HAZARDOUS WASTE/CONTAMINATED MATERIALS INVENTORY REPORT

AND

POLYCHLORINATED BIPHENYLS IN OILS

FOR THE

SILO CITY
AMERICAN BUILDING

85 SILO CITY ROW
BUFFALO, NEW YORK

FEBRUARY 2020

PREPARED FOR:
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EXECUTIVE SUMMARY

Watts Architecture & Engineering (Watts) was retained by Generation Development Group to perform a Hazardous Waste/Contaminated Materials Inventory and polychlorinated biphenyls in oil investigation for the Silo City American Building located at 85 Silo City Row in Buffalo, New York. The American Building consists of two buildings, a five story northern section and an eight story southern section. The buildings are currently being considered for conversion into a mixed-use community (i.e., housing, office space, retail, etc.).

At the time of the Watts' site visits, the facility was without power or lights and areas were determined not accessible due to safety concerns, lack of structural integrity in floors and the lower roof on the east side of Building 2. In accessible areas included the Building 1 penthouse above the bank of 56 silos; the southeast area of the fourth floor of Building 1 by the silos and freight elevator; the eighth floor penthouse in Building 2; the south end of building 2 past the bank of 18 solos;, and the south end basement in Building 2. Fallen plaster and machinery also cover areas of floors. Hazardous materials may also be present in areas that are not exposed or accessible. Asbestos (pipe insulation and/or flooring) may be present in areas not accessible. Further identification and delineation of hazardous materials may be needed as portions of the facility are accessed and/or non-hazardous debris is removed.

This Hazardous Waste/Contaminated Materials Inventory was performed to identify suspect materials including mechanical and operational equipment, universal wastes, hazardous substances, and other materials that must be removed for proper disposal prior to the renovation of Buildings 1 and 2. Work did not include the completion of a Phase I Environmental Site Assessment or any Phase II intrusive investigating other than those described in this report.

The field survey was conducted between January 28th and 29th, 2020 and resulted in the following general observations:

- Several drinking fountains are located throughout the buildings. These units must be examined and any refrigerants associated with these drinking fountains must be recovered prior to their disposal.
- Universal Wastes are located throughout the building including fluorescent lights, high-intensity discharge (HID) lamps and batteries used for backup power for the life safety systems (emergency lights). These materials must be properly removed and packaged for subsequent recycling/treatment/recovery.
- Mechanical equipment scheduled to be removed must be dismantled in a manner to prevent the release of associated chemicals and lubricants to the environment. Results of testing of oils associated with some of mechanical equipment were less than 50 ppm PCBs.
- The ballasts associated with the building fluorescent light fixtures were inspected for environmental concerns. The ballast are not labelled as non-PCB and based on the age of the buildings are assumed to contain PCBs. All ballasts must be properly handled,

packaged, and processed for recycling/disposal.

- There are four transformers associated with the two buildings (2 in Building 1 and 2 in Building 2). Results of testing of oils associated with two of transformers (one in each building) were less than 50 ppm. There is one large transformer in Building 2 that had a sticker noting that the oils within the transformer were less than 50 ppm and was not tested. There is also a transformer that is located on the outside of the third floor of Building 1 (north side) and was not accessible.
- One elevator mechanical room is associated with Building 1. In addition to the mechanical equipment there are containers filled with lubricants.
- There is a small x-ray unit in Building 1. The x-ray was used as part of the on-site laboratory research.
- Results of testing of oils associated with transformers and mechanical equipment were less than 50 ppm PCBs.

1.0 – BACKGROUND INFORMATION

1.0 BACKGROUND INFORMATION

Watts Architecture & Engineering (Watts) was retained by Generation Development Group to perform a Hazardous Waste/Contaminated Materials Inventory for the former American Malting Company Buildings 1 and 2 located at 878 Childs Street in Buffalo, New York. The buildings are currently being considered for conversion into a mixed-use community (i.e., housing, office space, retail, etc.).

The American Malting Company Buildings 1 and 2 are located on the north side of the former Childs Street adjacent to the Buffalo River. Building 1 was originally built in 1906 and consisted of two five story sections (north and south sections). In 1923 the southern portion of Building 1 was demolished and replaced with Building 2, an eight story structure.

Building 1 was originally used as a malt house to prepare malt to sell to brewers. The 1923 addition of Building 2 converted the complex to flour production. The facility ceased operations in1963 and has been mostly vacant ever since.

Photographs can be found in Appendix A. The photographs show current conditions as they existed at the time of the investigation. The photographs were taken by Watts during the inspection of the buildings.

Since the buildings are scheduled for renovation, hazardous waste/contaminated materials (HW/CM) must be identified and removed prior to renovation. The presence, location, and quantities of these materials must be determined to allow for proper planning and budgeting of the project and to secure the safety and health of workers and the public during the renovation work.

Potential environmental issues investigated during the inspection of the buildings include such items of concern as mercury containing light bulbs; PCB (Polychlorinated biphenyls)/DEHP (Di-2-ethylhexyl phthalate) containing liquid-filled capacitors within fluorescent light ballasts; emergency exit lighting and other equipment containing batteries; ozone depleting substances used for refrigeration associated with water fountains; PCB (Polychlorinated biphenyls containing oils associated with transformers and mechanical equipment and other site-specific environmental concerns. This Hazardous Waste/Contaminated Materials report documents the potential environmental concerns and hazardous materials identified within the buildings.

Watts also completed pre-renovation building surveys for asbestos-containing materials, lead-based paint, and PCBs in caulk. These reports are found under separate cover.

2.0 – SITE RECONNAISSANCE

2.0 SITE RECONNAISSANCE

Watts' personnel performed an inspection of the buildings between January 28th and 29th, 2020. The buildings were vacant at the time of the site reconnaissance.

Watts observed and cataloged numerous items that will require segregation and proper disposal in accordance with the regulations, including fluorescent light bulbs and ballasts; batteries emergency lights; ozone depleting substances associated with water coolers; fire extinguishers; and various building materials that potentially may contain asbestos, lead, and PCBs.

The items of concern and respective approximate quantities identified during the inspection are listed in the following tables. These quantities should be used as a gauge to determine the effort and cost associated with their removal prior to renovation/demolition.

Oils and hydraulic fluids associated with interior electrical transformers and mechanical equipment were tested for the presence of PCBs for proper handling and disposal. One electrical transformer on the exterior of the third floor of the Building 1 was not able to be tested at the time of Watts' investigation. Also there is an electrical transformer on the second floor of Building 2 that was not tested at the time of Watts investigation, however there was a sticker on the transformer that stated the oil had been tested and was determined to be non-PCB. Some staining was observed on the exterior wall, however, the floor was covered in several inches of ice and water. Further investigation will be required.

