# Report on Soil Vapor Extraction Pilot-Scale Treatability Study and Proposed Remedy

## Former Doro Dry Cleaners Site

State Superfund Project
Cheektowaga, Erie County
Site No, 915238

Aug 2016 0359-015-001

Prepared By:

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

2558 Hamburg Turnpike, Suite 300, Buffalo, New York | phone: (716) 856-0599 | fax: (716) 856-0583

# REPORT ON SOIL VAPOR EXTRACTION PILOT-SCALE TREATABILITY STUDY AND PROPOSED ALTERNATIVE REMEDY

**Former Doro Dry Cleaners Site**
**State Superfund Project**
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**Site No. 915238**

August 2016 0359-015-001

Prepared for:

**Doritex Corp.**

Prepared by:

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# 1.0 SITE DESCRIPTION AND BACKGROUND

The former Doro Dry Cleaners Site (Site) is located on 1.85 acres of property owned by Elakor, Inc. at 3460-3466 Genesee Street in the Town of Cheektowaga, Erie County, New York, as shown on Figures 1 and 2. The Elakor property consists of two separate tax parcels: a 0.18 acres parcel at 3460 Genesee Street (SBL: 91.16-1-19); and a 1.67 acres parcel at 3466 Genesee Street (SBL: 91.16-1-20). There are two attached buildings on the Elakor parcels totaling approximately 10,500 square feet. The smaller of the two buildings is located on the 3460 Genesee Street parcel. It is a two-story brick front block building with a store front facing Genesee Street and office space on the second floor. The larger building is located on the 3466 Genesee Street parcel, and is a one-story brick front block building warehouse/storage area which formerly housed dry cleaning operations. Both buildings are currently being used for storage.

Asphalt parking areas are located along Genesee Street to the south of the buildings and off Colden Court to the west of the buildings. There is an approximately 7-feet wide grassy strip to the east of the buildings and there is an open grassy area, approximately 55-feet wide by 960-feet long, extending north to New York State Route 33, Kensington Expressway from the north side of the building located on the 3466 Genesee Street parcel.

The Site is zoned for commercial use, as are most of the adjoining properties. To the east of the Site, there is a vacant commercial building and Sweet Works, a candy manufacturing facility formerly named Niagara Chocolates. Tread City Tire and Wheel is located on Genesee Street to the west of the Site. There is a small shopping plaza and another residential area located across Genesee Street to the south of the Site. However, there is also a residential area located to the northwest and immediately adjacent to the Site.

The Site was operated as a dry cleaning facility (Doro Cleaners) for approximately 40 years starting in the 1950s (Ref. 1). The Doro Family Trust, LLC was the named potentially responsible party (PRP) for the contaminant conditions at the Site (Ref. 2). When the PRP did not enter into a commitment document with the New York State Department of Environmental Conservation (Department) to investigate the Site for the presence of contaminants, the Department used State Superfund monies to obtain a Phase I Environmental Site Assessment and Phase II Environmental Assessment for the Site. The

buildings were vacant at the time of the Phase I Environmental Site Assessment in 2008 (Ref. 1).

The 2010 Phase II Environmental Assessment indicated that the Site is contaminated with chlorinated volatile organic compounds (cVOCs) including: tetrachloroethene (PCE), trichloroethene (TCE), cis 1,2-dichloroethene (DCE), and vinyl chloride (VC). The 2014 Final Remedial Investigation/Feasibility Study Report determined the nature and extent of cVOC contamination at the Site, including that the PCE and TCE were primarily in the unsaturated soil; and the DCE and VC were primarily in the groundwater.

Three target remedial zones (TRZ) were identified in the Record of Decision (ROD) issued by the Department in March 2014 (see Figure 2, Ref. 2):

- TRZ-1, in the asphalt parking area to the west of the Site buildings,
- TRZ-2, beneath the Site buildings, and
- TRZ-3, in the grassy strip to the east of the Site buildings.

The ROD includes the following remedial components:

- Excavation and off-site disposal of an estimated 648 cubic yards of unsaturated soils from TRZ-1 and TRZ-3 which are contaminated with cVOCs (primarily PCE and TCE). The areal extent of the excavation would be defined by the Part 375 soil cleanup objectives (SCOs) Protective of Commercial Use, to the extent practicable given the need to maintain the structure of the buildings. If off-site excavation is needed, it will be defined by exceedances of the SCOs Protective of Residential Use.

- On-site excavations would be backfilled in accordance with the requirements of 6NYCRR375-6.7(d), taking into account the current use and zoning of the Site. Off-site excavations would be backfilled in accordance with the requirements of 6NYCRR375-6.7(d) for residential use. An amendment would be added to the soils used to backfill the excavation to promote the degradation of groundwater contaminants (primarily DCE and VC).

- Installation of a sub-slab depressurization system (SSDS) in the on-site buildings and continued operation of off-site SSDSs.

- The sump and the sewers were to be cleaned out, and the sump was to be closed and cemented in.

- Long-term monitoring that includes the periodic monitoring of groundwater and/or soil vapor for so long as contaminant levels or soil, groundwater and soil vapor remain above levels that allow for unrestricted use.

- Institutional controls including an environmental easement that restricts the future use of the Site to commercial/industrial uses, prohibits the use of groundwater, and requires precautions to be taken to protect human health in the event soils containing residual cVOCs are disturbed.

After the ROD was issued but before the selected remedy was implemented, the Department notified Doritex Corp. (Doritex) that it was a PRP for the Site and that a remedial program for the Site had been commenced by the Department. Doritex retained Benchmark Environmental Engineering and Science, PLLC (Benchmark) to assist in the evaluation of the nature and extent of contamination at the Site and its response to being named a PRP for the Site. In a meeting on March 1, 2016 with representatives of the Department's Division of Environmental Remediation and Office of General Counsel, representatives of Benchmark and Doritex proposed an alternative remedial approach to the Site employing soil vapor extraction (SVE) in lieu of excavation and off-site disposal of the unsaturated impacted soils in TRZ-1 and TRZ-3. Doritex also proposed in-situ injection of an amendment to promote the degradation of the cVOCs in groundwater and saturated soil in lieu of the addition of amendments to the backfill soils. Doritex also proposed to implement the other remedial components as generally outlined in the ROD including: remedial design; pre-design investigation (already completed by NYSDEC consultants); installation of a SSDS in on-Site buildings (already completed); imposition of an environmental easement and Site Management Plan (SMP) and all other elements of the ROD.

An advantage of this alternative remedy is that it helps ensure the continued integrity of the on-site buildings by precluding extensive shoring and excavation next to the buildings. Another advantage of the alternate remedy is that the SVE will extract some of the cVOCs vapors from unsaturated TRZ-2 soils beneath the buildings. In addition, the direct injection of the groundwater treatment amendment allows the amendment to come into immediate contact with a large portion of the on-site groundwater plume.

The Department indicated that the proposed alternative remedial approach to address unsaturated soil using SVE would be such a significant deviation from the ROD that it would need supporting data from a pilot-scale treatability test to demonstrate the alternative's site-specific effectiveness. To obtain data demonstrating the feasibility of SVE as a remedial alternative, Benchmark prepared and the Department approved a SVE Pilot Test Work Plan (PTWP) dated April 18, 2016 which set forth the scope of work for a SVE pilot-scale treatability test at the Site.

## 2.0 PURPOSE AND SCOPE

The purpose of this Report on SVE Pilot-Scale Treatability Study and Proposed Alternate Remedy for the Former Doro Dry Cleaners Site (Report) is to:

- describe the results of the SVE pilot-scale treatability test demonstrating the feasibility of SVE as a remedial alternative;
- scale-up the treatability data to allow an evaluation of the SVE alternative under the remedy selection criteria used in the ROD;
- compare the SVE remedial alternative to the Final Remedy selected in the ROD; and
- propose, for the Department's consideration and approval, an SVE remedial alternative as the remedy for the Site.

# 3.0 SVE PILOT TEST

## 3.1 SVE Pilot Test Set-up and Description

Three SVE wells were installed at the Site in TRZ-1 to the west of the buildings (See Figure 3) using 8-1/4" inside diameter (ID) hollow stem augers consistent with the Pilot Test Work Plan. The three SVE wells were installed to depths between 6.5 and 7 feet below ground surface (fbgs). Each SVE consisted of a 2" ID polyvinyl chloride (PVC) pipe which was screened at the depth intervals shown in the table below. Sand was installed from the bottom of the boring to a height of about 0.5 feet above the top of screen. The remainder of the borehole was filled with bentonite and completed with a road box.

| SVE Well | Screened Interval (fbgs) |
|---|---|
| SVE-1 | 1.8-6.5 |
| SVE-2 | 2-7 |
| SVE-3 | 1.7-6.7 |

The SVE pilot test was conducted between July 5, 2016 and July 11, 2016 using a pre-fabricated SVE system within a portable trailer that was mobilized to the Site in early July 2016. See lower left photograph on Figure 3. The trailer was equipped with a rotary claw positive displacement blower, 200-gallon moisture knock-out tank, and gauges for vacuum and temperature, among other equipment. The blower is designed for high-vacuum, low-flow service, nominally 10 to 100 standard cubic feet per minute (SCFM), and is capable of creating a vacuum of over 25 inches of mercury (Hg) in soils at some distance from the extraction well to which the blower is connected. The SVE system was powered with a diesel-powered portable electrical generator.

The SVE blower was connected to well SVE-1. The SVE system was activated on July 5, 2016. Extracted vapor was discharged to a stack that was vented to the atmosphere above the roof line of the nearest building on-Site.

To assess the radius of influence from the single active SVE well on the Site during the course of the testing, vacuum measurements were collected from SVE-1 as well as SVE-2 which was located 5 feet away from SVE-1 and from well SVE-3 which was located 10 feet away from SVE-1 (see SVE System Log, Sheet 2 of 2, in Appendix A). Measurements

were also made of the water level in nearby groundwater monitoring well MW-06 (see the illustration in the lower left corner of Figure 4) and the amount of water collected in the knock-out tank of the SVE system. In addition, photoionization detector (PID) measurements were made of the extracted vapor stream influent to the SVE blower and the downwind perimeter. A PID reading gives a qualitative measurement of cVOC concentration in the air measured.

An estimation of the cVOC mass removal rate by SVE was made by measuring the volume of soil vapor removed and by sampling and analyzing the concentrations of VOCs in soil vapor extracted, both qualitatively in the field by PID and quantitatively in the laboratory by gas chromatography/mass spectrometer. Laboratory analyses were performed on two (2) occasions during the pilot testing (initial startup, July 5, 2016, and at the conclusion of the pilot test, July 11, 2016).

Although originally slated for a two-week duration, the pilot test was performed with the concurrence of the Department over a nominal 6-day period because favorable results were achieved quicker than anticipated.

## 3.2 Pilot Test Results

The application of vacuum at well SVE-1 resulted in a radius of influence (ROI) of at least 10 feet achieved in just 6 days, and it is expected that the ROI will increase during long-term operations should the Department approve SVE as an alternate remedy for the Site. For example, at the conclusion of the pilot study test (refer to Sheet 2 of 2 in Appendix A), while the vacuum applied at well SVE-1 ranged between 130 inches of water (in. $H_2O$) and 143 in. $H_2O$; the vacuum detected at SVE-2 located 5 feet from SVE-1 registered between 21.4 in. $H_2O$ and 22.2 in. $H_2O$, and the vacuum detected at SVE-3 located 10 feet from SVE-1 registered between 0.27 in. $H_2O$ and 0.285 in. $H_2O$. Further, the influence of a slight vacuum was detected at well MW-06 (located 23 feet from SVE-1) registering between 0.019 in. $H_2O$ and 0.011 in. $H_2O$.

Field observations made during the SVE pilot test indicated that the vacuum pressure at SVE-1 dropped over time from 355 in. $H_2O$ at the start-up of the pilot test to 130 in. $H_2O$ toward the conclusion of the test. At the same time, the vacuum registered at SVE-2 rose from 4.5 in. $H_2O$ at the start-up to 22.2 in. $H_2O$ toward the conclusion, and the vacuum

registered at SVE-3 rose from 0.055 in. H2O at the start-up to 0.285 in. H2O toward the conclusion.

Mid-way during the test, sealant was used to reduce atmospheric infiltration (leakage) at the well head at SVE-1 and certain fractures in the asphalt were sealed which improved the vacuum applied to the subsurface. However, the asphalt is in a state of disrepair which is suspected to be the primary source of air leakage and infiltration. Additionally, removal of the pore space water in the unsaturated zone also appears to have contributed to the decrease in applied vacuum at SVE-1 as soil moisture was progressively removed from void spaces during the test.

The analytical testing results of soil vapor samples collected in summa canisters from the SVE inlet are presented in Table 1 and Appendix B. The total cVOCs from the vapor sample collected at start-up was 4,315 mg/$m^3$; as compared to 115 mg/$m^3$ at shutdown. PCE was the predominant cVOC detected.

The estimated mass of cVOCs removed during the pilot study test was 30.7 pounds (lbs.) (see Table 2) over the test period of nearly 6 days or an average rate of approximately 5 lbs./day. The soil vapor extraction flow rate ranged from 10 SCFM at the beginning of the test to greater than 60 SCFM from the mid-point of the test through termination. The increased flow accounts for a portion of the cVOC concentration drop in the extracted vapor over time. The remainder of the drop in cVOC concentration in the vapor is accountable to the lower concentration of cVOC further from the extraction well as well as some air infiltration through the pavement surface and around well penetrations..

Nearly 500 gallons of water were collected in the moisture separator ("knock-out") tank. The water was transferred to 55-gallon drums and they are currently stored on-Site. A sample of water was collected and the results are contained in Appendix B. The collected water contained 201.2 ug/L of total cVOCs as follows: tetrachloroethene (140 ug/L); vinyl chloride (0.58 ug/L); trichloroethene (7.6 ug/L); cis 1, 2-dichloroethene (49 ug/L); and acetone (4 ug/L). The water collected from the knock out tank, therefore, would appear to meet, with or without further treatment, the total cVOC limitations of the Town of Cheektowaga sanitary sewer system and Buffalo Sewer Authority should a permit be arranged as part of the implementation of the remedy.

# 4.0 PROPOSED ALTERNATIVE REMEDY

The alternative remedy proposed for implementation by Doritex includes SVE to treat the unsaturated fill/soils in TRZs 1 and 3 in combination with in-situ injection of an appropriate amendment designed to degrade the cVOCs in the groundwater beneath TRZs 1 and 3. Soil and groundwater within TRZ-2 is expected to be treated through propagation of the vacuum from SVE wells proposed to be installed in TRZs 1 and 3, and dispersion of amendments from injections proposed to be completed within TRZ-3 (upgradient of TRZ-2). In addition to the above alternative remedial activities, the following is also proposed to be undertaken on-site by the remedial party consistent with the approved ROD:

- Sewer and sump cleanout - Site-related contaminants were detected in the sump in the building, the floor drain and the sanitary sewer west of the buildings on Colden Court and in the storm sewer east of the buildings. The sump and the sewers will be cleaned out, and the sump will be closed and cemented in.
- Institutional controls – An institutional control in the form of an environmental easement for the controlled property that: requires the remedial party or the site owner to complete and submit to the Department periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3); allows use and development of the controlled property for commercial and industrial uses subject to local zoning; restricts the use of groundwater; and requires compliance with the Site Management Plan.
- Site Management Plan- Including: an Institutional and Engineering Control Plan; an Excavation Plan; and a Post-Remedial Monitoring Plan.

Additional discussion is provided below for the SVE and groundwater remediation portion of the proposed alternative remedy.

## 4.1 SVE System

Full-scale application of SVE will be effective in remediating the on-site unsaturated fill/soils in TRZ-1 and TRZ-3, and partially in TRZ-2, by extracting the cVOCs in the soil vapor. A series of SVE extraction wells will be installed with overlapping cones of influence in TRZ-1 and TRZ-3 based on the minimum ROI established from the pilot test (i.e., 10 feet). A conceptual layout for full-scale SVE application is provided on Figure 4 which will

include installation of approximately 8 additional SVE wells in TRZ-1 (west of buildings) to complement the three existing SVE wells (only SVE-1 is proposed for connection to the full-scale system using SVE-2 and SVE-3 as monitoring points or air vents), and installation of 6 additional SVE wells in TRZ-3 (east side of buildings). The surface in TRZ-1 will be sealed using an asphalt sealant. The surface in TRZ-3 will be sealed by asphalt paving between the Site building and the neighboring asphalt east of the Site. By sealing the surfaces in both TRZ-1 and TRZ-3, the net result will be overlapping cones of influence with ROIs greater than 10 feet that extend throughout the TRZs 1 and 3, and extend partially beneath the building.

An important site-specific consideration for application of the SVE remedial technology is the incidental collection of soil pore water and/or groundwater at or near the water table containing cVOCs, which will accelerate remediation by collecting a greater mass of cVOCs not just from the vadose zone but also from the uppermost portion of the water bearing unit. The water extracted via SVE will need to be collected, stored temporarily and, with or without treatment, discharged to the Cheektowaga sanitary sewer system and Buffalo Sewer Authority sanitary sewer system under an Industrial Discharge Permit. The cVOCs can readily be treated with liquid-phase carbon, if necessary, and then be conveyed to the sanitary sewer system and discharged under a sewer use permit for final treatment at the Publicly-Owned Treatment Works (POTW) operated by the Buffalo Sewer Authority.

The SVE wells will be installed to a depth of about 7 fbgs. Each of the SVE wells will be constructed of 2-inch Schedule 40 PVC with an appropriate continuous slot well screen extending from the base of the well up to about 2 fbgs. The wellheads will be joined via manifold with schedule 40 PVC. The vertical riser extension will have a removable cap to allow periodic vacuum measurement via a portable vacuum gauge. The 2-inch horizontal manifold extension will be fitted with a ball valve to allow for regulation of vacuum at each SVE well. The horizontal manifold will be graduated to a 2 to 4-inch horizontal extension and plumbed to 4-inch manifold pipe that will lead to the SVE blower. The wells in TRZ-1 and TRZ-3 will be joined together by extending the manifold piping over the top of the building on the on the 3466 Genesee Street parcel. Tentatively, the SVE trailer will be located in TRZ-1 as shown on Figure 3.

The manifold piping will be placed either above and/or below ground. Above-ground piping may temporarily affect some limited building access and parking lot use but is

preferred from a remediation perspective as it will result in less pavement and soil removal and pavement restoration. If the piping is located above the ground, the area will be fenced in with construction fencing.

The SVE system will be operated with certain SVE wells operational and others inactivated to act as vents and allow controlled amounts of atmospheric air to enter the treatment zone to control subsurface vacuum and "sweep" air through the target unsaturated soil matrix. Spot testing in the inactivated SVE wells will be made using a temporary vacuum gage to confirm the area of influence for the active SVE wells. Existing groundwater monitoring wells screened in the vadose zone within the SVE radius of influence may also be used for vacuum testing.

Manifold piping from the SVE wells will enter the SVE trailer and pass through a knock-out tank to remove excess condensate/water vapor, followed by an in-line air filter, and vapor-phase carbon (if needed). A pitot tube on the intake line will provide for measurement of extracted vapor velocity and hence quantitation of volumetric flow. A dilution valve on the intake line will reduce vacuum, if desired, by allowing for entrance of ambient air. A vacuum gauge, connected to the SVE system control panel, will measure inlet vacuum changes as the valve is adjusted to assure that the blower is operated within required minimum vacuum limits. A vacuum switch, wired to the system control panel, will shut down the system in the event the inlet vacuum is too low. Inlet air will then pass through the blower intake silencer. A mechanical high-pressure relief valve and high-pressure switch will be located on the discharge line to prevent excess backpressure from damaging the blower.

SVE process conditions will be monitored and locally controlled by an externally-mounted system control panel. Monitored system operating conditions will include: low air vacuum, high air pressure, moisture separator tank high level, and heater/exhaust fan failure. With the exception of heater/exhaust fan failure, these alarm conditions will automatically shut down the SVE system.

### *4.1.1 SVE Condensate Water Management*

The condensate water collected in the knock out tank will be treated, if necessary, on-Site using liquid-phase carbon treatment and discharge will be made under a permit to the

Cheektowaga sanitary sewer system which in turn connects to the POTW operated by the Buffalo Sewer Authority. Details of the management of the water, treatment and conveyance system will be provided in a Remedial Action Work Plan.

### *4.1.2 SVE Operation and Monitoring*

Following SVE system startup and extraction well vacuum/flow rate adjustment, the SVE system will be operated for a minimum period of approximately 5 to 10 days to reach quasi steady-state conditions (although the radius-of-influence will continue to develop beyond this time period). Vacuum will then be checked at each of the SVE wells using a temporary vacuum gauge. The actual required vacuum pressure at the well heads will be a function of the fill/soil conditions and will be adjusted based on the radius of influence spot testing of the vacuum in piezometers and existing wells; additional SVE wells may be installed if well spacing is deemed inadequate based on longer-term vacuum testing results.

Similar to performance of the pilot-scale system, at or near the system startup period one influent soil vapor sample will be collected from the full-scale SVE system and laboratory analyzed to provide a basis for comparison to subsequent data along with a contemporaneous PID measurement. The PID measurement will be compared to the results of the laboratory analysis to develop a qualitative surrogate for monitoring influent vapor concentrations and estimating the mass removal over time. The soil vapor samples for laboratory analyses will be collected using a summa canister and analyzed for TCL VOCs per USEPA Method TO-15. Additional soil vapor samples will be collected semi-annually and laboratory tested as described above.

SVE system monitoring will be conducted on a minimum frequency of monthly throughout the operation period. SVE system monitoring will include: monitoring of mechanical system components for proper operation, vacuum monitoring at each SVE well and at the main intake; and cVOC vapor PID screening at each SVE well and at the effluent point. It is expected that the SVE system would be required to operate for at least 12 months. Quarterly progress reports will be submitted to the NYSDEC identifying the mass removal, results of analytical testing, field logs of vacuum testing and sundry.

#### *4.1.3 SVE Discontinuation Criteria*

The SVE system will not be discontinued unless prior written approval is granted by the Department. SVE discontinuation will be based on the cVOC concentrations in the untreated influent soil vapor samples and the rate of mass removal of cVOCs. Once monitoring data indicate that the cVOC concentrations in soil vapor and/or mass removal rate of cVOCs reach de minimis levels, a proposal to discontinue the SVE system will be submitted to the Department which will include a plan for collecting soil samples from the unsaturated zone in TRZ-1 and TRZ-3 to verify residual cVOC concentrations.

