COLONNA'S SHIPYARD, INC.

400 East Indian River Road
Norfolk, VA 23523
757-545-2414
757-545-5014 Fax

RECEIVED – DEQ
FEB 19 2015
Tidewater Regional Office

February 17, 2015

Carl D. Thomas
Environmental Engineer Sr.
Department of Environmental Quality
5636 Southern Boulevard
Virginia Beach, VA 23462

RE: VPDES Permit VA0053813 Colonna's Shipyard Inc.

Dear Mr. Thomas:

Attached please find the application forms for reissue of the referenced permit. The following explanation is provided to clarify the attached forms and explain the facility's position concerning reissue of the permit.

Outfalls 902– Form 2F Part VII-A, B, C & D. Annual monitoring is currently required by the VPDES Permit. Monitoring results are submitted to DEQ. There is no discreet point source to enable stormwater sampling, however a sampling protocol was submitted and approved by DEQ and sampling was performed during the permit period. Based on the pervious surface of a marine railway, no filtration factor of the pervious surface has been calculated; therefore samples may not be truly representative of the discharge. VII-A Available data from annual samples is provided. VII-B Requires sampling for pollutants that are limited in effluent guidelines or listed in the facility's VPDES permit for its process water. There are no effluent guideline limits identified in the permit for process water at these outfalls. VII-C There are no effluent limits for outfall 902. Table 2F-2 requires you either report quantative data OR briefly describe the reasons the pollutant is expected to be discharged. Explanation: The pollutants identified are found in shipboard materials, coatings or as background pollutants in potable water used in ship repair processes. Note: The marine railway is currently not operational. The scheduled return to operation is approximately March 2015. A waiver for additional sampling is requested.

Outfalls 904/908 – Identical ship repair processes are performed at each outfall. Sampling of outfall 904 to represent 908 is currently permitted and is requested to remain. The drydocks are enclosed with a coaming to allow collection and treatment of stormwaters which the facility has done since the Waste Water Treatment Plant, outfall 009, began operation in 2011. Effluent varies in volume and are directly influenced by actual work performed on each vessel, any existing coating on the hull and the age/condition of those coatings. Work performed is based on customer

requirements. The discharge information provided is considered representative. Monitoring has been performed per the permit requirements and submitted to DEQ. The facility voluntarily collects stormwater for treatment and discharge through outfall 009. Since there have been no reported discharges, no sample data is available.

Outfall 010 Stormwater runoff from Yard Drain North of Main Office and 012 West Yard Perimeter Ditch Drain. Monitoring is currently required by the VPDES Permit. Monitoring results are submitted to DEQ annually. Composite sampling has not been a permit requirement as stormwater events are often infrequent and often low flow. The current permit requires sampling for Total Petroleum Hydrocarbons in lieu of "Oil & Grease" and data provided reflects this. A waiver for these requirements is requested. Sampling data is provided on the attached form VII-A. VII-B Requires sampling for pollutants that are limited in effluent guidelines or listed in the facility's VPDES permit for its process water, there are no effluent guideline limits identified in the permit and no process waters are generated at these outfalls. VII-C There are no effluent limits for outfalls 010 and 012. Table 2F-2 requires you either report quantative data OR briefly describe the reasons the pollutant is expected to be discharged. The pollutants identified are found in shipboard materials, marine coatings and from vehicles parked in these areas. Sampling for Surfactants was taken, however, the laboratory exceeded the holding times.

Outfall 011 – Main Office Parking Lot Drain. The current permit does not require monitoring. No data is currently available. No process water is generated at this location. The area is used for vehicle parking and includes the roof top of the Main Office and a second office facility. A waiver for sampling is requested.

Outfall 013 (see attached engineering plans) – Stormwater drain east side of Outfall 002, Railway #3 (Under Construction).This project will help control erosion of land adjacent to the railway. It is designed with three drop inlets and a sump to collect soilds. Regular cleanout of the sump will be scheduled. The end of the drainage pipe will normally be under water. Estimated completion is mid-March 2015.

Outfalls 002 and 003 – Outfall 003/903 Crandall Marine Railway has been permanently and physically dismantled. Permittee requests this outfall be removed from the permit. This is the fourth marine railway to be removed from service (including Colonna Yachts VA0004391). There was no sampling required during this permit period this no data exists to complete form 2c. A waiver for sampling is requested. Representative sampling on marine railways has continued to be a point of discussion between local shipyards and DEQ. The effects of evaporation and filtration properties of the substrate are unknown and not factored into the sample results. Regular removal of accumulated abrasive blast media is a Best Management Practice which removes accumulated pollutants thus reducing potential pollutants from reaching state waters. Note: The marine railway, outfall 002 is currently not operational. The scheduled return to operation is March 2015.

Outfalls 004 and 008 - Processes performed on these outfalls are identical. Wastewaters are collected, treated and discharged through outfall 009. Discharges

ceased after the Wastewater Treatment Plant, outfall 009 began operation. No current sample data is available. Effluent varies in volume and is directly influenced by actual work performed on each vessel, any existing coating on the hull and the age/condition of those coatings. Work performed is based on customer requirements. The facility elected to collect stormwater for treatment and discharge through outfall 009. Since there have been no reported discharges, no sample data is available. A waiver for sampling required by Form 2C is requested. The following table shows historical data from 2008-2010 effluent sampling (prior to outfall 009) and current data (since May 2011) averages of effluent from outfall 009. A significant improvement is indicated. Toxicity testing at outfalls 004/008 prior to outfall 009 were consistently failed. To date all Toxicity testing at outfall 009 has shown a TU of <1.

Average Dissolved Zinc 004	Average Dissolved Zinc 008	Average Dissolved Copper 004	Average Dissolved Copper 008	Average TSS 004	Average TSS 008
843	820	1104	531	102.8	42.75
Average Dissolved Zinc 009		Average Dissolved Copper 009		Average TSS 009	
103		20		3.4	

Outfall 007 – There is no reporting associated with this outfall. The outfall in non-contact and provides pressure relief only. Intake if directly from the Elizabeth River and is not subjected to any type of treatment.

The facility has expanded westward to South Main Street with the purchase of the former Norfolk Environmental site. The existing waste water treatment works and above/underground storage tanks and piping were dismantled and removed. The property is currently used for office space, parking and storage of material with light industrial intermittently occurring. Future plans include additional worksites associated with the West Yard Travelift facility. From 2010 through 2014 there were 316 dockings in the West Yard. The duration and scope of work varied from hours to months and from fixing a leak to a complete overhaul. All types of vessels are repaired including deck barges, tugs, US Army and Navy, yachts and cruise vessels to name a few. This facility had an existing Stormwater General Permit VAR051706 that was renewed July1, 2014. The initial sample was taken and the results submitted to DEQ. Permitee requests the outfall identified in the permit be incorporated into VA0053813. Dry abrasive blasting is limited to interior compartments. Vapor Blasting is also used which uses a water vapor with the abrasive (normally garnet or horne blend) to suppress dust. Abrasives are handled as nonhazardous waste and taken to a landfill that beneficially uses it as cover material. Wastewaters and comingled stormwaters are collected, treated and discharged through outfall 009.

The facility has expanded to the east taking possession of the former Allied Marine Industries building at 500 East Indian River Road. The location is primarily an office complex but does include a building on the north side utilized as a storage area for offsite machining equipment and intermittent light industrial work.

The current Bay Disposal site at 465 East Indian River Road has been purchased by ANNOLOC Inc. and will be operated by Colonna's Shipyard. Current plans are an equipment maintenance facility, equipment/material storage employee parking area and office complex. The facility currently has a Stormwater General Permit VAR052141 with one outfall associated with a retention pond on the west side. The Bay Disposal is responsible for sampling and submission of stormwater until Colonna takes possession. Colonna's plans to take possession in June of 2015. Permittee requests this permit and its associated outfall be included in the reissued permit VA0053813.

The facility stores quantities of chemicals used in ship repair processes. Normal waste streams are oily water from bilge/tank cleaning, spent abrasives, non-hazardous paint chips and paint related waste which is reused by a cement kiln as fuel. All other wastes are intermittent and handled through licensed brokers and TSD facilities.

The facility has made major improvements in process water and treatment with the installation and operation of the Waste Water Treatment Plant, Outfall 009. The dismantling and removal of Crandall Marine Railway, outfall 003/903 further reduces pollutant loading. Five additional wash basins were constructed in the West Yard where two were originally planned. Voluntary collection of stormwater from outfall 904/908 and the West Yard Wash Basins takes place which again serves to minimize the environmental impact on the adjacent waterway. Collected waters are transferred to the Waste Water Treatment Plant and discharged through outfall 009.

The facility is inspected on a weekly basis at a minimum and the reports submitted with DMR's. Training is provided to employees to maintain awareness.

If there are questions, feel free to contact me at 757-545-2414 ext.445 or fwheatley@colonnaship.com. Thank you for your assistance with this matter.

Sincerely,

Frank Wheatley
Compliance Director

SITE DEVELOPMENT PLANS
for
MARINE RAILWAY DRAINAGE SYSTEM
at
COLONNA'S SHIPYARD
400 East Indian River Road
Norfolk, Virginia

LEGEND

SYMBOL	ABBREV.	DESCRIPTION
	AC	ACREAGE
	CALC	CALCULATED DATA
℄	℄	CENTERLINE
	CMP	CORRUGATED METAL PIPE
	CONC	CONCRETE
	C & G	CURB & GUTTER
	CB	CURB BASIN
	DF	DRAIN FIELD
	ED	EDGE OF GRAVEL
	EP	EDGE OF PAVEMENT
	ELEC	ELECTRIC
	ENCR	ENCROACHING
	EOI	END OF INFORMATION
	EX.	EXISTING
	FH	FIRE HYDRANT
	FIELD	FIELD DATA
	FL	FLOW LINE
(?)	(?)	FOUND MONUMENT
	GV	GAS VALVE
	GUY	GUY WIRE ANCHOR
	JBOX	JUNCTION BOX
	LAMP	LAMP POST
	LP	LIGHT POLE
	OHW	OVERHEAD WIRES
	PED	PEDESTAL
(PLANS)	PLANS	UTILITY INFORMATION BASED ON PLANS
	PLAT	PLAT DATA
	℄	PROPERTY LINE
	PVC	POLYVINYL CHLORIDE
	RCP	REINFORCED CONCRETE PIPE
R/W	R/W	RIGHT-OF-WAY
	SSCO	SANITARY SEWER CLEAN OUT
	SS	SANITARY SEWER LINE
	SSMH	SANITARY SEWER MANHOLE
	SSV	SANITARY SEWER VALVE
(?)	(?)	SET MONUMENT
	S.F.	SQUARE FEET
	SD	STORM DRAIN PIPE
	SDMH	STORM DRAIN MANHOLE
	TELE	TELEPHONE
	TBM	TEMPORARY BENCH MARK
	TC	TOP OF CURB
	TRAF	TRAFFIC
	CATV	UNDERGROUND CABLE TELEVISION
	UE	UNDERGROUND ELECTRIC LINE
	FO	UNDERGROUND FIBER OPTIC LINE
	GAS	UNDERGROUND GAS LINE
	UT	UNDERGROUND TELEPHONE LINE
	UTC	UNDERGROUND TRAFFIC CONTROL
	UP	UTILITY POLE
	W	WATER LINE
	WM	WATER METER
	WV	WATER VALVE

RESPONSIBLE LAND DISTURBER

The following person Steve Blevins PE (print),
_____ (sign), is identified as the Responsible Land Disturber who will be in charge of and responsible for carrying out the land disturbing activity. This person meets the applicable requirements of Virginia Code Section 10.1-563 and 10.1-568 by virtue of the following (check the category that applies):

_____Responsible Land Disturber Certificate

_____DCR Certification for Combined Administrator, Administrator, Plan Reviewer, Inspector, or Contractor

X_____VA Professional Engineer, Land Surveyor, Landscape Architect, or Architect.

Upon award of the contract and before any land disturbing activity can begin, the Contractor shall execute and submit a Responsible Land Disturber Notification form to the Department of Planning, Environmental Services, Rm. 508, City Hall Building, 810 Union Street, Norfolk, VA 23510 Tel: (757) 664-4308. Award of the contract will relieve the above signer of all responsibility.

SITE INFORMATION

OWNER: TOM GODFREY, PRESIDENT AND CEO
400 EAST INDIAN RIVER ROAD
NORFOLK, VA 23523
PH # 545-2414

DEVELOPER: TOM GODFREY, PRESIDENT AND CEO
400 EAST INDIAN RIVER ROAD
NORFOLK, VA 23523
PH # 545-2414

DESIGNER: BLAKEWAY CORPORATION
770 INDEPENDENCE CIRCLE,
SUITE 100 VIRGINIA BEACH, VIRGINIA 23455
FAX # 757-226-0765 PH # 757-226-0081

LOCATION: THE SITE IS LOCATED AT 400 E. INDIAN RIVER ROAD, NORFOLK VIRGINIA.

CPIN: 1449-18-5993

CURRENT ZONING: I-5 (DEEP WATERFRONT INDUSTRIAL)

ADJACENT ZONING: NORTH ELIZABETH RIVER
WEST I-5, S. MAIN STREET
EAST ELIZABETH RIVER
SOUTH RESIDENTIAL

EXISTING LAND USE: THE AFFECTED PROPERTY IS COLONNA SHIPYARD.

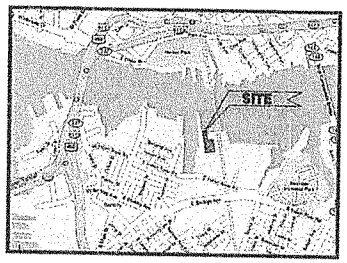
PROPOSED BLDG USE: THE PROPOSED USE FOR THE BUILDING IS DEEP WATER INDUSTRIAL.

SOIL TYPE: SAND

FLOOD INFORMATION: THE PROPERTY SHOWN HEREON APPEARS TO FALL WITHIN FLOOD ZONE "C" ACCORDING TO F.E.M.A.'S FLOOD INSURANCE RATE MAP (F.I.R.M.) FOR THE CITY OF NORFOLK, VIRGINIA COMMUNITY-PANEL NUMBER 510104 0011 D, MAP REVISED : 04-17-1984

OVERLAY DISTRICT: THIS PROPERTY IS LOCATED WITHIN A CITY OF NORFOLK CBPA DESIGNATED INTENSELY DEVELOPED AREA (IDA).

LAND DISTURBANCE: 4,300 SQ. FT. OR 0.10± ACRES



VICINITY MAP
SCALE 1"=1000'

SHEET INDEX

SHEET #	SHEET DESCRIPTION
C-100	COVER SHEET AND SHEET INDEX
C-200	DRAINAGE PLAN
D-100	NOTES AND DETAILS

GENERAL NOTES:

1. ALL VEGETATION, WOODY OR OTHERWISE, EXCEPT LAWN, ORNAMENTAL GRASS AND FLOWERS LESS THAN TWENTY-FOUR (24) INCHES IN HEIGHT WITHIN THE 100' CBPA BUFFER REQUIRES A PERMIT FOR REMOVAL. ALTERATION OR WORK WITHIN THE CRITICAL ROOT ZONE FROM BUREAU OF ENVIRONMENTAL SERVICES (664-4731) WITH SUBSEQUENT MITIGATION REQUIREMENTS.
2. FOR ALL SITES 1 ACRE OR GREATER, OR GREATER THAN 2500 SQUARE FEET IN THE CBPA, CONTACT THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION AT (804) 786-3957 TO OBTAIN A VSMP CONSTRUCTION PERMIT.

CITY OF NORFOLK -- GENERAL NOTES:

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM WITH THE CURRENT SPECIFICATIONS AND STANDARDS OF THE DEPARTMENTS OF PUBLIC WORKS AND UTILITIES, CITY OF NORFOLK, VIRGINIA.
2. PRIOR TO CONSTRUCTION OR EXCAVATION, THE CONTRACTOR SHALL ASSUME THE RESPONSIBILITY OF LOCATING ANY UNDERGROUND UTILITIES (PUBLIC AND PRIVATE) THAT MAY EXIST AND CROSS THROUGH THE AREA OF CONSTRUCTION THAT ARE NOT SHOWN ON THESE PLANS. BEFORE YOU DIG, TO MISS THE UTILITIES, CALL "MISS UTILITY" OF VIRGINIA AT 1-800-552-7001. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AT THE EXPENSE ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION
3. FOR WORK IN THE CITY OF NORFOLK'S RIGHT OF WAY, CONTACT 48 HOURS IN ADVANCE:
   DIVISION OF TRANSPORTATION (PERMITS): 664-7306
   INSPECTIONS: 664-7306
   DRAINAGE: 823-4000
   LANDSCAPING: 441-2433
   UTILITIES: 664-6700
4. APPROVAL DOES NOT PRECLUDE THE NECESSITY OF THE EXCAVATOR, BY STATE LAW, TO CONTACT THE DIVISION OF TRANSPORTATION 48 HOURS BEFORE EXCAVATION AT 664-7306. (PERMIT NUMBER REQUIRED)
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WITH MATCHING MATERIALS ANY PAVEMENT, DRIVEWAYS, WALKS, CURBS, ETC. THAT MAY BE CUT, OR THAT ARE DAMAGED DURING CONSTRUCTION.
6. WATER LINE TAP AND METER SHALL BE DONE BY CITY FORCES AT THE EXPENSE OF THE OWNER. LOCATION OF THE CONNECTION IS SHOWN ON THE PLANS.
7. PROJECT LIMITS ARE THE PROPERTY LINES, UNLESS OTHERWISE NOTED.
8. TOPSOIL, SEED AND FERTILIZE ALL AREAS WITHIN THE PROJECT LIMITS NOT OCCUPIED BY STRUCTURES, PAVEMENT, SIDEWALKS, ETC. SEE LANDSCAPE PLAN SHEET L-1.
9. NO LANE CLOSURES PERMITTED WITHOUT PERMIT FROM DIVISION OF TRANSPORTATION AT 664-7306. ALL TRAFFIC CONTROL TO COMPLY WITH M.U.T.C.D. AS REQUIRED.
10. ALL CONCRETE TO CLASS A-3 AIR ENTRAINED (3,000 PSI).
11. DRIVEWAY APRON IS TO BE NORFOLK STANDARD HS-209, 6" THICK FOR RESIDENTIAL OR 8" FOR COMMERCIAL, CLASS A-3 CONCRETE, AIR ENTRAINED (3,000 PSI). MAINTAIN EXISTING ELEVATION AT STREET/EDGE OF SIDEWALK. REMOVE SIDEWALK AND FORM TO UNIFORM THICKNESS. REMOVE CURB TO BASE. POUR TO BE INTEGRAL WITH APRON. ALL CONCRETE TO BE SAW CUT.
12. THE PROPOSED GROUND FLOOR ELEVATION OF ALL BUILDINGS SHALL BE 1 FOOT ABOVE THE BASE FLOOD ELEVATION AS SHOWN ON THE HUD FLOOD ZONE HAZARD MAPS FOR THE CITY OF NORFOLK, VIRGINIA.
13. ADEQUATE LIGHTING SHALL BE PROVIDED FOR EXTERIOR OF BUILDINGS AND/OR PARKING LOTS IN SUCH A MANNER AS TO ASSURE SAFETY AND SECURITY. LIGHTING SOURCES SHALL BE SHIELDED AND THERE SHALL BE NO SPILLOVER ONTO ADJACENT PROPERTIES OR RIGHT OF WAY.
14. CONTRACTOR TO SUBMIT AS-BUILT PLANS TO THE DRAINAGE ENGINEER, DEPARTMENT OF PUBLIC WORKS WITHIN TEN DAYS OF PROJECT COMPLETION. (WHEN STORM SEWER IS CONSTRUCTED).
15. PROPOSED CITY RIGHT-OF-WAY WATER AND SANITARY SEWER WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HAMPTON ROADS PLANNING DISTRICT COMMISSION LATEST 4TH EDITION REGIONAL STANDARD SPECIFICATION AS AMENDED BY THE CITY OF NORFOLK DEPARTMENT OF UTILITIES STANDARD SPECIFICATION AND THE LATEST EDITION OF THE VIRGINIA DEPARTMENT OF HEALTH REGULATION.
16. REMOVAL OR RELOCATION OF ALL UTILITIES AND APPURTENANCES WILL BE AT THE RISK AND EXPENSE OF THE DEVELOPER/CONTRACTOR, THESE INCLUDE, BUT ARE NOT LIMITED TO VIRGINIA POWER, SEWER, WATER, TELEPHONE, COMMUNICATIONS, CABLE, FIBER OPTICS, ETC.
17. LOCATION AND DEPTH OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR WITH A CITY OF NORFOLK UTILIES INSPECTOR PRESENT. CONTACT THE UTILITIES FIELD ENGINEERING OFFICE, 823-1001, AT LEAST 72 HOURS PRIOR TO EXCAVATION TO ARRANGE FOR AN INSPECTION.

BlakewayCorp
planning | engineering | project management
770 INDEPENDENCE CIRCLE, SUITE 100
VIRGINIA BEACH, VIRGINIA 23455
TEL 757.226.0081
FAX 757.226.0765

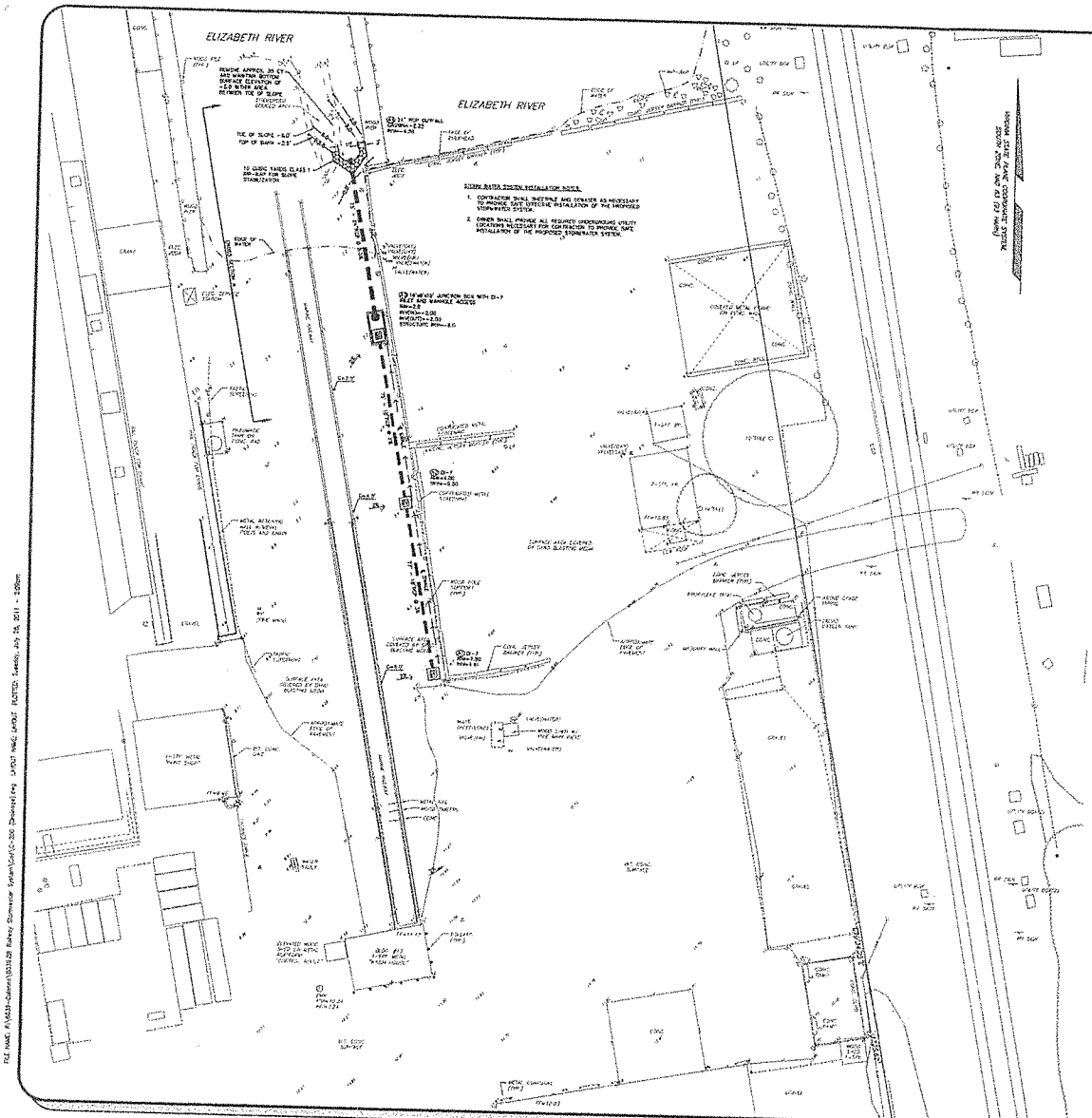
COLONNA'S SHIPYARD
EAST YARD MARINE RAILWAY SYSTEM DRAINAGE
COVER SHEET AND SHEET INDEX
400 EAST INDIAN RIVER ROAD
NORFOLK, VIRGINIA

DATE
PROJECT REFERENCE

ISSUE DATE: JULY 26, 2011

SHEET C-100

FILE NAME: P:\2011-Colonna\011108 Railway Drainage System\Cad\C-100.dwg LAYOUT NAME: COVER SHEET PLOTTED: Tuesday, July 26, 2011 - 1:14pm



SURVEY NOTES:

S-1. THE MERIDIAN SOURCE OF THIS SURVEY IS BASED ON THE CITY OF NORFOLK GEODETIC CONTROL NETWORK WHICH REFERS TO THE VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83 (93 HARN). COORDINATE VALUES (IF SHOWN) ARE EXPRESSED IN U.S. SURVEY FEET.

S-2. ELEVATIONS SHOWN HEREON ARE EXPRESSED IN FEET AND BASED ON THE CITY OF NORFOLK GEODETIC CONTROL NETWORK WHICH REFERS TO NAVD 88. REFERENCE CONTROL STATION UTILIZED: GPS 059 ELEV=11.92

S-3. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT AND MAY NOT SHOW ANY/ALL EASEMENTS OR RESTRICTIONS THAT MAY AFFECT SAID PROPERTY AS SHOWN. IT IS NOT THE INTENT OF THIS SURVEY TO REPRESENT A PHYSICAL SURVEY, BOUNDARY SURVEY, ALTA/ASCM LAND TITLE SURVEY OR SUBDIVISION OF LAND.

S-4. THE INVESTIGATION, DELINEATION AND LOCATION OF WETLANDS, HAZARDOUS WASTE, AND/OR OTHER ENVIRONMENTAL ISSUES WERE NOT PERFORMED.

