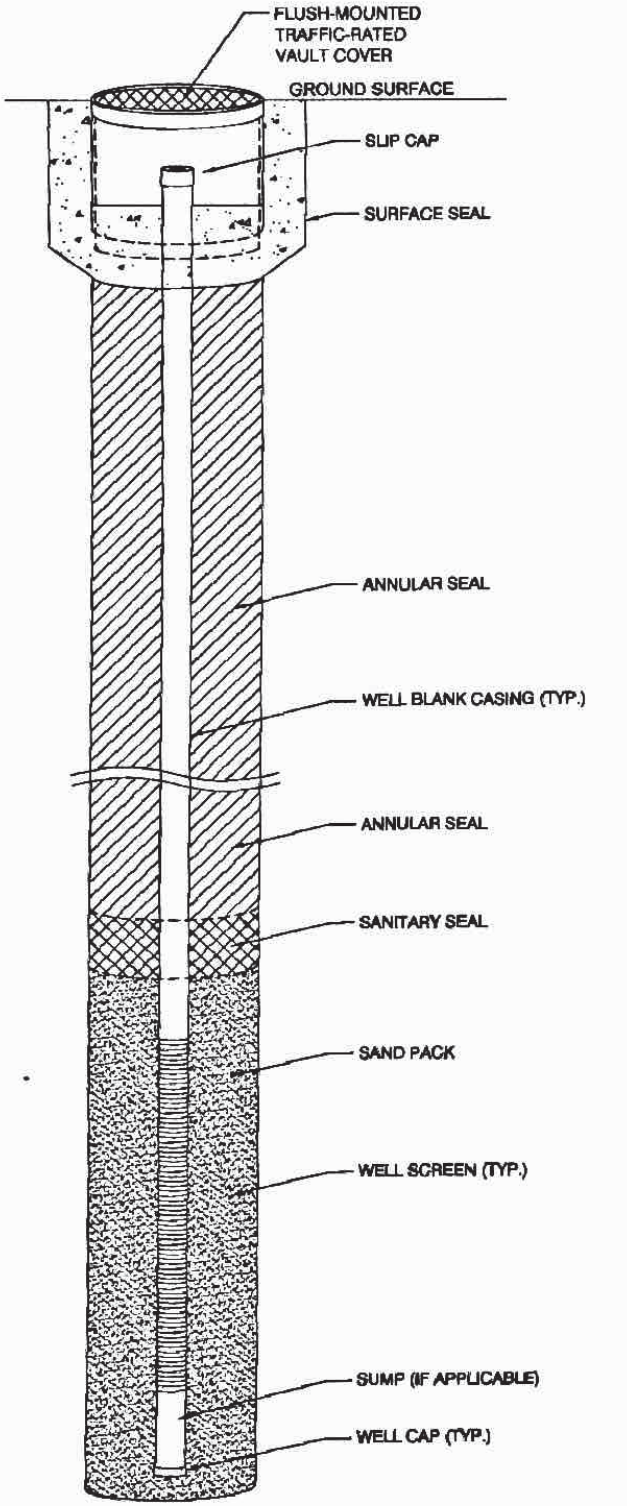
FIGURE:

PROJECT: Elegant Cleaners

DATE:

ENCON Solutions, Inc

C:\Drawing Files\ENCON Solutions_Standard Figures\Standard MW W-Traffic Rated Cover - 01/08/2015



TOTAL DEPTH OF BOREHOLE _____

SURFACE SEAL INTERVAL	0" - 3"
TYPE OF SURFACE SEAL	concrete
ANNULAR SEAL INTERVAL	3" - 2.5'
TYPE OF ANNULAR SEAL	Neat cement
SANITARY SEAL INTERVAL	2.5' - 4.5'
TYPE OF SANITARY SEAL	bentonite
DIAMETER OF WELL CASING	1/4"
TYPE OF WELL CASING	teflon tubing
SAND PACK INTERVAL	4.5' - 5.5'
TYPE OF SAND PACK	#2/12
SCREEN INTERVAL	at 5'
DESCRIPTION OF SCREEN	stone diffuser
DEPTH OF WELL	5'
DIAMETER OF BOREHOLE	2"
DEPTH OF BOREHOLE	5.5'

VW-4

SITE ADDRESS: 1208 Lincoln Ave, Alameda CA

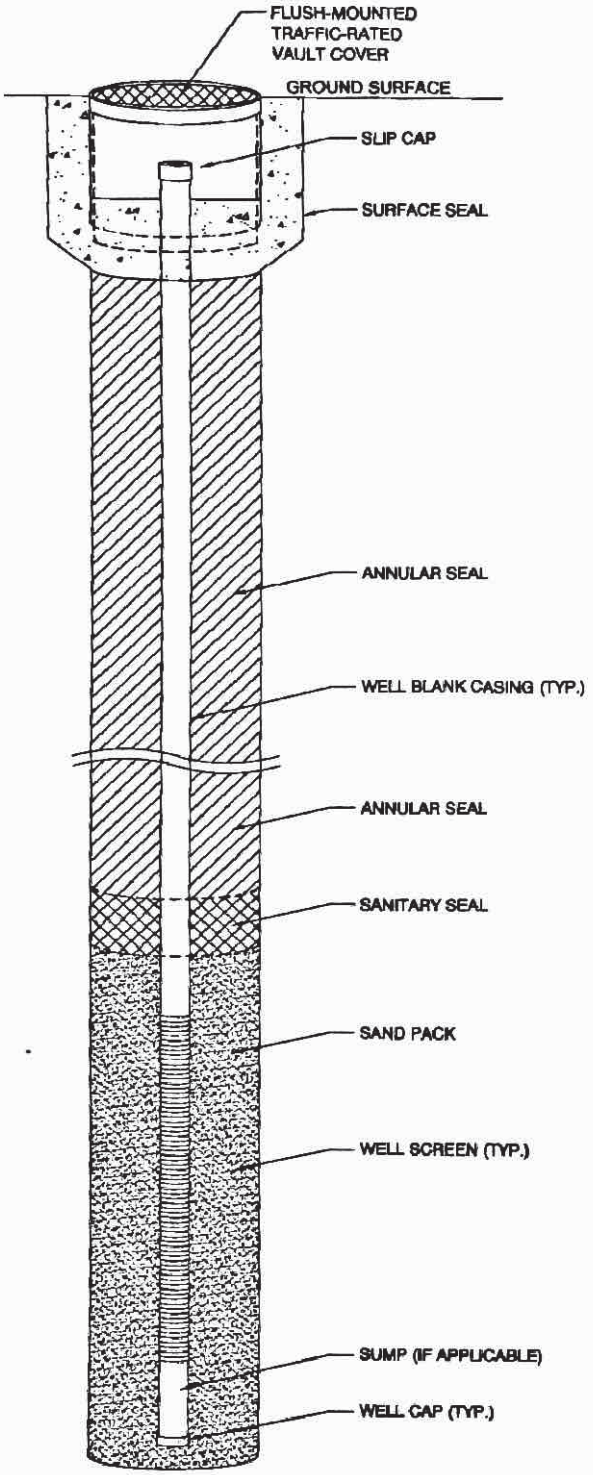
FIGURE:

PROJECT: Elegant Cleaners

DATE:

ENCON Solutions, Inc.

C:\Drawing Files\ENCON Solutions_Standard Figures\Standard MW W-Traffic Rated Cover - 01/08/2015



TOTAL DEPTH OF BOREHOLE _____

SURFACE SEAL INTERVAL	0" - 3"
TYPE OF SURFACE SEAL	concrete
ANNULAR SEAL INTERVAL	3" - 2.5'
TYPE OF ANNULAR SEAL	Neat cement
SANITARY SEAL INTERVAL	2.5' - 4.5'
TYPE OF SANITARY SEAL	bentonite
DIAMETER OF WELL CASING	1/4"
TYPE OF WELL CASING	teflon tubing
SAND PACK INTERVAL	4.5' - 5.5'
TYPE OF SAND PACK	# 2/12
SCREEN INTERVAL	at 5'
DESCRIPTION OF SCREEN	stone diffuser
DEPTH OF WELL	5'
DIAMETER OF BOREHOLE	2"
DEPTH OF BOREHOLE	5.5'

VW-5

SITE ADDRESS: 1208 Lincoln Ave, Alameda CA

FIGURE:

PROJECT: Elegant Cleaners

DATE:

ENCON Solutions, Inc.

APPENDIX G:

WELL DEVELOPMENT LOGS

WELL DEVELOPMENT DATA SHEET

Well I.D. MW-1	PAGE 2 OF 2
Project #: 14121-GR1	Client: ENCON Solutions

TIME	TEMP (F)	pH	Cond. (mS or (µS))	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
1312		Resume	purge w/ Master flex			
1313	66.9	7.55	403	69	1.1	
1314	68.4	7.36	425	781	1.2	
1315	69.3	7.58	399	448	1.3	
1316	69.6	7.67	393	183	1.4	
1317	69.8	7.69	390	88	1.5	
1318	69.7	7.71	388	72	1.6	
1319	69.7	7.71	387	49	1.7	
1320	70.1	7.71	386	50	1.8	
1321	69.9	7.71	385	27	1.9	
1322	70.1	7.72	384	34	2.0	
1323	70.4	7.72	383	22	2.1	
1324	70.3	7.73	382	20	2.2	TD - 15.34

WELL DEVELOPMENT DATA SHEET

Project #: 141121-GR1	Client: Encon Solutions
Developer: GR	Date Developed: 11/21/2014
Well I.D. MW-2	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 19.57 After 19.61	Depth to Water: Before 9.95 After 10.53
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):	Well dia.		VCF
$\{12 \times (d^2/4) \times \pi\} / 231$	2"	=	0.16
where	3"	=	0.37
12 = in / foot	4"	=	0.65
d = diameter (in.)	6"	=	1.47
π = 3.1416	10"	=	4.08
231 = in 3/gal	12"	=	6.87

1.5	X	10		15.0
1 Case Volume		Specified Volumes	=	gallons

Purging Device:
- ☐ Bailer
- ☒ Master flex Peristaltic Pump
- ☐ Electric Submersible
- ☐ Suction Pump
- ☐ Positive Air Displacement

Type of Installed Pump: none
Other equipment used: 2" surge block

TIME	TEMP (F)	pH	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
1110	Begin	swabbing	well		~20min	
1135	Begin	purging	with	Master flex	pump	
1137	66.1	7.22	1299	>1000	1.5	very turbid w/ silt
1139	66.5	7.17	1130	>1000	3.0	
1141	66.6	7.02	872	>1000	4.5	on hard bottom
1143	66.7	6.91	804	>1000	6.0	becoming less turbid
1145	66.6	6.83	710	>1000	7.5	
1147	66.6	6.78	708	>1000	9.0	
1149	66.6	6.75	694	>1000	10.5	
1151	66.7	6.74	662	932	12.0	
1153	66.7	6.72	628	411	13.5	
1155	66.9	6.69	617	238	15.0	
1157	66.9	6.68	591	142	16.5	

Did Well Dewater? No	If yes, note above.	Gallons Actually Evacuated:	27.0

WELL DEVELOPMENT DATA SHEET

Well I.D. MW-2	PAGE 2 OF 2
Project #: 141121-GR1	Client: Encon Solutions

TIME	TEMP (F)	pH	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
1159	66.9	6.67	584	100	18.0	
1201	66.7	6.67	538	65	19.5	
1203	66.8	6.64	550	49	21.0	
1205	66.9	6.65	533	35	22.5	
1207	66.7	6.64	520	30	24.0	
1209	66.7	6.63	514	29	25.5	
1211	66.7	6.64	493	26	27.0	DTW - 10.53 / TD - 19.61

