MASSACHUSETTS CONTINGENCY PLAN

Release Abatement Measure Status Report

0 & 12-24 Fairmount Court
Hyde Park, MA 02136
RTN: 3-1616

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221375.01

City of Boston Department of Neighborhood Development

May 2011

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1. INTRODUCTION

This Release Abatement Measure (RAM) Status Report has been prepared in accordance with the Massachusetts Contingency Plan (MCP), 310 CMR 40.0445, for the property located at 0 and 12-24 Fairmount Court in Hyde Park, Massachusetts (the Site). A Site Locus is provided as Figure 1.

The City of Boston, Massachusetts has assumed the role as the potentially responsible party (PRP) for the release, designated by Release Tracking Number (RTN) 3-1616 by the Massachusetts Department of Environmental Protection (MassDEP). The City of Boston has implemented a RAM to address volatile organic compounds (VOCs) in soil and soil vapor present at the Site below the Site building foundation. The RAM activities include the operation of a Soil Vapor Extraction (SVE) System at the Site. The original RAM and Remedial Monitoring Report (RMR) Transmittal Forms (BWSC 106, 106A, and 106B) are being signed and submitted with this report via the eDEP filing system. Copies of the transmittal forms will be included as Appendix A in post-submittal report copies.

1.1 SITE DESCRIPTION

The subject property is currently owned by the City of Boston, is 30,592 square feet in size and is comprised of two parcels laid out in a rectangular manner. The smaller of the two parcels, comprising 6,338 square feet, is not improved. The larger parcel, comprising 24,254 square feet, is improved with a three-story, 8,800-square foot (building footprint), former industrial building. The building is currently vacant. The coordinates of the property are 42° 15ô10òN latitude, 71° 07ô11òW longitude. The Universal Transverse Mercator (UTM) coordinates are 4680042 Northing and 325153 Easting in Zone 19. A Site Plan is included as Figure 2.

1.2 SURROUNDING RECEPTORS

The Site is located in a restricted manufacturing zoned area of Boston. Nearby properties are zoned commercial, restricted manufacturing, and residential and are developed as such. The nearest human receptors are residents living within 500 feet north and east of the Site across MBTA railroad lines, which run along the northern Site boundary. The Neponset River, which runs along the southern Site boundary, and the land situated adjacently southwest of the Site is identified as protected open space. Institutions such as orphanages, nursing homes, convalescent homes, educational facilities, or correctional facilities that provide overnight housing were not identified within 500 feet of the subject properties during Site reconnaissance.

The Massachusetts Geographic Information System (MassGIS) Site Scoring Map is provided as Figure 3 and was reviewed for information pertaining to the location of natural resources located within 500 feet of the Site. According to the Priority Resource map included as Figure 3, there are no natural resources located within 500 feet of the Site. Additionally, the subject property is not located within 500 feet of any drinking water supplies (Zone II areas, Interim Wellhead Protection Areas, Zone A areas, and/or Potentially Productive Aquifers), Areas of Critical Environmental Concern (ACEC), EPA Sole Source Aquifers, Certified Vernal Pools, habitats of Species of Special Concern, or habitats of Threatened or Endangered Species. There are no known private drinking water wells in the vicinity of the Site.

1.3 RELEASE HISTORY

The Site has a history of industrial use and was formerly the location of the Lewis Chemical Company. Based on available information, the Site was utilized as a leather manufacturing company from 1940 to

the early 1960ôs. Lewis Chemical operated the Site from 1963 until 1983 and collected, stored, transported, and processed hazardous waste. Lewis Chemical was forced to cease operations under a Court Order issued by MassDEP in 1983. The MassDEP subsequently listed the Site as a State disposal site in 1987 and issued release tracking number (RTN) 3-1616. The Site is currently listed as a Tier 1B disposal site. The City of Boston gained ownership of the property in October 2000 via tax foreclosure.

Several environmental investigations have been performed at the Site since 1986 and were detailed in the RAM Plan submitted to the MassDEP in July 2010 (W&C, 2010). The most recent was a supplemental soil investigation conducted by Woodard & Curran for the City of Boston completed in 2008. The recent investigation conducted at the Site identified significant volatile organic compound (VOC) concentrations in soil below the building foundation. Notably, tetrachloroethene (PCE) and trichloroethene (TCE) were detected at maximum concentrations of 8,000 mg/Kg and 1,900 mg/Kg, respectively, in soil samples collected beneath the concrete slab floor at the western portion of the Site building. Additional VOCs concentrations were detected in soil samples collected in November 2008 and were previously summarized in Table 1 included in the July 2010 RAM Plan.

2. RAM STATUS

2.1 STATUS OF ONGOING RAM ACTIVITIES

The SVE system construction was completed at the Site on September 24, 2010. SVE system start-up also occurred on this day. The RAM Plan submitted to the MassDEP in July 2010 included the construction details of the SVE system. The SVE system was constructed in accordance with the RAM Plan. No significant changes in the system were made during construction. On October 20, 2010, as the result of process air monitoring being routinely performed on the system, it was determined that vinyl chloride, which was not present at elevated concentrations in the initial sub-slab vapor testing completed, as documented in the RAM Plan, was being extracted from the sub-slab soils but not being effectively removed from the extracted vapors. As a result, the SVE system was modified to include a potassium permanganate filter to extract the vinyl chloride from the system effluent vapors prior to discharge to the atmosphere. This addition to the off-gas controls is further discussed in Section 2.2.3.

2.2 SIGNIFICANT OR NEW INFORMATION

The RAM Plan submitted in July 2010 summarized the investigations conducted up to that date. The following section summarizes significant new information obtained during the first reporting period since the submission of the RAM Plan on July 27, 2010, which includes the most recent system monitoring event conducted on April 29, 2011. Ongoing system monitoring results will be reported in subsequent RAM Status Reports.

2.2.1 Soil Vapor Extraction Well Installation and SVE System Construction

SVE system construction, including piping and other system component installation, was performed from July 21, 2010 to September 24, 2010. Prior to installing the soil vapor extraction wells, W&C pre-marked the Site property and contacted DigSafe. W&C personnel oversaw the completion of ten (10) soil borings within the interior of the Site building. The borings were completed by Technical Drilling Services of Sterling, Massachusetts using a Vactor and air hammer system. All boring locations were completed to a depth of approximately 3.5 feet and are identified as EP-1, EP-2, EP-3, EP-4, EP-5, EP-6, EP-7, EP-8, EP-9, and EP-10. The extraction well identified as EP-9 was set at a depth of 2.5 feet due to the presence of groundwater at approximately 3 feet below the concrete building slab. Groundwater was not encountered at the other boring locations. The location of each extraction well was pre-selected during the development of the system and had been previously documented in the RAM Plan. The extraction wells were connected to form three legs of the vapor extraction system, i.e. SVE-1, SVE-2 and SVE-3. The soil vapor extraction well locations and the vapor extraction system are depicted on Figure 2.

2.2.2 Well Headspace Testing

Prior to SVE system startup on September 24, 2010, W&C personnel screened each extraction well in the field for total volatile organic compounds (TVOCs) with a photoionization detector (PID) on September 21, 2010. The PID was first calibrated to 100 part per million by volume (ppmv) with an isobutylene standard. The results ranged from >4000 ppmv at EP-2, which was above the range of the PID, to 116 ppmv at EP-6. Prior to screening the extraction wells, approximately two well volumes were purged utilizing an electric pump. Copies of the SVE field monitoring reports that document the data collected during the system start-up event are provided in Appendix B.

2.2.3 SVE Start-up & Testing

On September 24, 2010, the SVE system was activated at the Site. A detailed description of the start-up, testing and operation of the SVE system is provided in the RMR provided herein as Section 3.0.

Grab air samples were collected from the vapor phase granulated activated carbon (VGAC) units influent and SVE system effluent on the 1st, 7th, 14th, and 28th day of system operation. The samples were collected in summa canisters and submitted to Alpha Analytical Laboratories (Alpha) of Westborough, Massachusetts for TO-15 analysis. These analytical results are summarized in Table 1 of this report. Laboratory analytical reports for these sampling dates are provided in Appendix C.

Laboratory results obtained from the October 1, 2010 (7th day) effluent process air sampling event indicated that the VGAC units were not capturing vinyl chloride from the vapor stream. Desorbing of the vinyl chloride was also assumed to be occurring due to the elevated vinyl chloride concentrations in the effluent sample versus the influent sample vinyl chloride concentrations. The SVE system was immediately shut down on October 11, 2010 when the laboratory results were obtained. The samples collected on October 8, 2010 (14th day) were collected between the 7th day sampling event and the system shut down date on October 11, 2010 and confirmed that vinyl chloride was not being captured by the vapor phase granular activated carbon (VGAC) units and a system modification was necessary in order to mitigate the discharge of vinyl chloride. During this time, however, the off-gas controls continued to maintain a 95% TVOC removal efficiency.

In order to mitigate the vinyl chloride emissions from the SVE system, on October 20, 2010, W&C installed a 55-gallon drum unit containing Hydrosil International LTD HS-600 after the second VGAC carbon vessel. This product is a granular media impregnated with 6% potassium permanganate, which has been shown to oxidize the vinyl chloride vapor and ultimately produce potassium chloride, which is retained in the filter media, and carbon dioxide. Subsequent analyses of the effluent vapors have documented that the vinyl chloride vapors are successfully being removed from the effluent vapors being released to the ambient air.

2.3 SUBSLAB VAPOR REMOVAL SUMMARY

Cumulative TVOC mass removal accomplished during the reporting period is shown in Table 2 and shown graphically in Figure 4. To date, 527 pounds of VOCs have been removed from the subsurface. In general, as the cumulative VOC removal amount has increased the VOC concentrations within the process air stream have decreased over this reporting period, as shown in Figure 4. The system efficiency for the removal of TVOCs based on the laboratory data obtained from the SVE system process air sampling events is shown on Table 1. The system efficiency for the removal of TVOCs based on the PID screening data obtained during the SVE system monitoring events is provided on the field monitoring reports in Appendix B. A 95% or greater TVOC removal efficiency was obtained during this reporting period.

It is noted that methylene chloride concentrations were detected in the effluent process air sample collected on October 29, 2010 (10.2 ug/m^3) and March 4, 2011 (82.2 ug/m^3). However, methylene chloride was not detected above the laboratory detection limits in the samples collected from the SVE system influent process air on these dates or in any of the samples collected from the process air sampled prior to these dates. Methylene chloride has been historically detected in both groundwater and soil samples obtained from the site, but has not been detected in any of the SVE influent air samples. Therefore, it is currently postulated that the concentration of methylene chloride detected in the effluent

process air samples was likely introduced into the sample as a laboratory contaminant, as methylene chloride is routinely stored and used within the laboratory setting. As previously noted, the TVOC removal efficiency continued to achieve greater than 95% percent removal efficiency throughout the reporting period. Methylene chloride concentrations will continue to be monitored and evaluated during future reporting periods and additions to the off-gas will be made, if necessary.

2.4 REMEDIATION WASTE MANAGEMENT

Approximately 2,000 pounds of VGAC, which is being utilized as an off-gas control, has been replaced to date. A carbon sample was collected from the off-gas controls and submitted for toxicity characteristic leaching procedure (TCLP) analysis via method 1311 on November 15, 2010 in order to characterize the carbon for regeneration. The sample was submitted to Alpha for laboratory analysis. Based upon the laboratory results, 1,000-pound carbon ñchange-outsò occurred on December 17, 2010 and March 30, 2011. The spent carbon was removed and transported to Carbon Activated in Blasdell, New York for regeneration by Carbon Filtrations Systems (CFS) of Johnston, Rhode Island. Other remediation waste has not been disposed of to date. The laboratory report for the VGAC waste characterization sample is included in Appendix C.

2.5 SCHEDULE & RAM REPORTING

It is anticipated that RAM Status Report #2 will be submitted in November 2011. The SVE system will continue to run over the next reporting period and will be monitored monthly.

2.6 LICENSED SITE PROFESSIONAL OPINION, SEAL AND SIGNATURE

The activities described in this RAM Status Report are in general conformance with the tasks outlined in the RAM Plan. The seal and signature of Craig Blake, the Licensed Site Professional who is overseeing RAM activities, is provided and a copy of the RAM Transmittal Form has been submitted via eDEP concurrently with this report.

3. REMEDIAL MONITORING REPORT

3.1 GENERAL

This is the RMR to summarize the RAM activities conducted since the submission of the RAM Plan that included SVE system construction, start-up, and operation. A completed RMR BWSC form 106A and 106B was submitted concurrently with this report via eDEP. An SVE System layout is depicted on the Site plan, which is provided as Figure 2. The following sections provide the information requested on the RMR checklist and describe the start-up, testing and operation of the SVE system.

3.2 SVE START-UP & TESTING

On September 24, 2010, W&C completed start-up/prove-out of the SVE system. The first phase of the SVE prove-out included testing the mechanical operation of the system components. The first task was to energize the SVE extraction blower to check for proper rotation of the impeller. Once this was confirmed the blower was turned on but valved to pump dilution air only. The discharge vent was visually inspected to confirm flow was properly vented to the atmosphere.

Once the equipment was proved-out, the effectiveness of the system was evaluated by closing the dilution air valve 50%, activating the SVE wells and measuring the resulting vacuum and TVOC concentration using a PID. Each SVE well was inspected by visual and audible means, to verify air flow short-circuiting was not occurring at the extraction points. The valves at the SVE wells were then adjusted to distribute flow. In general, the system flow was distributed throughout the footprint of the building with a focus in areas where elevated TVOC concentrations were identified. The goal of this testing was to distribute the airflow and purge the soil gas beneath the slab. W&C inspected the building floor slab and verified that there were no obvious cracks and/or penetrations causing air flow short-circuiting to the indoor air. Monitoring that was conducted during SVE system start-up activities is provided on the SVE system field monitoring sheet provided in Appendix B. In general, significant problems that required SVE system shut-down during start-up activities were not encountered. Therefore, September 24, 2010 is identified as the first day of full-scale SVE system operation.

3.3 SVE ROUTINE OPERATION

W&C conducted a total of 17 Site visits between September 24, 2010 and April 29, 2011. Physical and chemical field measurements, such as air flowrate, vacuum, temperature, and TVOC levels using a PID, were collected. Copies of the SVE field monitoring reports are provided in Appendix B.

W&C collected process air samples from the SVE influent and effluent stream on the following dates: September 24, 2010; October 1, 2010; October 8, 2010; October 29, 2010 and March 4, 2011. The process air samples were submitted for TO-15 analysis to Alpha, as previously noted in Section 1.2.3. The purpose of these process air samples was to further characterize the subslab soil gas in order to correlate PID readings to the laboratory data in order to estimate mass removal of the system. Laboratory Reports from the process air sampling events are provided in Appendix C.

To date, two carbon changes have been conducted on the off-gas controls totaling 2,000 pounds of new vapor phase carbon that has replaced 2,000 pounds of spent vapor phase carbon. New carbon replacement and associated carbon change-outs are conducted by CFS under the oversight of W&C personnel, as

previously discussed in Section 2.4 of this report. Table 3 summarizes the remedial activities conducted during the first six months of SVE system operation.

3.4 SIGNIFICANT OPERATIONAL EVENTS

The SVE operated for a total of approximately 139 days between September 24, 2010 and April 29, 2011. The SVE was shutdown for a total of approximately 79 days during this reporting period. Twenty-nine of the days were associated with scheduled monitoring and maintenance. Fifty of the shutdown days are considered significant (>25% of the total reporting period and unscheduled) and are attributed to the events described in the following sections.

3.4.1 Installation of Additional SVE System Off-gas Controls

As noted in Section 2.3.2, laboratory results obtained from the October 1, 2010 (7^{th} day) effluent process air sampling event indicated that the VGAC units were not fully capturing vinyl chloride from the vapor stream and vinyl chloride was possibly desorbing from the carbon. Desorbing of the vinyl chloride was assumed due to the elevated vinyl chloride concentrations in the effluent sample versus the influent sample vinyl chloride concentrations. The SVE system was immediately shut down on October 11, 2010 when the laboratory results were obtained. The samples collected on October 8, 2010 (14^{th} day) confirmed that vinyl chloride was not being captured by the VGAC units and a system modification was made in order to mitigate the discharge of vinyl chloride. In order to mitigate the vinyl chloride emissions from the SVE system, on October 20, 2010, W&C installed a 55-gallon drum unit containing Hydrosil International LTD HS-600 after the second VGAC carbon vessel and before the atmospheric discharge.

3.4.2 Groundwater Collection within Condensate Knock-out Drum

During a scheduled Site visit by W&C personnel to the Site on December 19, 2010, it was observed that water had accumulated within the condensate knock-out drum. Once the scheduled system monitoring event had been completed, the system was temporarily shut down in order to drain the knock-out drum. Approximately 1 gallon of water was removed and transferred into a 55-gallon drum at the Site on this date. Water was observed in the knock-out drum during the next five consecutive system monitoring events on December 22, 2010; January 7, 2011; February 3, 2011 and February 18, 2011. An approximate total of four gallons of water were transferred into a 55-gallon drum from December 19, 2010 to February 18, 2011.

An additional 20-25 gallons of water were removed from the knock-out drum on March 10, 2011 during a Site visit that was conducted in order to record condensate levels within the knock-out drum. Based upon the excessive level of water within the knock-out drum and the failure of the system to automatically shutdown, it was determined that the high water level switch had failed within the knockout drum. W&C personnel shut down the SVE system on this day until the switch was replaced on March 25, 2011. This is further discussed in Section 3.4.3 below.

3.4.3 Condensate Knock-out Drum High-Level Switch Repair

During a scheduled Site visit by W&C personnel to the Site on January 25, 2011, it was discovered that the SVE system was shut down due to a malfunctioning high water level switch within the condensate knock-out drum. It was determined that the system could not be restarted until a repair was made to the switch. W&C personnel repaired the switch and restarted the system on February 3, 2011.

During the March 10, 2011 Site visit, it was discovered that the high water level switch had again malfunctioned and water had filled the majority of the knock-out drum and a portion of the first off-gas control chamber. The SVE system was immediately shut down. Due to the water contained within the knock-out drum and first carbon vessel, it was postulated that the water was likely not from a condensate source. Rather, the content was likely groundwater being pulled into a SVE extraction well. Recent snowmelt coupled with a heavy rain event in proximity to this date likely elevated the local groundwater table and caused groundwater to infiltrate the extraction well screens. W&C personnel replaced the switch and restarted the system on March 25, 2011. Water has not collected within the knock-out drum since March 10, 2011.

4. LIMITATIONS

The activities described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or limited is implied. These services were performed consistent with the agreement with our client. The conclusions presented in this Report were based upon the services described and not on scientific tasks or procedures beyond the scope of described services or time or budgetary constraints. Any statement or opinion contained in this report prepared by Woodard & Curran shall not be construed to create any warranty or representation that the property is free of pollution or complies with any or all applicable regulatory or statutory requirements; or that the property is fit for any particular purpose. Unless otherwise indicated in this Report, no attempt was made to check on the compliance of present or past owners of the Site with federal, state, or local laws and regulations. Woodard & Curran Inc. shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld or not fully disclosed at the time the evaluation was performed.

Results of the activities contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others or the use of segregated portions of this report.

This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such partyôs sole risk.

5. REFERENCES

Woodard & Curran, Inc. (W&C) 2010. *Release Abatement Measure Plan*, 0 & 12-24 Fairmount Court, Hyde Park, Massachusetts, RTN 3-1616, July.

TABLES

Table 1
Process Air Sampling Results Summary
September 2010 to April 2011

LOCATION			INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT
SAMPLING DATE			9/24/2010	9/24/2010	10/1/2010	10/1/2010	10/8/2010	10/8/2010	10/29/2010	10/29/2010	3/4/2011	3/4/2011
LAB SAMPLE ID			L1015059-01	L1015059-02	L1015479-02	L1015479-01	L1015983-01	L1015983-02	L1017272-01	L1017272-02	L1102980-01	L1102980-02
	CasNum	Units										
MCP Volatile Organics in Air												
Vinyl chloride	75-01-4	ug/m3	5,210	ND(0.511)	816	**940**	140	**548**	204	12	ND(5.11)	1.39
Acetone	67-64-1	ug/m3	895	10.30	ND(991)	ND(2.37)	ND(189)	3.95	ND(567)	10.4	ND(23.7)	3.41
1,1-Dichloroethene	75-35-4	ug/m3	2,930	ND(0.792)	989	ND(0.792)	159	ND(0.792)	412	ND(0.792)	ND(7.92)	ND(0.792)
Methylene chloride	75-09-2	ug/m3	ND(1140)	ND(4.86)	ND(2030)	ND(4.86)	ND(387)	ND(4.86)	ND(1160)	10.2	ND(48.6)	82.2
trans-1,2-Dichloroethene	156-60-5	ug/m3	1,140	ND(0.792)	ND(331)	ND(0.792)	ND(63.1)	ND(0.792)	ND(189)	ND(0.792)	ND(7.92)	ND(0.792)
1,1-Dichloroethane	75-34-3	ug/m3	5,280	ND(0.809)	1,470	ND(0.809)	281	ND(0.809)	704	ND(0.809)	36.6	ND(0.809)
2-Butanone	78-93-3	ug/m3	770	2.82	ND(246)	ND(0.589)	ND(47)	0.73	ND(141)	1.73	ND(5.89)	ND(0.589)
cis-1,2-Dichloroethene	156-59-2	ug/m3	91,500	ND(0.792)	25,800	ND(0.792)	5,640	ND(0.792)	12,400	5.71	852	ND(0.792)
1,2-Dichloroethane	107-06-2	ug/m3	1,200	ND(0.809)	675	ND(0.809)	254	ND(0.809)	318	ND(0.809)	19.8	ND(0.809)
1,1,1-Trichloroethane	71-55-6	ug/m3	**496,000**	ND(1.09)	153,000	ND(1.09)	36,800	10.40	103,000	44.4	**4,440**	ND(1.09)
Benzene	71-43-2	ug/m3	352	ND(0.638)	ND(266)	ND(0.638)	ND(50.9)	ND(0.638)	ND(152)	ND(0.638)	ND(6.38)	ND(0.638)
Trichloroethene	79-01-6	ug/m3	**489,000**	2.03	158,000	ND(1.07)	42,300	18.20	**107,000**	130	**11,400**	ND(1.07)
1,1,2-Trichloroethane	79-00-5	ug/m3	434	ND(1.09)	ND(455)	ND(1.09)	ND(86.9)	ND(1.09)	ND(260)	ND(1.09)	ND(10.9)	ND(1.09)
Toluene	108-88-3	ug/m3	6,140	ND(0.753)	8,760	ND(0.753)	2,790	2.77	8,640	14.6	890	ND(0.753)
Tetrachloroethene	127-18-4	ug/m3	**631,000**	5.20	198,000	14.30	**76,300**	279	103,000	206	**10,300**	ND(1.36)
Chlorobenzene	108-90-7	ug/m3	340	ND(0.92)	ND(384)	ND(0.92)	ND(73.3)	ND(0.92)	ND(220)	ND(0.92)	9.38	ND(0.92)
Ethylbenzene	100-41-4	ug/m3	690	ND(0.868)	1,100	ND(0.868)	411	1.12	807	3.18	120	ND(0.868)
p/m-Xylene	106-42-3/108-38-3	ug/m3	1,760	ND(1.74)	2,620	ND(1.74)	1,110	3.82	1,960	8.82	266	ND(1.74)
o-Xylene	95-47-6	ug/m3	1,240	ND(0.868)	1,270	ND(0.868)	541	2.26	1,100	5.65	259	ND(0.868)
SUM		ug/m3	*1,735,881*	*20.35*	*552,500*	*954.3*	*166,726*	*870*	*339,545*	*452.69*	*28,593*	*87*
Removal Efficiency		%		*99.999%*		*99.827%*		*99.478%*		*99.867%*		*99.696%*

Notes:
Bolded values represent results obtained on dilution in order to meet laboratory method calibration range.
ND= Not detected above laboratory detection limit. Detection limit is provided in parenthesis.