TABLE 2-1
HAZARDOUS WASTE/CONTAMINATED MATERIALS INVENTORY
IDENTIFIED MATERIALS
Former American Malting Company Buildings 1 & 2

Material Identified	Location	Item Size / Description	Est. Number of Items		Notes
			Building 1	Building 2	
Fluorescent Light Bulbs	See floor location table in Appendix B	4 Foot in Size	312	602	Contain mercury. **Universal Waste.**
High Intensity Discharge Lights	See floor location table in Appendix B	High Intensity Discharge Lights	69	60	Contain mercury. **Universal Waste.**

TABLE 2-1 HAZARDOUS WASTE/CONTAMINATED MATERIALS INVENTORY IDENTIFIED MATERIALS Former American Malting Company Buildings 1 & 2					
Material Identified	Location	Item Size / Description	Est. Number of Items		Notes
			Building 1	Building 2	
Fluorescent Light Ballasts	See floor location table in Appendix B	Associated with all fluorescent light fixtures. The ballasts are assumed to be liquid filled capacitors containing PCB or DEHP.	149	301	During bulb removal contractor is to inspect all ballasts. Assume all ballasts with liquid filled capacitors contain PCB or DEHP fluids and properly disposed of. Any ballasts leaking PCB must be incinerated. See photos.
High Intensity Discharge Lights Ballasts	Building 2 1st Floor	Large canister ballast associated with high intensity discharge light fixtures		15	During removal contractor is to inspect all ballasts. Assume all ballasts with liquid filled capacitors contain PCB or DEHP fluids and need to be properly disposed of. See photos.
Mercury Thermostats or switches	See floor location table in Appendix B	Gauge Mounted	4	6	Contain mercury. **Universal Waste.**
Batteries (e.g. exit signs, emergency lighting, battery banks, etc.)	See floor location table in Appendix B	Emergency lighting and life systems support	8	17	Lead/Cadmium in batteries. **Universal Waste.** See photos.
Ozone Depleting Substances	See floor location table in Appendix B	Drinking Fountains	1	3	Internal compressors are assumed to contain refrigerant. See photos.
Fire Extinguishers	See floor location table in Appendix B	Hand held	4	1	Require proper disposal. See photos.
Miscellaneous Pumps, Compressors, and Machines	See floor location table in Appendix B	Various Sizes	66	52	Liquids including fuels, oils, greases and other additives should be removed prior to salvage/ recycling/disposal. See photos.

TABLE 2-1 HAZARDOUS WASTE/CONTAMINATED MATERIALS INVENTORY IDENTIFIED MATERIALS Former American Malting Company Buildings 1 & 2					
Material Identified	Location	Item Size / Description	Est. Number of Items		Notes
			Building 1	Building 2	
Gas Cylinders	See floor location table in Appendix B	336 CF Cylinders	12	0	Requires proper handling/disposal. See photos.
Transformers	Interior Exterior	Oil filled	1 1	2 0	Oils associated with interior transformers were found to be less than 50ppm. The exterior transformer on Building 1 needs to be tested.
Elevators	Interior	Traction Control (cable system)	1	1	Machine room motors contain oil. Lubricants found in elevator room. Shock absorber may be found in the bottom of elevator shaft. Oils and lubricants require proper disposal and can contain PCBs.
Miscellaneous Chemicals 1 gallon or less	See floor location table in Appendix B	Various sizes	6	3	Dispose of properly.
Miscellaneous Chemicals 55 gallon	See floor location table in Appendix B	55 Gallon Drum	0	2	Dispose of properly.

3.0 – SUMMARY TOTALS OF IDENTIFIED MATERIALS

3.0 SUMMARY TOTALS OF IDENTIFIED MATERIALS

3.1 Fluorescent Lights

Currently, almost all fluorescent lamps, when tested, are characterized as a hazardous waste due to their mercury content. On July 6, 1999, the United States Environmental Protection Agency (EPA) published a final rule in the Federal Register that added hazardous waste lamps to the Universal Waste Rule. On October 22, 1999, NYSDEC issued an Enforcement Directive to allow hazardous waste lamps to be regulated as universal wastes. The Universal Waste Rule allows for less stringent standards for storing, transporting and collecting wastes, however, they still must comply will full hazardous waste requirements for final recycling, treatment or disposal. Disposal/recycling of fluorescent bulbs is conducted by various vendors. Disposal/recycling involves packaging fluorescent lamps to avoid breakage, proper labeling, shipping them by an approved transporter and compliance with applicable disposal regulations.

After conducting the site investigation, Watts estimates that there are approximately 914 fluorescent bulbs in various locations of Buildings 1 and 2. Unless reused, all these should be removed and properly packaged for recycling or disposal. Fluorescent lights were found in light fixtures throughout the buildings. Limited areas of the building were lit by incandescent bulbs, which are not regulated under the Universal Waste Rule.

3.2 Batteries

Watts identified approximately twenty-five (25) batteries associated with the emergency lights throughout the two buildings. The batteries likely contain lead, nickel, silver, and cadmium and should be removed for proper disposal under the Universal Waste Rule.

3.3 Ozone Depleting Substances

Watts observed four (4) drinking water fountains that are presumed to contain ozone depleting refrigerants that must be properly recovered prior to disposal.

Refrigerants must be recovered by a licensed heating, ventilation, and air conditioning (HVAC) contractor. The removal and disposal of ozone depleting substances, such as Freon, require the recovery and disposal to be in compliance with Section 608 of the Federal Clean Air Act (CAA).

3.4 PCB/DEHP Light Ballasts & Transformers

Before the EPA banned the use of PCB's in 1978, PCBs were used within liquid-

filled capacitors inside of fluorescent light ballasts, high discharge light ballast and electrical transformers. None of the ballasts contained information printed on the ballast that indicated the ballasts were non-PCB. Given the age of the units, it is probable that PCB-containing ballasts are present.

Please note that, all oil-filled light ballasts manufactured since 1978 which do not contain PCBs should be marked by the manufacturer with the statement on a 'No-PCB' sticker. The Toxic Substances Control Act (TSCA) regulates ballasts that contain PCBs under 40 CFR 761.60. In addition, the Comprehensive Emergency Response Compensation and Liability Act (CERCLA) regulates the disposal of non-leaking PCB-containing ballasts. CERCLA requires building owners and waste generators to notify the National Response Center at (800) 424-8802 when disposing a pound or more of PCBs (roughly the equivalent of twelve to sixteen (12-16) fluorescent ballasts) in a 24-hour period. New York State environmental regulations also apply to PCB light ballasts and reference labeling, storage, transportation and disposal of PCB ballasts. Disposal of PCB ballasts should be via high-temperature incineration (required if the ballast is leaking), recycling, or chemical/hazardous waste disposal.