WELL DEVELOPMENT DATA SHEET

Project #: 141121-GR1	Client: Encon Solutions
Developer: GR	Date Developed: 11/21/2014
Well I.D. MW-3	Well Diameter: (circle one) (2) 3 4 6
Total Well Depth: Before 19.77 After 19.81	Depth to Water: Before 10.09 After 11.50
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):
{12 x (d^2/4) x π} /231
where
12 = in / foot
d = diameter (in.)
π = 3.1416
231 = in 3/gal

Well dia.		VCF
2"	=	0.16
3"	=	0.37
4"	=	0.65
6"	=	1.47
10"	=	4.08
12"	=	6.87

1.5	X	10	=	15.0
1 Case Volume		Specified Volumes		gallons

Purging Device:
- ☐ Bailer
- ☐ Suction Pump
- ☒ Master flex Peristaltic Pump
- ☐ Electric Submersible
- ☐ Positive Air Displacement

Type of Installed Pump: none
Other equipment used: 2" surge block

TIME	TEMP (F)	pH	Cond. (mS or (µS))	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
1000	Begin swabbing well.			~20 min		
1025	Begin purging well with Masterflex pump					
1027	65.1	6.57	1929	>1000	1.5	very turbid w/ silt.
1029	65.3	6.92	1448	>1000	3.0	
1031	65.2	6.92	883	>1000	4.5	on hard bottom
1033	65.2	6.81	790	>1000	6.0	
1035	65.2	6.79	777	>1000	7.5	becoming less turbid
1037	65.1	6.81	765	>1000	9.0	
1039	65.2	6.84	676	>1000	10.5	
1041	65.3	6.80	615	>1000	12.0	
1043	65.2	6.78	601	>1000	13.5	
1045	64.9	6.76	603	>1000	15.0	
1047	65.1	6.75	514	329	16.5	

Did Well Dewater? NO	If yes, note above.	Gallons Actually Evacuated:	22.5

WELL DEVELOPMENT DATA SHEET

Well I.D. MW-3	PAGE 2 OF 2
Project #: 14021-GR1	Client: ENCON Solutions

TIME	TEMP (F)	pH	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
1049	65.1	6.72	493	242	18.0	
1051	65.2	6.72	470	109	19.5	
1053	65.2	6.73	462	67	21.0	
1055	64.7	6.72	456	42	22.5	DTW - 11.50 / TD - 19.81

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME Encon @ Elegant Cleaners - Alameda, CA				PROJECT NUMBER 140121 - GR1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
Myron L Ultrameter II	6219985	11/21/2014 @ 0915	3900 us cond	3900	yes	17.2°C	GR
			7.0 10.0 4.0 pH	7.00 10.00 3.99	yes	17.1°C	GR

APPENDIX H:

SURVEY DATA

Mid Coast Engineers
Civil Engineers and Land Surveyors

70 Penny Lane, Suite A - Watsonville, CA 95076
phone: (831) 724-2580
fax: (831) 724-8025
e-mail: lee@midcoastengineers.com

Lee D. Vaage
Land Surveyor

Jeff S. Nielsen
Land Surveyor

December 22, 2014

Cora Olson
Encon Solutions
3255 Wilshire Boulevard #1508
Los Angeles, CA 90010

Re: **Elegant Cleaners, 1208 Lincoln Avenue, Alameda, California**; ENCON Project, MCE Job No. 14157

Dear Ms. Olson,

As you requested, on December 19 we surveyed three monitoring wells located at the referenced site. Our findings are shown on the attached sheets, expressed in State Plane Coordinates and Latitude/Longitude.

A notch was cut in the north rim of the PVC casing (toc) and a cross chiseled in the north rim of the standard box (tob).

Measurements were obtained from conventional survey techniques in combination with GPS techniques (Code CGPS), using control points HT0882 (941 4750 TIDAL 7) and HT3553 (941 4750 R TIDAL) as published by NGS/NOAA and listed on their website. Latitude and Longitude as shown were determined from the California Coordinate System, Zone 3, NAD 83 Datum, 2010.00 EPOCH. The accuracy range of the reported information is +/- 1cm. GPS equipment is the Leica iRover system (Code LIROV).

The benchmark used for this survey is HT0882, as mentioned above, a bench mark disk set in a concrete seawall 59 feet west of the center of 5th Street and north of the extended center of Atlantic Avenue in Alameda. Elevation = 9.13 feet, NAVD 88 datum.

Please let me know if you have questions or need additional information.

Yours truly,

Lee D. Vaage

	A	B	C	D	E	F	G	H	I	J	K	L
1	**ELEGANT CLEANERS**											
2	**1208 Lincoln Avenue**											
3	**Alameda, California**											
4												
5	**ENCON Project**											
6												
7	Project : 14157											
8	User name MCE Date & Time 10:27:59 AM 12/22/2014											
9	Coordinate System US State Plane 1983 Zone California Zone 3 0403											
10	Project Datum NAD 1983 (Conus)											
11	Vertical Datum NAVD 88											
12	Coordinate Units US survey feet											
13	Distance Units US survey feet											
14	Elevation Units US survey feet											
15												
16		MW-1	MW	12/19/2014	37.7744218	-122.2640508	CGPS	NAD83	1	Mid Coast Engineers	LIROV	top of casing
17		MW-2	MW	12/19/2014	37.7743476	-122.2640830	CGPS	NAD83	1	Mid Coast Engineers	LIROV	top of casing
18		MW-3	MW	12/19/2014	37.7743477	-122.2639439	CGPS	NAD83	1	Mid Coast Engineers	LIROV	top of casing

	A	B	C	D	E	F	G	H	I	J
1	**ELEGANT CLEANERS**									
2	**1208 Lincoln Avenue**									
3	**Alameda, California**									
4										
5	**ENCON Project**									
6										
7	Project : 14157									
8	User name MCE Date & Time 10:27:59 AM 12/22/2014									
9	Coordinate System US State Plane 1983 Zone California Zone 3 0403									
10	Project Datum NAD 1983 (Conus)									
11	Vertical Datum NAVD 88									
12	Coordinate Units US survey feet									
13	Distance Units US survey feet									
14	Elevation Units US survey feet									
15										
16		MW-1	12/19/2014	24.21	CGPS	88	0.5	Mid Coast Engineers	-0.18	BM NGS HT0882 EL=9.13 FEET
17		MW-2	12/19/2014	26.28	CGPS	88	0.5	Mid Coast Engineers	-0.40	BM NGS HT0882 EL=9.13 FEET
18		MW-3	12/19/2014	26.51	CGPS	88	0.5	Mid Coast Engineers	-0.32	BM NGS HT0882 EL=9.13 FEET

ELEGANT CLEANERS
1208 Lincoln Avenue
Alameda, California

ENCON Project

Project : 14157
User name MCE Date & Time 10:27:59 AM 12/22/2014
Coordinate System US State Plane 1983 Zone California Zone 3 0403
Project Datum NAD 1983 (Conus)
Vertical Datum NAVD 88
Coordinate Units US survey feet
Distance Units US survey feet
Elevation Units US survey feet

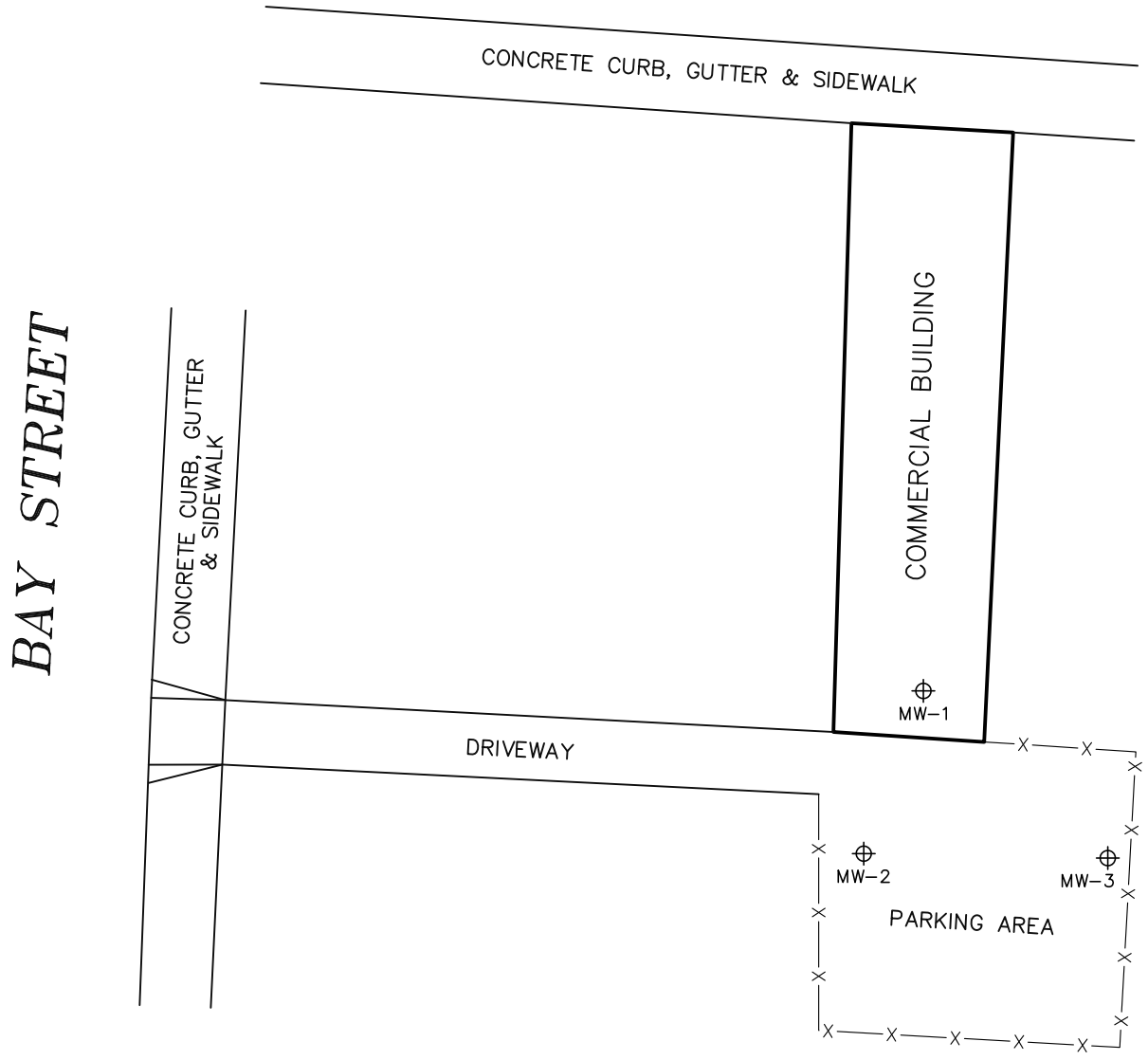
Point Number	Latitude	Longitude	Elevation	Description
13	37.774421760°N	122.264050788°W	24.21	MW-1toc
14	37.774421578°N	122.264051569°W	24.39	MW-1tob
9	37.774347610°N	122.264083045°W	26.28	MW-2toc
10	37.774347813°N	122.264083943°W	26.68	MW-2tob
11	37.774347679°N	122.263943903°W	26.51	MW-3toc
12	37.774347940°N	122.263944946°W	26.83	MW-3tob

ELEGANT CLEANERS
1208 Lincoln Avenue
Alameda, California

ENCON Project

Project : 14157
User name MCE Date & Time 10:27:59 AM 12/22/2014
Coordinate System US State Plane 1983 Zone California Zone 3 0403
Project Datum NAD 1983 (Conus)
Vertical Datum NAVD 88
Coordinate Units US survey feet
Distance Units US survey feet
Elevation Units US survey feet

Point Number	Northing	Easting	Elevation	Description
13	2109251.53	6051844.43	24.21	MW-1toc
14	2109251.47	6051844.20	24.39	MW-1tob
9	2109224.71	6051834.60	26.28	MW-2toc
10	2109224.79	6051834.34	26.68	MW-2tob
11	2109223.98	6051874.81	26.51	MW-3toc
12	2109224.08	6051874.51	26.83	MW-3tob



NOTES:

1. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
2. BENCHMARK IS NGS HT 0882, A DISK SET IN A CONCRETE SEAWALL WEST OF THE CENTER OF 5TH STREET IN ALAMEDA.
ELEVATION = 9.13 FEET, NAVD 88 DATUM.
3. SURVEYED AT THE REQUEST OF ENCON SOLUTIONS IN DECEMBER 2014.