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TABLE 2
TVOC Mass Removal Summary
September 2010 to April 2011

Well ID	9/24/10		10/1/10				10/8/10				10/29/10				11/12/10				12/22/11			
	Flow (scfm)	TVOC-PID (ppmv)	Flow (scfm)	TVOC-PID (ppmv)	Runtime (Days)	Mass Removed (Lbs)	Flow (scfm)	TVOC-PID (ppmv)	Runtime (Days)	Mass Removed (Lbs)	Flow (scfm)	TVOC-PID (ppmv)	Runtime (Days)	Mass Removed (Lbs)	Flow (scfm)	TVOC-PID (ppmv)	Runtime (Days)	Mass Removed (Lbs)	Flow (scfm)	TVOC-PID (ppmv)	Runtime (Days)	Mass Removed (Lbs)
Total System	81.0	410.5	124.0	166.1	6.7	101.38	175.0	91.5	7.0	69.34	264.0	57.5	12.0	100.70	282.0	12.1	13.6	66.08	172.0	48.9	10.3	36.36

Well ID	1/7/11				2/3/11				2/18/11				3/4/11				4/1/11				4/29/11				Estimated Total Runtime per well (days)	Estimated Total Mass Removed (lbs)
	Flow (scfm)	TVOC-PID (ppmv)	Runtime (Days)	Mass Removed (Lbs)	Flow (scfm)	TVOC-PID (ppmv)	Runtime (Days)	Mass Removed (Lbs)	Flow (scfm)	TVOC-PID (ppmv)	Runtime (Days)	Mass Removed (Lbs)	Flow (scfm)	TVOC-PID (ppmv)	Runtime (Days)	Mass Removed (Lbs)	Flow (scfm)	TVOC-PID (ppmv)	Runtime (Days)	Mass Removed (Lbs)	Flow (scfm)	TVOC-PID (ppmv)	Runtime (Days)	Mass Removed (Lbs)		
Total System	159.00	16.70	15.92	43.89	98.00	24.20	10.80	14.41	194.00	16.00	4.71	7.07	165.00	6.20	14.08	14.25	110.00	47.50	16.11	30.21	35.00	36.90	27.82	43.23	139.2	526.9

Notes:

scfm= standard cubic feet per minute

ppmv= parts per million by volume

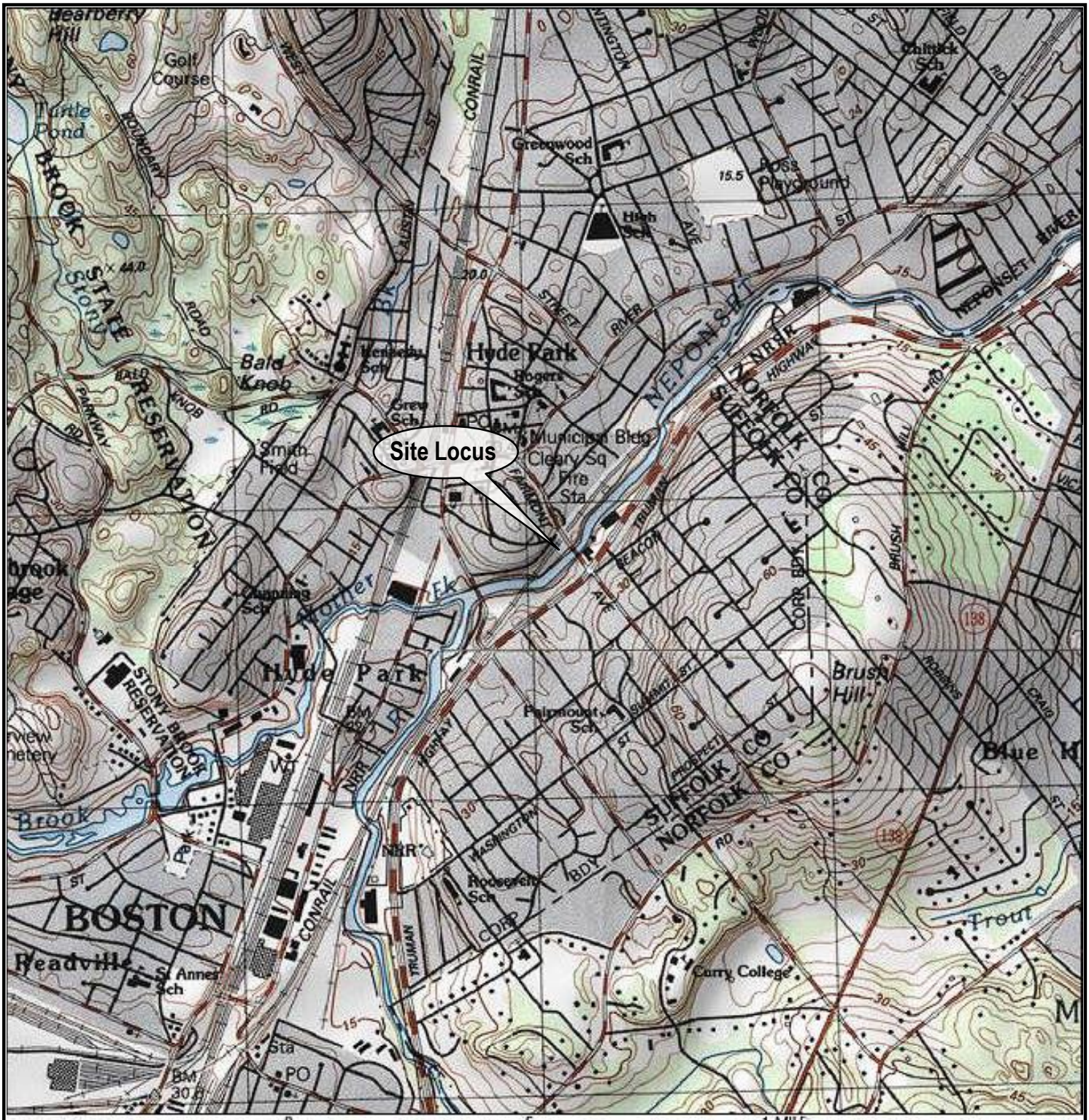
lbs= pounds

Table 3: Remedial Activities Summary

Item	Description
a.) Operating Status of the Active Remedial System Including Shutdowns	The system is in operation. The SVE operated for a total of approximately 139 days between September 24, 2010 and April 29, 2011. The SVE was shutdown for a total of approximately 79 days during this reporting period. 50 of these days are considered significant (>25% of the total reporting period) and are attributed to the need to install additional off-gas controls in October 2010 and the repair/replacement of the high water level switch associated with the condensate knock-out drum in February and March 2011, which is discussed further in Section 3.4.3. The other 29 days the system was shut down were due to scheduled carbon change outs and general maintenance and inspection of the SVE system.
b.) Dates and Number of Monitoring Events	A total of 17 site visits were conducted on the following dates: 9/24, 9/28, 10/1, 10/5, 10/8, 10/11, 10/20, 10/29, 11/12, 12/19, 12/22 in 2010 and 1/7, 2/3, 2/18, 3/4, 4/1, and 4/29 in 2011.
c.) Effluent Concentrations	The goal of the off-gas treatment controls is to maintain a removal efficiency of 95%. Based upon both the PID measurements obtained from the influent and effluent process air stream during SVE system monitoring events and the influent and effluent process air samples collected for TO-15 laboratory analysis, this goal has been achieved to date.
d.) Discharges Above Permissible Levels	Not applicable.
e.) Recovery Rates and/or Volumes	Based on an average flowrate of 180 scfm and runtime of approximately 139 days, approximately 527 pounds of VOCs were removed between September 24, 2010 and April 29, 2011. Table 2 summarizes the system TVOC mass removal based on a runtime of 139 days from data collected over the 11 of 17 Site visits where total SVE system run time was recorded. A graph showing the influent TVOC concentration over time and the cumulative mass removal by the SVE is provided in Figure 4.
f.) Discharge Volumes	Approximately 30 gallons of groundwater was intermittently extracted through the SVE wells between December 19, 2010 and March 10, 2011. The majority of the extracted water was during the month of March 2011, as discussed in Section 3.4.3 below. The groundwater was captured and is appropriately stored on-site in a 55-gallon drum that is continuing to be used for collection of system process air condensate that may be produced in the future. It is estimated that 36,122,948 scf of air was discharged to the atmosphere during the reporting period.

Item	Description
g.) Remedial Additives	No remedial additives were applied.
i.) Related Maps, Graphs or Diagrams	SVE design drawings including a piping and well layout, piping and instrumentation diagram (P&ID), piping and well details were previously provided in the July 2010 RAM Plan.

FIGURES



Printed from TOPO! ©2000 Wildflower Productions (www.topo.com)

DES.BY:	DR.BY: MES	CK.BY: CB

12-24 Fairmount Court
Hyde Park, MA 02136

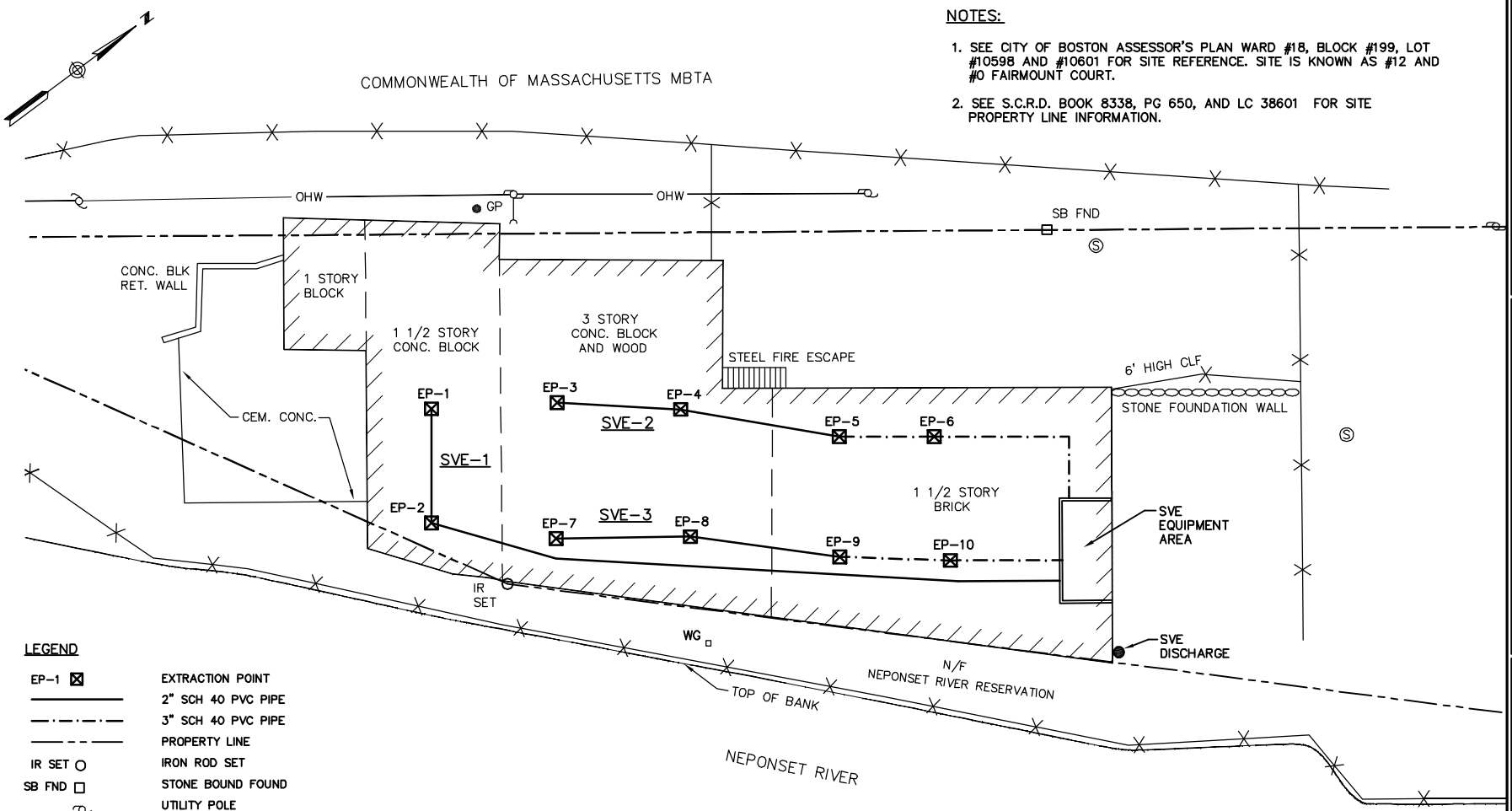
Base Map Source:
TOPO!™ © 2000
Wildflower Productions

LAT: 42°15'11.00"
LONG: 71°07'10.09"

FIGURE 1
SITE LOCUS

SCALE: AS SHOWN	JOB NO.: 221375.01
DATE: JULY 2010	FILE NAME:

COMMITMENT & INTEGRITY
DRIVE RESULTS
980 Washington St, Suite 325
Dedham, MA 02026
T: 800.446.5518



NOTES:

1. SEE CITY OF BOSTON ASSESSOR'S PLAN WARD #18, BLOCK #199, LOT #10598 AND #10601 FOR SITE REFERENCE. SITE IS KNOWN AS #12 AND #0 FAIRMOUNT COURT.
2. SEE S.C.R.D. BOOK 8338, PG 650, AND LC 38601 FOR SITE PROPERTY LINE INFORMATION.

LEGEND

EP-1 ⊠	EXTRACTION POINT
———	2" SCH 40 PVC PIPE
—·—·—	3" SCH 40 PVC PIPE
— — —	PROPERTY LINE
IR SET ○	IRON ROD SET
SB FND □	STONE BOUND FOUND
	UTILITY POLE
Ⓢ	SEWER MANHOLE
	HYDRANT
WG □	WATER GATE
GP ●	GATE POST
RET.	RETAINING
CEM. CONC.	CEMENT CONCRETE
CONC. BLK	CONCRETE BLOCK
—x—x—	CHAIN LINK FENCE
—OHW—	OVERHEAD WIRES

20 0 20 40
SCALE IN FEET

WOODARD & CURRAN
COMMITMENT&INTEGRITYDRIVERESULTS
980WASHINGTONSTREET
DEDHAM,MASSACHUSETTS02026
781.251.0200 |www.woodardcurran.com

SITE PLAN

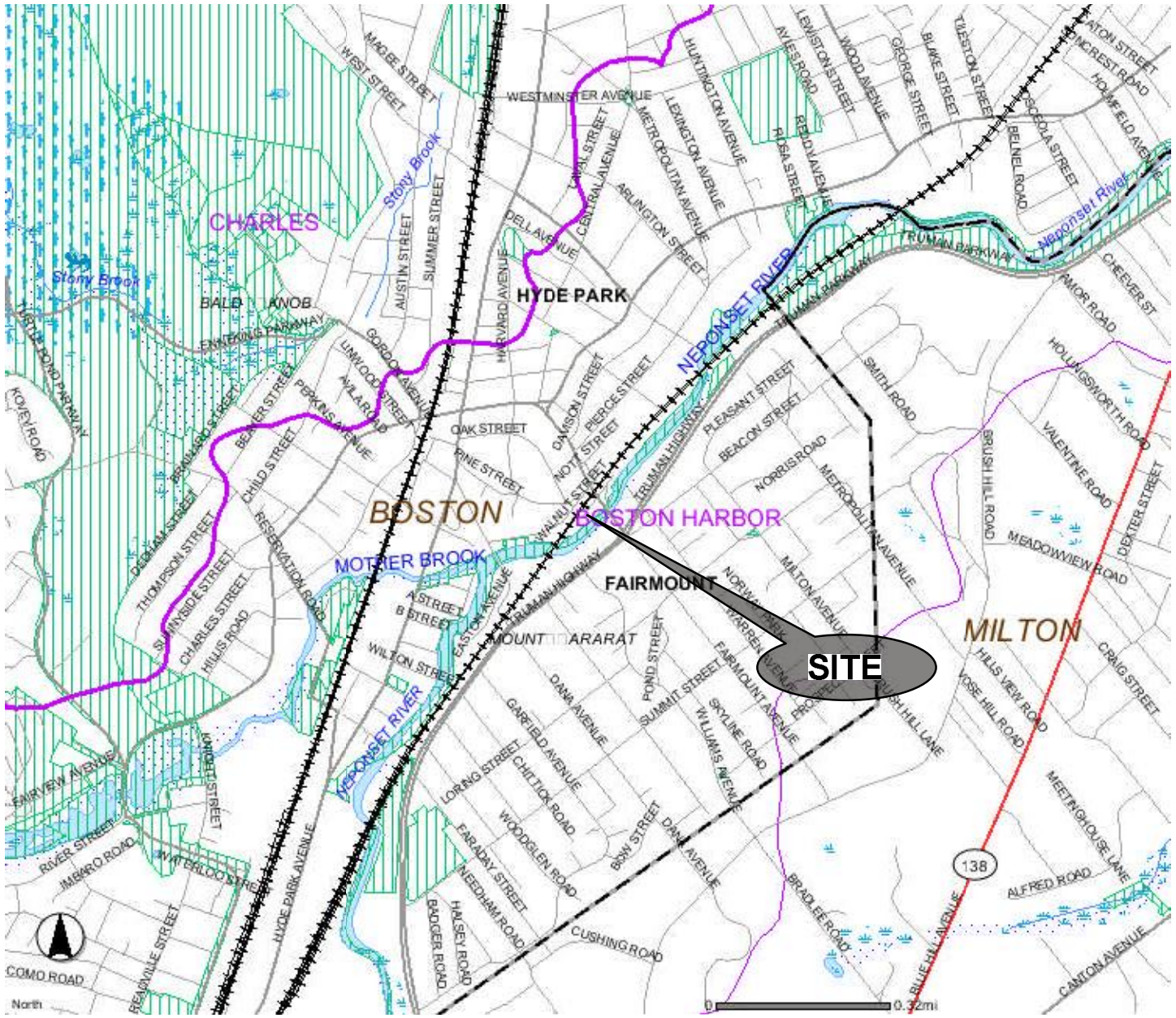
DESIGNED BY: DRC
DRAWN BY: GA
CHECKED BY: SLD
221375-SVE-Layout-FIG-1.dwg

CITY OF BOSTON
DEPARTMENT OF
NEIGHBORHOOD DEVELOPMENT

FORMER LEWIS CHEMICAL SITE

JOB NO: 221375
DATE: AUGUST 2009
SCALE: 1" = 20'

FIGURE - 2



Zone IIs
Zone A
Sole Source Aquifers
Solid Waste Sites
Protected Openspace
NHESP Estimated Habitat of Rare Wildlife in Wetland Areas
Certified Vernal Pools 2003 NHESP
Subbasins
Town Arcs
County Boundaries
Aquifers, By Yield
HIGH YIELD
MEDIUM YIELD
Non Potential Drinking Water Source Area
HIGH YIELD
MEDIUM YIELD
FEMA Floodplains
100 YEAR FLOODPLAIN
Hydrography
WATER
WETLANDS
SALT WATER WETLANDS
Rivers and Streams
PERENNIAL
SHORELINE
DAM
Roads
LIMITED ACCESS HIGHWAY
OTHER NUMBERED HWY
MAJOR ROAD - COLLECTOR
Tracks and Trails MHD
TRACK
Transmission Lines
PIPELINE
TRAIN
IWPAs
ACECs
Major Basins
DEP Region
RESERVOIR
FLATS,SHOALS
INTERMITTENT
MAN MADE SHORE
AQUEDUCT
MULTILANE HWY, NOT LIMITED ACCESS
TRAIL
POWERLINE

WOODARD &CURRAN
COMMITMENT & INTEGRITY DRIVE RESULTS
980 Washington St, Suite 325
Dedham, MA 02026
T: 800.446.5518

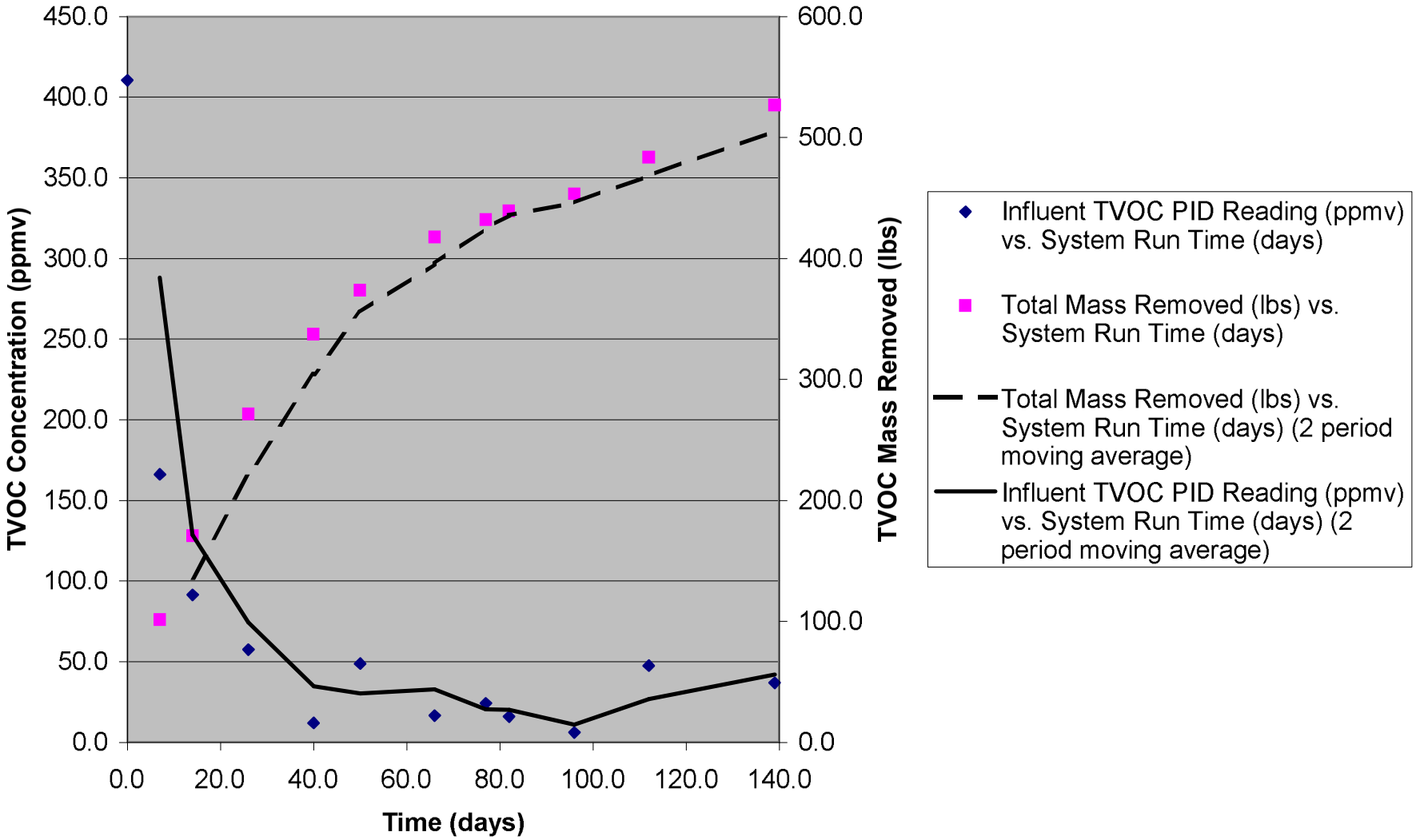
SITE SCORING MAP

12-14 FAIRMOUNT COURT, HYDE PARK, MA

DESIGNED BY:	CHECKED BY: DC
DRAWN BY: MES	

JOB NO.: 221375.01
DATE: JULY 2010
SCALE:

Figure 4: TVOC Readings and Mass Removal versus Time



APPENDIX A: BWSC FORMS 106, 106A, AND 106B FORMS (POST-SUBMITTAL REPORT COPIES)

Note: Forms not included with report filed via e-DEP because forms are completed during e-DEP submittal. Forms included in post-submittal report copies.