S-5. THE UNDERGROUND UTILITIES SHOWN ARE BASED ON A COMBINATION OF EXISTING MARKINGS, FIELD LOCATED STRUCTURES AND PLAN INFORMATION AVAILABLE. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THIS SURVEY DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THEIR EXACT LOCATION INDICATED. HOWEVER, THEY HAVE BEEN LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
IT IS UNDERSTOOD THAT THE SURVEY AREA HAS BEEN UTILIZED FOR SHIPBUILDING AND REPAIR SERVICES FOR MANY YEARS AND THAT VARIOUS FORMS OF INFRASTRUCTURE MAY EXIST. ALL UNDERGROUND UTILITIES AND INFRASTRUCTURE ARE TO BE FIELD VERIFIED BY OTHERS PRIOR TO CONSTRUCTION.

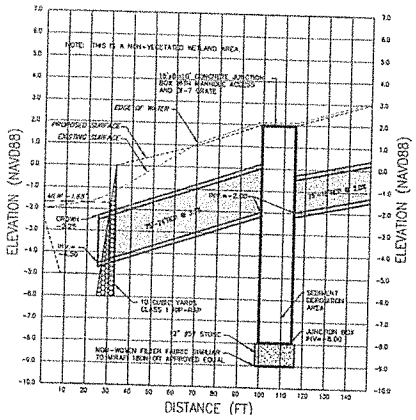
S-6. FLOOD INFORMATION.

S-7. ANY AREA BELOW THE MEAN LOW WATER LINE IS SUBJECT TO THE OWNERSHIP AND/OR JURISDICTION OF THE COMMONWEALTH OF VIRGINIA.

S-10 THE LIMITS OF THE FEDERAL CHANNEL, AS SHOWN HEREON, IS BASED ON THAT CERTAIN PLAN ENTITLED "EASTERN BRANCH OF THE ELIZABETH RIVER PROJECT CONDITION SURVEY OF SEPTEMBER 2008 NORFOLK HARBOR, VIRGINIA", DATED 11/20/08 AND PROVIDED BY THE DEPARTMENT OF THE ARMY NORFOLK DISTRICT, CORPS OF ENGINEERS NORFOLK, VIRGINIA.

S-11. IT IS NOT THE INTENT OF THIS SURVEY TO DEPICT LIMITS OF DESIGN AND/OR PROPOSED CONSTRUCTION.

CROSS SECTION A



VERTICAL GRAPHIC SCALE
2.5 1.25 0 2.5 5.0
scale feet

HORIZONTAL GRAPHIC SCALE
25 12.5 0 25 50
scale feet

BlakewayCorp
Surveying | engineering | project management
TIDEWATER OFFICE
1100 DUKE STREET, SUITE 100
VIRGINIA BEACH, VIRGINIA 23451
PH 757-428-2100
FAX 757-428-2101

COMMONWEALTH OF VIRGINIA
7-26-11
STEVEN K. BENG
LICENSED PROFESSIONAL ENGINEER
NO. 023333

COLONNA'S SHIPYARD
EAST YARD MARINE RAILWAY SYSTEM DRAINAGE

DRAINAGE PLAN

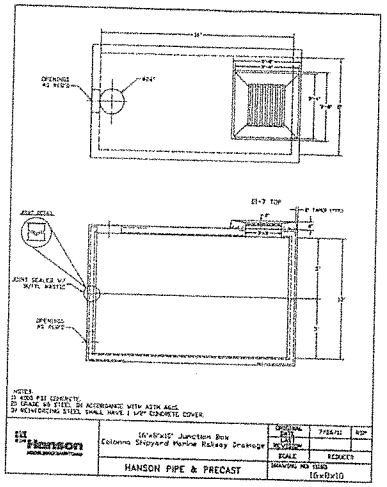
400 EAST INDIAN RIVER ROAD
NORFOLK, VIRGINIA

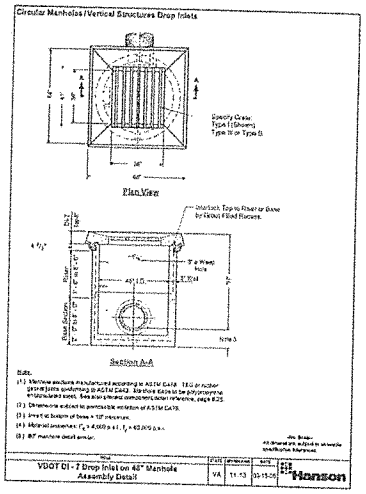
DATE:

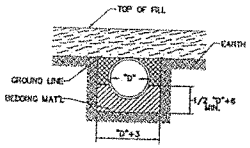
PROJECT REVISIONS:

ISSUE DATE:
JULY 26, 2011

SHEET
C-200







BACKFILL MAT'L IN ACCORDANCE W/SEC 302.07 OF THE ROAD & BRIDGE SPECS

BEDDING MAT'L IN ACCORDANCE W/SEC 302.02 OF THE ROAD & BRIDGE SPECS

EMBANKMENT

INSTALLATION OF PIPE CULVERTS AND STORM SEWERS (HS-32)

PIPE BEDDING-METHOD "A"(FILLS UP TO 30')

BEFORE YOU DIG, TO MISS UTILITIES CALL "MISS UTILITY" OF VIRGINIA. TOLL FREE 811

COMMONWEALTH OF VIRGINIA
7-26-11
STEVEN R. BLEWS
Lic. No. 0402
PROFESSIONAL ENGINEER

BlakewayCorp
planning | engineering | project management
770 INTERPLANE PARKWAY, SUITE 100
VIRGINIA BEACH, VIRGINIA 23452
TEL 757.523.9700
FAX 757.523.9701

COLONNA'S SHIPYARD
EAST YARD MARINE RAILWAY SYSTEM DRAINAGE

NOTES AND DETAILS

400 EAST INDIAN RIVER ROAD
NORFOLK, VIRGINIA

DATE
PROJECT REVISIONS

ISSUE DATE:
JULY 26, 2011

SHEET
D-100

FILE NAME: P:\5035-Colonna\5035.00 Railway Stormwater System\Dwg\Dwg LAYOUT NAME: LAYOUT PLOTTED Wednesday, July 27, 2011 - 8:53am

Please print or type in the unshaded areas only.

Form Approved. OMB No. 2040-0086.

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

S		T/A	C
F	VA0053813		D
1	2 — 13	14	15

LABEL ITEMS	
I. EPA I.D. NUMBER	PLEASE PLACE LABEL IN THIS SPACE
III. FACILITY NAME	
V. FACILITY MAILING ADDRESS	
VI. FACILITY LOCATION	

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold-faced terms**.

SPECIFIC QUESTIONS	Mark "X" YES	NO	FORM ATTACHED	SPECIFIC QUESTIONS	Mark "X" YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)		X		B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)		X	
	16	17	18		19	20	21
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	X			D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)		X	
	22	23	24		25	26	27
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)	X			F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
	28	29	30		31	32	33
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
	34	35	36		37	38	39
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	
	40	41	42		43	44	45

III. NAME OF FACILITY

C 1 SKIP COLONNAS SHIPYARD INC (15 – 16 – 29 – 30 – 69)

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
C 2 WHEATLEY FRANKLIN COMPLIANCE DIRECTOR (15 – 16 – 45)	(757) 545-2414 (46 – 48 – 49 – 51 – 52 – 55)

V. FACILTY MAILING ADDRESS

A. STREET OR P.O. BOX

C 3 400 EAST INDIAN RIVER ROAD (15 – 16 – 45)

B. CITY OR TOWN	C. STATE	D. ZIP CODE
C 4 NORFOLK (15 – 16 – 40)	VA (41 – 42)	23523 (47 – 51)

RECEIVED – DEQ
FEB 19 2015
Tidewater Regional Office

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

C 5 400 EAST INDIAN RIVER ROAD (15 – 16 – 45)

B. COUNTY NAME

NORFOLK (46 – 70)

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
C 6 NORFOLK (15 – 16 – 40)	VA (41 – 42)	23523 (47 – 51)	(52 – 54)

CONTINUED FROM THE FRONT

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST	B. SECOND
C 7 3731 (specify) SHIP REPAIR AND CONVERSION	C 7 (specify)
C. THIRD	**D. FOURTH**
C 7 (specify)	C 7 (specify)

VIII. OPERATOR INFORMATION

A. NAME: C 8 COLONNAS SHIPYARD INC

B. Is the name listed in Item VIII-A also the owner? ☑ YES ☐ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box: if "Other," specify.)*

F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC *(other than federal or state)*
O = OTHER *(specify)*

P (specify)

D. PHONE *(area code & no.)*: C A (757) 545-2414

E. STREET OR P.O. BOX: 400 EAST INDIAN RIVER ROAD

F. CITY OR TOWN: C B NORFOLK

G. STATE: VA

H. ZIP CODE:

IX. INDIAN LAND

Is the facility located on Indian lands? ☐ YES ☑ NO

X. EXISTING ENVIRONMENTAL PERMITS

	C	T	I	
A. NPDES *(Discharges to Surface Water)*	9	N		VA0053813
D. PSD *(Air Emissions from Proposed Sources)*	9	P		
B. UIC *(Underground Injection of Fluids)*	9	U		
E. OTHER *(specify)*	9			VA-60108 (specify) TITLE V AIR
C. RCRA *(Hazardous Wastes)*	9	R		VA003174273
E. OTHER *(specify)*	9			(specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

MAINTENANCE, REPAIR AND CONVERSION OF MARINE VESSELS FOR GOVERNMENT, COMMERCIAL AND PRIVATE CUSTOMERS. OPERATED SINCE 1875.
EMPLOYMENT IS APPROXIMATELY 620 FULL TIME WITH PEAKS TO 750.
MAJOR FACILITIES CONSIST OF TWO FLOATING DRYDOCKS, ONE CONVENTIONAL MARINE RAILWAY,ONE MARINE TRAVEL LIFT FACILITY CONSISTING OF SEVEN WASH BASINS AND THREE OTHER WORK STATIONS, NINE PIERS, VARIOUS SHOP, OFFICE AND WAREHOUSE STRUCTURES, CRANES, AERIAL LIFTS AND OTHER ASSOCIATED MACHINERY RELATED TO SHIPYARD OPERATION.
THE FACILITY HAS EXPANDED TO THE WEST TO THE LIMIT OF SOUTH MAIN STREET. THIS INCLUDES THE FORMER NORFOLK ENVIRONMENTAL SERVICES WHICH IS COVERED UNDER INDUSTRIAL STORMWATER GENERAL PERMIT VAR051706 AND RENEWED BY COLONNA'S SHIPYARD INC ON JULY 1, 2014. IT IS REQUESTED THAT THE REQUIRMENTS OF THIS PERMIT BE INCORPORATED INTO VPDES VA0053813 DURING THIS PERMIT RENEWAL.
A SEPARATE PARCEL @ 313 SOUTH MAIN STREET (FORMER WOOD VENDING SITE) WITH WAREHOUSES, PARKING AND SHOP SPACES.
A SEPARATE PARCEL @ 500 EAST INDIAN RIVER ROAD (FORMER ALLIED MARINE INC) WITH OFFICE SPACE AND A MACHINE SHOP. ANNALOC INC. HAS PURCHASED THE PARCEL CURRENTLY OCCUPIED BY BAY DISPOSAL @ 465 EAST INDIAN RIVER ROAD. THE SITE WILL BE OPERATED BY COLONNAS SHIPYARD INC. POSSESSION IS SCHEDULED FOR JUNE 2015 OR SOONER. THIS FACILITY IS COVERED UNDER A SEPARATE VPDES INDUSTRIAL STORMWATER PERMIT VAR052141. IT IS REQUESTED THAT THE REQUIREMENTS OF THIS PERMIT BE INCORPORATED INTO VPDES VA003174273 DURING THIS PERMIT RENEWAL.
FACILITY IS OPERATED SEVEN DAYS A WEEK, 24 HOURS A DAY.

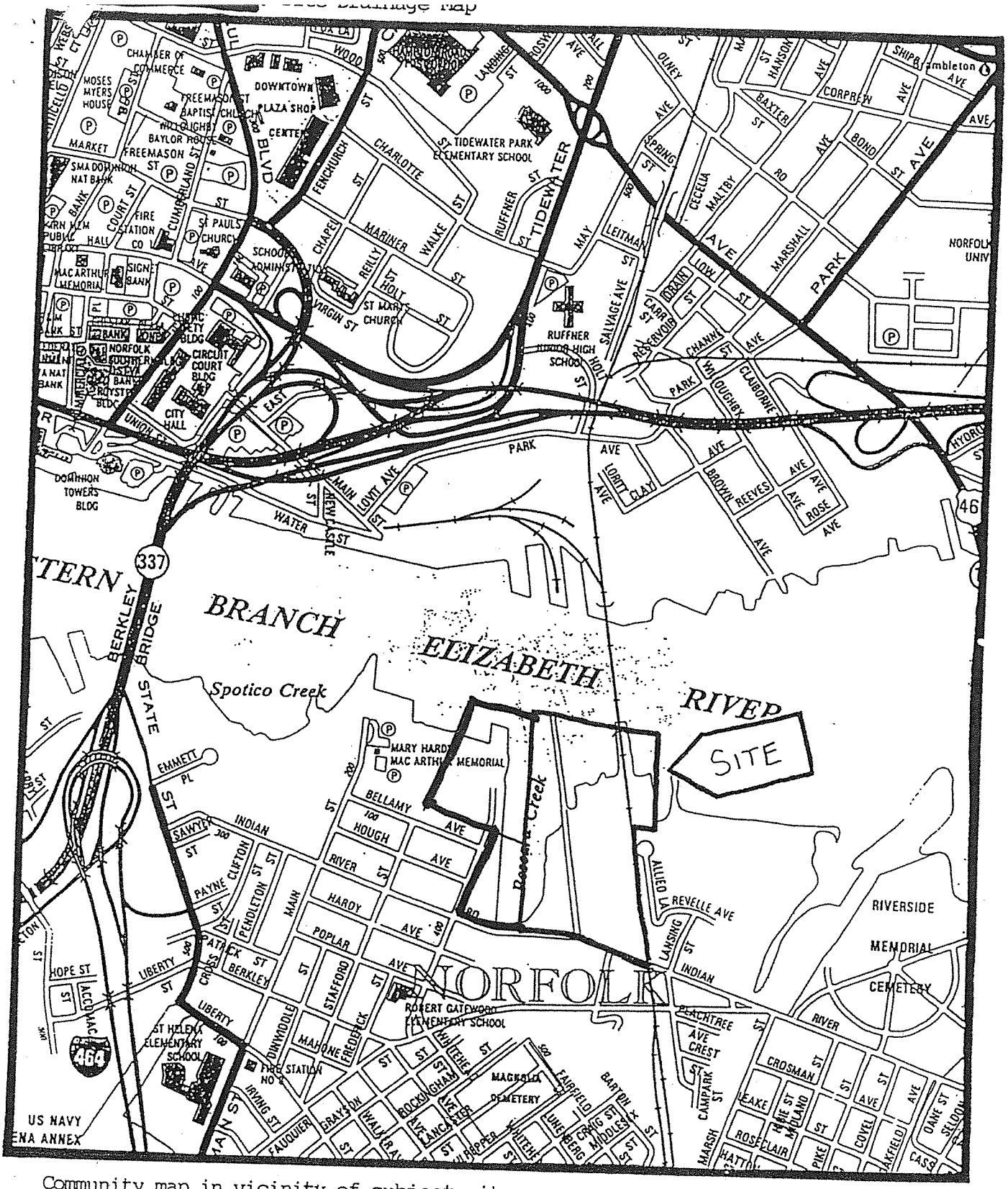
XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
Frank Wheatley Director of Compliance		02/18/2015

COMMENTS FOR OFFICIAL USE ONLY

C



Community map in vicinity of subject site.

Scale: 1"=1000'

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HD
RECEIVED – DEQ
FEB 19 2015
Tidewater Regional Office

AUTHORIZATION TO BILL APPLICANT FOR A PUBLIC NOTICE FOR

Re: VPDES Permit Number VA0053813
Colonna's Shipyard, Incorporated
400 East Indian River Road
Norfolk, Virginia 23523

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published once a week for two consecutive weeks in the:

The Virginian Pilot
Legal Advertising Department
150 W. Brambleton Avenue
Norfolk, Virginia 23510

Agent/Department to be billed: Colonnas Shipyard Inc.
ATTN. Frank Wheatley

Applicant's/Agent's Address: 400 E. Indian River Road
Norfolk, Va 23523

Agent's Telephone Number: 757-545-2414

I AM ALSO AUTHORIZING THE The Virginian Pilot TO SEND THE AFFIDAVIT TO:

DEQ – Tidewater Regional Office
Water Permits - Attention: Ms. Colleen Porter
5636 Southern Boulevard
Virginia Beach, Virginia 23462

Authorizing Agent/Date Signed: Frank Wheatley 2/15/15
Print Name/Date Signed

Authorizing Agent's Signature: F W Wheatley
Signature

Authorizing Agent's E-Mail Address: fwheatley@colonnaship.com

RETURN COMPLETED FORM TO: DEQ – Tidewater Regional Office
Water Permits - Attention: Ms. Colleen Porter
5636 Southern Boulevard
Virginia Beach, Virginia 23462

Cc: DEQ – TRO/file (VA0053813@ECM)

VaDEQ ANNUAL PERMIT MAINTENANCE FEE FORM

(PLEASE COMPLETE AND RETURN THIS FORM WITH PERMIT APPLICATION)

1. **Facility Name**: Colonna's Shipyard Inc
(Please indicate all facility names applicable for the information listed below)

2. **Permit Number(s)**: VA0053813
(Please note all VPDES individual permit numbers applicable for information provided)

3. **Tax Payer ID [FIN]**: 54-0177940

4. **Billing Information**:

Corporate Name or Owner Name: Colonnas Shipyard Inc.

Corporate Billing Address: or Owner Address: 400 E. Indian River Road
Norfolk Va. 23523

5. **Billing Contact**:

Name & Title: Frank Wheatley - Director of compliance

Phone Number: 757-545-2414 x445

E-mail address: fwheatley@colonnaship.com

VaDEQ VPDES Permit Application Addendum

1. Entity to whom the permit is to be issued: Thomas W. Godfrey Jr

   Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.

2. Is this facility located within city or town boundaries? Yes X or No ____

3. Provide the tax map parcel number for the land where the discharge is located. 1437319673

4. What is the average process effluent flow of this facility? .14616 MGD

   For industrial facilities, provide the max. 30-day average production level, include units: .3239

   In addition to the design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels: Yes ____ or No X

   If "YES", please identify the other flow tiers (in MGD) or production levels: NA

   Please consider the following questions for both the flow tiers and the production levels (if applicable): Do you plan to expand operations during the next five years? Is you facility's design flow considerably greater than your current flow?

5. Nature of industrial operations generating wastewater: Hydroblasting; High Pressure water washing; Vapor blasting; tank washing; bilge cleaning

6. Mode of Discharge: ____ Continuous X Intermittent ____ Seasonal
   Describe frequency and duration of intermittent or seasonal discharges:
   Per job requirements dictated by customer & type/size of vessel

7. Identify characteristics of receiving stream at the point just above the facility's discharge point:

   X Permanent stream, never dry
   ____ Intermittent stream, usually flowing, sometimes dry
   ____ Ephemeral stream, wet-weather flow, often dry
   ____ Effluent-dependent stream, usually or always dry without effluent flow
   ____ Lake or pond at or below the discharge point
   ____ Other ____

8. Approval Date(s): O & M Manual Sept 2011
   Sludge/Solids Management Plan NA

   Have any operational changes or procedures occurred since the approval dates? Yes X or No ____

9. Do you plan to sign up for e-DMR, the DEQ's electronic Discharge Monitoring Reporting program?

   X Yes ____ No; and

   if not, why? ____

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
VA0053813

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM **2C** NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
002	36	83	00	76	27	00	Eastern Branch Elizabeth River
004	36	83	00	76	27	00	Eastern Branch Elizabeth River
008	36	83	00	76	27	00	Eastern Branch Elizabeth River
009	36	83	00	76	27	00	Eastern Branch Elizabeth River

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
002	Pressure Washing	288 GPH	002- BMP'S per permit. 004/008 Collection and dishcarge through outfall 009		
	Hydro Blasting	336 GPH	002- BMP'S per permit. 004/008 Collection and dishcarge through outfall 009		
	Vapor blasting	15 GPH	002- BMP'S per permit. 004/008 Collection and dishcarge through outfall 009		
	Stormwater runoff	Varies	002- BMP'S per permit. 004/008 Collection and dishcarge through outfall 009		
004/008	Pressure Washing	NA	004/008- BMP'S per permit. 004/008 Collection and dishcarge through outfall 009		
	Hydro Blasting	NA	004/008- BMP'S per permit. 004/008 Collection and dishcarge through outfall 009		
	Vapor blasting	NA	004/008- BMP'S per permit. 004/008 Collection and dishcarge through outfall 009		
	Stormwater runoff	NA	004/008- BMP'S per permit. 004/008 Collection and dishcarge through outfall 009		
009	Waste Water Treatment Plant	.1461	Dissolved Air Floation, metals precipitation and activated carbon		

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☑ YES (*complete the following table*) ☐ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(s) CONTRIBUTING FLOW (*list*)	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK (*specify average*)	b. MONTHS PER YEAR (*specify average*)	a. FLOW RATE (*in mgd*)		B. TOTAL VOLUME (*specify with units*)		C. DURATION (*in days*)
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	
002 004 008 009	002, Pressure washing, hydro blasting, vapor blasting. 004/008 - Waste and stormwaters are collected, treated and discharged through outfall 009. 009 Pressure washing, hydro blasting, vapor blasting wastewaters from outfalls 004/008 and seven wash basins in West Yard.	002 1-5	12					

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES (*complete Item III-B*) ☑ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☐ YES (*complete Item III-C*) ☑ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS (*list outfall numbers*)
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☑ YES (*complete the following table*) ☐ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED
Part I.B.1 - Submit plans and progress reports for construction of a wastewater treatment works outfall 009 for process waters from outfalls 004/008.	004/008/ 009	Pressure washing, hydroblasting and vapor blasting	Construct wastewater treatment plant for processing waste and sotrmwaters from drydocks.	April 4 2012	Complete

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect your discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

 CONTINUE ON PAGE 3

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
VA0053813

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
XYLENE	Component of marine coatings		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☑ YES (*list all such pollutants below*) ☐ NO (*go to Item VI-B*)

7.M. Lead
9.M. Nickel
15.M. Phenols
3.V. Benzene
19.V. Ethylbenzene
25.V. Toluene
39. B. Napthalene

 CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☑ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

Outfall 009 Quarterly Whole Effluent Toxicity (WET)-Cyprinidon Variegatus & Mysid 48 hour.
All tests have indicated a WET <1.00

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☑ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)
Universal Laboratories	20 Research Drive, Hampton VA 23666	757-865-0880	TSS GRO DRO Dissolved Copper Dissolved Zinc

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Frank Wheatley Director of Compliance	757-545-2414
C. SIGNATURE	**D. DATE SIGNED**
F W Wheatley	2/18/15

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item I of Form I*): VA0053813

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 009

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (2) MASS	d. NO. OF ANALYSES	3. UNITS (*specify if blank*) a. CONCEN-TRATION	3. UNITS b. MASS	4. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (*BOD*)												
b. Chemical Oxygen Demand (*COD*)												
c. Total Organic Carbon (*TOC*)												
d. Total Suspended Solids (*TSS*)	6.8				3.5		85	mg/l				
e. Ammonia (*as N*)	1.8						1	mg/l				
f. Flow	VALUE .3239		VALUE		VALUE .146		43	mgd		VALUE		
g. Temperature (*winter*)	VALUE 9.7		VALUE		VALUE 19.74		85	°C		VALUE		
h. Temperature (*summer*)	VALUE 29.7		VALUE		VALUE 19.74		85	°C		VALUE		
i. pH	MINIMUM 6.16	MAXIMUM 8.72	MINIMUM	MAXIMUM			85	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCEN-TRATION	4. UNITS b. MASS	5. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
a. Bromide (24959-67-9)		X												
b. Chlorine, Total Residual		X	*<.1	VELAP	accredi	tation	not	avail	1	mg/l				
c. Color		X												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)		X												
f. Nitrate-Nitrite (*as N*)		X												

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)		X							1					
h. Oil and Grease	X		1.7				0.5		85	MG/L				
i. Phosphorus (as P), Total (7723-14-0)		X												
j. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate (*as* SO_4) (14808-79-8)		X												
l. Sulfide (*as S*)		X												
m. Sulfite (*as* SO_3) (14265-45-3)		X												
n. Surfactants		X												
o. Aluminum, Total (7429-90-5)		X												
p. Barium, Total (7440-39-3)	X		0.057						1	mg/l				
q. Boron, Total (7440-42-8)		X												
r. Cobalt, Total (7440-48-4)		X												
s. Iron, Total (7439-89-6)	X		0.05						1	mg/l				
t. Magnesium, Total (7439-95-4)		X												
u. Molybdenum, Total (7439-98-7)		X												
v. Manganese, Total (7439-96-5)	X		0.054						1	mg/l				
w. Tin, Total (7440-31-5)		X												
x. Titanium, Total (7440-32-6)		X												

 CONTINUE ON PAGE V-3

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
VA0053813	009

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X	<0.02	dissol	ved				1	mg/l				
2M. Arsenic, Total (7440-38-2)			X	<0.005	dissol	ved				1	mg/l				
3M. Beryllium, Total (7440-41-7)			X												
4M. Cadmium, Total (7440-43-9)			X	<0.005	dissol	ved				1	mg/l				
5M. Chromium, Total (7440-47-3)			X	<0.005**	dissol	ved	Nelap	not accre	dited	1	mg/l				
6M. Copper, Total (7440-50-8)	X			.210	dissol	ved		20.1		15	UG/L				
7M. Lead, Total (7439-92-1)			X	<0.005	dissol	ved				1	mg/l				
8M. Mercury, Total (7439-97-6)			X	ND	dissol	ved				1	MG/L				
9M. Nickel, Total (7440-02-0)			X	0.008	dissol	ved				1	mg/l				
10M. Selenium, Total (7782-49-2)			X	<0.005	dissol	ved				1	mg/l				
11M. Silver, Total (7440-22-4)			X	ND	dissol	ved				1	mg/l				
12M. Thallium, Total (7440-28-0)			X	0.001	dissol	ved				1	mg/l				
13M. Zinc, Total (7440-66-6)	X			305	dissol	ved		103.7		15	UG/L				
14M. Cyanide, Total (57-12-5)			X	<0.005						1	mg/l				
15M. Phenols, Total			X	<5						1	ug/l				
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			X	E	Estima	ted Conc.	due to	interfere	nce	1	ug/l				
2V. Acrylonitrile (107-13-1)			X	E	Estima	ted Conc.	due to	interfere	nce	1	ug/l				
3V. Benzene (71-43-2)			X	ND						1					
4V. Bis (*Chloro-methyl*) Ether (542-88-1)			X												
5V. Bromoform (75-25-2)			X	ND						1	ug/l				
6V. Carbon Tetrachloride (56-23-5)			X	ND						1	ug/l				
7V. Chlorobenzene (108-90-7)			X	ND						1	ug/l				
8V. Chlorodi-bromomethane (124-48-1)			X	ND						1	ug/l				
9V. Chloroethane (75-00-3)			X	ND						1	ug/l				
10V. 2-Chloro-ethylvinyl Ether (110-75-8)			X	ND						1	ug/l				
11V. Chloroform (67-66-3)			X	.587J		J=<RL/LOQ				1	ug/l				
12V. Dichloro-bromomethane (75-27-4)			X	ND						1	ug/l				
13V. Dichloro-difluoromethane (75-71-8)			X												
14V. 1,1-Dichloro-ethane (75-34-3)			X	ND						1	ug/l				
15V. 1,2-Dichloro-ethane (107-06-2)			X	ND						1	ug/l				
16V. 1,1-Dichloro-ethylene (75-35-4)			X	ND						1	ug/l				
17V. 1,2-Dichloro-propane (78-87-5)			X	ND						1	ug/l				
18V. 1,3-Dichloro-propylene (542-75-6)			X	ND						1	UG/L				
19V. Ethylbenzene (100-41-4)			X	ND						1	ug/l				
20V. Methyl Bromide (74-83-9)			X	ND						1	ug/l				
21V. Methyl Chloride (74-87-3)			X	ND						1	ug/l				