Please also note that since the use of PCBs in small capacitors was banned by TSCA for all fluorescent light ballasts, DEHP (Di-2-ethylhexyl phthalate), a dielectric fluid became the closest substitute. DEHP was used in fluorescent light fixtures from 1980-1991 and it is estimated that approximately 25%-50% of currently installed ballasts or one-half of all non-PCB ballasts contain DEHP. However, DEHP is a probable human carcinogen and listed as a hazardous waste by the Resource Conservation and Recovery Act (RCRA) when it is discarded as a commercial chemical product. The Superfund Law (CERCLA), lists DEHP as a hazardous substance. As a result, the disposal of DEHP ballasts should be handled with the same precautions as the disposal of PCB containing ballasts. The proper disposal of DEHP containing ballasts is by recycling the metals, incineration of the capacitor, and receipt of a Certificate of Destruction.

Subsequent to the manufacturing of liquid-filled ballasts with PCBs followed by DEHP, manufacturers began using non-liquid filled capacitors within ballasts. These types of ballasts are often referred to as electronic ballasts and they contain a dry metallic capacitor. Electronic ballasts that do not contain liquid-filled capacitors will typically exceed RCRA lead toxicity limits for disposal, and as such, should be properly recycled.

Watts estimates that there are approximately 465 total ballasts located throughout the buildings that contain capacitors with environmental concerns associated with PCBs, DEHP, or the disposal of lead-containing capacitors. Watts recommends that the Contractor removing the fluorescent bulbs examine the labeling on the ballasts at the time of their removal to determine if the ballast

has a liquid filled or non-liquid filled capacitor within the ballast. All light ballasts manufactured since 1978 which do not contain PCBs should be marked by the manufacturer with statement a 'No-PCB' on the sticker. However, no manufacturers currently label with regards to use of or non-use of DEHP. Therefore, if the ballast contains a liquid filled capacitor, it should be properly disassembled, the capacitor incinerated, and the remaining materials within the ballast either properly recycled or disposed of. All ballasts that contain a non-liquid filled capacitor should be disassembled, the capacitor properly recycled, and the remaining materials within the ballast either properly recycled or disposed of.

In addition to the light ballast, Watts identified two electrical transformers associated with Building 1 (one interior/one exterior) and two (interior) electrical transformers associated with Building 2. Watts collected samples of the liquid in the interior transformer in Building 1 and of the liquid on the floor below the transformer on the first floor of Building 2. The exterior transformer associated with Building 1 is located on the exterior of the third floor and was inaccessible at the time of Watts visit. Prior to the removal of the exterior transformer it must be inspected for oil-filled dielectric fluid chambers and, if present, tested for the presence of PCBs. In addition, there is a large transformer on the second floor of Building 2 that had a label that stated the oils in the transformer were tested and determined to be less than 50 ppm.

Watts also collected a composite sample of sludge from three machinery drip pans on the third floor of Building 2 for PCB content. See Table 3-1 below for the results of the PCB sampling. For a copy of the laboratory analytical report, please see Appendix C – PCB Laboratory Reports and Chain-of-Custody Forms.

Table 3-1
POLYCHLORINATED BIPHENYLS (PCBs)
Silo City American Building
85 Silo City Row

PCB Concentration reported in milligrams per kilogram (mg/kg) (equivalent to ppm)

Sample Number	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Sample Description
20006-B1-001	ND	ND	ND	ND	ND	ND	ND	ND	0.041 J	4th Floor Building 1, Small Transfomer
20006-B2-001	ND	ND	ND	0.468 J	ND	ND	ND	ND	ND	1st Floor Building 2, below Transformers
20006-B2-001	ND	ND	ND	10.1	ND	ND	ND	ND	ND	3rd Floor Building 2, Machinery Drip Pan

J= Estimated value
All samples were less than the 50 ppm TSCA Regulatory threshold for PCBs.

3.5 Miscellaneous Hazardous Waste/Environmental Issues

Watts observed a limited number of chemical and product containers of various sizes throughout Buildings 1 and 2 along with a variety of mechanical equipment. These chemicals along with any lubricants associated with the machinery will need to be properly disposed of by a licensed contractor.

There is freight elevator associated with each of the buildings. Prior to any disturbance, the associated operational chemicals and lubricants should all be appropriately reclaimed, handled, and either recycled or properly disposed of. All hydraulic fluid should be tested for the presence of PCBs prior to handling or disposal.

APPENDIX A – SITE PHOTOGRAPHS

PHOTO #1- Photograph of the emergency exit lights (typical) with back-up battery.

PHOTO #2- Photograph of small x-ray unit in Building 1.

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HAZARDOUS WASTE/CONTAMINATED MATERIALS INVENTORY REPORT AND POLYCHLORINATED BIPHENOLS IN OIL

SILO CITY - AMERICAN BUILDING
85 SILO CITY ROW
BUFFALO, NEW YORK

PROJECT PHOTOGRAPHS

Watts Project No. 20006

PHOTO #3- Photograph of exterior transformer on Building 1.

PHOTO #2- Photograph of oxygen cylinders in Building 1.

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PROJECT PHOTOGRAPHS

Watts Project No. 20006

PHOTO #5- Photograph of ballast for high discharge lights.

PHOTO #6- Photograph of flourescent lifght fixtures (typical). Note, the light cover gaskets are asbestos-containing.

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PROJECT PHOTOGRAPHS

Watts Project No. 20006

PHOTO #7- Photograph of 55-gallon drum with unknown contents.