SCALE IN FEET

0 30 60

MONITORING WELL LOCATION MAP FOR

ELEGANT CLEANERS

1208 LINCOLN AVENUE
ALAMEDA, CALIFORNIA

MCE
MID COAST ENGINEERS
CIVIL ENGINEERS AND LAND SURVEYORS
70 PENNY LANE SUITE A WATSONVILLE, CA 95076
(831) 724-2580

SCALE:	1" = 30'
JOB NO.	14157
DATE:	DEC. 22, 2014
SHEET:	1 OF 1

APPENDIX I:

STANDARD OPERATING METHODS:

SOIL GAS SAMPLING AND ANALYSIS

Soil Gas Sampling – Standard Operating Procedures
Encon Solutions, Inc.
December 2012

Equilibration Time

Subsurface conditions are disturbed during probe installation. To allow for the subsurface to equilibrate back to representative conditions, the following equilibration times are observed before proceeding with soil gas sampling:
1. For soil gas probes installed with the direct-push method, purge volume test, leak test and soil gas sampling will not be performed for at least two hours following soil gas probe installation;
2. For soil gas probes installed with hollow stem or hand auger drilling methods, purge volume test, leak test and soil gas sampling will not be performed for at least 48 hours after soil gas probe installation;
3. For soil gas probes installed with a combination of hand auger drilling or hollow stem auger and direct push methods, purge volume test, leak test and soil gas sampling will not be performed for at least two hours following vapor probe installation provided that the probe tip is not less than five feet (vertically or laterally) from the point where hollow-stem or hand-auger equipment was used. If the probe tip is located with this five-foot distance, purge volume test, leak test and soil gas sampling will not be performed for at least 48 hours after soil gas probe installation.

Soil Gas Assembly Tests

Shut-in, leak, and purge volume tests will be performed before collecting soil gas samples after the soil gas probe has been installed and properly equilibrated.

Shut-In Test

Prior to purging or sampling, a shut-in is be performed on each probe to check for leaks in the above-ground sampling system. The test is performed as follows:
• Assemble the above-ground valves, lines and fittings downstream from the top of the probe.
• Evacuate the system to an approximate measured vacuum of about 100 inches of water using a glass or plastic syringe or a vacuum pump.
• If a passivated stainless steel canister is used (i.e. EPA TO-15), the test is conducted while the sampling canister is attached with its valve in the closed position.
• Observe the vacuum gauge connected to the system for at least one minute. If there is any obvious loss of vacuum, the fittings are adjusted until the vacuum in the sample train does not noticeably dissipate.
• After the shut-in test is validated, the sampling train should not be altered.

Leak Test

A leak test is be performed for each probe to evaluate whether atmospheric air is introduced into the soil gas sample during the collection process. Atmospheric leakage may result in an underestimation of actual site contaminant concentrations or, alternatively, may introduce external contaminants into samples.

A leak test is performed for soil gas probes each time a soil gas sample is collected to evaluate the integrity of the sample using a liquid tracer (2-propanol or other appropriate compound). The liquid tracer compound is applied to towels or other clean adsorbent material and placed around the connections in the sampling train in order to evaluate potential leaks of ambient air into the sampling train. The liquid tracer will not be directly sprayed or poured onto a fitting, but rather applied to a towel and placed near the connection. Towels with the liquid tracer will be placed on the ground adjacent to the probe to evaluate soil column and probe construction breakthrough. The leak check compound selected should not be a suspected site-specific contaminant. Seal integrity is confirmed by analyzing the soil gas sample for the tracer compound.

Liquid leak check compounds are included in the laboratory analyte list. The laboratory reports quantify and annotate all detections of the leak check compound. If the concentration of the leak check compound is greater than or equal to 10 times the reporting limit for the target analyte(s), then probe corrective action is necessary. A soil gas probe should be decommissioned if the leak cannot be corrected. Replacement soil gas probes should be installed at least five feet from the location where the original soil gas probe was decommissioned due to a confirmed leak.

Purge Volume Test

A purge volume test is performed to ensure that stagnant air is removed from the sampling system and to ensure that samples are representative of subsurface conditions. The purge volume test is performed after the shut-in test and leak test. Site-specific probe purging and sample volume calibrations will be initially performed to evaluate the appropriate volume of gas to be purged from each probe prior to sample collection. This will be done by performing time-series sampling of at least one probe at each site to evaluate trends in soil gas concentrations as a function of purge volume. The test is normally performed on a probe located near the contaminant source zone and in a lithologic unit where soil gas concentrations are anticipated to be elevated (if known). The purge volume test is performed by collecting and analyzing a sample for target compounds after removing one, three and 10 purge volumes. The purge volume test samples are analyzed with the same analytical method as the constituents of concern. An example purge volume calculation spreadsheet is attached as Figure 2.

One probe purge volume includes the following volumes:

- The internal volume of tubing;
- The void space of the sand pack around the probe tip; and,
- The void space of the dry bentonite in the annular borehole space.

Sample containers are not included in the purge volume calculation except when non-evacuated glass bulbs are used. In those instances, the volume of the non-evacuated glass bulbs are added to the purge volume to account for mixing and dilution of gasses inside the glass bulb. The data

set includes the purge volume test as well as the flow rate, vacuum exerted on the formation (if any), and duration of each purge step.

Soil Gas Sample Collection

A battery-operated vacuum pump set at a flow rate of either 100 or 200 milliliters per minute (mL/min) is used for soil gas sampling. Flow rates between 100 to 200 mL/min and vacuums less than 100 inches of water are maintained during purging and sampling to minimize stripping (partitioning of vapors from pore liquids to soil gas), to prevent ambient air from diluting the soil gas samples and to reduce variability between samples. Maintaining these flow rates and vacuums will increase the likelihood that representative samples will be collected. A flow rate greater than 200 mL/min may be used when purging times are excessive, such as for deep wells with larger diameter boreholes or tubing. However, a vacuum of 100 inches of water or less will be maintained during sampling whenever a higher flow rate is used.

Soil gas samples will be collected from probes using the soil gas sampling system as shown in Figure 1. The soil gas sampling system is constructed of stainless steel, glass, Nylaflow™, and Teflon™ components. Instrumentation associated with the sampling system will be tested using the shut-in and leak testing methods described in Sections 3.2.1 and 3.2.2 above. After probe purging, soil gas samples are withdrawn from the moving sample stream using a clean glass syringe equipped with a gas-tight valve. Immediately following collection, the samples are loaded into the purge and trap system for analysis by EST's California ELAP Certified Mobile Laboratory using EPA Method 8260B (GC/MS) modified for soil gas.

Soil Gas Probe Abandonment or Semi-Permanent Completion

When soil gas sampling is completed, the tubing can either be removed or can remain in-place for subsequent sampling. If the abandonment method requires tube removal, the sample tubing will be removed and the remaining void will be filled with hydrated bentonite until slightly below grade. The remaining depression will be filled with concrete patch material and finished flush with grade. If it is desired to leave the tubing in-place for subsequent sampling, a small man-way cover can be installed at the surface to protect the probe. In this instance, the sample tubing will remain as a semi-permanent soil gas monitoring point, unless otherwise specified by the project manager.

Summary of Soil Gas Sample Analysis Methods and Procedures

Soil Gas Samples Analyzed for VOCs by EPA Method 8260B

Soil gas samples will be analyzed by EPA Method 8260B (GC/MS) using one of EST's California ELAP Certified Mobile Laboratories (ELAP Certification Numbers 2772, 2773 and 2767) for target volatile organic compounds (VOCs) specified by the project manager. Reporting limits for the target compounds will range from 0.01 to 1.0 micrograms per liter (µg/L) of gas depending on data quality objectives except when compound concentration exceeds the initial calibration range. If this occurs, the sample will be diluted using a smaller volume, which will result in raised reporting limits for the analysis.

A series of Quality Assurance/Quality Control (QA/QC) analyses will be performed prior to, during, and following the analysis of the soil gas samples. A summary of these QA/QC analyses is shown in Table 1 and each are described below.

Table 1

SUMMARY OF QUALITY ASSURANCE/QUALITY CONTROL ANALYSES FOR SOIL GAS SURVEYS

DESCRIPTION	FREQUENCY	ACCURACY/ PRECISION GOAL
Initial Multi-Point Calibration	Prior to the beginning of the soil gas survey.	20, 30% RSD (1)
Continuing Calibration Verification (CCV)	Mid-level calibration run for each analytical batch or once every 12 hours.	±15, ±25% D (2)
Initial Calibration Verification (ICV) (14 Target Compounds)	Need only to be analyzed after the initial multi-point calibration. If acceptable, not needed again or until next multi-point calibration is necessary.	±15, ±25% D (3)
Laboratory Control Sample (LCS)	After daily calibration check (optional).	Laboratory-generated control limits (4)
End of Run Calibration Check	At the end of the day if all samples from that day of analysis show non-detect (ND) result (optional)	At least 50% recovery (5)
Method Blank	One per batch.	<RL of target compounds, 75 to 125% recovery of surrogate compounds (6)
Equipment Blank	One per batch.	<RL of target compounds, 75 to 125% recovery of surrogate compounds (6)
Duplicate Samples	One per batch.	RPD ≤ 50% for all detected analytes
Replicate Samples	One per batch	RPD ≤ 50% for all detected analytes (7)

%RSD = Percent Relative Standard Deviation calculated based on the initial multi-point calibration.
%D = Percent Difference between the response factor obtained from the LCS, the daily ICV, and the average response factor initially calculated based on the multi-point calibration.
RL = Reporting Limit.
RPD = Relative Percent Difference.

(1) The %RDS goal for the initial multi-point calibration will be 20 percent for all compounds except for Dichlorodiflouromethane (Freon®-12, Vinyl Chloride (VC), Chloroethane (CE), Trichlorofluoromethane (Freon®-11, and 1,1,2-Trichloro-trifluoroethane (Freon®-113) for which the % RSD goal is 30 percent.
(2) The %D goal for the daily CCV will be ±15 percent for all compounds except for Freon®-12, Vinyl Chloride, Chloroethane, Freon®-11, and Freon®-113 for which the %D goal is ±25 percent.
(3) The %D goal for the ICV will be ±15 percent for all compounds except for Freon®-12, Vinyl Chloride, Chloroethane, Freon®-11, and Freon®-113 for which the %D goal is ±25 percent.
(4) The %D goal for the initial laboratory control standard are laboratory-generated for all compounds.
(5) A LCS at the detection limit concentration is analyzed. The recovery for each compound must be at least 50 percent.
(6) A method blank and equipment blank sample will be analyzed using ambient air. If volatile organic compounds (VOCs) are not detected, the ambient air sample will represent the background sample and syringe blank. If VOCs are detected in the ambient air sample, a syringe blank will be analyzed using ultra-high-purity helium or nitrogen gas.
(7) The ability to run replicate sample analysis is dependent on sample volume. Replicates are generally limited to samples collected in glass bulbs. Insufficient sample volume exists for samples collected in glass syringes.