APPENDIX B: SVE SYSTEM FIELD MONITORING REPORTS

TABLE 1
Soil Vapor Extraction System
Field Monitoring Report
Former Lewis Chemical Site
Hyde Park, Massachusetts

Operator: S. Driscoll/ D. Clinton Date: 9/24/10

Location	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	17:40	-4.5	NA	NA	410.5	NA
SVE Blower Inlet	17:40	-14	1640	81	NM	NA
SVE Blower Outlet	17:40	8.5	2600	227	112.5	89.5
VGAC #1 Outlet[1]	17:40	6.5	NA	NA	ND	NM
System Air Discharge	17:40	1.5	2926	255	ND	82.9

[1]VGAC #1 Outlet = No. 1 Carbon Filter Effluent

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	NM	(hours)	NM

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	NM	NM	NM	NM	NM	NM
EP-1	16:30	-0.50	250	5	>4000	ON
EP-2	16:20	-0.03	290	6	3480	ON
SVE-2	NM	NM	NM	NM	NM	NM
EP-3	16:55	-3.5	600	13	878.4	ON
EP-4	17:00	-3.5	440	10	705.8	ON
EP-5	17:05	-0.046	720	16	115.1	ON
EP-6	16:45	-4.0	580	13	573.4	ON
SVE-3	NM	NM	NM	NM	NM	NM
EP-7	16:50	-4.0	420	9.2	950.1	ON
EP-8	17:15	-1.5	630	13.7	121.2	ON
EP-9	17:10	-4.0	600	13.1	163.2	ON
EP-10	17:05	-2.0	740	16.1	72.5	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01	17:25	-0.04	41.7
SG-02	17:20	-0.46	361.5
SG-03	17:50	-0.6	1236
SG-04	17:30	-0.12	709.8
SG-05	16:30	0.0	666
SG-06	16:25	-0.02	>4000
ESM-15	NM	NM	NM
ESM-16	17:33	-0.1	134.3

Notes:
NM= Not Measured
NA= Not Applicable

TABLE 1
Soil Vapor Extraction System
Filed Monitoring Report
Former Lewis Chemical Site
Hyde Park, Massachusetts

Operator: D. Clinton/J. Balasano Date: 9/28/10 A

Location	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	11:15	-4.5	NA	NA	NM	NA
SVE Blower Inlet	11:15	-14.5	1690	83	NM	NA
SVE Blower Outlet	11:15	9.0	3000	262	55.7	80.3
VGAC #1 Outlet[1]	11:15	6.5	NA	NA	ND	NM
System Air Discharge	11:15	1.2	3100	271	ND	80.1

[1]VGAC #1 Outlet = No. 1 Carbon Filter Effluent

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	NM	(hours)	NM

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	NM	NM	NM	NM	NM	NM
EP-1	10:25	-0.50	140	3	NM	ON
EP-2	10:20	-0.38	160	3	NM	ON
SVE-2	NM	NM	NM	NM	NM	NM
EP-3	10:40	-3.5	420	9	NM	ON
EP-4	10:45	-4	490	11	NM	ON
EP-5	10:50	-0.46	860	19	NM	ON
EP-6	10:55	-2.0	915	20	NM	ON
SVE-3	NM	NM	NM	NM	NM	NM
EP-7	10:35	-4.0	465	10	NM	ON
EP-8	10:30	-4.0	515	11	NM	ON
EP-9	11:05	-3.5	580	13	NM	ON
EP-10	11:00	-1.5	640	14	NM	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01	NM	NM	NM
SG-02	NM	NM	NM
SG-03	NM	NM	NM
SG-04	NM	NM	NM
SG-05	NM	NM	NM
SG-06	NM	NM	NM
ESM-15	NM	NM	NM
ESM-16	NM	NM	NM

Notes:
Dilution valve open 100%
NM= Not Measured
NA= Not Applicable

TABLE 1
Soil Vapor Extraction System
Field Moniroing Report
Former Lewis Chemical Site
Hyde Park, Massachusetts

Operator: D. Clinton/J. Balasano Date: 9/28/10 B

Location	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	11:20	-15.3	NA	NA	NM	NA
SVE Blower Inlet	11:20	-27.0	3680	181	NM	NM
SVE Blower Outlet	11:20	7.2	2356	206	130	93.7
VGAC #1 Outlet[1]	11:20	5.0	NA	NA	0.8	NM
System Air Discharge	11:20	0.91	2640	230	ND	80.7

[1]VGAC #1 Outlet = No. 1 Carbon Filter Effluent

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	NM	(hours)	NM

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	NM	NM	NM	NM	NM	NM
EP-1	11:22	-1.25	200	4	NM	ON
EP-2	11:20	-0.85	250	5	NM	ON
SVE-2	NM	NM	NM	NM	NM	NM
EP-3	11:28	-10.3	805	18	NM	ON
EP-4	11:30	-11.5	1210	26	NM	ON
EP-5	11:32	-1.4	1620	35	NM	ON
EP-6	11:34	-5.0	1820	40	NM	ON
SVE-3	NM	NM	NM	NM	NM	NM
EP-7	11:26	-12.5	1180	26	NM	ON
EP-8	11:24	-13.5	660	14	NM	ON
EP-9	11:36	-12.0	1270	28	NM	ON
EP-10	11:34	-4.0	1178	26	NM	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01	NM	NM	NM
SG-02	NM	NM	NM
SG-03	NM	NM	NM
SG-04	NM	NM	NM
SG-05	NM	NM	NM
SG-06	NM	NM	NM
ESM-15	NM	NM	NM
ESM-16	NM	NM	NM

Notes:
Closed dilution valve 100% TVOC-PID = 250 ppmv
Opened dilution valve 50% TVOC-PID = 130 ppmv
Dilution valve left at 50% open.
NM= Not Measured
NA= Not Applicable

TABLE 1
Soil Vapor Extraction System
Field Monitoring Report
Former Lewis Chemical Site
Hyde Park, Massachusetts

Operator: S. Driscoll Date: 10/1/10

Location	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	9:55	-16	NA	NA	166.1	NA
SVE Blower Inlet	9:55	-20	2520	124	88.1	70.8
SVE Blower Outlet	9:55	7	2140	187	106.2	98.6
VGAC #1 Outlet[1]	9:55	4.5	NA	NA	ND	NA
System Air Discharge	9:55	0.68	2192	191	ND	84.7

[1]VGAC #1 Outlet = No. 1 Carbon Filter Effluent

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	9:14	(hours)	168.9

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	11:45	-15	570	12	2227	ON
EP-1	11:40	-1.00	60	1	>10000	ON
EP-2	11:50	-1.00	150	3	9578	ON
SVE-2	11:30	-15	1622	80	42.7	ON
EP-3	11:25	-0.48	413	9	425	ON
EP-4	10:55	-0.48	750	16	58.5	ON
EP-5	10:50	-0.94	1280	28	2.1	ON
EP-6	10:40	-5.0	1450	32	ND	ON
SVE-3	11:00	-15	990	49	41	ON
EP-7	10:30	-0.5	1029	22	104.5	ON
EP-8	11:05	-13.5	750	16	89.8	ON
EP-9	10:20	-12.0	730	16	10.2	ON
EP-10	10:10	-4.5	1310	29	10.8	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01	10:35	0	1.2
SG-02	10:25	-1.5	6.8
SG-03	11:00	-2	68.6
SG-04	11:15	-0.38	50.1
SG-05	11:45	0.0	0.2
SG-06	12:05	-0.08	7655
ESM-15	NM	NM	NM
ESM-16	12:15	-0.18	85

Notes:
Calibrated PID US Env Model 580B OVM with a 11.8 eV lamp with 100 ppm Isobutylene. Reading = 99.4 ppmv
9:45 System shutdown due to high knock out drum level. Checked knockout drum no condensate observed. Restarted system
Observed short-circuiting around EP-8 and EP-9. Sealed leaks with hydraulic cement.
NM= Not Measured
NA= not Measured

TABLE 1
Soil Vapor Extraction System
Field Monitoring Report
Former Lewis Chemical Site
Hyde Park, Massachusetts

Operator: D. Clinton Date: 10/5/10

Location	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	10:00	NS	NA	NA	NS	NA
SVE Blower Inlet	10:00	NS	3400	167	NS	70.8
SVE Blower Outlet	10:00	NS	2750	240	78.3	85.9
VGAC #1 Outlet[1]	10:00	NS	NA	NA	2	NA
System Air Discharge	10:00	NS	320	28	1.8	72.4

[1]VGAC #1 Outlet = No. 1 Carbon Filter Effluent

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	10:00	(hours)	266.6

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	NM	NM	NM	NM	NM	ON
EP-1	NM	NM	NM	NM	NM	ON
EP-2	NM	NM	NM	NM	NM	ON
SVE-2	NM	NM	NM	NM	NM	ON
EP-3	NM	NM	NM	NM	NM	ON
EP-4	NM	NM	NM	NM	NM	ON
EP-5	NM	NM	NM	NM	NM	ON
EP-6	NM	NM	NM	NM	NM	ON
SVE-3	NM	NM	NM	NM	NM	ON
EP-7	NM	NM	NM	NM	NM	ON
EP-8	NM	NM	NM	NM	NM	ON
EP-9	NM	NM	NM	NM	NM	ON
EP-10	NM	NM	NM	NM	NM	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01	NM	NM	NM
SG-02	NM	NM	NM
SG-03	NM	NM	NM
SG-04	NM	NM	NM
SG-05	NM	NM	NM
SG-06	NM	NM	NM
ESM-15	NM	NM	NM
ESM-16	NM	NM	NM

Notes:
Calibrated PID US Env Model 580B OVM with a 11.8 eV lamp with 100 ppm Isobutylene. Reading = 99.8 ppmv
NM= Not Measured
NA= Not Applicable

TABLE 1
Soil Vapor Extraction System
Field Monitoring Report
Former Lewis Chemical Site
Hyde Park, Massachusetts

Operator: D.Clinton Date: 10/8/10

Location	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	10:50	-15	NA	NA	91.5	NA
SVE Blower Inlet	10:50	-27.5	3570	175	32.9	70.8
SVE Blower Outlet	10:50	8	2580	225	39.2	86.5
VGAC #1 Outlet[1]	10:50	NS	NA	NA	2.7	NA
System Air Discharge	10:50	NS	395	34	2	84.6

[1]VGAC #1 Outlet = No. 1 Carbon Filter Effluent

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	9:14	(hours)	168.9

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	11:43	-15	1084	24	1310	ON
EP-1	11:39	-1.50	165	4	854	ON
EP-2	11:34	-0.70	270	6	1195	ON
SVE-2	11:30	-16	2670	131	72.7	ON
EP-3	11:26	-9.5	1135	25	162.3	ON
EP-4	11:18	-11.5	1146	25	52.6	ON
EP-5	11:16	-1.5	1468	32	42.8	ON
EP-6	11:13	-4.5	1622	35	39.8	ON
SVE-3	11:11	-15	1507	74	1507	ON
EP-7	11:23	-11.0	1357	30	101.5	ON
EP-8	11:22	-13.5	700	15	78.2	ON
EP-9	11:06	-13.0	1200	26	33.5	ON
EP-10	10:56	-4.0	1175	26	36.1	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01	10:53	-0.1	27.5
SG-02	10:59	-0.04	10.2
SG-03	11:28	-3	68.6
SG-04	11:25	-0.25	42.3
SG-05	11:41	0.0	0.3
SG-06	11:37	-0.04	1118
ESM-15	NM	NM	NM
ESM-16	11:19	-0.22	85

Notes:

Calibrated PID US Env Model 580B OVM with a 10.6 eV lamp with 100 ppm Isobutylene. Reading = 99.5 ppmv
NM= Not Measured

NM= Not Measured
NA= not Measured

TABLE 1
Soil Vapor Extraction System
Field Monitoring Report
Former Lewis Chemical Site
Hyde Park, Massachusetts

Operator: S. Driscoll Date: 10/11/10

Location	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	8:00	-16	NA	NA	41.7	NA
SVE Blower Inlet	8:00	-20	3800	187	NM	58.1
SVE Blower Outlet	8:00	7.0	2440	213	31.6	85.0
VGAC #1 Outlet[1]	8:00	5.0	NA	NA	0	NA
System Air Discharge	8:00	0.7	2725	238	0	71.9

[1]VGAC #1 Outlet = No. 1 Carbon Filter Effluent

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	8:40	(hours)	402.8

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	8:30	-16	700	15	93	ON
EP-1	NM	NM	NM	NM	NM	ON
EP-2	NM	NM	NM	NM	NM	ON
SVE-2	8:30	-15	2100	103	32	ON
EP-3	NM	NM	NM	NM	NM	ON
EP-4	NM	NM	NM	NM	NM	ON
EP-5	NM	NM	NM	NM	NM	ON
EP-6	NM	NM	NM	NM	NM	ON
SVE-3	8:30	-16	1425	70	22.8	ON
EP-7	NM	NM	NM	NM	NM	ON
EP-8	NM	NM	NM	NM	NM	ON
EP-9	NM	NM	NM	NM	NM	ON
EP-10	NM	NM	NM	NM	NM	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01	NM	NM	NM
SG-02	NM	NM	NM
SG-03	NM	NM	NM
SG-04	NM	NM	NM
SG-05	NM	NM	NM
SG-06	NM	NM	NM
ESM-15	NM	NM	NM
ESM-16	NM	NM	NM

Notes:
TVOC-PID readings collected using a ppbRAE3000 PID serial number 15411 from Pine Environmental
Prior to collecting readings the PID was calibrated with a 10 ppm Isobutylene standard. Reading 10.3 ppm.
NM= Not Measured
NA= Not Measured

TABLE 1
Soil Vapor Extraction System
Field Monitoring Report
Former Lewis Chemical Site
Hyde Park, Massachusetts

Operator: S. Driscoll Date: 10/20/10 A

Location	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	NM	NM	NA	NA	NM	NA
SVE Blower Inlet	NM	NM	NM	NM	NM	NM
SVE Blower Outlet	NM	NM	NM	NM	NM	NM
VGAC #1 Outlet[1]	NM	NM	NA	NA	NM	NA
System Air Discharge	NM	NM	NM	NM	NM	NM

[1]VGAC #1 Outlet = No. 1 Carbon Filter Effluent

Knockout Drum Water Vol.	(gallons)	NM		
SVE Blower Runtime	(Time)	NM	(hours)	NM

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	NM	NM	NM	NM	NM	Off
EP-1	10:53	NM	NM	NM	2083	
EP-2	10:55	NM	NM	NM	2937	
SVE-2	NM	NM	NM	NM	NM	Off
EP-3	10:44	NM	NM	NM	17.8	
EP-4	10:40	NM	NM	NM	4.8	
EP-5	10:38	NM	NM	NM	1.4	
EP-6	10:35	NM	NM	NM	2.4	
SVE-3	NM	NM	NM	NM	NM	Off
EP-7	10:47	NM	NM	NM	48.1	
EP-8	10:46	NM	NM	NM	29.8	
EP-9	10:30	NM	NM	NM	10.7	
EP-10	10:20	NM	NM	NM	5.6	

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01			
SG-02	10:25	NM	16.5
SG-03	10:42	NM	129.4
SG-04			
SG-05			
SG-06	10:57	NM	3620
ESM-15			
ESM-16	NM	NM	180.2

Notes:
Readings collected prior to starting system.
EP readings maybe low due to valves being open.
11:15 - Started system as configured last time with KMnO4 VGAC on end of line.
SG-01, SG-04, and SG-05 are destroyed and will not be included in future monitoring sheets.
ESM-15 will be constructed as a monitoring event in the furture and will be removed from the monitroing sheet until that time.
NM= Not Measured
NA= not Measured

TABLE 1
Soil Vapor Extraction System
Field Monitroing Report
Former Lewis Chemical Site
Hyde Park, Massachusetts

Operator: S. Driscoll Date: 10/20/10 B

Location	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	11:30	-14.5	NA	NA	68.2	NA
SVE Blower Inlet	11:30	-18.5	3250	159.5	NM	55.2
SVE Blower Outlet	11:30	+12	2830	247.0	55.0	82.0
VGAC #1 Outlet[1]	11:30	+10	NA	NA	ND	NA
System Air Discharge	11:30	+0.65	3850	NM	0.5	50.4

[1]VGAC #1 Outlet = No. 1 Carbon Filter Effluent

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	NM	(hours)	NM

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	12:28	-14	450	9.82	1600	ON
EP-1	12:42	-0.84	260	5.67	4745	ON
EP-2	12:48	-0.62	220	4.80	720.4	ON
SVE-2	12:26	-14	2025	99.4	33.7	ON
EP-3	12:31	-0.38	830	18.1	128.0	ON
EP-4	12:32	-0.48	750	16.4	50.4	ON
EP-5	12:33	-0.84	1392	30.4	6.4	ON
EP-6	12:30	-3.5	1550	33.8	9.6	ON
SVE-3	12:20	-14.0	2450	120	48.3	ON
EP-7	12:36	-0.48	1050	22.9	72.0	ON
EP-8	12:34	-0.48	660	14.4	71.2	ON
EP-9	12:24	-11.5	1135	24.8	14.4	ON
EP-10	12:22	-3.0	1112	24.3	15.4	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01	Destroyed		
SG-02	12:20	-1.5	14.9
SG-03	12:40	-1.5	89.4
SG-04	12:38	-0.38	47.5
SG-05	NM	NM	NM
SG-06	12:50	-0.04	10466
ESM-15	NM	NM	NM
ESM-16	13:00	-0.30	56

Notes: Restarted system @11:15
TVOC-PID prior to adjustment = 69.4 ppm. Increase velocity at EP-04 and EP-08 to ~1,100 fpm, TVOC-PID ~48.2.
Increase velocity at EP-03 and EP-7 to ~1,100 fpm, TVOC-PID = 44.2 ppm well field inlet.
Close dilution valve, TVOC-PID = 56.5 ppm.
14:35 stopped blower to move dilution and kunkle valve to post filter, runtime 406.2.
14:50 restarted blower.
15:00 AP-105 = 56 ppmV, AP-106 = ND, AP-108 = ND
15:10 Increase velocity @ EP-1 and EP-2 to 350 fpm. AP-105 = 86 ppmV. Completed adjustments.
NM+ Not Measured

TABLE 1
Soil Vapor Extraction System
Field Monitoring Report
Former Lewis Chemical Site
Hyde Park, Massachusetts

Operator: S. Driscoll

Date: 10/20/10 C

Location	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	15:20	-24	NA	NA	NM	NA
SVE Blower Inlet	15:20	-33	2950 / 5922	144.8 / 290.7	50	NM
SVE Blower Outlet	15:20	+12	2250	196	82.2	NM
VGAC #1 Outlet	15:20	+10	NA	NA	ND	NA
VGAC #1 Outlet[1]	15:20	NA	NA	NA	NA	NA
System Air Discharge	15:20	+0.65	3230	282	ND	NM

[1]VGAC #1 Outlet = No. 1 Carbon Filter Effluent

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	15:20	(hours)	406.7

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	16:12	-22	700	NM	NM	ON
EP-1	15:42	-2.5	360	NM	NM	ON
EP-2	15:40	-3	500	NM	NM	ON
SVE-2	16:10	-22	2700	NM	NM	ON
EP-3	15:44	-18	1200	NM	NM	ON
EP-4	15:54	-17	1500	NM	NM	ON
EP-5	15:58	-1.0	1500	NM	NM	ON
EP-6	16:00	-5.0	1700	NM	NM	ON
SVE-3	16:08	-22.0	1650	NM	NM	ON
EP-7	15:48	-18	1150	NM	NM	ON
EP-8	15:46	-20	1230	NM	NM	ON
EP-9	16:02	-16.5	1400	NM	NM	ON
EP-10	16:04	-4.0	1300	NM	NM	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01	Destroyed		
SG-02	16:06	-2.0	NM
SG-03	15:56	-3.5	NM
SG-04	15:50	-0.60	NM
SG-05	NM	NM	NM
SG-06	15:52	-0.14	NM
ESM-15	NM	NM	NM
ESM-16	NM	NM	NM

Notes:
NM= Not Measured
NM= Not Measured
NA= not Measured

TABLE 1
Soil Vapor Extraction System
Field Monitoring Report
Former Lewis Chemical Site
Hyde Park, Massachusetts

Operator: DRC/JB Date: 10/29/10

Location	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	1408	-21	NA	NA	57.5	NA
SVE Blower Inlet	1406	-33	5385	264	57.6	58.2
SVE Blower Outlet	1400	10	2274	198	55.5	92.7
VGAC #1 Outlet[1]	1408	10	NA	NA	0.4	NA
System Air Discharge[2]	1410	3	2474	216	0.2	73.2

[1]VGAC #1 Outlet = No. 1 Carbon Filter Effluent

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	1420	(hours)	627.7

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	1555	-21.5	NM	NM	413	ON
EP-1	1500	-2.00	480	10	2223	ON
EP-2	1454	-3.00	1995	44	394	ON
SVE-2	1600	-21	NM	NM	11.4	ON
EP-3	1530	-18.5	1333	29	43.5	ON
EP-4	1535	-18.5	1234	27	31.9	ON
EP-5	1540	-1	1517	33	15.5	ON
EP-6	1545	-5.0	1388	30	12.3	ON
SVE-3	1552	-21	NM	NM	16.2	ON
EP-7	1515	-17.0	1630	36	51.2	ON
EP-8	1506	-19.5	1305	28	67.4	ON
EP-9	1555	-16.5	864	19	10.9	ON
EP-10	1550	-4.5	785	17	8.9	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01			
SG-02	1605	-2	15.5
SG-03	1540	-2.5	58.6
SG-04			
SG-05			
SG-06	1456	-0.04	1026
ESM-15			
ESM-16	1503	-0.12	15.3

Notes:
[2]Effluent from permanganate filter
SG-01, SG-04, and SG-05 are destroyed and will not be included in future monitoring sheets.
ESM-15 will be constructed as a monitoring event in the furture and will be removed from the monitroing sheet until that time.
NM= Not Measured
NA= not Measured

TABLE 1
Soil Vapor Extraction System
Field Monitoring Report
Former Lewis Chemical Site
Hyde Park, Massachusetts

Operator: DRC/BVA Date: 11/12/10

Location	Time	Vacuum (-)Pressure (+)	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	851	-24	NA	NA	12.9	NA
SVE Blower Inlet	851	-33	5745	282	12.1	51.2
SVE Blower Outlet	856	10	2574	225	34	92.7
VGAC #1 Outlet[1]	848	8.5	NA	NA	7.4	NA
System Air Discharge[2]	845	0.7	2673	233	0.4	62.5

[1]VGAC #1 Outlet = No. 1 Carbon Filter Effluent

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	1020	(hours)	954.7

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	908	-23	748	16	172.8	ON
EP-1	945	-2.00	289	6	192.3	ON
EP-2	940	-3.00	372	8	37.9	ON
SVE-2	909	-22	2500	123	25.8	ON
EP-3	935	-20	1382	30	7.3	ON
EP-4	932	-19	1302	28	3.3	ON
EP-5	930	-1	1571	34	1.7	ON
EP-6	925	-5.0	1779	39	2.1	ON
SVE-3	910	-22.5	2041	100	14.3	ON
EP-7	922	-17.5	1580	34	3.7	ON
EP-8	920	-20.5	656	14	3.3	ON
EP-9	918	-18.0	1385	30	3.2	ON
EP-10	915	-4.5	1189	26	7.8	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01	NM	NM	NM
SG-02	910	-1.5	2.9
SG-03	912	-1	14.5
SG-04	NM	NM	NM
SG-05	915	-0.2	1.4
SG-06	920	-0.1	438
ESM-15	NM	NM	NM
ESM-16	906	-0.23	3.2

Notes:
[2]Effluent from permanganate filter
SG-01, SG-04, and ESM-15 Not Located; Likely Destroyed
NM= Not Measured
NA= Not Measured

TABLE 1
Soil Vapor Extraction System Checklist
Former Lewis Chemical Site Hyde Park, Massachusetts

Operator: DRC Date: 12/19/2010

Location	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	10:15	-8	NA	NA	NM	NA
SVE Blower Inlet	10:18	-11	2860	140	NM	38.6
SVE Blower Outlet	10:30	14.5	2955	258	25.5	64.2
VGAC #1 Outlet	10:35	13	NA	NA	0	NA
VGAC #2 Outlet	10:39	10	3000	262	0	NA
Post MnO4/Discharge	10:43	0.83	2970	259	0	50.1

Knockout Drum Water Vol.	(liters)	0.5		
SVE Blower Runtime	(Time)	NM	(hours)	NM

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	10:00	-8.0	659	14	NM	ON
EP-1	NM	NM	NM	NM	NM	ON
EP-2	NM	NM	NM	NM	NM	ON
SVE-2	10:05	-8.0	1655	81	NM	ON
EP-3	NM	NM	NM	NM	NM	ON
EP-4	NM	NM	NM	NM	NM	ON
EP-5	NM	NM	NM	NM	NM	ON
EP-6	NM	NM	NM	NM	NM	ON
SVE-3	10:10	-8.0	892	44	NM	ON
EP-7	NM	NM	NM	NM	NM	ON
EP-8	NM	NM	NM	NM	NM	ON
EP-9	NM	NM	NM	NM	NM	ON
EP-10	NM	NM	NM	NM	NM	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01			
SG-02	NM	NM	NM
SG-03	NM	NM	NM
SG-04			
SG-05			
SG-06	NM	NM	NM
ESM-15			
ESM-16	NM	NM	NM

Notes:
1) Full monitoring round not completed. Site visit was made only to check on system status after restart of the system on 12/17/10
2) SG-01, SG-04, and SG-05 are destroyed and will not be included in future monitoring sheets.
3) ESM-15 will be constructed as a monitoring event in the furture and will be removed from the monitroing sheet until that time.

TABLE 1
Soil Vapor Extraction System Checklist
Former Lewis Chemical Site Hyde Park, Massachusetts

Operator: DRC/BVA Date: 12/22/2010

Location	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	12:45	-9	NA	NA	49.2	NA
SVE Blower Inlet	12:48	-13	3500	172	48.9	40.6
SVE Blower Outlet	12:56	14	2800	244	25.5	62.4
VGAC #1 Outlet	13:00	12	NA	NA	0	NA
VGAC #2 Outlet	13:05	9.5	3000	262	0	NA
Post MnO4/Discharge	13:10	0.83	3020	264	0	51.7

Knockout Drum Water Vol.	(liters)	3		
SVE Blower Runtime	(Time)	1500	(hours)	1202.8

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	12:30	-8.5	940	21	259.8	ON
EP-1	11:30	-6.5	870	19	736	ON
EP-2	11:33	-6.0	560	12	99.8	ON
SVE-2	12:35	-8.0	1250	61	49.5	ON
EP-3	11:38	-6.5	660	14	86.9	ON
EP-4	11:42	-6.0	650	14	25.6	ON
EP-5	11:46	-2.0	2130	46	10.8	ON
EP-6	11:40	-3.0	680	15	9.9	ON
SVE-3	12:40	-8.0	1300	64	30.2	ON
EP-7	12:00	-7.0	850	19	40.1	ON
EP-8	12:05	-7.5	580	13	46.1	ON
EP-9	12:10	-2.0	360	8	16.3	ON
EP-10	12:15	-2.0	510	11	9.8	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01			
SG-02	12:12	-0.39	13.2
SG-03	11:45	-0.84	21.5
SG-04			
SG-05			
SG-06	11:25	-0.14	226
ESM-15			
ESM-16	13:15	-0.22	9.8

Notes:
1) DRC collected post VOC-PID Concentration from SVE Blower Outlet prior to monitoring event. Reading was 8.9. DRC opened flow valve at EP-1 and EP-2 to increase VOC concentration to 25.5ppm at SVE Blower Outlet .
2) SG-01, SG-04, and SG-05 are destroyed and will not be included in future monitoring sheets.
3) ESM-15 will be constructed as a monitoring event in the furture and will be removed from the monitroing sheet until that time.