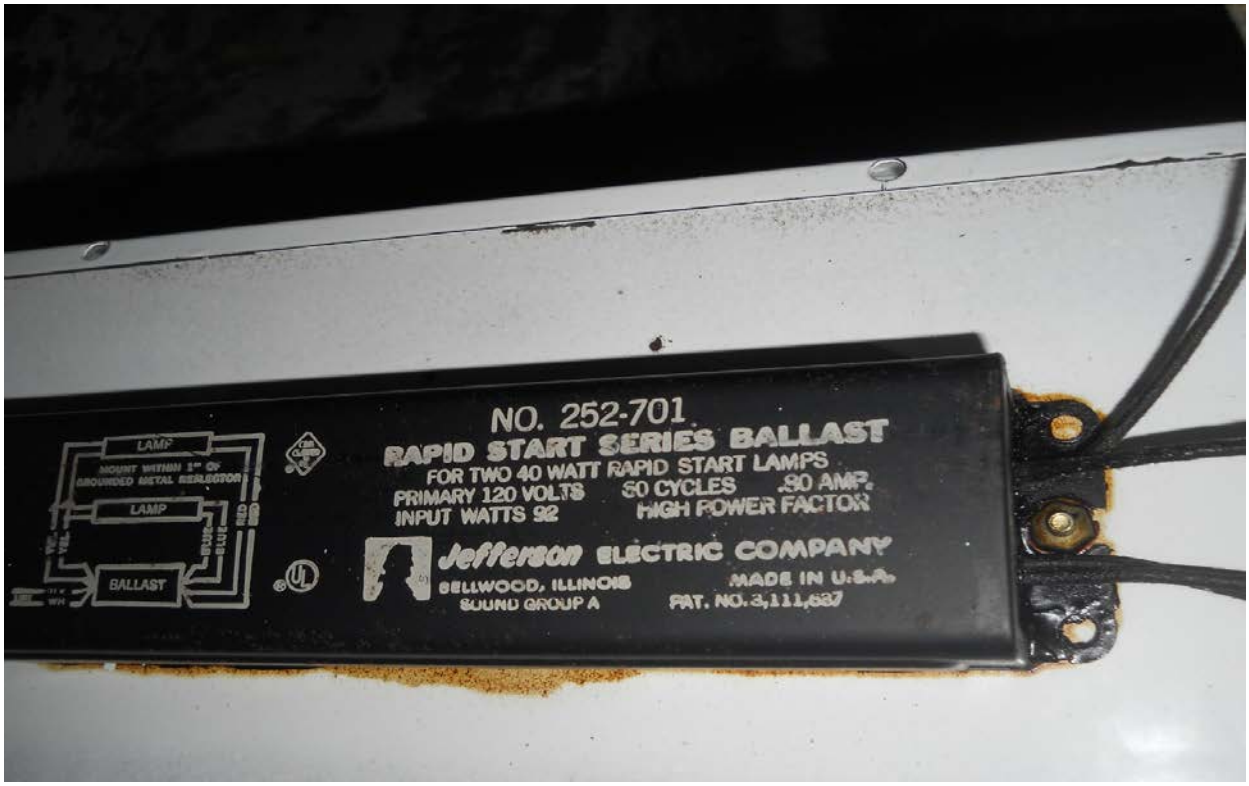

PHOTO #8- Photograph of flourescent light fixture ballast (typical).

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PROJECT PHOTOGRAPHS

Watts Project No. 20006

PHOTO #9- Photograph of the mercury-containing pressure control swithes.

PHOTO #10- Photograph of machinery in Building 2.

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PROJECT PHOTOGRAPHS

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PHOTO #11- Photograph of 1 gallon can of lubricating oil.

PHOTO #12- Photograph of high discharge lights.

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PROJECT PHOTOGRAPHS

Watts Project No. 20006

APPENDIX B – HW/CM INVENTORY BY BUILDING

TABLE B-1
SILO CITY AMERICAN BUILDING 85 SILO CITY ROW
BUILDING 1

First Floor	Drinking Fountain	High Discharge Lights	HID/Other Ballasts	4 Foot Fluor. Bulbs	<4 Foot Fluor. Bulbs	Fluor. Ballasts	Mercury Type Thermostats/ Thermometers & Switches	Fire Extinguishers	Emergency Ligts	Voltage Regulators	Misc. Pumps, Compressors, & Motors	Assumed PCB Transformers	Paint 1-Quart	Paint 1-Gallon	Paint 5-Gallons	Misc. Chemicals & Solvents	Misc. Chemicals & Solvents (1-gallon or less)	Misc. Chemicals & Solvents (5-gallon containers)	Misc. Chemicals & Solvents (30-55 gal drums)	Generator	Elevators
		4							1												1
		1																			
				16		8															
				8		4															
				2		1															
				4		2															
		46		6		3					24										
Totals		51		36	0	18	0	0	1		24										1

TABLE B-1
SILO CITY AMERICAN BUILDING 85 SILO CITY ROW
BUILDING 1

Second Floor	Drinking Fountain	High Discharge Lights	HID/Other Ballasts	4 Foot Fluor. Bulbs	<4 Foot Fluor. Bulbs	Fluor. Ballasts	Mercury Type Thermostats/ Thermometers & Switches	Fire Extinguishers	Emergency Ligts	Voltage Regulators	Misc. Pumps, Compressors, & Motors	Assumed PCB Transformers	Paint 1-Quart	Paint 1-Gallon	Paint 5-Gallons	Misc. Chemicals & Solvents (Spray Cans)	Misc. Chemicals & Solvents (1-gallon or less)	Misc. Chemicals & Solvents (5-gallon containers)	Misc. Chemicals & Solvents (30-55 gal drums)	Generator	Elevators
				2		1					1										
		1						1			5										
		1									13										
		1		2		1				3											
		2		2		2	2		1		2										
				16		8															
		1							1												
		4		2		2															
		1		34		14			1												
Totals		11		58	0	28	2	1	3		21					0	0				

TABLE B-1
SILO CITY AMERICAN BUILDING 85 SILO CITY ROW
BUILDING 1

Third Floor	Drinking Fountain	High Discharge Lights	HID/Other Ballasts	4 Foot Fluor. Bulbs	<4 Foot Fluor. Bulbs	Fluor. Ballasts	Mercury Type Thermostats/ Thermometers & Switches	Fire Extinguishers	Emergency Ligts	Voltage Regulators	Misc. Pumps, Compressors, & Motors	Assumed PCB Transformers	Paint 1-Quart	Paint 1-Gallon	Paint 5-Gallons	Misc. Chemicals & Solvents (Spray Cans)	Misc. Chemicals & Solvents (1-gallon or less)	Misc. Chemicals & Solvents (5-gallon containers)	Misc. Chemicals & Solvents (30-55 gal drums)	Generator	Elevators	gas cylinders
				12		4																
									1													
									1													
		1									2						1					12
				4		2																
				20		10																
				38		19		1	1		1											
				19		13																
				2		2					2											
				2		1																
				4		4																
	1			21		7																
				8		4																
				12		6																
						1																
				9		3																
		1		32		8	1					1										
				4		4						1										
				6		3		1	1		1											
Totals	1	2		193	0	91	1	2	4		6	2				0	1					12

TABLE 2-1
SILO CITY AMERICAN BUILDING 85 SILO CITY ROW
BUILDING 1

Fourth Floor	Drinking Fountain	High Discharge Lights	HID/Other Ballasts	4 Foot Fluor. Bulbs	<4 Foot Fluor. Bulbs	Fluor. Ballasts	Mercury Type Thermostats/ Thermometers & Switches	Fire Extinguishers	Emergency Ligts	Voltage Regulators	Misc. Pumps, Compressors, & Motors	Assumed PCB Transformers	Paint 1-Quart	Paint 1-Gallon	Paint 5-Gallons	Misc. Chemicals & Solvents (Spray Cans)	Misc. Chemicals & Solvents (1-gallon or less)	Misc. Chemicals & Solvents (5-gallon containers)	Misc. Chemicals & Solvents (30-55 gal drums)	Generator	Elevators
				4					1			1									
		1		4		2															
				2		2					1						3				
						2											2				
											1										
		1									5										
Totals		2		10	0	6	0				7					0	5				