Surrogate Compounds

Three (3) surrogate compounds will be added to all analysis runs. Surrogate compound concentrations will be within the calibration range. The percent recovery of the surrogate compounds will be calculated and reported with soil gas sampling results. The acceptance goal for surrogate recovery is ±25% difference from the true concentration of the surrogate compounds. Surrogate compounds added to each sample analysis run will include dibromofluoromethane, toluene-d8, and 4-bromofluorobenzene, each at a concentration of 12.5 µg/L.

GC/MS Used for Soil Gas Analysis

The GC/MS used for soil gas analysis will be calibrated using high-purity solvent-based standards obtained from certified vendors. Standards are typically prepared in high-purity methanol solvent. Calibration will be performed using solvent-based standards at varying concentration levels. If necessary, stock solvent-based standards will be diluted to an appropriate concentration. Diluted standards will be prepared by introducing a known volume of stock solvent-based standard into a known volume of high-purity solvent.

Initial GC/MS Calibration

Initial GC/MS calibration will be performed for volatile organic compounds (VOCs) prior to the soil gas survey. The GC/MS will be calibrated using multiple standard runs to establish a multipoint
calibration curve. The lowest standard will not be higher than 5 times the method reporting limit. The percent relative standard deviation (% RSD) of the response factor (RF) for the VOC target compounds must not exceed 20% except for trichlorofluoromethane (Freon®-11), dichlorodifluoromethane (Freon®-12), trichlorotrifuloroethane (Freon®-113), chloroethane (CE), and vinyl chloride (VC) which must not exceed 30% RSD. Initial calibration will also meet the Calibration Check Compounds (CCC)/System Performance Check Compounds (SPCC) requirements for EPA Method 8260B. Identification and quantification of compounds in the field will be conducted under the same analytical conditions as for the initial calibration.

Daily Calibration (Continuing Calibration Verification)

The calibration curve for each compound of interest will be verified with each analytical batch, or once every 12 hours for EPA Method 8260B. Continuing calibration verification (CCV) is performed by analyzing the mid-point calibration standard. The RF of each compound (except for Freon®-11, Freon®-12, Freon®-113, CE, and VC) must be within ±15% difference from the ARF of the initial calibration. The RF for Freon®-11, Freon®-12, Freon®-113, CE, and VC must be within ±25% difference from the ARF of the initial calibration in order to assume the calibration curve is valid. The CCV is performed at a mid-level calibration run for each analytical batch or once every 12 hours.

Initial Calibration Verification

A Initial Calibration Verification (ICV) will consist of a mid-range concentration of the initial calibration using the calibration standard solution. The RF of each compound (except for Freon®-11, Freon®-12, Freon®-113, CE, and VC) must be within ±15% difference from the ARF of the initial calibration. The RF for Freon®-11, Freon®-12, Freon®-113, CE, and VC must be within ±25% difference from the ARF of the initial calibration. ICV will also meet the Calibration Check Compounds (CCC)/System Performance Check Compounds (SPCC) requirements for EPA Method 8260B. Daily ICV will be performed prior to the first sample analysis of the day. Daily ICV also will be performed for compounds detected at a particular location to ensure accurate quantification. If results are acceptable, an additional ICV is not required until the next multi-point calibration is necessary.

Laboratory Control Sample (LCS) from a Source or a Lot

A laboratory control sample (LCS) from a source or a lot number other than the initial calibration standard will be analyzed to verify the true concentration of the initial calibration standard. The response factor (RF) for each compound must be within ±15% difference from the average response factor (ARF) of the initial calibration except for Freon®-11, Freon®-12, Freon®-113, CE, and VC, which must be within ±25% difference from the ARF of the initial calibration. This analysis for EPA Method 8260B is equivalent to the CCV and is redundant. This analysis is optional.

End of Run Calibration Check

A LCS can be analyzed at the reporting limit concentrations should the soil gas samples show no detections of volatile organic compounds. The recovery for each compound must be at least 50% of the true concentration of the LCS. If these criteria are not met, an additional LCS will be analyzed to satisfy these criteria. EPA Method 8260B does not require this analysis because the instrument is monitored by internal standards which are added to each sample. This analysis is optional and based on discretion of the project manager and DQOs.

Blank Samples

The syringes used for soil gas sample collection will be filled with ambient air or high-purity carrier-grade gas from a compressed gas cylinder. The ambient air or high-purity gas will be analyzed daily before running samples. The blank injection will serve to detect contamination of the syringe to be used for sampling and verify the effectiveness of equipment decontamination procedures.

Duplicate and Replicate Samples

Duplicate sample analysis evaluates the reproducibility (precision) of the sampling process. Replicate sample analysis evaluates the reproducibility (precision) of the laboratory's analytical ability and is used to estimate sample variability. The ability to run replicate sample analysis is dependent on sample volume. Replicates are generally limited to samples collected in glass bulbs. Insufficient sample volume exists for samples collected in glass syringes. Duplicate samples and replicate samples (depending on sample volume) will be analyzed at a minimum of one per batch of samples. Duplicate samples will be collected in a separate sample container at the same location and depth immediately after the original sample.

Decontamination Procedures

Soil gas sampling syringes and applicable fittings will be decontaminated by placing the equipment in the gas chromatograph oven and heated at a temperature ranging from 100 to 120 degree centigrade (°C) for a minimum of 30 minutes. The syringes will be allowed to cool to ambient temperature before use on the next sampling location.

Calculation of Soil Gas Probe Purge Volume

Parameter Enter Values

Tubing Length (Feet) 5
Tubing ID (Inches) Ent. 0 if Not Used 0.1875
Glass Bulb Volume (cc) Enter 0 if Not Used 0
Borehole Diameter (Inches) 1.625
Sand Pack Length (Feet) 1
Dry Bentonite Length (Feet) 0.5
Porosity Sand (%) 0.4
Porosity Bentonite (%) 0.5

Results

Tubing Volume (In_3) = 1.7
Tubing Volume (cc) = 27.1
Glass Bulb Volume (In_3) = 0.0
Glass Bulb Volume (cc) = 0.0
Sand Pore Volume (In_3) = 10.0
Sand Pore Volume (cc) = 163.1
Bentonite Pore Volume (In_3) 6.2
Bentonite Pore Volume (cc) 102.0
1 Purge Volume (In_3)= 17.8
1 Purge Volume (cc) = 292.2
3 Purge Volumes (In_3) = 53.5
3 Purge Volumes (cc) = 876.7
10 Purge Volumes (In_3) = 178.3
10 Purge Volumes (cc) = 2922.3
Time for 1 PV 100 cc/min (mn) = 2.9
Time for 1 PV 200 cc/min (min) = 1.5
Time for 3 PV 100 cc/min (min) = 8.8
Time for 3 PV 200 cc/min (min) = 4.4
Time for 10 PV 100 cc/min (min) = 29.2
Time for 10 PV 200 c/min (min) = 14.6
Note: Purge volume calculations and times include one glass bulb volume (if used).

APPENDIX J:

LABORATORY REPORTS

AND

CHAIN-OF-CUSTODY DOCUMENTATION:

SOIL VAPOR SAMPLES

3 December 2014

Mr. Tom Lindros
Encon Solutions, Inc.
3255 Wilshire Blvd., Suite 1510
Los Angeles, CA 90010

SUBJECT: DATA REPORT - Encon Solutions, Inc. Project # 1410097
Elegant Cleaners / 1208 Lincoln Avenue, Alameda, California

TEG Project # 41119F

Mr. Lindros:

Please find enclosed a data report for the samples analyzed from the above referenced project for Encon Solutions, Inc. The samples were analyzed on site in TEG's mobile laboratory. TEG conducted a total of 9 analyses on 9 soil vapor samples.

-- 9 analyses on soil vapors for volatile organic hydrocarbons by EPA method 8260B.

The results of the analyses are summarized in the enclosed tables. Applicable detection limits and calibration data are included in the tables.

TEG appreciates the opportunity to have provided analytical services to Encon Solutions, Inc. on this project. If you have any further questions relating to these data or report, please do not hesitate to contact us.

Sincerely,

Mark Jerpbak
Director, TEG-Northern California

Encon Solutions, Inc. Project # 1410097
Elegant Cleaners
1208 Lincoln Avenue
Alameda, California

TEG Project #41119F

EPA Method 8260B VOC Analyses of SOIL VAPOR in micrograms per cubic meter of Vapor

SAMPLE NUMBER:		Syringe Blank	VW-1	VW-2	VW-2	VW-2
SAMPLE DEPTH (feet):			5.0	5.0	5.0	5.0
PURGE VOLUME:			3	1	3	10
COLLECTION DATE:		11/19/14	11/19/14	11/19/14	11/19/14	11/19/14
COLLECTION TIME:		09:19	10:57	09:45	10:06	10:33
DILUTION FACTOR:		1	1	1	1	1
	RL					
Dichlorodifluoromethane	100	nd	nd	nd	nd	nd
Vinyl Chloride	100	nd	nd	nd	nd	nd
Chloroethane	100	nd	nd	nd	nd	nd
Trichlorofluoromethane	100	nd	nd	nd	nd	nd
1,1-Dichloroethene	100	nd	nd	nd	nd	nd
1,1,2-Trichloro-trifluoroethane	100	nd	nd	nd	nd	nd
Methylene Chloride	100	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	100	nd	nd	nd	nd	nd
1,1-Dichloroethane	100	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	100	nd	nd	nd	nd	nd
Chloroform	100	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	100	nd	nd	nd	nd	nd
Carbon Tetrachloride	100	nd	nd	nd	nd	nd
1,2-Dichloroethane	100	nd	nd	nd	nd	nd
Benzene	80	nd	nd	nd	nd	nd
Trichloroethene	100	nd	nd	nd	nd	nd
Toluene	200	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	100	nd	nd	nd	nd	nd
Tetrachloroethene	100	nd	450	12000	13000	12000
Ethylbenzene	100	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	100	nd	nd	nd	nd	nd
m,p-Xylene	200	nd	nd	nd	nd	nd
o-Xylene	100	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	100	nd	nd	nd	nd	nd
1,1 Difluoroethane (leak check)	10000	nd	nd	nd	nd	nd
Surrogate Recovery (DBFM)		98%	98%	99%	97%	99%
Surrogate Recovery (Toluene-d8)		93%	96%	94%	93%	94%
Surrogate Recovery (1,4-BFB)		86%	90%	84%	82%	86%

'RL' Indicates reporting limit at a dilution factor of 1
'nd' Indicates not detected at listed reporting limits

Analyses performed in TEG-Northern California's lab
Analyses performed by: Mr. Leif Jonsson

11350 Monier Park Place, Rancho Cordova, CA 95742 • Phone (916) 853-8010 • Fax (916) 853-8020

teg

Encon Solutions, Inc. Project # 1410097
Elegant Cleaners
1208 Lincoln Avenue
Alameda, California

TEG Project #41119F

EPA Method 8260B VOC Analyses of SOIL VAPOR in micrograms per cubic meter of Vapor