TABLE 1
Soil Vapor Extraction System Checklist
Former Lewis Chemical Site Hyde Park, Massachusetts

Operator: B. Aigler, J. Russell Date: 1/7/11

Location	Time	Vacuum/Pressure	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	12:19	-9	NA	NA	18.6	NA
SVE Blower Inlet	12:18	-11.5	3229	159	16.7	37.3
SVE Blower Outlet	12:20	14.1	503	44	12.4	64.5
VGAC #1 Outlet	12:23	12.25	NA	NA	0.2	NA
VGAC #2 Outlet	12:24	9.5	NA	NA	3.8	NA
Post MnO4/Discharge	12:25	0.82	3394	296	0.3	48.3

Knockout Drum Water Vol.	(gallons)	0.55		
SVE Blower Runtime	(Time)	NM	(hours)	1588.1

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	12:11	-8.5	1712	37	70.4	ON
EP-1	11:57	-6.25	794	17	46.0	ON
EP-2	11:52	-6.00	610	13	39.0	ON
SVE-2	12:10	-8.0	2192	108	4.1	ON
EP-3	12:02	-6.0	724	16	15.5	ON
EP-4	12:05	-6.0	533	12	10.4	ON
EP-5	12:08	-1.8	2280	50	5.2	ON
EP-6	12:09	-2.0	783	17	4.1	ON
SVE-3	12:15	-8.25	822	40	5.7	ON
EP-7	12:01	-7.0	825	18	10	ON
EP-8	11:59	-7.5	468	10	11.6	ON
EP-9	12:13	-2.1	314	7	9.2	ON
EP-10	12:14	-2.0	745	16	6.2	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01			
SG-02	12:12	-0.30	15.1
SG-03	12:04	-0.88	7.7
SG-04			
SG-05			
SG-06	11:45	-0.90	246
ESM-15			
ESM-16	12:13	-0.25	4.0

Notes:
SG-01, SG-04, and SG-05 are destroyed and will not be included in future monitoring sheets.
ESM-15 will be constructed as a monitoring event in the furture and will be removed from the monitroing sheet until that time.
NM= Not Measured
NA= not Measured

TABLE 1
Soil Vapor Extraction System Checklist
Former Lewis Chemical Site Hyde Park, Massachusetts

Operator: DRC/JR Date: 2/3/2011

Location	Time	Vacuum/Pressure	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	1130	NS[1]	NA	NA		NA
SVE Blower Inlet	1135	-20	2000	98	24.2	300
Particulate Filter Inlet	1140	-20	NA	NA	NA	NA
SVE Blower Outlet	1150	13	2790	243	12.8	58.8
VGAC #1 Outlet	1200	11	NA	NA	0	NA
VGAC #2 Outlet	1205	9	NA	NA	0	NA
Post MnO4/Discharge	1215	0.72	2700	236	0	40.2

Knockout Drum Water Vol.	(liters)	3.5		
SVE Blower Runtime	(Time)	1255	(hours)	1847.4

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	1028	-3	1116	24	160	ON
EP-1	0930	-2.50	476	10	405	ON
EP-2	0935	-3.00	495	11	25.8	ON
SVE-2	1023	-0.03	1305	64	12.8	ON
EP-3	0940	-3.5	473	10	33.6	ON
EP-4	0945	-3.5	550	12	15	ON
EP-5	0950	-1	1875	41	7.8	ON
EP-6	0955	-1.0	617	13	5.5	ON
SVE-3	1020	-5.25	492	24	8.5	ON
EP-7	1000	-4.5	880	19	15.3	ON
EP-8	1005	-4.5	564	12	43.2	ON
EP-9	1010	-1.0	329	7	0.5	ON
EP-10	1015	-2.0	578	13	3.4	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01			
SG-02	1030	-0.1	7.1
SG-03	1035	-2.2	0.44
SG-04			
SG-05			
SG-06	1040	-0.05	345.6
ESM-15			
ESM-16	1045	-0.1	3.8

Notes:
1) Valve was forzen and reading could not be recorded.
SG-01, SG-04, and SG-05 are destroyed and will not be included in future monitoring sheets.
ESM-15 will be constructed as a monitoring event in the furture and will be removed from the monitroing sheet until that time.
NM= Not Measured
NA= not Measured

TABLE 1
Soil Vapor Extraction System Checklist
Former Lewis Chemical Site Hyde Park, Massachusetts

Operator: BA/JR Date: 2/18/11

Location	Time	Vacuum/Pressure	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	10:20	-10	NA	NA	14.9	NA
SVE Blower Inlet	10:25	-16	3959	194	16	38.1
SVE Blower Outlet	10:30	14.5	3824	334	13	66.5
VGAC #1 Outlet	10:35	12	NA	NA	0	NA
VGAC #2 Outlet	10:40	8	NA	NA	0	NA
Post MnO4/Discharge	10:45	0.82	3230	282	0	45.4

Knockout Drum Water Vol.	(mL)	2500	(Ice inside drum)	
SVE Blower Runtime	(Time)	8:30	(hours)	1960.5

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	9:55	-9.25	1522	33	76	ON
EP-1	9:06	-7.75	775	17	240.7	ON
EP-2	9:01	-7.00	921	20	6	ON
SVE-2	9:50	-9	2351	115	19.5	ON
EP-3	9:26	-7	635	14	35.1	ON
EP-4	9:30	-6.75	914	20	24	ON
EP-5	9:35	-2	2671	58	13.3	ON
EP-6	9:40	-1.8	906	20	10.7	ON
SVE-3	10:00	-9	964	47	13.2	ON
EP-7	9:23	-7.8	1061	23	38.1	ON
EP-8	9:18	-8.5	604	13	30	ON
EP-9	10:05	-2.5	375	8	9.8	ON
EP-10	10:10	-3.5	605	13	7.3	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01			
SG-02	10:15	-0.02	10.3
SG-03	9:32	-0.18	13.3
SG-04			
SG-05			
SG-06	9:04	-0.03	240
ESM-15			
ESM-16	10:25	-0.15	6.6

Notes:
System was off upon arrival; moisture light on
SG-01, SG-04, and SG-05 are destroyed and will not be included in future monitoring sheets.
ESM-15 will be constructed as a monitoring event in the furture and will be removed from the monitroing sheet until that time.
NM= Not Measured
NA= not Measured

TABLE 1
Soil Vapor Extraction System Checklist
Former Lewis Chemical Site Hyde Park, Massachusetts

Operator: S Driscoll/B Aigler Date: 3/4/11 A

Location	Time	Vacuum/Pressure	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	8:45	-10.5	NA	NA	4.6	NA
SVE Blower Inlet	8:47	-16	3360	165	6.2	NM
SVE Blower Outlet	8:54	14	3200	279	6.8	NM
VGAC #1 Outlet	9:05	12.5	NA	NA	0.4	NA
VGAC #2 Outlet	9:08	9.5	NA	NA	0	NA
Post MnO4/Discharge	8:27	0.84	3300	288	0.2	NM

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	NM	(hours)	NM

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	10:03	-10.0	2100	46	54.2	ON
EP-1	9:25	-7.5	600	13	161	ON
EP-2	9:15	-7.0	1230	27	6.9	ON
SVE-2	10:05	-9.5	1800	88	5.8	ON
EP-3	9:39	-7.5	520	11	9.8	ON
EP-4	9:43	-7.5	720	16	5.8	ON
EP-5	9:50	-2.5	1835	40	2.7	ON
EP-6	9:59	-2.5	850	19	2.2	ON
SVE-3	10:20	-10.0	2500	123	2.4	ON
EP-7	9:34	-8.0	1010	22	9.3	ON
EP-8	9:30	-9.5	550	12	17.9	ON
EP-9	10:10	-2.0	2350	51	3.4	ON
EP-10	10:16	-2.5	1450	32	2.1	ON

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01			
SG-02	10:12	-0.04	3
SG-03	9:46	-0.66	12.8
SG-04			
SG-05			
SG-06	9:19	-0.05	552.9
ESM-15			
ESM-16	10:24	-0.28	1.6

Notes:
2) SG-01, SG-04, and SG-05 are destroyed and will not be included in future monitoring sheets.
3) ESM-15 will be constructed as a monitoring event in the furture and will be removed from the monitroing sheet until that time.
NM= Not Measured
NA= not Measured

TABLE 1
Soil Vapor Extraction System Checklist
Former Lewis Chemical Site Hyde Park, Massachusetts

Operator: S. Driscoll/B. Aigler Date: 3/4/11 B

Location	Time	Vacuum/Pressure	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	11:56	-23	NA	NA	18.5	NA
SVE Blower Inlet	11:57	-27	2775	136	17.7	35.5
SVE Blower Outlet	12:00	12.5	2450	214	16.3	68
VGAC #1 Outlet	12:05	11	NA	NA	0.2	NA
VGAC #2 Outlet	12:04	8.5	NA	NA	0.1	NA
Post MnO4/Discharge	12:06	0.74	3130	273	0.1	44.5

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	11:08	(hours)	2298.4

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	11:42	-23.0	3545	77	45.7	ON
EP-1	11:19	-15.0	1240	27	128	ON 100% open
EP-2	11:12	-14.5	1640	36	6.8	ON 100% open
SVE-2	11:44	-23.0	2050	101	7.4	ON
EP-3	11:31	-12.0	1730	38	9.7	ON 100% open
EP-4	11:35	-21.5	1350	29	5.6	ON 100% open
EP-5	11:39	0.0	0	0	3.5	OFF
EP-6	11:50	0.0	0	0	NM	OFF
SVE-3	11:55	-23.0	1520	75	4.5	ON
EP-7	11:25	-21.0	1030	22	8.9	ON 100% open
EP-8	11:21	-21.0	1150	25	13.3	ON 100% open
EP-9	11:51	0.0	0	0	NM	OFF
EP-10	11:53	0.0	0	0	NM	OFF

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01			
SG-02	11:52	1	NM
SG-03	11:36	-1.4	10.3
SG-04			
SG-05			
SG-06	11:15	-0.1	312
ESM-15			
ESM-16	12:02	-0.02	3.2

Notes:
SG-01, SG-04, and SG-05 are destroyed and will not be included in future monitoring sheets.
ESM-15 will be constructed as a monitoring event in the furture and will be removed from the monitroing sheet until that time.
NM= Not Measured
NA= not Measured

TABLE 1
Soil Vapor Extraction System Checklist
Former Lewis Chemical Site Hyde Park, Massachusetts

Operator: DRC/BVA Date: 4/1/2011

Location	Time	Vacuum/Pressure	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	1335	-15.5	NA	NA	47	NA
SVE Blower Inlet	1337	-18	2231	110	47.5	51.2
SVE Blower Outlet	1341	13.5	2140	187	32.4	68.5
VGAC #1 Outlet	1345	11	NA	NA	0.5	NA
VGAC #2 Outlet	1348	9	NA	NA	0	NA
Post MnO4/Discharge	1403	0.75	2472	216	0	52.1

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	1410	(hours)	2685.1

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	1330	-15	2051	45	105	ON
EP-1	1255	-12.00	1255	27	314	ON
EP-2	1245	-11.50	1183	26	20.1	ON
SVE-2	1330	-15	1397	69	27.5	ON
EP-3	1310	-14	1147	25	25.7	ON
EP-4	1315	-14.5	1222	27	17.4	ON
EP-5	1320	OFF	OFF	OFF	10.1	OFF
EP-6	1325	OFF	OFF	OFF	8.6	OFF
SVE-3	1330	-15	1424	70	10.9	ON
EP-7	1305	-14.5	702	15	31.2	ON
EP-8	1300	-15.0	745	16	47.4	ON
EP-9	1330	OFF	OFF	OFF	16.4	OFF
EP-10	1332	OFF	OFF	OFF	10.7	OFF

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01			
SG-02	1300	0	24
SG-03	1315	-1.5	19.5
SG-04			
SG-05			
SG-06	1250	-0.3	299
ESM-15			
ESM-16	1340	0	12.6

Notes:
SG-01, SG-04, and SG-05 are destroyed and will not be included in future monitoring sheets.
ESM-15 will be constructed as a monitoring event in the furture and will be removed from the monitroing sheet until that time.
NM= Not Measured
NA= not Measured

TABLE 1
Soil Vapor Extraction System Checklist
Former Lewis Chemical Site Hyde Park, Massachusetts

Operator: DRC/BVA Date: 4/29/2011

Location	Time	Vacuum/Pressure	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Temperature
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(deg - F)
Knock-Out Drum Inlet	932	-0.52	NA	NA	58.8	NA
SVE Blower Inlet	934	-20	720	35	36.9	68.8
SVE Blower Outlet	940	13	1800	157	4.8	93.7
VGAC #1 Outlet	945	10.5	NA	NA	1.1	NA
VGAC #2 Outlet	946	8.5	NA	NA	0	NA
Post MnO4/Discharge	948	0.84	2650	231	0	77.5

Knockout Drum Water Vol.	(gallons)	0		
SVE Blower Runtime	(Time)	955	(hours)	3352.7

Extraction Point ID	Time	Vacuum	Measured Velocity	Flow Rate*	TVOC-PID Concentration	Status
		(in-W.C.)	(ft/min)	(scf/min)	(ppm_v)	(ON/OFF)
SVE-1	930	-0.52	280	6	134	ON
EP-1	837	-0.36	300	7	377	ON
EP-2	830	-0.62	200	4	37.1	ON
SVE-2	930	-0.54	250	12	23.7	ON
EP-3	847	-0.6	195	4	27	OFF
EP-4	850	-0.54	250	5	22.9	OFF
EP-5	900	OFF	OFF	OFF	13.1	ON
EP-6	905	OFF	OFF	OFF	5.8	ON
SVE-3	930	-0.5	200	10	11.1	ON
EP-7	840	-0.6	280	6	33	ON
EP-8	845	-0.5	200	4	52.1	ON
EP-9	905	OFF	OFF	OFF	21.3	OFF
EP-10	910	OFF	OFF	OFF	8.6	OFF

*To calculate the flowrate, multiply the measured velocity by [0.021817 for 2-inch pipe] [0.049087 for 3-inch pipe] [0.087266 for 4-inch pipe]
(Q = 3.14 (2/12)^2 * V)

Vapor Probe ID	Time	Vacuum	TVOC-PID Concentration
		(in-W.C.)	(ppm_v)
SG-01			
SG-02	915	0	9.1
SG-03	840	-0.16	30.8
SG-04			
SG-05			
SG-06	835	-0.02	891
ESM-15			
ESM-16	930	0	10.9

Notes:
SG-01, SG-04, and SG-05 are destroyed and will not be included in future monitoring sheets.
ESM-15 will be constructed as a monitoring event in the furture and will be removed from the monitroing sheet until that time.
NM= Not Measured
NA= not Measured

APPENDIX C: LABORATORY ANALYTICAL REPORTS

ANALYTICAL REPORT

Lab Number:	L1015059
Client:	Woodard & Curran 980 Washington Street Dedham, MA 02026
ATTN:	Craig Blake
Phone:	(781) 251-0200
Project Name:	LEWIS CHEMICAL
Project Number:	221375.01
Report Date:	10/05/10

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LAO00299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), 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: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015059
Report Date: 10/05/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1015059-01	INFLUENT	HYDE PARK	09/24/10 17:56
L1015059-02	EFFLUENT	HYDE PARK	09/24/10 17:58

Project Name: LEWIS CHEMICAL **Lab Number:** L1015059

Project Number: 221375.01 **Report Date:** 10/05/10

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015059
Report Date: 10/05/10

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 all of the requirements of NELAC, for all NELAC accredited parameters. 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. 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. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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.

For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Canisters were released from the laboratory on September 20, 2010.

The canister certification data is provided as an addendum.

The internal standards were within method criteria.

MCP Volatile Organics in Air

L1015059-01 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample. The sample was re-analyzed on dilution in order to quantitate the sample within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1015059
Project Number:	221375.01	**Report Date:**	10/05/10

Case Narrative (continued)

L1015059-01 results for Chlorobenzene should be considered estimated due to co-elution with a non-target peak.

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: Kathleen O'Brien

Title: Technical Director/Representative Date: 10/05/10

AIR

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015059
Report Date: 10/05/10

SAMPLE RESULTS

Lab ID: L1015059-01 D
Client ID: INFLUENT
Sample Location: HYDE PARK
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 10/01/10 01:54
Analyst: RY

Date Collected: 09/24/10 17:56
Date Received: 09/28/10
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	2040	46.9	--	5210	120	--		234.7
Bromomethane	ND	46.9	--	ND	182.	--		234.7
Acetone	377	235	--	895	557	--		234.7
1,1-Dichloroethene	740	46.9	--	2930	186	--		234.7
Methylene chloride	ND	328	--	ND	1140	--		234.7
trans-1,2-Dichloroethene	289	46.9	--	1140	186	--		234.7
1,1-Dichloroethane	1310	46.9	--	5280	190	--		234.7
Methyl tert butyl ether	ND	46.9	--	ND	169.	--		234.7
2-Butanone	261	46.9	--	770	138	--		234.7
cis-1,2-Dichloroethene	23100	46.9	--	91500	186	--		234.7
Chloroform	ND	46.9	--	ND	229	--		234.7
1,2-Dichloroethane	297	46.9	--	1200	190	--		234.7
1,1,1-Trichloroethane	105000	46.9	--	574000	256	--	E	234.7
Benzene	110	46.9	--	352	150	--		234.7
Carbon tetrachloride	ND	46.9	--	ND	295.	--		234.7
1,2-Dichloropropane	ND	46.9	--	ND	217.	--		234.7
Bromodichloromethane	ND	46.9	--	ND	314.	--		234.7
1,4-Dioxane	ND	46.9	--	ND	169.	--		234.7
Trichloroethene	78800	46.9	--	423000	252	--	E	234.7
cis-1,3-Dichloropropene	ND	46.9	--	ND	213.	--		234.7
4-Methyl-2-pentanone	ND	46.9	--	ND	192.	--		234.7
trans-1,3-Dichloropropene	ND	46.9	--	ND	213.	--		234.7
1,1,2-Trichloroethane	79.6	46.9	--	434	256	--		234.7
Toluene	1630	46.9	--	6140	177	--		234.7
Dibromochloromethane	ND	46.9	--	ND	400.	--		234.7

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015059
Report Date: 10/05/10

SAMPLE RESULTS

Lab ID: L1015059-01 D
Client ID: INFLUENT
Sample Location: HYDE PARK
Date Collected: 09/24/10 17:56
Date Received: 09/28/10
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab								
1,2-Dibromoethane	ND	46.9	--	ND	360.	--		234.7
Tetrachloroethene	71500	46.9	--	484000	318	--	E	234.7
Chlorobenzene	73.9	46.9	--	340	216	--		234.7
Ethylbenzene	159	46.9	--	690	204	--		234.7
p/m-Xylene	405	93.9	--	1760	407	--		234.7
Bromoform	ND	46.9	--	ND	485.	--		234.7
Styrene	ND	46.9	--	ND	200.	--		234.7
1,1,2,2-Tetrachloroethane	ND	46.9	--	ND	322.	--		234.7
o-Xylene	286	46.9	--	1240	204	--		234.7
1,3-Dichlorobenzene	ND	46.9	--	ND	282.	--		234.7
1,4-Dichlorobenzene	ND	46.9	--	ND	282.	--		234.7
1,2-Dichlorobenzene	ND	46.9	--	ND	282.	--		234.7
1,2,4-Trichlorobenzene	ND	46.9	--	ND	348.	--		234.7
Naphthalene	ND	46.9	--	ND	246.	--		234.7
Hexachlorobutadiene	ND	46.9	--	ND	500.	--		234.7

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	105		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	99		60-140

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015059
Report Date: 10/05/10

SAMPLE RESULTS

Lab ID: L1015059-01 D2
Client ID: INFLUENT
Sample Location: HYDE PARK
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 10/01/10 10:08
Analyst: RY

Date Collected: 09/24/10 17:56
Date Received: 09/28/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
1,1,1-Trichloroethane	91000	235	--	496000	1280	--		1173
Trichloroethene	91100	235	--	489000	1260	--		1173
Tetrachloroethene	93200	235	--	631000	1590	--		1173

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	79		60-140
Bromochloromethane	79		60-140
chlorobenzene-d5	77		60-140

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015059
Report Date: 10/05/10

SAMPLE RESULTS

Lab ID: L1015059-02
Client ID: EFFLUENT
Sample Location: HYDE PARK
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 10/01/10 00:44
Analyst: RY

Date Collected: 09/24/10 17:58
Date Received: 09/28/10
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Bromomethane	ND	0.200	--	ND	0.776	--		1
Acetone	4.33	1.00	--	10.3	2.37	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Methylene chloride	ND	1.40	--	ND	4.86	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
2-Butanone	0.956	0.200	--	2.82	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.638	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		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	0.720	--		1
Trichloroethene	0.378	0.200	--	2.03	1.07	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015059
Report Date: 10/05/10

SAMPLE RESULTS

Lab ID: L1015059-02
Client ID: EFFLUENT
Sample Location: HYDE PARK
Date Collected: 09/24/10 17:58
Date Received: 09/28/10
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab								
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	0.767	0.200	--	5.20	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	88		60-140

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015059
Report Date: 10/05/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 09/30/10 15:57

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG435091-4								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Bromomethane	ND	0.200	--	ND	0.776	--		1
Acetone	ND	1.00	--	ND	2.37	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Methylene chloride	ND	1.40	--	ND	4.86	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
2-Butanone	ND	0.200	--	ND	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.638	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		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	0.720	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015059
Report Date: 10/05/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 09/30/10 15:57

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG435091-4								
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015059
Report Date: 10/05/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG435091-3							
Vinyl chloride	93		-		70-130	-		
Bromomethane	89		-		70-130	-		
Acetone	90		-		50-150	-		
1,1-Dichloroethene	96		-		70-130	-		
Methylene chloride	94		-		70-130	-		
trans-1,2-Dichloroethene	88		-		70-130	-		
1,1-Dichloroethane	94		-		70-130	-		
Methyl tert butyl ether	86		-		70-130			
2-Butanone	92		-		70-130	-		
cis-1,2-Dichloroethene	98		-		70-130	-		
Chloroform	94		-		70-130	-		
1,2-Dichloroethane	93		-		70-130	-		
1,1,1-Trichloroethane	100		-		70-130	-		
Benzene	100		-		70-130	-		
Carbon tetrachloride	104		-		70-130	-		
1,2-Dichloropropane	105		-		70-130	-		
Bromodichloromethane	103		-		70-130			
1,4-Dioxane	96		-		50-150	-		
Trichloroethene	97		-		70-130	-		
cis-1,3-Dichloropropene	114		-		70-130	-		
4-Methyl-2-pentanone	100		-		70-130			

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015059
Report Date: 10/05/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG435091-3							
trans-1,3-Dichloropropene	101		-		70-130	-		
1,1,2-Trichloroethane	104		-		70-130	-		
Toluene	94		-		70-130	-		
Dibromochloromethane	98		-		70-130	-		
1,2-Dibromoethane	97		-		70-130	-		
Tetrachloroethene	92		-		70-130	-		
Chlorobenzene	95		-		70-130	-		
Ethylbenzene	96		-		70-130	-		
p/m-Xylene	94		-		70-130	-		
Bromoform	95		-		70-130	-		
Styrene	96		-		70-130	-		
1,1,2,2-Tetrachloroethane	99		-		70-130	-		
o-Xylene	96		-		70-130	-		
1,3-Dichlorobenzene	96		-		70-130	-		
1,4-Dichlorobenzene	96		-		70-130	-		
1,2-Dichlorobenzene	95		-		70-130	-		
1,2,4-Trichlorobenzene	95		-		50-150	-		
Naphthalene	87		-		50-150	-		
Hexachlorobutadiene	88		-		50-150	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015059
Report Date: 10/05/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG435091-5 QC Sample: L1015059-02 Client ID: EFFLUENT						
Vinyl chloride	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Acetone	4.33	4.17	ppbV	4		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	0.956	0.908	ppbV	5		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Carbon tetrachloride	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	0.378	0.368	ppbV	3		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015059
Report Date: 10/05/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG435091-5 QC Sample: L1015059-02 Client ID: EFFLUENT					
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
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	0.767	0.724	ppbV	6	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
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

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015059
Report Date: 10/05/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG435091-5 QC Sample: L1015059-02 Client ID: EFFLUENT					
Naphthalene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25

Project Name: LEWIS CHEMICAL **Lab Number:** L1015059

Project Number: 221375.01 **Report Date:** 10/05/10

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Cleaning Batch ID	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Out mL/min	Flow In mL/min	% RSD
L1015059-01	INFLUENT	364	2.7L Can	L1013793	-29.5	-1.3	-	-	-
L1015059-02	EFFLUENT	417	2.7L Can	L1013793	-29.5	-4.4	-	-	-

Air Volatiles Can Certification

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1013793
Report Date: 10/05/10

Air Canister Certification Results

Lab ID: L1013793-01
Client ID: CAN 318 SHELF 3
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/07/10 14:56
Analyst: AJ

Date Collected: 09/07/10 00:00
Date Received: 09/07/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.200	--	ND	0.344	--		1
Propane	ND	0.200	--	ND	0.606	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.988	--		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	0.776	--		1
Chloroethane	ND	0.200	--	ND	0.527	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.841	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.14	--		1
Acetone	ND	1.00	--	ND	2.37	--		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	0.200	--	ND	0.434	--		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	0.792	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1013793

Project Number: CANISTER QC BAT ***Report Date:*** 10/05/10

Air Canister Certification Results

Lab ID: L1013793-01 Date Collected: 09/07/10 00:00

Client ID: CAN 318 SHELF 3 Date Received: 09/07/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.622	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.589	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.923	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.704	--		1
Diisopropyl ether	ND	0.200	--	ND	0.835	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.835	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.907	--		1
Benzene	ND	0.200	--	ND	0.638	--		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	0.835	--		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	0.720	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1013793

Project Number: CANISTER QC BAT ***Report Date:*** 10/05/10

Air Canister Certification Results

Lab ID: L1013793-01 Date Collected: 09/07/10 00:00

Client ID: CAN 318 SHELF 3 Date Received: 09/07/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.923	--		1
2-Hexanone	ND	0.200	--	ND	0.819	--		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	2.37	--		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	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.982	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1013793

Project Number: CANISTER QC BAT ***Report Date:*** 10/05/10

Air Canister Certification Results

Lab ID: L1013793-01 Date Collected: 09/07/10 00:00

Client ID: CAN 318 SHELF 3 Date Received: 09/07/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	1.28	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
n-Propylbenzene	ND	0.200	--	ND	0.982	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.982	--		1
1,3,5-Trimethybenzene	ND	0.200	--	ND	0.982	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.982	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.03	--		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

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1013793

Project Number: CANISTER QC BAT ***Report Date:*** 10/05/10

Air Canister Certification Results

Lab ID: L1013793-01 Date Collected: 09/07/10 00:00

Client ID: CAN 318 SHELF 3 Date Received: 09/07/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	81		60-140

AIR Petro Can Certification

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1013793

Project Number: CANISTER QC BAT **Report Date:** 10/05/10

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1013793-01	Date Collected:	09/07/10 00:00
Client ID:	CAN 318 SHELF 3	Date Received:	09/07/10
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	09/07/10 14:56		
Analyst:	AJ		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015059
Report Date: 10/05/10

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

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

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1015059-01A	Canister - 2.7 Liter	N/A	NA		NA	Absent	MCP-TO15(30)
L1015059-02A	Canister - 2.7 Liter	N/A	NA		NA	Absent	MCP-TO15(30)

*Values in parentheses indicate holding time in days

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1015059
Project Number:	221375.01	**Report Date:**	10/05/10

GLOSSARY

Acronyms

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.