### 4.2 Groundwater Remediation

Groundwater remediation of TRZs -1, -2 and -3 will be accomplished by injection of an amendment into the sandy clay water bearing zone (6 to 12 fbgs) on a grid (probably on an approximate 5- to 10-foot spacing) on both the east (TRZ-3) and west (TRZ-1) sides of the buildings. The injection areas will be focused on the areas of highest groundwater contamination (e.g., wells MW-4 and MW-6). If an additional injection is subsequently deemed necessary to meet target groundwater quality goals, the injection location will be off-set to expand and overlap the initial injection points. Details regarding locations, injection zone, spacing, and amendment selection will be provided in the Remedial Action Work Plan. It is anticipated that the amendment and/or its constituents will move with the groundwater from TRZ-3 to address groundwater quality in TRZ-2 and from TRZ-1 to address groundwater quality in off-site portion of the groundwater plume.

# 5.0 COMPARISON OF PROPOSED ALTERNATIVE REMEDY AND ROD REMEDY TO SELECTION CRITERIA

The proposed alternative remedy proposed herein meets or exceeds all threshold and other remedy selection criteria consistent with 6 NYCRR Part 375. The analysis set forth below builds on and incorporates the detailed discussion of the evaluation criteria provided in the ROD (Ref. 2). This analysis concludes that the proposed alternative remedy outlined above is equal to or better than the Final Remedy selected in the ROD for each criterion as discussed below.

1. Protection of Human Health and the Environment. Both the ROD remedy and proposed alternative SVE remedy are fully and essentially equally protective of public health and the environment.
2. Compliance with New York Standards, Criteria, and Guidance (SCGs).
   a.) Soil. The ROD remedy will meet cVOC Soil Cleanup Objectives for all of the excavated areas of TRZ-1 and TRZ-3, except immediately adjacent to the on-site buildings where a "wedge" of soil must remain to protect the integrity of the structure. None of the soil in TRZ-2 under the building will meet SCOs under the ROD remedy. Nor will cVOC concentrations in the unsaturated soils of TRZ-2, if any, be addressed. The proposed alternative remedy is expected to achieve or nearly achieve cVOC SCOs throughout and beyond the unsaturated soils in TRZ-1 and TRZ-3, and partially in TRZ-2 under the building.
   b.) Groundwater. The mixing and addition of treatment amendments into excavation backfill soil placed in the vadose zone per the ROD remedy is not anticipated to be as effective to treat the groundwater in TRZ-1, TRZ-2 and TRZ-3 as the proposed alternative remedy that injects similar amendments directly into the groundwater and saturated soils. As such, the proposed alternative remedy is considered far superior in approaching SCGs in groundwater faster than the ROD remedy.
3. Long-Term Effectiveness and Permanence. Because the proposed alternative remedy is anticipated to more directly, quickly and to a greater degree improve the

on-site groundwater quality, the proposed alternative remedy is anticipated to be more effective in the long-term.

4. Reduction of Toxicity, Mobility or Volume. As discussed in Criteria 2 and 3 above, the proposed alternative remedy will treat a greater volume of soil and groundwater, and therefore, is expected to have a greater reduction of toxicity and volume of cVOCs in the subsurface environment in comparison to the ROD remedy.
5. Short-Term Impacts and Effectiveness. The ROD remedy will have greater short-term adverse impacts compared to the proposed alternative remedy on local air quality, odors and noise related to the soil excavation, loading and off-site hauling and backfill placement. These short-term impacts will be significantly reduced by the proposed alternative remedy which essentially eliminates excavation, backfill and off-site trucking of 648 cubic yards of contaminated soil and associated fugitive dust and cVOC emissions. The proposed alternative remedy also results in less greenhouse gas emissions and requires no or very limited off-site landfilling. Because the proposed alternative remedy does not involve excavations close to the buildings, it does not imperil the structural integrity of the buildings.
6. Implementability. Both the ROD remedy and proposed alternative remedy are implementable. However, the ROD remedy will be difficult to implement since shoring of the existing building or maintaining a safe set-back from the building will likely be required to excavate safely and minimize potential damage to the building. The proposed alternative remedy is considered more easily implemented by virtue of not having to excavate immediately adjacent to the on-site buildings.
7. Cost-Effectiveness. The proposed alternative remedy is expected to save thousands of dollars and is more effective compared to the ROD remedy as it: avoids the need to stabilize the structures during excavation and backfill or leave cVOC-impacted soil in place immediately adjacent to the building; avoids fugitive dust and cVOC emissions and associated community air monitoring of excavation and backfilling activities, and avoids off-site transportation and disposal of excavated soil. The direct injection of chemical amendments to treat groundwater in-situ as part of the proposed alternative remedy is considered to be slightly more

costly and far more effective than the addition of groundwater treatment amendments to unsaturated soil excavation backfill.

8. Land Use. Both the ROD remedy and proposed alternative remedy allow continued use of the Site for commercial or industrial purposes consistent with existing zoning and land use.

The other aspects of the Proposed Final Remedy remain unchanged from the Final ROD Remedy.

# 6.0 REFERENCES

1. CDM SMITH, *Final Remedial Investigation/Feasibility Study Report, Former Doro Cleaners (Site No. 915238) Cheektowaga, New York. February 2014*.
2. NYSDEC, Declaration Statement – *Record of Decision, Former Doro Dry Cleaners State Superfund Project Cheektowaga, Erie County, Site No. 915238 March 2014*.

# TABLES

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

**TABLE 1**
**PILOT TEST SUMMA CAN AIR SAMPLE ANALYTICAL RESULTS**
**DORITEX SVE PILOT-SCALE TREATABILITY STUDY**
**CHEEKTOWAGA, NEW YORK**

| Parameters [1] | SUMMA CAN SAMPLE/DATE | |
|---|---|---|
| | Start-Up | Completion |
| | 7/5/16 | 7/11/16 |
| **TO-15 VOCs ($mg/m^3$)** | | |
| Vinyl Chloride | 45 | 0.504 |
| 1,1-Dichloroethene | 2 | ND |
| Cis-1,2-Dichloroethene | 236 | 5 |
| Trichloroethene | 62 | 3 |
| Tetrachloroethene | 3,970 | 107 |
| Total cVOCs | 4,315 | 115 |

Notes:
1) Only parameters detected in at least one sample are presented in this table.
2) Concentration units are in milligrams per cubic meter ($mg/m^3$).
3) ND = not detected

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**TABLE 2**
**ESTIMATED MASS OF cVOCs REMOVED**
**DORITEX SVE PILOT-SCALE TREATABILITY STUDY**
**CHEEKTOWAGA, NEW YORK**

| Date | Elapsed Time (days) | SVE Operation Time (days) | Time | Influent (Untreated) PID Reading (ppm) | Corrected Influent Concentration[1] (mg/m3) | Corrected Influent Concentration1 (lb/cf) | Vacuum (in Hg) | Air Flow Rate (ACFM) | Air Flow Rate (SCFM) | Volume of Air Processed Since Last Monitoring Period (SCF) | Rate of VOC Removal (lb/day) | VOCs Removed Since Last Monitoring Period (lb) | Total VOC Removal to Date (lb) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/5 | 0 | 0.0 | 1:22 PM | 200 | 2321 | 1.449E-04 | 26.0 | 77 | 10 | | | | | |
| 7/5 | 0.0 | 0.0 | 1:35 PM | 220 | 2553 | 1.594E-04 | 26.5 | 76 | 10 | 130 | <0.1 | <0.1 | <0.1 | Collect Summa canister for VOC analysis |
| 7/5 | 0.0 | 0.0 | 1:57 PM | 167 | 1938 | 1.210E-04 | 25.0 | 81 | 13 | 286 | <0.1 | <0.1 | <0.1 | |
| 7/5 | 0.0 | 0.0 | 2:16 PM | 145 | 1682 | 1.050E-04 | 25.0 | 81 | 14 | 266 | <0.1 | <0.1 | <0.1 | Open air bleed valve |
| 7/6 | 0.9 | 0.9 | 11:48 AM | 57 | 661 | 4.129E-05 | 12.0 | 104 | 61 | 78812 | 5.8 | 5.2 | 5.2 | Close air bleed valve |
| 7/6 | 1.0 | 1.0 | 12:15 PM | 63 | 731 | 4.564E-05 | 15.5 | 101 | 48 | 1296 | 0.1 | <0.1 | 5.2 | |
| 7/6 | 1.0 | 1.0 | 1:52 PM | 51 | 592 | 3.694E-05 | 15.0 | 101 | 50 | 4850 | 0.2 | <0.1 | 5.2 | |
| 7/7 | 1.9 | 1.9 | 11:55 AM | 41 | 476 | 2.970E-05 | 12.5 | 104 | 60 | 79380 | 2.6 | 2.4 | 7.6 | |
| 7/8 | 2.9 | 2.9 | 10:05 AM | 34 | 395 | 2.463E-05 | 10.0 | 105 | 67 | 89110 | 2.4 | 2.2 | 9.8 | Sealed cracks in parking lot, and around well head |
| 7/8 | 2.9 | 2.9 | 10:50 AM | 39 | 453 | 2.825E-05 | 11.5 | 104 | 62 | 2803 | 0.1 | <0.1 | 9.8 | |
| 7/11 | 5.8 | 5.8 | 7:46 AM | 31 | 360 | 2.246E-05 | 9.5 | 105 | 69 | 287425 | 7.3 | 20.9 | 30.8 | |
| 7/11 | 5.9 | 5.9 | 11:07 AM | 32 | 371 | 2.318E-05 | 10.5 | 105 | 66 | 13244 | 0.3 | <0.1 | 30.8 | Collect Summa canister for VOC analysis; system operations discontinued |

**Notes:**

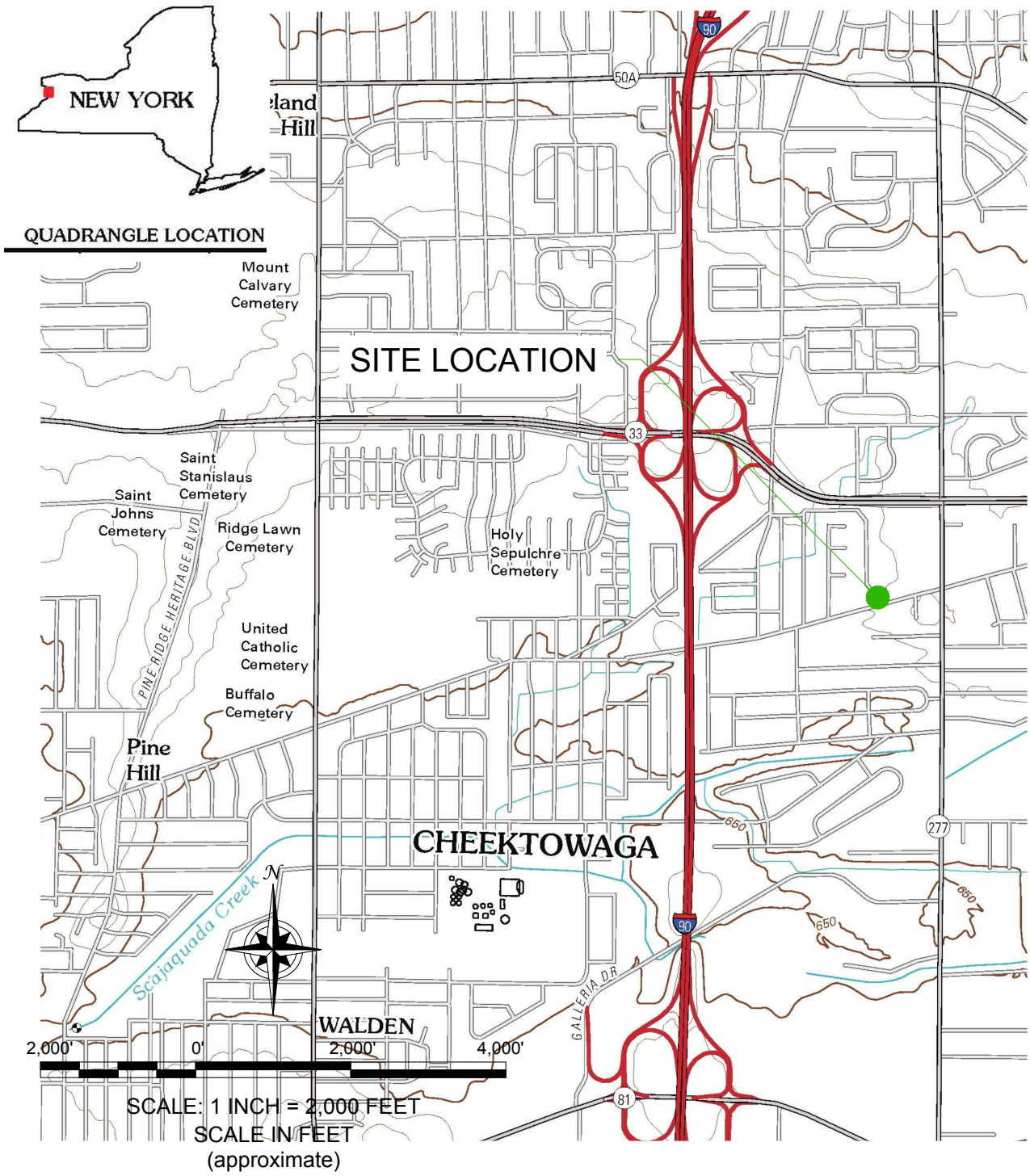
1. The estimated mass of contamination recovered is based on ratio of the sum of the cVOCs (vinyl chloride, 1,2-dichloroethene, cis 1,2-dichloroethene, trichloroethene and tetrachloroethene) as measured by a vapor sample collected with a summa canister compared to a contemporaneous PID reading. The average ratio of cVOCs was 11.6 mg/m3 for each 1 ppm PID reading

2) cVOCs = chlorinted volatile organic compounds; ppm= parts per million; mg/m3 = milligrams per cubic meter; lb/cf = pounds of cVOCs per cubic foot; in Hg = inches of mercury; ACFM = actual cubic feet per minute; SCFM = standard cubic feet per minute; SCF = standard cubic feet

# FIGURES

F:\CAD\Benchmark\Doritex Corp\SVE Report\Figure 1; Regional Site Plan.dwg

# FIGURE 1





BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599


PROJECT NO.: 0359-015-001

DATE: JULY 2016

DRAFTED BY: RFL

## REGIONAL LOCATION PLAN

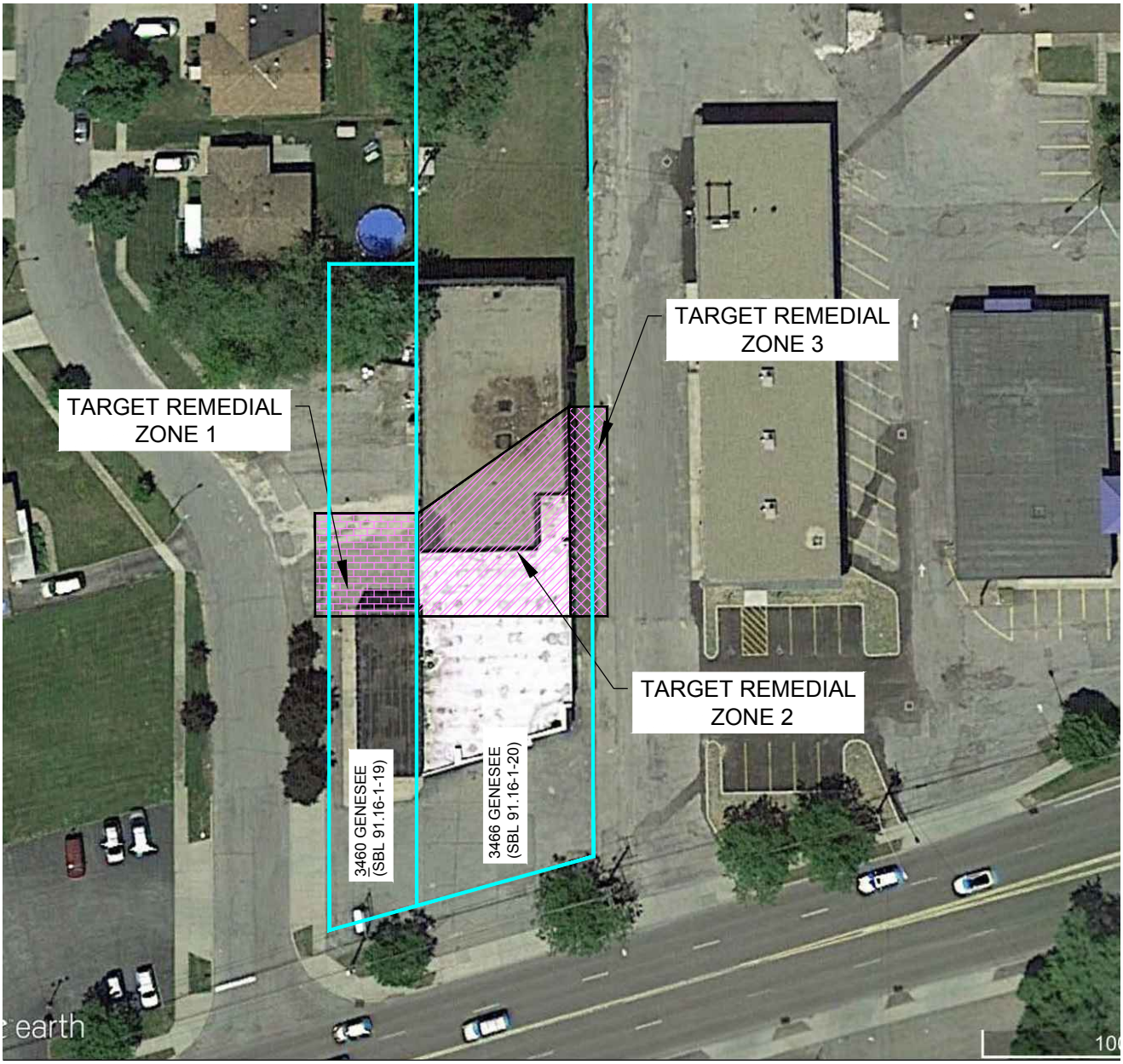
SVE PILOT STUDY REPORT

FORMER DORO CLEANERS SITE
CHEEKTOWAGA, NEW YORK

PREPARED FOR
DORITEX CORP.

F:\CAD\Benchmark\Doritex Corp\SVE Report\Figure 2; SITE LOCATION PLAN.dwg

# FIGURE 2




60' 0' 60' 120'

SCALE: 1 INCH = 60 FEET
SCALE IN FEET
(approximate)

N

LEGEND:

PROPERTY BOUNDARY


BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
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SUITE 300
BUFFALO, NY 14218
(716) 856-0599


PROJECT NO.: 0359-015-001

DATE: JULY 2016

DRAFTED BY: RFL

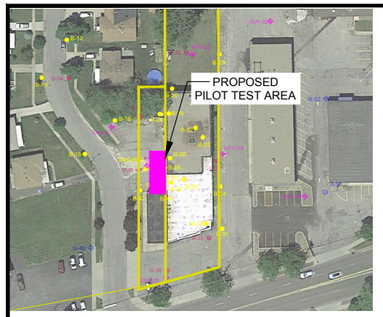
## SITE LOCATION PLAN WITH TARGET REMEDIAL ZONES

SVE PILOT STUDY REPORT

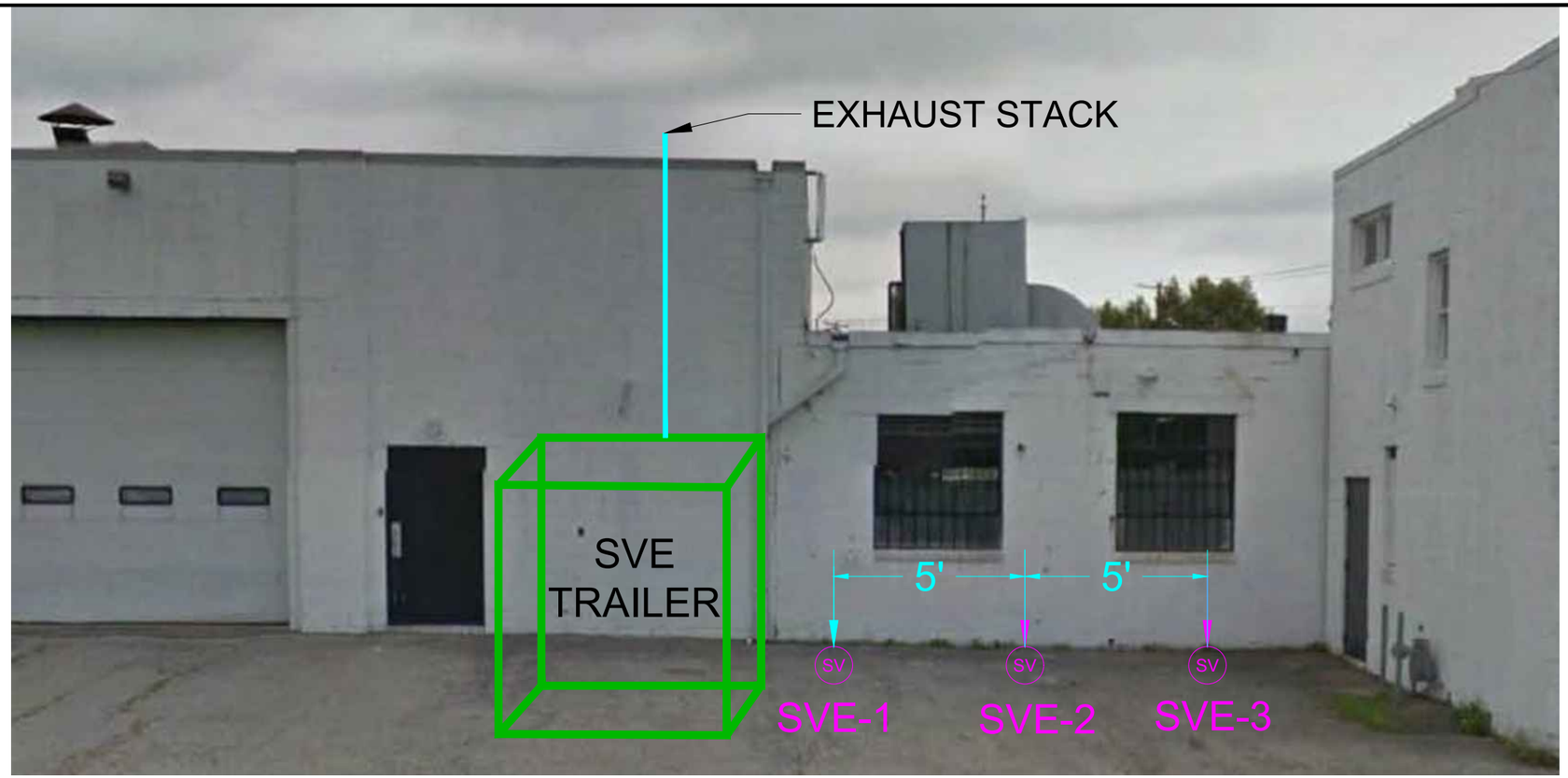
FORMER DORO CLEANERS SITE
CHEEKTOWAGA, NEW YORK

PREPARED FOR
DORITEX CORP.