 CONTINUE ON PAGE V-5

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)			X	ND						1	ug/l				
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	ND						1	ug/l				
24V. Tetrachloro-ethylene (127-18-4)			X	ND						1	ug/l				
25V. Toluene (108-88-3)			X	ND						1	ug/l				
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X	ND						1	ug/l				
27V. 1,1,1-Trichloro-ethane (71-55-6)			X	ND						1	ug/l				
28V. 1,1,2-Trichloro-ethane (79-00-5)			X	ND						1	ug/l				
29V Trichloro-ethylene (79-01-6)			X	ND						1	ug/l				
30V. Trichloro-fluoromethane (75-69-4)			X	ND						1	ug/l				
31V. Vinyl Chloride (75-01-4)			X	ND						1	ug/l				
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X	<5						1	ug/l				
2A. 2,4-Dichloro-phenol (120-83-2)			X	<5						1	ug/l				
3A. 2,4-Dimethyl-phenol (105-67-9)			X	<5						1	ug/l				
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X	<5						1	ug/l				
5A. 2,4-Dinitro-phenol (51-28-5)			X	<5						1	ug/l				
6A. 2-Nitrophenol (88-75-5)			X	<5						1	ug/l				
7A. 4-Nitrophenol (100-02-7)			X	<10						1	ug/l				
8A. P-Chloro-M-Cresol (59-50-7)			X	<5						1	ug/l				
9A. Pentachloro-phenol (87-86-5)			X	<5						1	ug/l				
10A. Phenol (108-95-2)			X	<5						1	ug/l				
11A. 2,4,6-Trichloro-phenol (88-05-2)			X	<5						1	ug/l				

 CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X	<5						1	UG/L				
2B. Acenaphtylene (208-96-8)			X	<5						1	UG/L				
3B. Anthracene (120-12-7)			X	<5						1	UG/L				
4B. Benzidine (92-87-5)			X	<5V	V=ICV/	CCV/FCV	OUT OF	LIMITS		1	UG/L				
5B. Benzo (*a*) Anthracene (56-55-3)			X	<5						1	UG/L				
6B. Benzo (*a*) Pyrene (50-32-8)			X	<5						1	UG/L				
7B. 3,4-Benzo-fluoranthene (205-99-2)			X	<5						1	UG/L				
8B. Benzo (*ghi*) Perylene (191-24-2)			X	<5						1	UG/L				
9B. Benzo (*k*) Fluoranthene (207-08-9)			X	<10						1	UG/L				
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)			X	<5						1	UG/L				
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)			X	<5						1	UG/L				
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)			X	<5						1	UG/L				
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)			X	<5						1	UG/L				
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X	<5						1	UG/L				
15B. Butyl Benzyl Phthalate (85-68-7)			X	<5						1	UG/L				
16B. 2-Chloro-naphthalene (91-58-7)			X	<5						1	UG/L				
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X	<5						1	UG/L				
18B. Chrysene (218-01-9)			X	<5						1	UG/L				
19B. Dibenzo (*a,h*) Anthracene (53-70-3)			X	<5						1	UG/L				
20B. 1,2-Dichloro-benzene (95-50-1)			X	ND						1	UG/L				
21B. 1,3-Di-chloro-benzene (541-73-1)			X	ND						1	UG/L				

CONTINUE ON PAGE V-7

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichloro-benzene (106-46-7)			X	ND						1	UG/L				
23B. 3,3-Dichloro-benzidine (91-94-1)			X	<5						1	UG/L				
24B. Diethyl Phthalate (84-66-2)			X	<5						1	UG/L				
25B. Dimethyl Phthalate (131 -11-3)			X	<5						1	UG/L				
26B. Di-N-Butyl Phthalate (84-74-2)			X	<5						1	UG/L				
27B. 2,4-Dinitro-toluene (121-14-2)			X	<5						1	UG/L				
28B. 2,6-Dinitro-toluene (606-20-2)			X	<5						1	UG/L				
29B. Di-N-Octyl Phthalate (117-84-0)			X	<5						1	UG/L				
30B. 1,2-Diphenyl-hydrazine (*as Azo-benzene*) (122-66-7)			X	<5						1	UG/L				
31B. Fluoranthene (206-44-0)			X	<5						1	UG/L				
32B. Fluorene (86-73-7)			X	<5						1	UG/L				
33B. Hexachloro-benzene (118-74-1)			X	<5						1	UG/L				
34B. Hexachloro-butadiene (87-68-3)			X	<5						1	UG/L				
35B. Hexachloro-cyclopentadiene (77-47-4)			X	<5						1	UG/L				
36B Hexachloro-ethane (67-72-1)			X	<5						1	UG/L				
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			X	<5						1	UG/L				
38B. Isophorone (78-59-1)			X	<5						1	UG/L				
39B. Naphthalene (91-20-3)			X	<5						1	UG/L				
40B. Nitrobenzene (98-95-3)			X	<5						1	UG/L				
41B. N-Nitro-sodimethylamine (62-75-9)			X	<5						1	UG/L				
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X	<5						1	UG/L				

 CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitro-sodiphenylamine (86-30-6)			X	<5						1	UG/L				
44B. Phenanthrene (85-01-8)			X	<5						1	UG/L				
45B. Pyrene (129-00-0)			X	<5						1	UG/L				
46B. 1,2,4-Tri-chlorobenzene (120-82-1)			X	<5						1	UG/L				
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X	<0.04						1	UG/L				
2P. α-BHC (319-84-6)			X	<1						1	UG/L				
3P. β-BHC (319-85-7)			X	.3						1	UG/L				
4P. γ-BHC (58-89-9)			X	<0.04						1	ug/l				
5P. δ-BHC (319-86-8)			X	<0.5						1	UG/L				
6P. Chlordane (57-74-9)			X	0.64**	VELAP	not accre	dited			1	ug/l				
7P. 4,4'-DDT (50-29-3)			X	<0.04						1	ug/l				
8P. 4,4'-DDE (72-55-9)			X	<0.1**	VELAP	not accre	dited			1	ug/l				
9P. 4,4'-DDD (72-54-8)			X	<0.1						1	ug/l				
10P. Dieldrin (60-57-1)			X	<0.04						1	ug/l				
11P. α-Enosulfan (115-29-7)			X	<0.04						1	ug/l				
12P. β-Endosulfan (115-29-7)			X	<0.04						1	ug/l				
13P. Endosulfan Sulfate (1031-07-8)			X	<0.04**	VELAP	not accre	dited			1	ug/l				
14P. Endrin (72-20-8)			X	<0.04						1	ug/l				
15P. Endrin Aldehyde (7421-93-4)			X	<0.5						1	ug/l				
16P. Heptachlor (76-44-8)			X	<0.04						1	ug/l				

 CONTINUE ON PAGE V-9

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
VA0053813	009

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)			X	<0.1						1	ug/l				
18P. PCB-1242 (53469-21-9)			X	<0.5						1	ug/l				
19P. PCB-1254 (11097-69-1)			X	<0.5						1	ug/l				
20P. PCB-1221 (11104-28-2)			X	<0.5						1	ug/l				
21P. PCB-1232 (11141-16-5)			X	<0.5						1	ug/l				
22P. PCB-1248 (12672-29-6)			X	<0.5						1	ug/l				
23P. PCB-1260 (11096-82-5)			X	<0.5						1	ug/l				
24P. PCB-1016 (12674-11-2)			X	<0.5						1	ug/l				
25P. Toxaphene (8001-35-2)			X	<10**	VELAP	not accre	edited			1	ug/l				

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): VA0053813

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO.: 004/008

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	3. UNITS (*specify if blank*) a. CONCEN-TRATION	b. MASS	4. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (*BOD*)												
b. Chemical Oxygen Demand (*COD*)												
c. Total Organic Carbon (*TOC*)												
d. Total Suspended Solids (*TSS*)	96						1					
e. Ammonia (*as N*)												
f. Flow	VALUE .0036864 MGD		VALUE		VALUE		7			VALUE		
g. Temperature (*winter*)	VALUE 4.8		VALUE		VALUE			°C		VALUE		
h. Temperature (*summer*)	VALUE 26.3		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM 6.68	MAXIMUM 7.88	MINIMUM	MAXIMUM				STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X" a. BELIEVED PRESENT	b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCEN-TRATION	b. MASS	5. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
a. Bromide (24959-67-9)		X												
b. Chlorine, Total Residual		X												
c. Color		X												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)		X												
f. Nitrate-Nitrite (*as N*)		X												

 CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)		X												
h. Oil and Grease		X												
i. Phosphorus (as P), Total (7723-14-0)		X												
j. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate (*as* SO_4) (14808-79-8)		X												
l. Sulfide (*as S*)		X												
m. Sulfite (*as* SO_3) (14265-45-3)		X												
n. Surfactants		X												
o. Aluminum, Total (7429-90-5)		X												
p. Barium, Total (7440-39-3)		X												
q. Boron, Total (7440-42-8)		X												
r. Cobalt, Total (7440-48-4)		X												
s. Iron, Total (7439-89-6)		X												
t. Magnesium, Total (7439-95-4)		X												
u. Molybdenum, Total (7439-98-7)		X												
v. Manganese, Total (7439-96-5)		X												
w. Tin, Total (7440-31-5)		X												
x. Titanium, Total (7440-32-6)		X												

 CONTINUE ON PAGE V-3

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
VA0053813	004/008

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X												
2M. Arsenic, Total (7440-38-2)			X												
3M. Beryllium, Total (7440-41-7)			X												
4M. Cadmium, Total (7440-43-9)			X												
5M. Chromium, Total (7440-47-3)			X												
6M. Copper, Total (7440-50-8)			X												
7M. Lead, Total (7439-92-1)			X												
8M. Mercury, Total (7439-97-6)			X												
9M. Nickel, Total (7440-02-0)			X												
10M. Selenium, Total (7782-49-2)			X												
11M. Silver, Total (7440-22-4)			X												
12M. Thallium, Total (7440-28-0)			X												
13M. Zinc, Total (7440-66-6)			X												
14M. Cyanide, Total (57-12-5)			X												
15M. Phenols, Total			X												
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

 CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			X												
2V. Acrylonitrile (107-13-1)			X												
3V. Benzene (71-43-2)			X												
4V. Bis (*Chloro-methyl*) Ether (542-88-1)			X												
5V. Bromoform (75-25-2)			X												
6V. Carbon Tetrachloride (56-23-5)			X												
7V. Chlorobenzene (108-90-7)			X												
8V. Chlorodi-bromomethane (124-48-1)			X												
9V. Chloroethane (75-00-3)			X												
10V. 2-Chloro-ethylvinyl Ether (110-75-8)			X												
11V. Chloroform (67-66-3)			X												
12V. Dichloro-bromomethane (75-27-4)			X												
13V. Dichloro-difluoromethane (75-71-8)			X												
14V. 1,1-Dichloro-ethane (75-34-3)			X												
15V. 1,2-Dichloro-ethane (107-06-2)			X												
16V. 1,1-Dichloro-ethylene (75-35-4)			X												
17V. 1,2-Dichloro-propane (78-87-5)			X												
18V. 1,3-Dichloro-propylene (542-75-6)			X												
19V. Ethylbenzene (100-41-4)			X												
20V. Methyl Bromide (74-83-9)			X												
21V. Methyl Chloride (74-87-3)			X												

 CONTINUE ON PAGE V-5

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)			X												
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X												
24V. Tetrachloro-ethylene (127-18-4)			X												
25V. Toluene (108-88-3)			X												
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X												
27V. 1,1,1-Trichloro-ethane (71-55-6)			X												
28V. 1,1,2-Trichloro-ethane (79-00-5)			X												
29V Trichloro-ethylene (79-01-6)			X												
30V. Trichloro-fluoromethane (75-69-4)			X												
31V. Vinyl Chloride (75-01-4)			X												
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X												
2A. 2,4-Dichloro-phenol (120-83-2)			X												
3A. 2,4-Dimethyl-phenol (105-67-9)			X												
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X												
5A. 2,4-Dinitro-phenol (51-28-5)			X												
6A. 2-Nitrophenol (88-75-5)			X												
7A. 4-Nitrophenol (100-02-7)			X												
8A. P-Chloro-M-Cresol (59-50-7)			X												
9A. Pentachloro-phenol (87-86-5)			X												
10A. Phenol (108-95-2)			X												
11A. 2,4,6-Trichloro-phenol (88-05-2)			X												

 CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X												
2B. Acenaphtylene (208-96-8)			X												
3B. Anthracene (120-12-7)			X												
4B. Benzidine (92-87-5)			X												
5B. Benzo (*a*) Anthracene (56-55-3)			X												
6B. Benzo (*a*) Pyrene (50-32-8)			X												
7B. 3,4-Benzo-fluoranthene (205-99-2)			X												
8B. Benzo (*ghi*) Perylene (191-24-2)			X												
9B. Benzo (*k*) Fluoranthene (207-08-9)			X												
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)			X												
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)			X												
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)			X												
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)			X												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X												
15B. Butyl Benzyl Phthalate (85-68-7)			X												
16B. 2-Chloro-naphthalene (91-58-7)			X												
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X												
18B. Chrysene (218-01-9)			X												
19B. Dibenzo (*a,h*) Anthracene (53-70-3)			X												
20B. 1,2-Dichloro-benzene (95-50-1)			X												
21B. 1,3-Di-chloro-benzene (541-73-1)			X												

 CONTINUE ON PAGE V-7

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichloro-benzene (106-46-7)			X												
23B. 3,3-Dichloro-benzidine (91-94-1)			X												
24B. Diethyl Phthalate (84-66-2)			X												
25B. Dimethyl Phthalate (131 -11-3)			X												
26B. Di-N-Butyl Phthalate (84-74-2)			X												
27B. 2,4-Dinitro-toluene (121-14-2)			X												
28B. 2,6-Dinitro-toluene (606-20-2)			X												
29B. Di-N-Octyl Phthalate (117-84-0)			X												
30B. 1,2-Diphenyl-hydrazine (*as Azo-benzene*) (122-66-7)			X												
31B. Fluoranthene (206-44-0)			X												
32B. Fluorene (86-73-7)			X												
33B. Hexachloro-benzene (118-74-1)			X												
34B. Hexachloro-butadiene (87-68-3)			X												
35B. Hexachloro-cyclopentadiene (77-47-4)			X												
36B Hexachloro-ethane (67-72-1)			X												
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			X												
38B. Isophorone (78-59-1)			X												
39B. Naphthalene (91-20-3)			X												
40B. Nitrobenzene (98-95-3)			X												
41B. N-Nitro-sodimethylamine (62-75-9)			X												
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X												

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitro-sodiphenylamine (86-30-6)			X												
44B. Phenanthrene (85-01-8)			X												
45B. Pyrene (129-00-0)			X												
46B. 1,2,4-Tri-chlorobenzene (120-82-1)			X												
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X												
2P. α-BHC (319-84-6)			X												
3P. β-BHC (319-85-7)			X												
4P. γ-BHC (58-89-9)			X												
5P. δ-BHC (319-86-8)			X												
6P. Chlordane (57-74-9)			X												
7P. 4,4'-DDT (50-29-3)			X												
8P. 4,4'-DDE (72-55-9)			X												
9P. 4,4'-DDD (72-54-8)			X												
10P. Dieldrin (60-57-1)			X												
11P. α-Enosulfan (115-29-7)			X												
12P. β-Endosulfan (115-29-7)			X												
13P. Endosulfan Sulfate (1031-07-8)			X												
14P. Endrin (72-20-8)			X												
15P. Endrin Aldehyde (7421-93-4)			X												
16P. Heptachlor (76-44-8)			X												

 CONTINUE ON PAGE V-9

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
VA0053813	004/008

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)			X												
18P. PCB-1242 (53469-21-9)			X												
19P. PCB-1254 (11097-69-1)			X												
20P. PCB-1221 (11104-28-2)			X												
21P. PCB-1232 (11141-16-5)			X												
22P. PCB-1248 (12672-29-6)			X												
23P. PCB-1260 (11096-82-5)			X												
24P. PCB-1016 (12674-11-2)			X												
25P. Toxaphene (8001-35-2)			X												

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): VA0053813

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 002

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT							3. UNITS (*specify if blank*)		4. INTAKE (*optional*)		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Biochemical Oxygen Demand (*BOD*)												
b. Chemical Oxygen Demand (*COD*)												
c. Total Organic Carbon (*TOC*)												
d. Total Suspended Solids (*TSS*)												
e. Ammonia (*as N*)												
f. Flow	VALUE		VALUE		VALUE					VALUE		
g. Temperature (*winter*)	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature (*summer*)	VALUE		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM				STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)		X												
b. Chlorine, Total Residual	X													
c. Color		X												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)		X												
f. Nitrate-Nitrite (*as N*)		X												

 CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)		X												
h. Oil and Grease	X													
i. Phosphorus (as P), Total (7723-14-0)		X												
j. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate (*as* SO_4) (14808-79-8)		X												
l. Sulfide (*as S*)		X												
m. Sulfite (*as* SO_3) (14265-45-3)		X												
n. Surfactants		X												
o. Aluminum, Total (7429-90-5)		X												
p. Barium, Total (7440-39-3)		X												
q. Boron, Total (7440-42-8)		X												
r. Cobalt, Total (7440-48-4)		X												
s. Iron, Total (7439-89-6)		X												
t. Magnesium, Total (7439-95-4)		X												
u. Molybdenum, Total (7439-98-7)		X												
v. Manganese, Total (7439-96-5)		X												
w. Tin, Total (7440-31-5)		X												
x. Titanium, Total (7440-32-6)		X												

 CONTINUE ON PAGE V-3

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
VA0053813	002

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X												
2M. Arsenic, Total (7440-38-2)			X												
3M. Beryllium, Total (7440-41-7)			X												
4M. Cadmium, Total (7440-43-9)			X												
5M. Chromium, Total (7440-47-3)			X												
6M. Copper, Total (7440-50-8)	X		X												
7M. Lead, Total (7439-92-1)			X												
8M. Mercury, Total (7439-97-6)			X												
9M. Nickel, Total (7440-02-0)			X												
10M. Selenium, Total (7782-49-2)			X												
11M. Silver, Total (7440-22-4)			X												
12M. Thallium, Total (7440-28-0)			X												
13M. Zinc, Total (7440-66-6)	X														
14M. Cyanide, Total (57-12-5)			X												
15M. Phenols, Total			X												
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

 CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			X												
2V. Acrylonitrile (107-13-1)			X												
3V. Benzene (71-43-2)	X														
4V. Bis (*Chloro-methyl*) Ether (542-88-1)			X												
5V. Bromoform (75-25-2)			X												
6V. Carbon Tetrachloride (56-23-5)			X												
7V. Chlorobenzene (108-90-7)			X												
8V. Chlorodi-bromomethane (124-48-1)			X												
9V. Chloroethane (75-00-3)			X												
10V. 2-Chloro-ethylvinyl Ether (110-75-8)			X												
11V. Chloroform (67-66-3)			X												
12V. Dichloro-bromomethane (75-27-4)			X												
13V. Dichloro-difluoromethane (75-71-8)			X												
14V. 1,1-Dichloro-ethane (75-34-3)			X												
15V. 1,2-Dichloro-ethane (107-06-2)			X												
16V. 1,1-Dichloro-ethylene (75-35-4)			X												
17V. 1,2-Dichloro-propane (78-87-5)			X												
18V. 1,3-Dichloro-propylene (542-75-6)			X												
19V. Ethylbenzene (100-41-4)			X												
20V. Methyl Bromide (74-83-9)			X												
21V. Methyl Chloride (74-87-3)			X												

 CONTINUE ON PAGE V-5

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)			X												
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X												
24V. Tetrachloro-ethylene (127-18-4)			X												
25V. Toluene (108-88-3)			X												
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X												
27V. 1,1,1-Trichloro-ethane (71-55-6)			X												
28V. 1,1,2-Trichloro-ethane (79-00-5)			X												
29V Trichloro-ethylene (79-01-6)			X												
30V. Trichloro-fluoromethane (75-69-4)			X												
31V. Vinyl Chloride (75-01-4)			X												
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X												
2A. 2,4-Dichloro-phenol (120-83-2)			X												
3A. 2,4-Dimethyl-phenol (105-67-9)			X												
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X												
5A. 2,4-Dinitro-phenol (51-28-5)			X												
6A. 2-Nitrophenol (88-75-5)			X												
7A. 4-Nitrophenol (100-02-7)			X												
8A. P-Chloro-M-Cresol (59-50-7)			X												
9A. Pentachloro-phenol (87-86-5)			X												
10A. Phenol (108-95-2)			X												
11A. 2,4,6-Trichloro-phenol (88-05-2)			X												

 CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X												
2B. Acenaphtylene (208-96-8)			X												
3B. Anthracene (120-12-7)			X												
4B. Benzidine (92-87-5)			X												
5B. Benzo (*a*) Anthracene (56-55-3)			X												
6B. Benzo (*a*) Pyrene (50-32-8)			X												
7B. 3,4-Benzo-fluoranthene (205-99-2)			X												
8B. Benzo (*ghi*) Perylene (191-24-2)			X												
9B. Benzo (*k*) Fluoranthene (207-08-9)			X												
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)			X												
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)			X												
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)			X												
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)			X												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X												
15B. Butyl Benzyl Phthalate (85-68-7)			X												
16B. 2-Chloro-naphthalene (91-58-7)			X												
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X												
18B. Chrysene (218-01-9)			X												
19B. Dibenzo (*a,h*) Anthracene (53-70-3)			X												
20B. 1,2-Dichloro-benzene (95-50-1)			X												
21B. 1,3-Di-chloro-benzene (541-73-1)			X												

 CONTINUE ON PAGE V-7

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichloro-benzene (106-46-7)			X												
23B. 3,3-Dichloro-benzidine (91-94-1)			X												
24B. Diethyl Phthalate (84-66-2)			X												
25B. Dimethyl Phthalate (131 -11-3)			X												
26B. Di-N-Butyl Phthalate (84-74-2)			X												
27B. 2,4-Dinitro-toluene (121-14-2)			X												
28B. 2,6-Dinitro-toluene (606-20-2)			X												
29B. Di-N-Octyl Phthalate (117-84-0)			X												
30B. 1,2-Diphenyl-hydrazine (*as Azo-benzene*) (122-66-7)			X												
31B. Fluoranthene (206-44-0)			X												
32B. Fluorene (86-73-7)			X												
33B. Hexachloro-benzene (118-74-1)			X												
34B. Hexachloro-butadiene (87-68-3)			X												
35B. Hexachloro-cyclopentadiene (77-47-4)			X												
36B Hexachloro-ethane (67-72-1)			X												
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			X												
38B. Isophorone (78-59-1)			X												
39B. Naphthalene (91-20-3)			X												
40B. Nitrobenzene (98-95-3)			X												
41B. N-Nitro-sodimethylamine (62-75-9)			X												
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X												

 CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitro-sodiphenylamine (86-30-6)			X												
44B. Phenanthrene (85-01-8)			X												
45B. Pyrene (129-00-0)			X												
46B. 1,2,4-Tri-chlorobenzene (120-82-1)			X												
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X												
2P. α-BHC (319-84-6)			X												
3P. β-BHC (319-85-7)			X												
4P. γ-BHC (58-89-9)			X												
5P. δ-BHC (319-86-8)			X												
6P. Chlordane (57-74-9)			X												
7P. 4,4'-DDT (50-29-3)			X												
8P. 4,4'-DDE (72-55-9)			X												
9P. 4,4'-DDD (72-54-8)			X												
10P. Dieldrin (60-57-1)			X												
11P. α-Enosulfan (115-29-7)			X												
12P. β-Endosulfan (115-29-7)			X												
13P. Endosulfan Sulfate (1031-07-8)			X												
14P. Endrin (72-20-8)			X												
15P. Endrin Aldehyde (7421-93-4)			X												
16P. Heptachlor (76-44-8)			X												

 CONTINUE ON PAGE V-9

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
VA0053813	002

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)			X												
18P. PCB-1242 (53469-21-9)			X												
19P. PCB-1254 (11097-69-1)			X												
20P. PCB-1221 (11104-28-2)			X												
21P. PCB-1232 (11141-16-5)			X												
22P. PCB-1248 (12672-29-6)			X												
23P. PCB-1260 (11096-82-5)			X												
24P. PCB-1016 (12674-11-2)			X												
25P. Toxaphene (8001-35-2)			X												

Please print or type in the unshaded areas only.

EPA ID Number (*copy from Item 1 of Form 1*)
VAD0053813

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

FORM 2F NPDES

U.S. Environmental Protection Agency
Washington, DC 20460

Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

I. Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. Outfall Number (*list*)	B. Latitude			C. Longitude			D. Receiving Water (*name*)
902	36	50	11	76	16	30	Eastern Branch Elizabeth River
904	36	50	12	76	16	36	Eastern Branch Elizabeth River
908	36	50	12	76	16	37	Eastern Branch Elizabeth River
010	36	50	9	76	16	34	Eastern Branch Elizabeth River
012	36	50	11	76	16	39	Eastern Branch Elizabeth River
003 VAR0051706	36	50	18	76	16	46	Eastern Branch Elizabeth River
New Drainage 013	36	50	14	76	16	31	Eastern Branch Elizabeth River
Bay Disposal	36	50	02	76	16	34	Eastern Branch Elizabeth River

II. Improvements

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

1. Identification of Conditions, Agreements, Etc.	2. Affected Outfalls		3. Brief Description of Project	4. Final Compliance Date	
	number	source of discharge		a. req.	b. proj.
NA					

B: You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfalls(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage of disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which received storm water discharges from the facility.