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.

NI - Not Ignitable.

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.

Terms

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 five times (5x) 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.

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.

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

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

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. 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.

Report Format: Data Usability Report

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1015059
Project Number:	221375.01	**Report Date:**	10/05/10

Data Qualifiers

RE - Analytical results are from sample re-extraction.

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:	LEWIS CHEMICAL	**Lab Number:**	L1015059
Project Number:	221375.01	**Report Date:**	10/05/10

REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

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.

Certificate/Approval Program Summary

Last revised July 19, 2010 ï Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, EPA 120.1, SM2510B, EPA 245.1, EPA 150.1, EPA 160.2, SM2540D, EPA 335.2, SM2540G, EPA 180.1. Organic Parameters: EPA 625, 608.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045, 9014. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 120.1, 150.1, 160.2, 180.1, 200.8, 245.1, 310.1, 335.2, 608, 625, 1631, 3010, 3015, 3020, 6020, 9010, 9014, 9040, SM2320B, 2510B, 2540D, 2540G, 4500CN-E, 4500H-B, Organic Parameters: EPA 3510, 3580, 3630, 3640, 3660, 3665, 5030, 8015 (mod), 3570, 8081, 8082, 8260, 8270,)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7196, 7470, 7471, 7474, 9010, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015 (mod), EPA 3570, 1311, 3050, 3051, 3060, 3580, 3630, 3640, 3660, 3665, 5035, 8081, 8082, 8260, 8270.)

Biological Tissue (Inorganic Parameters: EPA 6020. Organic Parameters: EPA 3570, 3510, 3610, 3630, 3640, 8270.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA030.

Non-Potable Water (Inorganic Parameters: SM4500H+B. Organic Parameters: EPA 624.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 200.8, 245.1, 1631E, 120.1, 150.1, 180.1, 310.1, 335.2, 160.2, SM2540D, 2540G, 4500CN-E, 4500H+B, 2320B, 2510B. Organic Parameters: EPA 625, 608.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, 6020, SM2320B, EPA 200.8, SM2540C, 2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 9040B, 6020, 9010B, 9014 Organic Parameters: EPA 608, 625, SW-846 3510C, 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9045C, 9060. Organic Parameters: SW-846 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 3570, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3610B, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 310.1, SM2320B, EPA 365.2, 160.1, EPA 160.2, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 335.2, 9014, 150.1, 9040B, 120.1, SM2510B, EPA 376.2, 180.1, 9010B. Organic Parameters: EPA 624, 8260B, 8270C, 608, 8081A, 625, 8082, 3510C, 3511, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, SW-846 Ch7 Sec 7.3, EPA 6020, 7196A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 3050B, 3580, 3050B, 3035, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via LA-DEQ.***

Refer to MA-DEP Certificate for Non-Potable Water.

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

U.S. Army Corps of Engineers

Department of Defense Certificate/Lab ID: L2217.01.

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312,3051, 6020, 747A, 7474, 9045C,9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580, 3570, 3540C, 5035, 8260B, 8270C, 8270 Alk-PAH, 8082, 8081A, 8015 (SHC), 8015 (DRO).

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl.

AIR ANALYSIS

PAGE 1 OF 1

ALPHA ANALYTICAL — CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #: L1015059

Client Information

Client: Woodard + Curran
Address: Dedham MA
Phone:
Fax:
Email: dclinton@woodardcurran.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Lewis Chemical
Project Location: Hyde Park
Project #: 221575.01
Project Manager: C. Blake
ALPHA Quote #:

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	Criteria
MA	MCP	

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection 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-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
15059.1	Influent	9/24/10	1755	1756	-29.5	-5.0	INFDV	DC	2.7	0364	04	X							
.2	Effluent	9/24/10	1757	1758	-29.5	-5.0	EFFDV	DC	2.7	0417	05	X							

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

Container Type: SC

Relinquished By:	Date/Time	Received By:	Date/Time:
	9-28-10		9/28/10 1345
	9/28/10 1400		9/28/10 1450
	9/28/10 1545		9/28/10 1545

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.

Form No: 101-02 (19-Jun-09)

ANALYTICAL REPORT

Lab Number:	L1015479
Client:	Woodard & Curran 980 Washington Street Dedham, MA 02026
ATTN:	Craig Blake
Phone:	(781) 251-0200
Project Name:	LEWIS CHEMICAL
Project Number:	221375.01
Report Date:	10/08/10

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LAO00299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), 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: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015479
Report Date: 10/08/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1015479-01	EFFLUENT	HYDE PARK	10/01/10 13:16
L1015479-02	INFLUENT	HYDE PARK	10/01/10 13:11

Project Name: LEWIS CHEMICAL **Lab Number:** L1015479

Project Number: 221375.01 **Report Date:** 10/08/10

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015479
Report Date: 10/08/10

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 all of the requirements of NELAC, for all NELAC accredited parameters. 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. 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. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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.

For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Canisters were released from the laboratory on September 20, 2010.

The canister certification data is provided as an addendum.

The internal standards were within method criteria.

MCP Volatile Organics in Air

L1015479-01 was re-analyzed on dilution in order to quantitate the sample within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

L1015479-02 has elevated detection limits due to the dilution required by the elevated concentrations of target

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1015479
Project Number:	221375.01	**Report Date:**	10/08/10

Case Narrative (continued)

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: Kathleen M. O'Brien Kathleen O'Brien

Title: Technical Director/Representative Date: 10/08/10

AIR

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015479
Report Date: 10/08/10

SAMPLE RESULTS

Lab ID: L1015479-01
Client ID: EFFLUENT
Sample Location: HYDE PARK
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 10/07/10 18:55
Analyst: RY

Date Collected: 10/01/10 13:16
Date Received: 10/04/10
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	354	0.200	--	905	0.511	--	E	1
Bromomethane	ND	0.200	--	ND	0.776	--		1
Acetone	ND	1.00	--	ND	2.37	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Methylene chloride	ND	1.40	--	ND	4.86	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
2-Butanone	ND	0.200	--	ND	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.638	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		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	0.720	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1

Project Name: LEWIS CHEMICAL ***Lab Number:*** L1015479

Project Number: 221375.01 ***Report Date:*** 10/08/10

SAMPLE RESULTS

Lab ID: L1015479-01 Date Collected: 10/01/10 13:16

Client ID: EFFLUENT Date Received: 10/04/10

Sample Location: HYDE PARK Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	2.12	0.200	--	14.3	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	96		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	95		60-140

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015479
Report Date: 10/08/10

SAMPLE RESULTS

Lab ID: L1015479-01 D
Client ID: EFFLUENT
Sample Location: HYDE PARK
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 10/08/10 02:56
Analyst: RY

Date Collected: 10/01/10 13:16
Date Received: 10/04/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	368	2.00	--	940	5.11	--		10

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	93		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	92		60-140

Project Name: LEWIS CHEMICAL ***Lab Number:*** L1015479

Project Number: 221375.01 ***Report Date:*** 10/08/10

SAMPLE RESULTS

Lab ID: L1015479-02 D
Client ID: INFLUENT
Sample Location: HYDE PARK
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 10/07/10 19:29
Analyst: RY

Date Collected: 10/01/10 13:11
Date Received: 10/04/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	319	83.5	--	816	213	--		417.5
Bromomethane	ND	83.5	--	ND	324.	--		417.5
Acetone	ND	418	--	ND	991	--		417.5
1,1-Dichloroethene	250	83.5	--	989	331	--		417.5
Methylene chloride	ND	584	--	ND	2030	--		417.5
trans-1,2-Dichloroethene	ND	83.5	--	ND	331	--		417.5
1,1-Dichloroethane	364	83.5	--	1470	338	--		417.5
Methyl tert butyl ether	ND	83.5	--	ND	301.	--		417.5
2-Butanone	ND	83.5	--	ND	246.	--		417.5
cis-1,2-Dichloroethene	6520	83.5	--	25800	331	--		417.5
Chloroform	ND	83.5	--	ND	407.	--		417.5
1,2-Dichloroethane	167	83.5	--	675	338	--		417.5
1,1,1-Trichloroethane	28000	83.5	--	153000	455	--		417.5
Benzene	ND	83.5	--	ND	266	--		417.5
Carbon tetrachloride	ND	83.5	--	ND	525.	--		417.5
1,2-Dichloropropane	ND	83.5	--	ND	386.	--		417.5
Bromodichloromethane	ND	83.5	--	ND	559.	--		417.5
1,4-Dioxane	ND	83.5	--	ND	301.	--		417.5
Trichloroethene	29500	83.5	--	158000	448	--		417.5
cis-1,3-Dichloropropene	ND	83.5	--	ND	379.	--		417.5
4-Methyl-2-pentanone	ND	83.5	--	ND	342.	--		417.5
trans-1,3-Dichloropropene	ND	83.5	--	ND	379.	--		417.5
1,1,2-Trichloroethane	ND	83.5	--	ND	455.	--		417.5
Toluene	2320	83.5	--	8760	314	--		417.5
Dibromochloromethane	ND	83.5	--	ND	711.	--		417.5

Project Name: LEWIS CHEMICAL ***Lab Number:*** L1015479

Project Number: 221375.01 ***Report Date:*** 10/08/10

SAMPLE RESULTS

Lab ID: L1015479-02 D Date Collected: 10/01/10 13:11

Client ID: INFLUENT Date Received: 10/04/10

Sample Location: HYDE PARK Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
1,2-Dibromoethane	ND	83.5	--	ND	641.	--		417.5
Tetrachloroethene	29300	83.5	--	198000	566	--		417.5
Chlorobenzene	ND	83.5	--	ND	384.	--		417.5
Ethylbenzene	254	83.5	--	1100	362	--		417.5
p/m-Xylene	604	167	--	2620	724	--		417.5
Bromoform	ND	83.5	--	ND	862.	--		417.5
Styrene	ND	83.5	--	ND	355.	--		417.5
1,1,2,2-Tetrachloroethane	ND	83.5	--	ND	573.	--		417.5
o-Xylene	293	83.5	--	1270	362	--		417.5
1,3-Dichlorobenzene	ND	83.5	--	ND	502.	--		417.5
1,4-Dichlorobenzene	ND	83.5	--	ND	502.	--		417.5
1,2-Dichlorobenzene	ND	83.5	--	ND	502.	--		417.5
1,2,4-Trichlorobenzene	ND	83.5	--	ND	619.	--		417.5
Naphthalene	ND	83.5	--	ND	437.	--		417.5
Hexachlorobutadiene	ND	83.5	--	ND	890.	--		417.5

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	103		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	102		60-140

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015479
Report Date: 10/08/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 10/07/10 14:24

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG436268-4								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.200	--	ND	0.344	--		1
Propane	ND	0.200	--	ND	0.606	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.988	--		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	0.776	--		1
Chloroethane	ND	0.200	--	ND	0.527	--		1
Ethyl Alcohol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.841	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.14	--		1
Acetone	ND	1.00	--	ND	2.37	--		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	0.200	--	ND	0.434	--		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	0.792	--		1
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015479
Report Date: 10/08/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 10/07/10 14:24

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG436268-4								
Methylene chloride	ND	1.40	--	ND	4.86	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.622	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.589	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.923	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.704	--		1
Isopropyl Ether	ND	0.200	--	ND	0.835	--		1
Ethyl-Tert-Butyl-Ether	ND	0.200	--	ND	0.835	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.907	--		1
Benzene	ND	0.200	--	ND	0.638	--		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	0.835	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015479
Report Date: 10/08/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 10/07/10 14:24

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG436268-4								
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	0.720	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.819	--		1
2,4,4-Trimethyl-1-Pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
2,4,4-Trimethyl-2-Pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.923	--		1
2-Hexanone	ND	0.200	--	ND	0.819	--		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	2.37	--		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	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015479
Report Date: 10/08/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 10/07/10 14:24

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG436268-4								
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane (C9)	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.982	--		1
Bromobenzene	ND	0.200	--	ND	1.28	--		1
o-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
n-Propylbenzene	ND	0.200	--	ND	0.982	--		1
p-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.982	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.982	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.982	--		1
Decane (C10)	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.03	--		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

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015479
Report Date: 10/08/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 10/07/10 14:24

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG436268-4								
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

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015479
Report Date: 10/08/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG436268-3							
Chlorodifluoromethane	78		-		70-130	-		
Propylene	84		-		70-130	-		
Dichlorodifluoromethane	93		-		70-130	-		
Chloromethane	86		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	92		-		70-130	-		
Methanol	82		-		70-130	-		
Vinyl chloride	92		-		70-130	-		
1,3-Butadiene	90		-		70-130	-		
Bromomethane	91		-		70-130	-		
Chloroethane	91		-		70-130	-		
Ethyl Alcohol	84		-		70-130	-		
Dichlorofluoromethane	89		-		70-130	-		
Vinyl bromide	93		-		70-130	-		
Acrolein	83		-		70-130	-		
Acetone	84		-		50-150	-		
Acetonitrile	86		-		70-130	-		
Trichlorofluoromethane	97		-		70-130	-		
iso-Propyl Alcohol	98		-		70-130	-		
Acrylonitrile	83		-		70-130	-		
Pentane	88		-		70-130	-		
Ethyl ether	82		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015479
Report Date: 10/08/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG436268-3							
1,1-Dichloroethene	96		-		70-130	-		
tert-Butyl Alcohol	94		-		70-130	-		
Methylene chloride	88		-		70-130	-		
3-Chloropropene	95		-		70-130	-		
Carbon disulfide	91		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	94		-		70-130	-		
trans-1,2-Dichloroethene	88		-		70-130	-		
1,1-Dichloroethane	94		-		70-130	-		
Methyl tert butyl ether	82		-		70-130	-		
Vinyl acetate	101		-		70-130	-		
2-Butanone	82		-		70-130	-		
cis-1,2-Dichloroethene	95		-		70-130	-		
Ethyl Acetate	87		-		70-130	-		
Chloroform	100		-		70-130	-		
Tetrahydrofuran	88		-		70-130	-		
2,2-Dichloropropane	93		-		70-130	-		
1,2-Dichloroethane	97		-		70-130	-		
n-Hexane	101		-		70-130	-		
Isopropyl Ether	91		-		70-130	-		
Ethyl-Tert-Butyl-Ether	87		-		70-130	-		
1,1,1-Trichloroethane	100		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015479
Report Date: 10/08/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG436268-3							
1,1-Dichloropropene	94		-		70-130	-		
Benzene	95		-		70-130	-		
Carbon tetrachloride	106		-		70-130	-		
Cyclohexane	90		-		70-130	-		
Tertiary-Amyl Methyl Ether	84		-		70-130	-		
Dibromomethane	93		-		70-130	-		
1,2-Dichloropropane	94		-		70-130	-		
Bromodichloromethane	99		-		70-130	-		
1,4-Dioxane	87		-		50-150	-		
Trichloroethene	97		-		70-130	-		
2,2,4-Trimethylpentane	92		-		70-130	-		
Heptane	98		-		70-130	-		
2,4,4-Trimethyl-1-Pentene	73		-		70-130	-		
cis-1,3-Dichloropropene	106		-		70-130	-		
4-Methyl-2-pentanone	80		-		70-130	-		
2,4,4-Trimethyl-2-Pentene	96		-		70-130	-		
trans-1,3-Dichloropropene	93		-		70-130	-		
1,1,2-Trichloroethane	99		-		70-130	-		
Toluene	92		-		70-130	-		
1,3-Dichloropropane	84		-		70-130	-		
2-Hexanone	90		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015479
Report Date: 10/08/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG436268-3							
Dibromochloromethane	102		-		70-130	-		
1,2-Dibromoethane	98		-		70-130	-		
Octane	90		-		70-130	-		
Tetrachloroethene	102		-		70-130	-		
1,1,1,2-Tetrachloroethane	96		-		70-130	-		
Chlorobenzene	97		-		70-130	-		
Ethylbenzene	94		-		70-130	-		
p/m-Xylene	92		-		70-130	-		
Bromoform	101		-		70-130	-		
Styrene	96		-		70-130	-		
1,1,2,2-Tetrachloroethane	93		-		70-130	-		
o-Xylene	94		-		70-130	-		
1,2,3-Trichloropropane	92		-		70-130	-		
Nonane (C9)	87		-		70-130	-		
Isopropylbenzene	90		-		70-130	-		
Bromobenzene	95		-		70-130	-		
o-Chlorotoluene	91		-		70-130	-		
n-Propylbenzene	88		-		70-130	-		
p-Chlorotoluene	90		-		70-130	-		
4-Ethyltoluene	88		-		70-130	-		
1,3,5-Trimethylbenzene	88		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015479
Report Date: 10/08/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG436268-3							
tert-Butylbenzene	87		-		70-130	-		
1,2,4-Trimethylbenzene	92		-		70-130	-		
Decane (C10)	88		-		70-130	-		
Benzyl chloride	100		-		70-130	-		
1,3-Dichlorobenzene	100		-		70-130	-		
1,4-Dichlorobenzene	101		-		70-130	-		
sec-Butylbenzene	88		-		70-130	-		
p-Isopropyltoluene	82		-		70-130	-		
1,2-Dichlorobenzene	99		-		70-130	-		
n-Butylbenzene	90		-		70-130	-		
1,2-Dibromo-3-chloropropane	97		-		70-130	-		
Undecane	85		-		70-130	-		
Dodecane (C12)	113		-		70-130	-		
1,2,4-Trichlorobenzene	95		-		50-150	-		
Naphthalene	87		-		50-150	-		
1,2,3-Trichlorobenzene	86		-		70-130	-		
Hexachlorobutadiene	95		-		50-150	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015479
Report Date: 10/08/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG436268-5 QC Sample: L1015419-06 Client ID: DUP Sample						
Vinyl chloride	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Acetone	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	1500	1490	ppbV	1		25
Chloroform	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Carbon tetrachloride	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	1910	1990	ppbV	4		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015479
Report Date: 10/08/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG436268-5 QC Sample: L1015419-06 Client ID: DUP Sample					
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
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	19100	17000	ppbV	12	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
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

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015479
Report Date: 10/08/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG436268-5 QC Sample: L1015419-06 Client ID: DUP Sample					
Naphthalene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25

Project Name: LEWIS CHEMICAL **Lab Number:** L1015479

Project Number: 221375.01 **Report Date:** 10/08/10

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Cleaning Batch ID	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Out mL/min	Flow In mL/min	% RSD
L1015479-01	EFFLUENT	318	2.7L Can	L1013793	-29.5	-5.9	-	-	-
L1015479-02	INFLUENT	524	2.7L Can	L1014199	-29.5	-5.4	-	-	-

Air Volatiles Can Certification

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1013793

Project Number: CANISTER QC BAT ***Report Date:*** 10/08/10

Air Canister Certification Results

Lab ID: L1013793-01
Client ID: CAN 318 SHELF 3
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/07/10 14:56
Analyst: AJ

Date Collected: 09/07/10 00:00
Date Received: 09/07/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.200	--	ND	0.344	--		1
Propane	ND	0.200	--	ND	0.606	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.988	--		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	0.776	--		1
Chloroethane	ND	0.200	--	ND	0.527	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.841	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.14	--		1
Acetone	ND	1.00	--	ND	2.37	--		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	0.200	--	ND	0.434	--		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	0.792	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1013793

Project Number: CANISTER QC BAT ***Report Date:*** 10/08/10

Air Canister Certification Results

Lab ID: L1013793-01 Date Collected: 09/07/10 00:00

Client ID: CAN 318 SHELF 3 Date Received: 09/07/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.622	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.589	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.923	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.704	--		1
Diisopropyl ether	ND	0.200	--	ND	0.835	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.835	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.907	--		1
Benzene	ND	0.200	--	ND	0.638	--		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	0.835	--		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	0.720	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1013793

Project Number: CANISTER QC BAT ***Report Date:*** 10/08/10

Air Canister Certification Results

Lab ID: L1013793-01 Date Collected: 09/07/10 00:00

Client ID: CAN 318 SHELF 3 Date Received: 09/07/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.923	--		1
2-Hexanone	ND	0.200	--	ND	0.819	--		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	2.37	--		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	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.982	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1013793

Project Number: CANISTER QC BAT ***Report Date:*** 10/08/10

Air Canister Certification Results

Lab ID: L1013793-01 Date Collected: 09/07/10 00:00

Client ID: CAN 318 SHELF 3 Date Received: 09/07/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	1.28	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
n-Propylbenzene	ND	0.200	--	ND	0.982	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.982	--		1
1,3,5-Trimethybenzene	ND	0.200	--	ND	0.982	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.982	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.03	--		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

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1013793

Project Number: CANISTER QC BAT ***Report Date:*** 10/08/10

Air Canister Certification Results

Lab ID: L1013793-01 Date Collected: 09/07/10 00:00

Client ID: CAN 318 SHELF 3 Date Received: 09/07/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	81		60-140

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1014199

Project Number: CANISTER QC BAT ***Report Date:*** 10/08/10

Air Canister Certification Results

Lab ID: L1014199-01
Client ID: CAN 524 SHELF 4
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/15/10 19:49
Analyst: RY

Date Collected: 09/10/10 00:00
Date Received: 09/10/10
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 (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.200	--	ND	0.344	--		1
Propane	ND	0.200	--	ND	0.606	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.988	--		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	0.776	--		1
Chloroethane	ND	0.200	--	ND	0.527	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.841	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.14	--		1
Acetone	ND	1.00	--	ND	2.37	--		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	0.200	--	ND	0.434	--		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	0.792	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1014199

Project Number: CANISTER QC BAT ***Report Date:*** 10/08/10

Air Canister Certification Results

Lab ID: L1014199-01 Date Collected: 09/10/10 00:00

Client ID: CAN 524 SHELF 4 Date Received: 09/10/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.622	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.589	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.923	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.704	--		1
Diisopropyl ether	ND	0.200	--	ND	0.835	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.835	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.907	--		1
Benzene	ND	0.200	--	ND	0.638	--		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	0.835	--		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	0.720	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1014199

Project Number: CANISTER QC BAT ***Report Date:*** 10/08/10

Air Canister Certification Results

Lab ID: L1014199-01 Date Collected: 09/10/10 00:00

Client ID: CAN 524 SHELF 4 Date Received: 09/10/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.923	--		1
2-Hexanone	ND	0.200	--	ND	0.819	--		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	2.37	--		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	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.982	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1014199

Project Number: CANISTER QC BAT ***Report Date:*** 10/08/10

Air Canister Certification Results

Lab ID: L1014199-01 Date Collected: 09/10/10 00:00

Client ID: CAN 524 SHELF 4 Date Received: 09/10/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	1.28	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
n-Propylbenzene	ND	0.200	--	ND	0.982	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.982	--		1
1,3,5-Trimethybenzene	ND	0.200	--	ND	0.982	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.982	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.03	--		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

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1014199

Project Number: CANISTER QC BAT ***Report Date:*** 10/08/10

Air Canister Certification Results

Lab ID: L1014199-01 Date Collected: 09/10/10 00:00

Client ID: CAN 524 SHELF 4 Date Received: 09/10/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	74		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	73		60-140

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1014199

Project Number: CANISTER QC BAT ***Report Date:*** 10/08/10

Air Canister Certification Results

Lab ID: L1014199-01
Client ID: CAN 524 SHELF 4
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/16/10 20:03
Analyst: RY

Date Collected: 09/10/10 00:00
Date Received: 09/10/10
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	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		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	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		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	0.020	--	ND	0.072	--		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
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1014199

Project Number: CANISTER QC BAT ***Report Date:*** 10/08/10

Air Canister Certification Results

Lab ID: L1014199-01 Date Collected: 09/10/10 00:00

Client ID: CAN 524 SHELF 4 Date Received: 09/10/10

Sample Location: 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								
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		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	0.020	--	ND	0.075	--		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	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.206	--		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	0.500	--	ND	2.46	--		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	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1014199

Project Number: CANISTER QC BAT ***Report Date:*** 10/08/10

Air Canister Certification Results

Lab ID: L1014199-01 Date Collected: 09/10/10 00:00

Client ID: CAN 524 SHELF 4 Date Received: 09/10/10

Sample Location: 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								
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

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1014199

Project Number: CANISTER QC BAT ***Report Date:*** 10/08/10

Air Canister Certification Results

Lab ID: L1014199-01 Date Collected: 09/10/10 00:00

Client ID: CAN 524 SHELF 4 Date Received: 09/10/10

Sample Location: 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								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	84		60-140

AIR Petro Can Certification

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1013793

Project Number: CANISTER QC BAT **Report Date:** 10/08/10

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1013793-01	Date Collected:	09/07/10 00:00
Client ID:	CAN 318 SHELF 3	Date Received:	09/07/10
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	09/07/10 14:56		
Analyst:	AJ		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1014199

Project Number: CANISTER QC BAT **Report Date:** 10/08/10

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1014199-01	Date Collected:	09/10/10 00:00
Client ID:	CAN 524 SHELF 4	Date Received:	09/10/10
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	09/15/10 19:49		
Analyst:	RY		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015479
Report Date: 10/08/10

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**
Cooler
N/A Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1015479-01A	Canister - 2.7 Liter	N/A	NA		NA	Present/Intact	MCP-TO15(30)
L1015479-02A	Canister - 2.7 Liter	N/A	NA		NA	Present/Intact	MCP-TO15(30)

*Values in parentheses indicate holding time in days

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1015479
Project Number:	221375.01	**Report Date:**	10/08/10

GLOSSARY

Acronyms

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.