SAMPLE NUMBER:		VW-3	VW-3 dup	VW-4	VW-5	SS-1
SAMPLE DEPTH (feet):		5.0	5.0	5.0	5.0	0.25
PURGE VOLUME:		3	3	3	3	3
COLLECTION DATE:		11/19/14	11/19/14	11/19/14	11/19/14	11/19/14
COLLECTION TIME:		11:20	11:20	12:01	12:23	12:50
DILUTION FACTOR:		1	1	1	1	1
	RL					
Dichlorodifluoromethane	100	nd	nd	nd	nd	nd
Vinyl Chloride	100	nd	nd	nd	nd	nd
Chloroethane	100	nd	nd	nd	nd	nd
Trichlorofluoromethane	100	nd	nd	nd	nd	nd
1,1-Dichloroethene	100	nd	nd	nd	nd	nd
1,1,2-Trichloro-trifluoroethane	100	nd	nd	nd	nd	nd
Methylene Chloride	100	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	100	nd	nd	nd	nd	nd
1,1-Dichloroethane	100	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	100	nd	nd	nd	nd	nd
Chloroform	100	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	100	nd	nd	nd	nd	nd
Carbon Tetrachloride	100	nd	nd	nd	nd	nd
1,2-Dichloroethane	100	nd	nd	nd	nd	nd
Benzene	80	nd	nd	nd	nd	nd
Trichloroethene	100	nd	nd	nd	nd	nd
Toluene	200	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	100	nd	nd	nd	nd	nd
Tetrachloroethene	100	9300	10000	4600	930	7000
Ethylbenzene	100	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	100	nd	nd	nd	nd	nd
m,p-Xylene	200	nd	nd	nd	nd	nd
o-Xylene	100	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	100	nd	nd	nd	nd	nd
1,1 Difluoroethane (leak check)	10000	nd	nd	nd	nd	nd
Surrogate Recovery (DBFM)		104%	95%	96%	97%	95%
Surrogate Recovery (Toluene-d8)		96%	95%	93%	92%	92%
Surrogate Recovery (1,4-BFB)		92%	90%	82%	86%	95%

'RL' Indicates reporting limit at a dilution factor of 1
'nd' Indicates not detected at listed reporting limits

Analyses performed in TEG-Northern California's lab
Analyses performed by: Mr. Leif Jonsson

11350 Monier Park Place, Rancho Cordova, CA 95742 • Phone (916) 853-8010 • Fax (916) 853-8020

TEG Project #41119F

CALIBRATION DATA - Calibration Check Compounds

	Vinyl Chloride	1,1 DCE	Chloroform	1,2 DCP	Toluene	Ethylbenzene
Midpoint	10.0	10.0	10.0	10.0	10.0	10.0
Continuing Calibration - Midpoint						
11/19/14	8.6	10.0	10.0	9.9	9.5	10.2
	86%	100%	100%	99%	95%	102%

APPENDIX K:

GROUNDWATER WELL MONITORING AND PURGING RECORDS

WELL GAUGING DATA

Project # 141125-DC1 Date 11/25/14 Client ENCON SOLUTIONS

Site ELEGANT CLEANERS, 1208 LINCOLN AVE, ALAMEDA, CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or (TOC)	Notes
MW-1	0806	3/4					7.82	15.32		
MW-2	0810	2					9.82	19.65		
MW-3	0814	2					10.00	19.90	↓	

WELLHEAD INSPECTION CHECKLIST

Client ENCON SOLUTIONS Date 11/25/14

Site Address 1208 LINCOLN AVE, ALAMEDA, CA

Job Number 141125-DC1 Technician DC

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-1	X				NL			
MW-2	X				NL			
MW-3	X				NL			

NOTES:

WELL MONITORING DATA SHEET

Project #: 141125-DC1	Client: ENCON SOLUTIONS
Sampler: DC	Date: 11/25/14
Well I.D.: MW-1	Well Diameter: 2 3 4 6 8 (3/4)
Total Well Depth (TD): 15.32	Depth to Water (DTW): 7.82
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.32	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; (Peristaltic) Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer) Extraction Port; Dedicated Tubing; Other:_____

3/4" = 0.02

1 Case Volume	Specified Volumes	Calculated Volume
0.1 (Gals.) X	3	= 0.3 Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0903	67.9	6.88	481	>1000	0.1	LIGHT BROWN
0905	68.6	6.88	479	>1000	0.2	LIGHT BROWN
0907	68.7	6.90	474	>1000	0.3	LIGHT BROWN

Did well dewater? Yes (No) Gallons actually evacuated: 0.3

Sampling Date: 11/25/14 Sampling Time: 0910 Depth to Water: 8.74

Sample I.D.: MW-1 Laboratory: Kiff CalScience (Other A SSET)

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) (Other:) SEE COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 141125-DC1	Client: ENCON SOLUTIONS
Sampler: DC	Date: 11/25/14
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 19.65	Depth to Water (DTW): 9.82
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.78	

Purge Method: Bailer; (Disposable Bailer); Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other:_____

1.5 (Gals.) X	3	= 4.5 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0824	65.5	6.61	599	>1000	1.5	BROWN
0827	66.1	6.50	555	>1000	3.0	BROWN
0830	66.0	6.52	541	>1000	4.5	BROWN

Did well dewater? Yes (No) Gallons actually evacuated: 4.5

Sampling Date: 11/25/14 Sampling Time: 0835 Depth to Water: 10.04

Sample I.D.: MW-2 Laboratory: Kiff CalScience (Other ~~ABC~~)

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) (Other:) SEE COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 141125-DC1	Client: ENCON SOLUTIONS
Sampler: DC	Date: 11/25/14
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 19.90	Depth to Water (DTW): 10.00
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.98	

Purge Method: Bailer; (Disposable Bailer); Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: _____

1.5 (Gals.) X 3 = 4.5 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0844	63.6	6.77	882	>1000	1.5	BROWN
0847	65.0	6.75	806	>1000	3.0	BROWN
0850	64.8	6.72	797	>1000	4.5	BROWN

Did well dewater? Yes (No) Gallons actually evacuated: 4.5

Sampling Date: 11/25/14 Sampling Time: 0855 Depth to Water: 10.94

Sample I.D.: MW-3 Laboratory: Kiff CalScience Other ASSET

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) (Other:) SEE COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME ENCINO & ELEGANT CLEANERS, 1205 LINCOLN AVE ALAMEDA, CA				PROJECT NUMBER 141125-DC1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
MYRON L ULTRAMETER	6209492	11/25/14 0750	pH 7,10,4	7.02, 10.01, 4.01	ⓨ 18°C Y	18°C	DC
↓	↓	↓	COND 3900uS/cm	3896uS/cm	Y	18°C	DC

SPH or Purge Water Drum Log

Client: Encon Solutions

Site Address: 1208 Lincoln Ave. - Alameda, CA

STATUS OF DRUM(S) UPON ARRIVAL						
Date	11/21/2014	11/25/14				
Number of drum(s) empty:						
Number of drum(s) 1/4 full:						
Number of drum(s) 1/2 full:						
Number of drum(s) 3/4 full:	1	1				
Number of drum(s) full:	1	2				
Total drum(s) on site:	2	3				
Are the drum(s) properly labeled?	NO	YES				
Drum ID & Contents:	Soil Cuttings	H_2O / Soil				
If any drum(s) are partially or totally filled, what is the first use date:		11/21/14				

- If you add any SPH to an empty or partially filled drum, drum must have at least 20 gals. of Purgewater or DI Water.

-If drum contains SPH, the drum MUST be steel AND labeled with the appropriate label.

-All BTS drums MUST be labeled appropriately.

STATUS OF DRUM(S) UPON DEPARTURE						
Date	11/21/2014	11/25/14				
Number of drums empty:						
Number of drum(s) 1/4 full:		1				
Number of drum(s) 1/2 full:						
Number of drum(s) 3/4 full:	1	1				
Number of drum(s) full:	2	2				
Total drum(s) on site:	3	4				
Are the drum(s) properly labeled?	Yes / NO	YES				
Drum ID & Contents:	purge H_2O / soil cuttings	H_2O / Soil				

LOCATION OF DRUM(S)
Describe location of drum(s): Near MW-2 by West Gate.

FINAL STATUS						
Number of new drum(s) left on site this event	1	1				
Date of inspection:	11/21/14	11/25/14				
Drum(s) labelled properly:	yes	YES				
Logged by BTS Field Tech:	GR	DC				
Office reviewed by:						

APPENDIX L:

LABORATORY REPORTS

AND

CHAIN-OF-CUSTODY DOCUMENTATION:

GROUNDWATER SAMPLES

December 04, 2014

Thomas E. Lindros
ENCON Solutions Inc.
3255 Wilshire Blvd. Suite 1508
Los Angeles, CA 90010

TEL: (213) 380-0555
FAX: (213) 380-0505

CA-ELAP No.: 2676
NV Cert. No.: NV-00922

Workorder No.: N013987

RE: Elegant Cleaners, 1410097

Attention: Thomas E. Lindros

Enclosed are the results for sample(s) received on November 26, 2014 by ASSET Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 or Molky Brar at (562)-881-3622 if we can be of further assistance to your company.

Sincerely,

Molky Brar
Project Manager

Nancy Liburdi for

Glen Gesmundo
QA Manager

CLIENT: ENCON Solutions Inc.
Project: Elegant Cleaners, 1410097
Lab Order: N013987

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

Samples were received intact with proper chain of custody documentation.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Samples were analyzed within method holding time.

Analytical Comments for EPA 8260B:

Laboratory Control Sample (LCS) recovery biased high for trans-1,2-Dichloroethene. Sample results were non-detect (ND) for this analyte therefore reanalysis of the sample was not necessary.

Matrix Spike Duplicate (MSD) is outside recovery criteria for some analytes possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

RPD for Matrix Spike (MS)/Matrix Spike Duplicate (MSD) is outside criteria for some analytes; however, the analytical batch was validated by the Laboratory Control Sample (LCS).

ASSET Laboratories

Date: *04-Dec-14*

CLIENT: ENCON Solutions Inc.
Project: Elegant Cleaners, 1410097
Lab Order: N013987
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N013987-001A	MW-1	Groundwater	11/25/2014 9:10:00 AM	11/26/2014	12/4/2014
N013987-002A	MW-2	Groundwater	11/25/2014 8:35:00 AM	11/26/2014	12/4/2014
N013987-003A	MW-3	Groundwater	11/25/2014 8:55:00 AM	11/26/2014	12/4/2014

CLIENT: ENCON Solutions Inc.
Lab Order: N013987
Project: Elegant Cleaners, 1410097
Lab ID: N013987-001A

Client Sample ID: MW-1
Collection Date: 11/25/2014 9:10:00 AM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141203A QC Batch: P14VW191 PrepDate: Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,1,1-Trichloroethane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,1,2,2-Tetrachloroethane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,1,2-Trichloroethane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,1-Dichloroethane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,1-Dichloroethene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,1-Dichloropropene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,2,3-Trichlorobenzene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,2,3-Trichloropropane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,2,4-Trichlorobenzene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,2-Dibromo-3-chloropropane	ND	1.0		µg/L	1	12/3/2014 06:53 PM
1,2-Dibromoethane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,2-Dichlorobenzene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,2-Dichloroethane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,2-Dichloropropane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,3-Dichlorobenzene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,3-Dichloropropane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
1,4-Dichlorobenzene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
2,2-Dichloropropane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
2-Chlorotoluene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
4-Chlorotoluene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
4-Isopropyltoluene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Benzene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Bromobenzene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Bromodichloromethane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Bromoform	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Bromomethane	ND	1.0		µg/L	1	12/3/2014 06:53 PM
Carbon tetrachloride	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Chlorobenzene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Chloroethane	ND	1.0		µg/L	1	12/3/2014 06:53 PM
Chloroform	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Chloromethane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
cis-1,2-Dichloroethene	ND	0.50		µg/L	1	12/3/2014 06:53 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ENCON Solutions Inc.
Lab Order: N013987
Project: Elegant Cleaners, 1410097
Lab ID: N013987-001A