TABLE B-1
SILO CITY AMERICAN BUILDING 85 SILO CITY ROW
BUILDING 1

Fifth Floor	Drinking Fountain	High Discharge Lights	HID/Other Ballasts	4 Foot Fluor. Bulbs	<4 Foot Fluor. Bulbs	Fluor. Ballasts	Mercury Type Thermostats/ Thermometers & Switches	Fire Extinguishers	Emergency Ligts	Voltage Regulators	Misc. Pumps, Compressors, & Motors	Assumed PCB Transformers	Paint 1-Quart	Paint 1-Gallon	Paint 5-Gallons	Misc. Chemicals & Solvents (Spray Cans)	Misc. Chemicals & Solvents (1-gallon or less)	Misc. Chemicals & Solvents (5-gallon containers)	Misc. Chemicals & Solvents (30-55 gal drums)	Generator	Elevators
							1				2										
				4		2					1										
		2									1										
		1									2										
				8		4					2										
Totals		3		12	0	6	1	1	0		8					0	0	0			

TABLE B-1
SILO CITY AMERICAN BUILDING A3385 SILO CITY ROW
BUILDING 1

Totals	Drinking Fountain	High Discharge Lights	4 Foot Fluor. Bulbs	PCB Fluor. Ballasts	Mercury Type Thermostats/	Fire Extinguishers	Emergency Ligt Batteries	Voltage Regulators	Misc. Pumps, Compressors, & Motors	Assumed PCB Transformers	Paint 1-Quart	Paint 1-Gallon	Paint 5-Gallons	(Spray Cans)	Misc. Chemicals & Solvents (1-gallon or less)	Misc. Chemicals & Solvents (5-gallon containers)	Misc. Chemicals & Solvents (30-55 gal drums)	Generator	Elevators	Gas Cylinders
First Floor		51	39	18			1		24										1	
Second Floor		11	58	28	2	1	3	3	21											
Third Floor	1	2	193	91	1	2	4		6	1					1					12
Fourth Floor		2	10	6					7	1					5					
Fifth Floor		3	12	6	1	1			8											
Total	1	69	312	149	4	4	8	3	66	2					6					12

TABLE B-2
SILO CITY AMERICAN BUILDING 85 SILO CITY ROW
BUILDING 2

First Floor	Drinking Fountain	High Discharge Lights	4 Foot Fluor. Bulbs	High Discharge Lights Ballast	Fluor. Ballasts	Mercury Type Thermostats/ Thermometers & Switches	Fire Extinguishers	Emergency Ligts	Voltage Regulators	Misc. Pumps, Compressors, & Motors	X-Formers	Paint 1-Quart	Paint 1-Gallon	Paint 5-Gallons	Misc. Chemicals & Solvents (Spray Cans)	Misc. Chemicals & Solvents (1-gallon or less)	Misc. Chemicals & Solvents (5-gallon containers)	Misc. Chemicals & Solvents (30-55 gal drums)	High Discharge Light Ballasts	Elevators
		1		15			1	2		6								1	15	1
		1								1										
		6															3			
		11	2		1						3									
		3																		
		1																		
			4		2					1										
Totals		23	6	15	3	0	1	2		8	3				0	0	3	1	15	1

TABLE B-2
SILO CITY AMERICAN BUILDING 85 SILO CITY ROW
BUILDING 2

Second Floor	Drinking Fountain	High Discharge Lights	4 Foot Fluor. Bulbs	<4 Foot Fluor. Bulbs	Fluor. Ballasts	Mercury Type Thermostats/ Thermometers & Switches	Fire Extinguishers	Emergency Ligts	Voltage Regulators	Misc. Pumps, Compressors, & Motors	X-Formers	Paint 1-Quart	Paint 1-Gallon	Paint 5-Gallons	Misc. Chemicals & Solvents (Spray Cans)	Misc. Chemicals & Solvents (1-gallon or less)	Misc. Chemicals & Solvents (5-gallon containers)	Misc. Chemicals & Solvents (30-55 gal drums)	Generator	Elevators
		2	14		7					2										
			2		1															
			12		6			1												
			2		1															
			12		6															
			3		2															
			8		2															
			2		1															
			4		2															
		3																		
		1																		
			2		1					1										
			2		1															
Totals		6	63	0	30	0		1		3					0	0				

TABLE B-2
SILO CITY AMERICAN BUILDING 85 SILO CITY ROW
BUILDING 2

Third Floor	Drinking Fountain	High Discharge Lights	4 Foot Fluor. Bulbs	<4 Foot Fluor. Bulbs	Fluor. Ballasts	Mercury Type Thermostats/ Thermometers & Switches	Fire Extinguishers	Emergency Ligts	Voltage Regulators	Misc. Pumps, Compressors, & Motors	X-Formers	Paint 1-Quart	Paint 1-Gallon	Paint 5-Gallons	Misc. Chemicals & Solvents (Spray Cans)	Misc. Chemicals & Solvents (1-gallon or less)	Misc. Chemicals & Solvents (5-gallon containers)	Misc. Chemicals & Solvents (30-55 gal drums)	Generator	Elevators	gas cylinders
			10		5			2		4											
			2		1																
			75		25					1							5				
		5								4											
		3																			
Totals		8	87		31			2		9							5				

TABLE B-2
SILO CITY AMERICAN BUILDING 85 SILO CITY ROW
BUILDING 2

Fourth Floor	Drinking Fountain	High Discharge Lights	4 Foot Fluor. Bulbs	<4 Foot Fluor. Bulbs	Fluor. Ballasts	Mercury Type Thermostats/ Thermometers & Switches	Fire Extinguishers	Emergency Ligts	Voltage Regulators	Misc. Pumps, Compressors, & Motors	X-Formers	Paint 1-Quart	Paint 1-Gallon	Paint 5-Gallons	Misc. Chemicals & Solvents (Spray Cans)	Misc. Chemicals & Solvents (1-gallon or less)	Misc. Chemicals & Solvents (5-gallon containers)	Misc. Chemicals & Solvents (30-55 gal drums)	Generator	Elevators
	1		8		4			2		6										
			116		58															
										1										
			4		1															
Totals	1	0	128	0	63	0		2		7					0	0				

TABLE B-2
SILO CITY AMERICAN BUILDING 85 SILO CITY ROW
BUILDING 2

Fifth Floor	Drinking Fountain	High Discharge Lights	4 Foot Fluor. Bulbs	<4 Foot Fluor. Bulbs	Fluor. Ballasts	Mercury Type Thermostats/ Thermometers & Switches	Fire Extinguishers	Emergency Ligts	Voltage Regulators	Misc. Pumps, Compressors, & Motors	X-Formers	Paint 1-Quart	Paint 1-Gallon	Paint 5-Gallons	Misc. Chemicals & Solvents (Spray Cans)	Misc. Chemicals & Solvents (1-gallon or less)	Misc. Chemicals & Solvents (5-gallon containers)	Misc. Chemicals & Solvents (30-55 gal drums)	Generator	Elevators
	1		6		3			2			1									
			120		60					4								1		
			6		2															
		4								2										
Totals	1	4	132	0	65	0		2		6					0	0	0	1		