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.

NI - Not Ignitable.

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.

Terms

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 five times (5x) 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.

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.

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

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

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. 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.

Report Format: Data Usability Report

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1015479
Project Number:	221375.01	**Report Date:**	10/08/10

Data Qualifiers

RE - Analytical results are from sample re-extraction.

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:	LEWIS CHEMICAL	**Lab Number:**	L1015479
Project Number:	221375.01	**Report Date:**	10/08/10

REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

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.

Certificate/Approval Program Summary

Last revised July 19, 2010 ï Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, EPA 120.1, SM2510B, EPA 245.1, EPA 150.1, EPA 160.2, SM2540D, EPA 335.2, SM2540G, EPA 180.1. Organic Parameters: EPA 625, 608.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045, 9014. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 120.1, 150.1, 160.2, 180.1, 200.8, 245.1, 310.1, 335.2, 608, 625, 1631, 3010, 3015, 3020, 6020, 9010, 9014, 9040, SM2320B, 2510B, 2540D, 2540G, 4500CN-E, 4500H-B, Organic Parameters: EPA 3510, 3580, 3630, 3640, 3660, 3665, 5030, 8015 (mod), 3570, 8081, 8082, 8260, 8270,)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7196, 7470, 7471, 7474, 9010, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015 (mod), EPA 3570, 1311, 3050, 3051, 3060, 3580, 3630, 3640, 3660, 3665, 5035, 8081, 8082, 8260, 8270.)

Biological Tissue (Inorganic Parameters: EPA 6020. Organic Parameters: EPA 3570, 3510, 3610, 3630, 3640, 8270.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA030.

Non-Potable Water (Inorganic Parameters: SM4500H+B. Organic Parameters: EPA 624.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 200.8, 245.1, 1631E, 120.1, 150.1, 180.1, 310.1, 335.2, 160.2, SM2540D, 2540G, 4500CN-E, 4500H+B, 2320B, 2510B. Organic Parameters: EPA 625, 608.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, 6020, SM2320B, EPA 200.8, SM2540C, 2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 9040B, 6020, 9010B, 9014 Organic Parameters: EPA 608, 625, SW-846 3510C, 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9045C, 9060. Organic Parameters: SW-846 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 3570, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3610B, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 310.1, SM2320B, EPA 365.2, 160.1, EPA 160.2, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 335.2, 9014, 150.1, 9040B, 120.1, SM2510B, EPA 376.2, 180.1, 9010B. Organic Parameters: EPA 624, 8260B, 8270C, 608, 8081A, 625, 8082, 3510C, 3511, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, SW-846 Ch7 Sec 7.3, EPA 6020, 7196A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 3050B, 3580, 3050B, 3035, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via LA-DEQ.***

Refer to MA-DEP Certificate for Non-Potable Water.

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

U.S. Army Corps of Engineers

Department of Defense Certificate/Lab ID: L2217.01.

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312,3051, 6020, 747A, 7474, 9045C,9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580, 3570, 3540C, 5035, 8260B, 8270C, 8270 Alk-PAH, 8082, 8081A, 8015 (SHC), 8015 (DRO).

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl.

AIR ANALYSIS

PAGE 1 OF 1

ALPHA ANALYTICAL — CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #: L1015479

Client Information

Client: Woodard & Curran
Address: 980' Washington St
Suite 325 Dedham MA
Phone: 781.251 0200
Fax: 781 251 0847
Email: dclinton@woodardcurran.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Lewis Chemical
Project Location: Hyde Park
Project #:
Project Manager: Craig Blake
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ FADEx
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	Criteria
MA	MCP	

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	ANALYSIS TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
15479.1	Effluent	10/1/10	13:15	13:16	-29.5	-5.0	SV	SD	2.7L	318	U4		X						PID = ND
-2	Influent	10/1/10	13:10	13:19	-29.5	-5.0	SV	SD	2.7L	524	2		X						80ppm, = PID

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

Container Type: CS

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	10/4/10 1552	[signature]	10/4/10 1552
P. Gilbert	10/4/10 1703	A. Stelljes	10/4/10 17:40
	10/4/10 18:25	Eileen Sullivan	10/4/10 18:25

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.

Form No: 101-02 (19-Jun-09)

ANALYTICAL REPORT

Lab Number:	L1015983
Client:	Woodard & Curran 980 Washington Street Dedham, MA 02026
ATTN:	Craig Blake
Phone:	(781) 251-0200
Project Name:	LEWIS CHEMICAL
Project Number:	221375.01
Report Date:	10/19/10

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LAO00299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), 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: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015983
Report Date: 10/19/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1015983-01	INFLUENT	HYDE PARK	10/08/10 11:01
L1015983-02	EFFLUENT	HYDE PARK	10/08/10 11:06

Project Name: LEWIS CHEMICAL **Lab Number:** L1015983

Project Number: 221375.01 **Report Date:** 10/19/10

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015983
Report Date: 10/19/10

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 all of the requirements of NELAC, for all NELAC accredited parameters. 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. 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. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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.

For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Canisters were released from the laboratory on October 7, 2010.

The canister certification data is provided as an addendum.

The internal standards were within method criteria.

MCP Volatile Organics in Air

L1015983-01 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

L1015983-01, -02 and WG437478-5 were re-analyzed on dilution in order to quantitate the sample within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound that

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1015983
Project Number:	221375.01	**Report Date:**	10/19/10

Case Narrative (continued)

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: Kathleen M. O'Brien Kathleen O'Brien

Title: Technical Director/Representative Date: 10/19/10

AIR

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015983
Report Date: 10/19/10

SAMPLE RESULTS

Lab ID: L1015983-01 D
Client ID: INFLUENT
Sample Location: HYDE PARK
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 10/15/10 12:26
Analyst: RY

Date Collected: 10/08/10 11:01
Date Received: 10/12/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	55.0	15.9	--	140	40.7	--		79.69
Bromomethane	ND	15.9	--	ND	61.8	--		79.69
Acetone	ND	79.7	--	ND	189	--		79.69
1,1-Dichloroethene	40.2	15.9	--	159	63.1	--		79.69
Methylene chloride	ND	112	--	ND	387	--		79.69
trans-1,2-Dichloroethene	ND	15.9	--	ND	63.1	--		79.69
1,1-Dichloroethane	69.6	15.9	--	281	64.4	--		79.69
Methyl tert butyl ether	ND	15.9	--	ND	57.4	--		79.69
2-Butanone	ND	15.9	--	ND	47.0	--		79.69
cis-1,2-Dichloroethene	1420	15.9	--	5640	63.1	--		79.69
Chloroform	ND	15.9	--	ND	77.8	--		79.69
1,2-Dichloroethane	62.8	15.9	--	254	64.4	--		79.69
1,1,1-Trichloroethane	6740	15.9	--	36800	86.9	--		79.69
Benzene	ND	15.9	--	ND	50.9	--		79.69
Carbon tetrachloride	ND	15.9	--	ND	100.	--		79.69
1,2-Dichloropropane	ND	15.9	--	ND	73.6	--		79.69
Bromodichloromethane	ND	15.9	--	ND	107.	--		79.69
1,4-Dioxane	ND	15.9	--	ND	57.4	--		79.69
Trichloroethene	7870	15.9	--	42300	85.6	--		79.69
cis-1,3-Dichloropropene	ND	15.9	--	ND	72.3	--		79.69
4-Methyl-2-pentanone	ND	15.9	--	ND	65.2	--		79.69
trans-1,3-Dichloropropene	ND	15.9	--	ND	72.3	--		79.69
1,1,2-Trichloroethane	ND	15.9	--	ND	86.9	--		79.69
Toluene	740	15.9	--	2790	60.0	--		79.69
Dibromochloromethane	ND	15.9	--	ND	136.	--		79.69

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015983
Report Date: 10/19/10

SAMPLE RESULTS

Lab ID: L1015983-01 D
Client ID: INFLUENT
Sample Location: HYDE PARK
Date Collected: 10/08/10 11:01
Date Received: 10/12/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
1,2-Dibromoethane	ND	15.9	--	ND	122.	--		79.69
Tetrachloroethene	10800	15.9	--	73200	108	--	E	79.69
Chlorobenzene	ND	15.9	--	ND	73.3	--		79.69
Ethylbenzene	94.8	15.9	--	411	69.2	--		79.69
p/m-Xylene	256	31.9	--	1110	138	--		79.69
Bromoform	ND	15.9	--	ND	165.	--		79.69
Styrene	ND	15.9	--	ND	67.8	--		79.69
1,1,2,2-Tetrachloroethane	ND	15.9	--	ND	109.	--		79.69
o-Xylene	125	15.9	--	541	69.2	--		79.69
1,3-Dichlorobenzene	ND	15.9	--	ND	95.7	--		79.69
1,4-Dichlorobenzene	ND	15.9	--	ND	95.7	--		79.69
1,2-Dichlorobenzene	ND	15.9	--	ND	95.7	--		79.69
1,2,4-Trichlorobenzene	ND	15.9	--	ND	118.	--		79.69
Naphthalene	ND	15.9	--	ND	83.5	--		79.69
Hexachlorobutadiene	ND	15.9	--	ND	170.	--		79.69

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	97		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	91		60-140

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015983
Report Date: 10/19/10

SAMPLE RESULTS

Lab ID: L1015983-01 D2
Client ID: INFLUENT
Sample Location: HYDE PARK
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 10/15/10 02:40
Analyst: RY

Date Collected: 10/08/10 11:01
Date Received: 10/12/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	11300	79.7	--	76300	540	--		398.5

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	85		60-140
Bromochloromethane	84		60-140
chlorobenzene-d5	76		60-140

Project Name: LEWIS CHEMICAL ***Lab Number:*** L1015983

Project Number: 221375.01 ***Report Date:*** 10/19/10

SAMPLE RESULTS

Lab ID: L1015983-02
Client ID: EFFLUENT
Sample Location: HYDE PARK
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 10/15/10 01:29
Analyst: RY

Date Collected: 10/08/10 11:06
Date Received: 10/12/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	234	0.200	--	599	0.511	--	E	1
Bromomethane	ND	0.200	--	ND	0.776	--		1
Acetone	1.66	1.00	--	3.95	2.37	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Methylene chloride	ND	1.40	--	ND	4.86	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
2-Butanone	0.247	0.200	--	0.728	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	1.91	0.200	--	10.4	1.09	--		1
Benzene	ND	0.200	--	ND	0.638	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		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	0.720	--		1
Trichloroethene	3.39	0.200	--	18.2	1.07	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.736	0.200	--	2.77	0.753	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015983
Report Date: 10/19/10

SAMPLE RESULTS

Lab ID: L1015983-02
Client ID: EFFLUENT
Sample Location: HYDE PARK
Date Collected: 10/08/10 11:06
Date Received: 10/12/10
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab								
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	41.1	0.200	--	279	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.920	--		1
Ethylbenzene	0.257	0.200	--	1.12	0.868	--		1
p/m-Xylene	0.881	0.400	--	3.82	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.520	0.200	--	2.26	0.868	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	87		60-140

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015983
Report Date: 10/19/10

SAMPLE RESULTS

Lab ID: L1015983-02 D
Client ID: EFFLUENT
Sample Location: HYDE PARK
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 10/15/10 09:58
Analyst: RY

Date Collected: 10/08/10 11:06
Date Received: 10/12/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	215	1.00	--	548	2.55	--		5

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	96		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	90		60-140

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015983
Report Date: 10/19/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 10/14/10 17:17

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG437478-4								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.200	--	ND	0.344	--		1
Propane	ND	0.200	--	ND	0.606	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.988	--		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	0.776	--		1
Chloroethane	ND	0.200	--	ND	0.527	--		1
Ethyl Alcohol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.841	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.14	--		1
Acetone	ND	1.00	--	ND	2.37	--		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	0.200	--	ND	0.434	--		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	0.792	--		1
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: LEWIS CHEMICAL
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Lab Number: L1015983
Report Date: 10/19/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 10/14/10 17:17

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG437478-4								
Methylene chloride	ND	1.40	--	ND	4.86	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.622	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.589	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.923	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.704	--		1
Isopropyl Ether	ND	0.200	--	ND	0.835	--		1
Ethyl-Tert-Butyl-Ether	ND	0.200	--	ND	0.835	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.907	--		1
Benzene	ND	0.200	--	ND	0.638	--		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	0.835	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015983
Report Date: 10/19/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 10/14/10 17:17

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG437478-4								
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	0.720	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.819	--		1
2,4,4-Trimethyl-1-Pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
2,4,4-Trimethyl-2-Pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.923	--		1
2-Hexanone	ND	0.200	--	ND	0.819	--		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	2.37	--		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	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015983
Report Date: 10/19/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 10/14/10 17:17

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG437478-4								
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane (C9)	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.982	--		1
Bromobenzene	ND	0.200	--	ND	1.28	--		1
o-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
n-Propylbenzene	ND	0.200	--	ND	0.982	--		1
p-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.982	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.982	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.982	--		1
Decane (C10)	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.03	--		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

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1015983
Report Date: 10/19/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 10/14/10 17:17

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG437478-4								
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

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015983
Report Date: 10/19/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG437478-3							
Chlorodifluoromethane	86		-		70-130	-		
Propylene	90		-		70-130	-		
Dichlorodifluoromethane	101		-		70-130	-		
Chloromethane	95		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	101		-		70-130	-		
Methanol	113		-		70-130	-		
Vinyl chloride	97		-		70-130	-		
1,3-Butadiene	98		-		70-130	-		
Bromomethane	97		-		70-130	-		
Chloroethane	99		-		70-130	-		
Ethyl Alcohol	93		-		70-130	-		
Dichlorofluoromethane	97		-		70-130	-		
Vinyl bromide	98		-		70-130	-		
Acrolein	96		-		70-130	-		
Acetone	96		-		50-150	-		
Acetonitrile	92		-		70-130	-		
Trichlorofluoromethane	105		-		70-130	-		
iso-Propyl Alcohol	103		-		70-130	-		
Acrylonitrile	92		-		70-130	-		
Pentane	96		-		70-130	-		
Ethyl ether	93		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015983
Report Date: 10/19/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG437478-3							
1,1-Dichloroethene	104		-		70-130	-		
tert-Butyl Alcohol	96		-		70-130	-		
Methylene chloride	96		-		70-130	-		
3-Chloropropene	102		-		70-130	-		
Carbon disulfide	96		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	102		-		70-130	-		
trans-1,2-Dichloroethene	96		-		70-130	-		
1,1-Dichloroethane	98		-		70-130	-		
Methyl tert butyl ether	92		-		70-130	-		
Vinyl acetate	109		-		70-130	-		
2-Butanone	94		-		70-130	-		
cis-1,2-Dichloroethene	102		-		70-130	-		
Ethyl Acetate	94		-		70-130	-		
Chloroform	104		-		70-130	-		
Tetrahydrofuran	98		-		70-130	-		
2,2-Dichloropropane	97		-		70-130	-		
1,2-Dichloroethane	104		-		70-130	-		
n-Hexane	105		-		70-130	-		
Isopropyl Ether	95		-		70-130	-		
Ethyl-Tert-Butyl-Ether	101		-		70-130	-		
1,1,1-Trichloroethane	109		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015983
Report Date: 10/19/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG437478-3							
1,1-Dichloropropene	104		-		70-130	-		
Benzene	102		-		70-130	-		
Carbon tetrachloride	114		-		70-130	-		
Cyclohexane	99		-		70-130	-		
Tertiary-Amyl Methyl Ether	94		-		70-130	-		
Dibromomethane	101		-		70-130	-		
1,2-Dichloropropane	103		-		70-130	-		
Bromodichloromethane	111		-		70-130	-		
1,4-Dioxane	94		-		50-150	-		
Trichloroethene	101		-		70-130	-		
2,2,4-Trimethylpentane	98		-		70-130	-		
Heptane	102		-		70-130	-		
2,4,4-Trimethyl-1-Pentene	78		-		70-130	-		
cis-1,3-Dichloropropene	114		-		70-130	-		
4-Methyl-2-pentanone	82		-		70-130	-		
2,4,4-Trimethyl-2-Pentene	104		-		70-130	-		
trans-1,3-Dichloropropene	103		-		70-130	-		
1,1,2-Trichloroethane	108		-		70-130	-		
Toluene	94		-		70-130	-		
1,3-Dichloropropane	86		-		70-130	-		
2-Hexanone	87		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015983
Report Date: 10/19/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG437478-3							
Dibromochloromethane	102		-		70-130	-		
1,2-Dibromoethane	100		-		70-130	-		
Octane	88		-		70-130	-		
Tetrachloroethene	98		-		70-130	-		
1,1,1,2-Tetrachloroethane	95		-		70-130	-		
Chlorobenzene	98		-		70-130	-		
Ethylbenzene	96		-		70-130	-		
p/m-Xylene	96		-		70-130	-		
Bromoform	101		-		70-130	-		
Styrene	99		-		70-130	-		
1,1,2,2-Tetrachloroethane	99		-		70-130	-		
o-Xylene	99		-		70-130	-		
1,2,3-Trichloropropane	112		-		70-130	-		
Nonane (C9)	88		-		70-130	-		
Isopropylbenzene	94		-		70-130	-		
Bromobenzene	88		-		70-130	-		
o-Chlorotoluene	92		-		70-130	-		
n-Propylbenzene	92		-		70-130	-		
p-Chlorotoluene	95		-		70-130	-		
4-Ethyltoluene	94		-		70-130	-		
1,3,5-Trimethylbenzene	97		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015983
Report Date: 10/19/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG437478-3							
tert-Butylbenzene	93		-		70-130	-		
1,2,4-Trimethylbenzene	102		-		70-130	-		
Decane (C10)	95		-		70-130	-		
Benzyl chloride	109		-		70-130	-		
1,3-Dichlorobenzene	103		-		70-130	-		
1,4-Dichlorobenzene	105		-		70-130	-		
sec-Butylbenzene	94		-		70-130	-		
p-Isopropyltoluene	86		-		70-130	-		
1,2-Dichlorobenzene	104		-		70-130	-		
n-Butylbenzene	96		-		70-130	-		
1,2-Dibromo-3-chloropropane	98		-		70-130	-		
Undecane	91		-		70-130	-		
Dodecane (C12)	109		-		70-130	-		
1,2,4-Trichlorobenzene	96		-		50-150	-		
Naphthalene	83		-		50-150	-		
1,2,3-Trichlorobenzene	84		-		70-130	-		
Hexachlorobutadiene	97		-		50-150	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015983
Report Date: 10/19/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG437478-5 QC Sample: L1015983-02 Client ID: EFFLUENT						
Vinyl chloride	234E	245	ppbV	5	E	25
Bromomethane	ND	ND	ppbV	NC		25
Acetone	1.66	1.69	ppbV	2		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	0.247	0.233	ppbV	6		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	1.91	1.76	ppbV	8		25
Benzene	ND	ND	ppbV	NC		25
Carbon tetrachloride	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	3.39	3.22	ppbV	5		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015983
Report Date: 10/19/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG437478-5 QC Sample: L1015983-02 Client ID: EFFLUENT					
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	0.736	0.732	ppbV	1	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	41.1	41.0	ppbV	0	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	0.257	0.241	ppbV	6	25
p/m-Xylene	0.881	0.839	ppbV	5	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	0.520	0.515	ppbV	1	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

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015983
Report Date: 10/19/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG437478-5 QC Sample: L1015983-02 Client ID: EFFLUENT					
Naphthalene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG437478-5 QC Sample: L1015983-02 Client ID: EFFLUENT					
Vinyl chloride	215	246	ppbV	13	25

Project Name: LEWIS CHEMICAL **Lab Number:** L1015983

Project Number: 221375.01 **Report Date:** 10/19/10

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Cleaning Batch ID	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Out mL/min	Flow In mL/min	% RSD
L1015983-01	INFLUENT	184	2.7L Can	I1015365	-29.2	-4.0	-	-	-
L1015983-02	EFFLUENT	255	2.7L Can	I1015365	-29.2	-6.3	-	-	-

Air Volatiles Can Certification

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1015365
Report Date: 10/19/10

Air Canister Certification Results

Lab ID: L1015365-01
Client ID: CAN 149B SHELF 4
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 10/02/10 17:26
Analyst: AJ

Date Collected: 09/30/10 00:00
Date Received: 09/30/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.200	--	ND	0.344	--		1
Propane	ND	0.200	--	ND	0.606	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.988	--		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	0.776	--		1
Chloroethane	ND	0.200	--	ND	0.527	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.841	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.14	--		1
Acetone	ND	1.00	--	ND	2.37	--		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	0.200	--	ND	0.434	--		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	0.792	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1015365

Project Number: CANISTER QC BAT ***Report Date:*** 10/19/10

Air Canister Certification Results

Lab ID: L1015365-01 Date Collected: 09/30/10 00:00

Client ID: CAN 149B SHELF 4 Date Received: 09/30/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.622	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.589	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.923	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.704	--		1
Diisopropyl ether	ND	0.200	--	ND	0.835	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.835	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.907	--		1
Benzene	ND	0.200	--	ND	0.638	--		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	0.835	--		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	0.720	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1015365

Project Number: CANISTER QC BAT ***Report Date:*** 10/19/10

Air Canister Certification Results

Lab ID: L1015365-01 Date Collected: 09/30/10 00:00

Client ID: CAN 149B SHELF 4 Date Received: 09/30/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.923	--		1
2-Hexanone	ND	0.200	--	ND	0.819	--		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	2.37	--		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	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.982	--		1
Bromobenzene	ND	0.200	--	ND	1.28	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1015365

Project Number: CANISTER QC BAT ***Report Date:*** 10/19/10

Air Canister Certification Results

Lab ID: L1015365-01 Date Collected: 09/30/10 00:00

Client ID: CAN 149B SHELF 4 Date Received: 09/30/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
n-Propylbenzene	ND	0.200	--	ND	0.982	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.982	--		1
1,3,5-Trimethybenzene	ND	0.200	--	ND	0.982	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.982	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.03	--		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

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1015365

Project Number: CANISTER QC BAT ***Report Date:*** 10/19/10

Air Canister Certification Results

Lab ID: L1015365-01 Date Collected: 09/30/10 00:00

Client ID: CAN 149B SHELF 4 Date Received: 09/30/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	82		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	84		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1015365
Report Date: 10/19/10

Air Canister Certification Results

Lab ID: L1015365-01
Client ID: CAN 149B SHELF 4
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 10/02/10 17:26
Analyst: RY

Date Collected: 09/30/10 00:00
Date Received: 09/30/10
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								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		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	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	0.070	0.050	--	0.393	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	0.221	0.050	--	1.69	0.383	--		1
Halothane	ND	0.050	--	ND	0.403	--		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	0.020	--	ND	0.072	--		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 ***Lab Number:*** L1015365

Project Number: CANISTER QC BAT ***Report Date:*** 10/19/10

Air Canister Certification Results

Lab ID: L1015365-01 Date Collected: 09/30/10 00:00

Client ID: CAN 149B SHELF 4 Date Received: 09/30/10

Sample Location: 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
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		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	0.020	--	ND	0.075	--		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	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.206	--		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	0.500	--	ND	2.46	--		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	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1015365
Report Date: 10/19/10

Air Canister Certification Results

Lab ID: L1015365-01
Client ID: CAN 149B SHELF 4
Sample Location:
Date Collected: 09/30/10 00:00
Date Received: 09/30/10
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								
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

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1015365

Project Number: CANISTER QC BAT ***Report Date:*** 10/19/10

Air Canister Certification Results

Lab ID: L1015365-01 Date Collected: 09/30/10 00:00

Client ID: CAN 149B SHELF 4 Date Received: 09/30/10

Sample Location: 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								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	84		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	87		60-140

AIR Petro Can Certification

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1015365

Project Number: CANISTER QC BAT **Report Date:** 10/19/10

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1015365-01	Date Collected:	09/30/10 00:00
Client ID:	CAN 149B SHELF 4	Date Received:	09/30/10
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	10/02/10 17:26		
Analyst:	RY		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1015983
Report Date: 10/19/10

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information	Custody Seal
Cooler	
N/A	Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1015983-01A	Canister - 2.7 Liter	N/A	NA		NA	Present/Intact	MCP-TO15(30)
L1015983-02A	Canister - 2.7 Liter	N/A	NA		NA	Present/Intact	MCP-TO15(30)

*Values in parentheses indicate holding time in days

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1015983
Project Number:	221375.01	**Report Date:**	10/19/10

GLOSSARY

Acronyms

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.

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.

NI - Not Ignitable.

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.

Terms

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 five times (5x) 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.

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.

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

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

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. 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.

Report Format: Data Usability Report

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1015983
Project Number:	221375.01	**Report Date:**	10/19/10

Data Qualifiers

RE - Analytical results are from sample re-extraction.

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:	LEWIS CHEMICAL	**Lab Number:**	L1015983
Project Number:	221375.01	**Report Date:**	10/19/10

REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

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.