F:\CAD\Benchmark\Doro Cleaners\Pilot Test Work Plan\Figure 3, Pilot Test Location Plan.dwg




PLAN VIEW OF SITE
NTS




PILOT STUDY LOCATION (STREET VIEW)
NTS


PILOT STUDY PHOTOGRAPH SHOWING
SVE TRAILER AND DIESEL GENERATOR
(green tubing connected to extraction well SVE-1)

DATE: JULY 2016
DRAFTED BY: RFL

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

JOB NO.: 0359-015-001

# PILOT SCALE TEST LAYOUT

SVE PILOT STUDY REPORT
FORMER DORO CLEANERS SITE
CHEEKTOWAGA, NEW YORK

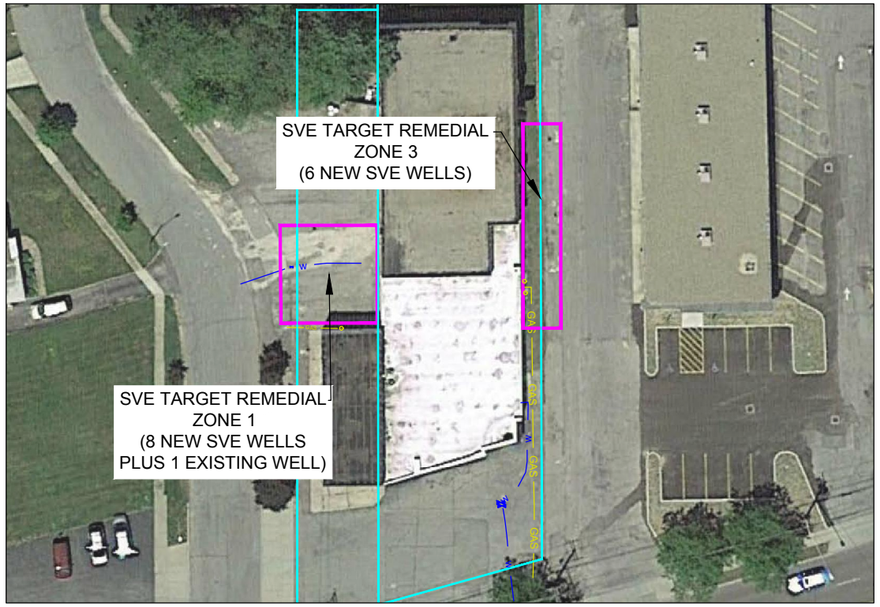
PREPARED FOR
DORITEX CORP.

**FIGURE 3**

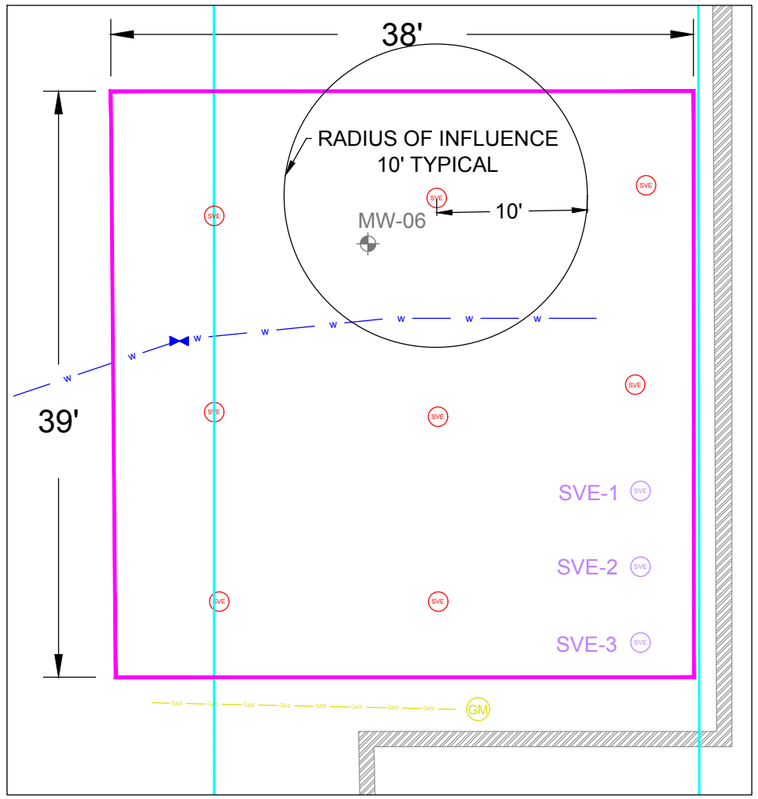
F:\CAD\Benchmark\Doritex Corp\SVE Report\Figure 4 Remedial Areas.dwg

LEGEND

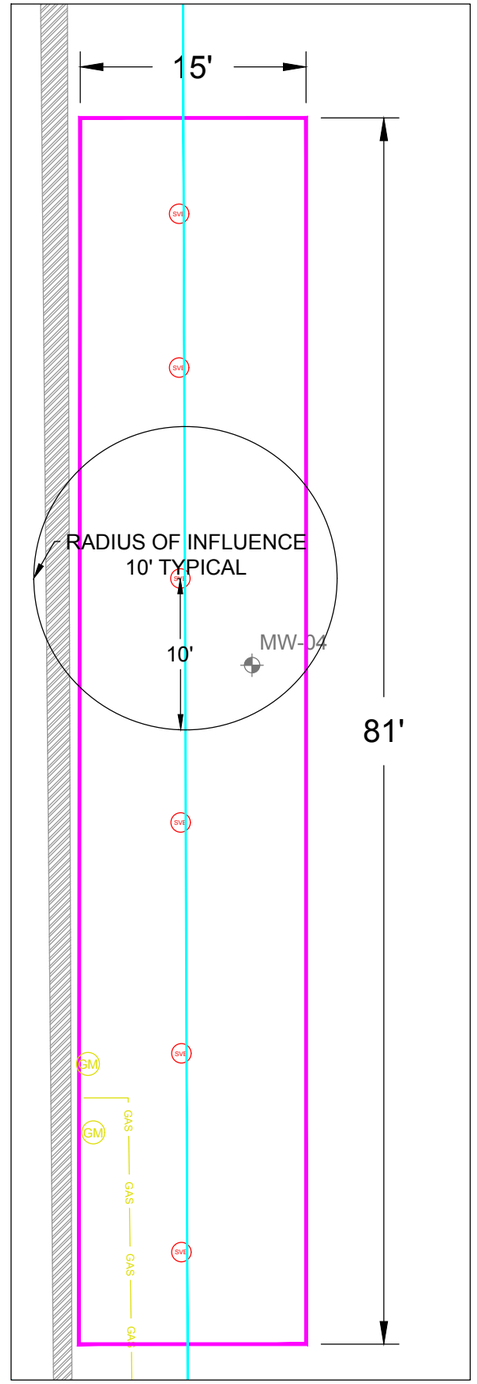
- PROPERTY BOUNDARY
- SVE-1 — EXISTING SVE WELL
- PROPOSED SVE WELL
- MW-1 — MONITORING WELL
- EXISTING WATER LINE
- EXISTING WATER VALVE
- EXISTING GAS LINE
- EXISTING GAS METER
- EXISTING BUILDING WALL




PLAN VIEW OF SITE AND
TARGET SVE REMEDIAL ZONES
APPROX. SCALE 1" = 60'




SVE TARGET REMEDIAL ZONE 1
APPROX. SCALE 1" = 10'




SVE TARGET REMEDIAL ZONE 3
APPROX. SCALE 1" = 10'

DATE: JULY 2016
DRAFTED BY: RFL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SUITE 300
BUFFALO, NY 14218
(716) 856-0599


JOB NO.: 0359-015-001

# SVE FULL SCALE PRELIMINARY LAYOUT

SVE PILOT STUDY REPORT
FORMER DORO CLEANERS SITE
CHEEKTOWAGA, NEW YORK

PREPARED FOR
DORITEX CORP.

**FIGURE 4**

# APPENDIX A

## SVE FIELD MEASUREMENTS

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

# FORMER DORO DRY CLEANERS SITE
# SVE SYSTEM LOG
# SHEET 1 OF 2

| Date | Time | Inspector's Initials | System Running on Arrival? (Y or N) | Intake Vacuum at Knockout (in. Hg) | Intake Temperature (F) | Discharge Temperature (F) | Influent PID Reading (PPM) | Downwind Perimeter PID (PPM) | Condensate Water Present (Y or N) |
|---|---|---|---|---|---|---|---|---|---|
| 7/5/2016 | 13:35 | MLJ | Y | 25 | 80 | 190 | 220 | ND | Y |
| 7/6/2016 | 13:52 | MLJ | Y | 15 | 64 | 180 | 51 | ND | Y |
| 7/7/2016 | 11:55 | MLJ | Y | 12.5 | 68 | 164 | 41 | ND | Y |
| 7/8/2016 | 10:01 | MLJ | Y | 10 | 65 | 156 | 34 | ND | Y |
| 7/8/2016 | 10:50 | MLJ | Y | 11.5 | 65 | 156 | 39 | ND | Y |
| 7/11/2016 | 7:46 | MLJ | Y | 9.5 | 61 | 147 | 31 | ND | Y |
| 7/11/2016 | 11:07 | MLJ | Y | 10.5 | 66 | 155 | 32 | ND | Y |
| | | | | | | | | | |
| | | | | | | | | | |

**NOTES :**

7/5/16 Collected Summa canister for VOC analysis.

7/6/16 Transferred 110 gallons of water to drums from condensate tank.

7/7/16 80 gallons in condensate tank; transfer to drums

7/8/16 90 gallons in condensate tank, transfer to drums

7/8/16 Sealed road boxes, also open holes in asphalt

7/11/16 200 gallons transferred to drums; system operations discontinued. Total volume of water collected during pilot test = approx. 500 gallons

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

# FORMER DORO DRY CLEANERS SITE
# SVE SYSTEM LOG
# SHEET 2 OF 2

| Date | Time | Inspector's Initials | Vacuum Measurements | | | Water Measurements | NOTES |
|---|---|---|---|---|---|---|---|
| | | | SVE #1 (in.WC) | SVE #2 (in.WC) | SVE #3 (in.WC) | MW-06 (fbtor) | |
| 7/5/2016 | 13:38 | MLJ | 355 | 4.5 | 0.055 | NM | |
| 7/5/2016 | 14:16 | MLJ | 355 | 14.8 | 0.056 | NM | Open air bleed valve |
| 7/6/2016 | 12:05 | MLJ | 164 | 17.1 | 0.09 | 5.57 | Shut air bleed valve |
| 7/6/2016 | 13:55 | MLJ | 205 | 21.1 | 0.094 | 5.58 | |
| 7/7/2016 | 12:06 | MLJ | 171 | 31.9 | 0.167 | 5.67 | See Note 1 |
| 7/8/2016 | 10:05 | MLJ | 137 | 28.7 | 0.237 | 5.75 | 0.065 in WC on well MW-06 |
| 7/8/2016 | 11:03 | MLJ | 157 | 25.9 | 0.332 | 5.75 | See Note 2; 0.05 in WC on well MW-06 |
| 7/11/2016 | 7:50 | MLJ | 130 | 21.4 | 0.271 | 5.9 | 0.019 in WC on well MW-06 |
| 7/11/2016 | 11:10 | MLJ | 143 | 22.2 | 0.285 | 5.9 | 0.011 in WC on well MW-06 |
| | | | | | | | |

Notes:

| Date | |
|---|---|
| General | Soil gas air is extracted from SVE 1; SVE 2 is 5' from SVE-1; SVE-3 is 10' from SVE-1 |
| 1) | Observed air leakage around SVE-1 well head |
| 2) | Sealed pavement and well heads |

# APPENDIX B

# ANALYTICAL REPORTS

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L1620645 |
| Client: | Benchmark & Turnkey Companies<br>2558 Hamburg Turnpike<br>Suite 300<br>Buffalo, NY 14218 |
| ATTN: | Chris Boron |
| Phone: | (716) 856-0599 |
| Project Name: | DORO CLEANERS |
| Project Number: | B0359-015-001-002-00 |
| Report Date: | 07/08/16 |



Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00

**Lab Number:** L1620645
**Report Date:** 07/08/16

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L1620645-01 | SVE-STARTUP | SOIL_VAPOR | CHEEKTOWAGA, NY | 07/05/16 13:35 | 07/05/16 |
| L1620645-02 | UNUSED CAN#255 | SOIL_VAPOR | CHEEKTOWAGA, NY | | 07/05/16 |

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00

**Lab Number:** L1620645
**Report Date:** 07/08/16

## Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | DORO CLEANERS | **Lab Number:** | L1620645 |
| **Project Number:** | B0359-015-001-002-00 | **Report Date:** | 07/08/16 |

**Case Narrative (continued)**

Volatile Organics in Air

Canisters were released from the laboratory on June 30, 2016. The canister certification results are provided as an addendum.

Sample L1620645-01: The sample was re-analyzed on dilution in order to quantify the results within the calibration range. The result should be considered estimated, and are qualified with an E flag, for any compound that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

Sample L1620645-01: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 07/08/16

# AIR

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00
**Lab Number:** L1620645
**Report Date:** 07/08/16

## SAMPLE RESULTS

Lab ID: L1620645-01 D
Client ID: SVE-STARTUP
Sample Location: CHEEKTOWAGA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 07/08/16 03:42
Analyst: RY

Date Collected: 07/05/16 13:35
Date Received: 07/05/16
Field Prep: Not Specified

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | Results | RL | MDL | Results | RL | MDL | Qualifier | Dilution Factor |
| **Volatile Organics in Air - Mansfield Lab** | | | | | | | | |
| Dichlorodifluoromethane | ND | 340. | -- | ND | 1680 | -- | | 1701 |
| Chloromethane | ND | 340. | -- | ND | 702 | -- | | 1701 |
| 1,2-Dichloro-1,1,2,2-tetrafluoroethane | ND | 340. | -- | ND | 2380 | -- | | 1701 |
| Vinyl chloride | 17600 | 340 | -- | 45000 | 869 | -- | | 1701 |
| 1,3-Butadiene | ND | 340. | -- | ND | 752 | -- | | 1701 |
| Bromomethane | ND | 340. | -- | ND | 1320 | -- | | 1701 |
| Chloroethane | ND | 340. | -- | ND | 897 | -- | | 1701 |
| Ethyl Alcohol | ND | 8500 | -- | ND | 16000 | -- | | 1701 |
| Vinyl bromide | ND | 340. | -- | ND | 1490 | -- | | 1701 |
| Acetone | ND | 1700 | -- | ND | 4040 | -- | | 1701 |
| Trichlorofluoromethane | ND | 340. | -- | ND | 1910 | -- | | 1701 |
| iso-Propyl Alcohol | ND | 850. | -- | ND | 2090 | -- | | 1701 |
| 1,1-Dichloroethene | 566 | 340 | -- | 2240 | 1350 | -- | | 1701 |
| tert-Butyl Alcohol | ND | 850. | -- | ND | 2580 | -- | | 1701 |
| Methylene chloride | ND | 850. | -- | ND | 2950 | -- | | 1701 |
| 3-Chloropropene | ND | 340. | -- | ND | 1060 | -- | | 1701 |
| Carbon disulfide | ND | 340. | -- | ND | 1060 | -- | | 1701 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 340. | -- | ND | 2610 | -- | | 1701 |
| trans-1,2-Dichloroethene | ND | 340. | -- | ND | 1350 | -- | | 1701 |
| 1,1-Dichloroethane | ND | 340. | -- | ND | 1380 | -- | | 1701 |
| Methyl tert butyl ether | ND | 340. | -- | ND | 1230 | -- | | 1701 |
| 2-Butanone | ND | 850 | -- | ND | 2510 | -- | | 1701 |
| cis-1,2-Dichloroethene | 59600 | 340 | -- | 236000 | 1350 | -- | | 1701 |
| Ethyl Acetate | ND | 850. | -- | ND | 3060 | -- | | 1701 |

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00
**Lab Number:** L1620645
**Report Date:** 07/08/16

## SAMPLE RESULTS

Lab ID: L1620645-01 D
Client ID: SVE-STARTUP
Sample Location: CHEEKTOWAGA, NY
Date Collected: 07/05/16 13:35
Date Received: 07/05/16
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| **Volatile Organics in Air - Mansfield Lab** | | | | | | | | |
| Chloroform | ND | 340. | -- | ND | 1660 | -- | | 1701 |
| Tetrahydrofuran | ND | 850 | -- | ND | 2510 | -- | | 1701 |
| 1,2-Dichloroethane | ND | 340. | -- | ND | 1380 | -- | | 1701 |
| n-Hexane | ND | 340. | -- | ND | 1200 | -- | | 1701 |
| 1,1,1-Trichloroethane | ND | 340. | -- | ND | 1860 | -- | | 1701 |
| Benzene | ND | 340. | -- | ND | 1090 | -- | | 1701 |
| Carbon tetrachloride | ND | 340. | -- | ND | 2140 | -- | | 1701 |
| Cyclohexane | ND | 340. | -- | ND | 1170 | -- | | 1701 |
| 1,2-Dichloropropane | ND | 340. | -- | ND | 1570 | -- | | 1701 |
| Bromodichloromethane | ND | 340. | -- | ND | 2280 | -- | | 1701 |
| 1,4-Dioxane | ND | 340. | -- | ND | 1230 | -- | | 1701 |
| Trichloroethene | 11500 | 340 | -- | 61800 | 1830 | -- | | 1701 |
| 2,2,4-Trimethylpentane | ND | 340. | -- | ND | 1590 | -- | | 1701 |
| Heptane | ND | 340. | -- | ND | 1390 | -- | | 1701 |
| cis-1,3-Dichloropropene | ND | 340. | -- | ND | 1540 | -- | | 1701 |
| 4-Methyl-2-pentanone | ND | 850. | -- | ND | 3480 | -- | | 1701 |
| trans-1,3-Dichloropropene | ND | 340. | -- | ND | 1540 | -- | | 1701 |
| 1,1,2-Trichloroethane | ND | 340. | -- | ND | 1860 | -- | | 1701 |
| Toluene | ND | 340. | -- | ND | 1280 | -- | | 1701 |
| 2-Hexanone | ND | 340. | -- | ND | 1390 | -- | | 1701 |
| Dibromochloromethane | ND | 340. | -- | ND | 2900 | -- | | 1701 |
| 1,2-Dibromoethane | ND | 340. | -- | ND | 2610 | -- | | 1701 |
| Tetrachloroethene | 339000 | 340 | -- | 2300000 | 2310 | -- | E | 1701 |
| Chlorobenzene | ND | 340. | -- | ND | 1570 | -- | | 1701 |
| Ethylbenzene | ND | 340. | -- | ND | 1480 | -- | | 1701 |
| p/m-Xylene | ND | 680. | -- | ND | 2950 | -- | | 1701 |
| Bromoform | ND | 340. | -- | ND | 3520 | -- | | 1701 |
| Styrene | ND | 340. | -- | ND | 1450 | -- | | 1701 |

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00
**Lab Number:** L1620645
**Report Date:** 07/08/16

## SAMPLE RESULTS

Lab ID: L1620645-01 D
Client ID: SVE-STARTUP
Sample Location: CHEEKTOWAGA, NY
Date Collected: 07/05/16 13:35
Date Received: 07/05/16
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| **Volatile Organics in Air - Mansfield Lab** | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 340. | -- | ND | 2330 | -- | | 1701 |
| o-Xylene | ND | 340. | -- | ND | 1480 | -- | | 1701 |
| 4-Ethyltoluene | ND | 340. | -- | ND | 1670 | -- | | 1701 |
| 1,3,5-Trimethylbenzene | ND | 340. | -- | ND | 1670 | -- | | 1701 |
| 1,2,4-Trimethylbenzene | ND | 340. | -- | ND | 1670 | -- | | 1701 |
| Benzyl chloride | ND | 340. | -- | ND | 1760 | -- | | 1701 |
| 1,3-Dichlorobenzene | ND | 340. | -- | ND | 2040 | -- | | 1701 |
| 1,4-Dichlorobenzene | ND | 340. | -- | ND | 2040 | -- | | 1701 |
| 1,2-Dichlorobenzene | ND | 340. | -- | ND | 2040 | -- | | 1701 |
| 1,2,4-Trichlorobenzene | ND | 340. | -- | ND | 2520 | -- | | 1701 |
| Hexachlorobutadiene | ND | 340. | -- | ND | 3630 | -- | | 1701 |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 68 | | 60-140 |
| Bromochloromethane | 96 | | 60-140 |
| chlorobenzene-d5 | 71 | | 60-140 |

***Project Name:*** DORO CLEANERS
***Project Number:*** B0359-015-001-002-00

***Lab Number:*** L1620645
***Report Date:*** 07/08/16

## *SAMPLE RESULTS*

Lab ID: L1620645-01 D2
Client ID: SVE-STARTUP
Sample Location: CHEEKTOWAGA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 07/08/16 09:25
Analyst: RY

Date Collected: 07/05/16 13:35
Date Received: 07/05/16
Field Prep: Not Specified

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Tetrachloroethene | 585000 | 1360 | -- | 3970000 | 9220 | -- | | 6812 |

| **Internal Standard** | **% Recovery** | **Qualifier** | **Acceptance Criteria** |
|---|---|---|---|
| 1,4-Difluorobenzene | 70 | | 60-140 |
| Bromochloromethane | 99 | | 60-140 |
| chlorobenzene-d5 | 73 | | 60-140 |

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00
**Lab Number:** L1620645
**Report Date:** 07/08/16