Continue on Page 2

Continued from the Front

IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of imperious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface *(provide units)*	Total Area Drained *(provide units)*	Outfall Number	Area of Impervious Surface *(provide units)*	Total Area Drained *(provide units)*
904	47700	47700	012	61220	61220
908	17500	17500	003*	49615 VAR051706	49615
902	15500	15500	013*	108441 New drainage pipe at marine rlwy	108441
010	33500	35500	Bay	TBD after possession of property.	TBD
011	79750	79750	Disp		

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas, and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

Discharges from Outfalls 904 and 908 have been contained and stormwaters are treated through the facility Waste Water Treatment Plant, Outfall 009. Outfall 903, Crandall Marine Railway has been physically removed from operation. Outfall 902, conventional Marine railway remains in operation. Processes at these outfalls are abrasive grit blasting with coal slag, hydroblasting and vapor blasting using garnet or horne blend with a water vapor to supress dust. No tributyltin has been used in the facility during the past permit period. Marine coatings applied including epoxies, enamels, polisiloxaines and antifoulants containing cuprious oxide and zinc. Haybales remain the BMP used at outfall 002 to control dishcharges. Outfall 010 is a laydown area for materials and equipment. Outfall 012 is drainage from the southern boundary and a portion of the West Yard where some material and equipment storage is found. Outfall 003* (VAR051726) is stormwater drainage from a ditch that formerly seperated Norfolk Env. property that Colonna's currently uses as a Marine Travel Lift facility. Outfall 013* is a new stormwater drain with three drop inlets. Colonna's anticipates taking posession of the property currently occupied by Bay Disposal, directly south of our main yard mid-year. The facility will initially be used for employee parking and vehicle maintenance. An existing stormwater outfall exists at this location and Colonna's requests its incorporation into this permit.

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
904/908	Collection of stormwater for treatment and discharge through outfall 009.	4a after treatment
902	Haybale filtration &BMP's.	1Q
010/012/003	Regular documented inspection and cleanout.	NA

V. Nonstormwater Discharges

A. I certify under penalty of law hat the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharged from these outfall(s) are identified in either an accompanying Form 2C or From 2E application for the outfall.

Name and Official Title *(type or print)*	Signature	Date Signed
Frank Wheatley Director of Complianc		2/18/15

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

NA

VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

NA

 Continue on Page 3

Continued from Page 2

EPA ID Number *(copy from Item 1 of Form 1)*
VA0053813

VII. Discharge Information

A, B, C, & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided. Table VII-A, VII-B, VII-C are included on separate sheets numbers VII-1 and VII-2.

E. Potential discharges not covered by analysis – is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☑ Yes (*list all such pollutants below*) ☐ No (*go to Section IX*)

Chlorine Total Residual
Oil & Grease
Phosphorus
Surfactants
Aluminum Tatal
Barium, Total
Iron, Total
Chromium, Total
Cadmium, Total
Copper, Total
Magnesium, Total
Lead, Total
Nickel, Total
Zinc, Total
Titanium, Total

VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes (*list all such pollutants below*) ☑ No (*go to Section IX*)

IX. Contract Analysis Information

Were any of the analyses reported in Item VII performed by a contract laboratory or consulting firm?

☑ Yes (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ No (*go to Section X*)

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
Universal Laboratories	20 Research Drive Hampton, VA 23666	757-865-0880	

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official Title (*Type Or Print*)	B. Area Code and Phone No.
Frank Wheatley	(757) 545-2414
C. Signature	D. Date Signed

Continued from Page 2

EPA ID Number *(copy from Item 1 of Form 1)*

VII. Discharge Information

A, B, C, & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided. Table VII-A, VII-B, VII-C are included on separate sheets numbers VII-1 and VII-2.

E. Potential discharges not covered by analysis – is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ Yes *(list all such pollutants below)* ☐ No *(go to Section IX)*

VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☑ Yes *(list all such pollutants below)* ☐ No *(go to Section IX)*

IX. Contract Analysis Information

Were any of the analyses reported in item VII performed by a contract laboratory or consulting firm?

☑ Yes *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ No *(go to Section X)*

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
Universal Laboratories	20 Research Drive Hampton, VA 23666	757-865-0880	

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official Title *(Type Or Print)*	B. Area Code and Phone No.
FRANK Wheatley Director of Compliance	757-545-2416
C. Signature	D. Date Signed
F. Wheatley	6/9/15

Thomas, Carl (DEQ)

From: frank wheatley [fwheatley@colonnaship.com]
Sent: Tuesday, June 09, 2015 3:41 PM
To: Thomas, Carl (DEQ)
Subject: RE: Emailing: DOC
Attachments: SKMBT_C55415060915350.pdf

Carl,

Thanks for the update. The signed page 3 is attached. I recall a thumb drive with "Colonnas Shipyard" on one side was submitted after the package with 5 copies was dropped off but my recollection may be faulty. Are you asking me to "Have the 902 and 904 submittals..." or are you saying you already have them?

Frank Wheatley
Director of Compliance
Colonna's Shipyard Inc.
400 East Indian River Road
Norfolk VA 23523
757-545-2414 x445
fwheatley@colonnaship.com

-----Original Message-----
From: Thomas, Carl (DEQ) [mailto:Carl.Thomas@deq.virginia.gov]
Sent: Tuesday, June 09, 2015 2:56 PM
To: frank wheatley
Subject: RE: Emailing: DOC

Good Afternoon Mr. Wheatley,

Permits continue to move from the TRO and your permit has arrived near the top of the pile for processing. Going through the applications received at the TRO and had a couple of questions.

Was an electronic version of the entire permit application package submitted with the paper copies? If not, that is OK, as I will scan your assembled package (along with the stuff received over the last couple of months) for the e-version that we now use for routing to others in the process and for our files at the end of the process. The reissue reminder letter did ask for a single printed copy, with wet-signatures, of the entire app package in lieu of all the printed copies and a disc or e-mail with the e-version of the entire app provided.

EPA Form 2F submitted on 02/19/15, page 3 of 3, is lacking your signature. Please sign that page and send it over via e-mail for inclusion into the package in-house.

Have the 902 and 904 submittals and including them into the February app package for scanning. Reducing the enclosed plats for scanning into the e-version of the app as well.

As of this date and time, these are the issues pertaining to the app, but there might be some other questions as this process unfolds further over the next couple of weeks. Most important thing is the unsigned EPA Form 2F on page of 3 of that form.

Thanks.

carl.thomas@deq.virginia.gov
757.518.2161

-----Original Message-----
From: frank wheatley [mailto:fwheatley@colonnaship.com]
Sent: Monday, April 20, 2015 8:42 AM
To: Thomas, Carl (DEQ)
Subject: FW: Emailing: DOC

Carl,

Attached is lab data and pages from 2F for outfall 902. I believe this is the last piece of permit data I owed. Let me know if there is something else I may have overlooked.

Thanks

Frank Wheatley
Director of Compliance
Colonna's Shipyard Inc.
400 East Indian River Road
Norfolk VA 23523
757-545-2414 x445
fwheatley@colonnaship.com

-----Original Message-----
From: Kristina Myers
Sent: Monday, April 20, 2015 8:40 AM
To: frank wheatley
Subject: Emailing: DOC

Your message is ready to be sent with the following file or link attachments:

DOC

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

EPA ID Number (*copy from Item 1 of Form 1*)
VA0053813 Outfall 010

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge information *(Continued from page 3 of Form 2F)*

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	54.2 mg/l	N/A	14.675 ug/l		4	Repair of marine vessels
Biological Oxygen Demand (BOD5)	12 mg/l				1	Repair of marine vessels
Chemical Oxygen Demand (COD)	156 mg/l				1	Repair of marine vessels
Total Suspended Solids (TSS)	901 mg/l		287.5 ug/l		4	Repair of marine vessels
Total Nitrogen	2.6 mg/l				1	Repair of marine vessels
Total Phosphorus	.25 mg/l				1	Repair of marine vessels
pH	Minimum 6.09 SU	Maximum 7.22 SU	Minimum	Maximum	4	Repair of marine vessels

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
NA						

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Chlorine	.10 mg/l				1	Repair of marine vessels
Oil/Grease	54.2 mg/l		14.675 mg/l		4	Repair of marine vessels
Copper	.405 mg/l		.198 mg/l		4	Repair of marine vessels
Zinc	.546 mg/l		.430 mg/l		4	Repair of marine vessels
Aluminum	8.175 mg/l				1	Repair of marine vessels
Cadmium	<.005 mg/l				1	Repair of marine vessels
Chromium	.019 mg/l				1	Repair of marine vessels
Iron	12.99 mg/l				1	Repair of marine vessels
Lead	.046 mg/l				1	Repair of marine vessels
Magnesium	4.88 mg/l				1	Repair of marine vessels
Nickel	.050 mg/l				1	Repair of marine vessels
Titanium	.403 mg/l				1	Repair of marine vessels
Barium	.210 mg/l					Repair of marine vessels
Surfactant						Lab exceeded holding time

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
NA					

7. Provide a description of the method of flow measurement or estimate.

On-site weather station measures stormwater amount. Estimated surface areas.

EPA ID Number (*copy from Item 1 of Form 1*)
VA0053813 Outfall 012

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge information *(Continued from page 3 of Form 2F)*

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	<1 mg/l	N/A	.875 ug/l		4	Repair of marine vessels
Biological Oxygen Demand (BOD5)	9 mg/l				1	Repair of marine vessels
Chemical Oxygen Demand (COD)	166 mg/l				1	Repair of marine vessels
Total Suspended Solids (TSS)	517 mg/l		361.5 ug/l		4	Repair of marine vessels
Total Nitrogen	2.1				1	Repair of marine vessels
Total Phosphorus	.67				1	Repair of marine vessels
pH	Minimum 6.13 SU	Maximum 7.29 SU	Minimum	Maximum	4	Repair of marine vessels

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
NA						

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

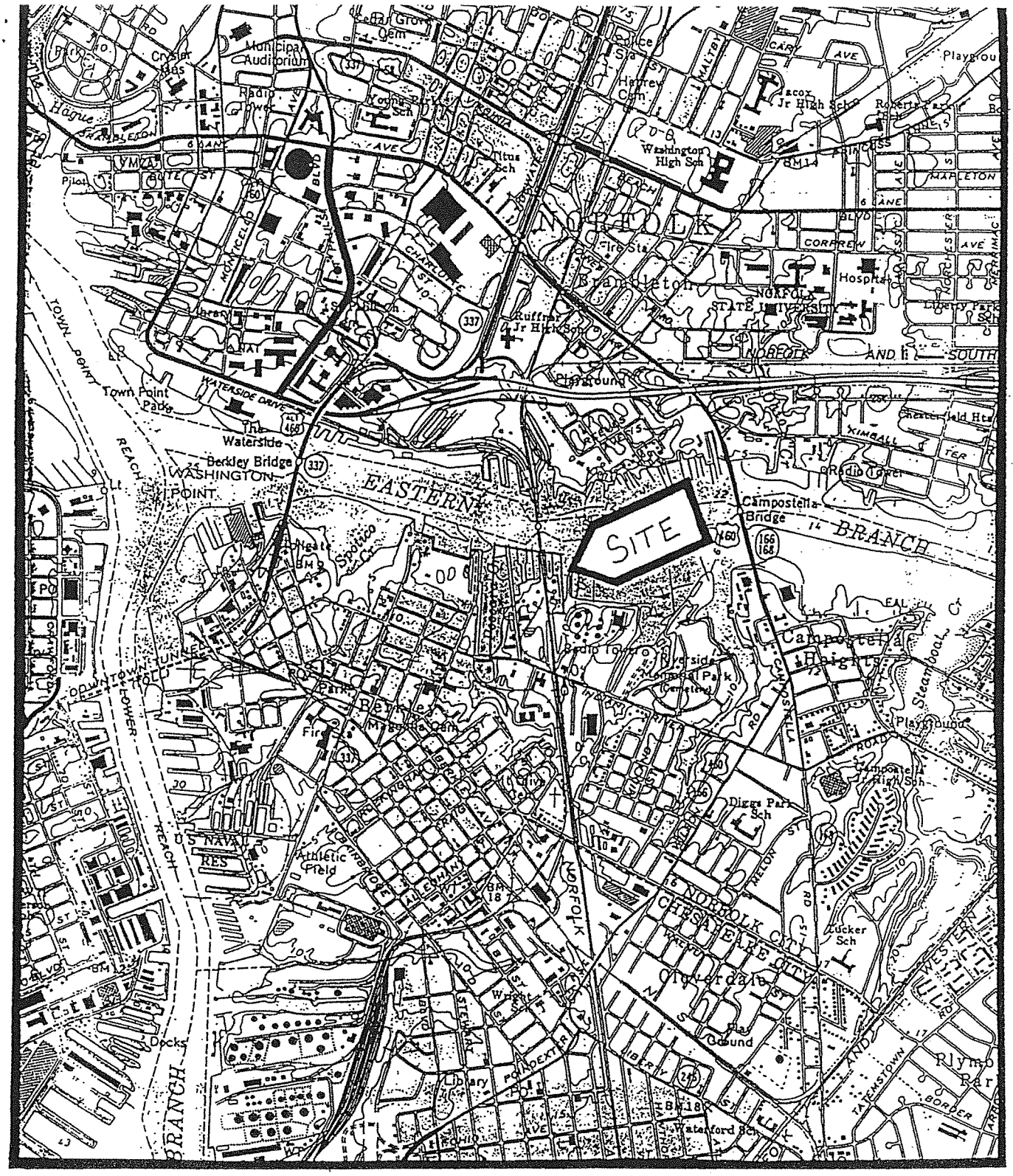
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Chlorine	.01 mg/l				1	Repair of marine vessels
Oil/Grease	<1 mg/l		.875 mg/l		4	Repair of marine vessels
Copper	.124 mg/l		.084 mg/l		4	Repair of marine vessels
Zinc	.367 mg/l		.161 mg/l		4	Repair of marine vessels
Aluminum	30.115 mg/l				1	Repair of marine vessels
Cadmium	<.005 mg/l				1	Repair of marine vessels
Chromium	.040mg/l				1	Repair of marine vessels
Iron	28.8 mg/l				1	Repair of marine vessels
Lead	.086 mg/l				1	Repair of marine vessels
Magnesium	16.47 mg/l				1	Repair of marine vessels
Nickel	.098 mg/l				1	Repair of marine vessels
Titanium	1.054mg/l				1	Repair of marine vessels
Barium	.223 mg/l				1	Repair of marine vessels
Surfactant						Lab exceeded holding time

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
NA					

7. Provide a description of the method of flow measurement or estimate.

On-site weather station measures stormwater amount. Estimated surface areas.



Topographic features in vicinity of subject site; Norfolk South, Virginia Quadrangle, 1965 (photorevised 1986).

Scale: 1"=2000'

EPA ID Number (*copy from Item 1 of Form 1*)
VA0053813 Outfall 902

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge information *(Continued from page 3 of Form 2F)*

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	<1.4 mg/l	N/A	1.23 mg/l		3	Repairs to Marine Vessels
Biological Oxygen Demand (BOD5)						Outfall under repair,sample later
Chemical Oxygen Demand (COD)						Outfall under repair,sample later
Total Suspended Solids (TSS)	7750 mg/l		3944 mg/l		3	Repairs to Marine Vessels
Total Nitrogen						Outfall under repair,sample later
Total Phosphorus						Outfall under repair,sample later
pH	Minimum 6.42 SU	Maximum 8.6 SU	Minimum	Maximum		Repairs to Marine Vessels

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
NA						

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil&Grease	<1.4 mg/l		1.23 mg/l		3	Repairs to marine vessels
Copper	1.108 mg/l		.480 mg/l		3	Repairs to marine vessels
Zinc	3.150 mg/l		1.398 mg/l		3	Repairs to marine vessels

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
NA					

7. Provide a description of the method of flow measurement or estimate.

On-site weather stationmeasures stormwater amount. Estimated surface area.

EPA ID Number (*copy from Item 1 of Form 1*)
VAR051706 Outfall 003

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge information *(Continued from page 3 of Form 2F)*

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease		N/A				
Biological Oxygen Demand (BOD5)						
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)	774 MG/L		437 MG/L		2	
Total Nitrogen	8.3 MG/L		4.95 MG/L		2	
Total Phosphorus	.58 MG/L		.395 MG/L		2	
pH	Minimum NA	Maximum NA	Minimum	Maximum		

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
NA						

Continue on Reverse

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil&Grease	Not required					
Copper	Not Required					
Zinc	Not Required					

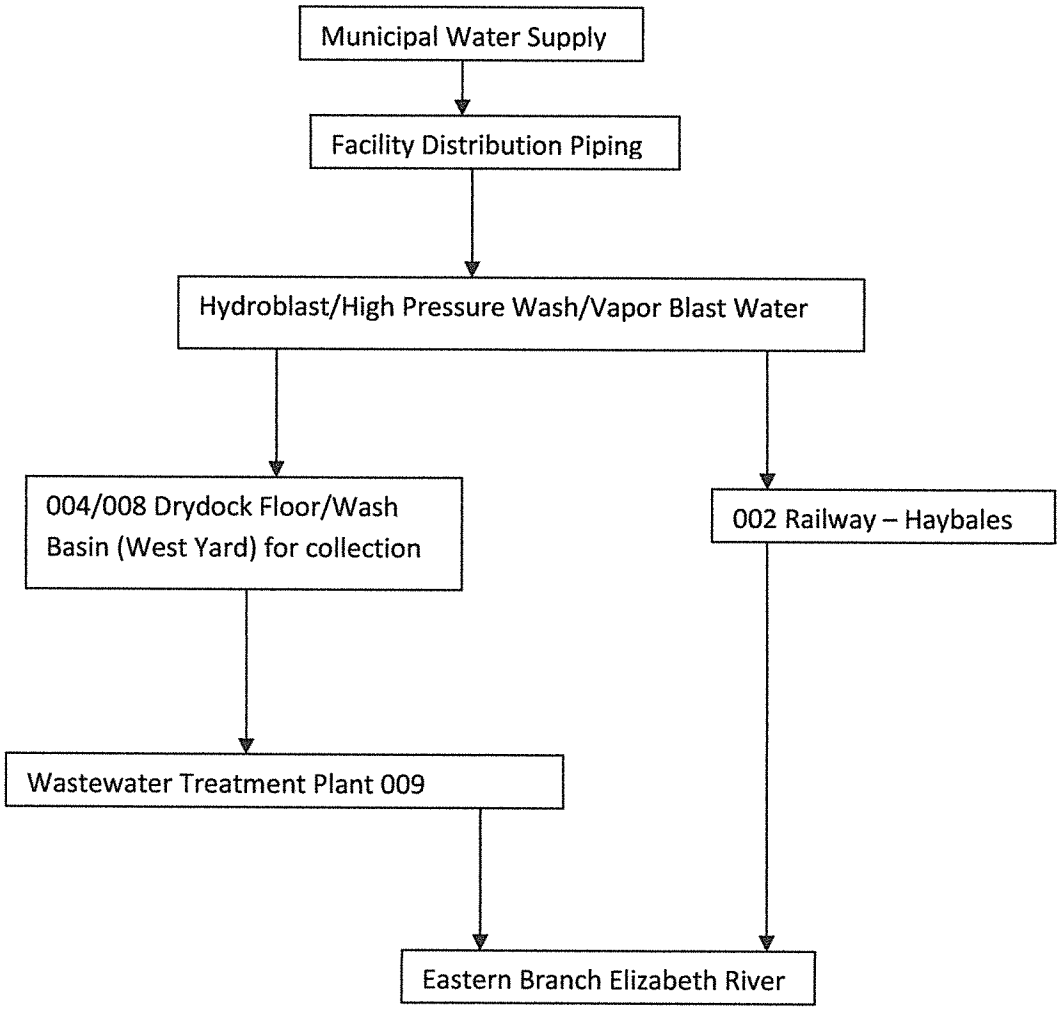
Part D -- Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*

7. Provide a description of the method of flow measurement or estimate.

Line Drawing of Hydroblast/High Pressure Wash/Vapor Blast Water flow through Facility

(Outfalls 002/004/008/009)



EPA ID Number (*copy from Item 1 of Form 1*)
VA0053813

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge Information *(Continued from page 3 of Form 2F)*

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	ND	N/A			1	Abrasive blasting, marine coatings
Biological Oxygen Demand (BOD5)	16 mg/l				1	Abrasive blasting, marine coatings
Chemical Oxygen Demand (COD)	349.7 mg/l				1	Abrasive blasting, marine coatings
Total Suspended Solids (TSS)	13 mg/l				1	Abrasive blasting, marine coatings
Total Nitrogen	3.8 mg/l				1	Abrasive blasting, marine coatings
Total Phosphorus	.02 mg/l				1	Abrasive blasting, marine coatings
pH	Minimum 6.72	Maximum	Minimum	Maximum	1	Abrasive blasting, marine coatings

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
NA						

Continue on Reverse

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil&Grease						
Copper						
Zinc						

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*

7. Provide a description of the method of flow measurement or estimate.

Universal Laboratories
20 Research Drive
Hampton, VA 23666
Phone: 1-800-695-2162

Client Report For:	**Colonnas Shipyard**
Attention:	Mr. Frank Wheatley
Client Address:	400 East Indian River Road Norfolk, VA 23523
Project:	**OF-904**
Order Number:	**1503024**
Report Date:	03/10/2015
Lab Receipt Date:	03/03/2015
Comment:	This report contains the analytical results for the indicated Project and Order. The results contained in this report relate only to the samples identified in this Order. The analytical results meet all requirements of NELAC unless specifically stated. This report shall not be reproduced except in full.

The data in this report has been reviewed and validated by: Carol Kleemeier Signature

Carol Kleemeier Name

Pres/Tech Director Title

Universal Laboratories

Client: Colonnas Shipyard

Lab ID: 1503024-001

Client Sample ID: OF-904 Grab

Collection Date: 03/03/2015 09:00

Matrix: AQUEOUS

Analyses

Biochemical Oxygen Demand (BOD) 5 Day — *SM 5210 B (2011)*

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Biochemical Oxygen Demand	16	mg/L	2	3/8/15 18:16	SW		460036

Chemical Oxygen Demand — *HACH 8000*

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Chemical Oxygen Demand	349.7	mg/L	20	03/09/15 14:12	EK		460036

Nitrogen, Total — *EPA 351.2/ EPA 353.2*

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Nitrate/Nitrite as N	0.46	mg/L	0.1	03/05/2015 20:16	RM		460036
Nitrogen, Total Kjeldahl	3.4	mg/L	0.2	03/05/2015 20:16	RM		460036
Nitrogen, Total	3.8	mg/L	0.2	03/05/2015 20:16	RM		

Oil and Grease — *EPA 1664A*

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Oil and Grease	ND	mg/L	5	3/4/15 13:57	LS		460036

Phosphorus, Total — *EPA 365.1*

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Phosphorus, Total	0.02	mg/L	0.02	03/04/2015 19:07	RM		460036

Solids, Total Suspended — *SM 2540D (2011)*

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Solids, Total Suspended	13	mg/L	1	03/03/15 21:22	EK		460036

Glossary of Terms and Abbreviations

B	Analyte was found in the method blank
D	RPD outside acceptable limits
H	Holding time exceeded
IS	Internal standard outside acceptable limits
J	Result above calibration curve - results are approximate
L	LCS Outside acceptable limits
MI	Matrix interance
MS	Matrix spike recovery outside acceptable limits
QC	Method QC criteria not met
S	Surrogate outside acceptable limits
V	ICV/CCV/FCV outside acceptable limits
Calibration Verification (Initial, Continuing, or Final)	A standard analyzed at different times to verify that the initial calibration curve is still valid.
Holding Time	The maximum time that samples may be held prior to analysis and still be considered valid or not compromised.
Internal Standard	A known amount of standard added to a test portion of a sample as a reference for evaluating and controlling the precision and bias of the applied analytical method.
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.
Method Blank	A sample of a matrix similar to the batch associated samples (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples.
MS/MSD (Matrix Spike or Matrix Spike Duplicate)	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 analytes concentration is available. Matrix Spikes are used, for example, to determine the effect of the matrix on a method's recovery efficiency.
RL (Reporting Limit)	The minimum levels, concentrations, or quantities of a target analyte that can be reported within a specified degree of confidence. Generally, this number is equal to or just above the lowest calibration standard run with the analytical batch.
RPD (Relative Percent Difference)	The difference between a set of duplicates or sample spike duplicates.
Surrogate	A substance with properties that mimic the analyte of interest. It is unlikely to be found in environmental samples and is added to them for quality control purposes in Organics.

Universal Laboratories

20 Research Drive Hampton, Va.
Phone: (757)-865-0880 Fax: (757) 865-8014

EXPRESS LOG-IN CHAIN OF CUSTODY

UL ORDER ID 3/5 ~~UL1501157~~

Order Comment: 1503024

Pre-Log Date: Thursday, January 08, 2015

Samples Must Be Received on or Before:

CS Colonnas Shipyard
400 East Indian River Road
Norfolk VA 23523

Customer Contact: Frank Wheatley

Phone Number: (757-)545-2414 x44
FaxNumber: (757) 545-5014

ProjectID:

Project Notes:

QuoteID:
Permit Number:
ProjectLocation:

UL1501157-001 OF-902 Grab

Sample Date/Time ___/___/___ ___:___
Field Reading
Sampler Initials

Stormwater

				Container Type	Preservative
TP	Phosphorus (Total)			Amber Glass	H2SO4 pH<2/4C
COD	Chemical Oxygen Demand	TN	Total Nitrogen	HDPE	H2SO4 pH<2/4C
BOD	Biochemical Oxygen Demand	TSS	Total Suspended Solids	HDPE	Refrigerate, 4 C
CPH	pH (client provided)			N/A	N/A
OGT	Hexane Extract. Material (O&G)			WMG (solvent rins	H2SO4 pH<2/4C

UL1501157-002 OF-904 Grab

Sample Date/Time 3/3/15 0900 ___/___/___ ___:___
Field Reading
Sampler Initials

Stormwater

				Container Type	Preservative
TP 250	Phosphorus (Total)			Amber Glass	H2SO4 pH<2/4C
COD	Chemical Oxygen Demand	TN	Total Nitrogen STOP	HDPE	H2SO4 pH<2/4C
BOD	Biochemical Oxygen Demand	TSS	Total Suspended Solids	HDPE	Refrigerate, 4 C
CPH	pH (client provided)			N/A	N/A
OGT	Hexane Extract. Material (O&G) 2-1L			WMG (solvent rins	H2SO4 pH<2/4C

Comments:

CN int check Phenol in check NH3 int check BOD int check

Cooler Temp @ Log-in 1°C
Preservation <2

Relinquished By Signature:	Company: CSI	Date/Time: 3/3/15 9:38
Received By Signature:	Company: UL	Date/Time: 3/3/15 9:38
Relinquished By Signature:	Company: UL	Date/Time: 3/3/15 1032
Received By Signature:	Company: UL	Date/Time: 3/3/15 1053
Relinquished By Signature:	Company:	Date/Time:
Received By Signature:	Company:	Date/Time:

Thomas, Carl (DEQ)

From: frank wheatley [fwheatley@colonnaship.com]
Sent: Wednesday, March 11, 2015 10:48 AM
To: Thomas, Carl (DEQ)
Subject: Permit Renewal

Good morning Carl,

Thought I would give you the latest on Colonna's. Friday March 13, 2015 We will officially announce the acquisition of 151 South Main Street where Norfolk Tug currently operates from. The property encompasses more than just the Norfolk Tug site and includes the former Colonial Helicopter and former Berkeley staffing sites also. I am waiting for drawings that show the entire property. Haven't found any existing permit references yet but I only received limited information today. As a side note, this property is the original site of Colonna's Shipyard in 1875.