Certificate/Approval Program Summary

Last revised July 19, 2010 ï Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, EPA 120.1, SM2510B, EPA 245.1, EPA 150.1, EPA 160.2, SM2540D, EPA 335.2, SM2540G, EPA 180.1. Organic Parameters: EPA 625, 608.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045, 9014. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 120.1, 150.1, 160.2, 180.1, 200.8, 245.1, 310.1, 335.2, 608, 625, 1631, 3010, 3015, 3020, 6020, 9010, 9014, 9040, SM2320B, 2510B, 2540D, 2540G, 4500CN-E, 4500H-B, Organic Parameters: EPA 3510, 3580, 3630, 3640, 3660, 3665, 5030, 8015 (mod), 3570, 8081, 8082, 8260, 8270,)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7196, 7470, 7471, 7474, 9010, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015 (mod), EPA 3570, 1311, 3050, 3051, 3060, 3580, 3630, 3640, 3660, 3665, 5035, 8081, 8082, 8260, 8270.)

Biological Tissue (Inorganic Parameters: EPA 6020. Organic Parameters: EPA 3570, 3510, 3610, 3630, 3640, 8270.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA030.

Non-Potable Water (Inorganic Parameters: SM4500H+B. Organic Parameters: EPA 624.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 200.8, 245.1, 1631E, 120.1, 150.1, 180.1, 310.1, 335.2, 160.2, SM2540D, 2540G, 4500CN-E, 4500H+B, 2320B, 2510B. Organic Parameters: EPA 625, 608.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, 6020, SM2320B, EPA 200.8, SM2540C, 2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 9040B, 6020, 9010B, 9014 Organic Parameters: EPA 608, 625, SW-846 3510C, 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9045C, 9060. Organic Parameters: SW-846 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 3570, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3610B, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 310.1, SM2320B, EPA 365.2, 160.1, EPA 160.2, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 335.2, 9014, 150.1, 9040B, 120.1, SM2510B, EPA 376.2, 180.1, 9010B. Organic Parameters: EPA 624, 8260B, 8270C, 608, 8081A, 625, 8082, 3510C, 3511, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, SW-846 Ch7 Sec 7.3, EPA 6020, 7196A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 3050B, 3580, 3050B, 3035, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via LA-DEQ.***

Refer to MA-DEP Certificate for Non-Potable Water.

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

U.S. Army Corps of Engineers

Department of Defense Certificate/Lab ID: L2217.01.

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312,3051, 6020, 747A, 7474, 9045C,9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580, 3570, 3540C, 5035, 8260B, 8270C, 8270 Alk-PAH, 8082, 8081A, 8015 (SHC), 8015 (DRO).

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl.

Serial_No:10191016:03

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:

ALPHA Job #: L1015983

Client Information

Client: Woodard + Curran
Address: Dedham, MA
Phone:
Fax:
Email: jclinton@woodardcurran.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Lewis Chemical
Project Location: Hyde Park
Project #: 221375.01
Project Manager: C. Blake
ALPHA Quote #:

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	Criteria
MA	MCP	

Other Project Specific Requirements/Comments:

MA MCP ~~ASP-B~~ DC
Also email sdriscoll@woodardcurran.com

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
15983-01	Influent	10/8/10	1100	1101	-29.2	-5	SV	DC	2.7L	0184	04		✓						Influent PID = 39.2ppm
15983-02	Effluent	10/8/10	1105	1106	-29.2	-2	SV	DC	2.7L	0255	NO ID		✓						Effluent PID = 2.0ppm

ANALYSIS

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

Container Type: SC

Relinquished By:	Date/Time	Received By:	Date/Time:
	10/12/10 1350		10/12/10 1350
	10/12/10 1610		10/12/10 1610

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.

Form No: 101-02 (19-Jun-09)

ANALYTICAL REPORT

Lab Number:	L1017272
Client:	Woodard & Curran 980 Washington Street Dedham, MA 02026
ATTN:	Craig Blake
Phone:	(781) 251-0200
Project Name:	LEWIS CHEMICAL
Project Number:	221375.01
Report Date:	11/08/10

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LAO00299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), 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: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017272
Report Date: 11/08/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1017272-01	INFLUENT	HYDE PARK	10/29/10 16:11
L1017272-02	EFFLUENT	HYDE PARK	10/29/10 16:20
L1017272-03	CAN 359	HYDE PARK	

Project Name: LEWIS CHEMICAL **Lab Number:** L1017272

Project Number: 221375.01 **Report Date:** 11/08/10

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017272
Report Date: 11/08/10

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 all of the requirements of NELAC, for all NELAC accredited parameters. 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. 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. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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.

For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Canisters were released from the laboratory on October 27, 2010.

The canister certification data is provided as an addendum.

The internal standards were within method criteria.

MCP Volatile Organics in Air

L1017272-01 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample. The sample was re-analyzed on dilution in order to quantitate the sample within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1017272
Project Number:	221375.01	**Report Date:**	11/08/10

Case Narrative (continued)

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: Kathleen O'Brien

Title: Technical Director/Representative Date: 11/08/10

AIR

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1017272
Report Date: 11/08/10

SAMPLE RESULTS

Lab ID: L1017272-01 D
Client ID: INFLUENT
Sample Location: HYDE PARK
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 11/04/10 16:16
Analyst: RY

Date Collected: 10/29/10 16:11
Date Received: 11/01/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	80.0	47.8	--	204	122	--		238.8
Bromomethane	ND	47.8	--	ND	185.	--		238.8
Acetone	ND	239	--	ND	567	--		238.8
1,1-Dichloroethene	104	47.8	--	412	189	--		238.8
Methylene chloride	ND	334	--	ND	1160	--		238.8
trans-1,2-Dichloroethene	ND	47.8	--	ND	189	--		238.8
1,1-Dichloroethane	174	47.8	--	704	193	--		238.8
Methyl tert butyl ether	ND	47.8	--	ND	172.	--		238.8
2-Butanone	ND	47.8	--	ND	141.	--		238.8
cis-1,2-Dichloroethene	3140	47.8	--	12400	189	--		238.8
Chloroform	ND	47.8	--	ND	233.	--		238.8
1,2-Dichloroethane	78.6	47.8	--	318	193	--		238.8
1,1,1-Trichloroethane	18800	47.8	--	103000	260	--		238.8
Benzene	ND	47.8	--	ND	152	--		238.8
Carbon tetrachloride	ND	47.8	--	ND	300.	--		238.8
1,2-Dichloropropane	ND	47.8	--	ND	220.	--		238.8
Bromodichloromethane	ND	47.8	--	ND	320.	--		238.8
1,4-Dioxane	ND	47.8	--	ND	172.	--		238.8
Trichloroethene	30300	47.8	--	162000	256	--	E	238.8
cis-1,3-Dichloropropene	ND	47.8	--	ND	216.	--		238.8
4-Methyl-2-pentanone	ND	47.8	--	ND	195.	--		238.8
trans-1,3-Dichloropropene	ND	47.8	--	ND	216.	--		238.8
1,1,2-Trichloroethane	ND	47.8	--	ND	260.	--		238.8
Toluene	2290	47.8	--	8640	180	--		238.8
Dibromochloromethane	ND	47.8	--	ND	406.	--		238.8

Project Name: LEWIS CHEMICAL ***Lab Number:*** L1017272

Project Number: 221375.01 ***Report Date:*** 11/08/10

SAMPLE RESULTS

Lab ID: L1017272-01 D Date Collected: 10/29/10 16:11

Client ID: INFLUENT Date Received: 11/01/10

Sample Location: HYDE PARK Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
1,2-Dibromoethane	ND	47.8	--	ND	367.	--		238.8
Tetrachloroethene	15200	47.8	--	103000	324	--		238.8
Chlorobenzene	ND	47.8	--	ND	220.	--		238.8
Ethylbenzene	186	47.8	--	807	207	--		238.8
p/m-Xylene	451	95.5	--	1960	414	--		238.8
Bromoform	ND	47.8	--	ND	493.	--		238.8
Styrene	ND	47.8	--	ND	203.	--		238.8
1,1,2,2-Tetrachloroethane	ND	47.8	--	ND	328.	--		238.8
o-Xylene	254	47.8	--	1100	207	--		238.8
1,3-Dichlorobenzene	ND	47.8	--	ND	287.	--		238.8
1,4-Dichlorobenzene	ND	47.8	--	ND	287.	--		238.8
1,2-Dichlorobenzene	ND	47.8	--	ND	287.	--		238.8
1,2,4-Trichlorobenzene	ND	47.8	--	ND	354.	--		238.8
Naphthalene	ND	47.8	--	ND	250.	--		238.8
Hexachlorobutadiene	ND	47.8	--	ND	509.	--		238.8

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	88		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	93		60-140

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1017272
Report Date: 11/08/10

SAMPLE RESULTS

Lab ID: L1017272-01 D2
Client ID: INFLUENT
Sample Location: HYDE PARK
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 11/05/10 03:10
Analyst: RY

Date Collected: 10/29/10 16:11
Date Received: 11/01/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
Trichloroethene	19900	119	--	107000	641	--		597.1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	95		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	97		60-140

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1017272
Report Date: 11/08/10

SAMPLE RESULTS

Lab ID: L1017272-02
Client ID: EFFLUENT
Sample Location: HYDE PARK
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 11/04/10 14:58
Analyst: RY

Date Collected: 10/29/10 16:20
Date Received: 11/01/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	4.69	0.200	--	12.0	0.511	--		1
Bromomethane	ND	0.200	--	ND	0.776	--		1
Acetone	4.41	1.00	--	10.4	2.37	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Methylene chloride	2.95	1.40	--	10.2	4.86	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
2-Butanone	0.588	0.200	--	1.73	0.589	--		1
cis-1,2-Dichloroethene	1.44	0.200	--	5.71	0.792	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	8.14	0.200	--	44.4	1.09	--		1
Benzene	ND	0.200	--	ND	0.638	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		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	0.720	--		1
Trichloroethene	24.2	0.200	--	130	1.07	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	3.88	0.200	--	14.6	0.753	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1017272
Report Date: 11/08/10

SAMPLE RESULTS

Lab ID: L1017272-02
Client ID: EFFLUENT
Sample Location: HYDE PARK
Date Collected: 10/29/10 16:20
Date Received: 11/01/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	30.3	0.200	--	206	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.920	--		1
Ethylbenzene	0.733	0.200	--	3.18	0.868	--		1
p/m-Xylene	2.03	0.400	--	8.82	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	1.30	0.200	--	5.65	0.868	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	97		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	101		60-140

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1017272
Report Date: 11/08/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 11/04/10 12:39

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG441233-4								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.200	--	ND	0.344	--		1
Propane	ND	0.200	--	ND	0.606	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.988	--		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	0.776	--		1
Chloroethane	ND	0.200	--	ND	0.527	--		1
Ethyl Alcohol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.841	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.14	--		1
Acetone	ND	1.00	--	ND	2.37	--		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	0.200	--	ND	0.434	--		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	0.792	--		1
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1017272
Report Date: 11/08/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 11/04/10 12:39

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG441233-4								
Methylene chloride	ND	1.40	--	ND	4.86	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.622	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.589	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.923	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.704	--		1
Isopropyl Ether	ND	0.200	--	ND	0.835	--		1
Ethyl-Tert-Butyl-Ether	ND	0.200	--	ND	0.835	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.907	--		1
Benzene	ND	0.200	--	ND	0.638	--		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	0.835	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1017272
Report Date: 11/08/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 11/04/10 12:39

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG441233-4								
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	0.720	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.819	--		1
2,4,4-Trimethyl-1-Pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
2,4,4-Trimethyl-2-Pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.923	--		1
2-Hexanone	ND	0.200	--	ND	0.819	--		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	2.37	--		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	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1017272
Report Date: 11/08/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 11/04/10 12:39

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG441233-4								
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane (C9)	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.982	--		1
Bromobenzene	ND	0.200	--	ND	1.28	--		1
o-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
n-Propylbenzene	ND	0.200	--	ND	0.982	--		1
p-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.982	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.982	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.982	--		1
Decane (C10)	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.03	--		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

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1017272
Report Date: 11/08/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 11/04/10 12:39

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG441233-4								
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

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017272
Report Date: 11/08/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG441233-3							
Chlorodifluoromethane	80		-		70-130	-		
Propylene	78		-		70-130	-		
Dichlorodifluoromethane	86		-		70-130	-		
Chloromethane	89		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	87		-		70-130	-		
Methanol	83		-		70-130	-		
Vinyl chloride	88		-		70-130	-		
1,3-Butadiene	87		-		70-130	-		
Bromomethane	83		-		70-130	-		
Chloroethane	86		-		70-130	-		
Ethyl Alcohol	98		-		70-130	-		
Dichlorofluoromethane	87		-		70-130	-		
Vinyl bromide	80		-		70-130	-		
Acrolein	84		-		70-130	-		
Acetone	94		-		50-150	-		
Acetonitrile	86		-		70-130	-		
Trichlorofluoromethane	89		-		70-130	-		
iso-Propyl Alcohol	101		-		70-130	-		
Acrylonitrile	86		-		70-130	-		
Pentane	89		-		70-130	-		
Ethyl ether	96		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017272
Report Date: 11/08/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG441233-3							
1,1-Dichloroethene	93		-		70-130	-		
tert-Butyl Alcohol	114		-		70-130	-		
Methylene chloride	100		-		70-130	-		
3-Chloropropene	90		-		70-130	-		
Carbon disulfide	77		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	91		-		70-130	-		
trans-1,2-Dichloroethene	92		-		70-130	-		
1,1-Dichloroethane	97		-		70-130			
Methyl tert butyl ether	83		-		70-130	-		
Vinyl acetate	104		-		70-130	-		
2-Butanone	93		-		70-130	-		
cis-1,2-Dichloroethene	90		-		70-130	-		
Ethyl Acetate	82		-		70-130	-		
Chloroform	87		-		70-130	-		
Tetrahydrofuran	73		-		70-130	-		
2,2-Dichloropropane	78		-		70-130	-		
1,2-Dichloroethane	86		-		70-130			
n-Hexane	102		-		70-130	-		
Isopropyl Ether	92		-		70-130	-		
Ethyl-Tert-Butyl-Ether	88		-		70-130	-		
1,1,1-Trichloroethane	100		-		70-130			

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017272
Report Date: 11/08/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG441233-3							
1,1-Dichloropropene	96		-		70-130	-		
Benzene	97		-		70-130	-		
Carbon tetrachloride	97		-		70-130	-		
Cyclohexane	94		-		70-130	-		
Tertiary-Amyl Methyl Ether	81		-		70-130	-		
Dibromomethane	94		-		70-130	-		
1,2-Dichloropropane	103		-		70-130	-		
Bromodichloromethane	98		-		70-130	-		
1,4-Dioxane	90		-		50-150	-		
Trichloroethene	93		-		70-130	-		
2,2,4-Trimethylpentane	102		-		70-130	-		
Heptane	99		-		70-130	-		
2,4,4-Trimethyl-1-Pentene	87		-		70-130	-		
cis-1,3-Dichloropropene	100		-		70-130	-		
4-Methyl-2-pentanone	98		-		70-130	-		
2,4,4-Trimethyl-2-Pentene	98		-		70-130	-		
trans-1,3-Dichloropropene	87		-		70-130	-		
1,1,2-Trichloroethane	100		-		70-130	-		
Toluene	87		-		70-130	-		
1,3-Dichloropropane	86		-		70-130	-		
2-Hexanone	94		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017272
Report Date: 11/08/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG441233-3							
Dibromochloromethane	83		-		70-130	-		
1,2-Dibromoethane	86		-		70-130	-		
Octane	80		-		70-130	-		
Tetrachloroethene	77		-		70-130	-		
1,1,1,2-Tetrachloroethane	79		-		70-130	-		
Chlorobenzene	85		-		70-130	-		
Ethylbenzene	85		-		70-130	-		
p/m-Xylene	87		-		70-130	-		
Bromoform	78		-		70-130	-		
Styrene	86		-		70-130	-		
1,1,2,2-Tetrachloroethane	94		-		70-130	-		
o-Xylene	88		-		70-130	-		
1,2,3-Trichloropropane	77		-		70-130	-		
Nonane (C9)	93		-		70-130	-		
Isopropylbenzene	82		-		70-130	-		
Bromobenzene	86		-		70-130	-		
o-Chlorotoluene	78		-		70-130	-		
n-Propylbenzene	80		-		70-130	-		
p-Chlorotoluene	82		-		70-130	-		
4-Ethyltoluene	80		-		70-130	-		
1,3,5-Trimethylbenzene	86		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017272
Report Date: 11/08/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG441233-3							
tert-Butylbenzene	82		-		70-130	-		
1,2,4-Trimethylbenzene	91		-		70-130	-		
Decane (C10)	88		-		70-130	-		
Benzyl chloride	84		-		70-130	-		
1,3-Dichlorobenzene	88		-		70-130	-		
1,4-Dichlorobenzene	88		-		70-130	-		
sec-Butylbenzene	84		-		70-130	-		
p-Isopropyltoluene	76		-		70-130	-		
1,2-Dichlorobenzene	88		-		70-130	-		
n-Butylbenzene	88		-		70-130	-		
1,2-Dibromo-3-chloropropane	98		-		70-130	-		
Undecane	93		-		70-130	-		
Dodecane (C12)	110		-		70-130	-		
1,2,4-Trichlorobenzene	91		-		50-150	-		
Naphthalene	84		-		50-150	-		
1,2,3-Trichlorobenzene	86		-		70-130	-		
Hexachlorobutadiene	96		-		50-150	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017272
Report Date: 11/08/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG441233-5 QC Sample: L1017272-02 Client ID: EFFLUENT						
Vinyl chloride	4.69	5.49	ppbV	16		25
Bromomethane	ND	ND	ppbV	NC		25
Acetone	4.41	4.05	ppbV	9		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	2.95	3.27	ppbV	10		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	0.588	0.522	ppbV	12		25
cis-1,2-Dichloroethene	1.44	1.49	ppbV	3		25
Chloroform	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	8.14	8.90	ppbV	9		25
Benzene	ND	ND	ppbV	NC		25
Carbon tetrachloride	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	24.2	26.7	ppbV	10		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017272
Report Date: 11/08/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG441233-5 QC Sample: L1017272-02 Client ID: EFFLUENT					
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	3.88	4.18	ppbV	7	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	30.3	33.3	ppbV	9	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	0.733	0.778	ppbV	6	25
p/m-Xylene	2.03	2.12	ppbV	4	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	1.30	1.46	ppbV	12	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

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017272
Report Date: 11/08/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG441233-5 QC Sample: L1017272-02 Client ID: EFFLUENT					
Naphthalene	ND	0.201	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25

Project Name: LEWIS CHEMICAL **Lab Number:** L1017272

Project Number: 221375.01 **Report Date:** 11/08/10

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Cleaning Batch ID	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Out mL/min	Flow In mL/min	% RSD
L1017272-01	INFLUENT	113	2.7L Can	I1016849	-29.5	-1.7	-	-	-
L1017272-02	EFFLUENT	139	2.7L Can	I1016849	-29.5	-3.2	-	-	-

Air Volatiles Can Certification

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1016849
Report Date: 11/08/10

Air Canister Certification Results

Lab ID: L1016849-01
Client ID: CAN 211 SHELF 1
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 10/26/10 16:37
Analyst: AJ

Date Collected: 10/25/10 00:00
Date Received: 10/25/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.200	--	ND	0.344	--		1
Propane	ND	0.200	--	ND	0.606	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.988	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	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	0.776	--		1
Chloroethane	ND	0.200	--	ND	0.527	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.841	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.14	--		1
Acetone	ND	1.00	--	ND	2.37	--		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	0.200	--	ND	0.434	--		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	0.792	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1016849

Project Number: CANISTER QC BAT ***Report Date:*** 11/08/10

Air Canister Certification Results

Lab ID: L1016849-01 Date Collected: 10/25/10 00:00

Client ID: CAN 211 SHELF 1 Date Received: 10/25/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.622	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.589	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.923	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.704	--		1
Diisopropyl ether	ND	0.200	--	ND	0.835	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.835	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.907	--		1
Benzene	ND	0.200	--	ND	0.638	--		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	0.835	--		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	0.720	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1016849

Project Number: CANISTER QC BAT ***Report Date:*** 11/08/10

Air Canister Certification Results

Lab ID: L1016849-01 Date Collected: 10/25/10 00:00

Client ID: CAN 211 SHELF 1 Date Received: 10/25/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.923	--		1
2-Hexanone	ND	0.200	--	ND	0.819	--		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	2.37	--		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	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.982	--		1
Bromobenzene	ND	0.200	--	ND	1.28	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1016849

Project Number: CANISTER QC BAT ***Report Date:*** 11/08/10

Air Canister Certification Results

Lab ID: L1016849-01 Date Collected: 10/25/10 00:00

Client ID: CAN 211 SHELF 1 Date Received: 10/25/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
n-Propylbenzene	ND	0.200	--	ND	0.982	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.982	--		1
1,3,5-Trimethybenzene	ND	0.200	--	ND	0.982	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.982	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.03	--		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

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1016849

Project Number: CANISTER QC BAT ***Report Date:*** 11/08/10

Air Canister Certification Results

Lab ID: L1016849-01 Date Collected: 10/25/10 00:00

Client ID: CAN 211 SHELF 1 Date Received: 10/25/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	113		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	105		60-140

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1016849

Project Number: CANISTER QC BAT ***Report Date:*** 11/08/10

Air Canister Certification Results

Lab ID: L1016849-01
Client ID: CAN 211 SHELF 1
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 10/26/10 16:37
Analyst: AJ

Date Collected: 10/25/10 00:00
Date Received: 10/25/10
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								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		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	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.403	--		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	0.020	--	ND	0.072	--		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 ***Lab Number:*** L1016849

Project Number: CANISTER QC BAT ***Report Date:*** 11/08/10

Air Canister Certification Results

Lab ID: L1016849-01 Date Collected: 10/25/10 00:00

Client ID: CAN 211 SHELF 1 Date Received: 10/25/10

Sample Location: 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	0.020	--	ND	0.075	--		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	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.206	--		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	0.500	--	ND	2.46	--		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	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1016849
Report Date: 11/08/10

Air Canister Certification Results

Lab ID: L1016849-01
Client ID: CAN 211 SHELF 1
Sample Location:
Date Collected: 10/25/10 00:00
Date Received: 10/25/10
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								
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

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1016849

Project Number: CANISTER QC BAT ***Report Date:*** 11/08/10

Air Canister Certification Results

Lab ID: L1016849-01 Date Collected: 10/25/10 00:00

Client ID: CAN 211 SHELF 1 Date Received: 10/25/10

Sample Location: 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								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	96		60-140

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1017272
Report Date: 11/08/10

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**
Cooler
N/A Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1017272-01A	Canister - 2.7 Liter	N/A	NA		NA	Present/Intact	MCP-TO15(30)
L1017272-02A	Canister - 2.7 Liter	N/A	NA		NA	Present/Intact	MCP-TO15(30)
L1017272-03A	Canister - 2.7 Liter	N/A	NA		NA	Present/Intact	CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1017272
Project Number:	221375.01	**Report Date:**	11/08/10

GLOSSARY

Acronyms

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.

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.

NI - Not Ignitable.

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.

Terms

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 five times (5x) 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.

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.

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

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

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. 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.

Report Format: Data Usability Report

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1017272
Project Number:	221375.01	**Report Date:**	11/08/10

Data Qualifiers

RE - Analytical results are from sample re-extraction.

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:	LEWIS CHEMICAL	**Lab Number:**	L1017272
Project Number:	221375.01	**Report Date:**	11/08/10

REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

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.

Certificate/Approval Program Summary

Last revised July 19, 2010 ï Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, EPA 120.1, SM2510B, EPA 245.1, EPA 150.1, EPA 160.2, SM2540D, EPA 335.2, SM2540G, EPA 180.1. Organic Parameters: EPA 625, 608.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045, 9014. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 120.1, 150.1, 160.2, 180.1, 200.8, 245.1, 310.1, 335.2, 608, 625, 1631, 3010, 3015, 3020, 6020, 9010, 9014, 9040, SM2320B, 2510B, 2540D, 2540G, 4500CN-E, 4500H-B, Organic Parameters: EPA 3510, 3580, 3630, 3640, 3660, 3665, 5030, 8015 (mod), 3570, 8081, 8082, 8260, 8270,)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7196, 7470, 7471, 7474, 9010, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015 (mod), EPA 3570, 1311, 3050, 3051, 3060, 3580, 3630, 3640, 3660, 3665, 5035, 8081, 8082, 8260, 8270.)

Biological Tissue (Inorganic Parameters: EPA 6020. Organic Parameters: EPA 3570, 3510, 3610, 3630, 3640, 8270.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA030.

Non-Potable Water (Inorganic Parameters: SM4500H+B. Organic Parameters: EPA 624.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 200.8, 245.1, 1631E, 120.1, 150.1, 180.1, 310.1, 335.2, 160.2, SM2540D, 2540G, 4500CN-E, 4500H+B, 2320B, 2510B. Organic Parameters: EPA 625, 608.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, 6020, SM2320B, EPA 200.8, SM2540C, 2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 9040B, 6020, 9010B, 9014 Organic Parameters: EPA 608, 625, SW-846 3510C, 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9045C, 9060. Organic Parameters: SW-846 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 3570, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3610B, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 310.1, SM2320B, EPA 365.2, 160.1, EPA 160.2, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 335.2, 9014, 150.1, 9040B, 120.1, SM2510B, EPA 376.2, 180.1, 9010B. Organic Parameters: EPA 624, 8260B, 8270C, 608, 8081A, 625, 8082, 3510C, 3511, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, SW-846 Ch7 Sec 7.3, EPA 6020, 7196A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 3050B, 3580, 3050B, 3035, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via LA-DEQ.***

Refer to MA-DEP Certificate for Non-Potable Water.

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

U.S. Army Corps of Engineers

Department of Defense Certificate/Lab ID: L2217.01.