Client Sample ID: MW-1
Collection Date: 11/25/2014 9:10:00 AM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141203A QC Batch: P14VW191 PrepDate: Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Dibromochloromethane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Dibromomethane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Dichlorodifluoromethane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Ethylbenzene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Freon-113	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Hexachlorobutadiene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Isopropylbenzene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
m,p-Xylene	ND	1.0		µg/L	1	12/3/2014 06:53 PM
Methylene chloride	ND	2.0		µg/L	1	12/3/2014 06:53 PM
MTBE	ND	0.50		µg/L	1	12/3/2014 06:53 PM
n-Butylbenzene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
n-Propylbenzene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Naphthalene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
o-Xylene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
sec-Butylbenzene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Styrene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
tert-Butylbenzene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Tetrachloroethene	29	0.50		µg/L	1	12/3/2014 06:53 PM
Toluene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
trans-1,2-Dichloroethene	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Trichloroethene	0.65	0.50		µg/L	1	12/3/2014 06:53 PM
Trichlorofluoromethane	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Vinyl chloride	ND	0.50		µg/L	1	12/3/2014 06:53 PM
Surr: 1,2-Dichloroethane-d4	95.8	76-124		%REC	1	12/3/2014 06:53 PM
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	12/3/2014 06:53 PM
Surr: Dibromofluoromethane	97.2	80-124		%REC	1	12/3/2014 06:53 PM
Surr: Toluene-d8	102	80-120		%REC	1	12/3/2014 06:53 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ENCON Solutions Inc.
Lab Order: N013987
Project: Elegant Cleaners, 1410097
Lab ID: N013987-002A

Client Sample ID: MW-2
Collection Date: 11/25/2014 8:35:00 AM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141203A QC Batch: P14VW191 PrepDate: Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,1,1-Trichloroethane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,1,2,2-Tetrachloroethane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,1,2-Trichloroethane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,1-Dichloroethane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,1-Dichloroethene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,1-Dichloropropene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,2,3-Trichlorobenzene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,2,3-Trichloropropane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,2,4-Trichlorobenzene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,2-Dibromo-3-chloropropane	ND	1.0		µg/L	1	12/3/2014 07:18 PM
1,2-Dibromoethane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,2-Dichlorobenzene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,2-Dichloroethane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,2-Dichloropropane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,3-Dichlorobenzene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,3-Dichloropropane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
1,4-Dichlorobenzene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
2,2-Dichloropropane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
2-Chlorotoluene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
4-Chlorotoluene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
4-Isopropyltoluene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Benzene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Bromobenzene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Bromodichloromethane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Bromoform	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Bromomethane	ND	1.0		µg/L	1	12/3/2014 07:18 PM
Carbon tetrachloride	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Chlorobenzene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Chloroethane	ND	1.0		µg/L	1	12/3/2014 07:18 PM
Chloroform	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Chloromethane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
cis-1,2-Dichloroethene	ND	0.50		µg/L	1	12/3/2014 07:18 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ENCON Solutions Inc.
Lab Order: N013987
Project: Elegant Cleaners, 1410097
Lab ID: N013987-002A

Client Sample ID: MW-2
Collection Date: 11/25/2014 8:35:00 AM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141203A QC Batch: P14VW191 PrepDate: Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Dibromochloromethane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Dibromomethane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Dichlorodifluoromethane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Ethylbenzene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Freon-113	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Hexachlorobutadiene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Isopropylbenzene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
m,p-Xylene	ND	1.0		µg/L	1	12/3/2014 07:18 PM
Methylene chloride	ND	2.0		µg/L	1	12/3/2014 07:18 PM
MTBE	ND	0.50		µg/L	1	12/3/2014 07:18 PM
n-Butylbenzene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
n-Propylbenzene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Naphthalene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
o-Xylene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
sec-Butylbenzene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Styrene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
tert-Butylbenzene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Tetrachloroethene	8.8	0.50		µg/L	1	12/3/2014 07:18 PM
Toluene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
trans-1,2-Dichloroethene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Trichloroethene	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Trichlorofluoromethane	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Vinyl chloride	ND	0.50		µg/L	1	12/3/2014 07:18 PM
Surr: 1,2-Dichloroethane-d4	94.2	76-124		%REC	1	12/3/2014 07:18 PM
Surr: 4-Bromofluorobenzene	99.0	80-120		%REC	1	12/3/2014 07:18 PM
Surr: Dibromofluoromethane	94.4	80-124		%REC	1	12/3/2014 07:18 PM
Surr: Toluene-d8	102	80-120		%REC	1	12/3/2014 07:18 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ENCON Solutions Inc.
Lab Order: N013987
Project: Elegant Cleaners, 1410097
Lab ID: N013987-003A

Client Sample ID: MW-3
Collection Date: 11/25/2014 8:55:00 AM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141203A QC Batch: P14VW191 PrepDate: Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,1,1-Trichloroethane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,1,2,2-Tetrachloroethane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,1,2-Trichloroethane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,1-Dichloroethane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,1-Dichloroethene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,1-Dichloropropene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,2,3-Trichlorobenzene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,2,3-Trichloropropane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,2,4-Trichlorobenzene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,2-Dibromo-3-chloropropane	ND	1.0		µg/L	1	12/3/2014 07:43 PM
1,2-Dibromoethane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,2-Dichlorobenzene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,2-Dichloroethane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,2-Dichloropropane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,3-Dichlorobenzene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,3-Dichloropropane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
1,4-Dichlorobenzene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
2,2-Dichloropropane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
2-Chlorotoluene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
4-Chlorotoluene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
4-Isopropyltoluene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Benzene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Bromobenzene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Bromodichloromethane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Bromoform	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Bromomethane	ND	1.0		µg/L	1	12/3/2014 07:43 PM
Carbon tetrachloride	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Chlorobenzene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Chloroethane	ND	1.0		µg/L	1	12/3/2014 07:43 PM
Chloroform	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Chloromethane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
cis-1,2-Dichloroethene	ND	0.50		µg/L	1	12/3/2014 07:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ENCON Solutions Inc.	**Client Sample ID:**	MW-3
Lab Order:	N013987	**Collection Date:**	11/25/2014 8:55:00 AM
Project:	Elegant Cleaners, 1410097	**Matrix:**	GROUNDWATER
Lab ID:	N013987-003A		

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_141203A | QC Batch: P14VW191 | PrepDate: | Analyst: **QBM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Dibromochloromethane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Dibromomethane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Dichlorodifluoromethane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Ethylbenzene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Freon-113	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Hexachlorobutadiene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Isopropylbenzene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
m,p-Xylene	ND	1.0		µg/L	1	12/3/2014 07:43 PM
Methylene chloride	ND	2.0		µg/L	1	12/3/2014 07:43 PM
MTBE	ND	0.50		µg/L	1	12/3/2014 07:43 PM
n-Butylbenzene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
n-Propylbenzene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Naphthalene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
o-Xylene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
sec-Butylbenzene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Styrene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
tert-Butylbenzene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Tetrachloroethene	1.0	0.50		µg/L	1	12/3/2014 07:43 PM
Toluene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
trans-1,2-Dichloroethene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Trichloroethene	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Trichlorofluoromethane	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Vinyl chloride	ND	0.50		µg/L	1	12/3/2014 07:43 PM
Surr: 1,2-Dichloroethane-d4	94.4	76-124		%REC	1	12/3/2014 07:43 PM
Surr: 4-Bromofluorobenzene	98.7	80-120		%REC	1	12/3/2014 07:43 PM
Surr: Dibromofluoromethane	96.8	80-124		%REC	1	12/3/2014 07:43 PM
Surr: Toluene-d8	101	80-120		%REC	1	12/3/2014 07:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ENCON Solutions Inc.
Work Order: N013987
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P141203LCS** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **97005**
Client ID: **LCSW** Batch ID: **P14VW191** TestNo: **EPA 8260B** Analysis Date: **12/3/2014** SeqNo: **1884447**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	21.870	0.50	20.00	0	109	80	126				
1,1,1-Trichloroethane	20.030	0.50	20.00	0	100	77	120				
1,1,2,2-Tetrachloroethane	18.140	0.50	20.00	0	90.7	77	120				
1,1,2-Trichloroethane	18.840	0.50	20.00	0	94.2	77	122				
1,1-Dichloroethane	17.200	0.50	20.00	0	86.0	74	123				
1,1-Dichloroethene	19.640	0.50	20.00	0	98.2	71	128				
1,1-Dichloropropene	19.640	0.50	20.00	0	98.2	80	120				
1,2,3-Trichlorobenzene	18.890	0.50	20.00	0	94.4	80	126				
1,2,3-Trichloropropane	17.270	0.50	20.00	0	86.4	77	120				
1,2,4-Trichlorobenzene	18.340	0.50	20.00	0	91.7	80	128				
1,2,4-Trimethylbenzene	22.450	0.50	20.00	0	112	80	120				
1,2-Dibromo-3-chloropropane	18.870	1.0	20.00	0	94.4	62	133				
1,2-Dibromoethane	20.730	0.50	20.00	0	104	80	123				
1,2-Dichlorobenzene	21.610	0.50	20.00	0	108	80	120				
1,2-Dichloroethane	19.680	0.50	20.00	0	98.4	80	120				
1,2-Dichloropropane	18.120	0.50	20.00	0	90.6	80	120				
1,3,5-Trimethylbenzene	21.830	0.50	20.00	0	109	80	120				
1,3-Dichlorobenzene	20.800	0.50	20.00	0	104	80	120				
1,3-Dichloropropane	19.070	0.50	20.00	0	95.4	80	120				
1,4-Dichlorobenzene	19.610	0.50	20.00	0	98.0	80	120				
2,2-Dichloropropane	21.100	0.50	20.00	0	106	66	145				
2-Chlorotoluene	20.010	0.50	20.00	0	100	80	120				
4-Chlorotoluene	20.330	0.50	20.00	0	102	80	120				
4-Isopropyltoluene	20.840	0.50	20.00	0	104	80	120				
Benzene	19.580	0.50	20.00	0	97.9	80	120				
Bromobenzene	20.550	0.50	20.00	0	103	80	120				
Bromodichloromethane	20.140	0.50	20.00	0	101	80	120				
Bromoform	21.230	0.50	20.00	0	106	69	144				
Bromomethane	24.200	1.0	20.00	0	121	30	156				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ENCON Solutions Inc.
Work Order: N013987
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P141203LCS** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **97005**
Client ID: **LCSW** Batch ID: **P14VW191** TestNo: **EPA 8260B** Analysis Date: **12/3/2014** SeqNo: **1884447**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	22.320	0.50	20.00	0	112	72	137				
Chlorobenzene	20.320	0.50	20.00	0	102	80	120				
Chloroethane	19.570	1.0	20.00	0	97.9	61	137				
Chloroform	17.640	0.50	20.00	0	88.2	77	120				
Chloromethane	14.830	0.50	20.00	0	74.2	41	150				
cis-1,2-Dichloroethene	17.910	0.50	20.00	0	89.6	77	120				
cis-1,3-Dichloropropene	20.130	0.50	20.00	0	101	80	120				
Dibromochloromethane	20.950	0.50	20.00	0	105	80	120				
Dibromomethane	19.540	0.50	20.00	0	97.7	72	125				
Dichlorodifluoromethane	19.370	0.50	20.00	0	96.9	56	137				
Ethylbenzene	20.030	0.50	20.00	0	100	80	120				
Freon-113	19.350	0.50	20.00	0	96.8	71	132				
Hexachlorobutadiene	22.280	0.50	20.00	0	111	78	127				
Isopropylbenzene	20.610	0.50	20.00	0	103	80	120				
m,p-Xylene	41.610	1.0	40.00	0	104	80	120				
Methylene chloride	18.020	2.0	20.00	0	90.1	67	125				
MTBE	19.440	0.50	20.00	0	97.2	67	122				
n-Butylbenzene	19.380	0.50	20.00	0	96.9	80	120				
n-Propylbenzene	20.430	0.50	20.00	0	102	80	120				
Naphthalene	17.330	0.50	20.00	0	86.7	74	129				
o-Xylene	21.050	0.50	20.00	0	105	80	120				
sec-Butylbenzene	21.640	0.50	20.00	0	108	80	120				
Styrene	21.470	0.50	20.00	0	107	80	120				
tert-Butylbenzene	21.350	0.50	20.00	0	107	80	120				
Tetrachloroethene	20.270	0.50	20.00	0	101	80	120				
Toluene	19.960	0.50	20.00	0	99.8	80	120				
trans-1,2-Dichloroethene	24.450	0.50	20.00	0	122	75	122				S
Trichloroethene	20.140	0.50	20.00	0	101	80	120				
Trichlorofluoromethane	20.450	0.50	20.00	0	102	75	132				
Vinyl chloride	17.160	0.50	20.00	0	85.8	66	131				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ENCON Solutions Inc.
Work Order: N013987
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P141203LCS** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **97005**
Client ID: **LCSW** Batch ID: **P14VW191** TestNo: **EPA 8260B** Analysis Date: **12/3/2014** SeqNo: **1884447**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	22.830		25.00		91.3	76	124				
Surr: 4-Bromofluorobenzene	25.820		25.00		103	80	120				
Surr: Dibromofluoromethane	22.920		25.00		91.7	80	124				
Surr: Toluene-d8	25.560		25.00		102	80	120				