Also note that we are selling Colonna Yachts and will no longer operate from there. Not sure what I need to do to terminate that permit. My current understanding is that a gravel operation will operate from the location, no shipyard activity.

I have sample results from outfall 904 for the permit renewal. Should I revise the form 2F and resubmit?

I will keep you posted, sorry for the surprises.

Frank Wheatley
Director of Compliance
Colonna's Shipyard Inc.
400 East Indian River Road
Norfolk VA 23523
757-545-2414 x445
fwheatley@colonnaship.com

COLONNA'S SHIPYARD, INC.

400 East Indian River Road
Norfolk, VA 23523
757-545-2414
757-545-5014 Fax

April 20, 2015

Carl D. Thomas
Environmental Engineer Sr.
Department of Environmental Quality
5636 Southern Boulevard
Virginia Beach, VA 23462

RE: VPDES Permit VA0053813 Colonna's Shipyard Inc.

Dear Mr. Thomas:

Attached please find the application form 2F with specific sampling data for outfall 902, stormwater from conventional railway for reissue of the referenced permit. This should complete the submission for permit renewal.

If there are questions, feel free to contact me at 757-545-2414 ext.445 or fwheatley@colonnaship.com. Thank you for your assistance with this matter.

Sincerely,

Frank Wheatley
Compliance Director

EPA ID Number (*copy from Item 1 of Form 1*)
VA0053813 Outfall 902

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge Information *(Continued from page 3 of Form 2F)*

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	<1.4 mg/l	N/A	2.425 mg/l		4	Repairs to Marine Vessels
Biological Oxygen Demand (BOD5)	50 mg/l				1	Repairs to Marine Vessels
Chemical Oxygen Demand (COD)	171.7 mg/l				1	Repairs to Marine Vessels
Total Suspended Solids (TSS)	7750 mg/l		2969 mg/l		4	Repairs to Marine Vessels
Total Nitrogen	7.7 mg/l				1	Repairs to Marine Vessels
Total Phosphorus	.4 mg/l				1	Repairs to Marine Vessels
pH	Minimum 6.42 SU	Maximum 8.6 SU	Minimum	Maximum		Repairs to Marine Vessels

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
NA						

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil&Grease	<1.4 mg/l		1.23 mg/l		3	Repairs to marine vessels
Copper	1.108 mg/l		.480 mg/l		3	Repairs to marine vessels
Zinc	3.150 mg/l		1.398 mg/l		3	Repairs to marine vessels
Aluminum	3.62 mg/l					
Barium	.154 mg/l					
Cadmium	ND					
Chromium	.036 mg/l					
Iron	5.42 mg/l					
Lead	.0129 MG/L					
Magnesium	5.61 mg/l					
Nickel	.050 mg/l					
Titanium	.365 mg/l					
Chlorine	ND					
MBAS	ND					

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
NA					

7. Provide a description of the method of flow measurement or estimate.

On-site weather stationmeasures stormwater amount. Estimated surface area.

Universal Laboratories
20 Research Drive
Hampton, VA 23666
Phone: 1-800-695-2162
Fax: **757-865-8014**

Client Report For:	**Colonnas Shipyard**
Attention:	Mr. Frank Wheatley
Client Address:	400 East Indian River Road Norfolk, VA 23523
Project:	
Order Number:	**1503489**
Report Date:	04/10/2015
Lab Receipt Date:	03/26/2015
Comment:	TSS for OF-902 exceeds monthly average

This report contains the analytical results for the indicated Project and Order. The results contained in this report relate only to the samples identified in this Order. The analytical results meet all requirements of NELAC unless specifically stated. This report shall not be reproduced except in full.

The data in this report has been reviewed and validated by: Carol Kleemeier Signature

Carol Kleemeier Name

Pres/Tech Director Title

Universal Laboratories

Client: Colonnas Shipyard
Lab ID: 1503489-001
Permit ID VA0053813

Client Sample ID: OF-902 Grab
Collection Date: 03/26/2015 12:50
Matrix: AQUEOUS

Analyses

Metals by ICP — ***EPA 200.7***

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Aluminum, Total	3.62	mg/L	0.005	03/31/2015 14:06	LS		460036
Barium, Total	0.154	mg/L	0.005	03/31/2015 14:06	LS		460036
Cadmium, Total	ND	mg/L	0.005	03/31/2015 14:06	LS		460036
Chromium, Total	0.0360	mg/L	0.005	03/31/2015 14:06	LS		460036
Iron, Total	5.42	mg/L	0.05	03/31/2015 14:06	LS		460036
Lead, Total	0.0129	mg/L	0.005	03/31/2015 14:06	LS		460036
Magnesium, Total	5.61	mg/L	0.05	03/31/2015 14:06	LS		460036
Nickel, Total	0.050	mg/L	0.005	03/31/2015 14:06	LS		460036
Titanium, Total	0.365	mg/L	0.005	03/31/2015 14:06	LS		460036

Nitrogen, Total — ***EPA 351.2/ EPA 353.2***

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Nitrate/Nitrite as N	2.53	mg/L	0.1	03/31/2015 13:43	RB		460036
Nitrogen, Total Kjeldahl	5.2	mg/L	0.2	03/31/2015 13:43	RB		460036
Nitrogen, Total	7.7	mg/L	0.2	03/31/2015 13:43	RB		

Biochemical Oxygen Demand (BOD) 5 Day — ***SM 5210 B (2011)***

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Biochemical Oxygen Demand	50	mg/L	2	04/01/2015 17:18	EK		460036

Chemical Oxygen Demand — ***HACH 8000***

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Chemical Oxygen Demand	171.7	mg/L	20	04/01/2015 14:36	EK		460036

SM 5540C (2011)

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Methylene Blue Active Substances	ND	mg/L	0.2	3/28/15 10:45	CK		

Phosphorus, Total — ***EPA 365.1***

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Phosphorus, Total	0.40	mg/L	0.02	03/30/2015 18:50	RB		460036

Solids, Total Suspended — ***SM 2540D (2011)***

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Solids, Total Suspended	40	mg/L	1	3/28/15 21:41	SW		460036

Chlorine, Total Residual — ***SM 4500CL G (2011)***

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Chlorine, Residual	ND	mg/L	0.1	04/09/2015 13:00	LS	H	460036

Universal Laboratories

Client: Colonnas Shipyard	**Client Sample ID:** OF-902 Grab
Lab ID: 1503489-001	**Collection Date:** 03/26/2015 12:50
Permit ID VA0053813	**Matrix:** AQUEOUS

Analyses

Oil and Grease ***EPA 1664A***

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Oil and Grease	6	mg/L	5	4/1/15 18:30	LS		460036

Glossary of Terms and Abbreviations

RL	(Reporting Limit) The minimum levels, concentrations, or quantities of a target analyte that can be reported within a specified degree of confidence. Generally, this number is equal to or just above the lowest calibration standard run with the analytical batch.
B	Analyte was found in the method blank
D	RPD outside acceptable limits
H	Holding time exceeeded
IS	Internal standard outside acceptable limits
J	Result above calibration curve - results are approximate
L	LCS Outside acceptable limits
MI	Matrix interence
MS	Matrix spike recovery outside acceptable limits
QC	Method QC criteria not met
S	Surrogate outside acceptable limits
V	ICV/CCV/FCV outside acceptable limits
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.
MDL	Method Detection Limitis is an estimate of the minimum amount of a substance that an analytical process can reliably detect
RPD	(Relative Percent Difference) The difference between a set of duplicates or sample spike duplicates.
MS/MSD	(Matrix Spike or Matrix Spike Duplicate) 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 analytes concentration is available. Matrix Spikes are used, for example, to determine the effect of the matrix on a method's recovery efficiency.
Calibration Verfication	(Initial, Continuing, or Final) A standard analyzed at different times to verify that the initial calibration curve is still valid.
Holding Time	The maximum time that samples may be held prior to analysis and still be considered valid or not compromised.
Internal Standard	A known amount of standard added to a test portion of a sample as a reference for evaluating and controlling the precision and bias of the applied analytical method.
Method Blank	A sample of a matrix similar to the batch associated samples (when available) that is free from the analytes of interest and is processed simulatanously with and under the same conditions as samples.
Surrogate	A substance with properties that mimic the analyte of interest. It is unlikely to be found in environmental samples and is added to them for quality control purposes in Organics.

1503489

CHAIN-OF-CUSTODY

UNIVERSAL LABORATORIES

20 Research Drive
Hampton, VA 23666

Phone: (757) 865-0880
Fax: (757) 865-8014

Company	Colonnas Shipyard
Street/Box	
City/State	
Phone	Fax
Contact:	
Job No.	/ P.O. No.

Analysis Required

Sample ID	Date/Time	Sampled By	Matrix	Sample Type	Field Notes	Preservative BAT, POIT, AIKRIT, TIT, NIIT, MGIT, FEIT, COIT	Preservative TN	Preservative COD	Preservative BOD	Preservative MBAS	Preservative RCL	Preservative	Preservative	Log Number
OF-902	3/26/15 12:50	FW		C G		1	1	1	1	1	1			
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										

Comments:

Possible Hazards;

Cooler Temp at LI 1°C Pres √ CZ

Disposal: Lab ☐ Client ☐ Charge ☐

Due Date:

Express Service

Express Service Approval

Relinquished By	Signature [signature]	Company CSI	Date/Time 3/26/15
Received By	Signature [signature]	Company U	Date/Time 3/26/15
Relinquished By	Signature [signature]	Company U	Date/Time 3/26/15 1500
Received By	Signature [signature]	Company U	Date/Time 3/26/15 1500
Relinquished By	Signature	Company	Date/Time
Received By	Signature	Company	Date/Time

Work Order No.

Delivery Order

Trans ☐ P.U. ☐ Grab ☐ Comp ☐

Shipping/Delivery Charges

Composite Start / Composite Stop

1503489

CHAIN-OF-CUSTODY

UNIVERSAL LABORATORIES

20 Research Drive
Hampton, VA 23666

Phone: (757) 865-0880
Fax: (757) 865-8014

Company	Colonnas Shipyard
Street/Box	
City/State	
Phone	Fax
Contact:	
Job No.	P.O. No.

Analysis Required

Sample ID	Date/Time	Sampler ID	Matrix	Sample Type	Field Notes	Preservative TP	Preservative O&G	Preservative TN	Preservative [illegible]	Preservative TSS	Preservative [illegible]	Preservative	Preservative	Log Number
OF-902	3/26/15 12:50	FW		C G		1	1	1	1	1	1			
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										

Comments:

Possible Hazards:

Cooler Temp at Lab 1°C Pres √ <2

Disposal: Lab ☐ Client ☐ Charge ☐

Due Date:

Express Service

Express Service Approval

Relinquished By	Signature	Company CST	Date/Time 3/26/15 1400
Received By	Signature	Company U	Date/Time 3/26/15 1400
Relinquished By	Signature	Company U	Date/Time 3/26/15 1500
Received By	Signature	Company U	Date/Time 3/26/15 1500
Relinquished By	Signature	Company	Date/Time
Received By	Signature	Company	Date/Time

Work Order No.

Delivery Order

Trans ☐ P.U. ☐ Grab ☐ Comp ☐

Shipping/Delivery Charges

Composite Start / Composite Stop

UNIVERSAL LABORATORIES

REPORT OF ANALYSIS

Order ID: UL1501042

(REPORT DATE)
26-Jan-15

RECEIVED – DEQ
FEB 19 2015
Tidewater Regional Office

TO: Colonnas Shipyard
400 East Indian River Road

Norfolk VA 23523
ATTN: Frank Wheatley

FaxNumber: (757) 545-5014
E-MAIL

This report contains the analytical results for Project Id VPDES Semi-Annual OF-003 designated as UL Order Id **UL15010** and received on *Tuesday, January 20, 2015*
The results contained in this report relate only to the samples identified on this order. The analytical results meet all requirements of NELAC unless specifically stated. This report shall not be reproduced except in full.

The data in this report has been reviewed and validated by:

Carol Kleemeier — Signature
Carol Kleemeier — Name
Pres/Tech Director — Title

ANALYTICAL DATA REPORT

UL ORDER ID UL1501042

UL Sample Number UL1501042-001

Grab Date/Time: 01/18/2015 10:35:00

Composite Start: N/A

Composite Stop: N/A

Collected By: Client

Sample Site: OF-003 Grab

Client Sample ID: OF-003 Grab

Sample Matrix: Stormwater

Parameter	Test Result	Units	RL	Analysis Date/Time	Analyst	Comment
EPA 200.7						
Copper (Total)	0.188	mg/L	0.001	01/23/2015 17:37:00	LS	
Zinc (Total)	0.278	mg/L	0.005	01/23/2015 17:37:00	LS	
EPA 351.2/353.2						
Nitrate-Nitrite	0.5	mg/L	0.1	01/23/2015 19:37:00	EK	
Total Kjeldahl Nitrogen (TKN)	1.1	mg/L	0.2	01/23/2015 19:37:00	EK	
Total Nitrogen	1.6	mg/L	0.2	01/23/2015 19:37:00	EK	
EPA 365.1						
Total Phosphorus	0.21	mg/L	0.02	01/22/2015 18:20:00	EK	
SM-2540 D						
Total Suspended Solids	100	mg/L	1	01/20/2015 19:57:00	RM	

Comments for UL1501042-001

No comments

ANALYTICAL DATA REPORT

UL ORDER ID **UL1501042**

Analytical Methods Reference

VDEH Lab# 00030 VELAP ID 460036 NCDW Lab # 51706 NCWW Lab # 543

Description:	Prep Method:	Method	Reference	accredited/status
Field Services				
Transportation		Manual		
Stormwater				
Copper (Total)	EPA 200.2 con centrated	EPA 200.7	40 CFR part 136 App. A	Accredited
Total Nitrogen	SEAL EPA 136 A/ 1?5A	EPA 351.2/353 2	Version 2	Accredited
Phosphorus (Total)	SEAL EPA 119 A	EPA 365.1	Version 2	Accredited
Total Suspended Solids		SM-2540 D	2011	Accredited
Zinc (Total)	EPA 200.2	EPA 200.7	40 CFR part 136 App. A	Accredited

NOTE: Analysis is performed according to Universal Laboratories Standard Operating Procedures which are based on the analytical methods referenced above

GLOSSARY OF TERMS AND ABBREVIATIONS

RL (Reporting Limit): The minimum levels, concentrations, or quantities of target analyte that can be reported with a specified degree of confidence Generally this number is near or equal to the lowest calibration standard run with the analytical batch.

MDL (Method Detection Limit): The constituent concentration that, when processed through the complete method, produces a signal with a 99% probability that it is different from the blank.

LCS (Laboratory Control Sample): is a sample matrix free from the analytes of interest, spiked with verified amounts of analytes.

MS (Matrix Spike): a sample prepared by adding a known mass of target analyte to a specific amount of sample for which an independant estimate of target analyte concentration is available.

MSD (Matrix Spike Duplicate): is a replicate matrix spike prepared in the laboratory and anlyzed to obtain a measure of the precision recovery for each analtye.

Surrogate is a substance with properties that mimic the analyte of interest It is unlikely to be found in environmental samples and is added to them for quality control purposes

IS (Internal Standard): is a known amount of standard added to a test portion of the sample as a reference for evaluation and controlling the precision and bias of the applied analytical method.

RPD (Relative Percent Difference) is the difference between a set of sample duplicates or sample spike duplicates

ICV (Initial Calibration Verification) CCV (Continuing Calibration Verification) FCV (Final Calibration Verification)

Method Blank is a sample matrix similar to the batch of associated samples that is free from analytes of interest and is processed simultaneously with and under the same conditions as samples.

Trip Blank is a sample of analyte free media collected in the same type of container that is required for the analytical test, taken from the laboratory to the sampling site and returned to the laboratory unopened. A trip blank is used to document contamination attributable to shipping and field handling procedures

Holding Time is the maximum times that samples may be held prior to analysis and still be considered valid or not compromised

ug/L=ppb ug/kg=ppb mg/kg=ppm mg/L=ppm

HAM= Analyzed in Hampton Lab

FRED= Analyzed in Fredericksburg Lab

QC Flag	Description
B	Analyte found in method blank
H	Holding time exceeded
L	LCS outside acceptable limits
V	ICV/CCV/FCV outside acceptable limits
D	RPD outside acceptable limits
MS	Matrix spike recovery outside acceptable limits
J	Result above calibration curve approximate value
QC	Method QC Critera not met
MI	Matrix Interference
S	Surrogate outside acceptable limits
IS	Internal standard outside acceptable limits
*	VELAP accreditation not available
**	VELAP not accredited
T	value is between the RL and MDL

20 Research Drive
Hampton Va. 23666

TOLL-FREE: (800) 695-2162
TELEPHONE: (757) 865-0880

Universal Laboratories
20 Research Drive Hampton, Va.
Phone: (757)-865-0880 Fax (757) 865-8014

EXPRESS LOG-IN CHAIN OF CUSTODY

UL ORDER ID **UL1501042**

Pre-Log Date: Monday, January 05, 2015

Order Comment:

Samples Must Be Received on or Before:

CS Colonnas Shipyard
400 East Indian River Road
Norfolk VA 23523

ProjectID: VPDES Semi-Annual OF-003

Project Notes:

QuoteID: Q1407005
Permit Number: VAR051706
ProjectLocation:

Customer Contact: Frank Wheatley
Phone Number: (757-)545-2414 x44
FaxNumber: (757) 545-5014

UL1501042-001 OF-003 Grab

Sample Date/Time 1 / 18 / 15 10:35 / / :
Field Reading 6.25 @ 9.7
Sampler Initials FW

Stormwater

			Container Type	Preservative
A	TP	Phosphorus (Total)	Amber Glass	H2SO4 pH<2/4C AW
B	TN	Total Nitrogen	HDPE	H2SO4 pH<2/4C AW
C	TSS	Total Suspended Solids	HDPE	Refrigerate, 4 C
D	CUIT	Copper (Total) ZNIT Zinc (Total)	HDPE (acid washe	HNO3 pH<2 AW

~~**UL1501042-002 Field Services**~~

Sample Date/Time 1 / 20 / 15 : / / :
Field Reading
Sampler Initials AW

Field Services TRANS Transportation

Container Type	Preservative
N/A	N/A

Comments:

CN int check Phenol in check NH3 int check BOD int check

Cooler Temp @ Log-in 1°C
Preservation <2

Relinquished By Signature: [signature]	Company: CSI	Date/Time: 1/20/15 830
Received By Signature: [signature]	Company: UL	Date/Time: 1/20/15 830
Relinquished By Signature: [signature]	Company: UL	Date/Time: 1/20/15 945
Received By Signature: [signature]	Company: UL	Date/Time: 1-20-15 0945
Relinquished By Signature:	Company:	Date/Time:
Received By Signature:	Company:	Date/Time:

UNIVERSAL LABORATORIES

REPORT OF ANALYSIS

Order ID: UL1501192

(REPORT DATE)
04-Feb-15

TO: Colonnas Shipyard
400 East Indian River Road

Norfolk VA 23523

ATTN: Frank Wheatley

FaxNumber: (757) 545-5014
E-MAIL

This report contains the analytical results for Project Id N/A
designated as UL Order Id **UL15011** and received on *Tuesday, January 20, 2015*
The results contained in this report relate only to the samples identified on this order. The analytical results meet all requirements of NELAC unless specifically stated. This report shall not be reproduced except in full.

Form 2C samples

The data in this report has been reviewed and validated by:

Carol Kleemeier — Signature
Carol Kleemeier — Name
Pres/Tech Director — Title

ANALYTICAL DATA REPORT

UL ORDER ID UL1501192

UL Sample Number UL1501192-002

Grab Date/Time: 01/18/2015 10:20.00

Composite Start: N/A

Composite Stop: N/A

Collected By: Client

Sample Site: OF-010 Grab

Client Sample ID: OF-010 Grab

Sample Matrix: Stormwater

Parameter	Test Result	Units	RL	Analysis Date/Time	Analyst	Comment
EPA 200.7						
Aluminum (Total)	8.175	mg/L	0.005	01/23/2015 17:37:00	LS	
Cadmium (Total)	<0.005	mg/L	0.005	01/23/2015 17:37:00	LS	
Chromium (Total)	0.019	mg/L	0.005	01/23/2015 17:37:00	LS	
Iron (Total)	12.99	mg/L	0.05	01/23/2015 17:37:00	LS	
Lead (Total)	0.046	mg/L	0.005	01/23/2015 17:37:00	LS	
Magnesium (Total)	4.88	mg/L	0.05	01/23/2015 17:37:00	LS	
Nickel (Total)	0.050	mg/L	0.005	01/23/2015 17:37:00	LS	
Titanium (Total)	0.403	mg/L	0.005	01/23/2015 17:37:00	LS	
EPA 351.2/353.2						
Nitrate-Nitrite	0.4 MI	mg/L	0.1	01/23/2015 19:37:00	EK	
Total Kjeldahl Nitrogen (TKN)	2.2	mg/L	0.2	01/23/2015 19:37:00	EK	
Total Nitrogen	2.6	mg/L	0.2	01/23/2015 19:37:00	EK	
EPA 365.1						
Total Phosphorus	0.25	mg/L	0.02	01/22/2015 18:20:00	EK	
HACH 8000						
Chemical Oxygen Demand	156	mg/L	10	01/27/2015 17:25:00	LS	
SM-3120 B						
Total Barium	0.210	mg/L	0.005	01/23/2015 17:37:00	LS	
SM-4500 CL/G						
Field Residual Chlorine	0.10	mg/L	0.01	01/21/2015 18:28:00	LS	
SM-5210						
BOD5	12	mg/L	2	01/20/2015 10:18:00	RM	

Comments for UL1501192-002

No comments

ANALYTICAL DATA REPORT

UL ORDER ID UL1501192

UL Sample Number UL1501192-003

Grab Date/Time: 01/18/2015 10:30:00

Composite Start: N/A

Composite Stop: N/A

Collected By: Client

Sample Site: OF-012 Grab

Client Sample ID: OF-012 Grab

Sample Matrix: Stormwater

Parameter	Test Result	Units	RL	Analysis Date/Time	Analyst	Comment
EPA 200.7						
Aluminum (Total)	30.115	mg/L	0.005	01/23/2015 17:37:00	LS	
Cadmium (Total)	<0.005	mg/L	0.005	01/23/2015 17:37:00	LS	
Chromium (Total)	0.040	mg/L	0.005	01/23/2015 17:37:00	LS	
Iron (Total)	28.80	mg/L	0.05	01/23/2015 17:37:00	LS	
Lead (Total)	0.086	mg/L	0.005	01/23/2015 17:37:00	LS	
Magnesium (Total)	16.47	mg/L	0.05	01/23/2015 17:37:00	LS	
Nickel (Total)	0.098	mg/L	0.005	01/23/2015 17:37:00	LS	
Titanium (Total)	1.054	mg/L	0.005	01/23/2015 17:37:00	LS	
EPA 351.2/353.2						
Nitrate-Nitrite	<0.1	mg/L	0.1	01/23/2015 19:37:00	EK	
Total Kjeldahl Nitrogen (TKN)	2.1	mg/L	0.2	01/23/2015 19:37:00	EK	
Total Nitrogen	2.1	mg/L	0.2	01/23/2015 19:37:00	EK	
EPA 365.1						
Total Phosphorus	0.67	mg/L	0.02	01/22/2015 18:20:00	EK	
HACH 8000						
Chemical Oxygen Demand	166	mg/L	10	01/27/2015 17:25:00	LS	
SM-3120 B						
Total Barium	0.223	mg/L	0.005	01/23/2015 17:37:00	LS	
SM-4500 CL/G						
Field Residual Chlorine	0.01	mg/L	0.01	01/21/2015 18:28:00	LS	
SM-5210						
BOD5	9	mg/L	2	01/20/2015 10:18:00	RM	

Comments for UL1501192-003

No comments

Universal Laboratories
20 Research Drive Hampton, Va.
Phone: (757)-865-0880 Fax: (757) 865-8014

EXPRESS LOG-IN
CHAIN OF CUSTODY

UL ORDER ID **UL1501192**

Order Comment: ***Form 2C samples***

Pre-Log Date: Monday, January 12, 2015
Samples Must Be Received on or Before:

CS Colonnas Shipyard
400 East Indian River Road
Norfolk VA 23523

ProjectID:

Project Notes:

QuoteID:
Permit Number:
ProjectLocation:

Customer Contact: Frank Wheatley
Phone Number: (757-)545-2414 x44
FaxNumber: (757) 545-5014

~~UL1501192-001 OF-902 Grab~~ **Sample Date/Time** ___/___/___ ___:___ ___/___/___ ___:___ **Sampler Initials**
Field Reading

Stormwater								Container Type	Preservative
	TP	Phosphorus (Total)						Amber Glass	H2SO4 pH<2/4C
	COD	Chemical Oxygen Demand	TN	Total Nitrogen				HDPE	H2SO4 pH<2/4C
	BOD	Biochemical Oxygen Demand	~~MBAS~~	Surfactants-MBAS				HDPE	Refrigerate, 4 C
	ALIT	Aluminum (Total)	BAIT	Barium (Total)	CDIT	Cadmium (Total)	CRIT	Chromium (Total)	HDPE (acid wash	HNO3 pH<2
	FEIT	Iron (Total)	MGIT	Total Magnesium	NIIT	Nickel (Total)	PBIT	Lead (Total)		
	TIIT	Titanium (Total)							
	RCL2	Field Residual Chlorine						N/A	N/A

UL1501192-002 OF-010 Grab **Sample Date/Time** 1/18/15 10:20 ___/___/___ ___:___ **Sampler Initials** Fw
Field Reading