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312,3051, 6020, 747A, 7474, 9045C,9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580, 3570, 3540C, 5035, 8260B, 8270C, 8270 Alk-PAH, 8082, 8081A, 8015 (SHC), 8015 (DRO).

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl.

Serial_No:11081015:08

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:

ALPHA Job #: L1017272

Client Information

Client: Woodard + Curran
Address: Dedham MA
Phone:
Fax:
Email: jclinton@woodardcurran.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Lewis Chemical
Project Location: 221375.01
Project #: Hyde Park, MA (DC)
Project Manager: C. Blake
ALPHA Quote #:

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	Criteria
MA	MCP	

Influent = 55.6 ppm
Effluent = 0.2 ppm

Other Project Specific Requirements/Comments: MCP

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
17272-01	Influent	10/29/10	1610	1611	-29.5	-3	SV	DRC	2.7L	113	Unk		☒						
-02	Effluent	10/29/10	1619	1620	-29.5	-5	SV	DRC	2.7L	139	Unk		☒						

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

Container Type: SC

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:
P. Gillett	10/29/10	P. Gillett	11/1/10 12:50
P. Gillett	11/1/10 16:35	Michelle A Rose	11/1/10 16:35

Form No: 101-02 (19-Jun-09)

ANALYTICAL REPORT

Lab Number:	L1102980
Client:	Woodard & Curran 980 Washington Street Dedham, MA 02026
ATTN:	Craig Blake
Phone:	(781) 251-0200
Project Name:	LEWIS CHEMICAL
Project Number:	221375.01
Report Date:	03/14/11

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LAO00299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), 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: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1102980
Report Date: 03/14/11

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1102980-01	INFLUENT	HYDE PARK	03/04/11 08:32
L1102980-02	EFFLUENT	HYDE PARK	03/04/11 08:21

Project Name: LEWIS CHEMICAL **Lab Number:** L1102980

Project Number: 221375.01 **Report Date:** 03/14/11

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1102980
Report Date: 03/14/11

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 all of the requirements of NELAC, for all NELAC accredited parameters. 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. 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. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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.

For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Canisters were released from the laboratory on March 2, 2011.

The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

L1102980-01 and WG458206-5 Duplicate have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample. The samples were re-analyzed on dilution in order to quantitate the sample within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1102980
Project Number:	221375.01	**Report Date:**	03/14/11

Case Narrative (continued)

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: Kathleen M. O'Brien Kathleen O'Brien

Title: Technical Director/Representative Date: 03/14/11

AIR

Project Name: LEWIS CHEMICAL ***Lab Number:*** L1102980

Project Number: 221375.01 ***Report Date:*** 03/14/11

SAMPLE RESULTS

Lab ID: L1102980-01 D
Client ID: INFLUENT
Sample Location: HYDE PARK
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 03/11/11 02:50
Analyst: RY

Date Collected: 03/04/11 08:32
Date Received: 03/07/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
Bromomethane	ND	2.00	--	ND	7.76	--		10
Acetone	ND	10.0	--	ND	23.7	--		10
1,1-Dichloroethene	ND	2.00	--	ND	7.92	--		10
Methylene chloride	ND	14.0	--	ND	48.6	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.92	--		10
1,1-Dichloroethane	9.06	2.00	--	36.6	8.09	--		10
Methyl tert butyl ether	ND	2.00	--	ND	7.20	--		10
2-Butanone	ND	2.00	--	ND	5.89	--		10
cis-1,2-Dichloroethene	215	2.00	--	852	7.92	--		10
Chloroform	ND	2.00	--	ND	9.76	--		10
1,2-Dichloroethane	4.90	2.00	--	19.8	8.09	--		10
1,1,1-Trichloroethane	1000	2.00	--	5470	10.9	--	E	10
Benzene	ND	2.00	--	ND	6.38	--		10
Carbon tetrachloride	ND	2.00	--	ND	12.6	--		10
1,2-Dichloropropane	ND	2.00	--	ND	9.24	--		10
Bromodichloromethane	ND	2.00	--	ND	13.4	--		10
1,4-Dioxane	ND	2.00	--	ND	7.20	--		10
Trichloroethene	2780	2.00	--	14900	10.7	--	E	10
cis-1,3-Dichloropropene	ND	2.00	--	ND	9.07	--		10
4-Methyl-2-pentanone	ND	2.00	--	ND	8.19	--		10
trans-1,3-Dichloropropene	ND	2.00	--	ND	9.07	--		10
1,1,2-Trichloroethane	ND	2.00	--	ND	10.9	--		10
Toluene	236	2.00	--	890	7.53	--		10
Dibromochloromethane	ND	2.00	--	ND	17.0	--		10

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1102980
Report Date: 03/14/11

SAMPLE RESULTS

Lab ID: L1102980-01 D
Client ID: INFLUENT
Sample Location: HYDE PARK
Date Collected: 03/04/11 08:32
Date Received: 03/07/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab								
1,2-Dibromoethane	ND	2.00	--	ND	15.4	--		10
Tetrachloroethene	1780	2.00	--	12000	13.6	--	E	10
Chlorobenzene	2.04	2.00	--	9.38	9.20	--		10
Ethylbenzene	27.8	2.00	--	120	8.68	--		10
p/m-Xylene	61.3	4.00	--	266	17.4	--		10
Bromoform	ND	2.00	--	ND	20.6	--		10
Styrene	ND	2.00	--	ND	8.51	--		10
1,1,2,2-Tetrachloroethane	ND	2.00	--	ND	13.7	--		10
o-Xylene	59.7	2.00	--	259	8.68	--		10
1,3-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,4-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2,4-Trichlorobenzene	ND	5.00	--	ND	37.1	--		10
Naphthalene	ND	2.00	--	ND	10.5	--		10
Hexachlorobutadiene	ND	2.00	--	ND	21.3	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	82		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	92		60-140

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1102980
Report Date: 03/14/11

SAMPLE RESULTS

Lab ID: L1102980-01 D2
Client ID: INFLUENT
Sample Location: HYDE PARK
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 03/11/11 11:18
Analyst: RY

Date Collected: 03/04/11 08:32
Date Received: 03/07/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
1,1,1-Trichloroethane	814	20.8	--	4440	113	--		103.8
Trichloroethene	2120	20.8	--	11400	111	--		103.8
Tetrachloroethene	1520	20.8	--	10300	141	--		103.8

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	87		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	93		60-140

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1102980
Report Date: 03/14/11

SAMPLE RESULTS

Lab ID: L1102980-02
Client ID: EFFLUENT
Sample Location: HYDE PARK
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 03/11/11 02:15
Analyst: RY

Date Collected: 03/04/11 08:21
Date Received: 03/07/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	0.544	0.200	--	1.39	0.511	--		1
Bromomethane	ND	0.200	--	ND	0.776	--		1
Acetone	1.44	1.00	--	3.41	2.37	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Methylene chloride	23.7	1.40	--	82.2	4.86	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
2-Butanone	ND	0.200	--	ND	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.638	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		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	0.720	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1

Project Name: LEWIS CHEMICAL ***Lab Number:*** L1102980

Project Number: 221375.01 ***Report Date:*** 03/14/11

SAMPLE RESULTS

Lab ID: L1102980-02 Date Collected: 03/04/11 08:21

Client ID: EFFLUENT Date Received: 03/07/11

Sample Location: HYDE PARK Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.500	--	ND	3.71	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	75		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	84		60-140

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1102980
Report Date: 03/14/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 03/10/11 17:25

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG458206-4								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Bromomethane	ND	0.200	--	ND	0.776	--		1
Acetone	ND	1.00	--	ND	2.37	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Methylene chloride	ND	1.40	--	ND	4.86	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
2-Butanone	ND	0.200	--	ND	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.638	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		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	0.720	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1102980
Report Date: 03/14/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 03/10/11 17:25

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG458206-4								
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.500	--	ND	3.71	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1102980
Report Date: 03/14/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG458206-3							
Vinyl chloride	90		-		70-130	-		
Bromomethane	89		-		70-130	-		
Acetone	92		-		50-150	-		
1,1-Dichloroethene	88		-		70-130	-		
Methylene chloride	87		-		70-130	-		
trans-1,2-Dichloroethene	85		-		70-130	-		
1,1-Dichloroethane	91		-		70-130	-		
Methyl tert butyl ether	80		-		70-130			
2-Butanone	89		-		70-130	-		
cis-1,2-Dichloroethene	82		-		70-130	-		
Chloroform	92		-		70-130	-		
1,2-Dichloroethane	88		-		70-130	-		
1,1,1-Trichloroethane	97		-		70-130	-		
Benzene	93		-		70-130	-		
Carbon tetrachloride	100		-		70-130	-		
1,2-Dichloropropane	99		-		70-130	-		
Bromodichloromethane	98		-		70-130			
1,4-Dioxane	92		-		50-150	-		
Trichloroethene	98		-		70-130	-		
cis-1,3-Dichloropropene	96		-		70-130	-		
4-Methyl-2-pentanone	100		-		70-130			

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1102980
Report Date: 03/14/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab	Associated sample(s): 01-02 Batch: WG458206-3							
trans-1,3-Dichloropropene	84		-		70-130	-		
1,1,2-Trichloroethane	106		-		70-130	-		
Toluene	95		-		70-130	-		
Dibromochloromethane	108		-		70-130	-		
1,2-Dibromoethane	100		-		70-130	-		
Tetrachloroethene	98		-		70-130	-		
Chlorobenzene	100		-		70-130	-		
Ethylbenzene	94		-		70-130	-		
p/m-Xylene	100		-		70-130	-		
Bromoform	102		-		70-130	-		
Styrene	97		-		70-130	-		
1,1,2,2-Tetrachloroethane	112		-		70-130	-		
o-Xylene	108		-		70-130	-		
1,3-Dichlorobenzene	113		-		70-130	-		
1,4-Dichlorobenzene	112		-		70-130	-		
1,2-Dichlorobenzene	111		-		70-130	-		
1,2,4-Trichlorobenzene	108		-		50-150	-		
Naphthalene	109		-		50-150	-		
Hexachlorobutadiene	119		-		50-150	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1102980
Report Date: 03/14/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG458206-5 QC Sample: L1102980-01 Client ID: INFLUENT						
Vinyl chloride	ND	2.18	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Acetone	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	2.28	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	9.06	9.89	ppbV	9		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	215	242	ppbV	12		25
Chloroform	ND	ND	ppbV	NC		25
1,2-Dichloroethane	4.90	5.87	ppbV	18		25
1,1,1-Trichloroethane	1000E	1090E	ppbV	9		25
Benzene	ND	ND	ppbV	NC		25
Carbon tetrachloride	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	2.42	ppbV	NC		25
Trichloroethene	2780E	3050E	ppbV	9		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1102980
Report Date: 03/14/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG458206-5 QC Sample: L1102980-01 Client ID: INFLUENT					
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	236	278	ppbV	16	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	1780E	2050E	ppbV	14	25
Chlorobenzene	2.04	2.31	ppbV	12	25
Ethylbenzene	27.8	33.3	ppbV	18	25
p/m-Xylene	61.3	70.8	ppbV	14	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	59.7	70.0	ppbV	16	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

Lab Duplicate Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1102980
Report Date: 03/14/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG458206-5 QC Sample: L1102980-01 Client ID: INFLUENT					
Naphthalene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG458206-5 QC Sample: L1102980-01 Client ID: INFLUENT					
1,1,1-Trichloroethane	814	897	ppbV	11	25
Trichloroethene	2120	2300	ppbV	19	25
Tetrachloroethene	1520	1610	ppbV	10	25

Project Name: LEWIS CHEMICAL **Lab Number:** L1102980

Project Number: 221375.01 **Report Date:** 03/14/11

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Cleaning Batch ID	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Out mL/min	Flow In mL/min	% RSD
L1102980-01	INFLUENT	423	2.7L Can	I1102445	-29.6	-0.5	-	-	-
L1102980-02	EFFLUENT	195	2.7L Can	I1102445	-29.6	1.5	-	-	-

Air Volatiles Can Certification

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1102445
Report Date: 03/14/11

Air Canister Certification Results

Lab ID: L1102445-01
Client ID: CAN 173 SHELF 10
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 02/25/11 17:34
Analyst: BS

Date Collected: 02/23/11 00:00
Date Received: 02/23/11
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 (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.606	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.988	--		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	0.776	--		1
Chloroethane	ND	0.200	--	ND	0.527	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.841	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.14	--		1
Acetone	ND	1.00	--	ND	2.37	--		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	0.200	--	ND	0.434	--		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	0.792	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1102445

Project Number: CANISTER QC BAT ***Report Date:*** 03/14/11

Air Canister Certification Results

Lab ID: L1102445-01 Date Collected: 02/23/11 00:00

Client ID: CAN 173 SHELF 10 Date Received: 02/23/11

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.622	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.589	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.923	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.704	--		1
Diisopropyl ether	ND	0.200	--	ND	0.835	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.835	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.907	--		1
Benzene	ND	0.200	--	ND	0.638	--		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	0.835	--		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	0.720	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1102445

Project Number: CANISTER QC BAT ***Report Date:*** 03/14/11

Air Canister Certification Results

Lab ID: L1102445-01 Date Collected: 02/23/11 00:00

Client ID: CAN 173 SHELF 10 Date Received: 02/23/11

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.923	--		1
2-Hexanone	ND	0.200	--	ND	0.819	--		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	2.37	--		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	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.982	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1102445

Project Number: CANISTER QC BAT ***Report Date:*** 03/14/11

Air Canister Certification Results

Lab ID: L1102445-01 Date Collected: 02/23/11 00:00

Client ID: CAN 173 SHELF 10 Date Received: 02/23/11

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	1.28	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
n-Propylbenzene	ND	0.200	--	ND	0.982	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.982	--		1
1,3,5-Trimethybenzene	ND	0.200	--	ND	0.982	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.982	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.03	--		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

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1102445

Project Number: CANISTER QC BAT ***Report Date:*** 03/14/11

Air Canister Certification Results

Lab ID: L1102445-01 Date Collected: 02/23/11 00:00

Client ID: CAN 173 SHELF 10 Date Received: 02/23/11

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	103		60-140
Bromochloromethane	111		60-140
chlorobenzene-d5	92		60-140

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1102445

Project Number: CANISTER QC BAT ***Report Date:*** 03/14/11

Air Canister Certification Results

Lab ID: L1102445-01
Client ID: CAN 173 SHELF 10
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 02/25/11 17:34
Analyst: BS

Date Collected: 02/23/11 00:00
Date Received: 02/23/11
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								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		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	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.403	--		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	0.020	--	ND	0.072	--		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 ***Lab Number:*** L1102445

Project Number: CANISTER QC BAT ***Report Date:*** 03/14/11

Air Canister Certification Results

Lab ID: L1102445-01 Date Collected: 02/23/11 00:00

Client ID: CAN 173 SHELF 10 Date Received: 02/23/11

Sample Location: 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
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		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	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.206	--		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	0.500	--	ND	2.46	--		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	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1102445
Report Date: 03/14/11

Air Canister Certification Results

Lab ID: L1102445-01
Client ID: CAN 173 SHELF 10
Sample Location:
Date Collected: 02/23/11 00:00
Date Received: 02/23/11
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								
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

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1102445

Project Number: CANISTER QC BAT ***Report Date:*** 03/14/11

Air Canister Certification Results

Lab ID: L1102445-01 Date Collected: 02/23/11 00:00

Client ID: CAN 173 SHELF 10 Date Received: 02/23/11

Sample Location: 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								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	116		60-140
chlorobenzene-d5	92		60-140

AIR Petro Can Certification

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1102445

Project Number: CANISTER QC BAT **Report Date:** 03/14/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102445-01	Date Collected:	02/23/11 00:00
Client ID:	CAN 173 SHELF 10	Date Received:	02/23/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	02/25/11 17:34		
Analyst:	BS		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1102980
Report Date: 03/14/11

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**
Cooler
N/A Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1102980-01A	Canister - 2.7 Liter	N/A	NA		NA	Present/Intact	MCP-TO15(30)
L1102980-02A	Canister - 2.7 Liter	N/A	NA		NA	Present/Intact	MCP-TO15(30)

*Values in parentheses indicate holding time in days

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1102980
Project Number:	221375.01	**Report Date:**	03/14/11

GLOSSARY

Acronyms

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.

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.

NI - Not Ignitable.

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.

Terms

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 five times (5x) 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.

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 RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

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. 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

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1102980
Project Number:	221375.01	**Report Date:**	03/14/11

Data Qualifiers

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.

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: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1102980
Report Date: 03/14/11

REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

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.

Certificate/Approval Program Summary

Last revised March 3, 2011 ï Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570B, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA, 245.1, 245.7, 1631E, 180.1, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B. Organic Parameters: EPA 8081, 8082, 8260B, 8270C.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 3060A, 6020A, 7470A, 7471A, 9040B, 9045C, 7196A. Organic Parameters: SW-846 3540C, 3580, 3630C, 3640A, 3660B, 3665A, 5035, 8260B, 8270C, 8015D, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, SM2320B, EPA 200.8, SM2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 7470A, 9040B, 6020, 9010B, 9014 Organic Parameters: SW-846 3510C, 3580A, 5030B, 5035L, 5035H, 3630C, 3640C, 3660B, 3665A, 8015B 8081A, 8082, 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9040B, 9045C, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 5030B, 5035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 9014, 9040B, 120.1, SM2510B, 4500CN-E, 4500H-B, EPA 376.2, 180.1, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8082, 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020, 7196A, 3060A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 1312, 3050B, 3580, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via LA-DEQ.***

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 2510B, EPA 120.1, 180.1, 1631E, 245.7.)

Solid & Chemical Materials (Inorganic Parameters: EPA 9040, 9060, 6020, 7470, 7471, 7474. Organic Parameters: EPA 8081, 8082, 8015 Mod, 8270, 8260.)

U.S. Army Corps of Engineers

Department of Defense Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 5030B, 8260B, 8270C, 8270C-ALK-PAH, 8082, 8081A, 8015D-SHC.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 5035A, 8260B, 8270C, 8270-ALK-PAH, 8082, 8081A, 8015D-SHC, 8015-DRO.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl.

Serial_No:03141114:22

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:

ALPHA Job #: L1102980

Client Information

Client: Woodard & Curran
Address: Dedham MA
980 Washington St.
Phone: 781-251-0200
Fax:
Email: dclinton@woodardcurran.com

☒ These samples have been previously analyzed by Alpha

Project Information

Project Name: Lewis Chemical
Project Location: 221375.01
Project #: Hyde Park, MA
Project Manager: C. Blake
ALPHA Quote #:

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	Criteria
MA	MCP	

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection 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-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
2980-01	Influent	3/4/11	831	832	-24	-5	SV	SD	1L	423	NA		X						TVOC-PID = 0.6 ppm
02	Effluent	3/4/11	820	821	-25	-5	SV	SD	1L	195	NA		X						TVOC-PID = 0.2 ppm

*SAMPLE MATRIX CODES

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

Container Type		5						

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:
Brent V. Gilles	3/7/11 1355		3/7/11 1355
	3/8/11 1650		3/8/11 1650
P. Gillant 3/8/11 1030	3/8/11	P. Gillant	3/8/11 930
K. Lemieux 3/8/11 10130			

ANALYTICAL REPORT

Lab Number:	L1018344
Client:	Woodard & Curran 980 Washington Street Dedham, MA 02026
ATTN:	Craig Blake
Phone:	(781) 251-0200
Project Name:	LEWIS CHEMICAL
Project Number:	221375.01
Report Date:	11/23/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1018344
Report Date: 11/23/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1018344-01	VGAC1-111510	HYDE PARK	11/15/10 13:40

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1018344
Report Date: 11/23/10

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 all of the requirements of NELAC, for all NELAC accredited parameters. 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. 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. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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.

For additional information, please contact Client Services at 800-624-9220.

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: Michelle M. Morris

Title: Technical Director/Representative Date: 11/23/10

ORGANICS

VOLATILES

Project Name: LEWIS CHEMICAL
Project Number: 221375.01
Lab Number: L1018344
Report Date: 11/23/10

SAMPLE RESULTS

Lab ID: L1018344-01
Client ID: VGAC1-111510
Sample Location: HYDE PARK
Matrix: Solid
Analytical Method: 1,8260B
Analytical Date: 11/22/10 19:11
Analyst: MM

Date Collected: 11/15/10 13:40
Date Received: 11/16/10
Field Prep: Not Specified

TCLP/SPLP Ext. Date: 11/18/10 16:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	7.5	--	10
Carbon tetrachloride	ND		ug/l	5.0	--	10
Tetrachloroethene	6.2		ug/l	5.0	--	10
Chlorobenzene	ND		ug/l	5.0	--	10
1,2-Dichloroethane	150		ug/l	5.0	--	10
Benzene	ND		ug/l	5.0	--	10
Vinyl chloride	ND		ug/l	10	--	10
1,1-Dichloroethene	11		ug/l	5.0	--	10
Trichloroethene	280		ug/l	5.0	--	10
1,4-Dichlorobenzene	ND		ug/l	25	--	10
2-Butanone	ND		ug/l	50	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	106		70-130

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1018344
Report Date: 11/23/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260B
Analytical Date: 11/22/10 17:37
Analyst: MM
TCLP Extraction Date: 11/18/10 16:00

Extraction Date: 11/18/10 16:00

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Volatiles by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG444495-3					
Chloroform	ND		ug/l	7.5	--
Carbon tetrachloride	ND		ug/l	5.0	--
Tetrachloroethene	ND		ug/l	5.0	--
Chlorobenzene	ND		ug/l	5.0	--
1,2-Dichloroethane	ND		ug/l	5.0	--
Benzene	ND		ug/l	5.0	--
Vinyl chloride	ND		ug/l	10	--
1,1-Dichloroethene	ND		ug/l	5.0	--
Trichloroethene	ND		ug/l	5.0	--
1,4-Dichlorobenzene	ND		ug/l	25	--
2-Butanone	ND		ug/l	50	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	100		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1018344
Report Date: 11/23/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Volatiles by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG444495-1 WG444495-2								
Chloroform	96		95		70-130	1		20
Carbon tetrachloride	89		93		70-130	4		20
Tetrachloroethene	105		105		70-130	0		20
Chlorobenzene	91		89		75-130	2		20
1,2-Dichloroethane	92		88		70-130	4		20
Benzene	96		95		76-127	1		20
Vinyl chloride	98		96		70-130	2		20
1,1-Dichloroethene	97		98		61-145	1		20
Trichloroethene	97		94		71-120	3		20
1,4-Dichlorobenzene	100		101		70-130	1		20
2-Butanone	85		89		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		94		70-130
Toluene-d8	95		96		70-130
4-Bromofluorobenzene	90		89		70-130
Dibromofluoromethane	101		101		70-130

Project Name: LEWIS CHEMICAL
Project Number: 221375.01

Lab Number: L1018344
Report Date: 11/23/10

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information	Custody Seal
Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1018344-01A	Vial Large unpreserved	A	N/A	2	Y	Absent	TCLP-EXT-ZHE(14),TCLP-VOA(14)

*Values in parentheses indicate holding time in days

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1018344
Project Number:	221375.01	**Report Date:**	11/23/10

GLOSSARY

Acronyms

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.

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.

NI - Not Ignitable.

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.

Terms

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 five times (5x) 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.

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.

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

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

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. 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.

Report Format: Data Usability Report

Project Name:	LEWIS CHEMICAL	**Lab Number:**	L1018344
Project Number:	221375.01	**Report Date:**	11/23/10

Data Qualifiers

RE - Analytical results are from sample re-extraction.

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:	LEWIS CHEMICAL	**Lab Number:**	L1018344
Project Number:	221375.01	**Report Date:**	11/23/10

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

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.

Certificate/Approval Program Summary

Last revised July 19, 2010 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform ï Colilert (SM9223 P/A), E. Coli. ï Colilert (SM9223 P/A), HPC ï Pour Plate (SM9215B), Fecal Coliform ï MF m-FC (SM9222D))
Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform ï MF mEndo (SM9222B), Total Coliform ï MTF (SM9221B), HPC ï Pour Plate (SM9215B), Fecal Coliform ï MF m-FC (SM9222D), Fecal Coliform ï A-1 Broth (SM9221E).)
Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3ôDichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)
Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)
*Solid Waste/Soil (*Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water
Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)
(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate)
353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B.
Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)
(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), 314.0, 332.
Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; MF-SM9222D
Non-Potable Water
Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)
(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)
245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)
Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)
Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)
Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500Cl-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, S\M3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)
Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Non-Potable Water (Organic Parameters: EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)
Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NY-DOH Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Department of Defense Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A , 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

Serial_No:11231015:35

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 11/16/10

ALPHA Job #: L1018344

Client Information

Client: Woodard + Curran
Address: Dedham, MA
Phone:
Fax:
Email: dclinton@woodardcurran.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Lewis Chemical
Project Location: Hyde Park
Project #: 221375.01
Project Manager: C. Blake
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 11/23/10 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program MA Criteria —

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required , indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All ***CAM*** methods for inorganic analyses require MS every 20 soil samples)

Sample is carbon from SVE System off-gas controls

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: TCLP VOCs	SAMPLE HANDLING: Filtration ☐ Done ☒ Not needed ☐ Lab to do; Preservation ☐ Lab to do (Please specify below)	Sample Specific Comments	TOTAL # BOTTLES
18344.1	VGAC1-111510	11/15/10	1340	X	DRC	2			1
								X-Carbon	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

	Container Type	C												
	Preservative	A												

Relinquished By:	Date/Time	Received By:	Date/Time
	11/15/10 1500		11/16/10 12:15
	11/16/10 1615		11/16/10 1615

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.

FORM NO: 01-01 (rev. 18-Jan-2010)