Sample ID: **P141203MB3** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **97005**
Client ID: **PBW** Batch ID: **P14VW191** TestNo: **EPA 8260B** Analysis Date: **12/3/2014** SeqNo: **1884448**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	1.0									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ENCON Solutions Inc.
Work Order: N013987
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P141203MB3** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **97005**
Client ID: **PBW** Batch ID: **P14VW191** TestNo: **EPA 8260B** Analysis Date: **12/3/2014** SeqNo: **1884448**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	1.0									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	1.0									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Freon-113	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	2.0									
MTBE	ND	0.50									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ENCON Solutions Inc.
Work Order: N013987
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P141203MB3** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **97005**
Client ID: **PBW** Batch ID: **P14VW191** TestNo: **EPA 8260B** Analysis Date: **12/3/2014** SeqNo: **1884448**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Styrene	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	23.350		25.00		93.4	76	124				
Surr: 4-Bromofluorobenzene	24.780		25.00		99.1	80	120				
Surr: Dibromofluoromethane	23.480		25.00		93.9	80	124				
Surr: Toluene-d8	25.490		25.00		102	80	120				

Sample ID: **N014024-005AMS** SampType: **MS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **97005**
Client ID: **ZZZZZZ** Batch ID: **P14VW191** TestNo: **EPA 8260B** Analysis Date: **12/3/2014** SeqNo: **1884450**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	22.270	0.50	20.00	0	111	80	122				
1,1,1-Trichloroethane	19.220	0.50	20.00	0	96.1	76	120				
1,1,2,2-Tetrachloroethane	18.550	0.50	20.00	0	92.8	74	124				
1,1,2-Trichloroethane	19.010	0.50	20.00	0	95.1	75	127				
1,1-Dichloroethane	16.840	0.50	20.00	0	84.2	76	124				
1,1-Dichloroethene	19.820	0.50	20.00	0	99.1	66	134				
1,1-Dichloropropene	19.690	0.50	20.00	0	98.4	79	115				
1,2,3-Trichlorobenzene	17.410	0.50	20.00	0	87.1	73	132				
1,2,3-Trichloropropane	18.610	0.50	20.00	0	93.0	74	121				
1,2,4-Trichlorobenzene	16.610	0.50	20.00	0	83.0	74	132				
1,2,4-Trimethylbenzene	21.850	0.50	20.00	0	109	54	137				
1,2-Dibromo-3-chloropropane	19.410	1.0	20.00	0	97.0	56	133				
1,2-Dibromoethane	20.720	0.50	20.00	0	104	78	126				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ENCON Solutions Inc.
Work Order: N013987
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **N014024-005AMS** SampType: **MS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **97005**
Client ID: **ZZZZZZ** Batch ID: **P14VW191** TestNo: **EPA 8260B** Analysis Date: **12/3/2014** SeqNo: **1884450**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	21.400	0.50	20.00	0	107	80	120				
1,2-Dichloroethane	19.880	0.50	20.00	0	99.4	80	120				
1,2-Dichloropropane	18.270	0.50	20.00	0	91.4	71	128				
1,3,5-Trimethylbenzene	21.210	0.50	20.00	0	106	71	126				
1,3-Dichlorobenzene	20.520	0.50	20.00	0	103	80	120				
1,3-Dichloropropane	19.790	0.50	20.00	0	99.0	80	120				
1,4-Dichlorobenzene	19.730	0.50	20.00	0	98.6	79	120				
2,2-Dichloropropane	21.180	0.50	20.00	0	106	63	150				
2-Chlorotoluene	20.040	0.50	20.00	0	100	77	120				
4-Chlorotoluene	20.000	0.50	20.00	0	100	78	119				
4-Isopropyltoluene	19.730	0.50	20.00	0	98.6	74	124				
Benzene	19.590	0.50	20.00	0	98.0	80	120				
Bromobenzene	20.610	0.50	20.00	0	103	80	120				
Bromodichloromethane	20.180	0.50	20.00	0	101	74	128				
Bromoform	22.170	0.50	20.00	0	111	65	137				
Bromomethane	20.670	1.0	20.00	0	103	20	155				
Carbon tetrachloride	22.390	0.50	20.00	0	112	74	125				
Chlorobenzene	20.920	0.50	20.00	0	105	80	120				
Chloroethane	19.630	1.0	20.00	0	98.2	43	151				
Chloroform	17.740	0.50	20.00	0	88.7	76	118				
Chloromethane	14.480	0.50	20.00	0	72.4	37	164				
cis-1,2-Dichloroethene	18.120	0.50	20.00	0	90.6	78	121				
cis-1,3-Dichloropropene	20.530	0.50	20.00	0	103	80	120				
Dibromochloromethane	21.120	0.50	20.00	0	106	80	120				
Dibromomethane	19.880	0.50	20.00	0	99.4	67	129				
Dichlorodifluoromethane	19.430	0.50	20.00	0	97.2	54	147				
Ethylbenzene	20.140	0.50	20.00	0	101	80	120				
Freon-113	19.120	0.50	20.00	0	95.6	66	138				
Hexachlorobutadiene	19.820	0.50	20.00	0	99.1	64	129				
Isopropylbenzene	20.130	0.50	20.00	0	101	78	121				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

CLIENT: ENCON Solutions Inc.
Work Order: N013987
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **N014024-005AMS** SampType: **MS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **97005**
Client ID: **ZZZZZZ** Batch ID: **P14VW191** TestNo: **EPA 8260B** Analysis Date: **12/3/2014** SeqNo: **1884450**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	42.180	1.0	40.00	0	105	80	120				
Methylene chloride	17.850	2.0	20.00	0	89.2	63	130				
MTBE	19.690	0.50	20.00	0	98.4	58	139				
n-Butylbenzene	17.140	0.50	20.00	0	85.7	73	126				
n-Propylbenzene	20.000	0.50	20.00	0	100	76	123				
Naphthalene	17.250	0.50	20.00	0	86.2	49	146				
o-Xylene	21.250	0.50	20.00	0	106	80	120				
sec-Butylbenzene	20.950	0.50	20.00	0	105	74	124				
Styrene	7.260	0.50	20.00	0	36.3	32	149				
tert-Butylbenzene	20.670	0.50	20.00	0	103	77	122				
Tetrachloroethene	20.720	0.50	20.00	0	104	62	128				
Toluene	20.270	0.50	20.00	0	101	80	120				
trans-1,2-Dichloroethene	25.370	0.50	20.00	0	127	70	128				
Trichloroethene	20.140	0.50	20.00	0	101	80	120				
Trichlorofluoromethane	20.250	0.50	20.00	0	101	63	138				
Vinyl chloride	16.940	0.50	20.00	0	84.7	63	138				
Surr: 1,2-Dichloroethane-d4	23.300		25.00		93.2	76	124				
Surr: 4-Bromofluorobenzene	26.380		25.00		106	80	120				
Surr: Dibromofluoromethane	22.940		25.00		91.8	80	124				
Surr: Toluene-d8	25.910		25.00		104	80	120				

Sample ID: **N014024-005AMSD** SampType: **MSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **97005**
Client ID: **ZZZZZZ** Batch ID: **P14VW191** TestNo: **EPA 8260B** Analysis Date: **12/3/2014** SeqNo: **1884451**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	21.690	0.50	20.00	0	108	80	122	22.27	2.64	20	
1,1,1-Trichloroethane	19.280	0.50	20.00	0	96.4	76	120	19.22	0.312	20	
1,1,2,2-Tetrachloroethane	18.130	0.50	20.00	0	90.7	74	124	18.55	2.29	20	
1,1,2-Trichloroethane	18.810	0.50	20.00	0	94.1	75	127	19.01	1.06	20	
1,1-Dichloroethane	17.470	0.50	20.00	0	87.4	76	124	16.84	3.67	20	

Qualifiers:

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

CLIENT: ENCON Solutions Inc.
Work Order: N013987
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **N014024-005AMSD** SampType: **MSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **97005**
Client ID: **ZZZZZZ** Batch ID: **P14VW191** TestNo: **EPA 8260B** Analysis Date: **12/3/2014** SeqNo: **1884451**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19.580	0.50	20.00	0	97.9	66	134	19.82	1.22	20	
1,1-Dichloropropene	18.860	0.50	20.00	0	94.3	79	115	19.69	4.31	20	
1,2,3-Trichlorobenzene	12.990	0.50	20.00	0	65.0	73	132	17.41	29.1	20	SR
1,2,3-Trichloropropane	17.470	0.50	20.00	0	87.4	74	121	18.61	6.32	20	
1,2,4-Trichlorobenzene	13.030	0.50	20.00	0	65.2	74	132	16.61	24.2	20	SR
1,2,4-Trimethylbenzene	18.290	0.50	20.00	0	91.4	54	137	21.85	17.7	20	
1,2-Dibromo-3-chloropropane	18.960	1.0	20.00	0	94.8	56	133	19.41	2.35	20	
1,2-Dibromoethane	20.910	0.50	20.00	0	105	78	126	20.72	0.913	20	
1,2-Dichlorobenzene	18.550	0.50	20.00	0	92.8	80	120	21.40	14.3	20	
1,2-Dichloroethane	19.780	0.50	20.00	0	98.9	80	120	19.88	0.504	20	
1,2-Dichloropropane	17.860	0.50	20.00	0	89.3	71	128	18.27	2.27	20	
1,3,5-Trimethylbenzene	17.490	0.50	20.00	0	87.5	71	126	21.21	19.2	20	
1,3-Dichlorobenzene	17.990	0.50	20.00	0	90.0	80	120	20.52	13.1	20	
1,3-Dichloropropane	19.180	0.50	20.00	0	95.9	80	120	19.79	3.13	20	
1,4-Dichlorobenzene	17.200	0.50	20.00	0	86.0	79	120	19.73	13.7	20	
2,2-Dichloropropane	20.600	0.50	20.00	0	103	63	150	21.18	2.78	20	
2-Chlorotoluene	17.020	0.50	20.00	0	85.1	77	120	20.04	16.3	20	
4-Chlorotoluene	17.530	0.50	20.00	0	87.6	78	119	20.00	13.2	20	
4-Isopropyltoluene	14.280	0.50	20.00	0	71.4	74	124	19.73	32.0	20	SR
Benzene	19.080	0.50	20.00	0	95.4	80	120	19.59	2.64	20	
Bromobenzene	19.170	0.50	20.00	0	95.9	80	120	20.61	7.24	20	
Bromodichloromethane	19.930	0.50	20.00	0	99.7	74	128	20.18	1.25	20	
Bromoform	22.030	0.50	20.00	0	110	65	137	22.17	0.633	20	
Bromomethane	23.880	1.0	20.00	0	119	20	155	20.67	14.4	20	
Carbon tetrachloride	22.180	0.50	20.00	0	111	74	125	22.39	0.942	20	
Chlorobenzene	20.160	0.50	20.00	0	101	80	120	20.92	3.70	20	
Chloroethane	20.000	1.0	20.00	0	100	43	151	19.63	1.87	20	
Chloroform	17.570	0.50	20.00	0	87.9	76	118	17.74	0.963	20	
Chloromethane	14.720	0.50	20.00	0	73.6	37	164	14.48	1.64	20	
cis-1,2-Dichloroethene	18.420	0.50	20.00	0	92.1	78	121	18.12	1.64	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