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 07/07/16 17:37

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG911245-4 | | | | | | | | |
| Chlorodifluoromethane | ND | 0.200 | -- | ND | 0.707 | -- | | 1 |
| Propylene | ND | 0.500 | -- | ND | 0.861 | -- | | 1 |
| Propane | ND | 0.500 | -- | ND | 0.902 | -- | | 1 |
| Dichlorodifluoromethane | ND | 0.200 | -- | ND | 0.989 | -- | | 1 |
| Chloromethane | ND | 0.200 | -- | ND | 0.413 | -- | | 1 |
| 1,2-Dichloro-1,1,2,2-tetrafluoroethane | ND | 0.200 | -- | ND | 1.40 | -- | | 1 |
| Methanol | ND | 5.00 | -- | ND | 6.55 | -- | | 1 |
| Vinyl chloride | ND | 0.200 | -- | ND | 0.511 | -- | | 1 |
| 1,3-Butadiene | ND | 0.200 | -- | ND | 0.442 | -- | | 1 |
| Butane | ND | 0.200 | -- | ND | 0.475 | -- | | 1 |
| Bromomethane | ND | 0.200 | -- | ND | 0.777 | -- | | 1 |
| Chloroethane | ND | 0.200 | -- | ND | 0.528 | -- | | 1 |
| Ethyl Alcohol | ND | 5.00 | -- | ND | 9.42 | -- | | 1 |
| Dichlorofluoromethane | ND | 0.200 | -- | ND | 0.842 | -- | | 1 |
| Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | | 1 |
| Acrolein | ND | 0.500 | -- | ND | 1.15 | -- | | 1 |
| Acetone | ND | 1.00 | -- | ND | 2.38 | -- | | 1 |
| Acetonitrile | ND | 0.200 | -- | ND | 0.336 | -- | | 1 |
| Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | | 1 |
| iso-Propyl Alcohol | ND | 0.500 | -- | ND | 1.23 | -- | | 1 |
| Acrylonitrile | ND | 0.500 | -- | ND | 1.09 | -- | | 1 |
| Pentane | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| Ethyl ether | ND | 0.200 | -- | ND | 0.606 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| tert-Butyl Alcohol | ND | 0.500 | -- | ND | 1.52 | -- | | 1 |

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00
**Lab Number:** L1620645
**Report Date:** 07/08/16

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 07/07/16 17:37

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG911245-4 | | | | | | | | |
| Methylene chloride | ND | 0.500 | -- | ND | 1.74 | -- | | 1 |
| 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | | 1 |
| Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | | 1 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 0.200 | -- | ND | 1.53 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| Vinyl acetate | ND | 1.00 | -- | ND | 3.52 | -- | | 1 |
| 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | | 1 |
| Chloroform | ND | 0.200 | -- | ND | 0.977 | -- | | 1 |
| Tetrahydrofuran | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| 2,2-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| 1,2-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | | 1 |
| n-Hexane | ND | 0.200 | -- | ND | 0.705 | -- | | 1 |
| Isopropyl Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| Ethyl-Tert-Butyl-Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| 1,1,1-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | | 1 |
| 1,1-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| Benzene | ND | 0.200 | -- | ND | 0.639 | -- | | 1 |
| Carbon tetrachloride | ND | 0.200 | -- | ND | 1.26 | -- | | 1 |
| Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | | 1 |
| Tertiary-Amyl Methyl Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| Dibromomethane | ND | 0.200 | -- | ND | 1.42 | -- | | 1 |

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00
**Lab Number:** L1620645
**Report Date:** 07/08/16

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 07/07/16 17:37

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG911245-4 | | | | | | | | |
| 1,2-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| Bromodichloromethane | ND | 0.200 | -- | ND | 1.34 | -- | | 1 |
| 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| Trichloroethene | ND | 0.200 | -- | ND | 1.07 | -- | | 1 |
| 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Methyl Methacrylate | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| Heptane | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | | 1 |
| Toluene | ND | 0.200 | -- | ND | 0.754 | -- | | 1 |
| 1,3-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| Dibromochloromethane | ND | 0.200 | -- | ND | 1.70 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.200 | -- | ND | 1.54 | -- | | 1 |
| Butyl Acetate | ND | 0.500 | -- | ND | 2.38 | -- | | 1 |
| Octane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Tetrachloroethene | ND | 0.200 | -- | ND | 1.36 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | | 1 |
| Chlorobenzene | ND | 0.200 | -- | ND | 0.921 | -- | | 1 |
| Ethylbenzene | ND | 0.200 | -- | ND | 0.869 | -- | | 1 |
| p/m-Xylene | ND | 0.400 | -- | ND | 1.74 | -- | | 1 |
| Bromoform | ND | 0.200 | -- | ND | 2.07 | -- | | 1 |
| Styrene | ND | 0.200 | -- | ND | 0.852 | -- | | 1 |

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00
**Lab Number:** L1620645
**Report Date:** 07/08/16

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 07/07/16 17:37

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG911245-4 | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | | 1 |
| o-Xylene | ND | 0.200 | -- | ND | 0.869 | -- | | 1 |
| 1,2,3-Trichloropropane | ND | 0.200 | -- | ND | 1.21 | -- | | 1 |
| Nonane (C9) | ND | 0.200 | -- | ND | 1.05 | -- | | 1 |
| Isopropylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Bromobenzene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| o-Chlorotoluene | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| n-Propylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| p-Chlorotoluene | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 1,3,5-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| tert-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2,4-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Decane (C10) | ND | 0.200 | -- | ND | 1.16 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| sec-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| p-Isopropyltoluene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| n-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dibromo-3-chloropropane | ND | 0.200 | -- | ND | 1.93 | -- | | 1 |
| Undecane | ND | 0.200 | -- | ND | 1.28 | -- | | 1 |
| Dodecane (C12) | ND | 0.200 | -- | ND | 1.39 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | | 1 |

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00
**Lab Number:** L1620645
**Report Date:** 07/08/16

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 07/07/16 17:37

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG911245-4 | | | | | | | | |
| Naphthalene | ND | 0.200 | -- | ND | 1.05 | -- | | 1 |
| 1,2,3-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | | 1 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DORO CLEANERS

**Project Number:** B0359-015-001-002-00

**Lab Number:** L1620645

**Report Date:** 07/08/16

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG911245-3 | | | | | | | | |
| Chlorodifluoromethane | 96 | | - | | 70-130 | - | | |
| Propylene | 104 | | - | | 70-130 | - | | |
| Propane | 90 | | - | | 70-130 | - | | |
| Dichlorodifluoromethane | 84 | | - | | 70-130 | - | | |
| Chloromethane | 104 | | - | | 70-130 | - | | |
| 1,2-Dichloro-1,1,2,2-tetrafluoroethane | 101 | | - | | 70-130 | - | | |
| Methanol | 91 | | - | | 70-130 | - | | |
| Vinyl chloride | 105 | | - | | 70-130 | - | | |
| 1,3-Butadiene | 113 | | - | | 70-130 | - | | |
| Butane | 101 | | - | | 70-130 | - | | |
| Bromomethane | 103 | | - | | 70-130 | - | | |
| Chloroethane | 107 | | - | | 70-130 | - | | |
| Ethyl Alcohol | 94 | | - | | 70-130 | - | | |
| Dichlorofluoromethane | 96 | | - | | 70-130 | - | | |
| Vinyl bromide | 105 | | - | | 70-130 | - | | |
| Acrolein | 102 | | - | | 70-130 | - | | |
| Acetone | 103 | | - | | 70-130 | - | | |
| Acetonitrile | 98 | | - | | 70-130 | - | | |
| Trichlorofluoromethane | 105 | | - | | 70-130 | - | | |
| iso-Propyl Alcohol | 99 | | - | | 70-130 | - | | |
| Acrylonitrile | 103 | | - | | 70-130 | - | | |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DORO CLEANERS

**Project Number:** B0359-015-001-002-00

**Lab Number:** L1620645

**Report Date:** 07/08/16

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG911245-3 | | | | | | | | |
| Pentane | 98 | | - | | 70-130 | - | | |
| Ethyl ether | 98 | | - | | 70-130 | - | | |
| 1,1-Dichloroethene | 106 | | - | | 70-130 | - | | |
| tert-Butyl Alcohol | 94 | | - | | 70-130 | - | | |
| Methylene chloride | 102 | | - | | 70-130 | - | | |
| 3-Chloropropene | 110 | | - | | 70-130 | - | | |
| Carbon disulfide | 107 | | - | | 70-130 | - | | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 107 | | - | | 70-130 | - | | |
| trans-1,2-Dichloroethene | 98 | | - | | 70-130 | - | | |
| 1,1-Dichloroethane | 98 | | - | | 70-130 | - | | |
| Methyl tert butyl ether | 93 | | - | | 70-130 | - | | |
| Vinyl acetate | 99 | | - | | 70-130 | - | | |
| 2-Butanone | 89 | | - | | 70-130 | - | | |
| cis-1,2-Dichloroethene | 107 | | - | | 70-130 | - | | |
| Ethyl Acetate | 112 | | - | | 70-130 | - | | |
| Chloroform | 113 | | - | | 70-130 | - | | |
| Tetrahydrofuran | 105 | | - | | 70-130 | - | | |
| 2,2-Dichloropropane | 106 | | - | | 70-130 | - | | |
| 1,2-Dichloroethane | 107 | | - | | 70-130 | - | | |
| n-Hexane | 95 | | - | | 70-130 | - | | |
| Isopropyl Ether | 94 | | - | | 70-130 | - | | |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DORO CLEANERS

**Project Number:** B0359-015-001-002-00

**Lab Number:** L1620645

**Report Date:** 07/08/16

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG911245-3 | | | | | | | | |
| Ethyl-Tert-Butyl-Ether | 93 | | - | | 70-130 | - | | |
| 1,1,1-Trichloroethane | 100 | | - | | 70-130 | - | | |
| 1,1-Dichloropropene | 98 | | - | | 70-130 | - | | |
| Benzene | 95 | | - | | 70-130 | - | | |
| Carbon tetrachloride | 102 | | - | | 70-130 | - | | |
| Cyclohexane | 98 | | - | | 70-130 | - | | |
| Tertiary-Amyl Methyl Ether | 95 | | - | | 70-130 | - | | |
| Dibromomethane | 92 | | - | | 70-130 | - | | |
| 1,2-Dichloropropane | 98 | | - | | 70-130 | - | | |
| Bromodichloromethane | 102 | | - | | 70-130 | - | | |
| 1,4-Dioxane | 100 | | - | | 70-130 | - | | |
| Trichloroethene | 110 | | - | | 70-130 | - | | |
| 2,2,4-Trimethylpentane | 104 | | - | | 70-130 | - | | |
| Methyl Methacrylate | 97 | | - | | 70-130 | - | | |
| Heptane | 99 | | - | | 70-130 | - | | |
| cis-1,3-Dichloropropene | 108 | | - | | 70-130 | - | | |
| 4-Methyl-2-pentanone | 100 | | - | | 70-130 | - | | |
| trans-1,3-Dichloropropene | 93 | | - | | 70-130 | - | | |
| 1,1,2-Trichloroethane | 98 | | - | | 70-130 | - | | |
| Toluene | 100 | | - | | 70-130 | - | | |
| 1,3-Dichloropropane | 92 | | - | | 70-130 | - | | |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DORO CLEANERS

**Project Number:** B0359-015-001-002-00

**Lab Number:** L1620645

**Report Date:** 07/08/16

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG911245-3 | | | | | | | | |
| 2-Hexanone | 102 | | - | | 70-130 | - | | |
| Dibromochloromethane | 108 | | - | | 70-130 | - | | |
| 1,2-Dibromoethane | 100 | | - | | 70-130 | - | | |
| Butyl Acetate | 97 | | - | | 70-130 | - | | |
| Octane | 99 | | - | | 70-130 | - | | |
| Tetrachloroethene | 102 | | - | | 70-130 | - | | |
| 1,1,1,2-Tetrachloroethane | 99 | | - | | 70-130 | - | | |
| Chlorobenzene | 102 | | - | | 70-130 | - | | |
| Ethylbenzene | 104 | | - | | 70-130 | - | | |
| p/m-Xylene | 106 | | - | | 70-130 | - | | |
| Bromoform | 110 | | - | | 70-130 | - | | |
| Styrene | 106 | | - | | 70-130 | - | | |
| 1,1,2,2-Tetrachloroethane | 88 | | - | | 70-130 | - | | |
| o-Xylene | 109 | | - | | 70-130 | - | | |
| 1,2,3-Trichloropropane | 90 | | - | | 70-130 | - | | |
| Nonane (C9) | 99 | | - | | 70-130 | - | | |
| Isopropylbenzene | 103 | | - | | 70-130 | - | | |
| Bromobenzene | 97 | | - | | 70-130 | - | | |
| o-Chlorotoluene | 100 | | - | | 70-130 | - | | |
| n-Propylbenzene | 102 | | - | | 70-130 | - | | |
| p-Chlorotoluene | 95 | | - | | 70-130 | - | | |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DORO CLEANERS

**Project Number:** B0359-015-001-002-00

**Lab Number:** L1620645

**Report Date:** 07/08/16

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG911245-3 | | | | | | | | |
| 4-Ethyltoluene | 104 | | - | | 70-130 | - | | |
| 1,3,5-Trimethylbenzene | 109 | | - | | 70-130 | - | | |
| tert-Butylbenzene | 103 | | - | | 70-130 | - | | |
| 1,2,4-Trimethylbenzene | 113 | | - | | 70-130 | - | | |
| Decane (C10) | 102 | | - | | 70-130 | - | | |
| Benzyl chloride | 116 | | - | | 70-130 | - | | |
| 1,3-Dichlorobenzene | 104 | | - | | 70-130 | - | | |
| 1,4-Dichlorobenzene | 104 | | - | | 70-130 | - | | |
| sec-Butylbenzene | 101 | | - | | 70-130 | - | | |
| p-Isopropyltoluene | 94 | | - | | 70-130 | - | | |
| 1,2-Dichlorobenzene | 101 | | - | | 70-130 | - | | |
| n-Butylbenzene | 92 | | - | | 70-130 | - | | |
| 1,2-Dibromo-3-chloropropane | 86 | | - | | 70-130 | - | | |
| Undecane | 91 | | - | | 70-130 | - | | |
| Dodecane (C12) | 108 | | - | | 70-130 | - | | |
| 1,2,4-Trichlorobenzene | 104 | | - | | 70-130 | - | | |
| Naphthalene | 94 | | - | | 70-130 | - | | |
| 1,2,3-Trichlorobenzene | 95 | | - | | 70-130 | - | | |
| Hexachlorobutadiene | 103 | | - | | 70-130 | - | | |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-00

**Lab Number:** L1620645
**Report Date:** 07/08/16

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG911245-5 QC Sample: L1620106-01 Client ID: DUP Sample | | | | | | |
| Propylene | ND | ND | ppbV | NC | | 25 |
| Dichlorodifluoromethane | 0.523 | 0.397 | ppbV | **27** | Q | 25 |
| Chloromethane | 0.232 | 0.219 | ppbV | 6 | | 25 |
| 1,2-Dichloro-1,1,2,2-tetrafluoroethane | ND | ND | ppbV | NC | | 25 |
| Vinyl chloride | ND | ND | ppbV | NC | | 25 |
| 1,3-Butadiene | ND | ND | ppbV | NC | | 25 |
| Bromomethane | ND | ND | ppbV | NC | | 25 |
| Chloroethane | ND | ND | ppbV | NC | | 25 |
| Ethyl Alcohol | 5.90 | 5.88 | ppbV | 0 | | 25 |
| Vinyl bromide | ND | ND | ppbV | NC | | 25 |
| Acetone | 4.10 | 4.16 | ppbV | 1 | | 25 |
| Trichlorofluoromethane | 0.654 | 0.644 | ppbV | 2 | | 25 |
| iso-Propyl Alcohol | ND | ND | ppbV | NC | | 25 |
| 1,1-Dichloroethene | ND | ND | ppbV | NC | | 25 |
| Methylene chloride | ND | ND | ppbV | NC | | 25 |
| 3-Chloropropene | ND | ND | ppbV | NC | | 25 |
| Carbon disulfide | ND | ND | ppbV | NC | | 25 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | ND | ppbV | NC | | 25 |
| trans-1,2-Dichloroethene | ND | ND | ppbV | NC | | 25 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-00

**Lab Number:** L1620645
**Report Date:** 07/08/16

| Parameter | Native Sample | Duplicate Sample | Units | RPD | RPD Limits |
|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG911245-5 QC Sample: L1620106-01 Client ID: DUP Sample | | | | | |
| 1,1-Dichloroethane | ND | 0.203 | ppbV | NC | 25 |
| Methyl tert butyl ether | ND | ND | ppbV | NC | 25 |
| Vinyl acetate | ND | ND | ppbV | NC | 25 |
| 2-Butanone | 0.752 | 0.763 | ppbV | 1 | 25 |
| cis-1,2-Dichloroethene | 2.33 | 2.36 | ppbV | 1 | 25 |
| Ethyl Acetate | ND | ND | ppbV | NC | 25 |
| Chloroform | ND | ND | ppbV | NC | 25 |
| Tetrahydrofuran | ND | ND | ppbV | NC | 25 |
| 1,2-Dichloroethane | ND | ND | ppbV | NC | 25 |
| n-Hexane | ND | ND | ppbV | NC | 25 |
| 1,1,1-Trichloroethane | 0.686 | 0.706 | ppbV | 3 | 25 |
| Benzene | ND | ND | ppbV | NC | 25 |
| Carbon tetrachloride | ND | ND | ppbV | NC | 25 |
| Cyclohexane | ND | ND | ppbV | NC | 25 |
| 1,2-Dichloropropane | ND | ND | ppbV | NC | 25 |
| Bromodichloromethane | ND | ND | ppbV | NC | 25 |
| 1,4-Dioxane | ND | ND | ppbV | NC | 25 |
| Trichloroethene | 0.278 | 0.262 | ppbV | 6 | 25 |
| 2,2,4-Trimethylpentane | ND | ND | ppbV | NC | 25 |

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## Batch Quality Control

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-00

**Lab Number:** L1620645
**Report Date:** 07/08/16

| Parameter | Native Sample | Duplicate Sample | Units | RPD | RPD Limits |
|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG911245-5 QC Sample: L1620106-01 Client ID: DUP Sample | | | | | |
| Heptane | ND | ND | ppbV | NC | 25 |
| cis-1,3-Dichloropropene | ND | ND | ppbV | NC | 25 |
| 4-Methyl-2-pentanone | ND | ND | ppbV | NC | 25 |
| trans-1,3-Dichloropropene | ND | ND | ppbV | NC | 25 |
| 1,1,2-Trichloroethane | ND | ND | ppbV | NC | 25 |
| Toluene | ND | ND | ppbV | NC | 25 |
| 2-Hexanone | ND | ND | ppbV | NC | 25 |
| Dibromochloromethane | ND | ND | ppbV | NC | 25 |
| 1,2-Dibromoethane | ND | ND | ppbV | NC | 25 |
| Tetrachloroethene | 40.3 | 40.3 | ppbV | 0 | 25 |
| Chlorobenzene | ND | ND | ppbV | NC | 25 |
| Ethylbenzene | ND | ND | ppbV | NC | 25 |
| p/m-Xylene | ND | ND | ppbV | NC | 25 |
| Bromoform | ND | ND | ppbV | NC | 25 |
| Styrene | ND | ND | ppbV | NC | 25 |
| 1,1,2,2-Tetrachloroethane | ND | ND | ppbV | NC | 25 |
| o-Xylene | ND | ND | ppbV | NC | 25 |
| 4-Ethyltoluene | ND | ND | ppbV | NC | 25 |
| 1,3,5-Trimethylbenzene | ND | ND | ppbV | NC | 25 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-00

**Lab Number:** L1620645
**Report Date:** 07/08/16

| Parameter | Native Sample | Duplicate Sample | Units | RPD | RPD Limits |
|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG911245-5 QC Sample: L1620106-01 Client ID: DUP Sample | | | | | |
| 1,2,4-Trimethylbenzene | ND | ND | ppbV | NC | 25 |
| Benzyl chloride | ND | ND | ppbV | NC | 25 |
| 1,3-Dichlorobenzene | ND | ND | ppbV | NC | 25 |
| 1,4-Dichlorobenzene | ND | ND | ppbV | NC | 25 |
| 1,2-Dichlorobenzene | ND | ND | ppbV | NC | 25 |
| 1,2,4-Trichlorobenzene | ND | ND | ppbV | NC | 25 |
| Naphthalene | ND | ND | ppbV | NC | 25 |
| Hexachlorobutadiene | ND | ND | ppbV | NC | 25 |

**Project Name:** DORO CLEANERS

**Lab Number:** L1620645

**Project Number:** B0359-015-001-002-00

**Report Date:** 07/08/16

## Canister and Flow Controller Information

| Samplenum | Client ID | Media ID | Media Type | Date Prepared | Bottle Order | Cleaning Batch ID | Can Leak Check | Initial Pressure (in. Hg) | Pressure on Receipt (in. Hg) | Flow Controler Leak Chk | Flow Out mL/min | Flow In mL/min | % RPD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1620645-01 | SVE-STARTUP | 213 | 2.7L Can | 06/30/16 | 224804 | L1618940-01 | Pass | -29.5 | -5.4 | - | - | - | - |
| L1620645-02 | UNUSED CAN#255 | 255 | 2.7L Can | 06/30/16 | 224804 | L1618940-01 | Pass | -28.1 | -5.1 | - | - | - | - |

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT
**Lab Number:** L1618940
**Report Date:** 07/08/16

# Air Canister Certification Results

Lab ID: L1618940-01
Client ID: CAN 198 SHELF 3
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 06/21/16 17:42
Analyst: MB

Date Collected: 06/20/16 16:00
Date Received: 06/21/16
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Chlorodifluoromethane | ND | 0.200 | -- | ND | 0.707 | -- | | 1 |
| Propylene | ND | 0.500 | -- | ND | 0.861 | -- | | 1 |
| Propane | ND | 0.500 | -- | ND | 0.902 | -- | | 1 |
| Dichlorodifluoromethane | ND | 0.200 | -- | ND | 0.989 | -- | | 1 |
| Chloromethane | ND | 0.200 | -- | ND | 0.413 | -- | | 1 |
| Freon-114 | ND | 0.200 | -- | ND | 1.40 | -- | | 1 |
| Methanol | ND | 5.00 | -- | ND | 6.55 | -- | | 1 |
| Vinyl chloride | ND | 0.200 | -- | ND | 0.511 | -- | | 1 |
| 1,3-Butadiene | ND | 0.200 | -- | ND | 0.442 | -- | | 1 |
| Butane | ND | 0.200 | -- | ND | 0.475 | -- | | 1 |
| Bromomethane | ND | 0.200 | -- | ND | 0.777 | -- | | 1 |
| Chloroethane | ND | 0.200 | -- | ND | 0.528 | -- | | 1 |
| Ethanol | ND | 5.00 | -- | ND | 9.42 | -- | | 1 |
| Dichlorofluoromethane | ND | 0.200 | -- | ND | 0.842 | -- | | 1 |
| Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | | 1 |
| Acrolein | ND | 0.500 | -- | ND | 1.15 | -- | | 1 |
| Acetone | ND | 1.00 | -- | ND | 2.38 | -- | | 1 |
| Acetonitrile | ND | 0.200 | -- | ND | 0.336 | -- | | 1 |
| Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | | 1 |
| Isopropanol | ND | 0.500 | -- | ND | 1.23 | -- | | 1 |
| Acrylonitrile | ND | 0.500 | -- | ND | 1.09 | -- | | 1 |
| Pentane | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| Ethyl ether | ND | 0.200 | -- | ND | 0.606 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| Tertiary butyl Alcohol | ND | 0.500 | -- | ND | 1.52 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT
**Lab Number:** L1618940
**Report Date:** 07/08/16