TABLE B-2
SILO CITY AMERICAN BUILDING 85 SILO CITY ROW
BUILDING 2

Sixth Floor	Drinking Fountain	High Discharge Lights	4 Foot Fluor. Bulbs	<4 Foot Fluor. Bulbs	Fluor. Ballasts	Mercury Type Thermostats/ Thermometers & Switches	Fire Extinguishers	Emergency Ligts	Voltage Regulators	Misc. Pumps, Compressors, & Motors	X-Formers	Paint 1-Quart	Paint 1-Gallon	Paint 5-Gallons	Misc. Chemicals & Solvents (Spray Cans)	Misc. Chemicals & Solvents (1-gallon or less)	Misc. Chemicals & Solvents (5-gallon containers)	Misc. Chemicals & Solvents (30-55 gal drums)	Generator	Elevators
	1		12		6			2		3										
			66		33					4										
		2																		
Totals	1	2	78	0	39	0		2		7					0	0	0			

TABLE B-2
SILO CITY AMERICAN BUILDING 85 SILO CITY ROW
BUILDING 2

Seventh Floor	Drinking Fountain	High Discharge Lights	4 Foot Fluor. Bulbs	<4 Foot Fluor. Bulbs	Fluor. Ballasts	Mercury Type Thermostats/ Thermometers & Switches	Fire Extinguishers	Emergency Ligts	Voltage Regulators	Misc. Pumps, Compressors, & Motors	X-Formers	Paint 1-Quart	Paint 1-Gallon	Paint 5-Gallons	Misc. Chemicals & Solvents (Spray Cans)	Misc. Chemicals & Solvents (1-gallon or less)	Misc. Chemicals & Solvents (5-gallon containers)	Misc. Chemicals & Solvents (30-55 gal drums)	Generator	Elevators
		2	6		3			2												
			32		16															
		2																		
		3	4		2					3										
Totals		7	42		21			2		3										

TABLE B-2
SILO CITY AMERICAN BUILDING 85 SILO CITY ROW
BUILDING 2

Eight Floor	Drinking Fountain	High Discharge Lights	4 Foot Fluor. Bulbs	<4 Foot Fluor. Bulbs	Fluor. Ballasts	Mercury Type Thermostats/ Thermometers & Switches	Fire Extinguishers	Emergency Ligts	Voltage Regulators	Misc. Pumps, Compressors, & Motors	X-Formers	Paint 1-Quart	Paint 1-Gallon	Paint 5-Gallons	Misc. Chemicals & Solvents (Spray Cans)	Misc. Chemicals & Solvents (1-gallon or less)	Misc. Chemicals & Solvents (5-gallon containers)	Misc. Chemicals & Solvents (30-55 gal drums)	Generator	Elevators
			48		24			2												
			12		6					1										
						6				3										
		2								1										
		5	6		3					1										
		3								3										
Totals		10	66		33	6		2		9										

TABLE B-2
SILO CITY AMERICAN BUILDING 85 SILO CITY ROW
BUILDING 2

Totals	Drinking Fountain	High Discharge Lights	4 Foot Fluor. Bulbs	High Discharge Lights Ballast	PCB Fluor. Ballasts	Mercury Type Thermostats/	Fire Extinguishers	Emergency Light Batteris	Voltage Regulators	Misc. Pumps, Compressors, & Motors	Assumed PCB Transformers	Paint 1-Quart	Paint 1-Gallon	Paint 5-Gallons	Misc. Chemicals & Solvents	Misc. Chemicals & Solvents (1-gallon or less)	Misc. Chemicals & Solvents (5-gallon containers)	Misc. Chemicals & Solvents (30-55 gal drums)	High Discharge Light Ballasts	Elevators	Gas Cylinders
First Floor		23	6	15	19		1	16		8	3						3	1	15	1	
Second floor		6	63		30			1		3											
Third Floor		8	87		31					9						5					
Fourth Floor			128		63					7											
Fifth Floor	1	4	132		65					6								1			
Sixth Floor	1	2	78		39					7											
Seventh Floor	1	7	42		21					3											
Eight Floor		10	66		33	6				9											
Total	3	60	602		301	6	1	17		52	3					5	3	2	15	1	0

APPENDIX C – PCB LABORATORY REPORTS AND CHAIN-OF – CUSTODY FORMS

ANALYTICAL REPORT

Lab Number:	L2002442
Client:	Watts Architecture & Engineering P.C 95 Perry Street Suite 300 Buffalo, NY 14203
ATTN:	Ed Jones
Phone:	(716) 206-5100
Project Name:	SILOCITY AMERICAN MALT HOUSE
Project Number:	20006
Report Date:	01/24/20

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

Project Name: SILOCITY AMERICAN MALT HOUSE
Project Number: 20006

Lab Number: L2002442
Report Date: 01/24/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2002442-01	20006-B1-P01	WATER	85 SILOCITY ROW/CHILD ST, BUFFALO, NY	01/15/20 14:00	01/17/20

Project Name:	SILOCITY AMERICAN MALT HOUSE	**Lab Number:**	L2002442
Project Number:	20006	**Report Date:**	01/24/20

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	SILOCITY AMERICAN MALT HOUSE	**Lab Number:**	L2002442
Project Number:	20006	**Report Date:**	01/24/20

Case Narrative (continued)

Report Submission

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

PCBs

L2002442-01: The sample has elevated detection limits due to limited sample volume available for analysis.

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: 01/24/20

ORGANICS

PCBS

Project Name: SILOCITY AMERICAN MALT HOUSE **Lab Number:** L2002442

Project Number: 20006 **Report Date:** 01/24/20

SAMPLE RESULTS

Lab ID: L2002442-01
Client ID: 20006-B1-P01
Sample Location: 85 SILOCITY ROW/CHILD ST, BUFFALO, NY

Date Collected: 01/15/20 14:00
Date Received: 01/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 01/22/20 19:22
Analyst: AWS

Extraction Method: EPA 3510C
Extraction Date: 01/19/20 13:07
Cleanup Method: EPA 3665A
Cleanup Date: 01/19/20
Cleanup Method: EPA 3660B
Cleanup Date: 01/20/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.580	0.241	1	A
Aroclor 1221	ND		ug/l	0.580	0.466	1	A
Aroclor 1232	ND		ug/l	0.580	0.319	1	A
Aroclor 1242	ND		ug/l	0.580	0.272	1	A
Aroclor 1248	4.53		ug/l	0.580	0.342	1	B
Aroclor 1254	ND		ug/l	0.580	0.274	1	A
Aroclor 1260	ND		ug/l	0.580	0.224	1	A
Aroclor 1262	ND		ug/l	0.580	0.244	1	A
Aroclor 1268	ND		ug/l	0.580	0.234	1	A
PCBs, Total	4.53		ug/l	0.580	0.224	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	32		30-150	A
Decachlorobiphenyl	37		30-150	A
2,4,5,6-Tetrachloro-m-xylene	34		30-150	B
Decachlorobiphenyl	**27**	Q	30-150	B