CLIENT: ENCON Solutions Inc.
Work Order: N013987
Project: Elegant Cleaners, 1410097

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **N014024-005AMSD** SampType: **MSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **97005**
Client ID: **ZZZZZZ** Batch ID: **P14VW191** TestNo: **EPA 8260B** Analysis Date: **12/3/2014** SeqNo: **1884451**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	20.250	0.50	20.00	0	101	80	120	20.53	1.37	20	
Dibromochloromethane	21.230	0.50	20.00	0	106	80	120	21.12	0.519	20	
Dibromomethane	19.970	0.50	20.00	0	99.8	67	129	19.88	0.452	20	
Dichlorodifluoromethane	20.360	0.50	20.00	0	102	54	147	19.43	4.67	20	
Ethylbenzene	18.690	0.50	20.00	0	93.5	80	120	20.14	7.47	20	
Freon-113	18.900	0.50	20.00	0	94.5	66	138	19.12	1.16	20	
Hexachlorobutadiene	9.640	0.50	20.00	0	48.2	64	129	19.82	69.1	20	SR
Isopropylbenzene	17.020	0.50	20.00	0	85.1	78	121	20.13	16.7	20	
m,p-Xylene	39.270	1.0	40.00	0	98.2	80	120	42.18	7.15	20	
Methylene chloride	18.400	2.0	20.00	0	92.0	63	130	17.85	3.03	20	
MTBE	19.620	0.50	20.00	0	98.1	58	139	19.69	0.356	20	
n-Butylbenzene	11.970	0.50	20.00	0	59.8	73	126	17.14	35.5	20	SR
n-Propylbenzene	16.190	0.50	20.00	0	81.0	76	123	20.00	21.1	20	R
Naphthalene	14.880	0.50	20.00	0	74.4	49	146	17.25	14.8	20	
o-Xylene	19.840	0.50	20.00	0	99.2	80	120	21.25	6.86	20	
sec-Butylbenzene	14.460	0.50	20.00	0	72.3	74	124	20.95	36.7	20	SR
Styrene	20.660	0.50	20.00	0	103	32	149	7.260	96.0	20	R
tert-Butylbenzene	15.820	0.50	20.00	0	79.1	77	122	20.67	26.6	20	R
Tetrachloroethene	18.660	0.50	20.00	0	93.3	62	128	20.72	10.5	20	
Toluene	19.550	0.50	20.00	0	97.8	80	120	20.27	3.62	20	
trans-1,2-Dichloroethene	25.450	0.50	20.00	0	127	70	128	25.37	0.315	20	
Trichloroethene	19.880	0.50	20.00	0	99.4	80	120	20.14	1.30	20	
Trichlorofluoromethane	20.320	0.50	20.00	0	102	63	138	20.25	0.345	20	
Vinyl chloride	16.990	0.50	20.00	0	85.0	63	138	16.94	0.295	20	
Surr: 1,2-Dichloroethane-d4	23.370		25.00		93.5	76	124		0		
Surr: 4-Bromofluorobenzene	26.190		25.00		105	80	120		0		
Surr: Dibromofluoromethane	23.490		25.00		94.0	80	124		0		
Surr: Toluene-d8	25.370		25.00		101	80	120		0		

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CHAIN OF CUSTODY RECORD

ASSET LABORATORIES
3151 West Post Road
Las Vegas, NV 89118
Tel: (562) 219-7435 • Fax: (562) 219-7436

FOR LABORATORY USE ONLY

P.O. #: _____
Logged By: _____ Date: 11/26/14

Method of Transport: Client ☐ ASSET ☐ CA OverN ☐ FedEx ☒ Other: _____

Sample Condition Upon Receipt
1. CHILLED 1.9°C IP#2 Y ☑ N ☐ 4. SEALED Y ☐ N ☐
2. HEADSPACE (VOA) Y ☐ N ☐ 5. # OF SPLS MATCH COC Y ☐ N ☐
3. CONTAINER INTACT Y ☐ N ☐ 6. PRESERVED Y ☐ N ☐

Client: Encon Solutions, Inc.
Attention:
Address: 3255 Wilshire Boulevard, Suite 1508
City: Los Angeles State: California Zip Code: 90010
Tel: 213-380-0555
Fax: 213-380-0505

Project Name: Elegant Cleaners - 1208 Lincoln Avenue, Project #: 1410097
Alameda, CA

Sampler: *I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.*
(Printed Name) Doug Whichard
(Signature)

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Doug Whichard	11/25/14	1600		11/26/14	0700 AM

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Print Name Date
Signature

Send Report To:
Attn: Tom Lindros
Co: Encon Solutions, Inc.
Addr: 3255 Wilshire Blvd., Suite 1508
City: Los Angeles State: CA Zip: 90010

Bill To:
Attn: Tom Lindros
Co: Encon Solutions, Inc.
Addr: 3255 Wilshire Blvd., Suite 1508
City: Los Angeles State: CA Zip: 90010

Special Instructions/Comments:
-Send Preliminary results by email to tom@knollwood.us.

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample :$2.00 / sample /mo (after 45 days)
- Records: $1 /ASSET workorder /mo (after 1 year)

Circle or Add Analysis(es) Requested

SPECIFY APPROPRIATE: 8260B (Full List Volatiles) | SOIL | WATER | GROUND WATER | WASTEWATER

QA / QC: RTNE / CT
SWRCB Logcode_____
OTHER _____

ITEM	LAB USE ONLY: Lab No.	Sample Description: Sample ID / Location	Date	Time	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	NO13987-1	MW-1	11/25/2014	0910	E	4	V	H	
	-2	MW-2	11/25/2014	0835	E	4	V	H	
	-3	MW-3	11/25/2014	0855	E	4	V	H	

- TAT starts 8AM the following day if samples received after 3 PM

TAT ☐ A= Overnight ≤ 24 hrs ☐ B= Emergency Next Workday ☐ C= Critical 2 Workdays ☐ D= Urgent 3 Workdays ☑ E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives:
H=HCl N=HNO_3 S=H_2SO_4 C=4°C
Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	11/26/2014	Workorder:	N013987
Rep sample Temp (Deg C):	1.9	IR Gun ID:	2
Temp Blank:	☑ Yes ☐ No		
Carrier name:	FedEx		
Last 4 digits of Tracking No.:	5520	Packing Material Used:	Bubble Wrap
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☑	No ☐	NA ☐
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☐	No ☐	NA ☑
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: MBC MBC 11/26/2014

Reviewed By: gog 12/02/14

From: (408) 573-0555
William Jones
BLAINE TECH SERVICES
1680 ROGERS AVENUE

SAN JOSE, CA 95112

Origin ID: RBKA

FedEx Express

J142214092303uv

Ship Date: 25NOV14
ActWgt: 15.0 LB
CAD: 3287709/INET3550

Delivery Address Bar Code

SHIP TO: (562) 219-7465 BILL RECIPIENT

Sample Receiving
Asset Laboratories
3151 West Post Rd.

Las Vegas, NV 89118

Ref #
Invoice #
PO #
Dept #

WED - 26 NOV 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7719 9807 5520

89118
NV-US
LAS

WR LASA

522G1/616C/8AC9

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

APPENDIX M:

NON HAZARDOUS WASTE MANIFESTS

NO. 714381

NON-HAZARDOUS WASTE DATA FORM

BESI # 249051

GENERATOR

Generator's Name and Mailing Address

REZA SHEIKHAI
37053 CHERRY STREET, SUITE 115
NEWARK, CA 94560

Generator's Site Address (if different than mailing address)

ELEGANT CLEANERS
1208 LINCOLN AVE.
ALAMEDA, CA 94501

Generator's Phone: 510-797-5811

Container type removed from site:

☒ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck

☐ Other _____

Quantity 002

Container type transported to receiving facility:

☒ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck

☐ Other _____

Quantity 002 Volume _____

WASTE DESCRIPTION NON-HAZARDOUS SOIL

GENERATING PROCESS WELL INSTALLATIONS

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. SOIL		99-100%	3.		
2. TPH		<1%	4.		

Waste Profile _____ PROPERTIES: pH _____ ☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PERSONAL PROTECTIVE CLOTHING.

Generator Printed/Typed Name: Larry Moothart of BESI on behalf of generator | Signature | Month 12 | Day 24 | Year 14

The Generator certifies that the waste as described is 100% non-hazardous

TRANSPORTER

Transporter 1 Company Name: BELSHIRE | Phone#: 949-460-5200

Transporter 1 Printed/Typed Name: Larry Moothart | Signature | Month 12 | Day 24 | Year 14

Transporter Acknowledgment of Receipt of Materials

Transporter 2 Company Name | Phone#

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

Transporter Acknowledgment of Receipt of Materials

RECEIVING FACILITY

Designated Facility Name and Site Address

U.S. ECOLOGY, NEVADA OPERATIONS
HIGHWAY 95, 11 MILES S. OF BEATTY
BEATTY, NV 89003

Phone# 775-553-2203

Printed/Typed Name | Signature | Month | Day | Year

Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.

NO. 714379

NON-HAZARDOUS WASTE DATA FORM

BESI # 249051

GENERATOR

Generator's Name and Mailing Address
REZA SHEIKHAI
37053 CHERRY STREET, SUITE 115
NEWARK, CA 94560

Generator's Site Address (if different than mailing address)
ELEGANT CLEANERS
1208 LINCOLN AVE.
ALAMEDA, CA 94501

Generator's Phone: 510-797-5811

Container type removed from site:
☒ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck
☐ Other _____
Quantity 2

Container type transported to receiving facility:
☐ Drums ☒ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck
☐ Other _____
Quantity _____ Volume _____

WASTE DESCRIPTION NON-HAZARDOUS WATER

GENERATING PROCESS WELL PURGING / DECON WATER

COMPONENTS OF WASTE	PPM	%
1. WATER		99-100%
2. TPH		<1%
3.		
4.		

Waste Profile _____ PROPERTIES: pH 7-10 ☐ SOLID ☒ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PERSONAL PROTECTIVE CLOTHING.

Generator Printed/Typed Name: Larry Moothart of BESI on behalf of generator
Signature: [signature]
Month 12 Day 23 Year 14

The Generator certifies that the waste as described is 100% non-hazardous

TRANSPORTER

Transporter 1 Company Name: BELSHIRE
Phone#: 949-460-5200

Transporter 1 Printed/Typed Name: Larry Moothart
Signature: [signature]
Month 12 Day 23 Year 14

Transporter Acknowledgment of Receipt of Materials

Transporter 2 Company Name: NIETO & SONS TRUCKING, INC.
Phone#: 714-990-6855

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

Transporter Acknowledgment of Receipt of Materials

RECEIVING FACILITY

Designated Facility Name and Site Address
DEMENNO KERDOON
2000 N. ALAMEDA ST.
COMPTON, CA 90222

Phone#: 310-537-7100

Printed/Typed Name:
Signature:
Month Day Year

Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.