# Air Canister Certification Results

Lab ID: L1618940-01
Client ID: CAN 198 SHELF 3
Sample Location:
Date Collected: 06/20/16 16:00
Date Received: 06/21/16
Field Prep: Not Specified

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Methylene chloride | ND | 0.500 | -- | ND | 1.74 | -- | | 1 |
| 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | | 1 |
| Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | | 1 |
| Freon-113 | ND | 0.200 | -- | ND | 1.53 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| Vinyl acetate | ND | 1.00 | -- | ND | 3.52 | -- | | 1 |
| 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | | 1 |
| Chloroform | ND | 0.200 | -- | ND | 0.977 | -- | | 1 |
| Tetrahydrofuran | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| 2,2-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| 1,2-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | | 1 |
| n-Hexane | ND | 0.200 | -- | ND | 0.705 | -- | | 1 |
| Diisopropyl ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| tert-Butyl Ethyl Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| 1,1,1-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | | 1 |
| 1,1-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| Benzene | ND | 0.200 | -- | ND | 0.639 | -- | | 1 |
| Carbon tetrachloride | ND | 0.200 | -- | ND | 1.26 | -- | | 1 |
| Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | | 1 |
| tert-Amyl Methyl Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| Dibromomethane | ND | 0.200 | -- | ND | 1.42 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| Bromodichloromethane | ND | 0.200 | -- | ND | 1.34 | -- | | 1 |
| 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT
**Lab Number:** L1618940
**Report Date:** 07/08/16

# Air Canister Certification Results

Lab ID: L1618940-01
Client ID: CAN 198 SHELF 3
Sample Location:
Date Collected: 06/20/16 16:00
Date Received: 06/21/16
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Trichloroethene | ND | 0.200 | -- | ND | 1.07 | -- | | 1 |
| 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Methyl Methacrylate | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| Heptane | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | | 1 |
| Toluene | ND | 0.200 | -- | ND | 0.754 | -- | | 1 |
| 1,3-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| Dibromochloromethane | ND | 0.200 | -- | ND | 1.70 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.200 | -- | ND | 1.54 | -- | | 1 |
| Butyl acetate | ND | 0.500 | -- | ND | 2.38 | -- | | 1 |
| Octane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Tetrachloroethene | ND | 0.200 | -- | ND | 1.36 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | | 1 |
| Chlorobenzene | ND | 0.200 | -- | ND | 0.921 | -- | | 1 |
| Ethylbenzene | ND | 0.200 | -- | ND | 0.869 | -- | | 1 |
| p/m-Xylene | ND | 0.400 | -- | ND | 1.74 | -- | | 1 |
| Bromoform | ND | 0.200 | -- | ND | 2.07 | -- | | 1 |
| Styrene | ND | 0.200 | -- | ND | 0.852 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | | 1 |
| o-Xylene | ND | 0.200 | -- | ND | 0.869 | -- | | 1 |
| 1,2,3-Trichloropropane | ND | 0.200 | -- | ND | 1.21 | -- | | 1 |
| Nonane | ND | 0.200 | -- | ND | 1.05 | -- | | 1 |
| Isopropylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Bromobenzene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT

**Lab Number:** L1618940
**Report Date:** 07/08/16

# Air Canister Certification Results

Lab ID: L1618940-01
Client ID: CAN 198 SHELF 3
Sample Location:

Date Collected: 06/20/16 16:00
Date Received: 06/21/16
Field Prep: Not Specified

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| 2-Chlorotoluene | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| n-Propylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 4-Chlorotoluene | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 1,3,5-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| tert-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2,4-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Decane | ND | 0.200 | -- | ND | 1.16 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| sec-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| p-Isopropyltoluene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| n-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dibromo-3-chloropropane | ND | 0.200 | -- | ND | 1.93 | -- | | 1 |
| Undecane | ND | 0.200 | -- | ND | 1.28 | -- | | 1 |
| Dodecane | ND | 0.200 | -- | ND | 1.39 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | | 1 |
| Naphthalene | ND | 0.200 | -- | ND | 1.05 | -- | | 1 |
| 1,2,3-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | | 1 |

| | **Results** | **Qualifier** | **Units** | **RDL** | **Dilution Factor** |
|---|---|---|---|---|---|
| Tentatively Identified Compounds | | | | | |

No Tentatively Identified Compounds

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT

**Lab Number:** L1618940
**Report Date:** 07/08/16

# Air Canister Certification Results

Lab ID: L1618940-01
Client ID: CAN 198 SHELF 3
Sample Location:

Date Collected: 06/20/16 16:00
Date Received: 06/21/16
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 76 | | 60-140 |
| Bromochloromethane | 88 | | 60-140 |
| chlorobenzene-d5 | 74 | | 60-140 |

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT
**Lab Number:** L1618940
**Report Date:** 07/08/16

# Air Canister Certification Results

Lab ID: L1618940-01
Client ID: CAN 198 SHELF 3
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/21/16 17:42
Analyst: MB

Date Collected: 06/20/16 16:00
Date Received: 06/21/16
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| Dichlorodifluoromethane | ND | 0.200 | -- | ND | 0.989 | -- | | 1 |
| Chloromethane | ND | 0.200 | -- | ND | 0.413 | -- | | 1 |
| Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | | 1 |
| Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | | 1 |
| 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | | 1 |
| Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | | 1 |
| Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | | 1 |
| Acetone | ND | 1.00 | -- | ND | 2.38 | -- | | 1 |
| Trichlorofluoromethane | ND | 0.050 | -- | ND | 0.281 | -- | | 1 |
| Acrylonitrile | ND | 0.500 | -- | ND | 1.09 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| Methylene chloride | ND | 0.500 | -- | ND | 1.74 | -- | | 1 |
| Freon-113 | ND | 0.050 | -- | ND | 0.383 | -- | | 1 |
| Halothane | ND | 0.050 | -- | ND | 0.404 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| Chloroform | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,2-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| Benzene | ND | 0.100 | -- | ND | 0.319 | -- | | 1 |
| Carbon tetrachloride | ND | 0.020 | -- | ND | 0.126 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT

**Lab Number:** L1618940
**Report Date:** 07/08/16

# Air Canister Certification Results

Lab ID: L1618940-01
Client ID: CAN 198 SHELF 3
Sample Location:

Date Collected: 06/20/16 16:00
Date Received: 06/21/16
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | | 1 |
| 1,4-Dioxane | ND | 0.100 | -- | ND | 0.360 | -- | | 1 |
| Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| Toluene | ND | 0.050 | -- | ND | 0.188 | -- | | 1 |
| Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | | 1 |
| Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| Chlorobenzene | ND | 0.100 | -- | ND | 0.461 | -- | | 1 |
| Ethylbenzene | ND | 0.020 | -- | ND | 0.087 | -- | | 1 |
| p/m-Xylene | ND | 0.040 | -- | ND | 0.174 | -- | | 1 |
| Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | | 1 |
| Styrene | ND | 0.020 | -- | ND | 0.085 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| o-Xylene | ND | 0.020 | -- | ND | 0.087 | -- | | 1 |
| Isopropylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,3,5-Trimethybenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,2,4-Trimethylbenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| sec-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| p-Isopropyltoluene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT
**Lab Number:** L1618940
**Report Date:** 07/08/16

# Air Canister Certification Results

Lab ID: L1618940-01
Client ID: CAN 198 SHELF 3
Sample Location:
Date Collected: 06/20/16 16:00
Date Received: 06/21/16
Field Prep: Not Specified

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| n-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | | 1 |
| 1,2,3-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | | 1 |

| **Internal Standard** | **% Recovery** | **Qualifier** | **Acceptance Criteria** |
|---|---|---|---|
| 1,4-difluorobenzene | 79 | | 60-140 |
| bromochloromethane | 96 | | 60-140 |
| chlorobenzene-d5 | 81 | | 60-140 |

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00

**Lab Number:** L1620645
**Report Date:** 07/08/16

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

**Cooler Information** **Custody Seal**
**Cooler**
N/A Absent

**Container Information**

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|---|---|---|---|---|---|---|---|
| L1620645-01A | Canister - 2.7 Liter | N/A | N/A | | Y | Absent | TO15-LL(30) |
| L1620645-02A | Canister - 2.7 Liter | N/A | N/A | | Y | Absent | CLEAN-FEE() |

*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | DORO CLEANERS | **Lab Number:** | L1620645 |
| **Project Number:** | B0359-015-001-002-00 | **Report Date:** | 07/08/16 |

## GLOSSARY

### *Acronyms*

| | |
|---|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine. |
| NI | - Not Ignitable. |
| NP | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |
| STLP | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315. |
| TIC | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations. |

### *Footnotes*

| | |
|---|---|
| 1 | - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method. |

### *Terms*

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### *Data Qualifiers*

| | |
|---|---|
| **A** | - Spectra identified as "Aldol Condensation Product". |
| **B** | - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the |

*Report Format:* Data Usability Report

| | | | |
|---|---|---|---|
| **Project Name:** | DORO CLEANERS | **Lab Number:** | L1620645 |
| **Project Number:** | B0359-015-001-002-00 | **Report Date:** | 07/08/16 |

***Data Qualifiers***

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

**C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

**D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

**E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

**G** - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

**H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

**I** - The lower value for the two columns has been reported due to obvious interference.

**M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

**P** - The RPD between the results for the two columns exceeds the method-specified criteria.

**Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

**J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

**ND** - Not detected at the reporting limit (RL) for the sample.

*Report Format:* Data Usability Report

| | | | |
|---|---|---|---|
| **Project Name:** | DORO CLEANERS | **Lab Number:** | L1620645 |
| **Project Number:** | B0359-015-001-002-00 | **Report Date:** | 07/08/16 |

## REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

# Certification Information

**The following analytes are not included in our Primary NELAP Scope of Accreditation:**

**Westborough Facility**
**EPA 524.2:** 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
**EPA 624:** 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
**EPA 625:** Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
**EPA 1010A:** NPW: Ignitability
**EPA 6010C:** NPW: Strontium; SCM: Strontium
**EPA 8151A:** NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D:** NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
**EPA 9010:** NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
**EPA 9038:** NPW: Sulfate
**EPA 9050A:** NPW: Specific Conductance
**EPA 9056:** NPW: Chloride, Nitrate, Sulfate
**EPA 9065:** NPW: Phenols
**EPA 9251:** NPW: Chloride
**SM3500:** NPW: Ferrous Iron
**SM4500**: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
**SM5310C:** DW: Dissolved Organic Carbon

**Mansfield Facility**
**EPA 8270D:** NPW: Biphenyl; SCM: Biphenyl, Caprolactam
**EPA 8270D-SIM Isotope Dilution**: SCM: 1,4-Dioxane
**SM 2540D:** TSS
**SM2540G:** SCM: Percent Solids
**EPA 1631E**: SCM: Mercury
**EPA 7474:** SCM: Mercury
**EPA 8081B:** NPW and SCM: Mirex, Hexachlorobenzene.
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA 8270-SIM:** NPW and SCM: Alkylated PAHs.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
**Biological Tissue Matrix:** ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

**The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:**

***Drinking Water***
**EPA 200.8**: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
**EPA 300.0**: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
**EPA 332**: Perchlorate.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

***Non-Potable Water***
**EPA 200.8**: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
**EPA 200.7**: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH**, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
**EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
**EPA 624**: Volatile Halocarbons & Aromatics,
**EPA 608**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

# AIR ANALYSIS

PAGE 1 OF 1

**CHAIN OF CUSTODY**

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 7/6/16

ALPHA Job #: L1620645

## Client Information

Client: Benchmark Env Eng. + Science
Address: 2558 Hamburg Turnpike Suite 300 Buffalo NY
Phone: 716-856-0599
Fax:
Email: cbaron@turnkeyllc.com

☐ These samples have been previously analyzed by Alpha

## Project Information

Project Name: Dove Cleaners
Project Location: Cheektowaga NY
Project #: B0359-015-001-002-003
Project Manager: Chris Baron
ALPHA Quote #: 3/10/16 email

## Turn-Around Time

~~Standard~~ 4d. ☒ RUSH (only confirmed if pre-approved!)

Date Due: 7/8/16 Time: 1700

## Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker: _____
(Default based on Regulatory Criteria Indicated)
Other Formats: _____
☒ EMAIL (standard pdf report)
☐ Additional Deliverables: _____

Report to: (if different than Project Manager)

## Billing Information

☒ Same as Client info | PO #:

## Regulatory Requirements/Report Limits

| State/Fed | Program | Res / Comm |
|---|---|---|
| | | |
| | | |
| | | |

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

**All Columns Below Must Be Filled Out**

| ALPHA Lab ID (Lab Use Only) | Sample ID | COLLECTION End Date | Start Time | End Time | Initial Vacuum | Final Vacuum | Sample Matrix* | Sampler's Initials | Can Size | I D Can | I D - Flow Controller | TO-15 | TO-15 SIM | APH Subtract Non-petroleum HCs ☐ | Fixed Gases | Sulfides & Mercaptans by TO-15 | | Sample Comments (i.e. PID) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20645.01 | SVE-Startup | 7/5/16 | 1335 | 1355 | -22 | -3 | SV | [illegible] | 2.7 | 0213 | NA | X | | | | | | PID: 200 ppm |
| | | | | | | | | | | | | | | | | | | |
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*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type: Summa

| Relinquished By: | Date/Time | Received By: | Date/Time: |
|---|---|---|---|
| Chris Baron | 7/5/16 1800 | [illegible] AAL | 7/5/16 17:35 |
| [illegible] AAL | 7/6/16 0505 | [illegible] | 7/6/16 05:05 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L1621314 |
| Client: | Benchmark & Turnkey Companies<br>2558 Hamburg Turnpike<br>Suite 300<br>Buffalo, NY 14218 |
| ATTN: | Chris Boron |
| Phone: | (716) 856-0599 |
| Project Name: | DORO CLEANERS |
| Project Number: | B0359-015-001-002-00 |
| Report Date: | 07/18/16 |



Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00

**Lab Number:** L1621314
**Report Date:** 07/18/16

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L1621314-01 | SVE-SHUTDOWN | SOIL_VAPOR | CHEEKTOWAGA, NY | 07/11/16 11:27 | 07/11/16 |

| | | | |
|---|---|---|---|
| **Project Name:** | DORO CLEANERS | **Lab Number:** | L1621314 |
| **Project Number:** | B0359-015-001-002-00 | **Report Date:** | 07/18/16 |

## Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | DORO CLEANERS | **Lab Number:** | L1621314 |
| **Project Number:** | B0359-015-001-002-00 | **Report Date:** | 07/18/16 |

**Case Narrative (continued)**

Volatile Organics in Air

Canisters were released from the laboratory on July 7, 2016. The canister certification results are provided as an addendum.

Sample L1621314-01: The sample was diluted and re-analyzed to quantify the results within the calibration range. The results should be considered estimated, and are qualified with an E flag, for any compound that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 07/18/16

# AIR

***Project Name:*** DORO CLEANERS
***Project Number:*** B0359-015-001-002-00

***Lab Number:*** L1621314
***Report Date:*** 07/18/16

## *SAMPLE RESULTS*

Lab ID: L1621314-01 D
Client ID: SVE-SHUTDOWN
Sample Location: CHEEKTOWAGA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 07/16/16 06:12
Analyst: MB

Date Collected: 07/11/16 11:27
Date Received: 07/11/16
Field Prep: Not Specified

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Dichlorodifluoromethane | ND | 28.4 | -- | ND | 140 | -- | | 142.1 |
| Chloromethane | ND | 28.4 | -- | ND | 58.6 | -- | | 142.1 |
| 1,2-Dichloro-1,1,2,2-tetrafluoroethane | ND | 28.4 | -- | ND | 199 | -- | | 142.1 |
| Vinyl chloride | 197 | 28.4 | -- | 504 | 72.6 | -- | | 142.1 |
| 1,3-Butadiene | ND | 28.4 | -- | ND | 62.8 | -- | | 142.1 |
| Bromomethane | ND | 28.4 | -- | ND | 110 | -- | | 142.1 |
| Chloroethane | ND | 28.4 | -- | ND | 74.9 | -- | | 142.1 |
| Ethyl Alcohol | ND | 710 | -- | ND | 1340 | -- | | 142.1 |
| Vinyl bromide | ND | 28.4 | -- | ND | 124 | -- | | 142.1 |
| Acetone | ND | 142 | -- | ND | 337 | -- | | 142.1 |
| Trichlorofluoromethane | ND | 28.4 | -- | ND | 160 | -- | | 142.1 |
| iso-Propyl Alcohol | ND | 71.0 | -- | ND | 175 | -- | | 142.1 |
| 1,1-Dichloroethene | ND | 28.4 | -- | ND | 113 | -- | | 142.1 |
| tert-Butyl Alcohol | ND | 71.0 | -- | ND | 215 | -- | | 142.1 |
| Methylene chloride | ND | 71.0 | -- | ND | 247 | -- | | 142.1 |
| 3-Chloropropene | ND | 28.4 | -- | ND | 88.9 | -- | | 142.1 |
| Carbon disulfide | ND | 28.4 | -- | ND | 88.4 | -- | | 142.1 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 28.4 | -- | ND | 218 | -- | | 142.1 |
| trans-1,2-Dichloroethene | ND | 28.4 | -- | ND | 113 | -- | | 142.1 |
| 1,1-Dichloroethane | ND | 28.4 | -- | ND | 115 | -- | | 142.1 |
| Methyl tert butyl ether | ND | 28.4 | -- | ND | 102 | -- | | 142.1 |
| 2-Butanone | ND | 71.0 | -- | ND | 209 | -- | | 142.1 |
| cis-1,2-Dichloroethene | 1190 | 28.4 | -- | 4720 | 113 | -- | | 142.1 |
| Ethyl Acetate | ND | 71.0 | -- | ND | 256 | -- | | 142.1 |

***Project Name:*** DORO CLEANERS
***Project Number:*** B0359-015-001-002-00

***Lab Number:*** L1621314
***Report Date:*** 07/18/16

## *SAMPLE RESULTS*

Lab ID: L1621314-01 D
Client ID: SVE-SHUTDOWN
Sample Location: CHEEKTOWAGA, NY

Date Collected: 07/11/16 11:27
Date Received: 07/11/16
Field Prep: Not Specified

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Chloroform | ND | 28.4 | -- | ND | 139 | -- | | 142.1 |
| Tetrahydrofuran | ND | 71.0 | -- | ND | 209 | -- | | 142.1 |
| 1,2-Dichloroethane | ND | 28.4 | -- | ND | 115 | -- | | 142.1 |
| n-Hexane | ND | 28.4 | -- | ND | 100 | -- | | 142.1 |
| 1,1,1-Trichloroethane | ND | 28.4 | -- | ND | 155 | -- | | 142.1 |
| Benzene | ND | 28.4 | -- | ND | 90.7 | -- | | 142.1 |
| Carbon tetrachloride | ND | 28.4 | -- | ND | 179 | -- | | 142.1 |
| Cyclohexane | ND | 28.4 | -- | ND | 97.8 | -- | | 142.1 |
| 1,2-Dichloropropane | ND | 28.4 | -- | ND | 131 | -- | | 142.1 |
| Bromodichloromethane | ND | 28.4 | -- | ND | 190 | -- | | 142.1 |
| 1,4-Dioxane | ND | 28.4 | -- | ND | 102 | -- | | 142.1 |
| Trichloroethene | 510 | 28.4 | -- | 2740 | 153 | -- | | 142.1 |
| 2,2,4-Trimethylpentane | ND | 28.4 | -- | ND | 133 | -- | | 142.1 |
| Heptane | ND | 28.4 | -- | ND | 116 | -- | | 142.1 |
| cis-1,3-Dichloropropene | ND | 28.4 | -- | ND | 129 | -- | | 142.1 |
| 4-Methyl-2-pentanone | ND | 71.0 | -- | ND | 291 | -- | | 142.1 |
| trans-1,3-Dichloropropene | ND | 28.4 | -- | ND | 129 | -- | | 142.1 |
| 1,1,2-Trichloroethane | ND | 28.4 | -- | ND | 155 | -- | | 142.1 |
| Toluene | ND | 28.4 | -- | ND | 107 | -- | | 142.1 |
| 2-Hexanone | ND | 28.4 | -- | ND | 116 | -- | | 142.1 |
| Dibromochloromethane | ND | 28.4 | -- | ND | 242 | -- | | 142.1 |
| 1,2-Dibromoethane | ND | 28.4 | -- | ND | 218 | -- | | 142.1 |
| Tetrachloroethene | 14500 | 28.4 | -- | 98300 | 193 | -- | E | 142.1 |
| Chlorobenzene | ND | 28.4 | -- | ND | 131 | -- | | 142.1 |
| Ethylbenzene | ND | 28.4 | -- | ND | 123 | -- | | 142.1 |
| p/m-Xylene | ND | 56.8 | -- | ND | 247 | -- | | 142.1 |
| Bromoform | ND | 28.4 | -- | ND | 294 | -- | | 142.1 |
| Styrene | ND | 28.4 | -- | ND | 121 | -- | | 142.1 |

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00
**Lab Number:** L1621314
**Report Date:** 07/18/16

## SAMPLE RESULTS

Lab ID: L1621314-01 D
Client ID: SVE-SHUTDOWN
Sample Location: CHEEKTOWAGA, NY
Date Collected: 07/11/16 11:27
Date Received: 07/11/16
Field Prep: Not Specified