Stormwater									Container Type	Preservative
	A	TP	Phosphorus (Total)						Amber Glass	H2SO4 pH<2/4C AW
	B	COD	Chemical Oxygen Demand	TN	Total Nitrogen				HDPE	H2SO4 pH<2/4C AW
	C	BOD	Biochemical Oxygen Demand	~~MBAS~~	Surfactants-MBAS				HDPE	Refrigerate, 4 C
	D	ALIT	Aluminum (Total)	BAIT	Barium (Total)	CDIT	Cadmium (Total)	CRIT	Chromium (Total)	HDPE (acid wash	HNO3 pH<2 AW
		FEIT	Iron (Total)	MGIT	Total Magnesium	NIIT	Nickel (Total)	PBIT	Lead (Total)		
		TIIT	Titanium (Total)							
		RCL2	Field Residual Chlorine						N/A	N/A

UL1501192-003 OF-012 Grab **Sample Date/Time** 1/18/15 1030 ___/___/___ ___:___ **Sampler Initials** Fw
Field Reading

Stormwater									Container Type	Preservative
	A	TP	Phosphorus (Total)						Amber Glass	H2SO4 pH<2/4C AW
	B	COD	Chemical Oxygen Demand	TN	Total Nitrogen				HDPE	H2SO4 pH<2/4C AW
	C	BOD	Biochemical Oxygen Demand	~~MBAS~~	Surfactants-MBAS				HDPE	Refrigerate, 4 C
	D	ALIT	Aluminum (Total)	BAIT	Barium (Total)	CDIT	Cadmium (Total)	CRIT	Chromium (Total)	HDPE (acid wash	HNO3 pH<2 AW
		FEIT	Iron (Total)	MGIT	Total Magnesium	NIIT	Nickel (Total)	PBIT	Lead (Total)		

CS Colonnas Shipyard

400 East Indian River Road
Norfolk VA 23523

ProjectID:

Project Notes:

QuoteID:

Permit Number:

ProjectLocation:

Customer Contact: Frank Wheatley

Phone Number: (757-)545-2414 x44

FaxNumber: (757) 545-5014

TIIT	Titanium (Total)		
RCL2	Field Residual Chlorine	N/A	N/A

UL1501192-004 Field Services

Sample Date/Time / / 20 / 14 : / / :

Field Reading

Sampler Initials AW

		Container Type	Preservative
Field Services	TRANS Transportation	N/A	N/A

Comments:

Cooler Temp @ Log-in 1°C

Preservation <2

CN int check Phenol in check NH3 int check BOD int check

Relinquished By Signature: [signature]	*Company:* CSI	*Date/Time:* 1/20/15 0830
Received By Signature: [signature]	*Company:* UL	*Date/Time:* 1/20/15 0830
Relinquished By Signature: [signature]	*Company:* UL	*Date/Time:* 1/20/15 0920
Received By Signature: [signature]	*Company:* UL	*Date/Time:* 1-20-15 0920
Relinquished By Signature:	*Company:*	*Date/Time:*
Received By Signature:	*Company:*	*Date/Time:*

ANALYTICAL DATA REPORT

UL ORDER ID **UL1501192**

UL Sample Number **UL1501192-003**

Grab Date/Time: 01/18/2015 10:30:00

Composite Start: N/A

Composite Stop: N/A

Collected By: Client

Sample Site: **OF-012 Grab**

Client Sample ID: OF-012 Grab

Sample Matrix: Stormwater

Parameter	Test Result	Units	RL	Analysis Date/Time	Analyst	Comment
EPA 200.7						
Aluminum (Total)	**30.115**	mg/L	0.005	01/23/2015 17:37:00	LS	
Cadmium (Total)	**<0.005**	mg/L	0.005	01/23/2015 17:37:00	LS	
Chromium (Total)	**0.040**	mg/L	0.005	01/23/2015 17:37:00	LS	
Iron (Total)	**28.80**	mg/L	0.05	01/23/2015 17:37:00	LS	
Lead (Total)	**0.086**	mg/L	0.005	01/23/2015 17:37:00	LS	
Magnesium (Total)	**16.47**	mg/L	0.05	01/23/2015 17:37:00	LS	
Nickel (Total)	**0.098**	mg/L	0.005	01/23/2015 17:37:00	LS	
Titanium (Total)	**1.054**	mg/L	0.005	01/23/2015 17:37:00	LS	
EPA 351.2/353.2						
Nitrate-Nitrite	**<0.1**	mg/L	0.1	01/23/2015 19:37:00	EK	
Total Kjeldahl Nitrogen (TKN)	**2.1**	mg/L	0.2	01/23/2015 19:37:00	EK	
Total Nitrogen	**2.1**	mg/L	0.2	01/23/2015 19:37:00	EK	
EPA 365.1						
Total Phosphorus	**0.67**	mg/L	0.02	01/22/2015 18:20:00	EK	
HACH 8000						
Chemical Oxygen Demand	**166**	mg/L	10	01/27/2015 17:25:00	LS	
SM-3120 B						
Total Barium	**0.223**	mg/L	0.005	01/23/2015 17:37:00	LS	
SM-4500 CL/G						
Field Residual Chlorine	**0.01**	mg/L	0.01	01/21/2015 18:28:00	LS	
SM-5210						
BOD5	**9**	mg/L	2	01/20/2015 10:18:00	RM	

Comments for UL1501192-003

No comments

ANALYTICAL DATA REPORT

UL ORDER ID **UL1501192**

Analytical Methods Reference

VDEH Lab# 00030 VELAP ID 460036 NCDW Lab # 51706 NCWW Lab # 543

Description:	*Prep Method:*	*Method*	*Reference*	*accredited/status*
Field Services				
Transportation		Manual		
Stormwater				
Aluminum (Total)	EPA 200.2	EPA 200.7	40 CFR part 136 App. A	Accredited
Barium (Total)	EPA 200.2	SM-3120 B	18th Edition	
Biochemical Oxygen Demand	SM 5210 B	SM-5210	2011	Accredited
Cadmium (Total)	EPA 200.2	EPA 200.7	40 CFR part 136 App. A	Accredited
Chemical Oxygen Demand		HACH 8000	40 CFR part 136 App. A	Accredited
Chromium (Total)	EPA 200.2	EPA 200.7	40 CFR part 136 App. A	Accredited
Iron (Total)	EPA 200.2	EPA 200.7	40 CFR part 136 App. A	Accredited
Surfactants-MBAS		SM-5540 C	18th Edition	
Total Magnesium	EPA 200.2	EPA 200.7	40 CFR part 136 App. A	Accredited
Nickel (Total)	EPA 200.2	EPA 200.7	40 CFR part 136 App. A	Accredited
Lead (Total)	EPA 200.2	EPA 200.7	40 CFR part 136 App. A	Accredited
Field Residual Chlorine		SM-4500 CL/G	18th Edition	Not Accredited
Titanium (Total)	EPA 200.2	EPA 200.7	40 CFR part 136 App. A	Accredited
Total Nitrogen	SEAL EPA 136 A/ 126A	EPA 351.2/353.2	Version 2	Accredited
Phosphorus (Total)	SEAL EPA 119 A	EPA 365.1	Version 2	Accredited

NOTE: Analysis is performed according to Universal Laboratories Standard Operating Procedures which are based on the analytical methods referenced above

ANALYTICAL DATA REPORT

UL ORDER ID **UL1501192**

GLOSSARY OF TERMS AND ABBREVIATIONS

RL (Reporting Limit): The minimum levels, concentrations, or quantities of target analyte that can be reported with a specified degreee of confidence.Generally this number is near or equal to the lowest calibration standard run with the analytical batch.

MDL (Method Detection Limit): The constituent concentration that, when processed through the complete method, produces a signal with a 99% probability that it is different from the blank.

LCS (Laboratory Control Sample): is a sample matrix free from the analytes of interest, spiked with verified amounts of analytes.

MS (Matrix Spike): a sample prepared by adding a known mass of target analyte to a specific amount of sample for which an independant estimate of target analyte concentration is available.

MSD (Matrix Spike Duplicate): is a replicate matrix spike prepared in the laboratory and anlyzed to obtain a measure of the precision recovery for each analtye.

Surrogate is a substance with properties that mimic the analyte of interest.It is unlikely to be found in environmental samples and is added to them for quality control purposes

IS (Internal Standard): is a known amount of standard added to a test portion of the sample as a reference for evaluation and controlling the precsion and bias of the applied analytical method.

RPD (Relative Percent Difference) is the difference between a set of sample duplicates or sample spike duplicates

ICV (Initial Calibration Verification) CCV (Continuing Calibration Verification) FCV (Final Calibration Verification)

Method Blank is a sample matrix smilar to the batch of associated samples that is free from analytes of interest and is processed simultaneously with and under the same conditions as samples.

Trip Blank is a sample of analyte free media collected in the same type of container that is required for the analytical test, taken from the laboratory to the sampling site and returned to the laboratory unopened. A trip blank is used to document contamination attributable to shipping and field handling procedures

Holding Time is the maximum times that samples may be held prior to analysis and still be considered valid or not compromised

ug/L=ppb ug/kg=ppb mg/kg=ppm mg/L=ppm

HAM= Analyzed in Hampton Lab

FRED= Analyzed in Fredericksburg Lab

QC Flag	Description
B	Analyte found in method blank
H	Holding time exceeded
L	LCS outside acceptable limits
V	ICV/CCV/FCV outside acceptable limits
D	RPD outside acceptable limits
MS	Matrix spike recovery outside acceptable limits
J	Result above calibration curve approximate value
QC	Method QC Critera not met
MI	Matrix Interference
S	Surrogate outside acceptable limits
IS	Internal standard outside acceptable limits
*	VELAP accreditation not available
**	VELAP not accredited
T	value is betw een the RL and MDL

iversal Laboratories
esearch Drive Hampton, Va.
: (757)-865-0880 Fax: (757) 865-8014

EXPRESS LOG-IN CHAIN OF CUSTODY

UL ORDER ID **UL1501192**

Order Comment: *Form 2C samples*

Log Date: Monday, January 12, 2015

ples Must Be Received on or Before:

Colonnas Shipyard
East Indian River Road
olk VA 23523

ProjectID:

Project Notes:

QuoteID:
Permit Number:
ProjectLocation:

stomer Contact: Frank Wheatley
ne Number: (757-)545-2414 x44
Number: (757) 545-5014

~~501192-001~~ ~~OF-902 Grab~~ — Sample Date/Time ___/___/___ ___:___ ___/___/___ ___:___ — Sampler Initials

Field Reading

									Container Type	Preservative
nwater	TP	Phosphorus (Total)							Amber Glass	H2SO4 pH<2/4C
	COD	Chemical Oxygen Demand	TN	Total Nitrogen					HDPE	H2SO4 pH<2/4C
	BOD	Biochemical Oxygen Demand	~~MBAS~~	Surfactants-MBAS					HDPE	Refrigerate, 4 C
	ALIT	Aluminum (Total)	BAIT	Barium (Total)	CDIT	Cadmium (Total)	CRIT	Chromium (Total)	HDPE (acid wash	HNO3 pH<2
	FEIT	Iron (Total)	MGIT	Total Magnesium	NIIT	Nickel (Total)	PBIT	Lead (Total)		
	TIIT	Titanium (Total)								
	RCL2	Field Residual Chlorine							N/A	N/A

501192-002 OF-010 Grab — Sample Date/Time 1/18/15 10:20 ___/___/___ ___:___ — Sampler Initials Jcc

Field Reading

									Container Type	Preservative
mwater	A TP	Phosphorus (Total)							Amber Glass	H2SO4 pH<2/4C AW
	B COD	Chemical Oxygen Demand	TN	Total Nitrogen					HDPE	H2SO4 pH<2/4C AW
	C BOD	Biochemical Oxygen Demand	~~MBAS~~	Surfactants-MBAS					HDPE	Refrigerate, 4 C
	ALIT	Aluminum (Total)	BAIT	Barium (Total)	CDIT	Cadmium (Total)	CRIT	Chromium (Total)	HDPE (acid wash	HNO3 pH<2 AW
	D FEIT	Iron (Total)	MGIT	Total Magnesium	NIIT	Nickel (Total)	PBIT	Lead (Total)		
	TIIT	Titanium (Total)								
	RCL2	Field Residual Chlorine							N/A	N/A

1501192-003 OF-012 Grab — Sample Date/Time 1/18/15 1030 ___/___/___ ___:___ — Sampler Initials Jcc

Field Reading

									Container Type	Preservative
mwater	A TP	Phosphorus (Total)							Amber Glass	H2SO4 pH<2/4C AW
	B COD	Chemical Oxygen Demand	TN	Total Nitrogen					HDPE	H2SO4 pH<2/4C AW
	C BOD	Biochemical Oxygen Demand	~~MBAS~~	Surfactants-MBAS					HDPE	Refrigerate, 4 C
	D ALIT	Aluminum (Total)	BAIT	Barium (Total)	CDIT	Cadmium (Total)	CRIT	Chromium (Total)	HDPE (acid wash	HNO3 pH<2 AW
	FEIT	Iron (Total)	MGIT	Total Magnesium	NIIT	Nickel (Total)	PBIT	Lead (Total)		

Colonnas Shipyard

ast Indian River Road

lk VA 23523

ProjectID:

Project Notes:

QuoteID:

Permit Number:

ProjectLocation:

tomer Contact: Frank Wheatley

e Number: (757-)545-2414 x44

umber: (757) 545-5014

TIIT	Titanium (Total)			
RCL2	Field Residual Chlorine		N/A	N/A

501192-004 **Field Services** **Sample Date/Time** 1 / 20 / 14 ___:___ ___/___/___ ___:___ **Sampler Initials** AW

Field Reading _____

Services			**Container Type**	**Preservative**
	TRANS	Transportation	N/A	N/A

nments:

Cooler Temp @ Log-in 1°C

Preservation cZ

nt check Phenol in check NH3 int check BOD int check

quished By Signature:	***Company:*** CSI	***Date/Time:*** 1/20/15 0830
ived By Signature:	***Company:*** U	***Date/Time:*** 1/20/15 0830
quished By Signature:	***Company:*** JL	***Date/Time:*** 1/20/15 0920
ived By Signature:	***Company:*** UL	***Date/Time:*** 1-20-15 0920
quished By Signature:	***Company:***	***Date/Time:***
ived By Signature:	***Company:***	***Date/Time:***

UNIVERSAL LABORATORIES

REPORT OF ANALYSIS

Order ID: 1406445

(REPORT DATE)
04-Feb-15

RECEIVED – DEQ
FEB 19 2015
Tidewater Regional Office

TO: Colonnas Shipyard
400 East Indian River Road

Norfolk VA 23523
ATTN: Frank Wheatley

FaxNumber: (757) 545-5014
E-MAIL

This report contains the analytical results for Project Id N/A designated as UL Order Id **1406445** and received on *Friday, January 16, 2015*
The results contained in this report relate only to the samples identified on this order. The analytical results meet all requirements of NELAC unless specifically stated. This report shall not be reproduced except in full.

Attachemnt B 1/5 years

The data in this report has been reviewed and validated by:

Carol Kleemeier — Signature
Carol Kleemeier — Name
Pres/Tech Director — Title

20 Research Drive
Hampton Va. 23666

TOLL-FREE: (800) 695-2162
TELEPHONE: (757) 865-0880

ANALYTICAL DATA REPORT

UL ORDER ID 1406445

UL Sample Number 1406445-001

Grab Date/Time: 01/16/2015 08:30:00
Composite Start: N/A
Composite Stop: N/A
Collected By: Client

Sample Site: OF-009 Grab
Client Sample ID: OF-009 Grab
Sample Matrix: Wastewater

Parameter	Test Result	Units	RL	Analysis Date/Time	Analyst	Comment
ASTM D516-02						
Sulfate	228.7	mg/L	2.5	01/20/2015 12:05:00	EK	
Enterolert 96 well						
Enterococci	4	col/100 ml	1	01/16/2015 16:29:00	LS	
EPA 200.7						
Antimony (dissolved)	<0.02	mg/L	0.02	01/23/2015 17:37:00	LS	
Arsenic (Dissolved)	<0.005	mg/L	0.005	01/23/2015 17:37:00	LS	
Barium (Dissolved)	0.057	mg/L	0.005	01/23/2015 17:37:00	LS	
Cadmium (Dissolved)	<0.005	mg/L	0.005	01/23/2015 17:37:00	LS	
Chromium III (Dissolved)	**<0.005	mg/L	0.005	01/23/2015 17:37:00	LS	
Copper (dissolved)	0.210	mg/L	0.001	01/23/2015 17:37:00	LS	
Iron (Dissolved)	0.05	mg/L	0.05	01/23/2015 17:37:00	LS	
Lead (dissolved)	<0.005	mg/L	0.005	01/23/2015 17:37:00	LS	
Manganese (Dissolved)	0.054	mg/L	0.005	01/23/2015 17:37:00	LS	
Nickel (Dissolved)	0.008	mg/L	0.005	01/23/2015 17:37:00	LS	
Selenium (Dissolved)	<0.005	mg/L	0.005	01/23/2015 17:37:00	LS	
Silver (Dissolved Low-Level)	Attached	ug/L	0.2	02/02/2015 13:01:00	SUB	
Thallium (Dissolved)	0.001	mg/L	0.001	01/26/2015 19:41:00	LS	
Zinc (dissolved)	0.032	mg/L	0.005	01/23/2015 17:37:00	LS	
EPA 335.4						
Cyanide (Total)	<0.005	mg/L	0.005	01/23/2015 14:11:00	EK	
EPA 350.1						
Ammonia	1.8	mg/L	0.2	01/16/2015 20:55:00	EK	
EPA 353.2						
Nitrate	0.2	mg/L	0.1	01/16/2015 17:06:00	EK	
EPA 608						
4,4'-DDD	<0.1	ug/L	0.1	01/26/2015 21:50:00	BD	
4,4'-DDE	**<0.1	ug/L	0.1	01/26/2015 21:50:00	BD	
4,4'-DDT	<0.04	ug/L	0.04	01/26/2015 21:50:00	BD	
Aldrin	<0.04	ug/L	0.04	01/26/2015 21:50:00	BD	
Alpha-BHC	<0.1	ug/L	0.1	01/26/2015 21:50:00	BD	
Beta-BHC	0.3	ug/L	0.1	01/26/2015 21:50:00	BD	
Chlordane	**0.64	ug/L	0.2	01/26/2015 21:50:00	BD	*tech-chlordane*
Chloropyriphos (Dursban)	**<0.1	ug/L	0.1	01/26/2015 21:50:00	BD	

ANALYTICAL DATA REPORT

UL ORDER ID 1406445

UL Sample Number 1406445-001

Grab Date/Time: 01/16/2015 08:30:00
Composite Start: N/A
Composite Stop: N/A
Collected By: Client

Sample Site: OF-009 Grab
Client Sample ID: OF-009 Grab
Sample Matrix: Wastewater

Parameter	Test Result	Units	RL	Analysis Date/Time	Analyst	Comment
Delta-BHC	<0.5	ug/L	0.5	01/26/2015 21:50:00	BD	
Demeton	**<10	ug/L	10	01/26/2015 21:50:00	BD	
Dieldrin	<0.04	ug/L	0.04	01/26/2015 21:50:00	BD	
Endosulfan I	<0.04	ug/L	0.04	01/26/2015 21:50:00	BD	
Endosulfan II	<0.04	ug/L	0.04	01/26/2015 21:50:00	BD	
Endosulfan Sulfate	**<0.04	ug/L	0.04	01/26/2015 21:50:00	BD	
Endrin	<0.04	ug/L	0.04	01/26/2015 21:50:00	BD	
Endrin Aldehyde	<0.5	ug/L	0.5	01/26/2015 21:50:00	BD	
Guthion	**<1	ug/L	1	01/26/2015 21:50:00	BD	
Heptachlor	<0.04	ug/L	0.04	01/26/2015 21:50:00	BD	
Heptachlor Epoxide	<0.1	ug/L	0.1	01/26/2015 21:50:00	BD	
Lindane	<0.04	ug/L	0.04	01/26/2015 21:50:00	BD	
Malathion	**<0.04	ug/L	0.04	01/26/2015 21:50:00	BD	
Methoxychlor	**<0.1	ug/L	0.1	01/26/2015 21:50:00	BD	
Mirex	**nr	ug/L	0.2	01/26/2015 21:50:00	BD	
Parathion	**<0.1	ug/L	0.1	01/26/2015 21:50:00	BD	
PCB-1016	<0.5	ug/L	0.5	01/26/2015 21:50:00	BD	
PCB-1221	<0.5	ug/L	0.5	01/26/2015 21:50:00	BD	
PCB-1232	<0.5	ug/L	0.5	01/26/2015 21:50:00	BD	
PCB-1242	<0.5	ug/L	0.5	01/26/2015 21:50:00	BD	
PCB-1248	<0.5	ug/L	0.5	01/26/2015 21:50:00	BD	
PCB-1254	<0.5	ug/L	0.5	01/26/2015 21:50:00	BD	
PCB-1260	<0.5	ug/L	0.5	01/26/2015 21:50:00	BD	
Toxaphene	**<10	ug/L	10	01/26/2015 21:50:00	BD	
EPA 624						
1,1,1-Trichloroethane	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
1,1,2,2-Tetrachloroethane	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
1,1,2-Trichloroethane	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
1,1-Dichloroethane	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
1,1-Dichloroethene	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
1,2-Dichlorobenzene	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
1,2-Dichloroethane	Attached	ug/L	1	01/28/2015 23:59:00	SUB	

ANALYTICAL DATA REPORT

UL ORDER ID 1406445

UL Sample Number 1406445-001
Grab Date/Time: 01/16/2015 08:30.00
Composite Start: N/A
Composite Stop: N/A
Collected By: Client

Sample Site: OF-009 Grab
Client Sample ID: OF-009 Grab
Sample Matrix: Wastewater

Parameter	Test Result	Units	RL	Analysis Date/Time	Analyst	Comment
1,2-Dichloropropane	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
1,3-Dichlorobenzene	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
1,4-Dichlorobenzene	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
2-Chloroethyl Vinyl Ether	Attached	ug/L	10	01/28/2015 23:59:00	SUB	
4-Methyl-2-pentanone	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Acrolein	Attached	ug/L	5	01/28/2015 23:59:00	SUB	
Acrylonitrile	Attached	ug/L	5	01/28/2015 23:59:00	SUB	
Benzene	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Bromodichloromethane	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Bromoform	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Bromomethane	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Carbon Tetrachloride	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Chlorobenzene	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Chlorodibromomethane	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Chloroethane	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Chloroform	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Chloromethane	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Cis-1,3-dichloropropene	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Ethyl Benzene	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Methyl ethyl ketone	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Methylene Chloride	Attached	ug/L	10	01/28/2015 23:59:00	SUB	
Tetrachloroethene	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Toluene	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Total Xylenes	Attached	ug/L	2	01/28/2015 23:59:00	SUB	
Trans-1,2-dichloroethene	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Trans-1,3-dichloropropene	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Trichloroethene	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Trichlorofluoromethane	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
Vinyl Chloride	Attached	ug/L	1	01/28/2015 23:59:00	SUB	
EPA 625						
1,2,4-Trichlorobenzene	<5	ug/L	5	01/26/2015 20:36:00	BD	
1,2-Diphenylhydrazine	<5	ug/L	5	01/26/2015 20:36:00	BD	

ANALYTICAL DATA REPORT

UL ORDER ID 1406445

UL Sample Number 1406445-001

Grab Date/Time: 01/16/2015 08:30:00

Composite Start: N/A

Composite Stop: N/A

Collected By: Client

Sample Site: OF-009 Grab

Client Sample ID: OF-009 Grab

Sample Matrix: Wastewater

Parameter	Test Result	Units	RL	Analysis Date/Time	Analyst	Comment
2,4,6-Trichlorophenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
2,4-Dichlorophenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
2,4-Dimethylphenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
2,4-Dinitrophenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
2,4-Dinitrotoluene	<5	ug/L	5	01/26/2015 20:36:00	BD	
2,6-Dinitrotoluene	<5	ug/L	5	01/26/2015 20:36:00	BD	
2-Chloronaphthalene	<5	ug/L	5	01/26/2015 20:36:00	BD	
2-Chlorophenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
2-Methyl-4,6-dinitrophenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
2-Nitrophenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
3,3'-Dichlorobenzidine	<5	ug/L	5	01/26/2015 20:36:00	BD	
4-Bromophenyl Phenyl Ether	<5	ug/L	5	01/26/2015 20:36:00	BD	
4-Chloro-3-methylphenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
4-Chlorophenyl Phenyl Ether	<5	ug/L	5	01/26/2015 20:36:00	BD	
4-Nitrophenol	<10	ug/L	10	01/26/2015 20:36:00	BD	
Acenaphthene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Acenaphthylene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Anthracene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Benzidine	<5 V	ug/L	5	01/26/2015 20:36:00	BD	
Benzo (A) Anthracene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Benzo (A) Pyrene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Benzo (B) Fluoranthene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Benzo (GHI) Perylene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Benzo (K) Fluoranthene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Bis(2-chloroethoxy)methane	<5	ug/L	5	01/26/2015 20:36:00	BD	
Bis(2-chloroethyl)ether	<5	ug/L	5	01/26/2015 20:36:00	BD	
Bis(2-chloroisopropyl) Ether	<5	ug/L	5	01/26/2015 20:36:00	BD	
Bis(2-ethylhexyl) Phthalate	<5	ug/L	5	01/26/2015 20:36:00	BD	
Butyl Benzyl Phthalate	<5	ug/L	5	01/26/2015 20:36:00	BD	
Chrysene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Di-n-butyl Phthalate	<5	ug/L	5	01/26/2015 20:36:00	BD	
Di-n-octyl Phthalate	<5	ug/L	5	01/26/2015 20:36:00	BD	

ANALYTICAL DATA REPORT

UL ORDER ID 1406445

UL Sample Number 1406445-001
Grab Date/Time: 01/16/2015 08:30:00
Composite Start: N/A
Composite Stop: N/A
Collected By: Client

Sample Site: OF-009 Grab
Client Sample ID: OF-009 Grab
Sample Matrix: Wastewater

Parameter	Test Result	Units	RL	Analysis Date/Time	Analyst	Comment
DIBENZO (A,H)Anthracene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Diethyl Phthalate	<5	ug/L	5	01/26/2015 20:36:00	BD	
Dimethyl Phthalate	<5	ug/L	5	01/26/2015 20:36:00	BD	
Fluoranthene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Fluorene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Hexachlorobenzene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Hexachlorobutadiene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Hexachlorocyclopentadiene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Hexachloroethane	<5	ug/L	5	01/26/2015 20:36:00	BD	
Indeno(1,2,3-cd)pyrene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Isophorone	<5	ug/L	5	01/26/2015 20:36:00	BD	
m&p-Cresol	<	ug/L	5	01/26/2015 20:36:00	BD	
N-Nitroso-di-n-propylamine	<5	ug/L	5	01/26/2015 20:36:00	BD	
N-Nitrosodimethylamine	<5	ug/L	5	01/26/2015 20:36:00	BD	
N-Nitrosodiphenylamine	<5	ug/L	5	01/26/2015 20:36:00	BD	
Naphthalene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Nitrobenzene	<5	ug/L	5	01/26/2015 20:36:00	BD	
o-Cresol	<	ug/L	5	01/26/2015 20:36:00	BD	
Pentachlorophenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
Phenanthrene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Phenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
Pyrene	<5	ug/L	5	01/26/2015 20:36:00	BD	
GC/FPD						
TBT Tributyltin	<0.03	ug/L	0.03	01/21/2015 22:17:00	BD	
IDEXX-Colilert						
E-Coli	<1	mpn/100ml	1	01/16/2015 16:23:00	LS	
SM 4500 Cl E						
Chloride	611	mg/L	2	01/20/2015 17:09:00	EK	
SM-3112 B						
Mercury (Dissolved)	Attached	mg/L	0.0002	01/30/2015 14:51:00	SUB	
SM-3500 Cr/D						
Hexavalent Chromium (Dissolved)	<0.005	mg/L	0.005	01/16/2015 22:02:00	LS	
SM-4500 CL/G						
Field Residual Chlorine	*<0.1	mg/L	0.1	01/16/2015 08:34:00	AW	