Project Name: SILOCITY AMERICAN MALT HOUSE
Project Number: 20006
Lab Number: L2002442
Report Date: 01/24/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 01/20/20 21:31
Analyst: AWS

Extraction Method: EPA 3510C
Extraction Date: 01/19/20 13:07
Cleanup Method: EPA 3665A
Cleanup Date: 01/19/20
Cleanup Method: EPA 3660B
Cleanup Date: 01/20/20

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1331683-1						
Aroclor 1016	ND		ug/l	0.083	0.034	A
Aroclor 1221	ND		ug/l	0.083	0.067	A
Aroclor 1232	ND		ug/l	0.083	0.046	A
Aroclor 1242	ND		ug/l	0.083	0.039	A
Aroclor 1248	ND		ug/l	0.083	0.049	A
Aroclor 1254	ND		ug/l	0.083	0.039	A
Aroclor 1262	ND		ug/l	0.083	0.035	A
Aroclor 1268	ND		ug/l	0.083	0.034	A
Aroclor 1260	0.041	J	ug/l	0.083	0.032	B
PCBs, Total	0.041	J	ug/l	0.083	0.032	B

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	42		30-150	A
Decachlorobiphenyl	41		30-150	A
2,4,5,6-Tetrachloro-m-xylene	43		30-150	B
Decachlorobiphenyl	58		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: SILOCITY AMERICAN MALT HOUSE

Project Number: 20006

Lab Number: L2002442

Report Date: 01/24/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1331683-2 WG1331683-3									
Aroclor 1016	40		49		40-140	21		50	A
Aroclor 1260	55		62		40-140	12		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	38		47		30-150	A
Decachlorobiphenyl	40		46		30-150	A
2,4,5,6-Tetrachloro-m-xylene	37		46		30-150	B
Decachlorobiphenyl	43		62		30-150	B

Project Name: SILOCITY AMERICAN MALT HOUSE
Project Number: 20006

Lab Number: L2002442
Report Date: 01/24/20

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2002442-01A	Glass 60mL/2oz unpreserved	A	5	5	3.9	Y	Absent		NYTCL-8082-LVI(7)

*Values in parentheses indicate holding time in days

Project Name:	SILOCITY AMERICAN MALT HOUSE	**Lab Number:**	L2002442
Project Number:	20006	**Report Date:**	01/24/20

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	SILOCITY AMERICAN MALT HOUSE	**Lab Number:**	L2002442
Project Number:	20006	**Report Date:**	01/24/20

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

Terms

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.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

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

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

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

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

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

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

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

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

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

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

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

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

Report Format: DU Report with 'J' Qualifiers

Project Name:	SILOCITY AMERICAN MALT HOUSE	**Lab Number:**	L2002442
Project Number:	20006	**Report Date:**	01/24/20

Data Qualifiers

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	SILOCITY AMERICAN MALT HOUSE	**Lab Number:**	L2002442
Project Number:	20006	**Report Date:**	01/24/20

REFERENCES

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

ALPHA ANALYTICAL

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

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

NEW YORK CHAIN OF CUSTODY

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

Page 1 of 1

Date Rec'd in Lab: 1/18/20

ALPHA Job #: L2003442

Client Information

Client: Watts A E
Address: 95 perry st. Suite 300
Buffalo, NY 14203
Phone: (716) 206-5100
Fax:
Email: ejones@watts-ae.com

Project Information

Project Name: Silo City American Malt House 4th Floor Mill
Project Location: 85 Silo City Row/Child St. Buffalo, NY
Project #: 20006
(Use Project name as Project #): X
Project Manager: Edward Jones
ALPHAQuote #:

Turn-Around Time

Standard: X
Rush (only if pre approved): ☐
Due Date:
# of Days: 5 DAY TAT

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Fluid From small transformer test for PCBs

Please specify Metals or TAL.

Deliverables

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

Regulatory Requirement

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

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

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

ANALYSIS

PCBS 8082

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCBS 8082	Sample Specific Comments	Total Bottle
02442-01	20006-B1-P01 Building 1 4th Floor Small Transformer North storage corridor	01/15/20	2:00pm	H2O	EJ	X		

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

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

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

Container Type	G												
Preservative	A												

Relinquished By:	Date/Time	Received By:	Date/Time
Edward J Jones	01/17/20 9:30	AHL	1/17/20 09:30
AHL	1/17/20 1025		1/18/20 00:55

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

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

ANALYTICAL REPORT

Lab Number:	L2003528
Client:	Watts Architecture & Engineering P.C 95 Perry Street Suite 300 Buffalo, NY 14203
ATTN:	Kevin Janik
Phone:	(716) 206-5100
Project Name:	SILOCITY AMERICAN MALT
Project Number:	20006
Report Date:	02/03/20

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

Project Name: SILOCITY AMERICAN MALT
Project Number: 20006

Lab Number: L2003528
Report Date: 02/03/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2003528-01	20006-B2-001	SOIL	BUFFALO, NY	01/24/20 08:15	01/24/20
L2003528-02	20006-B-2-002	SOIL	BUFFALO, NY	01/24/20 11:00	01/24/20

Project Name:	SILOCITY AMERICAN MALT	**Lab Number:**	L2003528
Project Number:	20006	**Report Date:**	02/03/20

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	SILOCITY AMERICAN MALT	**Lab Number:**	L2003528
Project Number:	20006	**Report Date:**	02/03/20

Case Narrative (continued)

Report Submission

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

PCBs

L2003528-01: The sample has elevated detection limits due to the dilution required by the sample matrix.

L2003528-01 and -02: The surrogate recoveries are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (0%) and decachlorobiphenyl (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

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: Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative Date: 02/03/20

ORGANICS

PCBS

Project Name: SILOCITY AMERICAN MALT
Project Number: 20006
Lab Number: L2003528
Report Date: 02/03/20

SAMPLE RESULTS

Lab ID: L2003528-01 D
Client ID: 20006-B2-001
Sample Location: BUFFALO, NY

Date Collected: 01/24/20 08:15
Date Received: 01/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 01/31/20 22:30
Analyst: KB
Percent Solids: 96%

Extraction Method: EPA 3546
Extraction Date: 01/28/20 08:15
Cleanup Method: EPA 3665A
Cleanup Date: 01/28/20
Cleanup Method: EPA 3660B
Cleanup Date: 01/28/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	687	61.0	20	A
Aroclor 1221	ND		ug/kg	687	68.9	20	A
Aroclor 1232	ND		ug/kg	687	146.	20	A
Aroclor 1242	468	J	ug/kg	687	92.7	20	A
Aroclor 1248	ND		ug/kg	687	103.	20	A
Aroclor 1254	ND		ug/kg	687	75.2	20	A
Aroclor 1260	ND		ug/kg	687	127.	20	A
Aroclor 1262	ND		ug/kg	687	87.3	20	A
Aroclor 1268	ND		ug/kg	687	71.2	20	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150	A
Decachlorobiphenyl	**0**	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150	B
Decachlorobiphenyl	**0**	Q	30-150	B