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 28.4 | -- | ND | 195 | -- | | 142.1 |
| o-Xylene | ND | 28.4 | -- | ND | 123 | -- | | 142.1 |
| 4-Ethyltoluene | ND | 28.4 | -- | ND | 140 | -- | | 142.1 |
| 1,3,5-Trimethylbenzene | ND | 28.4 | -- | ND | 140 | -- | | 142.1 |
| 1,2,4-Trimethylbenzene | ND | 28.4 | -- | ND | 140 | -- | | 142.1 |
| Benzyl chloride | ND | 28.4 | -- | ND | 147 | -- | | 142.1 |
| 1,3-Dichlorobenzene | ND | 28.4 | -- | ND | 171 | -- | | 142.1 |
| 1,4-Dichlorobenzene | ND | 28.4 | -- | ND | 171 | -- | | 142.1 |
| 1,2-Dichlorobenzene | ND | 28.4 | -- | ND | 171 | -- | | 142.1 |
| 1,2,4-Trichlorobenzene | ND | 28.4 | -- | ND | 211 | -- | | 142.1 |
| Hexachlorobutadiene | ND | 28.4 | -- | ND | 303 | -- | | 142.1 |

| **Internal Standard** | **% Recovery** | **Qualifier** | **Acceptance Criteria** |
|---|---|---|---|
| 1,4-Difluorobenzene | 107 | | 60-140 |
| Bromochloromethane | 110 | | 60-140 |
| chlorobenzene-d5 | 112 | | 60-140 |

***Project Name:*** DORO CLEANERS
***Project Number:*** B0359-015-001-002-00

***Lab Number:*** L1621314
***Report Date:*** 07/18/16

## *SAMPLE RESULTS*

Lab ID: L1621314-01 D2
Client ID: SVE-SHUTDOWN
Sample Location: CHEEKTOWAGA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 07/16/16 10:58
Analyst: MB

Date Collected: 07/11/16 11:27
Date Received: 07/11/16
Field Prep: Not Specified

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Tetrachloroethene | 15800 | 56.8 | -- | 107000 | 385 | -- | | 284.3 |

| **Internal Standard** | **% Recovery** | **Qualifier** | **Acceptance Criteria** |
|---|---|---|---|
| 1,4-Difluorobenzene | 108 | | 60-140 |
| Bromochloromethane | 110 | | 60-140 |
| chlorobenzene-d5 | 114 | | 60-140 |

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00
**Lab Number:** L1621314
**Report Date:** 07/18/16

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 07/15/16 15:20

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG913967-4 | | | | | | | | |
| Chlorodifluoromethane | ND | 0.200 | -- | ND | 0.707 | -- | | 1 |
| Propylene | ND | 0.500 | -- | ND | 0.861 | -- | | 1 |
| Propane | ND | 0.500 | -- | ND | 0.902 | -- | | 1 |
| Dichlorodifluoromethane | ND | 0.200 | -- | ND | 0.989 | -- | | 1 |
| Chloromethane | ND | 0.200 | -- | ND | 0.413 | -- | | 1 |
| 1,2-Dichloro-1,1,2,2-tetrafluoroethane | ND | 0.200 | -- | ND | 1.40 | -- | | 1 |
| Vinyl chloride | ND | 0.200 | -- | ND | 0.511 | -- | | 1 |
| 1,3-Butadiene | ND | 0.200 | -- | ND | 0.442 | -- | | 1 |
| Butane | ND | 0.200 | -- | ND | 0.475 | -- | | 1 |
| Bromomethane | ND | 0.200 | -- | ND | 0.777 | -- | | 1 |
| Chloroethane | ND | 0.200 | -- | ND | 0.528 | -- | | 1 |
| Ethyl Alcohol | ND | 5.00 | -- | ND | 9.42 | -- | | 1 |
| Dichlorofluoromethane | ND | 0.200 | -- | ND | 0.842 | -- | | 1 |
| Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | | 1 |
| Acrolein | ND | 0.500 | -- | ND | 1.15 | -- | | 1 |
| Acetone | ND | 1.00 | -- | ND | 2.38 | -- | | 1 |
| Acetonitrile | ND | 0.200 | -- | ND | 0.336 | -- | | 1 |
| Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | | 1 |
| iso-Propyl Alcohol | ND | 0.500 | -- | ND | 1.23 | -- | | 1 |
| Acrylonitrile | ND | 0.500 | -- | ND | 1.09 | -- | | 1 |
| Pentane | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| Ethyl ether | ND | 0.200 | -- | ND | 0.606 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| tert-Butyl Alcohol | ND | 0.500 | -- | ND | 1.52 | -- | | 1 |
| Methylene chloride | ND | 0.500 | -- | ND | 1.74 | -- | | 1 |

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00
**Lab Number:** L1621314
**Report Date:** 07/18/16

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 07/15/16 15:20

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG913967-4 | | | | | | | | |
| 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | | 1 |
| Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | | 1 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 0.200 | -- | ND | 1.53 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| Vinyl acetate | ND | 1.00 | -- | ND | 3.52 | -- | | 1 |
| 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | | 1 |
| Chloroform | ND | 0.200 | -- | ND | 0.977 | -- | | 1 |
| Tetrahydrofuran | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| 2,2-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| 1,2-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | | 1 |
| n-Hexane | ND | 0.200 | -- | ND | 0.705 | -- | | 1 |
| Isopropyl Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| Ethyl-Tert-Butyl-Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| 1,1,1-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | | 1 |
| 1,1-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| Benzene | ND | 0.200 | -- | ND | 0.639 | -- | | 1 |
| Carbon tetrachloride | ND | 0.200 | -- | ND | 1.26 | -- | | 1 |
| Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | | 1 |
| Tertiary-Amyl Methyl Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| Dibromomethane | ND | 0.200 | -- | ND | 1.42 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00
**Lab Number:** L1621314
**Report Date:** 07/18/16

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 07/15/16 15:20

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG913967-4 | | | | | | | | |
| Bromodichloromethane | ND | 0.200 | -- | ND | 1.34 | -- | | 1 |
| 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| Trichloroethene | ND | 0.200 | -- | ND | 1.07 | -- | | 1 |
| 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Methyl Methacrylate | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| Heptane | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | | 1 |
| Toluene | ND | 0.200 | -- | ND | 0.754 | -- | | 1 |
| 1,3-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| Dibromochloromethane | ND | 0.200 | -- | ND | 1.70 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.200 | -- | ND | 1.54 | -- | | 1 |
| Butyl Acetate | ND | 0.500 | -- | ND | 2.38 | -- | | 1 |
| Octane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Tetrachloroethene | ND | 0.200 | -- | ND | 1.36 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | | 1 |
| Chlorobenzene | ND | 0.200 | -- | ND | 0.921 | -- | | 1 |
| Ethylbenzene | ND | 0.200 | -- | ND | 0.869 | -- | | 1 |
| p/m-Xylene | ND | 0.400 | -- | ND | 1.74 | -- | | 1 |
| Bromoform | ND | 0.200 | -- | ND | 2.07 | -- | | 1 |
| Styrene | ND | 0.200 | -- | ND | 0.852 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | | 1 |

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00
**Lab Number:** L1621314
**Report Date:** 07/18/16

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 07/15/16 15:20

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG913967-4 | | | | | | | | |
| o-Xylene | ND | 0.200 | -- | ND | 0.869 | -- | | 1 |
| 1,2,3-Trichloropropane | ND | 0.200 | -- | ND | 1.21 | -- | | 1 |
| Nonane (C9) | ND | 0.200 | -- | ND | 1.05 | -- | | 1 |
| Isopropylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Bromobenzene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| o-Chlorotoluene | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| n-Propylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| p-Chlorotoluene | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 1,3,5-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| tert-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2,4-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Decane (C10) | ND | 0.200 | -- | ND | 1.16 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| sec-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| p-Isopropyltoluene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| n-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dibromo-3-chloropropane | ND | 0.200 | -- | ND | 1.93 | -- | | 1 |
| Undecane | ND | 0.200 | -- | ND | 1.28 | -- | | 1 |
| Dodecane (C12) | ND | 0.200 | -- | ND | 1.39 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | | 1 |
| Naphthalene | ND | 0.200 | -- | ND | 1.05 | -- | | 1 |

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00
**Lab Number:** L1621314
**Report Date:** 07/18/16

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 07/15/16 15:20

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG913967-4 | | | | | | | | |
| 1,2,3-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | | 1 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DORO CLEANERS

**Project Number:** B0359-015-001-002-00

**Lab Number:** L1621314

**Report Date:** 07/18/16

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG913967-3 | | | | | | | | |
| Chlorodifluoromethane | 81 | | - | | 70-130 | - | | |
| Propylene | 87 | | - | | 70-130 | - | | |
| Propane | 74 | | - | | 70-130 | - | | |
| Dichlorodifluoromethane | 90 | | - | | 70-130 | - | | |
| Chloromethane | 74 | | - | | 70-130 | - | | |
| 1,2-Dichloro-1,1,2,2-tetrafluoroethane | 85 | | - | | 70-130 | - | | |
| Vinyl chloride | 87 | | - | | 70-130 | - | | |
| 1,3-Butadiene | 78 | | - | | 70-130 | - | | |
| Butane | 71 | | - | | 70-130 | - | | |
| Bromomethane | 83 | | - | | 70-130 | - | | |
| Chloroethane | 85 | | - | | 70-130 | - | | |
| Ethyl Alcohol | 73 | | - | | 70-130 | - | | |
| Dichlorofluoromethane | 79 | | - | | 70-130 | - | | |
| Vinyl bromide | 82 | | - | | 70-130 | - | | |
| Acrolein | 81 | | - | | 70-130 | - | | |
| Acetone | 87 | | - | | 70-130 | - | | |
| Acetonitrile | 84 | | - | | 70-130 | - | | |
| Trichlorofluoromethane | 87 | | - | | 70-130 | - | | |
| iso-Propyl Alcohol | 92 | | - | | 70-130 | - | | |
| Acrylonitrile | 96 | | - | | 70-130 | - | | |
| Pentane | 85 | | - | | 70-130 | - | | |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DORO CLEANERS

**Project Number:** B0359-015-001-002-00

**Lab Number:** L1621314

**Report Date:** 07/18/16

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG913967-3 | | | | | | | | |
| Ethyl ether | 94 | | - | | 70-130 | - | | |
| 1,1-Dichloroethene | 93 | | - | | 70-130 | - | | |
| tert-Butyl Alcohol | 93 | | - | | 70-130 | - | | |
| Methylene chloride | 95 | | - | | 70-130 | - | | |
| 3-Chloropropene | 94 | | - | | 70-130 | - | | |
| Carbon disulfide | 102 | | - | | 70-130 | - | | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 104 | | - | | 70-130 | - | | |
| trans-1,2-Dichloroethene | 84 | | - | | 70-130 | - | | |
| 1,1-Dichloroethane | 92 | | - | | 70-130 | - | | |
| Methyl tert butyl ether | 100 | | - | | 70-130 | - | | |
| Vinyl acetate | 106 | | - | | 70-130 | - | | |
| 2-Butanone | 86 | | - | | 70-130 | - | | |
| cis-1,2-Dichloroethene | 104 | | - | | 70-130 | - | | |
| Ethyl Acetate | 81 | | - | | 70-130 | - | | |
| Chloroform | 97 | | - | | 70-130 | - | | |
| Tetrahydrofuran | 86 | | - | | 70-130 | - | | |
| 2,2-Dichloropropane | 93 | | - | | 70-130 | - | | |
| 1,2-Dichloroethane | 97 | | - | | 70-130 | - | | |
| n-Hexane | 98 | | - | | 70-130 | - | | |
| Isopropyl Ether | 90 | | - | | 70-130 | - | | |
| Ethyl-Tert-Butyl-Ether | 92 | | - | | 70-130 | - | | |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DORO CLEANERS

**Project Number:** B0359-015-001-002-00

**Lab Number:** L1621314

**Report Date:** 07/18/16

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG913967-3 | | | | | | | | |
| 1,1,1-Trichloroethane | 102 | | - | | 70-130 | - | | |
| 1,1-Dichloropropene | 97 | | - | | 70-130 | - | | |
| Benzene | 96 | | - | | 70-130 | - | | |
| Carbon tetrachloride | 102 | | - | | 70-130 | - | | |
| Cyclohexane | 100 | | - | | 70-130 | - | | |
| Tertiary-Amyl Methyl Ether | 95 | | - | | 70-130 | - | | |
| Dibromomethane | 92 | | - | | 70-130 | - | | |
| 1,2-Dichloropropane | 92 | | - | | 70-130 | - | | |
| Bromodichloromethane | 99 | | - | | 70-130 | - | | |
| 1,4-Dioxane | 91 | | - | | 70-130 | - | | |
| Trichloroethene | 98 | | - | | 70-130 | - | | |
| 2,2,4-Trimethylpentane | 99 | | - | | 70-130 | - | | |
| Methyl Methacrylate | 88 | | - | | 70-130 | - | | |
| Heptane | 92 | | - | | 70-130 | - | | |
| cis-1,3-Dichloropropene | 91 | | - | | 70-130 | - | | |
| 4-Methyl-2-pentanone | 94 | | - | | 70-130 | - | | |
| trans-1,3-Dichloropropene | 105 | | - | | 70-130 | - | | |
| 1,1,2-Trichloroethane | 100 | | - | | 70-130 | - | | |
| Toluene | 88 | | - | | 70-130 | - | | |
| 1,3-Dichloropropane | 85 | | - | | 70-130 | - | | |
| 2-Hexanone | 84 | | - | | 70-130 | - | | |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00

**Lab Number:** L1621314
**Report Date:** 07/18/16

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG913967-3 | | | | | | | | |
| Dibromochloromethane | 94 | | - | | 70-130 | - | | |
| 1,2-Dibromoethane | 90 | | - | | 70-130 | - | | |
| Butyl Acetate | 87 | | - | | 70-130 | - | | |
| Octane | 86 | | - | | 70-130 | - | | |
| Tetrachloroethene | 89 | | - | | 70-130 | - | | |
| 1,1,1,2-Tetrachloroethane | 84 | | - | | 70-130 | - | | |
| Chlorobenzene | 88 | | - | | 70-130 | - | | |
| Ethylbenzene | 92 | | - | | 70-130 | - | | |
| p/m-Xylene | 92 | | - | | 70-130 | - | | |
| Bromoform | 91 | | - | | 70-130 | - | | |
| Styrene | 96 | | - | | 70-130 | - | | |
| 1,1,2,2-Tetrachloroethane | 88 | | - | | 70-130 | - | | |
| o-Xylene | 93 | | - | | 70-130 | - | | |
| 1,2,3-Trichloropropane | 85 | | - | | 70-130 | - | | |
| Nonane (C9) | 82 | | - | | 70-130 | - | | |
| Isopropylbenzene | 90 | | - | | 70-130 | - | | |
| Bromobenzene | 87 | | - | | 70-130 | - | | |
| o-Chlorotoluene | 88 | | - | | 70-130 | - | | |
| n-Propylbenzene | 89 | | - | | 70-130 | - | | |
| p-Chlorotoluene | 88 | | - | | 70-130 | - | | |
| 4-Ethyltoluene | 90 | | - | | 70-130 | - | | |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DORO CLEANERS

**Project Number:** B0359-015-001-002-00

**Lab Number:** L1621314

**Report Date:** 07/18/16

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG913967-3 | | | | | | | | |
| 1,3,5-Trimethylbenzene | 111 | | - | | 70-130 | - | | |
| tert-Butylbenzene | 88 | | - | | 70-130 | - | | |
| 1,2,4-Trimethylbenzene | 94 | | - | | 70-130 | - | | |
| Decane (C10) | 88 | | - | | 70-130 | - | | |
| Benzyl chloride | 94 | | - | | 70-130 | - | | |
| 1,3-Dichlorobenzene | 96 | | - | | 70-130 | - | | |
| 1,4-Dichlorobenzene | 87 | | - | | 70-130 | - | | |
| sec-Butylbenzene | 88 | | - | | 70-130 | - | | |
| p-Isopropyltoluene | 82 | | - | | 70-130 | - | | |
| 1,2-Dichlorobenzene | 89 | | - | | 70-130 | - | | |
| n-Butylbenzene | 90 | | - | | 70-130 | - | | |
| 1,2-Dibromo-3-chloropropane | 88 | | - | | 70-130 | - | | |
| Undecane | 94 | | - | | 70-130 | - | | |
| Dodecane (C12) | 97 | | - | | 70-130 | - | | |
| 1,2,4-Trichlorobenzene | 96 | | - | | 70-130 | - | | |
| Naphthalene | 96 | | - | | 70-130 | - | | |
| 1,2,3-Trichlorobenzene | 93 | | - | | 70-130 | - | | |
| Hexachlorobutadiene | 93 | | - | | 70-130 | - | | |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-00

**Lab Number:** L1621314
**Report Date:** 07/18/16

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG913967-5 QC Sample: L1621311-01 Client ID: DUP Sample | | | | | | |
| Propylene | 11.6 | 12.0 | ppbV | 3 | | 25 |
| Dichlorodifluoromethane | ND | ND | ppbV | NC | | 25 |
| Chloromethane | ND | ND | ppbV | NC | | 25 |
| 1,2-Dichloro-1,1,2,2-tetrafluoroethane | ND | ND | ppbV | NC | | 25 |
| Vinyl chloride | ND | ND | ppbV | NC | | 25 |
| 1,3-Butadiene | 1.04 | 1.01 | ppbV | 3 | | 25 |
| Bromomethane | ND | ND | ppbV | NC | | 25 |
| Chloroethane | ND | ND | ppbV | NC | | 25 |
| Ethyl Alcohol | ND | ND | ppbV | NC | | 25 |
| Vinyl bromide | ND | ND | ppbV | NC | | 25 |
| Acetone | 13.8 | 13.8 | ppbV | 0 | | 25 |
| Trichlorofluoromethane | ND | ND | ppbV | NC | | 25 |
| iso-Propyl Alcohol | ND | ND | ppbV | NC | | 25 |
| 1,1-Dichloroethene | ND | ND | ppbV | NC | | 25 |
| Methylene chloride | ND | ND | ppbV | NC | | 25 |
| 3-Chloropropene | ND | ND | ppbV | NC | | 25 |
| Carbon disulfide | ND | ND | ppbV | NC | | 25 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | ND | ppbV | NC | | 25 |
| trans-1,2-Dichloroethene | ND | ND | ppbV | NC | | 25 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-00

**Lab Number:** L1621314
**Report Date:** 07/18/16

| Parameter | Native Sample | Duplicate Sample | Units | RPD | RPD Limits |
|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG913967-5 QC Sample: L1621311-01 Client ID: DUP Sample | | | | | |
| 1,1-Dichloroethane | ND | ND | ppbV | NC | 25 |
| Methyl tert butyl ether | ND | ND | ppbV | NC | 25 |
| Vinyl acetate | ND | ND | ppbV | NC | 25 |
| 2-Butanone | ND | ND | ppbV | NC | 25 |
| cis-1,2-Dichloroethene | ND | ND | ppbV | NC | 25 |
| Ethyl Acetate | ND | ND | ppbV | NC | 25 |
| Chloroform | ND | ND | ppbV | NC | 25 |
| Tetrahydrofuran | ND | ND | ppbV | NC | 25 |
| 1,2-Dichloroethane | ND | ND | ppbV | NC | 25 |
| n-Hexane | 1.30 | 1.30 | ppbV | 0 | 25 |
| 1,1,1-Trichloroethane | ND | ND | ppbV | NC | 25 |
| Benzene | 1.04 | 1.06 | ppbV | 2 | 25 |
| Carbon tetrachloride | ND | ND | ppbV | NC | 25 |
| Cyclohexane | ND | ND | ppbV | NC | 25 |
| 1,2-Dichloropropane | ND | ND | ppbV | NC | 25 |
| Bromodichloromethane | ND | ND | ppbV | NC | 25 |
| 1,4-Dioxane | ND | ND | ppbV | NC | 25 |
| Trichloroethene | 341 | 342 | ppbV | 0 | 25 |
| 2,2,4-Trimethylpentane | ND | ND | ppbV | NC | 25 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-00

**Lab Number:** L1621314
**Report Date:** 07/18/16

| Parameter | Native Sample | Duplicate Sample | Units | RPD | RPD Limits |
|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG913967-5 QC Sample: L1621311-01 Client ID: DUP Sample | | | | | |
| Heptane | ND | ND | ppbV | NC | 25 |
| cis-1,3-Dichloropropene | ND | ND | ppbV | NC | 25 |
| 4-Methyl-2-pentanone | ND | ND | ppbV | NC | 25 |
| trans-1,3-Dichloropropene | ND | ND | ppbV | NC | 25 |
| 1,1,2-Trichloroethane | ND | ND | ppbV | NC | 25 |
| Toluene | 8.56 | 8.69 | ppbV | 2 | 25 |
| 2-Hexanone | ND | ND | ppbV | NC | 25 |
| Dibromochloromethane | ND | ND | ppbV | NC | 25 |
| 1,2-Dibromoethane | ND | ND | ppbV | NC | 25 |
| Tetrachloroethene | 62.2 | 63.6 | ppbV | 2 | 25 |
| Chlorobenzene | ND | ND | ppbV | NC | 25 |
| Ethylbenzene | 1.96 | 1.94 | ppbV | 1 | 25 |
| p/m-Xylene | 8.60 | 8.58 | ppbV | 0 | 25 |
| Bromoform | ND | ND | ppbV | NC | 25 |
| Styrene | ND | ND | ppbV | NC | 25 |
| 1,1,2,2-Tetrachloroethane | ND | ND | ppbV | NC | 25 |
| o-Xylene | 2.68 | 2.70 | ppbV | 1 | 25 |
| 4-Ethyltoluene | ND | ND | ppbV | NC | 25 |
| 1,3,5-Trimethylbenzene | ND | ND | ppbV | NC | 25 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-00

**Lab Number:** L1621314
**Report Date:** 07/18/16

| Parameter | Native Sample | Duplicate Sample | Units | RPD | RPD Limits |
|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG913967-5 QC Sample: L1621311-01 Client ID: DUP Sample | | | | | |
| 1,2,4-Trimethylbenzene | 2.78 | 2.82 | ppbV | 1 | 25 |
| Benzyl chloride | ND | ND | ppbV | NC | 25 |
| 1,3-Dichlorobenzene | ND | ND | ppbV | NC | 25 |
| 1,4-Dichlorobenzene | ND | ND | ppbV | NC | 25 |
| 1,2-Dichlorobenzene | ND | ND | ppbV | NC | 25 |
| 1,2,4-Trichlorobenzene | ND | ND | ppbV | NC | 25 |
| Naphthalene | ND | ND | ppbV | NC | 25 |
| Hexachlorobutadiene | ND | ND | ppbV | NC | 25 |

**Project Name:** DORO CLEANERS

**Project Number:** B0359-015-001-002-00

**Lab Number:** L1621314

**Report Date:** 07/18/16

## Canister and Flow Controller Information

| Samplenum | Client ID | Media ID | Media Type | Date Prepared | Bottle Order | Cleaning Batch ID | Can Leak Check | Initial Pressure (in. Hg) | Pressure on Receipt (in. Hg) | Flow Controler Leak Chk | Flow Out mL/min | Flow In mL/min | % RPD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1621314-01 | SVE-SHUTDOWN | 232 | 2.7L Can | 07/07/16 | 225044 | L1620186-01 | Pass | -29.4 | -0.9 | - | - | - | - |