ANALYTICAL DATA REPORT

UL ORDER ID 1406445

UL Sample Number 1406445-001
Grab Date/Time: 01/16/2015 08:30:00
Composite Start: N/A
Composite Stop: N/A
Collected By: Client

Sample Site: OF-009 Grab
Client Sample ID: OF-009 Grab
Sample Matrix: Wastewater

Parameter	Test Result	Units	RL	Analysis Date/Time	Analyst	Comment
SM-4500 S2/E						
Sulfide	<0.5	mg/L	0.5	01/16/2015 18:40:00	LS	
SW-846 8270 D						
1,2,4,5-Tetrachlorobenzene	<5	ug/L	5	01/26/2015 20:36:00	BD	
1,2,4-Trichlorobenzene	<5	ug/L	5	01/26/2015 20:36:00	BD	
1,2-Dichlorobenzene	<5	ug/L	5	01/26/2015 20:36:00	BD	
1,2-Dinitrobenzene	<20	ug/L	20	01/26/2015 20:36:00	BD	
1,3,5-Trinitrobenzene	<5	ug/L	5	01/26/2015 20:36:00	BD	
1,3-Dichlorobenzene	<5	ug/L	5	01/26/2015 20:36:00	BD	
1,3-Dinitrobenzene	<10	ug/L	10	01/26/2015 20:36:00	BD	
1,4-Dichlorobenzene	<5	ug/L	5	01/26/2015 20:36:00	BD	
1,4-Dinitrobenzene	<20	ug/L	20	01/26/2015 20:36:00	BD	
1,4-Naphthoquinone	<5	ug/L	5	01/26/2015 20:36:00	BD	
1,4-Phenylenediamine	<5	ug/L	5	01/26/2015 20:36:00	BD	
1-Chloronaphthalene	<5	ug/L	5	01/26/2015 20:36:00	BD	
1-Naphthylamine	<5	ug/L	5	01/26/2015 20:36:00	BD	
2,3,4,6-Tetrachlorophenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
2,4,5-Trichlorophenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
2,4,6-Trichlorophenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
2,4-Dichlorophenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
2,4-Dimethylphenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
2,4-Dinitrophenol	<10	ug/L	10	01/26/2015 20:36:00	BD	
2,4-Dinitrotoluene	<5	ug/L	5	01/26/2015 20:36:00	BD	
2,6-Dichlorophenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
2,6-Dinitrotoluene	<5	ug/L	5	01/26/2015 20:36:00	BD	
2-Acetylaminofluorene	<10	ug/L	10	01/26/2015 20:36:00	BD	
2-Chloronaphthalene	<5	ug/L	5	01/26/2015 20:36:00	BD	
2-Chlorophenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
2-Methylnaphthalene	<5	ug/L	5	01/26/2015 20:36:00	BD	
2-Methylphenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
2-Naphthylamine	<5	ug/L	5	01/26/2015 20:36:00	BD	
2-Nitroaniline	<5	ug/L	5	01/26/2015 20:36:00	BD	

ANALYTICAL DATA REPORT

UL ORDER ID 1406445

UL Sample Number 1406445-001
Grab Date/Time: 01/16/2015 08:30:00
Composite Start: N/A
Composite Stop: N/A
Collected By: Client

Sample Site: OF-009 Grab
Client Sample ID: OF-009 Grab
Sample Matrix: Wastewater

Parameter	Test Result	Units	RL	Analysis Date/Time	Analyst	Comment
2-Nitrophenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
2-Picoline	<5	ug/L	5	01/26/2015 20:36:00	BD	
3,3'-Dichlorobenzidine	<5	ug/L	5	01/26/2015 20:36:00	BD	
3,3'-Dimethylbenzidine	<5	ug/L	5	01/26/2015 20:36:00	BD	
3-Methylcholanthrene	<5	ug/L	5	01/26/2015 20:36:00	BD	
3-Methylphenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
3-Nitroaniline	<5	ug/L	5	01/26/2015 20:36:00	BD	
4,6-Dinitro-2-methylphenol	<10	ug/L	10	01/26/2015 20:36:00	BD	
4-Aminobiphenyl	<10	ug/L	10	01/26/2015 20:36:00	BD	
4-Bromophenyl Phenyl Ether	<5	ug/L	5	01/26/2015 20:36:00	BD	
4-Chloro-3-methylphenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
4-Chloroaniline	<10	ug/L	10	01/26/2015 20:36:00	BD	
4-Chlorophenyl Phenyl Ether	<5	ug/L	5	01/26/2015 20:36:00	BD	
4-Methylphenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
4-Nitroaniline	<5	ug/L	5	01/26/2015 20:36:00	BD	
4-Nitrophenol	<10	ug/L	10	01/26/2015 20:36:00	BD	
5-Nitro-o-toluidine	<5	ug/L	5	01/26/2015 20:36:00	BD	
7,12-Dimethylbenz(a)anthracene	<5	ug/L	5	01/26/2015 20:36:00	BD	
a,a-Dimethylphenethylamine	<5	ug/L	5	01/26/2015 20:36:00	BD	
Acenaphthene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Acenaphthylene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Acetophenone	<5	ug/L	5	01/26/2015 20:36:00	BD	
Aniline	<5	ug/L	5	01/26/2015 20:36:00	BD	
Anthracene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Aramite	<10	ug/L	10	01/26/2015 20:36:00	BD	
Azobenzene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Benzidine	<10 V	ug/L	10	01/26/2015 20:36:00	BD	
Benzo (A) Anthracene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Benzo (A) Pyrene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Benzo (B) Fluoranthene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Benzo (GHI) Perylene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Benzo (K) Fluoranthene	<10	ug/L	10	01/26/2015 20:36:00	BD	

ANALYTICAL DATA REPORT

UL ORDER ID 1406445

UL Sample Number 1406445-001

Grab Date/Time: 01/16/2015 08:30:00

Composite Start: N/A

Composite Stop: N/A

Collected By: Client

Sample Site: OF-009 Grab

Client Sample ID: OF-009 Grab

Sample Matrix: Wastewater

Parameter	Test Result	Units	RL	Analysis Date/Time	Analyst	Comment
Benzyl Alcohol	<10	ug/L	10	01/26/2015 20:36:00	BD	
Bis(2-Chloroethoxy) Methane	<5	ug/L	5	01/26/2015 20:36:00	BD	
Bis(2-chloroethyl) Ether	<5	ug/L	5	01/26/2015 20:36:00	BD	
Bis(2-chloroisopropyl) Ether	<5	ug/L	5	01/26/2015 20:36:00	BD	
Bis(2-ethylhexyl) Phthalate	<5	ug/L	5	01/26/2015 20:36:00	BD	
Butyl Benzyl Phthalate	<5	ug/L	5	01/26/2015 20:36:00	BD	
Chlorobenzilate	<5	ug/L	5	01/26/2015 20:36:00	BD	
Chrysene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Di-n-butyl Phthalate	<5	ug/L	5	01/26/2015 20:36:00	BD	
Di-n-octyl Phthalate	<5	ug/L	5	01/26/2015 20:36:00	BD	
Dibenz(a,j)acridine	<5	ug/L	5	01/26/2015 20:36:00	BD	
Dibenzo(a,h)anthracene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Dibenzofuran	<5	ug/L	5	01/26/2015 20:36:00	BD	
Diethyl Phthalate	<5	ug/L	5	01/26/2015 20:36:00	BD	
Dimethoate	<10	ug/L	10	01/26/2015 20:36:00	BD	
Dimethyl Phthalate	<5	ug/L	5	01/26/2015 20:36:00	BD	
Diphenylamine	<5	ug/L	5	01/26/2015 20:36:00	BD	
Disulfoton	<20	ug/L	5	01/26/2015 20:36:00	BD	
Ethyl Methanesulfonate	<10	ug/L	10	01/26/2015 20:36:00	BD	
Famphur	<20	ug/L	10	01/26/2015 20:36:00	BD	
Fluoranthene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Fluorene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Hexachlorobenzene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Hexachlorobutadiene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Hexachlorocyclopentadiene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Hexachloroethane	<5	ug/L	5	01/26/2015 20:36:00	BD	
Hexachloropropene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Indeno(1,2,3-cd)pyrene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Isodrin	<5	ug/L	5	01/26/2015 20:36:00	BD	
Isophorone	<5	ug/L	5	01/26/2015 20:36:00	BD	
Isosafrole	<5	ug/L	5	01/26/2015 20:36:00	BD	
Kepone	<10	ug/L	10	01/26/2015 20:36:00	BD	

ANALYTICAL DATA REPORT

UL ORDER ID 1406445

UL Sample Number 1406445-001

Grab Date/Time: 01/16/2015 08:30:00
Composite Start: N/A
Composite Stop: N/A
Collected By: Client

Sample Site: OF-009 Grab
Client Sample ID: OF-009 Grab
Sample Matrix: Wastewater

Parameter	Test Result	Units	RL	Analysis Date/Time	Analyst	Comment
Methapyrilene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Methyl Methanesulfonate	<10	ug/L	10	01/26/2015 20:36:00	BD	
N-Nitroso-di-n-butylamine	<5	ug/L	5	01/26/2015 20:36:00	BD	
N-Nitroso-di-n-propylamine	<5	ug/L	5	01/26/2015 20:36:00	BD	
N-nitrosodiethylamine	<5	ug/L	5	01/26/2015 20:36:00	BD	
N-Nitrosodimethylamine	<5	ug/L	5	01/26/2015 20:36:00	BD	
N-Nitrosodiphenylamine	<5	ug/L	5	01/26/2015 20:36:00	BD	
N-nitrosomethylethylamine	<5	ug/L	5	01/26/2015 20:36:00	BD	
N-Nitrosopiperidine	<5	ug/L	5	01/26/2015 20:36:00	BD	
N-nitrosopyrrolidine	<5	ug/L	5	01/26/2015 20:36:00	BD	
Naphthalene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Nitrobenzene	<5	ug/L	5	01/26/2015 20:36:00	BD	
O,O,O-Triethyl phosphorothioate	<20	ug/L	20	01/26/2015 20:36:00	BD	
o-Toluidine	<5	ug/L	5	01/26/2015 20:36:00	BD	
Pentachlorobenzene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Pentachloronitrobenzene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Pentachlorophenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
Phenacetin	<5	ug/L	5	01/26/2015 20:36:00	BD	
Phenanthrene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Phenol	<5	ug/L	5	01/26/2015 20:36:00	BD	
Phorate	<5	ug/L	5	01/26/2015 20:36:00	BD	
Pronamide	<5	ug/L	5	01/26/2015 20:36:00	BD	
Pyrene	<5	ug/L	5	01/26/2015 20:36:00	BD	
Pyridine	<5	ug/L	5	01/26/2015 20:36:00	BD	
Safrole	<5	ug/L	5	01/26/2015 20:36:00	BD	
Thionazin	<20	ug/L	10	01/26/2015 20:36:00	BD	

Comments for 1406445-001
No comments

ANALYTICAL DATA REPORT

UL ORDER ID 1406445

Analytical Methods Reference

Description:	Prep Method:	Method	Reference	VDEH Lab# 00030 VELAP ID 460036 accredited/status	NCDW Lab # 51706	NCWW Lab # 543
Field Services						
Filtration Apparatus		Manual				
Transportation		Manual				
Wastewater						
Semi-Volatile Organics		SW-846 8270 D	3rd Edition	Accredited		
Silver (Dissolved Low-Level)	EPA 200.2 (Co	EPA 200.7	40 CFR part 136 App A	Accredited		
Arsenic (Dissolved)	EPA 200.2	EPA 200.7	40 CFR part 136 App. A	Accredited		
Barium (Dissolved)		EPA 200.7	40 CFR part 136 App A	Accredited		
Cadmium (Dissolved)	EPA 200.2	EPA 200.7	40 CFR part 136 App. A	Accredited		
Chloride		SM 4500 Cl E	-2011	Accredited		
Cyanide (Total)	SEAL EPA 130 A	EPA 335.4	Rev 1993	Accredited		
Chromium III (Dissolved)	EPA 200.2	EPA 200.7	40 CFR part 136 App. A	Accredited		
Hexavalent Chromium (Dissolved)		SM-3500 Cr/D	2011	Accredited		
Copper (Dissolved)	EPA 200.2 con	EPA 200.7	40 CFR part 136 App. A	Accredited		
Enterococci		Enterolert 96 well	40 CFR part 136 App. A	Accredited		
Chlorinated Pesticides (WQM List)	liq/liq	EPA 608	40 CFR part 136 App. A	Accredited		
Chlorinated Acid Herbicides (short Lis	liq/liq	EPA 615	40 CFR part 136 App. A			
pesticides		EPA 622				
Volatile Organic Compounds	EPA 624	EPA 624	40 CFR part 136 App. A	Accredited		
Semi-Volatile Organic Compounds	EPA 625	EPA 625	40 CFR part 136 App. A	Accredited		
Enzyme Substrate Coliform Test (E-C		IDEXX-Colilert	40 CFR part 136 App. A	Accredited		
Iron (Dissolved)		EPA 200.7	40 CFR part 136 App. A	Accredited		
Dissolved Mercury	digestion	SM-3112 B	2011	Not Accredited		
Sulfide		SM-4500 S2/E	18th Edition	Not Accredited		
Surfactants-MBAS		SM-5540 C	18th Edition			
Manganese (Dissolved)		EPA 200.7	40 CFR part 136 App A	Accredited		
Ammonia	SEAL EPA 129 A	EPA 350.1	Version 2	Accredited		
Nickel (Dissolved)	EPA 200.2	EPA 200.7	40 CFR part 136 App A	Accredited		
Nitrate	SEAL EPA 126 A	EPA 353.2	Version 2	Accredited		
Lead (Dissolved)	EPA 200.2	EPA 200.7	40 CFR part 136 App A	Accredited		
Field Residual Chlorine		SM-4500 CL/G	18th Edition	Not Accredited		
Antimony (Dissolved)	EPA 200.2	EPA 200.7	40 CFR part 136 App A	Accredited		
Selenium (Dissolved)		EPA 200.7	40 CFR part 136 App. A	Accredited		
Sulfate	SEAL EPA 123 A	ASTM D516-02	-07	Accredited		
TBT Tributyltin	liq/liq	GC/FPD		Accredited		
Thallium (dissolved) low level	200.7	EPA 200.7	40 CFR part 136 App. A	Accredited		
Zinc (Dissolved)	EPA 200.2	EPA 200.7	40 CFR part 136 App. A	Accredited		

NOTE: Analysis is performed according to Universal Laboratories Standard Operating Procedures which are based on the analytical methods referenced above

ANALYTICAL DATA REPORT

UL ORDER ID 1406445

GLOSSARY OF TERMS AND ABBREVIATIONS

RL (Reporting Limit): The minimum levels, concentrations, or quantities of target analyte that can be reported with a specified degrees of confidence.Generally this number is near or equal to the lowest calibration standard run with the analytical batch.

MDL (Method Detection Limit): The constituent concentration that, when processed through the complete method, produces a signal with a 99% probability that it is different from the blank

LCS (Laboratory Control Sample): is a sample matrix free from the analytes of interest, spiked with verified amounts of analytes

MS (Matrix Spike): a sample prepared by adding a known mass of target analyte to a specific amount of sample for which an independant estimate of target analyte concentration is available

MSD (Matrix Spike Duplicate): is a replicate matrix spike prepared in the laboratory and anlyzed to obtain a measure of the precision recovery for each analtye.

Surrogate is a substance with properties that mimic the analyte of interest.It is unlikely to be found in environmental samples and is added to them for quality control purposes

IS (Internal Standard): is a known amount of standard added to a test portion of the sample as a reference for evaluation and controlling the precsion and bias of the applied analytical method.

RPD (Relative Percent Difference) is the difference between a set of sample duplicates or sample spike duplicates

ICV (Initial Calibration Verification) CCV (Continuing Calibration Verification) FCV (Final Calibration Verification)

Method Blank is a sample matrix smilar to the batch of associated samples that is free from analytes of interest and is processed simultaneously with and under the same conditions as samples.

Trip Blank is a sample of analyte free media collected in the same type of container that is required for the analytical test, taken from the laboratory to the sampling site and returned to the laboratory unopened. A trip blank is used to document contamination attributable to shipping and field handling procedures

Holding Time is the maximum times that samples may be held prior to analysis and still be considered valid or not compromised

ug/L=ppb ug/kg=ppb mg/kg=ppm mg/L=ppm

HAM= Analyzed in Hampton Lab

FRED= Analyzed in Fredericksburg Lab

QC Flag	Description
B	Analyte found in method blank
H	Holding time exceeded
L	LCS outside acceptable limits
V	ICV/CCV/FCV outside acceptable limits
D	RPD outside acceptable limits
MS	Matrix spike recovery outside acceptable limits
J	Result above calibration curve approximate value
QC	Method QC Critera not met
MI	Matrix Interference
S	Surrogate outside acceptable limits
IS	Internal standard outside acceptable limits
*	VELAP accreditation not available
**	VELAP not accredited
T	value is between the RL and MDL

Microbac

Laboratory Report Number: L15011480

Dan Thornton
Universal Labs
20 Research Drive
Hampton, VA 23666

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

Laboratory Contact:
Emily Yoak – Client Services Specialist
(740) 373-4071
emily.yoak@microbac.com

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on January 30 2015

David E. Vandenberg

David Vandenberg – Managing Director

State of Origin: NC
Accrediting Authority: Department of the Environment and Natural Resources ID:583
QAPP: Microbac OVD

Microbac Laboratories * Ohio Valley Division
158 Starlite Drive, Marietta, OH 45750 * T: (740) 373-4071 F: (740) 373-4835 * www.microbac.com

Microbac

Lab Report #: L15011480
Lab Project #: 3137.001
Project Name: Universal Labs
Lab Contact: Emily Yoak

Record of Sample Receipt and Inspection

Comments/Discrepancies

This is the record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

The following discrepancies were noted:

Discrepancy	Resolution
UL1501105-001 thru 005: we only received 1 voa vial for the 8260/GRO analysis. CLS	
Also, we received ID: UL1501105-012 (soil) that is not listed on the chain of custody. CLS	

Coolers

Cooler #	Temperature Gun	Temperature	COC #	Airbill #	Temp Required?
00112342	I	0.0		1001914183310004575000772680844150	X

Inspection Checklist

#	Question	Result
1	Were shipping coolers sealed?	Yes
2	Were custody seals intact?	Yes
3	Were cooler temperatures in range of 0-6?	Yes
4	Was ice present?	Yes
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	Yes
8	Were the correct containers and volumes received?	No
9	Were samples received within EPA hold times?	Yes
10	Were correct preservatives used? (water only)	Yes
11	Were pH ranges acceptable? (voa's excluded)	NA
12	Were VOA samples free of headspace (less than 6mm)?	Yes

Microbac Laboratories • Ohio Valley Division
158 Starlite Drive, Marietta, OH 45750 • T: (740)373-4071 F: (740)373-4835
www.microbac.com

Microbac

Lab Report #: L15011480
Lab Project #: 3137.001
Project Name: Universal Labs
Lab Contact: Emily Yoak

Samples Received

Client ID	Laboratory ID	Date Collected	Date Received
1406445-001	L15011480-01	01/16/2015 08:30	01/23/2015 08:47

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www.microbac.com

Login Number: L15011480
Department: Volatiles
Analyst: Tiffany Bailey

METHOD

Preparation SW-846 5030C/5035A

Analysis 624

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample 01 preserved to pH <2 and acrolein and acrylonitrile were target analytes. Acrolein and acrylonitrile qualified as "estimated".

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: Per 40CFR Part 136, the LCS serves as the CCV for 624.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: Recoveries out of range were observed for the following analytes: Acrolein.

Matrix Spikes: Microbac Laboratories recommends site specific MS/MSD samples to avoid possible data qualifications.

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Other: None.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak. In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak. This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline. There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous. Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 94957
Approved By: Michael Albertson

Microbac

Lab Report #: L15011480
Lab Project #: 3137.001
Project Name: Universal Labs
Lab Contact: Emily Yoak

Certificate of Analysis

Sample #: L15011480-01
Client ID: 1406445-001
Matrix: Water 2
Workgroup #: WG509974
Collect Date: 01/16/2015 08:30
Sample Tag: 02

PrePrep Method: N/A
Prep Method: 5030B/5030C/5035A
Analytical Method: 624
Analyst: TMB
Dilution: 1
Units: ug/L

Instrument: HPMS6
Prep Date: N/A
Cal Date: 01/16/2015 18:46
Run Date: 01/28/2015 23:59
File ID: 6M130797

Analyte	CAS #	Result	Qual	RL	MDL
1,1,1-Trichloroethane	71-55-6		ND	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		ND	1.00	0.200
1,1,2-Trichloroethane	79-00-5		ND	1.00	0.250
1,1-Dichloroethane	75-34-3		ND	1.00	0.125
1,1-Dichloroethene	75-35-4		ND	1.00	0.500
1,2-Dichlorobenzene	95-50-1		ND	1.00	0.125
1,2-Dichloroethane	107-06-2		ND	1.00	0.250
1,2-Dichloropropane	78-87-5		ND	1.00	0.200
1,3-Dichlorobenzene	541-73-1		ND	1.00	0.250
1,4-Dichlorobenzene	106-46-7		ND	1.00	0.125
2-Butanone	78-93-3		ND	5.00	2.50
2-Chloro-1,3-butadiene	126-99-8		ND	5.00	2.50
2-Chloroethyl vinyl ether	110-75-8		ND	5.00	2.00
4-Methyl-2-pentanone	108-10-1		ND	5.00	2.50
Acrolein	107-02-8		E	100	20.0
Acrylonitrile	107-13-1		E	5.00	2.50
Benzene	71-43-2		ND	1.00	0.125
Bromodichloromethane	75-27-4		ND	1.00	0.250
Bromoform	75-25-2		ND	1.00	0.500
Bromomethane	74-83-9		ND	1.00	0.500
Carbon tetrachloride	56-23-5		ND	1.00	0.250
Chlorobenzene	108-90-7		ND	1.00	0.125
Chlorodibromomethane	124-48-1		ND	1.00	0.250
Chloroethane	75-00-3		ND	1.00	0.500
Chloroform	67-66-3	0.587	J	1.00	0.125
Chloromethane	74-87-3		ND	1.00	0.500
cis-1,3-Dichloropropene	10061-01-5		ND	1.00	0.250
Ethylbenzene	100-41-4		ND	0.400	0.250
Methylene chloride	75-09-2		ND	1.00	0.250
Tetrachloroethene	127-18-4		ND	1.00	0.250
Toluene	108-88-3		ND	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		ND	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		ND	1.00	0.500

Microbac

Lab Report #: L15011480
Lab Project #: 3137.001
Project Name: Universal Labs
Lab Contact: Emily Yoak

Certificate of Analysis

Analyte	CAS #	Result	Qual	RL	MDL
Trichloroethene	79-01-6		ND	1.00	0.250
Trichlorofluoromethane	75-69-4		ND	1.00	0.250
Vinyl chloride	75-01-4		ND	1.00	0.250
Xylenes	1330-20-7	2.94		1.00	0.500

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	116	63	140	
4-Bromofluorobenzene	96.8	54	123	
Toluene-d8	98.0	53	142	

E	Estimated concentration due to sample matrix interference
J	Estimated value; the analyte concentration was less than the RL/LOQ.
ND	Not detected at or above the reporting limit (RL/MDL).