Project Name: SILOCITY AMERICAN MALT
Project Number: 20006
Lab Number: L2003528
Report Date: 02/03/20

SAMPLE RESULTS

Lab ID: L2003528-02 D
Client ID: 20006-B-2-002
Sample Location: BUFFALO, NY

Date Collected: 01/24/20 11:00
Date Received: 01/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 01/31/20 22:37
Analyst: KB
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 01/28/20 08:15
Cleanup Method: EPA 3665A
Cleanup Date: 01/28/20
Cleanup Method: EPA 3660B
Cleanup Date: 01/28/20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	5710	507.	60	A
Aroclor 1221	ND		ug/kg	5710	572.	60	A
Aroclor 1232	ND		ug/kg	5710	1210	60	A
Aroclor 1242	10100		ug/kg	5710	770.	60	A
Aroclor 1248	ND		ug/kg	5710	857.	60	A
Aroclor 1254	ND		ug/kg	5710	625.	60	A
Aroclor 1260	ND		ug/kg	5710	1060	60	A
Aroclor 1262	ND		ug/kg	5710	726.	60	A
Aroclor 1268	ND		ug/kg	5710	592.	60	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150	A
Decachlorobiphenyl	**0**	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150	B
Decachlorobiphenyl	**0**	Q	30-150	B

Project Name: SILOCITY AMERICAN MALT
Project Number: 20006
Lab Number: L2003528
Report Date: 02/03/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 01/29/20 17:31
Analyst: AWS

Extraction Method: EPA 3546
Extraction Date: 01/28/20 08:15
Cleanup Method: EPA 3665A
Cleanup Date: 01/28/20
Cleanup Method: EPA 3660B
Cleanup Date: 01/28/20

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-02 Batch: WG1334481-1						
Aroclor 1016	ND		ug/kg	32.8	2.91	A
Aroclor 1221	ND		ug/kg	32.8	3.28	A
Aroclor 1232	ND		ug/kg	32.8	6.95	A
Aroclor 1242	ND		ug/kg	32.8	4.42	A
Aroclor 1248	ND		ug/kg	32.8	4.91	A
Aroclor 1254	ND		ug/kg	32.8	3.58	A
Aroclor 1260	ND		ug/kg	32.8	6.06	A
Aroclor 1262	ND		ug/kg	32.8	4.16	A
Aroclor 1268	ND		ug/kg	32.8	3.39	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	49		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	56		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: SILOCITY AMERICAN MALT

Project Number: 20006

Lab Number: L2003528

Report Date: 02/03/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1334481-2 WG1334481-3									
Aroclor 1016	67		69		40-140	3		50	A
Aroclor 1260	56		56		40-140	0		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		64		30-150	A
Decachlorobiphenyl	47		46		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		63		30-150	B
Decachlorobiphenyl	66		47		30-150	B

INORGANICS
&
MISCELLANEOUS

Project Name: SILOCITY AMERICAN MALT
Project Number: 20006
Lab Number: L2003528
Report Date: 02/03/20

SAMPLE RESULTS

Lab ID: L2003528-01
Client ID: 20006-B2-001
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Soil

Date Collected: 01/24/20 08:15
Date Received: 01/24/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.4		%	0.100	NA	1	-	01/25/20 13:58	121,2540G	RI

Project Name: SILOCITY AMERICAN MALT
Project Number: 20006
Lab Number: L2003528
Report Date: 02/03/20

SAMPLE RESULTS

Lab ID: L2003528-02
Client ID: 20006-B-2-002
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Soil

Date Collected: 01/24/20 11:00
Date Received: 01/24/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91.3		%	0.100	NA	1	-	01/25/20 13:58	121,2540G	RI

Lab Duplicate Analysis

Batch Quality Control

Project Name: SILOCITY AMERICAN MALT

Project Number: 20006

Lab Number: L2003528

Report Date: 02/03/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1333843-1 QC Sample: L2003543-01 Client ID: DUP Sample						
Solids, Total	97.4	97.2	%	0		20

Project Name: SILOCITY AMERICAN MALT
Project Number: 20006

Lab Number: L2003528
Report Date: 02/03/20

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2003528-01A	Glass 250ml/8oz unpreserved	A	NA		3.7	Y	Absent		TS(7),NYTCL-8082(14)
L2003528-02A	Glass 120ml/4oz unpreserved	A	NA		3.7	Y	Absent		TS(7),NYTCL-8082(14)

*Values in parentheses indicate holding time in days

Project Name:	SILOCITY AMERICAN MALT	**Lab Number:**	L2003528
Project Number:	20006	**Report Date:**	02/03/20

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	SILOCITY AMERICAN MALT	**Lab Number:**	L2003528
Project Number:	20006	**Report Date:**	02/03/20

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

Terms

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.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

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

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

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

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

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

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

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

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

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

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

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

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

Report Format: DU Report with 'J' Qualifiers

Project Name:	SILOCITY AMERICAN MALT	**Lab Number:**	L2003528
Project Number:	20006	**Report Date:**	02/03/20

Data Qualifiers

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	SILOCITY AMERICAN MALT	**Lab Number:**	L2003528
Project Number:	20006	**Report Date:**	02/03/20

REFERENCES

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

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

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8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

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

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

Page: 1 of 1

Date Rec'd in Lab: 1/28/20

ALPHA Job #: L2003528

Client Information
Client: Watts ATC
Address: 95 Perry St, Suite 300
Buffalo, NY 14203
Phone: (716) 206-5100
Fax: (716) 206-5199
Email: cgrandy@wattsatc.com

Project Information
Project Name: Silo City American Malt
Project Location: Buffalo, NY
Project #: 20006
(Use Project name as Project #): ☒
Project Manager: Kevin Clark
ALPHAQuote #:

Turn-Around Time
Standard: ☒ Due Date:
Rush (only if pre approved): ☐ # of Days: 5 DAY

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

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

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

Billing Information
☐ Same as Client Info
PO #

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

ANALYSIS

PCBs 8082

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

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCBs 8082	Sample Specific Comments
03528-01	20006-B2-0001	1/24/2020	0815	SG	JG	✓	1st Floor below retaining wall
02	20006-B-2-0002	1/24/2020	1100	SG	JG	✓	3rd Floor drip pan

Container Type: A
Preservative: A

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

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

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

Relinquished By:	Date/Time	Received By:	Date/Time
	1/24/2020 1410		1/24/20 C 14:10
	1/24/20 14:10		1/25/20 00:40

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

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