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT
**Lab Number:** L1620186
**Report Date:** 07/18/16

# Air Canister Certification Results

Lab ID: L1620186-01
Client ID: CAN 536 SHELF 8
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/01/16 18:53
Analyst: RY

Date Collected: 06/29/16 16:00
Date Received: 06/30/16
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| **Volatile Organics in Air - Mansfield Lab** | | | | | | | | |
| Chlorodifluoromethane | ND | 0.200 | -- | ND | 0.707 | -- | | 1 |
| Propylene | ND | 0.500 | -- | ND | 0.861 | -- | | 1 |
| Propane | ND | 0.500 | -- | ND | 0.902 | -- | | 1 |
| Dichlorodifluoromethane | ND | 0.200 | -- | ND | 0.989 | -- | | 1 |
| Chloromethane | ND | 0.200 | -- | ND | 0.413 | -- | | 1 |
| Freon-114 | ND | 0.200 | -- | ND | 1.40 | -- | | 1 |
| Methanol | ND | 5.00 | -- | ND | 6.55 | -- | | 1 |
| Vinyl chloride | ND | 0.200 | -- | ND | 0.511 | -- | | 1 |
| 1,3-Butadiene | ND | 0.200 | -- | ND | 0.442 | -- | | 1 |
| Butane | ND | 0.200 | -- | ND | 0.475 | -- | | 1 |
| Bromomethane | ND | 0.200 | -- | ND | 0.777 | -- | | 1 |
| Chloroethane | ND | 0.200 | -- | ND | 0.528 | -- | | 1 |
| Ethanol | ND | 5.00 | -- | ND | 9.42 | -- | | 1 |
| Dichlorofluoromethane | ND | 0.200 | -- | ND | 0.842 | -- | | 1 |
| Vinyl bromide | ND | 0.200 | -- | ND | 0.874 | -- | | 1 |
| Acrolein | ND | 0.500 | -- | ND | 1.15 | -- | | 1 |
| Acetone | ND | 1.00 | -- | ND | 2.38 | -- | | 1 |
| Acetonitrile | ND | 0.200 | -- | ND | 0.336 | -- | | 1 |
| Trichlorofluoromethane | ND | 0.200 | -- | ND | 1.12 | -- | | 1 |
| Isopropanol | ND | 0.500 | -- | ND | 1.23 | -- | | 1 |
| Acrylonitrile | ND | 0.500 | -- | ND | 1.09 | -- | | 1 |
| Pentane | ND | 0.200 | -- | ND | 0.590 | -- | | 1 |
| Ethyl ether | ND | 0.200 | -- | ND | 0.606 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| Tertiary butyl Alcohol | ND | 0.500 | -- | ND | 1.52 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT
**Lab Number:** L1620186
**Report Date:** 07/18/16

# Air Canister Certification Results

Lab ID: L1620186-01
Client ID: CAN 536 SHELF 8
Sample Location:
Date Collected: 06/29/16 16:00
Date Received: 06/30/16
Field Prep: Not Specified

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Methylene chloride | ND | 0.500 | -- | ND | 1.74 | -- | | 1 |
| 3-Chloropropene | ND | 0.200 | -- | ND | 0.626 | -- | | 1 |
| Carbon disulfide | ND | 0.200 | -- | ND | 0.623 | -- | | 1 |
| Freon-113 | ND | 0.200 | -- | ND | 1.53 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| Vinyl acetate | ND | 1.00 | -- | ND | 3.52 | -- | | 1 |
| 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |
| Ethyl Acetate | ND | 0.500 | -- | ND | 1.80 | -- | | 1 |
| Chloroform | ND | 0.200 | -- | ND | 0.977 | -- | | 1 |
| Tetrahydrofuran | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| 2,2-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| 1,2-Dichloroethane | ND | 0.200 | -- | ND | 0.809 | -- | | 1 |
| n-Hexane | ND | 0.200 | -- | ND | 0.705 | -- | | 1 |
| Diisopropyl ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| tert-Butyl Ethyl Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| 1,1,1-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | | 1 |
| 1,1-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| Benzene | ND | 0.200 | -- | ND | 0.639 | -- | | 1 |
| Carbon tetrachloride | ND | 0.200 | -- | ND | 1.26 | -- | | 1 |
| Cyclohexane | ND | 0.200 | -- | ND | 0.688 | -- | | 1 |
| tert-Amyl Methyl Ether | ND | 0.200 | -- | ND | 0.836 | -- | | 1 |
| Dibromomethane | ND | 0.200 | -- | ND | 1.42 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| Bromodichloromethane | ND | 0.200 | -- | ND | 1.34 | -- | | 1 |
| 1,4-Dioxane | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT
**Lab Number:** L1620186
**Report Date:** 07/18/16

# Air Canister Certification Results

Lab ID: L1620186-01
Client ID: CAN 536 SHELF 8
Sample Location:
Date Collected: 06/29/16 16:00
Date Received: 06/30/16
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| Trichloroethene | ND | 0.200 | -- | ND | 1.07 | -- | | 1 |
| 2,2,4-Trimethylpentane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Methyl Methacrylate | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| Heptane | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.200 | -- | ND | 0.908 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.200 | -- | ND | 1.09 | -- | | 1 |
| Toluene | ND | 0.200 | -- | ND | 0.754 | -- | | 1 |
| 1,3-Dichloropropane | ND | 0.200 | -- | ND | 0.924 | -- | | 1 |
| 2-Hexanone | ND | 0.200 | -- | ND | 0.820 | -- | | 1 |
| Dibromochloromethane | ND | 0.200 | -- | ND | 1.70 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.200 | -- | ND | 1.54 | -- | | 1 |
| Butyl acetate | ND | 0.500 | -- | ND | 2.38 | -- | | 1 |
| Octane | ND | 0.200 | -- | ND | 0.934 | -- | | 1 |
| Tetrachloroethene | ND | 0.200 | -- | ND | 1.36 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | | 1 |
| Chlorobenzene | ND | 0.200 | -- | ND | 0.921 | -- | | 1 |
| Ethylbenzene | ND | 0.200 | -- | ND | 0.869 | -- | | 1 |
| p/m-Xylene | ND | 0.400 | -- | ND | 1.74 | -- | | 1 |
| Bromoform | ND | 0.200 | -- | ND | 2.07 | -- | | 1 |
| Styrene | ND | 0.200 | -- | ND | 0.852 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.200 | -- | ND | 1.37 | -- | | 1 |
| o-Xylene | ND | 0.200 | -- | ND | 0.869 | -- | | 1 |
| 1,2,3-Trichloropropane | ND | 0.200 | -- | ND | 1.21 | -- | | 1 |
| Nonane | ND | 0.200 | -- | ND | 1.05 | -- | | 1 |
| Isopropylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Bromobenzene | ND | 0.200 | -- | ND | 0.793 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT
**Lab Number:** L1620186
**Report Date:** 07/18/16

# Air Canister Certification Results

Lab ID: L1620186-01
Client ID: CAN 536 SHELF 8
Sample Location:
Date Collected: 06/29/16 16:00
Date Received: 06/30/16
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |
| 2-Chlorotoluene | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| n-Propylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 4-Chlorotoluene | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 1,3,5-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| tert-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2,4-Trimethylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| Decane | ND | 0.200 | -- | ND | 1.16 | -- | | 1 |
| Benzyl chloride | ND | 0.200 | -- | ND | 1.04 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| sec-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| p-Isopropyltoluene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.200 | -- | ND | 1.20 | -- | | 1 |
| n-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dibromo-3-chloropropane | ND | 0.200 | -- | ND | 1.93 | -- | | 1 |
| Undecane | ND | 0.200 | -- | ND | 1.28 | -- | | 1 |
| Dodecane | ND | 0.200 | -- | ND | 1.39 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | | 1 |
| Naphthalene | ND | 0.200 | -- | ND | 1.05 | -- | | 1 |
| 1,2,3-Trichlorobenzene | ND | 0.200 | -- | ND | 1.48 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.200 | -- | ND | 2.13 | -- | | 1 |

| | Results | Qualifier | Units | RDL | Dilution Factor |
|---|---|---|---|---|---|
| Tentatively Identified Compounds | | | | | |
| No Tentatively Identified Compounds | | | | | |

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT
**Lab Number:** L1620186
**Report Date:** 07/18/16

# Air Canister Certification Results

Lab ID: L1620186-01
Client ID: CAN 536 SHELF 8
Sample Location:
Date Collected: 06/29/16 16:00
Date Received: 06/30/16
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air - Mansfield Lab | | | | | | | | |

| Internal Standard | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,4-Difluorobenzene | 85 | | 60-140 |
| Bromochloromethane | 87 | | 60-140 |
| chlorobenzene-d5 | 84 | | 60-140 |

**Project Name:** BATCH CANISTER CERTIFICATION **Lab Number:** L1620186

**Project Number:** CANISTER QC BAT **Report Date:** 07/18/16

# Air Canister Certification Results

Lab ID: L1620186-01
Client ID: CAN 536 SHELF 8
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/01/16 18:53
Analyst: RY

Date Collected: 06/29/16 16:00
Date Received: 06/30/16
Field Prep: Not Specified

| Parameter | ppbV Results | ppbV RL | ppbV MDL | ug/m3 Results | ug/m3 RL | ug/m3 MDL | Qualifier | Dilution Factor |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| Dichlorodifluoromethane | ND | 0.200 | -- | ND | 0.989 | -- | | 1 |
| Chloromethane | ND | 0.200 | -- | ND | 0.413 | -- | | 1 |
| Freon-114 | ND | 0.050 | -- | ND | 0.349 | -- | | 1 |
| Vinyl chloride | ND | 0.020 | -- | ND | 0.051 | -- | | 1 |
| 1,3-Butadiene | ND | 0.020 | -- | ND | 0.044 | -- | | 1 |
| Bromomethane | ND | 0.020 | -- | ND | 0.078 | -- | | 1 |
| Chloroethane | ND | 0.020 | -- | ND | 0.053 | -- | | 1 |
| Acetone | ND | 1.00 | -- | ND | 2.38 | -- | | 1 |
| Trichlorofluoromethane | ND | 0.050 | -- | ND | 0.281 | -- | | 1 |
| Acrylonitrile | ND | 0.500 | -- | ND | 1.09 | -- | | 1 |
| 1,1-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| Methylene chloride | ND | 0.500 | -- | ND | 1.74 | -- | | 1 |
| Freon-113 | ND | 0.050 | -- | ND | 0.383 | -- | | 1 |
| Halothane | ND | 0.050 | -- | ND | 0.404 | -- | | 1 |
| trans-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| 1,1-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| Methyl tert butyl ether | ND | 0.200 | -- | ND | 0.721 | -- | | 1 |
| 2-Butanone | ND | 0.500 | -- | ND | 1.47 | -- | | 1 |
| cis-1,2-Dichloroethene | ND | 0.020 | -- | ND | 0.079 | -- | | 1 |
| Chloroform | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,2-Dichloroethane | ND | 0.020 | -- | ND | 0.081 | -- | | 1 |
| 1,1,1-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| Benzene | ND | 0.100 | -- | ND | 0.319 | -- | | 1 |
| Carbon tetrachloride | ND | 0.020 | -- | ND | 0.126 | -- | | 1 |
| 1,2-Dichloropropane | ND | 0.020 | -- | ND | 0.092 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT
**Lab Number:** L1620186
**Report Date:** 07/18/16

# Air Canister Certification Results

Lab ID: L1620186-01
Client ID: CAN 536 SHELF 8
Sample Location:
Date Collected: 06/29/16 16:00
Date Received: 06/30/16
Field Prep: Not Specified

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| Bromodichloromethane | ND | 0.020 | -- | ND | 0.134 | -- | | 1 |
| 1,4-Dioxane | ND | 0.100 | -- | ND | 0.360 | -- | | 1 |
| Trichloroethene | ND | 0.020 | -- | ND | 0.107 | -- | | 1 |
| cis-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| 4-Methyl-2-pentanone | ND | 0.500 | -- | ND | 2.05 | -- | | 1 |
| trans-1,3-Dichloropropene | ND | 0.020 | -- | ND | 0.091 | -- | | 1 |
| 1,1,2-Trichloroethane | ND | 0.020 | -- | ND | 0.109 | -- | | 1 |
| Toluene | ND | 0.050 | -- | ND | 0.188 | -- | | 1 |
| Dibromochloromethane | ND | 0.020 | -- | ND | 0.170 | -- | | 1 |
| 1,2-Dibromoethane | ND | 0.020 | -- | ND | 0.154 | -- | | 1 |
| Tetrachloroethene | ND | 0.020 | -- | ND | 0.136 | -- | | 1 |
| 1,1,1,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| Chlorobenzene | ND | 0.100 | -- | ND | 0.461 | -- | | 1 |
| Ethylbenzene | ND | 0.020 | -- | ND | 0.087 | -- | | 1 |
| p/m-Xylene | ND | 0.040 | -- | ND | 0.174 | -- | | 1 |
| Bromoform | ND | 0.020 | -- | ND | 0.207 | -- | | 1 |
| Styrene | ND | 0.020 | -- | ND | 0.085 | -- | | 1 |
| 1,1,2,2-Tetrachloroethane | ND | 0.020 | -- | ND | 0.137 | -- | | 1 |
| o-Xylene | ND | 0.020 | -- | ND | 0.087 | -- | | 1 |
| Isopropylbenzene | ND | 0.200 | -- | ND | 0.983 | -- | | 1 |
| 4-Ethyltoluene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,3,5-Trimethybenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,2,4-Trimethylbenzene | ND | 0.020 | -- | ND | 0.098 | -- | | 1 |
| 1,3-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| 1,4-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |
| sec-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| p-Isopropyltoluene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2-Dichlorobenzene | ND | 0.020 | -- | ND | 0.120 | -- | | 1 |

**Project Name:** BATCH CANISTER CERTIFICATION
**Project Number:** CANISTER QC BAT
**Lab Number:** L1620186
**Report Date:** 07/18/16

# Air Canister Certification Results

Lab ID: L1620186-01
Client ID: CAN 536 SHELF 8
Sample Location:
Date Collected: 06/29/16 16:00
Date Received: 06/30/16
Field Prep: Not Specified

| | ppbV | | | ug/m3 | | | | |
|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Results** | **RL** | **MDL** | **Results** | **RL** | **MDL** | **Qualifier** | **Dilution Factor** |
| Volatile Organics in Air by SIM - Mansfield Lab | | | | | | | | |
| n-Butylbenzene | ND | 0.200 | -- | ND | 1.10 | -- | | 1 |
| 1,2,4-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| Naphthalene | ND | 0.050 | -- | ND | 0.262 | -- | | 1 |
| 1,2,3-Trichlorobenzene | ND | 0.050 | -- | ND | 0.371 | -- | | 1 |
| Hexachlorobutadiene | ND | 0.050 | -- | ND | 0.533 | -- | | 1 |

| **Internal Standard** | **% Recovery** | **Qualifier** | **Acceptance Criteria** |
|---|---|---|---|
| 1,4-difluorobenzene | 86 | | 60-140 |
| bromochloromethane | 89 | | 60-140 |
| chlorobenzene-d5 | 87 | | 60-140 |

**Project Name:** DORO CLEANERS
**Project Number:** B0359-015-001-002-00

**Lab Number:** L1621314
**Report Date:** 07/18/16

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

**Cooler Information** **Custody Seal**
**Cooler**
N/A Absent

**Container Information**

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|---|---|---|---|---|---|---|---|
| L1621314-01A | Canister - 2.7 Liter | N/A | N/A | | Y | Absent | TO15-LL(30) |

*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | DORO CLEANERS | **Lab Number:** | L1621314 |
| **Project Number:** | B0359-015-001-002-00 | **Report Date:** | 07/18/16 |

## GLOSSARY

### *Acronyms*

| | |
|---|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine. |
| NI | - Not Ignitable. |
| NP | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |
| STLP | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315. |
| TIC | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations. |

### *Footnotes*

| | |
|---|---|
| 1 | - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method. |

### *Terms*

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### *Data Qualifiers*

| | |
|---|---|
| **A** | - Spectra identified as "Aldol Condensation Product". |
| **B** | - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the |

*Report Format:* Data Usability Report

| | | | |
|---|---|---|---|
| **Project Name:** | DORO CLEANERS | **Lab Number:** | L1621314 |
| **Project Number:** | B0359-015-001-002-00 | **Report Date:** | 07/18/16 |

***Data Qualifiers***

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

**C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

**D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

**E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

**G** - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

**H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

**I** - The lower value for the two columns has been reported due to obvious interference.

**M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

**P** - The RPD between the results for the two columns exceeds the method-specified criteria.

**Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

**J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

**ND** - Not detected at the reporting limit (RL) for the sample.

*Report Format:* Data Usability Report

| | | | |
|---|---|---|---|
| **Project Name:** | DORO CLEANERS | **Lab Number:** | L1621314 |
| **Project Number:** | B0359-015-001-002-00 | **Report Date:** | 07/18/16 |

## REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

# Certification Information

**The following analytes are not included in our Primary NELAP Scope of Accreditation:**

**Westborough Facility**
**EPA 524.2:** 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
**EPA 624:** 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
**EPA 625:** Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
**EPA 1010A:** NPW: Ignitability
**EPA 6010C:** NPW: Strontium; SCM: Strontium
**EPA 8151A:** NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D:** NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
**EPA 9010:** NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
**EPA 9038:** NPW: Sulfate
**EPA 9050A:** NPW: Specific Conductance
**EPA 9056:** NPW: Chloride, Nitrate, Sulfate
**EPA 9065:** NPW: Phenols
**EPA 9251:** NPW: Chloride
**SM3500:** NPW: Ferrous Iron
**SM4500**: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
**SM5310C:** DW: Dissolved Organic Carbon

**Mansfield Facility**
**EPA 8270D:** NPW: Biphenyl; SCM: Biphenyl, Caprolactam
**EPA 8270D-SIM Isotope Dilution**: SCM: 1,4-Dioxane
**SM 2540D:** TSS
**SM2540G:** SCM: Percent Solids
**EPA 1631E**: SCM: Mercury
**EPA 7474:** SCM: Mercury
**EPA 8081B:** NPW and SCM: Mirex, Hexachlorobenzene.
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA 8270-SIM:** NPW and SCM: Alkylated PAHs.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
**Biological Tissue Matrix:** ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

**The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:**

***Drinking Water***
**EPA 200.8**: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
**EPA 300.0**: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
**EPA 332**: Perchlorate.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

***Non-Potable Water***
**EPA 200.8**: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
**EPA 200.7**: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH**, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
**EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
**EPA 624**: Volatile Halocarbons & Aromatics,
**EPA 608**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Serial No:07181613:23

# AIR ANALYSIS

PAGE 1 OF 1

**CHAIN OF CUSTODY**

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

**Date Rec'd in Lab:** 7/12/16

**ALPHA Job #:** L1621314

## Client Information

Client: Benchmark EE&S
Address: 2558 Hamburg Turnpike Suite 300 Buffalo NY
Phone: 716-856-0599
Fax:
Email: cbaron@turnkeyllc.com
☐ These samples have been previously analyzed by Alpha

## Project Information

Project Name: Dans Cleaners
Project Location: Cheektowaga NY
Project #: B0359-015-001-002-003
Project Manager: Chris Baron
ALPHA Quote #: 3/10/16 email

## Turn-Around Time

☐ Standard ☐ RUSH *(only confirmed if pre-approved!)*
**Date Due:** **Time:**

## Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
*(Default based on Regulatory Criteria Indicated)*
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

## Billing Information

☐ Same as Client info PO #:

## Regulatory Requirements/Report Limits

| State/Fed | Program | Res / Comm |
|---|---|---|
| | | |
| | | |
| | | |

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

**All Columns Below Must Be Filled Out**

| ALPHA Lab ID (Lab Use Only) | Sample ID | COLLECTION End Date | Start Time | End Time | Initial Vacuum | Final Vacuum | Sample Matrix* | Sampler's Initials | Can Size | I D Can | I D - Flow Controller | ANALYSIS TO-15 | TO-15 SIM | APH Subtract Non-petroleum HCs ☐ | Fixed Gases | Sulfides & Mercaptans by TO-15 | | Sample Comments (i.e. PID) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21314.01 | SVE-Shutdown | 7/11/16 | 11:27A | 11:27A | -14" | -4" | SV | MLS | 2.7L | 0232 | | X | | | | | | 32 ppm |
| | | | | | | | | | | | | | | | | | | |
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*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

| Relinquished By: | Date/Time | Received By: | Date/Time: |
|---|---|---|---|
| Chris Baron | 7/11/16 1700 | JM AAL | 7/11/16 16:47 |
| JM AAL | 7/11/16 | | 7/12/16 0045 |
| | 7/12/16 0250 | | 7/12/16 0250 |

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L1621466 |
| Client: | Benchmark & Turnkey Companies<br>2558 Hamburg Turnpike<br>Suite 300<br>Buffalo, NY 14218 |
| ATTN: | Bryan Hann |
| Phone: | (716) 856-0599 |
| Project Name: | DON CLEANERS |
| Project Number: | B0359-015-001-003 |
| Report Date: | 07/19/16 |



Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

**Project Name:** DON CLEANERS
**Project Number:** B0359-015-001-003

**Lab Number:** L1621466
**Report Date:** 07/19/16

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L1621466-01 | SVE WATER | WATER | CHEEKTOWOGA, NY | 07/12/16 08:30 | 07/12/16 |

**Project Name:** DON CLEANERS
**Project Number:** B0359-015-001-003

**Lab Number:** L1621466
**Report Date:** 07/19/16

## Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | DON CLEANERS | **Lab Number:** | L1621466 |
| **Project Number:** | B0359-015-001-003 | **Report Date:** | 07/19/16 |

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Lura L Troy

Title: Technical Director/Representative Date: 07/19/16

# ORGANICS

# VOLATILES

**Project Name:** DON CLEANERS
**Project Number:** B0359-015-001-003
**Lab Number:** L1621466
**Report Date:** 07/19/16

## SAMPLE RESULTS

Lab ID: L1621466-01 D
Client ID: SVE WATER
Sample Location: CHEEKTOWOGA, NY
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/14/16 14:31
Analyst: KD