Microbac Laboratories Inc.
Ohio Valley Division Analyst List
January 30, 2015

001 - BIO-CHEM TESTING WVDEP 220
002 - REIC Consultants, Inc. WVDEP 060
003 - Sturm Environmental
004 - MICROBAC PITTSBURGH
005 - ES LABORATORIES
006 - ALCOSAN LABORATORIES
007 - ALS LABORATORIES
008 - BENCHMARK LABORATORIES
010 - MICROBAC CHICAGOLAND
ADC - ANTHONY D. CANTER
ADG - APRIL D. GREENE
AED - ALLEN E. DAVIS
ALS - ADRIANE L. STEED
AWE - ANDREW W. ESSIG
AZH - AFTER HOURS
BJO - BRIAN J. OGDEN
BKT - BRENDAN TORRENCE
BLG - BRENDA L. GREENWALT
BRG - BRENDA R. GREGORY
CAA - CASSIE A. AUGENSTEIN
CAF - CHERYL A. FLOWERS
CEB - CHAD E. BARNES
CJR - COURTNEY J. REXROAD
CLC - CHRYS L. CRAWFORD
CLS - CARA L. STRICKLER
CLW - CHARISSA L. WINTERS
CPD - CHAD P. DAVIS
CSH - CHRIS S. HILL
DAK - DEAN A. KETELSEN
DCM - DAVID C. MERCKLE
DEV - DAVID E. VANDENBERG
DIH - DEANNA I. HESSON
DLB - DAVID L. BUMGARNER
DLP - DOROTHY L. PAYNE
DSM - DAVID S. MOSSOR
ECL - ERIC C. LAWSON
ENY - EMILY N. YOAK
EPT - ETHAN P. TIDD
ERP - ERIN R. PORTER
FJB - FRANCES J. BOLDEN
JBK - JEREMY B. KINNEY
JDH - JUSTIN D. HESSON
JDS - JARED D. SMITH
JJS - JOHN J. STE MARIE
JKP - JACQUELINE K. PARSONS
JLL - JOHN L. LENT
JMW - JEANA M. WHITE
JTP - JOSHUA T. PEMBERTON
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KAJ - KELLIE A. JOHNSON
KAT - KATHY A. TUCKER
KDW - KATHRYN D. WELCH
KEB - KATIE E. BARNES
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
KRB - KAELY R. BECKER
KRP - KATHY R. PARSONS
LEC - LAURA E. CARPENTER
LKN - LINDA K. NEDEFF
LLS - LARRY L. STEPHENS
LSB - LESLIE S. BUCINA
MBK - MORGAN B. KNOWLTON
MDA - MIKE D. ALBERTSON
MDC - MIKE D. COCHRAN
MES - MARY E. SCHILLING
MLB - MEGAN L. BACHE
MMB - MAREN M. BEERY
MRT - MICHELLE R. TAYLOR
MSW - MATT S. WILSON
PDM - PIERCE D. MORRIS
PIT - MICROBAC WARRENDALE
PRL - PAIGE R. LAMB
PSW - PEGGY S. WEBB
QX - QIN XU
RAH - ROY A. HALSTEAD
REK - BOB E. KYER
RLB - BOB BUCHANAN
RM - RAYMOND MALEKE
RNP - RICK N. PETTY
SAV - SARAH A. VANDENBERG
SDC - SHALYN D. CONLEY
SLM - STEPHANIE L. MOSSBURG
SLP - SHERI L. PFALZGRAF
TB - TODD BOYLE
TMB - TIFFANY M. BAILEY
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER
WJB - WILL J. BEASLEY
WRR - WESLEY R. RICHARDS
WTD - WADE T. DELONG
XXX - UNAVAILABLE OR SUBCONTRACT

Microbac Laboratories Inc.
List of Valid Qualifiers
January 30, 2015

Qualkey: STD

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	Analyte present in method blank
B1	Target analyte detected in method blank at or above the method reporting limit
B3	Target analyte detected in calibration blank at or above the method reporting limit
B4	The BOD unseeded dilution water blank exceeded 0.2 mg/L
C	Confirmed by GC/MS
CG	Confluent growth
CT1	The cooler temperature at receipt exceeded regulatory guidelines for requested testing.
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to sample matrix interference
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
F,CT1	Estimated value; the analyte concentration was less than the RL/LOQ. The cooler temperature at receipt exceeded regula
FL	Free Liquid
H1	Sample analysis performed past holding time.
H1,CT1	Sample analysis performed past holding time. The cooler temperature at receipt exceeded regulatory guidelines for reque
I	Semiquantitative result (out of instrument calibration range)
J	Estimated value; the analyte concentration was less than the RL/LOQ.
J,B	Analyte detected in both the method blank and sample above the MDL.
J,CT1	Estimated value; the analyte concentration was less than the RL/LOQ.
J,CT1	Estimated value; the analyte concentration was less than the RL/LOQ. The cooler temperature at receipt exceeded regula
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Tentatively identified compound(TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL/MDL).
ND, B	Not detected at or above the reporting limit (RL). Analyte present in method blank.
ND, CT1	Analyte was not detected. The concentration is below the reported LOD. The cooler temperature at receipt exceeded reg
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
ND,H1	Not detected; Sample analysis performed past holding time.
ND,H1,CT1	Not detected; Sample analysis performed past holding time. The cooler temperature at receipt exceeded regulatory guide
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria failed. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
TNTC, B	Too numerous to count. Analyte present in method blank.
TNTC,CT1	Too numerous to count. The cooler temperature at receipt exceeded regulatory guidelines for requested testing.
TNTC,H1	Too numerous to count. Sample analysis performed past holding time.
U	Analyte was not detected. The concentration is below the reported MDL.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
UQ	Undetected: the analyte was analyzed for, but not detected.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

Microbac OVD
Received: 01/23/2015 08:47
By: CARR STRICKLER
221000064768

revised COC
1/23/15
Cara Strickler

Universal Laboratories
Subcontract Chain of Custody

20 Research Drive
Hampton, Va 23666
Phone: 757-865-0850
Fax: 757-865-6014

Thursday, January 22, 2015

Purchase Order: 150122013

U.L. Contact: ☑ Dan Thornton

To: Sample Receiving
Microbac (OH)

VA/DC Accredited 1-22-15

Sample #	Sample ID	Test		Method	Matrix	Collection Date	Time
1486445-001 EST	OF-009 Grab	EPA 624	Volatile Organic Compounds	EPA 624	Wastewater	01/16/2015	08:30 AM
UL1501038-001 EST F	OF-009 Grab	TPHGRO	Gasoline Range Organics	SW-846 8260 B	Wastewater	01/20/2015	08:15 AM
UL1501038-001 EST F	OF-009 Grab	TPHGRO	Gasoline Range Organics	SW-846 8260 B	Wastewater	01/16/2015	08:30 AM
UL1501040-001 EST	OF-010 Grab	TPHGRO	Gasoline Range Organics	SW-846 8260 B	Stormwater	01/18/2015	10:20 AM
UL1501041-001 EST	OF-012 Grab	TPHGRO	Gasoline Range Organics	SW-846 8260 B	Stormwater	01/18/2015	10:30 AM
UL1501077-003 E	1 (Total Flow) Grab	EPA 624	Volatile Organic Compounds	EPA 624	Wastewater	01/07/2015	09:09 AM
UL1501105-001	groundwater #1	8260B	Volatile Organic Compounds	SW-846 8260 B	Groundwater	01/19/2015	01:30 PM
UL1501105-001 G	groundwater #1	TPHGRO	Gasoline Range Organics	SW-846 8260 B mod	Groundwater	01/19/2015	01:30 PM
UL1501105-002 G	groundwater #2	8260B	Volatile Organic Compounds	SW-846 8260 B	Groundwater	01/19/2015	12:15 PM
UL1501105-002	groundwater #2	TPHGRO	Gasoline Range Organics	SW-846 8260 B mod	Groundwater	01/19/2015	12:15 PM
UL1501105-003 G	groundwater #3	8260B	Volatile Organic Compounds	SW-846 8260 B	Groundwater	01/19/2015	04:45 PM
UL1501105-003	groundwater #3	TPHGRO	Gasoline Range Organics	SW-846 8260 B mod	Groundwater	01/19/2015	04:45 PM
UL1501105-004 G	groundwater #4	8260B	Volatile Organic Compounds	SW-846 8260 B	Groundwater	01/19/2015	03:35 PM
UL1501105-004	groundwater #4	TPHGRO	Gasoline Range Organics	SW-846 8260 B mod	Groundwater	01/19/2015	03:35 PM
UL1501105-005 G	groundwater #5	8260B	Volatile Organic Compounds	SW-846 8260 B	Groundwater	01/19/2015	02:30 PM
UL1501105-005	groundwater #5	TPHGRO	Gasoline Range Organics	SW-846 8260 B mod	Groundwater	01/19/2015	02:30 PM
UL1501105-007 A	Soil #1	8260B	Volatile Organic Compounds	SW-846 8260 B	Soil	01/19/2015	01:55 PM
UL1501105-007	Soil #1	TPHGRO	Gasoline Range Organics	SW-846 8260 B mod	Soil	01/19/2015	01:55 PM
UL1501105-008 A	Soil #2	8260B	Volatile Organic Compounds	SW-846 8260 B	Soil	01/19/2015	12:33 PM
UL1501105-008	Soil #2	TPHGRO	Gasoline Range Organics	SW-846 8260 B mod	Soil	01/19/2015	12:33 PM
UL1501105-009 A	Soil #3	8260B	Volatile Organic Compounds	SW-846 8260 B	Soil	01/19/2015	04:58 PM
UL1501105-009	Soil #3	TPHGRO	Gasoline Range Organics	SW-846 8260 B mod	Soil	01/19/2015	04:58 PM
UL1501105-010 A	Soil #4	8260B	Volatile Organic Compounds	SW-846 8260 B	Soil	01/19/2015	04:05 PM

Friday, January 23, 2015

Purchase Order: 150122013

U.L. Contact: ☑ Dan Thornton

To: Sample Receiving
Microbac (OH)

UL1501105-010 A	Soil #4	TPHGRO	Gasoline Range Organics	SW-846 8260 B mod	Soil	01/19/2015	04:05 PM
UL1501105-011 A	Soil #6	8260B	Volatile Organic Compounds	SW-846 8260 B	Soil	01/19/2015	02:57 PM
UL1501105-011	Soil #6	TPHGRO	Gasoline Range Organics	SW-846 8260 B mod	Soil	01/19/2015	02:57 PM
UL1501105-012 A	Soil #5	8260B	Volatile Organic Compounds	SW-846 8260 B	Soil	01/19/2015	03:57 PM
UL1501105-012	Soil #5	TPHGRO	Gasoline Range Organics	SW-846 8260 B mod	Soil	01/19/2015	05:57 PM
UL1501173-001 B	Site 244	BTEX	BTEX	SW-846 8260 B	Soil	01/12/2015	09:01 AM
UL1501173-001	Site 244	TPHGRO	Gasoline Range Organics	SW-846 8260 B mod	Soil	01/12/2015	09:01 AM
UL1501185-001 E,F,G	OF-001 Grab	TPHGRO	Gasoline Range Organics	SW-846 8260 B	Stormwater	01/12/2015	02:30 PM
UL1501187-001 C,D,E	OF-001 Grab	TPHGRO	Gasoline Range Organics	SW-846 8260 B	Stormwater	01/13/2015	09:03 AM
UL1501191-001A B,C	016/017	TPHGRO	Gasoline Range Organics	SW-846 8260 B	Stormwater	01/12/2015	10:20 AM
UL1501191-002A B,C	003	TPHGRO	Gasoline Range Organics	SW-846 8260 B	Stormwater	01/12/2015	10:45 AM
UL1501191-003A B,C	010	TPHGRO	Gasoline Range Organics	SW-846 8260 B	Stormwater	01/12/2015	10:35 AM
UL1501197-001 E,F,G	OF-001 Grab	TPHGRO	Gasoline Range Organics	SW-846 8260 B	Wastewater	01/13/2015	11:18 AM
UL1501236-001 A,B	Total Discharge #1 Grab	EPA 624	Volatile Organic Compounds	EPA 624	Wastewater	01/14/2015	09:50 AM
UL1501251-001 C,D,E	OF-001 Grab	TPHGRO	Gasoline Range Organics	SW-846 8260 B	Stormwater	01/16/2015	10:50 AM
UL1501253-001 A,B,C	Tank 24 Grab	BTEX	BTEX by EPA 624	EPA 624	Wastewater	01/16/2015	10:06 AM

Shipped By: ☐ UL Courier ☑ Federal Express

Comments: Please report separately

Cooler Temp @ Log-In

Preservation

Relinquished By Signature:		Company: UL	Date/Time: 1-22-15/1700
Received By Signature:		Company:	Date/Time:
Relinquished By Signature:		Company:	Date/Time:
Received By Signature:		Company:	
Relinquished By Signature:		Company:	
Received By Signature:		Company:	

Microbac OVD
Received: 01/23/2015 08:47
By: CARA STRICKLER
221000064768

revised COC
1/23/15
Cara Strickler

Microbac

Laboratory Report Number: L15011494

Dan Thornton
Universal Labs
20 Research Drive
Hampton, VA 23666

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

Laboratory Contact:
Emily Yoak – Client Services Specialist
(740) 373-4071
emily.yoak@microbac.com

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on February 03 2015

David Vandenberg – Managing Director

State of Origin: NC
Accrediting Authority: Department of the Environment and Natural Resources ID:583
QAPP: Microbac OVD

Microbac

Lab Report #: L15011494
Lab Project #: 3137.001
Project Name: Universal Labs
Lab Contact: Emily Yoak

Record of Sample Receipt and Inspection

Comments/Discrepancies

This is the record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

There were no discrepancies.

Discrepancy	Resolution

Coolers

Cooler #	Temperature Gun	Temperature	COC #	Airbill #	Temp Required?
00112354	H	0.0		1001891783910004575000772714390618	X

Inspection Checklist

#	Question	Result
1	Were shipping coolers sealed?	Yes
2	Were custody seals intact?	Yes
3	Were cooler temperatures in range of 0-6?	Yes
4	Was ice present?	Yes
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	Yes
8	Were the correct containers and volumes received?	Yes
9	Were samples received within EPA hold times?	Yes
10	Were correct preservatives used? (water only)	Yes
11	Were pH ranges acceptable? (voa's excluded)	Yes
12	Were VOA samples free of headspace (less than 6mm)?	NA

Microbac Laboratories • Ohio Valley Division
158 Starlite Drive, Marietta, OH 45750 • T: (740)373-4071 F: (740)373-4835
www.microbac.com

Microbac

Lab Report #: L15011494
Lab Project #: 3137.001
Project Name: Universal Labs
Lab Contact: Emily Yoak

Samples Received

Client ID	Laboratory ID	Date Collected	Date Received
1406445-001	L15011494-01	01/16/2015 08:30	01/27/2015 10:23

Microbac Laboratories • Ohio Valley Division
158 Starlite Drive, Marietta, OH 45750 • T: (740)373-4071 F: (740)373-4835
www.microbac.com

Microbac

Lab Report #: L15011494
Lab Project #: 3137.001
Project Name: Universal Labs
Lab Contact: Emily Yosk

Certificate of Analysis

Sample #:	L15011494-01	PrePrep Method:	N/A	Instrument:	ICP-THERMO2
Client ID:	1406445-001	Prep Method:	3015	Prep Date:	02/02/2015 07:51
Matrix:	Water 2	Analytical Method:	200.7	Cal Date:	02/02/2015 09:48
Workgroup #:	WG510552	Analyst:	QX	Run Date:	02/02/2015 13:01
Collect Date:	01/16/2015 08:30	Dilution:	1	File ID:	T2.020215.130116
Sample Tag:	01	Units:	mg/L		

Analyte	CAS #	Result	Qual	RL	MDL
Silver, Dissolved	7440-22-4		ND	0.0100	0.00500

ND Not detected at or above the reporting limit (RL/MDL).

Sample #:	L15011494-01	PrePrep Method:	N/A	Instrument:	CVAA1
Client ID:	1406445-001	Prep Method:	7470A	Prep Date:	01/29/2015 10:53
Matrix:	Water 2	Analytical Method:	245.1	Cal Date:	01/30/2015 13:10
Workgroup #:	WG510422	Analyst:	BKT	Run Date:	01/30/2015 14:51
Collect Date:	01/16/2015 08:30	Dilution:	1	File ID:	M7.013015.145126
Sample Tag:	01	Units:	mg/L		

Analyte	CAS #	Result	Qual	RL	MDL
Mercury, Dissolved	7439-97-6		ND	0.000200	0.000100

ND Not detected at or above the reporting limit (RL/MDL).

Microbac

Lab Report #: L15011494
Lab Project #: 3137.001
Project Name: Universal Labs
Lab Contact: Emily Yoak

Certificate of Analysis

Microbac Laboratories Inc.
Ohio Valley Division Analyst List
February 3, 2015

001 - BIO-CHEM TESTING WVDEP 220
002 - REIC Consultants, Inc. WVDEP 060
003 - Sturm Environmental
004 - MICROBAC PITTSBURGH
005 - ES LABORATORIES
006 - ALCOSAN LABORATORIES
007 - ALS LABORATORIES
008 - BENCHMARK LABORATORIES
010 - MICROBAC CHICAGOLAND
ADC - ANTHONY D. CANTER
ADG - APRIL D. GREENE
AED - ALLEN E. DAVIS
ALS - ADRIANE L. STEED
AWE - ANDREW W. ESSIG
AZH - AFTER HOURS
BJO - BRIAN J. OGDEN
BKT - BRENDAN TORRENCE
BLG - BRENDA L. GREENWALT
BRG - BRENDA R. GREGORY
CAA - CASSIE A. AUGENSTEIN
CAF - CHERYL A. FLOWERS
CEB - CHAD E. BARNES
CJR - COURTNEY J. REXROAD
CLC - CHRYS L. CRAWFORD
CLS - CARA L. STRICKLER
CLW - CHARISSA L. WINTERS
CPD - CHAD P. DAVIS
CSH - CHRIS S. HILL
DAK - DEAN A. KETELSEN
DCM - DAVID C. MERCKLE
DEV - DAVID E. VANDENBERG
DIH - DEANNA I. HESSON
DLB - DAVID L. BUMGARNER
DLP - DOROTHY L. PAYNE
DSM - DAVID S. MOSSOR
ECL - ERIC C. LAWSON
ENY - EMILY N. YOAK
EPT - ETHAN P. TIDD
ERP - ERIN R. PORTER
FJB - FRANCES J. BOLDEN
JBK - JEREMY B. KINNEY
JDH - JUSTIN D. HESSON
JDS - JARED D. SMITH
JJS - JOHN J. STE MARIE
JKP - JACQUELINE K. PARSONS
JLL - JOHN L. LENT
JMW - JEANA M. WHITE
JTP - JOSHUA T. PEMBERTON
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KAJ - KELLIE A. JOHNSON
KAT - KATHY A. TUCKER
KDW - KATHRYN D. WELCH
KEB - KATIE E. BARNES
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
KRB - KAELY R. BECKER
KRP - KATHY R. PARSONS
LEC - LAURA E. CARPENTER
LKN - LINDA K. NEDEFF
LLS - LARRY L. STEPHENS
LSB - LESLIE S. BUCINA
MBK - MORGAN B. KNOWLTON
MDA - MIKE D. ALBERTSON
MDC - MIKE D. COCHRAN
MES - MARY E. SCHILLING
MLB - MEGAN L. BACHE
MMB - MAREN M. BEERY
MRT - MICHELLE R. TAYLOR
MSW - MATT S. WILSON
PDM - PIERCE D. MORRIS
PIT - MICROBAC WARRENDALE
PRL - PAIGE R. LAMB
PSW - PEGGY S. WEBB
QX - QIN XU
RAH - ROY A. HALSTEAD
REK - BOB E. KYER
RLB - BOB BUCHANAN
RM - RAYMOND MALEKE
RNP - RICK N. PETTY
SAV - SARAH A. VANDENBERG
SDC - SHALYN D. CONLEY
SLM - STEPHANIE L. MOSSBURG
SLP - SHERI L. PFALZGRAF
TB - TODD BOYLE
TMB - TIFFANY M. BAILEY
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER
WJB - WILL J. BEASLEY
WRR - WESLEY R. RICHARDS
WTD - WADE T. DELONG
XXX - UNAVAILABLE OR SUBCONTRACT

Microbac Laboratories Inc.
List of Valid Qualifiers
February 03, 2015

Qualkey: STD

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	Analyte present in method blank
B,H1	Analyte present in method blank. Sample analysis performed past holding time.
B1	Target analyte detected in method blank at or above the method reporting limit
B3	Target analyte detected in calibration blank at or above the method reporting limit
B4	The BOD unseeded dilution water blank exceeded 0.2 mg/L
C	Confirmed by GC/MS
CG	Confluent growth
CT1	The cooler temperature at receipt exceeded regulatory guidelines for requested testing.
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to sample matrix interference
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
F,CT1	Estimated value; the analyte concentration was less than the RL/LOQ. The cooler temperature at receipt exceeded regula
FL	Free Liquid
H1	Sample analysis performed past holding time.
H1,CT1	Sample analysis performed past holding time. The cooler temperature at receipt exceeded regulatory guidelines for reque
I	Semiquantitative result (out of instrument calibration range)
J	Estimated value; the analyte concentration was less than the RL/LOQ.
J,B	Analyte detected in both the method blank and sample above the MDL.
J,CT1	Estimated value; the analyte concentration was less than the RL/LOQ.
J,CT1	Estimated value; the analyte concentration was less than the RL/LOQ. The cooler temperature at receipt exceeded regula
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Tentatively identified compound(TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL/MDL).
ND, B	Not detected at or above the reporting limit (RL). Analyte present in method blank.
ND, CT1	Analyte was not detected. The concentration is below the reported LOD. The cooler temperature at receipt exceeded reg
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
ND,H1	Not detected; Sample analysis performed past holding time.
ND,H1,CT1	Not detected; Sample analysis performed past holding time. The cooler temperature at receipt exceeded regulatory guide
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria failed. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
TNTC, B	Too numerous to count. Analyte present in method blank.
TNTC,CT1	Too numerous to count. The cooler temperature at receipt exceeded regulatory guidelines for requested testing.
TNTC,H1	Too numerous to count. Sample analysis performed past holding time.
U	Analyte was not detected. The concentration is below the reported MDL.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
UQ	Undetected; the analyte was analyzed for, but not detected.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

Universal Laboratories
Subcontract Chain of Custody

20 Research Drive
Hampton, Va 23666
Phone: 757-865-0880
Fax: 757-865-8014

Monday, January 26, 2015 **Purchase Order:** 150122010 **U.L. Contact:** ☑ Dan Thornton

To: Sample Receiving
Microbac (OH)

VA/NC Accredited 1-26-15

Sample #	Sample ID	Test		Method	Matrix	Collection Date	Time
1406445-001 M	OF-009 Grab	AGIDL ★	Silver (Dissolved Low-Level)	EPA 200.7	Wastewater	01/16/2015	08:30 AM
1406445-001	OF-009 Grab	HGD	Dissolved Mercury	SM-3112 B	Wastewater	01/16/2015	08:30 AM
UL1501097-001 D	Effluent 001 Grab	AGIT	Silver (Total)	EPA 200.7	Wastewater	01/22/2015	10:50 AM
UL1501223-001 3	Process Mini-manhole Compo	AGIT	Silver (Total)	EPA 200.7	Wastewater	01/16/2015	
UL1501288-001	Carbon Canister #2	HGTCLP	Mercury (TCLP)	SW-846 1311/7470	Solid LE	01/19/2015	08:30 AM
UL1501315-001 G	ZRT1 Grab	AGIT	Silver (Total)	EPA 200.7	Wastewater	01/22/2015	09:12 AM
UL1501315-001	ZRT1 Grab	HG	Total Mercury	SM-3112 B	Wastewater	01/22/2015	09:12 AM
UL1501354-001 G	CCT3 Grab	AGIT	Silver (Total)	EPA 200.7	Wastewater	01/26/2015	11:41 AM
UL1501354-001	CCT3 Grab	HG	Total Mercury	SM-3112 B	Wastewater	01/26/2015	11:41 AM

Shipped By: ☐ UL_Courier ☑ Federal Express

Comments: Please report separately

Cooler Temp @ Log-In

Preservation

Relinquished By Signature:	Company: UL	Date/Time: 1-26-15 / 1330
Received By Signature:	Company:	Date/Time:
Relinquished By Signature:	Company:	Date/Time:
Received By Signature:	Company:	Date/Time:
Relinquished By Signature:	Company:	Date/Time:
Received By Signature:	Company:	Date/Time:

★ AgidL → QL = 1 µg/L

Microbac OVD
Received: 01/27/2015 10:23
By: CARA STRICKLER
221800064905

Cara Strickler

Universal Laboratories

20 Research Drive Hampton, Va.
Phone (757)-865-0880 Fax (757) 865-8014

EXPRESS LOG-IN
CHAIN OF CUSTODY

UL ORDER ID **1406445**

Pre-Log Date: Friday, June 27, 2014

Order Comment: ***Attachemnt B 1/5 years***

Samples Must Be Received on or Before:

CS Colonnas Shipyard
400 East Indian River Road
Norfolk VA 23523

ProjectID:

Project Notes: Attachment B

QuoteID:
Permit Number:
ProjectLocation:

Customer Contact: Frank Wheatley
Phone Number: (757-)545-2414 x44
FaxNumber: (757) 545-5014

1406445-001 **OF-009 Grab** **Sample Date/Time** 1 / 16 / 15 08:30 / / : **Sampler Initials**
Field Reading

									Container Type	Preservative
Wastewater	8270	Semi-Volatile Organics	EPA 608	Chlorinated Pesticides (WQM List)	~~EPA 615~~	Chlorinated Acid Herbicides (short List)	~~EPA 622~~	pesticides	Amber Glass	Refrigerate, 4 C
A,B,C,D,E,F,G	EPA 625	Semi-Volatile Organic Compounds	~~MBAS~~	Surfactants-MBAS						
H	HS	Sulfide							HDPE	2N zinc acetate/NaOH pH AW
I	CR6D	Hexavalent Chromium (Dissolved)							HDPE	Filter and Refrigerate, 4 C
J	NH3	Ammonia							HDPE	H2SO4 pH<2/4C AW
K	CN	Cyanide (Total)							HDPE	NaOH pH>12 AW
L	CL1	Chloride	NO3	Nitrate	SO4	Sulfate			HDPE	Refrigerate, 4 C
M,N	AGIDL	Silver (Dissolved Low-Level)	ASID	Arsenic (Dissolved)	BAID	Barium (Dissolved)	CDID	Cadmium (Dissolved)	HDPE (acid wash	Filter HNO3 ph<2 AW
	CR3D	Chromium III (Dissolved)	CUID	Copper (Dissolved)	FEID	Iron (Dissolved)	HGD	Dissolved Mercury		
	MNID	Manganese (Dissolved)	NIID	Nickel (Dissolved)	PBID	Lead (Dissolved)	SBID	Antimony (Dissolved)		
	SEID	Selenium (Dissolved)	TLIDLO	Thallium (dissolved) low level	ZNID	Zinc (Dissolved)				
	RCL2	Field Residual Chlorine							N/A	N/A
O	TBT	TBT Tributyltin							Polycarbonate	HCL pH< 2/4C AW
P	ENTER	Enterococci	Q FC96W	Enzyme Substrate Coliform Test (E-Coli)					Sterile	Na2S2O3/4C
R,S,T	EPA 624	Volatile Organic Compounds							VOA	HCL pH<2/Ascorbic acid

1406445-002 **OF-009 Grab** **Sample Date/Time** 1 / 16 / 15 08:30 / / : **Sampler Initials**
Field Reading

					Container Type	Preservative
Field Services	FILTER	Filtration Apparatus	TRANS	Transportation	N/A	N/A

1406445-003 **OF-009 Grab** **Sample Date/Time** 1 / 16 / 15 08:30 / / : **Sampler Initials**
Field Reading

			Container Type	Preservative
Field Services	FILTER	Filtration Apparatus	N/A	N/A

1406445-004 **OF-009 Grab** **Sample Date/Time** 1 / 16 / 15 08:30 / / : **Sampler Initials**
Field Reading

Container Type **Preservative**

CS Colonnas Shipyard

400 East Indian River Road

Norfolk VA 23523

ProjectID:

Project Notes:

QuoteID:

Permit Number:

ProjectLocation:

Customer Contact: Frank Wheatley

Phone Number: (757-)545-2414 x44

FaxNumber: (757) 545-5014

Field Services FILTER Filtration Apparatus N/A N/A

Comments:

CN int check Phenol in check NH3 int check BOD int check

Cooler Temp @ Log-In 1 °C

Preservation <2, >12

Relinquished By Signature: [signature]	**Company:** CSI	**Date/Time:** 1/16/15 0855
Received By Signature: [signature]	**Company:** UL	**Date/Time:** 1/16/15 855
Relinquished By Signature: [signature]	**Company:** UL	**Date/Time:** 1/16/15 1218
Received By Signature: [signature]	**Company:** UL	**Date/Time:** 1-16-15 1218
Relinquished By Signature:	**Company:**	**Date/Time:**
Received By Signature:	**Company:**	**Date/Time:**