Date Collected: 07/12/16 08:30
Date Received: 07/12/16
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/l | 5.0 | 1.4 | 2 |
| 1,1-Dichloroethane | ND | | ug/l | 5.0 | 1.4 | 2 |
| Chloroform | ND | | ug/l | 5.0 | 1.4 | 2 |
| Carbon tetrachloride | ND | | ug/l | 1.0 | 0.27 | 2 |
| 1,2-Dichloropropane | ND | | ug/l | 2.0 | 0.27 | 2 |
| Dibromochloromethane | ND | | ug/l | 1.0 | 0.30 | 2 |
| 1,1,2-Trichloroethane | ND | | ug/l | 3.0 | 1.0 | 2 |
| Tetrachloroethene | 140 | | ug/l | 1.0 | 0.36 | 2 |
| Chlorobenzene | ND | | ug/l | 5.0 | 1.4 | 2 |
| Trichlorofluoromethane | ND | | ug/l | 5.0 | 1.4 | 2 |
| 1,2-Dichloroethane | ND | | ug/l | 1.0 | 0.26 | 2 |
| 1,1,1-Trichloroethane | ND | | ug/l | 5.0 | 1.4 | 2 |
| Bromodichloromethane | ND | | ug/l | 1.0 | 0.38 | 2 |
| trans-1,3-Dichloropropene | ND | | ug/l | 1.0 | 0.33 | 2 |
| cis-1,3-Dichloropropene | ND | | ug/l | 1.0 | 0.29 | 2 |
| Bromoform | ND | | ug/l | 4.0 | 1.3 | 2 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 1.0 | 0.29 | 2 |
| Benzene | ND | | ug/l | 1.0 | 0.32 | 2 |
| Toluene | ND | | ug/l | 5.0 | 1.4 | 2 |
| Ethylbenzene | ND | | ug/l | 5.0 | 1.4 | 2 |
| Chloromethane | ND | | ug/l | 5.0 | 1.4 | 2 |
| Bromomethane | ND | | ug/l | 5.0 | 1.4 | 2 |
| Vinyl chloride | 0.58 | J | ug/l | 2.0 | 0.14 | 2 |
| Chloroethane | ND | | ug/l | 5.0 | 1.4 | 2 |
| 1,1-Dichloroethene | ND | | ug/l | 1.0 | 0.28 | 2 |
| trans-1,2-Dichloroethene | ND | | ug/l | 5.0 | 1.4 | 2 |
| Trichloroethene | 7.6 | | ug/l | 1.0 | 0.35 | 2 |
| 1,2-Dichlorobenzene | ND | | ug/l | 5.0 | 1.4 | 2 |
| 1,3-Dichlorobenzene | ND | | ug/l | 5.0 | 1.4 | 2 |
| 1,4-Dichlorobenzene | ND | | ug/l | 5.0 | 1.4 | 2 |

**Project Name:** DON CLEANERS **Lab Number:** L1621466

**Project Number:** B0359-015-001-003 **Report Date:** 07/19/16

## SAMPLE RESULTS

Lab ID: L1621466-01 D Date Collected: 07/12/16 08:30

Client ID: SVE WATER Date Received: 07/12/16

Sample Location: CHEEKTOWOGA, NY Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 5.0 | 1.4 | 2 |
| p/m-Xylene | ND | | ug/l | 5.0 | 1.4 | 2 |
| o-Xylene | ND | | ug/l | 5.0 | 1.4 | 2 |
| cis-1,2-Dichloroethene | 49 | | ug/l | 5.0 | 1.4 | 2 |
| Styrene | ND | | ug/l | 5.0 | 1.4 | 2 |
| Dichlorodifluoromethane | ND | | ug/l | 10 | 2.0 | 2 |
| Acetone | 4.0 | J | ug/l | 10 | 2.9 | 2 |
| Carbon disulfide | ND | | ug/l | 10 | 2.0 | 2 |
| 2-Butanone | ND | | ug/l | 10 | 3.9 | 2 |
| 4-Methyl-2-pentanone | ND | | ug/l | 10 | 2.0 | 2 |
| 2-Hexanone | ND | | ug/l | 10 | 2.0 | 2 |
| Bromochloromethane | ND | | ug/l | 5.0 | 1.4 | 2 |
| 1,2-Dibromoethane | ND | | ug/l | 4.0 | 1.3 | 2 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 5.0 | 1.4 | 2 |
| Isopropylbenzene | ND | | ug/l | 5.0 | 1.4 | 2 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 5.0 | 1.4 | 2 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 5.0 | 1.4 | 2 |
| Methyl Acetate | ND | | ug/l | 4.0 | 0.47 | 2 |
| Cyclohexane | ND | | ug/l | 20 | 0.54 | 2 |
| 1,4-Dioxane | ND | | ug/l | 500 | 82. | 2 |
| Freon-113 | ND | | ug/l | 5.0 | 1.4 | 2 |
| Methyl cyclohexane | ND | | ug/l | 20 | 0.79 | 2 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 110 | | 70-130 |
| Toluene-d8 | 105 | | 70-130 |
| 4-Bromofluorobenzene | 111 | | 70-130 |
| Dibromofluoromethane | 98 | | 70-130 |

**Project Name:** DON CLEANERS
**Project Number:** B0359-015-001-003
**Lab Number:** L1621466
**Report Date:** 07/19/16

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/14/16 10:11
Analyst: PD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG913535-5 | | | | | |
| Methylene chloride | ND | | ug/l | 2.5 | 0.70 |
| 1,1-Dichloroethane | ND | | ug/l | 2.5 | 0.70 |
| Chloroform | ND | | ug/l | 2.5 | 0.70 |
| Carbon tetrachloride | ND | | ug/l | 0.50 | 0.13 |
| 1,2-Dichloropropane | ND | | ug/l | 1.0 | 0.13 |
| Dibromochloromethane | ND | | ug/l | 0.50 | 0.15 |
| 1,1,2-Trichloroethane | ND | | ug/l | 1.5 | 0.50 |
| Tetrachloroethene | ND | | ug/l | 0.50 | 0.18 |
| Chlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| Trichlorofluoromethane | ND | | ug/l | 2.5 | 0.70 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 |
| 1,1,1-Trichloroethane | ND | | ug/l | 2.5 | 0.70 |
| Bromodichloromethane | ND | | ug/l | 0.50 | 0.19 |
| trans-1,3-Dichloropropene | ND | | ug/l | 0.50 | 0.16 |
| cis-1,3-Dichloropropene | ND | | ug/l | 0.50 | 0.14 |
| Bromoform | ND | | ug/l | 2.0 | 0.65 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 0.50 | 0.14 |
| Benzene | ND | | ug/l | 0.50 | 0.16 |
| Toluene | ND | | ug/l | 2.5 | 0.70 |
| Ethylbenzene | ND | | ug/l | 2.5 | 0.70 |
| Chloromethane | ND | | ug/l | 2.5 | 0.70 |
| Bromomethane | ND | | ug/l | 2.5 | 0.70 |
| Vinyl chloride | ND | | ug/l | 1.0 | 0.07 |
| Chloroethane | ND | | ug/l | 2.5 | 0.70 |
| 1,1-Dichloroethene | ND | | ug/l | 0.50 | 0.14 |
| trans-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 |
| Trichloroethene | ND | | ug/l | 0.50 | 0.18 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,3-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 |

**Project Name:** DON CLEANERS
**Project Number:** B0359-015-001-003
**Lab Number:** L1621466
**Report Date:** 07/19/16

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/14/16 10:11
Analyst: PD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG913535-5 | | | | | |
| 1,4-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| Methyl tert butyl ether | ND | | ug/l | 2.5 | 0.70 |
| p/m-Xylene | ND | | ug/l | 2.5 | 0.70 |
| o-Xylene | ND | | ug/l | 2.5 | 0.70 |
| cis-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 |
| Styrene | ND | | ug/l | 2.5 | 0.70 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 |
| Acetone | ND | | ug/l | 5.0 | 1.5 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 |
| 1,4-Dioxane | ND | | ug/l | 250 | 41. |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 |
| Methyl cyclohexane | ND | | ug/l | 10 | 0.40 |

**Project Name:** DON CLEANERS
**Project Number:** B0359-015-001-003
**Lab Number:** L1621466
**Report Date:** 07/19/16

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/14/16 10:11
Analyst: PD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG913535-5 | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | | 70-130 |
| Toluene-d8 | 107 | | 70-130 |
| 4-Bromofluorobenzene | 111 | | 70-130 |
| Dibromofluoromethane | 95 | | 70-130 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** DON CLEANERS
**Project Number:** B0359-015-001-003

**Lab Number:** L1621466
**Report Date:** 07/19/16

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG913535-3 WG913535-4 | | | | | | | | |
| Methylene chloride | 100 | | 100 | | 70-130 | 0 | | 20 |
| 1,1-Dichloroethane | 100 | | 100 | | 70-130 | 0 | | 20 |
| Chloroform | 98 | | 98 | | 70-130 | 0 | | 20 |
| 2-Chloroethylvinyl ether | 73 | | 72 | | 70-130 | 1 | | 20 |
| Carbon tetrachloride | 82 | | 80 | | 63-132 | 2 | | 20 |
| 1,2-Dichloropropane | 110 | | 110 | | 70-130 | 0 | | 20 |
| Dibromochloromethane | 100 | | 100 | | 63-130 | 0 | | 20 |
| 1,1,2-Trichloroethane | 110 | | 110 | | 70-130 | 0 | | 20 |
| Tetrachloroethene | 94 | | 93 | | 70-130 | 1 | | 20 |
| Chlorobenzene | 100 | | 99 | | 75-130 | 1 | | 20 |
| Trichlorofluoromethane | 70 | | 68 | | 62-150 | 3 | | 20 |
| 1,2-Dichloroethane | 97 | | 96 | | 70-130 | 1 | | 20 |
| 1,1,1-Trichloroethane | 97 | | 95 | | 67-130 | 2 | | 20 |
| Bromodichloromethane | 96 | | 96 | | 67-130 | 0 | | 20 |
| trans-1,3-Dichloropropene | 92 | | 91 | | 70-130 | 1 | | 20 |
| cis-1,3-Dichloropropene | 91 | | 90 | | 70-130 | 1 | | 20 |
| 1,1-Dichloropropene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Bromoform | 75 | | 75 | | 54-136 | 0 | | 20 |
| 1,1,2,2-Tetrachloroethane | 110 | | 100 | | 67-130 | 10 | | 20 |
| Benzene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Toluene | 110 | | 100 | | 70-130 | 10 | | 20 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** DON CLEANERS
**Project Number:** B0359-015-001-003

**Lab Number:** L1621466
**Report Date:** 07/19/16

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG913535-3 WG913535-4 | | | | | | | | |
| Ethylbenzene | 110 | | 100 | | 70-130 | 10 | | 20 |
| Chloromethane | 130 | | 130 | | 64-130 | 0 | | 20 |
| Bromomethane | 79 | | 70 | | 39-139 | 12 | | 20 |
| Vinyl chloride | 100 | | 99 | | 55-140 | 1 | | 20 |
| Chloroethane | 77 | | 75 | | 55-138 | 3 | | 20 |
| 1,1-Dichloroethene | 96 | | 93 | | 61-145 | 3 | | 20 |
| trans-1,2-Dichloroethene | 98 | | 97 | | 70-130 | 1 | | 20 |
| Trichloroethene | 94 | | 93 | | 70-130 | 1 | | 20 |
| 1,2-Dichlorobenzene | 100 | | 99 | | 70-130 | 1 | | 20 |
| 1,3-Dichlorobenzene | 99 | | 99 | | 70-130 | 0 | | 20 |
| 1,4-Dichlorobenzene | 97 | | 97 | | 70-130 | 0 | | 20 |
| Methyl tert butyl ether | 110 | | 110 | | 63-130 | 0 | | 20 |
| p/m-Xylene | 105 | | 105 | | 70-130 | 0 | | 20 |
| o-Xylene | 110 | | 110 | | 70-130 | 0 | | 20 |
| cis-1,2-Dichloroethene | 99 | | 98 | | 70-130 | 1 | | 20 |
| Dibromomethane | 93 | | 92 | | 70-130 | 1 | | 20 |
| 1,2,3-Trichloropropane | 110 | | 110 | | 64-130 | 0 | | 20 |
| Acrylonitrile | 120 | | 120 | | 70-130 | 0 | | 20 |
| Isopropyl Ether | 120 | | 120 | | 70-130 | 0 | | 20 |
| tert-Butyl Alcohol | **132** | Q | **136** | Q | 70-130 | 3 | | 20 |
| Styrene | 110 | | 110 | | 70-130 | 0 | | 20 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DON CLEANERS

**Project Number:** B0359-015-001-003

**Lab Number:** L1621466

**Report Date:** 07/19/16

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG913535-3 WG913535-4 | | | | | | | | |
| Dichlorodifluoromethane | 63 | | 62 | | 36-147 | 2 | | 20 |
| Acetone | 110 | | 110 | | 58-148 | 0 | | 20 |
| Carbon disulfide | 100 | | 100 | | 51-130 | 0 | | 20 |
| 2-Butanone | 97 | | 98 | | 63-138 | 1 | | 20 |
| Vinyl acetate | 99 | | 98 | | 70-130 | 1 | | 20 |
| 4-Methyl-2-pentanone | 110 | | 120 | | 59-130 | 9 | | 20 |
| 2-Hexanone | 110 | | 110 | | 57-130 | 0 | | 20 |
| Acrolein | 98 | | 98 | | 40-160 | 0 | | 20 |
| Bromochloromethane | 91 | | 89 | | 70-130 | 2 | | 20 |
| 2,2-Dichloropropane | 92 | | 90 | | 63-133 | 2 | | 20 |
| 1,2-Dibromoethane | 100 | | 100 | | 70-130 | 0 | | 20 |
| 1,3-Dichloropropane | 110 | | 110 | | 70-130 | 0 | | 20 |
| 1,1,1,2-Tetrachloroethane | 95 | | 95 | | 64-130 | 0 | | 20 |
| Bromobenzene | 94 | | 93 | | 70-130 | 1 | | 20 |
| n-Butylbenzene | 120 | | 120 | | 53-136 | 0 | | 20 |
| sec-Butylbenzene | 110 | | 110 | | 70-130 | 0 | | 20 |
| tert-Butylbenzene | 92 | | 90 | | 70-130 | 2 | | 20 |
| o-Chlorotoluene | 110 | | 110 | | 70-130 | 0 | | 20 |
| p-Chlorotoluene | 110 | | 110 | | 70-130 | 0 | | 20 |
| 1,2-Dibromo-3-chloropropane | 93 | | 94 | | 41-144 | 1 | | 20 |
| Hexachlorobutadiene | 110 | | 110 | | 63-130 | 0 | | 20 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DON CLEANERS

**Project Number:** B0359-015-001-003

**Lab Number:** L1621466

**Report Date:** 07/19/16

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG913535-3 WG913535-4 | | | | | | | | |
| Isopropylbenzene | 110 | | 100 | | 70-130 | 10 | | 20 |
| p-Isopropyltoluene | 100 | | 99 | | 70-130 | 1 | | 20 |
| Naphthalene | 110 | | 110 | | 70-130 | 0 | | 20 |
| n-Propylbenzene | 110 | | 110 | | 69-130 | 0 | | 20 |
| 1,2,3-Trichlorobenzene | **150** | Q | **150** | Q | 70-130 | 0 | | 20 |
| 1,2,4-Trichlorobenzene | 120 | | 120 | | 70-130 | 0 | | 20 |
| 1,3,5-Trimethylbenzene | 110 | | 110 | | 64-130 | 0 | | 20 |
| 1,2,4-Trimethylbenzene | 110 | | 110 | | 70-130 | 0 | | 20 |
| Methyl Acetate | 110 | | 110 | | 70-130 | 0 | | 20 |
| Ethyl Acetate | 110 | | 110 | | 70-130 | 0 | | 20 |
| Cyclohexane | 110 | | 100 | | 70-130 | 10 | | 20 |
| Ethyl-Tert-Butyl-Ether | 120 | | 120 | | 70-130 | 0 | | 20 |
| Tertiary-Amyl Methyl Ether | 98 | | 97 | | 66-130 | 1 | | 20 |
| 1,4-Dioxane | 112 | | 114 | | 56-162 | 2 | | 20 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 88 | | 85 | | 70-130 | 3 | | 20 |
| p-Diethylbenzene | 100 | | 100 | | 70-130 | 0 | | 20 |
| p-Ethyltoluene | 110 | | 110 | | 70-130 | 0 | | 20 |
| 1,2,4,5-Tetramethylbenzene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Tetrahydrofuran | 120 | | 120 | | 58-130 | 0 | | 20 |
| Ethyl ether | 98 | | 100 | | 59-134 | 2 | | 20 |
| trans-1,4-Dichloro-2-butene | 82 | | 81 | | 70-130 | 1 | | 20 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** DON CLEANERS

**Project Number:** B0359-015-001-003

**Lab Number:** L1621466

**Report Date:** 07/19/16

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG913535-3 WG913535-4 | | | | | | | | |
| Iodomethane | **29** | Q | **36** | Q | 70-130 | **22** | Q | 20 |
| Methyl cyclohexane | 110 | | 100 | | 70-130 | 10 | | 20 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 98 | | 97 | | 70-130 |
| Toluene-d8 | 108 | | 108 | | 70-130 |
| 4-Bromofluorobenzene | 112 | | 109 | | 70-130 |
| Dibromofluoromethane | 96 | | 96 | | 70-130 |

**Project Name:** DON CLEANERS
**Project Number:** B0359-015-001-003

**Lab Number:** L1621466
**Report Date:** 07/19/16

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

**Cooler Information Custody Seal**

| Cooler | |
|---|---|
| A | Absent |

**Container Information**

| Container ID | Container Type | Cooler | pH | Temp deg C | Pres | Seal | Analysis(*) |
|---|---|---|---|---|---|---|---|
| L1621466-01A | Vial HCl preserved | A | N/A | 4.7 | Y | Absent | NYTCL-8260-R2(14) |
| L1621466-01B | Vial HCl preserved | A | N/A | 4.7 | Y | Absent | NYTCL-8260-R2(14) |
| L1621466-01C | Vial HCl preserved | A | N/A | 4.7 | Y | Absent | NYTCL-8260-R2(14) |

*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | DON CLEANERS | **Lab Number:** | L1621466 |
| **Project Number:** | B0359-015-001-003 | **Report Date:** | 07/19/16 |

## GLOSSARY

### *Acronyms*

| | |
|---|---|
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine. |
| NI | - Not Ignitable. |
| NP | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |
| STLP | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315. |
| TIC | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations. |

### *Footnotes*

| | |
|---|---|
| 1 | - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method. |

### *Terms*

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### *Data Qualifiers*

| | |
|---|---|
| **A** | - Spectra identified as "Aldol Condensation Product". |
| **B** | - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the |

*Report Format:* DU Report with 'J' Qualifiers

| | | | |
|---|---|---|---|
| **Project Name:** | DON CLEANERS | **Lab Number:** | L1621466 |
| **Project Number:** | B0359-015-001-003 | **Report Date:** | 07/19/16 |

***Data Qualifiers***

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

**C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

**D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

**E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

**G** - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

**H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

**I** - The lower value for the two columns has been reported due to obvious interference.

**M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

**P** - The RPD between the results for the two columns exceeds the method-specified criteria.

**Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

*Report Format:* DU Report with 'J' Qualifiers

| | | | |
|---|---|---|---|
| **Project Name:** | DON CLEANERS | **Lab Number:** | L1621466 |
| **Project Number:** | B0359-015-001-003 | **Report Date:** | 07/19/16 |

## REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

# Certification Information

**The following analytes are not included in our Primary NELAP Scope of Accreditation:**

**Westborough Facility**
**EPA 524.2:** 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
**EPA 624:** 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
**EPA 625:** Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
**EPA 1010A:** NPW: Ignitability
**EPA 6010C:** NPW: Strontium; SCM: Strontium
**EPA 8151A:** NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D:** NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
**EPA 9010:** NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
**EPA 9038:** NPW: Sulfate
**EPA 9050A:** NPW: Specific Conductance
**EPA 9056:** NPW: Chloride, Nitrate, Sulfate
**EPA 9065:** NPW: Phenols
**EPA 9251:** NPW: Chloride
**SM3500:** NPW: Ferrous Iron
**SM4500**: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
**SM5310C:** DW: Dissolved Organic Carbon

**Mansfield Facility**
**EPA 8270D:** NPW: Biphenyl; SCM: Biphenyl, Caprolactam
**EPA 8270D-SIM Isotope Dilution**: SCM: 1,4-Dioxane
**SM 2540D:** TSS
**SM2540G:** SCM: Percent Solids
**EPA 1631E**: SCM: Mercury
**EPA 7474:** SCM: Mercury
**EPA 8081B:** NPW and SCM: Mirex, Hexachlorobenzene.
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA 8270-SIM:** NPW and SCM: Alkylated PAHs.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
**Biological Tissue Matrix:** ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

**The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:**

***Drinking Water***
**EPA 200.8**: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
**EPA 300.0**: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
**EPA 332**: Perchlorate.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

***Non-Potable Water***
**EPA 200.8**: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
**EPA 200.7**: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH**, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
**EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
**EPA 624**: Volatile Halocarbons & Aromatics,
**EPA 608**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

# NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

**Service Centers**
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 7/12/16

ALPHA Job #: L1621466

**Client Information**
Client: Benchmark EE+S
Address: 2558 Hamburg Turnpike Suite 300 Buffalo NY
Phone: 716-856-0599
Fax:
Email: cbaron@turnkeyllc.com

**Project Information**
Project Name: Dan Cleaners
Project Location: Cheektowaga NY
Project # B0359-015-001-002-003
(Use Project name as Project #) ☒
Project Manager: Chris Baron
ALPHAQuote #:

**Turn-Around Time**
Standard ☒ Due Date: 7/18/2016
Rush (only if pre approved) ☐ # of Days: 5 days

**Deliverables**
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

**Billing Information**
☒ Same as Client Info
PO #

**Regulatory Requirement**
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

**Disposal Site Information**
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

**ANALYSIS**
8260 VOC

**Sample Filtration**
☐ Done
☐ Lab to do
**Preservation**
☐ Lab to do
(Please Specify below)

Total Bottle

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | 8260 VOC | Sample Specific Comments |
|---|---|---|---|---|---|---|---|
| 21[illegible]66-01 | SVE Water | 7/12/16 | 830 | W | MJ | X | |

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| | |
|---|---|
| Container Type | V |
| Preservative | B |

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| [signature] | 7/12/16 1630 | [signature] AAC | 7/12/16 16:35 |
| [signature] AAC | 7/12/16 | [signature] | 7/12/16 0[illegible] |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)